

**BEFORE THE POLLUTION CONTROL BOARD  
OF THE STATE OF ILLINOIS**

BOI, LLC,	)	
	)	
Petitioner,	)	
	)	
v.	)	PCB 2020-093
	)	(LUST Appeal)
ILLINOIS ENVIRONMENTAL	)	
PROTECTION AGENCY,	)	
	)	
Respondent.	)	

**NOTICE**

Don Brown, Clerk  
Illinois Pollution Control Board  
James R. Thompson Center  
100 West Randolph, Suite 11-500  
Chicago, IL 60601  
[don.brown@illinois.gov](mailto:don.brown@illinois.gov)

Carol Webb, Hearing Officer  
Illinois Pollution Control Board  
1021 North Grand Avenue East  
P.O. Box 19274  
Springfield, IL 62794-9274  
[carol.webb@illinois.gov](mailto:carol.webb@illinois.gov)

Robert M. Riffle, Esq.  
Riffle & Associates, LLC  
133 S. Main Street  
Morton, IL 61550  
[rriffle@rmreenterprises.net](mailto:rriffle@rmreenterprises.net)

**PLEASE TAKE NOTICE** that I have today filed with the office of the Clerk of the Pollution Control Board an **APPEARANCE**, the **ADMINISTRATIVE RECORD** and a **CERTIFICATE OF RECORD ON APPEAL**, copies of which are herewith served upon you.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,  
Respondent



Melanie A. Jarvis  
Assistant Counsel  
Division of Legal Counsel  
1021 North Grand Avenue, East  
P.O. Box 19276  
Springfield, Illinois 62794-9276  
217/782-5544  
866/273-5488 (TDD)  
Dated: March 23, 2021

**BEFORE THE POLLUTION CONTROL BOARD  
OF THE STATE OF ILLINOIS**

BOI, LLC,	)	
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Petitioner,	)	
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v.	)	PCB 2020-093
	)	(LUST Appeal)
ILLINOIS ENVIRONMENTAL	)	
PROTECTION AGENCY,	)	
	)	
Respondent.	)	

**APPEARANCE**

The undersigned, as one of its attorneys, hereby enters her Appearance on behalf of the Respondent, the Illinois Environmental Protection Agency.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,  
Respondent



Melanie A. Jarvis  
Assistant Counsel  
Special Assistant Attorney General  
Division of Legal Counsel  
1021 North Grand Avenue, East  
P.O. Box 19276  
Springfield, Illinois 62794-9276  
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PROTECTION AGENCY, )  
Respondent. )

**CERTIFICATE OF RECORD ON APPEAL**

Pursuant to 35 Ill. Adm. Code 105.116(b) and 105.410, the following constitutes an index of documents comprising the record:

<b>PAGES</b>	<b>DOCUMENT(S)</b>	<b>DATE</b>
R000001-R000586	Corrective Action Plan and Budget	October 25, 2019
R000587-R001359	Site Invest. Completion Report/ Stage 3 Site Investigation Budget	October 25, 2019
R001360-R001429	Emails between parties starting	January 24, 2020
R001430-R001474	Technical Review Notes	May 14, 2020
R001475-R001516	IEPA Determination Letter	May 18, 2020

I, Michael Piggush, certify on information and belief that the entire record of the Respondent's decision, as defined in 35 Ill. Adm. Code 105.410(b), is hereby enclosed.

By: Michael Piggush  
Michael Piggush, Project Manager  
Leaking Underground Storage Tank Section  
Illinois Environmental Protection

Agency

Date: March 23, 2021

This filing submitted on recycled paper.

**CERTIFICATE OF SERVICE**

I, the undersigned attorney at law, hereby certify that on **March 23, 2021**, I served true and correct copies of an **APPEARANCE**, the **ADMINISTRATIVE RECORD** and a **CERTIFICATE OF RECORD ON APPEAL**, via the Board's COOL system and email, upon the following named persons:

Don Brown, Clerk  
Illinois Pollution Control Board  
James R. Thompson Center  
100 West Randolph, Suite 11-500  
Chicago, IL 60601  
[don.brown@illinois.gov](mailto:don.brown@illinois.gov)

Carol Webb, Hearing Officer  
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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,  
Respondent



---

Melanie A. Jarvis  
Assistant Counsel  
Division of Legal Counsel  
1021 North Grand Avenue, East  
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217/782-5544  
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[melanie.jarvis@illinois.gov](mailto:melanie.jarvis@illinois.gov)



October 25, 2019

**VIA USPS PRIORITY MAIL  
WITH DELIVERY CONFIRMATION**

Mr. Trent Benanti  
Illinois Environmental Protection Agency  
Bureau of Land #24  
Leaking Underground Storage Tank Section  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794-9276

RE: LPC No. 0314625010 – Cook County  
Lemont/Lemont Kar Gas/BOI, LLC  
1196 State Street  
Leaking UST Incident Nos. 942117 and 20141348  
Leaking UST Technical File

Dear Mr. Benanti:

TriCore Environmental, LLC, on behalf of BOI, LLC, is providing an original and one copy of an Amended Corrective Action Plan (CAP) and Budget for the leaking underground storage tank incident numbers referenced above. The Amended CAP and Budget have been prepared in accordance with our meeting on September 4, 2019.

If you should have any questions concerning this submittal or require additional information, please contact the undersigned at (630) 520-9973, or by email at [marcos.czako@tricoreweb.com](mailto:marcos.czako@tricoreweb.com) or [shawn.rodeck@tricoreweb.com](mailto:shawn.rodeck@tricoreweb.com).

Sincerely,

A handwritten signature in black ink, appearing to read 'Marcos Czako'.

Marcos I. Czako, P.G.  
Senior Project Manager

A handwritten signature in black ink, appearing to read 'Shawn Rodeck'.

Shawn Rodeck, P.E.  
President

cc: Mr. Steve Broadus, BOI, LLC, 201 Danny's Drive, Suite 5, Streator, IL 61364  
Mr. Robert M. Riffle, Esq., 133A South Main Street, Morton, IL 61550  
Mr. Brian Bauer, Illinois EPA, [Brian.Bauer@Illinois.gov](mailto:Brian.Bauer@Illinois.gov)  
Mr. Greg Dunn, Illinois EPA, [Greg.Dunn@Illinois.gov](mailto:Greg.Dunn@Illinois.gov)  
Ms. Melanie Jarvis, Illinois EPA, [Melanie.Jarvis@Illinois.gov](mailto:Melanie.Jarvis@Illinois.gov)

Attachment



**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
LEAKING UNDERGROUND STORAGE TANK SECTION  
AMENDED CORRECTIVE ACTION PLAN**

Lemont Kar Gas/BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439  
Leaking UST Incident Nos. 942117 and 20141348  
LPC No. 0314625010

***Prepared for:***

Mr. Steve Broadus  
BOI, LLC  
201 Danny's Drive, Suite 5  
Streator, Illinois 61364

***Prepared by:***

TriCore Environmental, LLC  
2368 Corporate Lane, Suite 116  
Naperville, Illinois 60563  
Phone: (630) 520-9973  
Fax: (630) 520-9976

October 25, 2019

**TABLE OF CONTENTS**

<u>Section</u>	<u>Page</u>
A. Site Identification .....	1
B. Site Information .....	1
C. Proposed Methods of Remediation.....	1
D. Soil and Groundwater Investigation Results.....	2
E. Technical Information – Corrective Action Plan.....	2
F. Exposure Pathway Exclusion.....	27
G. Signatures .....	30

**LIST OF FIGURES**

FIGURE 1 .....	Site Map
FIGURE 2 .....	Soil Analytical Results
FIGURE 3 .....	Groundwater Elevations and Analytical Results
FIGURE 4 .....	Source Dimensions and Modeled Extents for the SCGIER
.....	Evaluations – Benzene
FIGURE 5 .....	Source Dimensions and Modeled Extents for the SCGIER
.....	Evaluations – MTBE
FIGURE 6 .....	Source Dimension and Modeled Extents for the GCGIER Evaluations
FIGURE 7 .....	Community Water Supply Well Locations and Setback Zones
FIGURE 8 .....	Proposed Institutional Controls

**LIST OF TABLES**

TABLE 1 .....	Soil Analytical Results – BTEX and MTBE
TABLE 2 .....	Soil Analytical Results - PAHs
TABLE 3 .....	Soil Geochemical and Geotechnical Results
TABLE 4 .....	Groundwater Elevations and Analytical Results

**LIST OF APPENDICES**

APPENDIX A .....	Soil Analytical Laboratory Reports and Certifications
APPENDIX B .....	Soil Boring Logs and Monitoring Well Construction Diagrams
APPENDIX C .....	Groundwater Analytical Laboratory Report and Certification
APPENDIX D .....	Hydraulic Gradient Calculations
APPENDIX E .....	Hydraulic Conductivity Evaluation
APPENDIX F .....	Waste Manifests
APPENDIX G .....	TCK, Inc. Correspondence
APPENDIX H .....	Off-Site Access Affidavit
APPENDIX I .....	Amended Corrective Action Budget
APPENDIX J .....	Owner/Operator and Licensed Professional Engineer/Geologist Budget
.....	Certification Form
APPENDIX K .....	OSFM Eligibility and Deductible Determination Letter
APPENDIX L .....	Tier 2 Calculations for the SCGIER
APPENDIX M .....	Tier 2 Calculations for the GCGIER
APPENDIX N .....	Potable Water Supply Well Information
APPENDIX O .....	Village of Lemont HAA
APPENDIX P .....	Cook County HAA

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 - 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
Corrective Action Plan**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas/BOI, LLC

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

**B. Site Information**

1. Will the owner or operator seek reimbursement from the Underground Storage Tank Fund? Yes  No

2. If yes, is the budget attached? Yes  No

3. Is this an amended plan? Yes  No

4. Identify the material(s) released: gasoline and diesel fuel

5. This Corrective Action Plan is submitted pursuant to:

a. 35 Ill. Adm. Code 731.166

b. 35 Ill. Adm. Code 732.404

c. 35 Ill. Adm. Code 734.335

**C. Proposed Methods of Remediation**

1. Soil: The on-site indicator contaminant concentrations exceeding the Tier 1 soil remediation objectives (SROs) will be addressed using the soil screening level (SSL) equations and institutional controls pursuant to 35 Illinois Administrative Code (IAC) Part 742. The off-site indicator contaminant concentrations exceeding the Tier 1 SROs located in the right-of-way's of State Street and W. 127<sup>th</sup> Street will be addressed using a Tier 3 evaluation and highway authority agreements (HAAs) pursuant to 35 IAC Part 742. BOI, LLC (BOI) has demonstrated a best efforts attempt to address the indicator contaminant concentrations exceeding the Tier 1 SROs on the off-site property owned by TCK, Inc. (TCK). Therefore, no further action on the TCK property is required.

2. Groundwater: The off-site indicator contaminant concentrations exceeding the Tier 1 groundwater remediation objectives (GROs) located in the right-of-way of State Street will be addressed using a Tier 3 evaluation and a HAA pursuant to 35 IAC Part 742. BOI has demonstrated a best efforts attempt to address the indicator contaminant concentrations exceeding the Tier 1 GROs that are delineated onto the off-site property owned by TCK. Therefore, no further action on the TCK property is required.

3. Soil Gas: An evaluation of the indoor inhalation exposure route pursuant to the Illinois



Environmental Protection Agency's (Illinois EPA's) Vapor Instruction Fact Sheet indicates that the collection of soil gas samples is not required. Therefore, no further evaluation of the indoor inhalation exposure route is required.

**D. Soil and Groundwater Investigation Results** (for incidents subject to 35 Ill. Adm. Code 731 only or 732 that were classified using Method One or Two, if not previously provided)

This section is not applicable.

**Provide the following:**

- 1. Description of investigation activities performed to define the extents of soil and/or groundwater contamination;**
- 2. Analytical results, chain-of-custody forms, and laboratory certifications;**
- 3. Tables comparing analytical results to applicable remediation objectives;**
- 4. Boring logs;**
- 5. Monitoring well logs; and**
- 6. Site maps meeting the requirements of 35 Ill. Adm. Code 732.110(a) or 734.440 and showing:**
  - a. Soil sample locations;**
  - b. Monitoring well locations; and**
  - c. Plumes of soil and groundwater contamination.**

**E. Technical Information – Corrective Action Plan**

**Provide the following:**

- 1. Executive summary identifying the objectives of the corrective action plan and the technical approach to be utilized to meet such objectives;**
  - a. The major components (e.g., treatment, containment, removal) of the corrective action plan;**

The major components of this Amended Corrective Action Plan (CAP) are to: 1) provide the results from the off-site soil investigation activities completed on July 5 through 7, 2017; 2) provide the results of the off-site groundwater sampling activities completed on July 19, 2017; 3) provide the results from the off-site hydraulic conductivity testing completed on July 19, 2017; 4) summarize the attempts made with contacting the owner of the Walgreens-leased property, TCK, to provide the results and discuss the potential remediation and environmental land use control (ELUC) options to address the off-site soil and groundwater contamination discovered on their property; 4) utilize 35 IAC Section 734.345 b) and 35 IAC Section 734.350, and demonstrate BOI's best efforts attempts with TCK to address the soil and groundwater contamination on the TCK property; 5) propose Tier 1 and Tier 2 remediation objectives and institutional controls for the indicator contaminant concentrations exceeding the Tier 1 remediation objectives on-site and off-site in the right-of-ways of State Street and W. 127<sup>th</sup> Street; 6) evaluate the soil saturation limit ( $C_{sat}$ ); 7) propose a Tier 3 evaluation using measured concentrations vs. modeled concentrations to

address the soil and groundwater contamination; and 8) propose a Tier 3 evaluation using impractical remediation to address the indicator contaminant concentrations exceeding the default  $C_{sat}$  that are located in the right-of-way of State Street and W. 127<sup>th</sup> Street.

Details regarding the soil investigation, groundwater sampling, and hydraulic conductivity testing completed between July 5 through July 19, 2017 are provided below in this section. A summary of the correspondence between TCK, BOI, and TriCore Environmental, LLC (TriCore) is also provided below in this section. Details regarding the Tier 1, Tier 2, Tier 3, and  $C_{sat}$  evaluations, and proposed institutional controls are provided below in Section E. 2.

A site map is illustrated on Figure 1. The soil analytical laboratory results are summarized in Tables 1 and 2 with the concentrations exceeding the Tier 1 SROs illustrated on Figure 2. The soil characterization results are summarized in Table 3. The groundwater analytical laboratory results are summarized in Table 4 with the concentrations exceeding the Tier 1 GROs is illustrated on Figure 3.

#### Soil Boring and Monitoring Well Installation

In the Amended CAP dated January 27, 2017, TriCore proposed the installation of soil borings/monitoring wells on the Walgreens-leased property, which is owned by TCK. These included the installation of MW-1, BH-32/MW-2, BH-33/MW-3, BH-34/MW-4, and BH-35/MW-5.

On June 22, 2017, TriCore received authorization from Walgreens to install the soil borings/monitoring wells. The authorization was an amendment to the original access agreement between Walgreens and TriCore dated August 21, 2015. Walgreens agreed with the locations of the soil borings/monitoring wells as proposed in the Amended CAP with the exception that they would not allow BH-34/MW-4 to be installed at its proposed location since it was near the entrance to their store. The closest location that Walgreens would allow BH-34/MW-4 to be installed was in a parking spot east of the entrance to the store. The locations of the soil borings/monitoring wells are illustrated on Figure 1.

On July 5 through 7, 2017, TriCore oversaw the installation of four soil borings (BH-32 through BH-35) to a maximum depth of 35 feet below land surface (bls) on the TCK property.

TriCore contracted Earth Solutions, Inc. of St. Charles, Illinois to install the soil borings. TriCore was on-site overseeing and documenting the installation activities.

The soil borings were installed and sampled using the following procedures. The soil borings were drilled and sampled to their termination depth with a track-mounted Geoprobe<sup>®</sup> drill rig using direct-push technology to advance the borings. Continuous soil samples were collected from beneath the pavement to the termination depths of the borings. All soil samples were collected utilizing a Macro-core<sup>®</sup> and dual-tube sampling system. When the Macro-core<sup>®</sup> sampling system was being used, the samples were collected within disposable macro-core liners which were placed within a 2.25-inch outside diameter (OD) by 5.0-foot long macro-core sampler. When the dual-tube soil sampling system was being used, the soil samples were collected within a 1.25-

inch OD by 5.0-foot long disposable liner which was placed at the end of an inner rod string. The inner rod string was then placed within a 2.25-inch OD outer rod string which provided a cased hole through which to sample the soil. To prevent cross contamination between soil borings and sampling intervals, all of the drilling and sampling equipment was decontaminated prior to each use using a distilled water and Liquinox<sup>®</sup> solution wash, followed by a distilled water rinse. The soil cuttings generated during the soil boring installation activities were contained in one 55-gallon drum for disposal. The drum was labeled with a nonhazardous waste label.

As soil samples were collected, the geology of the subsurface soil was described. Upon retrieval, each soil sample was placed in airtight plastic bags, allowed to volatilize and equilibrate, and then screened for the presence of volatile organic vapors using a photoionization detector (PID) equipped with a 10.6 electron volt lamp. The PID was office calibrated using isobutylene gas prior to mobilizing to the site and field-calibrated on-site using ambient air prior to use. The other portion of each sample was placed into laboratory-provided containers, labeled accordingly, and packed in a cooler containing ice.

From each soil boring, the soil sample from each five-foot interval exhibiting the highest PID measurement above the field-interpreted water table was selected for laboratory analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX) and methyl tertiary-butyl ether (MTBE) using United States Environmental Protection Agency (USEPA) Method 8260. One soil sample was collected from the soil cuttings generated during the installation of the soil borings and submitted for the analysis of waste disposal parameters which included pH using USEPA Method 9045, toxicity characteristic leaching procedure lead using USEPA Method 6010, flashpoint using USEPA Method 1010, and paint filter using USEPA Method 9095. The soil samples selected for laboratory analysis were shipped in the cooler under standard chain-of-custody protocol to Pace Analytical Services, LLC (Pace) in Green Bay, Wisconsin for analysis.

Analytical laboratory results revealed indicator contaminant concentrations did not exceed the most-restrictive Tier 1 SROs in the samples analyzed. Analytical laboratory results for BTEX and MTBE are summarized in Table 1. Analytical laboratory results for the waste disposals parameters are summarized in Table 3. Copies of the analytical laboratory reports and certifications are provided in Appendix A. Soil boring logs are provided in Appendix B.

During the installation of BH-32 through BH-35, saturated soil conditions were observed in BH-32 at a depth of 32.5 feet bls and in BH-33 at a depth of 31 feet bls. Saturated soil conditions were not observed during the installation of soil borings BH-34 or BH-35.

Saturated soil conditions were observed in BH-32 and BH-33 during the drilling of the soil borings. Therefore, after soil samples were collected, a monitoring well was installed at the location of each soil boring. Monitoring well MW-2 was installed at BH-32, monitoring well MW-3 was installed at BH-33, monitoring well MW-4 was installed at BH-34, and monitoring well MW-5 was installed at BH-35. One additional monitoring well (MW-1) was installed at the location of soil boring BH-21A. Soil

boring BH-21A was installed on September 15, 2016. The locations of MW-1 through MW-5 are illustrated on Figure 1.

The monitoring wells were installed with a track-mounted Geoprobe® drill rig using 8.5-inch OD hollow stem augers. Monitoring well MW-1 was installed to a depth of 32.5 feet bls and monitoring wells MW-2 through MW-5 were installed to a depth of 35 feet bls. To prevent cross contamination during the installation of the wells, all drilling equipment was decontaminated prior to each use using a distilled water and Liquinox® solution wash, followed by a distilled water rinse. The soil cuttings generated during the well installation activities were contained on site in thirteen (13) 55-gallon drums with one of the drums being the drum used to contain the soil cuttings generated during the soil boring installation activities. The drums were labeled with nonhazardous waste labels.

The monitoring wells were constructed of 2-inch inside diameter Schedule 40 polyvinyl chloride (PVC) casing, 2-inch inside diameter 0.010 slot Schedule 40 PVC screen, a PVC end cap, and a well plug. The monitoring wells were constructed so that the screened portion of the wells intersected the field-interpreted groundwater table. The annulus of the wells were filled with washed silica sand to approximately 2 feet above the top of the well screens. Bentonite chips were added to approximately 0.5 feet below the top of the well casings. The bentonite chips were hydrated to provide a seal to prevent potential surface water from migrating into the wells through the sand pack. An 8-inch diameter, flush-mount steel manhole with a bolt-down cover was installed to protect each well. Monitoring well construction diagrams are provided in Appendix B.

#### Groundwater Sampling and Surveying

On July 19, 2017, TriCore returned to the site to sample MW-1 through MW-5. The locations of the monitoring wells are illustrated on Figures 1.

Prior to sampling the monitoring wells, the depth to groundwater was measured in each well using an electronic oil/water interface probe equipped with an audible signal. To prevent cross contamination between wells, the probe was washed with a distilled water and Simple Green® mixture prior to and between use. No free product or sheen was observed in the wells that were gauged.

After gauging, each monitoring well was developed by removing approximately five well volumes using dedicated, disposable high-density polyethylene (HDPE) bailers. The development water generated during the sampling activities was contained in one 55-gallon drum for disposal. The drum was labeled with a nonhazardous waste label.

After each well was developed and allowed to recharge, groundwater samples were collected from each well using the dedicated, disposable HDPE bailers. The samples were collected without headspace in laboratory-provided containers. The containers were then labeled accordingly and packed in a cooler containing ice. The cooler was shipped under standard chain-of-custody protocol to Pace. The groundwater samples were submitted for the analysis of BTEX and MTBE using USEPA Method 8260.

Analytical laboratory results revealed indicator contaminant concentrations exceeded a Tier 1 GRO at the sample locations indicated below.

Indicator Contaminant	Sample Location Exceeding a Tier 1 GRO
Benzene	MW-1
Ethylbenzene	MW-1

Analytical laboratory results are summarized in Table 4, with the concentrations exceeding the Tier 1 GROs illustrated on Figure 3. A copy of the analytical laboratory report and certification is provided in Appendix C.

After the wells were sampled, the top-of-casing and land surface elevations of each well were surveyed in reference to a site-specific bench mark so that the groundwater elevations, flow direction, and hydraulic gradient could be determined.

Based on the groundwater elevations observed during this event, groundwater flow direction is predominantly to the northwest under an average hydraulic gradient of 0.0075 feet per foot (ft/ft) with a maximum hydraulic gradient of 0.0106 ft/ft. The groundwater elevations and flow direction are illustrated on Figure 3. A copy of the hydraulic gradient calculations are provided in Appendix D.

#### Hydraulic Conductivity

During the groundwater sampling activities completed on July 19, 2017, TriCore performed a bail down test on MW-1 using a pressure transducer system to evaluate the hydraulic conductivity of the site soils in the field. The data collected was analyzed with Super Slug™ Aquifer Slug Test Analysis Software for Windows (Version 3.1) using the Bouwer-Rice method. The analysis generated a hydraulic conductivity value of  $5.185 \times 10^{-5}$  centimeters per second (cm/s). A copy of the hydraulic conductivity evaluation is provided in Appendix E.

#### Drum Pickup, Transportation, and Disposal

On August 8, 2017, TriCore contracted North Branch Environmental (North Branch) of Roselle, Illinois to pick up and transport to a disposal facility the thirteen (13) 55-gallon drums containing soil cuttings that were generated during drilling activities completed between July 5 and 7, 2017, and one 55-gallon drum containing groundwater that was generated during the groundwater sampling activities completed on July 19, 2017. The drums containing soil cuttings were transported by North Branch to Advanced Disposal Services Zion Landfill in Zion, Illinois for disposal. The drum containing groundwater was transported by North Branch to Ortek, Inc. in McCook, Illinois for disposal. Copies of the waste manifests are provided in Appendix F.

#### TCK Correspondence

The off-site property where soil borings BH-22, BH-22A, BH-23, BH-23A, BH-25 through BH-29, BH-29A, BH-32 through BH-35, and MW-2 through MW-5 were installed on is currently a commercial property owned by TCK and leased to Walgreens. Mr. Tom Karahalios is the owner of TCK, Inc. Since September 18, 2017, TriCore has been in contact with TCK and Walgreens numerous times to provide the results of the investigation activities completed on the property, and attempting to obtain an ELUC or authorization for remediation to address the soil and groundwater contamination on the property. Since that time, TCK has hired three different attorneys. A timeline of the attempts and correspondence between TriCore and BOI with TCK and their attorneys is provided below.

- September 18, 2017 - TriCore provides results of the investigation activities completed on the TCK property to Walgreens, and presents the option for an ELUC. The information is provided to Walgreens via email. No response is received from Walgreens.
- September 25, 2017 - TriCore follows up with Walgreens via email regarding the September 18, 2017 email. No response is received from Walgreens.
- October 9, 2017 - TriCore follows up with Walgreens via email regarding the September 18, 2017 email. No response is received from Walgreens.
- October 23, 2017 - TriCore follows up with Walgreens via email regarding the September 18, 2017 email. No response is received from Walgreens.
- October 30, 2017 – Walgreens respond via email indicating that they are reviewing the information internally.
- November 28, 2017 – TriCore follows up with Walgreens via email to see if they had finished their review of the information presented to them in the September 18, 2017 email.
- December 4, 2017 – BOI follows up with Walgreens via email requesting the contact information for the property owner, TCK. It had been determined through research that the property was in a trust. Walgreens responds via email providing BOI and TriCore their landlord's contact information. The owner of the property is TCK. Mr. Tom Karahalios is the president of TCK.
- January 17, 2018 - TriCore mails an ELUC to TCK via United State Postal Service (USPS) priority mail with delivery confirmation.
- February 2, 2018 - TriCore spoke with Mr. Karahalios. He indicated that his son, Yanni Karahalios, is handling the property and he will pass along our information to him. He did not provide TriCore with his son's contact information.
- February 9, 2018 - BOI sends a letter to TCK via USPS certified mail regarding the ELUC mailed by TriCore on January 17, 2018.
- February 15, 2018 - Mr. Karahalios receives the letter as documented by the USPS certified mail receipt.
- March 2, 2018 - TriCore mails a letter to Mr. Karahalios via USPS certified mail requesting access to his property and presenting one of two options to address the contamination on his property: 1) a remediation plan and 2) an ELUC. The letter included the requirements listed in 35 IAC Section 734.350.
- March 8, 2018 - TriCore received a call from Mr. Karahalios requesting another copy of the ELUC submitted on January 17, 2018. TriCore informed Mr. Karahalios that another copy was mailed to him on March 2, 2018 and that he should be expecting it any day.
- March 9, 2018 – The letter mailed on March 2, 2018 via certified mail was delivered to Mr. Karahalios as documented by the USPS.
- March 13, 2018 - TriCore left a voicemail for Mr. Karahalios regarding the ELUC

he received on March 9, 2018. No response is received from Mr. Karahalios.

- March 15, 2018 - TriCore called Mr. Karahalios regarding the ELUC he received on March 9, 2018. His voicemail box is full. No message could be left.
- March 19, 2018 - TriCore received a call from Mr. Peter Limperis, the attorney representing Mr. Karahalios, requesting a meeting be set up to discuss the results from the investigation activities completed on the TCK property so his client can evaluate his options.
- April 10, 2018 – TriCore speaks with Mr. Limperis and sets up a meeting for the following Thursday or Friday based on his client availability. Multiple calls were then made to Mr. Limperis following this date but he could not be reached.
- May 16, 2018 – BOI mails a letter to Mr. Limperis via USPS certified mail regarding the letter dated February 9, 2018 which was received by Mr. Karahalios on February 15, 2018.
- May 28, 2018 - Certified mail receipt received that the letter dated May 16, 2018 to Mr. Limperis was received.
- July 2, 2018 – TriCore receives a phone call from Mr. Yanni Karahalios regarding the information mailed to TCK on March 2, 2018. Mr. Yanni Karahalios requests a proposed remediation plan and a timeline of the activities.
- August 2, 2018 - TriCore follows up with Mr. Yanni Karahalios via email regarding the proposed remediation plan and timeline of the activities. No response is received from Mr. Yanni Karahalios.
- August 9, 2018 - TriCore follows up with Mr. Yanni Karahalios via email regarding the proposed remediation plan. No response is received from Mr. Yanni Karahalios. TriCore then mails out the remediation plan via USPS certified mail on this date.
- August 20, 2018 - TriCore follows up with Mr. Yanni Karahalios via email regarding the proposed remediation plan mailed to him on August 9, 2018. No response is received from Mr. Yanni Karahalios.
- September 4, 2018 - BOI receives a call from Mr. John Antonopoulos, a new attorney for Mr. Karahalios. Copies of the documents mailed to Mr. Karahalios were provided to Mr. Antonopoulos.
- September 10, 2018 - BOI receives a call from Mr. Antonopoulos regarding the documents sent to him on September 4, 2018. Mr. Antonopoulos indicated that he will need to speak with his client, Mr. Karahalios, regarding the documents and would then like to set up a conference call.
- September 11, 2018 - TriCore receives the remediation plan dated August 9, 2019 that was mailed to Mr. Yanni Karahalios as “Return to Sender, Unclaimed, Unable to Forward”.
- September 11 through September 20, 2018 - BOI speaks with Mr. Antonopoulos. Mr. Antonopoulos requests a letter to his client, TCK, outlining the ELUC and remediation options.

- September 25, 2018 - BOI emails a letter to Mr. Antonopoulos for TCK outlining the ELUC and remediation options for TCK's review and approval.
- October 19, 2018 - BOI emails another letter to Mr. Antonopoulos requesting a response to the September 25, 2018 letter.
- October 23, 2018 - BOI was notified by Mr. Antonopoulos via email that he is no longer representing TCK and that they will engage the services of another attorney.
- October 24, 2018 – BOI receives a call from Mr. Dennis Walsh indicating that he is the new attorney representing TCK.
- November 28, 2018 - BOI receives a Temporary Access Agreement – Indemnification for Ground Penetration and Temporary Access Agreement from Mr. Walsh. The Access Agreement is determined to be incredibly overreaching and unacceptable to BOI due to the far-reaching indemnifications and things beyond BOI's control.
- November 30, 2018 – BOI emails a letter to Mr. Walsh requesting any due diligence materials granted in the course of the Walgreens deal.
- December 10, 2018 – BOI follows up with Mr. Walsh via email regarding the letter dated November 30, 2018.
- December 13, 2018 – TriCore provides Mr. Benanti a summary of the correspondence with TCK via email.
- December 17, 2018 – BOI speaks with Mr. Walsh regarding the letter dated November 30, 2018.
- February 8, 2019 – BOI emails a letter to Mr. Walsh with drawings of the proposed excavation area showing the soil that would be feasible to excavate and the soil that would not be excavated due to the proximity to the State Street right-of-way and the Walgreens building.
- February 14, 2019 – BOI follows up with Mr. Walsh via email regarding the February 8, 2019 letter. No response is received from Mr. Walsh.
- February 21, 2019 – BOI follows up with Mr. Walsh via email regarding the February 8, 2019 correspondence. No response is received from Mr. Walsh.
- February 22, 2019 – BOI speaks with Mr. Walsh regarding the February 8, 2019 letter.
- February 27, 2019 – BOI provides Mr. Walsh via email the documents previously provided to TCK.
- March 6, 2019 – BOI follows up with Mr. Walsh via email regarding the documents emailed to him on February 27, 2019. No response is received from Mr. Walsh.
- March 11, 2019 – BOI follows up with Mr. Walsh via email regarding the documents emailed to him on February 27, 2019. No response is received from Mr. Walsh.
- March 20, 2019 – BOI follows up with Mr. Walsh via email regarding the documents emailed to him on February 27, 2019. No response is received from



Mr. Walsh.

- March 21, 2019 – BOI receives an email from Mr. Walsh indicating that he will be meeting with TCK in the coming week.
- March 28, 2019 – BOI follows up with Mr. Walsh via email regarding his meeting with TCK. BOI receives an email from Mr. Walsh proposing revised terms and also requesting \$7,000 for his clients out-of-pocket expenses including attorney fees.
- April 12, 2019 – BOI speak with Mr. Walsh regarding the revisions he proposed in his email dated March 28, 2019. The phone conference discusses removing the “running with the land” indemnification in the ELUC Mr. Walsh proposed. Mr. Walsh indicated that he would revise the ELUC.
- April 19, 2019 – TriCore receives an email from Mr. Benanti requesting a summary of the negotiations with TCK, including their requested terms. TriCore respond indicating that the information will be provided to him once compiled.
- April 26, 2019 – BOI follows up with Mr. Walsh via email regarding the phone call on April 12, 2019 and the revisions to the ELUC. BOI receives an email from Mr. Walsh indicating that he is working on the revised language for the ELUC.
- May 1, 2019 – TriCore provides Mr. Benanti via email a status update on the correspondence with TCK, a copy of the Temporary Access Agreement – Indemnification for Ground Penetration and Temporary Access Agreement provided to BOI by Mr. Walsh, a copy of the letter from BOI to TCK dated February 8, 2019, and a copy of the email to BOI from Mr. Walsh dated March 28, 2019.
- May 6, 2019 – BOI receives an email from Mr. Walsh providing a draft ELUC for consideration, also requesting reimbursement of \$7,000 for his clients costs and expenses.
- May 15, 2019 – BOI emails Mr. Walsh indicating that they cannot agree to the terms of the draft ELUC dated May 6, 2019.
- June 27, 2019 – BOI receives an email from Mr. Walsh requesting that BOI revise the ELUC.
- July 2, 2019 – BOI provides Mr. Walsh via email a revised, marked draft ELUC.
- July 17, 2019 – BOI follows up with Mr. Walsh via email regarding the revised, marked draft ELUC emailed to him on July 2, 2019.
- September 12, 2019 – BOI receives an email from Mr. Walsh indicating that he spoke with TCK and would like to set up a conference call with BOI.
- September 18, 2019 – BOI speaks with Mr. Walsh regarding the ELUC. No agreement could be reached during the phone call.

Since September 18, 2019, neither TriCore nor BOI has had any additional correspondence with Mr. Walsh or Mr. Karahalios. In addition to the attempts provided above, both TriCore and BOI made many attempts to call and speak with Mr.

Karahalios and his son prior to his retention of any of the attorneys.

Based on the information provided above, BOI has demonstrated a best efforts attempt in trying to reach a negotiation with TCK. Further details regarding the correspondence and documents referenced above are provided in Appendix G. Pursuant to 35 IAC Section 734.350 c), a sworn affidavit signed by BOI is provided in Appendix H.

Costs associated with the many attempts to reach an agreement with the off-site property owner as referenced above were not included in the Amended Corrective Action Budgets previously submitted. Therefore, these costs are included in the Amended Corrective Action Budget provided in Appendix I. An Owner/Operator and Licensed Professional Engineer/Geologist Budget Certification Form is provided in Appendix J. A copy of the Office of the Illinois State Fire Marshal Eligibility and Deductible Determination letter is provided in Appendix K.

**b. The scope of the problems to be addressed by the proposed corrective action; and**

Analytical laboratory results indicate that concentrations exceeding the Tier 1 SROs are present on-site, off-site in the right-of-way's of State Street and W. 127<sup>th</sup> Street, and on the off-site property owned by TCK. Analytical laboratory results exceeding the Tier 1 GROs are present in the right-of-way of State Street and delineated onto the off-site property owned by TCK. By utilizing 35 IAC Part 742, remediation objectives, and institutional controls, the concentrations located on-site and off-site in the right-of-way's of State Street and W. 127<sup>th</sup> Street can be addressed so that they do not pose a risk to human health or the environment. By utilizing 35 IAC Part 742, a Tier 3 evaluation is being proposed for the indicator contaminant concentrations that have the potential to migrate into the setback zone of the Village of Lemont community water supply (CWS) wells located northeast of the site. Note only the MTBE concentrations in EX-5 and EX-6 have the potential to migrate into the setback zones of the CWS wells. As demonstrated above in Section E. 1. a., many attempts have been made to negotiate an agreement and ELUC with TCK to address the contamination exceeding the Tier 1 remediation objectives located on their property. However, an agreement or ELUC has not been reached. Based on the information present above and in Appendix G, BOI has demonstrated a best efforts attempt in trying to reach a negotiation with TCK. By utilizing 35 IAC Section 734.345 b) and 35 IAC Section 734.350, and demonstrating BOI's best efforts attempts, a No Further Remediation (NFR) letter can be requested without further addressing the contamination on the TCK property at this time.

**c. a schedule for implementation and completion of the plan;**

The following is a proposed schedule for the implementation and completion of this Amended CAP once it has been approved by the Illinois Environmental Protection Agency (Illinois EPA).

Activity	Projected Completion Time
Prepare the Corrective Action Completion Report (CACR)	Weeks 1 through 4
Record the NFR letter	2 weeks after CACR is approved and NFR letter is issued
Coordinate, schedule, and perform the well abandonment activities*	2 weeks after the NFR letter is issued

\*Upon receipt of the NFR letter, BOI will make all reasonable efforts to properly abandon and decommission the monitoring wells, so long as access is permitted by TCK.

**2. Identification of the remediation objectives proposed for the site;**

The current owner of the property, BOI plans to redevelop the property as commercial land use. Therefore, the remediation objectives being proposed for the soil ingestion and outdoor inhalation exposure routes for on-site sample locations are the SROs for industrial/commercial land use and construction workers. The remediation objectives being proposed for the soil ingestion and outdoor inhalation exposure routes for off-site sample locations are the SROs for residential land use and construction workers. The remediation objectives being proposed for the soil component of the groundwater ingestion exposure route (SCGIER) for on-site and off-site sample locations are the remediation objectives for Class I groundwater. The remediation objectives being proposed for the groundwater component of the groundwater ingestion exposure route (GCGIER) for off-site sample locations are the remediation objectives for Class I groundwater. Note that GROs are not being proposed on-site since groundwater was not present during the investigation or excavation activities completed at the site.

Although Tier 2 SROs were calculated in the CAP dated July 6, 2006, revised Tier 1 and Tier 2 evaluations have been completed since the Illinois Pollution Control Board amended 35 IAC Part 742 to include updated TACO Tier 2 parameters for the SSL and risk based corrective action (RBCA) calculations, effective July 15, 2013. The revised Tier 1 and Tier 2 evaluations are provided below. A C<sub>sat</sub> evaluation is also provided below.

**Tier 1 Evaluation**

Pursuant to 35 IAC Section 742.500, a Tier 1 evaluation was performed by comparing the soil and groundwater concentrations to the remediation objectives for each exposure route. A comparison of the indicator contaminant concentrations to the applicable remediation objectives are provided below and in Tables 1 and 2. Only the indicator contaminant concentrations exceeding the remediation objectives for each specific exposure route are listed below.

**Soil Ingestion Exposure Route – On-Site**

On-site indicator contaminant concentrations do not exceed the Tier 1 SROs for the soil ingestion exposure route for industrial/commercial land use or construction workers. Therefore, no further evaluation of this exposure route is required. Since the remediation objectives for industrial/commercial land use are being utilized, an industrial/commercial land use limitation will be placed on the property.

Cleared at Tier 1  Propose Tier 2  Propose Institutional Controls

**Soil Ingestion Exposure Route – Off-Site**

Indicator Contaminant	Sample Location	Sample Depth (feet bls)	Maximum Detected Concentration (mg/kg)	Tier 1 SRO for the Soil Ingestion Exposure Route (mg/kg)	
				Residential	Construction Worker
Benzene	EX-5	4-5	14.500	12	2,300

Since the indicator contaminant listed above exceeds the Tier 1 SRO for the soil ingestion

exposure route for residential land use, this exposure route cannot be excluded. Since the sample location exceeding the Tier 1 SRO for the soil ingestion exposure route is located in the right-of-way of State Street, a HAA is being proposed.

Cleared at Tier 1  Propose Tier 2  Propose Institutional Controls

Outdoor Inhalation Exposure Route – On-Site

On-site indicator contaminant concentrations do not exceed the Tier 1 SROs for the outdoor inhalation exposure route for industrial/commercial land use or construction workers. Therefore, no further evaluation of this exposure route is required. Since the remediation objectives for industrial/commercial land use are being utilized, an industrial/commercial land use limitation will be placed on the property.

Cleared at Tier 1  Propose Tier 2  Propose Institutional Controls

Outdoor Inhalation Exposure Route – Off-Site

Indicator Contaminant	Sample Location	Sample Depth (feet bls)	Maximum Detected Concentration (mg/kg)	Tier 1 SRO for the Outdoor Inhalation Exposure Route (mg/kg)	
				Residential	Construction Worker
Benzene	EX-5	4-5	14.500	0.8	2.2
Toluene	EX-5	4-5	105.000		42
Total Xylenes	EX-5	4-5	221.000		5.6
Naphthalene	EX-6	4-5	10.900		1.8

Since the indicator contaminants listed above exceed the Tier 1 SROs for the outdoor inhalation exposure route for residential land use and/or construction workers, this exposure route cannot be excluded. For the sample locations located in the right-of-ways of State Street and W. 127<sup>th</sup> Street, HAA are being proposed. For the sample locations located on the TCK property, a Tier 3 evaluation is being proposed.

Cleared at Tier 1  Propose Tier 3  Propose Institutional Controls

Soil Component of the Groundwater Ingestion Exposure Route – On-Site

Indicator Contaminant	Sample Location	Sample Depth (feet bls)	Maximum Detected Concentration (mg/kg)	Tier 1 SRO for the SCGIER (mg/kg)
				Class I
Benzene	B-20	14	0.187	0.03
MTBE	B-13	15.5	1.240	0.32

Since the indicator contaminants listed above exceed the Tier 1 SROs for the SCGIER for Class I groundwater, this exposure route cannot be excluded.

Cleared at Tier 1  Propose Tier 2  Propose Institutional Controls

Soil Component of the Groundwater Ingestion Exposure Route – Off-Site

Indicator Contaminant	Sample Location	Sample Depth (feet bls)	Maximum Detected Concentration (mg/kg)	Tier 1 SRO for the SCGIER (mg/kg)
				Class I
Benzene	EX-5	4-5	14.500	0.03

Toluene	EX-5	4-5	105.000	12
Ethylbenzene	EX-5	4-5	44.800	13
Total Xylenes	EX-5	4-5	221.000	150
MTBE	EX-6	4-5	0.891	0.32

Since the indicator contaminants listed above exceed the Tier 1 SROs for the SCGIER for Class I groundwater, this exposure route cannot be excluded. For the sample locations located in the right-of-ways of State Street and W. 127<sup>th</sup> Street, a Tier 2 evaluation is being proposed. For the sample locations located on the TCK property, a Tier 3 evaluation is being proposed.

Cleared at Tier 1  Propose Tier 2  Propose Tier 3

Groundwater Component of the Groundwater Ingestion Exposure Route – Off-Site

Indicator Contaminant	Sample Location	Maximum Detected Concentration (mg/L)	Tier 1 GRO for the GCGIER (mg/L)
			Class I
Benzene	MW-1	1.300	0.005
Ethylbenzene	MW-1	1.540	0.7

Since the indicator contaminants listed above exceed the Tier 1 GROs for the GCGIER for Class I groundwater, this exposure route cannot be excluded. Therefore, a Tier 2 evaluation is being proposed.

Cleared at Tier 1  Propose Tier 2  Propose Institutional Controls

**Tier 2 Evaluation**

Pursuant to 35 IAC Section 742.600, Tier 2 evaluations were performed for the indicator contaminant concentrations exceeding the Tier 1 remediation objectives for the SCGIER and GCGIER.

Soil Component of the Groundwater Ingestion Exposure Route – On-site

To evaluate on-site SCGIER, Tier 2 site-specific SROs for benzene and MTBE were calculated using SSL Equations S18, S22, S25, and S28 located in 35 IAC Part 742, Appendix C, Table A.

Default parameters listed in 35 IAC Section 742, Appendix C, Table B, and site-specific parameters were used in these evaluations. Class I GROs were utilized within the equations to calculate the Tier 2 SROs. The default and site-specific input parameters are summarized in the tables below.

Site-Specific Input Parameters	Value	Units
<b>Dry Soil Bulk Density (<math>\rho_b</math>)</b> (Table 3) The dry unit weight from on-site soil boring SCB-1 was utilized. The value was converted from pounds per cubic foot (pcf) to grams per cubic centimeter ( $g/cm^3$ ).	1.850	$g/cm^3$
<b>Mass Limiting -- Depth of Source (<math>d_s</math>)</b> (Table 1 and Appendix B) Estimated using the shallowest depth of on-site soil concentrations exceeding the Tier 1 SROs for SCGIER for Class I groundwater (B-35 collected at 12 feet bls) and the deepest PID readings greater than 20 parts per million (ppm) from those borings completed on site (20 feet bls in BH-2A and BH-5A).	2.438	m

<b>Aquifer Thickness (<math>d_a</math>)</b> (Table I and Appendix B) Calculated based on the shallowest depth to water observed during drilling (22.5 ft in BH-28) and the depth of the deepest installed soil borings in which groundwater was encountered (35 ft in BH-23A, BH-25, BH-26, BH-27, BH-32, and BH-33)	3.81 (12.5)	m (ft)
<b>Hydraulic Conductivity (<math>k</math>)</b> (Appendix E) Evaluated from the data collected from MW-1 during a slug test conducted on July 19, 2017.	$5.185 \times 10^{-5}$ (16.351)	cm/s (m/yr)
<b>Hydraulic Gradient (<math>i</math>)</b> (Appendix D) Based on the most conservative hydraulic gradient calculated from the groundwater elevations observed during the groundwater gauging activities conducted on July 19, 2017.	0.0106	cm/cm
<b>Source Length Parallel to Groundwater Flow Direction in the Horizontal Plane (<math>L</math>)</b> (Figures 4 and 5) Measured from EX-18 to BH-34/MW-4.	98.45 (323)	m (ft)

The Tier 2 SROs for the SCGIER for Class I groundwater are summarized in the table below.

Indicator Contaminant	Sample Location	Sample Depth (feet)	Maximum Detected Concentration (mg/kg)	Tier 2 SSL SRO for the SCGIER (mg/kg)
				Class I Groundwater
Benzene	B-20	14	0.187	0.279
MTBE	B-13	15.5	1.240	3.911

Based on the Tier 2 evaluation, on-site indicator contaminant concentrations do not exceed the Tier 2 SSL SROs for the SCGIER for Class I groundwater. Therefore, no further evaluation of this exposure route on site is required. The calculations for the Tier 2 evaluation are provided in Appendix L.

Cleared at Tier 2  Propose Institutional Controls

Soil Component of the Groundwater Ingestion Exposure Route – Off-site

Utilizing RBCA equations R12 through R14, R16 through R24, and R26 located in 35 IAC Part 742, Appendix C, Table C, soil leaching evaluations were performed for the off-site BTEX, and MTBE concentrations exceeding the Tier 1 SROs for the SCGIER for Class I groundwater.

Default parameters listed in 35 IAC Section 742, Appendix C, Tables D and E, and site-specific parameters were used in these evaluations. The default and site-specific input parameters are summarized in the tables below.

Default Input Parameters	Value	Units
Total Soil Porosity ( $\theta_r$ )	0.43	

Site-Specific Input Parameters	Value	Units
<b>Dry Soil Bulk Density (<math>\rho_b</math>)</b> (Table 3) The dry unit weight from on-site soil boring SCB-1 was utilized. The value was converted from pounds per cubic foot (pcf) to grams per cubic centimeter ( $g/cm^3$ ).	1.850	$g/cm^3$
<b>Organic Carbon Content (subsurface soils below 1 meter) (<math>f_{oc}</math>)</b> (Table 3) The foc concentration from BH-7A was utilized.	0.0184	g/g
<b>Moisture Content (<math>w</math>)</b> (Table 2)	0.137	$g_{water}/g_{soil}$

The moisture content from SCB-1 was utilized.		
<b>Hydraulic Conductivity (k)</b> (Appendix E) Evaluated from the data collected from MW-1 during a slug test conducted on July 19, 2017.	5.185x10 <sup>-5</sup> (16.351)	cm/s (m/yr)
<b>Hydraulic Gradient (i)</b> (Appendix D) Based on the most conservative hydraulic gradient calculated from the groundwater elevations observed during the groundwater gauging activities conducted on July 19, 2017.	0.0106	cm/cm
<b>Source Length Parallel to Groundwater Flow Direction in the Horizontal Plane (L)</b> (Figures 4 and 5) Measured from EX-18 to BH-34/MW-4.	98.45 (323)	cm (ft)
<b>Source Width Perpendicular to Groundwater Flow Direction in the Horizontal Plane (S<sub>w</sub>)</b> (Figures 4 and 5) Measured from SB-32/MW-2 to BH-30.	11,095 (364)	cm (ft)

Then, for each scenario, a flow distance measured from the source was selected that would generate a groundwater concentration equal to the Tier 1 GRO for Class I groundwater. The concentrations were modeled in the direction of groundwater flow. A description of each scenario, the soil concentration at the source, the groundwater concentration at the source, and the flow distance measured from the source that would generate a groundwater concentration equal to the Tier 1 GRO for Class I groundwater are summarized in the table below.

Off-Site Sample Location	Indicator Contaminant Exceeding the Tier 1 SRO	Soil Concentration at the Source (mg/kg)	Groundwater Concentration at the Source (mg/L)	Flow Distance Measured from the Source to the Tier 1, Class I GRO	
				(cm)	(feet)
BH-18*	Benzene	5.68	5.203	1,395	45.77
EX-1*	Benzene	5.010	4.590	1,362	44.69
EX-2*	Benzene	7.510	6.880	1,469	48.20
EX-3	Benzene	9.380	8.593	1,528	50.13
EX-4*	Benzene	7.700	7.054	1,475	48.39
EX-5	Benzene	14.500	13.283	1,648	54.07
	Toluene	105.000	33.805	47	1.54
	Ethylbenzene	44.800	7.312	107	3.51
	Total Xylenes	221.000	29.179	69	2.26
	MTBE	0.885 J	2.706	31,172	1,022.70
EX-6	Benzene	7.600	6.962	1,472	48.29
	Toluene	54.500	17.546	37	1.21
	Ethylbenzene	32.700	5.337	90	2.95
	Total Xylenes	149.000	19.673	41	1.38
	MTBE	0.891 J	2.724	31,286	1,026.44
EX-7*	Benzene	3.120	2.858	1,240	40.68
	Ethylbenzene	36.800	6.006	96	3.15
EX-8	Benzene	8.660	7.933	1,507	49.44
	Ethylbenzene	21.300	3.476	69	2.26
EX-9*	Benzene	0.263	0.241	658	21.59
EX-10*	Benzene	2.310	2.116	1,165	38.22
EX-11*	Benzene	0.305	0.279	690	22.64
EX-21*	Benzene	0.464	0.425	783	25.69
BH-21*	Benzene	1.200	1.099	1,005	32.97
BH-22	Benzene	7.650	7.008	1,474	48.36
BH-23*	Benzene	0.0483	0.044	325	10.66

BH-22A*	Benzene	<0.109	0.100	476	15.62
	Ethylbenzene	27.800	4.537	82	2.69
BH-26	Benzene	0.0756	0.069	406	13.32
BH-21A	Benzene	4.890	4.480	1,355	44.46
BH-28	Benzene	0.0928	0.085	445	14.60

\* Modeled distances for these sample locations are not shown on Figures 4 or 5. Additionally, calculations for these sample locations are not included in Appendix L.

Based on the Tier 2 soil leaching evaluations, the indicator concentrations have the potential to migrate within State Street and W. 127<sup>th</sup> Street, and onto commercial properties. However, given the age of the release and that a subsequent release wasn't reported while the USTs were in service, in addition to the geology of the soil, and the lack of a continuous groundwater table, a Tier 3 evaluation to utilize the measured concentrations vs. the modeled concentrations is being proposed. The source dimensions used and the potential benzene and MTBE migration distances are illustrated on Figures 4 and 5. The calculations for the Tier 2 evaluations as noted above are provided in Appendix L.

Cleared at Tier 2  Propose Tier 3  Propose Institutional Controls

Groundwater Component of the Groundwater Ingestion Exposure Route – Off-Site

To evaluate the off-site GCGIER, RBCA Equations R16 through R19, R21 through R23, and R26, located in 35 IAC Section 742, Appendix C, Table C, were utilized to evaluate at what distance the benzene and ethylbenzene concentrations exceeding the Tier 1 GROs for Class I groundwater would migrate before attenuating to the Tier 1 GROs for the GCGIER for Class I groundwater.

Default input parameters listed in 35 IAC Section 742, Appendix C, Tables D and E and site-specific input parameters were used in these evaluations. The default and site-specific input parameters are summarized in the tables below.

Default Input Parameters	Value	Units
Total Soil Porosity ( $\theta_T$ )	0.43	

Site-Specific Input Parameters	Value	Units
Hydraulic Conductivity (k) (Appendix E) Evaluated from the data collected from MW-1 during a slug test conducted on July 19, 2017.	5.185x10 <sup>-5</sup> (16.351)	cm/s (m/yr)
Hydraulic Gradient (i) (Appendix D) Based on the most conservative hydraulic gradient calculated from the groundwater elevations observed during the groundwater gauging activities conducted on July 19, 2017.	0.0106	cm/cm
Source Width Perpendicular to Groundwater Flow Direction in the Horizontal Plane ( $S_w$ ) (Figure 6) Measured from MW-3 to MW-5.	3,780 (124)	cm (ft)

Then a flow distance measured from the source was selected that would generate a groundwater concentration equal to the Tier 1 GRO for Class I groundwater. The groundwater concentrations were modeled in the direction of groundwater flow. A description of the scenario, the groundwater concentration at the source, and the flow distance measured from the source that would generate a groundwater concentration equal to the Tier 1 GRO for Class I groundwater are summarized in the table below.



Sample Location	Indicator Contaminant Exceeding the Tier 1 GRO	Groundwater Concentration at the Source (mg/L)	Flow Distance Measured from the Source to the Tier 1, Class I GRO	
			(cm)	(feet)
MW-1	Benzene	1.300	1,045	34.28
	Ethylbenzene	1.540	32	1.05

Based on the Tier 2 evaluations, the benzene concentrations have the potential to migrate within State Street. Additionally, the benzene and ethylbenzene concentrations are delineated onto the TCK property. However, given the age of the release and that a subsequent release wasn't reported while the USTs were in service, in addition to the geology of the soil, and the lack of a continuous groundwater table, a Tier 3 evaluation to utilize the measured concentrations vs. the modeled concentrations is being proposed. The source dimension used and potential migration distances are illustrated on Figure 6. The calculations for the Tier 2 evaluation are provided in Appendix M.

Cleared at Tier 2  Propose Tier 3  Propose Institutional Controls

**Soil Saturation Limit - On-Site**

On-site indicator contaminant concentrations do not exceed the default  $C_{sats}$ . Therefore, further evaluation of the on-site  $C_{sat}$  is not required.

Cleared at Default

**Soil Saturation Limit - Off-Site**

An evaluation was performed by comparing the soil concentrations to the default  $C_{sats}$  for each indicator contaminant. Please note that only the maximum detected concentration of each indicator contaminant that exceeds the default  $C_{sat}$  is listed below.

Indicator Contaminant	Sample Location	Sample Depth (feet)	Maximum Detected Concentration (mg/kg)	Default $C_{sat}$ (mg/kg)	
				Outdoor Inhalation Exposure Route	SCGIER
Total Xylenes	EX-5	4-5	221.000		110

Based on the evaluation, the indicator contaminants at the sample locations indicated below exceed the default  $C_{sats}$ .

Indicator Contaminant	Sample Location Exceeding a Default $C_{sat}$
Total Xylenes	EX-5 and EX-6

Soil sample locations EX-5 and EX-6 are located in the right-of-ways of State Street and W. 127<sup>th</sup> Street along the eastern and southeastern property boundary of the site. Based on the locations of the soil samples and the proximity of a utility pole that supports overhead electric lines and subsurface electric, storm sewer, and traffic signal utilities, and the roadways, remediation of these locations is impractical and a Tier 3 evaluation is being proposed.

Cleared at Default  Propose Tier 3

### **Tier 3 Evaluation**

#### **CWS Wells, Geology, and Hydrogeology**

The Village of Lemont CWS wells located northeast of the site have setback zones of 200 feet. The extent of the 200-foot setback zones reaches into State Street, northeast of the site, and onto the northern portion of the TCK property. The 200-foot setback zones are illustrated on Figures 4 through 7.

Based on the information obtained from the Illinois EPA Source Water Assessment Program (SWAP) ArcIMS Mapping Tool and the Illinois State Geological Survey (ISGS) Illinois Water Well Internet Map Service, the potable water supply wells are identified as API number 120310209800 or WL20604 (CWS Well #2) and API number 120310048900 or WL20605 (CWS Well #3). According to the SWAP Factsheet, CWS #2 is an active emergency well and CWS #3 is an active well.

CWS Well #2 is a shallow bedrock well with a reported total depth of 241 feet bls. According to the log obtained from the ISGS, clay is present from the ground surface to 95 feet bls. The clay is then underlain by limestone to a depth of 238 feet, and then shale to a depth of 241 feet. The well casing was installed from 1 foot bls to 128 feet bls. The aquifer that this well obtains its water source from is a shallow bedrock aquifer.

CWS Well #3 is a deep bedrock well with a reported total depth of 1,723 feet bls. According to the log obtained from the ISGS, bedrock is present from a depth of 94 feet to 1,723 feet bls. On September 18, 2019, TriCore contacted the ISGS regarding any additional information regarding the well. No additional information was available from the ISGS. Although the geology from ground surface to 94 feet bls is not reported on the log obtained from the ISGS, it is assumed that the geology is similar to that of CWS Well #2. The aquifer that this well obtains its water source from is a deep bedrock aquifer.

Copies of the information obtained from the Illinois EPA SWAP and the ISGS Illinois Water Well Internet Map Service regarding the CWS wells referenced above are provided in Appendix N.

During the excavation activities completed between April 20 and June 8, 2015, the site was excavated to a maximum depth of 19 feet bls. No groundwater was encountered during the excavation activities. During the installation of on-site soil borings BH-1A and BH-5A, no groundwater was encountered to the maximum depth drilled of 30 feet bls. During the installation of off-site soil boring BH-3A, located in the northwest corner of the intersection State Street and W. 127<sup>th</sup> Street, no groundwater was encountered to the maximum depth drilled of 30 feet bls. During the installation of BH-30/30A and BH-31, located due south of the site in the southern right of way of W. 127<sup>th</sup> Street, no groundwater was encountered to the maximum depth drilled of 30 feet bls. Groundwater was not encountered during the installation of the remaining on-site soil borings (BH-1, BH-2, BH-2A, BH-4, BH-4A, BH-5, BH-6, BH-7, BH-8, BH-9, BH-10, BH-11, BH-12, BH-14, and BH-16) to the maximum depth drilled of 25 feet bls. Groundwater was also not encountered during the installation of off-site soil borings BH-3, BH-13, BH-15, BH-17, BH-18, BH-19, BH-20, and BH-24 to the maximum depth drilled of 30 feet bls. These off-site soil borings were located in the northern right-of-way of W. 127<sup>th</sup> Street, the eastern right-of-way of State Street, and on the adjacent commercial properties located north and

west of the site. Groundwater was encountered during the installation of soil boring BH-21A in the eastern right-of-way of State Street at a depth of 24.5 feet bls.

The geology observed during the installation of the soil borings referenced above consisted predominantly of silty clays and clays to the maximum depth explored of 30 feet bls. As the depth of the soil borings increased, the hardness of the clay also increased, as noted in the boring logs. The hardness of the clay was also observed during the excavation activities as several shear walls remained intact from ground surface to a depth of 19 feet bls. Traces amounts of sand and gravel were noted during the installation of several of the soil borings. In soil boring BH-21A, sand and silt were observed at a depth of 24.5 to 25 feet bls. In soil boring BH-31, a clayey silt was observed at a depth of 27.5 to 30 feet bls.

During the off-site investigation activities completed on the TCK property, groundwater was encountered in BH-22A, BH-23A, BH-25, BH-26, BH-27, BH-28, BH-32, and BH-33. The groundwater observed during the installation of these soil borings ranged in depth from 22.5 to 32.5 feet bls. The geology observed during the installation of these soil borings consisted predominantly of clays and silty clays with interbedded lenses of clayey silt. In soil borings BH-22A, BH-23A, BH-25, BH-26, BH-27, and BH-28, smaller lenses of sand, silt, and clayey sand and gravel were observed. These smaller lenses is where the groundwater was encountered during drilling.

Based on the smaller lenses of sand, silt, and clayey sand and gravel observed in soil boring BH-21A completed in the eastern right-of-way of State Street, and in several of the soil borings completed on the TCK property but that these lenses were not observed in the soil borings completed on site or in the right-of-way's adjacent to the site, these lenses appear to be localized and confined to the TCK property and the eastern right-of-way of State Street. As mentioned above, groundwater was encountered in these lenses during drilling; therefore, it's indicative that the groundwater observed BH-21A, BH-22A, BH-23A, BH-25, BH-26, BH-27, BH-28, BH-32, and BH-33 is localized to this area. Soil boring logs are provided in Appendix B.

#### Measured Concentrations vs. Modeled Concentrations

Based on the Tier 2 evaluations presented above, on-site MTBE concentrations do not exceed the Tier 2 SSL SROs. Only two off-site sample locations have MTBE concentrations that exceed the Tier 1 SROs: EX-5 and EX-6 both at depths of 4 to 5 feet bls. These sample locations are located in the right-of-ways of State Street and W. 127<sup>th</sup> Street along the property boundary of the site. The sample locations are illustrated on Figures 2 through 5. The MTBE concentrations in EX-5 and EX-6 that exceed the Tier 1 SROs for the SCGIER for Class I groundwater have the potential to migrate 1,022.70 feet and 1,026.44 feet, respectively.

Analytical laboratory results from the soil samples collected during the soil investigation activities completed in the right-of-way of State Street and W. 127<sup>th</sup> Street, and on the TCK property indicate that the MTBE concentrations present on site, and in EX-5 and EX-6 have not migrated to the eastern right-of-way of State Street or onto the TCK property.

On September 16, 1994, a release of gasoline was reported to the Illinois Emergency Management Agency (IEMA) and incident number 942117 was assigned to the release. According to the 45-Day Report dated November 23, 1994, prepared by Environmental

Management and Resource Consultants, Inc. of Lemont, Illinois, IEMA incident number 942117 was reported as a result of the discovery of free product during excavation activities near the southeast corner of the site associated with the State Street re-construction activities. Upon discovery of the release, the UST system was shut down until a tightness test could be performed on the system. The USTs included one 6,000-gallon UST and two 3,000-gallon USTs that contained gasoline. On September 17, 1994 a tightness test was performed on the UST system. Results from the tightness test indicated that the UST system passed the test. Based on the information presented in the 45-Day Report, the cause of the release is unknown.

Since the reporting of IEMA incident number 942117, a subsequent release had not been reported until November 26, 2014 when the USTs at the site were removed. The removal of the USTs was being completed as part of the corrective action activities associated with IEMA incident number 942117.

The contamination identified during the investigation activities at the site was suspected to be associated with IEMA incident number 942117, and based on the subsurface investigation and excavation activities, no groundwater is present at the site or within the western right-of-way of State Street. Based on the information presented above, the indicator contaminant concentrations have a low potential to migrate beyond the current extent of the contamination plume as defined by analytical laboratory results. Therefore, TriCore requests to utilize the measured extent of soil and groundwater contamination at the site as defined by analytical results in place of utilizing the potential migration distance calculated in the Tier 2 evaluations.

#### Impractical Remediation

Analytical laboratory results indicate that the total xylenes concentrations in off-site soil samples EX-5 and EX-6 exceed the default  $C_{sat}$  for the SCGIER. Soil sample locations EX-5 and EX-6 are located in the right-of-ways of State Street and W. 127<sup>th</sup> Street, along the property boundary of the site. Based on the locations of the soil samples and the proximity of a utility pole that supports overhead electric lines and subsurface electric, storm sewer, traffic signal utilities, and the roadways, remediation of these locations is impractical.

Although remediation of the total xylenes concentrations at EX-5 and EX-6 is impractical, a HAA with the Village of Lemont for State Street and a HAA with Cook County for W. 127<sup>th</sup> Street will be utilized as institutional controls to address the soil contamination at these sample locations. The areas subject to the HAAs are illustrated on Figure 8. A copy of the executed HAA with the Village of Lemont is provided in Appendix O. A copy of the executed HAA with Cook County is provided in Appendix P.

#### Institutional Controls

In conjunction with the Tier 1, Tier 2, and Tier 3 evaluations presented above, the use of institutional controls are being proposed pursuant to 35 IAC Part 742 Subparts J and K.

#### Soil Ingestion Exposure Route – On-Site

Since the remediation objectives for industrial/commercial land use are being utilized for the on-site soil ingestion exposure route, an industrial/commercial land use limitation will be placed on the property. The area subject to the industrial/commercial land use limitation

is illustrated on Figure 8.

Cleared with Institutional Controls

Soil Ingestion Exposure Route – Off-Site

A benzene concentration exceeding the Tier 1 SRO for the soil ingestion exposure route for residential land use is present at off-site sample location EX-5, located in the right-of-way of State Street along the property boundary of the site. Therefore, a HAA with the Village of Lemont is being proposed. The area subject to the HAA is illustrated on Figure 8. A copy of the executed HAA with the Village of Lemont is provided in Appendix O.

Cleared with Institutional Controls

Outdoor Inhalation Exposure Route – On-Site

Since the remediation objectives for industrial/commercial land use are being utilized for the on-site outdoor inhalation exposure route, an industrial/commercial land use limitation will be placed on the property. The area subject to the industrial/commercial land use limitation is illustrated on Figure 8.

Cleared with Institutional Controls

Outdoor Inhalation Exposure Route – Off-Site

To address the off-site benzene, toluene, total xylenes, and naphthalene concentrations that exceed the Tier 1 SROs for the outdoor inhalation exposure route for residential land use and/or construction workers, a HAA with the Village of Lemont will be utilized for State Street and a HAA with Cook County will be utilized for W. 127<sup>th</sup> Street. The areas subject to the HAAs are illustrated on Figure 8. A copy of the executed HAA with the Village of Lemont is provided in Appendix O. A copy of the executed HAA with Cook County is provided in Appendix P.

Cleared with Institutional Controls

Soil Component of the Groundwater Ingestion Exposure Route – Off-Site

To address the off-site BTEX and MTBE concentrations that exceed the Tier 1 SROs for the SCGIER for Class I groundwater located in the right-of-way's of State Street and W. 127<sup>th</sup> Street, a HAA with the Village of Lemont will be utilized for State Street and a HAA with Cook County will be utilized for W. 127<sup>th</sup> Street. The areas subject to the HAAs are illustrated on Figure 8. A copy of the executed HAA with the Village of Lemont is provided in Appendix O. A copy of the executed HAA with Cook County is provided in Appendix P.

Cleared with Institutional Controls

Groundwater Component of the Groundwater Ingestion Exposure Route – Off-Site

To address the benzene and ethylbenzene concentrations in MW-1 that are located in the right-of-way of State Street, a HAA with the Village of Lemont will be utilized for State Street. The areas subject to the HAA is illustrated on Figure 8. A copy of the executed HAA with the Village of Lemont is provided in Appendix O.

Cleared with Institutional Controls

**3. A description of the remedial technologies selected:**

**a. The feasibility of implementing the remedial technologies;**

This section is not applicable since a remedial technology is not being proposed in this Amended CAP.

**b. Whether the remedial technologies will perform satisfactorily and reliably until the remediation objectives are achieved; and**

This section is not applicable since a remedial technology is not being proposed in this Amended CAP.

**c. A schedule of when the technologies are expected to achieve the applicable remediation objectives;**

This section is not applicable since a remedial technology is not being proposed in this Amended CAP.

**4. A confirmation sampling plan that describes how the effectiveness of the corrective action activities will be monitored during their implementation and after their completion;**

This section is not applicable since a confirmation sampling plan is not being proposed in this Amended CAP.

**5. A description of the current and projected future uses of the site;**

The property is currently a vacant property. The owner plans to redevelop the property into commercial land use. Further details regarding the redevelopment of the property are not available at this time. Site features are illustrated on Figures 1 through 8.

**6. A description of engineered barriers or institutional controls that will be relied upon to achieve remediation objectives:**

**a. An assessment of their long-term reliability;**

As mentioned above in Section E. 2., an industrial/commercial land use limitation, a HAA with the Village of Lemont for State Street, and a HAA with Cook County for W. 127<sup>th</sup> Street will be relied upon to achieve the remediation objectives.

Since the industrial/commercial land use restriction for the site will be included in the NFR which will be recorded on the deed of the property, it will remain on the property for perpetuity.

Since the Village of Lemont and Cook County do not have any plans to eliminate State Street or W. 127<sup>th</sup> Street, the roadways will remain as such.

**b. Operating and maintenance plans; and**

Since the owner plans to redevelop the property as a commercial property, the owner and any future owner will be responsible for maintaining the industrial/commercial land use limitation. The Village of Lemont will monitor and maintain the HAA for State Street. Cook County will monitor and maintain the HAA for W. 127<sup>th</sup> Street.

**c. Maps showing area covered by barriers and institutional controls;**

A map showing the areas subject to the industrial/commercial land use limitation and HAAs is illustrated on Figure 8.

**7. The water supply well survey:**

**a. Map(s) showing locations of community water supply wells and other potable wells and the setback zone for each well;**

According to maps obtained from the Illinois EPA SWAP ArcIMS Mapping Tool and the ISGS Illinois Water Well Internet Map Service, 75 private potable water supply wells, one non-CWS well, and two CWS wells are located within 2,500 feet of the former underground storage tank (UST) area.

The closest potable water supply wells to the site are located approximately 374 feet and 456 feet northeast of the former UST area, north of the TCK property. These wells are identified as CWS Well #2 and CWS Well #3. CWS Well #2 is a shallow bedrock well with a reported total depth of 241 feet bls and CWS Well #3 is a deep bedrock well with a reported total depth of 1,723 feet bls. According to the Illinois EPA SWAP ArcIMS Mapping Tool and the Illinois EPA SWAP Factsheet, both wells have reported minimum setback zones of 200 feet. The extent of the 200-foot setback zones reaches into State Street, northeast of the site, and onto the northern portion of the TCK property. The 200-foot setback zones are illustrated on Figures 4 through 7.

Copies of the information obtained from the Illinois EPA SWAP and the ISGS Illinois Water Well Internet Map Service are provided in Appendix N.

**b. Map(s) showing regulated recharge areas and wellhead protection areas;**

According to the Illinois EPA SWAP ArcIMS Mapping Tool, no regulated recharge areas are located within 2,500 feet of the site. A map obtained from the Illinois EPA SWAP Arc IMS Mapping Tool showing that the site is not located within a regulated recharge is provided in Appendix N.

According to the Illinois EPA SWAP ArcIMS Mapping Tool, the site is located within the wellhead protection area of CWS Well #2 and CWS Well #3, located northeast of the site. A map obtained from the Illinois EPA SWAP Arc IMS Mapping Tool showing that the site is located within the wellhead protection area of CWS Well #2 and CWS Well #3 is provided in Appendix N.

**c. Map(s) showing the current extent of groundwater contamination exceeding the most stringent Tier 1 remediation objectives;**

A map showing the current extent of groundwater contamination exceeding the most stringent Tier 1 remediation objectives is illustrated on Figure 3.

**d. Map(s) showing the modeled extent of groundwater contamination exceeding the most stringent Tier 1 remediation objectives;**

A map showing the modeled extent of groundwater contamination exceeding the most stringent Tier 1 remediation objectives is illustrated on Figure 6.

**e. Tables listing the setback zone for each community water supply well and other potable water supply wells;**

As mentioned above in Section E. 7. a., the closest potable water supply wells to the former UST area have reported minimum setback zones of 200 feet.

**f. A narrative identifying each entity contacted to identify potable water supply wells, the name and title of each person contacted, and any field observations associated with any wells identified; and**

The following websites were consulted regarding the locations of potable water supply wells within 2,500 feet of the site.

1. Illinois EPA SWAP ArcIMS Mapping Tool,  
<http://maps.epa.state.il.us/website/swap/intro.htm>
2. ISGS Illinois Water Well Internet Map Service,  
<http://maps.isgs.illinois.edu/ilwater/>

**g. A certification from a Licensed Professional Engineer or Licensed Professional Geologist that the survey was conducted in accordance with the requirements and that documentation submitted includes information obtained as a result of the survey (certification of this plan satisfies this requirement);**

A certification from a Licensed Professional Engineer is provided below in Section G.

**8. Appendices:**

**a. References and data sources report that are organized; and**

The following is a list of reports that contain appendices with references and data sources that were utilized to complete this report.

1. 45-Day Report dated November 23, 1994, prepared by Environmental Management and Resource Consultants, Inc.
2. Site Classification Completion Report dated April 28, 2004, prepared by United Science Industries, Inc. (USI)
3. SCCR dated December 1, 2004, prepared by USI
4. CAP dated April 6, 2006, prepared by USI
5. Amended CAP dated July 6, 2006, prepared by USI
6. 45-Day Report dated January 23, 2015, prepared by TriCore for Leaking UST incident number 20141348
7. Amended CAP dated October 19, 2015, prepared by TriCore
8. Amended CAP dated January 27, 2017, prepared by TriCore

**b. Field logs, well logs, and reports of laboratory analyses;**

Copies of the soil boring logs and monitoring well construction diagrams are provided in Appendix B. Copies of the analytical laboratory reports for the soil and groundwater samples collected between July 5, through July 19, 2017 are provided in Appendices A and C, respectively. Copies of the analytical laboratory reports for the soil and



groundwater samples collected prior to July 5, 2017 were provided in the reports previously submitted to the Illinois EPA.

**9. Site map(s) meeting the requirements of 35 Ill. Adm. Code 732.110(a) or 734.440;**

Site maps meeting the requirements of 35 IAC Section 734.440 are illustrated on Figures 1 through 8.

**10. Engineering design specifications, diagrams, schematics, calculations, manufacturer's specifications, etc.;**

This section is not applicable since a method of remediation is not being proposed in this Amended CAP.

**11. A description of bench/pilot studies;**

This section is not applicable since a bench/pilot test is not being proposed in this Amended CAP.

**12. Cost comparison between proposed method of remediation and other methods of remediation;**

This section is not applicable since a method of remediation is not being proposed in this Amended CAP.

**13. For the proposed Tier 2 or 3 remediation objectives, provide the following:**

**a. The equations used;**

The equations used for the Tier 2 evaluation for the SCGIER are SSL Equations S18, S22, S25, and S28, and RBCA Equations R12 through R14, R16 through R18, R20 through R22, R24, and R26. The equations used for the Tier 2 evaluation for the GCGIER are RBCA Equations R16 through R19 and R26. The equations used for the site-specific  $C_{sat}$  evaluation are SSL Equations S19, S20, S21, S24, and S29.

**b. A discussion of how input variables were determined;**

Site-specific input variables were determined from the data collected during the investigation activities performed at the site. Default variables were obtained from 35 IAC Section 742, Appendix C, Tables B, D, and E.

**c. Map(s) depicting distances used in equations; and**

Maps depicting the distances used in the Tier 2 evaluations for the SCGIER are illustrated on Figures 4 and 5. A map depicting the distances used in the Tier 2 evaluations for the GCGIER is illustrated on Figure 6.

**d. Calculations; and**

Calculations for the Tier 2 evaluations for the SCGIER are provided in Appendix L. Calculations for the Tier 2 evaluation for the GCGIER are provided in Appendix M.

**14. Provide documentation to demonstrate the following for alternative technologies:**

This section is not applicable since alternative technologies are not being proposed in this Amended CAP.

- a. **The proposed alternative technology has a substantial likelihood of successfully achieving compliance with all applicable regulations and remediation objectives;**
- b. **The proposed alternative technology will not adversely affect human health and safety or the environment;**
- c. **The owner or operator will obtain all Illinois EPA permits necessary to legally authorize use of the alternative technology;**
- d. **The owner or operator will implement a program to monitor whether the requirements of subsection (14) (a) have been met;**
- e. **Within one year from the date of Illinois EPA approval, the owner or operator will provide to the Illinois EPA monitoring program results establishing whether the proposed alternative technology will successfully achieve compliance with the requirements of subsection (14) (a); and**
- f. **Demonstration that the cost of alternative technology will not exceed the cost of conventional technology and is not substantially higher than at least two other alternative technologies, if available and technically feasible.**

**F. Exposure Pathway Exclusion**

**Provide the following:**

1. **A description of the tests to be performed in determining whether the following requirements will be met:**
  - a. **Attenuation capacity of the soil will not be exceeded for any of the organic contaminants;**

On August 2, 2005, soil samples were collected from soil borings BH-6A from a depth of 5 feet bls, BH-7A from a depth of 4 feet bls, and BH-8A from a depth of 3 feet bls. The soil samples were submitted under standard chain-of-custody protocol to First Environmental Laboratories, Inc. in Naperville, Illinois for the analysis of fractional organic carbon ( $f_{oc}$ ) content using American Society for Testing and Materials Method D2974-87C.

Analytical laboratory results from the soil samples collected from the site indicate that BTEX, MTBE, and PAH concentrations do not exceed the  $f_{oc}$  concentrations; therefore, the BTEX, MTBE, and PAH concentrations do not exceed the attenuation capacity of the soil. The  $f_{oc}$  concentrations are summarized in Table 3.

- b. **Soil saturation limit will not be exceeded for any of the organic contaminants;**

As demonstrated above in Section E. 2., analytical laboratory results from the soil samples collected from the investigation and excavation activities indicate that total xylenes concentrations exceed the default  $C_{sat}$  for the SCGIER in off-site soil samples EX-5 and EX-6. Soil samples EX-5 and EX-6 are located in the right-of-ways of State Street and W. 127<sup>th</sup> Street along the property boundary of the site. Based on the locations of the soil samples and the proximity of a utility pole that supports overhead electric lines and subsurface electric, storm sewer, and traffic signal utilities, and the roadways, remediation of these locations is impractical.

Although remediation of the total xylenes concentrations at EX-5 and EX-6 is impractical, a HAA with the Village of Lemont for State Street and a HAA with Cook County for W. 127<sup>th</sup> Street will be utilized as institutional controls for these sample locations. The areas subject to the HAAs are illustrated on Figure 8. A copy of the executed HAA with the Village of Lemont is provided in Appendix O. A copy of the executed HAA with Cook County is provided in Appendix P.

**c. Contaminated soils do not exhibit any of the reactivity characteristics of hazardous waste per 35 Ill. Adm. Code 721.123;**

On March 25, 2015, one soil sample (Waste Disposal) was collected from the site. The soil sample was submitted under standard chain-of-custody protocol to Pace for reactive cyanide analysis using USEPA Method SW-846 7.3.3.2 and reactive sulfide analysis using USEPA Method SW-846 7.3.4.2.

Analytical laboratory results revealed that the soils do not exhibit any of the characteristics of reactivity for hazardous waste per 35 IAC Section 721.123. Analytical laboratory results are summarized in Table 3.

**d. Contaminated soils do not exhibit a pH  $\leq$  2.0 or  $\geq$  12.5; and**

On March 18, 2015, one soil sample (Waste Disposal) was collected from the site. The soil sample was submitted under standard chain-of-custody protocol to Pace for pH analysis using USEPA Method 9040.

On July 7, 2017, one soil sample (Waste Disposal-1) was collected from the soil cuttings generated during the drilling activities. The soil sample was submitted under standard chain-of-custody protocol to Pace for pH analysis using USEPA Method 9045.

Analytical laboratory results revealed pH values of 7.2 and 7.92, respectively. These pH values are in compliance with 35 IAC Section 742.305 d). The analytical laboratory results are summarized in Table 3.

**e. Contaminated soils which contain arsenic, barium, cadmium, chromium, lead, mercury, or selenium (or their associated salts) do not exhibit any of the toxicity characteristics of hazardous waste per 35 Ill. Adm. Code 721.124.**

According to the IEMA field reports for incident numbers 942117 and 20141348, the incidents were associated with the releases of gasoline and diesel fuel.

Pursuant to 40 Code of Federal Regulations (CFR) Section 261.4(b)(10), petroleum contaminated media and debris that fail the test for the Toxicity Characteristics of 40 CFR Section 261.24 (Hazardous Waste Codes D018 through D043 only) and are subject to the corrective action regulations under 40 CFR Part 280, are not considered hazardous waste. Due to the substances involved in the release, it is unlikely that the site soils would contain arsenic, barium, cadmium, chromium, lead, mercury, selenium, or silver TCLP concentrations that exceed the maximum concentrations for those contaminants listed in 35 IAC Part 724.124 b).

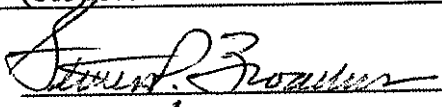

Based on the information provided above, the soils should not exhibit any characteristics of toxicity for hazardous waste per 35 IAC Section 742.305 e).

**2. A discussion of how any exposure pathways are to be excluded.**

A discussion of how the soil ingestion and outdoor exposure routes, SCGIER, and GCGIER will be excluded is provided above in Section E. 2. The indoor inhalation exposure route will be excluded utilizing the Illinois EPA's Vapor Instruction Fact Sheet which indicates that the collection of soil gas samples is not required.

**G. Signatures**

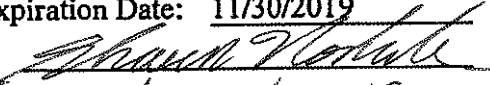
All plans, budgets, and reports must be signed by the owner or operator and list the owner's or operator's full name, address, and telephone number.

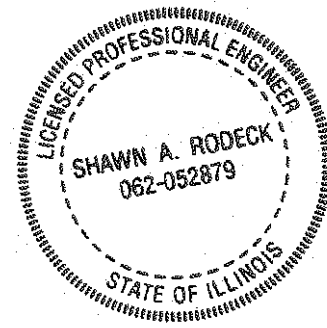
<b>UST Owner or Operator</b>	<b>Consultant</b>
Name: <u>BOI, LLC</u>	Company: <u>TriCore Environmental, LLC</u>
Contact: <u>Steven Broadus</u>	Contact: <u>Marcos I. Czako, P.G.</u>
Address: <u>201 Danny's Drive, Suite 5</u>	Address: <u>2368 Corporate Lane, Suite 116</u>
City: <u>Streator</u>	City: <u>Naperville</u>
State: <u>Illinois</u>	State: <u>Illinois</u>
ZIP Code: <u>61364</u>	ZIP Code: <u>60563</u>
Phone: <u>(815) 673-5515</u>	Phone: <u>(630) 520-9973</u>
Signature: <u></u>	Email: <u>marcos.czako@tricoreweb.com</u>
Date: <u>10/22/2019</u>	Signature: <u></u>
	Date: <u>10/25/2019</u>

I certify under penalty of law that all activities that are the subject of this plan were conducted under my supervision or were conducted under the supervision of another Licensed Professional Engineer or Licensed Professional Geologist and reviewed by me; that this plan and all attachments were prepared under my supervision; that, to the best of my knowledge and belief, the work described in this plan has been completed in accordance with the Environmental Protection Act [415 ILCS 5], 35 Ill. Adm. Code 731, 732 or 734, and generally accepted standards and practices of my profession; and that the information presented is accurate and complete. I am aware there are significant penalties for submitting false statements or representations to the Illinois EPA, including but not limited to fines, imprisonment, or both as provided in Sections 44 and 57.17 of the Environmental Protection Act [415 ILCS 5/44 and 57.17].

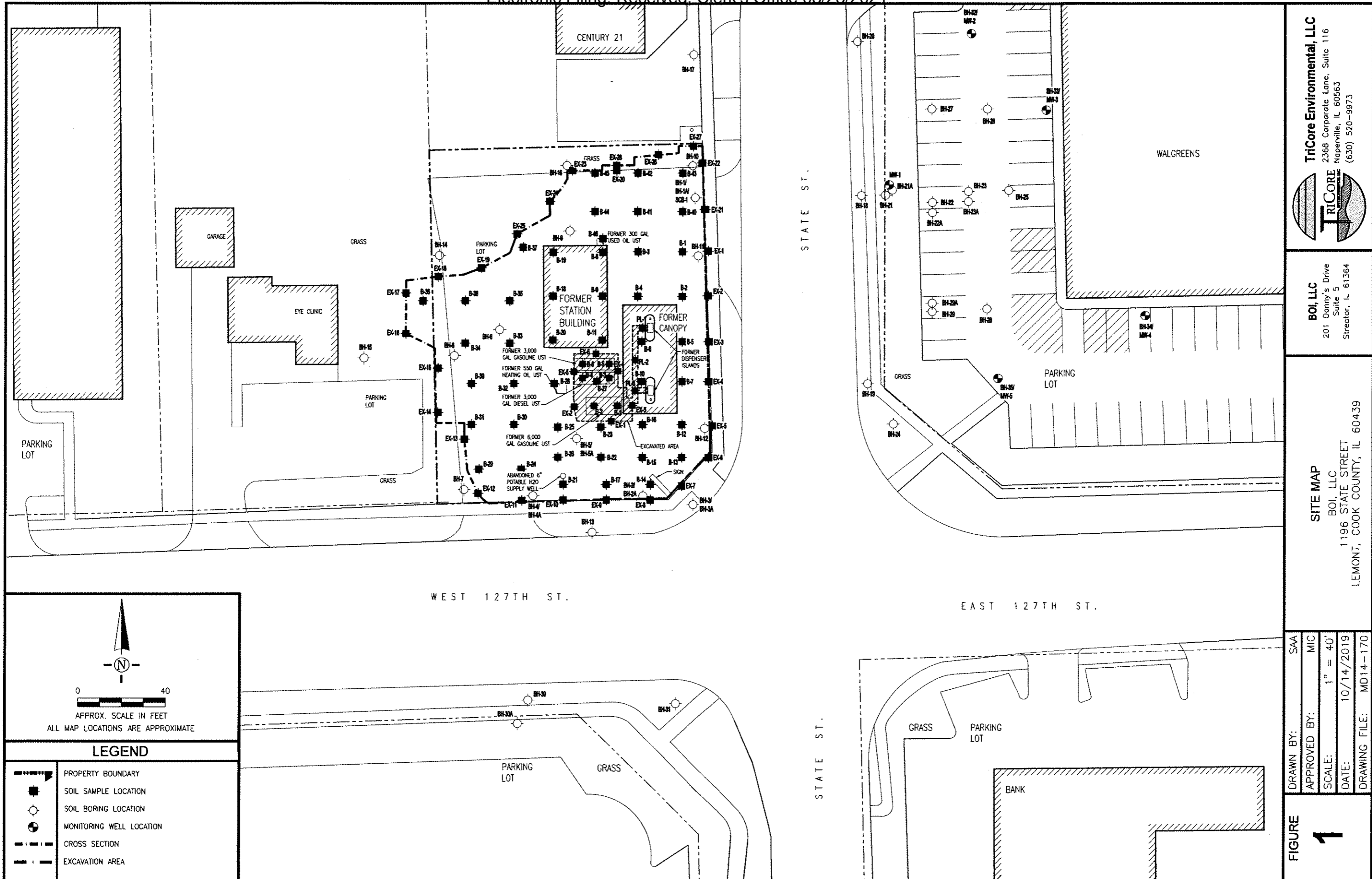
**Licensed Professional Engineer or Geologist**

**L.P.E. or L.P.G. Seal**

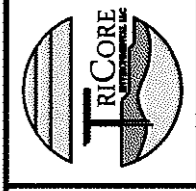
Name: Shawn Rodeck  
 Company: TriCore Environmental, LLC  
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 Phone: (630) 520-9973  
 Ill. Registration No.: 062-052879  
 License Expiration Date: 11/30/2019  
 Signature:   
 Date: 10/25/2019



**FIGURES**



**TriCore Environmental, LLC**  
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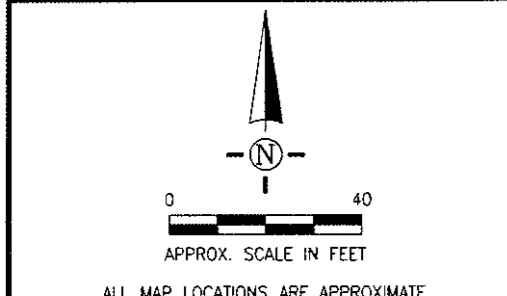
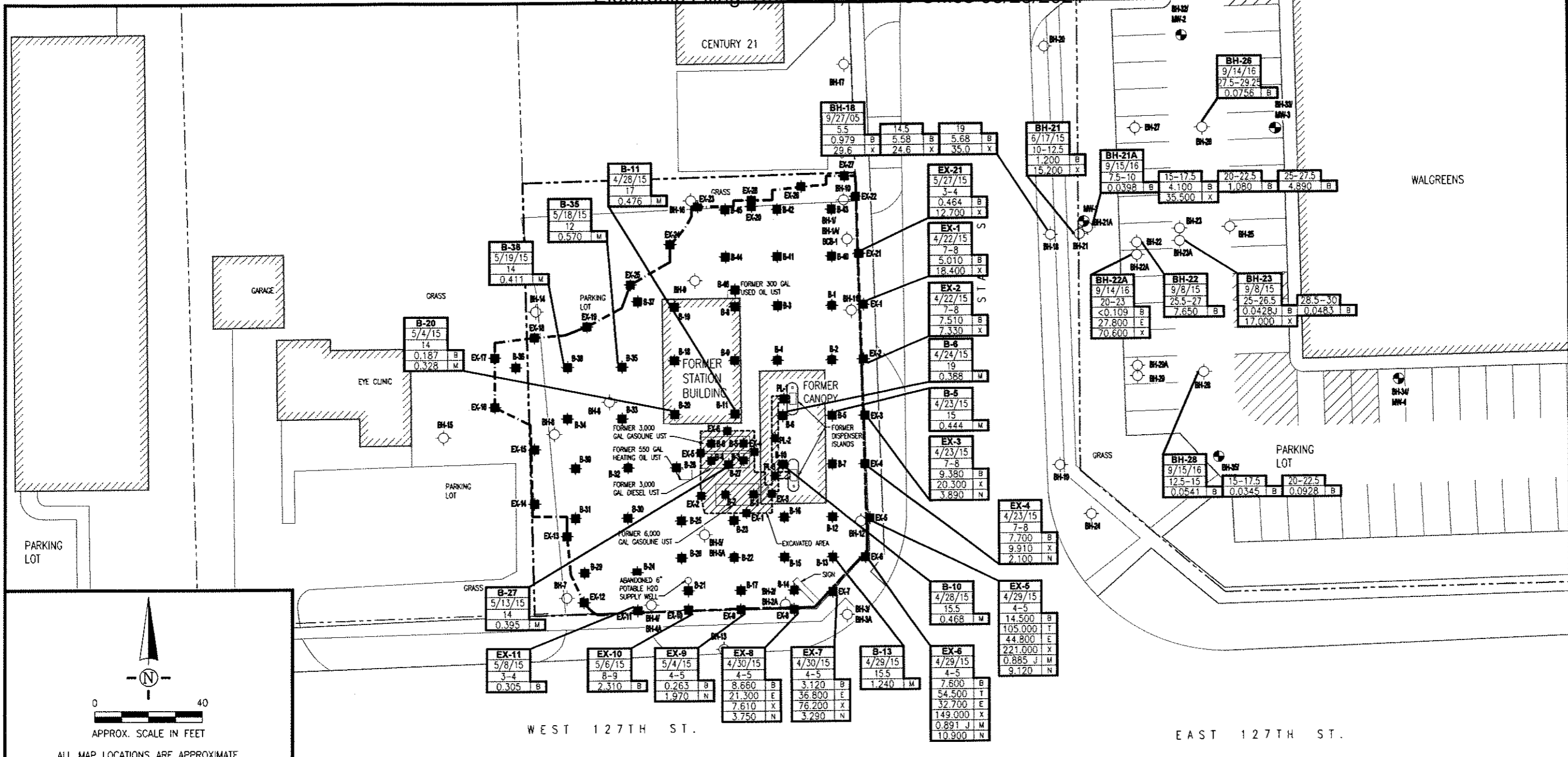


**BOI, LLC**  
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 Streator, IL 61364

**SITE MAP**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 10/14/2019  
 DRAWING FILE: MD14-170

**FIGURE 1**



LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	EXCAVATION AREA
<b>EX-5</b>	<b>SAMPLE LOCATION</b>
4/29/15	<b>SAMPLE DATE</b>
4-5	<b>SAMPLE DEPTH (ft)</b>
14.500 B	<b>BENZENE CONCENTRATION (mg/kg)</b>
105.000 T	<b>TOLUENE CONCENTRATION (mg/kg)</b>
44.800 E	<b>ETHYLBENZENE CONCENTRATION (mg/kg)</b>
221.000 X	<b>TOTAL XYLENES CONCENTRATION (mg/kg)</b>
0.885 J M	<b>METHYL TERT BUTYL ETHER CONCENTRATION (mg/kg)</b>
9.120 N	<b>NAPTHALENE CONCENTRATION (mg/kg)</b>
<0.002	<b>CONCENTRATION LESS THAN METHOD DETECTION LIMIT</b>
<b>NOTES: ONLY THE INDICATOR CONTAMINANT CONCENTRATIONS EXCEEDING THE TIER 1 SROs ARE SHOWN</b>	

**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

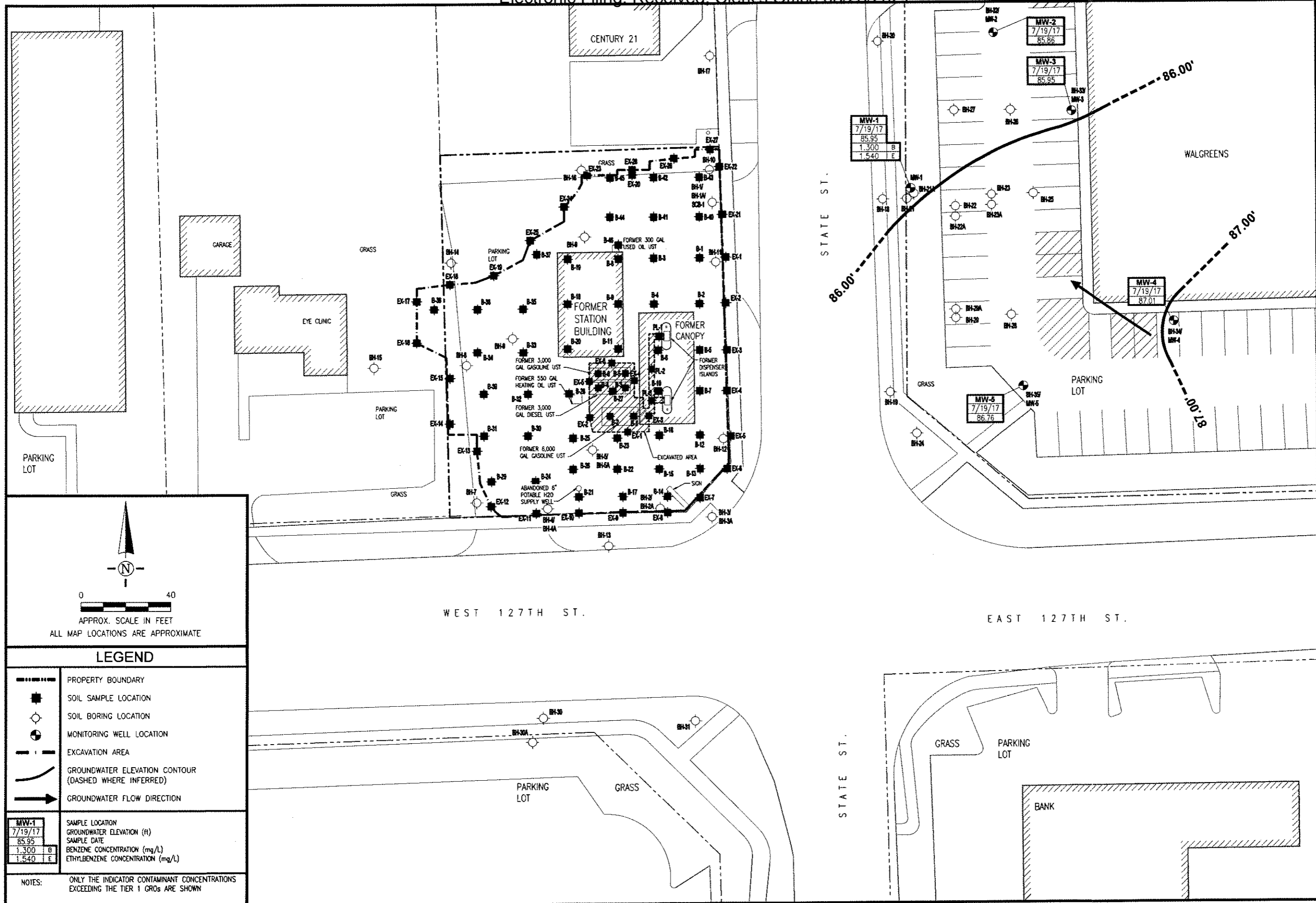
**SOIL ANALYTICAL RESULTS**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

**FIGURE 2**

DRAWN BY: JB  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 10/24/2019  
 DRAWING FILE: MD14-170

**FIGURE 2**





**LEGEND**

- PROPERTY BOUNDARY
- SOIL SAMPLE LOCATION
- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- EXCAVATION AREA
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION

<b>MW-1</b> 7/19/17 85.95 1.300 B 1.540 E	SAMPLE LOCATION GROUNDWATER ELEVATION (ft) SAMPLE DATE BENZENE CONCENTRATION (mg/L) ETHYLBENZENE CONCENTRATION (mg/L)
---	---

NOTES: ONLY THE INDICATOR CONTAMINANT CONCENTRATIONS EXCEEDING THE TIER 1 GROs ARE SHOWN

**Tricore Environmental, LLC**  
2368 Corporate Lane, Suite 116  
Naperville, IL 60563  
(630) 520-9973

**BOI, LLC**  
201 Danny's Drive  
Suite 5  
Streator, IL 61364

**GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS**  
BOI, LLC  
1196 STATE STREET  
LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
APPROVED BY: MIC  
SCALE: 1" = 40'  
DATE: 10/24/2019  
DRAWING FILE: MD14-170

**FIGURE 3**

**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973



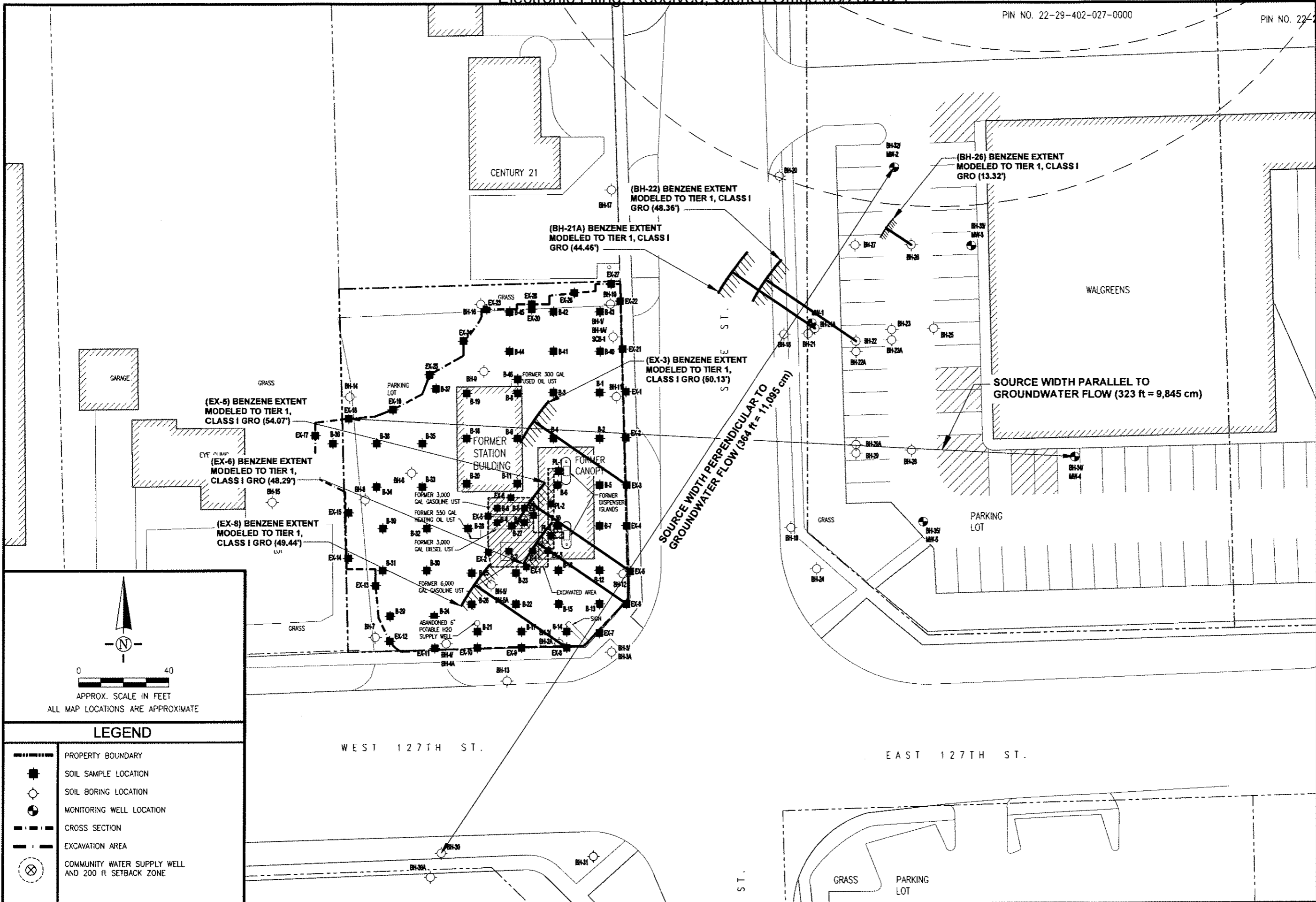
**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**SOURCE DIMENSIONS AND MODELED EXTENTS FOR THE SCGIER EVALUATIONS - BENZENE**

BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY:	SAA
APPROVED BY:	MIC
SCALE:	1" = 40'
DATE:	10/15/2019
DRAWING FILE:	MD14-170

**FIGURE 4**



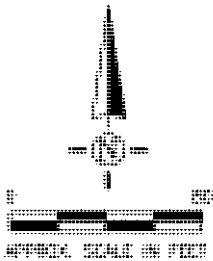
(EX-5) MTBE EXTENT  
MODELED TO TIER 1,  
CLASS I GRO (1,022.76')

(EX-5) MTBE EXTENT  
MODELED TO TIER 1,  
CLASS I GRO (1,026.44')

EWEND ST

STATE ST

127TH ST



APPROX. SCALE IN FEET  
ALL MAP LOCATIONS ARE APPROXIMATE

**LEGEND**

- PROPERTY BOUNDARY
- SOIL SAMPLE LOCATION
- SOIL BOUND LOCATION
- MONITORING WELL LOCATION
- EXCLUSION AREA
- QUALITY WATER SUPPLY WELL AND 500 FT RADIUS ZONE

Tricore Environmental, LLC  
2200 Corporate Lane, Suite 110  
Naperville, IL 60563  
(630) 550-8873



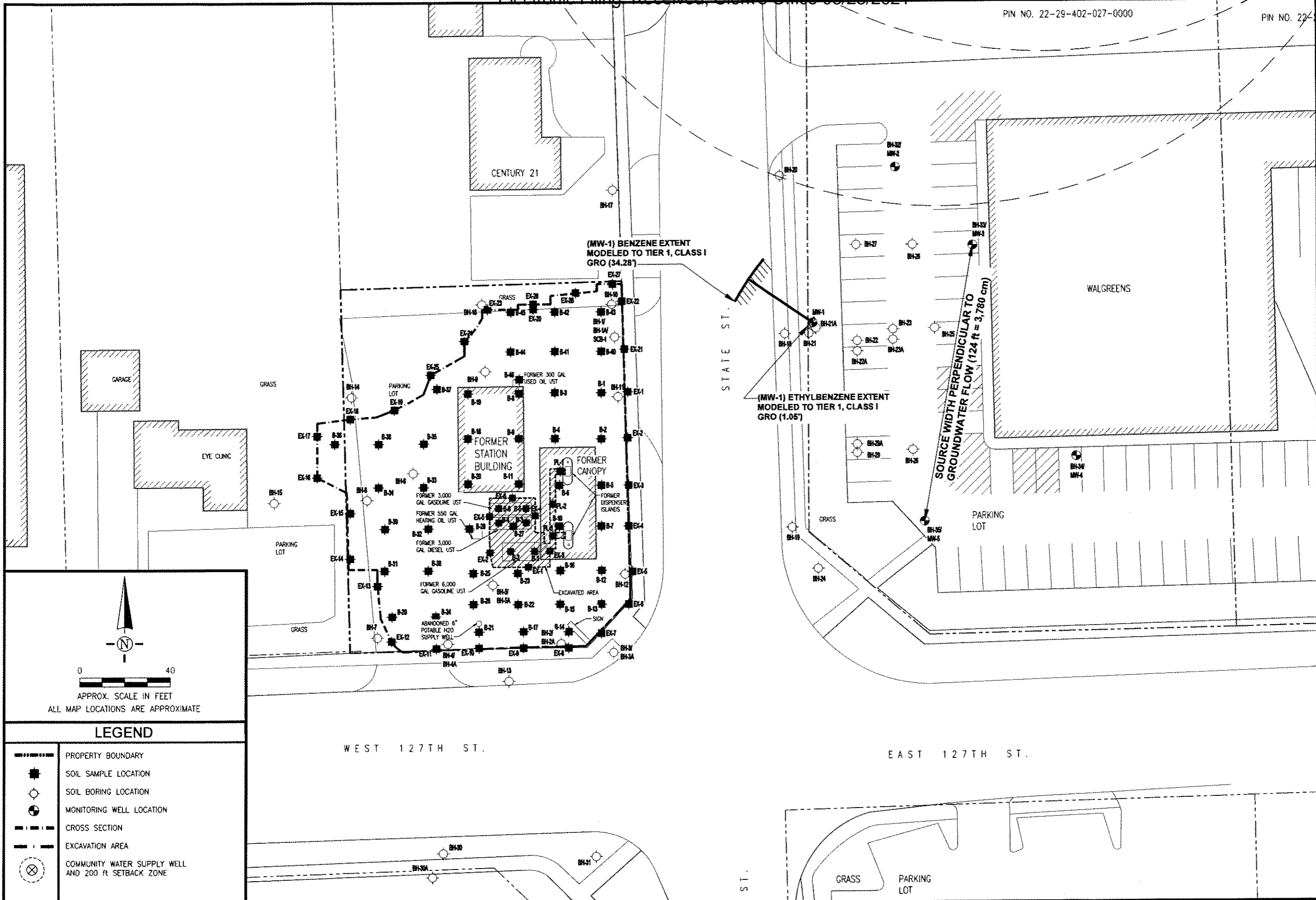
BRI LLC  
201 County's Drive  
Suite 3  
Aurora, IL 60004

SOURCE DIMENSIONS AND MODELED EXTENTS  
FOR THE BOGGER EVALUATIONS - MTBE

BRI, LLC  
1106 STATE STREET  
LEWISTON, COOK COUNTY, IL 60439

DRAWN BY: SAA  
APPROVED BY: WJC  
SCALE: 1" = 50'  
DATE: 10/19/2019  
DRAWING FILE: M014-170

FIGURE  
**5**



**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973



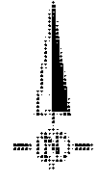

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**SOURCE DIMENSION AND MODELED EXTENTS FOR THE GGIER EVALUATIONS**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439





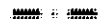

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 10/15/2019  
 DRAWING FILE: MD14-170


**FIGURE 6**



  
  
 APPROX. SCALE IN FEET  
 ALL MAP LOCATIONS ARE APPROXIMATE

**LEGEND**

-  PROPERTY BOUNDARY
-  BCL SAMPLE LOCATION
-  BCL MONITORING LOCATION
-  MONITORING WELL LOCATION
-  EXCLUSION AREA
-  COMMUNITY WATER SUPPLY WELL AND/OR BATTERY ZONE

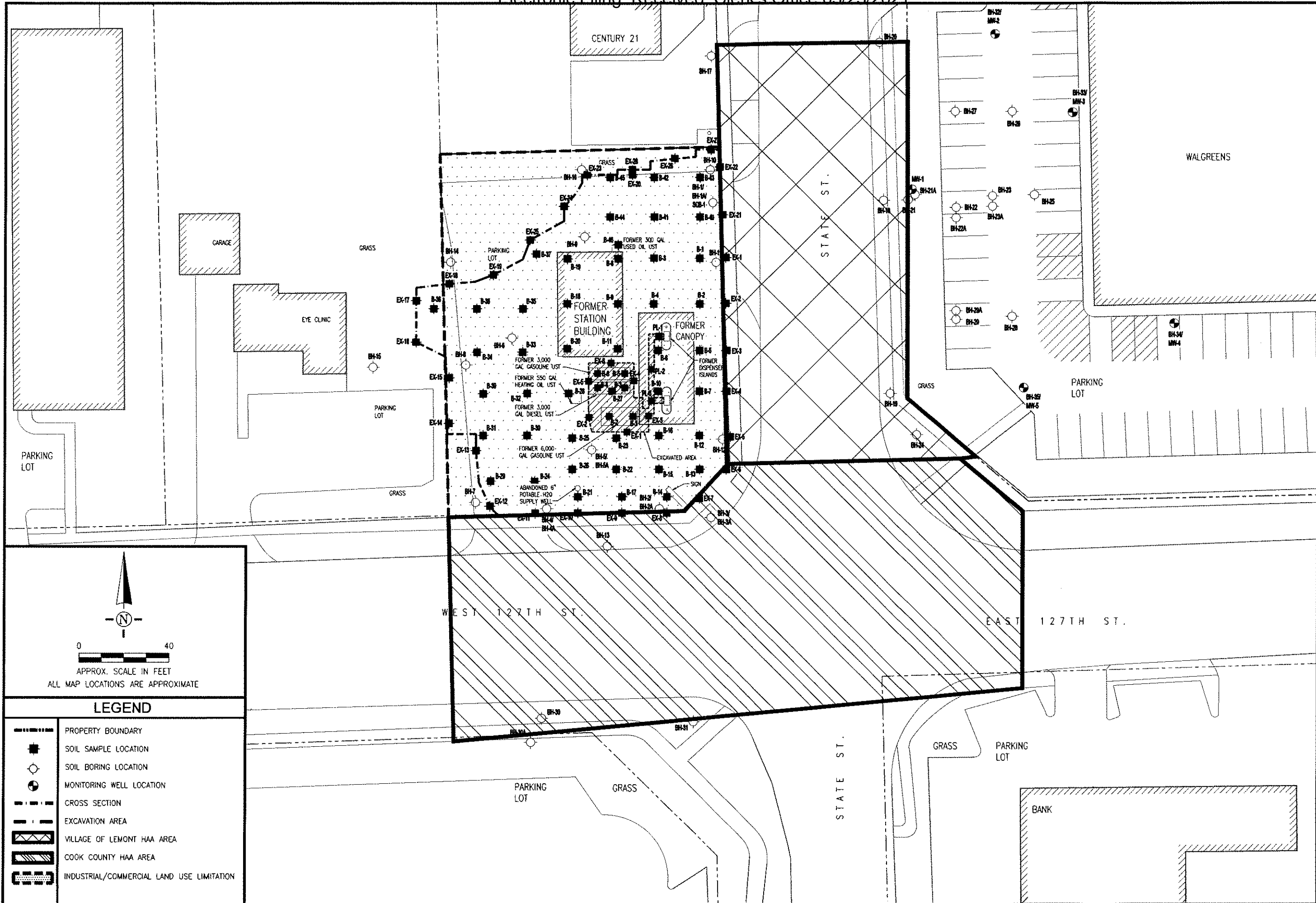
  
**TrCore Environmental, LLC**  
 1200 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 549-9911

**IMM LLC**  
 2801 Barkley Drive  
 Suite 5  
 Woodstock, IL 60094

**COMMUNITY WATER SUPPLY  
 WELL LOCATIONS AND BATTERY ZONES**  
 BOB, LLC  
 1188 STATE STREET  
 LEONARD, COOK COUNTY, IL 60439

DRAWN BY: SAM  
 APPROVED BY: MIC  
 SCALE: 1" = 50'  
 DATE: 10/15/2019  
 DRAWING FILE: MDT14-170

**FIGURE**  
**7**



0 40

APPROX. SCALE IN FEET  
ALL MAP LOCATIONS ARE APPROXIMATE

**LEGEND**

- PROPERTY BOUNDARY
- SOIL SAMPLE LOCATION
- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- CROSS SECTION
- EXCAVATION AREA
- VILLAGE OF LEMONT HAA AREA
- COOK COUNTY HAA AREA
- INDUSTRIAL/COMMERCIAL LAND USE LIMITATION

**TriCore Environmental, LLC**  
2368 Corporate Lane, Suite 116  
Naperville, IL 60563  
(630) 520-9973

**BOI, LLC**  
201 Danny's Drive  
Suite 5  
Streator, IL 61364

**PROPOSED INSTITUTIONAL CONTROLS**  
BOI, LLC  
1196 STATE STREET  
LEMONT, COOK COUNTY, IL 60439

DRAWN BY:	SAA
APPROVED BY:	MIC
SCALE:	1" = 40'
DATE:	10/15/2019
DRAWING FILE:	MD14-170

**FIGURE 8**

**TABLES**

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-1-A	9/18/03	7.5-8	0.316	0.430	6.31	13.2	
BH-1-B	9/18/03	14-14.5	<0.0289	<0.289	<0.289	<0.289	
BH-1-C	8/10/04	18	<0.002	<0.005	<0.005	<0.005	
BH-2-A	9/18/03	4.5-5	3.6000	0.293	5.730	4.030	
BH-2-B	8/10/04	13	0.0879	<0.005	<0.005	<0.005	
BH-2-C	8/10/04	23	<0.002	<0.005	<0.005	<0.005	
BH-3-A	9/18/03	6.5-7	<0.0286	<0.286	0.904	0.596	
BH-3-B	8/10/04	13	0.0293	<0.005	<0.005	<0.005	
BH-3-C	8/10/04	18	<0.002	<0.005	<0.005	<0.005	
BH-4-A	9/18/03	4.5-5	0.184	<0.309	0.309	<0.309	
BH-4-B	8/10/04	13	<0.002	<0.005	<0.005	<0.005	
BH-5-A	9/18/03	4.5-5	2.710	4.86	4.78	10.3	
BH-5-B	8/10/04	13	1.070	1.11	<0.005	0.522	
BH-5-C	8/10/04	24	<0.002	<0.005	<0.005	<0.005	
BH-6-A	8/2/05	5	0.0719	<0.005	<0.005	0.0054	
BH-6-B	8/2/05	9	1.060	1.090	1.91	8.1	
BH-6-C	8/2/05	15	<0.002	<0.005	<0.005	<0.005	
BH-6-D	8/2/05	18	0.0064	<0.005	<0.005	<0.005	
BH-7-A	8/2/05	4	<0.002	<0.005	<0.005	<0.005	
BH-7-B	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-7-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-7-D	8/2/05	18	<0.002	<0.005	<0.005	<0.005	
BH-8-A	8/2/05	3	<0.002	<0.005	<0.005	<0.005	
BH-8-B	8/2/05	9	0.459	<0.005	0.438	0.419	
BH-8-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-9-A	8/2/05	4	<0.002	<0.005	<0.005	<0.005	
BH-9-B	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-9-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-10-A	8/2/05	4	<0.030	0.0882	1.98	4.920	
BH-10-B	8/2/05	9	2.660	0.348	1.79	3.820	
BH-10-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	



Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bis)	Analytical Results				
BH-10-D	8/2/05	18-20	<0.002	<0.005	<0.005	<0.005	
BH-11-A	8/2/05	4	24.5	65.8	52.7	207.0	
BH-11-B	8/2/05	9	5.730	0.4	4.030	8.0	
BH-11-C	8/2/05	14	0.0045	0.0056	<0.005	0.0093	
BH-12-A	8/2/05	4	10.2	39.5	12.0	59.0	
BH-12-B	8/2/05	9	14.3	0.897	10.4	9.140	
BH-12-C	8/2/05	14	0.0126	0.0261	<0.005	0.0115	
BH-12-D	8/2/05	19	<0.002	<0.005	<0.005	<0.005	
BH-13-A	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-13-B	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-14-A	9/26/05	4-5	<0.002	<0.005	<0.005	<0.005	
BH-14-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-14-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-15-A	9/26/05	4.5	<0.002	<0.005	<0.005	<0.005	
BH-15-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-15-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-16-A	9/26/05	4.5	<0.002	<0.005	<0.005	<0.005	
BH-16-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-16-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-17-A	9/26/05	5	<0.002	<0.005	<0.005	<0.005	
BH-17-B	9/26/05	9	<0.002	<0.005	<0.005	<0.005	
BH-17-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-18-A	9/27/05	5.5	0.979	0.997	9.19	29.6	
BH-18-B	9/27/05	14.5	5.58	0.681	9.84	24.6	
BH-18-C	9/27/05	19	5.68	6.890	9.11	35.0	
BH-19-A	9/27/05	8	0.0057	<0.005	<0.005	0.0057	
BH-19-B	9/27/05	14	0.0159	0.0097	0.0397	0.0752	
BH-19-C	9/27/05	19	<0.002	<0.005	<0.005	<0.005	
BH-20-A	11/12/05	4	<0.002	<0.005	<0.005	<0.005	
BH-20-B	11/12/05	8	<0.002	<0.005	<0.005	<0.005	
BH-20-C	11/12/05	14	<0.002	<0.005	<0.005	<0.005	

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
EX-1	11/25/14	7-8	1.240	0.264	7.810	2.910	0.103 J
EX-2	11/25/14	7-8	6.330	3.200	35.900	54.500	0.655 J
EX-3	11/25/14	7-8	1.890	3.360	32.600	158.000	0.972 J
B-1	11/25/14	12-13	1.860	0.164	0.373	1.630	<0.0301
B-2	11/25/14	12-13	5.200	<0.244	1.460	2.790	<0.244
B-3	11/25/14	7-8	1.340	0.129	0.143	0.345	<0.0293
B-4	11/25/14	7-8	2.070	0.156	0.193	0.398	<0.0295
Backfill #1	11/25/14		5.750	1.400	24.600	7.880	0.450 J
PL-1	11/26/14	2.5-3	3.850	3.340	51.200	112.000	2.060
PL-2	11/26/14	2.5-3	14.100	4.180	96.000	269.000	1.640 J
PL-3	11/26/14	2.5-3	13.700	13.800	103.000	356.000	3.700
B-5	11/26/14	7-8	3.070	0.115	0.351	0.533	<0.0293
B-6	11/26/14	7-8	0.0481	<0.0293	0.0589	0.258	<0.0293
EX-4	11/26/14	4-5	1.460	0.724	13.800	25.700	0.157 J
EX-5	11/26/14	4-5	36.500	6.100	106.000	644.000	5.110 J
EX-6	11/26/14	4-5	9.330	4.990	90.200	159.000	1.790 J
Backfill #2	11/26/14		8.690	37.100	74.100	327.000	3.870
EX-1	4/22/15	7-8	5.010	0.995	7.800	18.400	<0.0294
EX-2	4/22/15	7-8	7.510	0.394	6.910	7.330	<0.0147
B-1	4/22/15	15.5	<0.0105	<0.0128	<0.0142	<0.0553	0.0234 J
B-2	4/22/15	16	<0.0111	<0.0135	<0.0150	<0.0585	0.123
B-3	4/22/15	16	<0.0106	<0.0129	<0.0143	<0.0558	0.0227 J
B-4	4/23/15	16.5	<0.0107	<0.0130	0.0172 J	<0.0560	0.122
B-5	4/23/15	15	0.0308	<0.0129	<0.0143	<0.0558	0.444
EX-3	4/23/15	7-8	9.380	0.462	11.000	20.300	0.0944 J
EX-4	4/23/15	7-8	7.700	0.815	11.900	9.910	0.186
B-6	4/24/15	19	<0.0115	<0.0288	<0.0288	<0.0864	0.388
B-7	4/24/15	19	<0.0113	<0.0283	<0.0283	<0.0849	0.0915
B-8	4/27/15	16	<0.0119	<0.0298	<0.0298	<0.0895	<0.0298
B-9	4/27/15	15	<0.0116	<0.0289	<0.0289	<0.0868	0.148
B-10	4/28/15	15.5	<0.0115	<0.0287	<0.0287	<0.0861	0.468

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
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SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
B-11	4/28/15	17	<0.0116	<0.0290	<0.0290	<0.0869	0.476
B-12	4/29/15	18	<0.0113	<0.0282	<0.0282	<0.0845	0.128
EX-5	4/29/15	4-5	14.500	105.000	44.800	221.000	0.885 J
EX-6	4/29/15	4-5	7.600	54.500	32.700	149.000	0.891 J
B-13	4/29/15	15.5	<0.0116	<0.0290	<0.0290	<0.0870	1.240
EX-7	4/30/15	4-5	3.120	0.808 J	36.800	76.200	<0.313
B-14	4/30/15	15.5	<0.0107	<0.0130	<0.0144	<0.0563	0.0337 J
EX-8	4/30/15	4-5	8.660	1.070	21.300	7.610	0.158J
B-15	5/1/15	15.5	<0.0107	<0.0130	<0.0144	<0.0560	0.0259 J
B-16	5/1/15	17.5	<0.0104	<0.0126	<0.0140	<0.0544	<0.0142
B-17	5/1/15	15.5	<0.0106	<0.0129	<0.0143	<0.0558	0.0561 J
EX-9	5/4/15	4-5	0.263	0.0508 J	4.790	0.619	<0.0328
B-18	5/4/15	15.5	<0.0108	<0.0131	<0.0146	<0.0567	0.137
B-19	5/4/15	15.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
B-20	5/4/15	14	0.187	<0.129	<0.0143	<0.0556	0.328
EX-10	5/6/15	8-9	2.310	0.130	1.400	0.636	<0.0290
B-21	5/6/15	15.5	<0.0111	<0.0135	0.0175 J	<0.0582	<0.0152
B-22	5/7/15	15.5	<0.0109	<0.0132	0.0175 J	<0.0570	<0.0149
B-23	5/7/15	15.5	<0.0109	<0.0133	<0.0147	<0.0573	0.318
B-24	5/8/15	9	<0.0104	<0.0127	<0.0140	<0.0546	0.0430 J
B-25	5/8/15	15.5	<0.0107	<0.0130	<0.0144	<0.0560	0.208
B-26	5/8/15	15	<0.0108	<0.0131	<0.0145	<0.0566	<0.0148
EX-11	5/8/15	3-4	0.305	<0.0144	<0.0159	<0.0620	<0.0162
EX-12	5/8/15	3-4	<0.0118	<0.0144	<0.0160	<0.0622	<0.0162
EX-13	5/13/15	4-5	<0.0114	<0.0139	<0.0154	<0.0599	<0.0157
B-27	5/13/15	14	<0.0108	<0.0131	<0.0145	<0.0566	0.395
B-29	5/13/15	9	<0.0108	<0.0131	<0.0146	<0.0567	0.0318 J
EX-14	5/14/15	4-5	<0.0118	<0.0143	<0.0158	<0.0617	<0.0161
B-28	5/14/15	13	<0.0106	<0.0129	<0.0143	<0.0559	0.206
B-30	5/14/15	11	<0.0106	<0.0129	<0.0143	<0.0559	0.0565 J
B-31	5/14/15	11	<0.0106	<0.0159	<0.0143	<0.0559	0.0226 J

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
EX-15	5/15/15	8-9	<0.0107	<0.0131	0.0207 J	0.0589 J	0.0392 J
B-32	5/15/15	11	<0.0107	<0.0130	<0.0144	<0.0562	0.302
B-33	5/15/15	11	<0.0107	<0.0130	<0.0144	<0.0561	0.241
B-34	5/15/15	11	<0.0109	<0.0133	<0.0147	<0.0573	0.0466 J
Overburden 1	5/15/15		<0.0112	<0.0137	<0.0151	<0.0590	<0.0154
B-35	5/18/15	12	<0.0107	<0.0130	0.0192 J	0.0576 J	0.570
EX-16	5/18/15	9-10	<0.0110	<0.0134	<0.0149	<0.0579	<0.0151
EX-17	5/18/15	9-10	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
B-36	5/18/15	12	<0.0108	<0.0131	<0.0145	<0.0565	0.0306 J
Overburden-2	5/18/15		<0.0109	<0.0132	<0.0146	<0.0571	<0.0149
B-37	5/19/15	14	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
B-38	5/19/15	14	<0.0107	<0.0131	<0.0145	<0.0565	0.411
B-39	5/19/15	12	<0.0103	<0.0125	<0.0139	<0.0541	0.0511 J
EX-18	5/19/15	3-4	<0.0120	<0.0146	<0.0162	<0.0632	<0.0165
EX-19	5/19/15	3-4	<0.0115	<0.0140	<0.0155	<0.0605	<0.0158
B-40	5/22/15	13	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
B-41	5/27/15	15	<0.0105	<0.0128	<0.0142	<0.0553	<0.0144
EX-20	5/27/15	3-4	<0.0127	<0.0154	<0.0171	<0.0666	<0.0174
EX-21	5/27/15	3-4	0.464	0.627	11.600	12.700	<0.0664
EX-22	5/27/15	4-5	<0.0310	<0.0378	2.140	2.410	<0.0426
B-42	5/27/15	12.5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
B-43	5/27/15	12.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
B-44	5/27/15	15	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
B-45	5/28/15	12.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
EX-23	5/28/15	8.5-9.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
EX-24	5/28/15	3-4	<0.0118	<0.0143	<0.0159	<0.0618	<0.0162
B-46	6/5/15	14.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0146
EX-25	6/5/15	10-11	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
EX-26	6/5/15	3.5-5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
EX-27	6/5/15	8.5-9.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0146
EX-28	6/8/15	3-4	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
EX-28	6/8/15	8-9	<0.0106	<0.0130	<0.0144	<0.0559	<0.0146
BH-21	6/17/15	10-12.5	1.200	0.362	12.700	15.200	<0.0729
BH-22	9/8/15	7.5-10	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-22	9/8/15	25.5-27	7.650	1.260	0.0313 J	<0.110	<0.0288
BH-23	9/8/15	25-26.5	0.0428 J	0.547	2.900	17.000	<0.0376
BH-23	9/8/15	28.5-30	0.0483	<0.0130	<0.0144	<0.0562	<0.0147
BH-24	9/8/15	4-6	<0.0279	<0.0339	0.0593 J	<0.146	<0.0383
BH-24	9/8/15	13.5-15	<0.0112	<0.0136	<0.0151	<0.0587	<0.0153
BH-22A	9/14/16	2.5-5	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
BH-22A	9/14/16	10-12.5	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-22A	9/14/16	15-17.5	<0.0110	<0.0134	<0.0149	<0.0580	<0.0151
BH-22A	9/14/16	20-23	<0.109	1.990	27.800	70.600	<0.150
BH-23A	9/14/16	2.5-5	<0.0130	<0.0158	<0.0176	<0.0684	<0.0179
BH-23A	9/14/16	5-7.5	<0.0114	<0.0139	<0.0154	<0.0600	<0.0157
BH-23A	9/14/16	10-12.5	<0.0107	0.0153 J	<0.0144	<0.0561	<0.0147
BH-23A	9/14/16	15-17.5	<0.0108	<0.0132	<0.0146	<0.0568	<0.0148
BH-23A	9/14/16	21.5-22.5	<0.0110	<0.0133	<0.0148	<0.0576	<0.0150
BH-23A	9/14/16	31-32.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-23A	9/14/16	32.5-35	<0.0118	<0.0144	<0.0159	<0.0621	<0.0162
BH-26	9/14/16	1-2.5	<0.0113	<0.0138	<0.0153	<0.0596	<0.0156
BH-26	9/14/16	7.5-10	<0.0107	0.0135 J	<0.0144	<0.0561	<0.0147
BH-26	9/14/16	10-12.5	<0.0111	<0.0136	<0.0150	<0.0585	<0.0153
BH-26	9/14/16	17.5-20	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-26	9/14/16	20-22.5	<0.0106	<0.0129	<0.0143	<0.0557	<0.0146
BH-26	9/14/16	27.5-29.25	0.0756	<0.0133	<0.0148	<0.0575	<0.0150
BH-27	9/14/16	2.5-5	<0.0117	0.0168 J	<0.0158	<0.0616	<0.0161
BH-27	9/14/16	7.5-10	<0.0107	<0.0130	<0.0144	<0.00563	<0.0147
BH-27	9/14/16	12.5-15	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-27	9/14/16	17.5-20	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
BH-27	9/14/16	22.5-25	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-27	9/14/16	27.5-30	<0.0101	<0.0123	<0.0137	<0.0533	<0.0139
BH-27	9/14/16	30-32.5	<0.0105	<0.0127	<0.0141	<0.0127	<0.0144
BH-21A	9/15/16	0.5-2.5	<0.0110	<0.0133	<0.0148	<0.0575	<0.0150
BH-21A	9/15/16	7.5-10	0.0398	<0.0128	0.0505 J	0.0807 J	<0.0144
BH-21A	9/15/16	15-17.5	4.100	8.830	9.310	35.500	<0.0367
BH-21A	9/15/16	20-22.5	1.080	0.147	0.918	0.685	<0.0149
BH-21A	9/15/16	25-27.5	4.890	0.0134 J	<0.0146	<0.0568	<0.0148
BH-21A	9/15/16	30-32.5	0.0109 J	<0.0128	<0.0142	<0.0552	<0.014
BH-25	9/15/16	2.5-5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-25	9/15/16	7.5-10	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-25	9/15/16	10-12.5	<0.0107	0.0220 J	<0.0144	<0.0560	<0.0146
BH-25	9/15/16	17.5-20	<0.0108	<0.0132	<0.0146	<0.0568	<0.0149
BH-25	9/15/16	20-22.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-25	9/15/16	25-26.5	0.0266	<0.0132	<0.0147	<0.0571	<0.0149
BH-25	9/15/16	30-32.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-28	9/15/16	2.5-5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-28	9/15/16	5-7.5	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
BH-28	9/15/16	12.5-15	0.0541	0.263	3.300	3.600	<0.0147
BH-28	9/15/16	15-17.5	0.0345	0.106	2.000	0.860	<0.0143
BH-28	9/15/16	20-22.5	0.0928	0.200	3.070	3.050	<0.0151
BH-28	9/15/16	25-27.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-29	9/15/16	2.5-5	<0.0116	<0.0142	<0.0157	<0.0612	<0.0160
BH-29	9/15/16	7.5-10	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-29A	9/15/16	10-12.5	<0.0108	<0.0132	<0.0146	<0.0570	<0.0149
BH-29A	9/15/16	15-20	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-29A	9/15/16	22.5-25	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
BH-29A	9/15/16	27.5-30	<0.0105	<0.0128	<0.0142	<0.0554	<0.0145
BH-29A	9/15/16	32.5-35	<0.0107	<0.0131	<0.0145	<0.0563	<0.0147
BH-30	9/26/16	2.5-5	<0.0105	<0.0128	<0.0142	<0.0553	<0.0145
BH-30	9/26/16	7.5-10	<0.0110	<0.0133	<0.0148	<0.0576	<0.0151
BH-30	9/26/16	12.5-15	<0.0106	<0.0129	<0.0143	<0.0557	<0.0146

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-30	9/26/16	15-17.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-30A	9/26/16	22.5-25	<0.0103	<0.0125	<0.0139	<0.0541	<0.0141
BH-30A	9/26/16	27.5-30	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-31	9/26/16	2.5-5	<0.0114	<0.0139	<0.0154	<0.0600	<0.0157
BH-31	9/26/16	5-7.5	<0.0123	<0.0150	0.121	5.680	<0.0169
BH-31	9/26/16	12.5-15	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
BH-31	9/26/16	15-17.5	<0.0105	<0.0127	<0.0141	<0.0550	<0.0144
BH-31	9/26/16	22.5-25	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
BH-31	9/26/16	25-27.5	<0.0109	<0.0132	<0.0147	<0.0571	<0.0149
BH-32	7/5/17	2.5-5	<0.0116	<0.0141	<0.0156	<0.0610	<0.0159
BH-32	7/5/17	5-7.5	<0.0113	<0.0137	<0.0152	<0.0591	<0.0154
BH-32	7/5/17	12.5-15	<0.0109	<0.0132	<0.0147	<0.0571	<0.0149
BH-32	7/5/17	15-17.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-32	7/5/17	20-22.5	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
BH-32	7/5/17	27.5-30	<0.0105	<0.0128	0.0154 J	<0.0553	<0.0144
BH-32	7/5/17	30-30.5	<0.0111	<0.0136	<0.0150	<0.0585	<0.0153
BH-33	7/5/17	2.5-5	<0.0112	<0.0137	<0.0151	<0.0590	<0.0154
BH-33	7/5/17	7.5-10	<0.0114	<0.0139	<0.0154	<0.0601	<0.0157
BH-33	7/5/17	12.5-15	<0.0111	<0.0135	<0.0149	<0.0581	<0.0152
BH-33	7/5/17	15-17.5	<0.0110	<0.0134	<0.0149	<0.0579	<0.0151
BH-33	7/5/17	22.5-25	<0.0107	<0.0131	<0.0145	<0.0563	<0.0147
BH-33	7/5/17	25-27.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-34	7/6/17	0.75-2.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
BH-34	7/6/17	7.5-10	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-34	7/6/17	10-12.5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-34	7/6/17	17.5-20	<0.0108	<0.0131	<0.0145	<0.0567	<0.0148
BH-34	7/6/17	20-22.5	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-34	7/6/17	25-27.5	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
BH-34	7/6/17	30-32.5	<0.0105	<0.0128	<0.0141	<0.0551	<0.0144
BH-35	7/6/17	0.5-2.5	<0.0128	<0.0156	<0.0173	<0.0675	<0.0176
BH-35	7/6/17	7.5-10	<0.0109	<0.0132	<0.0147	<0.0572	<0.0149

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			<b>12</b>	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			<b>0.8</b>	650	400	320	8,800
Inhalation - Industrial/Commercial			<b>1.6</b>	650	400	320	8,800
Inhalation - Construction Worker			<b>2.2</b>	<b>42</b>	58	<b>5.6</b>	140
SCGIER - Class I Groundwater			<b>0.03</b>	<b>12</b>	<b>13</b>	<b>150</b>	<b>0.32</b>
SCGIER - Class II Groundwater			<b>0.17</b>	<b>29</b>	<b>19</b>	<b>150</b>	<b>0.32</b>
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-35	7/6/17	12.5-15	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-35	7/6/17	15-17.5	<0.0110	<0.0134	<0.0148	<0.0578	<0.0151
BH-35	7/6/17	20-22.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-35	7/6/17	25-27.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-35	7/6/17	30-35	<0.0104	<0.0127	<0.0141	<0.0548	<0.0143

## Notes:

- 1) **Bold** = detected concentration exceeds a Tier 1 SRO listed in 35 IAC Part 742
- 2) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
- 3) Shaded cells = not applicable, not analyzed, or sample location was excavated
- 4) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit



Table 2

Soil Analytical Results - PAHs

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
EX-1	11/25/14	7-8	<0.0992	<0.0887	<0.103	<0.0687	<0.0709	<0.0992	<0.0755	<0.110	<0.0917	<0.0727	<0.0992	<0.0992	<0.0754	3.330	<0.0992	<0.0992
EX-2	11/25/14	7-8	<0.213	<0.190	<0.221	<0.147	<0.152	<0.213	<0.162	<0.235	<0.197	<0.156	<0.213	<0.213	<0.162	5.470	<0.213	<0.213
EX-3	11/25/14	7-8	<0.504	<0.451	<0.523	<0.350	<0.361	<0.504	<0.384	<0.558	<0.466	<0.370	<0.504	<0.504	<0.383	14.500	<0.504	<0.504
B-1	11/25/14	12-13	<0.0500	<0.0447	<0.0518	<0.0346	<0.0357	<0.0500	<0.0381	<0.0553	<0.0462	<0.0367	<0.0500	<0.0500	<0.0380	1.750	<0.0500	<0.0500
B-2	11/25/14	12-13	<0.0504	<0.0451	<0.0522	<0.0349	<0.0360	<0.0504	<0.0384	<0.0557	<0.0466	<0.0369	<0.0504	<0.0504	<0.0383	1.180	<0.0504	<0.0504
B-3	11/25/14	7-8	<0.0489	<0.0437	<0.0507	<0.0339	<0.0350	<0.0489	<0.0372	<0.0541	<0.0452	<0.0359	<0.0489	<0.0489	<0.0371	1.070	<0.0489	<0.0489
B-4	11/25/14	7-8	<0.0492	<0.0440	<0.0510	<0.0341	<0.0352	<0.0492	<0.0374	<0.0544	<0.0455	<0.0361	<0.0492	<0.0492	<0.0374	0.875	<0.0492	<0.0492
Backfill #1	11/25/14		<0.108	<0.0963	<0.112	<0.0746	<0.0770	<0.108	<0.0820	<0.119	<0.0995	<0.0789	<0.108	<0.108	<0.0818	3.420	<0.108	<0.108
PL-1	11/26/14	2.5-3	<0.435	<0.389	<0.451	<0.301	<0.311	<0.435	<0.331	<0.481	<0.402	<0.319	<0.435	<0.435	<0.330	8.440	<0.435	<0.435
PL-2	11/26/14	2.5-3	<0.432	<0.386	<0.448	<0.299	<0.309	<0.432	<0.329	<0.478	<0.399	<0.317	<0.432	<0.432	<0.328	15.000	<0.432	<0.432
PL-3	11/26/14	2.5-3	<0.140	<0.125	<0.145	<0.0972	<0.100	<0.140	<0.107	<0.155	<0.130	<0.103	<0.140	<0.140	<0.107	6.710	<0.140	<0.140
B-5	11/26/14	7-8	<0.0782	<0.0700	<0.0811	<0.0542	<0.0559	<0.0782	<0.0596	<0.0866	<0.0723	<0.0574	<0.0782	<0.0782	<0.0594	2.160	<0.0782	<0.0782
B-6	11/26/14	7-8	<0.010	<0.0089	<0.0103	<0.0069	<0.0071	<0.010	<0.0076	<0.0110	<0.0092	<0.0073	<0.010	<0.010	<0.0076	0.296	<0.010	<0.010
EX-4	11/26/14	4-5	<0.127	<0.114	<0.132	<0.0880	<0.0908	<0.127	<0.0967	<0.140	<0.117	<0.0931	<0.127	<0.127	<0.0965	8.600	<0.127	<0.127
EX-5	11/26/14	4-5	<0.427	<0.382	<0.443	<0.296	<0.306	<0.427	<0.325	<0.473	<0.395	<0.313	<0.427	<0.427	<0.325	20.700	<0.427	<0.427
EX-6	11/26/14	4-5	<0.431	<0.386	<0.447	<0.299	<0.309	<0.431	<0.329	<0.478	<0.399	<0.317	<0.431	<0.431	<0.328	20.900	<0.431	<0.431
Backfill #2	11/26/14		<0.0497	<0.0445	<0.0515	<0.0344	<0.0355	<0.0497	<0.0378	<0.0550	<0.0459	<0.0364	<0.0497	<0.0497	<0.0377	0.962	<0.0497	<0.0497
EX-1	4/22/15	7-8	<0.0483	<0.0432	<0.0501	<0.0335	<0.0346	<0.0483	<0.0368	<0.0535	<0.0447	<0.0355	<0.0483	<0.0483	<0.0367	1.240	<0.0483	<0.0483
EX-2	4/22/15	7-8	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	0.777	<0.0097	<0.0097
B-1	4/22/15	15.5	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	<0.0095	<0.0095
B-2	4/22/15	16	<0.0101	<0.0090	<0.0104	<0.0070	<0.0072	<0.0101	<0.0077	<0.0111	<0.0093	<0.0074	0.0107 J	<0.0101	<0.0076	<0.0101	0.0137 J	<0.0101
B-3	4/22/15	16	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0119 J	<0.0096

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracen (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>b)</sup>	2.1 <sup>b)</sup>	2.1 <sup>b)</sup>	2,300	9	88	0.42 <sup>b)</sup>	3,100	3,100	1.6 <sup>b)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-4	4/23/15	16.5	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-5	4/23/15	15	<0.0096	<0.0086	<0.0099	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0102 J	<0.0096
EX-3	4/23/15	7-8	<0.0956	<0.0855	<0.0991	<0.0663	<0.0684	<0.0956	<0.0728	<0.106	<0.0884	<0.0701	<0.0956	<0.0956	<0.0726	<b>3.890</b>	<0.0956	<0.0956
EX-4	4/23/15	7-8	<0.0482	<0.0431	<0.0500	<0.0334	<0.0345	<0.0482	<0.0367	<0.0533	<0.0446	<0.0353	<0.0482	<0.0482	<0.0366	<b>2.100</b>	<0.0482	<0.0482
B-6	4/24/15	19	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-7	4/24/15	19	<0.0094	<0.0084	<0.0098	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0072	<0.0094	<0.0094	<0.0094
B-8	4/27/15	16	<0.0099	<0.0089	<0.0103	<0.0069	<0.0071	<0.0099	<0.0076	<0.0110	<0.0092	<0.0073	<0.0099	<0.0099	<0.0076	<0.0099	<0.0099	<0.0099
B-9	4/27/15	15	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	0.0118 J	<0.0096
B-10	4/28/15	15.5	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0088	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0132 J	<0.0096
B-11	4/28/15	17	<0.0097	<0.0086	<0.0100	0.0110 J	0.0090 J	0.0110 J	0.0088 J	<0.0107	0.0191 J	<0.0071	0.0252	<0.0097	<0.0073	0.0308	0.0182 J	0.0236
B-12	4/29/15	18	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
EX-5	4/29/15	4-5	<0.391	<0.350	<0.405	<0.271	<0.279	<0.391	<0.298	<0.432	<0.361	<0.287	<0.391	<0.391	<0.297	<b>9.120</b>	<0.391	<0.391
EX-6	4/29/15	4-5	<0.391	<0.350	<0.405	<0.271	<0.280	<0.391	<0.298	<0.433	<0.362	<0.287	<0.391	<0.391	<0.297	<b>10.900</b>	<0.391	<0.391
B-13	4/29/15	15.5	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	0.0129 J	<0.0097
EX-7	4/30/15	4-5	<0.103	<0.0923	<0.107	<0.0715	<0.0737	<0.103	<0.0785	<0.114	<0.0954	<0.0756	<0.103	<0.0103	<0.0783	<b>3.290</b>	<0.103	<0.103
B-14	4/30/15	15.5	<0.0097	<0.0087	<0.010	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-8	4/30/15	4-5	<0.197	<0.176	<0.204	<0.136	<0.141	<0.197	<0.150	<0.218	<0.182	<0.144	<0.197	<0.197	<0.149	<b>3.750</b>	<0.197	<0.197
B-15	5/1/15	15.5	<0.0193	<0.0172	<0.0200	<0.0134	<0.0138	<0.0193	<0.0147	<0.0213	<0.0178	<0.0141	<0.0193	<0.0193	<0.0146	0.0230 J	<0.0193	<0.0193
B-16	5/1/15	17.5	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0071	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
B-17	5/1/15	15.5	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0099 J	<0.0096
EX-9	5/4/15	4-5	<0.0865	<0.0774	<0.0897	<0.0600	<0.0619	0.108 J	<0.0659	<0.0957	<0.0800	<0.0635	<0.0865	<0.0865	<0.0657	<b>1.970</b>	<0.0865	<0.0865
B-18	5/4/15	15.5	<0.0098	<0.0087	<0.0101	<0.0068	<0.0070	<0.0098	<0.0074	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracen (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>b)</sup>	2.1 <sup>b)</sup>	2.1 <sup>b)</sup>	2,300	9	88	0.42 <sup>b)</sup>	3,100	3,100	1.6 <sup>b)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-19	5/4/15	15.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-20	5/4/15	14	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-10	5/6/15	8-9	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	0.0169 J	<0.0073	<0.0106	<0.0088	<0.0070	0.0104 J	<0.0095	<0.0073	<0.0753	<0.0095	<0.0095
B-21	5/6/15	15.5	<0.0100	<0.0090	<0.0104	<0.0069	<0.0072	0.0130 J	<0.0076	<0.00111	<0.0093	<0.0073	<0.0100	<0.0100	<0.0076	<0.00100	<0.00100	<0.00100
B-22	5/7/15	15.5	<0.0098	<0.0088	<0.0102	<0.068	<0.0070	<0.0128 J	0.0075	<0.0109	<0.0091	<0.0072	<0.0098	<0.0098	<0.0075	<0.0098	<0.0098	<0.0098
B-23	5/7/15	15.5	<0.0099	<0.0088	<0.0102	<0.068	<0.0071	0.0128 J	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099
B-24	5/8/15	9	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
B-25	5/8/15	15.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	0.0165 J	<0.0096
B-26	5/8/15	15	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	0.0097 J	<0.0097
EX-11	5/8/15	3-4	<0.0107	<0.0096	<0.0111	0.0094 J	0.0115 J	0.0141 J	0.0100 J	<0.0118	0.0178 J	<0.0078	0.0246	<0.0107	0.0084 J	<0.0107	<0.0107	0.0193 J
EX-12	5/8/15	3-4	<0.0107	<0.0096	<0.0111	<0.0074	<0.0076	<0.0107	<0.0081	<0.0118	<0.0099	<0.0078	<0.0107	<0.0107	<0.0081	<0.0107	<0.0107	<0.0107
EX-13	5/13/15	4-5	<0.0103	<0.0092	<0.0107	<0.0072	<0.0074	<0.0103	<0.0079	<0.0114	<0.0095	<0.0076	<0.0103	<0.0103	<0.0078	<0.0103	<0.0103	<0.0103
B-27	5/13/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	0.0097	<0.0097
B-29	5/13/15	9	<0.0098	<0.0087	<0.0101	<0.0068	<0.0070	<0.0098	<0.0074	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098
EX-14	5/14/15	4-5	<0.0106	<0.0095	<0.0110	0.0101 J	0.0157 J	0.0175 J	0.0168 J	0.0159 J	0.0201 J	<0.0078	0.0384	<0.0106	0.0137 J	<0.0106	0.0183 J	0.0276
B-28	5/14/15	13	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-30	5/14/15	11	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-31	5/14/15	11	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	0.0135 J	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-15	5/15/15	8-9	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.007	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-32	5/15/15	11	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-33	5/15/15	11	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-34	5/15/15	11	<0.0099	<0.0088	<0.0102	<0.0068	<0.0071	<0.0099	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracen (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>b)</sup>	2.1 <sup>b)</sup>	2.1 <sup>b)</sup>	2,300	9	88	0.42 <sup>b)</sup>	3,100	3,100	1.6 <sup>b)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
Overburden 1	5/15/15		<0.0203	<0.0182	<0.0211	0.0410	0.0476	0.0432	0.0410	0.0470	0.0505	<0.0149	0.0948	<0.0203	0.0360 J	0.691	0.0417	0.0748
B-35	5/18/15	12	<0.0097	<0.0087	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-16	5/18/15	9-10	<0.010	<0.0089	<0.0103	<0.0069	<0.0071	<0.010	<0.0076	<0.0110	<0.0092	<0.0073	<0.010	<0.010	<0.0076	<0.010	<0.010	<0.010
EX-17	5/18/15	9-10	<0.0097	<0.0087	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-36	5/18/15	12	<0.0097	<0.0087	<0.0100	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	0.0729	<0.0097	<0.0097
Overburden-2	5/18/15		<0.0098	<0.0088	0.0113 J	0.0478	0.0659	0.0726	0.0609	0.0690	0.0759	0.0154 J	0.135	<0.0098	0.0495	0.0208	0.0582	0.110
B-37	5/19/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-38	5/19/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-39	5/19/15	12	<0.0093	<0.0083	<0.0097	<0.0065	<0.0067	<0.0093	<0.0071	<0.0103	<0.0086	<0.0068	<0.0093	<0.0093	<0.0071	<0.0093	<0.0093	<0.0093
EX-18	5/19/15	3-4	<0.0109	<0.0097	<0.0113	0.0250	0.0282	0.0300	0.0226	0.0274	0.0345	<0.0080	0.0825	<0.0109	0.0200 J	<0.0109	0.0379	0.0564
EX-19	5/19/15	3-4	<0.0104	<0.0093	<0.0108	<0.0072	<0.0074	<0.0104	<0.0079	<0.0115	<0.0096	<0.0076	<0.0104	<0.0104	<0.0079	<0.0104	<0.0104	<0.0104
B-40	5/22/15	13	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-41	5/27/15	15	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	0.0118 J	<0.0095
EX-20	5/27/15	3-4	<0.0015	<0.0103	0.0433	0.296	0.365	0.471	0.295	0.339	0.429	0.0951	0.567	<0.0115	0.257	0.0398	0.126	0.494
EX-21	5/27/15	3-4	<0.0700	<0.0626	<0.0726	<0.0485	<0.0500	<0.0700	<0.0533	<0.0774	<0.0647	<0.0513	<0.0700	<0.0700	<0.0532	1.210	<0.0700	<0.0700
EX-22	5/27/15	4-5	<0.0112	<0.0100	<0.0116	<0.0078	<0.0080	<0.0112	<0.0085	<0.0124	<0.0104	<0.0082	<0.0112	<0.0112	<0.0085	0.367	<0.0112	<0.0112
B-42	5/27/15	12.5	<0.0098	<0.0088	<0.0102	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0091	<0.0072	<0.0098	<0.0098	<0.0074	0.0322	<0.0098	<0.0098
B-43	5/27/15	12.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-44	5/27/15	15	<0.0097	<0.0087	<0.0100	0.0083 J	0.0113 J	0.0130 J	0.0086 J	<0.0107	0.0136 J	<0.0071	0.0124 J	<0.0097	<0.0074	<0.0097	<0.0097	0.0116 J
B-45	5/28/15	12.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-23	5/28/15	8.5-9.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-24	5/28/15	3-4	<0.0106	<0.0095	<0.0110	0.0286	0.0374	0.0401	0.0361	0.0394	0.0432	0.0100 J	0.0795	<0.0106	0.0307	0.0506	0.0190 J	0.0721

Table 2

Soil Analytical Results - PAHs

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-46	6/5/15	14.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-25	6/5/15	10-11	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0088	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-26	6/5/15	3.5-5	<0.0098	<0.0088	<0.0101	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098
EX-27	6/5/15	8.5-9.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-28	6/8/15	3-4	<0.0099	<0.0088	<0.0102	<0.0068	<0.0070	<0.0099	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099
EX-28	6/8/15	8-9	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
BH-21	6/17/15	10-12.5	<0.0768	<0.0687	<0.0797	<0.0533	<0.0549	<0.0768	<0.0585	<0.0850	<0.0710	<0.0564	<0.0768	<0.0768	<0.0584	1.440	<0.0768	<0.0768
BH-22	9/8/15	7.5-10	<0.0098	<0.0088	<0.0101	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0091	<0.0072	<0.0098	<0.0098	<0.0074	0.0674	<0.0098	<0.0098
BH-22	9/8/15	25.5-27	<0.0095	<0.0085	<0.0098	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	<0.0095	<0.0095
BH-23	9/8/15	25-26.5	<0.0099	<0.0089	<0.0103	<0.0069	<0.0071	<0.0099	<0.0075	<0.0109	<0.0091	<0.0073	<0.0099	<0.0099	<0.0075	0.0156 J	<0.0099	<0.0099
BH-23	9/8/15	28.5-30	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
BH-24	9/8/15	4-6	<0.0101	<0.0090	<0.0104	<0.0070	<0.0072	<0.0101	<0.0077	<0.0112	<0.0093	<0.0074	<0.0101	<0.0101	<0.0077	0.153	<0.0101	<0.0101
BH-24	9/8/15	13.5-15	<0.0101	<0.0090	<0.0105	<0.0070	<0.0072	<0.0101	<0.0077	<0.0112	<0.0093	<0.0074	<0.0101	<0.0101	<0.0077	<0.0101	<0.0101	<0.0101
BH-22A	9/14/16	2.5-5	<0.0046	<0.0039	<0.0068	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0062	<0.0049	<0.0026	<0.010	<0.0138	<0.0053
BH-22A	9/14/16	10-12.5	<0.0045	<0.0038	<0.0066	0.0048 J	0.0052 J	0.0076 J	0.0041 J	0.0064 J	0.0132	<0.0026	0.0152 J	<0.0048	0.0034 J	<0.0097	0.0172 J	0.0111 J
BH-22A	9/14/16	15-17.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	0.0034 J	0.0041 J	<0.0030	0.0084 J	<0.0027	<0.0062	<0.0050	<0.0026	0.0937	0.0146 J	<0.0054
BH-22A	9/14/16	20-23	<0.0046	<0.0039	<0.0068	<0.0037	0.0034 J	0.0058 J	0.0039 J	<0.0030	0.0131 J	<0.0026	0.0076 J	<0.0049	<0.0026	0.165	<0.0138	0.0075 J
BH-23A	9/14/16	2.5-5	<0.0055	<0.0047	<0.0081	<0.0045	<0.0035	<0.0040	<0.0029	<0.0035	<0.0048	<0.0032	<0.0074	<0.0058	<0.0031	<0.0119	<0.0165	<0.0064
BH-23A	9/14/16	5-7.5	<0.0048	<0.0041	<0.0071	<0.0039	<0.0031	<0.0035	<0.0025	<0.0031	<0.0042	<0.0028	<0.0064	<0.0051	<0.0027	<0.0104	<0.0144	<0.0056
BH-23A	9/14/16	10-12.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0070 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-23A	9/14/16	15-17.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0050 J	<0.0026	0.0075 J	<0.0049	<0.0026	<0.0099	<0.0137	0.0056 J
BH-23A	9/14/16	21.5-22.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054

Table 2

Soil Analytical Results - PAHs

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>b)</sup>	2.1 <sup>b)</sup>	2.1 <sup>b)</sup>	2,300	9	88	0.42 <sup>b)</sup>	3,100	3,100	1.6 <sup>b)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-23A	9/14/16	31-32.5	<0.0045	<0.0038	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0061	<0.0048	<0.0026	<0.0098	<0.0136	<0.0053
BH-23A	9/14/16	32.5-35	<0.0050	<0.0042	<0.0073	0.0068 J	0.0115	0.0221	0.0157	0.0149	0.0201	0.0035 J	0.0187 J	<0.0053	0.0116	<0.0108	<0.0149	0.0134 J
BH-26	9/14/16	1-2.5	<0.0048	0.0310	0.0281	0.0771	0.0974	0.0896	0.0565	0.109	0.0974	0.0217	0.125	<0.0051	0.0544	<0.0104	0.0349 J	0.109
BH-26	9/14/16	7.5-10	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0040 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-26	9/14/16	10-12.5	<0.0047	<0.0040	<0.0069	<0.0038	<0.0030	<0.0034	<0.0025	<0.0030	0.0047 J	<0.0027	<0.0063	<0.0050	<0.0027	<0.0102	<0.0141	<0.0055
BH-26	9/14/16	17.5-20	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0038 J	<0.0029	0.0049 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0141 J	<0.0052
BH-26	9/14/16	20-22.5	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0032	0.0027 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-26	9/14/16	27.5-29.25	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	0.0035 J	<0.0030	<0.0040	<0.0027	<0.0062	<0.00049	<0.0026	<0.0100	<0.0138	<0.0054
BH-27	9/14/16	2.5-5	<0.0049	<0.0042	<0.0073	<0.0040	<0.0032	<0.0036	<0.0026	<0.00032	<0.0043	<0.0028	<0.0066	<0.0053	<0.0028	<0.0107	<0.0148	<0.0057
BH-27	9/14/16	7.5-10	<0.0045	0.0051 J	0.0130 J	0.0238	0.0269	0.0272	0.0184	0.0256	0.0329	0.0064 J	0.0462	<0.0048	0.0168	0.0166 J	0.0371 J	0.0385
BH-27	9/14/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0023	<0.0029	0.0083 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0143 J	<0.0052
BH-27	9/14/16	17.5-20	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	0.0041 J	0.0088	<0.0029	0.0108 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0097	0.0304 J	0.0063 J
BH-27	9/14/16	22.5-25	<0.0045	<0.0038	<0.0066	0.0042 J	0.0046 J	0.0058 J	0.0060 J	0.0044 J	0.0121 J	<0.0026	0.0119 J	<0.0048	<0.00025	<0.0097	<0.0135	0.0116 J
BH-27	9/14/16	27.5-30	<0.0043	<0.0036	<0.0063	<0.0035	<0.0028	<0.0031	0.0044 J	<0.0028	0.0089 J	<0.0025	<0.0057	<0.0046	<0.0024	<0.0093	<0.0128	<0.0050
BH-27	9/14/16	30-32.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0029	<0.0032	0.0039 J	<0.0028	0.0084 J	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	<0.0132	<0.0051
BH-21A	9/15/16	0.5-2.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054
BH-21A	9/15/16	7.5-10	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	0.0138 J	<0.0133	<0.0051
BH-21A	9/15/16	15-17.5	<0.0180	<0.0153	<0.0265	<0.0147	<0.0117	<0.0131	<0.0094	<0.0116	<0.0157	<0.0104	<0.0242	<0.0192	<0.0102	1.750	<0.0541	<0.0209
BH-21A	9/15/16	20-22.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	0.0040 J	<0.0026	<0.0061	<0.0049	<0.0026	0.303	<0.0137	<0.0053
BH-21A	9/15/16	25-27.5	<0.0045	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-21A	9/15/16	30-32.5	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	<0.0133	<0.0051
BH-25	9/15/16	2.5-5	<0.0045	<0.0038	<0.0066	0.0068 J	0.0043 J	0.0050 J	0.0029 J	0.0048 J	0.0095 J	<0.0026	0.0289	<0.0048	<0.0025	<0.0097	0.0227 J	0.0189

Table 2

Soil Analytical Results - PAHs

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>(b)</sup>	2.1 <sup>(b)</sup>	2.1 <sup>(b)</sup>	2,300	9	88	0.42 <sup>(b)</sup>	3,100	3,100	1.6 <sup>(b)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>(b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-25	9/15/16	7.5-10	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	0.0035 J	0.0024 J	<0.0029	0.0098 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-25	9/15/16	10-12.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	0.0045 J	<0.0024	<0.0029	0.0122 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0160 J	<0.0052
BH-25	9/15/16	17.5-20	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-25	9/15/16	20-22.5	<0.0045	<0.0038	<0.0066	0.0039 J	<0.0029	<0.0033	0.0030 J	<0.0029	0.0051 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-25	9/15/16	25-26.5	<0.0046	<0.0039	<0.0067	0.0040 J	<0.0030	<0.0033	0.0033 J	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-25	9/15/16	30-32.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	2.5-5	<0.0045	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-28	9/15/16	5-7.5	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	12.5-15	<0.0045	<0.0038	<0.0066	0.0039 J	<0.0029	<0.0033	<0.0024	<0.0029	0.0045 J	<0.0026	<0.0060	<0.0048	<0.0026	0.262	<0.0135	<0.0052
BH-28	9/15/16	15-17.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0028	<0.0032	<0.0023	<0.0028	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	0.137	<0.0132	<0.0051
BH-28	9/15/16	20-22.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	0.309	<0.0139	<0.0054
BH-28	9/15/16	25-27.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0024 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-29	9/15/16	2.5-5	<0.0049	<0.0042	<0.0072	0.0050 J	0.0034 J	0.0062 J	0.0032 J	<0.0032	0.0053 J	<0.0028	0.0108 J	<0.0052	<0.0028	<0.0106	<0.0147	0.0078 J
BH-29	9/15/16	7.5-10	<0.0045	<0.0038	<0.0066	0.0037 J	<0.0029	0.0033 J	<0.0024	<0.0029	0.0043 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-29A	9/15/16	10-12.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-29A	9/15/16	15-20	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-29A	9/15/16	22.5-25	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0026	<0.0098	<0.0135	<0.0052
BH-29A	9/15/16	27.5-30	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-29A	9/15/16	32.5-35	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0061	<0.0048	<0.0026	<0.0098	<0.0136	<0.0052
BH-30	9/26/16	2.5-5	<0.0044	<0.0038	<0.0065	0.0185	0.0222	0.0305	0.0187	0.0147	0.0254	0.0033 J	0.0397	<0.0047	0.0150	<0.0096	0.0191 J	0.0307
BH-30	9/26/16	7.5-10	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0139	<0.0054
BH-30	9/26/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	0.0033 J	0.0058 J	<0.0029	0.0075 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	0.0071 J

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes	Indicator Contaminants and SROs																	
	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)		
Soil Ingestion - Residential	4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300		
Soil Ingestion - Industrial/Commercial	120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000		
Soil Ingestion - Construction Worker	120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000		
Inhalation - Residential	---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---		
Inhalation - Industrial/Commercial	---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---		
Inhalation - Construction Worker	---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---		
SCGIER - Class I Groundwater	570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200		
SCGIER - Class II Groundwater	2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000		
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-30	9/26/16	15-17.5	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	0.0033 J	0.0062 J	<0.0029	0.0085 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0097	<0.0134	0.0082 J
BH-30A	9/26/16	22.5-25	<0.0043	<0.0037	<0.0064	<0.0035	<0.0028	<0.0032	<0.0023	<0.0028	<0.0038	<0.0025	<0.0058	<0.0046	<0.0025	<0.0094	<0.0130	<0.0050
BH-30A	9/26/16	27.5-30	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0028 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	0.0128 J	<0.0134	<0.0052
BH-31	9/26/16	2.5-5	0.0222	0.0142	0.139	0.593	0.725	0.708	0.367	0.406	0.828	0.112	1.160	0.0317	0.377	0.0107 J	0.747	0.890
BH-31	9/26/16	5-7.5	<0.0052	<0.0044	<0.0076	<0.0042	<0.0034	<0.0038	<0.0027	<0.0033	<0.0045	<0.0030	<0.0069	<0.0055	<0.0029	<0.0112	<0.0155	<0.0060
BH-31	9/26/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0042 J	<0.0029	0.0074 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0135	0.0078 J
BH-31	9/26/16	15-17.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0029	0.0038 J	0.0118	<0.0029	0.0109 J	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	0.0345 J	0.0061 J
BH-31	9/26/16	22.5-25	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0033	0.0037 J	<0.0030	<0.0040	<0.0026	<0.0062	<0.0049	<0.0026	<0.010	<0.0138	<0.0053
BH-31	9/26/16	25-27.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053

Notes:

- 1) **Bold** = detected concentration or method detection limit exceeds a SRO listed in 35 IAC Part 742 or in the Non-TACO Objectives tables
- 2) <0.0122 = concentration less than the method detection limit
- 3) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- 4) --- = no toxicity criteria available for the route of exposure
- 5) Shaded cells = not applicable or sample located was excavated
- 6) Pursuant to 35 IAC Section 742, Appendix B, Table A, the SRO listed in 35 IAC Section 742, Appendix A, Table H was utilized



Table 3

Soil Characterization Results

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Sample Location	BH-1	SCB-1	BH-6A	BH-7A	BH-8A	BH-18	Waste Disposal	Waste Disposal	Waste Disposal-1
Sample Depth (feet bls)	5-7	20-22.5	5	4	3	10-11			
Sample Date	9/18/03	8/10/04	8/2/05	8/2/05	8/2/05	8/25/05	3/18/15	3/25/15	7/7/17
Analysis	Units	Results							
Visual Classification		Silty Clay, some fine to coarse sand, trace fine gravel - Brown (CL)	Silty CLAY (CL) with sand				Fat CLAY - CH (Glacial Till)		
Permeability	cm/sec		3x10 <sup>-6</sup>				5.06x10 <sup>-8</sup>		
Dry Unit Weight	pcf	117.7	115.5				99.4		
Moisture Content	%	15.9	13.7				23.2	29.3	20.0
Grain-Size Analysis	%	35% Clay 38.4% Silt 21.3% Sand 5.3% Gravel					50.1% Clay 35.6% Silt 14.3% Sand		
Hydraulic Conductivity	cm/sec	5.76x10 <sup>-8</sup>							
Fractional Organic Carbon	%			0.82	1.84	0.82			
pH							7.2		7.92
TCLP Lead	mg/L						<0.0030		<0.0043
Flashpoint	*F						>210		>210
Paint Filter Liquid Test							Pass		Pass
Reactive Cyanide	mg/kg							<25.0	
Reactive Sulfide	mg/kg							<50.0	

Notes:

1) Shaded cells = not applicable or not analyzed

Table 4

Groundwater Elevations and Analytical Results

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes						Indicator Contaminants and Tier 1 GROs				
						Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater						0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater						0.025	2.5	1	10	0.07
Sample Location	Sample Date	Ground Elevation (feet)	TOC Elevation (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	Analytical Results				
MW-1	7/19/17	99.44	99.04	13.09	85.95	1.300	0.476	1.540	4.600	<0.0035
MW-2	7/19/17	99.30	98.84	12.98	85.86	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017
MW-3	7/19/17	100.53	100.16	14.21	85.95	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017
MW-4	7/19/17	100.72	100.34	13.33	87.01	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017
MW-5	7/19/17	100.01	99.44	12.68	86.76	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017

Notes:

- 1) Bold = detected concentration exceeds a Tier 1 GRO listed in 35 IAC Part 742
- 2) <0.0122 = concentration less than the method detection limit
- 3) Groundwater elevations are relative to a site specific datum of 100.00 feet.

**APPENDIX A**  
**SOIL ANALYTICAL LABORATORY REPORTS AND CERTIFICATIONS**

July 13, 2017

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

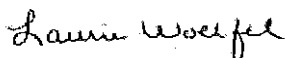
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on July 06, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Shawn Rodeck, TriCore Environmental, LLC.



### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky UST Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
New York Certification #: 12064  
North Dakota Certification #: R-150

Virginia VELAP ID: 460263  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
Wisconsin Certification #: 405132750  
Wisconsin DATCP Certification #: 105-444  
USDA Soil Permit #: P330-16-00157  
Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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**SAMPLE SUMMARY**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40152816001	BH-32 @ 2.5-5	Solid	07/05/17 08:50	07/06/17 09:50
40152816002	BH-32 @ 5-7.5	Solid	07/05/17 08:57	07/06/17 09:50
40152816003	BH-32 @ 12.5-15	Solid	07/05/17 09:05	07/06/17 09:50
40152816004	BH-32 @ 15-17.5	Solid	07/05/17 09:08	07/06/17 09:50
40152816005	BH-32 @ 20-22.5	Solid	07/05/17 09:14	07/06/17 09:50
40152816006	BH-32 @ 27.5-30	Solid	07/05/17 09:25	07/06/17 09:50
40152816007	BH-32 @ 30-30.5	Solid	07/05/17 09:27	07/06/17 09:50
40152816008	BH-33 @ 2.5-5	Solid	07/05/17 13:51	07/06/17 09:50
40152816009	BH-33 @ 7.5-10	Solid	07/05/17 13:56	07/06/17 09:50
40152816010	BH-33 @ 12.5-15	Solid	07/05/17 13:58	07/06/17 09:50
40152816011	BH-33 @ 15-17.5	Solid	07/05/17 13:59	07/06/17 09:50
40152816012	BH-33 @ 22.5-25	Solid	07/05/17 14:10	07/06/17 09:50
40152816013	BH-33 @ 25-27.5	Solid	07/05/17 14:20	07/06/17 09:50

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40152816001	BH-32 @ 2.5-5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152816002	BH-32 @ 5-7.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152816003	BH-32 @ 12.5-15	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152816004	BH-32 @ 15-17.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152816005	BH-32 @ 20-22.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152816006	BH-32 @ 27.5-30	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152816007	BH-32 @ 30-30.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152816008	BH-33 @ 2.5-5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152816009	BH-33 @ 7.5-10	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152816010	BH-33 @ 12.5-15	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152816011	BH-33 @ 15-17.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152816012	BH-33 @ 22.5-25	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152816013	BH-33 @ 25-27.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

Sample: BH-32 @ 2.5-5 Lab ID: 40152816001 Collected: 07/05/17 08:50 Received: 07/06/17 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Benzene	<11.6	ug/kg	25.2	11.6	1	07/07/17 12:32	07/08/17 01:10	71-43-2	
Ethylbenzene	<15.6	ug/kg	62.9	15.6	1	07/07/17 12:32	07/08/17 01:10	100-41-4	
Methyl-tert-butyl ether	<15.9	ug/kg	62.9	15.9	1	07/07/17 12:32	07/08/17 01:10	1634-04-4	
Toluene	<14.1	ug/kg	62.9	14.1	1	07/07/17 12:32	07/08/17 01:10	108-88-3	
Xylene (Total)	<61.0	ug/kg	189	61.0	1	07/07/17 12:32	07/08/17 01:10	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	110	%	68-130		1	07/07/17 12:32	07/08/17 01:10	1868-53-7	
4-Bromofluorobenzene (S)	89	%	58-141		1	07/07/17 12:32	07/08/17 01:10	460-00-4	
Toluene-d8 (S)	104	%	68-149		1	07/07/17 12:32	07/08/17 01:10	2037-26-5	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	20.5	%	0.10	0.10	1		07/12/17 08:13		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

Sample: BH-32 @ 5-7.5      Lab ID: 40152816002      Collected: 07/05/17 08:57      Received: 07/06/17 09:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>	Analytical Method: EPA 8260    Preparation Method: EPA 5035/5030B								
Benzene	<11.3	ug/kg	24.4	11.3	1	07/07/17 12:32	07/08/17 01:33	71-43-2	
Ethylbenzene	<15.2	ug/kg	61.0	15.2	1	07/07/17 12:32	07/08/17 01:33	100-41-4	
Methyl-tert-butyl ether	<15.4	ug/kg	61.0	15.4	1	07/07/17 12:32	07/08/17 01:33	1634-04-4	
Toluene	<13.7	ug/kg	61.0	13.7	1	07/07/17 12:32	07/08/17 01:33	108-88-3	
Xylene (Total)	<59.1	ug/kg	183	59.1	1	07/07/17 12:32	07/08/17 01:33	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	114	%	68-130		1	07/07/17 12:32	07/08/17 01:33	1868-53-7	
4-Bromofluorobenzene (S)	84	%	58-141		1	07/07/17 12:32	07/08/17 01:33	460-00-4	
Toluene-d8 (S)	100	%	68-149		1	07/07/17 12:32	07/08/17 01:33	2037-26-5	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	18.1	%	0.10	0.10	1		07/12/17 08:13		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

Sample: BH-32 @ 12.5-15 Lab ID: 40152816003 Collected: 07/05/17 09:05 Received: 07/06/17 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Benzene	<10.9	ug/kg	23.6	10.9	1	07/07/17 12:32	07/08/17 01:56	71-43-2	
Ethylbenzene	<14.7	ug/kg	59.0	14.7	1	07/07/17 12:32	07/08/17 01:56	100-41-4	
Methyl-tert-butyl ether	<14.9	ug/kg	59.0	14.9	1	07/07/17 12:32	07/08/17 01:56	1634-04-4	
Toluene	<13.2	ug/kg	59.0	13.2	1	07/07/17 12:32	07/08/17 01:56	108-88-3	
Xylene (Total)	<57.1	ug/kg	177	57.1	1	07/07/17 12:32	07/08/17 01:56	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	116	%	68-130		1	07/07/17 12:32	07/08/17 01:56	1868-53-7	
4-Bromofluorobenzene (S)	90	%	58-141		1	07/07/17 12:32	07/08/17 01:56	460-00-4	
Toluene-d8 (S)	105	%	68-149		1	07/07/17 12:32	07/08/17 01:56	2037-26-5	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	15.2	%	0.10	0.10	1		07/12/17 08:13		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

Sample: BH-32 @ 15-17.5 Lab ID: 40152816004 Collected: 07/05/17 09:08 Received: 07/06/17 09:50 Matrix: Solid  
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Benzene	<10.7	ug/kg	23.2	10.7	1	07/07/17 12:32	07/08/17 02:20	71-43-2	
Ethylbenzene	<14.4	ug/kg	57.9	14.4	1	07/07/17 12:32	07/08/17 02:20	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	57.9	14.7	1	07/07/17 12:32	07/08/17 02:20	1634-04-4	
Toluene	<13.0	ug/kg	57.9	13.0	1	07/07/17 12:32	07/08/17 02:20	108-88-3	
Xylene (Total)	<56.1	ug/kg	174	56.1	1	07/07/17 12:32	07/08/17 02:20	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	116	%	68-130		1	07/07/17 12:32	07/08/17 02:20	1868-53-7	
4-Bromofluorobenzene (S)	89	%	58-141		1	07/07/17 12:32	07/08/17 02:20	460-00-4	
Toluene-d8 (S)	103	%	68-149		1	07/07/17 12:32	07/08/17 02:20	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.7	%	0.10	0.10	1		07/12/17 08:13		

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

Sample: BH-32 @ 20-22.5 Lab ID: 40152816005 Collected: 07/05/17 09:14 Received: 07/06/17 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.7	ug/kg	23.1	10.7	1	07/07/17 12:32	07/08/17 02:43	71-43-2	
Ethylbenzene	<14.4	ug/kg	57.8	14.4	1	07/07/17 12:32	07/08/17 02:43	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.8	14.6	1	07/07/17 12:32	07/08/17 02:43	1634-04-4	
Toluene	<13.0	ug/kg	57.8	13.0	1	07/07/17 12:32	07/08/17 02:43	108-88-3	
Xylene (Total)	<56.0	ug/kg	173	56.0	1	07/07/17 12:32	07/08/17 02:43	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	118	%	68-130		1	07/07/17 12:32	07/08/17 02:43	1868-53-7	
4-Bromofluorobenzene (S)	92	%	58-141		1	07/07/17 12:32	07/08/17 02:43	460-00-4	
Toluene-d8 (S)	106	%	68-149		1	07/07/17 12:32	07/08/17 02:43	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.5	%	0.10	0.10	1		07/12/17 08:13		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40152816

Sample: BH-32 @ 27.5-30 Lab ID: 40152816006 Collected: 07/05/17 09:25 Received: 07/06/17 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Benzene	<10.5	ug/kg	22.8	10.5	1	07/07/17 12:32	07/08/17 03:06	71-43-2	
Ethylbenzene	15.4J	ug/kg	57.1	14.2	1	07/07/17 12:32	07/08/17 03:06	100-41-4	
Methyl-tert-butyl ether	<14.4	ug/kg	57.1	14.4	1	07/07/17 12:32	07/08/17 03:06	1634-04-4	
Toluene	<12.8	ug/kg	57.1	12.8	1	07/07/17 12:32	07/08/17 03:06	108-88-3	
Xylene (Total)	<55.3	ug/kg	171	55.3	1	07/07/17 12:32	07/08/17 03:06	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	68-130		1	07/07/17 12:32	07/08/17 03:06	1868-53-7	
4-Bromofluorobenzene (S)	98	%	58-141		1	07/07/17 12:32	07/08/17 03:06	460-00-4	
Toluene-d8 (S)	105	%	68-149		1	07/07/17 12:32	07/08/17 03:06	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	12.4	%	0.10	0.10	1		07/12/17 08:13		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

Sample: BH-32 @ 30-30.5 Lab ID: 40152816007 Collected: 07/05/17 09:27 Received: 07/06/17 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<11.1	ug/kg	24.2	11.1	1	07/07/17 12:32	07/10/17 07:58	71-43-2	
Ethylbenzene	<15.0	ug/kg	60.4	15.0	1	07/07/17 12:32	07/10/17 07:58	100-41-4	
Methyl-tert-butyl ether	<15.3	ug/kg	60.4	15.3	1	07/07/17 12:32	07/10/17 07:58	1634-04-4	
Toluene	<13.6	ug/kg	60.4	13.6	1	07/07/17 12:32	07/10/17 07:58	108-88-3	
Xylene (Total)	<58.5	ug/kg	181	58.5	1	07/07/17 12:32	07/10/17 07:58	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	102	%	68-130		1	07/07/17 12:32	07/10/17 07:58	1868-53-7	
4-Bromofluorobenzene (S)	76	%	58-141		1	07/07/17 12:32	07/10/17 07:58	460-00-4	
Toluene-d8 (S)	89	%	68-149		1	07/07/17 12:32	07/10/17 07:58	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	17.2	%	0.10	0.10	1		07/12/17 08:13		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40152816

Sample: BH-33 @ 2.5-5 Lab ID: 40152816008 Collected: 07/05/17 13:51 Received: 07/06/17 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<11.2	ug/kg	24.3	11.2	1	07/07/17 12:32	07/10/17 08:22	71-43-2	
Ethylbenzene	<15.1	ug/kg	60.9	15.1	1	07/07/17 12:32	07/10/17 08:22	100-41-4	
Methyl-tert-butyl ether	<15.4	ug/kg	60.9	15.4	1	07/07/17 12:32	07/10/17 08:22	1634-04-4	
Toluene	<13.7	ug/kg	60.9	13.7	1	07/07/17 12:32	07/10/17 08:22	108-88-3	
Xylene (Total)	<59.0	ug/kg	183	59.0	1	07/07/17 12:32	07/10/17 08:22	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	68-130		1	07/07/17 12:32	07/10/17 08:22	1868-53-7	
4-Bromofluorobenzene (S)	84	%	58-141		1	07/07/17 12:32	07/10/17 08:22	460-00-4	
Toluene-d8 (S)	99	%	68-149		1	07/07/17 12:32	07/10/17 08:22	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	17.9	%	0.10	0.10	1		07/12/17 08:14		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
 Pace Project No.: 40152816

Sample: BH-33 @ 7.5-10 Lab ID: 40152816009 Collected: 07/05/17 13:56 Received: 07/06/17 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<11.4	ug/kg	24.8	11.4	1	07/07/17 12:32	07/10/17 08:45	71-43-2	
Ethylbenzene	<15.4	ug/kg	62.1	15.4	1	07/07/17 12:32	07/10/17 08:45	100-41-4	
Methyl-tert-butyl ether	<15.7	ug/kg	62.1	15.7	1	07/07/17 12:32	07/10/17 08:45	1634-04-4	
Toluene	<13.9	ug/kg	62.1	13.9	1	07/07/17 12:32	07/10/17 08:45	108-88-3	
Xylene (Total)	<60.1	ug/kg	186	60.1	1	07/07/17 12:32	07/10/17 08:45	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	106	%	68-130		1	07/07/17 12:32	07/10/17 08:45	1868-53-7	
4-Bromofluorobenzene (S)	83	%	58-141		1	07/07/17 12:32	07/10/17 08:45	460-00-4	
Toluene-d8 (S)	92	%	68-149		1	07/07/17 12:32	07/10/17 08:45	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	19.4	%	0.10	0.10	1		07/12/17 08:14		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

Sample: BH-33 @ 12.5-15 Lab ID: 40152816010 Collected: 07/05/17 13:58 Received: 07/06/17 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<11.1	ug/kg	24.0	11.1	1	07/07/17 12:32	07/10/17 09:08	71-43-2	
Ethylbenzene	<14.9	ug/kg	60.0	14.9	1	07/07/17 12:32	07/10/17 09:08	100-41-4	
Methyl-tert-butyl ether	<15.2	ug/kg	60.0	15.2	1	07/07/17 12:32	07/10/17 09:08	1634-04-4	
Toluene	<13.5	ug/kg	60.0	13.5	1	07/07/17 12:32	07/10/17 09:08	108-88-3	
Xylene (Total)	<58.1	ug/kg	180	58.1	1	07/07/17 12:32	07/10/17 09:08	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	112	%	68-130		1	07/07/17 12:32	07/10/17 09:08	1868-53-7	
4-Bromofluorobenzene (S)	92	%	58-141		1	07/07/17 12:32	07/10/17 09:08	460-00-4	
Toluene-d8 (S)	106	%	68-149		1	07/07/17 12:32	07/10/17 09:08	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	16.6	%	0.10	0.10	1		07/11/17 10:11		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
 Pace Project No.: 40152816

Sample: BH-33 @ 15-17.5 Lab ID: 40152816011 Collected: 07/05/17 13:59 Received: 07/06/17 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<11.0	ug/kg	23.9	11.0	1	07/07/17 12:32	07/10/17 09:31	71-43-2	
Ethylbenzene	<14.9	ug/kg	59.8	14.9	1	07/07/17 12:32	07/10/17 09:31	100-41-4	
Methyl-tert-butyl ether	<15.1	ug/kg	59.8	15.1	1	07/07/17 12:32	07/10/17 09:31	1634-04-4	
Toluene	<13.4	ug/kg	59.8	13.4	1	07/07/17 12:32	07/10/17 09:31	108-88-3	
Xylene (Total)	<57.9	ug/kg	179	57.9	1	07/07/17 12:32	07/10/17 09:31	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	116	%	68-130		1	07/07/17 12:32	07/10/17 09:31	1868-53-7	
4-Bromofluorobenzene (S)	88	%	58-141		1	07/07/17 12:32	07/10/17 09:31	460-00-4	
Toluene-d8 (S)	102	%	68-149		1	07/07/17 12:32	07/10/17 09:31	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	16.4	%	0.10	0.10	1		07/11/17 10:11		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

Sample: **BH-33 @ 22.5-25** Lab ID: **40152816012** Collected: 07/05/17 14:10 Received: 07/06/17 09:50 Matrix: Solid  
*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.7	ug/kg	23.3	10.7	1	07/07/17 12:32	07/10/17 09:55	71-43-2	
Ethylbenzene	<14.5	ug/kg	58.2	14.5	1	07/07/17 12:32	07/10/17 09:55	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.2	14.7	1	07/07/17 12:32	07/10/17 09:55	1634-04-4	
Toluene	<13.1	ug/kg	58.2	13.1	1	07/07/17 12:32	07/10/17 09:55	108-88-3	
Xylene (Total)	<56.3	ug/kg	175	56.3	1	07/07/17 12:32	07/10/17 09:55	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	68-130		1	07/07/17 12:32	07/10/17 09:55	1868-53-7	
4-Bromofluorobenzene (S)	91	%	58-141		1	07/07/17 12:32	07/10/17 09:55	460-00-4	
Toluene-d8 (S)	93	%	68-149		1	07/07/17 12:32	07/10/17 09:55	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	14.0	%	0.10	0.10	1		07/11/17 10:11		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
 Pace Project No.: 40152816

Sample: BH-33 @ 25-27.5 Lab ID: 40152816013 Collected: 07/05/17 14:20 Received: 07/06/17 09:50 Matrix: Solid  
 Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.6	ug/kg	22.9	10.6	1	07/07/17 10:15	07/10/17 23:12	71-43-2	
Ethylbenzene	<14.2	ug/kg	57.3	14.2	1	07/07/17 10:15	07/10/17 23:12	100-41-4	
Methyl-tert-butyl ether	<14.5	ug/kg	57.3	14.5	1	07/07/17 10:15	07/10/17 23:12	1634-04-4	
Toluene	<12.9	ug/kg	57.3	12.9	1	07/07/17 10:15	07/10/17 23:12	108-88-3	
Xylene (Total)	<55.5	ug/kg	172	55.5	1	07/07/17 10:15	07/10/17 23:12	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	106	%	68-130		1	07/07/17 10:15	07/10/17 23:12	1868-53-7	
4-Bromofluorobenzene (S)	95	%	58-141		1	07/07/17 10:15	07/10/17 23:12	460-00-4	
Toluene-d8 (S)	108	%	68-149		1	07/07/17 10:15	07/10/17 23:12	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	12.7	%	0.10	0.10	1		07/11/17 10:11		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

QC Batch:	260894	Analysis Method:	EPA 8260
QC Batch Method:	EPA 5035/5030B	Analysis Description:	8260 MSV Med Level Short List
Associated Lab Samples:	40152816001, 40152816002, 40152816003, 40152816004, 40152816005, 40152816006, 40152816007, 40152816008, 40152816009, 40152816010, 40152816011, 40152816012		

METHOD BLANK: 1536556 Matrix: Solid  
Associated Lab Samples: 40152816001, 40152816002, 40152816003, 40152816004, 40152816005, 40152816006, 40152816007, 40152816008, 40152816009, 40152816010, 40152816011, 40152816012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	9.2	07/07/17 17:27	
Ethylbenzene	ug/kg	<12.4	50.0	12.4	07/07/17 17:27	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	12.7	07/07/17 17:27	
Toluene	ug/kg	<11.2	50.0	11.2	07/07/17 17:27	
Xylene (Total)	ug/kg	<48.4	150	48.4	07/07/17 17:27	
4-Bromofluorobenzene (S)	%	97	58-141		07/07/17 17:27	
Dibromofluoromethane (S)	%	120	68-130		07/07/17 17:27	
Toluene-d8 (S)	%	110	68-149		07/07/17 17:27	

LABORATORY CONTROL SAMPLE: 1536557

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2730	109	66-130	
Ethylbenzene	ug/kg	2500	2540	102	82-122	
Methyl-tert-butyl ether	ug/kg	2500	2890	116	63-134	
Toluene	ug/kg	2500	2680	107	80-120	
Xylene (Total)	ug/kg	7500	7950	106	70-130	
4-Bromofluorobenzene (S)	%			97	58-141	
Dibromofluoromethane (S)	%			117	68-130	
Toluene-d8 (S)	%			105	68-149	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

QC Batch: 260912 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40152816013

METHOD BLANK: 1536623 Matrix: Solid  
Associated Lab Samples: 40152816013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	9.2	07/10/17 07:34	
Ethylbenzene	ug/kg	<12.4	50.0	12.4	07/10/17 07:34	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	12.7	07/10/17 07:34	
Toluene	ug/kg	<11.2	50.0	11.2	07/10/17 07:34	
Xylene (Total)	ug/kg	<48.4	150	48.4	07/10/17 07:34	
4-Bromofluorobenzene (S)	%	91	58-141		07/10/17 07:34	
Dibromofluoromethane (S)	%	106	68-130		07/10/17 07:34	
Toluene-d8 (S)	%	105	68-149		07/10/17 07:34	

LABORATORY CONTROL SAMPLE: 1536624

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2370	95	66-130	
Ethylbenzene	ug/kg	2500	2570	103	82-122	
Methyl-tert-butyl ether	ug/kg	2500	2520	101	63-134	
Toluene	ug/kg	2500	2610	105	80-120	
Xylene (Total)	ug/kg	7500	7560	101	70-130	
4-Bromofluorobenzene (S)	%			97	58-141	
Dibromofluoromethane (S)	%			104	68-130	
Toluene-d8 (S)	%			108	68-149	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1536625 1536626

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		40152707007 Result	Spike Conc.	Spike Conc.	MS Result							
Benzene	ug/kg	166J	1150	1250	1330	1290	101	90	65-130	3	20	
Ethylbenzene	ug/kg	695	1150	1250	1520	1640	72	75	80-122	7	20	M1
Methyl-tert-butyl ether	ug/kg	<127	1150	1250	1960	1950	170	156	63-134	0	20	
Toluene	ug/kg	<112	1150	1250	1170	1300	96	99	80-120	10	20	
Xylene (Total)	ug/kg	684J	3460	3750	3810	3820	90	84	70-130	0	20	
4-Bromofluorobenzene (S)	%						91	90	58-141			
Dibromofluoromethane (S)	%						98	99	68-130			
Toluene-d8 (S)	%						103	97	68-149			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40152816

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QC Batch:	261137	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40152816010, 40152816011, 40152816012, 40152816013		

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SAMPLE DUPLICATE: 1537704

Parameter	Units	40152816012 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.0	13.6	3	10	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

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QC Batch:	261166	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40152816001, 40152816002, 40152816003, 40152816004, 40152816005, 40152816006, 40152816007, 40152816008, 40152816009		

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SAMPLE DUPLICATE: 1537833

Parameter	Units	40152816007 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.2	17.3	0	10	

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
TNTC - Too Numerous To Count  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152816

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40152816001	BH-32 @ 2.5-5	EPA 5035/5030B	260894	EPA 8260	260903
40152816002	BH-32 @ 5-7.5	EPA 5035/5030B	260894	EPA 8260	260903
40152816003	BH-32 @ 12.5-15	EPA 5035/5030B	260894	EPA 8260	260903
40152816004	BH-32 @ 15-17.5	EPA 5035/5030B	260894	EPA 8260	260903
40152816005	BH-32 @ 20-22.5	EPA 5035/5030B	260894	EPA 8260	260903
40152816006	BH-32 @ 27.5-30	EPA 5035/5030B	260894	EPA 8260	260903
40152816007	BH-32 @ 30-30.5	EPA 5035/5030B	260894	EPA 8260	260903
40152816008	BH-33 @ 2.5-5	EPA 5035/5030B	260894	EPA 8260	260903
40152816009	BH-33 @ 7.5-10	EPA 5035/5030B	260894	EPA 8260	260903
40152816010	BH-33 @ 12.5-15	EPA 5035/5030B	260894	EPA 8260	260903
40152816011	BH-33 @ 15-17.5	EPA 5035/5030B	260894	EPA 8260	260903
40152816012	BH-33 @ 22.5-25	EPA 5035/5030B	260894	EPA 8260	260903
40152816013	BH-33 @ 25-27.5	EPA 5035/5030B	260912	EPA 8260	260914
40152816001	BH-32 @ 2.5-5	ASTM D2974-87	261166		
40152816002	BH-32 @ 5-7.5	ASTM D2974-87	261166		
40152816003	BH-32 @ 12.5-15	ASTM D2974-87	261166		
40152816004	BH-32 @ 15-17.5	ASTM D2974-87	261166		
40152816005	BH-32 @ 20-22.5	ASTM D2974-87	261166		
40152816006	BH-32 @ 27.5-30	ASTM D2974-87	261166		
40152816007	BH-32 @ 30-30.5	ASTM D2974-87	261166		
40152816008	BH-33 @ 2.5-5	ASTM D2974-87	261166		
40152816009	BH-33 @ 7.5-10	ASTM D2974-87	261166		
40152816010	BH-33 @ 12.5-15	ASTM D2974-87	261137		
40152816011	BH-33 @ 15-17.5	ASTM D2974-87	261137		
40152816012	BH-33 @ 22.5-25	ASTM D2974-87	261137		
40152816013	BH-33 @ 25-27.5	ASTM D2974-87	261137		

**REPORT OF LABORATORY ANALYSIS**

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40152816



### CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

*KR*

<b>Section A</b> Required Client Information:	<b>Section B</b> Required Project Information:	<b>Section C</b> Invoice Information:
Company: TriCore Environmental, LLC	Report To: Marcos I. Czako	Attention: Shawn Rodeck
Address: 2368 Corporate Lane, Suite 116 Naperville, Illinois 60563	Copy To:	Company Name: TriCore Environmental, LLC
Email To: <a href="mailto:marcos.czako@tricoreweb.com">marcos.czako@tricoreweb.com</a>	Purchase Order No.: 100137	Address: 2368 Corporate Lane, Suite 116, Naperville, Illinois 60563
Phone: 630-520-9973 Fax 630-520-9976	Project Name: Lemont Kar Gas	Pace Quote Reference:
Requested Due Date/TAT:	Project Number: 100137	Pace Profile #:

Page: 1 of 2

**REGULATORY AGENCY**

NPDES  GROUND WATER  DRINKING WATER

UST  RCRA  OTHER

**SITE LOCATION**

GA  IL  IN  MI  NC

OH  SC  WI  OTHER

ITEM #	Section D Required Client Information		Valid Matrix Codes MATRIX CODE DRINKING WATER WATER WASTE WATER PRODUCT SOIL/SOLID DIL WIRE AIR OTHER TISLUE	SAMPLE ID One Character per box. (A-Z, 0-9 / -)	Sample IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Filtered (Y/N)		Requested Ans	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.								
	COMPOSITE START							COMPOSITE END/GRAB		Unpreserved	H <sub>2</sub> SO <sub>4</sub>			HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	Methanol	Other	BTX/M B280	Molitude	PAHs B270	TCLP Lead	pH	Flashpoint				Paint Filter							
	DATE	TIME						DATE	TIME																											
1	BH	-32	@	2.5-5	001	SL	G			7/5/17	0850	3	1													X	X	X								
2	BH	-32	@	5-7.5	002	SL	G			7/5/17	0857	3	1													X	X	X								
3	BH	-32	@	12.5-15	003	SL	G			7/5/17	0905	3	1													X	X	X								
4	BH	-32	@	15-17.5	004	SL	G			7/5/17	0908	3	1													X	X	X								
5	BH	-32	@	20-22.5	005	SL	G			7/5/17	0914	3	1													X	X	X								
6	BH	-32	@	27.5-30	006	SL	G			7/5/17	0925	3	1													X	X	X								
7	BH	-32	@	30-30.5	007	SL	G			7/5/17	0927	3	1													X	X	X								
8	BH	-33	@	2.5-5	008	SL	G			7/5/17	1351	3	1													X	X	X								
9	BH	-33	@	7.5-10	009	SL	G			7/5/17	1356	3	1													X	X	X								
10	BH	-33	@	12.5-15	010	SL	G			7/5/17	1358	3	1													X	X	X								
11	BH	-33	@	15-17.5	011	SL	G			7/5/17	1359	3	1													X	X	X								
12	BH	-33	@	22.5-25	012	SL	G			7/5/17	1410	3	1													X	X	X								

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
<i>Kathleen Wendel</i>	7/5/17	1530	<i>Kathleen Wendel</i>	7/5/17	1530		Y/N	Y/N	Y/N
<i>Kathleen Wendel</i>	7/5/17	1700	<i>CS Logistics</i>	7/5/17			Y/N	Y/N	Y/N
<i>CS Logistics</i>	7/6/17	0950	<i>Shirley Pace</i>	7/6/17	0950	2	Y/N	Y/N	Y/N

\* cancel PAH per MC low 7/6/17

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: Marcos I. Czako

SIGNATURE OF SAMPLER: *[Signature]* DATE Signed (MM/DD/YY): 07/15/17

Temp in °C: \_\_\_\_\_

Received on Ice:

Custody Sealed Cooler:

Samples Intact:



CHAIN-OF-CUSTODY / Analytical Request Document
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information: Company: TriCore Environmental, LLC; Section B Required Project Information: Report To: Marcos I. Czako; Section C Invoice Information: Attention: Shawn Rodeck

REGULATORY AGENCY: NPDES, GROUND WATER, DRINKING WATER, UST, RCRA, OTHER; SITE LOCATION: GA, IL, IN, MI, NC, OH, SC, WI, OTHER

Main data table with columns: ITEM #, Section D Required Client Information (SAMPLE ID), Valid Matrix Codes, MATRIX CODE, SAMPLE TYPE, COLLECTED (DATE, TIME), SAMPLE TEMP AT COLLECTION, # OF CONTAINERS, Preservatives, Filtered (Y/N), Requested Analytes, Pace Project No. Lab I.D.

Additional Comments:

Handwritten table with columns: RELINQUISHED BY / AFFILIATION, DATE, TIME, ACCEPTED BY / AFFILIATION, DATE, TIME, SAMPLE CONDITIONS

\* cancel PAH per mc LHW 7/6/17

SAMPLER NAME AND SIGNATURE: PRINT Name of SAMPLER: Marcos I. Czako; SIGNATURE OF SAMPLER; DATE Signed (MM/DD/YY): 07/05/17



# Illinois Environmental Protection Agency

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

## Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010  
Site Name: Lemont Kar Gas  
Site Address (Not a P.O. Box): 1 196 State Street  
City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

### B. Sample Collector

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. MSR  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. MSR  
(Initial)
- 3. Sample integrity was maintained by proper preservation. MSR  
(Initial)
- 4. All samples were properly labeled. MSR  
(Initial)

### C. Laboratory Representative

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms \_\_\_\_\_  
(Initial)
- 2. Sample integrity was maintained by proper preservation. \_\_\_\_\_  
(Initial)
- 3. All samples were properly labeled. \_\_\_\_\_  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. \_\_\_\_\_  
(Initial)
- 5. Sample holding times were not exceeded. \_\_\_\_\_  
(Initial)

40152816

6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.

\_\_\_\_\_  
(Initial)

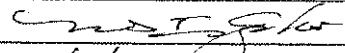
7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

\_\_\_\_\_  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako  
Title Geologist III  
Company TriCore Environmental, LLC  
Address 2368 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone (630) 520-9973  
Signature   
Date 7/5/17

**Laboratory Representative**

Name Laurie Woelfel  
Title Project Manager  
Company Pace Analytical Services, Inc.  
Address 1241 Bellevue Street, Suite 9  
City Green Bay  
State Wisconsin  
Zip Code 64302  
Phone (920) 469-2436  
Signature \_\_\_\_\_  
Date \_\_\_\_\_



Project #:

WO#: 40152816

Client Name: Tricore Environmental

Courier:  Fed Ex  UPS  Client  Pace Other: CS Logistics  
Tracking #: \_\_\_\_\_



Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: SR-53 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: 2 / Corr: 2 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Person examining contents:  
Date: 7/6/17  
Initials: SSM

Temp should be above freezing to 6°C.  
Biota Samples may be received at ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11. <u>7/6/17</u>
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Cancel PAH per MC CW 7/6/17

Project Manager Review:

CW

Date: 7/6/17



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**Leaking Underground Storage Tank Program  
Laboratory Certification for Chemical Analysis**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

**B. Sample Collector**

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. NBR  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. NBR  
(Initial)
- 3. Sample integrity was maintained by proper preservation. NBR  
(Initial)
- 4. All samples were properly labeled. NBR  
(Initial)

**C. Laboratory Representative**

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms LW  
(Initial)
- 2. Sample integrity was maintained by proper preservation. LW  
(Initial)
- 3. All samples were properly labeled. LW  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. LW  
(Initial)
- 5. Sample holding times were not exceeded. LW  
(Initial)



40152816

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako

Title Geologist III

Company TriCore Environmental, LLC

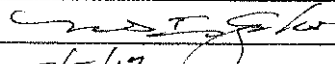
Address 2368 Corporate Lane, Suite 116

City Naperville

State Illinois

Zip Code 60563

Phone (630) 520-9973

Signature 

Date 7/5/17

**Laboratory Representative**

Name Laurie Woelfel

Title Project Manager

Company Pace Analytical Services, Inc.

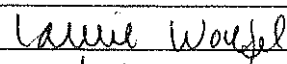
Address 1241 Bellevue Street, Suite 9

City Green Bay

State Wisconsin

Zip Code 64302

Phone (920) 469-2436

Signature 

Date 7/13/17

July 12, 2017

Shawn Rodeck  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

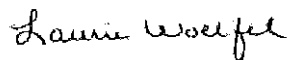
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

Dear Shawn Rodeck:

Enclosed are the analytical results for sample(s) received by the laboratory on July 07, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



### REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

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#### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky UST Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
New York Certification #: 12064  
North Dakota Certification #: R-150

Virginia VELAP ID: 460263  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
Wisconsin Certification #: 405132750  
Wisconsin DATCP Certification #: 105-444  
USDA Soil Permit #: P330-16-00157  
Federal Fish & Wildlife Permit #: LE51774A-0

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### REPORT OF LABORATORY ANALYSIS

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**SAMPLE SUMMARY**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40152878001	BH-35 @ 0.5-2.5	Solid	07/06/17 08:34	07/07/17 09:45
40152878002	BH-35 @ 7.5-10	Solid	07/06/17 08:41	07/07/17 09:45
40152878003	BH-35 @ 12.5-15	Solid	07/06/17 08:49	07/07/17 09:45
40152878004	BH-35 @ 15-17.5	Solid	07/06/17 08:58	07/07/17 09:45
40152878005	BH-35 @ 20-22.5	Solid	07/06/17 09:02	07/07/17 09:45
40152878006	BH-35 @ 25-27.5	Solid	07/06/17 09:04	07/07/17 09:45
40152878007	BH-35 @ 30-35	Solid	07/06/17 09:09	07/07/17 09:45
40152878008	BH-34 @ 0.75-2.5	Solid	07/06/17 13:08	07/07/17 09:45
40152878009	BH-34 @ 7.5-10	Solid	07/06/17 13:15	07/07/17 09:45
40152878010	BH-34 @ 10-12.5	Solid	07/06/17 13:16	07/07/17 09:45
40152878011	BH-34 @ 17.5-20	Solid	07/06/17 13:26	07/07/17 09:45
40152878012	BH-34 @ 20-22.5	Solid	07/06/17 13:28	07/07/17 09:45
40152878013	BH-34 @ 25-27.5	Solid	07/06/17 13:37	07/07/17 09:45
40152878014	BH-34 @ 30-32.5	Solid	07/06/17 13:47	07/07/17 09:45

**REPORT OF LABORATORY ANALYSIS**

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40152878001	BH-35 @ 0.5-2.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152878002	BH-35 @ 7.5-10	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152878003	BH-35 @ 12.5-15	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152878004	BH-35 @ 15-17.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152878005	BH-35 @ 20-22.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152878006	BH-35 @ 25-27.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152878007	BH-35 @ 30-35	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152878008	BH-34 @ 0.75-2.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152878009	BH-34 @ 7.5-10	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152878010	BH-34 @ 10-12.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152878011	BH-34 @ 17.5-20	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152878012	BH-34 @ 20-22.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152878013	BH-34 @ 25-27.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40152878014	BH-34 @ 30-32.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	BTH	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

Sample: BH-35 @ 0.5-2.5 Lab ID: 40152878001 Collected: 07/06/17 08:34 Received: 07/07/17 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<12.8	ug/kg	27.9	12.8	1	07/10/17 11:15	07/11/17 02:35	71-43-2	
Ethylbenzene	<17.3	ug/kg	69.7	17.3	1	07/10/17 11:15	07/11/17 02:35	100-41-4	
Methyl-tert-butyl ether	<17.6	ug/kg	69.7	17.6	1	07/10/17 11:15	07/11/17 02:35	1634-04-4	
Toluene	<15.6	ug/kg	69.7	15.6	1	07/10/17 11:15	07/11/17 02:35	108-88-3	
Xylene (Total)	<67.5	ug/kg	209	67.5	1	07/10/17 11:15	07/11/17 02:35	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	97	%	68-130		1	07/10/17 11:15	07/11/17 02:35	1868-53-7	
4-Bromofluorobenzene (S)	89	%	58-141		1	07/10/17 11:15	07/11/17 02:35	460-00-4	
Toluene-d8 (S)	104	%	68-149		1	07/10/17 11:15	07/11/17 02:35	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	28.2	%	0.10	0.10	1		07/11/17 12:50		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

Sample: BH-35 @ 7.5-10 Lab ID: 40152878002 Collected: 07/06/17 08:41 Received: 07/07/17 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.9	ug/kg	23.6	10.9	1	07/10/17 11:15	07/11/17 02:58	71-43-2	
Ethylbenzene	<14.7	ug/kg	59.0	14.7	1	07/10/17 11:15	07/11/17 02:58	100-41-4	
Methyl-tert-butyl ether	<14.9	ug/kg	59.0	14.9	1	07/10/17 11:15	07/11/17 02:58	1634-04-4	
Toluene	<13.2	ug/kg	59.0	13.2	1	07/10/17 11:15	07/11/17 02:58	108-88-3	
Xylene (Total)	<57.2	ug/kg	177	57.2	1	07/10/17 11:15	07/11/17 02:58	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	86	%	68-130		1	07/10/17 11:15	07/11/17 02:58	1868-53-7	
4-Bromofluorobenzene (S)	78	%	58-141		1	07/10/17 11:15	07/11/17 02:58	460-00-4	
Toluene-d8 (S)	90	%	68-149		1	07/10/17 11:15	07/11/17 02:58	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	15.3	%	0.10	0.10	1		07/11/17 12:50		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

Sample: BH-35 @ 12.5-15 Lab ID: 40152878003 Collected: 07/06/17 08:49 Received: 07/07/17 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.8	ug/kg	23.5	10.8	1	07/10/17 11:15	07/11/17 03:21	71-43-2	
Ethylbenzene	<14.6	ug/kg	58.8	14.6	1	07/10/17 11:15	07/11/17 03:21	100-41-4	
Methyl-tert-butyl ether	<14.9	ug/kg	58.8	14.9	1	07/10/17 11:15	07/11/17 03:21	1634-04-4	
Toluene	<13.2	ug/kg	58.8	13.2	1	07/10/17 11:15	07/11/17 03:21	108-88-3	
Xylene (Total)	<56.9	ug/kg	176	56.9	1	07/10/17 11:15	07/11/17 03:21	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	107	%	68-130		1	07/10/17 11:15	07/11/17 03:21	1868-53-7	
4-Bromofluorobenzene (S)	93	%	58-141		1	07/10/17 11:15	07/11/17 03:21	460-00-4	
Toluene-d8 (S)	109	%	68-149		1	07/10/17 11:15	07/11/17 03:21	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	14.9	%	0.10	0.10	1		07/11/17 12:50		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
 Pace Project No.: 40152878

Sample: BH-35 @ 15-17.5 Lab ID: 40152878004 Collected: 07/06/17 08:58 Received: 07/07/17 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<11.0	ug/kg	23.8	11.0	1	07/10/17 11:15	07/11/17 01:28	71-43-2	
Ethylbenzene	<14.8	ug/kg	59.6	14.8	1	07/10/17 11:15	07/11/17 01:28	100-41-4	
Methyl-tert-butyl ether	<15.1	ug/kg	59.6	15.1	1	07/10/17 11:15	07/11/17 01:28	1634-04-4	
Toluene	<13.4	ug/kg	59.6	13.4	1	07/10/17 11:15	07/11/17 01:28	108-88-3	
Xylene (Total)	<57.8	ug/kg	179	57.8	1	07/10/17 11:15	07/11/17 01:28	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	68-130		1	07/10/17 11:15	07/11/17 01:28	1868-53-7	
4-Bromofluorobenzene (S)	88	%	58-141		1	07/10/17 11:15	07/11/17 01:28	460-00-4	
Toluene-d8 (S)	102	%	68-149		1	07/10/17 11:15	07/11/17 01:28	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	16.1	%	0.10	0.10	1		07/11/17 12:50		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

Sample: BH-35 @ 20-22.5 Lab ID: 40152878005 Collected: 07/06/17 09:02 Received: 07/07/17 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.7	ug/kg	23.3	10.7	1	07/10/17 11:15	07/11/17 03:43	71-43-2	
Ethylbenzene	<14.5	ug/kg	58.2	14.5	1	07/10/17 11:15	07/11/17 03:43	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.2	14.7	1	07/10/17 11:15	07/11/17 03:43	1634-04-4	
Toluene	<13.1	ug/kg	58.2	13.1	1	07/10/17 11:15	07/11/17 03:43	108-88-3	
Xylene (Total)	<56.4	ug/kg	175	56.4	1	07/10/17 11:15	07/11/17 03:43	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	111	%	68-130		1	07/10/17 11:15	07/11/17 03:43	1868-53-7	
4-Bromofluorobenzene (S)	97	%	58-141		1	07/10/17 11:15	07/11/17 03:43	460-00-4	
Toluene-d8 (S)	109	%	68-149		1	07/10/17 11:15	07/11/17 03:43	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	14.1	%	0.10	0.10	1		07/11/17 12:50		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

Sample: BH-35 @ 25-27.5 Lab ID: 40152878006 Collected: 07/06/17 09:04 Received: 07/07/17 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Benzene	<10.6	ug/kg	22.9	10.6	1	07/10/17 11:15	07/11/17 04:06	71-43-2	
Ethylbenzene	<14.2	ug/kg	57.3	14.2	1	07/10/17 11:15	07/11/17 04:06	100-41-4	
Methyl-tert-butyl ether	<14.5	ug/kg	57.3	14.5	1	07/10/17 11:15	07/11/17 04:06	1634-04-4	
Toluene	<12.9	ug/kg	57.3	12.9	1	07/10/17 11:15	07/11/17 04:06	108-88-3	
Xylene (Total)	<55.5	ug/kg	172	55.5	1	07/10/17 11:15	07/11/17 04:06	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	108	%	68-130		1	07/10/17 11:15	07/11/17 04:06	1868-53-7	
4-Bromofluorobenzene (S)	88	%	58-141		1	07/10/17 11:15	07/11/17 04:06	460-00-4	
Toluene-d8 (S)	105	%	68-149		1	07/10/17 11:15	07/11/17 04:06	2037-26-5	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	12.8	%	0.10	0.10	1		07/11/17 12:50		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

Sample: BH-35 @ 30-35 Lab ID: 40152878007 Collected: 07/06/17 09:09 Received: 07/07/17 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.4	ug/kg	22.6	10.4	1	07/10/17 11:15	07/11/17 08:32	71-43-2	
Ethylbenzene	<14.1	ug/kg	56.6	14.1	1	07/10/17 11:15	07/11/17 08:32	100-41-4	
Methyl-tert-butyl ether	<14.3	ug/kg	56.6	14.3	1	07/10/17 11:15	07/11/17 08:32	1634-04-4	
Toluene	<12.7	ug/kg	56.6	12.7	1	07/10/17 11:15	07/11/17 08:32	108-88-3	
Xylene (Total)	<54.8	ug/kg	170	54.8	1	07/10/17 11:15	07/11/17 08:32	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	89	%	68-130		1	07/10/17 11:15	07/11/17 08:32	1868-53-7	
4-Bromofluorobenzene (S)	77	%	58-141		1	07/10/17 11:15	07/11/17 08:32	460-00-4	
Toluene-d8 (S)	93	%	68-149		1	07/10/17 11:15	07/11/17 08:32	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	11.7	%	0.10	0.10	1		07/11/17 12:50		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40152878

Sample: BH-34 @ 0.75-2.5 Lab ID: 40152878008 Collected: 07/06/17 13:08 Received: 07/07/17 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.8	ug/kg	23.3	10.8	1	07/10/17 11:15	07/11/17 08:55	71-43-2	
Ethylbenzene	<14.5	ug/kg	58.3	14.5	1	07/10/17 11:15	07/11/17 08:55	100-41-4	
Methyl-tert-butyl ether	<14.8	ug/kg	58.3	14.8	1	07/10/17 11:15	07/11/17 08:55	1634-04-4	
Toluene	<13.1	ug/kg	58.3	13.1	1	07/10/17 11:15	07/11/17 08:55	108-88-3	
Xylene (Total)	<56.5	ug/kg	175	56.5	1	07/10/17 11:15	07/11/17 08:55	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	97	%	68-130		1	07/10/17 11:15	07/11/17 08:55	1868-53-7	
4-Bromofluorobenzene (S)	93	%	58-141		1	07/10/17 11:15	07/11/17 08:55	460-00-4	
Toluene-d8 (S)	106	%	68-149		1	07/10/17 11:15	07/11/17 08:55	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	14.3	%	0.10	0.10	1		07/11/17 12:50		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

Sample: BH-34 @ 7.5-10 Lab ID: 40152878009 Collected: 07/06/17 13:15 Received: 07/07/17 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.7	ug/kg	23.3	10.7	1	07/10/17 11:15	07/11/17 09:18	71-43-2	
Ethylbenzene	<14.5	ug/kg	58.2	14.5	1	07/10/17 11:15	07/11/17 09:18	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.2	14.7	1	07/10/17 11:15	07/11/17 09:18	1634-04-4	
Toluene	<13.1	ug/kg	58.2	13.1	1	07/10/17 11:15	07/11/17 09:18	108-88-3	
Xylene (Total)	<56.4	ug/kg	175	56.4	1	07/10/17 11:15	07/11/17 09:18	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	107	%	68-130		1	07/10/17 11:15	07/11/17 09:18	1868-53-7	
4-Bromofluorobenzene (S)	96	%	58-141		1	07/10/17 11:15	07/11/17 09:18	460-00-4	
Toluene-d8 (S)	111	%	68-149		1	07/10/17 11:15	07/11/17 09:18	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	14.1	%	0.10	0.10	1		07/11/17 12:50		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

Sample: **BH-34 @ 10-12.5** Lab ID: **40152878010** Collected: 07/06/17 13:16 Received: 07/07/17 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Benzene	<10.8	ug/kg	23.5	10.8	1	07/10/17 11:15	07/11/17 09:40	71-43-2	
Ethylbenzene	<14.6	ug/kg	58.7	14.6	1	07/10/17 11:15	07/11/17 09:40	100-41-4	
Methyl-tert-butyl ether	<14.9	ug/kg	58.7	14.9	1	07/10/17 11:15	07/11/17 09:40	1634-04-4	
Toluene	<13.2	ug/kg	58.7	13.2	1	07/10/17 11:15	07/11/17 09:40	108-88-3	
Xylene (Total)	<56.9	ug/kg	176	56.9	1	07/10/17 11:15	07/11/17 09:40	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	109	%	68-130		1	07/10/17 11:15	07/11/17 09:40	1868-53-7	
4-Bromofluorobenzene (S)	95	%	58-141		1	07/10/17 11:15	07/11/17 09:40	460-00-4	
Toluene-d8 (S)	111	%	68-149		1	07/10/17 11:15	07/11/17 09:40	2037-26-5	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	14.8	%	0.10	0.10	1		07/11/17 12:50		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

Sample: BH-34 @ 17.5-20 Lab ID: 40152878011 Collected: 07/06/17 13:26 Received: 07/07/17 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.8	ug/kg	23.4	10.8	1	07/10/17 11:15	07/11/17 10:03	71-43-2	
Ethylbenzene	<14.5	ug/kg	58.5	14.5	1	07/10/17 11:15	07/11/17 10:03	100-41-4	
Methyl-tert-butyl ether	<14.8	ug/kg	58.5	14.8	1	07/10/17 11:15	07/11/17 10:03	1634-04-4	
Toluene	<13.1	ug/kg	58.5	13.1	1	07/10/17 11:15	07/11/17 10:03	108-88-3	
Xylene (Total)	<56.7	ug/kg	176	56.7	1	07/10/17 11:15	07/11/17 10:03	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	68-130		1	07/10/17 11:15	07/11/17 10:03	1868-53-7	
4-Bromofluorobenzene (S)	93	%	58-141		1	07/10/17 11:15	07/11/17 10:03	460-00-4	
Toluene-d8 (S)	103	%	68-149		1	07/10/17 11:15	07/11/17 10:03	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	14.6	%	0.10	0.10	1		07/11/17 12:50		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

Sample: BH-34 @ 20-22.5 Lab ID: 40152878012 Collected: 07/06/17 13:28 Received: 07/07/17 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.6	ug/kg	23.1	10.6	1	07/10/17 11:15	07/11/17 10:25	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.6	14.3	1	07/10/17 11:15	07/11/17 10:25	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.6	14.6	1	07/10/17 11:15	07/11/17 10:25	1634-04-4	
Toluene	<12.9	ug/kg	57.6	12.9	1	07/10/17 11:15	07/11/17 10:25	108-88-3	
Xylene (Total)	<55.8	ug/kg	173	55.8	1	07/10/17 11:15	07/11/17 10:25	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	115	%	68-130		1	07/10/17 11:15	07/11/17 10:25	1868-53-7	
4-Bromofluorobenzene (S)	99	%	58-141		1	07/10/17 11:15	07/11/17 10:25	460-00-4	
Toluene-d8 (S)	113	%	68-149		1	07/10/17 11:15	07/11/17 10:25	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.2	%	0.10	0.10	1		07/11/17 12:51		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

Sample: BH-34 @ 25-27.5 Lab ID: 40152878013 Collected: 07/06/17 13:37 Received: 07/07/17 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Benzene	<10.7	ug/kg	23.2	10.7	1	07/10/17 11:15	07/11/17 10:48	71-43-2	
Ethylbenzene	<14.4	ug/kg	58.1	14.4	1	07/10/17 11:15	07/11/17 10:48	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.1	14.7	1	07/10/17 11:15	07/11/17 10:48	1634-04-4	
Toluene	<13.0	ug/kg	58.1	13.0	1	07/10/17 11:15	07/11/17 10:48	108-88-3	
Xylene (Total)	<56.2	ug/kg	174	56.2	1	07/10/17 11:15	07/11/17 10:48	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	95	%	68-130		1	07/10/17 11:15	07/11/17 10:48	1868-53-7	
4-Bromofluorobenzene (S)	80	%	58-141		1	07/10/17 11:15	07/11/17 10:48	460-00-4	
Toluene-d8 (S)	94	%	68-149		1	07/10/17 11:15	07/11/17 10:48	2037-26-5	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	13.9	%	0.10	0.10	1		07/11/17 12:51		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40152878

Sample: BH-34 @ 30-32.5 Lab ID: 40152878014 Collected: 07/06/17 13:47 Received: 07/07/17 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.5	ug/kg	22.8	10.5	1	07/10/17 11:15	07/11/17 11:11	71-43-2	
Ethylbenzene	<14.1	ug/kg	56.9	14.1	1	07/10/17 11:15	07/11/17 11:11	100-41-4	
Methyl-tert-butyl ether	<14.4	ug/kg	56.9	14.4	1	07/10/17 11:15	07/11/17 11:11	1634-04-4	
Toluene	<12.8	ug/kg	56.9	12.8	1	07/10/17 11:15	07/11/17 11:11	108-88-3	
Xylene (Total)	<55.1	ug/kg	171	55.1	1	07/10/17 11:15	07/11/17 11:11	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	127	%	68-130		1	07/10/17 11:15	07/11/17 11:11	1868-53-7	
4-Bromofluorobenzene (S)	111	%	58-141		1	07/10/17 11:15	07/11/17 11:11	460-00-4	
Toluene-d8 (S)	131	%	68-149		1	07/10/17 11:15	07/11/17 11:11	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	12.1	%	0.10	0.10	1		07/11/17 12:51		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

QC Batch: 261075 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40152878001, 40152878002, 40152878003, 40152878004, 40152878005, 40152878006, 40152878007, 40152878008, 40152878009, 40152878010, 40152878011, 40152878012, 40152878013, 40152878014

METHOD BLANK: 1537518 Matrix: Solid  
Associated Lab Samples: 40152878001, 40152878002, 40152878003, 40152878004, 40152878005, 40152878006, 40152878007, 40152878008, 40152878009, 40152878010, 40152878011, 40152878012, 40152878013, 40152878014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	9.2	07/10/17 18:40	
Ethylbenzene	ug/kg	<12.4	50.0	12.4	07/10/17 18:40	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	12.7	07/10/17 18:40	
Toluene	ug/kg	<11.2	50.0	11.2	07/10/17 18:40	
Xylene (Total)	ug/kg	<48.4	150	48.4	07/10/17 18:40	
4-Bromofluorobenzene (S)	%	92	58-141		07/10/17 18:40	
Dibromofluoromethane (S)	%	102	68-130		07/10/17 18:40	
Toluene-d8 (S)	%	109	68-149		07/10/17 18:40	

LABORATORY CONTROL SAMPLE: 1537519

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2470	99	66-130	
Ethylbenzene	ug/kg	2500	2590	104	82-122	
Methyl-tert-butyl ether	ug/kg	2500	2600	104	63-134	
Toluene	ug/kg	2500	2660	106	80-120	
Xylene (Total)	ug/kg	7500	7520	100	70-130	
4-Bromofluorobenzene (S)	%			93	58-141	
Dibromofluoromethane (S)	%			103	68-130	
Toluene-d8 (S)	%			104	68-149	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1537520 1537521

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual	
		40152878004 Result	Spike Conc.	Spike Conc.	MS Result						MSD Result
Benzene	ug/kg	<11.0	1490	1490	1410	1390	94	93	65-130	1	20
Ethylbenzene	ug/kg	<14.8	1490	1490	1460	1380	98	93	80-122	5	20
Methyl-tert-butyl ether	ug/kg	<15.1	1490	1490	1520	1500	102	100	63-134	1	20
Toluene	ug/kg	<13.4	1490	1490	1520	1420	102	95	80-120	7	20
Xylene (Total)	ug/kg	<57.8	4470	4470	4280	4090	96	91	70-130	4	20
4-Bromofluorobenzene (S)	%						91	89	58-141		
Dibromofluoromethane (S)	%						99	100	68-130		
Toluene-d8 (S)	%						104	101	68-149		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40152878

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QC Batch:	261186	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40152878001, 40152878002, 40152878003, 40152878004, 40152878005, 40152878006, 40152878007, 40152878008, 40152878009, 40152878010, 40152878011, 40152878012, 40152878013, 40152878014		

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SAMPLE DUPLICATE: 1537894

Parameter	Units	40152877002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.3	12.1	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152878

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
TNTC - Too Numerous To Count  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40152878

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40152878001	BH-35 @ 0.5-2.5	EPA 5035/5030B	261075	EPA 8260	261077
40152878002	BH-35 @ 7.5-10	EPA 5035/5030B	261075	EPA 8260	261077
40152878003	BH-35 @ 12.5-15	EPA 5035/5030B	261075	EPA 8260	261077
40152878004	BH-35 @ 15-17.5	EPA 5035/5030B	261075	EPA 8260	261077
40152878005	BH-35 @ 20-22.5	EPA 5035/5030B	261075	EPA 8260	261077
40152878006	BH-35 @ 25-27.5	EPA 5035/5030B	261075	EPA 8260	261077
40152878007	BH-35 @ 30-35	EPA 5035/5030B	261075	EPA 8260	261077
40152878008	BH-34 @ 0.75-2.5	EPA 5035/5030B	261075	EPA 8260	261077
40152878009	BH-34 @ 7.5-10	EPA 5035/5030B	261075	EPA 8260	261077
40152878010	BH-34 @ 10-12.5	EPA 5035/5030B	261075	EPA 8260	261077
40152878011	BH-34 @ 17.5-20	EPA 5035/5030B	261075	EPA 8260	261077
40152878012	BH-34 @ 20-22.5	EPA 5035/5030B	261075	EPA 8260	261077
40152878013	BH-34 @ 25-27.5	EPA 5035/5030B	261075	EPA 8260	261077
40152878014	BH-34 @ 30-32.5	EPA 5035/5030B	261075	EPA 8260	261077
40152878001	BH-35 @ 0.5-2.5	ASTM D2974-87	261186		
40152878002	BH-35 @ 7.5-10	ASTM D2974-87	261186		
40152878003	BH-35 @ 12.5-15	ASTM D2974-87	261186		
40152878004	BH-35 @ 15-17.5	ASTM D2974-87	261186		
40152878005	BH-35 @ 20-22.5	ASTM D2974-87	261186		
40152878006	BH-35 @ 25-27.5	ASTM D2974-87	261186		
40152878007	BH-35 @ 30-35	ASTM D2974-87	261186		
40152878008	BH-34 @ 0.75-2.5	ASTM D2974-87	261186		
40152878009	BH-34 @ 7.5-10	ASTM D2974-87	261186		
40152878010	BH-34 @ 10-12.5	ASTM D2974-87	261186		
40152878011	BH-34 @ 17.5-20	ASTM D2974-87	261186		
40152878012	BH-34 @ 20-22.5	ASTM D2974-87	261186		
40152878013	BH-34 @ 25-27.5	ASTM D2974-87	261186		
40152878014	BH-34 @ 30-32.5	ASTM D2974-87	261186		

**REPORT OF LABORATORY ANALYSIS**

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**CHAIN-OF-CUSTODY / Analytical Request Document**

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

*RMW*

<b>Section A</b> Required Client Information:	<b>Section B</b> Required Project Information:	<b>Section C</b> Invoice Information:
Company: TriCore Environmental, LLC	Report To: Marcos I. Czako	Attention: Shawn Rodeck
Address: 2368 Corporate Lane, Suite 116 Naperville, Illinois 60563	Copy To:	Company Name: TriCore Environmental, LLC
Email To: marcos.czako@tricoreweb.com	Purchase Order No.: 100137	Address: 2368 Corporate Lane, Suite 116, Naperville, Illinois 60563
Phone: 630-520-9973 Fax 630-520-9976	Project Name: Lemont Kar Gas	Pace Quote Reference:
Requested Due Date/TAT: <i>Standard</i>	Project Number: 100137	Pace Project Manager:
		Pace Profile #:

**REGULATORY AGENCY**

NPDES  GROUND WATER  DRINKING WATER

UST  RCRA  OTHER

**SITE LOCATION**

GA  IL  IN  MI  NC

OH  SC  WI  OTHER

ITEM #	Section D Required Client Information			COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Filtered (Y/N)						Requested Ant	Pace Project No. Lab I.D.																		
	SAMPLE ID			MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START				COMPOSITE ENDIGRAB		Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Methanol	Other	BTEXM B200		TCLP Lead	pH			Flashpoint	Paint Filter	Residual Chlorine (Y/N)															
	One Character per box. (A-Z, 0-9 / -)					DATE	TIME			DATE	TIME									Meq/L	Meq/L							Meq/L	Meq/L	Meq/L	Meq/L	Meq/L	Meq/L	Meq/L	Meq/L	Meq/L	Meq/L	Meq/L	Meq/L	Meq/L	Meq/L	Meq/L	Meq/L
	Sample IDs MUST BE UNIQUE																																										
1	BH-35	e	0.5-2.5	001	SLG			7/6/17	0834	3	1					Z		X	X							N	1-40zag # 2-40ml ✓																
2	BH-35	@	7.5-10	002	SLG			7/6/17	0841	3	1					Z		X	X							N																	
3	BH-35	@	12.5-15	003	SLG			7/6/17	0849	3	1					Z		X	X							N																	
4	BH-35	@	15-17.5	004	SLG			7/6/17	0858	3	1					Z		X	X							N																	
5	BH-35	@	20-22.5	005	SLG			7/6/17	0902	3	1					Z		X	X							N																	
6	BH-35	@	25-27.5	006	SLG			7/6/17	0904	3	1					Z		X	X							N																	
7	BH-35	@	30-35	007	SLG			7/6/17	0909	3	1					Z		X	X							N																	
8	BH-34	@	0.75-2.5	008	SLG			7/6/17	1308	3	1					Z		X	X							N																	
9	BH-34	@	7.5-10	009	SLG			7/6/17	1315	3	1					Z		X	X							N																	
10	BH-34	@	10-12.5	010	SLG			7/6/17	1316	3	1					Z		X	X							N																	
11	BH-34	@	17.5-20	011	SLG			7/6/17	1326	3	1					Z		X	X							N																	
12	BH-34	@	20-22.5	012	SLG			7/6/17	1328	3	1					Z		X	X							N																	

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
<i>[Signature]</i>	7/6/17	1430	Kath Wendorf	7/6/17	1430		Y/N	Y/N	Y/N
Kath Wendorf	7/6/17	1700	CS Logistics	7/6/17			Y/N	Y/N	Y/N
CS Logistics	7/7/17	0945	Kimberly Beth Pace	7/7/17	0945	R.S	N	N	N

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: Marcos I. Czako

SIGNATURE OF SAMPLER: *[Signature]* DATE Signed (MM/DD/YY): 07/06/17

Temp in °C: \_\_\_\_\_ Received on Ice: \_\_\_\_\_ Custody Sealed Cooler: \_\_\_\_\_ Samples Intact: \_\_\_\_\_







Sample Condition Upon Receipt

Project #: **WO#: 40152878**

Client Name: Tricore Enviro.



Courier:  Fed Ex  UPS  Client  Pace Other: CS Logistics

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: SR-71 Type of Ice:  Water  Blue Dry None

Cooler Temperature: Uncorr: 2.5 / Corr: 2.5 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Samples on ice, cooling process has begun

Person examining contents:  
Date: 7-7-17  
Initials: KR

		Comments:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 <=2; NaOH+ZnAct >=9, NaOH >=12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #/ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: [Signature] Date: 7/2/17



# Illinois Environmental Protection Agency

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

## Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

### B. Sample Collector

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. MLP  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. MLP  
(Initial)
- 3. Sample integrity was maintained by proper preservation. MLP  
(Initial)
- 4. All samples were properly labeled. MLP  
(Initial)

### C. Laboratory Representative

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms lw  
(Initial)
- 2. Sample integrity was maintained by proper preservation. lw  
(Initial)
- 3. All samples were properly labeled. lw  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. lw  
(Initial)
- 5. Sample holding times were not exceeded. lw  
(Initial)

40152818

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako

Title Geologist III

Company TriCore Environmental, LLC

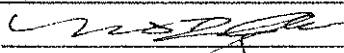
Address 2368 Corporate Lane, Suite 116

City Naperville

State Illinois

Zip Code 60563

Phone (630) 520-9973

Signature 

Date 07/06/17

**Laboratory Representative**

Name Laurie Woelfel

Title Project Manager

Company Pace Analytical Services, Inc.

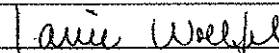
Address 1241 Bellevue Street, Suite 9

City Green Bay

State Wisconsin

Zip Code 64302

Phone (920) 469-2436

Signature 

Date 7/12/17

July 17, 2017

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

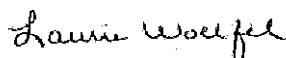
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152940

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on July 08, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Shawn Rodeck, TriCore Environmental, LLC.



**REPORT OF LABORATORY ANALYSIS**

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## CERTIFICATIONS

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40152940

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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**SAMPLE SUMMARY**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152940

---

<b>Lab ID</b>	<b>Sample ID</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Date Received</b>
40152940001	WASTE DISPOSAL-1	Solid	07/07/17 09:35	07/08/17 08:10

---

**REPORT OF LABORATORY ANALYSIS**

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152940

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40152940001	WASTE DISPOSAL-1	EPA 6010	DLB	1	PASI-G
		ASTM D2974-87	KTS	1	PASI-G
		EPA 1010	DEY	1	PASI-G
		EPA 9045	ALY	1	PASI-G
		EPA 9095	DDY	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152940

Sample: WASTE DISPOSAL-1 Lab ID: 40152940001 Collected: 07/07/17 09:35 Received: 07/08/17 08:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, TCLP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Leachate Method/Date: EPA 1311; 07/13/17 11:56								
Lead	<0.0043	mg/L	0.013	0.0043	1	07/14/17 08:25	07/14/17 14:57	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	10.5	%	0.10	0.10	1		07/08/17 17:20		
<b>1010 Flashpoint, Closed Cup</b>	Analytical Method: EPA 1010								
Flashpoint	>210	deg F			1		07/13/17 10:40		
<b>9045 pH Soil</b>	Analytical Method: EPA 9045								
pH at 25 Degrees C	7.92	Std. Units	0.100	0.0100	1		07/11/17 10:05		H6
<b>9095 Paint Filter Liquid Test</b>	Analytical Method: EPA 9095								
Free Liquids	pass	no units			1		07/15/17 11:00		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
 Pace Project No.: 40152940

QC Batch: 261543 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET TCLP  
 Associated Lab Samples: 40152940001

METHOD BLANK: 1539831 Matrix: Water  
 Associated Lab Samples: 40152940001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead	mg/L	<0.0043	0.013	0.0043	07/14/17 14:40	

METHOD BLANK: 1538996 Matrix: Solid  
 Associated Lab Samples: 40152940001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead	mg/L	<0.022	0.065	0.022	07/14/17 14:55	

METHOD BLANK: 1538997 Matrix: Solid  
 Associated Lab Samples: 40152940001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead	mg/L	<0.0043	0.013	0.0043	07/14/17 15:00	

METHOD BLANK: 1539104 Matrix: Solid  
 Associated Lab Samples: 40152940001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead	mg/L	<0.0043	0.013	0.0043	07/14/17 15:17	

LABORATORY CONTROL SAMPLE: 1539832

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/L	.5	0.50	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1539833 1539834

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40152958001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Lead	mg/L	<0.022	2.5	2.5	2.5	2.4	99	97	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40152940

QC Batch: 260953

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 40152940001

SAMPLE DUPLICATE: 1537177

Parameter	Units	40152761002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	7.9	7.7	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152940

QC Batch: 261398	Analysis Method: EPA 1010
QC Batch Method: EPA 1010	Analysis Description: 1010 Flash Point, Closed Cup
Associated Lab Samples: 40152940001	

LABORATORY CONTROL SAMPLE: 1539063

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Flashpoint	deg F		81.25			

SAMPLE DUPLICATE: 1539482

Parameter	Units	10395096001 Result	Dup Result	RPD	Max RPD	Qualifiers
Flashpoint	deg F	>210	>210			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152940

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QC Batch: 261152	Analysis Method: EPA 9045
QC Batch Method: EPA 9045	Analysis Description: 9045 pH
Associated Lab Samples: 40152940001	

---

SAMPLE DUPLICATE: 1537762

Parameter	Units	40152857010 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.91	7.96	1	5	H6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152940

QC Batch: 261571 Analysis Method: EPA 9095  
QC Batch Method: EPA 9095 Analysis Description: 9095 PAINT FILTER LIQUID TEST  
Associated Lab Samples: 40152940001

METHOD BLANK: 1540395 Matrix: Solid  
Associated Lab Samples: 40152940001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Free Liquids	no units	fail			07/15/17 10:55	

LABORATORY CONTROL SAMPLE: 1540396

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Free Liquids	no units		pass			

SAMPLE DUPLICATE: 1540397

Parameter	Units	40153236001 Result	Dup Result	RPD	Max RPD	Qualifiers
Free Liquids	no units	fail	fail			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152940

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
TNTC - Too Numerous To Count  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

H6 Analysis initiated outside of the 15 minute EPA required holding time.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40152940

---

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40152940001	WASTE DISPOSAL-1	EPA 3010	261543	EPA 6010	261554
40152940001	WASTE DISPOSAL-1	ASTM D2974-87	260953		
40152940001	WASTE DISPOSAL-1	EPA 1010	261398		
40152940001	WASTE DISPOSAL-1	EPA 9045	261152		
40152940001	WASTE DISPOSAL-1	EPA 9095	261571		

**REPORT OF LABORATORY ANALYSIS**

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Sample Condition Upon Receipt



Project #:

WO#: 40152940

Client Name: TriCore Environmental LLC

Courier:  Fed Ex  UPS  Client  Pace Other: CS Logistics

Tracking #:



Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR-53 Type of Ice:  Wet  Blue Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 2.5 /Corr: 2.5 Biological Tissue is Frozen:  yes

Temp Blank Present:  yes  no  no

Temp should be above freezing to 6°C.  
Biota Samples may be received at ≤ 0°C.

Person examining contents:  
Date: 2/8/17  
Initials: SSM

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: (Kw)

Date: 7/10/17



# Illinois Environmental Protection Agency

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

## Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

### B. Sample Collector

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. WBE  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. WBE  
(Initial)
- 3. Sample integrity was maintained by proper preservation. WBE  
(Initial)
- 4. All samples were properly labeled. WBE  
(Initial)

### C. Laboratory Representative

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms UW  
(Initial)
- 2. Sample integrity was maintained by proper preservation. UW  
(Initial)
- 3. All samples were properly labeled. UW  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. UW  
(Initial)
- 5. Sample holding times were not exceeded. UW  
(Initial)

40152940

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

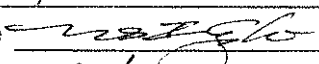
UW  
(Initial)

UW  
(Initial)

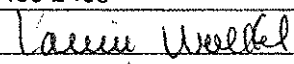
**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako  
 Title Geologist III  
 Company TriCore Environmental, LLC  
 Address 2368 Corporate Lane, Suite 116  
 City Naperville  
 State Illinois  
 Zip Code 60563  
 Phone (630) 520-9973  
 Signature   
 Date 07/07/17

**Laboratory Representative**

Name Laurie Woelfel  
 Title Project Manager  
 Company Pace Analytical Services, Inc.  
 Address 1241 Bellevue Street, Suite 9  
 City Green Bay  
 State Wisconsin  
 Zip Code 64302  
 Phone (920) 469-2436  
 Signature   
 Date 7/17/17

**APPENDIX B**  
**SOIL BORING LOGS AND MONITORING WELL CONSTRUCTION**  
**DIAGRAMS**

**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-1**

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 15'

**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett

**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & 4.25" Augers

**DATE/TIME STARTED:** 9/18/2003      **DATE/TIME ENDED:** 9/18/2003

**GW DEPTH WHILE DRILLING:** N/A      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Cuttings

**LOGGED BY:** Josh Blair      **MONITORING EQUIP:** PID      **Model 580B PID**

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Black top		0-5'	80%	155 ppm at 3-3.5'			Slight odor not discolored
2	Brown silty clay	CL			460 ppm at 4-5'			
4	Olive gray silty clay - moist	CL						
6	Brown silty clay w/pebbles	CL	5-10'	100%	280 ppm	Chem grab at 7.5-8'	BH-1A	Slight odor not discolored after 6'
8	Brown silty clay w/pebbles tight	CL						
10			10-15'	100%	39 ppm	Chem grab at 14-14.5'	BH-1B	No odor not discolored
12								
14								
16	15' End of boring							
18	Ground hard, very tight clay							
20	Stand truck on end.							
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Josh Blair

**PROJECT NO.:** 1803080



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

**BOREHOLE NO:** BH-1A

<b>BORING LOCATION:</b> See Site Map			<b>TOTAL DEPTH:</b> 30'		
<b>DRILLING COMPANY:</b> UNITED SCIENCE INDUSTRIES			<b>DRILLER:</b> Greg Liggett		
<b>DRILLING SAMPLING/METHOD:</b> GeoProbe 6600 w. 1.5" x 5' & 4.25" Augers					
<b>DATE/TIME STARTED:</b> 8/10/2004 0800		<b>DATE/TIME ENDED:</b> 8/10/2004 0945			
<b>GW DEPTH WHILE DRILLING:</b> NA		<b>AFTER DRILLING:</b> NA		<b>TYPE OF BACKFILL:</b> Cuttings	
<b>LOGGED BY:</b> Ron Minks			<b>MONITORING EQUIP:</b> PID Model 580B PID		

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							No odor no stain to 4' then no odor discolored 4-7'
2	Brown silty clay	CL	0-5'	70%	20 ppm at 4'			
4	Gray silty clay	CL						No stain no odor
6								
8	Hard brown silty clay with pebbles	CL	5-10'	100%	257 ppm at 8'			No stain no odor
10								
12			10-15'	100%	10 ppm at 13'			No stain no odor
14								
16								No stain no odor
18			15-20'	100%	7 ppm	Chem grab at 18'	BH-1C	
20								No stain no odor
22	Hard brown/gray silty clay with pebbles	CL	20-25'	100%	0 ppm	Physical soil at 20-22.5'	SCB-1	
24								No stain no odor
26								
28			25-30'	100%	0 ppm at 28'			
30	30' End of Boring							

<b>PROJECT NAME:</b> Lemont Kar Gas	<b>LOGGED BY:</b> Ron Minks
<b>PROJECT NO.:</b> 1803080	



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-2**

BORING LOCATION: See Site Map		TOTAL DEPTH: 10'	
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES		DRILLER: Greg Liggett	
DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers			
DATE/TIME STARTED: 9/18/2003		DATE/TIME ENDED: 9/18/2003	
GW DEPTH WHILE DRILLING: 5'		AFTER DRILLING: NA	TYPE OF BACKFILL: Cuttings
LOGGED BY: Josh Blair		MONITORING EQUIP: PID Model 580B PID	

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Black top							
2	Black silty clay	CL	0-5'	100%	300+ ppm	Chem grab at 4.5 - 5'	BH-2A	Slight odor slight discolored
4	Olive gray silty clay	CL						
6	Brown silty clay w/pebbles tighter	CL	5-10'	100%	200+ ppm at 6.5 - 7'			very slight odor 6 - 10' not discolored
10	10' End of boring							
12								
14								
16								
18								
20								
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Josh Blair
PROJECT NO.: 1803080	





**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-2A**

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 25'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w. 1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 8/10/2004 1305      **DATE/TIME ENDED:** 8/10/2004 1350  
**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Cuttings  
**LOGGED BY:** Ron Minks      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Olive green/gray silty clay with pebbles	CL	0-5'	80%	300+ ppm at 4'			Discolored odor to 7'
8	Hard brown silty clay with pebbles	CL	5-10'	100%	187 ppm at 8'			No stain no odor 7-10'
12	Hard brown silty clay with pebbles	CL	10-15'	100%	400+ ppm	Chem grab at 13'	BH-2B	No stain no odor
18	Hard gray silty clay with pebbles	CL	15-20'	100%	34 ppm at 18'			No stain no odor
24	Brown silty clay w/pebbles	CL	20-25'	100%	9 ppm	Chem grab at 24'	BH-2C	No stain no odor
26	25' End of boring							

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Ron Minks  
**PROJECT NO.:** 1803080



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-3**

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 10'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 9/18/2003      **DATE/TIME ENDED:** 9/18/2003  
**GW DEPTH WHILE DRILLING:** 5'      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Cuttings  
**LOGGED BY:** Josh Blair      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Grass							
2	Brown silty clay with gravel	CL	0-5'	80%	150 ppm	Chem grab at 4.5 - 5'	BH-3A	No odor not discolored
4	Brown silty clay	CL						
6								
8			5-10'	80%	18 ppm at 6.5 - 7'			No odor not discolored
10	10' End of boring							
12	Next to utilities							
14								
16								
18								
20								
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Josh Blair  
**PROJECT NO.:** 1803080



**UNITED SCIENCE INDUSTRIES, INC.  
DRILLING BOREHOLE LOG**

**BOREHOLE NO: BH-3A**

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 30'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 8/10/2004 0955      **DATE/TIME ENDED:** 8/10/2004 1100  
**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** cuttings

**LOGGED BY:** Ron Minks      **MONITORING EQUIP:** PID      Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Brown/gray silty clay with pebbles	CL	0-5'	100%	400+ ppm at 4'			No stain odor
8	Hard brown silty clay with pebbles	CL	5-10'	100%	201 ppm at 8'			No stain odor
13			10-15'	100%	6 ppm	Chem grab at 13'	BH-3B	No stain no odor 11-15'
18	Hard gray silty clay with pebbles	CL	15-20'	100%	0 ppm	Chem grab at 18'	BH-3C	No stain no odor
24			20-25'	100%	0 ppm at 24'			No stain no odor
28			25-30'	100%	0 ppm at 28'			No stain no odor
30	30' End of boring							

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Ron Minks  
**PROJECT NO.:** 1803080



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

**BOREHOLE NO:** BH-4

<b>BORING LOCATION:</b> See Site Map			<b>TOTAL DEPTH:</b> 10'		
<b>DRILLING COMPANY:</b> UNITED SCIENCE INDUSTRIES			<b>DRILLER:</b> Greg Liggett		
<b>DRILLING SAMPLING/METHOD:</b> GeoProbe 6600 w. 1.5" x 5' & 4.25" Augers					
<b>DATE/TIME STARTED:</b> 9/18/2003			<b>DATE/TIME ENDED:</b> 9/18/2003		
<b>GW DEPTH WHILE DRILLING:</b> 5'		<b>AFTER DRILLING:</b> NA		<b>TYPE OF BACKFILL:</b> Cuttings	
<b>LOGGED BY:</b> Josh Blair			<b>MONITORING EQUIP:</b> PID Model 580B PID		

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Grass							
2	Brown silty clay with gravel	CL	0-5'	50%	26 ppm at 4.5 - 5'			Very slight odor slightly discolored
4	Brown silty clay	CL						
6								
8			5-10'	100%	250 ppm	Chem grab at 6.5 - 7'	BH-4A	Slight odor slightly discolored
10	10' End of boring							
12								
14								
16								
18								
20								
22								
24								
26								
28								

<b>PROJECT NAME:</b> Lemont Kar Gas	<b>LOGGED BY:</b> Josh Blair
<b>PROJECT NO.:</b> 1803080	



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

**BOREHOLE NO:** BH-4A

<b>BORING LOCATION:</b> See Site Map			<b>TOTAL DEPTH:</b> 20'		
<b>DRILLING COMPANY:</b> UNITED SCIENCE INDUSTRIES			<b>DRILLER:</b> Greg Liggett		
<b>DRILLING SAMPLING/METHOD:</b> GeoProbe 6600 w.1.5" x 5' & 4.25" Augers					
<b>DATE/TIME STARTED:</b> 8/10/2004 1230		<b>DATE/TIME ENDED:</b> 8/10/2004 1300			
<b>GW DEPTH WHILE DRILLING:</b> NA		<b>AFTER DRILLING:</b> NA		<b>TYPE OF BACKFILL:</b> Cuttings	
<b>LOGGED BY:</b> Ron Minks			<b>MONITORING EQUIP:</b> PID Model 580B PID		

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Olive gray silty clay with pebbles	CL	0-5'	80%	111 ppm at 4'			Discolored odor to 6'
6								
8	Hard brown/gray silty clay with pebbles	CL	5-10'	100%	0 ppm at 8'			No stain no odor
12								
14						Chem grab at 13'	BH-4B	No stain no odor
16	Hard brown silty clay with pebbles	CL						
18			15-20'	100%	0 ppm at 18'			No stain no odor
20	20' End of boring							
22								
24								
26								
28								
30								

<b>PROJECT NAME:</b> Lemont Kar Gas	<b>LOGGED BY:</b> Ron Minks
<b>PROJECT NO.:</b> 1803080	



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

**BOREHOLE NO:** BH-5

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 8'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 9/18/2003      **DATE/TIME ENDED:** 9/18/2003  
**GW DEPTH WHILE DRILLING:** 5'      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Cuttings  
**LOGGED BY:** Josh Blair      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Black top							
2	Olive gray silty clay	CL	0-5'	80%	400+ ppm	Chem grab at 4.5 - 5'	BH-5A	Odor discolored
8	Olive gray silty clay w/pebbles	CL	5-8'	70%	400+ ppm at 6.5 - 7'			Odor discolored
8	8' Refusal							
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Josh Blair  
**PROJECT NO.:** 1803080



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-5A**

BORING LOCATION: See Site Map		TOTAL DEPTH: 30'	
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES		DRILLER: Greg Liggett	
DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers			
DATE/TIME STARTED: 8/10/2004 1115		DATE/TIME ENDED: 8/10/2004 1200	
GW DEPTH WHILE DRILLING: NA		AFTER DRILLING: NA	
TYPE OF BACKFILL: cuttings			
LOGGED BY: Ron Minks		MONITORING EQUIP: PID Model 580B PID	

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Olive gray/brown silty clay with pebbles	CL	0-5'	80%	400+ ppm at 4'			Discolored odor to 6'
8	Hard brown/gray silty clay with pebbles	CL	5-10'	100%	213 ppm at 8'			No stain odor 6-10'
13			10-15'	100%	61 ppm	Chem grab at 13'	BH-5B	No stain odor
18			15-20'	100%	21 ppm at 18'			No stain odor
24			20-25'	100%	0 ppm	Chem grab at 24'	BH-5C	No stain no odor
28			25-30'	100%	0 ppm at 28'			No stain no odor
30	30' End of boring							

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Ron Minks
PROJECT NO.: 1803080	



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-6**

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 20'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w. 1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 8/2/2005      **DATE/TIME ENDED:** 8/2/2005  
**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Bentonite

**LOGGED BY:** Ron Minks      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Hard brown silty clay w/pebbles	CL	0-5'	50%	125 ppm	Chem grab at 5'	BH-6A	No stain no odor
6			5-10'	80%	361 ppm	Chem grab at 9'	BH-6B	No stain no odor to 8' then No stain/odor
12			10-15'	100%	13 ppm	Chem grab at 15'	BH-6C	No stain odor to 14' then No stain/no odor
18			15-20'	100%	0 ppm	Chem grab at 18'	BH-6D	No stain no odor
20	20' End of boring							
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Ron Minks  
**PROJECT NO.:** 1803080      **Transcribed by:** Jody Richards





**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

**BOREHOLE NO: BH-7**

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 20'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 8/2/2005      **DATE/TIME ENDED:** 8/2/2005  
**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Bentonite  
**LOGGED BY:** Ron Minks      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Grass							
2	Brown silty clay w/pebbles	CL	0-5'	80%	0 ppm	Chem grab at 4'	BH-7A	No stain no odor
4								
6								
8	Hard brown/gray silty clay w/pebbles	CL	5-10'	100%	0 ppm	Chem grab at 9'	BH-7B	No stain no odor
10								
12								No stain
14			10-15'	100%	0 ppm	Chem grab at 14'	BH-7C	
16								
18			15-20'	100%	0 ppm	Chem grab at 18'	BH-7D	No stain no odor
20	20' End of boring							
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Ron Minks  
**PROJECT NO.:** 1803080      **Transcribed by:** Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-8

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 15'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 8/2/2005      **DATE/TIME ENDED:** 8/2/2005  
**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Bentonite  
**LOGGED BY:** Ron Minks      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Grass							
2	Brown silty clay	CL	0-5'	60%	0 ppm	Chem grab at 3'	BH-8A	No stain no odor
6	Hard brown silty sandy clay	CL	5-10'	60%	98 ppm	Chem grab at 9'	BH-8B	No stain no odor to 9' then No stain/odor to 10'
8								
10								
12			10-15'	100%	0 ppm	Chem grab at 14'	BH-8C	No stain no odor
14								
16	15' End of boring							
18								
20								
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Ron Minks  
**PROJECT NO.:** 1803080      **Transcribed by:** Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-9**

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 15'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w. 1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 8/2/2005      **DATE/TIME ENDED:** 8/2/2005  
**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Bentonite  
**LOGGED BY:** Ron Minks      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Hard brown silty clay w/pebbles	CL	0-5'	50%	0 ppm	Chem grab at 4'	BH-9A	No stain no odor
6			5-10'	100%	0 ppm	Chem grab at 9'	BH-9B	No stain no odor
12			10-15'	100%	0 ppm	Chem grab at 14'	BH-9C	No stain no odor
16	15' End of boring							
18								
20								
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Ron Minks  
**PROJECT NO.:** 1803080      **Transcribed by:** Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-10

BORING LOCATION: See Site Map	TOTAL DEPTH: 20'
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES	DRILLER: Greg Liggett
DRILLING SAMPLING/METHOD: GeoProbe 6600 w. 1.5" x 5' & 4.25" Augers	
DATE/TIME STARTED: 8/2/2005	DATE/TIME ENDED: 8/2/2005
GW DEPTH WHILE DRILLING: NA	AFTER DRILLING: NA
TYPE OF BACKFILL: Bentonite	
LOGGED BY: Ron Minks	MONITORING EQUIP: PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Grass							
2	Brown silty clay	CL	0-5'	80%	195 ppm	Chem grab at 4'	BH-10A	No stain no odor to 3' then Discolored odor
4	Olive green silty clay	CL						
6								Discolored/odor to 6'
8	Hard brown silty clay w/pebbles	CL	5-10'	100%	147 ppm	Chem grab at 9'	BH-10B	then No stain no odor
12								
14			10-15'	100%	10 ppm	Chem grab at 14'	BH-10C	No stain no odor
18								
20			15-20'	100%	0 ppm	Chem grab at 18-20'	BH-10D	No stain no odor
22	20' End of boring							
24								
26								
28								

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Ron Minks
PROJECT NO.: 1803080	Transcribed by: Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-11

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 15'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 8/2/2005      **DATE/TIME ENDED:** 8/2/2005  
**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Bentonite  
**LOGGED BY:** Ron Minks      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Brown silty clay	CL	0-5'	100%	250 ppm	Chem grab at 4'	BH-11A	No stain no odor to 3' then Discolored odor
4	Olive green silty clay	CL						
6								Discolored/odor to 6' then
8	Hard brown silty clay w/pebbles	CL	5-10'	100%	212 ppm	Chem grab at 9'	BH-11B	No stain odor
10								
12			10-15'	100%	0 ppm	Chem grab at 14'	BH-11C	No stain no odor
14								
16	15' End of boring							
18								
20								
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Ron Minks  
**PROJECT NO.:** 1803080      **Transcribed by:** Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-12**

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 20'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 8/2/2005      **DATE/TIME ENDED:** 8/2/2005  
**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Bentonite

**LOGGED BY:** Ron Minks      **MONITORING EQUIP:** PID      Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Hard brown silty clay w/pebbles	CL	0-5'	100%	303 ppm	Chem grab at 4'	BH-12A	No stain odor
6								
8			5-10'	100%	242 ppm	Chem grab at 9'	BH-12B	No stain odor
12								
14			10-15'	100%	55 ppm	Chem grab at 14'	BH-12C	No stain odor
16	Gray silty clay w/pebbles	CL						
18			15-20'	100%	0 ppm	Chem grab at 19'	BH-12D	No stain no odor
20	20' End of boring							
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Ron Minks  
**PROJECT NO.:** 1803080      **Transcribed by:** Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-13**

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 15'

**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett

**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & 4.25" Augers

**DATE/TIME STARTED:** 8/2/2005      **DATE/TIME ENDED:** 8/2/2005

**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Bentonite

**LOGGED BY:** Ron Minks      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Trench sand backfill sand - poor recovery		0-5'					No stain no odor
8			5-10'	80%	0 ppm	Chem grab at 9'	BH-13A	No stain no odor
10	Hard brown silty clay w/pebbles	CL						
14			10-15'	100%	0 ppm	Chem grab at 14'	BH-13B	No stain no odor
16	15' End of boring							
18								
20								
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Ron Minks

**PROJECT NO.:** 1803080      **Transcribed by:** Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: ST-1

BORING LOCATION: See Site Map		TOTAL DEPTH: 10'	
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES		DRILLER: Greg Liggett	
DRILLING SAMPLING/METHOD: GeoProbe 6600 w. 1.5" x 5' & 4.25" Augers			
DATE/TIME STARTED: 8/2/2005		DATE/TIME ENDED: 8/2/2005	
GW DEPTH WHILE DRILLING: NA	AFTER DRILLING: NA	TYPE OF BACKFILL: Bentonite	
LOGGED BY: Ron Minks		MONITORING EQUIP: PID Model 580B PID	

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Grass							
2	Hard brown silty clay w/pebbles	CL	0-5'	100%	0 ppm at 4'			No stain no odor
8	Collect Shelby Tube		5-10'	100%		Shelby Tube at 7.5-10'	ST-1	No stain no odor
10	10' End of boring							
12								
14								
16								
18								
20								
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Ron Minks
PROJECT NO.: 1803080	Transcribed by: Jody Richards





**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-14

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 15'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 9/26/2005 1500      **DATE/TIME ENDED:** 9/26/2005 1525  
**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Cuttings

**LOGGED BY:** Jarrod Yearwood      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Top soil							
2	Brown stiff silty clay	CL	0-5'	40%	2 ppm	Chem grab at 4-5'	BH-14A	No stain no odor
6	Brown & gray - stiff		5-10'	90%	2 ppm	Chem grab at 8'	BH-14B	No stain no odor
14	w/pebbles		10-15'	100%	2 ppm	Chem grab at 14'	BH-14C	No stain no odor
16	15' End of boring							
18								
20								
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Jarrod Yearwood  
**PROJECT NO.:** 1803080      **Transcribed by:** Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

**BOREHOLE NO: BH-15**

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 15'

**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett

**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & 4.25" Augers

**DATE/TIME STARTED:** 9/26/2005 1530      **DATE/TIME ENDED:** 9/26/2005 1600

**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Cuttings

**LOGGED BY:** Jarrod Yearwood      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Top soil							
2	Dark brown silty stiff clay	CL	0-5'	75%	2 ppm	Chem grab at 4.5'	BH-15A	No stain no odor
4	Brown & gray silty clay	CL	5-10'	100%	1 ppm	Chem grab at 8'	BH-15B	No stain no odor
6								
8	stiff w/pebbles		10-15'	100%	2 ppm	Chem grab at 14'	BH-15C	No stain no odor
10								
12	15' End of boring							
14								
16								
18								
20								
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Jarrod Yearwood

**PROJECT NO.:** 1803080      **Transcribed by:** Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-16**

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 15'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 9/26/2005 1610      **DATE/TIME ENDED:** 9/26/2005 1630  
**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Cuttings

**LOGGED BY:** Jarrod Yearwood      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Top soil							
2	Brown silty clay	CL	0-5'	75%	2 ppm	Chem grab 4.5'	BH-16A	No stain no odor
4	stiff							
6								
8			5-10'	100%	0.5 ppm	Chem grab at 8'	BH-16B	No stain no odor
10								
12	w/pebbles		10-15'	100%	1 ppm	Chem grab at 14'	BH-16C	No stain no odor
14								
16	15' End of boring							
18								
20								
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Jarrod Yearwood  
**PROJECT NO.:** 1803080      **Transcribed by:** Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

**BOREHOLE NO: BH-17**

<b>BORING LOCATION:</b> See Site Map		<b>TOTAL DEPTH:</b> 15'	
<b>DRILLING COMPANY:</b> UNITED SCIENCE INDUSTRIES		<b>DRILLER:</b> Greg Liggett	
<b>DRILLING SAMPLING/METHOD:</b> GeoProbe 6600 w.1.5" x 5' & 4.25" Augers			
<b>DATE/TIME STARTED:</b> 9/26/2005 1630		<b>DATE/TIME ENDED:</b> 9/26/2005 1700	
<b>GW DEPTH WHILE DRILLING:</b> NA		<b>AFTER DRILLING:</b> NA	
<b>TYPE OF BACKFILL:</b> Cuttings			
<b>LOGGED BY:</b> Jarrod Yearwood		<b>MONITORING EQUIP:</b> PID Model 580B PID	

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Black top							
2	Low recovery		0-5'	10%				Low Recovery
4								
6	Brown & gray stiff silty clay	CL	5-10'	100%	2 ppm at 5'	Chem grab at 5'	BH-17A	No stain no odor
8					1 ppm at 9'	Chem grab at 9'	BH17B	
10								
12	w/pebbles		10-15'	100%	1 ppm	Chem grab at 14'	BH-17C	No stain no odor
14								
16	15' End of boring							
18								
20								
22								
24								
26								
28								

<b>PROJECT NAME:</b> Lemont Kar Gas	<b>LOGGED BY:</b> Jarrod Yearwood
<b>PROJECT NO.:</b> 1803080	<b>Transcribed by:</b> Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

**BOREHOLE NO: BH-18**

<b>BORING LOCATION:</b> See Site Map			<b>TOTAL DEPTH:</b> 21'		
<b>DRILLING COMPANY:</b> UNITED SCIENCE INDUSTRIES			<b>DRILLER:</b> Greg Liggett		
<b>DRILLING SAMPLING/METHOD:</b> GeoProbe 6600 w.1.5" x 5' & 4.25" Augers					
<b>DATE/TIME STARTED:</b> 9/27/2005 0910		<b>DATE/TIME ENDED:</b> 9/27/2005 1000			
<b>GW DEPTH WHILE DRILLING:</b> NA		<b>AFTER DRILLING:</b> NA		<b>TYPE OF BACKFILL:</b> Cuttings	
<b>LOGGED BY:</b> Jarrod Yearwood			<b>MONITORING EQUIP:</b> PID Model 580B PID		

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Top soil							
2	Low recovery		0-5'	10%				Low Recovery
4								
6	Brown & gray stiff silty clay	CL	5-10'	100%	1500+ ppm	Chem grab at 5.5'	BH-18A	Slight stain moderate to strong odor
8					1050 ppm at 9'			
10	w/pebbles		10-15'	100%	1313 ppm	Chem grab at 14.5'	BH-18B	Slight stain moderate to strong odor
12			15-20	100%	500 ppm	Chem grab at 19'	BH-18C	Slight stain slight odor
14								
16								
18								
20			20-21					
22	21' End of boring - Probe Refusal - Bedrock							
24								
26								
28								

<b>PROJECT NAME:</b> Lemont Kar Gas	<b>LOGGED BY:</b> Jarrod Yearwood
<b>PROJECT NO.:</b> 1803080	<b>Transcribed by:</b> Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-19**

BORING LOCATION: See Site Map		TOTAL DEPTH: 20'	
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES		DRILLER: Greg Liggett	
DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers			
DATE/TIME STARTED: 9/27/2005 1010		DATE/TIME ENDED: 9/27/2005 1050	
GW DEPTH WHILE DRILLING: NA	AFTER DRILLING: NA	TYPE OF BACKFILL: Cuttings	
LOGGED BY: Jarrod Yearwood		MONITORING EQUIP: PID Model 580B PID	

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Top soil							
2	Rock chips		0-5'	65%	3 ppm at 4.5'			No odor no stain
4	Brown silty clay - stiff  Brown & gray w/pebbles  stiff  stiff w/pebbles	CL						
6						Chem grab at 8'	BH-19A	No odor no stain
8			5-10'	100%	8 ppm			
10						Chem grab at 14'	BH-19B	Slight odor no stain
12								
14								
16								
18			15-20	75%	3 ppm	Chem grab at 19'	BH-19C	No odor no stain
20	20' End of boring							
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Jarrod Yearwood
PROJECT NO.: 1803080	Transcribed by: Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-20**

BORING LOCATION: See Site Map		TOTAL DEPTH: 15'	
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES		DRILLER: Greg Liggett	
DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & Augers			
DATE/TIME STARTED: 11/10/2005 0850		DATE/TIME ENDED: 11/10/2005 0915	
GW DEPTH WHILE DRILLING: NA	AFTER DRILLING: NA	TYPE OF BACKFILL: Cuttings	
LOGGED BY: Jarrod Yearwood		MONITORING EQUIP: PID Mini Rae 2000	

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Grass							
2	Brown stiff silty clay	CL	0-5'	75%	8 ppm	Chem grab at 4'	BH-20A	No odor no stain
6	w/gray		5-10'	80%	11 ppm	Chem grab at 8'	BH-20B	No odor no stain
14	gray w/pebbles		10-15'	100%	11 ppm	Chem grab at 14'	BH-20C	No odor no stain
16	15' End of boring							
18								
20								
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Jarrod Yearwood
PROJECT NO.: 1803080	Transcribed by: Jody Richards





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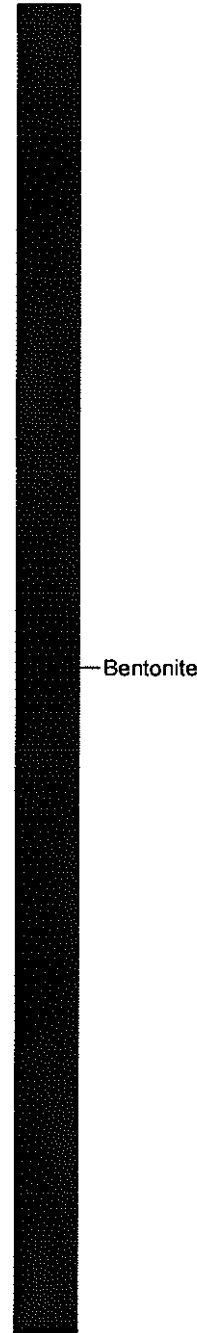
Lemont Kar Gas  
1196 State Street  
Lemont, IL 60439

**BH-21**

Date Started: 06/17/15  
Date Completed: 06/17/15  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Dual Tube

Surface Elevation: NM  
Total Depth: 30 ft.  
DTW While Drilling: None  
Logged By: Marcos Czako  
Project No.: 100037

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input checked="" type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0							
0			Topsoil				
1			CLAY, tan trace sand, gravel, stiff, no odor			0.6	
2							
3							
4						0.6	
5			little gray silt, slight odor				
6							98.5
7			odor				
8							694.7
9							
10			some gravel				
11		CL					1,105
12			trace gravel				
13							570.2
14							
15			brown, some large gravel				
16							395.2
17							
18			very hard drilling 17.5 ft to 22.5 ft				
19							791.4
20			gravel seam from 19.5-19.7 ft				
21							208.4
22							
23		CL	CLAY, grayish-brown, trace silt, sand, and gravel, stiff, no odor, slightly moist				12.9
24							
25			SANDY SILT, gray, slightly stiff, slight odor, slightly moist				
26							143.8
27		SM					
28			no odor				
29							1.1
30			End of Boring				



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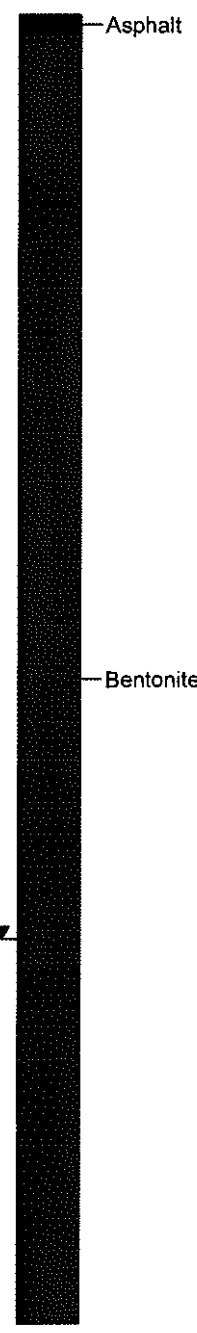
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Lemont, IL 60439

**BH-22**

Date Started: 09/08/15  
Date Completed: 09/08/15  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Dual Tube

Surface Elevation: NM  
Total Depth: 32 ft.  
DTW While Drilling: 22.75 ft.  
Logged By: Kyle Arney  
Project No.: 100037

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0							NA
0-1							Asphalt
1-2							Base Course
2-8		CL					CLAY, tan to light brown, little silt, sand, and gravel, stiff, no odor, dry
8-16		CL					CLAY, brown, traces of silt, sand, and gravel, hard, no odor, slightly moist
16-17							-friable from 16-17 ft, dry
17-18		CL					CLAY, olive, some sand, no odor, moist
18-20		CL					CLAY, olive to brown, some sand, no odor, moist to very moist
20-23		SP					SAND olive, very fine grading to coarse, dense, strong odor, visable sheen, saturated
23-24		ML					SILT, olive green, some clay, stiff, odor, very wet to saturated
24-26		CL					CLAY, olive gray, some silt, sand, and gravel, soft, very plastic, no odor, very wet
26-27							No recovery from 27 - 32 ft; 2 in. piece of limestone/dolomite in end of sampler.
27-32							End of Boring



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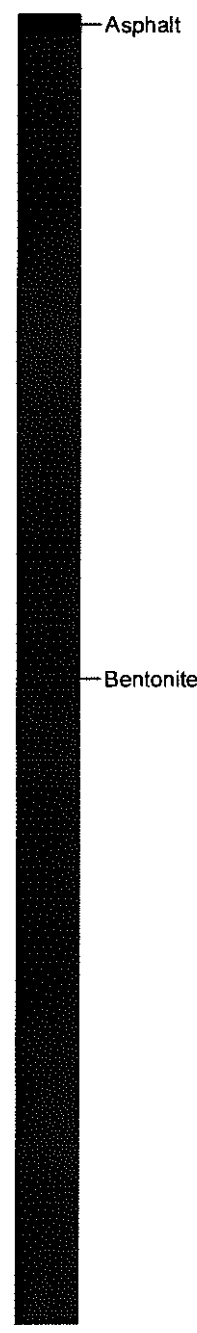
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**BH-23**

Date Started: 09/08/15  
Date Completed: 09/08/15  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Dual Tube

Surface Elevation: NM  
Total Depth: 32 ft.  
DTW While Drilling: None  
Logged By: Kyle Arney  
Project No.: 100037

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0				Asphalt			
1				Base Course			NA
2		CL		CLAY, olive-brown mottled, traces of clay, silt, and sand, soft, no odor, moist			4.8
3							
4							
5		SP		SAND, brown, loose, some silt and fine gravel, weak odor, moist			5.3
6							
7		CL		CLAY, light brown to tan, little silt, sand, and clay, gray mottling, hard, moist			10.1
8							
9		CL/ML		SILTY CLAY, brown, little sand and gravel, medium stiff, no odor, moist			11.5
10		CL/SP		SANDY CLAY, brown, fine to very fine grained sand, no odor, soft, moist			12.5
11							
12				SAND, brown to gray, coarse grained, very dense, no odor, moist			21.2
13				CLAY, light brown, some silt, little sand and gravel, hard, no odor, moist			20.4
14							
15				little to trace coarse gravel, few isolated wet zones ~1-2 in. thick, no odor			13.3
16		CL					21.7
17							
18							
19				1 in. limestone fragment			21.6
20							16.9
21				moist to wet			21.3
22							
23		CL		CLAY, gray, some silt, very stiff, slightly plastic, no odor, moist			20.0
24				light brown from 24.8-25 ft			
25		SP		SAND, brown to olive, grades from coarse to fine grained, some silt, strong odor, very wet			127.2
26		ML					
27				SILT, olive green to tan, dense, odor, moist			27.4
28		CL		SILTY CLAY to CLAY, olive green, little sand and gravel, soft, plastic, odor, very wet			16.3
29							
30							
31		CL		CLAY, gray, some silt, trace sand and gravel, stiff, no odor, very wet			15.1
32				End of Boring			
33							



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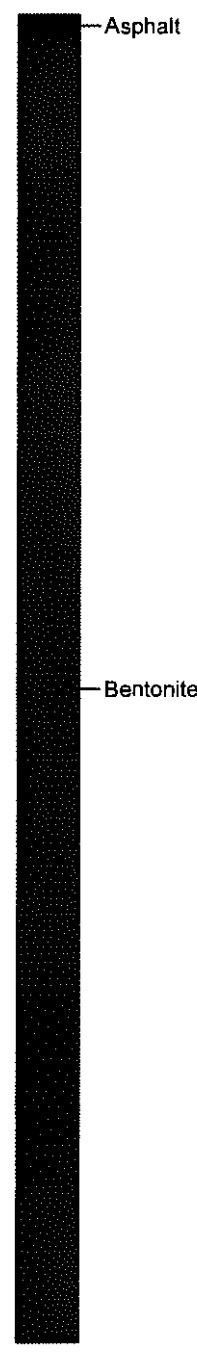
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**BH-24**

Date Started: 09/08/15  
Date Completed: 09/08/15  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Dual Tube

Surface Elevation: NM  
Total Depth: 30 ft.  
DTW While Drilling: None  
Logged By: Kyle Arney  
Project No.: 100037

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input checked="" type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0				Topsoil, silty clay, tan to light brown, no odor, dry			
1				CLAY, tan to light brown, little sand, silt, and gravel, stiff, no odor, dry			5.2
2							6.4
3		CL					6.8
4				odor, moist			
5							573.4
6							
7		CL/SP		SANDY CLAY, olive, little silt, trace gravel, dark gray staining, odor, very wet			390.2
8		ML		SILT, olive gray, little clay, trace sand, medium dense, weak odor, wet			460.2
9							
10							
11		CL		CLAY, brown, little silt, sand, and gravel, stiff, weak odor, moist			46.2
12							
13				CLAY, olive brown, little silt, sand, and gravel, stiff, no odor, moisty			33.8
14		CL					17.5
15							
16							
17		CL		CLAY, gray, little silt, sand, and gravel, stiff, no odor, moist			13.7
18							
19				CLAY, brown and gray mottled, stiff, plastic, no odor, moist			13.7
20		CL					14.2
21							
22				CLAY, gray, little sand and gravel, stiff, plastic no odor, moist			15.3
23							
24		CL		soft, plastic, little coarse gravel, very moist to wet			10.6
25							16.4
26				No Recovery			NA
27							
28							
29		CL		CLAY, gray, little sand and gravel, soft, plastic, very moist to wet			10.9
30				End of Boring			



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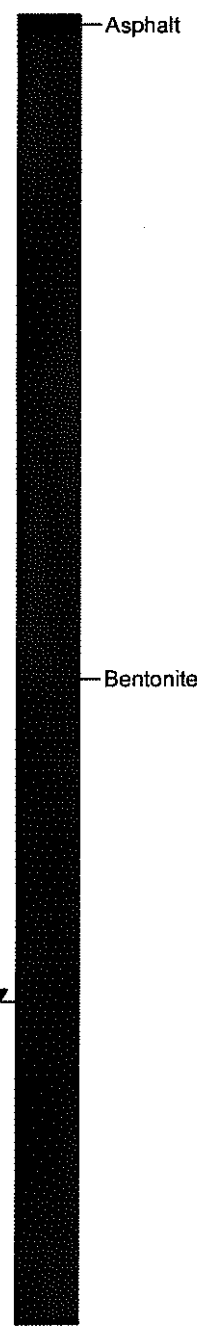
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1196 State Street  
Lemont, IL 60439

BH-21A

Date Started: 09/15/16  
Date Completed: 09/15/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 32.5 ft.  
DTW While Drilling: 24.5 ft.  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0				Topsoil, no odor, dry			NA
1				CLAY, brown, traces of silt, sand, and gravel, stiff, no odor, dry			12.7
2							
3							
4							
5				turning brittle			
6							
7							
8				turning very stiff, slightly moist, odor			
9		CL					55.1
10							
11							889.3
12							
13							879.1
14							
15							
16							959.1
17							
18							
19		CL-ML		SILTY CLAY, brown, no odor, slightly moist			373.9
20				turning sandy from 18.75 to 19 ft.			
21		CL		CLAY, brownish-gray, traces of silt, sand, and gravel, very stiff, no odor, moist			103.2
22							
23				turning stiff			
24							42.8
25		SW		SAND, Well Graded, brown, fine to large grained, traces of clay and silt, odor, saturated			1,041
26				SILT, brown, odor, saturated			114.3
27		CL-ML		SILTY, SANDY CLAY, no odor, stiff, swelling, sticky, moist			
28							10.6
29							
30							
31		CL		CLAY, brown, traces of silt, sand, and gravel, stiff, no odor, slightly swelling, moist			12.6
32							
33				End of boring.			



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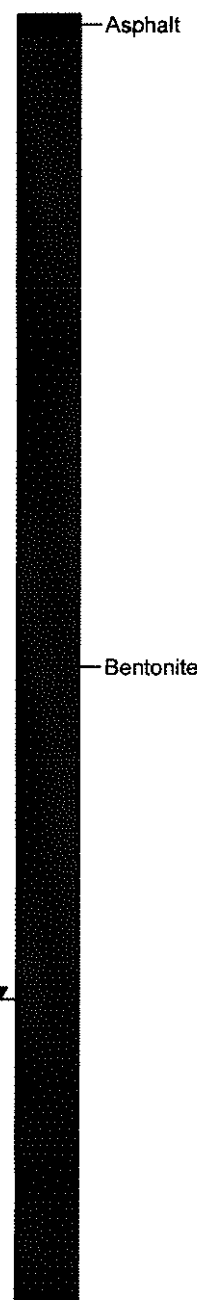
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Lemont, IL 60439

BH-22A

Date Started: 09/14/16  
Date Completed: 09/14/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 30 ft.  
DTW While Drilling: 23 ft.  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition		Water Levels		Sample No.	PID (ppm)
				Field Screened Only	Not Field Screened	During Drilling	After Completion		
DESCRIPTION									
0				Asphalt					NA
1				Gravel fill material, no odor, dry					NA
2				CLAY, brown, traces of silt, sand, and gravel, very stiff, no odor, slightly moist					12.3
3				turning dry					
4									13.3
5									
6									13.4
7									
8									4.5
9									
10									
11									14.3
12		CL		increasing silt content from 13.75 to 15 ft.					
13									2.9
14									
15				some sand, turning stiff					42.3
16									
17									
18									11.5
19									
20									
21									724.3
22									
23		CL		turning gray, traces of silt, sand, and gravel, odor, moist					1,141
24		SM							
25		CL		SILT and SAND, gray, odor, saturated					367.1
26		SP		CLAY, gray, traces of silt, sand, and gravel, odor, moist					
27		CL		SAND, Poorly Graded, gray, fine to medium grained, some silt, strong odor, saturated					NA
28		SP		CLAY, gray, strong odor, saturated					
29		CL		SAND, Poorly Graded, gray, fine to medium grained, some silt, strong odor, saturated					NA
30				CLAY, gray, strong odor, saturated					
31				End of boring.					



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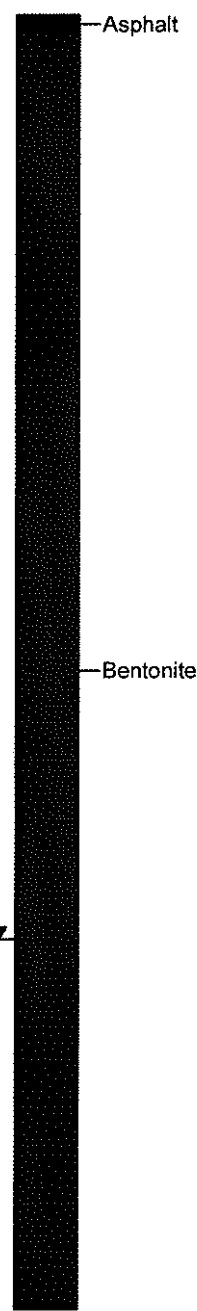
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Lemont, IL 60439

**BH-23A**

Date Started: 09/14/16  
Date Completed: 09/14/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 35 ft.  
DTW While Drilling: 25 ft.  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input checked="" type="checkbox"/> Analyzed by Lab	<input checked="" type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0							NA
1							NA
2		CL					14.4
3		CL					22.2
4							
5		SW					20.5
6							
7							
8							
9							17.9
10							
11		CL					16.0
12							
13							8.9
14							
15		CL-ML					15.8
16							
17		CL					15.3
18							
19		ML-CL					17.6
20		CL					19.2
21							
22		ML-CL					17.9
23							
24		CL					22.0
25							
26		ML					14.8
27		CL-ML					16.0
28							
29		ML-CL					12.5
30		SP					11.4
31		CL					6.0
32							
33		ML-CL					
34							
35		CL					
36							



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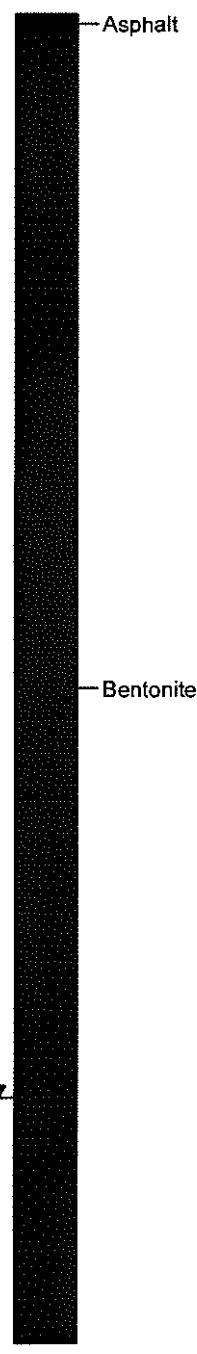
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1196 State Street  
Lemont, IL 60439

**BH-25**

Date Started: 09/15/16  
Date Completed: 09/15/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 32.5 ft.  
DTW While Drilling: 26.5 ft.  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input checked="" type="checkbox"/> Analyzed by Lab	<input checked="" type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0				Asphalt			NA
1				Gravel Fill Material, no odor, dry			NA
2				CLAY, brown, traces of silt, sand, and gravel, medium soft, no odor, slightly moist			6.0
3							
4							8.7
5				turning stiff			
6							8.2
7							
8							10.0
9							
10				turning dry and very stiff			
11							7.9
12		CL					
13							7.2
14							
15				turning moist			
16							8.1
17							
18							10.0
19							
20							11.4
21							
22				turning stiff			
23		ML-CL		CLAYEY SILT, brown, little sand, fine to medium grained, no odor, moist			8.5
24							
25		CL		CLAY, brown, traces of silt, sand, and gravel, stiff, no odor, moist			4.8
26							
27		SP		SAND, Poorly Graded, brown, fine to medium grained, some silt, traces of clay and gravel, no odor, saturated			10.4
28							
29		CL		CLAY, brownish-gray, swelling, traces of silt, sand, and gravel, no odor, moist			7.3
30							
31		CL		turning gray			8.7
32							
33				End of boring.			



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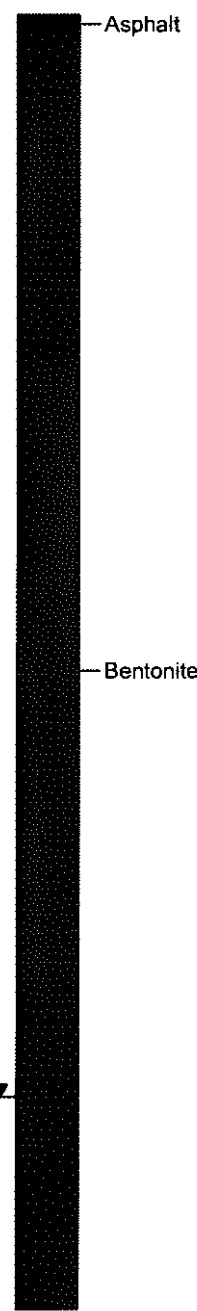
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**BH-26**

Date Started: 09/14/16  
Date Completed: 09/14/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 35 ft.  
DTW While Drilling: 29.25 ft.  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input checked="" type="checkbox"/> Analyzed by Lab	<input checked="" type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0				Asphalt			NA
1				Gravel fill material, no odor, dry			NA
2		CL		CLAY, dark gray and olive green, traces of silt, sand, and gravel, odor, moist			12.3
3							11.1
4		CL		turning brown, no odor			10.3
5				turning brown and gray, stiff, no odor, slightly moist			11.8
6		CL					14.3
7				turning brown			11.4
8				turning very stiff			6.0
9		CL					8.6
10				turning grayish brown, expanding			13.0
11		CL					12.2
12				turning gray			10.5
13				increasing moisture content from 22.25 to 22.5 ft.			16.5
14		CL					13.7
15				increasing moisture content from 26.75 to 27.5 ft.			3.9
16		SC		CLAYEY SAND and GRAVEL, brown, no odor, saturated			4.5
17							
18		SW		SAND, Well Graded, gray, no odor, saturated			
19							
20		CL		CLAY, gray, no odor, saturated			
21							
22				End of boring.			



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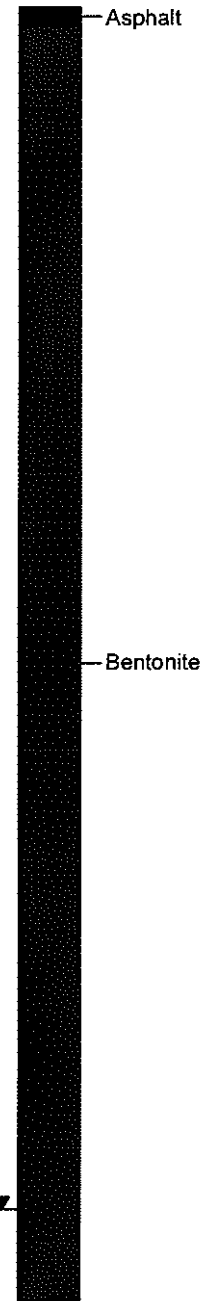
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1196 State Street  
Lemont, IL 60439

BH-27

Date Started: 09/14/16  
Date Completed: 09/14/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 35 ft.  
DTW While Drilling: 32.5 ft.  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0							NA
1							NA
2		CL					5.9
3							
4		CL					6.6
5							
6							3.9
7							
8							6.7
9							
10		CL					2.6
11							
12							6.8
13							
14							10.4
15							
16							10.7
17		CL					7.4
18							
19							7.8
20							
21		CL					7.9
22							
23							11.0
24							
25		SP					10.9
26		CL					7.0
27							
28							
29		CL					
30							
31		CL					
32							
33		GP					
34		CL					
35							
36							



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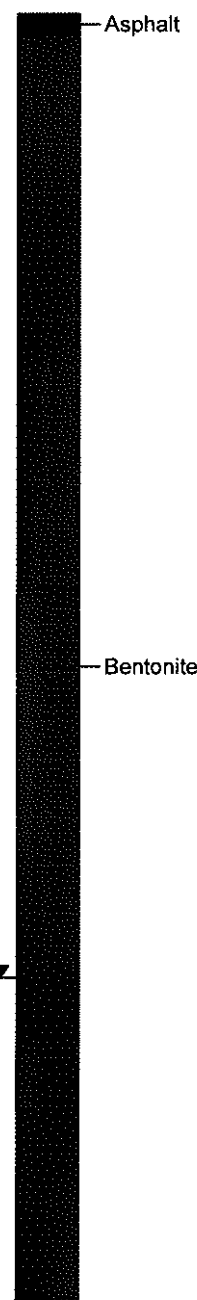
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**BH-28**

Date Started: 09/15/16  
Date Completed: 09/15/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 30 ft.  
DTW While Drilling: 22.5 ft.  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input checked="" type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input checked="" type="checkbox"/> After Completion		
DESCRIPTION							
0				Asphalt			NA
1				Gravel Fill Material, no odor, dry			NA
2				CLAY, dark gray, some silt, sand, and gravel, slight odor, slight sewer-like odor, slightly moist			10.3
3				turning brown, no odor			
4				trace sand			20.4
5				turning very stiff, dry			
6							15.8
7				traces of silt, sand, and gravel			
8							10.0
9							
10							
11							13.4
12		CL		odor			
13							336.4
14							
15				turning medium stiff, dark gray and black staining, odor from 15 to 17 ft., 1 dime-sized sand pocket with black staining, odor			396.2
16							
17				turning stiff, amount of dark gray and black staining is decreasing			
18							258.1
19							
20							
21							758.3
22							
23		SC ML		CLAYEY SAND, dark gray and black, strong odor, moist			68.0
24		CL-ML		SILT, brown, slight odor, saturated			14.6
25				SILTY, SANDY CLAY, brown, traces of gravel, medium stiff, no odor, moist			
26		CL-ML		turning brownish-gray			12.3
27							
28				turning gray, very moist to saturated			
29		CL-ML		turning moist			8.4
30				End of boring.			
31							



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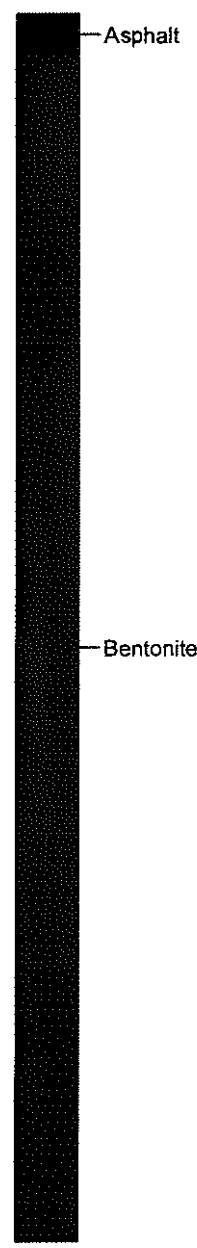
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**BH-29**

Date Started: 09/15/16  
Date Completed: 09/15/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 15 ft.  
DTW While Drilling: Not Observed  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition		Water Levels		Sample No.	PID (ppm)
				<input type="checkbox"/> Field Screened Only	<input type="checkbox"/> Not Field Screened	<input type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling		
DESCRIPTION									
0				Asphalt					NA
				Gravel Fill Material, no odor, dry					NA
1				CLAY, brown, some silt, sand, and gravel, no odor, moist	<input checked="" type="checkbox"/>				8.0
2									
3		CL		SILTY, SANDY CLAY, brown, soft, no odor, moist	<input checked="" type="checkbox"/>				12.0
4									
5				No recovery	<input checked="" type="checkbox"/>				9.8
6									
7		CL-ML		End of boring.	<input checked="" type="checkbox"/>				11.0
8									
9									
10									
11									
12									NA
13									
14									
15									
16									



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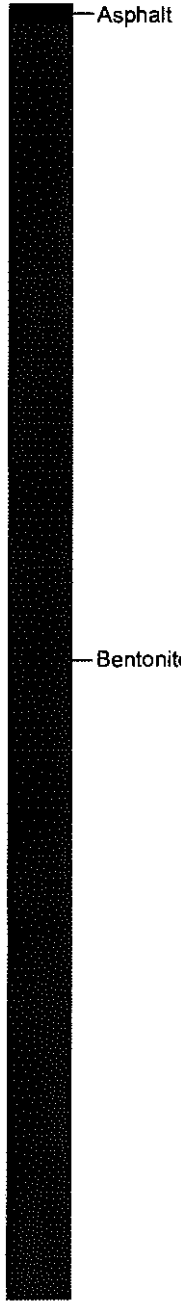
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**BH-29A**

Date Started: 09/15/16  
Date Completed: 09/15/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 35 ft.  
DTW While Drilling: Not Observed  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0							
1							
2							
3							
4							
5							NA
6							
7							
8							
9							
10							
11							8.8
12							
13							
14							3.2
15							
16		CL					
17							6.4
18							
19							
20							
21							
22							8.6
23		CL-ML					
24							22.0
25		CL-ML					
26							7.8
27							
28							10.6
29							
30		CL-ML					
31							8.3
32							
33							9.4
34							
35							
36							



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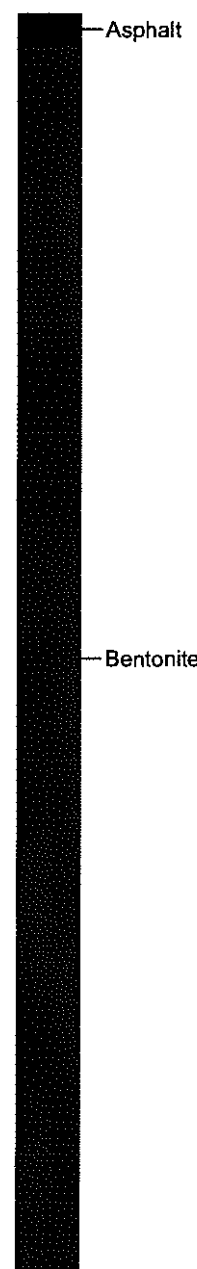
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**BH-30**

Date Started: 09/26/16  
Date Completed: 09/26/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 21 ft.  
DTW While Drilling: Not Observed  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0				Grass and topsoil			NA
1		CL-ML		SILTY, SANDY CLAY, brown, traces of gravel, brittle, no odor, dry			0.0
2				CLAY, brown, traces of silt, sand, and gravel, brittle, no odor, dry			
3		CL					0.4
4							
5				SILTY CLAY, dark brown, no odor, moist			
6		CL-ML					1.4
7		CL		CLAY, dark brown, traces of silt, sand, and gravel, no odor, moist			
8				turning gray and brown, stiff, no odor, slightly moist			1.7
9							
10				turning plyable and medium soft			
11							0.0
12		CL		turning very stiff, slightly moist			
13							0.0
14							
15				traces of silt, sand, and gravel, very stiff, no odor, moist			1.3
16							
17							
18				turning gray, slightly moist			0.7
19		CL					
20							NA
21				End of boring.			
22							



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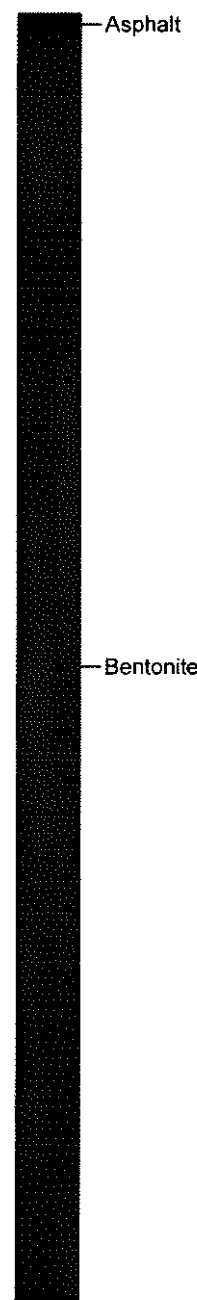
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**BH-30A**

Date Started: 09/26/16  
Date Completed: 09/26/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 30 ft.  
DTW While Drilling: Not Observed  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0				See BH-30 soil boring log for details.			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							NA
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21		CL-ML		SILTY CLAY, gray and brown, little sand, traces of gravel, swelling, medium stiff, no odor, moist			0.9
22							
23							
24				SILTY, SANDY CLAY, gray, traces of gravel, swelling and plyable, medium soft, no odor, moist			1.4
25				decreasing silt and sand content, stiff,			
26		CL-ML					0.0
27							
28				1 to 2 pinhead-sized very moist pockets			
29							0.0
30							
31				End of boring.			



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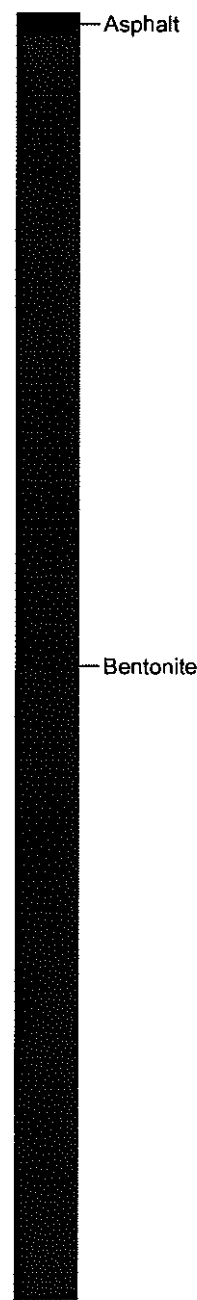
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**BH-31**

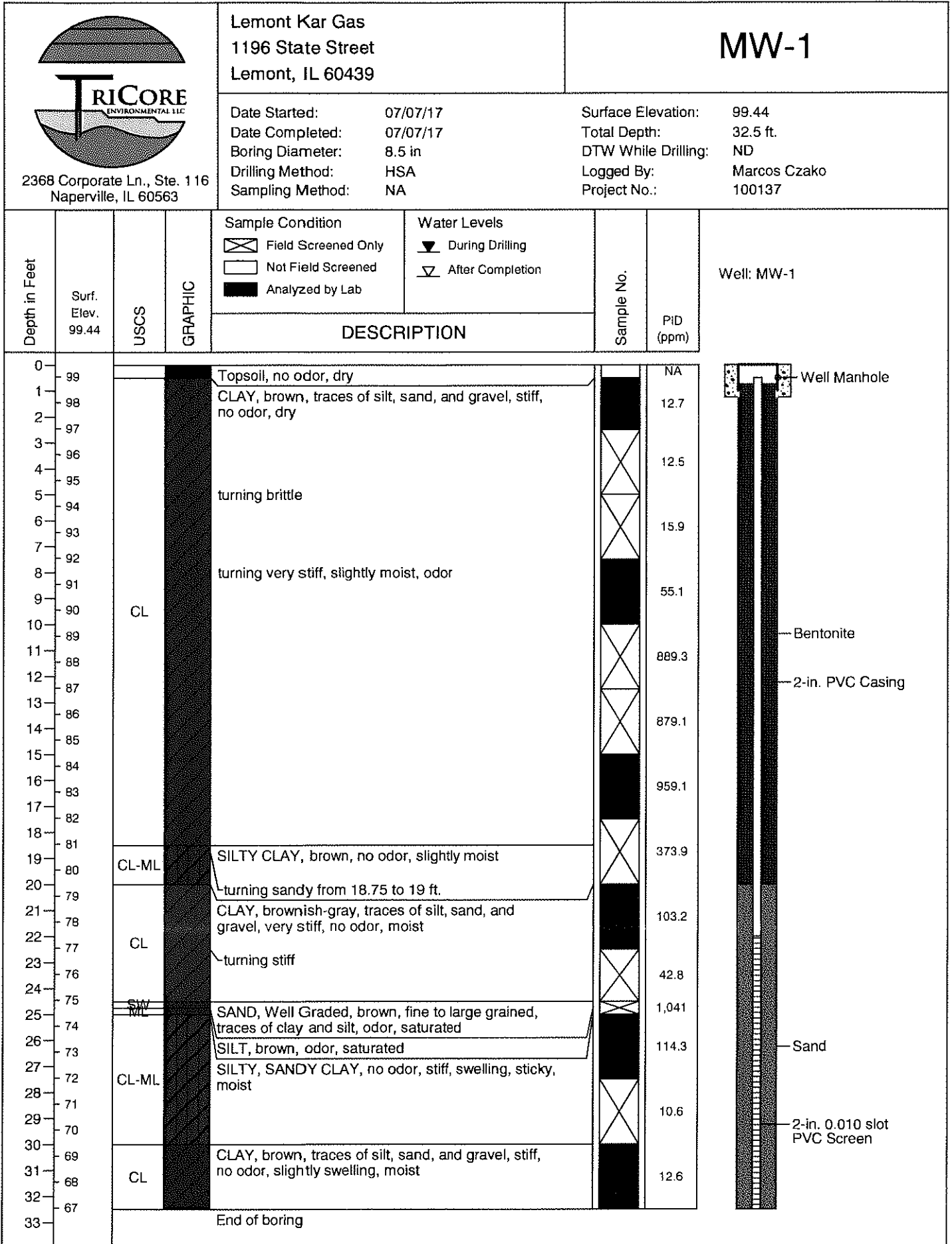
Date Started: 09/26/16  
Date Completed: 09/26/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 30 ft.  
DTW While Drilling: Not Observed  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition		Water Levels		Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only	<input type="checkbox"/> Not Field Screened	<input checked="" type="checkbox"/> During Drilling	<input checked="" type="checkbox"/> After Completion		
DESCRIPTION									
0				Grass and topsoil					NA
1				SILTY CLAY, brown, medium soft, no odor, slightly moist					0.2
2		CL-ML		traces of sand and gravel					
3									2.3
4									
5		CL-ML		turning dark brown, slight odor					
6		CL		CLAY, gray and olive green, traces of silt and sand, medium soft, slight odor, moist					4.7
7									
8				turning gray and brown, stiff, no odor					1.6
9		CL							
10				turning brown					1.4
11									
12									1.9
13		CL		slightly moist					
14									2.3
15				turning grayish brown, very stiff,					
16									2.1
17		CL							
18				SILTY CLAY, gray, some sand, fine grained, slightly swelling, no odor, moist					1.5
19				increasing sand content					
20		CL-ML		1 to 2 pinhead-sized saturated pockets					2.3
21									
22				CLAYEY SILT, brownish-gray, traces of gravel, no odor, slightly moist					1.4
23		ML-CL							
24									2.3
25									
26									1.4
27									
28									2.3
29									
30									1.4
31				End of boring.					



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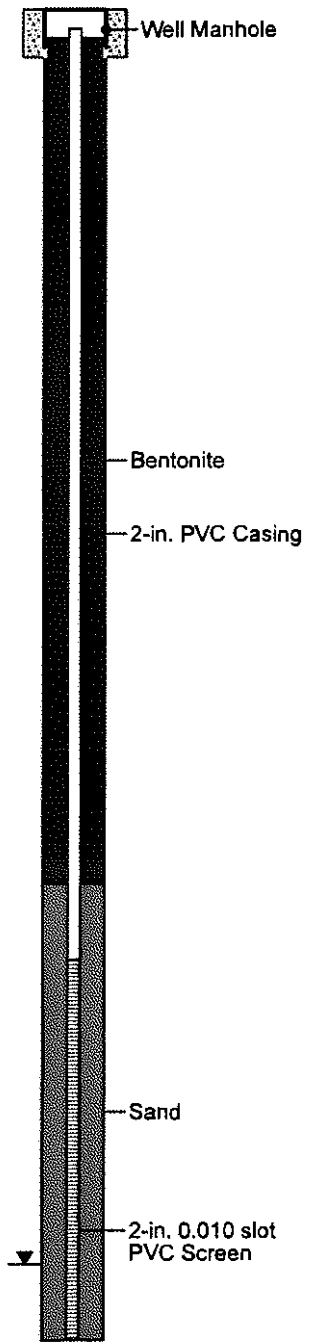
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Lemont, IL 60439

**BH-32/MW-2**

Date Started: 07/05/17  
Date Completed: 07/05/17  
Boring Diameter: 2.25 in.  
Drilling Method: Direct-Push/HSA  
Sampling Method: Macro-Core; Dual Tube

Surface Elevation: 99.30  
Total Depth: 35 ft.  
DTW While Drilling: 32.5 ft.  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev. 99.30	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)	Well: MW-2
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input checked="" type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input checked="" type="checkbox"/> After Completion			
DESCRIPTION								
0	99			Asphalt				
1	98			Gravel Fill Material, gray, no odor, dry				
2	97	CL		CLAY, gray-brown, traces of silt and sand, stiff, no odor, moist			3.0	
3	96							
4	95							
5	94							
6	93			CLAY, gray-brown, traces of gray silt and gravel, stiff, no odor, moist				
7	92							
8	91	CL		2" sandy clay, soft, moist				
9	90							
10	89							
11	88							
12	87							
13	86	CL-ML		SILTY CLAY, gray-brown, traces of sand and gravel, stiff, slightly moist				
14	85							
15	84							
16	83	CL		CLAY, gray-brown, traces of silt, sand, and gravel, very stiff, swelling, slightly moist				
17	82							
18	81							
19	80	CL						
20	79							
21	78							
22	77							
23	76							
24	75							
25	74	CL		CLAY, gray, traces of silt, sand, and gravel, moist				
26	73							
27	72							
28	71	CL						
29	70							
30	69							
31	68	CL		CLAY, gray, little gravel, sand, no odor, saturated				
32	67							
33	66	CL-ML		SILTY CLAY, brown, traces of sand, stiff, moist				
34	65							
35				End of Boring				





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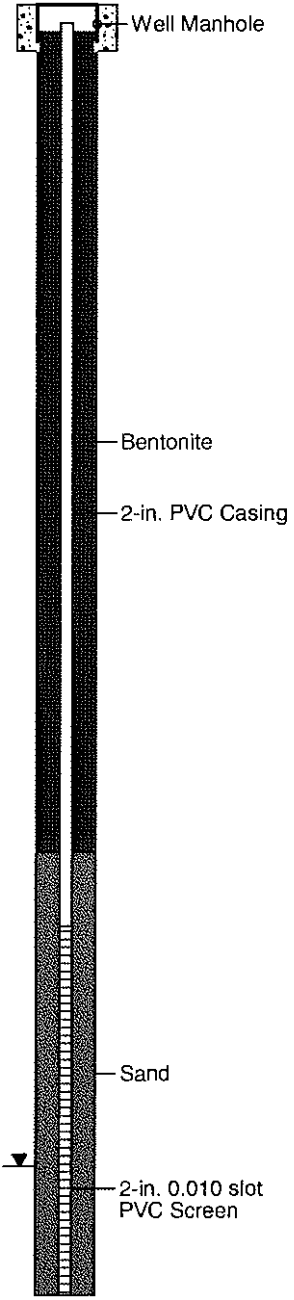
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Lemont, IL 60439

**BH-33/MW-3**

Date Started: 07/05/17  
Date Completed: 07/05/17  
Boring Diameter: 2.25 in.  
Drilling Method: Direct-Push/HSA  
Sampling Method: Macro-Core; Dual Tube

Surface Elevation: 100.53  
Total Depth: 35 ft.  
DTW While Drilling: 31 ft.  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev. 100.53	USCS	GRAPHIC	Sample Condition		Water Levels		Sample No.	PID (ppm)	Well: MW-3
				Field Screened Only	Not Field Screened	Analyzed by Lab	During Drilling			
DESCRIPTION										
0	100									
1	99									
2	98									
3	97	CL							4.3	
4	96								7.5	
5	95									
6	94	CL							8.1	
7	93									
8	92								8.7	
9	91	SC/GW								
10	90									
11	89	CL							10.7	
12	88									
13	87									
14	86	SC/GW							12.0	
15	85									
16	84								10.1	
17	83									
18	82								9.5	
19	81									
20	80	CL-ML							6.2	
21	79									
22	78									
23	77								10.6	
24	76									
25	75									
26	74	ML							10.4	
27	73									
28	72	CL							6.3	
29	71									
30	70	CL								
31	69								7.9	
32	68									
33	67									
34	66	CL-ML							8.0	
35										





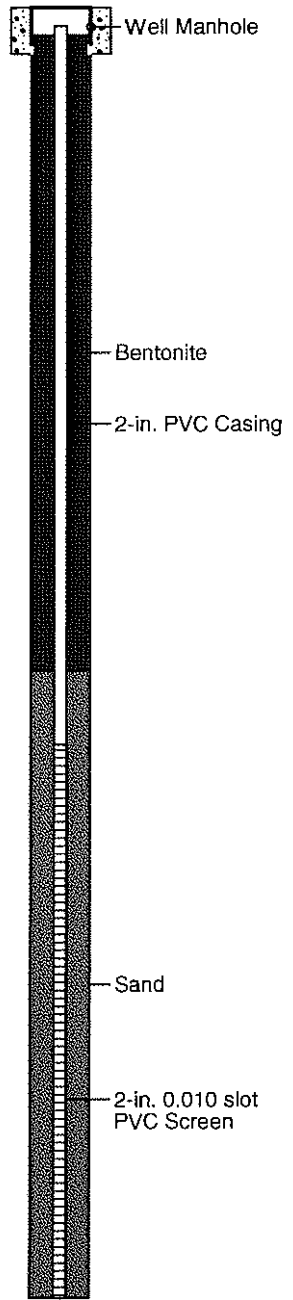
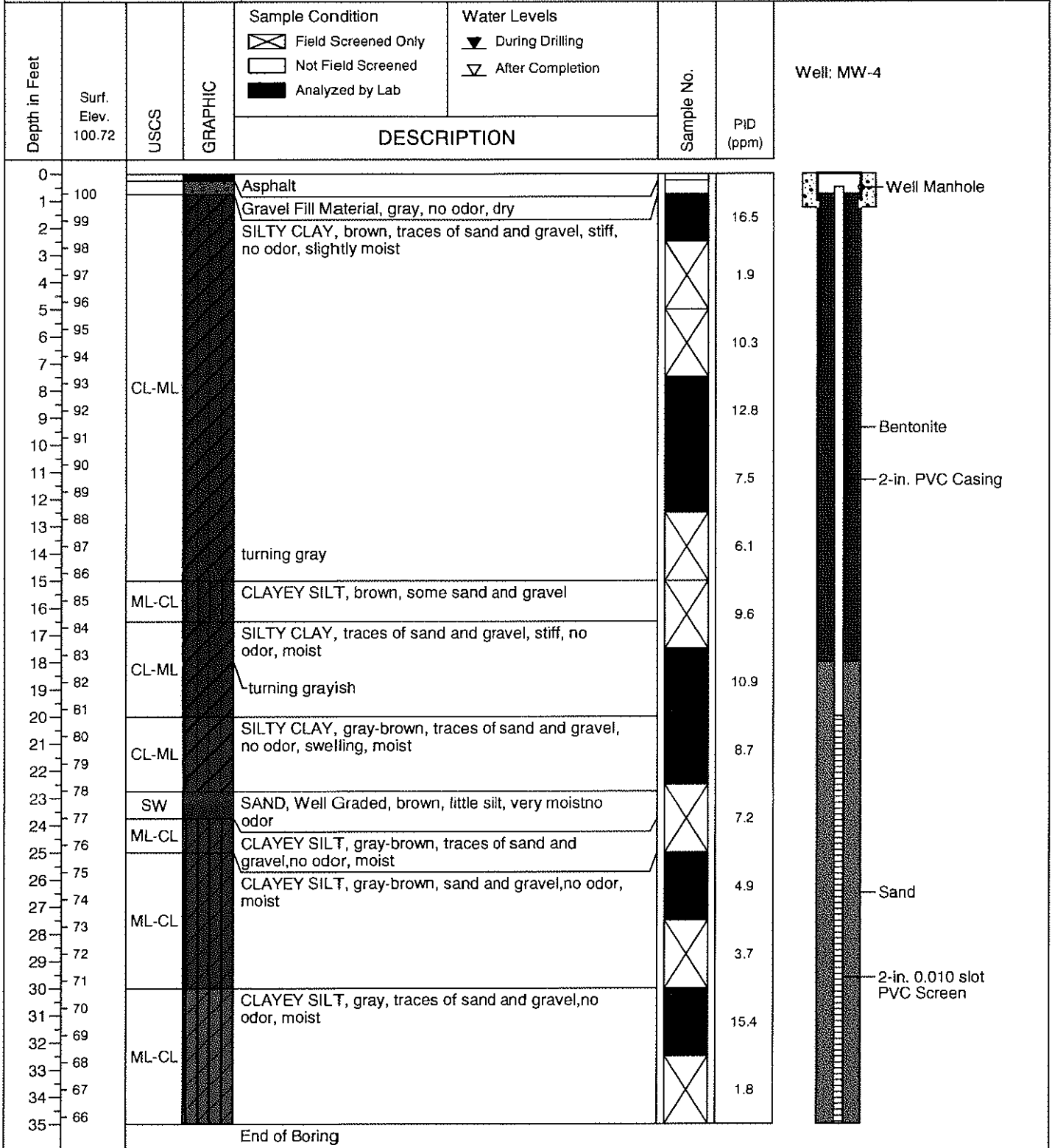
2368 Corporate Ln., Ste. 116  
Naperville, IL 60563

Lemont Kar Gas  
1196 State St.  
Lemont, IL 60439

**BH-34/MW-4**

Date Started: 07/06/17  
Date Completed: 07/06/17  
Boring Diameter: 2.25 in.  
Drilling Method: Direct-Push/HSA  
Sampling Method: Macro-Core; Dual Tube

Surface Elevation: 100.72  
Total Depth: 35 ft.  
DTW While Drilling: ND  
Logged By: Marcos Czako  
Project No.: 100137





2368 Corporate Ln., Ste. 116  
Naperville, IL 60563

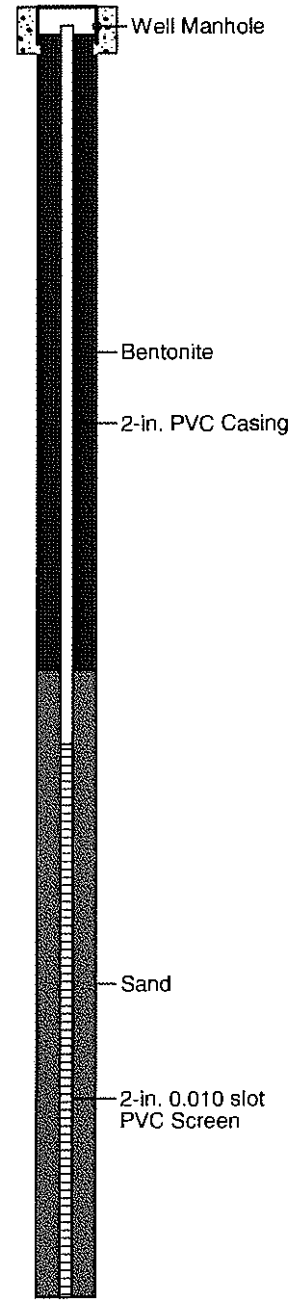
Lemont Kar Gas  
1196 State St.  
Lemont, IL 60439

**BH-35/MW-5**

Date Started: 07/06/17  
Date Completed: 07/06/17  
Boring Diameter: 2.25 in.  
Drilling Method: Direct-Push/HSA  
Sampling Method: Macro-Core; Dual Tube

Surface Elevation: 100.01  
Total Depth: 35 ft.  
DTW While Drilling: ND  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev. 100.01	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)	Well: MW-5	
				☒ Field Screened Only □ Not Field Screened ■ Analyzed by Lab	▼ During Drilling ▽ After Completion				
DESCRIPTION									
0	100			Asphalt			6.4	Well Manhole	
1	99			Gravel Fill Material, gray, no odor, dry			2.8		
2	98	CL		CLAY, brown, traces of silt, sand, and gravel, soft, no odor					
3	97			turning stiff			7.8		
4	96								
5	95			SILTY CLAY, brown, traces of silt, sand, and gravel, no odor.			7.9		
6	94								
7	93								
8	92	CL-ML					8.4	Bentonite	
9	91								
10	90								
11	89						8.6	2-in. PVC Casing	
12	88			swelling					
13	87						8.8		
14	86								
15	85	CL-ML		SILTY CLAY, gray-brown, traces of sand and gravel, stiff, no odor, moist			6.3		
16	84								
17	83			SILTY CLAY, gray-brown, traces of sand and gravel, stiff, no odor, moist			6.0		
18	82	CL-ML							
19	81								
20	80						9.4		
21	79								
22	78								
23	77	CL-ML		SILTY CLAY, gray, traces of sand and gravel, stiff, no odor, moist			9.0		
24	76								
25	75	ML		CLAYEY SAND, brown, some gravel, no odor, very moist			10.5		
26	74			SILT, brown, traces of gravel, no odor, very moist					
27	73			SILTY CLAY, gray-brown, little sand, no odor, swelling, no odor			8.0		
28	72								
29	71	CL-ML							
30	70								
31	69								
32	68								9.0
33	67								
34	66								
35				large gravel at end of sample liner					
				End of Boring					



**APPENDIX C**

**GROUNDWATER ANALYTICAL LABORATORY REPORT AND  
CERTIFICATION**

July 24, 2017

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

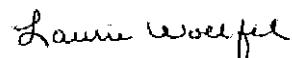
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40153577

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on July 20, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Shawn Rodeck, TriCore Environmental, LLC.



**REPORT OF LABORATORY ANALYSIS**

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**CERTIFICATIONS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40153577

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**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky UST Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
New York Certification #: 12064  
North Dakota Certification #: R-150

Virginia VELAP ID: 460263  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
Wisconsin Certification #: 405132750  
Wisconsin DATCP Certification #: 105-444  
USDA Soil Permit #: P330-16-00157  
Federal Fish & Wildlife Permit #: LE51774A-0

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**SAMPLE SUMMARY**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40153577

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40153577001	MW-1	Water	07/19/17 10:55	07/20/17 10:05
40153577002	MW-2	Water	07/19/17 11:05	07/20/17 10:05
40153577003	MW-3	Water	07/19/17 11:15	07/20/17 10:05
40153577004	MW-4	Water	07/19/17 11:52	07/20/17 10:05
40153577005	MW-5	Water	07/19/17 11:20	07/20/17 10:05

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40153577

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40153577001	MW-1	EPA 8260	MDS	8	PASI-G
40153577002	MW-2	EPA 8260	MDS	8	PASI-G
40153577003	MW-3	EPA 8260	MDS	8	PASI-G
40153577004	MW-4	EPA 8260	MDS	8	PASI-G
40153577005	MW-5	EPA 8260	MDS	8	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40153577

Sample: MW-1 Lab ID: 40153577001 Collected: 07/19/17 10:55 Received: 07/20/17 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>		Analytical Method: EPA 8260							
Benzene	1300	ug/L	20.0	10.0	20		07/24/17 11:49	71-43-2	
Ethylbenzene	1540	ug/L	20.0	10.0	20		07/24/17 11:49	100-41-4	
Methyl-tert-butyl ether	<3.5	ug/L	20.0	3.5	20		07/24/17 11:49	1634-04-4	
Toluene	476	ug/L	20.0	10.0	20		07/24/17 11:49	108-88-3	
Xylene (Total)	4600	ug/L	60.0	30.0	20		07/24/17 11:49	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	67-130		20		07/24/17 11:49	1868-53-7	
Toluene-d8 (S)	102	%	70-130		20		07/24/17 11:49	2037-26-5	
4-Bromofluorobenzene (S)	94	%	61-130		20		07/24/17 11:49	460-00-4	

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40153577

Sample: MW-2 Lab ID: 40153577002 Collected: 07/19/17 11:05 Received: 07/20/17 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		07/21/17 13:01	71-43-2	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		07/21/17 13:01	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		07/21/17 13:01	1634-04-4	
Toluene	<0.50	ug/L	1.0	0.50	1		07/21/17 13:01	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		07/21/17 13:01	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	106	%	67-130		1		07/21/17 13:01	1868-53-7	pH
Toluene-d8 (S)	100	%	70-130		1		07/21/17 13:01	2037-26-5	
4-Bromofluorobenzene (S)	90	%	61-130		1		07/21/17 13:01	460-00-4	

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40153577

Sample: MW-3 Lab ID: 40153577003 Collected: 07/19/17 11:15 Received: 07/20/17 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>		Analytical Method: EPA 8260							
Benzene	<0.50	ug/L	1.0	0.50	1		07/21/17 13:23	71-43-2	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		07/21/17 13:23	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		07/21/17 13:23	1634-04-4	
Toluene	<0.50	ug/L	1.0	0.50	1		07/21/17 13:23	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		07/21/17 13:23	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	67-130		1		07/21/17 13:23	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		07/21/17 13:23	2037-26-5	
4-Bromofluorobenzene (S)	90	%	61-130		1		07/21/17 13:23	460-00-4	

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40153577

Sample: **MW-4** Lab ID: **40153577004** Collected: 07/19/17 11:52 Received: 07/20/17 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		07/21/17 13:46	71-43-2	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		07/21/17 13:46	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		07/21/17 13:46	1634-04-4	
Toluene	<0.50	ug/L	1.0	0.50	1		07/21/17 13:46	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		07/21/17 13:46	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	105	%	67-130		1		07/21/17 13:46	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		07/21/17 13:46	2037-26-5	
4-Bromofluorobenzene (S)	88	%	61-130		1		07/21/17 13:46	460-00-4	

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40153577

Sample: MW-5 Lab ID: 40153577005 Collected: 07/19/17 11:20 Received: 07/20/17 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>									
Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		07/21/17 14:08	71-43-2	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		07/21/17 14:08	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		07/21/17 14:08	1634-04-4	
Toluene	<0.50	ug/L	1.0	0.50	1		07/21/17 14:08	108-88-3	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		07/21/17 14:08	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	105	%	67-130		1		07/21/17 14:08	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		07/21/17 14:08	2037-26-5	
4-Bromofluorobenzene (S)	88	%	61-130		1		07/21/17 14:08	460-00-4	

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40153577

QC Batch: 262158 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER  
Associated Lab Samples: 40153577001, 40153577002, 40153577003, 40153577004, 40153577005

METHOD BLANK: 1543413 Matrix: Water  
Associated Lab Samples: 40153577001, 40153577002, 40153577003, 40153577004, 40153577005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Benzene	ug/L	<0.50	1.0	0.50	07/21/17 11:32	
Ethylbenzene	ug/L	<0.50	1.0	0.50	07/21/17 11:32	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	0.17	07/21/17 11:32	
Toluene	ug/L	<0.50	1.0	0.50	07/21/17 11:32	
Xylene (Total)	ug/L	<1.5	3.0	1.5	07/21/17 11:32	
4-Bromofluorobenzene (S)	%	88	61-130		07/21/17 11:32	
Dibromofluoromethane (S)	%	104	67-130		07/21/17 11:32	
Toluene-d8 (S)	%	98	70-130		07/21/17 11:32	

LABORATORY CONTROL SAMPLE: 1543414

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	45.6	91	73-145	
Ethylbenzene	ug/L	50	50.5	101	87-129	
Methyl-tert-butyl ether	ug/L	50	48.4	97	66-143	
Toluene	ug/L	50	49.4	99	82-130	
Xylene (Total)	ug/L	150	154	102	70-130	
4-Bromofluorobenzene (S)	%			100	61-130	
Dibromofluoromethane (S)	%			99	67-130	
Toluene-d8 (S)	%			102	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1543654 1543655

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual	
		40153577004 Result	Spike Conc.	Spike Conc.	MS Result						MSD Result
Benzene	ug/L	<0.50	50	50	45.0	46.9	90	94	73-145	4	20
Ethylbenzene	ug/L	<0.50	50	50	51.2	53.3	102	107	87-129	4	20
Methyl-tert-butyl ether	ug/L	<0.17	50	50	43.4	51.0	87	102	66-143	16	20
Toluene	ug/L	<0.50	50	50	50.4	53.6	101	107	82-131	6	20
Xylene (Total)	ug/L	<1.5	150	150	151	160	100	106	70-130	6	20
4-Bromofluorobenzene (S)	%						99	100	61-130		
Dibromofluoromethane (S)	%						96	96	67-130		
Toluene-d8 (S)	%						102	104	70-130		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40153577

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

pH Post-analysis pH measurement indicates insufficient VOA sample preservation.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40153577

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40153577001	MW-1	EPA 8260	262158		
40153577002	MW-2	EPA 8260	262158		
40153577003	MW-3	EPA 8260	262158		
40153577004	MW-4	EPA 8260	262158		
40153577005	MW-5	EPA 8260	262158		

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**CHAIN-OF-CUSTODY / Analytical Request Document**

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<b>Section A</b> Required Client Information:	<b>Section B</b> Required Project Information:	<b>Section C</b> Invoice Information:
Company: TriCore Environmental, LLC	Report To: Marcos I. Czako	Attention: Shawn Rodeck
Address: 2368 Corporate Lane, Suite 116 Naperville, Illinois 60563	Copy To:	Company Name: TriCore Environmental, LLC
Email To: marcos.czako@tricoreweb.com	Purchase Order No.: 100137	Address: 2368 Corporate Lane, Suite 116, Naperville, Illinois 60563
Phone: 630-520-9973 Fax 630-520-9976	Project Name: Lemont Kar Gas	Pace Quote Reference:
Requested Due Date/TAT: <i>Standard</i>	Project Number: 100137	Pace Profile #:

Page: / of /

**REGULATORY AGENCY**

NPDES  GROUND WATER  DRINKING WATER

UST  RCRA  OTHER

**SITE LOCATION**

GA  IL  IN  MI  NC

OH  SC  WI  OTHER

ITEM #	Section D Required Client Information		Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOLUBLE S OIL OL AIR AR OTHER OT TISSUE TS	COLLECTED COMPOSITE START DATE TIME COMPOSITE END/GRAB DATE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Filtered (Y/N)	Requested Analyte	Residual Chlorine (Y/N)	Pace Project No. / Lab ID			
	SAMPLE ID One Character per box. (A-Z, 0-9 / -)	Sample IDs MUST BE UNIQUE					MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH					Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub>	Methanol	Other
1	MW-1	001	WTG			3							X		N	3-40 ml				
2	MW-2	002											X		N					
3	MW-3	003											X		N					
4	MW-4	004											X		N					
5	MW-5	005											X		N					

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
<i>[Signature]</i>	7/19/17	12:00	KATHA WENDOL	7/19/17	1200	Y/N Y/N Y/N
KATHA WENDOL	7/19/17	1700	CS Logistics	7/19/17		Y/N Y/N Y/N
CS Logistics	7/20/17	1005	SW Sub Corp	7/20/17	1005 4.5	Y/N Y/N Y/N

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: Marcos I. Czako

SIGNATURE of SAMPLER: *[Signature]* DATE Signed (MM/DD/YY): 07/19/17

Temp in °C: \_\_\_\_\_  
 Received on Ice:   
 Custody Sealed Cooler:   
 Samples Intact:

**Pace Analytical**  
Client Name: Tri Core

Project #: **WO# : 40153577**



Courier:  Fed Ex  UPS  Client  Pace Other: CS logistics  
Tracking #:

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no  
Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR-58 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 4.0 / Corr: 4.5 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Person examining contents:  
Date: 7/20/17  
Initials: SM

Temp should be above freezing to 6°C.  
Biota Samples may be received at ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8. no MS/MSD volume KJ 7/20/17
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. 001 time 1115, 002 time 1055, 003 time 1105 KJ 7/20/17
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: <u>VOA</u> , coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	initial when completed   Lab Std #ID of preservative   Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	14.
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Person Contacted: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_

Project Manager Review: Chw Date: 7/21/17



Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

**Leaking Underground Storage Tank Program  
Laboratory Certification for Chemical Analysis**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010  
Site Name: Lemont Kar Gas  
Site Address (Not a P.O. Box): 1196 State Street  
City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

**B. Sample Collector**

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. MLP  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. MLP  
(Initial)
- 3. Sample integrity was maintained by proper preservation. MLP  
(Initial)
- 4. All samples were properly labeled. MLP  
(Initial)

**C. Laboratory Representative**

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms chw  
(Initial)
- 2. Sample integrity was maintained by proper preservation. chw  
(Initial)
- 3. All samples were properly labeled. chw  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. chw  
(Initial)
- 5. Sample holding times were not exceeded. chw  
(Initial)

40153577

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako

Title Geologist III

Company TriCore Environmental, LLC

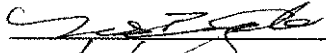
Address 2368 Corporate Lane, Suite 116

City Naperville

State Illinois

Zip Code 60563

Phone (630) 520-9973

Signature 

Date 02/19/17

**Laboratory Representative**

Name Laurie Woelfel

Title Project Manager

Company Pace Analytical Services, Inc.

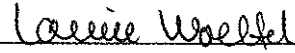
Address 1241 Bellevue Street, Suite 9

City Green Bay

State Wisconsin

Zip Code 54302

Phone (920) 469-2436

Signature 

Date 7/24/17

**APPENDIX D**  
**HYDRAULIC GRADIENT CALCULATIONS**

**HYDRAULIC GRADIENT PARAMETERS**

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site Zip: 60439

Gauging Date: 7/19/2017

Calc 1	Well IDs	DTW	Distance
$h_1$	MW-4	87.01	73
$h_2$	MW-5	86.76	101
$h_3$	MW-1	85.95	131

Calc 2	Well IDs	DTW	Distance
$h_1$	MW-4	87.01	73
$h_2$	MW-5	86.76	124
$h_3$	MW-3	85.95	104

Calc 3	Well IDs	DTW	Distance
$h_1$	MW-4	87.01	73
$h_2$	MW-5	86.76	157
$h_3$	MW-2	85.86	150

Calc 4	Well IDs	DTW	Distance
$h_1$	MW-5	86.76	101
$h_2$	MW-1	85.95	78
$h_3$	MW-2	85.86	157

Calc 5	Well IDs	DTW	Distance
$h_1$	MW-1	85.95	79
$h_2$	MW-3	85.95	49
$h_3$	MW-2	85.86	78

Calc 6	Well IDs	DTW	Distance
$h_1$	MW-5	86.76	124
$h_2$	MW-3	85.95	49
$h_3$	MW-2	85.86	157

**HYDRAULIC GRADIENT CALCULATIONS**

Project Number: 100137  
Site Name: Lemont Kar Gas  
Site Address: 1196 State Street  
Site City: Lemont  
Site County: Cook  
Site State: IL  
Site Zip: 60439

Gauging Date: 7/19/2017

<u>Wells Used</u>	<u>Hydraulic Gradient</u>
MW-4, MW-5, MW-1	0.0084
MW-4, MW-5, MW-3	0.0106
MW-4, MW-5, MW-2	0.0080
MW-5, MW-1, MW-2	0.0088
MW-1, MW-3, MW-2	0.0019
MW-5, MW-3, MW-2	0.0069

Using the hydraulic gradient values listed above, the average hydraulic gradient is: 0.0075 ft/ft

Using the hydraulic gradient values listed above, the geometric mean hydraulic gradient is: 0.0066 ft/ft



HYDRAULIC GRADIENT CALCULATION #1

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site Zip: 60439

Gauging Date: July 19, 2017

Wells Used: MW-4, MW-5, MW-1

The value for the hydraulic gradient was solved using site-specific groundwater elevation data and the distances between the wells selected.

Equation #1: 
$$\left[ \frac{(h_1 - h_2)}{(h_1 - h_3)} \right] = \left[ \frac{x}{b} \right]$$

Where:

$h_1$	=	highest head selected (MW-4)	87.01 feet
$h_2$	=	intermediate head selected (MW-5)	86.76 feet
$h_3$	=	lowest head selected (MW-1)	85.95 feet
$b$	=	distance from $h_3$ to $h_1$	131.00 feet
$x$	=	distance from $h_1$ , along $b$ , at which the total head is $h_2$ (solved by Equation #1)	30.90 feet

Equation #2: 
$$d = b - x$$

Where:

$b$	=	distance from $h_3$ to $h_1$	131.00 feet
$x$	=	distance from $h_1$ , along $b$ , at which the total head is $h_2$ (solved by Equation #1)	30.90 feet
$d$	=	distance from $h_3$ , along $b$ , at which the total head is $h_2$ (solved by Equation #2)	100.10 feet

The hydraulic gradient is then calculated using the following equation. Please see the attached sheets for the additional calculations required to calculate  $i$ .

Equation #3: 
$$i = \left[ \frac{(h_2 - h_3)}{l} \right]$$

HYDRAULIC GRADIENT CALCULATION #1

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site Zip: 60439

Gauging Date: July 19, 2017

Wells Used: MW-4, MW-5, MW-1

Where:

$l$  = distance from  $h_3$  that is perpendicular to the equipotential line that is equal to  $h_2$  (solved by Equation #7) 96.24 feet  
 $i$  = hydraulic gradient (solved by Equation #3) 0.0084 feet/foot

By utilizing the Law of Cosines and the Law of Sines,  $l$ , the distance from  $h_3$  that is perpendicular to the equipotential line that is equal to  $h_2$ , can be calculated.

Equation #4 (Law of Cosines): 
$$c^2 = a^2 + b^2 - 2ab (\cos C)$$

Equation #4 (Law of Cosines Revised): 
$$\cos C = \frac{a^2 + b^2 - c^2}{2ab}$$

Where:

$a$  = distance from  $h_2$  to  $h_3$  101.00 feet  
 $b$  = distance from  $h_3$  to  $h_1$  131.00 feet  
 $c$  = distance from  $h_1$  to  $h_2$  73.00 feet  
 $C$  = angle between  $h_2$ ,  $h_3$ , and  $h_1$  (solved by Equation #4) 33.63 degrees

By substituting  $d$  for  $b$ , the distance between  $h_2$  and  $d$  can be calculated.

Equation #5 (Law of Cosines): 
$$c_2^2 = a^2 + d^2 - 2ad (\cos C)$$

Where:

$a$  = distance from  $h_2$  to  $h_3$  101.00 feet  
 $d$  = distance from  $h_3$  along  $b$ , at which the total head is equal to  $h_2$  (solved by Equation #2) 100.10 feet  
 $C$  = angle between  $h_2$ ,  $h_3$ , and  $h_1$  (solved by Equation #4) 33.63 degrees  
 $c_2$  = distance from  $h_2$  to  $d$  (solved by Equation #5), this is also the equipotential line equal to  $h_2$  58.18 feet

HYDRAULIC GRADIENT CALCULATION #1

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site Zip: 60439

Gauging Date: July 19, 2017

Wells Used: MW-4, MW-5, MW-1

By using Equation #5 above, the angle between  $h_2$ ,  $d$ , and  $h_3$  can be calculated.

Equation #6 (Law of Cosines): 
$$\cos A_2 = \frac{d^2 + c_2^2 - a^2}{2dc_2}$$

Where:

$a$	=	distance from $h_2$ to $h_3$	101.00 feet
$d$	=	distance from $h_3$ , along $b$ , at which the total head is equal to $h_2$ (solved by Equation #2)	100.10 feet
$c_2$	=	distance from $h_2$ to $d$ (solved by Equation #5), this is also the equipotential line equal to $h_2$	58.18 feet
$A_2$	=	angle between $h_2$ , $d$ , and $h_3$ (solved by Equation #6)	74.03 degrees

By utilizing the Law of Sines,  $l$  can be calculated and utilized in Equation #3 to calculate the hydraulic gradient.

Equation #7 (Law of Sines): 
$$\sin A_2 = l/d$$

Equation #7 (Law of Sines Revised): 
$$l = \sin A_2 \cdot d$$

Where:

$d$	=	distance from $h_3$ , along $b$ , at which the total head is equal to $h_2$ (solved by Equation #2)	100.10 feet
$A_2$	=	angle between $h_2$ , $d$ , and $h_3$ (solved by Equation #6)	74.03 degrees
$l$	=	distance from $h_3$ that is perpendicular to the equipotential line $c_2$ (solved by Equation #7)	96.24 feet

**HYDRAULIC GRADIENT CALCULATION #2**

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site Zip: 60439

Gauging Date: July 19, 2017

Wells Used: MW-4, MW-5, MW-3

The value for the hydraulic gradient was solved using site-specific groundwater elevation data and the distances between the wells selected.

Equation #1: 
$$\left[ \frac{(h_1 - h_2)}{(h_1 - h_3)} \right] = \left[ \frac{x}{b} \right]$$

Where:

$h_1$	=	highest head selected (MW-4)	87.01 feet
$h_2$	=	intermediate head selected (MW-5)	86.76 feet
$h_3$	=	lowest head selected (MW-3)	85.95 feet
$b$	=	distance from $h_3$ to $h_1$	104.00 feet
$x$	=	distance from $h_1$ , along $b$ , at which the total head is $h_2$ (solved by Equation #1)	24.53 feet

Equation #2: 
$$d = b - x$$

Where:

$b$	=	distance from $h_3$ to $h_1$	104.00 feet
$x$	=	distance from $h_1$ , along $b$ , at which the total head is $h_2$ (solved by Equation #1)	24.53 feet
$d$	=	distance from $h_3$ , along $b$ , at which the total head is $h_2$ (solved by Equation #2)	79.47 feet

The hydraulic gradient is then calculated using the following equation. Please see the attached sheets for the additional calculations required to calculate  $i$ .

Equation #3: 
$$i = \left[ \frac{(h_2 - h_3)}{l} \right]$$

**HYDRAULIC GRADIENT CALCULATION #2**

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site Zip: 60439

Gauging Date: July 19, 2017

Wells Used: MW-4, MW-5, MW-3

Where:

$l$  = distance from  $h_3$  that is perpendicular to the equipotential line that is equal to  $h_2$  (solved by Equation #7) 76.41 feet  
 $i$  = hydraulic gradient (solved by Equation #3) 0.0106 feet/feet

By utilizing the Law of Cosines and the Law of Sines,  $l$ , the distance from  $h_3$  that is perpendicular to the equipotential line that is equal to  $h_2$ , can be calculated.

Equation #4 (Law of Cosines): 
$$c^2 = a^2 + b^2 - 2ab (\cos C)$$

Equation #4 (Law of Cosines Revised): 
$$\cos C = \frac{a^2 + b^2 - c^2}{2ab}$$

Where:

$a$  = distance from  $h_2$  to  $h_3$  124.00 feet  
 $b$  = distance from  $h_3$  to  $h_1$  104.00 feet  
 $c$  = distance from  $h_1$  to  $h_2$  73.00 feet  
 $C$  = angle between  $h_2$ ,  $h_3$ , and  $h_1$  (solved by Equation #4) 36.01 degrees

By substituting  $d$  for  $b$ , the distance between  $h_2$  and  $d$  can be calculated.

Equation #5 (Law of Cosines): 
$$c_2^2 = a^2 + d^2 - 2ad (\cos C)$$

Where:

$a$  = distance from  $h_2$  to  $h_3$  124.00 feet  
 $d$  = distance from  $h_3$ , along  $b$ , at which the total head is equal to  $h_2$  (solved by Equation #2) 79.47 feet  
 $C$  = angle between  $h_2$ ,  $h_3$ , and  $h_1$  (solved by Equation #4) 36.01 degrees  
 $c_2$  = distance from  $h_2$  to  $d$  (solved by Equation #5), this is also the equipotential line equal to  $h_2$  75.82 feet

**HYDRAULIC GRADIENT CALCULATION #2**

**Project Number:** 100137  
**Site Name:** Lemont Kar Gas  
**Site Address:** 1196 State Street  
**Site City:** Lemont  
**Site County:** Cook  
**Site State:** IL  
**Site Zip:** 60439  
  
**Gauging Date:** July 19, 2017  
  
**Wells Used:** MW-4, MW-5, MW-3

By using Equation #5 above, the angle between  $h_2$ ,  $d$ , and  $h_3$  can be calculated.

Equation #6 (Law of Cosines): 
$$\cos A_2 = \frac{d^2 + c_2^2 - a^2}{2dc_2}$$

Where:

$a$	=	distance from $h_2$ to $h_3$	124.00 feet
$d$	=	distance from $h_3$ , along $b$ , at which the total head is equal to $h_2$ (solved by Equation #2)	79.47 feet
$c_2$	=	distance from $h_2$ to $d$ (solved by Equation #5), this is also the equipotential line equal to $h_2$	75.82 feet
$A_2$	=	angle between $h_2$ , $d$ , and $h_3$ (solved by Equation #6)	105.95 degrees

By utilizing the Law of Sines,  $l$  can be calculated and utilized in Equation #3 to calculate the hydraulic gradient.

Equation #7 (Law of Sines): 
$$\sin A_2 = l/d$$

Equation #7 (Law of Sines Revised): 
$$l = \sin A_2 \cdot d$$

Where:

$d$	=	distance from $h_3$ , along $b$ , at which the total head is equal to $h_2$ (solved by Equation #2)	79.47 feet
$A_2$	=	angle between $h_2$ , $d$ , and $h_3$ (solved by Equation #6)	105.95 degrees
$l$	=	distance from $h_3$ that is perpendicular to the equipotential line $c_2$ (solved by Equation #7)	76.41 feet

**HYDRAULIC GRADIENT CALCULATION #3**

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site Zip: 60439

Gauging Date: July 19, 2017

Wells Used: MW-4, MW-5, MW-2

The value for the hydraulic gradient was solved using site-specific groundwater elevation data and the distances between the wells selected.

Equation #1: 
$$\left[ \frac{(h_1 - h_2)}{(h_1 - h_3)} \right] = \left[ \frac{x}{b} \right]$$

Where:

$h_1$	=	highest head selected (MW-4)	87.01 feet
$h_2$	=	intermediate head selected (MW-5)	86.76 feet
$h_3$	=	lowest head selected (MW-2)	85.86 feet
$b$	=	distance from $h_3$ to $h_1$	150.00 feet
$x$	=	distance from $h_1$ , along $b$ , at which the total head is $h_2$ (solved by Equation #1)	32.61 feet

Equation #2: 
$$d = b - x$$

Where:

$b$	=	distance from $h_3$ to $h_1$	150.00 feet
$x$	=	distance from $h_1$ , along $b$ , at which the total head is $h_2$ (solved by Equation #1)	32.61 feet
$d$	=	distance from $h_3$ , along $b$ , at which the total head is $h_2$ (solved by Equation #2)	117.39 feet

The hydraulic gradient is then calculated using the following equation. Please see the attached sheets for the additional calculations required to calculate  $i$ .

Equation #3: 
$$i = \left[ \frac{(h_2 - h_3)}{l} \right]$$

**HYDRAULIC GRADIENT CALCULATION #3**

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site Zip: 60439

Gauging Date: July 19, 2017

Wells Used: MW-4, MW-5, MW-2

Where:

$l$  = distance from  $h_3$  that is perpendicular to the equipotential line that is equal to  $h_2$  (solved by Equation #7) 112.29 feet  
 $i$  = hydraulic gradient (solved by Equation #3) 0.0080 feet/feet

By utilizing the Law of Cosines and the Law of Sines,  $l$ , the distance from  $h_3$  that is perpendicular to the equipotential line that is equal to  $h_2$ , can be calculated.

Equation #4 (Law of Cosines): 
$$c^2 = a^2 + b^2 - 2ab (\cos C)$$

Equation #4 (Law of Cosines Revised): 
$$\cos C = \frac{a^2 + b^2 - c^2}{2ab}$$

Where:

$a$  = distance from  $h_2$  to  $h_3$  157.00 feet  
 $b$  = distance from  $h_3$  to  $h_1$  150.00 feet  
 $c$  = distance from  $h_1$  to  $h_2$  73.00 feet  
 $C$  = angle between  $h_2$ ,  $h_3$ , and  $h_1$  (solved by Equation #4) 27.39 degrees

By substituting  $d$  for  $b$ , the distance between  $h_2$  and  $d$  can be calculated.

Equation #5 (Law of Cosines): 
$$c_2^2 = a^2 + d^2 - 2ad (\cos C)$$

Where:

$a$  = distance from  $h_2$  to  $h_3$  157.00 feet  
 $d$  = distance from  $h_3$ , along  $b$ , at which the total head is equal to  $h_2$  (solved by Equation #2) 117.39 feet  
 $C$  = angle between  $h_2$ ,  $h_3$ , and  $h_1$  (solved by Equation #4) 27.39 degrees  
 $c_2$  = distance from  $h_2$  to  $d$  (solved by Equation #5), this is also the equipotential line equal to  $h_2$  75.51 feet



**HYDRAULIC GRADIENT CALCULATION #3**

**Project Number:** 100137  
**Site Name:** Lemont Kar Gas  
**Site Address:** 1196 State Street  
**Site City:** Lemont  
**Site County:** Cook  
**Site State:** IL  
**Site Zip:** 60439  
  
**Gauging Date:** July 19, 2017  
  
**Wells Used:** MW-4, MW-5, MW-2

By using Equation #5 above, the angle between  $h_2$ ,  $d$ , and  $h_3$  can be calculated.

Equation #6 (Law of Cosines): 
$$\cos A_2 = \frac{d^2 + c_2^2 - a^2}{2dc_2}$$

Where:

$a$	=	distance from $h_2$ to $h_3$	157.00 feet
$d$	=	distance from $h_3$ , along $b$ , at which the total head is equal to $h_2$ (solved by Equation #2)	117.39 feet
$c_2$	=	distance from $h_2$ to $d$ (solved by Equation #5), this is also the equipotential line equal to $h_2$	75.51 feet
$A_2$	=	angle between $h_2$ , $d$ , and $h_3$ (solved by Equation #6)	106.95 degrees

By utilizing the Law of Sines,  $l$  can be calculated and utilized in Equation #3 to calculate the hydraulic gradient.

Equation #7 (Law of Sines): 
$$\sin A_2 = l/d$$

Equation #7 (Law of Sines Revised): 
$$l = \sin A_2 \cdot d$$

Where:

$d$	=	distance from $h_3$ , along $b$ , at which the total head is equal to $h_2$ (solved by Equation #2)	117.39 feet
$A_2$	=	angle between $h_2$ , $d$ , and $h_3$ (solved by Equation #6)	106.95 degrees
$l$	=	distance from $h_3$ that is perpendicular to the equipotential line $c_2$ (solved by Equation #7)	112.29 feet

**HYDRAULIC GRADIENT CALCULATION #4**

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site Zip: 60439

Gauging Date: July 19, 2017

Wells Used: MW-5, MW-1, MW-2

The value for the hydraulic gradient was solved using site-specific groundwater elevation data and the distances between the wells selected.

Equation #1: 
$$\left[ \frac{(h_1 - h_2)}{(h_1 - h_3)} \right] = \left[ \frac{x}{b} \right]$$

Where:

$h_1$	=	highest head selected (MW-5)	86.76 feet
$h_2$	=	intermediate head selected (MW-1)	85.95 feet
$h_3$	=	lowest head selected (MW-2)	85.86 feet
$b$	=	distance from $h_3$ to $h_1$	157.00 feet
$x$	=	distance from $h_1$ , along $b$ , at which the total head is $h_2$ (solved by Equation #1)	141.30 feet

Equation #2: 
$$d = b - x$$

Where:

$b$	=	distance from $h_3$ to $h_1$	157.00 feet
$x$	=	distance from $h_1$ , along $b$ , at which the total head is $h_2$ (solved by Equation #1)	141.30 feet
$d$	=	distance from $h_3$ , along $b$ , at which the total head is $h_2$ (solved by Equation #2)	15.70 feet

The hydraulic gradient is then calculated using the following equation. Please see the attached sheets for the additional calculations required to calculate  $i$ .

Equation #3: 
$$i = \left[ \frac{(h_2 - h_3)}{l} \right]$$

**HYDRAULIC GRADIENT CALCULATION #4**

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site Zip: 60439

Gauging Date: July 19, 2017

Wells Used: MW-5, MW-1, MW-2

Where:

$l$  = distance from  $h_3$  that is perpendicular to the equipotential line that is equal to  $h_2$  (solved by Equation #7) 10.21 feet  
 $i$  = hydraulic gradient (solved by Equation #3) 0.0088 feet/foot

By utilizing the Law of Cosines and the Law of Sines,  $l$ , the distance from  $h_3$  that is perpendicular to the equipotential line that is equal to  $h_2$ , can be calculated.

Equation #4 (Law of Cosines): 
$$c^2 = a^2 + b^2 - 2ab (\cos C)$$

Equation #4 (Law of Cosines Revised): 
$$\cos C = \frac{a^2 + b^2 - c^2}{2ab}$$

Where:

$a$  = distance from  $h_2$  to  $h_3$  78.00 feet  
 $b$  = distance from  $h_3$  to  $h_1$  157.00 feet  
 $c$  = distance from  $h_1$  to  $h_2$  101.00 feet  
 $C$  = angle between  $h_2$ ,  $h_3$ , and  $h_1$  (solved by Equation #4) 33.04 degrees

By substituting  $d$  for  $b$ , the distance between  $h_2$  and  $d$  can be calculated.

Equation #5 (Law of Cosines): 
$$c_2^2 = a^2 + d^2 - 2ad (\cos C)$$

Where:

$a$  = distance from  $h_2$  to  $h_3$  78.00 feet  
 $d$  = distance from  $h_3$ , along  $b$ , at which the total head is equal to  $h_2$  (solved by Equation #2) 15.70 feet  
 $C$  = angle between  $h_2$ ,  $h_3$ , and  $h_1$  (solved by Equation #4) 33.04 degrees  
 $c_2$  = distance from  $h_2$  to  $d$  (solved by Equation #5), this is also the equipotential line equal to  $h_2$  65.40 feet

**HYDRAULIC GRADIENT CALCULATION #4**

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site Zip: 60439

Gauging Date: July 19, 2017

Wells Used: MW-5, MW-1, MW-2

By using Equation #5 above, the angle between  $h_2$ ,  $d$ , and  $h_3$  can be calculated.

Equation #6 (Law of Cosines): 
$$\cos A_2 = \frac{d^2 + c_2^2 - a^2}{2dc_2}$$

Where:

$a$	=	distance from $h_2$ to $h_3$	78.00 feet
$d$	=	distance from $h_3$ , along $b$ , at which the total head is equal to $h_2$ (solved by Equation #2)	15.70 feet
$c_2$	=	distance from $h_2$ to $d$ (solved by Equation #5), this is also the equipotential line equal to $h_2$	65.40 feet
$A_2$	=	angle between $h_2$ , $d$ , and $h_3$ (solved by Equation #6)	139.44 degrees

By utilizing the Law of Sines,  $l$  can be calculated and utilized in Equation #3 to calculate the hydraulic gradient.

Equation #7 (Law of Sines): 
$$\sin A_2 = l/d$$

Equation #7 (Law of Sines Revised): 
$$l = \sin A_2 \cdot d$$

Where:

$d$	=	distance from $h_3$ , along $b$ , at which the total head is equal to $h_2$ (solved by Equation #2)	15.70 feet
$A_2$	=	angle between $h_2$ , $d$ , and $h_3$ (solved by Equation #6)	139.44 degrees
$l$	=	distance from $h_3$ that is perpendicular to the equipotential line $c_2$ (solved by Equation #7)	10.21 feet

HYDRAULIC GRADIENT CALCULATION #5

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site Zip: 60439

Gauging Date: July 19, 2017

Wells Used: MW-1, MW-3, MW-2

The value for the hydraulic gradient was solved using site-specific groundwater elevation data and the distances between the wells selected.

Equation #1: 
$$\left[ \frac{(h_1 - h_2)}{(h_1 - h_3)} \right] = \left[ \frac{x}{b} \right]$$

Where:

$h_1$	=	highest head selected (MW-1)	85.95 feet
$h_2$	=	intermediate head selected (MW-3)	85.95 feet
$h_3$	=	lowest head selected (MW-2)	85.86 feet
$b$	=	distance from $h_3$ to $h_1$	78.00 feet
$x$	=	distance from $h_1$ , along $b$ , at which the total head is $h_2$ (solved by Equation #1)	feet

Equation #2: 
$$d = b - x$$

Where:

$b$	=	distance from $h_3$ to $h_1$	78.00 feet
$x$	=	distance from $h_1$ , along $b$ , at which the total head is $h_2$ (solved by Equation #1)	feet
$d$	=	distance from $h_3$ , along $b$ , at which the total head is $h_2$ (solved by Equation #2)	78.00 feet

The hydraulic gradient is then calculated using the following equation. Please see the attached sheets for the additional calculations required to calculate  $i$ .

Equation #3: 
$$i = \left[ \frac{(h_2 - h_3)}{l} \right]$$

**HYDRAULIC GRADIENT CALCULATION #5**

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site Zip: 60439

Gauging Date: July 19, 2017

Wells Used: MW-1, MW-3, MW-2

Where:

$l$  = distance from  $h_3$  that is perpendicular to the equipotential line that is equal to  $h_2$  (solved by Equation #7) 46.25 feet  
 $i$  = hydraulic gradient (solved by Equation #3) 0.0019 feet/foot

By utilizing the Law of Cosines and the Law of Sines,  $l$ , the distance from  $h_3$  that is perpendicular to the equipotential line that is equal to  $h_2$ , can be calculated.

Equation #4 (Law of Cosines): 
$$c^2 = a^2 + b^2 - 2ab (\cos C)$$

Equation #4 (Law of Cosines Revised): 
$$\cos C = \frac{a^2 + b^2 - c^2}{2ab}$$

Where:

$a$  = distance from  $h_2$  to  $h_3$  49.00 feet  
 $b$  = distance from  $h_3$  to  $h_1$  78.00 feet  
 $c$  = distance from  $h_1$  to  $h_2$  79.00 feet  
 $C$  = angle between  $h_2$ ,  $h_3$ , and  $h_1$  (solved by Equation #4) 72.93 degrees

By substituting  $d$  for  $b$ , the distance between  $h_2$  and  $d$  can be calculated.

Equation #5 (Law of Cosines): 
$$c_2^2 = a^2 + d^2 - 2ad (\cos C)$$

Where:

$a$  = distance from  $h_2$  to  $h_3$  49.00 feet  
 $d$  = distance from  $h_3$ , along  $b$ , at which the total head is equal to  $h_2$  (solved by Equation #2) 78.00 feet  
 $C$  = angle between  $h_2$ ,  $h_3$ , and  $h_1$  (solved by Equation #4) 72.93 degrees  
 $c_2$  = distance from  $h_2$  to  $d$  (solved by Equation #5), this is also the equipotential line equal to  $h_2$  79.00 feet

**HYDRAULIC GRADIENT CALCULATION #5**

**Project Number:** 100137  
**Site Name:** Lemont Kar Gas  
**Site Address:** 1196 State Street  
**Site City:** Lemont  
**Site County:** Cook  
**Site State:** IL  
**Site Zip:** 60439  
  
**Gauging Date:** July 19, 2017  
  
**Wells Used:** MW-1, MW-3, MW-2

By using Equation #5 above, the angle between  $h_2$ ,  $d$ , and  $h_3$  can be calculated.

Equation #6 (Law of Cosines): 
$$\cos A_2 = \frac{d^2 + c_2^2 - a^2}{2dc_2}$$

Where:

$a$	=	distance from $h_2$ to $h_3$	49.00 feet
$d$	=	distance from $h_3$ , along $b$ , at which the total head is equal to $h_2$ (solved by Equation #2)	78.00 feet
$c_2$	=	distance from $h_2$ to $d$ (solved by Equation #5), this is also the equipotential line equal to $h_2$	79.00 feet
$A_2$	=	angle between $h_2$ , $d$ , and $h_3$ (solved by Equation #6)	36.36 degrees

By utilizing the Law of Sines,  $l$  can be calculated and utilized in Equation #3 to calculate the hydraulic gradient.

Equation #7 (Law of Sines): 
$$\sin A_2 = l/d$$

Equation #7 (Law of Sines Revised): 
$$l = \sin A_2 \cdot d$$

Where:

$d$	=	distance from $h_3$ , along $b$ , at which the total head is equal to $h_2$ (solved by Equation #2)	78.00 feet
$A_2$	=	angle between $h_2$ , $d$ , and $h_3$ (solved by Equation #6)	36.36 degrees
$l$	=	distance from $h_3$ that is perpendicular to the equipotential line $c_2$ (solved by Equation #7)	46.25 feet

HYDRAULIC GRADIENT CALCULATION #6

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site Zip: 60439

Gauging Date: July 19, 2017

Wells Used: MW-5, MW-3, MW-2

The value for the hydraulic gradient was solved using site-specific groundwater elevation data and the distances between the wells selected.

Equation #1: 
$$\left[ \frac{(h_1 - h_2)}{(h_1 - h_3)} \right] = \left[ \frac{x}{b} \right]$$

Where:

$h_1$	=	highest head selected (MW-5)	86.76 feet
$h_2$	=	intermediate head selected (MW-3)	85.95 feet
$h_3$	=	lowest head selected (MW-2)	85.86 feet
$b$	=	distance from $h_3$ to $h_1$	157.00 feet
$x$	=	distance from $h_1$ , along $b$ , at which the total head is $h_2$ (solved by Equation #1)	141.30 feet

Equation #2: 
$$d = b - x$$

Where:

$b$	=	distance from $h_3$ to $h_1$	157.00 feet
$x$	=	distance from $h_1$ , along $b$ , at which the total head is $h_2$ (solved by Equation #1)	141.30 feet
$d$	=	distance from $h_3$ , along $b$ , at which the total head is $h_2$ (solved by Equation #2)	15.70 feet

The hydraulic gradient is then calculated using the following equation. Please see the attached sheets for the additional calculations required to calculate  $i$ .

Equation #3: 
$$i = \left[ \frac{(h_2 - h_3)}{l} \right]$$

Where:

$l$	=	distance from $h_3$ that is perpendicular to the equipotential line that is equal to $h_2$ (solved by Equation #7)	13.03 feet
$i$	=	hydraulic gradient (solved by Equation #3)	0.0069 feet/feet



HYDRAULIC GRADIENT CALCULATION #6

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site Zip: 60439

Gauging Date: July 19, 2017

Wells Used: MW-5, MW-3, MW-2

By utilizing the Law of Cosines and the Law of Sines,  $l$ , the distance from  $h_3$  that is perpendicular to the equipotential line that is equal to  $h_2$ , can be calculated.

Equation #4 (Law of Cosines): 
$$c^2 = a^2 + b^2 - 2ab (\cos C)$$

Equation #4 (Law of Cosines Revised): 
$$\cos C = \frac{a^2 + b^2 - c^2}{2ab}$$

Where:

$a$	=	distance from $h_2$ to $h_3$	49.00 feet
$b$	=	distance from $h_3$ to $h_1$	157.00 feet
$c$	=	distance from $h_1$ to $h_2$	124.00 feet
$C$	=	angle between $h_2$ , $h_3$ , and $h_1$ (solved by Equation #4)	40.65 degrees

By substituting  $d$  for  $b$ , the distance between  $h_2$  and  $d$  can be calculated.

Equation #5 (Law of Cosines): 
$$c_2^2 = a^2 + d^2 - 2ad (\cos C)$$

Where:

$a$	=	distance from $h_2$ to $h_3$	49.00 feet
$d$	=	distance from $h_3$ along $b$ , at which the total head is equal to $h_2$ (solved by Equation #2)	15.70 feet
$C$	=	angle between $h_2$ , $h_3$ , and $h_1$ (solved by Equation #4)	40.65 degrees
$c_2$	=	distance from $h_2$ to $d$ (solved by Equation #5), this is also the equipotential line equal to $h_2$	38.47 feet

HYDRAULIC GRADIENT CALCULATION #6

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site Zip: 60439

Gauging Date: July 19, 2017

Wells Used: MW-5, MW-3, MW-2

By using Equation #5 above, the angle between  $h_2$ ,  $d$ , and  $h_3$  can be calculated.

Equation #6 (Law of Cosines): 
$$\cos A_2 = \frac{d^2 + c_2^2 - a^2}{2dc_2}$$

Where:

$a$	=	distance from $h_2$ to $h_3$	49.00 feet
$d$	=	distance from $h_3$ , along $b$ , at which the total head is equal to $h_2$ (solved by Equation #2)	15.70 feet
$c_2$	=	distance from $h_2$ to $d$ (solved by Equation #5), this is also the equipotential line equal to $h_2$	38.47 feet
$A_2$	=	angle between $h_2$ , $d$ , and $h_3$ (solved by Equation #6)	123.94 degrees

By utilizing the Law of Sines,  $l$  can be calculated and utilized in Equation #3 to calculate the hydraulic gradient.

Equation #7 (Law of Sines): 
$$\sin A_2 = l/d$$

Equation #7 (Law of Sines Revised): 
$$l = \sin A_2 \cdot d$$

Where:

$d$	=	distance from $h_3$ , along $b$ , at which the total head is equal to $h_2$ (solved by Equation #2)	15.70 feet
$A_2$	=	angle between $h_2$ , $d$ , and $h_3$ (solved by Equation #6)	123.94 degrees
$l$	=	distance from $h_3$ that is perpendicular to the equipotential line $c_2$ (solved by Equation #7)	13.03 feet

**APPENDIX E**  
**HYDRAULIC CONDUCTIVITY EVALUATION**

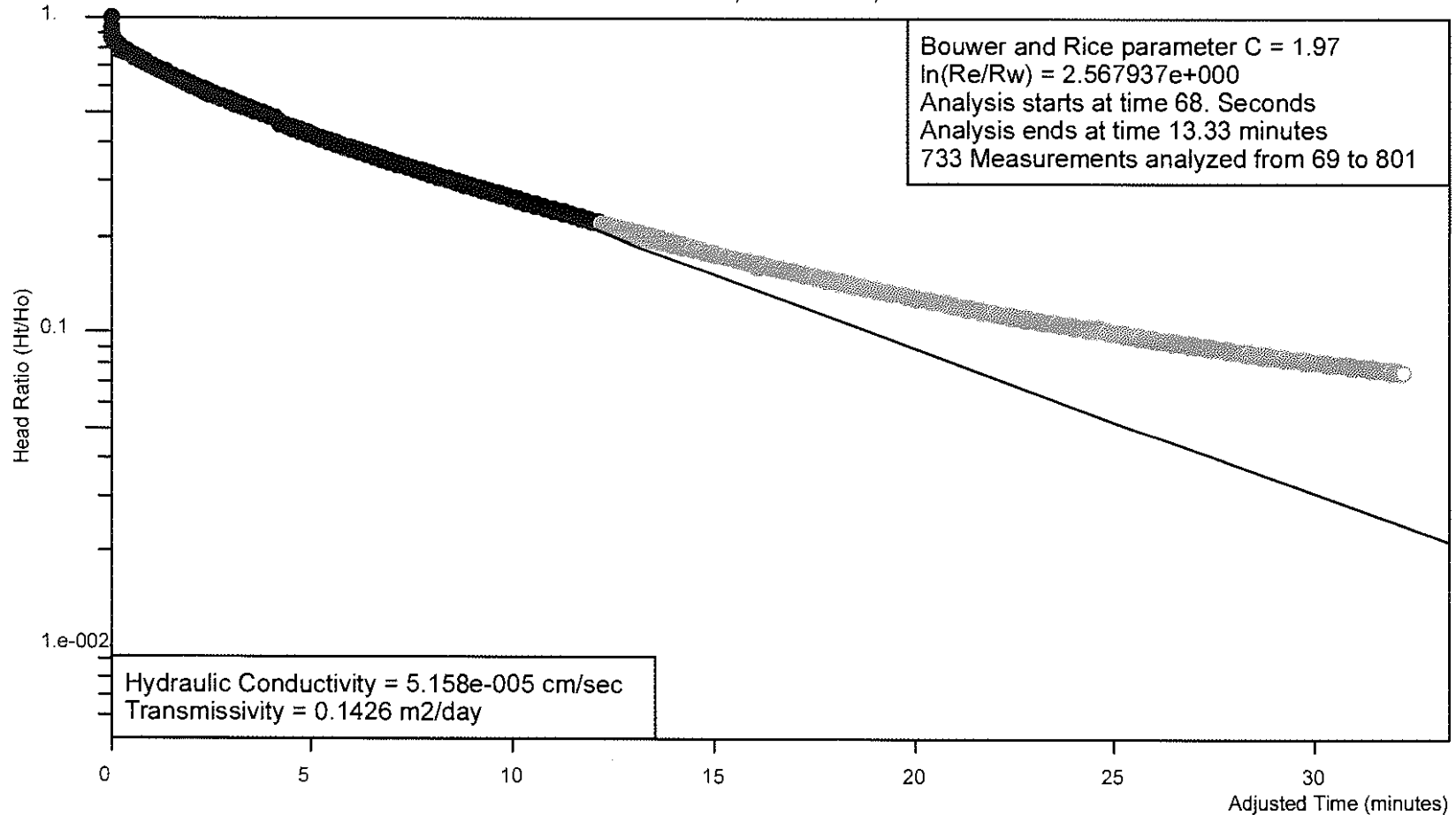
Site Location: Lemont Kar Gas

Well ID: MW-1 Test Date: 07/19/17

### Bouwer and Rice Graph

Site Location: Lemont Kar Gas 1196 State St., Lemont, IL 60439

MW-1



Project Number: 100137 for BOI, LLC  
Analysis by Starpoint Software

$H_o$  is 3.256 feet at 68. Seconds

Site Location: Lemont Kar Gas

**Bower and Rice Automatic Parameter Estimation**

Well ID: MW-1

Site Name: Site Location: Lemont Kar Gas  
 Location: 1196 State St., Lemont, IL 60439  
 Test Date: Test Date: 07/19/17  
 Client: BOI, LLC  
 Project Number: 100137  
 Import File: C:\Users\Marcos\Dropbox (TriCore)\Projects\100137 - Lemont Kar Gas\Data\Hydr:

Well Label: MW-1  
 Aquifer Thickness: 10.5 feet  
 Screen Length: 10. feet  
 Casing Radius: 1. Inches  
 Effective Radius: 4.125 Inches  
 Bower and Rice Parameter C: 1.97  
 Radius of Influence of Test: 4.482 feet

Trial	Adjusted Time (minutes)	Head (feet)	Head Ratio	Hyd. Con. (cm/sec)	Flow to Well (Meters3/Day)
69	0.	3.256	1.	--	
70	1.667e-002	3.075	0.9443	1.558e-003	9.408
71	3.333e-002	2.914	0.8947	1.512e-003	8.65
72	5.e-002	2.814	0.8643	1.322e-003	7.305
73	6.667e-002	2.764	0.8489	1.113e-003	6.044
74	8.333e-002	2.744	0.8428	9.296e-004	5.011
75	0.1	2.731	0.8387	7.97e-004	4.275
76	0.1167	2.721	0.8355	6.977e-004	3.728
77	0.1333	2.711	0.8324	6.23e-004	3.317
78	0.15	2.7	0.8291	5.659e-004	3.001
79	0.1667	2.689	0.8258	5.2e-004	2.747
80	0.1833	2.678	0.8226	4.826e-004	2.539
81	0.2	2.667	0.8191	4.52e-004	2.368
82	0.2167	2.656	0.8157	4.259e-004	2.222
83	0.2333	2.646	0.8127	4.026e-004	2.093
84	0.25	2.636	0.8095	3.83e-004	1.983
85	0.2667	2.626	0.8064	3.654e-004	1.885
86	0.2833	2.617	0.8036	3.495e-004	1.796
87	0.3	2.608	0.801	3.35e-004	1.716
88	0.3167	2.598	0.798	3.228e-004	1.648
89	0.3333	2.589	0.7952	3.114e-004	1.584
90	0.35	2.579	0.7922	3.015e-004	1.528
91	0.3667	2.572	0.7898	2.915e-004	1.473
92	0.3833	2.563	0.7872	2.827e-004	1.423
93	0.4	2.555	0.7846	2.747e-004	1.378
94	0.4167	2.547	0.7822	2.671e-004	1.336
95	0.4333	2.54	0.7799	2.599e-004	1.296
96	0.45	2.531	0.7771	2.538e-004	1.262
97	0.4667	2.522	0.7744	2.482e-004	1.229
98	0.4833	2.514	0.772	2.425e-004	1.197
99	0.5	2.505	0.7693	2.376e-004	1.169
100	0.5167	2.498	0.7672	2.324e-004	1.14
101	0.5333	2.491	0.765	2.275e-004	1.113
102	0.55	2.483	0.7625	2.234e-004	1.089
103	0.5667	2.475	0.7601	2.193e-004	1.066
104	0.5833	2.468	0.7579	2.153e-004	1.043
105	0.6	2.461	0.7557	2.115e-004	1.022

# Electronic Filing: Received, Clerk's Office 03/23/2021

Site Location: Lemont Kar Gas

106	0.6167	2.453	0.7532	2.081e-004	1.003
107	0.6333	2.446	0.751	2.048e-004	0.9835
108	0.65	2.438	0.7488	2.016e-004	0.9654
109	0.6667	2.431	0.7466	1.986e-004	0.9482
110	0.6833	2.424	0.7445	1.956e-004	0.9312
111	0.7	2.417	0.7423	1.928e-004	0.9154
112	0.7167	2.411	0.7404	1.9e-004	0.8996
113	0.7333	2.404	0.7382	1.875e-004	0.8851
114	0.75	2.397	0.7362	1.849e-004	0.8708
115	0.7667	2.39	0.734	1.827e-004	0.8576
116	0.7833	2.384	0.7322	1.803e-004	0.8441
117	0.8	2.376	0.7298	1.784e-004	0.8324
118	0.8167	2.372	0.7284	1.758e-004	0.8189
119	0.8333	2.364	0.7259	1.741e-004	0.8083
120	0.85	2.357	0.7238	1.722e-004	0.7973
121	0.8667	2.352	0.7223	1.7e-004	0.7854
122	0.8833	2.345	0.7201	1.684e-004	0.7754
123	0.9	2.338	0.7181	1.667e-004	0.7655
124	0.9167	2.332	0.7162	1.65e-004	0.7556
125	0.9333	2.327	0.7145	1.632e-004	0.7455
126	0.95	2.319	0.7122	1.618e-004	0.7371
127	0.9667	2.314	0.7105	1.602e-004	0.7277
128	0.9833	2.308	0.7087	1.586e-004	0.7189
129	1.	2.301	0.7067	1.573e-004	0.7107
130	1.017	2.296	0.7051	1.557e-004	0.702
131	1.033	2.289	0.7029	1.545e-004	0.6947
132	1.05	2.278	0.6995	1.542e-004	0.6897
133	1.067	2.275	0.6987	1.522e-004	0.6803
134	1.083	2.272	0.6979	1.504e-004	0.6713
135	1.1	2.265	0.6956	1.494e-004	0.6649
136	1.117	2.26	0.6941	1.481e-004	0.6574
137	1.133	2.255	0.6926	1.468e-004	0.6502
138	1.15	2.25	0.6908	1.457e-004	0.6437
139	1.167	2.242	0.6886	1.448e-004	0.6379
140	1.183	2.237	0.6871	1.437e-004	0.6312
141	1.2	2.232	0.6854	1.426e-004	0.6251
142	1.217	2.226	0.6836	1.416e-004	0.6191
143	1.233	2.221	0.6819	1.406e-004	0.6132
144	1.25	2.215	0.6802	1.397e-004	0.6075
145	1.267	2.209	0.6784	1.388e-004	0.6021
146	1.283	2.204	0.6769	1.377e-004	0.5962
147	1.3	2.198	0.675	1.37e-004	0.5912
148	1.317	2.194	0.6737	1.359e-004	0.5855
149	1.333	2.189	0.6723	1.349e-004	0.58
150	1.35	2.183	0.6704	1.342e-004	0.5752
151	1.367	2.177	0.6685	1.335e-004	0.5707
152	1.383	2.172	0.6671	1.325e-004	0.5655
153	1.4	2.167	0.6655	1.318e-004	0.5608
154	1.417	2.162	0.6639	1.31e-004	0.5561
155	1.433	2.157	0.6625	1.301e-004	0.5513
156	1.45	2.151	0.6605	1.295e-004	0.5473
157	1.467	2.146	0.6589	1.288e-004	0.5429
158	1.483	2.141	0.6575	1.281e-004	0.5385
159	1.5	2.136	0.6559	1.274e-004	0.5342
160	1.517	2.131	0.6543	1.267e-004	0.5301
161	1.533	2.126	0.6529	1.259e-004	0.5258
162	1.55	2.122	0.6517	1.251e-004	0.5215

4/10/2019

A.R. 000226

# Electronic Filing: Received, Clerk's Office 03/23/2021

Site Location: Lemont Kar Gas

163	1.567	2.116	0.6499	1.246e-004	0.5179
164	1.583	2.112	0.6485	1.239e-004	0.5139
165	1.6	2.107	0.6471	1.232e-004	0.51
166	1.617	2.102	0.6454	1.227e-004	0.5064
167	1.633	2.096	0.6436	1.222e-004	0.503
168	1.65	2.092	0.6425	1.214e-004	0.499
169	1.667	2.087	0.6409	1.209e-004	0.4956
170	1.683	2.082	0.6395	1.203e-004	0.492
171	1.7	2.078	0.6381	1.197e-004	0.4885
172	1.717	2.072	0.6364	1.192e-004	0.4853
173	1.733	2.068	0.6351	1.186e-004	0.4818
174	1.75	2.063	0.6335	1.182e-004	0.4787
175	1.767	2.059	0.6324	1.175e-004	0.4752
176	1.783	2.055	0.6311	1.169e-004	0.4719
177	1.8	2.049	0.6293	1.166e-004	0.4691
178	1.817	2.045	0.628	1.16e-004	0.4658
179	1.833	2.041	0.6267	1.154e-004	0.4627
180	1.85	2.036	0.6251	1.15e-004	0.4599
181	1.867	2.031	0.6236	1.146e-004	0.457
182	1.883	2.027	0.6223	1.141e-004	0.454
183	1.9	2.023	0.6211	1.135e-004	0.451
184	1.917	2.017	0.6194	1.132e-004	0.4484
185	1.933	2.013	0.618	1.127e-004	0.4456
186	1.95	2.009	0.617	1.122e-004	0.4426
187	1.967	2.004	0.6154	1.118e-004	0.4401
188	1.983	2.001	0.6144	1.113e-004	0.4372
189	2.	1.995	0.6127	1.109e-004	0.4347
190	2.017	1.99	0.6112	1.106e-004	0.4322
191	2.033	1.987	0.6103	1.1e-004	0.4294
192	2.05	1.982	0.6087	1.097e-004	0.427
193	2.067	1.977	0.6073	1.093e-004	0.4246
194	2.083	1.974	0.6062	1.088e-004	0.4219
195	2.1	1.97	0.6049	1.084e-004	0.4195
196	2.117	1.966	0.6037	1.08e-004	0.417
197	2.133	1.961	0.6022	1.077e-004	0.4148
198	2.15	1.958	0.6013	1.072e-004	0.4121
199	2.167	1.953	0.5998	1.069e-004	0.4099
200	2.183	1.949	0.5986	1.065e-004	0.4076
201	2.2	1.945	0.5973	1.061e-004	0.4053
202	2.217	1.941	0.596	1.058e-004	0.4031
203	2.233	1.936	0.5946	1.054e-004	0.401
204	2.25	1.932	0.5934	1.051e-004	0.3987
205	2.267	1.927	0.5919	1.048e-004	0.3967
206	2.283	1.925	0.591	1.043e-004	0.3944
207	2.3	1.921	0.5898	1.04e-004	0.3922
208	2.317	1.917	0.5887	1.036e-004	0.3901
209	2.333	1.912	0.5871	1.034e-004	0.3882
210	2.35	1.908	0.5858	1.031e-004	0.3862
211	2.367	1.904	0.5847	1.027e-004	0.3841
212	2.383	1.9	0.5835	1.024e-004	0.3821
213	2.4	1.895	0.582	1.022e-004	0.3802
214	2.417	1.891	0.5808	1.018e-004	0.3783
215	2.433	1.889	0.58	1.014e-004	0.3762
216	2.45	1.885	0.5788	1.011e-004	0.3742
217	2.467	1.881	0.5775	1.008e-004	0.3724
218	2.483	1.877	0.5763	1.005e-004	0.3705
219	2.5	1.872	0.575	1.003e-004	0.3687

4/10/2019

A.R. 000227

# Electronic Filing: Received, Clerk's Office 03/23/2021

Site Location: Lemont Kar Gas

220	2.517	1.869	0.5739	9.993e-005	0.3668
221	2.533	1.866	0.573	9.958e-005	0.3649
222	2.55	1.861	0.5715	9.937e-005	0.3632
223	2.567	1.857	0.5703	9.911e-005	0.3615
224	2.583	1.855	0.5696	9.869e-005	0.3595
225	2.6	1.849	0.5679	9.857e-005	0.358
226	2.617	1.844	0.5662	9.847e-005	0.3566
227	2.633	1.841	0.5654	9.809e-005	0.3547
228	2.65	1.838	0.5645	9.773e-005	0.3528
229	2.667	1.835	0.5636	9.741e-005	0.3511
230	2.683	1.832	0.5627	9.708e-005	0.3493
231	2.7	1.827	0.561	9.696e-005	0.3479
232	2.717	1.824	0.5603	9.66e-005	0.3461
233	2.733	1.821	0.5592	9.632e-005	0.3445
234	2.75	1.816	0.5577	9.619e-005	0.3431
235	2.767	1.813	0.5568	9.588e-005	0.3414
236	2.783	1.809	0.5555	9.566e-005	0.3399
237	2.8	1.807	0.5548	9.532e-005	0.3382
238	2.817	1.801	0.5532	9.52e-005	0.3368
239	2.833	1.8	0.5529	9.473e-005	0.335
240	2.85	1.795	0.5513	9.463e-005	0.3337
241	2.867	1.792	0.5503	9.438e-005	0.3322
242	2.883	1.788	0.5492	9.415e-005	0.3307
243	2.9	1.786	0.5484	9.383e-005	0.3291
244	2.917	1.782	0.5471	9.367e-005	0.3277
245	2.933	1.778	0.5459	9.347e-005	0.3263
246	2.95	1.774	0.5447	9.328e-005	0.325
247	2.967	1.77	0.5436	9.307e-005	0.3236
248	2.983	1.767	0.5427	9.28e-005	0.3221
249	3.	1.764	0.5417	9.256e-005	0.3207
250	3.017	1.761	0.5407	9.233e-005	0.3193
251	3.033	1.757	0.5395	9.214e-005	0.3179
252	3.05	1.753	0.5384	9.194e-005	0.3166
253	3.067	1.751	0.5376	9.168e-005	0.3152
254	3.083	1.747	0.5364	9.149e-005	0.3139
255	3.1	1.743	0.5354	9.13e-005	0.3126
256	3.117	1.74	0.5342	9.112e-005	0.3113
257	3.133	1.737	0.5334	9.085e-005	0.3099
258	3.15	1.733	0.5323	9.067e-005	0.3087
259	3.167	1.731	0.5316	9.038e-005	0.3073
260	3.183	1.726	0.53	9.034e-005	0.3062
261	3.2	1.723	0.5292	9.008e-005	0.3049
262	3.217	1.72	0.5282	8.988e-005	0.3036
263	3.233	1.717	0.5273	8.964e-005	0.3023
264	3.25	1.713	0.5262	8.948e-005	0.3011
265	3.267	1.711	0.5254	8.924e-005	0.2999
266	3.283	1.707	0.5243	8.908e-005	0.2987
267	3.3	1.704	0.5234	8.886e-005	0.2975
268	3.317	1.701	0.5225	8.865e-005	0.2962
269	3.333	1.698	0.5214	8.849e-005	0.2951
270	3.35	1.693	0.5199	8.843e-005	0.2941
271	3.367	1.691	0.5193	8.815e-005	0.2928
272	3.383	1.687	0.5182	8.801e-005	0.2917
273	3.4	1.685	0.5174	8.779e-005	0.2905
274	3.417	1.682	0.5164	8.761e-005	0.2894
275	3.433	1.679	0.5157	8.737e-005	0.2882
276	3.45	1.675	0.5144	8.728e-005	0.2871

4/10/2019

A.R. 000228



# Electronic Filing: Received, Clerk's Office 03/23/2021

Site Location: Lemont Kar Gas

277	3.467	1.672	0.5134	8.71e-005	0.286
278	3.483	1.669	0.5125	8.693e-005	0.2849
279	3.5	1.666	0.5116	8.673e-005	0.2838
280	3.517	1.662	0.5105	8.66e-005	0.2827
281	3.533	1.659	0.5096	8.642e-005	0.2817
282	3.55	1.656	0.5086	8.625e-005	0.2806
283	3.567	1.654	0.5078	8.606e-005	0.2795
284	3.583	1.65	0.5067	8.593e-005	0.2785
285	3.6	1.647	0.5059	8.574e-005	0.2774
286	3.617	1.645	0.505	8.556e-005	0.2763
287	3.633	1.642	0.5042	8.536e-005	0.2753
288	3.65	1.638	0.503	8.529e-005	0.2743
289	3.667	1.638	0.503	8.49e-005	0.2731
290	3.683	1.632	0.5013	8.493e-005	0.2723
291	3.7	1.629	0.5001	8.483e-005	0.2713
292	3.717	1.626	0.4993	8.464e-005	0.2703
293	3.733	1.625	0.4989	8.437e-005	0.2692
294	3.75	1.618	0.497	8.445e-005	0.2684
295	3.767	1.618	0.4969	8.409e-005	0.2673
296	3.783	1.614	0.4957	8.401e-005	0.2664
297	3.8	1.612	0.4951	8.379e-005	0.2653
298	3.817	1.61	0.4943	8.363e-005	0.2644
299	3.833	1.606	0.4932	8.353e-005	0.2635
300	3.85	1.603	0.4922	8.34e-005	0.2625
301	3.867	1.601	0.4916	8.319e-005	0.2615
302	3.883	1.597	0.4906	8.307e-005	0.2606
303	3.9	1.595	0.4899	8.289e-005	0.2597
304	3.917	1.592	0.4888	8.279e-005	0.2588
305	3.933	1.589	0.4879	8.265e-005	0.2579
306	3.95	1.586	0.487	8.25e-005	0.257
307	3.967	1.582	0.4859	8.243e-005	0.2561
308	3.983	1.581	0.4855	8.218e-005	0.2551
309	4.	1.578	0.4846	8.203e-005	0.2542
310	4.017	1.576	0.484	8.184e-005	0.2533
311	4.033	1.573	0.4829	8.174e-005	0.2525
312	4.05	1.569	0.4818	8.168e-005	0.2517
313	4.067	1.566	0.4809	8.155e-005	0.2508
314	4.083	1.563	0.48	8.143e-005	0.2499
315	4.1	1.56	0.479	8.132e-005	0.2491
316	4.117	1.558	0.4785	8.111e-005	0.2482
317	4.133	1.555	0.4775	8.101e-005	0.2474
318	4.15	1.555	0.4776	8.066e-005	0.2464
319	4.167	1.542	0.4736	8.124e-005	0.2461
320	4.183	1.531	0.4701	8.172e-005	0.2457
321	4.2	1.527	0.4689	8.168e-005	0.2449
322	4.217	1.525	0.4683	8.15e-005	0.2441
323	4.233	1.497	0.4596	8.318e-005	0.2445
324	4.25	1.493	0.4586	8.31e-005	0.2437
325	4.267	1.49	0.4576	8.299e-005	0.2429
326	4.283	1.486	0.4564	8.295e-005	0.2421
327	4.3	1.484	0.4556	8.282e-005	0.2413
328	4.317	1.481	0.4547	8.27e-005	0.2405
329	4.333	1.478	0.454	8.253e-005	0.2397
330	4.35	1.475	0.4528	8.249e-005	0.2389
331	4.367	1.473	0.4522	8.232e-005	0.2381
332	4.383	1.47	0.4514	8.22e-005	0.2373
333	4.4	1.466	0.4503	8.214e-005	0.2365

4/10/2019

A.R. 000229

# Electronic Filing: Received, Clerk's Office 03/23/2021

Site Location: Lemont Kar Gas

334	4.417	1.463	0.4494	8.203e-005	0.2358
335	4.433	1.462	0.4489	8.182e-005	0.2349
336	4.45	1.46	0.4484	8.165e-005	0.2341
337	4.467	1.456	0.447	8.165e-005	0.2334
338	4.483	1.455	0.4467	8.142e-005	0.2326
339	4.5	1.452	0.446	8.127e-005	0.2318
340	4.517	1.449	0.4449	8.122e-005	0.2311
341	4.533	1.446	0.4442	8.108e-005	0.2303
342	4.55	1.444	0.4435	8.093e-005	0.2296
343	4.567	1.441	0.4425	8.086e-005	0.2289
344	4.583	1.437	0.4414	8.083e-005	0.2282
345	4.6	1.436	0.4409	8.063e-005	0.2274
346	4.617	1.434	0.4404	8.045e-005	0.2266
347	4.633	1.431	0.4395	8.037e-005	0.2259
348	4.65	1.428	0.4386	8.028e-005	0.2252
349	4.667	1.426	0.4378	8.017e-005	0.2245
350	4.683	1.422	0.4368	8.011e-005	0.2238
351	4.7	1.421	0.4364	7.992e-005	0.223
352	4.717	1.418	0.4355	7.983e-005	0.2223
353	4.733	1.416	0.4348	7.971e-005	0.2216
354	4.75	1.412	0.4335	7.97e-005	0.221
355	4.767	1.41	0.4329	7.955e-005	0.2203
356	4.783	1.408	0.4323	7.941e-005	0.2196
357	4.8	1.406	0.4318	7.925e-005	0.2189
358	4.817	1.403	0.4308	7.919e-005	0.2182
359	4.833	1.4	0.43	7.909e-005	0.2175
360	4.85	1.398	0.4293	7.898e-005	0.2168
361	4.867	1.395	0.4284	7.89e-005	0.2162
362	4.883	1.394	0.4281	7.869e-005	0.2155
363	4.9	1.391	0.427	7.865e-005	0.2148
364	4.917	1.388	0.4261	7.859e-005	0.2142
365	4.933	1.385	0.4253	7.85e-005	0.2135
366	4.95	1.384	0.4249	7.832e-005	0.2128
367	4.967	1.38	0.4238	7.83e-005	0.2122
368	4.983	1.378	0.4231	7.817e-005	0.2116
369	5.	1.375	0.4223	7.809e-005	0.2109
370	5.017	1.373	0.4216	7.797e-005	0.2103
371	5.033	1.371	0.421	7.785e-005	0.2096
372	5.05	1.368	0.4201	7.779e-005	0.209
373	5.067	1.366	0.4196	7.764e-005	0.2084
374	5.083	1.363	0.4187	7.758e-005	0.2077
375	5.1	1.362	0.4182	7.743e-005	0.2071
376	5.117	1.358	0.4172	7.74e-005	0.2065
377	5.133	1.356	0.4163	7.733e-005	0.2059
378	5.15	1.353	0.4156	7.722e-005	0.2053
379	5.167	1.351	0.415	7.71e-005	0.2046
380	5.183	1.347	0.4138	7.712e-005	0.2041
381	5.2	1.346	0.4133	7.697e-005	0.2034
382	5.217	1.342	0.4122	7.695e-005	0.2029
383	5.233	1.341	0.4117	7.681e-005	0.2022
384	5.25	1.338	0.411	7.672e-005	0.2017
385	5.267	1.335	0.4099	7.669e-005	0.2011
386	5.283	1.333	0.4092	7.66e-005	0.2005
387	5.3	1.332	0.409	7.642e-005	0.1999
388	5.317	1.329	0.4082	7.633e-005	0.1993
389	5.333	1.326	0.4072	7.63e-005	0.1987
390	5.35	1.325	0.4068	7.615e-005	0.1981

4/10/2019

A.R. 000230

# Electronic Filing: Received, Clerk's Office 03/23/2021

Site Location: Lemont Kar Gas

391	5.367	1.322	0.4061	7.607e-005	0.1975
392	5.383	1.319	0.405	7.606e-005	0.197
393	5.4	1.317	0.4044	7.593e-005	0.1964
394	5.417	1.314	0.4035	7.59e-005	0.1959
395	5.433	1.311	0.4027	7.582e-005	0.1953
396	5.45	1.309	0.4021	7.573e-005	0.1947
397	5.467	1.308	0.4015	7.561e-005	0.1942
398	5.483	1.303	0.4003	7.564e-005	0.1936
399	5.5	1.303	0.4001	7.545e-005	0.193
400	5.517	1.301	0.3994	7.535e-005	0.1925
401	5.533	1.298	0.3987	7.528e-005	0.1919
402	5.55	1.297	0.3982	7.515e-005	0.1914
403	5.567	1.293	0.3972	7.512e-005	0.1909
404	5.583	1.291	0.3966	7.503e-005	0.1903
405	5.6	1.289	0.396	7.493e-005	0.1898
406	5.617	1.287	0.3953	7.484e-005	0.1892
407	5.633	1.285	0.3945	7.479e-005	0.1887
408	5.65	1.284	0.3942	7.463e-005	0.1882
409	5.667	1.28	0.393	7.466e-005	0.1876
410	5.683	1.279	0.3927	7.449e-005	0.1871
411	5.7	1.277	0.392	7.441e-005	0.1866
412	5.717	1.275	0.3915	7.431e-005	0.186
413	5.733	1.272	0.3907	7.425e-005	0.1855
414	5.75	1.27	0.39	7.419e-005	0.185
415	5.767	1.268	0.3895	7.406e-005	0.1845
416	5.783	1.263	0.3878	7.418e-005	0.184
417	5.8	1.263	0.3877	7.399e-005	0.1835
418	5.817	1.26	0.387	7.392e-005	0.183
419	5.833	1.259	0.3867	7.378e-005	0.1825
420	5.85	1.257	0.3859	7.373e-005	0.182
421	5.867	1.255	0.3854	7.362e-005	0.1815
422	5.883	1.252	0.3845	7.358e-005	0.181
423	5.9	1.251	0.3843	7.343e-005	0.1805
424	5.917	1.249	0.3834	7.338e-005	0.18
425	5.933	1.246	0.3827	7.333e-005	0.1795
426	5.95	1.243	0.3818	7.33e-005	0.179
427	5.967	1.242	0.3813	7.32e-005	0.1785
428	5.983	1.24	0.3808	7.309e-005	0.178
429	6.	1.238	0.3801	7.302e-005	0.1775
430	6.017	1.235	0.3793	7.298e-005	0.177
431	6.033	1.234	0.3789	7.286e-005	0.1766
432	6.05	1.232	0.3782	7.28e-005	0.1761
433	6.067	1.23	0.3776	7.272e-005	0.1756
434	6.083	1.227	0.3768	7.267e-005	0.1751
435	6.1	1.226	0.3766	7.252e-005	0.1747
436	6.117	1.224	0.3759	7.247e-005	0.1742
437	6.133	1.221	0.375	7.244e-005	0.1737
438	6.15	1.219	0.3743	7.239e-005	0.1733
439	6.167	1.218	0.3739	7.226e-005	0.1728
440	6.183	1.215	0.3732	7.22e-005	0.1723
441	6.2	1.214	0.3729	7.207e-005	0.1719
442	6.217	1.211	0.3718	7.209e-005	0.1714
443	6.233	1.21	0.3717	7.192e-005	0.171
444	6.25	1.208	0.3709	7.187e-005	0.1705
445	6.267	1.205	0.37	7.187e-005	0.1701
446	6.283	1.204	0.3696	7.175e-005	0.1696
447	6.3	1.202	0.369	7.168e-005	0.1692

4/10/2019

A.R. 000231

# Electronic Filing: Received, Clerk's Office 03/23/2021

Site Location: Lemont Kar Gas

448	6.317	1.2	0.3687	7.155e-005	0.1687
449	6.333	1.199	0.3682	7.146e-005	0.1683
450	6.35	1.196	0.3672	7.146e-005	0.1678
451	6.367	1.194	0.3668	7.136e-005	0.1674
452	6.383	1.193	0.3664	7.125e-005	0.167
453	6.4	1.19	0.3654	7.126e-005	0.1665
454	6.417	1.188	0.365	7.115e-005	0.1661
455	6.433	1.187	0.3644	7.107e-005	0.1656
456	6.45	1.184	0.3636	7.104e-005	0.1652
457	6.467	1.182	0.3629	7.099e-005	0.1648
458	6.483	1.181	0.3627	7.087e-005	0.1644
459	6.5	1.179	0.362	7.081e-005	0.1639
460	6.517	1.176	0.3612	7.077e-005	0.1635
461	6.533	1.175	0.3607	7.069e-005	0.1631
462	6.55	1.174	0.3604	7.058e-005	0.1627
463	6.567	1.171	0.3595	7.056e-005	0.1622
464	6.583	1.17	0.3592	7.045e-005	0.1618
465	6.6	1.167	0.3585	7.04e-005	0.1614
466	6.617	1.166	0.358	7.032e-005	0.161
467	6.633	1.163	0.3573	7.028e-005	0.1606
468	6.65	1.162	0.3569	7.018e-005	0.1602
469	6.667	1.16	0.3563	7.012e-005	0.1598
470	6.683	1.158	0.3556	7.008e-005	0.1594
471	6.7	1.156	0.3549	7.003e-005	0.159
472	6.717	1.154	0.3545	6.993e-005	0.1586
473	6.733	1.153	0.3539	6.987e-005	0.1582
474	6.75	1.15	0.3532	6.985e-005	0.1578
475	6.767	1.149	0.3528	6.974e-005	0.1574
476	6.783	1.147	0.3522	6.968e-005	0.157
477	6.8	1.145	0.3516	6.962e-005	0.1566
478	6.817	1.144	0.3513	6.952e-005	0.1562
479	6.833	1.141	0.3504	6.952e-005	0.1558
480	6.85	1.138	0.3496	6.949e-005	0.1554
481	6.867	1.137	0.3492	6.94e-005	0.155
482	6.883	1.137	0.3491	6.926e-005	0.1546
483	6.9	1.134	0.3482	6.926e-005	0.1542
484	6.917	1.132	0.3477	6.919e-005	0.1538
485	6.933	1.131	0.3473	6.91e-005	0.1535
486	6.95	1.129	0.3467	6.904e-005	0.1531
487	6.967	1.127	0.346	6.9e-005	0.1527
488	6.983	1.124	0.3453	6.897e-005	0.1523
489	7.	1.123	0.3448	6.889e-005	0.1519
490	7.017	1.121	0.3444	6.882e-005	0.1516
491	7.033	1.12	0.344	6.872e-005	0.1512
492	7.05	1.117	0.3431	6.873e-005	0.1508
493	7.067	1.117	0.3429	6.86e-005	0.1505
494	7.083	1.114	0.342	6.86e-005	0.1501
495	7.1	1.113	0.3418	6.849e-005	0.1497
496	7.117	1.111	0.3412	6.844e-005	0.1493
497	7.133	1.109	0.3405	6.84e-005	0.149
498	7.15	1.107	0.3401	6.832e-005	0.1486
499	7.167	1.105	0.3394	6.83e-005	0.1482
500	7.183	1.104	0.3391	6.819e-005	0.1479
501	7.2	1.103	0.3386	6.812e-005	0.1475
502	7.217	1.101	0.338	6.808e-005	0.1472
503	7.233	1.099	0.3374	6.804e-005	0.1468
504	7.25	1.096	0.3364	6.806e-005	0.1464

# Electronic Filing: Received, Clerk's Office 03/23/2021

Site Location: Lemont Kar Gas

505	7.267	1.096	0.3366	6.788e-005	0.1461
506	7.283	1.093	0.3357	6.788e-005	0.1457
507	7.3	1.093	0.3356	6.775e-005	0.1454
508	7.317	1.089	0.3346	6.779e-005	0.145
509	7.333	1.088	0.3342	6.769e-005	0.1447
510	7.35	1.088	0.334	6.758e-005	0.1444
511	7.367	1.085	0.3331	6.76e-005	0.144
512	7.383	1.084	0.3328	6.75e-005	0.1437
513	7.4	1.082	0.3324	6.741e-005	0.1433
514	7.417	1.08	0.3316	6.742e-005	0.143
515	7.433	1.078	0.3312	6.734e-005	0.1426
516	7.45	1.077	0.3308	6.726e-005	0.1423
517	7.467	1.074	0.33	6.726e-005	0.1419
518	7.483	1.074	0.3297	6.717e-005	0.1416
519	7.5	1.073	0.3294	6.707e-005	0.1413
520	7.517	1.071	0.329	6.699e-005	0.141
521	7.533	1.069	0.3284	6.696e-005	0.1406
522	7.55	1.068	0.3279	6.69e-005	0.1403
523	7.567	1.066	0.3272	6.687e-005	0.14
524	7.583	1.064	0.3268	6.681e-005	0.1396
525	7.6	1.062	0.3263	6.675e-005	0.1393
526	7.617	1.06	0.3256	6.672e-005	0.139
527	7.633	1.059	0.3252	6.666e-005	0.1386
528	7.65	1.056	0.3244	6.667e-005	0.1383
529	7.667	1.055	0.324	6.658e-005	0.138
530	7.683	1.054	0.3236	6.652e-005	0.1377
531	7.7	1.053	0.3235	6.639e-005	0.1374
532	7.717	1.051	0.3226	6.641e-005	0.137
533	7.733	1.049	0.3221	6.635e-005	0.1367
534	7.75	1.048	0.3218	6.627e-005	0.1364
535	7.767	1.047	0.3215	6.618e-005	0.1361
536	7.783	1.044	0.3206	6.62e-005	0.1357
537	7.8	1.043	0.3203	6.612e-005	0.1354
538	7.817	1.041	0.3197	6.608e-005	0.1351
539	7.833	1.039	0.319	6.607e-005	0.1348
540	7.85	1.037	0.3186	6.601e-005	0.1345
541	7.867	1.036	0.3181	6.595e-005	0.1342
542	7.883	1.035	0.3178	6.587e-005	0.1339
543	7.9	1.032	0.317	6.587e-005	0.1335
544	7.917	1.031	0.3166	6.58e-005	0.1332
545	7.933	1.029	0.3161	6.576e-005	0.1329
546	7.95	1.028	0.3158	6.568e-005	0.1326
547	7.967	1.025	0.3149	6.57e-005	0.1323
548	7.983	1.025	0.3147	6.559e-005	0.132
549	8.	1.023	0.3143	6.553e-005	0.1317
550	8.017	1.023	0.3143	6.54e-005	0.1315
551	8.033	1.02	0.3134	6.543e-005	0.1311
552	8.05	1.02	0.3133	6.53e-005	0.1309
553	8.067	1.017	0.3123	6.535e-005	0.1305
554	8.083	1.016	0.312	6.526e-005	0.1302
555	8.1	1.016	0.3119	6.515e-005	0.13
556	8.117	1.012	0.3109	6.52e-005	0.1296
557	8.133	1.012	0.3107	6.51e-005	0.1294
558	8.15	1.01	0.3102	6.506e-005	0.1291
559	8.167	1.009	0.3097	6.501e-005	0.1288
560	8.183	1.006	0.309	6.501e-005	0.1285
561	8.2	1.005	0.3086	6.495e-005	0.1282

4/10/2019

A.R. 000233

# Electronic Filing: Received, Clerk's Office 03/23/2021

Site Location: Lemont Kar Gas

562	8.217	1.003	0.3081	6.491e-005	0.1279
563	8.233	1.002	0.3076	6.485e-005	0.1276
564	8.25	1.001	0.3073	6.479e-005	0.1273
565	8.267	0.9987	0.3067	6.476e-005	0.127
566	8.283	0.9974	0.3063	6.47e-005	0.1267
567	8.3	0.997	0.3062	6.459e-005	0.1265
568	8.317	0.994	0.3053	6.463e-005	0.1262
569	8.333	0.993	0.3049	6.455e-005	0.1259
570	8.35	0.991	0.3043	6.453e-005	0.1256
571	8.367	0.9897	0.3039	6.448e-005	0.1253
572	8.383	0.9887	0.3036	6.44e-005	0.1251
573	8.4	0.9879	0.3034	6.432e-005	0.1248
574	8.417	0.9853	0.3026	6.433e-005	0.1245
575	8.433	0.9846	0.3024	6.424e-005	0.1242
576	8.45	0.9829	0.3018	6.421e-005	0.124
577	8.467	0.9822	0.3016	6.412e-005	0.1237
578	8.483	0.9788	0.3006	6.418e-005	0.1234
579	8.5	0.9783	0.3004	6.408e-005	0.1231
580	8.517	0.9764	0.2998	6.406e-005	0.1228
581	8.533	0.9745	0.2993	6.404e-005	0.1226
582	8.55	0.9726	0.2987	6.402e-005	0.1223
583	8.567	0.9724	0.2986	6.39e-005	0.122
584	8.583	0.9711	0.2982	6.385e-005	0.1218
585	8.6	0.9704	0.298	6.376e-005	0.1215
586	8.617	0.9686	0.2975	6.374e-005	0.1213
587	8.633	0.9662	0.2967	6.375e-005	0.121
588	8.65	0.965	0.2963	6.369e-005	0.1207
589	8.667	0.9634	0.2959	6.365e-005	0.1204
590	8.683	0.9616	0.2953	6.363e-005	0.1202
591	8.7	0.9607	0.295	6.355e-005	0.1199
592	8.717	0.9594	0.2946	6.35e-005	0.1197
593	8.733	0.9578	0.2941	6.347e-005	0.1194
594	8.75	0.9559	0.2936	6.345e-005	0.1191
595	8.767	0.9546	0.2932	6.34e-005	0.1189
596	8.783	0.9528	0.2926	6.338e-005	0.1186
597	8.8	0.9522	0.2924	6.329e-005	0.1184
598	8.817	0.9501	0.2918	6.328e-005	0.1181
599	8.833	0.949	0.2914	6.322e-005	0.1178
600	8.85	0.947	0.2908	6.321e-005	0.1176
601	8.867	0.9462	0.2906	6.314e-005	0.1173
602	8.883	0.9441	0.2899	6.313e-005	0.1171
603	8.9	0.9431	0.2896	6.307e-005	0.1168
604	8.917	0.9416	0.2892	6.303e-005	0.1166
605	8.933	0.9393	0.2885	6.304e-005	0.1163
606	8.95	0.9372	0.2878	6.303e-005	0.116
607	8.967	0.9366	0.2876	6.295e-005	0.1158
608	8.983	0.9364	0.2876	6.284e-005	0.1156
609	9.	0.9347	0.287	6.282e-005	0.1153
610	9.017	0.9338	0.2868	6.275e-005	0.1151
611	9.033	0.9319	0.2862	6.274e-005	0.1148
612	9.05	0.9309	0.2859	6.267e-005	0.1146
613	9.067	0.9285	0.2851	6.269e-005	0.1143
614	9.083	0.9281	0.285	6.259e-005	0.1141
615	9.1	0.9267	0.2846	6.255e-005	0.1139
616	9.117	0.9254	0.2842	6.251e-005	0.1136
617	9.133	0.9243	0.2838	6.245e-005	0.1134
618	9.15	0.9222	0.2832	6.245e-005	0.1131

4/10/2019

A.R. 000234

# Electronic Filing: Received, Clerk's Office 03/23/2021

Site Location: Lemont Kar Gas

619	9.167	0.9214	0.283	6.238e-005	0.1129
620	9.183	0.9204	0.2827	6.232e-005	0.1127
621	9.2	0.9197	0.2824	6.225e-005	0.1124
622	9.217	0.9173	0.2817	6.226e-005	0.1122
623	9.233	0.9155	0.2811	6.225e-005	0.1119
624	9.25	0.9148	0.2809	6.217e-005	0.1117
625	9.267	0.9125	0.2802	6.218e-005	0.1114
626	9.283	0.9119	0.28	6.21e-005	0.1112
627	9.3	0.9107	0.2797	6.206e-005	0.111
628	9.317	0.9098	0.2794	6.199e-005	0.1108
629	9.333	0.9088	0.2791	6.194e-005	0.1106
630	9.35	0.9072	0.2786	6.191e-005	0.1103
631	9.367	0.9054	0.278	6.19e-005	0.1101
632	9.383	0.9049	0.2779	6.181e-005	0.1099
633	9.4	0.9031	0.2773	6.18e-005	0.1096
634	9.417	0.9028	0.2772	6.171e-005	0.1094
635	9.433	0.9006	0.2766	6.172e-005	0.1092
636	9.45	0.9001	0.2764	6.163e-005	0.109
637	9.467	0.8978	0.2757	6.165e-005	0.1087
638	9.483	0.8974	0.2756	6.156e-005	0.1085
639	9.5	0.8948	0.2748	6.159e-005	0.1082
640	9.517	0.8943	0.2746	6.151e-005	0.108
641	9.533	0.8926	0.2741	6.149e-005	0.1078
642	9.55	0.8917	0.2738	6.143e-005	0.1076
643	9.567	0.8902	0.2734	6.141e-005	0.1074
644	9.583	0.8895	0.2732	6.134e-005	0.1072
645	9.6	0.8875	0.2725	6.134e-005	0.1069
646	9.617	0.887	0.2724	6.126e-005	0.1067
647	9.633	0.8847	0.2717	6.127e-005	0.1065
648	9.65	0.8836	0.2714	6.122e-005	0.1063
649	9.667	0.882	0.2709	6.12e-005	0.106
650	9.683	0.8814	0.2707	6.113e-005	0.1058
651	9.7	0.8804	0.2704	6.108e-005	0.1056
652	9.717	0.8793	0.27	6.103e-005	0.1054
653	9.733	0.8783	0.2697	6.098e-005	0.1052
654	9.75	0.8762	0.2691	6.099e-005	0.105
655	9.767	0.8747	0.2686	6.096e-005	0.1047
656	9.783	0.873	0.2681	6.095e-005	0.1045
657	9.8	0.8729	0.2681	6.085e-005	0.1043
658	9.817	0.8714	0.2676	6.083e-005	0.1041
659	9.833	0.8699	0.2671	6.08e-005	0.1039
660	9.85	0.8689	0.2668	6.075e-005	0.1037
661	9.867	0.8676	0.2664	6.072e-005	0.1035
662	9.883	0.8668	0.2662	6.066e-005	0.1033
663	9.9	0.8657	0.2659	6.061e-005	0.1031
664	9.917	0.8639	0.2653	6.061e-005	0.1028
665	9.933	0.8616	0.2646	6.063e-005	0.1026
666	9.95	0.8611	0.2644	6.055e-005	0.1024
667	9.967	0.8597	0.264	6.053e-005	0.1022
668	9.983	0.8591	0.2638	6.046e-005	0.102
669	10.	0.8582	0.2636	6.04e-005	0.1018
670	10.02	0.857	0.2632	6.037e-005	0.1016
671	10.03	0.855	0.2626	6.037e-005	0.1014
672	10.05	0.8554	0.2627	6.025e-005	0.1012
673	10.07	0.8525	0.2618	6.03e-005	0.101
674	10.08	0.8523	0.2617	6.021e-005	0.1008
675	10.1	0.8507	0.2612	6.02e-005	0.1006

4/10/2019

A.R. 000235

# Electronic Filing: Received, Clerk's Office 03/23/2021

Site Location: Lemont Kar Gas

676	10.12	0.8492	0.2608	6.018e-005	0.1004
677	10.13	0.8471	0.2601	6.019e-005	0.1001
678	10.15	0.8459	0.2598	6.015e-005	9.994e-002
679	10.17	0.8456	0.2597	6.007e-005	9.977e-002
680	10.18	0.8434	0.259	6.009e-005	9.954e-002
681	10.2	0.8434	0.259	5.999e-005	9.937e-002
682	10.22	0.8412	0.2583	6.001e-005	9.914e-002
683	10.23	0.8416	0.2585	5.989e-005	9.899e-002
684	10.25	0.8401	0.258	5.987e-005	9.879e-002
685	10.27	0.838	0.2573	5.988e-005	9.856e-002
686	10.28	0.8378	0.2573	5.98e-005	9.84e-002
687	10.3	0.837	0.257	5.974e-005	9.821e-002
688	10.32	0.8349	0.2564	5.976e-005	9.799e-002
689	10.33	0.8333	0.2559	5.974e-005	9.778e-002
690	10.35	0.8317	0.2554	5.973e-005	9.757e-002
691	10.37	0.8324	0.2556	5.96e-005	9.744e-002
692	10.38	0.8309	0.2552	5.958e-005	9.723e-002
693	10.4	0.8288	0.2545	5.96e-005	9.701e-002
694	10.42	0.8279	0.2542	5.955e-005	9.683e-002
695	10.43	0.8264	0.2538	5.953e-005	9.663e-002
696	10.45	0.8263	0.2538	5.944e-005	9.647e-002
697	10.47	0.825	0.2534	5.942e-005	9.628e-002
698	10.48	0.8232	0.2528	5.942e-005	9.607e-002
699	10.5	0.8215	0.2523	5.941e-005	9.586e-002
700	10.52	0.8207	0.252	5.936e-005	9.568e-002
701	10.53	0.8196	0.2517	5.932e-005	9.549e-002
702	10.55	0.8178	0.2511	5.932e-005	9.529e-002
703	10.57	0.8184	0.2513	5.92e-005	9.515e-002
704	10.58	0.8175	0.2511	5.915e-005	9.498e-002
705	10.6	0.8143	0.2501	5.923e-005	9.472e-002
706	10.62	0.8146	0.2502	5.912e-005	9.458e-002
707	10.63	0.8129	0.2496	5.912e-005	9.438e-002
708	10.65	0.8118	0.2493	5.908e-005	9.42e-002
709	10.67	0.811	0.2491	5.903e-005	9.402e-002
710	10.68	0.8098	0.2487	5.9e-005	9.384e-002
711	10.7	0.8086	0.2483	5.897e-005	9.365e-002
712	10.72	0.8082	0.2482	5.89e-005	9.349e-002
713	10.73	0.8069	0.2478	5.888e-005	9.331e-002
714	10.75	0.8054	0.2473	5.886e-005	9.311e-002
715	10.77	0.8041	0.2469	5.884e-005	9.293e-002
716	10.78	0.804	0.2469	5.876e-005	9.278e-002
717	10.8	0.8021	0.2463	5.876e-005	9.257e-002
718	10.82	0.8013	0.2461	5.872e-005	9.24e-002
719	10.83	0.7995	0.2455	5.872e-005	9.22e-002
720	10.85	0.7988	0.2453	5.867e-005	9.204e-002
721	10.87	0.797	0.2448	5.867e-005	9.184e-002
722	10.88	0.7975	0.2449	5.855e-005	9.171e-002
723	10.9	0.7948	0.2441	5.86e-005	9.148e-002
724	10.92	0.7946	0.244	5.853e-005	9.134e-002
725	10.93	0.7934	0.2437	5.85e-005	9.116e-002
726	10.95	0.7913	0.243	5.852e-005	9.095e-002
727	10.97	0.7921	0.2433	5.839e-005	9.084e-002
728	10.98	0.7903	0.2427	5.839e-005	9.064e-002
729	11.	0.7885	0.2421	5.84e-005	9.044e-002
730	11.02	0.7878	0.2419	5.835e-005	9.028e-002
731	11.03	0.7855	0.2412	5.838e-005	9.007e-002
732	11.05	0.7862	0.2414	5.826e-005	8.995e-002

4/10/2019

A.R. 000236



# Electronic Filing: Received, Clerk's Office 03/23/2021

Site Location: Lemont Kar Gas

733	11.07	0.7836	0.2406	5.83e-005	8.973e-002
734	11.08	0.783	0.2405	5.825e-005	8.957e-002
735	11.1	0.7819	0.2401	5.822e-005	8.94e-002
736	11.12	0.7819	0.2401	5.813e-005	8.927e-002
737	11.13	0.7799	0.2395	5.815e-005	8.907e-002
738	11.15	0.779	0.2392	5.811e-005	8.89e-002
739	11.17	0.7779	0.2389	5.808e-005	8.873e-002
740	11.18	0.7767	0.2385	5.805e-005	8.856e-002
741	11.2	0.7763	0.2384	5.799e-005	8.841e-002
742	11.22	0.7753	0.2381	5.795e-005	8.825e-002
743	11.23	0.7745	0.2378	5.791e-005	8.809e-002
744	11.25	0.7731	0.2374	5.79e-005	8.791e-002
745	11.27	0.7719	0.237	5.787e-005	8.774e-002
746	11.28	0.7708	0.2367	5.784e-005	8.757e-002
747	11.3	0.7707	0.2367	5.776e-005	8.744e-002
748	11.32	0.768	0.2359	5.782e-005	8.721e-002
749	11.33	0.7682	0.2359	5.772e-005	8.709e-002
750	11.35	0.7662	0.2353	5.774e-005	8.69e-002
751	11.37	0.7665	0.2354	5.764e-005	8.678e-002
752	11.38	0.7651	0.235	5.763e-005	8.66e-002
753	11.4	0.764	0.2346	5.76e-005	8.644e-002
754	11.42	0.7625	0.2342	5.76e-005	8.626e-002
755	11.43	0.7608	0.2336	5.76e-005	8.607e-002
756	11.45	0.7607	0.2336	5.752e-005	8.594e-002
757	11.47	0.76	0.2334	5.748e-005	8.579e-002
758	11.48	0.759	0.2331	5.745e-005	8.563e-002
759	11.5	0.7576	0.2327	5.744e-005	8.546e-002
760	11.52	0.7567	0.2324	5.74e-005	8.531e-002
761	11.53	0.7565	0.2323	5.733e-005	8.517e-002
762	11.55	0.7543	0.2316	5.736e-005	8.497e-002
763	11.57	0.7523	0.231	5.738e-005	8.478e-002
764	11.58	0.7529	0.2312	5.727e-005	8.468e-002
765	11.6	0.7517	0.2308	5.725e-005	8.452e-002
766	11.62	0.7503	0.2304	5.724e-005	8.434e-002
767	11.63	0.7487	0.2299	5.724e-005	8.417e-002
768	11.65	0.748	0.2297	5.719e-005	8.402e-002
769	11.67	0.7479	0.2297	5.711e-005	8.39e-002
770	11.68	0.7466	0.2293	5.71e-005	8.373e-002
771	11.7	0.7458	0.229	5.706e-005	8.358e-002
772	11.72	0.7444	0.2286	5.705e-005	8.341e-002
773	11.73	0.7434	0.2283	5.702e-005	8.326e-002
774	11.75	0.7411	0.2276	5.706e-005	8.306e-002
775	11.77	0.7407	0.2275	5.7e-005	8.292e-002
776	11.78	0.7401	0.2273	5.695e-005	8.279e-002
777	11.8	0.74	0.2273	5.688e-005	8.266e-002
778	11.82	0.7375	0.2265	5.693e-005	8.246e-002
779	11.83	0.7369	0.2263	5.688e-005	8.232e-002
780	11.85	0.737	0.2263	5.679e-005	8.221e-002
781	11.87	0.7346	0.2256	5.684e-005	8.2e-002
782	11.88	0.7339	0.2254	5.679e-005	8.186e-002
783	11.9	0.734	0.2254	5.671e-005	8.175e-002
784	11.92	0.7328	0.225	5.669e-005	8.159e-002
785	11.93	0.7301	0.2242	5.675e-005	8.138e-002
786	11.95	0.7292	0.2239	5.672e-005	8.123e-002
787	11.97	0.7288	0.2238	5.666e-005	8.111e-002
788	11.98	0.7286	0.2238	5.659e-005	8.099e-002
789	12.	0.7271	0.2233	5.659e-005	8.082e-002

4/10/2019

A.R. 000237

# Electronic Filing: Received, Clerk's Office 03/23/2021

Site Location: Lemont Kar Gas

790	12.02	0.7256	0.2228	5.659e-005	8.065e-002
791	12.03	0.7249	0.2226	5.655e-005	8.051e-002
792	12.05	0.723	0.222	5.657e-005	8.033e-002
793	12.07	0.7225	0.2219	5.652e-005	8.02e-002
794	12.08	0.7212	0.2215	5.651e-005	8.004e-002
795	12.1	0.7213	0.2215	5.643e-005	7.994e-002
796	12.12	0.7201	0.2211	5.641e-005	7.978e-002
797	12.13	0.7193	0.2209	5.637e-005	7.964e-002
798	12.15	0.7195	0.221	5.629e-005	7.954e-002
799	12.17	0.7219	0.2217	5.609e-005	7.952e-002
800	12.18	0.7174	0.2203	5.624e-005	7.924e-002
801	12.2	0.7154	0.2197	5.627e-005	7.906e-002

---

## Arithmetic Means:

Hydraulic Conductivity 1.006e-004 cm/sec  
Transmissivity 0.2781 m<sup>2</sup>/day

## Geometric Means:

Hydraulic Conductivity 8.359e-005 cm/sec  
Transmissivity 0.2312 m<sup>2</sup>/day

## Sensitivity Analysis:

Hydraulic Conductivity 7.277e-005 cm/sec  
Transmissivity 0.2012 m<sup>2</sup>/day

**APPENDIX F**  
**WASTE MANIFESTS**



781

No. 88012

**Section I GENERATOR** (Generator completes all of Section I)

a. Generator Name: \_\_\_\_\_  
 c. Address: 110 2nd St  
Green Bay, WI 53001  
 e. Phone No.: 920.233.2333  
 If owner of the generating facility differs from the generator, provide:  
 g. Owner's Name: \_\_\_\_\_  
 h. Owner's Phone No.: (920) 233-2335  
 i. Waste Profile No.: 000001  
 j. Description of Waste: Oil

b. Generating Location: \_\_\_\_\_  
 d. Address: \_\_\_\_\_  
 f. Phone No.: \_\_\_\_\_

	Quantity		Quantity	Units
k. Quantity — Ld 1	<input type="text" value="13"/>	Ld 5	<input type="text"/>	<input type="text" value="1"/>
Quantity — Ld 2	<input type="text"/>	Ld 6	<input type="text"/>	<input type="text"/>
Quantity — Ld 3	<input type="text"/>	Ld 7	<input type="text"/>	<input type="text"/>
Quantity — Ld 4	<input type="text"/>	Ld 8	<input type="text"/>	<input type="text"/>

Units y - yards o - other  
**TOTAL VOLUME**

\*GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged and is in proper condition for transportation according to applicable regulations: And, the material matches the profile number listed on line "i".

Generator Authorized Agent Name: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Shipment Date: 03/17

**Section II TRANSPORTER** (Generator completes a-d; Transporter I complete c-g; Transporter II complete h-n)

**TRANSPORTER I**  
 a. Name: \_\_\_\_\_  
 b. Address: Aselle, IL  
 c. Driver Name/Title: \_\_\_\_\_  
 d. Phone No.: 630 529 1247 PRINT/TYPE  
 e. Truck No.: \_\_\_\_\_  
 f. Vehicle License No./State: 9D 373  
 Acknowledgement of Receipt of Materials.  
 Driver Signature: \_\_\_\_\_  
 Shipment Date: 03/17

**TRANSPORTER II**  
 h. Name: \_\_\_\_\_  
 i. Address: \_\_\_\_\_  
 j. Driver Name/Title: \_\_\_\_\_  
 k. Phone No.: \_\_\_\_\_ PRINT/TYPE  
 l. Truck No.: \_\_\_\_\_  
 m. Vehicle License No./State: \_\_\_\_\_  
 Acknowledgement of Receipt of Materials.  
 Driver Signature: \_\_\_\_\_  
 Shipment Date: \_\_\_\_\_

**Section III DESTINATION** (Generator completes a-d; destination site completes e-f)

a. Site Name: Advanced Disposal Services Zion Landfill, Inc c. Phone No.: 847-599-5921  
 b. Physical Address: 701 Green Bay Rd d. Mailing Address: SAME  
Zion, IL 60099  
 e. Discrepancy Indication Space: \_\_\_\_\_

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

f. Name of Authorized Agent: Subesta Signature: Subesta Receipt Date: 03/17

RETURN TO GENERATOR

<b>UNIFORM WASTE MANIFEST</b>	1. Generator ID Number <b>0434825101</b>	2. Page 1 of	3. Emergency Response Phone <b>(630) 529-0240</b>	4. Manifest Tracking Number <b>016727111 JJK</b>			
5. Generator's Name and Mailing Address <b>North Branch Environmental</b> <b>50 N. Garden Ave.</b> <b>Roselle, IL 60172 (630) 529-0240</b>							
Generator's Site Address (if different than mailing address)							
6. Transporter 1 Company Name <b>North Branch Environmental</b> U.S. EPA ID Number <b>UPM0250461IL</b> <b>ILR000052977</b>							
7. Transporter 2 Company Name U.S. EPA ID Number							
8. Designated Facility Name and Site Address <b>ORTEK, INC</b> U.S. EPA ID Number <b>7601 W. 47<sup>th</sup> Street</b> <b>0311740001</b> <b>McCook, IL 60525 (708) 762-5119</b>							
Facility's Phone:							
GENERATOR	9a. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers	11. Total Quantity	12. Unit	13. Waste Codes	
	1. <b>Non-Hazardous Liquid</b>		No.	Type			
	2. <b>FROM: 8/8/17</b>				<b>95</b>	<b>B</b>	
	3. <b>LE MONT KAR GAS</b>						
	4. <b>1196 STADE ST</b>						
5. <b>LE MONT, IL</b>							
6. <b>1 DRUM WATER</b>							
14. Special Handling Instructions and Additional Information <b>121422</b> <b>Work Order</b>							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offoror's Printed/Typed Name <b>Bill Gudeor</b>		Signature <i>Bill Gudeor</i>		Month Day Year <b>08/15/17</b>			
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name <b>Bill Gudeor</b>		Signature <i>Bill Gudeor</i>		Month Day Year <b>18/07/17</b>			
Transporter 2 Printed/Typed Name		Signature		Month Day Year			
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
Manifest Reference Number:							
18b. Alternate Facility (or Generator) U.S. EPA ID Number							
Facility's Phone:							
18c. Signature of Alternate Facility (or Generator) Month Day Year							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1.		2.		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a.							
Printed/Typed Name <b>Casey A. Ashenbarger</b>		Signature <i>CA</i>		Month Day Year <b>18/05/17</b>			

**APPENDIX G**

**TCK, INC. CORRESPONDENCE**

**January 17, 2018**



January 17, 2018

**VIA USPS PRIORITY MAIL  
WITH DELIVERY CONFIRMATION**

Mr. Tom Karahalios  
TCK, Inc.  
10133 Parkview Drive  
Palos Park, Illinois 60464

RE: Environmental Land Use Control  
15575 E. 127<sup>th</sup> Street  
Lemont, Illinois 60439

Dear Mr. Karahalios:

TriCore Environmental, LLC, on behalf of BOI, LLC, owner of the property located at 1196 State Street in Lemont, is performing an environmental response action at the former gasoline retail station as a result of a release of gasoline and diesel fuel on the property.

TriCore is requesting your review and execution of the attached Environmental Land Use Control (ELUC) so that a No Further Remediation (NFR) letter can be obtained for the BOI, LLC property. The conditions of the ELUC are included within Section Three of the ELUC. The NFR letter, once issued for the BOI, LLC property, will also benefit your property since any record search performed by an interested party would see that all environmental risks adjacent to your site have been addressed.

If you agree to the ELUC, please sign and have notarized and return the ELUC to BOI, LLC in the included pre-stamped envelope.

If you should have any questions concerning this request or require additional information, please contact the undersigned at (630) 520-9973 ext. 2 or by email at [marcos.czako@tricoreweb.com](mailto:marcos.czako@tricoreweb.com).

Sincerely,

A handwritten signature in black ink, appearing to read 'Marcos Czako', written in a cursive style.

Marcos I. Czako, P.G.  
Senior Project Manager

A handwritten signature in black ink, appearing to read 'Shawn Rodeck', written in a cursive style.

Shawn Rodeck, P.E.  
President

Attachments





I, TCK, Inc., owner of the property located at 15575 E. 127<sup>th</sup> Street, Lemont, Illinois, assert the following:

- I approve of the Environmental Land Use Control (ELUC) and the signed and notarized original is attached.
- I do not approve of the ELUC and request that a remediation plan be developed for my property.

Mail to:  
Marcos I. Czakó, P.G.  
TriCore Environmental, LLC  
2368 Corporate Lane, Suite 116  
Naperville, IL 60563

PREPARED BY:

Name: TriCore Environmental, LLC  
Address: 2368 Corporate Lane, Suite 116  
Naperville, IL 60563

RETURN TO:

Name: BOI, LLC  
Address: 201 Danny's Drive, Suite 5, Streator, Illinois 61364

**THE ABOVE SPACE FOR RECORDER'S OFFICE**

**Model Environmental Land Use Control**

THIS ENVIRONMENTAL LAND USE CONTROL ("ELUC"), is made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by TCK, Inc., ("Property Owner") of the real property located at the common address 15575 E. 127<sup>th</sup> Street, Lemont, Illinois ("Property").

WHEREAS, 415 ILCS 5/58.17 and 35 Ill. Adm. Code 742 provide for the use of an ELUC as an institutional control in order to impose land use limitations or requirements related to environmental contamination so that persons conducting remediation can obtain a No Further Remediation determination from the Illinois Environmental Protection Agency ("IEPA"). The reason for an ELUC is to ensure protection of human health and the environment. The limitations and requirements contained herein are necessary in order to protect against exposure to contaminated soil or groundwater, or both, that may be present on the property as a result of a historic releases of gasoline and diesel fuel. Under 35 Ill. Adm. Code 742, the use of risk-based, site-specific remediation objectives may require the use of an ELUC on real property, and the ELUC may apply to certain physical features (e.g., engineered barriers, monitoring wells, caps, etc.).

WHEREAS, BOI, LLC. intends to request risk-based, site specific soil and groundwater remediation objectives from IEPA under 35 Ill. Adm. Code 742 to obtain risk-based closure of the site, identified by Bureau of Land 0314625010, utilizing an ELUC.

NOW, THEREFORE, the recitals set forth above are incorporated by reference as if fully set forth herein, and the Property Owner agrees as follows:

Section One. Property Owner does hereby establish an ELUC on the real estate, situated in the County of Cook, State of Illinois and further described in Exhibit A attached hereto and incorporated herein by reference (the "Property").

Attached as Exhibit B are site maps that show the legal boundary of the Property, any physical features to which the ELUC applies, the horizontal and vertical extent of the

contaminants of concern above the applicable remediation objectives for soil or groundwater or both, and the nature, location of the source, and direction of movement of the contaminants of concern, as required under 35 Ill. Adm. Code 742.

Section Two. Property Owner represents and warrants it is the current owner of the Property and has the authority to record this ELUC on the chain of title for the Property with the Office of the Recorder or Registrar of Titles in Cook County, Illinois.

Section Three. The Property Owner hereby agrees, for **itself**, and **its** heirs, grantees, successors, assigns, transferees and any other owner, occupant, lessee, possessor or user of the Property or the holder of any portion thereof or interest therein, that the top 10 feet of soil under the Property for the area illustrated in Exhibit B-1 shall remain in place, or if any of these items are removed, excavated, or disturbed, that similar materials (i.e. clean soil or clean fill material) be put in their place so there is a minimum of 10 feet of clean soil or clean fill material above the contaminated soil illustrated in Exhibit B-2A. Additionally, the groundwater under the Property shall not be used as a potable supply of water, and any contaminated groundwater or soil that is removed, excavated, or disturbed from the Property described in Exhibit A herein must be handled in accordance with all applicable laws and regulations.

Section Four. This ELUC is binding on the Property Owner, **its** heirs, grantees, successors, assigns, transferees and any other owner, occupant, lessee, possessor or user of the Property or the holder of any portion thereof or interest therein. This ELUC shall apply in perpetuity against the Property and shall not be released until the IEPA determines there is no longer a need for this ELUC as an institutional control; until the IEPA, upon written request, issues to the site that received the no further remediation determination a new no further remediation determination approving modification or removal of the limitation(s) or requirement(s); the new no further remediation determination is filed on the chain of title of the site subject to the no further remediation determination; and until a release or modification of the land use limitation or requirement is filed on the chain of title for the Property.

Section Five. Information regarding the remediation performed on the Property may be obtained from the IEPA through a request under the Freedom of Information Act (5 ILCS 140) and rules promulgated thereunder by providing the IEPA with the 10-digit LPC or identification number listed above.

Section Six. The effective date of this ELUC shall be the date that it is officially recorded in the chain of title for the Property to which the ELUC applies.

WITNESS the following signatures:

Property Owner TCK, Inc.

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

STATE OF ILLINOIS        )  
                                  ) SS:  
COUNTY OF                )

I, \_\_\_\_\_ the undersigned, a Notary Public for said County and State, DO HEREBY CERTIFY, that TCK, Inc., personally known to me to be the Property Owner(s) of 15575 E. 127<sup>th</sup> Street, Lemont, IL, and personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that in said capacities they signed and delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and official seal, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Notary Public

**PIN NO. 22-29-402-027-0000  
22-29-402-028-0000**

**Exhibit A**

The subject property is located in the Village of Lemont, Cook County, State of Illinois, commonly known as 15575 E. 127<sup>th</sup> Street and more particularly described as:

Common Address: 15575 127<sup>th</sup> Street, Lemont, Illinois

Legal Description:

Parcel 1: Lot 1 (Except the East 100.00 Feet), Lot 2 (Except the East 100.00 Feet) and Lot 3 (Except the East 100.00 Feet) in Meyers Grove Commercial Park, Being a Subdivision of Part of the West ½ of the Southeast ¼ of Section 29, Township 37 North, Range 11 East of the Third Principal Meridian, Excepting therefrom that part taken for Roadway Purposes, in Cook County, Illinois.

PIN No: 22-29-402-027-0000

Parcel 2: The East 100.00 Feet of Lots 1, 2, and 3 in Meyers Grove Commercial Park, being a Subdivision of Part of the West Half of the Southeast ¼ of Section 29, Township 37 North, Range 11 East of the Third Principal Meridian, in Cook County, Illinois

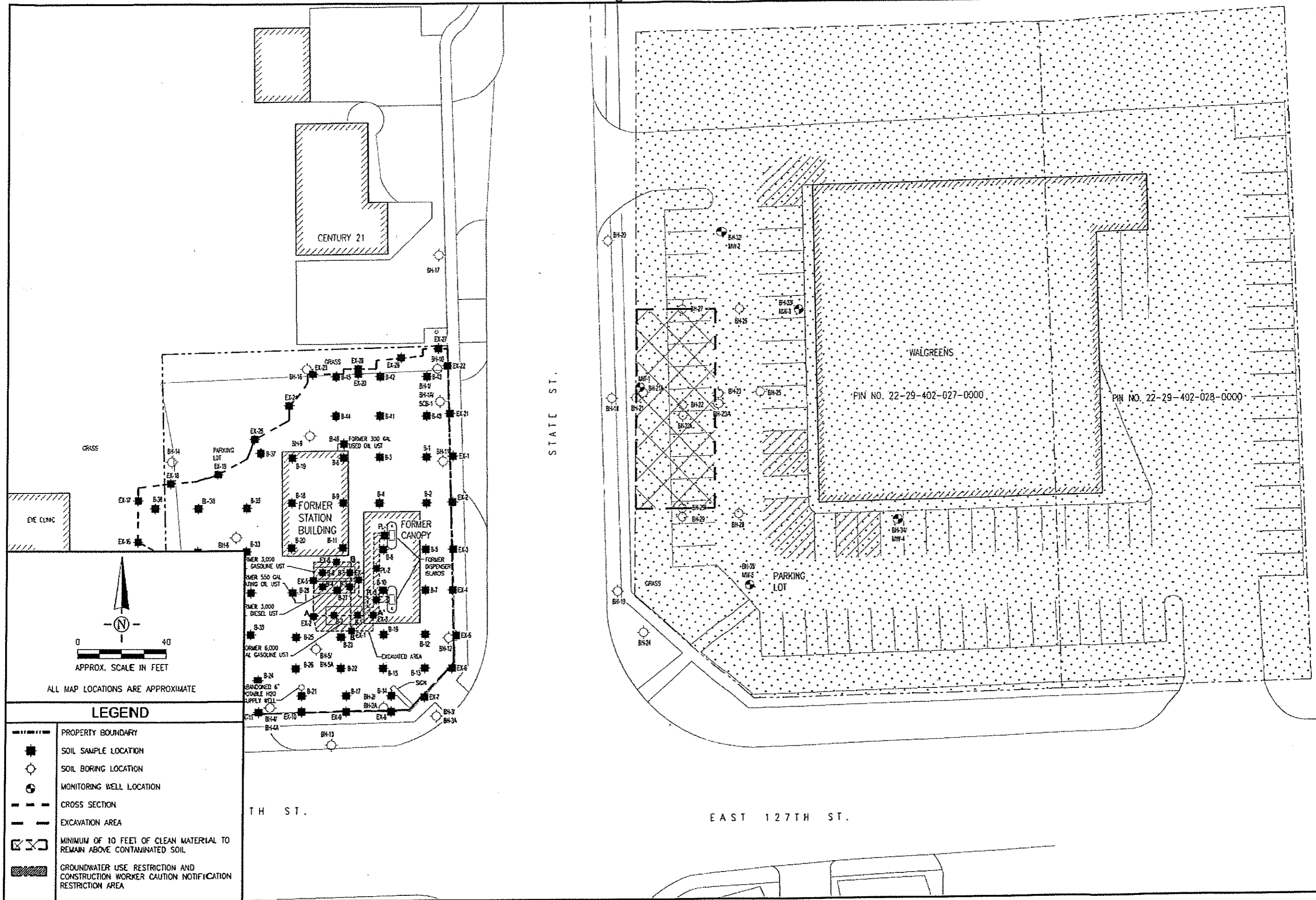
PIN No: 22-29-402-028-0000

PIN NO. 22-29-402-027-0000  
22-29-402-028-0000

**Exhibit B**

IN ACCORDANCE WITH SECTION 742.1010(D)(8)(A)-(D), PROVIDE ALL THE FOLLOWING ELEMENTS. ATTACH SEPARATE SHEETS, LABELED AS EXHIBIT B, WHERE NECESSARY.

- (A) A scaled map showing the legal boundary of the property to which the ELUC applies. **(Exhibit B-1)**
- (B) Scaled maps showing the horizontal and vertical extent of contaminants of concern above the applicable remediation objectives for soil and groundwater to which the ELUC applies. **(Exhibits B-2A and B-2B)**
- (C) Scaled maps showing the physical features to which an ELUC applies (e.g., engineered barriers, monitoring wells, caps, etc.). **(Exhibit B-1)**
- (D) Scaled maps showing the nature, location of the source, and direction of movement of the contaminants of concern. **(Exhibit B-2A and B-2B)**



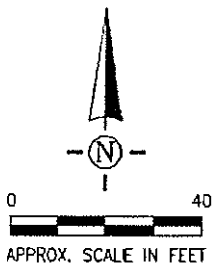
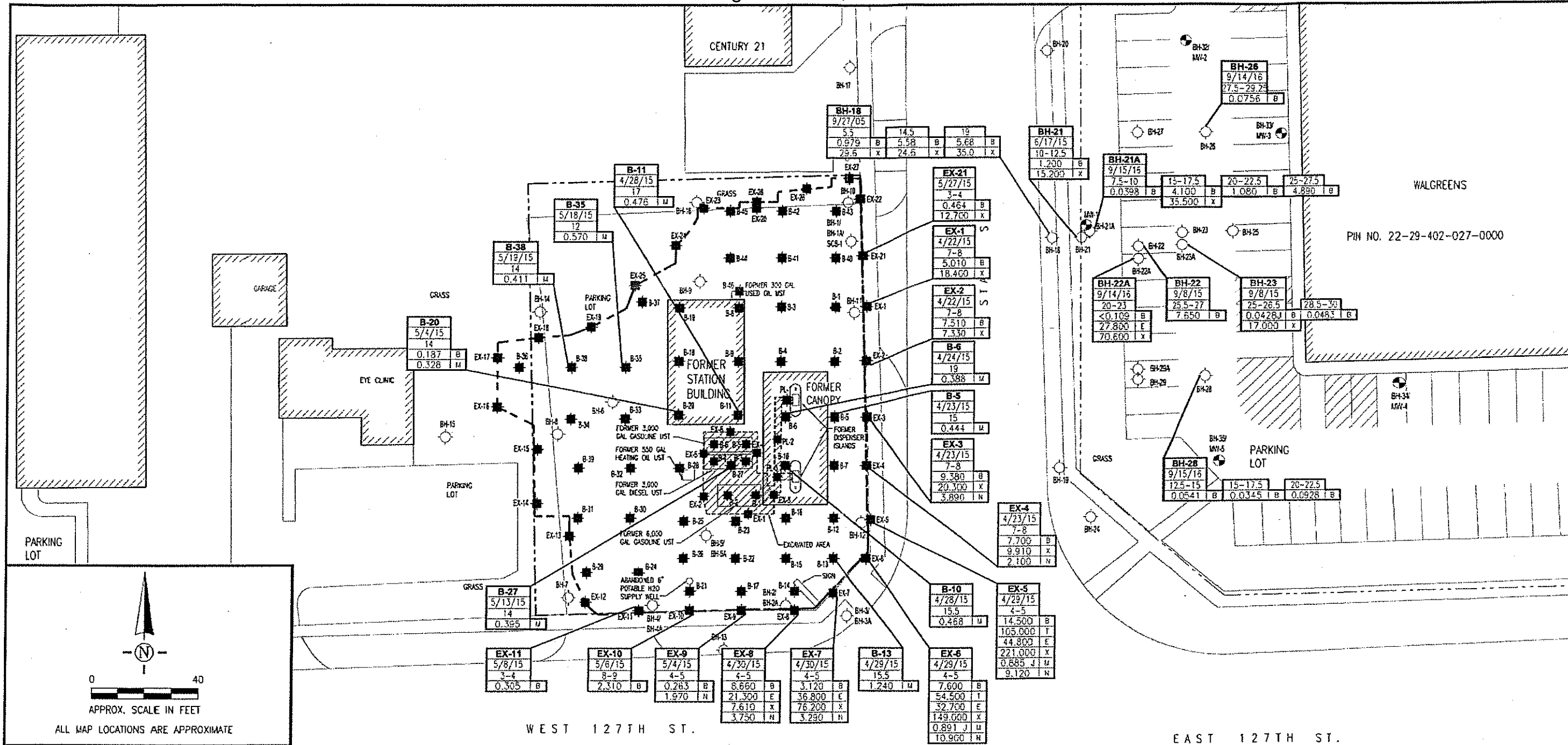
ALL MAP LOCATIONS ARE APPROXIMATE

**LEGEND**

	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	CROSS SECTION
	EXCAVATION AREA
	MINIMUM OF 10 FEET OF CLEAN MATERIAL TO REMAIN ABOVE CONTAMINATED SOIL
	GROUNDWATER USE RESTRICTION AND CONSTRUCTION WORKER CAUTION NOTIFICATION RESTRICTION AREA

<p><b>Tricore Environmental, LLC</b> 2368 Corporate Lane, Suite 116 Naperville, IL 60563 (630) 520-9973</p>	<p><b>BOI, LLC</b> 201 Danny's Drive Suite 5 Streator, IL 61364</p>
	<p><b>ELUC AREA</b> BOI, LLC 1196 STATE STREET LEMONT, COOK COUNTY, IL 60439</p>
<p>DRAWN BY: SAA</p> <p>APPROVED BY: MIC</p> <p>SCALE: 1" = 40'</p> <p>DATE: 1/16/2018</p> <p>DRAWING FILE: MD14-170</p>	<p><b>EXHIBIT</b> <b>B-1</b></p>





ALL MAP LOCATIONS ARE APPROXIMATE

**LEGEND**

	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	EXCAVATION AREA
<b>EX-5</b> 4/28/15 4-5 14.500 B 105.000 T 44.800 E 221.000 X 0.885 J 0.279 BoP 0.287 D 9.120 N	SAMPLE LOCATION SAMPLE DATE SAMPLE DEPTH (ft) BENZENE CONCENTRATION (mg/kg) TOLUENE CONCENTRATION (mg/kg) ETHYLBENZENE CONCENTRATION (mg/kg) TOTAL XYLENES CONCENTRATION (mg/kg) METHYL TERT BUTYL ETHER CONCENTRATION (mg/kg) BENZO (a) PYRENE CONCENTRATION (mg/kg) DIBENZO (a,h) ANTHRACENE CONCENTRATION (mg/kg) NAPHTHALENE CONCENTRATION (mg/kg)
<0.002	CONCENTRATION LESS THAN LABORATORY REPORTING OR METHOD DETECTION LIMIT
NOTES:	ONLY THE DETECTED CONCENTRATIONS OR METHOD DETECTION LIMITS EXCEEDING THE TIER 1 SROs ARE SHOWN

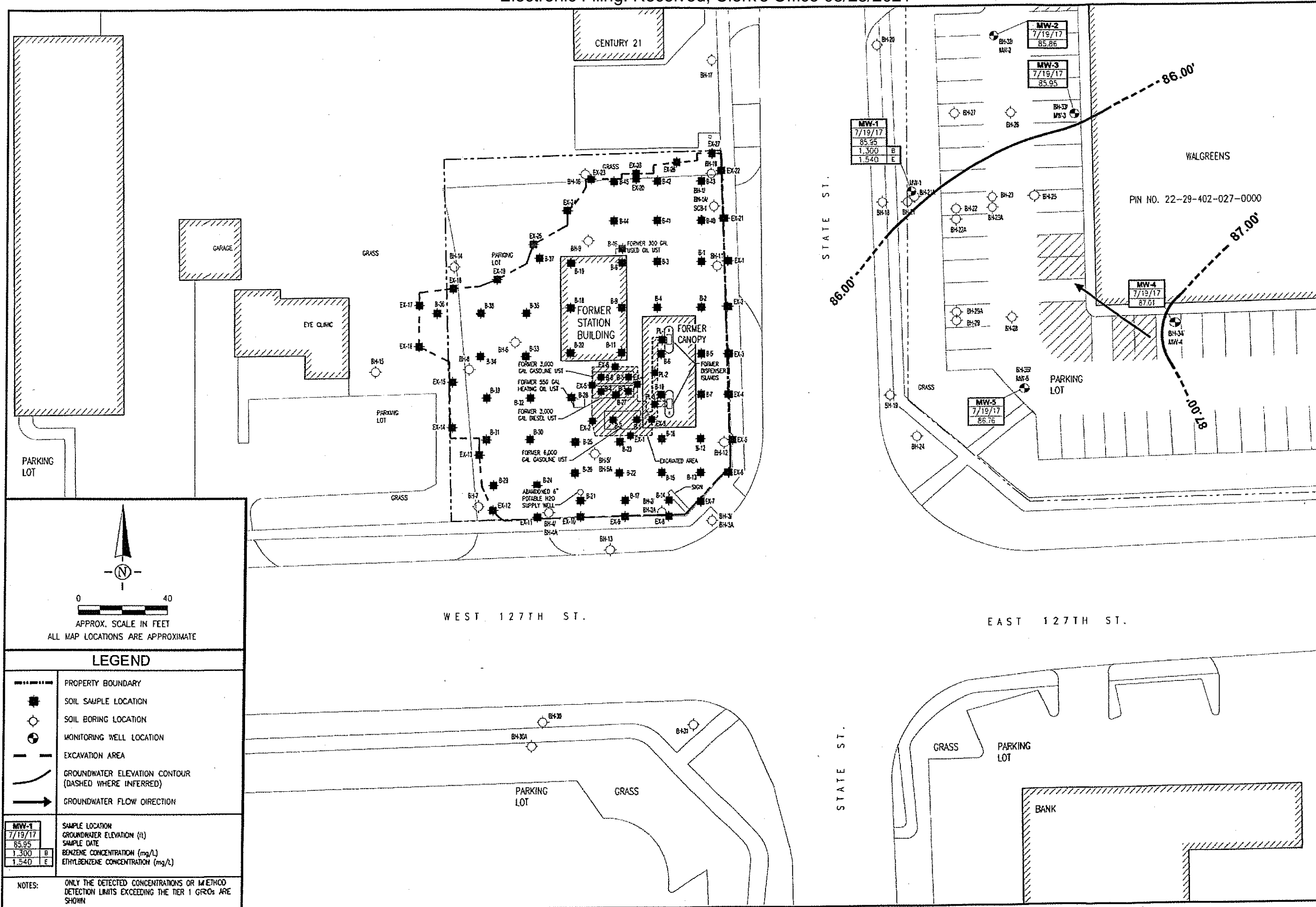
**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973


**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**SOIL ANALYTICAL RESULTS**  
**BOI, LLC**  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

**EXHIBIT B-2A**

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 1/16/2018  
 DRAWING FILE: MD14-170



 <p><b>TriCore Environmental, LLC</b> 236B Corporate Lane, Suite 116 Naperville, IL 60563 (630) 520-9973</p>										
<p><b>BOI, LLC</b> 201 Dorney's Drive Suite 5 Streator, IL 61364</p>										
<p><b>GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS</b></p> <p>BOI, LLC 1196 STATE STREET LEMONT, COOK COUNTY, IL 60439</p>										
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>DRAWN BY:</td> <td>SAA</td> </tr> <tr> <td>APPROVED BY:</td> <td>MIC</td> </tr> <tr> <td>SCALE:</td> <td>1" = 40'</td> </tr> <tr> <td>DATE:</td> <td>1/16/2018</td> </tr> <tr> <td>DRAWING FILE:</td> <td>MD14-170</td> </tr> </table>	DRAWN BY:	SAA	APPROVED BY:	MIC	SCALE:	1" = 40'	DATE:	1/16/2018	DRAWING FILE:	MD14-170
DRAWN BY:	SAA									
APPROVED BY:	MIC									
SCALE:	1" = 40'									
DATE:	1/16/2018									
DRAWING FILE:	MD14-170									
<p>EXHIBIT <b>B-2B</b></p>										



**Receipt**

Print Date: Sep 12, 2019

**RETURN TO**

TriCore Environmental  
 Suite 116  
 Naperville, IL 60563

**SHIP TO**

Mr Tom Karahalios  
 10133 W Parkview Drive  
 Palos Park, IL 60464

**REFERENCE**

Ship Date: Mar 06, 2018  
 Ship from ZIP: 60563  
 Weight: 0 lbs. 6 oz.  
 User: tricoreenviron  
 Cost Code: <None>  
 Refund Type: E-refund  
 Reference #:  
 Printed on: Shipping label  
 Tracking #: 9410811899560541481491

**SERVICE**

**UNIT PRICE**

Priority Mail ® Flat Rate Envelope	\$6.55
Tracking	\$0.00
Insurance (N/A)	
Electronic Service Fee	\$2.55
Electronic Signature Confirmation Cost	\$2.55
Subtotal	\$9.10
Label Quantity	1
Total Cost	\$9.10

**February 9, 2018**

February 9, 2018

TCK, Inc.

Tom Karahalios

10133 Parkview

Palos Park, IL 60464

Mr. Karahalios,

My name is Steve Broadus, and I am writing you today in regards to the Walgreen's Property you own in Lemont, Illinois. I currently own the property to the west of your property that used to be known as Lemont Kar Gas. As you are aware, we are attempting to clean up the soil on the site and around the site in order to meet Illinois EPA guidelines. We have completed the onsite remediation as well as met the requirements for highway authority agreements. We are now charged with the handling of any offsite contaminants that have migrated offsite. Upon obtaining permission from the Walgreen's property management team, our environmental company performed a series of borings that determined that previous findings performed by the previous owner of the Lemont Kar Gas property were correct in their assessment that some limited petroleum contamination has migrated onto your property. The limited contamination is, in our view, not in any way a threat to health, both because of the depth and concentrations. We are now charged with the task of addressing that contamination with approval of the property owner, which is your TCK, Inc. entity. We have completed the research and have reached a stage in the procedure that requires your attention.

Mr. Marcos Czako of Tri Core Environment, our consultant/contractor, sent along a packet to you for review with a solution to the remaining requirements. We are proposing a very commonly used agreement for matters such as these to resolve the final requirement for us to close the site.

The ELUC Agreement that Mr. Czako sent for your review in essence allows the remaining contamination to remain in place as it has been determined not to be a hazard to the health and well-being of the population it effects, primarily do to the depth and location of the contaminates. It does require the ELUC to be registered and a deed restriction be put in place. Given the depth of the contaminates it is highly unlikely that the contamination would be encountered in future excavations as they are located in the 7-1/2' – 31' range. Contamination in the 7-1/2' range is located in the berm. Without the ELUC agreement the IEPA would require us to resume excavating the property to those depths causing disruptions to the current business activity and or a lengthy injection recovery effort that too would disrupt store activity for an extended period of time of several weeks or months. **NONE OF THESE ACTIVITIES WE ARE PROPOSING ARE OF A COST TO YOU.**

Unfortunately, not responding to our request does not make this issue resolve itself. We are obligated by the Illinois Environmental Protection Agency to reach a conclusion to this project by statute. If it is your wish for us to suspend work on your site we will still need a signed document by you or an assigned representative of TCK, Inc. stating that directive.

I am providing contact information below of Mr. Czako for your questions or your response to this matter. I apologize for the inconvenience this has caused you. Mr. Czako or myself are looking forward to working with you or your Son as you indicated in our phone conversations. I must emphasize that we need a written directive from you in order to address the issue at hand. Please contact us at your earliest convenience.

Sincerely,

Steve Broadus

BOI, LLC

201 Danny's Drive; Suite 5

Streator, IL 61364

815-257-5516

Marcos Czako', P.G.

Project Manager

2368 Corporate Lane, Suite 116

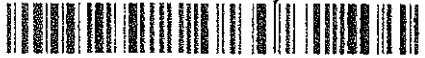
Naperville, IL 60563

630-520-9973

Fax: 630-520-9976

Marcos.czako@tricoreweb.com

Electronic Filing: Received, Clerk's Office 03/23/2021

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY																	
<ul style="list-style-type: none"> <li>■ Complete items 1, 2, and 3.</li> <li>■ Print your name and address on the reverse so that we can return the card to you.</li> <li>■ Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature</p> <p>X <i>Tom Karahalios</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p>																	
<p>1. Article Addressed to:</p> <p><i>TCK, Inc.</i>  <i>Mr. Tom Karahalios</i>  <i>12133 Parkview</i>  <i>Palos Park, IL 60464</i></p>	<p>B. Received by (Printed Name)</p> <p><i>Tom Karahalios</i></p>	<p>C. Date of Delivery</p> <p><i>2/15/18</i></p>																
 <p>9590 9402 3252 7196 7117 89</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If YES, enter delivery address below:</p>																	
<p>2. Article Number (Transfer from service label)</p> <p>7 2400 0000 1762 2577</p>	<p>3. Service Type</p> <table border="0"> <tr> <td><input type="checkbox"/> Adult Signature</td> <td><input type="checkbox"/> Priority Mail Express®</td> </tr> <tr> <td><input type="checkbox"/> Adult Signature Restricted Delivery</td> <td><input type="checkbox"/> Registered Mail™</td> </tr> <tr> <td><input type="checkbox"/> Certified Mail®</td> <td><input type="checkbox"/> Registered Mail Restricted Delivery</td> </tr> <tr> <td><input type="checkbox"/> Certified Mail Restricted Delivery</td> <td><input type="checkbox"/> Return Receipt for Merchandise</td> </tr> <tr> <td><input type="checkbox"/> Collect on Delivery</td> <td><input type="checkbox"/> Signature Confirmation™</td> </tr> <tr> <td><input type="checkbox"/> Collect on Delivery Restricted Delivery</td> <td><input type="checkbox"/> Signature Confirmation Restricted Delivery</td> </tr> <tr> <td><input type="checkbox"/> Insured Mail</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)</td> <td></td> </tr> </table>		<input type="checkbox"/> Adult Signature	<input type="checkbox"/> Priority Mail Express®	<input type="checkbox"/> Adult Signature Restricted Delivery	<input type="checkbox"/> Registered Mail™	<input type="checkbox"/> Certified Mail®	<input type="checkbox"/> Registered Mail Restricted Delivery	<input type="checkbox"/> Certified Mail Restricted Delivery	<input type="checkbox"/> Return Receipt for Merchandise	<input type="checkbox"/> Collect on Delivery	<input type="checkbox"/> Signature Confirmation™	<input type="checkbox"/> Collect on Delivery Restricted Delivery	<input type="checkbox"/> Signature Confirmation Restricted Delivery	<input type="checkbox"/> Insured Mail		<input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	
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<input type="checkbox"/> Collect on Delivery Restricted Delivery	<input type="checkbox"/> Signature Confirmation Restricted Delivery																	
<input type="checkbox"/> Insured Mail																		
<input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)																		

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

**March 2, 2018**





March 2, 2018

**VIA USPS CERTIFIED MAIL  
WITH DELIVERY CONFIRMATION**

Mr. Tom Karahalios  
President  
TCK, Inc.  
10133 Parkview  
Palos Par, IL 60464

**RE: Property Access Request For BOI, LLC  
15575 E. 127<sup>th</sup> Street  
LPC NO. 0314625010  
LUST Incident No. 942117**

Dear Mr. Karahalios:

BOI, LLC, the successor in interest to the former owner or operator of the underground storage tanks (USTs) which were formerly present at the former Lemont Kar Gas property located at 1196 State Street, Lemont, IL, respectfully requests your Company's approval to allow access to the above-referenced property as part of an environmental response action being conducted at, and adjacent to the former Lemont Kar Gas property. The environmental response action is being performed to further investigate and remediate the release of petroleum from USTs located on the Lemont Kar Gas property. The response action, to date, consists of the investigation of the degree and extent of petroleum hydrocarbon contamination through sampling of the subsurface soil and groundwater and remediation of impacted soil and groundwater.

Illinois petroleum UST regulations require that the UST owner or operator determine the extent of petroleum contamination caused by a UST system release. Information currently in our possession indicates that petroleum contamination has apparently migrated onto your property.

Illinois petroleum UST regulations contain language which states, in part, that:

- 1) According to Section 57 of the Environmental Protection Act (Act), the UST owner or operator is legally responsible to remediate the contamination caused by the UST system release;
- 2) If the property owner denies access to the UST owner or operator, the UST owner or operator may seek to gain entry by a court order pursuant to Section 22.2c of the Act;
- 3) In performing the requested investigation and/or remediation, the UST owner or operator will work so as to minimize any disruption on the property, will maintain, or its environmental consultant will maintain, appropriate insurance and will repair any damage

caused by the investigation and/or remediation;

- 4) If contamination results from a UST release by the UST owner or operator, the UST owner or operator will conduct all associated remediation at its own expense; and
- 5) Threats to human health and the environment and diminished property value may result from failure to remediate contamination from the UST release.

BOI, LLC requests that access to your property be granted for the purpose of conducting a further investigation and potential remediation to comply with Illinois petroleum UST regulations. The proposed Scope of Work is attached (**Attachment 1**).

Two copies of the BOI, LLC's Access Agreement have been enclosed for your signature (**Attachment 2**). If you are in agreement with this request, please complete and sign the appropriate sections and return both copies of the Access Agreement to the office of TriCore Environmental, LLC in the enclosed stamped envelope. A representative of BOI, LLC will sign the Access Agreements, and a fully executed copy will be returned to you. If the you choose not to grant access to your property, please complete and sign the appropriate sections denying access and return both copies of the Access Agreement to the TriCore Environmental, LLC office in the enclosed stamped envelope. We would appreciate a response within 30 days of receipt of this letter.

In the alternative, we hereby renew our request, on behalf of BOI, LLC, that you execute the Environmental Land Use Control ("ELUC") which we forwarded to you by letter and enclosures dated January 17, 2018, a copy of which is enclosed for your reference (**Attachment 3**).

To learn more about the above-referenced site and its environmental condition, and potential impact upon your property, please contact Marcos I. Czako of TriCore Environmental, LLC located at 2368 Corporate Lane, Suite 116, Naperville, IL 60563 [(630) 520-9973x2] or the Illinois Environmental Protection Agency (Illinois EPA) Bureau of Land LUST Section Project Manager Trent Benanti at 1021 North Grand Avenue East, P.O. Box 19276, Springfield, IL 62794-9276 [(217) 524-4649]. You may also obtain a copy of the complete Illinois EPA file regarding the BOI, LLC site. To do so, you must submit a written request with your signature to:

Illinois Environmental Protection Agency  
Bureau of Land - #24  
Freedom of Information Act (FOIA) Officer  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, Illinois, 62794-9276

When requesting a copy of the file, please reference the file heading shown below:

LPC# 0314625010 / Cook County  
BOI, LLC  
1196 State Street, Lemont, IL  
Leaking UST Incident No. 942117  
Leaking UST Technical File

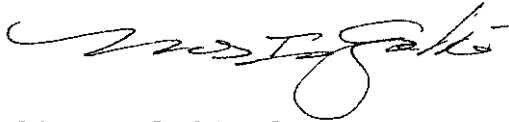
FOIA requests may also be requested through the Illinois EPA's Web page: [www.epa.state.il.us/foia](http://www.epa.state.il.us/foia).

March 2, 2018

Page 3

Thank you for your attention to this matter. If you have any questions regarding this access request or project please contact Marcos Czako of TriCore Environmental, LLC at (630) 520-9973 ext. 2 or [marcos.czako@tricoreweb.com](mailto:marcos.czako@tricoreweb.com)

Sincerely,



Marcos I. Czako, P.G.  
Senior Project Manager

Attachments: Remediation Scope of Work, Access Agreements, ELUC

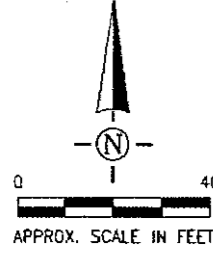
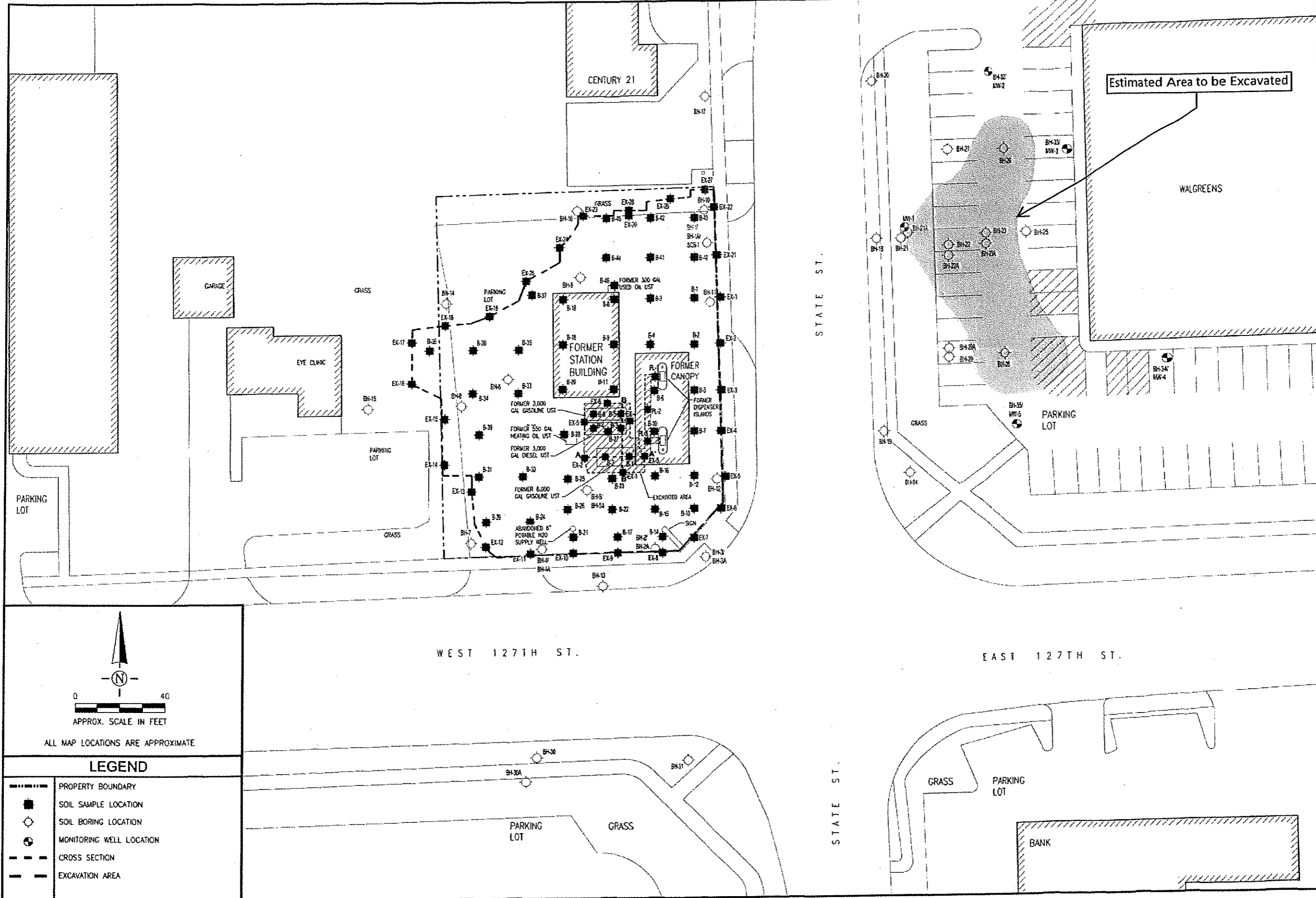
cc: Mr. Steve Broadus, BOI, LLC, 201 Danny's Drive, Suite 5, Streator, IL 61364  
Mr. Robert M. Riffle, Esq., 133A South Main Street, Morton, IL 61550

**ATTACHMENT A**  
**SCOPE OF WORK**

SCOPE OF WORK

The remediation that would be completed on the property located at 15575 E. 127<sup>th</sup> Street, Lemont, Illinois is soil excavation. Based on the investigation completed on the said property, the excavation would include the removal of contaminated soils from depths ranging from the ground surface to an approximate depth of 30 feet below ground surface. The area to be excavated is illustrated on the attached Figure.


Once excavated, the area would be backfilled to the ground surface and would be restored to the pre-existing excavation conditions. A detailed excavation plan would be provided to you prior to the start of the excavation activities once the authorization for this work has been received from you.



ALL MAP LOCATIONS ARE APPROXIMATE

**LEGEND**

- PROPERTY BOUNDARY
- SOIL SAMPLE LOCATION
- SOIL BORING LOCATION
- ⊕ MONITORING WELL LOCATION
- - - - - CROSS SECTION
- - - - - EXCAVATION AREA

 <p><b>TriCore Environmental, LLC</b> 2368 Corporate Lane, Suite 116 Naperville, IL 60563 (630) 520-9973</p>										
<p><b>BOI, LLC</b> 201 Danny's Drive Suite 5 Sireator, IL 61364</p>										
<p><b>SITE MAP</b> BOI, LLC 1196 STATE STREET LEMONT, COOK COUNTY, IL 60439</p>										
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">DRAWN BY:</td> <td>SAA</td> </tr> <tr> <td>APPROVED BY:</td> <td>MIC</td> </tr> <tr> <td>SCALE:</td> <td>1" = 40'</td> </tr> <tr> <td>DATE:</td> <td>7/20/2017</td> </tr> <tr> <td>DRAWING FILE:</td> <td>MD14-170</td> </tr> </table>	DRAWN BY:	SAA	APPROVED BY:	MIC	SCALE:	1" = 40'	DATE:	7/20/2017	DRAWING FILE:	MD14-170
DRAWN BY:	SAA									
APPROVED BY:	MIC									
SCALE:	1" = 40'									
DATE:	7/20/2017									
DRAWING FILE:	MD14-170									
<p><b>FIGURE 1</b></p>										

**ATTACHMENT B**  
**ACCESS AGREEMENTS**

**BOI, LLC  
ACCESS AGREEMENT**

This access agreement is entered into between BOI, LLC and the Grantor shown below. Grantor is the owner of the following property:

**15575 E. 127<sup>th</sup> Street, Lemont, Illinois – property west of and adjacent to  
Former Lemont Kar Gas Property**

For good and valuable consideration which the parties hereby acknowledge the receipt and sufficiency thereof, the undersigned (Grantor) hereby  **agrees**  **does not agree** to grant BOI, LLC access to the above-referenced Property in order to perform certain environmental activities which BOI, LLC at its sole discretion chooses to perform. Such activities may include sampling, assessment, inspection, monitoring, installation of equipment, operation and maintenance of equipment and remediation activities (Activities). Grantor will provide BOI, LLC information regarding the location of subsurface utilities in the area of the proposed Activities to the extent Grantor is aware of such information.

BOI, LLC shall use reasonable efforts during its Activities to minimize interruption to the business or use of the Property. BOI, LLC will repair any property damage that may occur as of results of its Activities at the Property.

Upon written request by Grantor, BOI, LLC agrees to provide the results of analytical testing performed by BOI, LLC regarding Activities. BOI, LLC provides this information as a courtesy only. Use of any of the information contained in these documents is at Grantor's sole risk. No copies are to be made, nor will Grantor allow any person to examine these documents other than the Grantor's environmental consultant and legal counsel without the prior written consent of BOI, LLC. BOI, LLC shall not be deemed to have made any representation or warranty, expressed or implied, as to the condition to the Property of the accuracy to the documents.

BOI, LLC will indemnify Grantor from third party causes of action, which arise out of negligence associated with Activities performed by BOI, LLC on the Property.

It is hereby agreed that the BOI, LLC Access Agreement on the Property are neither an admission against BOI, LLC's interests nor an assumption of liability or waiver of any rights by BOI, LLC

Either party to the Access Agreement may revoke it within sixty (60) days of written notice indicating such revocation.

\_\_\_\_\_  
BOI, LLC Representative

\_\_\_\_\_  
Property Owner Signature (Grantor)

Marcos Czako  
\_\_\_\_\_  
Consultant Contact Person

\_\_\_\_\_  
Printed Name

630-520-9973 ext. 2  
\_\_\_\_\_  
Phone Number

\_\_\_\_\_  
Date of Authorization

\_\_\_\_\_  
Phone Number



**BOI, LLC  
ACCESS AGREEMENT**

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\_\_\_\_\_  
BOI, LLC Representative

\_\_\_\_\_  
Property Owner Signature (Grantor)

Marcos Czako  
\_\_\_\_\_  
Consultant Contact Person

\_\_\_\_\_  
Printed Name

630-520-9973 ext. 2  
\_\_\_\_\_  
Phone Number

\_\_\_\_\_  
Date of Authorization

\_\_\_\_\_  
Phone Number

**ATTACHMENT C**

**ELUC**



January 17, 2018

**VIA USPS PRIORITY MAIL  
WITH DELIVERY CONFIRMATION**

Mr. Tom Karahalios  
TCK, Inc.  
10133 Parkview Drive  
Palos Park, Illinois 60464

RE: Environmental Land Use Control  
15575 E. 127<sup>th</sup> Street  
Lemont, Illinois 60439

Dear Mr. Karahalios:

TriCore Environmental, LLC, on behalf of BOI, LLC, owner of the property located at 1196 State Street in Lemont, is performing an environmental response action at the former gasoline retail station as a result of a release of gasoline and diesel fuel on the property.

TriCore is requesting your review and execution of the attached Environmental Land Use Control (ELUC) so that a No Further Remediation (NFR) letter can be obtained for the BOI, LLC property. The conditions of the ELUC are included within Section Three of the ELUC. The NFR letter, once issued for the BOI, LLC property, will also benefit your property since any record search performed by an interested party would see that all environmental risks adjacent to your site have been addressed.

If you agree to the ELUC, please sign and have notarized and return the ELUC to BOI, LLC in the included pre-stamped envelope.

If you should have any questions concerning this request or require additional information, please contact the undersigned at (630) 520-9973 ext. 2 or by email at [marcos.czako@tricoreweb.com](mailto:marcos.czako@tricoreweb.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Marcos Czako".

Marcos I. Czako, P.G.  
Senior Project Manager

A handwritten signature in black ink, appearing to read "Shawn Rodeck".

Shawn Rodeck, P.E.  
President

Attachments



I, TCK, Inc., owner of the property located at 15575 E. 127<sup>th</sup> Street, Lemont, Illinois, assert the following:

- I approve of the Environmental Land Use Control (ELUC) and the signed and notarized original is attached.
- I do not approve of the ELUC and request that a remediation plan be developed for my property.

Mail to:  
Marcos I. Czakó, P.G.  
TriCore Environmental, LLC  
2368 Corporate Lane, Suite 116  
Naperville, IL 60563

PREPARED BY:

Name: TriCore Environmental, LLC

Address: 2368 Corporate Lane, Suite 116  
Naperville, IL 60563

RETURN TO:

Name: BOI, LLC

Address: 201 Danny's Drive, Suite 5, Streator, Illinois 61364

**THE ABOVE SPACE FOR RECORDER'S OFFICE**

**Model Environmental Land Use Control**

THIS ENVIRONMENTAL LAND USE CONTROL ("ELUC"), is made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by TCK, Inc., ("Property Owner") of the real property located at the common address 15575 E. 127<sup>th</sup> Street, Lemont, Illinois ("Property").

WHEREAS, 415 ILCS 5/58.17 and 35 Ill. Adm. Code 742 provide for the use of an ELUC as an institutional control in order to impose land use limitations or requirements related to environmental contamination so that persons conducting remediation can obtain a No Further Remediation determination from the Illinois Environmental Protection Agency ("IEPA"). The reason for an ELUC is to ensure protection of human health and the environment. The limitations and requirements contained herein are necessary in order to protect against exposure to contaminated soil or groundwater, or both, that may be present on the property as a result of a historic releases of gasoline and diesel fuel. Under 35 Ill. Adm. Code 742, the use of risk-based, site-specific remediation objectives may require the use of an ELUC on real property, and the ELUC may apply to certain physical features (e.g., engineered barriers, monitoring wells, caps, etc.).

WHEREAS, BOI, LLC, intends to request risk-based, site specific soil and groundwater remediation objectives from IEPA under 35 Ill. Adm. Code 742 to obtain risk-based closure of the site, identified by Bureau of Land 0314625010, utilizing an ELUC.

NOW, THEREFORE, the recitals set forth above are incorporated by reference as if fully set forth herein, and the Property Owner agrees as follows:

Section One. Property Owner does hereby establish an ELUC on the real estate, situated in the County of Cook, State of Illinois and further described in Exhibit A attached hereto and incorporated herein by reference (the "Property").

Attached as Exhibit B are site maps that show the legal boundary of the Property, any physical features to which the ELUC applies, the horizontal and vertical extent of the

contaminants of concern above the applicable remediation objectives for soil or groundwater or both, and the nature, location of the source, and direction of movement of the contaminants of concern, as required under 35 Ill. Adm. Code 742.

Section Two. Property Owner represents and warrants it is the current owner of the Property and has the authority to record this ELUC on the chain of title for the Property with the Office of the Recorder or Registrar of Titles in Cook County, Illinois.

Section Three. The Property Owner hereby agrees, for **itself**, and **its** heirs, grantees, successors, assigns, transferees and any other owner, occupant, lessee, possessor or user of the Property or the holder of any portion thereof or interest therein, that the top 10 feet of soil under the Property for the area illustrated in Exhibit B-1 shall remain in place, or if any of these items are removed, excavated, or disturbed, that similar materials (i.e. clean soil or clean fill material) be put in their place so there is a minimum of 10 feet of clean soil or clean fill material above the contaminated soil illustrated in Exhibit B-2A. Additionally, the groundwater under the Property shall not be used as a potable supply of water, and any contaminated groundwater or soil that is removed, excavated, or disturbed from the Property described in Exhibit A herein must be handled in accordance with all applicable laws and regulations.

Section Four. This ELUC is binding on the Property Owner, **its** heirs, grantees, successors, assigns, transferees and any other owner, occupant, lessee, possessor or user of the Property or the holder of any portion thereof or interest therein. This ELUC shall apply in perpetuity against the Property and shall not be released until the IEPA determines there is no longer a need for this ELUC as an institutional control; until the IEPA, upon written request, issues to the site that received the no further remediation determination a new no further remediation determination approving modification or removal of the limitation(s) or requirement(s); the new no further remediation determination is filed on the chain of title of the site subject to the no further remediation determination; and until a release or modification of the land use limitation or requirement is filed on the chain of title for the Property.

Section Five. Information regarding the remediation performed on the Property may be obtained from the IEPA through a request under the Freedom of Information Act (5 ILCS 140) and rules promulgated thereunder by providing the IEPA with the 10-digit LPC or identification number listed above.

Section Six. The effective date of this ELUC shall be the date that it is officially recorded in the chain of title for the Property to which the ELUC applies.

WITNESS the following signatures:

Property Owner TCK, Inc.

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

STATE OF ILLINOIS        )  
                                      ) SS:  
COUNTY OF                )

I, \_\_\_\_\_ the undersigned, a Notary Public for said County and State, DO HEREBY CERTIFY, that TCK, Inc., personally known to me to be the Property Owner(s) of 15575 E. 127<sup>th</sup> Street, Lemont, IL, and personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that in said capacities they signed and delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and official seal, this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Notary Public



**PIN NO. 22-29-402-027-0000  
22-29-402-028-0000**

**Exhibit A**

The subject property is located in the Village of Lemont, Cook County, State of Illinois, commonly known as 15575 E. 127<sup>th</sup> Street and more particularly described as:

Common Address: 15575 127<sup>th</sup> Street, Lemont, Illinois

Legal Description:

Parcel 1: Lot 1 (Except the East 100.00 Feet), Lot 2 (Except the East 100.00 Feet) and Lot 3 (Except the East 100.00 Feet) in Meyers Grove Commercial Park, Being a Subdivision of Part of the West ½ of the Southeast ¼ of Section 29, Township 37 North, Range 11 East of the Third Principal Meridian, Excepting therefrom that part taken for Roadway Purposes, in Cook County, Illinois.

PIN No: 22-29-402-027-0000

Parcel 2: The East 100.00 Feet of Lots 1, 2, and 3 in Meyers Grove Commercial Park, being a Subdivision of Part of the West Half of the Southeast ¼ of Section 29, Township 37 North, Range 11 East of the Third Principal Meridian, in Cook County, Illinois

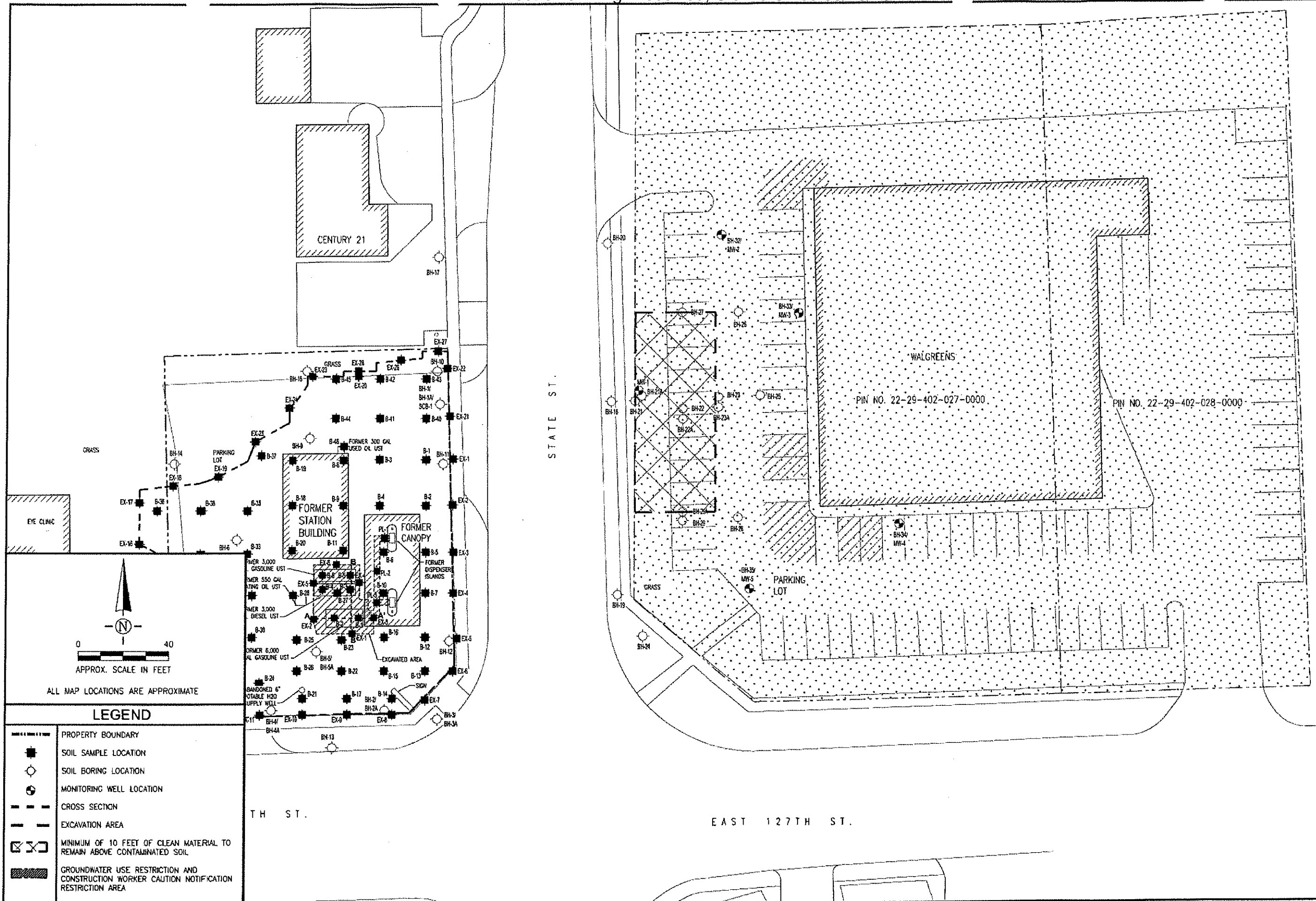
PIN No: 22-29-402-028-0000

PIN NO. 22-29-402-027-0000  
22-29-402-028-0000

**Exhibit B**

IN ACCORDANCE WITH SECTION 742.1010(D)(8)(A)-(D), PROVIDE ALL THE FOLLOWING ELEMENTS. ATTACH SEPARATE SHEETS, LABELED AS EXHIBIT B, WHERE NECESSARY.

- (A) A scaled map showing the legal boundary of the property to which the ELUC applies. **(Exhibit B-1)**
- (B) Scaled maps showing the horizontal and vertical extent of contaminants of concern above the applicable remediation objectives for soil and groundwater to which the ELUC applies. **(Exhibits B-2A and B-2B)**
- (C) Scaled maps showing the physical features to which an ELUC applies (e.g., engineered barriers, monitoring wells, caps, etc.). **(Exhibit B-1)**
- (D) Scaled maps showing the nature, location of the source, and direction of movement of the contaminants of concern. **(Exhibit B-2A and B-2B)**



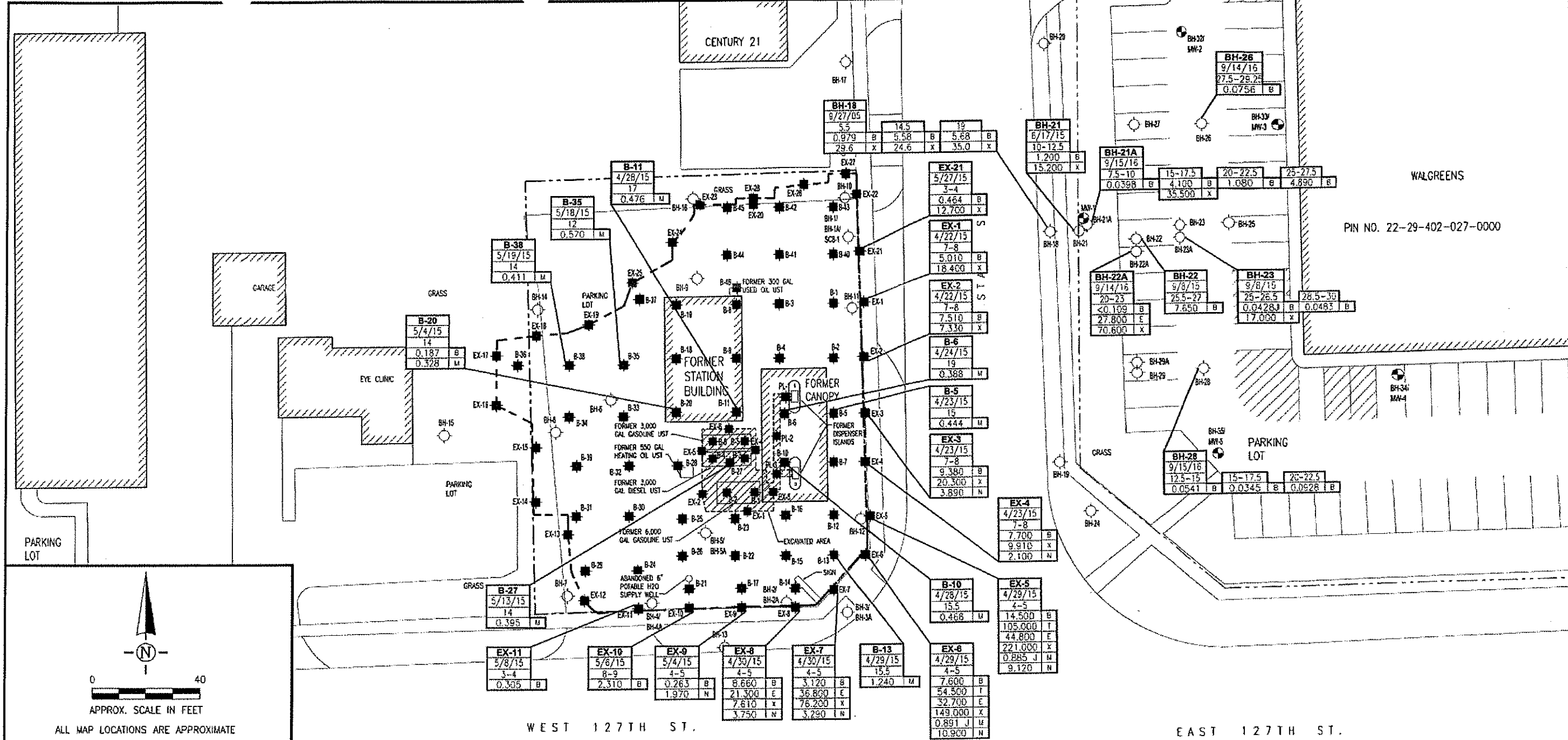
**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**ELUC AREA**  
 BOI, LLC  
 1195 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 1/16/2018  
 DRAWING FILE: MD14-170

**EXHIBIT B-1**



**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

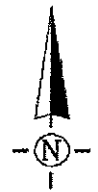
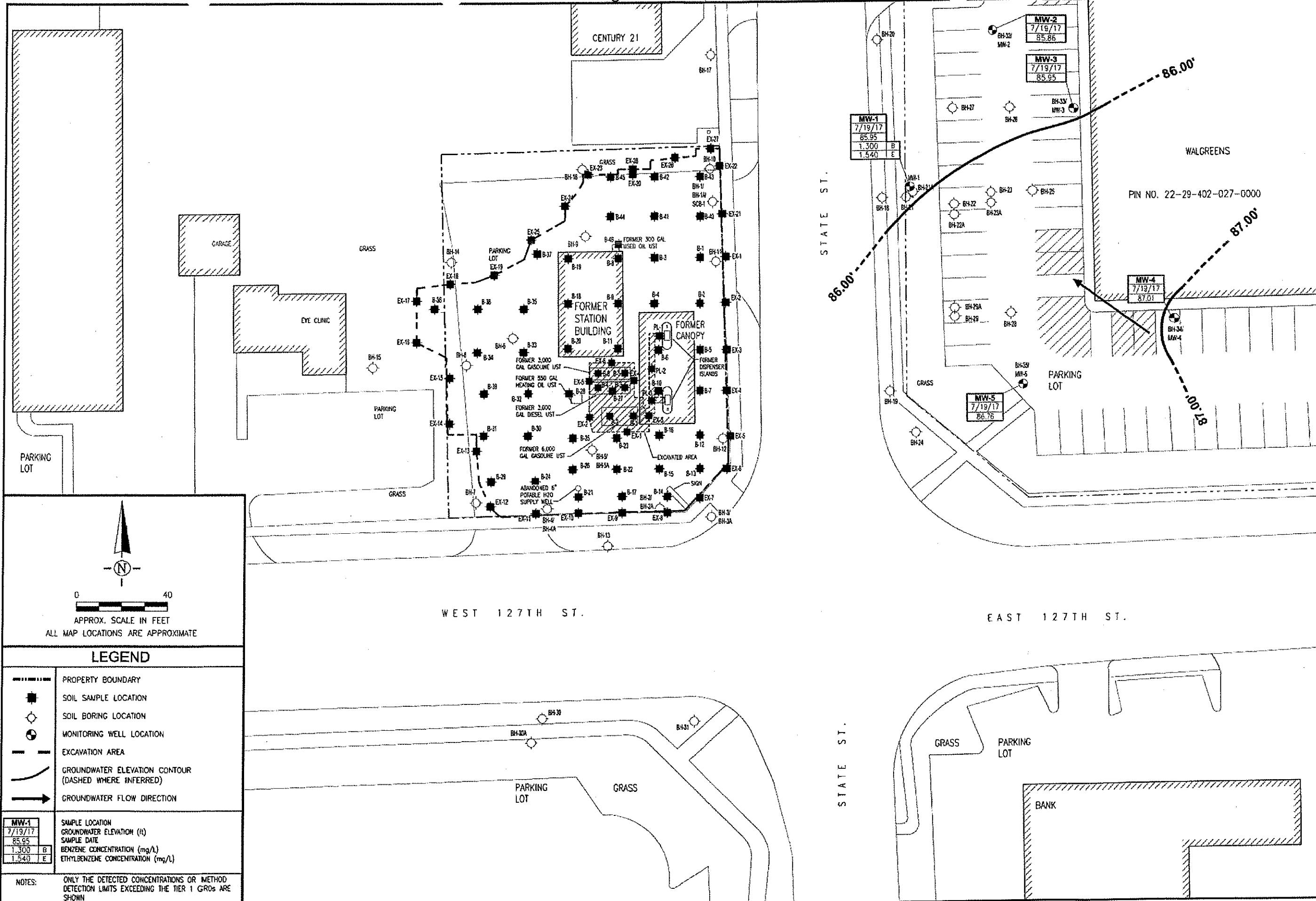
**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**SOIL ANALYTICAL RESULTS**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	EXCAVATION AREA
<b>EX-5</b> 4/29/15 4-5	SAMPLE LOCATION SAMPLE DATE SAMPLE DEPTH (ft)
14.500 B	BENZENE CONCENTRATION (mg/kg)
105.000 T	TOLUENE CONCENTRATION (mg/kg)
44.800 E	ETHYLBENZENE CONCENTRATION (mg/kg)
221.000 X	TOTAL XYLENES CONCENTRATION (mg/kg)
0.885 J M	METHYL TERT BUTYL ETHER CONCENTRATION (mg/kg)
<0.279 BoP	BENZO (a) PYRENE CONCENTRATION (mg/kg)
<0.287 D	DIBENZO (a,h) ANTHRACENE CONCENTRATION (mg/kg)
9.120 N	NAFTHALENE CONCENTRATION (mg/kg)
<0.002	CONCENTRATION LESS THAN LABORATORY REPORTING OR METHOD DETECTION LIMIT
NOTES: ONLY THE DETECTED CONCENTRATIONS OR METHOD DETECTION LIMITS EXCEEDING THE TIER 1 SFRs ARE SHOWN	

**EXHIBIT B-2A**

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 1/16/2018  
 DRAWING FILE: MD14-170



APPROX. SCALE IN FEET  
ALL MAP LOCATIONS ARE APPROXIMATE

**LEGEND**

- PROPERTY BOUNDARY
- SOIL SAMPLE LOCATION
- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- EXCAVATION AREA
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION

<b>MW-1</b> 7/19/17 85.95 1.300 B 1.540 E	SAMPLE LOCATION GROUNDWATER ELEVATION (ft) SAMPLE DATE BENZENE CONCENTRATION (mg/L) ETHYLBENZENE CONCENTRATION (mg/L)
---	---

NOTES: ONLY THE DETECTED CONCENTRATIONS OR METHOD DETECTION LIMITS EXCEEDING THE TIER 1 GROs ARE SHOWN

**TriCore Environmental, LLC**  
2368 Corporate Lane, Suite 116  
Naperville, IL 60563  
(630) 520-9973

**BOI, LLC**  
201 Danny's Drive  
Suite 5  
Streator, IL 61364

**GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS**  
BOI, LLC  
1196 STATE STREET  
LEMONT, COOK COUNTY, IL 60439

DRAWN BY:	SAA
APPROVED BY:	MIC
SCALE:	1" = 40'
DATE:	1/16/2018
DRAWING FILE:	MD14-170

**EXHIBIT B-2B**

Date Printed	Date	Print...	Amount...	Quoted A...	Adj. Amount	Shipment Stat...	Tracking #	Date Delivered	Recipient	Wei	Mr Tom Karahalios
Today	03/22/2018		\$6.55	\$6.55		Delivered	940551189956082240540	03/26/2018	Attn: Dr. Raul Vakhiva, Ph.D., Dep...	0	
Past 7 Days	03/22/2018		\$1.21	\$1.21		Printed			Mr Cesar Flores, 5106 S. Lorel Ave...	0	
Past 30 Days	03/21/2018		\$6.55	\$6.55		Delivered	9405511899560536949453	03/23/2018	Ms. Melissa Owens, Illinois EPA, B...	0	
Past 3 Months	03/16/2018		\$1.84	\$1.84		Printed			Mr Jonathan E. Karaboyak2, Illinois...	0	
Past 6 Months	03/16/2018		\$7.20	\$7.20		No Delivery Scan	9405511899560513401738		Ms. Ruth Williams, Excess Liability...	2	
Past 12 Months	03/16/2018		\$1.42	\$1.42		Printed			Mike Sebastian, Grand Cicero Serv...	0	
Past 2 Years	03/16/2018		\$0.04	\$0.04		Printed			2 NetStamps at \$0.02 each	0	
All	03/15/2018		\$6.55	\$6.55		Delivered	9405511899560510455536	03/16/2018	Mr Abraham Philip, N Jaravel Pet...	0	
Custom Date Range	03/13/2018		\$6.55	\$6.55		Delivered	9405511899560519068805	03/15/2018	Ms. Melissa Owens, Illinois EPA, B...	0	
Eligible For	03/13/2018		\$6.55	\$6.55		No Delivery Scan	9405511899560519078929		Ms. Melissa Owens, Illinois EPA, B...	1	
Status	03/13/2018		\$6.55	\$6.55		Delivered	9405511899560519016806	03/15/2018	Ms. Melissa Owens, Illinois EPA, B...	0	
User	03/08/2018		\$7.68	\$7.68		Undeliverable	9405511899560579713332		Ms Valerie Davis, Illinois Environ...	2	
	03/08/2018		\$7.31	\$7.31		Delivered	9405511899560579240050	03/09/2018	Jill Langnickel, 6804 Salthara Drive...	3	
	03/08/2018		\$1.21	\$1.21		Printed			Mr Leonidas Baraktaris, 64058 A...	0	
	03/06/2018		\$6.55	\$6.55		Undeliverable	9405511899560541914057		Ms Shirlene South, IFPA - Bureau...	4	
	03/06/2018		\$6.55	\$6.55		Delivered	9405511899560541629364	03/08/2018	Mr Leonidas Baraktaris, 64058 A...	0	
	03/06/2018		\$9.10	\$9.10		Delivered	9410811899560941481491	03/08/2018	Mr Tom Karahalios, TCK, Inc., 101...	0	
	03/06/2018		\$1.21	\$1.21		Printed			Jana Orel, Pinnacle EMS, 23 N. Un...	0	
	03/06/2018		\$0.00	\$6.55		Refunded	9405511899560541314209		Mr Leonidas Baraktaris, K&L Auto...	0	
	03/06/2018		\$1.21	\$1.21		Printed			1 NetStamp at \$1.21 each	0	
	03/06/2018		\$6.55	\$6.55		Printed			1 NetStamp at \$6.55 each	0	
	03/06/2018		\$6.55	\$6.55		Delivered	9405511899560541635840	03/08/2018	John Weiss, Royal Golf Group, LLC...	1	
	02/21/2018		\$6.55	\$6.55		Delivered	9405511899560589603043	02/26/2018	Ms. Melissa Owens, Illinois EPA, B...	1	
	02/21/2018		\$6.55	\$6.55		Delivered	9405511899560589603043	02/24/2018	Mr Leonidas Baraktaris, K&L Auto...	0	

<b>Shipped To:</b>	Mr Tom Karahalios TCK INC 10133 W Parkview Drive Palos Park, IL 60464-1682
<b>Shipped From:</b>	60563
<b>Return To:</b>	TrCore Environmental Suite 116 Naperville, IL 60563
<b>Services</b>	\$9.10
<b>Amount Paid</b>	\$9.10
<b>Quoted Amount</b>	\$9.10
<b>Carrier:</b>	USPS
<b>Service:</b>	Priority Mail® \$6.55
<b>Packaging:</b>	Flat Rate Envelope
<b>Insurance:</b>	None
<b>Tracking:</b>	Electronic Signature Confirmation \$2.55
<b>Extra Services:</b>	Electronic Service Fee \$2.55
<b>Weight:</b>	0 lbs, 6 oz.
<b>Reference</b>	
<b>Cost Code:</b>	None
<b>User:</b>	tricornetvtron
<b>Printed On:</b>	Shipping label
<b>SCAN Form ID:</b>	9475011201080846448514

**May 16, 2018**

Electronic Filing: Received, Clerk's Office 03/23/2021

Robert M. Riffle, Esq. ♦ 133A S. Main Street, Morton, IL 61550  
(309) 321-8365 (309) 321-8460 (Facsimile)  
[rriffle@rmreenterprises.net](mailto:rriffle@rmreenterprises.net)

---

May 16, 2018

**VIA E-MAIL & CERTIFIED MAIL**

[pglone@aol.com](mailto:pglone@aol.com)

Mr. Peter Limperis

Attorney at Law

5624 W. 79<sup>th</sup> Street

Burbank, IL 60459

Re: IEMA Incident No. 942117 & 20141348  
LPC Number 0314625010  
15575 E. 127<sup>th</sup> Street  
Lemont, Illinois 60439

Dear Mr. Limperis:

I am counsel to BOI, LLC ("BOI") in connection with the above-referenced matter.

Attached please find a copy of the prior notification letter which was sent to your client and received by him on February 15, 2018. My client and its President and Consultant have made literally dozens of attempts to contact you since you began to handle this matter, to no avail. These efforts have occurred over the course of more than fifty (50) days. Obviously, my client is frustrated and anxious to bring this process to a conclusion. We understand that you have had difficulty reaching your client, and do not mean to be critical of your actions. However, since you serve in a representative capacity, we have no choice but to address our effort to finalize this matter through your office.


Absent a substantive response from you regarding your client's willingness to provide access to his property for purposes of testing and remediation, my client's intention is to inform the Illinois Environmental Protection Agency that you and your client have been non-responsive to efforts to make contact, and to seek closure of the environmental incident which affects your client's property without completing the remediation which it was otherwise willing to perform. My client intends to take that action after thirty (30) days have passed after your receipt of this letter, absent a grant of access by your client within that time period, or execution of an Environmental Land Use Control (ELUC) Agreement by that time.

I hereby respectfully request that you contact me at your earliest possible convenience to discuss this matter, so that the parties can make well informed decisions regarding the next steps in the process. We simply need to know definitively whether or not your client will provide access to his property to enable my client to conduct environmental testing and remediation, as explained in detail in the attached letter.



I look forward to hearing from you and thank you in advance for your anticipated professional courtesies.

Very truly yours,

A handwritten signature in black ink that reads "Robert M. Riffle". The signature is written in a cursive style with a large, stylized "R" at the beginning.

Robert M. Riffle

RMR:tj

Attachment

cc: Mr. Steve Broadus

Mr. Marcos Czako

M1680

February 9, 2018

TCK, Inc.

Tom Karahalios

10133 Parkview

Palos Park, IL 60464

Mr. Karahalios,

My name is Steve Broadus, and I am writing you today in regards to the Walgreen's Property you own in Lemont, Illinois. I currently own the property to the west of your property that used to be known as Lemont Kar Gas. As you are aware, we are attempting to clean up the soil on the site and around the site in order to meet Illinois EPA guidelines. We have completed the onsite remediation as well as met the requirements for highway authority agreements. We are now charged with the handling of any offsite contaminants that have migrated offsite. Upon obtaining permission from the Walgreen's property management team, our environmental company performed a series of borings that determined that previous findings performed by the previous owner of the Lemont Kar Gas property were correct in their assessment that some limited petroleum contamination has migrated onto your property. The limited contamination is, in our view, not in any way a threat to health, both because of the depth and concentrations. We are now charged with the task of addressing that contamination with approval of the property owner, which is your TCK, Inc. entity. We have completed the research and have reached a stage in the procedure that requires your attention.

Mr. Marcos Czako of Tri Core Environment, our consultant/contractor, sent along a packet to you for review with a solution to the remaining requirements. We are proposing a very commonly used agreement for matters such as these to resolve the final requirement for us to close the site.

The ELUC Agreement that Mr. Czako sent for your review in essence allows the remaining contamination to remain in place as it has been determined not to be a hazard to the health and well-being of the population it effects, primarily do to the depth and location of the contaminates. It does require the ELUC to be registered and a deed restriction be put in place. Given the depth of the contaminates it is highly unlikely that the contamination would be encountered in future excavations as they are located in the 7-1/2' – 31' range. Contamination in the 7-1/2' range is located in the berm. Without the ELUC agreement the IEPA would require us to resume excavating the property to those depths causing disruptions to the current business activity and or a lengthy injection recovery effort that too would disrupt store activity for an extended period of time of several weeks or months. **NONE OF THESE ACTIVITIES WE ARE PROPOSING ARE OF A COST TO YOU.**

Unfortunately, not responding to our request does not make this issue resolve itself. We are obligated by the Illinois Environmental Protection Agency to reach a conclusion to this project by statute. If it is your wish for us to suspend work on your site we will still need a signed document by you or an assigned representative of TCK, Inc. stating that directive.

I am providing contact information below of Mr. Czako for your questions or your response to this matter. I apologize for the inconvenience this has caused you. Mr. Czako or myself are looking forward to working with you or your Son as you indicated in our phone conversations. I must emphasize that we need a written directive from you in order to address the issue at hand. Please contact us at your earliest convenience.

Sincerely,

Steve Broadus

BOI, LLC

201 Danny's Drive; Suite 5

Streator, IL 61364

815-257-5516

Marcos Czako', P.G.

Project Manager

2368 Corporate Lane, Suite 116

Naperville, IL 60563

630-520-9973

Fax: 630-520-9976

Marcos.czako@tricoreweb.com

Electronic

7013 2630 0000 7409 8042

**CERTIFIED MAIL RECEIPT**  
(Domestic Mail Only; No Insurance Coverage Provided)

21

For delivery information visit our website at [www.usps.com](http://www.usps.com)

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Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark Here  
3/17

Sent To: Mr. Peter Limplaris  
 Street, Apt. No., or PO Box No.: 5624 W. 79th St.  
 City, State, ZIP+4: Burbank, CA 91504

PS Form 3800, August 2005 See Reverse for Instructions

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 Mr. Peter Limplaris  
 5624 W. 79th St.  
 Burbank, CA 91504

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature: *Christina Rupp*  Agent  Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail®  Priority Mail Express™  
 Registered  Return Receipt for Merchandise  
 Insured Mail  Collect on Delivery

4. Restricted Delivery? (Extra Fee)  Yes

2. Article Number (Transfer from service label) 7013 2630 0000 7409 8042

PS Form 3811, July 2013

Domestic Return Receipt

**Tracking Number:** 70132630000074098042

Remove X

Your item has been delivered to the original sender at 11:11 am on May 21, 2018 in BURBANK, IL 60459.

 **Delivered**

May 21, 2018 at 11:11 am  
Delivered, To Original Sender  
BURBANK, IL 60459

Get Updates 

---

**Text & Email Updates**



---

**Tracking History**



---

**Product Information**



See Less 

## Can't find what you're looking for?

Go to our FAQs section to find answers to your tracking questions.

**June 21, 2018**



June 21, 2018

Trent.benanti@illinois.gov

Mr. Trent Benanti  
Illinois Environmental Protection Agency  
LUST Division  
1021 North Grand  
PO Box 19276  
Springfield, IL 62794-9276

Re: BOI, LLC  
IEMA No. 942117  
1196 State Street  
Lemont, IL 60439

Dear Mr. Benanti:

As you know, I am counsel to BOI, LLC ("BOI") in connection with the above-referenced matter.

Attached is a copy of a letter dated May 16, 2018 (with delivery receipt dated May 21), which I sent to Peter Limperis, counsel for Mr. Tom Karahalios, who is the neighboring property owner. As you may recall, after more than thirty (30) days had passed after Mr. Karahalios' receipt of Mr. Broadus's February 9, 2018 letter, contact was made on behalf of Mr. Karahalios. That contact, in view of the Illinois Environmental Protection Agency, negated the efforts previously made by BOI to seek closure of this matter. Mr. Broadus's letter was in follow-up to an even earlier letter from Mr. Czako to Mr. Karahalios. (Copies of these previous letter are also attached for your reference.)

Thirty (30) days have now passed since delivery of this third letter, with no response. Without exaggeration, in excess of 30 attempts have been made to reach Mr. Karahalios and Mr. Limperis.

This has been a very costly and frustrating matter for Mr. Broadus. We certainly believe that all reasonable efforts have been exhausted.

We hereby request that the Illinois Environmental Protection Agency ("IEPA") issue a determination that all reasonable efforts have been made to seek access to adjoining land, and that Mr. Karahalios (and his counsel) have failed and refused to allow access. In this regard, we would be most appreciative if you would please call me as soon as possible to discuss this request, and the overall status of this project. In the interim, and in hopeful anticipation of a favorable response to this request, Mr. Czako will be contacting you earliest next week to discuss the technical aspects of finally obtaining NFR status.

Thank you in advance for any assistance which you may be able to provide in this regard.

Very truly yours,  
**ROBERT M. RIFFLE**  
Robert M. Riffle

RMR:tj  
Attachments

cc: Mr. Steve Broadus  
Mr. Marcos Czako, TriCore



Public Filing: Received, Clerk's Office 03/23/2021

Robert M. Riffle, Esq. ♦ 133A S. Main Street, Morton, IL 61550  
(309) 321-8365 (309) 321-8460 (Facsimile)  
[riffle@rmrenterprises.net](mailto:riffle@rmrenterprises.net)

---

May 16, 2018

**VIA E-MAIL & CERTIFIED MAIL**

[pglone@aol.com](mailto:pglone@aol.com)

Mr. Peter Limperis

Attorney at Law

5624 W. 79<sup>th</sup> Street

Burbank, IL 60459

Re: IEMA Incident No. 942117 & 20141348  
LPC Number 0314625010  
15575 E. 127<sup>th</sup> Street  
Lemont, Illinois 60439

Dear Mr. Limperis:

I am counsel to BOI, LLC ("BOI") in connection with the above-referenced matter.

Attached please find a copy of the prior notification letter which was sent to your client and received by him on February 15, 2018. My client and its President and Consultant have made literally dozens of attempts to contact you since you began to handle this matter, to no avail. These efforts have occurred over the course of more than fifty (50) days. Obviously, my client is frustrated and anxious to bring this process to a conclusion. We understand that you have had difficulty reaching your client, and do not mean to be critical of your actions. However, since you serve in a representative capacity, we have no choice but to address our effort to finalize this matter through your office.

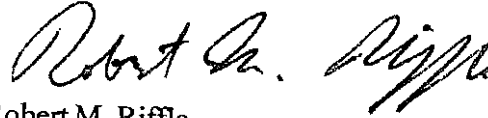
Absent a substantive response from you regarding your client's willingness to provide access to his property for purposes of testing and remediation, my client's intention is to inform the Illinois Environmental Protection Agency that you and your client have been non-responsive to efforts to make contact, and to seek closure of the environmental incident which affects your client's property without completing the remediation which it was otherwise willing to perform. My client intends to take that action after thirty (30) days have passed after your receipt of this letter, absent a grant of access by your client within that time period, or execution of an Environmental Land Use Control (ELUC) Agreement by that time.

I hereby respectfully request that you contact me at your earliest possible convenience to discuss this matter, so that the parties can make well informed decisions regarding the next steps in the process. We simply need to know definitively whether or not your client will provide access to his property to enable my client to conduct environmental testing and remediation, as explained in detail in the attached letter.



I look forward to hearing from you and thank you in advance for your anticipated professional courtesies.

Very truly yours,

A handwritten signature in black ink that reads "Robert M. Riffle". The signature is written in a cursive, flowing style.

Robert M. Riffle

RMR:tj

Attachment

cc: Mr. Steve Broadus

Mr. Marcos Czako

M1680

Electronic Fill

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(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

7013 2630 0000 7409 8042

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark Here  
5/17

Sent To  
 Street, Apt. No. or PO Box No. Mr. Peter Limplaris  
5624 W. 79th St  
 City, State, ZIP+4 Burbank, CA 91504

PS Form 3800, August 2006 See Reverse for Instructions

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
Mr. Peter Limplaris  
5624 W. 79th St.  
Burbank, CA 91504

2. Article Number  
 (Transfer from service label)

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature Christina Rupp  Agent  Addressee

B. Received by (Printed Name) \_\_\_\_\_ C. Date of Delivery \_\_\_\_\_

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type
- |  |  |
|--|--|
| <input type="checkbox"/> Certified Mail® | <input type="checkbox"/> Priority Mail Express™                    |
| <input type="checkbox"/> Registered      | <input checked="" type="checkbox"/> Return Receipt for Merchandise |
| <input type="checkbox"/> Insured Mail    | <input type="checkbox"/> Collect on Delivery                       |

4. Restricted Delivery? (Extra Fee)  Yes

7013 2630 0000 7409 8042

PS Form 3811, July 2013

Domestic Return Receipt

**Tracking Number:** 70132630000074098042

Remove X

Your item has been delivered to the original sender at 11:11 am on May 21, 2018 in BURBANK, IL 60459.

 **Delivered**

May 21, 2018 at 11:11 am  
Delivered, To Original Sender  
BURBANK, IL 60459

Get Updates 

---

**Text & Email Updates**



---

**Tracking History**



---

**Product Information**



See Less 

## Can't find what you're looking for?

Go to our FAQs section to find answers to your tracking questions.

February 9, 2018

TCK, Inc.

Tom Karahalios

10133 Parkview

Palos Park, IL 60464

Mr. Karahalios,

My name is Steve Broadus, and I am writing you today in regards to the Walgreen's Property you own in Lemont, Illinois. I currently own the property to the west of your property that used to be known as Lemont Kar Gas. As you are aware, we are attempting to clean up the soil on the site and around the site in order to meet Illinois EPA guidelines. We have completed the onsite remediation as well as met the requirements for highway authority agreements. We are now charged with the handling of any offsite contaminants that have migrated offsite. Upon obtaining permission from the Walgreen's property management team, our environmental company performed a series of borings that determined that previous findings performed by the previous owner of the Lemont Kar Gas property were correct in their assessment that some limited petroleum contamination has migrated onto your property. The limited contamination is, in our view, not in any way a threat to health, both because of the depth and concentrations. We are now charged with the task of addressing that contamination with approval of the property owner, which is your TCK, Inc. entity. We have completed the research and have reached a stage in the procedure that requires your attention.

Mr. Marcos Czako of Tri Core Environment, our consultant/contractor, sent along a packet to you for review with a solution to the remaining requirements. We are proposing a very commonly used agreement for matters such as these to resolve the final requirement for us to close the site.

The ELUC Agreement that Mr. Czako sent for your review in essence allows the remaining contamination to remain in place as it has been determined not to be a hazard to the health and well-being of the population it effects, primarily do to the depth and location of the contaminates. It does require the ELUC to be registered and a deed restriction be put in place. Given the depth of the contaminates it is highly unlikely that the contamination would be encountered in future excavations as they are located in the 7-1/2' – 31' range. Contamination in the 7-1/2' range is located in the berm. Without the ELUC agreement the IEPA would require us to resume excavating the property to those depths causing disruptions to the current business activity and or a lengthy injection recovery effort that too would disrupt store activity for an extended period of time of several weeks or months. **NONE OF THESE ACTIVITIES WE ARE PROPOSING ARE OF A COST TO YOU.**

Unfortunately, not responding to our request does not make this issue resolve itself. We are obligated by the Illinois Environmental Protection Agency to reach a conclusion to this project by statute. If it is your wish for us to suspend work on your site we will still need a signed document by you or an assigned representative of TCK, Inc. stating that directive.

I am providing contact information below of Mr. Czako for your questions or your response to this matter. I apologize for the inconvenience this has caused you. Mr. Czako or myself are looking forward to working with you or your Son as you indicated in our phone conversations. I must emphasize that we need a written directive from you in order to address the issue at hand. Please contact us at your earliest convenience.

Sincerely,

Steve Broadus

BOI, LLC

201 Danny's Drive; Suite 5

Streator, IL 61364

815-257-5516

Marcos Czako', P.G.

Project Manager

2368 Corporate Lane, Suite 116

Naperville, IL 60563

630-520-9973

Fax: 630-520-9976

Marcos.czako@tricoreweb.com

**August 9, 2018**



# Transmittal

**To:** Yanni Karahalios **From:** Marcos I. Czako

---

**Company:** TCK, Inc. **Date:** 8/9/18  
10133 Parkview Drive  
Palos Park, IL 60464

---

**Re:** Remediation Proposal **TrCore** 100137

**Job**

**Info:**

---

URGENT     FOR REVIEW     FOR SIGNATURE     PLEASE RETURN     PLEASE RECYCLE

---

Dear Yanni:

Attached you will find a Proposed Excavation Schedule for the soil contamination on your property located in Lemont, IL. During your review, if you have any questions or would like to discuss the schedule or activities in person, please let me know. I'd be happy to discuss over the phone or meet you at the property.

Below is the contact information for the Walgreen's environmental manager as you requested. I think it would be beneficial to include them on the discussions since the estimated time frame to complete the activities is 6 weeks.

Jeff Groncki  
Office Phone: (847) 315-3571  
Cell Phone: (224) 554-9417  
Email: [jeff.groncki@walgreens.com](mailto:jeff.groncki@walgreens.com)

Please let me know when you'd like to set up a time to discuss the remediation plan and or ELUC option that was presented to you earlier this year. You can contact me directly at (630) 740-5291 or via email at [marcos.czako@tricoreweb.com](mailto:marcos.czako@tricoreweb.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Marcos I. Czako", is written over a horizontal line.

Marcos I. Czako  
Sr. Project Manager

**Proposed Excavation Schedule**

Approximate Time Frame for Excavation: 6 weeks

Pre-Construction Meeting: Week prior to start of excavation with Walgreens store manager, property owner, RW Collins, and TriCore.

**Week 1**

- Construction fence to be set up that will close off the entire western parking lot of the store. The entrance off of Lemont Rd. will remain open but traffic flow will be one-way to the east from that entrance. The southern parking lot will remain open and patrons would still have access to the store. See attached Aerial overview.
- Excavation to begin in Area #1 to a depth of 23 ft. See attached color-coded Excavation Map. A portion of the excavated soil will be stockpiled in the southern portion of the fenced area. See attached Aerial overview. Contaminated soils to be live loaded and hauled off to a landfill for disposal. Soil samples will be collected for a quick turnaround. Results will determine if the area can then be backfilled later in Week 1.
- Backfill will consist of stock piled clean soil, which will be compacted, and then gravel fill material to surface which will also be compacted.

**Week 2**

- Excavation to begin in Area #2 to a depth of 27.5 ft. A portion of the excavated soil will be stockpiled in the southern portion of the fenced area, near Area #1. Contaminated soils to be live loaded and hauled off to a landfill for disposal. Soil samples will be collected for a quick turnaround. Results will determine if the area can then be backfilled later in Week 2.
- The storm sewer and landscaping (shrubs) in this area will need to be removed and then later re-installed after the excavation in Areas #2 and #3 are completed.
- Depending on the results from the excavation samples, the large trees in the landscaped area may need to be removed. Replacement trees would then be re-installed after the excavation has been completed.
- Backfill will consist of stock piled clean soil, which will be compacted, and then gravel fill material to surface which will also be compacted.

**Weeks 3-4**

- Excavation to begin in Area #3 to a depth of 30 ft. A portion of the excavated soil will be stockpiled in the southern portion of the fenced area, near Area #1. Contaminated soils to be live loaded and hauled off to a landfill for disposal. Soil samples will be collected for a quick turnaround. Results will determine if the area can then be backfilled later in Week 3 or Week 4.



- Backfill will consist of stock piled clean soil, which will be compacted, and then gravel fill material to surface which will also be compacted.

#### Weeks 4-5

- Excavation to begin in Area #4 to a depth of 30 ft. A portion of the excavated soil will be stockpiled in the southern portion of the fenced area, near Area #3. Contaminated soils to be live loaded and hauled off to a landfill for disposal. Soil samples will be collected for a quick turnaround. Results will determine if the area can then be backfilled later in Week 4.
- Backfill will consist of stock piled clean soil, which will be compacted, and then gravel fill material to surface which will also be compacted.
- Construction fence to be removed after excavation and sewer replacement activities are completed.

#### Week 6

- Resurfacing, curb replacement, and landscaping to be completed.

#### Notes

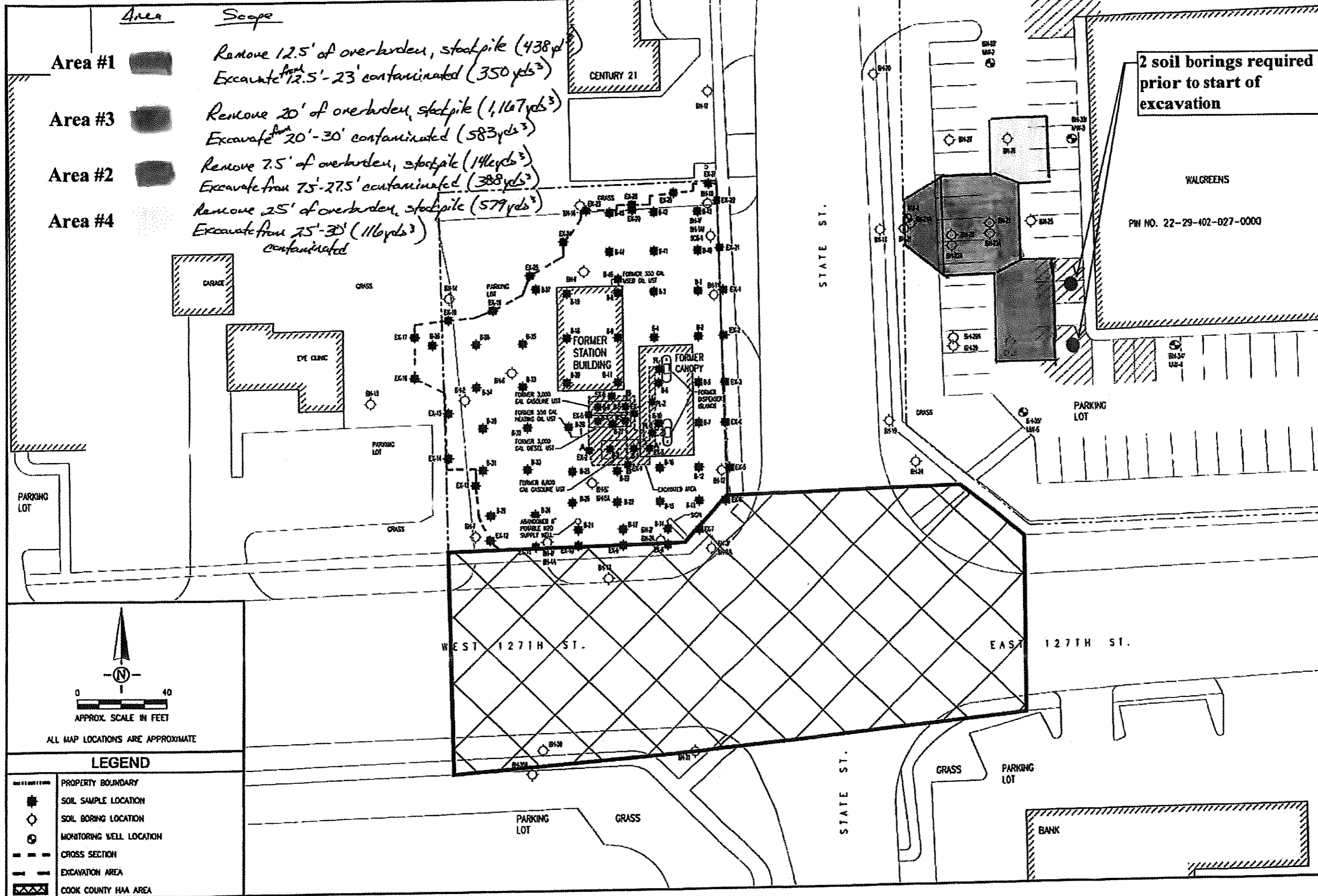
- Two soil borings between Area #1 and the entrance to the store are required to determine how close the soil contamination may be to the building in that area. TriCore previously requested from Walgreens to install a soil boring/monitoring well in this area. Walgreens rejected that location because of the close proximity to the entrance. To determine where the soil contamination stops in relation to the building these soil borings will need to be completed prior to the start of the excavation activities. If soil contamination is present at these soil boring locations, then the contaminated soil in this area may not be completely removed due to the proximity of the building and depth of contamination, and an Environmental Land Use Control would be required for this area.
- The schedule above is an estimated schedule and the time frame is dependent on the results from the soil samples collected from the excavated areas. The excavated areas may become larger or smaller based on laboratory results.

One-way traffic

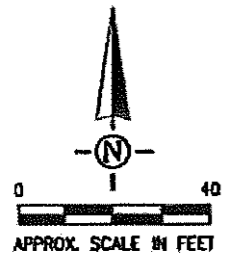


Staging area for clean overburden soils

Construction Fence



Area	Scope
Area #1	Remove 12.5' of overburden, stockpile (438 yd <sup>3</sup> ) Excavate from 12.5'-23' contaminated (350 yd <sup>3</sup> )
Area #3	Remove 20' of overburden, stockpile (1,167 yd <sup>3</sup> ) Excavate from 20'-30' contaminated (583 yd <sup>3</sup> )
Area #2	Remove 7.5' of overburden, stockpile (146 yd <sup>3</sup> ) Excavate from 7.5'-27.5' contaminated (388 yd <sup>3</sup> )
Area #4	Remove 25' of overburden, stockpile (579 yd <sup>3</sup> ) Excavate from 25'-30' (116 yd <sup>3</sup> ) contaminated



ALL MAP LOCATIONS ARE APPROXIMATE

LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	CROSS SECTION
	EXCAVATION AREA
	COOK COUNTY HAA AREA

**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 118  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streamer, IL 61364

**SITE MAP**  
 BOI, LLC  
 1195 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 3/12/2018  
 DRAWING FILE: MD14-170

**EXHIBIT C-1**

062S0008202702 FROM 60563

US POSTAGE \$7.41 2 OZ FIRST-CLASS FLATS RATE

stamp.com 08/09/2018

1

USPS FIRST CLASS MAIL®

TriCore Environmental, LLC  
2368 Corporate Lane, Suite 116  
Naperville IL 60563

R004

SHIP TO:

09/06/18

NIXIE 604995004-1N

RETURN TO SENDER UNCLAIMED  
UNABLE TO FORWARD  
RETURN TO SENDER

8-27-18 Return

8/27/18

7014 0510 0002 2842 8321

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Yanni Karahalios  
TEK, Inc.  
10133 Parkview Drive  
Palos Park, IL 60464

2. Article Number  
(Transfer from service label)

7014 0510 0002 2842 8321

COMPLETE THIS SECTION ON DELIVERY

A. Signature  Addressee

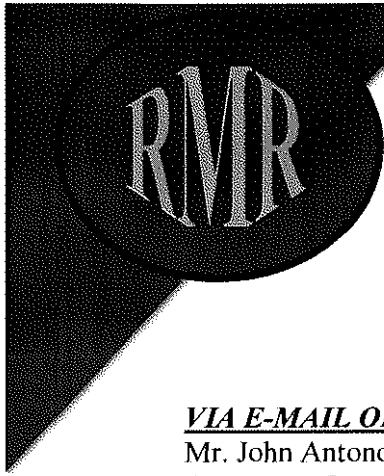
B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1?  Yes  
If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail®  Priority Mail Express™  
 Registered  Return Receipt for Merchandise  
 Insured Mail  Collect on Delivery

4. Restricted Delivery? (Extra Fee)  Yes

**September 25, 2018**



Electronic Filing: Received, Clerk's Office 03/23/2021  
Robert M. Riffle, Esq. ♦ 133A S. Main Street, Morton, IL 61550  
(309) 321-8365 (309) 321-8460 (Facsimile)  
[rriffle@rmrenterprises.net](mailto:rriffle@rmrenterprises.net)

---

September 25, 2018

**FOR SETTLEMENT PURPOSES ONLY**

**VIA E-MAIL ONLY**

Mr. John Antonopoulos  
Attorney at Law  
15419 E. 127<sup>th</sup> St. #100  
Lemont, IL 60439

Re: Lemont Property

Dear John:

Thank you for your ongoing cooperation and courtesies in connection with the above-referenced matter. As I previously informed you, there are three primary routes which this matter can now take, as outlined below.

**Option 1. ELUC/NFR/MUTUAL COOPERATION.**

If your client signs the requested Environmental Land Use Control ("ELUC") Agreement, as previously forwarded, and as attached, my client's environmental engineer is confident that the Illinois Environmental Protection Agency ("IEPA") will issue a No Further Remediation ("NFR") letter, without requiring any further remediation, including actions on your client's property. The sole exception may be the need for very minimal additional sampling on your client's property, which can be accomplished with negligible disruption.

My client is willing to complete Option 1 at its sole cost and expense, and your client will substantially benefit. My client will also reimburse your client for up to \$2,000 in actual out of pocket costs (inclusive of attorneys' and environmental consultant's fees).

**Option 2. NEIGHBORING LANDOWNER REFUSAL TO COOPERATE/FAILURE TO PROVIDE ACCESS.**

If your client fails/refuses to execute the ELUC, and fails/refuses to provide access for my client to perform remediation, we will seek "closure" and NFR status (of my client's property solely) based on neighboring landowner refusal. By statute and regulation (see Ill.Amin.Code §§734.350 and 734.345(b) and Section 22.2(c) of the Illinois Environmental Protection Act), the NFR will be issued, but will not encompass your client's property.

**Option 3. NEIGHBORING LANDOWNER REQUIRING REMEDIATION AND ALLOWING FULL ACCESS.**

If your client allows full access to its property, and at your client's insistence, my client will, through its environmental engineering firm and its contractors, undertake an active "Corrective Action Plan" ("CAP"), which will entail a fairly substantial excavation on your

client's property. Renderings depicting the anticipated scope of that active remediation are attached for your reference.

Reasonable efforts will be made to minimize disruption to your client's tenant. However, substantial disruption would be unavoidable and inevitable. There is no guarantee regarding either the ultimate scope of remediation, or, perhaps more importantly, the timetable for completing the remediation, due to regulatory requirements and circumstances beyond the control of my client and its environmental engineers.

### CONCLUSION

Our strong preference, of course, is Option 1.

That option will benefit your client in the following three (3) ways:

- a. Issuance of No Further Remediation Letter.
- b. No Disruption of Walgreens Tenant.
- c. \$2,000 Expense Reimbursement.

Option 2 lacks the benefits of items a and c above for your client.

Option 3 lacks the benefits of Items b and c above for your client, and most likely will result in significant unreimbursed losses to your client when the operations of Walgreens are either shut down or dramatically curtailed during the course of active remediation.

Under applicable law, my client has no exposure to a lawsuit from a neighboring landowner claiming damages from contamination, because my client did not operate the underground storage tanks from which petroleum contamination emanated, and did not own the property when the contamination occurred. Under any and all scenarios, the entire additional remediation cost (if any), and the environmental engineer costs associated with the NFR process, will be fully reimbursed to my client by the Illinois Leaking Underground Storage Tank Fund, as the site has been determined eligible, and the deductible has already been paid.

We are hopeful that your client will agree to Option 1, as that is, in our view, the vastly superior alternative for both of our respective clients. As discussed, time is of the essence. I look forward to hearing from you.

Very truly yours,  
*ROBERT M. RIFFLE*  
Robert M. Riffle

RMR:tlj

Attachment

cc: Mr. Steve Broadus  
Mr. Marcos Czako



January 17, 2018

**VIA USPS PRIORITY MAIL  
WITH DELIVERY CONFIRMATION**

Mr. Tom Karahalios  
TCK, Inc.  
10133 Parkview Drive  
Palos Park, Illinois 60464

RE: Environmental Land Use Control  
15575 E. 127<sup>th</sup> Street  
Lemont, Illinois 60439

Dear Mr. Karahalios:

TriCore Environmental, LLC, on behalf of BOI, LLC, owner of the property located at 1196 State Street in Lemont, is performing an environmental response action at the former gasoline retail station as a result of a release of gasoline and diesel fuel on the property.

TriCore is requesting your review and execution of the attached Environmental Land Use Control (ELUC) so that a No Further Remediation (NFR) letter can be obtained for the BOI, LLC property. The conditions of the ELUC are included within Section Three of the ELUC. The NFR letter, once issued for the BOI, LLC property, will also benefit your property since any record search performed by an interested party would see that all environmental risks adjacent to your site have been addressed.

If you agree to the ELUC, please sign and have notarized and return the ELUC to BOI, LLC in the included pre-stamped envelope.

If you should have any questions concerning this request or require additional information, please contact the undersigned at (630) 520-9973 ext. 2 or by email at [marcos.czako@tricoreweb.com](mailto:marcos.czako@tricoreweb.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Marcos Czako".

Marcos I. Czako, P.G.  
Senior Project Manager

A handwritten signature in black ink, appearing to read "Shawn Rodeck".

Shawn Rodeck, P.E.  
President

Attachments





I, TCK, Inc., owner of the property located at 15575 E. 127<sup>th</sup> Street, Lemont, Illinois, assert the following:

- I approve of the Environmental Land Use Control (ELUC) and the signed and notarized original is attached.
- I do not approve of the ELUC and request that a remediation plan be developed for my property.

Mail to:  
Marcos I. Czakó, P.G.  
TriCore Environmental, LLC  
2368 Corporate Lane, Suite 116  
Naperville, IL 60563

PREPARED BY:

Name: TriCore Environmental, LLC

Address: 2368 Corporate Lane, Suite 116  
Naperville, IL 60563

RETURN TO:

Name: BOI, LLC

Address: 201 Danny's Drive, Suite 5, Streator, Illinois 61364

**THE ABOVE SPACE FOR RECORDER'S OFFICE**

**Model Environmental Land Use Control**

THIS ENVIRONMENTAL LAND USE CONTROL ("ELUC"), is made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by TCK, Inc., ("Property Owner") of the real property located at the common address 15575 E. 127<sup>th</sup> Street, Lemont, Illinois ("Property").

WHEREAS, 415 ILCS 5/58.17 and 35 Ill. Adm. Code 742 provide for the use of an ELUC as an institutional control in order to impose land use limitations or requirements related to environmental contamination so that persons conducting remediation can obtain a No Further Remediation determination from the Illinois Environmental Protection Agency ("IEPA"). The reason for an ELUC is to ensure protection of human health and the environment. The limitations and requirements contained herein are necessary in order to protect against exposure to contaminated soil or groundwater, or both, that may be present on the property as a result of a historic releases of gasoline and diesel fuel. Under 35 Ill. Adm. Code 742, the use of risk-based, site-specific remediation objectives may require the use of an ELUC on real property, and the ELUC may apply to certain physical features (e.g., engineered barriers, monitoring wells, caps, etc.).

WHEREAS, BOI, LLC, intends to request risk-based, site specific soil and groundwater remediation objectives from IEPA under 35 Ill. Adm. Code 742 to obtain risk-based closure of the site, identified by Bureau of Land 0314625010, utilizing an ELUC.

NOW, THEREFORE, the recitals set forth above are incorporated by reference as if fully set forth herein, and the Property Owner agrees as follows:

Section One. Property Owner does hereby establish an ELUC on the real estate, situated in the County of Cook, State of Illinois and further described in Exhibit A attached hereto and incorporated herein by reference (the "Property").

Attached as Exhibit B are site maps that show the legal boundary of the Property, any physical features to which the ELUC applies, the horizontal and vertical extent of the

contaminants of concern above the applicable remediation objectives for soil or groundwater or both, and the nature, location of the source, and direction of movement of the contaminants of concern, as required under 35 Ill. Adm. Code 742.

Section Two. Property Owner represents and warrants **it** is the current owner of the Property and has the authority to record this ELUC on the chain of title for the Property with the Office of the Recorder or Registrar of Titles in Cook County, Illinois.

Section Three. The Property Owner hereby agrees, for **itself**, and **its** heirs, grantees, successors, assigns, transferees and any other owner, occupant, lessee, possessor or user of the Property or the holder of any portion thereof or interest therein, that the top 10 feet of soil under the Property for the area illustrated in Exhibit B-1 shall remain in place, or if any of these items are removed, excavated, or disturbed, that similar materials (i.e. clean soil or clean fill material) be put in their place so there is a minimum of 10 feet of clean soil or clean fill material above the contaminated soil illustrated in Exhibit B-2A. Additionally, the groundwater under the Property shall not be used as a potable supply of water, and any contaminated groundwater or soil that is removed, excavated, or disturbed from the Property described in Exhibit A herein must be handled in accordance with all applicable laws and regulations.

Section Four. This ELUC is binding on the Property Owner, **its** heirs, grantees, successors, assigns, transferees and any other owner, occupant, lessee, possessor or user of the Property or the holder of any portion thereof or interest therein. This ELUC shall apply in perpetuity against the Property and shall not be released until the IEPA determines there is no longer a need for this ELUC as an institutional control; until the IEPA, upon written request, issues to the site that received the no further remediation determination a new no further remediation determination approving modification or removal of the limitation(s) or requirement(s); the new no further remediation determination is filed on the chain of title of the site subject to the no further remediation determination; and until a release or modification of the land use limitation or requirement is filed on the chain of title for the Property.

Section Five. Information regarding the remediation performed on the Property may be obtained from the IEPA through a request under the Freedom of Information Act (5 ILCS 140) and rules promulgated thereunder by providing the IEPA with the 10-digit LPC or identification number listed above.

Section Six. The effective date of this ELUC shall be the date that it is officially recorded in the chain of title for the Property to which the ELUC applies.

WITNESS the following signatures:

Property Owner TCK, Inc.

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

STATE OF ILLINOIS        )  
  ) SS:  
COUNTY OF                )

I, \_\_\_\_\_ the undersigned, a Notary Public for said County and State, DO HEREBY CERTIFY, that TCK, Inc., personally known to me to be the Property Owner(s) of 15575 E. 127<sup>th</sup> Street, Lemont, IL and personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that in said capacities they signed and delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and official seal, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Notary Public

**PIN NO. 22-29-402-027-0000**  
**22-29-402-028-0000**

**Exhibit A**

The subject property is located in the Village of Lemont, Cook County, State of Illinois, commonly known as 15575 E. 127<sup>th</sup> Street and more particularly described as:

Common Address: 15575 127<sup>th</sup> Street, Lemont, Illinois

Legal Description:

Parcel 1: Lot 1 (Except the East 100.00 Feet), Lot 2 (Except the East 100.00 Feet) and Lot 3 (Except the East 100.00 Feet) in Meyers Grove Commercial Park, Being a Subdivision of Part of the West  $\frac{1}{2}$  of the Southeast  $\frac{1}{4}$  of Section 29, Township 37 North, Range 11 East of the Third Principal Meridian, Excepting therefrom that part taken for Roadway Purposes, in Cook County, Illinois.

PIN No: 22-29-402-027-0000

Parcel 2: The East 100.00 Feet of Lots 1, 2, and 3 in Meyers Grove Commercial Park, being a Subdivision of Part of the West Half of the Southeast  $\frac{1}{4}$  of Section 29, Township 37 North, Range 11 East of the Third Principal Meridian, in Cook County, Illinois

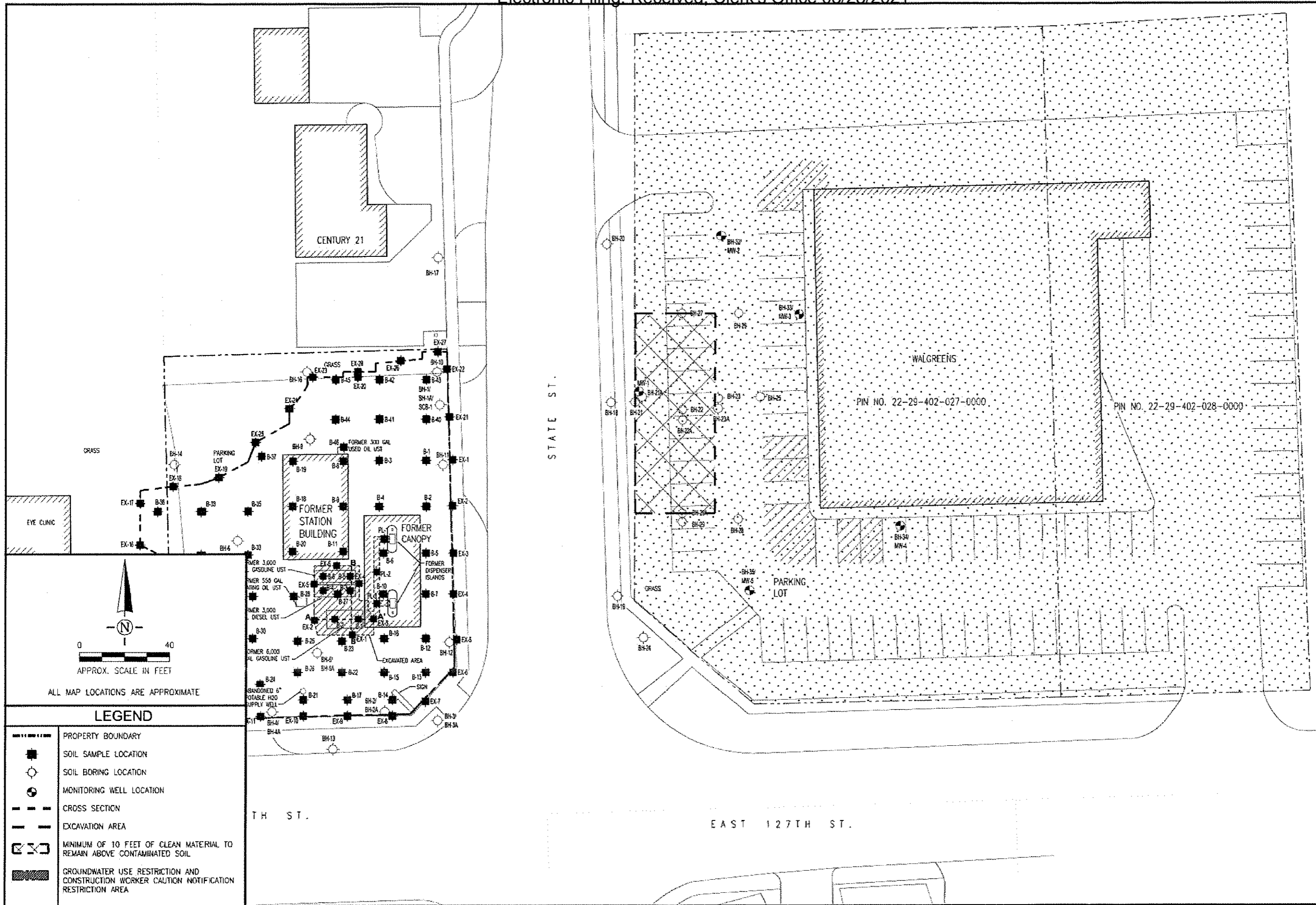
PIN No: 22-29-402-028-0000

PIN NO. 22-29-402-027-0000  
22-29-402-028-0000

**Exhibit B**

IN ACCORDANCE WITH SECTION 742.1010(D)(8)(A)-(D), PROVIDE ALL THE FOLLOWING ELEMENTS. ATTACH SEPARATE SHEETS, LABELED AS EXHIBIT B, WHERE NECESSARY.

- (A) A scaled map showing the legal boundary of the property to which the ELUC applies. **(Exhibit B-1)**
- (B) Scaled maps showing the horizontal and vertical extent of contaminants of concern above the applicable remediation objectives for soil and groundwater to which the ELUC applies. **(Exhibits B-2A and B-2B)**
- (C) Scaled maps showing the physical features to which an ELUC applies (e.g., engineered barriers, monitoring wells, caps, etc.). **(Exhibit B-1)**
- (D) Scaled maps showing the nature, location of the source, and direction of movement of the contaminants of concern. **(Exhibit B-2A and B-2B)**



**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

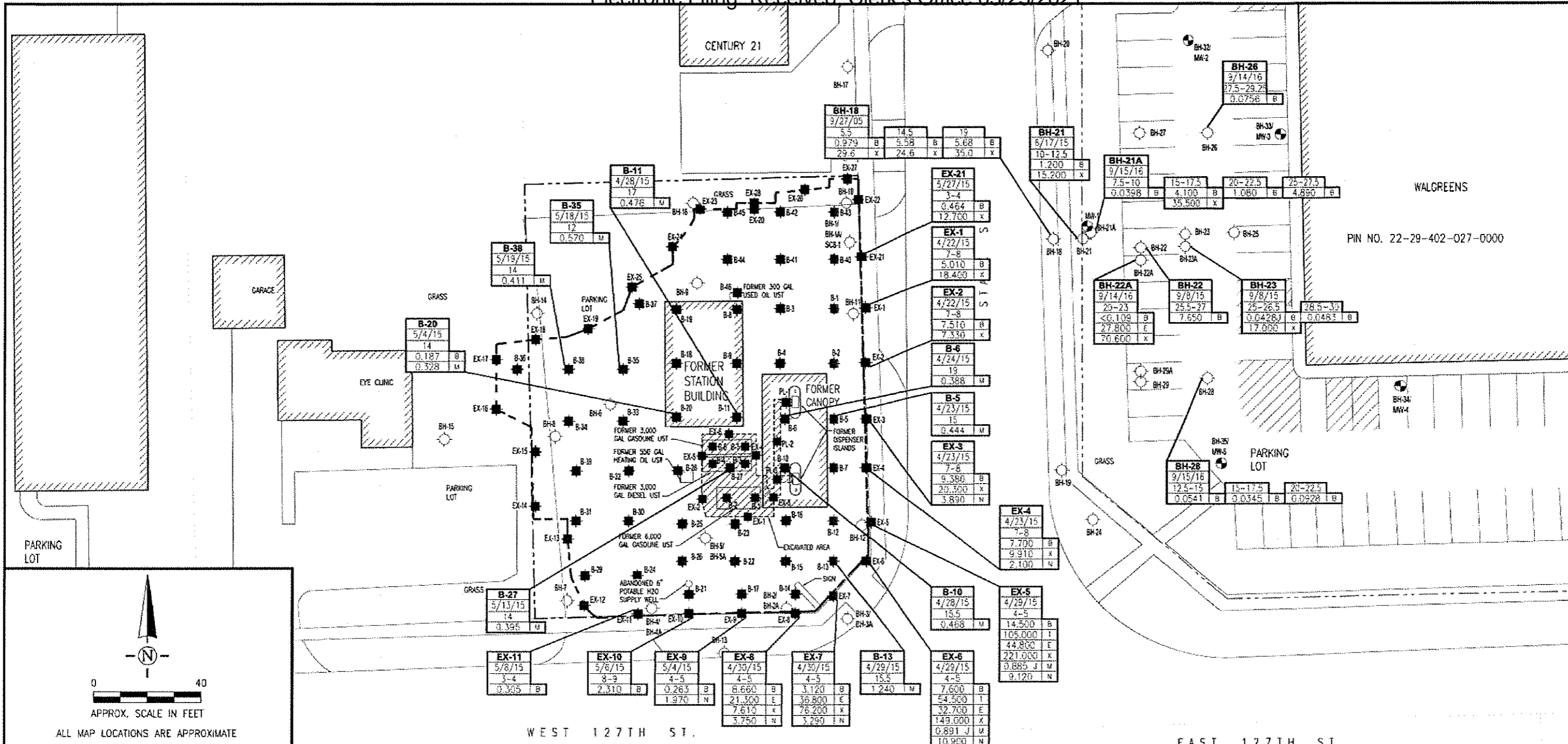
**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**ELUC AREA**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 1/16/2018  
 DRAWING FILE: MD14-170

**EXHIBIT B-1**

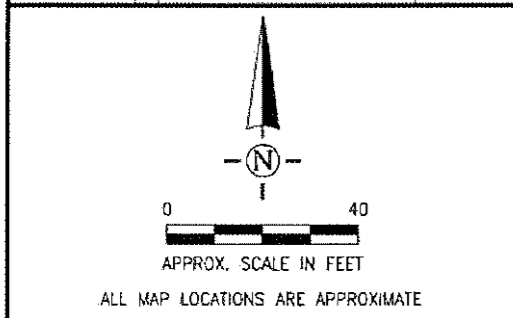




**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Donny's Drive  
 Suite 5  
 Streator, IL 61364

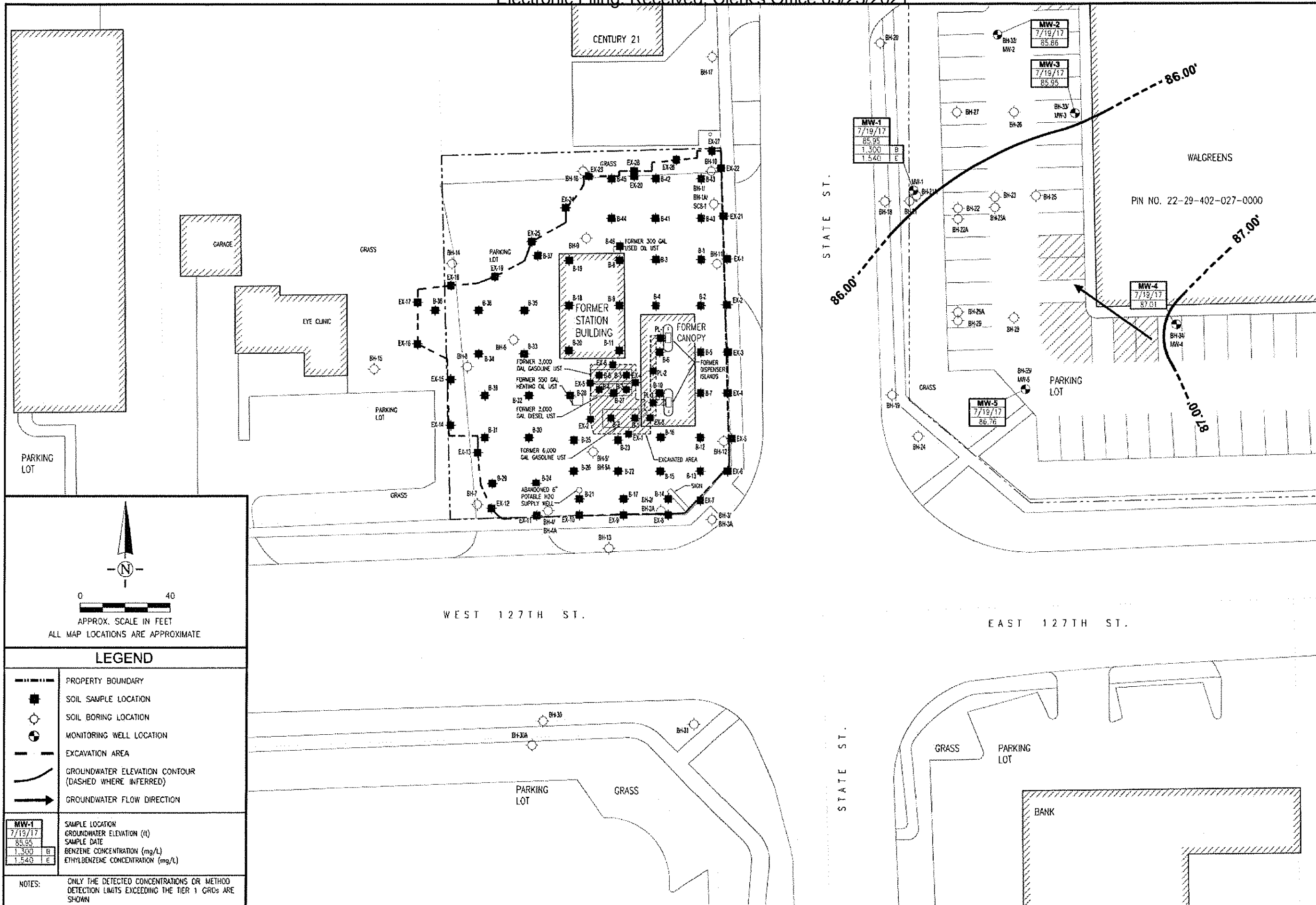
**SOIL ANALYTICAL RESULTS**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439



LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	EXCAVATION AREA
<b>EX-5</b>	SAMPLE LOCATION
4/29/15	SAMPLE DATE
4-5	SAMPLE DEPTH (ft)
14.500 B	BENZENE CONCENTRATION (mg/kg)
105.000 T	TOLUENE CONCENTRATION (mg/kg)
44.800 E	ETHYLBENZENE CONCENTRATION (mg/kg)
221.000 X	TOTAL XYLENES CONCENTRATION (mg/kg)
0.885 J M	METHYL TERT BUTYL ETHER CONCENTRATION (mg/kg)
<0.279 BaP	BENZO (a) PYRENE CONCENTRATION (mg/kg)
<0.287 B	DIBENZO (a,h) ANTHRACENE CONCENTRATION (mg/kg)
9.120 N	NAPHTHALENE CONCENTRATION (mg/kg)
<0.002	CONCENTRATION LESS THAN LABORATORY REPORTING OR METHOD DETECTION LIMIT
NOTES:	ONLY THE DETECTED CONCENTRATIONS OR METHOD DETECTION LIMITS EXCEEDING THE TIER 1 SROs ARE SHOWN

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 1/16/2018  
 DRAWING FILE: MD14-170

**EXHIBIT B-2A**



**LEGEND**

- PROPERTY BOUNDARY
- SOIL SAMPLE LOCATION
- SOIL BORING LOCATION
- ⊕ MONITORING WELL LOCATION
- - - EXCAVATION AREA
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION

<b>MW-1</b>	SAMPLE LOCATION
7/19/17	GROUNDWATER ELEVATION (ft)
85.95	SAMPLE DATE
1.300 B	BENZENE CONCENTRATION (mg/L)
1.540 E	ETHYLBENZENE CONCENTRATION (mg/L)

NOTES: ONLY THE DETECTED CONCENTRATIONS OR METHOD DETECTION LIMITS EXCEEDING THE TIER 1 GROs ARE SHOWN

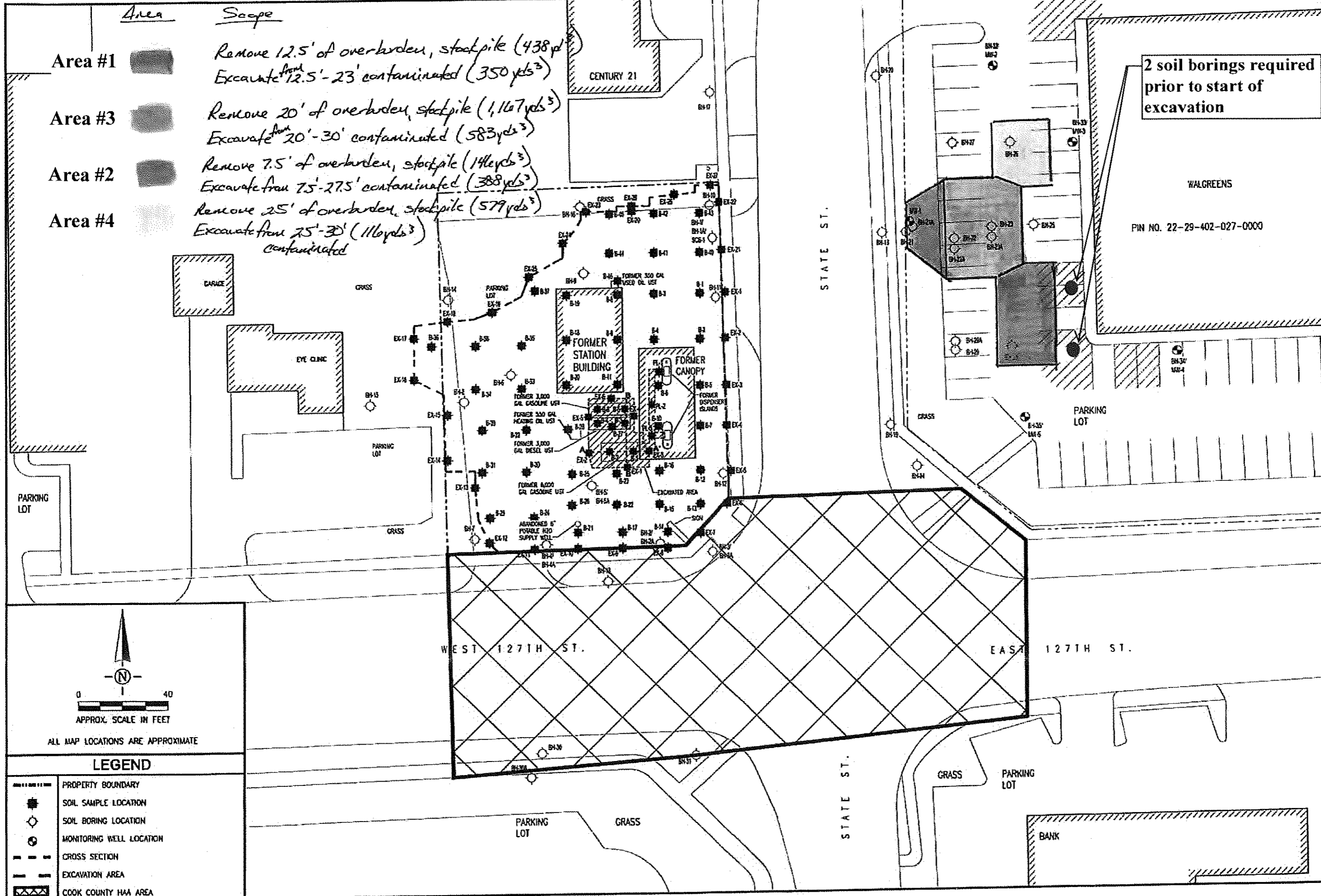
**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Donny's Drive  
 Suite 5  
 Streator, IL 61364

**GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 1/16/2018  
 DRAWING FILE: MD14-170

**EXHIBIT B-2B**



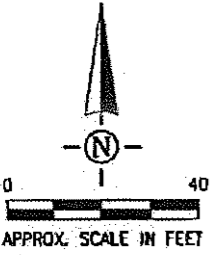
Area	Scope
Area #1	Remove 12.5' of overburden, stockpile (438 yds <sup>3</sup> ) Excavate from 12.5'-23' contaminated (350 yds <sup>3</sup> )
Area #3	Remove 20' of overburden, stockpile (1,167 yds <sup>3</sup> ) Excavate from 20'-30' contaminated (583 yds <sup>3</sup> )
Area #2	Remove 7.5' of overburden, stockpile (144 yds <sup>3</sup> ) Excavate from 7.5'-27.5' contaminated (388 yds <sup>3</sup> )
Area #4	Remove 25' of overburden, stockpile (579 yds <sup>3</sup> ) Excavate from 25'-30' (116 yds <sup>3</sup> ) contaminated

2 soil borings required prior to start of excavation

**Tricore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Sireator, IL 61364

**SITE MAP**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439



ALL MAP LOCATIONS ARE APPROXIMATE

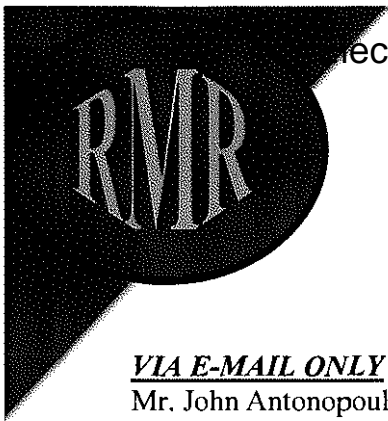
**LEGEND**

	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	CROSS SECTION
	EXCAVATION AREA
	COOK COUNTY HAA AREA

DRAWN BY:	SAA
APPROVED BY:	MIC
SCALE:	1" = 40'
DATE:	3/12/2018
DRAWING FILE:	MD14-170

**EXHIBIT C-1**

**October 19, 2018**



Electronic Filing: Received, Clerk's Office 03/23/2021

Robert M. Riffle, Esq. ♦ 133A S. Main Street, Morton, IL 61550

(309) 321-8365

(309) 321-8460 (Facsimile)

[rriffle@rmrenterprises.net](mailto:rriffle@rmrenterprises.net)

October 19, 2018

**FOR SETTLEMENT PURPOSES ONLY**

**VIA E-MAIL ONLY**

Mr. John Antonopoulos  
Attorney at Law  
15419 E. 127<sup>th</sup> St. #100  
Lemont, IL 60439

Re: IEMA Incident No. 942117 & 20141348  
LPC Number 0314625010  
15575 E. 127<sup>th</sup> Street  
Lemont, IL 60439

Dear John:

As you know, my client, BOI, LLC, has been attempting to reach an agreement with your client with respect to the above-referenced matter for a very long time. If we cannot reach an agreement by October 31, 2018, we will be contacting the Illinois Environmental Protection Agency Project Manager and petitioning for closure of the above-referenced Incident without your client's involvement, based on refusal to provide access. By statute and regulation (see Ill.Admin.Code §§734.350 and 734.345(b) and Section 22.2(c) of the Illinois Environmental Protection Act), the NFR will be issued, but will not encompass your client's property.

As previously indicated on numerous prior occasions, my client, and their environmental contractor, are ready, willing and able to fully remediate your client's property, at no cost to your client for the remediation. As we have discussed, it is our view that such active remediation is both unnecessary and most likely not in your client's best interests. Nevertheless, we hereby reconfirm the prior alternative offers set forth in my September 25, 2018 letter.

We understand that this is a complicated matter. However, your client and his representatives have been apprised of the alternatives for many months now, and it is far past time to move forward with one of the three alternatives.

Once again, we strongly prefer Option 1 (the Mutual Cooperation/ELUC proposal), but are prepared to proceed with Option 2 or 3. The choice is up to your client until October 31, but we will proceed unilaterally after that date.

Additional copies of the prior ELUC package and related communications are attached for your reference.

Thank you for your ongoing cooperation and professional courtesies.

Very truly yours,  
**ROBERT M. RIFFLE**  
Robert M. Riffle

RMR:tj

Attachments

cc: Mr. Steve Broadus  
Mr. Marcos Czako

**November 28, 2018**

**AUTHORIZATION, ACKNOWLEDGMENT AND  
INDEMNIFICATION FOR GROUND PENETRATION AND  
REMEDICATION WORK AND TEMPORARY ACCESS AGREEMENT**

This Authorization, Acknowledgment, Indemnification For Ground Penetration and Remediation Work and Temporary Access Agreement ("Agreement") was entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2018, by and between BOI, LLC ("Owner"), and T.C.K., INC. ("TCK").

WHEREAS, Owner is pursuing corrective action of property located at the address commonly known as 1196 State Street, Lemont, Illinois (the "Site"), and contamination from the Site has impacted property owned by TCK at the address commonly known as 15575 E. 127<sup>th</sup> Street, Lemont, Illinois ("TCK Property"); and

WHEREAS, Owner desires access to the TCK Property for the purpose of performing remediation on the TCK Property to take all steps necessary to have the soils impacted by contamination (and any other material or objects encountered or found during the excavation work) on the TCK Property removed from the TCK Property in the areas as it is illustrated in the standard portions on the map of the TCK Property set forth on Exhibit A ("the Work"). In the event additional contamination is discovered on the TCK Property after the completion of the remediation activities contemplated herein, the Owner will perform further remediation of the TCK Property as approved by TCK. All Work shall be performed in a timely manner, and the Owner shall use its best efforts to maintain an agreed upon schedule.

NOW, THEREFORE, TCK grants to Owner permission to enter onto the TCK Property to perform the Work in accordance with the following terms and conditions:

1. The Recitals are incorporated herein by this reference.
2. Owner shall take all steps necessary to have the soils impacted by contaminants and other materials and objects on the TCK Property removed (by a "dig and haul" method) within six (6) weeks of the execution of this Agreement and shall replace the space occupied by excavated soil with clean, compacted fill. Promptly following completion of any Work imposed upon Owner under this Agreement, Owner shall obtain and deliver to TCK an environmental report in form and substance acceptable to TCK from an environmental consultant, stating that all required Work has been taken, and that upon completion of such Work, the TCK Property is free of all soils impacted by contamination. Owner shall obtain any and all permits that may be required for any activities it conducts within the scope of this Agreement. Prior to entry, the Owner shall provide TCK at least seven (7) days advance notice of the proposed start of activities on the TCK Property, the schedule for completion of the activities on the TCK Property, the names, addresses and telephone numbers of all contractors and subcontractors who will be performing activities on the TCK Property and certificates of insurance from the Owner's contractors who will be performing activities on the TCK Property.

Owner and its contractors and agents shall not unreasonably interfere with TCK or its tenant's operations during the course of conducting the Work or other operations authorized by

this Agreement. Owner shall bear all costs and expenses associated with the Work and chemical analysis conducted under the Agreement.

3. Owner shall at all times conduct the Work in such a manner as to minimize hazards to vehicular and pedestrian traffic and to those using the TCK Property. Before the Work begins, Owner shall provide TCK with a Traffic Control Plan that is acceptable to TCK. Owner agrees to assume all health and safety risks associated directly or indirectly with the Work. All signs, barricades, flaggers, etc., required for traffic control shall be furnished by Owner. No revisions or additions shall be made to the proposed Work on the TCK Property without the written permission of TCK.

4. Owner shall consult with the local utility companies to determine the existence and location of electrical, gas, water, cable and telephone service on the TCK Property. Owner shall be solely responsible for selecting the location for the ground penetration work. Owner shall indemnify and hold TCK, its officers, director's, servants, employees, agents and successors and assigns (collectively, "TCK Affiliates") harmless from any and all liability that may be incurred by damage or repair to utilities caused by the acts of Owner , its employees, servants, subcontractors and agents.

5. Owner shall not trim, cut or in any way disturb any trees or shrubbery on the TCK Property without the written approval of TCK. Owner will not do or permit any act or thing which may impair the value of the TCK Property or that materially increases the dangers or poses an unreasonable risk of harm to persons on or off the TCK Property arising from activities thereon, or that constitutes a public or private nuisance or waste to the TCK Property or any part thereof. Neither Owner nor its contractors shall represent or hold themselves out as employees or agents of TCK.

6. In the course of performing the Work, Owner shall not use the TCK Property for any activities involving the use, generation, treatment, storage or disposal of any hazardous or toxic chemical, material, substance or waste. Owner shall not conduct any activity on the TCK Property or use the TCK Property in any manner (i) which would cause the TCK Property to become a hazardous waste treatment, storage or disposal facility, (ii) so as to cause a release or threat of a release of hazardous waste from the TCK Property, or (iii) so as to cause a discharge of pollutants or effluents into any water source or system.

7. In consideration for TCK's agreement to permit Owner to enter the TCK Property to perform the Work contemplated by this Agreement, Owner agrees as follows:

A. Owner, its successors and assigns shall defend, indemnify and hold harmless TCK and TCK Affiliates and each of them, from and against any and all civil liabilities, actions, responsibilities, obligations, losses, damages, and claims, and all costs and expenses, including but not limited to attorney's fees and expenses (collectively, "Losses") pursuant to any federal, state and local laws (including the common law), statutes, ordinances, rules, regulations and other requirements relating to or which TCK and/or TCK Affiliates may incur from or on account of (either directly or indirectly) the Work performed hereunder, including but not limited to any Losses incurred which are based on tort law, wrongful death, and/or a personal injury



claim, suit or action and/or any Losses relating to environmental investigation, cleanup, or abatement, whether asserted or unasserted, direct or indirect, existing or inchoate, known or unknown, having arisen or to arise in the future, and in any manner whatsoever incurred relating to (i) any condition of the TCK Property (including the groundwater thereunder) or the existence of Hazardous Substances (herein defined as that term is defined in 42 U.S.C. §9601(14)), Hazardous Waste (herein defined as that term is defined in 42 U.S.C. §6903(5)) or Petroleum (herein defined as that term is defined in 42 U.S.C. §6991(8)), on or emanating from the TCK Property (including the groundwater thereunder); (ii) the violation or claimed violation on the TCK Property (including the groundwater thereunder) of any environmental law or regulation (including civil penalties sought to be imposed by governmental authorities for such violations); (iii) any condition of any property (including groundwater) or surface water alleged to have been caused by the migration, transportation, release (as defined by 42 U.S.C. §9601(22)) or threatened release (as defined by 42 U.S.C. §9601 (22)) of Hazardous Substances, Hazardous Waste, or Petroleum on or from the TCK Property (including the groundwater thereunder); and the imposition of any lien for the recovery of any costs related to the migration, release, or threatened release of Hazardous Substances, Hazardous Waste, or Petroleum (or allegations of the same) on or from the TCK Property (including the groundwater thereunder).

B. Owner and its successors and assigns hereby agree to release, waive, covenant not to sue and forever discharge TCK and TCK Affiliates, and each of them, for any claim, suit, or action, whether or not well founded in fact or in law, which Owner, its contractors, agents or employees have, or may have, arising out of any evaluation, examination, testing, sampling or environmental appraisal or the Work conducted by Owner, its contractors, agents or employees at or on the TCK Property. Notwithstanding any other provision of this Agreement, as between TCK and TCK Affiliates on one hand, and Owner, on the other hand, under no circumstances shall TCK and TCK Affiliates be liable for Losses arising from any condition on the TCK Property or Hazardous Substances, Hazardous Waste, or Petroleum emanating from or contained in the TCK Property (including the groundwater thereunder), and the duty to defend, hold harmless and indemnify under this Paragraph 7 shall apply to all such Losses.

C. Owner shall assume the expense of defending all suits, administrative proceedings and disputes of any description with all persons, entities, political subdivisions or government agencies arising out of the matters to be indemnified under this Agreement. In the event that TCK or any of TCK Affiliates is/are named as a defendant(s) in any lawsuit arising out of the matters to be indemnified under this Agreement, TCK and/or any of TCK Affiliates shall have the right to choose the attorney(s) who represent(s) them in said lawsuit, and the costs, expenses and fees associated with said attorney(s) in relation to said lawsuit shall be paid by Owner pursuant to the indemnification provisions herein.

D. In any pending or threatened litigation, contest, dispute, suit or proceeding (whether instituted by TCK, Owner, or any other party, including any governmental agency charged with enforcement of any hazardous material law) in any way relating to this Agreement and the indemnification described herein, or to enforce the indemnification hereunder or, if TCK has a reasonable basis to believe that a violation of the law exists in regard to the TCK Property, TCK shall have the right to retain counsel and environmental science consultants of its own choice for advice or other representation without affecting or otherwise impairing the indemnification

hereunder and all losses arising from such services shall be payable by Owner within 30 days of demand.

8. Owner shall immediately deliver to TCK any and all records, documents (including writings, drawings, graphs, charts, photographs, phono records, and other data compilations from which information can be obtained, translated, if necessary, through detection devices into reasonably usable form), or reports of any kind (including all written, printed, recorded or graphic matter however produced or reproduced and all copies, drafts and versions thereof not identical in each respect to the original) which relate or refer to the environmental matters and/or conditions associated either directly or indirectly with the TCK Property and/or the Site (including the groundwater thereunder), including but not limited to written reports of a site assessment, environmental audits, soil test reports, water test reports, laboratory analysis and documents, reports or writings relating or referring to the Work.

9. Owner and Owner's agents, contractors, subcontractors and employees shall perform the Work in a workmen-like manner, and shall conduct all Work at the TCK Property in accordance with all applicable federal, state and local laws and regulations, including without limitation Illinois Environmental Protection Agency and federal laws and regulations applicable to all health and safety requirements. Owner shall not take and is not authorized to take any action in the name of or otherwise on behalf of TCK which would violate applicable laws or regulations. Owner shall promptly notify TCK upon discovery of any failure of Owner or its subcontractors to comply with any requirement of the law. The Owner shall defend TCK from all claims, suits and proceedings brought against TCK and which arise or occur by reason of any alleged violation or violations of any applicable law or regulation by Owner or its agents, contractors, subcontractors and employees in its performance of the Work. Owner shall indemnify and hold TCK harmless from liability or penalty imposed by reason of such violation or violations of applicable laws or regulations. Owner and Owner's agents, contractors, subcontractors and employees shall take all reasonable precautions to minimize damage to the TCK Property from the installation of any equipment and the Work on the TCK Property. All of the Owner's contractors, subcontractors and suppliers of materials for Owner and restoration activities shall expressly waive all statutory lien rights against the TCK Property. In the event a lien is filed against the TCK Property relating to the Work or restoration activities by a contractor or subcontractor of the Owner, Owner shall remove or extinguish the lien within thirty (30) days. In the event that any of Owner's contractors or subcontractors provide warranties relating to any of the structures restored, as identified in Exhibit B, such warranties will be assigned and or extended to TCK promptly upon completion of the restoration activities.

Upon completion of the Work, including any post-remediation confirmatory sampling, the Owner shall restore the TCK Property ("restoration activities") disturbed by the Work and remediation activities to equal or better condition than the condition of the TCK Property immediately prior to the commencement of such activities. Each restoration contractor's contract shall identify the sources and types of materials to be used and respective guaranties. The length of the guaranties for materials and workmanship shall be no less than the period of time typically provided for such materials and workmanship. Exhibit B, attached hereto, identifies the items the Owner will restore. In addition, to assess any disturbances to TCK's building, Owner will retain a qualified structural engineer to inspect and assess prior to the

performance of any remediation and restoration activities Owner will perform and after such activities have been completed. All temporary structures, machinery, or equipment, if any, placed upon the TCK Property by the Owner or the Owner's agents, consultants, employees, contractors, or subcontractors shall be removed by the Owner at its expense immediately following completion of the Work and restoration activities. The Utilities will pay for all costs to repair any damage to the TCK Property caused by, or arising from, the remediation or the Owner's restoration activities conducted on the TCK Property or surrounding properties. The Owner shall perform or cause its contractors and subcontractors to perform the restoration activities to TCK's satisfaction, which shall not be unreasonably withheld.

10. Owner shall be solely responsible for the testing, storage, treatment, excavation, transportation and disposal of all material removed from the TCK Property and/or which result from the Work, and Owner shall indemnify and hold TCK and TCK Affiliates, its officers, employees and agents harmless from and against any and all costs and liabilities and Losses relating to such materials. TCK will not be identified at any time, in any place, document, record or manifest as the owner, generator or transporter of materials or soil taken from the TCK Property as a result of the Work. The Owner agrees that it will not object if IEPA is present during the Work, including confirmation sampling of the TCK Property. The Owner also agrees that it will not object if TCK communicates, or meets, with the IEPA regarding the TCK Property.

11. Owner agrees to obtain and furnish at its own expense and shall require all contractors and subcontractors to obtain and furnish insurance policies that are acceptable to TCK, protecting TCK and TCK Affiliates from any and all damages, claims and losses on a primary and noncontributory basis. Owner further agrees to cause Contractual Liability Endorsements to be issued by the insurance companies (and attached to the policies of insurance) to include under the coverage therein extended an obligation on the part of the insurers to insure against Owner's liability hereunder and to identify TCK and TCK Affiliates against Losses, liability, costs, expenses, attorney's fees and court costs. Contractual Liability Endorsements to the policies shall include as named co-insureds TCK and TCK Affiliates. In addition, Certificates of Insurance adding TCK and TCK Affiliates as Additional Insureds on the Owner's and Contractor's Comprehensive General Liability Policy, Pollution Liability, Worker's Compensation, Auto Liability and Professional Errors and Omissions coverages shall be submitted to TCK. All such contracts of insurance shall provide for thirty (30) days advance notice to TCK of cancellation thereof. The Certificate of Insurance and policies and endorsements required hereunder shall be submitted to and approved by TCK before Work is permitted to be started.

12. This Agreement shall enure to the benefit of, and shall be binding upon the heirs, legatees, transferees, assigns, personal representatives, owners, insurers, agents, servants, employees, administrators, executors, representatives and/or successors in interest of any kind whatsoever, of the parties hereto.

13. The obligations of Owner hereunder shall remain in full force and shall not be impaired by: (i) any exercise or non-exercise by any person or entity TCK of any right or

privilege under this Agreement; (ii) any bankruptcy, insolvency, reorganization, composition, adjustment, dissolution, liquidation or other like proceeding relating to Owner.

14. This Agreement may be executed in counterparts, each of which shall constitute an original, but all together shall constitute one and the same Agreement.

15. This Agreement has been made and delivered in Illinois and shall be construed according to and governed by the internal laws of the State of Illinois without regard to its conflict of law rules. In the event any term or provision of this Agreement shall be held illegal, invalid, unenforceable or inoperative as a matter of law, the remaining terms and provisions of this Agreement shall not be affected thereby, but each such term and provision shall be valid and shall remain in full force and effect and to that extent, the provisions hereof are severable. Whenever possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under applicable law.

16. In performing the remediation Work hereunder, it is understood that the Owner is acting as an independent contractor, that its employees, agents and representatives and those of any and all agents, contractors, subcontractors and employees which it retains in the Work hereunder shall not be deemed, for any purpose, to be agents, servants, and/or employees of TCK. The Owner and its agents, contractors, subcontractors and employees shall not represent or hold themselves out as employees or agents of TCK.

17. Owner, its employees, agents, representatives and contractors shall not discuss, offer comment, or opinions concerning any part of the Work or disclose results without the written consent of TCK or as required by law. This requirement shall apply to the Owner with regard to disclosures to members of the general public and the public and private medias.

18. Owner shall not enter into negotiations with any governmental authority or agency to develop variances or revisions to laws or regulations with respect to the Work without TCK's written approval.

19. This Agreement embodies the entire agreement between the parties hereto and supersedes any and all prior agreements and understandings, whether written or oral, and whether formal or informal. In addition, this Agreement embodies and merges the entire understanding between and among the parties hereto, and any and all prior correspondence, conversations, or memoranda relating the subject matter stated herein are being merged herein and replaced hereby. No change hereto shall be effective without the written consent and authorization of all of the parties hereto. In construing this Agreement or determining the rights of the parties hereunder, no party shall be deemed to have drafted or created this Agreement or any portion thereof.

20. Failure of TCK to require performance of any provision of this Agreement shall not affect TCK's right to require full performance thereof at any time thereafter, and the waiver by TCK of a breach of any provision of this Agreement shall not constitute or be deemed a waiver of a similar breach in the future, or any other breach, or nullify the effectiveness of such provisions of this Agreement. The rights and remedies of TCK under this Agreement are

cumulative. The exercise or use of any one or more thereof shall not bar TCK from exercise or use of any other right or remedy provided herein or otherwise provided by law, nor shall exercise or use of any right or remedy by TCK waive any other right or remedy. The parties are aware of 42 U.S.C. §9607(e), and waive any rights they may otherwise have to assert that such statute does not permit, or renders invalid, the waivers or indemnity provisions contained in this Agreement.

Owner's obligations hereunder shall in no way be impaired, reduced or released by reason of TCK omissions or delay to exercise any right described herein or in connection with any notice, demand, warning or claim regarding violations of any law governing the Site and/or the TCK Property.

21. Owner will pay and discharge all reasonable costs, attorney's fees, expenses and losses that shall be made and incurred by TCK in enforcing the covenants, obligations and agreements of this Agreement.

22. The executing representatives of the parties to this Agreement represent and certify that they are fully authorized to enter into the terms and conditions of this Agreement and to execute and legally bind that party to it.

23. TCK retains the right to terminate this Agreement upon 30 days' written notice to Owner.

IN WITNESS WHEREOF, this Agreement has been executed as of the date specified above.

BOI, LLC

T.C.K., INC.

By \_\_\_\_\_  
(Printed) \_\_\_\_\_  
Its: \_\_\_\_\_

By: \_\_\_\_\_  
(Printed) \_\_\_\_\_  
Its: \_\_\_\_\_

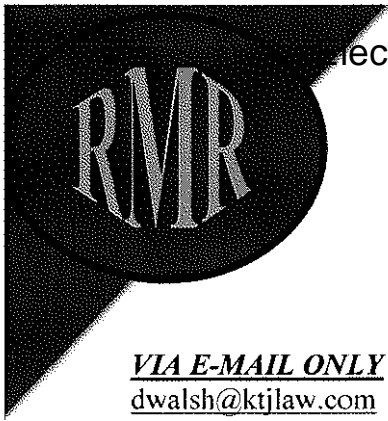
ATTEST:

ATTEST:

\_\_\_\_\_  
Its: \_\_\_\_\_

\_\_\_\_\_  
Its: \_\_\_\_\_

**November 30, 2018**



Electronic Filing: Received, Clerk's Office 03/23/2021  
Robert M. Riffle, Esq. ♦ 133A S. Main Street, Morton, IL 61550  
(309) 321-8365 (309) 321-8460 (Facsimile)  
[rriffle@rmreenterprises.net](mailto:rriffle@rmreenterprises.net)

---

November 30, 2018

**VIA E-MAIL ONLY**

[dwalsh@ktjlaw.com](mailto:dwalsh@ktjlaw.com)

Mr. Dennis Walsh  
Klein, Thorpe & Jenkins, Ltd.  
20 N. Wacker Drive, Ste 1660  
Chicago, IL 60606

Re: IEMA Incident No. 942117 & 20141348  
LPC Number 0314625010  
15575 E. 127<sup>th</sup> Street  
Lemont, IL 60439

Dear Dennis:

Thank you for forwarding the Access Agreement. We will be reviewing that document as soon as possible. In the interim, could you please forward to me any and all documents in your client's possession or control relating to the condition of its property? We are particularly interested in any due diligence materials granted in the course of the Walgreens deal.

Thank you for your ongoing cooperation and professional courtesies.

Very truly yours,  
**ROBERT M. RIFFLE**  
Robert M. Riffle

RMR:tlj

Attachments

cc: Mr. Steve Broadus  
Mr. Marcos Czako

**February 8, 2019**





Electronic Filing: Received, Clerk's Office 03/23/2021  
Robert M. Riffle, Esq. ♦ 133A S. Main Street, Morton, IL 61550  
(309) 321-8365 (309) 321-8460 (Facsimile)  
[rriffle@rmrenterprises.net](mailto:rriffle@rmrenterprises.net)

---

February 8, 2019

**FOR SETTLEMENT PURPOSES ONLY**

**VIA E-MAIL ONLY**

[dwalsh@ktjlaw.com](mailto:dwalsh@ktjlaw.com)

Mr. Dennis Walsh

Klein, Thorpe & Jenkins, Ltd.

20 N. Wacker Drive, Ste 1660

Chicago, IL 60606

Re: IEMA Incident No. 942117 & 20141348

LPC Number 0314625010

15575 E. 127<sup>th</sup> Street

Lemont, IL 60439

Dear Dennis:

Attached please find three drawings prepared by BOI, LLC's Environmental Engineers, TriCore Environmental, LLC.

A review of these materials makes it obvious that attempts to remediate the residual contamination on your client's property would be futile. As depicted in the drawings, substantial contamination would be left along the entire West and East sides of the excavation. By our Environmental Engineer's calculations, pursuant to an IEPA compliant excavation and removal operation, approximately 1437 cubic yards of contaminated material would be removed, and approximately 2822 cubic yards of contaminated material would remain in place. By our calculations, the percentage of contaminated material which would be removed from your client's property would only be approximately 33%.

The only way to achieve a higher "yield rate" would be to demolish the building and State Street.

The benefit to your client, your client's tenant, Walgreens, and my client from such a useless act, would be negligible, and the cost and harm to your client and Walgreens would be tremendous. Such an excavation would take a very long period of time to complete, and the disruption would be very significant.

My client acquired the property after the USTs had been taken out of service. We are confident that my client has no exposure to a lawsuit from a neighboring landowner claiming damages from contamination, because my client never operated the underground storage tanks from which petroleum contamination emanated, and did not own the property when the contamination occurred. Under any and all scenarios, the entire additional remediation cost (if any), and the environmental engineering costs associated with the NFR process, will be fully reimbursed to my client by the Illinois Leaking Underground Storage Tank Fund, as the site has been determined to be LUST Fund eligible, and the deductible has already been paid.

I hope that with these drawings in hand, you will agree that the ELUC previously proposed would be, by far, the optimal course of action for all parties to pursue. My client is willing to honor its prior offer as conveyed to Mr. Antonopoulos, your client's prior counsel, by letter dated September 25, 2018 to accomplish this resolution.

After you have had an opportunity to review and consider these materials, please call me to discuss next steps.

I look forward to speaking with you.

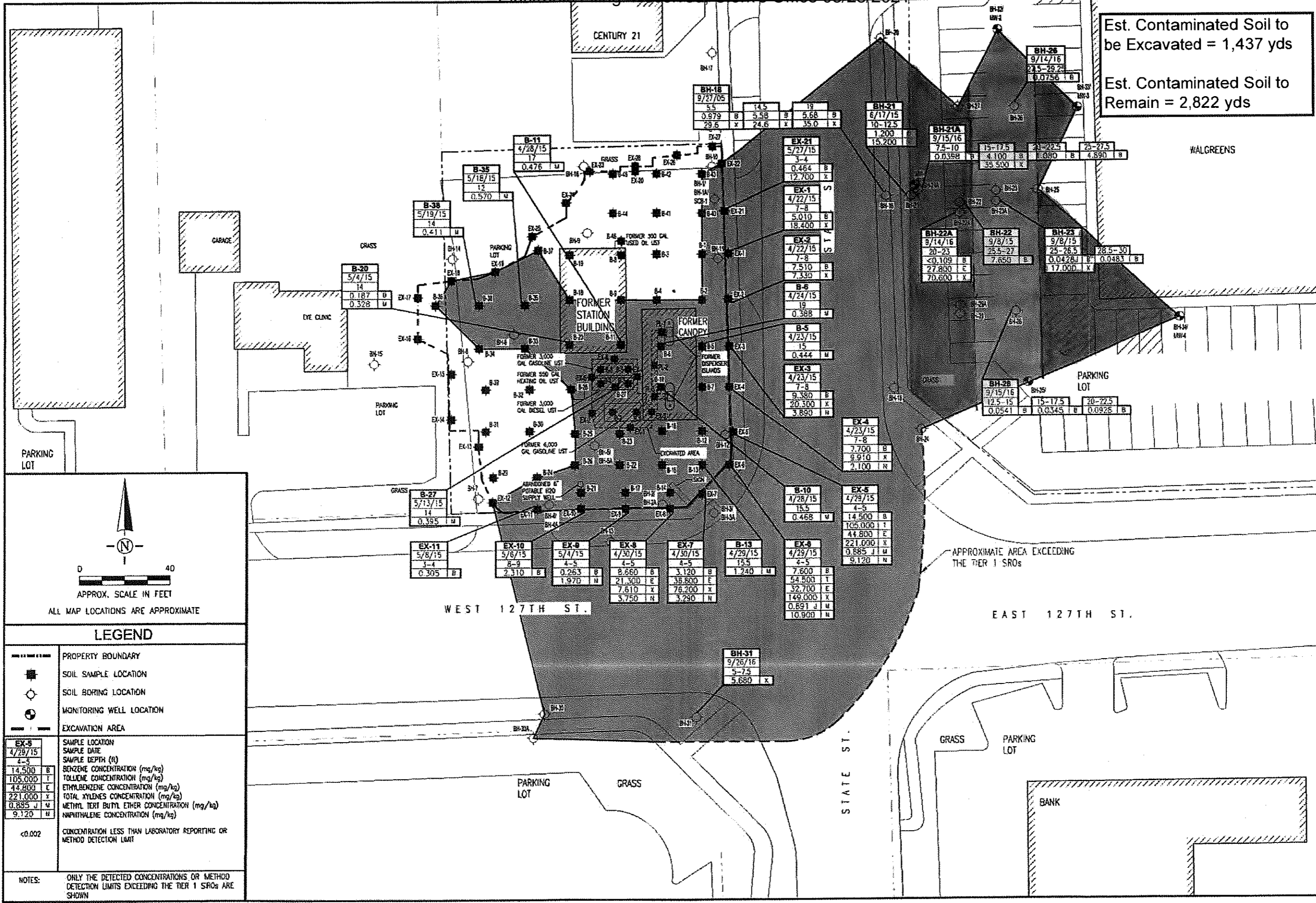
Very truly yours,  
*ROBERT M. RIFFLE*  
Robert M. Riffle

RMR:tlj

Attachments

cc: Mr. Steve Broadus  
Mr. Marcos Czako

Est. Contaminated Soil to be Excavated = 1,437 yds  
 Est. Contaminated Soil to Remain = 2,822 yds



**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973



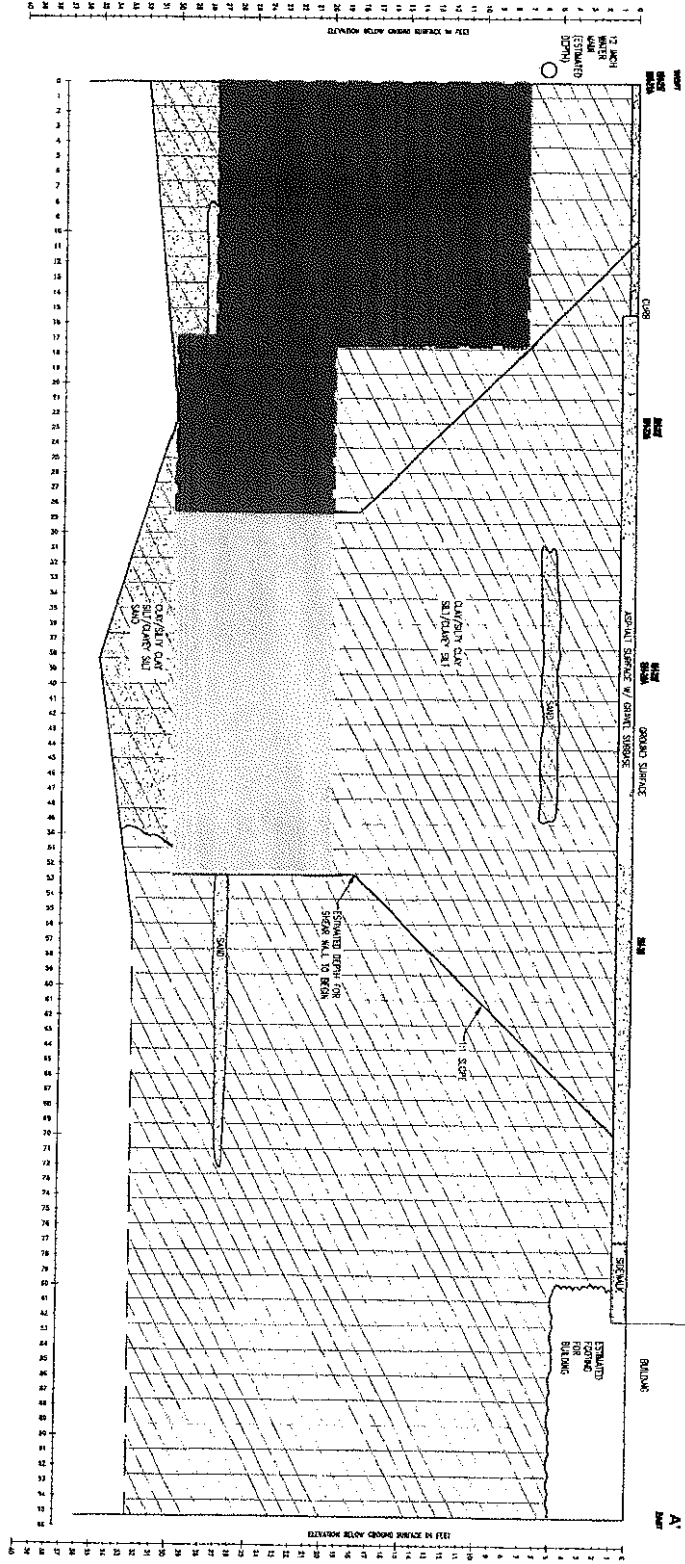
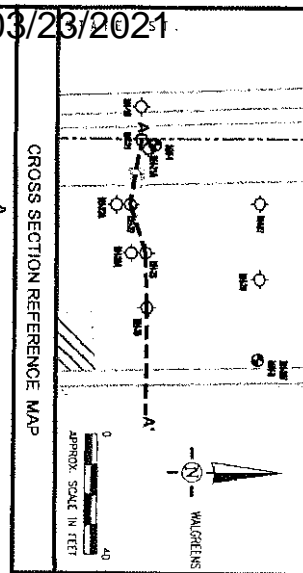
**BOI, LLC**  
 201 Denny's Drive  
 Suite 5  
 Streamer, IL 61364

**SOIL ANALYTICAL RESULTS**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	EXCAVATION AREA
EX-5 4/28/15 4-5	SAMPLE LOCATION SAMPLE DATE SAMPLE DEPTH (ft)
14,500 B	BENZENE CONCENTRATION (mg/kg)
105,000 T	TOLUENE CONCENTRATION (mg/kg)
43,600 E	ETHYLBENZENE CONCENTRATION (mg/kg)
221,000 Y	TOTAL XYLENES CONCENTRATION (mg/kg)
0.885 J M	METHYL TERT BUTYL ETHER CONCENTRATION (mg/kg)
9.120 N	NAIPHTHALENE CONCENTRATION (mg/kg)
<0.002	CONCENTRATION LESS THAN LABORATORY REPORTING OR METHOD DETECTION LIMIT
NOTES:	ONLY THE DETECTED CONCENTRATIONS OR METHOD DETECTION LIMITS EXCEEDING THE TIER 1 SROs ARE SHOWN

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 4/23/2018  
 DRAWING FILE: MD14-170

**EXHIBIT B-1**




HORIZONTAL & VERTICAL SCALE IN FEET

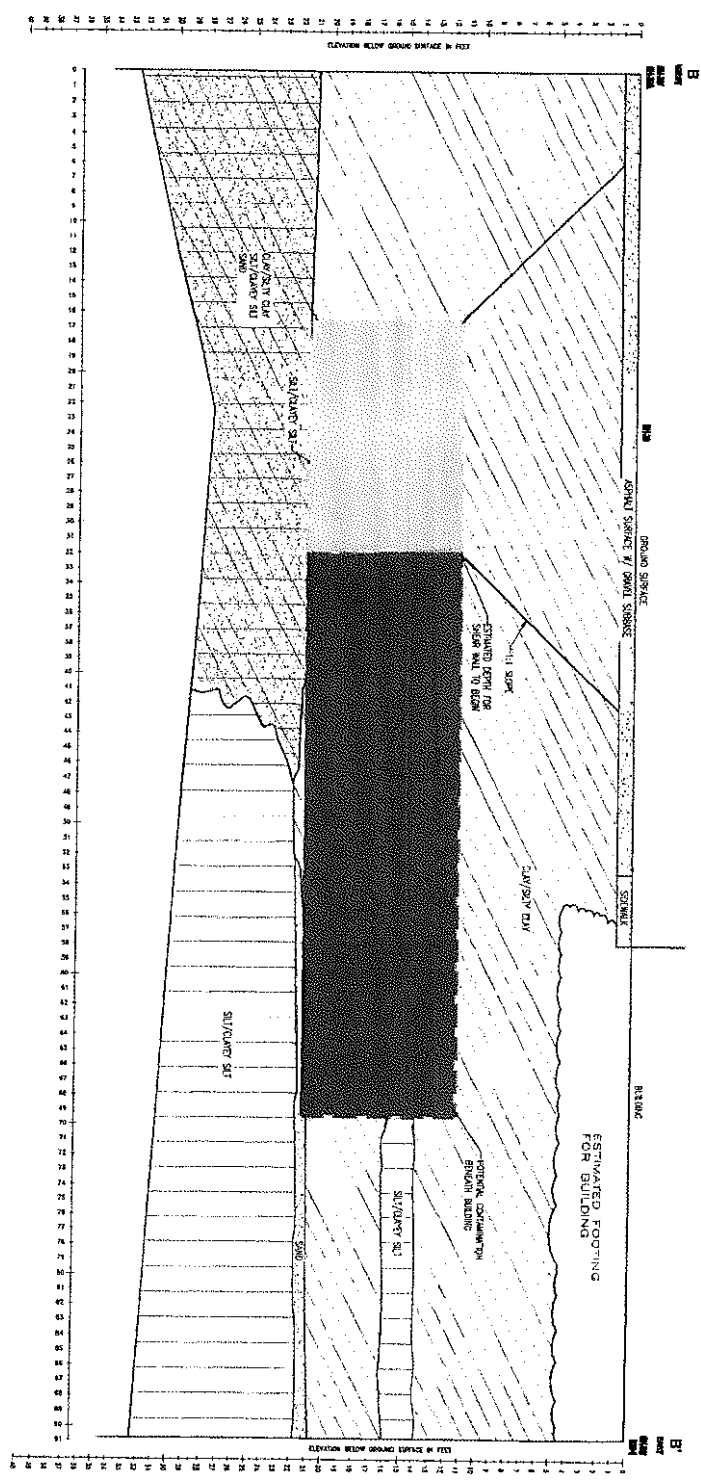
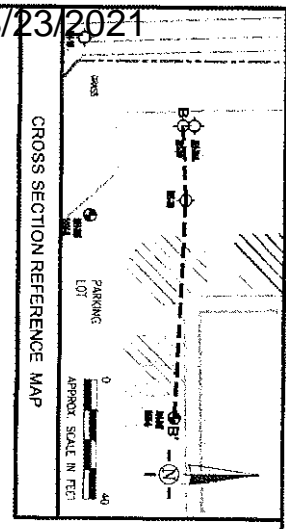
LEGEND

ESTIMATED EXTENT OF CONTAMINATED SOIL TO BE EXCAVATED

ESTIMATED EXTENT OF CONTAMINATED SOIL TO REMAIN

<b>1</b>	DRAWN BY: SAA	<b>GEOLOGIC CROSS SECTION A-A'</b> BOI, LLC 1196 STATE STREET LEMONT, COOK COUNTY, IL 60439	<b>BOI, LLC</b> 201 Donny's Drive Suite 5 Streator, IL 61364	 <b>TriCore Environmental, LLC</b> 2368 Corporate Lane, Suite 116 Naperville, IL 60563 (630) 520-9973
	APPROVED BY: MIC			
	SCALE: AS NOTED			
	DATE: 2/6/2019			
	DRAWING FILE: MD14-170			

A.R. 000336



**LEGEND**

ESTIMATED EXTENT OF CONTAMINATED SOIL TO BE DRAINAGE

ESTIMATED EXTENT OF CONTAMINATED SOIL TO REMAIN


HORIZONTAL & VERTICAL SCALE IN FEET

0 8

<b>2</b>	DRAWN BY:	SAA
	APPROVED BY:	MIC
	SCALE:	AS NOTED
	DATE:	2/6/2019
	DRAWING FILE:	MD14-170

**GEOLOGIC CROSS SECTION B-B'**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

BOI, LLC  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364



**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 118  
 Itaperville, IL 60563  
 (630) 520-9973

**May 6, 2019**

**ENVIRONMENTAL INDEMNITY AGREEMENT**

This ENVIRONMENTAL INDEMNITY AGREEMENT is entered into as of the \_\_\_\_\_ day of \_\_\_\_\_, 2019, by **BOI, LLC** ("Indemnitor") and the **T.C.K., INC.** ("TCK")

**RECITALS**

A. **WHEREAS**, Indemnitor is pursuing corrective action of property located at the address commonly known as 1196 State Street, Lemont, Illinois (the " Indemnitor's Property "), and contamination from the Indemnitor's Property has impacted property owned by TCK at the address commonly known as 15575 E. 127<sup>th</sup> Street, Lemont, Illinois ("TCK Property"); and

B. **WHEREAS**, an underground storage tank system, as defined in 40 CFR Part 280 or supplanting federal regulations, owned by Indemnitor or its predecessor in interest ("UST System"), was present on Indemnitor's Property; and

C. **WHEREAS**, a release to the environment of petroleum hydrocarbons, including gasoline additives and diesel fuel, has occurred in the past at the Indemnitor's Property. Used/waste oil and hydraulic oil may be present on Indemnitor's Property. (All of the previously mentioned compounds which shall include Benzene, Ethylbenzene, Toluene, Xylene and Methyl Tertiary Butyl Ether (MTBE) and those identified in TACO modeling calculations for the groundwater contamination identified at Indemnitor's Property are hereby collectively referred to as "Compounds of Concern".) As a result of said release, the soil and groundwater at the Indemnitor's Property contains detectable concentrations of Compounds of Concern. The groundwater and soil impacted by Compounds of Concern extends beyond the Indemnitor's Property to the TCK Property.

D. **WHEREAS**, Indemnitor desires to limit any potential threat to human health from soil and groundwater impacted with the Compounds of Concern and has requested that TCK enter into an Environmental Land Use Control (ELUC) agreement for the TCK Property. The proposed ELUC is attached hereto as Exhibit A.

**NOW, THEREFORE**, in consideration of the terms and covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. This Environmental Indemnity Agreement ("Agreement") is not binding upon TCK until it is executed by the undersigned representative of TCK and, prior to execution, this Agreement constitutes an offer by Indemnitor. The duly authorized representative of Indemnitor has signed this Agreement, and this Agreement is binding upon Indemnitor, its successors and assigns.

2. TCK agrees that it will agree to the terms of the ELUC in the form attached as Exhibit A, and this Environmental Indemnity Agreement is intended to supplement the parties' rights and obligations provided for in the ELUC provided, however, that if TCK does not enter into the

ELUC, this Agreement shall be deemed null and void, and Indemnitor shall have no other remedy against TCK. No breach by TCK, its agents, trustees, employees and its successors in interest of a provision of this Agreement is actionable in law or equity by Indemnitor against TCK, and Indemnitor hereby releases TCK and TCK Affiliates (as defined below) from any cause of action it may have against them arising under this Agreement or Environmental Laws (as defined below), regulations or common law.

Specifically, Indemnitor knowingly waives and releases TCK and/or TCK Affiliates (as defined below) from any and all claims, debts, dues and obligations of every kind and nature under the Illinois and United States Constitutions as well as under any federal or state statutes or laws, including but not limited to environmental laws related to the subject matter of this Agreement. Indemnitor further waives all remedies which are available to it for the violations of any of the terms of this Agreement, including but not limited to the equitable remedy of specific performance, and agrees not to seek injunctive relief of any sort. Indemnitor covenants not to sue TCK and/or TCK Affiliates for a violation of any provision or terms of this Agreement.

This Environmental Indemnity Agreement does not limit TCK's ability to construct, reconstruct, demolish, improve, grade, excavate, repair, maintain and operate the TCK Property for any lawful purpose, nor to allow others to use or do work within the TCK Property.

3. Indemnitor on behalf of itself, its successors and assigns does hereby covenant and agree, at its sole cost and expense, to indemnify, defend and hold TCK and TCK's former, current and future officials, owners, officers, servants, employees, agents, contractors, successors and assigns (collectively "TCK Affiliates"), both in their capacities as TCK representatives and as individuals, harmless from and against any loss, actions, responsibilities, obligations, liability, damage (whether direct or consequential), expenses, claims (whether asserted or unasserted, direct or indirect, existing or inchoate, known or unknown, having arisen or to arise in the future), penalties, fines, injunctions, suits (including but not limited to suits alleging or related to personal injury and/or death), proceedings, disbursements or expenses (including, without limitation, attorneys' and experts' fees and disbursements and court costs) (collectively, the "Liabilities"), arising under or relating to any Environmental Laws (as defined below), or any other Liabilities which may be incurred by or asserted against any of TCK Affiliates resulting or arising from, alleged to arise from, or caused by, in whole or in part, from the presence of Hazardous Material (as defined below) on, in or from the Indemnitor's Property (including the groundwater thereunder) and/or any condition of any property (including groundwater) or surface water alleged to have been caused by the migration, transportation, release or threatened release of Hazardous Materials on or from the Indemnitor's Property.

Indemnitor shall assume the expense of defending all suits, administrative proceedings and disputes of any description with all persons, entities, political subdivisions or government agencies arising out of the matters to be indemnified under this Agreement. In the event that TCK or any of TCK Affiliates is/are named as a defendant(s) in any lawsuit arising out of the matters to be indemnified under this Agreement, TCK and/or any of TCK Affiliates shall have the right to choose the attorney(s) who represent(s) them in said lawsuit, and the reasonable costs, expenses and fees associated with said attorney(s) in relation to said lawsuit shall be paid by Indemnitor pursuant to the indemnification provisions herein. Indemnitor shall pay, promptly upon entry, any nonappealable order, judgment or other final resolution of any claim or dispute



arising out of the matters to be indemnified under this Agreement and shall pay promptly when due any fines, penalties or agreed settlements arising out of the matters to be indemnified under this Agreement. In the event that such payment is not made, TCK or any TCK Affiliate, at their sole discretion, may proceed to file suit against the Indemnitor to compel such payment. Indemnitor also agrees that it will not settle or compromise any action, suit or proceeding with TCK's prior written consent, which consent shall not be unreasonably withheld.

For purposes of this Agreement, "Hazardous Materials" means and includes Compounds of Concern, chemicals known or suspected to cause cancer or reproductive toxicity, pollutants, effluents, contaminants, emissions or related materials, and any items defined as hazardous, special or toxic materials, substances or waste under any Environmental Law, or any material which shall be removed from property located within TCK Property pursuant to any administrative order or enforcement proceeding or in order to place said property in a condition that is suitable for ordinary use. Hazardous Materials shall include each and every element, compound, chemical mixture, contaminant, pollutant, material waste or other substance which is defined, determined or identified as hazardous or toxic under Environmental Law or the release of which is regulated under Environmental Laws. "Environmental Laws" collectively means and includes any present and future local, state, federal or international law, statute, ordinance, order, decree, rule, regulation or treaty relating to public health, safety or the environment (including those laws relating to releases, discharges, emissions or disposals to air, water, land or groundwater, to the withdrawal or use of groundwater, to the use, handling, storage, disposal, treatment, transportation or management of Hazardous Materials) including, without limitation, the Resource Conservation and Recovery Act, as amended ("RCRA"), 42 U.S.C. §6901, et seq., the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. §9601, et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 ("SARA"), the Hazardous Materials Transportation Act, 49 U.S.C. §1801, et seq., the Clean Water Act, 33 U.S.C. §1251, et seq., the Clean Air Act, as amended, 42 U.S.C. §7401, et seq., the Toxic Substances Control Act, 15 U.S.C. §2601, et seq., the Safe Drinking Water Act, 42 U.S.C. §300f, et seq., the Occupational Safety and Health Act, 29 U.S.C. §655, et seq., the Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. §136, et seq., the National Environmental Policy Act, 42 U.S.C. §4321, et seq., the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. §11001, et seq., and the Illinois Environmental Protection Act, and the amendments, regulations, orders, decrees, permits, licenses or deed restrictions now or hereafter promulgated thereunder.

In addition to the indemnity provided above, if TCK or TCK Affiliates encounter Hazardous Materials while working in, on or under the TCK Property or encounter Hazardous Materials migrating from Indemnitor's Property, TCK has the right to remove contaminated soil or groundwater from the area it is working and intends to do work and to dispose of them as it deems appropriate not inconsistent with applicable Environmental Laws so as to avoid causing a further release of the Hazardous Materials and to protect human health and the environment. If Hazardous Materials are found anywhere within the boundaries of the TCK Property, there is a presumption that the Hazardous Materials migrated from and are attributable to the Indemnitor's Property.

The removal or disposal shall be based upon the site investigation (which may be modified by field conditions during excavation), which Indemnitor may review or may perform,

if requested to do so by TCK. If practicable, as determined by TCK, TCK may request Indemnitor to remove and dispose of the contaminated soil and/or groundwater necessary for TCK's work in advance of that work. In any event, Indemnitor shall reimburse the reasonable costs incurred by TCK to perform the site investigation and to dispose of any contaminated soil or groundwater. The parties understand and agree that TCK's soil and groundwater removal will be in conjunction and/or associated with other work being done by TCK in, on, under or near the Indemnitor's Property, and part of the purpose of this paragraph is that if TCK Affiliate encounters contaminated soil and/or groundwater while working on its property, it will not be responsible in any way for the cost associated with encountering, removing and/or disposing of the contaminated soil and/or groundwater. In addition, and to be consistent with the requirements of the ELUC, to the extent that TCK removes, excavates or disturbs any portion of the top 10 feet of soil under the TCK Property within the area illustrated in Exhibit B-1 of the ELUC, Indemnitor shall pay all costs and expenses of the excavation, removal, transportation and disposal of the material and the cost and expense of replacing the material with similar materials (i.e. clean soil or clean fill material) so that there is a minimum of 10 feet of clean soil or clean fill material above the contaminated soil illustrated on Exhibit B-2A of the ELUC. Further, it is specifically understood and agreed between the parties that TCK Affiliate will not be identified at any time, in any place, document or manifest as the owner, generator or transporter of contaminated soil or groundwater taken from TCK Property. If asked, Indemnitor will cooperate with TCK Affiliate in the removal and disposal of such soil and groundwater and will sign all necessary documents and manifests for the proper transportation and disposal of the soil and/or groundwater.

4. If requested by TCK, Indemnitor shall immediately deliver to TCK any and all records, documents (including writings, drawings, graphs, charts, photographs, phono records, and other data compilations from which information can be obtained, translated, if necessary, through detection devices into reasonably usable form), or reports of any kind (including all written, printed, recorded or graphic matter however produced or reproduced and all copies, drafts and versions thereof not identical in each respect to the original) which relate or refer (which means, in addition to their customary and usual meaning, assess or assessing, concern or concerning, constitute or constituting, describe or describing, discuss or discussing, embody or embodying, evidence or evidencing, mention or mentioning and reflect or reflecting) environmental matters and/or conditions associated directly or indirectly with the Indemnitor's Property or the TCK Property (including the groundwater thereunder), including but not limited to written reports or a site assessment, environmental audits, soil test reports, water test reports, laboratory analysis and documents, reports or writings relating or referring to the Indemnitor's Property or the TCK Property provided, however, that nothing in this paragraph shall require the Indemnitor to deliver to TCK those communications and documents that are encompassed by the attorney-client privilege and/or the attorney work product doctrine.

5. Any notice required or permitted to be given to either party shall be deemed to be received by such party (i) three (3) days after deposit in the United States Registered or Certified Mail, Return Receipt Requested, or (ii) one (1) business day after deposit with a nationally recognized overnight delivery service guaranteeing next business day delivery, or (iii) upon personal delivery to the party to whom addressed provided that a receipt of such delivery is obtained, or (iv) on the same business day as transmitted and confirmed by telecopy provided

that a confirmation copy is concurrently deposited in United States Certified or Registered Mail, Return Receipt Requested. Such notices shall be addressed to the parties at the following addresses:

If to Indemnitor:

If to TCK:

and with a copy to: Klein, Thorpe and Jenkins, Ltd.  
20 North Wacker Drive - Suite 1660  
Chicago, Illinois 60606-2903  
Attn: Dennis G. Walsh, Esq.

or to the parties at such other addresses or telecopy numbers as they may designate by notice to the other party as herein provided.

6. This Agreement has been made and delivered in Illinois and shall be construed according to and governed by the internal laws of the State of Illinois without regard to its conflict of law rules. If any provision hereof shall be held invalid, prohibited or unenforceable under any applicable laws of any applicable jurisdiction, such invalidity, prohibition or unenforceability shall be limited to such provision and shall not affect or invalidate the other provisions hereof or affect the validity or enforceability of such provision in any other jurisdiction, and to that extent, the provisions hereof are severable. Whenever possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under applicable law.

7. Failure of TCK to require performance of any provision of this Agreement shall not affect TCK's right to require full performance thereof at any time thereafter, and the waiver by TCK of a breach of any provision of this Agreement shall not constitute or be deemed a waiver of a similar breach in the future, or any other breach, or nullify the effectiveness of such provisions of this Agreement. The rights and remedies of TCK of this Agreement are cumulative. The exercise or use of any one or more thereof shall not bar TCK from exercise or use of any other right or remedy provided herein or otherwise provided by law, nor shall exercise or use of any right or remedy by TCK waive any other right or remedy. The parties are aware of 42 U.S.C. §9607(e), and waive any rights they may otherwise have to assert that such statute does not permit, or renders invalid, the waivers or indemnity provisions contained in this Agreement.

8. This Agreement shall be binding upon the Indemnitor and the successors and assigns for so long as the ELUC is required. Provided, however, Indemnitor's duty to indemnify TCK shall survive if the Liabilities are incurred during the effective period of the ELUC. No transfer of Indemnitor's rights or obligations hereunder shall be made without the prior written approval of TCK, which approval shall be with their reasonable discretion.

9. This Agreement constitutes the entire agreement of the parties hereto with respect to the subject matter hereof. This Agreement may not be amended, modified, revised, supplemented or restated except by a writing signed by each of the parties hereto. In construing this Agreement or determining the rights of the parties hereunder, no party shall be deemed to have drafted or created this Agreement or any portion thereof.

10. Indemnitor will pay and discharge all reasonable costs, attorney's fees and expenses that shall be made and incurred by TCK in enforcing the covenants and agreements of this Agreement.

11. The executing representatives of the parties to this Agreement represent and certify that they are fully authorized to enter into the terms and conditions of this Agreement and to execute and legally bind that party to it.

IN WITNESS WHEREOF, the parties have executed this Environmental Indemnity Agreement as of the day, month and year first above written.

**T.C.K., INC.**

**BOI, LLC**

**By:** \_\_\_\_\_

**By:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**July 2, 2019**

**ENVIRONMENTAL INDEMNITY AGREEMENT**

This ENVIRONMENTAL INDEMNITY AGREEMENT is entered into as of the \_\_\_\_\_ day of \_\_\_\_\_, 2019, by **BOI, LLC** ("Indemnitor") and ~~the~~ **T.C.K., INC.** ("TCK")

**RECITALS**

A. **WHEREAS**, Indemnitor is pursuing corrective action of property located at the address commonly known as 1196 State Street, Lemont, Illinois (the " Indemnitor's Property "), and contamination from the Indemnitor's Property has impacted property owned by TCK at the address commonly known as 15575 E. 127<sup>th</sup> Street, Lemont, Illinois ("TCK Property"); and

B. **WHEREAS**, an underground storage tank system, as defined in 40 CFR Part 280 or supplanting federal regulations, owned by Indemnitor or its predecessor in interest ("UST System"), was present on Indemnitor's Property; and

C. **WHEREAS**, a release to the environment of petroleum hydrocarbons, including gasoline additives and diesel fuel, has occurred in the past at the Indemnitor's Property. Used/waste oil and hydraulic oil may be present on Indemnitor's Property. (All of the previously mentioned compounds which shall include Benzene, Ethylbenzene, Toluene, Xylene and Methyl Tertiary Butyl Ether (MTBE) and those identified in TACO modeling calculations for the groundwater contamination identified at Indemnitor's Property are hereby collectively referred to as "Compounds of Concern".) As a result of said release, the soil and groundwater at the Indemnitor's Property contains detectable concentrations of Compounds of Concern. The groundwater and soil impacted by Compounds of Concern extends beyond the Indemnitor's Property to the TCK Property.

D. **WHEREAS**, Indemnitor desires to limit any potential threat to human health from soil and groundwater impacted with the Compounds of Concern and has requested that TCK enter into an Environmental Land Use Control (ELUC) agreement for the TCK Property. The proposed ELUC is attached hereto as Exhibit A.

**NOW, THEREFORE**, in consideration of the terms and covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. This Environmental Indemnity Agreement ("Agreement") is ~~not~~ binding upon TCK and has been duly ~~until it is executed by TCK the undersigned representative of TCK and, prior to execution, this Agreement constitutes an offer by Indemnitor.~~ The duly authorized representative of Indemnitor has signed this Agreement, and this Agreement is binding upon Indemnitor, its successors and assigns.

2. TCK agrees ~~that it will agree to the terms of the ELUC in the form attached as Exhibit A, and agrees to execute the~~ and this Environmental Indemnity Agreement is intended to supplement the parties' rights and obligations provided for in the ELUC, ~~provided, however, that~~

~~if TCK does not enter into the ELUC, this Agreement shall be deemed null and void, and Indemnitor shall have no other remedy against TCK. No breach by TCK, its agents, trustees, employees and its successors in interest of a provision of this Agreement is actionable in law or equity by Indemnitor against TCK, and Indemnitor hereby releases TCK and TCK Affiliates (as defined below) from any cause of action it may have against them arising under this Agreement or Environmental Laws (as defined below), regulations or common law.~~

~~Specifically, Indemnitor knowingly waives and releases TCK and/or TCK Affiliates (as defined below) from any and all claims, debts, dues and obligations of every kind and nature under the Illinois and United States Constitutions as well as under any federal or state statutes or laws, including but not limited to environmental laws related to the subject matter of this Agreement. Indemnitor further waives all remedies which are available to it for the violations of any of the terms of this Agreement, including but not limited to the equitable remedy of specific performance, and agrees not to seek injunctive relief of any sort. Indemnitor covenants not to sue TCK and/or TCK Affiliates for a violation of any provision or terms of this Agreement.~~

This Environmental Indemnity Agreement does not limit TCK's ability to construct, reconstruct, demolish, improve, grade, excavate, repair, maintain and operate the TCK Property for any lawful purpose, nor to allow others to use or do work within the TCK Property.

3. ~~Indemnitor on behalf of itself, its successors and assigns does hereby covenant and agree, at its sole cost and expense, to indemnify, defend and hold TCK and TCK's former, current and future officials, owners, officers, servants, employees, agents, contractors, successors and assigns (collectively "TCK Affiliates"), both in their capacities as TCK representatives and as individuals, harmless from and against any claims filed by any party unrelated to TCK or any TCK Affiliate against TCK or any of the TCK Affiliates loss, actions, responsibilities, obligations, liability, damage (whether direct or consequential), expenses, claims (whether asserted or unasserted, direct or indirect, existing or inchoate, known or unknown, having arisen or to arise in the future), penalties, fines, injunctions, suits (including but not limited to suits alleging or related to personal injury and/or death), proceedings, disbursements or expenses (including, without limitation, attorneys' and experts' fees and disbursements and court costs) (collectively, (the "Liabilities")), arising under or relating to any Environmental Laws (as defined below), or any other Liabilities which may be incurred by or asserted against any of TCK Affiliates resulting or arising from, alleged to arise from, or caused by, in whole or in part, from the presence of and arising from the presence of Hazardous Material (as defined below) on, in or from the Indemnitor's Property (including the groundwater thereunder) and/or any condition of any property (including groundwater) or surface water alleged to have been caused by the migration, transportation, release or threatened release of Hazardous Materials on or from the Indemnitor's Property. TCK and TCK Affiliates shall take no actions to solicit, encourage, or suggest the filing of any such claims.~~

~~Indemnitor shall assume the expense of defending all suits, administrative proceedings and disputes of any description with all persons, entities, political subdivisions or government agencies arising out of the matters to be indemnified under this Agreement. In the event that TCK or any of TCK Affiliates is/are named as a defendant(s) in any lawsuit arising out of the matters to be indemnified under this Agreement, TCK and/or any of TCK Affiliates shall have the right to choose the attorney(s) who represent(s) them in said lawsuit, and the reasonable~~

~~costs, expenses and fees associated with said attorney(s) in relation to said lawsuit shall be paid by Indemnitor pursuant to the indemnification provisions herein. Indemnitor shall pay, promptly upon entry, any nonappealable order, judgment or other final resolution of any claim or dispute arising out of the matters to be indemnified under this Agreement and shall pay promptly when due any fines, penalties or agreed settlements arising out of the matters to be indemnified under this Agreement. In the event that such payment is not made, TCK or any TCK Affiliate, at their sole discretion, may proceed to file suit against the Indemnitor to compel such payment. Indemnitor also agrees that it will not settle or compromise any action, suit or proceeding with TCK's prior written consent, which consent shall not be unreasonably withheld.~~

For purposes of this Agreement, "Hazardous Materials" means and includes Compounds of Concern, chemicals known or suspected to cause cancer or reproductive toxicity, pollutants, effluents, contaminants, emissions or related materials, and any items defined as hazardous, special or toxic materials, substances or waste under any Environmental Law, or any material which shall be removed from property located within TCK Property pursuant to any administrative order or enforcement proceeding or in order to place said property in a condition that is suitable for ordinary use. Hazardous Materials shall include each and every element, compound, chemical mixture, contaminant, pollutant, material waste or other substance which is defined, determined or identified as hazardous or toxic under Environmental Law or the release of which is regulated under Environmental Laws. "Environmental Laws" collectively means and includes any present and future local, state, federal or international law, statute, ordinance, order, decree, rule, regulation or treaty relating to public health, safety or the environment (including those laws relating to releases, discharges, emissions or disposals to air, water, land or groundwater, to the withdrawal or use of groundwater, to the use, handling, storage, disposal, treatment, transportation or management of Hazardous Materials) including, without limitation, the Resource Conservation and Recovery Act, as amended ("RCRA"), 42 U.S.C. §6901, et seq., the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. §9601, et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 ("SARA"), the Hazardous Materials Transportation Act, 49 U.S.C. §1801, et seq., the Clean Water Act, 33 U.S.C. §1251, et seq., the Clean Air Act, as amended, 42 U.S.C. §7401, et seq., the Toxic Substances Control Act, 15 U.S.C. §2601, et seq., the Safe Drinking Water Act, 42 U.S.C. §300f, et seq., the Occupational Safety and Health Act, 29 U.S.C. §655, et seq., the Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. §136, et seq., the National Environmental Policy Act, 42 U.S.C. §4321, et seq., the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. §11001, et seq., and the Illinois Environmental Protection Act, and the amendments, regulations, orders, decrees, permits, licenses or deed restrictions now or hereafter promulgated thereunder.

In addition to the indemnity provided above, if TCK or TCK Affiliates encounter Hazardous Materials while working in, on or under the TCK Property or encounter Hazardous Materials migrating from Indemnitor's Property, TCK has the right to remove contaminated soil or groundwater from the area or which it is working and intends to do work and to dispose of them as it deems appropriate not inconsistent with applicable Environmental Laws so as to avoid causing a further release of the Hazardous Materials and to protect human health and the environment. ~~If Hazardous Materials are found anywhere within the boundaries of the TCK Property, there is a presumption that the Hazardous Materials migrated from and are attributable to the Indemnitor's Property.~~



~~The removal or disposal shall be based upon the site investigation (which may be modified by field conditions during excavation), which Indemnitor may review or may perform, if requested to do so by TCK. If practicable, as determined by TCK, TCK may request Indemnitor to remove and dispose of the contaminated soil and/or groundwater necessary for TCK's work in advance of that work. In any event, Indemnitor shall reimburse the reasonable costs incurred by TCK to perform the site investigation and to dispose of any contaminated soil or groundwater. The parties understand and agree that TCK's soil and groundwater removal will be in conjunction and/or associated with other work being done by TCK in, on, under or near the Indemnitor's Property, and part of the purpose of this paragraph is that if TCK Affiliate encounters contaminated soil and/or groundwater while working on its property, it will not be responsible in any way for the cost associated with encountering, removing and/or disposing of the contaminated soil and/or groundwater. In addition, and to be consistent with the requirements of the ELUC, to the extent that TCK removes, excavates or disturbs any portion of the top 10 feet of soil under the TCK Property within the area illustrated in Exhibit B-1 of the ELUC, Indemnitor shall pay all costs and expenses of the excavation, removal, transportation and disposal of the material and the cost and expense of replacing the material with similar materials (i.e. clean soil or clean fill material) so that there is a minimum of 10 feet of clean soil or clean fill material above the contaminated soil illustrated on Exhibit B-2A of the ELUC. Further, it is specifically understood and agreed between the parties that TCK Affiliate will not be identified at any time, in any place, document or manifest as the owner, generator or transporter of contaminated soil or groundwater taken from TCK Property. If asked, Indemnitor will cooperate with TCK Affiliate in the removal and disposal of such soil and groundwater and will sign all necessary documents and manifests for the proper transportation and disposal of the soil and/or groundwater.~~

4. If requested by TCK, Indemnitor shall immediately deliver to TCK any and all records, documents (including writings, drawings, graphs, charts, photographs, phono records, and other data compilations from which information can be obtained, translated, if necessary, through detection devices into reasonably usable form), or reports of any kind (including all written, printed, recorded or graphic matter however produced or reproduced and all copies, drafts and versions thereof not identical in each respect to the original) which relate or refer (which means, in addition to their customary and usual meaning, assess or assessing, concern or concerning, constitute or constituting, describe or describing, discuss or discussing, embody or embodying, evidence or evidencing, mention or mentioning and reflect or reflecting) environmental matters and/or conditions associated directly or indirectly with the Indemnitor's Property or the TCK Property (including the groundwater thereunder), including but not limited to written reports or a site assessment, environmental audits, soil test reports, water test reports, laboratory analysis and documents, reports or writings relating or referring to the Indemnitor's Property or the TCK Property provided, however, that nothing in this paragraph shall require the Indemnitor to deliver to TCK those communications and documents that are encompassed by the attorney-client privilege and/or the attorney work product doctrine.

5. Any notice required or permitted to be given to either party shall be deemed to be received by such party (i) three (3) days after deposit in the United States Registered or Certified Mail, Return Receipt Requested, or (ii) one (1) business day after deposit with a nationally

recognized overnight delivery service guaranteeing next business day delivery, or (iii) upon personal delivery to the party to whom addressed provided that a receipt of such delivery is obtained, or (iv) on the same business day as transmitted and confirmed by telecopy provided that a confirmation copy is concurrently deposited in United States Certified or Registered Mail, Return Receipt Requested. Such notices shall be addressed to the parties at the following addresses:

If to Indemnitor:

If to TCK:

and with a copy to: Klein, Thorpe and Jenkins, Ltd.  
20 North Wacker Drive - Suite 1660  
Chicago, Illinois 60606-2903  
Attn: Dennis G. Walsh, Esq.

or to the parties at such other addresses or telecopy numbers as they may designate by notice to the other party as herein provided.

6. This Agreement has been made and delivered in Illinois and shall be construed according to and governed by the internal laws of the State of Illinois without regard to its conflict of law rules. If any provision hereof shall be held invalid, prohibited or unenforceable under any applicable laws of any applicable jurisdiction, such invalidity, prohibition or unenforceability shall be limited to such provision and shall not affect or invalidate the other provisions hereof or affect the validity or enforceability of such provision in any other jurisdiction, and to that extent, the provisions hereof are severable. Whenever possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under applicable law.

7. Failure of TCK to require performance of any provision of this Agreement shall not affect TCK's right to require full performance thereof at any time thereafter, and the waiver by TCK of a breach of any provision of this Agreement shall not constitute or be deemed a waiver of a similar breach in the future, or any other breach, or nullify the effectiveness of such provisions of this Agreement. The rights and remedies of TCK of this Agreement are cumulative. The exercise or use of any one or more thereof shall not bar TCK from exercise or use of any other right or remedy provided herein or otherwise provided by law, nor shall exercise or use of any right or remedy by TCK waive any other right or remedy. The parties are aware of 42 U.S.C. §9607(e), and waive any rights they may otherwise have to assert that such statute does not permit, or renders invalid, the waivers or indemnity provisions contained in this Agreement.

~~8. This Agreement shall be binding upon the Indemnitor and the successors and assigns for so long as the ELUC is required. Provided, however, Indemnitor's duty to indemnify TCK~~

~~shall survive if the Liabilities are incurred during the effective period of the ELUC. No transfer of Indemnitor's rights or obligations hereunder shall be made without the prior written approval of TCK, which approval shall be with their reasonable discretion.~~

89. This Agreement constitutes the entire agreement of the parties hereto with respect to the subject matter hereof. This Agreement may not be amended, modified, revised, supplemented or restated except by a writing signed by each of the parties hereto. In construing this Agreement or determining the rights of the parties hereunder, no party shall be deemed to have drafted or created this Agreement or any portion thereof.

~~10. Indemnitor will pay and discharge all reasonable costs, attorney's fees and expenses that shall be made and incurred by TCK in enforcing the covenants and agreements of this Agreement.~~

119. The executing representatives of the parties to this Agreement represent and certify that they are fully authorized to enter into the terms and conditions of this Agreement and to execute and legally bind that party to it.

IN WITNESS WHEREOF, the parties have executed this Environmental Indemnity Agreement as of the day, month and year first above written.

**T.C.K., INC.**

**BOI, LLC**

**By:** \_\_\_\_\_

**By:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**APPENDIX H**  
**OFF-SITE ACCESS AFIDAVIT**

AFFIDAVIT

The State of Illinois )  
 ) S. S.  
County of Cook )

I, Steve Broadus, Owner of BOI, LLC, who owns the property located at 1196 State Street, Lemont, Illinois, hereby attests the following:

- BOI, LLC has undertaken investigation and corrective activities at the former gasoline station located at 1196 State Street, Lemont, Illinois associated with Leaking Underground Storage Tank incident numbers 942117 and 20141348.
- The address of the adjacent property to the east is identified as 15575 E. 127<sup>th</sup> Street, Lemont, Illinois.
- In order to complete off-site investigation and remediation activities to address the concentrations of indicator contaminants exceeding the Tier 1 remediation objectives listed in 35 Illinois Administrative Code (IAC) Part 742, on March 2, 2018, TriCore Environmental, LLC, on behalf of BOI, LLC, submitted a request to the owner of the off-site property at 15575 E. 127<sup>th</sup> Street, Lemont, Illinois, pursuant to the requirements of 35 IAC 734.350. The owner of the off-site property signed confirming receipt of the access agreement on March 9, 2018. However, as of the date of this affidavit, an agreement with the off-site property owner has not been reached.

Therefore, pursuant to 35 IAC 734.350(c)(1), this affidavit demonstrates that off-site access for corrective action has been unable to be obtained despite the use of best efforts.

Owner: BOI, LLC

Signed: *Steve Broadus*  
Date: 10/22/2019

Title: Owner

Subscribed and sworn to me this 22nd day of October, 2019.

*Patricia Ann Ferguson*  
(Notary Public)



**APPENDIX I**  
**AMENDED CORRECTIVE ACTION BUDGET**



# Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

## General Information for the Budget and Billing Forms

LPC #: 0314625010 County: \_\_\_\_\_ Cook

City: Lemont Site Name: Lemont Kar Gas/BOI, LLC

Site Address: 1196 State Street

Date this form was prepared: Oct 22, 2019

List all IEMA Incident numbers associated with this package:

942117, 20141348

List all other incidents associated with this site that are not associated with this package:

\_\_\_\_\_

This form is being submitted as a (check one, if applicable):

- Billing Package
- Budget Amendment (Budget amendments must include only the costs over the previous budget.)
- Budget Proposal

Please provide the name(s) and date(s) of report(s) documenting the costs requested:

Name(s): \_\_\_\_\_

Date(s): \_\_\_\_\_

This package is being submitted for the site activities indicated below:

**35 Ill. Adm. Code 734:**

- Early Action
- Free Product Removal after Early Action
- Site Investigation . . . . . Stage 1:  Stage 2:  Stage 3:
- Corrective Action

**35 Ill. Adm. Code 732:**

- Early Action
- Free Product Removal after Early Action
- Site Classification
- Low Priority Corrective Action
- High Priority Corrective Action

**35 Ill. Adm. Code 731:**

- Site Investigation
- Corrective Action

**Electronic Filing: Received, Clerk's Office 03/23/2021  
General Information for the Budget and Billing Forms**

The following address will be used as the mailing address for checks and any final determination letters regarding payment from the Fund for this package.

Pay to the order of: BOI, LLC

Send in care of: Shawn Rodeck

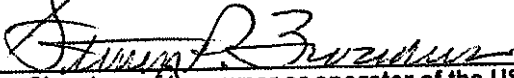
Address: P.O. Box 825

City: Warrenville

State: IL

Zip: 60555-0825

The payer is the: Owner  Operator  (Check one or both.)



10/22/2019  
Date

Signature of the owner or operator of the UST(s) (required)

W-9 must be submitted.  
[Click here to print off a W-9 Form.](#)

Steve Broadus

Printed name of the owner or operator of the UST(s) (required)

Email: steve.broadusoil@frontier.com

Number of petroleum USTs in Illinois presently owned or operated by the owner or operator; any subsidiary, parent or joint stock company of the owner or operator; and any company owned by any parent, subsidiary or joint stock company of the owner or operator:

Fewer than 101:  101 or more:

Please list all tanks that have ever been located at the site and tanks that are presently located at the site.

Product Stored In UST	Size (gallons)	Did UST have a release?		Incident No.	Type of Release Tank Leak / Overfill / Piping Leak
Gasoline	6,000	Yes <input checked="" type="radio"/>	No <input type="radio"/>	942117	Overfill
(same UST as above)	6,000	Yes <input checked="" type="radio"/>	No <input type="radio"/>	20141348	Overfill
Gasoline	3,000	Yes <input checked="" type="radio"/>	No <input type="radio"/>	942117	Overfill
(same UST as above)	3,000	Yes <input checked="" type="radio"/>	No <input type="radio"/>	20141348	Overfill
Gasoline	3,000	Yes <input checked="" type="radio"/>	No <input type="radio"/>	942117	Overfill
Diesel Fuel (same UST as above)	3,000	Yes <input checked="" type="radio"/>	No <input type="radio"/>	20141348	Overfill
Heating Oil	550	Yes <input type="radio"/>	No <input checked="" type="radio"/>	NA	
Used Oil	300	Yes <input type="radio"/>	No <input checked="" type="radio"/>	NA	



**Budget Summary**

Choose the applicable regulation:  734  732

<b>734</b>	Free Product	Stage 1 Site Investigation	Stage 2 Site Investigation	Stage 3 Site Investigation	Corrective Action
					Proposed
Drilling and Monitoring Well Costs Form	\$	\$	\$	\$	\$ .00
Analytical Costs Form	\$	\$	\$	\$	\$ .00
Remediation and Disposal Costs Form	\$	\$	\$	\$	\$ .00
UST Removal and Abandonment Costs Form	\$	\$	\$	\$	\$ .00
Paving, Demolition, and Well Abandonment Costs Form	\$	\$	\$	\$	\$ 2,268.38
Consulting Personnel Costs Form	\$	\$	\$	\$	\$ 39,139.61
Consultant's Materials Costs Form	\$	\$	\$	\$	\$ 749.33
Handling Charges Form	Handling charges will be determined at the time a billing package is submitted to the Illinois EPA. The amount of allowable handling charges will be determined in accordance with the Handling Charges Form.				
<b>Total</b>	\$	\$	\$	\$	\$ 42,157.32

## Paving, Demolition, and Well Abandonment Costs Form

### A. Concrete and Asphalt Placement/Replacement

Number of Square Feet	Asphalt or Concrete	Thickness (inches)	Cost (\$) per Square Foot	Replacement or Placement for an Engineered Barrier	Total Cost

<b>Total Concrete and Asphalt Placement/Replacement Costs:</b>	
--	--

### B. Building Destruction or Dismantling and Canopy Removal

Item to Be Destroyed, Dismantled, or Removed	Unit Cost (\$)	Total Cost (\$)

<b>Total Building Destruction or Dismantling and Canopy Removal Costs:</b>	
--	--

Electronic Filing: Received, Clerk's Office 03/23/2021  
**Paving, Demolition, and Well Abandonment Costs Form**

**C. Well Abandonment**

Monitoring Well ID #	Type of Well (HSA / PUSH / Recovery)	Depth of Well (feet)	Cost (\$) per Foot	Total Cost
MW-1	HSA	32.50	13.15	\$427.38
MW-2	HSA	35.00	13.15	\$460.25
MW-3	HSA	35.00	13.15	\$460.25
MW-4	HSA	35.00	13.15	\$460.25
MW-5	HSA	35.00	13.15	\$460.25

<b>Total Monitoring Well Abandonment Costs:</b>	<b>\$2,268.38</b>
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<b>Total Paving, Demolition, and Well Abandonment Costs:</b>	<b>\$2,268.38</b>
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**Consulting Personnel Costs Form**

Employee Name		Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category	Task				
Marcos Czako		Senior Project Manager	25.25	125.15	\$3,160.04
ELUC	Walgreens property				
Kimberly Henkel		Senior Acct. Technician	5.00	68.83	\$344.15
CA-Pay	Reimbursement prep				
Shawn Rodeck		Engineer III	1.25	125.15	\$156.44
ELUC	Review				
Marcos Czako		Senior Project Manager	2.75	125.15	\$344.16
CCAP	Project management, IEPA correspondence				
Kimberly Henkel		Senior Admin. Assistant	.75	56.32	\$42.24
CCAP	Document prep				
Shawn Rodeck		Senior Prof. Engineer	2.00	162.70	\$325.40
CA-Pay	Review and certification				
Philip Titean		Scientist I	.50	75.08	\$37.54
CCAP	Report prep				
Meyer Design - Drafting Services		Senior Draftperson/CAD	19.00	72.88	\$1,384.72
CCAP	Map updates for proposed ELUC, HAA				
Shawn Rodeck		Engineer III	1.50	125.15	\$187.72
CCAP	Off-Site access				

Employee Name	Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category	Task			
Marcos Czako	Senior Project Manager	15.00	125.15	\$1,877.25
HAA	Highway authority agreement (Cook County Department of Transportation (CCDOT))			
Shawn Rodeck	Senior Prof. Engineer	1.00	162.70	\$162.70
CCAP	Remediation evaluation			
Kyle Arney	Senior Project Manager	1.00	125.15	\$125.15
HAA	HAA prep			
Marcos Czako	Senior Project Manager	1.75	125.15	\$219.01
CCAP	Report prep			
Marcos Czako	Senior Project Manager	1.75	126.40	\$221.20
HAA	CCDOT			
Marcos Czako	Senior Project Manager	29.50	126.40	\$3,728.80
ELUC	Walgreens property, ELUC timeline			
Kimberly Henkel	Senior Acct. Technician	2.00	69.51	\$139.02
CA-Pay	Reimbursement prep			
Marcos Czako	Senior Project Manager	23.50	126.40	\$2,970.40
CCAP	IEPA correspondence, Excavation evaluation, Off-site owner correspondence/access, Report prep			
Kimberly Henkel	Senior Admin. Assistant	.25	56.88	\$14.22
HAA	Document prep			

Employee Name	Personnel Title	Hours	Rate (\$)	Total Cost
Remediation Category	Task			
Marcos Czako	Senior Project Manager	1.50	126.40	\$189.60
CCA-Field	Meet excavation contractor at Walgreens property to evaluate excavation potential			
Shawn Rodeck	Engineer III	2.25	126.40	\$284.40
CCAP	Off-site access, Update contractor license			
Shawn Rodeck	Senior Prof. Engineer	.25	164.33	\$41.08
CCAP	Off-site letter review			
Kim Miller	Senior Project Manager	1.75	126.40	\$221.20
CCAP	Vapor intrusion evaluation			
Marcos Czako	Senior Project Manager	40.25	128.93	\$5,189.43
CCAP	ELUC, Off-Site Access, CAP Prep, TACO 2			
Kimberly Henkel	Senior Acct. Technician	.75	70.90	\$53.17
CA-Pay	Reimbursement Prep			
Shawn Rodeck	Senior Acct. Technician	3.00	70.90	\$212.70
CA-Pay	Reimbursement Prep			
Kim Miller	Senior Project Manager	1.00	128.93	\$128.93
CCAP	TACO 2			
Marcos Czako	Senior Project Manager	65.25	131.51	\$8,581.03
CCAP	Off-Site Access (3.5), Client Correspondence (1.0), IEPA Correspondence (0.75), CAP Prep (60)			

Employee Name	Personnel Title	Hours	Rate (\$)	Total Cost
Remediation Category	Task			
Kimberly Henkel	Senior Acct. Technician	.50	72.32	\$36.16
CA-Pay	Reimbursement Prep			
Marcos Czako	Senior Project Manager	9.00	131.51	\$1,183.59
CCA-Field	Meeting prep (2.0), Meeting at IEPA (09/04/2019)			
Marcos Czako	Senior Project Manager	.50	131.51	\$65.75
HAA	Lemont			
Shawn Rodeck	Senior Acct. Technician	2.50	72.32	\$180.80
CA-Pay	Reimbursement prep			
Shawn Rodeck	Senior Prof. Engineer	4.50	170.97	\$769.37
CCAP	Report review and certification			
Meyer Design	Senior Draftperson/CAD	10.00	78.90	\$789.00
CCAP	Amended CAP figure prep			
Marcos Czako	Senior Project Manager	25.00	131.51	\$3,287.75
CACR	CACR prep; IEPA correspondence			
Meyer Design	Senior Draftperson/CAD	3.00	78.90	\$236.70
CACR	CACR figure prep			
Shawn Rodeck	Senior Prof. Engineer	4.00	170.97	\$683.88
CACR	CACR review and certification			

Employee Name	Personnel Title	Hours	Rate (\$)	Total Cost
Remediation Category	Task			
Kimberly Henkel	Senior Admin. Assistant	2.00	59.18	\$118.36
CCAP	Preparation, copying, and mailing of the Amended CAP			
Kimberly Henkel	Senior Admin. Assistant	4.00	59.19	\$236.76
CACR	Preparation, copying, and mailing of the CACR; recording of the NFR letter			
Kimberly Henkel	Senior Acct. Technician	12.00	72.32	\$867.84
CA-Pay	Reimbursement claim prep			
Shawn Rodeck	Senior Prof. Engineer	2.00	170.97	\$341.94
CA-Pay	Reimbursement claim review and certification			

\*Refer to the applicable Maximum Payment Amounts document.

<b>Total of Consulting Personnel Costs</b>	<b>\$39,139.61</b>
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**Consultant's Materials Costs Form**

Materials, Equipment, or Field Purchase		Time or Amount Used	Rate (\$)	Unit	Total Cost
Remediation Category	Description/Justification				
1/18/2018 - USPS		1.00	5.95	total	\$5.95
ELUC	Document mailing				
1/20/2018 - CNA Surety		.00	125.00	total	\$0.00
CCA-Field	General contractor bond (Cut per IEPA requirements)				
1/24/18 - USPS		1.00	9.10	total	\$9.10
ELUC	Document mailing				
1/31/18 - USPS		1.00	6.55	total	\$6.55
CA-Pay	Document mailing				
4/4/2018 - USPS		1.00	6.55	total	\$6.55
HAA	Document mailing				
6/27/2018 - USPS		1.00	6.55	total	\$6.55
HAA	Document mailing				
Truck - Mileage (7/30/18)		44.00	.55	mile	\$23.98
CCAP	Transportation of consultant to and from the site				
8/9/2018 - USPS		1.00	7.41	total	\$7.41
CCAP	Document mailing				
1/20/2018 - CNA Surety		.00	125.00	total	\$0.00
CCA-Field	General contractor bond (Cut per IEPA requirements)				

Electronic Filing: Received, Clerk's Office 03/23/2021

Materials, Equipment, or Field Purchase		Time or Amount Used	Rate (\$)	Unit	Total Cost
Remediation Category	Description/Justification				
Truck - Mileage (9/4/19)		378.00	.58	mile	\$219.24
CCA-Field	Used to transport consultant to and from the IEPA offices for a project meeting				
Amended CAP Shipping		1.00	12.00	CAP	\$12.00
CCAP	Shipping of the Amended CAP				
CACR		1.00	12.00	CACR	\$12.00
CACR	Shipping of the CACR				
NFR Letter Recording		1.00	408.00	NFR	\$408.00
CACR	Recording and certified copy of the NFR letter				
NFR Letter Shipping		1.00	8.00	NFR	\$8.00
CACR	Shipping of the NFR letter to Cook County Recorder's Office				
Reimbursement Package		2.00	12.00	package	\$24.00
CA-Pay	Shipping of two reimbursement packages				

<b>Total of Consultant Materials Costs</b>	<b>\$749.33</b>
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**APPENDIX J**

**OWNER/OPERATOR AND LICENSED PROFESSIONAL  
ENGINEER/GEOLOGIST BUDGET CERTIFICATION FORM**

### Owner/Operator and Licensed Professional Engineer/Geologist Budget Certification Form

I hereby certify that I intend to seek payment from the UST Fund for costs incurred while performing corrective action activities for Leaking UST incident 942117. I further certify that the costs set forth in this budget are for necessary activities and are reasonable and accurate to the best of my knowledge and belief. I also certify that the costs included in this budget are not for corrective action in excess of the minimum requirements of 415 ILCS 5/57, no costs are included in this budget that are not described in the corrective action plan, and no costs exceed Subpart H: Maximum Payment Amounts, Appendix D Sample Handling and Analysis amounts, and Appendix E Personnel Titles and Rates of 35 Ill. Adm. Code 732 or 734. I further certify that costs ineligible for payment from the Fund pursuant to 35 Ill. Adm. Code 732.606 or 734.630 are not included in the budget proposal or amendment. Such ineligible costs include but are not limited to:

- Costs associated with ineligible tanks.
- Costs associated with site restoration (e.g., pump islands, canopies).
- Costs associated with utility replacement (e.g., sewers, electrical, telephone, etc.).
- Costs incurred prior to IEMA notification.
- Costs associated with planned tank pulls.
- Legal fees or costs.
- Costs incurred prior to July 28, 1989.
- Costs associated with installation of new USTs or the repair of existing USTs.

Owner/Operator: BOI, LLC

Authorized Representative: Steve Broadus

Title: Owner

Signature: Steve R. Broadus

Date: 10/22/2019

Subscribed and sworn to before me the 22nd day of October, 2019

Patricia Ann Ferguson  
(Notary Public)

Seal:



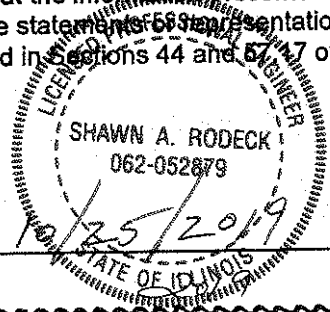
In addition, I certify under penalty of law that all activities that are the subject of this plan, budget, or report were conducted under my supervision or were conducted under the supervision of another Licensed Professional Engineer or Licensed Professional Geologist and reviewed by me; that this plan, budget, or report and all attachments were prepared under my supervision; that, to the best of my knowledge and belief, the work described in the plan, budget, or report has been completed in accordance with the Environmental Protection Act [415 ILCS 5], 35 Ill. Adm. Code 732 or 734, and generally accepted standards and practices of my profession; and that the information presented is accurate and complete. I am aware there are significant penalties for submitting false statements or representations to the Illinois EPA, including but not limited to fines, imprisonment, or both as provided in sections 44 and 57.17 of the Environmental Protection Act [415 ILCS 5/44 and 57.17].

L.P.E./L.P.G.: Shawn Rodeck

L.P.E./L.P.G. Seal:

L.P.E./L.P.G. Signature: Shawn Rodeck

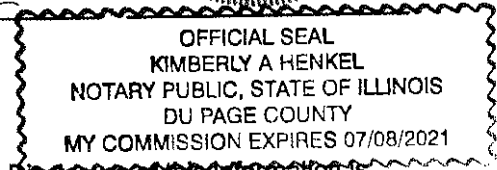
Date: 10/25/2019



Subscribed and sworn to before me the 25 day of October

Kimberly A Henkel  
(Notary Public)

Seal:



The Illinois EPA is authorized to require this information under 415 ILCS 5/1. Disclosure of this information is required. Failure to do so may result in the delay or denial of any budget or payment requested hereunder.

**APPENDIX K**

**OSFM ELIGIBILITY AND DEDUCTIBLE DETERMINATION LETTERS**



## State Fire Marshal

*"Partnering With the Fire Service to Protect Illinois"*

CERTIFIED MAIL - RECEIPT REQUESTED #7012 3460 0002 9026 4857

October 29, 2014

BOI, LLC  
201 Danny's Dr., Suite 5  
Streator, IL 61364

In Re: Facility No. 2-022271  
IEMA Incident No. 94-2117  
Lemont Village Gas, LLC  
1196 State Street  
Lemont, Cook Co., IL

Dear Applicant:

The Reimbursement Eligibility and Deductible Application received on October 10, 2014 for the above referenced occurrence has been reviewed. The following determinations have been made based upon this review.

It has been determined that you are eligible to seek payment of costs in excess of \$10,000. The costs must be in response to the occurrence referenced above and associated with the following tanks:

#### Eligible Tanks

Tank 1 6,000 gallon Gasoline  
Tank 2 3,000 gallon Gasoline  
Tank 3 3,000 gallon Gasoline

You must contact the Illinois Environmental Protection Agency to receive a packet of Agency billing forms for submitting your request for payment.

An owner or operator is eligible to access the Underground Storage Tank Fund if the eligibility requirements are satisfied:

1. Neither the owner nor the operator is the United States Government,
2. The tank does not contain fuel which is exempt from the Motor Fuel Tax Law,
3. The costs were incurred as a result of a confirmed release of any of the following substances:

"Fuel", as defined in Section 1.19 of the Motor Fuel Tax Law

Aviation fuel

Heating oil

Electronic Filing: Received, Clerk's Office 03/23/2021

Kerosene

Used oil, which has been refined from crude oil used in a motor vehicle, as defined in Section 1.3 of the Motor Fuel Tax Law.

4. The owner or operator registered the tank and paid all fees in accordance with the statutory and regulatory requirements of the Gasoline Storage Act.
5. The owner or operator notified the Illinois Emergency Management Agency of a confirmed release, the costs were incurred after the notification and the costs were a result of a release of a substance listed in this Section. Costs of corrective action or indemnification incurred before providing that notification shall not be eligible for payment.
6. The costs have not already been paid to the owner or operator under a private insurance policy, other written agreement, or court order.
7. The costs were associated with "corrective action".

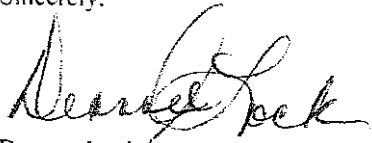
This constitutes the final decision as it relates to your eligibility and deductibility. We reserve the right to change the deductible determination should additional information that would change the determination become available. An underground storage tank owner or operator may appeal the decision to the Illinois Pollution Control Board (Board), pursuant to Section 57.9 (c) (2). An owner or operator who seeks to appeal the decision shall file a petition for a hearing before the Board within 35 days of the date of mailing of the final decision, (35 Illinois Administrative Code 105.504(b)).

For information regarding the filing of an appeal, please contact:

Clerk  
Illinois Pollution Control Board  
State of Illinois Center  
100 West Randolph, Suite 11-500  
Chicago, Illinois 60601  
(312) 814-3620

If you have any questions, please contact our Office at (217) 785-1020 or (217) 785-5878.

Sincerely,



Deanne Lock  
Administrative Assistant  
Division of Petroleum and Chemical Safety

cc: IEPA



## State Fire Marshal

*"Partnering With the Fire Service to Protect Illinois"*

CERTIFIED MAIL - RECEIPT REQUESTED #7014 1820 0001 3148 4323

April 8, 2015

BOI, LLC  
201 Danny's Dr., Suite 5  
Streator, IL 61364

In Re: Facility No. 2-022271  
IEMA Incident No. 14-1348  
Lemont Village Gas, LLC  
1196 State Street  
Lemont, Cook Co., IL

Dear Applicant:

The Reimbursement Eligibility and Deductible Application received on February 17, 2015 for the above referenced occurrence has been reviewed. The following determinations have been made based upon this review.

It has been determined that you are eligible to seek payment of costs in excess of \$5,000. The costs must be in response to the occurrence referenced above and associated with the following tanks:

#### Eligible Tanks

Tank 1 6,000 gallon Gasoline  
Tank 2 3,000 gallon Gasoline  
Tank 3 3,000 gallon Diesel Fuel

You must contact the Illinois Environmental Protection Agency to receive a packet of Agency billing forms for submitting your request for payment.

An owner or operator is eligible to access the Underground Storage Tank Fund if the eligibility requirements are satisfied:

1. Neither the owner nor the operator is the United States Government,
2. The tank does not contain fuel which is exempt from the Motor Fuel Tax Law,
3. The costs were incurred as a result of a confirmed release of any of the following substances:

"Fuel", as defined in Section 1.19 of the Motor Fuel Tax Law

Aviation fuel

Heating oil



Electronic Filing: Received, Clerk's Office 03/23/2021

Kerosene

Used oil, which has been refined from crude oil used in a motor vehicle, as defined in Section 1.3 of the Motor Fuel Tax Law.

4. The owner or operator registered the tank and paid all fees in accordance with the statutory and regulatory requirements of the Gasoline Storage Act.
5. The owner or operator notified the Illinois Emergency Management Agency of a confirmed release, the costs were incurred after the notification and the costs were a result of a release of a substance listed in this Section. Costs of corrective action or indemnification incurred before providing that notification shall not be eligible for payment.
6. The costs have not already been paid to the owner or operator under a private insurance policy, other written agreement, or court order.
7. The costs were associated with "corrective action".

This constitutes the final decision as it relates to your eligibility and deductibility. We reserve the right to change the deductible determination should additional information that would change the determination become available. An underground storage tank owner or operator may appeal the decision to the Illinois Pollution Control Board (Board), pursuant to Section 57.9 (c) (2). An owner or operator who seeks to appeal the decision shall file a petition for a hearing before the Board within 35 days of the date of mailing of the final decision, (35 Illinois Administrative Code 105.504(b)).

For information regarding the filing of an appeal, please contact:

Clerk  
Illinois Pollution Control Board  
State of Illinois Center  
100 West Randolph, Suite 11-500  
Chicago, Illinois 60601  
(312) 814-3620

If you have any questions, please contact our Office at (217) 785-1020 or (217) 785-5878.

Sincerely,



Deanne Lock  
Administrative Assistant  
Division of Petroleum and Chemical Safety

cc: IEPA  
TriCore Environmental, LLC

**APPENDIX L**

**TIER 2 CALCULATIONS FOR THE SCGIER**

**SSL Calculations used for the SCGIER**

Input Variables for the SCGIER

**Project Number:** 100137  
**Site Name:** Lemont Kar Gas  
**Site Address:** 1196 State Street  
**Site City:** Lemont  
**Site County:** Cook  
**Site State:** IL  
**Site ZIP:** 60439  
**Leaking UST Incident No.:** 942117, 20141348  
**LPC No.:** 0314625010  
**Land Use:** Industrial/Commercial  
**Soil Type:** Silt Clay  
**Groundwater Classification:** Class I  
**Mass Limit:** Yes  
**Source Area:** 0.5

**Person Performing Calcs:** Marcos I. Czakó, P.G.  
**Title:** Senior Project Manager

$\rho_b$	=	Dry soil bulk density	=	1.850	g/cm <sup>3</sup>
$d_s$	=	Depth of source	=	2.438	m
L	=	Source length parallel to groundwater flow	=	98.45	m
K	=	Aquifer hydraulic conductivity	=	16.351	m/yr
$d_a$	=	Aquifer thickness	=	3.81	m
i	=	Hydraulic gradient	=	0.0106	m/m
$GW_{obj}$	=	Groundwater remediation objective (chemical specific)			
			Benzene =	0.005	mg/L
			MTBE =	0.07	mg/L
		Solving for the SCGIER RO for Benzene =		0.279	mg/kg
		Solving for the SCGIER RO for MTBE =		3.911	mg/kg

**Target Soil Leachate Concentration**

Equation S18 
$$C_w = DF \cdot GW_{obj}$$

Where:

$C_w$	= Target soil leachate concentration (Equation S18)	= unknown	mg/L
DF	= Dilution factor (20 or Equation S22, whichever is greater)	= 20	unitless
$GW_{obj}$	= Groundwater remediation objective (chemical specific)		
		Benzene =	0.005 mg/L
		MTBE =	0.07 mg/L

Solving for $C_w$ for Benzene =	0.1	mg/L
Solving for $C_w$ for MTBE =	1.4	mg/L

**Dilution Factor**

Equation S22

$$DF = 1 + \frac{K \cdot i \cdot d}{I \cdot L}$$

Where:

DF	=	Dilution factor	=	unknown	unitless
K	=	Aquifer hydraulic conductivity	=	16.351	m/yr
i	=	Hydraulic gradient	=	0.0106	m/m
d	=	Mixing zone depth (Equation S25)	=	14.229	m
I	=	Infiltration rate (default)	=	0.3	m/yr
L	=	Source length parallel to groundwater flow	=	98.45	m

Therefore, solving for DF = 1.08 unitless

Please note that since the calculated DF is less than 20, a value of 20 is utilized in Equation S18.

**Estimation of Mixing Zone Depth**

Equation S25

$$d = (0.0112 \cdot L^2)^{0.5} + d_a \left[ 1 - \exp\left(\frac{-L \cdot I}{K \cdot i \cdot d_a}\right) \right]$$

Where:

d	=	Mixing zone depth	=	unknown	m
L	=	Source length parallel to groundwater flow	=	98.45	m
d <sub>a</sub>	=	Aquifer thickness	=	3.810	m
I	=	Infiltration rate (default)	=	0.3	m/yr
K	=	Aquifer hydraulic conductivity	=	16.351	m/yr
i	=	Hydraulic gradient	=	0.0106	m/m

Therefore, solving for d = 14.229 m

**Soil Component of the Groundwater Ingestion Exposure Route**

Equation S28

$$\frac{(C_w \cdot I_{M-L} \cdot ED_{M-L})}{\rho_b \cdot d_s}$$

Where:

SCGIER RO	= Remediation objective	= unknown	mg/kg
$C_w$	= Target soil leachate concentration (Equation S18)		
		Benzene =	0.1 mg/L
		MTBE =	1.4 mg/L
$I_{M-L}$	= Infiltration rate (default)	=	0.18 m/yr
$ED_{M-L}$	= Exposure duration (default)	=	70 yr
$\rho_b$	= Dry soil bulk density	=	1.85 g/cm <sup>3</sup>
$d_s$	= Depth of source	=	2.438 g/cm <sup>3</sup>

Solving for the SCGIER RO for Benzene = 0.279 mg/kg  
 Solving for the SCGIER RO for MTBE = 3.911 mg/kg



**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
SSL Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: S12, S17, R28): S18, S22, S25, and S28

Contact Information for Individual Who Performed Calculations: Marcos I. Czakó, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit
AT (ingestion)	=	yr
AT (inhalation)	=	yr
AT <sub>c</sub>	=	yr
BW	=	kg
C <sub>sat</sub>	=	mg/kg
C <sub>w</sub>	= 0.1	mg/L
d	= 14.229	m

Symbol		Unit
d <sub>a</sub>	= 3.810	m
d <sub>s</sub>	= 2.438	m
D <sub>A</sub>	=	cm <sup>2</sup> /s
D <sub>i</sub>	=	cm <sup>2</sup> /s
D <sub>w</sub>	=	cm <sup>2</sup> /s
DF	= 20	unitless
ED (ingestion of carcinogens)	=	yr

Symbol		Unit
ED (inhalation of carcinogens)	=	yr
ED (ingestion of noncarcinogens)	=	yr
ED (inhalation of noncarcinogens)	=	yr
ED (ingestion of groundwater)	=	yr
ED <sub>M-L</sub>	= 70	yr
EF	=	d/yr
F(x)	=	unitless
f <sub>oc</sub>	=	g/g
GW <sub>obj</sub>	= 0.005	mg/L
H'	=	unitless
i	= 0.0106	m/m
l	= 0.3	m/yr
l <sub>M-L</sub>	= 0.18	m/yr
IF <sub>soil-adj</sub>	=	(mg-yr)/(kg-d)
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	= 16.351	m/yr
K <sub>d</sub> (non-ionizing organics)	=	cm <sup>3</sup> /g or L/kg
K <sub>d</sub> (ionizing organics)	=	cm <sup>3</sup> /g or L/kg
K <sub>d</sub> (inorganics)	=	cm <sup>3</sup> /g or L/kg

Symbol		Unit
K <sub>oc</sub>	=	cm <sup>3</sup> /g or L/kg
K <sub>s</sub>	=	m/yr
L	= 98.45	m
PEF	=	m <sup>3</sup> /kg
PEF'	=	m <sup>3</sup> /kg
Q/C (VF equations)	=	(g/m <sup>2</sup> -s)/(kg/m <sup>3</sup> )
Q/C (PEF equations)	=	(g/m <sup>2</sup> -s)/(kg/m <sup>3</sup> )
RfC	=	mg/m <sup>3</sup>
RfD <sub>o</sub>	=	mg/(kg-d)
S	=	mg/L
SF <sub>o</sub>	=	(mg/kg-d) <sup>-1</sup>
T	=	s
T <sub>M-L</sub>	=	yr
THQ	=	unitless
TR	=	unitless
U <sub>m</sub>	=	m/s
URF	=	(µg/m <sup>3</sup> ) <sup>-1</sup>
U <sub>i</sub>	=	m/s
V	=	unitless
VF	=	m <sup>3</sup> /kg

Symbol		Unit
VF'	=	m <sup>3</sup> /kg
VF <sub>M-L</sub>	=	m <sup>3</sup> /kg
VF' <sub>M-L</sub>	=	m <sup>3</sup> /kg
η	=	L <sub>pore</sub> /L <sub>soil</sub>
θ <sub>a</sub>	=	L <sub>air</sub> /L <sub>soil</sub>

Symbol		Unit
θ <sub>w</sub>	=	L <sub>water</sub> /L <sub>soil</sub>
ρ <sub>b</sub>	=	1.85 kg/L or g/cm <sup>3</sup>
ρ <sub>s</sub>	=	g/cm <sup>3</sup>
ρ <sub>w</sub>	=	g/cm <sup>3</sup>
1/(2b+3)	=	unitless

Equation		Unit(s)
S1	=	mg/kg
S2	=	mg/kg
S3	=	mg/kg
S4	=	mg/kg
S5	=	mg/kg
S6	=	mg/kg
S7	=	mg/kg
S17	=	mg/kg
S28	=	0.279 mg/kg
S29	=	mg/kg

Electronic Filing Received Clerk's Office 03/23/2021

**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
SSL Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: S12, S17, R28): S18, S22, S25, and S28

Contact Information for Individual Who Performed Calculations: Marcos I. Czakó, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit
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AT (inhalation)	=	yr
AT <sub>c</sub>	=	yr
BW	=	kg
C <sub>sat</sub>	=	mg/kg
C <sub>w</sub>	= 1.4	mg/L
d	= 14.229	m

Symbol		Unit
d <sub>a</sub>	= 3.810	m
d <sub>s</sub>	= 2.438	m
D <sub>A</sub>	=	cm <sup>2</sup> /s
D <sub>i</sub>	=	cm <sup>2</sup> /s
D <sub>w</sub>	=	cm <sup>2</sup> /s
DF	= 20	unitless
ED (ingestion of carcinogens)	=	yr

Symbol		Unit
ED (inhalation of carcinogens)	=	yr
ED (ingestion of noncarcinogens)	=	yr
ED (inhalation of noncarcinogens)	=	yr
ED (ingestion of groundwater)	=	yr
ED <sub>M-L</sub>	= 70	yr
EF	=	d/yr
F(x)	=	unitless
f <sub>oc</sub>	=	g/g
GW <sub>obj</sub>	= 0.07	mg/L
H'	=	unitless
i	= 0.0106	m/m
l	= 0.3	m/yr
l <sub>M-L</sub>	= 0.18	m/yr
IF <sub>soil-adj</sub>	=	(mg-yr)/(kg-d)
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	= 16.351	m/yr
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K <sub>d</sub> (ionizing organics)	=	cm <sup>3</sup> /g or L/kg
K <sub>d</sub> (inorganics)	=	cm <sup>3</sup> /g or L/kg

Symbol		Unit
K <sub>oc</sub>	=	cm <sup>3</sup> /g or L/kg
K <sub>s</sub>	=	m/yr
L	= 98.45	m
PEF	=	m <sup>3</sup> /kg
PEF'	=	m <sup>3</sup> /kg
Q/C (VF equations)	=	(g/m <sup>2</sup> -s)/(kg/m <sup>3</sup> )
Q/C (PEF equations)	=	(g/m <sup>2</sup> -s)/(kg/m <sup>3</sup> )
RfC	=	mg/m <sup>3</sup>
RfD <sub>o</sub>	=	mg/(kg-d)
S	=	mg/L
SF <sub>o</sub>	=	(mg/kg-d) <sup>-1</sup>
T	=	s
T <sub>M-L</sub>	=	yr
THQ	=	unitless
TR	=	unitless
U <sub>m</sub>	=	m/s
URF	=	(µg/m <sup>3</sup> ) <sup>-1</sup>
U <sub>t</sub>	=	m/s
V	=	unitless
VF	=	m <sup>3</sup> /kg

Symbol		Unit
VF'	=	m <sup>3</sup> /kg
VF <sub>M-L</sub>	=	m <sup>3</sup> /kg
VF' <sub>M-L</sub>	=	m <sup>3</sup> /kg
η	=	L <sub>pore</sub> /L <sub>soil</sub>
θ <sub>a</sub>	=	L <sub>air</sub> /L <sub>soil</sub>

Symbol		Unit
θ <sub>w</sub>	=	L <sub>water</sub> /L <sub>soil</sub>
ρ <sub>b</sub>	=	1.85 kg/L or g/cm <sup>3</sup>
ρ <sub>s</sub>	=	g/cm <sup>3</sup>
ρ <sub>w</sub>	=	g/cm <sup>3</sup>
1/(2b+3)	=	unitless

Equation		Unit(s)
S1	=	mg/kg
S2	=	mg/kg
S3	=	mg/kg
S4	=	mg/kg
S5	=	mg/kg
S6	=	mg/kg
S7	=	mg/kg
S17	=	mg/kg
S28	=	3.911 mg/kg
S29	=	mg/kg

**RBCA Calculations Used for all SCGIER RBCA  
Evaluations**

**Leaching Factor and Groundwater Concentration at the Source**

Equation R14

$$LF_{sw} = \frac{\rho_s \cdot \frac{cm^3 \cdot kg}{L \cdot g}}{[\theta_{ws} + (k_s \cdot \rho_s) + (H' \cdot \theta_{as})] \cdot \left[ 1 + \frac{(U_{gw} \cdot \delta_{gw})}{(I \cdot W)} \right]}$$

Where:

LF <sub>sw</sub>	=	Leaching factor	=	unknown	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )	
ρ <sub>s</sub>	=	Dry soil bulk density	=	1.850	g/cm <sup>3</sup>	
θ <sub>ws</sub>	=	Volumetric water content (Equation R22)	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>	
k <sub>s</sub>	=	Soil water sorption coefficient (Equation R20 - chemical specific)				
			Benzene	=	0.920	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
			Toluene	=	2.907	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
			Ethylbenzene	=	5.888	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
			Total Xylenes	=	7.323	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
			MTBE	=	0.184	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
H'	=	Henry's Law constant (default - chemical specific)				
			Benzene	=	0.23	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
			Toluene	=	0.271	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
			Ethylbenzene	=	0.324	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
			Total Xylenes	=	0.271	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
			MTBE	=	0.0242	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
θ <sub>as</sub>	=	Volumetric air content (Equation R21)	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>	
U <sub>gw</sub>	=	Groundwater Darcy velocity (Equation R24)	=	17.3325	cm/yr	
δ <sub>gw</sub>	=	Groundwater mixing zone thickness (default)	=	200	cm	
I	=	Infiltration rate (default)	=	30	cm/yr	
W	=	Width of source area parallel to groundwater flow direction	=	9,845	cm	

Solving for the LF <sub>sw</sub> for Benzene	=	0.9161	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
Solving for the LF <sub>sw</sub> for Toluene	=	0.3219	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
Solving for the LF <sub>sw</sub> for Ethylbenzene	=	0.1632	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
Solving for the LF <sub>sw</sub> for Total Xylenes	=	0.1320	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
Solving for the LF <sub>sw</sub> for MTBE	=	3.0571	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )



**Soil-Water Sorption Coefficient**

Equation R20  $k_s = K_{oc} \cdot f_{oc}$

Where:

$k_s$	=	Soil-water sorption coefficient	=	unknown	$\text{cm}^3_{\text{water}}/\text{g}_{\text{soil}}$
$K_{oc}$	=	Organic carbon partition coefficient (default - chemical specific)			
		Benzene	=	50	L/kg
		Toluene	=	158	L/kg
		Ethylbenzene	=	320	L/kg
		Total Xylenes	=	398	L/kg
		MTBE	=	10	L/kg
$f_{oc}$	=	Organic carbon content of soil	=	0.0184	g/g

Solving for $k_s$ for Benzene	=	0.920	$\text{cm}^3_{\text{water}}/\text{g}_{\text{soil}}$
Solving for $k_s$ for Toluene	=	2.907	$\text{cm}^3_{\text{water}}/\text{g}_{\text{soil}}$
Solving for $k_s$ for Ethylbenzene	=	5.888	$\text{cm}^3_{\text{water}}/\text{g}_{\text{soil}}$
Solving for $k_s$ for Total Xylenes	=	7.323	$\text{cm}^3_{\text{water}}/\text{g}_{\text{soil}}$
Solving for $k_s$ for MTBE	=	0.184	$\text{cm}^3_{\text{water}}/\text{g}_{\text{soil}}$

**Volumetric Air Content**

Equation R21

$$\theta_{as} = \theta_T - \left[ \frac{w \cdot \rho_s}{\rho_w} \right]$$

Where:

$\theta_{as}$	=	Volumetric air content	=	unknown	$\text{cm}^3_{\text{air}}/\text{cm}^3_{\text{soil}}$
$\theta_T$	=	Total soil porosity	=	0.43	$\text{cm}^3/\text{cm}^3_{\text{soil}}$
w	=	Moisture content	=	0.137	$\text{g}_{\text{water}}/\text{g}_{\text{soil}}$
$\rho_s$	=	Dry soil bulk density	=	1.85	$\text{g}/\text{cm}^3$
$\rho_w$	=	Water density (default)	=	1	$\text{g}/\text{cm}^3$

Solving for  $\theta_{as} = 0.1766$

**Volumetric Water Content**

Equation R22

$$\theta_{ws} = \frac{w \cdot \rho_s}{\rho_w}$$

Where:

$\theta_{ws}$	=	Volumetric water content	=	unknown	$\text{cm}^3_{\text{water}}/\text{cm}^3_{\text{soil}}$
w	=	Moisture content	=	0.137	$\text{g}_{\text{water}}/\text{g}_{\text{soil}}$
$\rho_s$	=	Dry soil bulk density	=	1.85	$\text{g}/\text{cm}^3$
$\rho_w$	=	Water density (default)	=	1	$\text{g}/\text{cm}^3$

Solving for  $\theta_{ws} = 0.2535$

**Groundwater Darcy Velocity**

Equation R24

$$U_{gw} = K \cdot i$$

Where:

$U_{gw}$	=	Groundwater Darcy velocity	=	unknown	cm/yr
$K$	=	Aquifer hydraulic conductivity	=	1,635.14	cm/yr
$i$	=	Hydraulic gradient	=	0.0106	cm/cm

Solving for the  $U_{gw} = 17.3325$  cm/yr

**Sample Location: EX-3**

**Input Variables for the SCGIER**

Project Number:	<u>100137</u>	Person Performing Calcs:	<u>Marcos I. Czako, P.G.</u>
Site Name:	<u>Lemont Kar Gas</u>	Title:	<u>Senior Project Manager</u>
Site Address:	<u>1196 State Street</u>		
Site City:	<u>Lemont</u>		
Site County:	<u>Cook</u>		
Site State:	<u>IL</u>		
Site ZIP:	<u>60439</u>		
Leaking UST Incident No.:	<u>942117, 20141348</u>		
LPC No.:	<u>0314625010</u>		
Land Use:	<u>Industrial/Commercial</u>		
Soil Type:	<u>Silt Clay</u>		
Groundwater Classification:	<u>Class I</u>		
Contamination Modeled To:	<u>Class I</u>		
Mass Limit:	<u>No</u>		
Sample Location:	<u>EX-3</u>		

$\rho_s$	=	Dry soil bulk density	=	1.850	$\rho/cm^3$
w	=	Moisture content	=	0.137	$S_{water}/G_{soil}$
$\theta_T$	=	Total soil porosity	=	0.43	$L_{pore}/L_{soil}$
$f_{oc}$	=	Organic carbon content of soil	=	0.0184	g/g
K	=	Aquifer hydraulic conductivity	=	1,635.14	cm/yr
i	=	Hydraulic gradient	=	0.0106	m/m
W	=	Width of source area parallel to groundwater flow direction	=	9,845	cm
$S_w$	=	Source width perpendicular to groundwater flow in the horizontal plane	=	11,095	cm
$RO_{soil}$	=	Soil concentration at the source			
			Benzene	=	9.380 mg/kg
$C_{source}$	=	Groundwater concentration at the source (Equation R13)			
			Benzene	=	8.593 mg/L
X	=	Distance along the centerline of the groundwater plume			
			Benzene	=	1,528 cm = 50.13 ft
			Solving for the $C(x)$ for Benzene	=	0.0050 mg/L

**Leaching Factor and Groundwater Concentration at the Source**

Sample Location: EX-3

Equation R12

$$RO_{soil} = \frac{GW_{source}}{LF_{sw}}$$

Equation R12 Revised

$$GW_{source} = LF_{sw} \cdot RO_{soil}$$

Where:

$GW_{source}$	=	Groundwater concentration at the source	=	unknown	mg/L
$LF_{sw}$	=	Leaching factor (Equation R14 - chemical specific)	=		
			Benzene	=	0.9161 (mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
$RO_{soil}$	=	Soil concentration at the source			
			Benzene	=	9.3800 mg/kg

Solving for the  $GW_{source}$  for Benzene = 8.593 mg/L

**Groundwater Concentration at the Source**

Sample Location: EX-3

Equation R13

$$GW_{source} = \frac{GW_{comp}}{\frac{C(x)}{C_{source}}}$$

Equation R13 Revised

$$C_{source} = \frac{GW_{comp}}{\frac{C(x)}{GW_{source}}}$$

Where:

- |               |   |   |   |         |              |
|---------------|---|---|---|---------|--------------|
| $C_{source}$  | = | Groundwater concentration at the source of contamination  | = | unknown | mg/L         |
| $GW_{comp}$   | = | Groundwater objective at the compliance point (Tier 1, Class I GRO - chemical specific)           |   |         |              |
|               |   |   |   | Benzene | = 0.005 mg/L |
| $C(x)$        | = | Groundwater concentration at distance X from the source (Tier 1, Class I GRO - chemical specific) |   |         |              |
|               |   |   |   | Benzene | = 0.005 mg/L |
| $GW_{source}$ | = | Groundwater concentration at the source (Equation R12 - chemical specific)                        |   |         |              |
|               |   |   |   | Benzene | = 8.593 mg/L |

Solving for the  $C_{source}$  for Benzene = 8.593 mg/L



**Longitudinal Dispersivity**

Sample Location: EX-3

Equation R16  $\alpha_x = 0.10 \cdot X$

Where:

$\alpha_x$	=	Longitudinal dispersivity	=	unknown	cm
$X$	=	Distance along the centerline of the groundwater plume			
			Benzene	=	1,528 cm

Solving for the  $\alpha_x$  for Benzene = 152.80 cm

### Transverse Dispersivity

Sample Location: EX-3

Equation R17

$$\alpha_y = \frac{\alpha_x}{3}$$

Where:

$\alpha_y$  = Transverse dispersivity = unknown cm  
 $\alpha_x$  = Longitudinal dispersivity (Equation R16 - chemical specific)  
Benzene = 152.80 cm

Solving for the  $\alpha_y$  for Benzene = 50.93 cm

**Vertical Dispersivity**

Sample Location: EX-3

Equation R18

$$\alpha_z = \frac{\alpha_x}{20}$$

Where:

$\alpha_z$  = Vertical dispersivity = unknown cm  
 $\alpha_x$  = Longitudinal dispersivity (Equation R16 - chemical specific)  
Benzene = 152.80 cm

Solving for the  $\alpha_z$  for Benzene = 7.64 cm

**Concentration of Contaminant in Groundwater at Distance X from the source**

Sample Location: EX-3

Equation R26 
$$C_{(x)} = C_{source} \cdot \exp\left[\left(\frac{X}{2\alpha_x}\right) \cdot \left(1 - \sqrt{1 + \frac{4\lambda \cdot \alpha_x}{U}}\right)\right] \cdot \operatorname{erf}\left[\frac{S_w}{4 \cdot \sqrt{\alpha_y \cdot X}}\right] \cdot \operatorname{erf}\left[\frac{S_d}{2 \cdot \sqrt{\alpha_z \cdot X}}\right]$$

Where:

X	= Distance along the centerline of the groundwater plume	=	unknown	cm
$C_{(x)}$	= Groundwater concentration at distance X from the source (Tier 1, Class I GRO - chemical specific)			
		Benzene	=	0.005 mg/L
$C_{source}$	= Groundwater concentration at the source (Equation R13)			
		Benzene	=	8.593 mg/L
$\alpha_x$	= Longitudinal dispersivity (Equation R16 - chemical specific)			
		Benzene	=	152.80 cm
$\lambda$	= First order degradation constant (default - chemical specific)			
		Benzene	=	0.0009 d <sup>-1</sup>
U	= Specific discharge (Equation R19)		=	0.11 cm/d
$S_w$	= Source width perpendicular to groundwater flow in the horizontal plane		=	11,095 cm
$\alpha_y$	= Transverse dispersivity (Equation R17 - chemical specific)			
		Benzene	=	50.93 cm
$S_d$	= Source width perpendicular to groundwater flow in the vertical plane (default)		=	200 cm
$\alpha_z$	= Vertical dispersivity (Equation R18 - chemical specific)			
		Benzene	=	7.64 cm

X to meet the Tier 1, Class I GRO for Benzene = 1,528 cm

Electronic Filing Received Clerks Office 03/23/2021

**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
RBCA Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R12 through R14, R16 through R22, R24, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czakó, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify C<sub>source</sub> from S17/S28                      mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit	Symbol		Unit
At <sub>c</sub>	=	yr	d	=	cm
AT <sub>n</sub>	=	yr	D <sup>air</sup>	=	cm <sup>2</sup> /s
BW	=	kg	D <sup>water</sup>	=	cm <sup>2</sup> /s
C <sub>source</sub>	=	8.593 mg/L	D <sub>s</sub> <sup>eff</sup>	=	cm <sup>2</sup> /s
C <sub>(x)</sub>	=	0.005 mg/L	ED	=	yr
C <sub>(x)</sub> /C <sub>source</sub>	=	unitless	EF	=	d/yr

Symbol		Unit
erf	=	unitless
$f_{oc}$	=	0.0184 g/g
$GW_{comp}$	=	0.005 mg/L
$GW_{source}$	=	8.593 mg/L
H'	=	0.23 $cm^3_{water}/cm^3_{air}$
i	=	0.0106 cm/cm
I	=	30 cm/yr
$IR_{air}$	=	$m^3/d$
$IR_{soil}$	=	mg/d
$IR_w$	=	L/d
K	=	4.4798 $cm/d$ for R15, R19, R26; $cm/yr$ for R24
$K_{oc}$	=	50 $cm^3/g$ or L/kg
$k_s$ (non-ionizing organics)	=	0.920 $cm^3_{water}/g_{soil}$
$k_s$ (ionizing organics)	=	$cm^3_{water}/g_{soil}$
$k_s$ (inorganics)	=	$cm^3_{water}/g_{soil}$
$L_s$	=	cm
$LF_{sw}$	=	0.9161 $(mg/L_{water})/m g/kg_{soil}$
M	=	$m/cm^2$
Pe	=	$g/cm^2-s$
$RAF_d$	=	unitless

Symbol		Unit
$RAF_d$ (PNAs)	=	unitless
$RAF_d$ (inorganics)	=	unitless
$RAF_0$	=	unitless
$RBSL_{air}$ (carcinogenic)	=	$\mu g/m^3$
$RBSL_{air}$ (noncarcinogenic)	=	$\mu g/m^3$
$RfD_i$	=	mg/kg-d
$RfD_o$	=	mg/kg-d
SA	=	$cm^2/d$
$S_d$	=	200 cm
$S_w$	=	11,095 cm
$SF_i$	=	(mg/kg-d) <sup>-1</sup>
$SF_o$	=	(mg/kg-d) <sup>-1</sup>
THQ	=	unitless
TR	=	unitless
U	=	0.11 cm/d
$U_{air}$	=	cm/s
$U_{gw}$	=	17.3325 cm/yr
$VF_p$	=	$kg/m^3$
$Vf_{samb}$	=	$(mg/m^3_{air})/(mg/kg_{soil})$ or $kg/m^3$
$VF_{ss}$	=	$kg/m^3$

Symbol			Unit
W	=	9,845	cm
w	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
X	=	1,528	cm
$\alpha_x$	=	152.80	cm
$\alpha_y$	=	50.93	cm
$\alpha_z$	=	7.64	cm
$\delta_{air}$	=		cm
$\delta_{gw}$	=	200	cm

Symbol			Unit
$\theta_{as}$	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	=	0.0009	d <sup>-1</sup>
$\pi$	=		
$\rho_b$	=	1.850	g/cm <sup>3</sup>
$\rho_w$	=	1	g/cm <sup>3</sup>
$\tau$	=		s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12	9.380	mg/kg
R25		mg/L

**Sample Location: EX-5**



# Electronic Filing: Received, Clerk's Office 03/23/2021

## Input Variables for the SCGIER

<table border="0" style="width: 100%; border-collapse: collapse;"> <tr><td>Project Number:</td><td><u>100137</u></td></tr> <tr><td>Site Name:</td><td><u>Lemont Kar Gas</u></td></tr> <tr><td>Site Address:</td><td><u>1196 State Street</u></td></tr> <tr><td>Site City:</td><td><u>Lemont</u></td></tr> <tr><td>Site County:</td><td><u>Cook</u></td></tr> <tr><td>Site State:</td><td><u>IL</u></td></tr> <tr><td>Site ZIP:</td><td><u>60439</u></td></tr> <tr><td>Leaking UST Incident No.:</td><td><u>942117, 20141348</u></td></tr> <tr><td>LPC No.:</td><td><u>0314625010</u></td></tr> <tr><td>Land Use:</td><td><u>Industrial/Commercial</u></td></tr> <tr><td>Soil Type:</td><td><u>Silt Clay</u></td></tr> <tr><td>Groundwater Classification:</td><td><u>Class I</u></td></tr> <tr><td>Contamination Modeled To:</td><td><u>Class I</u></td></tr> <tr><td>Mass Limit:</td><td><u>No</u></td></tr> <tr><td>Sample Location:</td><td><u>EX-5</u></td></tr> </table>	Project Number:	<u>100137</u>	Site Name:	<u>Lemont Kar Gas</u>	Site Address:	<u>1196 State Street</u>	Site City:	<u>Lemont</u>	Site County:	<u>Cook</u>	Site State:	<u>IL</u>	Site ZIP:	<u>60439</u>	Leaking UST Incident No.:	<u>942117, 20141348</u>	LPC No.:	<u>0314625010</u>	Land Use:	<u>Industrial/Commercial</u>	Soil Type:	<u>Silt Clay</u>	Groundwater Classification:	<u>Class I</u>	Contamination Modeled To:	<u>Class I</u>	Mass Limit:	<u>No</u>	Sample Location:	<u>EX-5</u>	<table border="0" style="width: 100%; border-collapse: collapse;"> <tr><td>Person Performing Calcs:</td><td><u>Marcos I. Czako, P.G.</u></td></tr> <tr><td>Title:</td><td><u>Senior Project Manager</u></td></tr> </table>	Person Performing Calcs:	<u>Marcos I. Czako, P.G.</u>	Title:	<u>Senior Project Manager</u>
Project Number:	<u>100137</u>																																		
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Title:	<u>Senior Project Manager</u>																																		

$\rho_s$	= Dry soil bulk density	=	1.850		$\text{g/cm}^3$
$w$	= Moisture content	=	0.137		$\frac{\text{g}_{\text{water}}}{\text{g}_{\text{soil}}}$
$\theta_1$	= Total soil porosity	=	0.43		$\frac{L_{\text{pore}}}{L_{\text{soil}}}$
$f_{oc}$	= Organic carbon content of soil	=	0.0184		$\text{g/g}$
$K$	= Aquifer hydraulic conductivity	=	1,635.14		$\text{cm/yr}$
$i$	= Hydraulic gradient	=	0.0106		$\text{m/m}$
$W$	= Width of source area parallel to groundwater flow direction	=	9,845		$\text{cm}$
$S_w$	= Source width perpendicular to groundwater flow in the horizontal plane	=	11,095		$\text{cm}$
$RO_{\text{soil}}$	= Soil concentration at the source				
			Benzene	=	14.500 $\text{mg/kg}$
			Toluene	=	105.000 $\text{mg/kg}$
			Ethylbenzene	=	44.800 $\text{mg/kg}$
			Total Xylenes	=	221.000 $\text{mg/kg}$
			MTBE	=	0.885 $\text{mg/kg}$
$C_{\text{source}}$	= Groundwater concentration at the source (Equation R13)				
			Benzene	=	13.283 $\text{mg/L}$
			Toluene	=	33.805 $\text{mg/L}$
			Ethylbenzene	=	7.312 $\text{mg/L}$
			Total Xylenes	=	29.179 $\text{mg/L}$
			MTBE	=	2.706 $\text{mg/L}$
$X$	= Distance along the centerline of the groundwater plume				
			Benzene	=	1,648 $\text{cm} = 54.07 \text{ ft}$
			Toluene	=	47 $\text{cm} = 1.54 \text{ ft}$
			Ethylbenzene	=	107 $\text{cm} = 3.51 \text{ ft}$
			Total Xylenes	=	69 $\text{cm} = 2.26 \text{ ft}$
			MTBE	=	31,172 $\text{cm} = 1,022.70 \text{ ft}$
			Solving for the $C_{(x)}$ for Benzene	=	0.0050 $\text{mg/L}$
			Solving for the $C_{(x)}$ for Toluene	=	1.0 $\text{mg/L}$
			Solving for the $C_{(x)}$ for Ethylbenzene	=	0.70 $\text{mg/L}$
			Solving for the $C_{(x)}$ for Total Xylenes	=	10.0 $\text{mg/L}$
			Solving for the $C_{(x)}$ for MTBE	=	0.070 $\text{mg/L}$

**Leaching Factor and Groundwater Concentration at the Source**

Sample Location: EX-5

Equation R12

$$RO_{soil} = \frac{GW_{source}}{LF_{sw}}$$

Equation R12 Revised

$$GW_{source} = LF_{sw} \cdot RO_{soil}$$

Where:

$GW_{source}$	=	Groundwater concentration at the source	=	unknown	mg/L
$LF_{sw}$	=	Leaching factor (Equation R14 - chemical specific)	=		
		Benzene	=	0.9161	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
		Toluene	=	0.3219	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
		Ethylbenzene	=	0.1632	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
		Total Xylenes	=	0.1320	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
		MTBE	=	3.0571	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
$RO_{soil}$	=	Soil concentration at the source			
		Benzene	=	14.5000	mg/kg
		Toluene	=	105.000	mg/kg
		Ethylbenzene	=	44.800	mg/kg
		Total Xylenes	=	221.000	mg/kg
		MTBE	=	0.885	mg/kg
		Solving for the $GW_{source}$ for Benzene	=	13.283	mg/L
		Solving for the $GW_{source}$ for Toluene	=	33.805	mg/L
		Solving for the $GW_{source}$ for Ethylbenzene	=	7.312	mg/L
		Solving for the $GW_{source}$ for Total Xylenes	=	29.179	mg/L
		Solving for the $GW_{source}$ for MTBE	=	2.706	mg/L

**Groundwater Concentration at the Source**

Sample Location: EX-5

Equation R13

$$GW_{source} = \frac{GW_{comp}}{\frac{C(x)}{C_{source}}}$$

Equation R13 Revised

$$C_{source} = \frac{GW_{comp}}{\frac{C(x)}{GW_{source}}}$$

Where:

$C_{source}$	=	Groundwater concentration at the source of contamination	=	unknown	mg/L
$GW_{comp}$	=	Groundwater objective at the compliance point (Tier 1, Class I GRO - chemical specific)			
				Benzene	= 0.005 mg/L
				Toluene	= 1 mg/L
				Ethylbenzene	= 0.7 mg/L
				Total Xylenes	= 10 mg/L
				MTBE	= 0.07 mg/L
$C(x)$	=	Groundwater concentration at distance X from the source (Tier 1, Class I GRO - chemical specific)			
				Benzene	= 0.005 mg/L
				Toluene	= 1 mg/L
				Ethylbenzene	= 0.7 mg/L
				Total Xylenes	= 10 mg/L
				MTBE	= 0.07 mg/L
$GW_{source}$	=	Groundwater concentration at the source (Equation R12 - chemical specific)			
				Benzene	= 13.283 mg/L
				Toluene	= 33.805 mg/L
				Ethylbenzene	= 7.312 mg/L
				Total Xylenes	= 29.179 mg/L
				MTBE	= 2.706 mg/L

- Solving for the  $C_{source}$  for Benzene = 13.283 mg/L
- Solving for the  $C_{source}$  for Toluene = 33.805 mg/L
- Solving for the  $C_{source}$  for Ethylbenzene = 7.312 mg/L
- Solving for the  $C_{source}$  for Total Xylenes = 29.179 mg/L
- Solving for the  $C_{source}$  for MTBE = 2.706 mg/L

**Longitudinal Dispersivity**

Sample Location: EX-5

Equation R16  $\alpha_x = 0.10 \cdot X$

Where:

$\alpha_x$  = Longitudinal dispersivity = unknown cm  
 $X$  = Distance along the centerline of the groundwater plume

Benzene	=	1,648	cm
Toluene	=	47	cm
Ethylbenzene	=	107	cm
Total Xylenes	=	69	cm
MTBE	=	31,172	cm

Solving for the $\alpha_x$ for Benzene	=	164.80	cm
Solving for the $\alpha_x$ for Toluene	=	4.70	cm
Solving for the $\alpha_x$ for Ethylbenzene	=	10.70	cm
Solving for the $\alpha_x$ for Total Xylenes	=	6.90	cm
Solving for the $\alpha_x$ for MTBE	=	3,117.20	cm

**Transverse Dispersivity**

Sample Location: EX-5

Equation R17

$$\alpha_y = \frac{\alpha_x}{3}$$

Where:

$\alpha_y$	=	Transverse dispersivity	=	unknown	cm
$\alpha_x$	=	Longitudinal dispersivity (Equation R16 - chemical specific)			
		Benzene	=	164.80	cm
		Toluene	=	4.70	cm
		Ethylbenzene	=	10.70	cm
		Total Xylenes	=	6.90	cm
		MTBE	=	3,117.20	cm

Solving for the $\alpha_y$ for Benzene	=	54.93	cm
Solving for the $\alpha_y$ for Toluene	=	1.57	cm
Solving for the $\alpha_y$ for Ethylbenzene	=	3.57	cm
Solving for the $\alpha_y$ for Total Xylenes	=	2.30	cm
Solving for the $\alpha_y$ for MTBE	=	1,039.07	cm

**Vertical Dispersivity**

Sample Location: EX-5

Equation R18

$$\alpha_z = \frac{\alpha_x}{20}$$

Where:

$\alpha_z$	=	Vertical dispersivity	=	unknown	cm
$\alpha_x$	=	Longitudinal dispersivity (Equation R16 - chemical specific)			
			Benzene	=	164.80 cm
			Toluene	=	4.70 cm
			Ethylbenzene	=	10.70 cm
			Total Xylenes	=	6.90 cm
			MTBE	=	3,117.20 cm

	Solving for the $\alpha_z$ for Benzene	=	8.24	cm
	Solving for the $\alpha_z$ for Toluene	=	0.24	cm
	Solving for the $\alpha_z$ for Ethylbenzene	=	0.54	cm
	Solving for the $\alpha_z$ for Total Xylenes	=	0.35	cm
	Solving for the $\alpha_z$ for MTBE	=	155.86	cm

**Concentration of Contaminant in Groundwater at Distance X from the source**

Sample Location: EX-5

Equation R26 
$$C_{(x)} = C_{source} \cdot \exp \left[ \left( \frac{X}{2\alpha_x} \right) \cdot \left( 1 - \sqrt{1 + \frac{4\lambda \cdot \alpha_x}{U}} \right) \right] \cdot \operatorname{erf} \left[ \frac{S_w}{4 \cdot \sqrt{\alpha_x \cdot X}} \right] \cdot \operatorname{erf} \left[ \frac{S_d}{2 \cdot \sqrt{\alpha_z \cdot X}} \right]$$

Where:

X	= Distance along the centerline of the groundwater plume	=	unknown	cm
C <sub>(x)</sub>	= Groundwater concentration at distance X from the source (Tier 1, Class I GRO - chemical specific)			
			Benzene	= 0.005 mg/L
			Toluene	= 1 mg/L
			Ethylbenzene	= 0.7 mg/L
			Total Xylenes	= 10 mg/L
			MTBE	= 0.07 mg/L
C <sub>source</sub>	= Groundwater concentration at the source (Equation R13)			
			Benzene	= 13.283 mg/L
			Toluene	= 33.805 mg/L
			Ethylbenzene	= 7.312 mg/L
			Total Xylenes	= 29.179 mg/L
			MTBE	= 2.706 mg/L
α <sub>x</sub>	= Longitudinal dispersivity (Equation R16 - chemical specific)			
			Benzene	= 164.80 cm
			Toluene	= 4.70 cm
			Ethylbenzene	= 10.70 cm
			Total Xylenes	= 6.90 cm
			MTBE	= 3,117.20 cm
λ	= First order degradation constant (default - chemical specific)			
			Benzene	= 0.0009 d <sup>-1</sup>
			Toluene	= 0.011 d <sup>-1</sup>
			Ethylbenzene	= 0.003 d <sup>-1</sup>
			Total Xylenes	= 0.0019 d <sup>-1</sup>
			MTBE	= 0 d <sup>-1</sup>
U	= Specific discharge (Equation R19)			
				= 0.11 cm/d
S <sub>w</sub>	= Source width perpendicular to groundwater flow in the horizontal plane			= 11,095 cm
α <sub>y</sub>	= Transverse dispersivity (Equation R17 - chemical specific)			
			Benzene	= 54.93 cm
			Toluene	= 1.57 cm
			Ethylbenzene	= 3.57 cm
			Total Xylenes	= 2.30 cm
			MTBE	= 1,039.07 cm
S <sub>d</sub>	= Source width perpendicular to groundwater flow in the vertical plane (default)			= 200 cm
α <sub>z</sub>	= Vertical dispersivity (Equation R18 - chemical specific)			
			Benzene	= 8.24 cm
			Toluene	= 0.24 cm
			Ethylbenzene	= 0.54 cm
			Total Xylenes	= 0.35 cm
			MTBE	= 155.86 cm
	X to meet the Tier 1, Class I GRO for Benzene	=	1,648	cm
	X to meet the Tier 1, Class I GRO for Toluene	=	47	cm
	X to meet the Tier 1, Class I GRO for Ethylbenzene	=	107	cm
	X to meet the Tier 1, Class I GRO for Total Xylenes	=	69	cm
	X to meet the Tier 1, Class I GRO for MTBE	=	31,172	cm

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**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
RBCA Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R12 through R14, R16 through R22, R24, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czako, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify C<sub>source</sub> from S17/S28                      mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit	Symbol		Unit
$A_{tc}$	=	yr	d	=	cm
$AT_n$	=	yr	$D^{air}$	=	cm <sup>2</sup> /s
BW	=	kg	$D^{water}$	=	cm <sup>2</sup> /s
$C_{source}$	=	13.283 mg/L	$D_s^{eff}$	=	cm <sup>2</sup> /s
$C_{(x)}$	=	0.005 mg/L	ED	=	yr
$C_{(x)}/C_{source}$	=	unitless	EF	=	d/yr



Symbol		Unit
erf	=	unitless
f <sub>oc</sub>	=	0.0184 g/g
GW <sub>comp</sub>	=	0.005 mg/L
GW <sub>source</sub>	=	13.283 mg/L
H'	=	0.23 cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
i	=	0.0106 cm/cm
I	=	30 cm/yr
IR <sub>air</sub>	=	m <sup>3</sup> /d
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	=	4.4798 cm/d for R15, R19, R26; cm/yr for R24
K <sub>oc</sub>	=	50 cm <sup>3</sup> /g or L/kg
k <sub>s</sub> (non-ionizing organics)	=	0.920 cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (ionizing organics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (inorganics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
L <sub>s</sub>	=	cm
LF <sub>sw</sub>	=	0.9161 (mg/L <sub>water</sub> )/m g/kg <sub>soil</sub> )
M	=	m/cm <sup>2</sup>
Pe	=	g/cm <sup>2</sup> -s
RAF <sub>d</sub>	=	unitless

Symbol		Unit
RAF <sub>d</sub> (PNAs)	=	unitless
RAF <sub>d</sub> (inorganics)	=	unitless
RAF <sub>o</sub>	=	unitless
RBSL <sub>air</sub> (carcinogenic)	=	µg/m <sup>3</sup>
RBSL <sub>air</sub> (noncarcinogenic)	=	µg/m <sup>3</sup>
RfD <sub>i</sub>	=	mg/kg-d
RfD <sub>o</sub>	=	mg/kg-d
SA	=	cm <sup>2</sup> /d
S <sub>d</sub>	=	200 cm
S <sub>w</sub>	=	11,095 cm
SF <sub>i</sub>	=	(mg/kg-d) <sup>-1</sup>
SF <sub>o</sub>	=	(mg/kg-d) <sup>-1</sup>
THQ	=	unitless
TR	=	unitless
U	=	0.11 cm/d
U <sub>air</sub>	=	cm/s
U <sub>gw</sub>	=	17.3325 cm/yr
VF <sub>p</sub>	=	kg/m <sup>3</sup>
Vf <sub>samb</sub>	=	(mg/m <sup>3</sup> <sub>air</sub> )/(mg/kg <sub>soil</sub> ) or kg/m <sup>3</sup>
VF <sub>ss</sub>	=	kg/m <sup>3</sup>

Symbol			Unit
W	=	9,845	cm
w	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
X	=	1,648	cm
$\alpha_x$	=	164.80	cm
$\alpha_y$	=	54.93	cm
$\alpha_z$	=	8.24	cm
$\delta_{air}$	=		cm
$\delta_{gw}$	=	200	cm

Symbol			Unit
$\theta_{as}$	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	=	0.0009	d <sup>-1</sup>
$\pi$	=		
$\rho_b$	=	1.850	g/cm <sup>3</sup>
$\rho_w$	=	1	g/cm <sup>3</sup>
$\tau$	=		s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12	14.500	mg/kg
R25		mg/L

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**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
RBCA Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R12 through R14, R16 through R22, R24, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czakó, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify  $C_{source}$  from S17/S28                      mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit	Symbol		Unit
$A_{t_c}$	=	yr	d	=	cm
$AT_{\eta}$	=	yr	$D^{air}$	=	$cm^2/s$
BW	=	kg	$D^{water}$	=	$cm^2/s$
$C_{source}$	=	33.805 mg/L	$D_s^{eff}$	=	$cm^2/s$
$C_{(x)}$	=	1.0 mg/L	ED	=	yr
$C_{(x)}/C_{source}$	=	unitless	EF	=	d/yr

Symbol		Unit
erf	=	unitless
f <sub>oc</sub>	=	0.0184 g/g
GW <sub>comp</sub>	=	1 mg/L
GW <sub>source</sub>	=	33.805 mg/L
H'	=	0.271 cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
i	=	0.0106 cm/cm
l	=	30 cm/yr
IR <sub>air</sub>	=	m <sup>3</sup> /d
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	=	4.4798 cm/d for R15, R19, R26; cm/yr for R24
K <sub>oc</sub>	=	158 cm <sup>3</sup> /g or L/kg
k <sub>s</sub> (non-ionizing organics)	=	2.907 cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (ionizing organics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (inorganics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
L <sub>s</sub>	=	cm
LF <sub>sw</sub>	=	0.3219 (mg/L <sub>water</sub> )/m g/kg <sub>soil</sub>
M	=	m/cm <sup>2</sup>
Pe	=	g/cm <sup>2</sup> -s
RAF <sub>d</sub>	=	unitless

Symbol		Unit
RAF <sub>d</sub> (PNAs)	=	unitless
RAF <sub>d</sub> (inorganics)	=	unitless
RAF <sub>0</sub>	=	unitless
RBSL <sub>air</sub> (carcinogenic)	=	µg/m <sup>3</sup>
RBSL <sub>air</sub> (noncarcinogenic)	=	µg/m <sup>3</sup>
RfD <sub>i</sub>	=	mg/kg-d
RfD <sub>o</sub>	=	mg/kg-d
SA	=	cm <sup>2</sup> /d
S <sub>d</sub>	=	200 cm
S <sub>w</sub>	=	11,095 cm
SF <sub>i</sub>	=	(mg/kg-d)-1
SF <sub>o</sub>	=	(mg/kg-d)-1
THQ	=	unitless
TR	=	unitless
U	=	0.11 cm/d
U <sub>air</sub>	=	cm/s
U <sub>gw</sub>	=	17.3325 cm/yr
VF <sub>p</sub>	=	kg/m <sup>3</sup>
Vf <sub>samb</sub>	=	(mg/m <sup>3</sup> <sub>air</sub> )/(mg/kg <sub>soil</sub> ) or kg/m <sup>3</sup>
VF <sub>ss</sub>	=	kg/m <sup>3</sup>

Symbol			Unit
W	=	9,845	cm
w	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
X	=	47	cm
$\alpha_x$	=	4.70	cm
$\alpha_y$	=	1.57	cm
$\alpha_z$	=	0.24	cm
$\delta_{air}$	=		cm
$\delta_{gw}$	=	200	cm

Symbol			Unit
$\theta_{as}$	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	=	0.011	d <sup>-1</sup>
$\pi$	=		
$\rho_b$	=	1.850	g/cm <sup>3</sup>
$\rho_w$	=	1	g/cm <sup>3</sup>
$\tau$	=		s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12	105.000	mg/kg
R25		mg/L

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**Illinois Environmental Protection Agency  
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RBCA Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R12 through R14, R16 through R22, R24, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czakó, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify  $C_{source}$  from S17/S28                      mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol	Unit	Symbol	Unit
$A_{tc}$	yr	d	cm
$AT_n$	yr	$D^{air}$	$cm^2/s$
BW	kg	$D^{water}$	$cm^2/s$
$C_{source}$	7.312 mg/L	$D_s^{eff}$	$cm^2/s$
$C_{(x)}$	0.70 mg/L	ED	yr
$C_{(x)}/C_{source}$	unitless	EF	d/yr

Symbol		Unit
erf	=	unitless
f <sub>oc</sub>	=	0.0184 g/g
GW <sub>comp</sub>	=	0.7 mg/L
GW <sub>source</sub>	=	7.312 mg/L
H'	=	0.324 cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
i	=	0.0106 cm/cm
l	=	30 cm/yr
IR <sub>air</sub>	=	m <sup>3</sup> /d
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	=	4.4798 cm/d for R15, R19, R26; cm/yr for R24
K <sub>oc</sub>	=	320 cm <sup>3</sup> /g or L/kg
k <sub>s</sub> (non-ionizing organics)	=	5.888 cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (ionizing organics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (inorganics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
L <sub>s</sub>	=	cm
LF <sub>sw</sub>	=	0.1632 (mg/L <sub>water</sub> )/m g/kg <sub>soil</sub>
M	=	m/cm <sup>2</sup>
Pe	=	g/cm <sup>2</sup> -s
RAF <sub>d</sub>	=	unitless

Symbol		Unit
RAF <sub>d</sub> (PNAs)	=	unitless
RAF <sub>d</sub> (inorganics)	=	unitless
RAF <sub>0</sub>	=	unitless
RBSL <sub>air</sub> (carcinogenic)	=	µg/m <sup>3</sup>
RBSL <sub>air</sub> (noncarcinogenic)	=	µg/m <sup>3</sup>
RfD <sub>i</sub>	=	mg/kg-d
RfD <sub>0</sub>	=	mg/kg-d
SA	=	cm <sup>2</sup> /d
S <sub>d</sub>	=	200 cm
S <sub>w</sub>	=	11,095 cm
SF <sub>i</sub>	=	(mg/kg-d)-1
SF <sub>0</sub>	=	(mg/kg-d)-1
THQ	=	unitless
TR	=	unitless
U	=	0.11 cm/d
U <sub>air</sub>	=	cm/s
U <sub>gw</sub>	=	17.3325 cm/yr
VF <sub>p</sub>	=	kg/m <sup>3</sup>
Vf <sub>samb</sub>	=	(mg/m <sup>3</sup> <sub>air</sub> )/(mg/kg <sub>soil</sub> ) or kg/m <sup>3</sup>
VF <sub>ss</sub>	=	kg/m <sup>3</sup>

Symbol			Unit
W	=	9,845	cm
w	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
X	=	107	cm
$\alpha_x$	=	10.70	cm
$\alpha_y$	=	3.57	cm
$\alpha_z$	=	0.54	cm
$\delta_{air}$	=		cm
$\delta_{gw}$	=	200	cm

Symbol			Unit
$\theta_{as}$	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	=	0.003	d <sup>-1</sup>
$\pi$	=		
$\rho_b$	=	1.850	g/cm <sup>3</sup>
$\rho_w$	=	1	g/cm <sup>3</sup>
$\tau$	=		s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12	44.800	mg/kg
R25		mg/L



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**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
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**A. Site Identification**

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Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R12 through R14, R16 through R22, R24, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czako, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify  $C_{source}$  from S17/S28          mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit	Symbol		Unit
$A_{tc}$	=	yr	d	=	cm
$AT_{\eta}$	=	yr	$D^{air}$	=	cm <sup>2</sup> /s
BW	=	kg	$D^{water}$	=	cm <sup>2</sup> /s
$C_{source}$	=	29.179 mg/L	$D_s^{eff}$	=	cm <sup>2</sup> /s
$C_{(x)}$	=	10 mg/L	ED	=	yr
$C_{(x)}/C_{source}$	=	unitless	EF	=	d/yr

Symbol		Unit
erf	=	unitless
f <sub>oc</sub>	=	0.0184 g/g
GW <sub>comp</sub>	=	10 mg/L
GW <sub>source</sub>	=	29.179 mg/L
H'	=	0.271 cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
i	=	0.0106 cm/cm
I	=	30 cm/yr
IR <sub>air</sub>	=	m <sup>3</sup> /d
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	=	4.4798 cm/d for R15, R19, R26; cm/yr for R24
K <sub>oc</sub>	=	398 cm <sup>3</sup> /g or L/kg
k <sub>s</sub> (non-ionizing organics)	=	7.323 cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (ionizing organics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (inorganics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
L <sub>s</sub>	=	cm
LF <sub>sw</sub>	=	0.1320 (mg/L <sub>water</sub> )/m g/kg <sub>soil</sub>
M	=	m/cm <sup>2</sup>
Pe	=	g/cm <sup>2</sup> -s
RAF <sub>d</sub>	=	unitless

Symbol		Unit
RAF <sub>d</sub> (PNAs)	=	unitless
RAF <sub>d</sub> (inorganics)	=	unitless
RAF <sub>0</sub>	=	unitless
RBSL <sub>air</sub> (carcinogenic)	=	µg/m <sup>3</sup>
RBSL <sub>air</sub> (noncarcinogenic)	=	µg/m <sup>3</sup>
RfD <sub>i</sub>	=	mg/kg-d
RfD <sub>o</sub>	=	mg/kg-d
SA	=	cm <sup>2</sup> /d
S <sub>d</sub>	=	200 cm
S <sub>w</sub>	=	11,095 cm
SF <sub>i</sub>	=	(mg/kg-d)-1
SF <sub>o</sub>	=	(mg/kg-d)-1
THQ	=	unitless
TR	=	unitless
U	=	0.11 cm/d
U <sub>air</sub>	=	cm/s
U <sub>gw</sub>	=	17.3325 cm/yr
VF <sub>p</sub>	=	kg/m <sup>3</sup>
Vf <sub>samb</sub>	=	(mg/m <sup>3</sup> <sub>air</sub> )/(mg/kg <sub>soil</sub> ) or kg/m <sup>3</sup>
VF <sub>ss</sub>	=	kg/m <sup>3</sup>

Symbol			Unit
W	=	9,845	cm
w	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
X	=	69	cm
$\alpha_x$	=	6.90	cm
$\alpha_y$	=	2.30	cm
$\alpha_z$	=	0.35	cm
$\delta_{air}$	=		cm
$\delta_{gw}$	=	200	cm

Symbol			Unit
$\theta_{as}$	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	=	0.0019	d <sup>-1</sup>
$\pi$	=		
$\rho_b$	=	1.850	g/cm <sup>3</sup>
$\rho_w$	=	1	g/cm <sup>3</sup>
$\tau$	=		s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12	221.000	mg/kg
R25		mg/L

**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
RBCA Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R12 through R14, R16 through R22, R24, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czako, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify C<sub>source</sub> from S17/S28          mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit	Symbol		Unit
At <sub>c</sub>	=	yr	d	=	cm
AT <sub>n</sub>	=	yr	D <sup>air</sup>	=	cm <sup>2</sup> /s
BW	=	kg	D <sup>water</sup>	=	cm <sup>2</sup> /s
C <sub>source</sub>	=	2.706 mg/L	D <sub>s</sub> <sup>eff</sup>	=	cm <sup>2</sup> /s
C <sub>(x)</sub>	=	0.07 mg/L	ED	=	yr
C <sub>(x)</sub> /C <sub>source</sub>	=	unitless	EF	=	d/yr

Symbol		Unit
erf	=	unitless
f <sub>oc</sub>	=	0.0184 g/g
GW <sub>comp</sub>	=	0.07 mg/L
GW <sub>source</sub>	=	2.706 mg/L
H'	=	0.0242 cm <sup>3</sup> water/cm <sup>3</sup> air
i	=	0.0106 cm/cm
l	=	30 cm/yr
IR <sub>air</sub>	=	m <sup>3</sup> /d
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	=	4.4798 cm/d for R15, R19, R26; cm/yr for R24
K <sub>oc</sub>	=	10 cm <sup>3</sup> /g or L/kg
k <sub>s</sub> (non-ionizing organics)	=	0.184 cm <sup>3</sup> water/g <sub>soil</sub>
k <sub>s</sub> (ionizing organics)	=	cm <sup>3</sup> water/g <sub>soil</sub>
k <sub>s</sub> (inorganics)	=	cm <sup>3</sup> water/g <sub>soil</sub>
L <sub>s</sub>	=	cm
LF <sub>sw</sub>	=	3.0571 (mg/L <sub>water</sub> )/m g/kg <sub>soil</sub>
M	=	m/cm <sup>2</sup>
Pe	=	g/cm <sup>2</sup> -s
RAF <sub>d</sub>	=	unitless

Symbol		Unit
RAF <sub>d</sub> (PNAs)	=	unitless
RAF <sub>d</sub> (inorganics)	=	unitless
RAF <sub>0</sub>	=	unitless
RBSL <sub>air</sub> (carcinogenic)	=	µg/m <sup>3</sup>
RBSL <sub>air</sub> (noncarcinogenic)	=	µg/m <sup>3</sup>
RfD <sub>i</sub>	=	mg/kg-d
RfD <sub>o</sub>	=	mg/kg-d
SA	=	cm <sup>2</sup> /d
S <sub>d</sub>	=	200 cm
S <sub>w</sub>	=	11,095 cm
SF <sub>i</sub>	=	(mg/kg-d)-1
SF <sub>o</sub>	=	(mg/kg-d)-1
THQ	=	unitless
TR	=	unitless
U	=	0.11 cm/d
U <sub>air</sub>	=	cm/s
U <sub>gw</sub>	=	17.3325 cm/yr
VF <sub>p</sub>	=	kg/m <sup>3</sup>
Vf <sub>samb</sub>	=	(mg/m <sup>3</sup> air)/(mg/kg <sub>soil</sub> ) or kg/m <sup>3</sup>
VF <sub>ss</sub>	=	kg/m <sup>3</sup>

Symbol			Unit
W	=	9,845	cm
w	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
X	=	31,172	cm
$\alpha_x$	=	3,117.20	cm
$\alpha_y$	=	1,039.07	cm
$\alpha_z$	=	155.86	cm
$\delta_{air}$	=		cm
$\delta_{gw}$	=	200	cm

Symbol			Unit
$\theta_{as}$	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	=	0	d <sup>-1</sup>
$\pi$	=		
$\rho_b$	=	1.850	g/cm <sup>3</sup>
$\rho_w$	=	1	g/cm <sup>3</sup>
$\tau$	=		s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12	0.885	mg/kg
R25		mg/L

**Sample Location: EX-6**

# Electronic Filing: Received, Clerk's Office 03/23/2021

## Input Variables for the SCGIER

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site ZIP: 60439  
 Leaking UST Incident No.: 942117, 20141348  
 LPC No.: 0314625010  
 Land Use: Industrial/Commercial  
 Soil Type: Silt Clay  
 Groundwater Classification: Class 1  
 Contamination Modeled To: Class 1  
 Mass Limit: No  
 Sample Location: EX-6

Person Performing Calcs: Marcos I. Czako, P.G.  
 Title: Senior Project Manager

$\rho_s$	=	Dry soil bulk density	=	1.850	g/cm <sup>3</sup>	
w	=	Moisture content	=	0.137	$\frac{W_{water}}{W_{soil}}$	
$\theta_T$	=	Total soil porosity	=	0.43	$\frac{L_{pore}}{L_{soil}}$	
$f_{oc}$	=	Organic carbon content of soil	=	0.0184	g/g	
K	=	Aquifer hydraulic conductivity	=	1,635.14	cm/yr	
i	=	Hydraulic gradient	=	0.0106	m/m	
W	=	Width of source area parallel to groundwater flow direction	=	9,845	cm	
$S_w$	=	Source width perpendicular to groundwater flow in the horizontal plane	=	11,095	cm	
$RO_{soil}$	=	Soil concentration at the source				
			Benzene	=	7.600	mg/kg
			Toluene	=	54.500	mg/kg
			Ethylbenzene	=	32.700	mg/kg
			Total Xylenes	=	149.000	mg/kg
			MTBE	=	0.891	mg/kg
$C_{source}$	=	Groundwater concentration at the source (Equation R13)				
			Benzene	=	6.962	mg/L
			Toluene	=	17.546	mg/L
			Ethylbenzene	=	5.337	mg/L
			Total Xylenes	=	19.673	mg/L
			MTBE	=	2.724	mg/L
X	=	Distance along the centerline of the groundwater plume				
			Benzene	=	1,472	cm = 48.29 ft
			Toluene	=	37	cm = 1.21 ft
			Ethylbenzene	=	90	cm = 2.95 ft
			Total Xylenes	=	42	cm = 1.38 ft
			MTBE	=	31,286	cm = 1,026.44 ft
			Solving for the $C_{(x)}$ for Benzene	=	0.0050	mg/L
			Solving for the $C_{(x)}$ for Toluene	=	1.0	mg/L
			Solving for the $C_{(x)}$ for Ethylbenzene	=	0.70	mg/L
			Solving for the $C_{(x)}$ for Total Xylenes	=	10.0	mg/L
			Solving for the $C_{(x)}$ for MTBE	=	0.070	mg/L



**Leaching Factor and Groundwater Concentration at the Source**

Sample Location: EX-6

Equation R12

$$RO_{soil} = \frac{GW_{source}}{LF_{sw}}$$

Equation R12 Revised

$$GW_{source} = LF_{sw} \cdot RO_{soil}$$

Where:

$GW_{source}$	=	Groundwater concentration at the source	=	unknown	mg/L
$LF_{sw}$	=	Leaching factor (Equation R14 - chemical specific)	=		
		Benzene	=	0.9161	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
		Toluene	=	0.3219	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
		Ethylbenzene	=	0.1632	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
		Total Xylenes	=	0.1320	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
		MTBE	=	3.0571	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
$RO_{soil}$	=	Soil concentration at the source			
		Benzene	=	7.6000	mg/kg
		Toluene	=	54.500	mg/kg
		Ethylbenzene	=	32.700	mg/kg
		Total Xylenes	=	149.000	mg/kg
		MTBE	=	0.891	mg/kg
		Solving for the $GW_{source}$ for Benzene	=	6.962	mg/L
		Solving for the $GW_{source}$ for Toluene	=	17.546	mg/L
		Solving for the $GW_{source}$ for Ethylbenzene	=	5.337	mg/L
		Solving for the $GW_{source}$ for Total Xylenes	=	19.673	mg/L
		Solving for the $GW_{source}$ for MTBE	=	2.724	mg/L

**Groundwater Concentration at the Source**

Sample Location: EX-6

Equation R13

$$GW_{source} = \frac{GW_{comp}}{\frac{C(x)}{C_{source}}}$$

Equation R13 Revised

$$C_{source} = \frac{GW_{comp}}{\frac{C(x)}{GW_{source}}}$$

Where:

$C_{source}$	=	Groundwater concentration at the source of contamination	=	unknown	mg/L
$GW_{comp}$	=	Groundwater objective at the compliance point (Tier 1, Class I GRO - chemical specific)			
				Benzene	= 0.005 mg/L
				Toluene	= 1 mg/L
				Ethylbenzene	= 0.7 mg/L
				Total Xylenes	= 10 mg/L
				MTBE	= 0.07 mg/L
$C(x)$	=	Groundwater concentration at distance X from the source (Tier 1, Class I GRO - chemical specific)			
				Benzene	= 0.005 mg/L
				Toluene	= 1 mg/L
				Ethylbenzene	= 0.7 mg/L
				Total Xylenes	= 10 mg/L
				MTBE	= 0.07 mg/L
$GW_{source}$	=	Groundwater concentration at the source (Equation R12 - chemical specific)			
				Benzene	= 6.962 mg/L
				Toluene	= 17.546 mg/L
				Ethylbenzene	= 5.337 mg/L
				Total Xylenes	= 19.673 mg/L
				MTBE	= 2.724 mg/L

Solving for the  $C_{source}$  for Benzene = 6.962 mg/L  
 Solving for the  $C_{source}$  for Toluene = 17.546 mg/L  
 Solving for the  $C_{source}$  for Ethylbenzene = 5.337 mg/L  
 Solving for the  $C_{source}$  for Total Xylenes = 19.673 mg/L  
 Solving for the  $C_{source}$  for MTBE = 2.724 mg/L

**Longitudinal Dispersivity**

Sample Location: EX-6

Equation R16

$$\alpha_x = 0.10 \cdot X$$

Where:

$\alpha_x$  = Longitudinal dispersivity = unknown cm  
 $X$  = Distance along the centerline of the groundwater plume

Benzene = 1,472 cm  
 Toluene = 37 cm  
 Ethylbenzene = 90 cm  
 Total Xylenes = 42 cm  
 MTBE = 31,286 cm

Solving for the  $\alpha_x$  for Benzene = 147.20 cm  
 Solving for the  $\alpha_x$  for Toluene = 3.70 cm  
 Solving for the  $\alpha_x$  for Ethylbenzene = 9.00 cm  
 Solving for the  $\alpha_x$  for Total Xylenes = 4.20 cm  
 Solving for the  $\alpha_x$  for MTBE = 3,128.60 cm

**Transverse Dispersivity**

Sample Location: EX-6

Equation R17 
$$\alpha_y = \frac{\alpha_x}{3}$$

Where:

$\alpha_y$	=	Transverse dispersivity	=	unknown	cm
$\alpha_x$	=	Longitudinal dispersivity (Equation R16 - chemical specific)			
		Benzene	=	147.20	cm
		Toluene	=	3.70	cm
		Ethylbenzene	=	9.00	cm
		Total Xylenes	=	4.20	cm
		MTBE	=	3,128.60	cm

Solving for the $\alpha_y$ for Benzene	=	49.07	cm
Solving for the $\alpha_y$ for Toluene	=	1.23	cm
Solving for the $\alpha_y$ for Ethylbenzene	=	3.00	cm
Solving for the $\alpha_y$ for Total Xylenes	=	1.40	cm
Solving for the $\alpha_y$ for MTBE	=	1,042.87	cm

**Vertical Dispersivity**

Sample Location: EX-6

Equation R18

$$\alpha_z = \frac{\alpha_x}{20}$$

Where:

$\alpha_z$	=	Vertical dispersivity	=	unknown	cm
$\alpha_x$	=	Longitudinal dispersivity (Equation R16 - chemical specific)			
		Benzene	=	147.20	cm
		Toluene	=	3.70	cm
		Ethylbenzene	=	9.00	cm
		Total Xylenes	=	4.20	cm
		MTBE	=	3,128.60	cm

Solving for the $\alpha_z$ for Benzene	=	7.36	cm
Solving for the $\alpha_z$ for Toluene	=	0.19	cm
Solving for the $\alpha_z$ for Ethylbenzene	=	0.45	cm
Solving for the $\alpha_z$ for Total Xylenes	=	0.21	cm
Solving for the $\alpha_z$ for MTBE	=	156.43	cm

Concentration of Contaminant in Groundwater at Distance X from the source

Sample Location: EX-6

Equation R26 
$$C_{(x)} = C_{source} \cdot \exp\left[\left(\frac{X}{2\alpha_x}\right) \cdot \left(1 - \sqrt{1 + \frac{4\lambda \cdot \alpha_x}{U}}\right)\right] \cdot \operatorname{erf}\left[\frac{S_w}{4 \cdot \sqrt{\alpha_y} \cdot X}\right] \cdot \operatorname{erf}\left[\frac{S_d}{2 \cdot \sqrt{\alpha_z} \cdot X}\right]$$

Where:

X	= Distance along the centerline of the groundwater plume	=	unknown	cm
C <sub>(x)</sub>	= Groundwater concentration at distance X from the source (Tier 1, Class I GRO - chemical specific)			
		Benzene	=	0.005 mg/L
		Toluene	=	1 mg/L
		Ethylbenzene	=	0.7 mg/L
		Total Xylenes	=	10 mg/L
		MTBE	=	0.07 mg/L
C <sub>source</sub>	= Groundwater concentration at the source (Equation R13)			
		Benzene	=	6.962 mg/L
		Toluene	=	17.546 mg/L
		Ethylbenzene	=	5.337 mg/L
		Total Xylenes	=	19.673 mg/L
		MTBE	=	2.724 mg/L
α <sub>x</sub>	= Longitudinal dispersivity (Equation R16 - chemical specific)			
		Benzene	=	147.20 cm
		Toluene	=	3.70 cm
		Ethylbenzene	=	9.00 cm
		Total Xylenes	=	4.20 cm
		MTBE	=	3,128.60 cm
λ	= First order degradation constant (default - chemical specific)			
		Benzene	=	0.0009 d <sup>-1</sup>
		Toluene	=	0.011 d <sup>-1</sup>
		Ethylbenzene	=	0.003 d <sup>-1</sup>
		Total Xylenes	=	0.0019 d <sup>-1</sup>
		MTBE	=	0 d <sup>-1</sup>
U	= Specific discharge (Equation R19)		=	0.11 cm/d
S <sub>w</sub>	= Source width perpendicular to groundwater flow in the horizontal plane		=	11,095 cm
α <sub>y</sub>	= Transverse dispersivity (Equation R17 - chemical specific)			
		Benzene	=	49.07 cm
		Toluene	=	1.23 cm
		Ethylbenzene	=	3.00 cm
		Total Xylenes	=	1.40 cm
		MTBE	=	1,042.87 cm
S <sub>d</sub>	= Source width perpendicular to groundwater flow in the vertical plane (default)		=	200 cm
α <sub>z</sub>	= Vertical dispersivity (Equation R18 - chemical specific)			
		Benzene	=	7.36 cm
		Toluene	=	0.19 cm
		Ethylbenzene	=	0.45 cm
		Total Xylenes	=	0.21 cm
		MTBE	=	156.43 cm
	X to meet the Tier 1, Class I GRO for Benzene	=	1,472	cm
	X to meet the Tier 1, Class I GRO for Toluene	=	37	cm
	X to meet the Tier 1, Class I GRO for Ethylbenzene	=	90	cm
	X to meet the Tier 1, Class I GRO for Total Xylenes	=	42	cm
	X to meet the Tier 1, Class I GRO for MTBE	=	31,286	cm

**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
RBCA Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R12 through R14, R16 through R22, R24, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czako, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify C<sub>source</sub> from S17/S28                      mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit	Symbol		Unit
$A_{tc}$	=	yr	d	=	cm
$AT_{\eta}$	=	yr	$D^{air}$	=	cm <sup>2</sup> /s
BW	=	kg	$D^{water}$	=	cm <sup>2</sup> /s
$C_{source}$	=	6.962 mg/L	$D_s^{eff}$	=	cm <sup>2</sup> /s
$C_{(x)}$	=	0.005 mg/L	ED	=	yr
$C_{(x)}/C_{source}$	=	unitless	EF	=	d/yr

Symbol		Unit
erf	=	unitless
f <sub>oc</sub>	=	0.0184 g/g
GW <sub>comp</sub>	=	0.005 mg/L
GW <sub>source</sub>	=	6.962 mg/L
H'	=	0.23 cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
i	=	0.0106 cm/cm
l	=	30 cm/yr
IR <sub>air</sub>	=	m <sup>3</sup> /d
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	=	4.4798 cm/d for R15, R19, R26; cm/yr for R24
K <sub>oc</sub>	=	50 cm <sup>3</sup> /g or L/kg
k <sub>s</sub> (non-ionizing organics)	=	0.920 cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (ionizing organics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (inorganics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
L <sub>s</sub>	=	cm
LF <sub>sw</sub>	=	0.9161 (mg/L <sub>water</sub> )/m g/kg <sub>soil</sub>
M	=	m/cm <sup>2</sup>
Pe	=	g/cm <sup>2</sup> -s
RAF <sub>d</sub>	=	unitless

Symbol		Unit
RAF <sub>d</sub> (PNAs)	=	unitless
RAF <sub>d</sub> (inorganics)	=	unitless
RAF <sub>o</sub>	=	unitless
RBSL <sub>air</sub> (carcinogenic)	=	µg/m <sup>3</sup>
RBSL <sub>air</sub> (noncarcinogenic)	=	µg/m <sup>3</sup>
RfD <sub>i</sub>	=	mg/kg-d
RfD <sub>o</sub>	=	mg/kg-d
SA	=	cm <sup>2</sup> /d
S <sub>d</sub>	=	200 cm
S <sub>w</sub>	=	11,095 cm
SF <sub>i</sub>	=	(mg/kg-d) <sup>-1</sup>
SF <sub>o</sub>	=	(mg/kg-d) <sup>-1</sup>
THQ	=	unitless
TR	=	unitless
U	=	0.11 cm/d
U <sub>air</sub>	=	cm/s
U <sub>gw</sub>	=	17.3325 cm/yr
VF <sub>p</sub>	=	kg/m <sup>3</sup>
Vf <sub>samb</sub>	=	(mg/m <sup>3</sup> <sub>air</sub> )/(mg/kg <sub>soil</sub> ) or kg/m <sup>3</sup>
VF <sub>ss</sub>	=	kg/m <sup>3</sup>



Symbol			Unit
W	=	9,845	cm
w	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
X	=	1,472	cm
$\alpha_x$	=	147.20	cm
$\alpha_y$	=	49.07	cm
$\alpha_z$	=	7.36	cm
$\delta_{air}$	=		cm
$\delta_{gw}$	=	200	cm

Symbol			Unit
$\theta_{as}$	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	=	0.0009	d <sup>-1</sup>
$\pi$	=		
$\rho_b$	=	1.850	g/cm <sup>3</sup>
$\rho_w$	=	1	g/cm <sup>3</sup>
$\tau$	=		s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12	7.600	mg/kg
R25		mg/L

**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
RBCA Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R12 through R14, R16 through R22, R24, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czako, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify  $C_{source}$  from S17/S28                      mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit
$A_{tc}$	=	yr
$AT_n$	=	yr
BW	=	kg
$C_{source}$	= 17.546	mg/L
$C_{(x)}$	= 1.0	mg/L
$C_{(x)}/C_{source}$	=	unitless

Symbol		Unit
d	=	cm
$D^{air}$	=	$cm^2/s$
$D^{water}$	=	$cm^2/s$
$D_s^{eff}$	=	$cm^2/s$
ED	=	yr
EF	=	d/yr

Symbol		Unit
erf	=	unitless
f <sub>oc</sub>	=	0.0184 g/g
GW <sub>comp</sub>	=	1 mg/L
GW <sub>source</sub>	=	17.546 mg/L
H'	=	0.271 cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
i	=	0.0106 cm/cm
l	=	30 cm/yr
IR <sub>air</sub>	=	m <sup>3</sup> /d
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	=	4.4798 cm/d for R15, R19, R26; cm/yr for R24
K <sub>oc</sub>	=	158 cm <sup>3</sup> /g or L/kg
k <sub>s</sub> (non-ionizing organics)	=	2.907 cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (ionizing organics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (inorganics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
L <sub>s</sub>	=	cm
LF <sub>sw</sub>	=	0.3219 (mg/L <sub>water</sub> )/m g/kg <sub>soil</sub>
M	=	m/cm <sup>2</sup>
Pe	=	g/cm <sup>2</sup> -s
RAF <sub>d</sub>	=	unitless

Symbol		Unit
RAF <sub>d</sub> (PNAs)	=	unitless
RAF <sub>d</sub> (inorganics)	=	unitless
RAF <sub>0</sub>	=	unitless
RBSL <sub>air</sub> (carcinogenic)	=	µg/m <sup>3</sup>
RBSL <sub>air</sub> (noncarcinogenic)	=	µg/m <sup>3</sup>
RfD <sub>i</sub>	=	mg/kg-d
RfD <sub>0</sub>	=	mg/kg-d
SA	=	cm <sup>2</sup> /d
S <sub>d</sub>	=	200 cm
S <sub>w</sub>	=	11,095 cm
SF <sub>i</sub>	=	(mg/kg-d) <sup>-1</sup>
SF <sub>0</sub>	=	(mg/kg-d) <sup>-1</sup>
THQ	=	unitless
TR	=	unitless
U	=	0.11 cm/d
U <sub>air</sub>	=	cm/s
U <sub>gw</sub>	=	17.3325 cm/yr
VF <sub>p</sub>	=	kg/m <sup>3</sup>
Vf <sub>samb</sub>	=	(mg/m <sup>3</sup> <sub>air</sub> )/(mg/kg <sub>soil</sub> ) or kg/m <sup>3</sup>
VF <sub>ss</sub>	=	kg/m <sup>3</sup>

Symbol			Unit
W	=	9,845	cm
w	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
X	=	37	cm
$\alpha_x$	=	3.70	cm
$\alpha_y$	=	1.23	cm
$\alpha_z$	=	0.19	cm
$\delta_{air}$	=		cm
$\delta_{gw}$	=	200	cm

Symbol			Unit
$\theta_{as}$	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	=	0.011	d <sup>-1</sup>
$\pi$	=		
$\rho_b$	=	1.850	g/cm <sup>3</sup>
$\rho_w$	=	1	g/cm <sup>3</sup>
$\tau$	=		s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12	54.500	mg/kg
R25		mg/L

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**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
RBCA Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R12 through R14, R16 through R22, R24, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czako, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify C<sub>source</sub> from S17/S28                      mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit	Symbol		Unit
At <sub>c</sub>	=	yr	d	=	cm
AT <sub>n</sub>	=	yr	D <sup>air</sup>	=	cm <sup>2</sup> /s
BW	=	kg	D <sup>water</sup>	=	cm <sup>2</sup> /s
C <sub>source</sub>	=	5.337 mg/L	D <sub>s</sub> <sup>eff</sup>	=	cm <sup>2</sup> /s
C <sub>(x)</sub>	=	0.70 mg/L	ED	=	yr
C <sub>(x)</sub> /C <sub>source</sub>	=	unitless	EF	=	d/yr

Symbol		Unit
erf	=	unitless
f <sub>oc</sub>	=	0.0184 g/g
GW <sub>comp</sub>	=	0.7 mg/L
GW <sub>source</sub>	=	5.337 mg/L
H'	=	0.324 cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
i	=	0.0106 cm/cm
l	=	30 cm/yr
IR <sub>air</sub>	=	m <sup>3</sup> /d
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	=	4.4798 cm/d for R15, R19, R26; cm/yr for R24
K <sub>oc</sub>	=	320 cm <sup>3</sup> /g or L/kg
k <sub>s</sub> (non-ionizing organics)	=	5.888 cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (ionizing organics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (inorganics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
L <sub>s</sub>	=	cm
LF <sub>sw</sub>	=	0.1632 (mg/L <sub>water</sub> )/m g/kg <sub>soil</sub>
M	=	m/cm <sup>2</sup>
Pe	=	g/cm <sup>2</sup> -s
RAF <sub>d</sub>	=	unitless

Symbol		Unit
RAF <sub>d</sub> (PNAs)	=	unitless
RAF <sub>d</sub> (inorganics)	=	unitless
RAF <sub>0</sub>	=	unitless
RBSL <sub>air</sub> (carcinogenic)	=	µg/m <sup>3</sup>
RBSL <sub>air</sub> (noncarcinogenic)	=	µg/m <sup>3</sup>
RfD <sub>i</sub>	=	mg/kg-d
RfD <sub>0</sub>	=	mg/kg-d
SA	=	cm <sup>2</sup> /d
S <sub>d</sub>	=	200 cm
S <sub>w</sub>	=	11,095 cm
SF <sub>i</sub>	=	(mg/kg-d) <sup>-1</sup>
SF <sub>0</sub>	=	(mg/kg-d) <sup>-1</sup>
THQ	=	unitless
TR	=	unitless
U	=	0.11 cm/d
U <sub>air</sub>	=	cm/s
U <sub>gw</sub>	=	17.3325 cm/yr
VF <sub>p</sub>	=	kg/m <sup>3</sup>
Vf <sub>samb</sub>	=	(mg/m <sup>3</sup> <sub>air</sub> )/(mg/kg <sub>soil</sub> ) or kg/m <sup>3</sup>
VF <sub>ss</sub>	=	kg/m <sup>3</sup>

Symbol			Unit
W	=	9,845	cm
w	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
X	=	90	cm
α <sub>x</sub>	=	9.00	cm
α <sub>y</sub>	=	3.00	cm
α <sub>z</sub>	=	0.45	cm
δ <sub>air</sub>	=		cm
δ <sub>gw</sub>	=	200	cm

Symbol			Unit
θ <sub>as</sub>	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
θ <sub>ws</sub>	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
θ <sub>T</sub>	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
λ	=	0.003	d <sup>-1</sup>
π	=		
ρ <sub>b</sub>	=	1.850	g/cm <sup>3</sup>
ρ <sub>w</sub>	=	1	g/cm <sup>3</sup>
τ	=		s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12	32.700	mg/kg
R25		mg/L

**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
RBCA Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R12 through R14, R16 through R22, R24, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czako, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify C<sub>source</sub> from S17/S28                      mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit	Symbol		Unit
At <sub>c</sub>	=	yr	d	=	cm
AT <sub>n</sub>	=	yr	D <sup>air</sup>	=	cm <sup>2</sup> /s
BW	=	kg	D <sup>water</sup>	=	cm <sup>2</sup> /s
C <sub>source</sub>	=	19.673 mg/L	D <sub>s</sub> <sup>eff</sup>	=	cm <sup>2</sup> /s
C <sub>(x)</sub>	=	10 mg/L	ED	=	yr
C <sub>(x)</sub> /C <sub>source</sub>	=	unitless	EF	=	d/yr



Symbol		Unit
erf	=	unitless
f <sub>oc</sub>	=	0.0184 g/g
GW <sub>comp</sub>	=	10 mg/L
GW <sub>source</sub>	=	19.673 mg/L
H'	=	0.271 cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
i	=	0.0106 cm/cm
l	=	30 cm/yr
IR <sub>air</sub>	=	m <sup>3</sup> /d
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	=	4.4798 cm/d for R15, R19, R26; cm/yr for R24
K <sub>oc</sub>	=	398 cm <sup>3</sup> /g or L/kg
k <sub>s</sub> (non-ionizing organics)	=	7.323 cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (ionizing organics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (inorganics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
L <sub>s</sub>	=	cm
LF <sub>sw</sub>	=	0.1320 (mg/L <sub>water</sub> )/m g/kg <sub>soil</sub>
M	=	m/cm <sup>2</sup>
Pe	=	g/cm <sup>2</sup> -s
RAF <sub>d</sub>	=	unitless

Symbol		Unit
RAF <sub>d</sub> (PNAs)	=	unitless
RAF <sub>d</sub> (inorganics)	=	unitless
RAF <sub>0</sub>	=	unitless
RBSL <sub>air</sub> (carcinogenic)	=	µg/m <sup>3</sup>
RBSL <sub>air</sub> (noncarcinogenic)	=	µg/m <sup>3</sup>
RfD <sub>i</sub>	=	mg/kg-d
RfD <sub>o</sub>	=	mg/kg-d
SA	=	cm <sup>2</sup> /d
S <sub>d</sub>	=	200 cm
S <sub>w</sub>	=	11,095 cm
SF <sub>i</sub>	=	(mg/kg-d) <sup>-1</sup>
SF <sub>o</sub>	=	(mg/kg-d) <sup>-1</sup>
THQ	=	unitless
TR	=	unitless
U	=	0.11 cm/d
U <sub>air</sub>	=	cm/s
U <sub>gw</sub>	=	17.3325 cm/yr
VF <sub>p</sub>	=	kg/m <sup>3</sup>
Vf <sub>samb</sub>	=	(mg/m <sup>3</sup> <sub>air</sub> )/(mg/kg <sub>soil</sub> ) or kg/m <sup>3</sup>
VF <sub>ss</sub>	=	kg/m <sup>3</sup>

Symbol			Unit
W	=	9,845	cm
w	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
X	=	42	cm
$\alpha_x$	=	4.20	cm
$\alpha_y$	=	1.40	cm
$\alpha_z$	=	0.21	cm
$\delta_{air}$	=		cm
$\delta_{gw}$	=	200	cm

Symbol			Unit
$\theta_{as}$	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	=	0.0019	d <sup>-1</sup>
$\pi$	=		
$\rho_b$	=	1.850	g/cm <sup>3</sup>
$\rho_w$	=	1	g/cm <sup>3</sup>
$\tau$	=		s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12	149.000	mg/kg
R25		mg/L

**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
RBCA Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R12 through R14, R16 through R22, R24, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czakó, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify C<sub>source</sub> from S17/S28 \_\_\_\_\_ mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit	Symbol		Unit
$A_{t_c}$	=	yr	d	=	cm
$AT_n$	=	yr	$D^{air}$	=	cm <sup>2</sup> /s
BW	=	kg	$D^{water}$	=	cm <sup>2</sup> /s
$C_{source}$	=	2.724 mg/L	$D_s^{eff}$	=	cm <sup>2</sup> /s
$C_{(x)}$	=	0.07 mg/L	ED	=	yr
$C_{(x)}/C_{source}$	=	unitless	EF	=	d/yr

Symbol		Unit
erf	=	unitless
f <sub>oc</sub>	=	0.0184 g/g
GW <sub>comp</sub>	=	0.07 mg/L
GW <sub>source</sub>	=	2.724 mg/L
H'	=	0.0242 cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
i	=	0.0106 cm/cm
I	=	30 cm/yr
IR <sub>air</sub>	=	m <sup>3</sup> /d
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	=	4.4798 cm/d for R15, R19, R26; cm/yr for R24
K <sub>oc</sub>	=	10 cm <sup>3</sup> /g or L/kg
k <sub>s</sub> (non-ionizing organics)	=	0.184 cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (ionizing organics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (inorganics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
L <sub>s</sub>	=	cm
LF <sub>sw</sub>	=	3.0571 (mg/L <sub>water</sub> )/m g/kg <sub>soil</sub>
M	=	m/cm <sup>2</sup>
Pe	=	g/cm <sup>2</sup> -s
RAF <sub>d</sub>	=	unitless

Symbol		Unit
RAF <sub>d</sub> (PNAs)	=	unitless
RAF <sub>d</sub> (inorganics)	=	unitless
RAF <sub>0</sub>	=	unitless
RBSL <sub>air</sub> (carcinogenic)	=	µg/m <sup>3</sup>
RBSL <sub>air</sub> (noncarcinogenic)	=	µg/m <sup>3</sup>
RfD <sub>i</sub>	=	mg/kg-d
RfD <sub>o</sub>	=	mg/kg-d
SA	=	cm <sup>2</sup> /d
S <sub>d</sub>	=	200 cm
S <sub>w</sub>	=	11,095 cm
SF <sub>i</sub>	=	(mg/kg-d) <sup>-1</sup>
SF <sub>o</sub>	=	(mg/kg-d) <sup>-1</sup>
THQ	=	unitless
TR	=	unitless
U	=	0.11 cm/d
U <sub>air</sub>	=	cm/s
U <sub>gw</sub>	=	17.3325 cm/yr
VF <sub>p</sub>	=	kg/m <sup>3</sup>
Vf <sub>samb</sub>	=	(mg/m <sup>3</sup> <sub>air</sub> )/(mg/kg <sub>soil</sub> ) or kg/m <sup>3</sup>
VF <sub>ss</sub>	=	kg/m <sup>3</sup>

Symbol			Unit
W	=	9,845	cm
w	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
X	=	31,286	cm
$\alpha_x$	=	3,128.60	cm
$\alpha_y$	=	1,042.87	cm
$\alpha_z$	=	156.43	cm
$\delta_{air}$	=		cm
$\delta_{gw}$	=	200	cm

Symbol			Unit
$\theta_{as}$	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	=	0	d <sup>-1</sup>
$\pi$	=		
$\rho_b$	=	1.850	g/cm <sup>3</sup>
$\rho_w$	=	1	g/cm <sup>3</sup>
$\tau$	=		s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12	0.891	mg/kg
R25		mg/L

**Sample Location: EX-8**

Input Variables for the SCGIER

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site ZIP: 60439  
 Leaking UST Incident No.: 942117, 20141348  
 LPC No: 0314625010  
 Land Use: Industrial/Commercial  
 Soil Type: Silt Clay  
 Groundwater Classification: Class I  
 Contamination Modeled To: Class I  
 Mass Limit: No  
 Sample Location: EX-8

Person Performing Calcs: Marcos I. Czako, P.G.  
 Title: Senior Project Manager

$\rho_s$	=	Dry soil bulk density	=	1.850	g/cm <sup>3</sup>		
w	=	Moisture content	=	0.137	$\frac{g_{water}}{g_{soil}}$		
$\theta_T$	=	Total soil porosity	=	0.43	$\frac{L_{pore}}{L_{soil}}$		
$f_o$	=	Organic carbon content of soil	=	0.0184	g/g		
K	=	Aquifer hydraulic conductivity	=	1,635.14	cm/yr		
i	=	Hydraulic gradient	=	0.0106	nm/m		
W	=	Width of source area parallel to groundwater flow direction	=	9,845	cm		
$S_w$	=	Source width perpendicular to groundwater flow in the horizontal plane	=	11,095	cm		
$RO_{soil}$	=	Soil concentration at the source					
			Benzene	=	8.660	mg/kg	
			Ethylbenzene	=	21.300	mg/kg	
$C_{source}$	=	Groundwater concentration at the source (Equation R13)					
			Benzene	=	7.933	mg/L	
			Ethylbenzene	=	3.476	mg/L	
X	=	Distance along the centerline of the groundwater plume					
			Benzene	=	1,507	cm	= 49.44 ft
			Ethylbenzene	=	69	cm	= 2.26 ft
		Solving for the $C_{(x)}$ for Benzene	=	0.0050	mg/L		
		Solving for the $C_{(x)}$ for Ethylbenzene	=	0.69	mg/L		

**Leaching Factor and Groundwater Concentration at the Source**

Sample Location: EX-8

Equation R12 
$$RO_{soil} = \frac{GW_{source}}{LF_{sw}}$$

Equation R12 Revised 
$$GW_{source} = LF_{sw} \cdot RO_{soil}$$

Where:

$GW_{source}$	=	Groundwater concentration at the source	=	unknown	mg/L
$LF_{sw}$	=	Leaching factor (Equation R14 - chemical specific)	=		
		Benzene	=	0.9161	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
		Ethylbenzene	=	0.1632	(mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
$RO_{soil}$	=	Soil concentration at the source			
		Benzene	=	8.6600	mg/kg
		Ethylbenzene	=	21.300	mg/kg

Solving for the  $GW_{source}$  for Benzene = 7.933 mg/L  
 Solving for the  $GW_{source}$  for Ethylbenzene = 3.476 mg/L



**Groundwater Concentration at the Source**

Sample Location: EX-8

Equation R13

$$GW_{source} = \frac{GW_{comp}}{\frac{C(x)}{C_{source}}}$$

Equation R13 Revised

$$C_{source} = \frac{GW_{comp}}{\frac{C(x)}{GW_{source}}}$$

Where:

$C_{source}$	=	Groundwater concentration at the source of contamination	=	unknown	mg/L
$GW_{comp}$	=	Groundwater objective at the compliance point (Tier 1, Class I GRO - chemical specific)			
			Benzene	=	0.005 mg/L
			Ethylbenzene	=	0.7 mg/L
$C(x)$	=	Groundwater concentration at distance X from the source (Tier 1, Class I GRO - chemical specific)			
			Benzene	=	0.005 mg/L
			Ethylbenzene	=	0.7 mg/L
$GW_{source}$	=	Groundwater concentration at the source (Equation R12 - chemical specific)			
			Benzene	=	7.933 mg/L
			Ethylbenzene	=	3.476 mg/L

Solving for the  $C_{source}$  for Benzene = 7.933 mg/L  
 Solving for the  $C_{source}$  for Ethylbenzene = 3.476 mg/L

**Longitudinal Dispersivity**

Sample Location: EX-8

Equation R16 
$$\alpha_x = 0.10 \cdot X$$

Where:

$\alpha_x$	=	Longitudinal dispersivity	=	unknown	cm
X	=	Distance along the centerline of the groundwater plume			
			Benzene	=	1,507 cm
			Ethylbenzene	=	69 cm

Solving for the $\alpha_x$ for Benzene	=	150.70	cm
Solving for the $\alpha_x$ for Ethylbenzene	=	6.90	cm

**Transverse Dispersivity**

Sample Location: EX-8

Equation R17

$$\alpha_y = \frac{\alpha_x}{3}$$

Where:

$\alpha_y$	=	Transverse dispersivity	=	unknown	cm
$\alpha_x$	=	Longitudinal dispersivity (Equation R16 - chemical specific)			
			Benzene	=	150.70 cm
			Ethylbenzene	=	6.90 cm

Solving for the $\alpha_y$ for Benzene	=	50.23	cm
Solving for the $\alpha_y$ for Ethylbenzene	=	2.30	cm

**Vertical Dispersivity**

Sample Location: EX-8

Equation R18

$$\alpha_z = \frac{\alpha_x}{20}$$

Where:

$\alpha_z$	=	Vertical dispersivity	=	unknown	cm
$\alpha_x$	=	Longitudinal dispersivity (Equation R16 - chemical specific)			
			Benzene	=	150.70 cm
			Ethylbenzene	=	6.90 cm

Solving for the $\alpha_z$ for Benzene	=	7.54	cm
Solving for the $\alpha_z$ for Ethylbenzene	=	0.35	cm

**Concentration of Contaminant in Groundwater at Distance X from the source**

Sample Location: EX-8

Equation R26 
$$C_{(x)} = C_{source} \cdot \exp\left[\left(\frac{X}{2\alpha_x}\right) \cdot \left(1 - \sqrt{1 + \frac{4\lambda \cdot \alpha_x}{U}}\right)\right] \cdot \operatorname{erf}\left[\frac{S_w}{4 \cdot \sqrt{\alpha_y \cdot X}}\right] \cdot \operatorname{erf}\left[\frac{S_d}{2 \cdot \sqrt{\alpha_z \cdot X}}\right]$$

Where:

X	= Distance along the centerline of the groundwater plume	=	unknown	cm
$C_{(x)}$	= Groundwater concentration at distance X from the source (Tier 1, Class I GRO - chemical specific)			
			Benzene	= 0.005 mg/L
			Ethylbenzene	= 0.7 mg/L
$C_{source}$	= Groundwater concentration at the source (Equation R13)			
			Benzene	= 7.933 mg/L
			Ethylbenzene	= 3.476 mg/L
$\alpha_x$	= Longitudinal dispersivity (Equation R16 - chemical specific)			
			Benzene	= 150.70 cm
			Ethylbenzene	= 6.90 cm
$\lambda$	= First order degradation constant (default - chemical specific)			
			Benzene	= 0.0009 d <sup>-1</sup>
			Ethylbenzene	= 0.003 d <sup>-1</sup>
U	= Specific discharge (Equation R19)			= 0.11 cm/d
$S_w$	= Source width perpendicular to groundwater flow in the horizontal plane			= 11,095 cm
$\alpha_y$	= Transverse dispersivity (Equation R17 - chemical specific)			
			Benzene	= 50.23 cm
			Ethylbenzene	= 2.30 cm
$S_d$	= Source width perpendicular to groundwater flow in the vertical plane (default)			= 200 cm
$\alpha_z$	= Vertical dispersivity (Equation R18 - chemical specific)			
			Benzene	= 7.54 cm
			Ethylbenzene	= 0.35 cm
	X to meet the Tier 1, Class I GRO for Benzene	=	1,507	cm
	X to meet the Tier 1, Class I GRO for Ethylbenzene	=	69	cm

**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
RBCA Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R12 through R14, R16 through R22, R24, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czako, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify C<sub>source</sub> from S17/S28                      mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit	Symbol		Unit
$A_{tc}$	=	yr	$d$	=	cm
$AT_{\eta}$	=	yr	$D^{air}$	=	cm <sup>2</sup> /s
$BW$	=	kg	$D^{water}$	=	cm <sup>2</sup> /s
$C_{source}$	=	7.933 mg/L	$D_s^{eff}$	=	cm <sup>2</sup> /s
$C_{(x)}$	=	0.005 mg/L	$ED$	=	yr
$C_{(x)}/C_{source}$	=	unitless	$EF$	=	d/yr

Symbol		Unit
erf	=	unitless
f <sub>oc</sub>	=	0.0184 g/g
GW <sub>comp</sub>	=	0.005 mg/L
GW <sub>source</sub>	=	7.933 mg/L
H'	=	0.23 cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
i	=	0.0106 cm/cm
l	=	30 cm/yr
IR <sub>air</sub>	=	m <sup>3</sup> /d
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	=	4.4798 cm/d for R15, R19, R26; cm/yr for R24
K <sub>oc</sub>	=	50 cm <sup>3</sup> /g or L/kg
k <sub>s</sub> (non-ionizing organics)	=	0.920 cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (ionizing organics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (inorganics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
L <sub>s</sub>	=	cm
LF <sub>sw</sub>	=	0.9161 (mg/L <sub>water</sub> )/m g/kg <sub>soil</sub>
M	=	m/cm <sup>2</sup>
Pe	=	g/cm <sup>2</sup> -s
RAF <sub>d</sub>	=	unitless

Symbol		Unit
RAF <sub>d</sub> (PNAs)	=	unitless
RAF <sub>d</sub> (inorganics)	=	unitless
RAF <sub>0</sub>	=	unitless
RBSL <sub>air</sub> (carcinogenic)	=	µg/m <sup>3</sup>
RBSL <sub>air</sub> (noncarcinogenic)	=	µg/m <sup>3</sup>
RfD <sub>i</sub>	=	mg/kg-d
RfD <sub>0</sub>	=	mg/kg-d
SA	=	cm <sup>2</sup> /d
S <sub>d</sub>	=	200 cm
S <sub>w</sub>	=	11,095 cm
SF <sub>i</sub>	=	(mg/kg-d) <sup>-1</sup>
SF <sub>0</sub>	=	(mg/kg-d) <sup>-1</sup>
THQ	=	unitless
TR	=	unitless
U	=	0.11 cm/d
U <sub>air</sub>	=	cm/s
U <sub>gw</sub>	=	17.3325 cm/yr
VF <sub>p</sub>	=	kg/m <sup>3</sup>
Vf <sub>samb</sub>	=	(mg/m <sup>3</sup> <sub>air</sub> )/(mg/kg <sub>soil</sub> ) or kg/m <sup>3</sup>
VF <sub>ss</sub>	=	kg/m <sup>3</sup>

Symbol			Unit
W	=	9,845	cm
w	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
X	=	1,507	cm
$\alpha_x$	=	150.70	cm
$\alpha_y$	=	50.23	cm
$\alpha_z$	=	7.54	cm
$\delta_{air}$	=		cm
$\delta_{gw}$	=	200	cm

Symbol			Unit
$\theta_{as}$	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	=	0.0009	d <sup>-1</sup>
$\pi$	=		
$\rho_b$	=	1.850	g/cm <sup>3</sup>
$\rho_w$	=	1	g/cm <sup>3</sup>
$\tau$	=		s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12	8.660	mg/kg
R25		mg/L



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**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
RBCA Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R12 through R14, R16 through R22, R24, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czako, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify C<sub>source</sub> from S17/S28                      mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit	Symbol		Unit
$A_{t_c}$	=	yr	d	=	cm
$AT_{\eta}$	=	yr	$D^{air}$	=	cm <sup>2</sup> /s
BW	=	kg	$D^{water}$	=	cm <sup>2</sup> /s
$C_{source}$	=	3.476 mg/L	$D_s^{eff}$	=	cm <sup>2</sup> /s
$C_{(x)}$	=	0.70 mg/L	ED	=	yr
$C_{(x)}/C_{source}$	=	unitless	EF	=	d/yr

Symbol		Unit
erf	=	unitless
f <sub>oc</sub>	=	0.0184 g/g
GW <sub>comp</sub>	=	0.7 mg/L
GW <sub>source</sub>	=	3.476 mg/L
H'	=	0.324 cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
i	=	0.0106 cm/cm
l	=	30 cm/yr
IR <sub>air</sub>	=	m <sup>3</sup> /d
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	=	4.4798 cm/d for R15, R19, R26; cm/yr for R24
K <sub>oc</sub>	=	320 cm <sup>3</sup> /g or L/kg
k <sub>s</sub> (non-ionizing organics)	=	5.888 cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (ionizing organics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (inorganics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
L <sub>s</sub>	=	cm
LF <sub>sw</sub>	=	0.1632 (mg/L <sub>water</sub> )/m g/kg <sub>soil</sub> )
M	=	m/cm <sup>2</sup>
Pe	=	g/cm <sup>2</sup> -s
RAF <sub>d</sub>	=	unitless

Symbol		Unit
RAF <sub>d</sub> (PNAs)	=	unitless
RAF <sub>d</sub> (inorganics)	=	unitless
RAF <sub>0</sub>	=	unitless
RBSL <sub>air</sub> (carcinogenic)	=	µg/m <sup>3</sup>
RBSL <sub>air</sub> (noncarcinogenic)	=	µg/m <sup>3</sup>
RfD <sub>i</sub>	=	mg/kg-d
RfD <sub>o</sub>	=	mg/kg-d
SA	=	cm <sup>2</sup> /d
S <sub>d</sub>	=	200 cm
S <sub>w</sub>	=	11,095 cm
SF <sub>i</sub>	=	(mg/kg-d)-1
SF <sub>o</sub>	=	(mg/kg-d)-1
THQ	=	unitless
TR	=	unitless
U	=	0.11 cm/d
U <sub>air</sub>	=	cm/s
U <sub>gw</sub>	=	17.3325 cm/yr
VF <sub>p</sub>	=	kg/m <sup>3</sup>
Vf <sub>samb</sub>	=	(mg/m <sup>3</sup> <sub>air</sub> )/(mg/kg <sub>soil</sub> ) or kg/m <sup>3</sup>
VF <sub>ss</sub>	=	kg/m <sup>3</sup>

Symbol			Unit
W	=	9,845	cm
w	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
X	=	69	cm
$\alpha_x$	=	6.90	cm
$\alpha_y$	=	2.30	cm
$\alpha_z$	=	0.35	cm
$\delta_{air}$	=		cm
$\delta_{gw}$	=	200	cm

Symbol			Unit
$\theta_{as}$	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	=	0.003	d <sup>-1</sup>
$\pi$	=		
$\rho_b$	=	1.850	g/cm <sup>3</sup>
$\rho_w$	=	1	g/cm <sup>3</sup>
$\tau$	=		s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12	21.300	mg/kg
R25		mg/L

**Sample Location: BH-22**

**Input Variables for the SCGIER**

<b>Project Number:</b> <u>100137</u>	<b>Person Performing Calculations:</b> <u>Marcos I. Czako, P.G.</u>
<b>Site Name:</b> <u>Lemont Kar Gas</u>	<b>Title:</b> <u>Senior Project Manager</u>
<b>Site Address:</b> <u>1196 State Street</u>	
<b>Site City:</b> <u>Lemont</u>	
<b>Site County:</b> <u>Cook</u>	
<b>Site State:</b> <u>IL</u>	
<b>Site ZIP:</b> <u>60439</u>	
<b>Leaking UST Incident No.:</b> <u>942117, 20141348</u>	
<b>LPC No.:</b> <u>0314625010</u>	
<b>Land Use:</b> <u>Industrial/Commercial</u>	
<b>Soil Type:</b> <u>Silt Clay</u>	
<b>Groundwater Classification:</b> <u>Class I</u>	
<b>Contamination Modeled To:</b> <u>Class I</u>	
<b>Mass Limit:</b> <u>No</u>	
<b>Sample Location:</b> <u>BH-22</u>	

$\rho_s$	=	Dry soil bulk density	=	1.850	g/cm <sup>3</sup>
w	=	Moisture content	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
$\theta_T$	=	Total soil porosity	=	0.43	L <sub>soil</sub> /L <sub>soil</sub>
$f_{oc}$	=	Organic carbon content of soil	=	0.0184	g/g
K	=	Aquifer hydraulic conductivity	=	1,635.14	cm/yr
i	=	Hydraulic gradient	=	0.0106	m/m
W	=	Width of source area parallel to groundwater flow direction	=	9,845	cm
S <sub>a</sub>	=	Source width perpendicular to groundwater flow in the horizontal plane	=	11,095	cm
RO <sub>soil</sub>	=	Soil concentration at the source	Benzene =	7.650	mg/kg
C <sub>source</sub>	=	Groundwater concentration at the source (Equation R13)	Benzene =	7.008	mg/L
X	=	Distance along the centerline of the groundwater plume	Benzene =	1,474	cm = 48.36 ft
		Solving for the C <sub>(x)</sub> for Benzene	=	0.0050	mg/L

**Leaching Factor and Groundwater Concentration at the Source**

Sample Location: BH-22

Equation R12

$$RO_{soil} = \frac{GW_{source}}{LF_{sw}}$$

Equation R12 Revised

$$GW_{source} = LF_{sw} \cdot RO_{soil}$$

Where:

$GW_{source}$	=	Groundwater concentration at the source	=	unknown	mg/L
$LF_{sw}$	=	Leaching factor (Equation R14 - chemical specific)	=		
			Benzene	=	0.9161 (mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
$RO_{soil}$	=	Soil concentration at the source			
			Benzene	=	7.6500 mg/kg

Solving for the  $GW_{source}$  for Benzene = 7.008 mg/L

**Groundwater Concentration at the Source**

Sample Location: BH-22

Equation R13

$$GW_{source} = \frac{GW_{comp}}{\frac{C(x)}{C_{source}}}$$

Equation R13 Revised

$$C_{source} = \frac{GW_{comp}}{\frac{C(x)}{GW_{source}}}$$

Where:

- $C_{source}$  = Groundwater concentration at the source of contamination = unknown mg/L
- $GW_{comp}$  = Groundwater objective at the compliance point (Tier 1, Class I GRO - chemical specific)
  - Benzene = 0.005 mg/L
- $C(x)$  = Groundwater concentration at distance X from the source (Tier 1, Class I GRO - chemical specific)
  - Benzene = 0.005 mg/L
- $GW_{source}$  = Groundwater concentration at the source (Equation R12 - chemical specific)
  - Benzene = 7.008 mg/L

Solving for the  $C_{source}$  for Benzene = 7.008 mg/L

**Longitudinal Dispersivity**

Sample Location: BH-22

Equation R16

$$\alpha_x = 0.10 \cdot X$$

Where:

$\alpha_x$  = Longitudinal dispersivity = unknown cm  
 $X$  = Distance along the centerline of the groundwater plume  
Benzene = 1,474 cm

Solving for the  $\alpha_x$  for Benzene = 147.40 cm



**Transverse Dispersivity**

Sample Location: BH-22

Equation R17

$$\alpha_y = \frac{\alpha_x}{3}$$

Where:

$\alpha_y$  = Transverse dispersivity = unknown cm  
 $\alpha_x$  = Longitudinal dispersivity (Equation R16 - chemical specific)  
Benzene = 147.40 cm

Solving for the  $\alpha_y$  for Benzene = 49.13 cm

**Vertical Dispersivity**

Sample Location: BH-22

Equation R18

$$\alpha_z = \frac{\alpha_x}{20}$$

Where:

$\alpha_z$  = Vertical dispersivity = unknown cm  
 $\alpha_x$  = Longitudinal dispersivity (Equation R16 - chemical specific)  
Benzene = 147.40 cm

Solving for the  $\alpha_z$  for Benzene = 7.37 cm

**Concentration of Contaminant in Groundwater at Distance X from the source**

Sample Location: BH-22

Equation R26 
$$C_{(x)} = C_{source} \cdot \exp \left[ \left( \frac{X}{2\alpha_x} \right) \cdot \left( 1 - \sqrt{1 + \frac{4\lambda \cdot \alpha_x}{U}} \right) \right] \cdot \operatorname{erf} \left[ \frac{S_w}{4 \cdot \sqrt{\alpha_y \cdot X}} \right] \cdot \operatorname{erf} \left[ \frac{S_d}{2 \cdot \sqrt{\alpha_z \cdot X}} \right]$$

Where:

X	= Distance along the centerline of the groundwater plume	=	unknown	cm
$C_{(x)}$	= Groundwater concentration at distance X from the source (Tier 1, Class I GRO - chemical specific)			
		Benzene	=	0.005 mg/L
$C_{source}$	= Groundwater concentration at the source (Equation R13)			
		Benzene	=	7.008 mg/L
$\alpha_x$	= Longitudinal dispersivity (Equation R16 - chemical specific)			
		Benzene	=	147.40 cm
$\lambda$	= First order degradation constant (default - chemical specific)			
		Benzene	=	0.0009 d <sup>-1</sup>
U	= Specific discharge (Equation R19)		=	0.11 cm/d
$S_w$	= Source width perpendicular to groundwater flow in the horizontal plane		=	11,095 cm
$\alpha_y$	= Transverse dispersivity (Equation R17 - chemical specific)			
		Benzene	=	49.13 cm
$S_d$	= Source width perpendicular to groundwater flow in the vertical plane (default)		=	200 cm
$\alpha_z$	= Vertical dispersivity (Equation R18 - chemical specific)			
		Benzene	=	7.37 cm
	X to meet the Tier 1, Class I GRO for Benzene	=	1,474	cm

**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
RBCA Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R12 through R14, R16 through R22, R24, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czako, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify C<sub>source</sub> from S17/S28                      mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit	Symbol		Unit
At <sub>c</sub>	=	yr	d	=	cm
AT <sub>η</sub>	=	yr	D <sup>air</sup>	=	cm <sup>2</sup> /s
BW	=	kg	D <sup>water</sup>	=	cm <sup>2</sup> /s
C <sub>source</sub>	=	7.008 mg/L	D <sub>s</sub> <sup>eff</sup>	=	cm <sup>2</sup> /s
C <sub>(x)</sub>	=	0.005 mg/L	ED	=	yr
C <sub>(x)</sub> /C <sub>source</sub>	=	unitless	EF	=	d/yr

Symbol		Unit
erf	=	unitless
f <sub>oc</sub>	=	0.0184 g/g
GW <sub>comp</sub>	=	0.005 mg/L
GW <sub>source</sub>	=	7.008 mg/L
H'	=	0.23 cm <sup>3</sup> water/cm <sup>3</sup> air
i	=	0.0106 cm/cm
l	=	30 cm/yr
IR <sub>air</sub>	=	m <sup>3</sup> /d
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	=	4.4798 cm/d for R15, R19, R26; cm/yr for R24
K <sub>oc</sub>	=	50 cm <sup>3</sup> /g or L/kg
k <sub>s</sub> (non-ionizing organics)	=	0.920 cm <sup>3</sup> water/g <sub>soil</sub>
k <sub>s</sub> (ionizing organics)	=	cm <sup>3</sup> water/g <sub>soil</sub>
k <sub>s</sub> (inorganics)	=	cm <sup>3</sup> water/g <sub>soil</sub>
L <sub>s</sub>	=	cm
LF <sub>sw</sub>	=	0.9161 (mg/L <sub>water</sub> )/m g/kg <sub>soil</sub> )
M	=	m/cm <sup>2</sup>
Pe	=	g/cm <sup>2</sup> -s
RAF <sub>d</sub>	=	unitless

Symbol		Unit
RAF <sub>d</sub> (PNAs)	=	unitless
RAF <sub>d</sub> (inorganics)	=	unitless
RAF <sub>0</sub>	=	unitless
RBSL <sub>air</sub> (carcinogenic)	=	µg/m <sup>3</sup>
RBSL <sub>air</sub> (noncarcinogenic)	=	µg/m <sup>3</sup>
RfD <sub>i</sub>	=	mg/kg-d
RfD <sub>o</sub>	=	mg/kg-d
SA	=	cm <sup>2</sup> /d
S <sub>d</sub>	=	200 cm
S <sub>w</sub>	=	11,095 cm
SF <sub>i</sub>	=	(mg/kg-d)-1
SF <sub>o</sub>	=	(mg/kg-d)-1
THQ	=	unitless
TR	=	unitless
U	=	0.11 cm/d
U <sub>air</sub>	=	cm/s
U <sub>gw</sub>	=	17.3325 cm/yr
VF <sub>p</sub>	=	kg/m <sup>3</sup>
Vf <sub>samb</sub>	=	(mg/m <sup>3</sup> <sub>air</sub> )/(mg/kg <sub>soil</sub> ) or kg/m <sup>3</sup>
VF <sub>ss</sub>	=	kg/m <sup>3</sup>

Symbol			Unit
W	=	9,845	cm
w	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
X	=	1,474	cm
$\alpha_x$	=	147.40	cm
$\alpha_y$	=	49.13	cm
$\alpha_z$	=	7.37	cm
$\delta_{air}$	=		cm
$\delta_{gw}$	=	200	cm

Symbol			Unit
$\theta_{as}$	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	=	0.0009	d <sup>-1</sup>
$\pi$	=		
$\rho_b$	=	1.850	g/cm <sup>3</sup>
$\rho_w$	=	1	g/cm <sup>3</sup>
$\tau$	=		s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12	7.650	mg/kg
R25		mg/L

**Sample Location: BH-26**

# Electronic Filing: Received, Clerk's Office 03/23/2021

## Input Variables for the SCGIER

<b>Project Number:</b> <u>100137</u> <b>Site Name:</b> <u>Lemont Kar Gas</u> <b>Site Address:</b> <u>1196 State Street</u> <b>Site City:</b> <u>Lemont</u> <b>Site County:</b> <u>Cook</u> <b>Site State:</b> <u>IL</u> <b>Site ZIP:</b> <u>60439</u> <b>Leaking UST Incident No.:</b> <u>942117, 20141348</u> <b>LPC No.:</b> <u>0314625010</u> <b>Land Use:</b> <u>Industrial/Commercial</u> <b>Soil Type:</b> <u>Silt Clay</u> <b>Groundwater Classification:</b> <u>Class I</u> <b>Contamination Modeled To:</b> <u>Class I</u> <b>Mass Limit:</b> <u>No</u> <b>Sample Location:</b> <u>BH-26</u>	<b>Person Performing Calcs:</b> <u>Marcos I. Czako, P.G.</u> <b>Title:</b> <u>Senior Project Manager</u>
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$\rho_s$	= Dry soil bulk density	=	1.850	g/cm <sup>3</sup>	
$w$	= Moisture content	=	0.137	g <sub>water</sub> /g <sub>soil</sub>	
$\theta_T$	= Total soil porosity	=	0.43	L <sub>water</sub> /L <sub>soil</sub>	
$f_{oc}$	= Organic carbon content of soil	=	0.0184	g/g	
$K$	= Aquifer hydraulic conductivity	=	1,635.14	cm/yr	
$i$	= Hydraulic gradient	=	0.0106	m/m	
$W$	= Width of source area parallel to groundwater flow direction	=	9,845	cm	
$S_w$	= Source width perpendicular to groundwater flow in the horizontal plane	=	11,095	cm	
$RO_{soil}$	= Soil concentration at the source				
		Benzene =	0.0756	mg/kg	
$C_{source}$	= Groundwater concentration at the source (Equation R13)				
		Benzene =	0.069	mg/L	
$X$	= Distance along the centerline of the groundwater plume				
		Benzene =	406	cm	= 13.32 ft
		Solving for the $C_{(x)}$ for Benzene =	0.0050	mg/L	



**Leaching Factor and Groundwater Concentration at the Source**

Sample Location: BH-26

Equation R12

$$RO_{soil} = \frac{GW_{source}}{LF_{sw}}$$

Equation R12 Revised

$$GW_{source} = LF_{sw} \cdot RO_{soil}$$

Where:

$GW_{source}$	=	Groundwater concentration at the source	=	unknown	mg/L
$LF_{sw}$	=	Leaching factor (Equation R14 - chemical specific)	=		
			Benzene	=	0.9161 (mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
$RO_{soil}$	=	Soil concentration at the source			
			Benzene	=	0.0756 mg/kg

Solving for the  $GW_{source}$  for Benzene = 0.069 mg/L

**Groundwater Concentration at the Source**

Sample Location: BH-26

Equation R13

$$GW_{source} = \frac{GW_{comp}}{\frac{C(x)}{C_{source}}}$$

Equation R13 Revised

$$C_{source} = \frac{GW_{comp}}{\frac{C(x)}{GW_{source}}}$$

Where:

- |               |   |   |         |         |            |
|---------------|---|---|---------|---------|------------|
| $C_{source}$  | = | Groundwater concentration at the source of contamination  | =       | unknown | mg/L       |
| $GW_{comp}$   | = | Groundwater objective at the compliance point (Tier 1, Class I GRO - chemical specific)           |         |         |            |
|               |   |   | Benzene | =       | 0.005 mg/L |
| $C(x)$        | = | Groundwater concentration at distance X from the source (Tier 1, Class I GRO - chemical specific) |         |         |            |
|               |   |   | Benzene | =       | 0.005 mg/L |
| $GW_{source}$ | = | Groundwater concentration at the source (Equation R12 - chemical specific)                        |         |         |            |
|               |   |   | Benzene | =       | 0.069 mg/L |

Solving for the  $C_{source}$  for Benzene = 0.069 mg/L

**Longitudinal Dispersivity**

Sample Location: BH-26

Equation R16 
$$\alpha_x = 0.10 \cdot X$$

Where:

$\alpha_x$	=	Longitudinal dispersivity	=	unknown	cm
$X$	=	Distance along the centerline of the groundwater plume			
			Benzene	=	406 cm

Solving for the  $\alpha_x$  for Benzene = 40.60 cm

**Transverse Dispersivity**

Sample Location: BH-26

Equation R17

$$\alpha_y = \frac{\alpha_x}{3}$$

Where:

$\alpha_y$  = Transverse dispersivity = unknown cm  
 $\alpha_x$  = Longitudinal dispersivity (Equation R16 - chemical specific)  
Benzene = 40.60 cm

Solving for the  $\alpha_y$  for Benzene = 13.53 cm

**Vertical Dispersivity**

Sample Location: BH-26

Equation R18

$$\alpha_z = \frac{\alpha_x}{20}$$

Where:

$\alpha_z$  = Vertical dispersivity = unknown cm  
 $\alpha_x$  = Longitudinal dispersivity (Equation R16 - chemical specific)  
Benzene = 40.60 cm

Solving for the  $\alpha_z$  for Benzene = 2.03 cm

**Concentration of Contaminant in Groundwater at Distance X from the source**

Sample Location: BH-26

Equation R26 
$$C_{(x)} = C_{source} \cdot \exp\left[\left(\frac{X}{2\alpha_x}\right) \cdot \left(1 - \sqrt{1 + \frac{4\lambda \cdot \alpha_x}{U}}\right)\right] \cdot \operatorname{erf}\left[\frac{S_w}{4 \cdot \sqrt{\alpha_y} \cdot X}\right] \cdot \operatorname{erf}\left[\frac{S_d}{2 \cdot \sqrt{\alpha_z} \cdot X}\right]$$

Where:

X	= Distance along the centerline of the groundwater plume	=	unknown	cm
$C_{(x)}$	= Groundwater concentration at distance X from the source (Tier 1, Class I GRO - chemical specific)			
		Benzene	=	0.005 mg/L
$C_{source}$	= Groundwater concentration at the source (Equation R13)			
		Benzene	=	0.069 mg/L
$\alpha_x$	= Longitudinal dispersivity (Equation R16 - chemical specific)			
		Benzene	=	40.60 cm
$\lambda$	= First order degradation constant (default - chemical specific)			
		Benzene	=	0.0009 d <sup>-1</sup>
U	= Specific discharge (Equation R19)		=	0.11 cm/d
$S_w$	= Source width perpendicular to groundwater flow in the horizontal plane		=	11,095 cm
$\alpha_y$	= Transverse dispersivity (Equation R17 - chemical specific)			
		Benzene	=	13.53 cm
$S_d$	= Source width perpendicular to groundwater flow in the vertical plane (default)		=	200 cm
$\alpha_z$	= Vertical dispersivity (Equation R18 - chemical specific)			
		Benzene	=	2.03 cm

X to meet the Tier 1, Class I GRO for Benzene = 406 cm

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**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
RBCA Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R12 through R14, R16 through R22, R24, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czako, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify C<sub>source</sub> from S17/S28          mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit	Symbol		Unit
$A_{tc}$	=	yr	d	=	cm
$AT_{\eta}$	=	yr	$D^{air}$	=	cm <sup>2</sup> /s
BW	=	kg	$D^{water}$	=	cm <sup>2</sup> /s
$C_{source}$	=	0.069 mg/L	$D_s^{eff}$	=	cm <sup>2</sup> /s
$C_{(x)}$	=	0.005 mg/L	ED	=	yr
$C_{(x)}/C_{source}$	=	unitless	EF	=	d/yr

Symbol		Unit
erf	=	unitless
f <sub>oc</sub>	=	0.0184 g/g
GW <sub>comp</sub>	=	0.005 mg/L
GW <sub>source</sub>	=	0.069 mg/L
H'	=	0.23 cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
i	=	0.0106 cm/cm
l	=	30 cm/yr
IR <sub>air</sub>	=	m <sup>3</sup> /d
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	=	4.4798 cm/d for R15, R19, R26; cm/yr for R24
K <sub>oc</sub>	=	50 cm <sup>3</sup> /g or L/kg
k <sub>s</sub> (non-ionizing organics)	=	0.920 cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (ionizing organics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (inorganics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
L <sub>s</sub>	=	cm
LF <sub>sw</sub>	=	0.9161 (mg/L <sub>water</sub> )/m g/kg <sub>soil</sub> )
M	=	m/cm <sup>2</sup>
Pe	=	g/cm <sup>2</sup> -s
RAF <sub>d</sub>	=	unitless

Symbol		Unit
RAF <sub>d</sub> (PNAs)	=	unitless
RAF <sub>d</sub> (inorganics)	=	unitless
RAF <sub>0</sub>	=	unitless
RBSL <sub>air</sub> (carcinogenic)	=	µg/m <sup>3</sup>
RBSL <sub>air</sub> (noncarcinogenic)	=	µg/m <sup>3</sup>
RfD <sub>i</sub>	=	mg/kg-d
RfD <sub>0</sub>	=	mg/kg-d
SA	=	cm <sup>2</sup> /d
S <sub>d</sub>	=	200 cm
S <sub>w</sub>	=	11,095 cm
SF <sub>i</sub>	=	(mg/kg-d)-1
SF <sub>0</sub>	=	(mg/kg-d)-1
THQ	=	unitless
TR	=	unitless
U	=	0.11 cm/d
U <sub>air</sub>	=	cm/s
U <sub>gw</sub>	=	17.3325 cm/yr
VF <sub>p</sub>	=	kg/m <sup>3</sup>
Vf <sub>samb</sub>	=	(mg/m <sup>3</sup> <sub>air</sub> )/(mg/kg <sub>soil</sub> ) or kg/m <sup>3</sup>
VF <sub>ss</sub>	=	kg/m <sup>3</sup>



Symbol			Unit
W	=	9,845	cm
w	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
X	=	406	cm
$\alpha_x$	=	40.60	cm
$\alpha_y$	=	13.53	cm
$\alpha_z$	=	2.03	cm
$\delta_{air}$	=		cm
$\delta_{gw}$	=	200	cm

Symbol			Unit
$\theta_{as}$	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	=	0.0009	d <sup>-1</sup>
$\pi$	=		
$\rho_b$	=	1.850	g/cm <sup>3</sup>
$\rho_w$	=	1	g/cm <sup>3</sup>
$\tau$	=		s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12	0.076	mg/kg
R25		mg/L

**Sample Location: BH-21A**

**Input Variables for the SCGIER**

Project Number: 100137  
 Site Name: Lemont Kar Gas  
 Site Address: 1196 State Street  
 Site City: Lemont  
 Site County: Cook  
 Site State: IL  
 Site ZIP: 60439  
 Leaking UST Incident No.: 942117, 20141348  
 LPC No: 0314625010  
 Land Use: Industrial/Commercial  
 Soil Type: Silt Clay  
 Groundwater Classification: Class I  
 Contamination Modeled To: Class I  
 Mass Limit: No  
 Sample Location: BH-21A

Person Performing Calcs: Marcos J. Czako, P.G.  
 Title: Senior Project Manager

$\rho_s$	=	Dry soil bulk density	=	1.850	$\mu/\text{cm}^3$
$w$	=	Moisture content	=	0.137	$\frac{\text{g}_{\text{water}}}{\text{g}_{\text{soil}}}$
$\theta_T$	=	Total soil porosity	=	0.43	$\frac{\text{L}_{\text{pore}}}{\text{L}_{\text{total}}}$
$f_{oc}$	=	Organic carbon content of soil	=	0.0184	g/g
$K$	=	Aquifer hydraulic conductivity	=	1,635.14	cm/yr
$i$	=	Hydraulic gradient	=	0.0106	m/m
$W$	=	Width of source area parallel to groundwater flow direction	=	9,845	cm
$S_w$	=	Source width perpendicular to groundwater flow in the horizontal plane	=	11,095	cm
$RO_{\text{soil}}$	=	Soil concentration at the source	Benzene =	4.890	mg/kg
$C_{\text{source}}$	=	Groundwater concentration at the source (Equation R13)	Benzene =	4.480	mg/L
$X$	=	Distance along the centerline of the groundwater plume	Benzene =	1,355	cm = 44.46 ft
		Solving for the $C_{(x)}$ for Benzene	=	0.0050	mg/L

**Leaching Factor and Groundwater Concentration at the Source**

Sample Location: BH-21A

Equation R12

$$RO_{soil} = \frac{GW_{source}}{LF_{sw}}$$

Equation R12 Revised

$$GW_{source} = LF_{sw} \cdot RO_{soil}$$

Where:

$GW_{source}$	=	Groundwater concentration at the source	=	unknown	mg/L
$LF_{sw}$	=	Leaching factor (Equation R14 - chemical specific)	=		
			Benzene	=	0.9161 (mg/L <sub>water</sub> )/(mg/kg <sub>soil</sub> )
$RO_{soil}$	=	Soil concentration at the source			
			Benzene	=	4.8900 mg/kg

Solving for the  $GW_{source}$  for Benzene = 4.480 mg/L

**Groundwater Concentration at the Source**

Sample Location: BH-21A

Equation R13

$$GW_{source} = \frac{GW_{comp}}{\frac{C(x)}{C_{source}}}$$

Equation R13 Revised

$$C_{source} = \frac{GW_{comp}}{\frac{C(x)}{GW_{source}}}$$

Where:

- $C_{source}$  = Groundwater concentration at the source of contamination = unknown mg/L
- $GW_{comp}$  = Groundwater objective at the compliance point (Tier 1, Class I GRO - chemical specific)
  - Benzene = 0.005 mg/L
- $C(x)$  = Groundwater concentration at distance X from the source (Tier 1, Class I GRO - chemical specific)
  - Benzene = 0.005 mg/L
- $GW_{source}$  = Groundwater concentration at the source (Equation R12 - chemical specific)
  - Benzene = 4.480 mg/L

Solving for the  $C_{source}$  for Benzene = 4.480 mg/L

**Longitudinal Dispersivity**

Sample Location: BH-21A

Equation R16

$$\alpha_x = 0.10 \cdot X$$

Where:

$\alpha_x$	=	Longitudinal dispersivity	=	unknown	cm
$X$	=	Distance along the centerline of the groundwater plume			
			Benzene	=	1,355 cm

Solving for the  $\alpha_x$  for Benzene = 135.50 cm

**Transverse Dispersivity**

Sample Location: BH-21A

Equation R17

$$\alpha_y = \frac{\alpha_x}{3}$$

Where:

$\alpha_y$  = Transverse dispersivity = unknown cm  
 $\alpha_x$  = Longitudinal dispersivity (Equation R16 - chemical specific)  
Benzene = 135.50 cm

Solving for the  $\alpha_y$  for Benzene = 45.17 cm

### Vertical Dispersivity

Sample Location: BH-21A

Equation R18

$$\alpha_z = \frac{\alpha_x}{20}$$

Where:

$\alpha_z$  = Vertical dispersivity = unknown cm  
 $\alpha_x$  = Longitudinal dispersivity (Equation R16 - chemical specific)  
Benzene = 135.50 cm

Solving for the  $\alpha_z$  for Benzene = 6.78 cm



**Concentration of Contaminant in Groundwater at Distance X from the source**

Sample Location: BH-21A

Equation R26 
$$C_{(x)} = C_{source} \cdot \exp\left[\left(\frac{X}{2\alpha_x}\right) \cdot \left(1 - \sqrt{1 + \frac{4\lambda \cdot \alpha_x}{U}}\right)\right] \cdot \operatorname{erf}\left[\frac{S_w}{4 \cdot \sqrt{\alpha_x \cdot X}}\right] \cdot \operatorname{erf}\left[\frac{S_d}{2 \cdot \sqrt{\alpha_x \cdot X}}\right]$$

Where:

X	= Distance along the centerline of the groundwater plume	=	unknown	cm
$C_{(x)}$	= Groundwater concentration at distance X from the source (Tier 1, Class I GRO - chemical specific)			
		Benzene	=	0.005 mg/L
$C_{source}$	= Groundwater concentration at the source (Equation R13)			
		Benzene	=	4.480 mg/L
$\alpha_x$	= Longitudinal dispersivity (Equation R16 - chemical specific)			
		Benzene	=	135.50 cm
$\lambda$	= First order degradation constant (default - chemical specific)			
		Benzene	=	0.0009 d <sup>-1</sup>
U	= Specific discharge (Equation R19)		=	0.11 cm/d
$S_w$	= Source width perpendicular to groundwater flow in the horizontal plane		=	11,095 cm
$\alpha_y$	= Transverse dispersivity (Equation R17 - chemical specific)			
		Benzene	=	45.17 cm
$S_d$	= Source width perpendicular to groundwater flow in the vertical plane (default)		=	200 cm
$\alpha_z$	= Vertical dispersivity (Equation R18 - chemical specific)			
		Benzene	=	6.78 cm
	X to meet the Tier 1, Class I GRO for Benzene	=	1,355	cm

**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
RBCA Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R12 through R14, R16 through R22, R24, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czako, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify C<sub>source</sub> from S17/S28                      mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit
$A_{tc}$	=	yr
$AT_{\eta}$	=	yr
BW	=	kg
$C_{source}$	= 4.480	mg/L
$C_{(x)}$	= 0.005	mg/L
$C_{(x)}/C_{source}$	=	unitless

Symbol		Unit
d	=	cm
$D^{air}$	=	cm <sup>2</sup> /s
$D^{water}$	=	cm <sup>2</sup> /s
$D_s^{eff}$	=	cm <sup>2</sup> /s
ED	=	yr
EF	=	d/yr

Symbol		Unit
erf	=	unitless
f <sub>oc</sub>	=	0.0184 g/g
GW <sub>comp</sub>	=	0.005 mg/L
GW <sub>source</sub>	=	4.480 mg/L
H'	=	0.23 cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
i	=	0.0106 cm/cm
I	=	30 cm/yr
IR <sub>air</sub>	=	m <sup>3</sup> /d
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	=	4.4798 cm/d for R15, R19, R26; cm/yr for R24
K <sub>oc</sub>	=	50 cm <sup>3</sup> /g or L/kg
k <sub>s</sub> (non-ionizing organics)	=	0.920 cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (ionizing organics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (inorganics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
L <sub>s</sub>	=	cm
LF <sub>sw</sub>	=	0.9161 (mg/L <sub>water</sub> )/m g/kg <sub>soil</sub> )
M	=	m/cm <sup>2</sup>
Pe	=	g/cm <sup>2</sup> -s
RAF <sub>d</sub>	=	unitless

Symbol		Unit
RAF <sub>d</sub> (PNAs)	=	unitless
RAF <sub>d</sub> (inorganics)	=	unitless
RAF <sub>o</sub>	=	unitless
RBSL <sub>air</sub> (carcinogenic)	=	µg/m <sup>3</sup>
RBSL <sub>air</sub> (noncarcinogenic)	=	µg/m <sup>3</sup>
RfD <sub>i</sub>	=	mg/kg-d
RfD <sub>o</sub>	=	mg/kg-d
SA	=	cm <sup>2</sup> /d
S <sub>d</sub>	=	200 cm
S <sub>w</sub>	=	11,095 cm
SF <sub>i</sub>	=	(mg/kg-d)-1
SF <sub>o</sub>	=	(mg/kg-d)-1
THQ	=	unitless
TR	=	unitless
U	=	0.11 cm/d
U <sub>air</sub>	=	cm/s
U <sub>gw</sub>	=	17.3325 cm/yr
VF <sub>p</sub>	=	kg/m <sup>3</sup>
Vf <sub>samb</sub>	=	(mg/m <sup>3</sup> <sub>air</sub> )/(mg/kg <sub>soil</sub> ) or kg/m <sup>3</sup>
VF <sub>ss</sub>	=	kg/m <sup>3</sup>

Symbol			Unit
W	=	9,845	cm
w	=	0.137	g <sub>water</sub> /g <sub>soil</sub>
X	=	1,355	cm
$\alpha_x$	=	135.50	cm
$\alpha_y$	=	45.17	cm
$\alpha_z$	=	6.78	cm
$\delta_{air}$	=		cm
$\delta_{gw}$	=	200	cm

Symbol			Unit
$\theta_{as}$	=	0.1766	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	0.2535	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	=	0.0009	d <sup>-1</sup>
$\pi$	=		
$\rho_b$	=	1.850	g/cm <sup>3</sup>
$\rho_w$	=	1	g/cm <sup>3</sup>
$\tau$	=		s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12	4.890	mg/kg
R25		mg/L

**APPENDIX M**

**TIER 2 CALCULATIONS FOR THE GCGIER**

**Sample Location:**           MW-1

**Input Variables for the GCGIER**

**Project Number:** 100137  
**Site Name:** Lemont Kar Gas  
**Site Address:** 1196 State Street  
**Site City:** Lemont  
**Site County:** Cook  
**Site State:** IL  
**Site ZIP:** 60439  
**Leaking UST Incident No.:** 942117, 20141348  
**LPC No.:** 0314625010  
**Land Use:** Industrial/Commercial  
**Soil Type:** Silt Clay  
**Groundwater Classification:** Class I  
**Contamination Modeled To:** Class I  
**Mass Limit:** No  
**Sample Location:** MW-1

**Person Performing Calcs:** Marcos I. Czako, P.G.  
**Title:** Senior Project Manager

$\theta_T$	= Total soil porosity	=	0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>		
K	= Aquifer hydraulic conductivity	=	1,635.14	cm/yr		
j	= Hydraulic gradient	=	0.0106	cm/cm		
$S_w$	= Source width perpendicular to groundwater flow in the horizontal plane	=	3,780.00	cm		
$C_{source}$	= Groundwater concentration at the source					
		Benzene =	1.300	mg/L		
		Ethylbenzene =	1.540	mg/L		
X	= Distance along the centerline of the groundwater plume					
		Benzene =	1,045	cm	=	34.28 ft
		Ethylbenzene =	32	cm	=	1.05 ft
$C_{(x)}$	= Groundwater concentration at distance X from the source (chemical specific)					
		Benzene =	0.005	mg/L		
		Ethylbenzene =	0.7	mg/L		
		Solving for the $C_{(x)}$ for Benzene =	0.0050	mg/L		
		Solving for the $C_{(x)}$ for Ethylbenzene =	0.69	mg/L		

**Longitudinal Dispersivity**

Sample Location: MW-1

Equation R16  $\alpha_x = 0.10 \cdot X$

Where:

$\alpha_x$  = Longitudinal dispersivity = unknown cm  
 $X$  = Distance along the centerline of the groundwater plume

Benzene = 1,045 cm  
Ethylbenzene = 32 cm

Solving for the  $\alpha_x$  for Benzene = 104.50 cm  
Solving for the  $\alpha_x$  for Ethylbenzene = 3.20 cm



**Transverse Dispersivity**

Sample Location: MW-1

Equation R17 
$$\alpha_y = \frac{\alpha_x}{3}$$

Where:

$\alpha_y$  = Transverse dispersivity = unknown  
 $\alpha_x$  = Longitudinal dispersivity (Equation R16 - chemical specific)

Benzene = 104.50  
Ethylbenzene = 3.20

Solving for the  $\alpha_y$  for Benzene = 34.83 cm  
Solving for the  $\alpha_y$  for Ethylbenzene = 1.07 cm

**Vertical Dispersivity**

Sample Location: MW-1

Equation R18

$$\alpha_z = \frac{\alpha_x}{20}$$

Where:

$\alpha_z$  = Vertical dispersivity = unknown  
 $\alpha_x$  = Longitudinal dispersivity (Equation R16 - chemical specific)

Benzene = 104.50  
Ethylbenzene = 3.20

Solving for the  $\alpha_z$  for Benzene = 5.23 cm  
Solving for the  $\alpha_z$  for Ethylbenzene = 0.16 cm

**Specific Discharge**

Equation R19 
$$U = \frac{K \cdot i}{\theta_T}$$

Where:

U	= Specific discharge	= unknown
K	= Aquifer hydraulic conductivity	= 4.48
i	= Hydraulic gradient	= 0.0106
$\theta_T$	= Total soil porosity	= 0.43

Solving for the U = 0.11 cm/d

**Concentration of Contaminant in Groundwater at Distance X from the source**

Sample Location: MW-1

Equation R26

$$C_{(x)} = C_{source} \cdot \exp \left[ \left( \frac{X}{2\alpha_x} \right) \cdot \left( 1 - \sqrt{1 + \frac{4\lambda \cdot \alpha_x}{U}} \right) \right] \cdot \operatorname{erf} \left[ \frac{S_w}{4 \cdot \sqrt{\alpha_y \cdot X}} \right] \cdot \operatorname{erf} \left[ \frac{S_d}{2 \cdot \sqrt{\alpha_z \cdot X}} \right]$$

Where:

X	= Distance along the centerline of the groundwater plume	=	unknown	cm
C <sub>(x)</sub>	= Groundwater concentration at distance X from the source (chemical specific)			
		Benzene =	0.005	mg/L
		Ethylbenzene =	0.7	mg/L
C <sub>source</sub>	= Groundwater concentration at the source			
		Benzene =	1.3	mg/L
		Ethylbenzene =	1.54	mg/L
α <sub>x</sub>	= Longitudinal dispersivity (Equation R16 - chemical specific)			
		Benzene =	104.50	cm
		Ethylbenzene =	3.20	cm
λ	= First order degradation constant (default - chemical specific)			
		Benzene =	0.0009	d <sup>-1</sup>
		Ethylbenzene =	0.003	d <sup>-1</sup>
U	= Specific discharge (Equation R19)	=	0.11	cm/d
S <sub>w</sub>	= Source width perpendicular to groundwater flow in the horizontal plane	=	3,780.00	cm
α <sub>y</sub>	= Transverse dispersivity (Equation R17 - chemical specific)			
		Benzene =	34.83	cm
		Ethylbenzene =	1.07	cm
S <sub>d</sub>	= Source width perpendicular to groundwater flow in the vertical plane	=	200	cm
α <sub>z</sub>	= Vertical dispersivity (Equation R18 - chemical specific)			
		Benzene =	5.23	cm
		Ethylbenzene =	0.16	cm
	X to meet the Tier 1, Class I GRO for Benzene	=	1,045	cm
	X to meet the Tier 1, Class I GRO for Ethylbenzene	=	32	cm

Electronic Filing Received Clerk's Office 03/23/2024

**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Program  
RBCA Input Parameters for Use with Tier 2 Calculations**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 I EPA LPC # (10-digit): 0314625010  
 Site Name: Lemont Kar Gas  
 Site Address (not a P.O. Box): 1196 State Street  
 City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R16, R17, R18, R19, R26

Contact Information for Individual Who Performed Calculations: Marcos J. Czakó, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify C<sub>source</sub> from S17/S28 \_\_\_\_\_ mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit	Symbol		Unit
$A_{tc}$	=	yr	d	=	cm
$AT_{\eta}$	=	yr	$D^{air}$	=	$cm^2/s$
BW	=	kg	$D^{water}$	=	$cm^2/s$
$C_{source}$	=	1.3 mg/L	$D_s^{eff}$	=	$cm^2/s$
$C_{(x)}$	=	0.005 mg/L	ED	=	yr
$C_{(xy)}/C_{source}$	=	unitless	EF	=	d/yr

Incident #:

942117, 20141348

Chemical:

Benzene

Land Use:

Industrial/Commercial

Symbol		Unit
erf	=	unitless
$f_{oc}$	=	g/g
$GW_{comp}$	=	mg/L
$GW_{source}$	=	mg/L
H'	=	$cm^3_{water}/cm^3_{air}$
i	= 0.0106	cm/cm
j	=	cm/yr
$IR_{air}$	=	$m^3/d$
$IR_{soil}$	=	mg/d
$IR_w$	=	L/d
K	= 4.48	cm/d for R15, R19, R26; cm/yr for R24
$K_{oc}$	=	$cm^3/g$ or L/kg
$k_s$ (non-ionizing organics)	=	$cm^3_{water}/g_{soil}$
$k_s$ (ionizing organics)	=	$cm^3_{water}/g_{soil}$
$k_s$ (inorganics)	=	$cm^3_{water}/g_{soil}$
$L_s$	=	cm
$LF_{sw}$	=	$(mg/L_{water})/m g/kg_{soil}$
M	=	$m/cm^2$
Pe	=	$g/cm^2 \cdot s$
$RAF_d$	=	unitless

Symbol		Unit
$RAF_d$ (PNAs)	=	unitless
$RAF_d$ (inorganics)	=	unitless
$RAF_0$	=	unitless
$RBSL_{air}$ (carcinogenic)	=	$\mu g/m^3$
$RBSL_{air}$ (noncarcinogenic)	=	$\mu g/m^3$
$RfD_i$	=	mg/kg-d
$RfD_o$	=	mg/kg-d
SA	=	$cm^2/d$
$S_d$	= 200	cm
$S_w$	= 3,780.00	cm
$SF_i$	=	(mg/kg-d)-1
$SF_o$	=	(mg/kg-d)-1
THQ	=	unitless
TR	=	unitless
U	= 0.11	cm/d
$U_{air}$	=	cm/s
$U_{gw}$	=	cm/yr
$VF_p$	=	$kg/m^3$
$Vf_{samb}$	=	$(mg/m^3_{air})/(mg/kg_{soil})$ or $kg/m^3$
$VF_{ss}$	=	$kg/m^3$

Incident #:

942117, 20141348

Chemical:

Benzene

Land Use:

Industrial/Commercial

Symbol		Unit
W	=	cm
w	=	g <sub>water</sub> /g <sub>soil</sub>
X	=	1045 cm
$\alpha_\xi$	=	104.5 cm
$\alpha_\psi$	=	34.83333333 cm
$\alpha_\zeta$	=	5.225 cm
$\delta_{air}$	=	cm
$\delta_{\gamma\omega}$	=	cm

Symbol		Unit
$\theta_{as}$	=	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	=	0.43 cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	=	0.0009 d <sup>-1</sup>
$\pi$	=	
$\rho_b$	=	g/cm <sup>3</sup>
$\rho_w$	=	g/cm <sup>3</sup>
$\tau$	=	s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12		mg/kg
R25		mg/L

Electronic Filing Received, Clark's Office 03/23/2021

### Illinois Environmental Protection Agency Leaking Underground Storage Tank Program RBCA Input Parameters for Use with Tier 2 Calculations

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117, 20141348 IEPA LPC # (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (not a P.O. Box): 1196 State Street

City: Lemont County: Cook Zip Code: 60439

Leaking UST Technical File

**B. Tier 2 Calculation Information**

Equation(s) Used (ex: R12, R14, R26): R16, R17, R18, R19, R26

Contact Information for Individual Who Performed Calculations: Marcos I. Czakó, P.G., Senior Project Manager  
TriCore Environmental, LLC, 2368 Corporate Lane, Suite 116, Naperville, IL 60563, (630) 520-9973

Land Use: Industrial/Commercial Soil Type: Silt Clay

Groundwater:  Class I  Class II

Mass Limit:  Yes  No If Yes, then Specify Acreage:  0.5  1  2  5  10  30

Result from S17/S28 used in R26?  Yes  No Specify C<sub>source</sub> from S17/S28                      mg/L

- Mass Limit Acreage other than defaults must always be rounded up.
- Failure to use site-specific parameters where allowed could affect payment from the Underground Storage Tank Fund.
- Maps depicting source width, plume dimensions, distance, etc. must also be submitted.
- Inputs must be submitted in the designated unit.

Symbol		Unit	Symbol		Unit
At <sub>c</sub>	=	yr	d	=	cm
AT <sub>η</sub>	=	yr	D <sup>air</sup>	=	cm <sup>2</sup> /s
BW	=	kg	D <sup>water</sup>	=	cm <sup>2</sup> /s
C <sub>source</sub>	=	1.54 mg/L	D <sub>s</sub> <sup>eff</sup>	=	cm <sup>2</sup> /s
C <sub>(x)</sub>	=	0.7 mg/L	ED	=	yr
C <sub>(x)</sub> /C <sub>source</sub>	=	unitless	EF	=	d/yr



Symbol		Unit
erf	=	unitless
f <sub>oc</sub>	=	g/g
GW <sub>comp</sub>	=	mg/L
GW <sub>source</sub>	=	mg/L
H'	=	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>air</sub>
i	= 0.0106	cm/cm
l	=	cm/yr
IR <sub>air</sub>	=	m <sup>3</sup> /d
IR <sub>soil</sub>	=	mg/d
IR <sub>w</sub>	=	L/d
K	= 4.48	cm/d for R15, R19, R26; cm/yr for R24
K <sub>oc</sub>	=	cm <sup>3</sup> /g or L/kg
k <sub>s</sub> (non-ionizing organics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (ionizing organics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
k <sub>s</sub> (inorganics)	=	cm <sup>3</sup> <sub>water</sub> /g <sub>soil</sub>
L <sub>s</sub>	=	cm
LF <sub>sw</sub>	=	(mg/L <sub>water</sub> )/m g/kg <sub>soil</sub> )
M	=	m/cm <sup>2</sup>
Pe	=	g/cm <sup>2</sup> -s
RAF <sub>d</sub>	=	unitless

Symbol		Unit
RAF <sub>d</sub> (PNAs)	=	unitless
RAF <sub>d</sub> (inorganics)	=	unitless
RAF <sub>o</sub>	=	unitless
RBSL <sub>air</sub> (carcinogenic)	=	µg/m <sup>3</sup>
RBSL <sub>air</sub> (noncarcinogenic)	=	µg/m <sup>3</sup>
RfD <sub>i</sub>	=	mg/kg-d
RfD <sub>o</sub>	=	mg/kg-d
SA	=	cm <sup>2</sup> /d
S <sub>d</sub>	= 200	cm
S <sub>w</sub>	= 3,780.00	cm
SF <sub>i</sub>	=	(mg/kg-d)-1
SF <sub>o</sub>	=	(mg/kg-d)-1
THQ	=	unitless
TR	=	unitless
U	= 0.11	cm/d
U <sub>air</sub>	=	cm/s
U <sub>gw</sub>	=	cm/yr
VF <sub>p</sub>	=	kg/m <sup>3</sup>
VF <sub>samb</sub>	=	(mg/m <sup>3</sup> <sub>air</sub> )/(mg/kg <sub>soil</sub> ) or kg/m <sup>3</sup>
VF <sub>ss</sub>	=	kg/m <sup>3</sup>

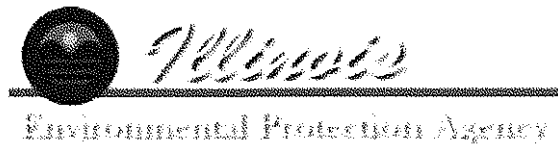
Symbol		Unit
W	=	cm
w	=	g <sub>water</sub> /g <sub>soil</sub>
X	= 32	cm
$\alpha_E$	= 3.2	cm
$\alpha_\psi$	= 1.066666667	cm
$\alpha_\zeta$	= 0.16	cm
$\delta_{air}$	=	cm
$\delta_{\gamma_w}$	=	cm

Symbol		Unit
$\theta_{as}$	=	cm <sup>3</sup> <sub>air</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_{ws}$	=	cm <sup>3</sup> <sub>water</sub> /cm <sup>3</sup> <sub>soil</sub>
$\theta_T$	= 0.43	cm <sup>3</sup> /cm <sup>3</sup> <sub>soil</sub>
$\lambda$	= 0.003	d <sup>-1</sup>
$\pi$	=	
$\rho_b$	=	g/cm <sup>3</sup>
$\rho_w$	=	g/cm <sup>3</sup>
$\tau$	=	s

Equation	Result	Unit(s)
R1		mg/kg
R2		mg/kg
R7		mg/kg
R8		mg/kg
R12		mg/kg
R25		mg/L

**APPENDIX N**

**POTABLE WATER SUPPLY WELL INFORMATION**



## Source Water Assessment Program Factsheets

**Select Water System Type**

Community ▼

---

**Select County**

Cook ▼

Search County

-- Or --

**Enter any part of a Facility Name**

Lemont

Search Facility Name

**Search Results**

LEMONT ▼

Select Water System

To view a summary version of the completed Source Water Assessments, you may search our records by county or public water supply name. This summary information describes pertinent sub-sections of each completed assessment including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts. However, summaries of Source Water Protection Efforts have not been documented for non-community water supplies. It should be noted that these Source Water Assessment summaries are presented in strict compliance with Illinois EPA's security policy on the release of sensitive information. Therefore, all locational data and maps pertaining to wells, aquifers and/or surface water intakes have been removed. To obtain a complete version of the Source Water Assessment Report, please contact your local water supply officials.

**Water Percentages:**

Surface Water %	Surface Water Purchase %	Ground Water %	Ground Water Purchase %	Ground Water UDI %	Ground Water UDI Purchase %
0.00	0.00	100.00	0.00	0.00	0.00

**Importance Of Source Water:**

The Village of Lemont (Facility Number 0311620) utilizes four active community water supply wells, well #2 (IEPA #20604), well #3 (IEPA #20605), well #4 (IEPA #20606), and well #5 (IEPA # 01101). The facility distributes 1,142,000 gallons per day on average to an estimated population of 11,300 at 3,800 service connections.

**Well Data For This Facility:**

Well ID	Well Description	Status	Depth	Minimum Setback	Pumpage	Aquifer Code	Aquifer Description	Max Zone
WL01101	WELL 5 (01101)	A	1675.00	200	0	8787	Deep Bedrock	0
WL01587	WELL 6 (01587)	A	1665.00	200			Deep Bedrock	0
WL20604	WELL 2 (20604) EMERGENCY	A	241.00	200	41710000	5656	Shallow Bedrock	0
WL20605	WELL 3 (20605)	A	1723.00	200	186528000	6080	Deep Bedrock	0
WL20606	WELL 4 (20606)	A	1658.00	200	232727000	6080	Deep Bedrock	0

**Intake Details:**

No Data

**Source Water Quality:**

Lemont Well #2 was sampled as part of the Statewide Groundwater Monitoring Network on November 12, 1985, and Wells #3 and #4 were sampled on July 17, 1987. The well samples were analyzed for volatile organic compounds (VOC) and inorganic chemicals (IOC). Well #5 was sampled by the Illinois EPA on August 4, 1999 as part of a "new" well monitoring program. On this occasion, samples were collected from the well and were analyzed for IOC and VOC. Review of the VOC analyses did not indicate quantifiable levels of organic compounds. Review of the IOC data for both wells indicated that the parameters are consistent with those of other wells utilizing similar bedrock aquifers in Illinois. It should also be noted that the IOC results were consistent among all of Lemont's wells and all results were below the groundwater quality standards established under 35 Illinois Administrative Code Part 620.410.

**Finished Water Quality:**

Finished water quality data tables of monitored parameters, contaminants detected, health advisory information, drinking water standards or maximum contaminant levels are available at <http://www.epa.gov/ogwdw/>. A review of this information does not indicate levels of organic or inorganic compounds which exceed the drinking water quality standards.

## Potential Sources Of Contamination:

The sites labeled on the Wellhead Protection Planning Map are considered "potential" sources of contamination due to the nature of their activity, the availability of data in electronic databases, and their geographic proximity to the source water protection area. In addition, the Illinois EPA made use of the information from the Illinois EPA leaking underground storage tank database (<http://ust.epa.state.il.us/search.asp>) and site remediation program database (<http://srp.epa.state.il.us/search.asp>) to further assess potential sources of contamination to the community's source water. These databases include information from the Illinois EPA Division of Land Pollution Control (LPC) and the Illinois Emergency Management Agency (IEMA). The following is a list of facilities contained within these databases.

IEMA#	LPC#	Name-Address
20002164	N.A.	Amoco Oil #240334 Southeast Corner of Rt. 83 & Archer Ave. Lemont 60439
851002	N.A.	UNK 411 Talcott Ave. Lemont NA
891845	0434625013	Homerding, Gene Rt. 7 Lemont Rd. Lemont 60439
892593	0311625064	Trust of Rosebloom Walker & McCarthy Lemont 60439
901309	0311620027	Northeast Ill. Railroad 100 State St. Lemont 60439
901690	0311620022	Amoco Oil Co. #18857 1032 State St. Lemont 60439
902972	0311625016	Union Chemical Co. Main & Maley Lemont 60439
903239	1978030004	Uno-ven 135th St. & New Ave. Lemont 60439
903600	1978030004	Uno-ven 135th St. & New Ave. Lemont 60439
911330	0311625063	Steger Automotive 500 Main St. Lemont 60439
911590	0311625042	Enron Liquid Pipeline Co. 1240 Smith Rd. Lemont 60439
912706	1978030004	Uno-ven 135th St. & New Ave. Lemont 60439
913087	1978030004	Uno-ven Co. 135th St. & New Ave. Lemont 60439
913658	0311625066	Cardor Inc. 115 Archer Ave. Lemont 60439
913675	0434625016	U.S. Army Corps pf Engineers 91 St & Cass Ave. Lemont 60439
922066	0434625017	Lemont-Bromerek Combined School Dist. 109th St. & Davey Rd. Lemont 60439-2286
922208	1978030004	Uno-ven 135th St. & New Ave. Lemont 60439
923492	0311625076	Holy Family Villa 123rd & Bell Ave. Lemont 60439
923697	0311625074	AT&T 127th St. near State St. Lemont 60439
930449	0311620007	Heritage Env. Science Canal Bank Rd. Northeast Lemont 60439
940363	0314625007	Mt. Assisi Convent 13900 Main St. Lemont 60439
941766	0314625009	U.S. Army Corps pf Engineers Cass Rd. & I-55 Lemont 60439
942117	0314625010	Citgo 127th & 1196 State St. Lemont 60439
942543	0311620016	Primms Perlman Rocque 16100 West 103rd St. Lemont 60439
950576	1978030008	Austeval/Lemont Inc. New Ave. at Ceco Rd. Lemont 60439
951868	0314625016	Arnold, Joyce 12300 South Archer Lemont 60439
952417	0314625002	Cog Hill Country Club 12294 Archer Lemont 60439
960038	0314623002	Theodore Groski & Sons 46 State St. Lemont 60439
961335	0314625024	Lemont Park Dist. 16028 127th St. Lemont 60439
961864	0314625026	Lemont High School #210 800 Porter St. Lemont 60439
962037	0311625063	Steger Automotive 500 Main St. Lemont 60439
962265	0314625025	Mt. Vernon Memorial Estates 119th & Archer Ave. Lemont 60439
972137	0314625034	Marquette National Bank Trust #13214 30 Stephen St. Lemont 60439
982259	0311623010	K-Five Construction Corp. 1801 Main St. Lemont 60439
990124	0314625039	St. Mary's Seminary 14245 Main St. Lemont 60439

LPC #            Name-Address  
 0311625016 Ashland Chemical Main Street & Maley Road Lemont 60439  
 0311625009 Cook Composites and Polymers 13511 Main Street & Maley Road Lemont 60439  
 0314625016 Night Games 12300 South Archer Avenue Lemont 60439  
 0311620027 Northeast Ill. Railroad Co. 100 State Street Lemont 60439  
 0314620010 Tri-County Building 206 Main Street Lemont 60439

### Site Data For This Facility:

Well ID	Site/GMZ ID	Map Code	Name	Distance	Status
WL20604	000004736	054B	CITGO	450	A
WL20604	000006653	054B	AMOCO	1340	A
WL20605	000004736	054B	CITGO	375	A
WL20605	000006653	054B	AMOCO	1460	A

### Susceptibility To Contamination:

Based on information obtained in a Well Site Survey, published in 1993 by the Illinois EPA, four potential secondary sources were identified within the survey area of Lemont's wells. Furthermore, information provided by the Leaking Underground Storage Tank and Remedial Project Management Sections of the Illinois EPA indicated several additional sites with ongoing remediation which may be of concern. The Illinois EPA has determined that the Lemont Community Water Supply's source water has a low susceptibility to contamination. This determination is based on a number of criteria including: monitoring conducted at the wells monitoring conducted at the entry point to the distribution system; and the available hydrogeologic data on the wells.

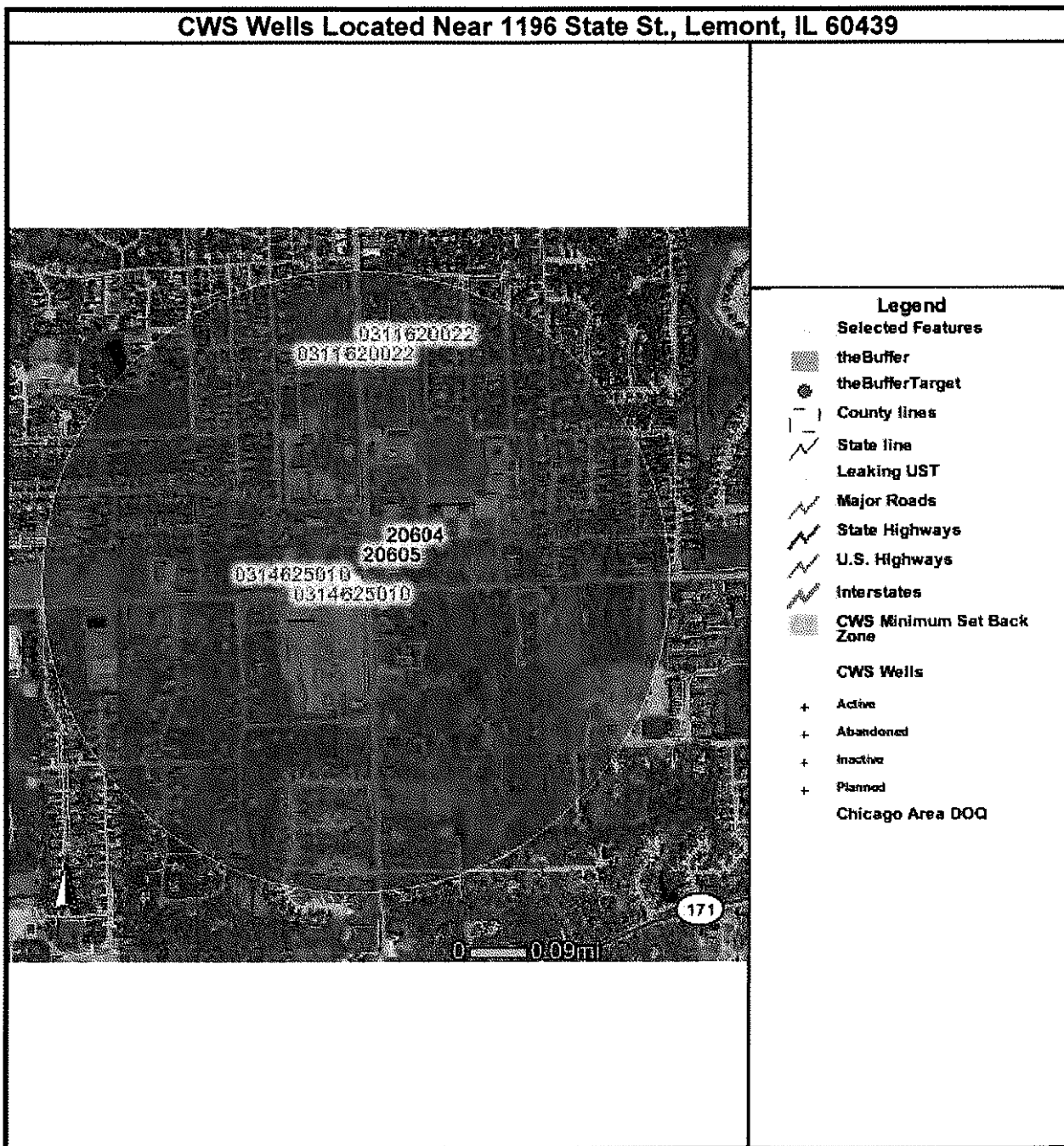
### Source Water Protection Efforts:

The Illinois Environmental Protection Act provides minimum protection zones of 200 feet for Lemont's wells. These minimum protection zones are regulated by the Illinois EPA. To further reduce the risk to source water, the Village has implemented a source water protection program which includes the proper abandonment of potential routes of groundwater contamination and correction of sanitary defects at the water treatment facility. This effort resulted in the community water supply receiving a special exception permit from the Illinois EPA which allows a reduction in monitoring. The outcome of this monitoring reduction has saved the community considerable laboratory analysis costs. To further minimize the risk to Lemont's groundwater supply, the Illinois EPA recommends that three additional activities be assessed. First, the community may wish to enact a "maximum setback zone" ordinance. These ordinances are authorized by the Environmental Protection Act and allow county and municipal officials the opportunity to provide additional protection up to a fixed distance, normally 1,000 feet from their wells. Second, the water supply staff may wish to revisit their contingency planning documents. Contingency planning documents are a primary means to ensure that, through emergency preparedness, a community will minimize their risk of being without safe and adequate water. Finally, the water supply staff is encouraged to review their cross connection control program to ensure that it remains current and viable. Cross connections to either the water treatment plant (for example, at bulk water loading stations) or in the distribution system may negate all source water protection initiatives provided by the community.

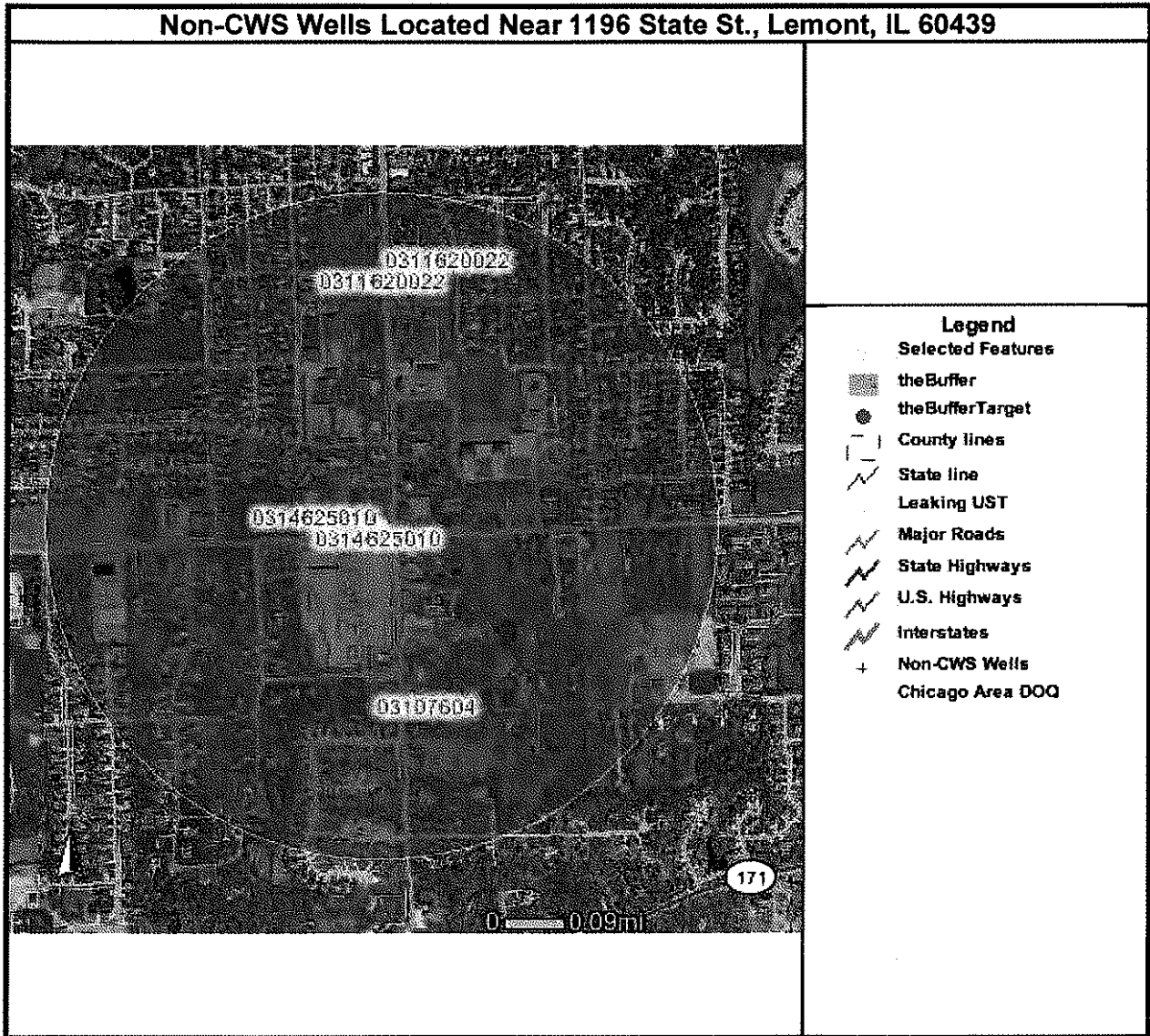


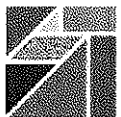
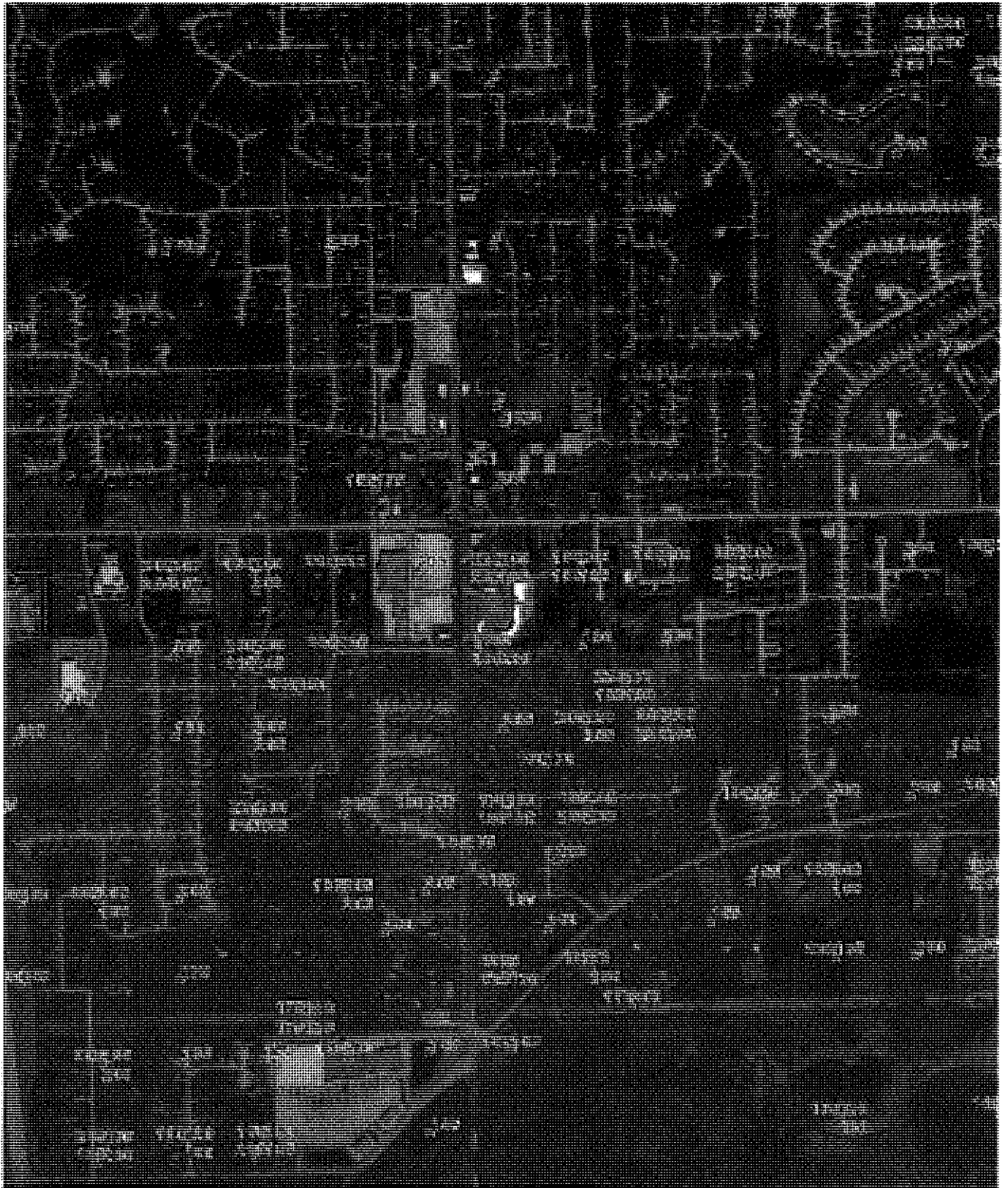


Information and data presented were obtained from various Federal, State, and local agencies and are subject to revision.



Information and data presented were obtained from various Federal, State, and local agencies and are subject to revision.





**ILLINOIS STATE  
GEOLOGICAL SURVEY  
PRAIRIE RESEARCH INSTITUTE**

**ISGS Wells**

Printed: Jan 13, 2015



ILLINOIS STATE GEOLOGICAL SURVEY

Water Well	Top	Bottom
Silurian	94	
Maquoketa	275	
Galena	498	
St Peter	846	
Ironton	1464	
Eau Claire	1648	
<b>Total Depth</b>		1723
Driller's Log filed		
Survey Sample Study filed		
Sample set # 45591 (0' - 1720') Received: January 15, 1964		

Permit Date:

Permit #:

COMPANY Wehling Well Works Inc.

FARM Lemont Village Well

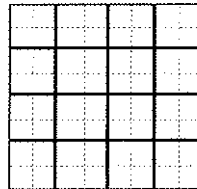
DATE DRILLED October 1, 1963 NO. 4

ELEVATION 742GL COUNTY NO. 00489

LOCATION 850'S line, 2275'E line of section

LATITUDE 41.658871 LONGITUDE -87.998431

COUNTY Cook API 120310048900 29 - 37N - 11E



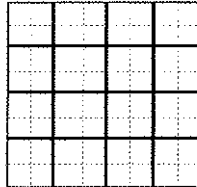
ILLINOIS STATE GEOLOGICAL SURVEY

Water Well	Top	Bottom
clay	0	95
broken lime	95	125
brown clean lime	125	170
gray lime	170	238
blue shale	238	241
Silurian	95	
Maquoketa	238	
<b>Total Depth</b>		<b>241</b>
Casing: 12" from 0' to 128'		
Static level 126' below casing top which is ' above GL		
Pumping level 132' when pumping at 550 gpm for 5 hours		
Driller's Log filed		
Sample set # 25109 (50' - 180') Received: December 1, 1954		
Owner Address: ,		
Location source: Location from the driller		

Permit Date:

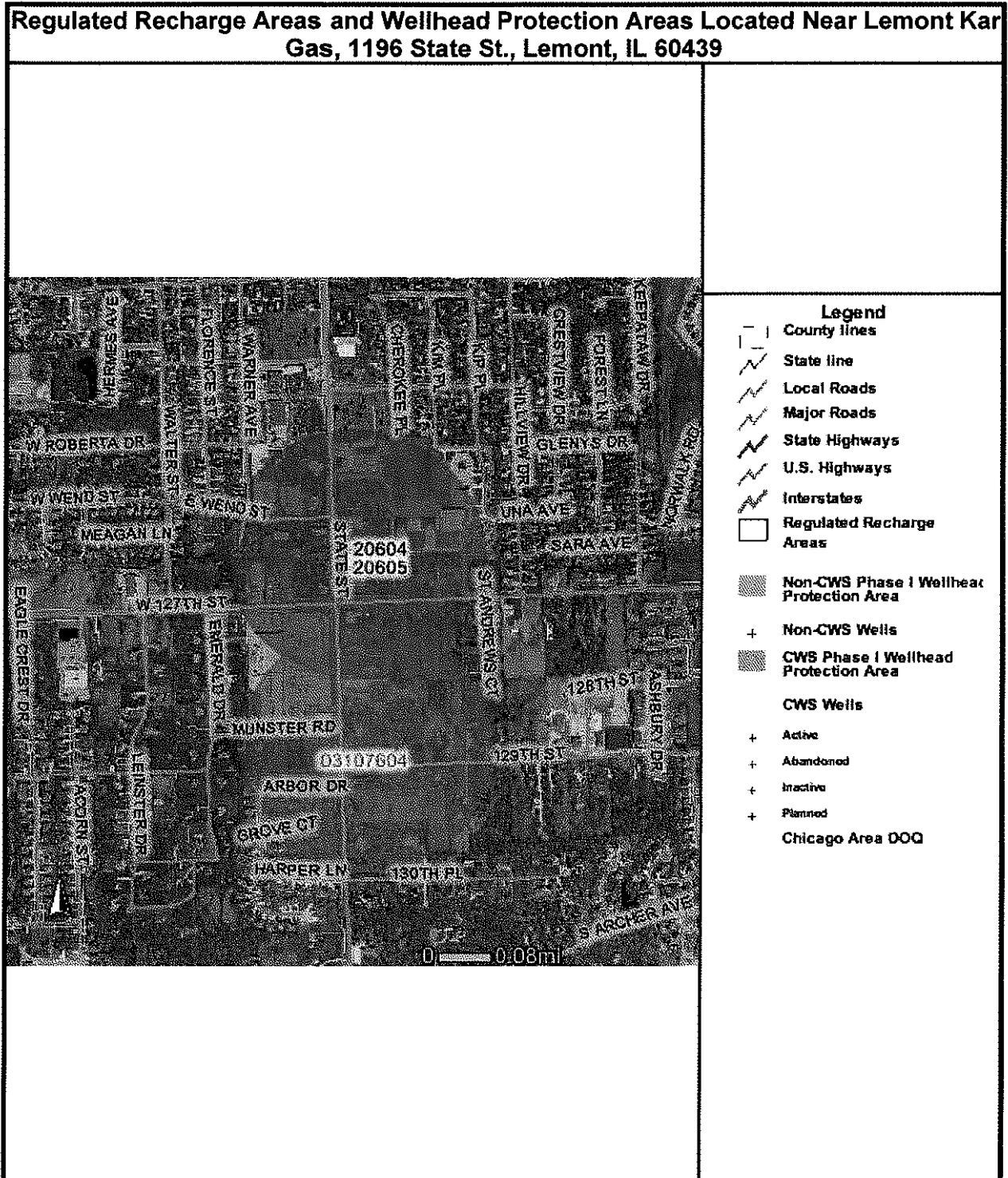
Permit #:

COMPANY Miller, J. P. Art Well Co  
 FARM Lemont City Well  
 DATE DRILLED December 1, 1954 NO. 2  
 ELEVATION 742GL COUNTY NO. 02098  
 LOCATION 500'S line, 100'W line of SE  
 LATITUDE 41.657891 LONGITUDE -87.999471  
 COUNTY Cook API 120310209800



29 - 37N - 11E

Information and data presented were obtained from various Federal, State, and local agencies and are subject to revision.



**APPENDIX O**  
**VILLAGE OF LEMONT HAA**



\*1821306168\*

Doc# 1821306168 Fee \$92.00

RHSP FEE:\$9.00 RPRF FEE: \$1.00

KAREN A. YARBROUGH

COOK COUNTY RECORDER OF DEEDS

DATE: 08/01/2018 01:05 PM PG: 1 OF 28

THIS DOCUMENT HAS BEEN PREPARED BY AND AFTER RECORDING SHOULD BE RETURNED TO:

TRESSLER LLP  
233 SOUTH WACKER DRIVE  
22ND FLOOR  
CHICAGO, IL 60606  
ATTN: MICHAEL PETERS

(Reserved for Recorder's Use Only)

**HIGHWAY AUTHORITY AGREEMENT**

This Highway Authority Agreement ("Agreement") is entered into this 11 day of June, 2018 pursuant to 35 Ill. Adm. Code 742.1020 by and between Boi, LLC, an Illinois limited liability company, (the "Property Owner") and the Village of Lemont, an Illinois municipal corporation (the "Highway Authority"), collectively known as the "Parties".

**WHEREAS**, Property Owner is the owner or operator of one or more leaking underground storage tanks presently or formerly located at 1196 State Street, Lemont, Illinois (the "Site"), which is more thoroughly described on Exhibit A attached hereto and incorporated herein by this reference;

**WHEREAS**, as a result of one or more releases of contaminants from the above-referenced underground storage tanks (the "Releases"), soil and/or groundwater contamination at the Site exceeds Tier 1 residential remediation objectives of 35 Ill. Adm. Code 742;

**WHEREAS**, the soil and/or groundwater contamination exceeding Tier 1 residential remediation objectives extends or may extend into the Highway Authority's right-of-way;

**WHEREAS**, the Property Owner is conducting corrective action in response to the Releases; and

**WHEREAS**, the Parties desire to prevent groundwater beneath the Highway Authority's right-of-way that exceeds Tier 1 remediation objectives from use as a supply of potable or domestic water and to limit access to soil within the right-of-way that exceeds Tier 1 residential remediation objectives so that human health and the environment are protected and after any access.

**NOW, THEREFORE**, the Parties agree as follows:

1. The recitals above are incorporated by reference as is fully set forth herein.
2. The Illinois Emergency Management Agency has assigned incident numbers 20141348 and 942117 to the Releases.
3. Attached as Exhibit B is a scaled map prepared by TriCore Environmental, LLC that shows the Site and surrounding area and delineates the current and estimated future extent of soil and groundwater contamination above the applicable Tier 1 residential remediation objectives as a result of the Release(s).
4. Attached as Exhibit C is a table prepared by TriCore Environmental, LLC that lists each contaminant of concern that exceeds its Tier 1 residential remediation

RECORDING FEE 92.00  
DATE 8-1-18 COPIES 6  
OK BY [Signature] A.F. 00054



## Electronic Filing: Received, Clerk's Office 03/23/2021

objective and its concentrations within the zone where Tier 1 residential remediation objectives are exceeded. The locations of the concentrations listed in Exhibit C are identified on the map(s) in Exhibit B.

5. Attached as Exhibit D is a scaled map prepared by TriCore Environmental, LLC showing the area of the Highway Authority's right-of-way that is governed by this Agreement (the "Right-of-Way"). Because Exhibit D is not a surveyed plat, the Right-of-Way boundary may be an approximation of the actual Right-of-Way lines.

6. The Highway Authority stipulates it has jurisdiction over the Right-of-Way that gives it sole control over the use of the groundwater and access to the soil located within or beneath the Right-of-Way.

7. The Highway Authority agrees to prohibit within the Right-of-Way all potable and domestic uses of groundwater exceeding Tier 1 residential remediation objectives.

8. The Highway Authority further agrees to limit access by itself and others to soil within the Right-of-Way exceeding Tier 1 residential remediation objectives. Access shall be allowed only if human health (including worker safety) and the environment are protected during and after any access. The Highway Authority may construct, reconstruct, repair, maintain and operate a highway upon the Right-of-Way, or allow others to do the same by permit. In addition, the Highway Authority and others using or working in the Right-of-Way under permit have the right to remove soil or groundwater from the Right-of-Way and dispose of the same in accordance with applicable environmental laws and regulations. The Highway Authority agrees to issue all permits for work in the Right-of-Way, and make all existing permits for work in the Right-of-Way, subject to the following or a substantially similar conditions:

As a condition of this permit the permittee shall request the office issuing this permit to identify sites in the Right-of-Way where a Highway Authority Agreement governs access to soil that exceeds Tier 1 residential remediation objectives of 35 Ill. Adm. Code 742. The permittee shall take all measures necessary to protect human health (including worker safety) and the environment during and after any access to such soil.

9. This Agreement shall be referenced in the Illinois Environmental Protection Agency's ("Agency") no further remediation determination issued for the Release(s).

10. The Agency shall be notified of any transfer of jurisdiction over the Right-of-Way at least 30 days prior to the date the transfer takes effect. This Agreement shall be null and void upon the transfer unless the transferee agrees to be bound by this Agreement as if the transferee were an original party to this Agreement. The transferee's Agreement to be bound by the terms of this Agreement shall be memorialized at the time of transfer in a writing that references this Highway Authority Agreement and is signed by the Highway Authority, or subsequent transferor, and the transferee, and shall be incorporated as a rider or addendum to this Agreement.

11. This Agreement shall become effective on the date the Agency issues a no further remediation determination for the Release(s). It shall remain effective until the Right-of-Way is demonstrated to be suitable for unrestricted use and the Agency issues a new no further remediation determination to reflect there is no longer a need for this Agreement, or until the Agreement is otherwise terminated or voided.

12. In addition to any other remedies that may be available, the Agency may bring suit to enforce the terms of this Agreement or may, in its sole discretion, declare this Agreement null and void if any of the Parties or any transferee violates any term of this Agreement. The Parties or transferee shall be notified in writing of any such declaration.

13. This Agreement shall be null and void if a court of competent jurisdiction strikes down any part or provision of this Agreement.

Electronic Filing: Received, Clerk's Office 03/23/2021

14. This Agreement supersedes any prior written or oral agreements or understandings between the Parties on the subject matter addressed herein. It may be altered, modified or amended only upon the written consent and agreement of the Parties.

15. Any notices or other correspondence regarding this Agreement shall be sent to the Parties at the following addresses by first-class mail, return receipt requested:

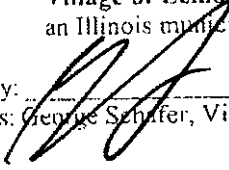
Manager, Division of Remediation Management  
Bureau of Land  
Illinois Environmental Protection Agency  
P.O. Box 19276  
Springfield, IL 62974-9276

Village of Lemont  
418 Main Street  
Lemont, IL 60439  
Attn: Village Administrator

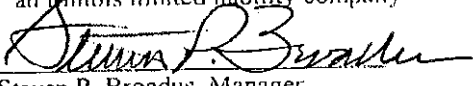
Boi, LLC  
202 West Wilson Street  
Sreator, IL 61364  
Attn: Steven P. Broadus

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be signed by their duly authorized representatives.

Date: 6/11/18

Village of Lemont,  
an Illinois municipal corporation  
By:   
Its: George Schaffer, Village Administrator

Date: 6/20/18

Boi, LLC,  
an Illinois limited liability company  
By:   
Its: Steven P. Broadus, Manager

**EXHIBIT A**

THE SOUTH ¼ OF LOT 1 IN LEMONT HIGHLANDS, A SUBDIVISION OF THE SOUTH 372.5 FEET OF THE EAST ½ OF THE SOUTHWEST ¼ OF SECTION 29, TOWNSHIP 37 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MARCH 16, 1949 AS DOCUMENT 14513964, PAGE 9 IN BOOK 376 OF PLATS IN COOK COUNTY, ILLINOIS, EXCEPT THAT PART DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF SAID LOT 1; THENCE WESTERLY ALONG THE SOUTH LINE OF SAID LOT 1 ON AN ASSUMED BEARING OF SOUTH 88 DEGREES 16 MINUTES 00 SECONDS WEST 20.00 FEET; THENCE NORTH 43 DEGREES 18 MINUTES 40 SECONDS EAST 28.31 FEET TO A POINT ON THE EAST LINE OF SAID LOT 1; THENCE SOUTH 1 DEGREE 38 MINUTES 41 SECONDS EAST ALONG THE EAST LINE OF SAID LOT 1 A DISTANCE OF 20.00 FEET TO THE POINT OF BEGINNING.

PIN: 22-29-309-017-0000

COMMON ADDRESS: 1196 State Street, Lemont, Illinois 60439

**COOK COUNTY  
RECORDER OF DEEDS**

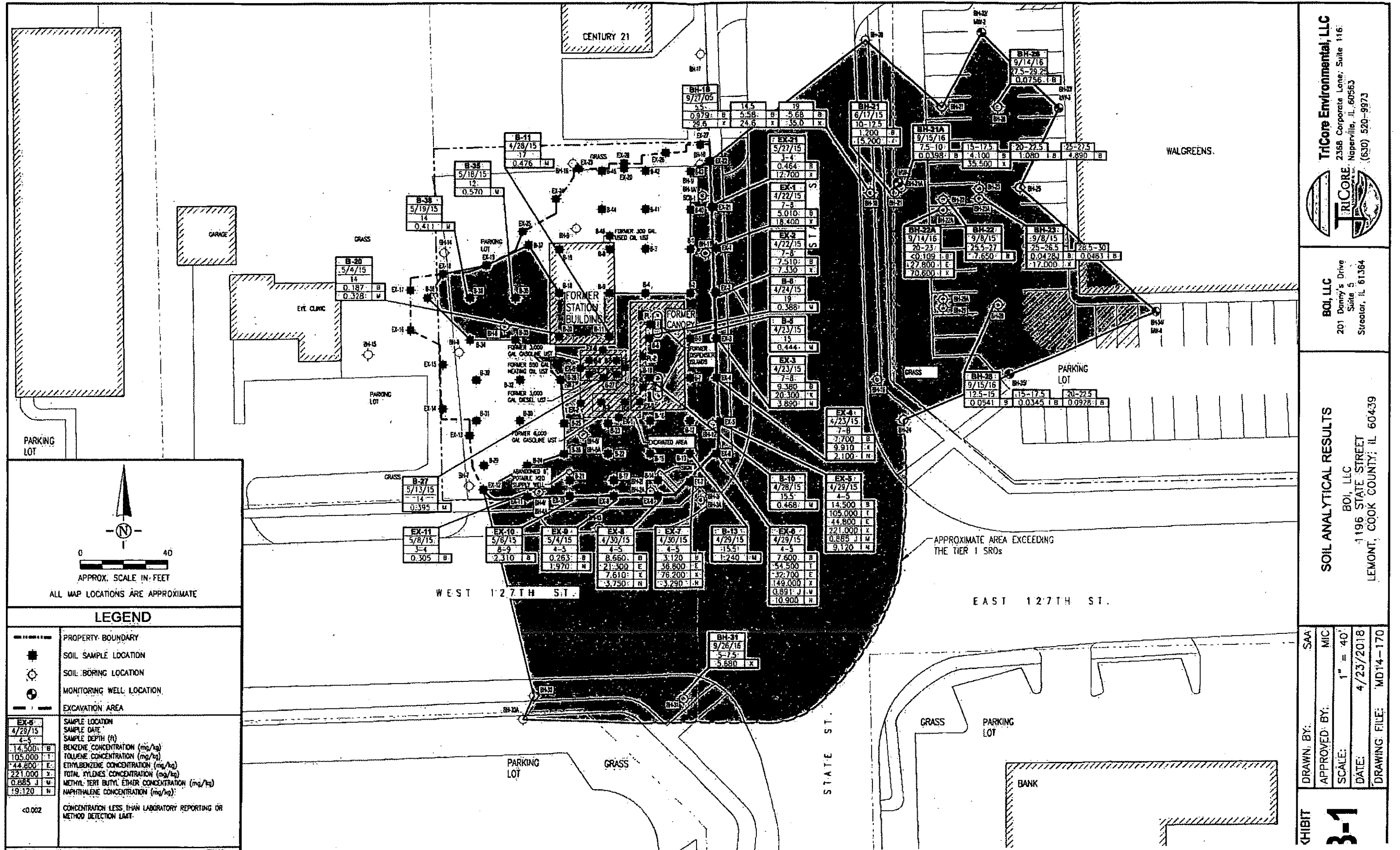
**EXHIBIT B**  
**Soil Analytical Results Map**

**COOK COUNTY**  
**RECORDER OF DEEDS**

**COOK COUNTY**  
**RECORDER OF DEEDS**

**COOK COUNTY**  
**RECORDER OF DEEDS**

**COOK COUNTY**  
**RECORDER OF DEEDS**



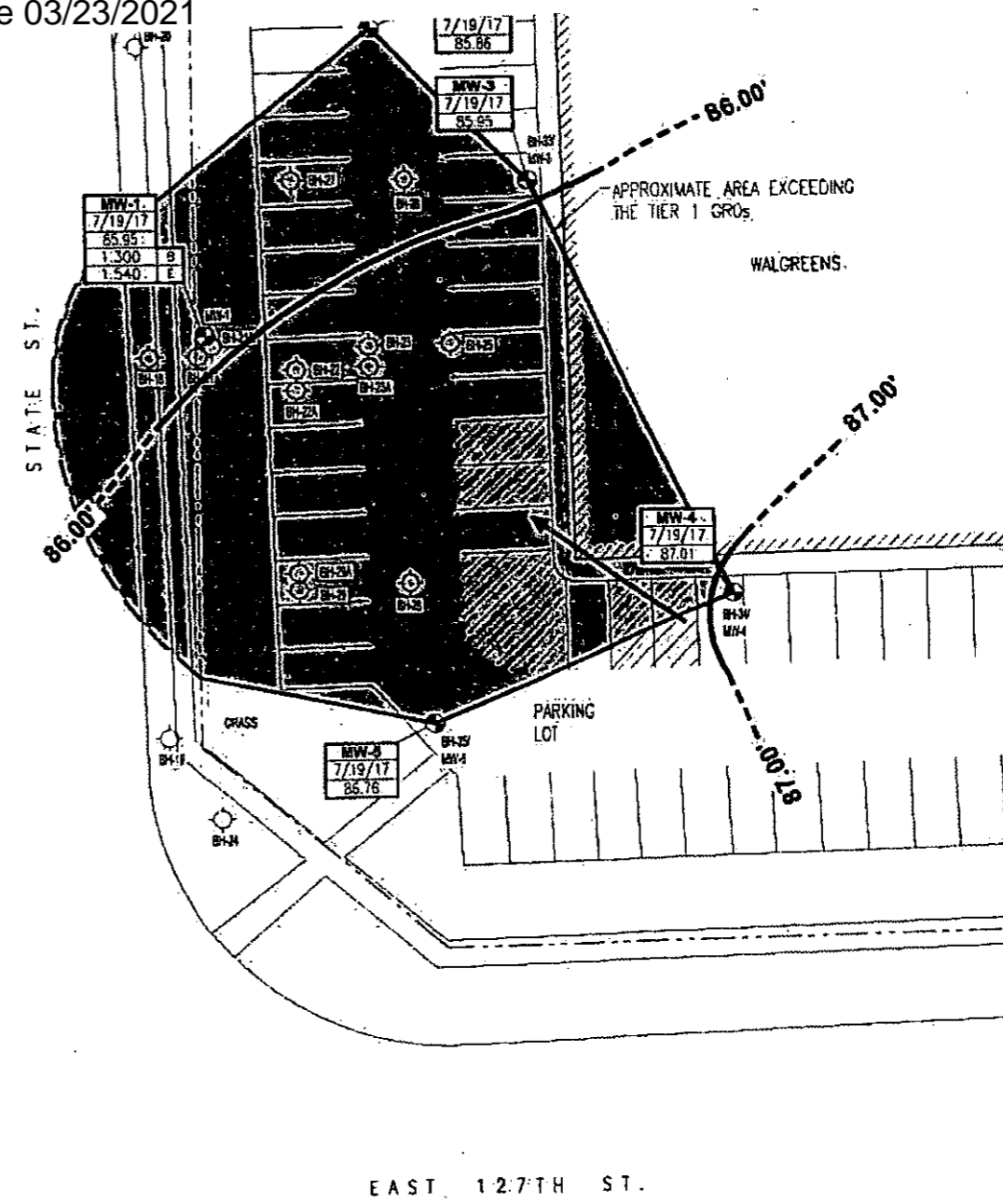
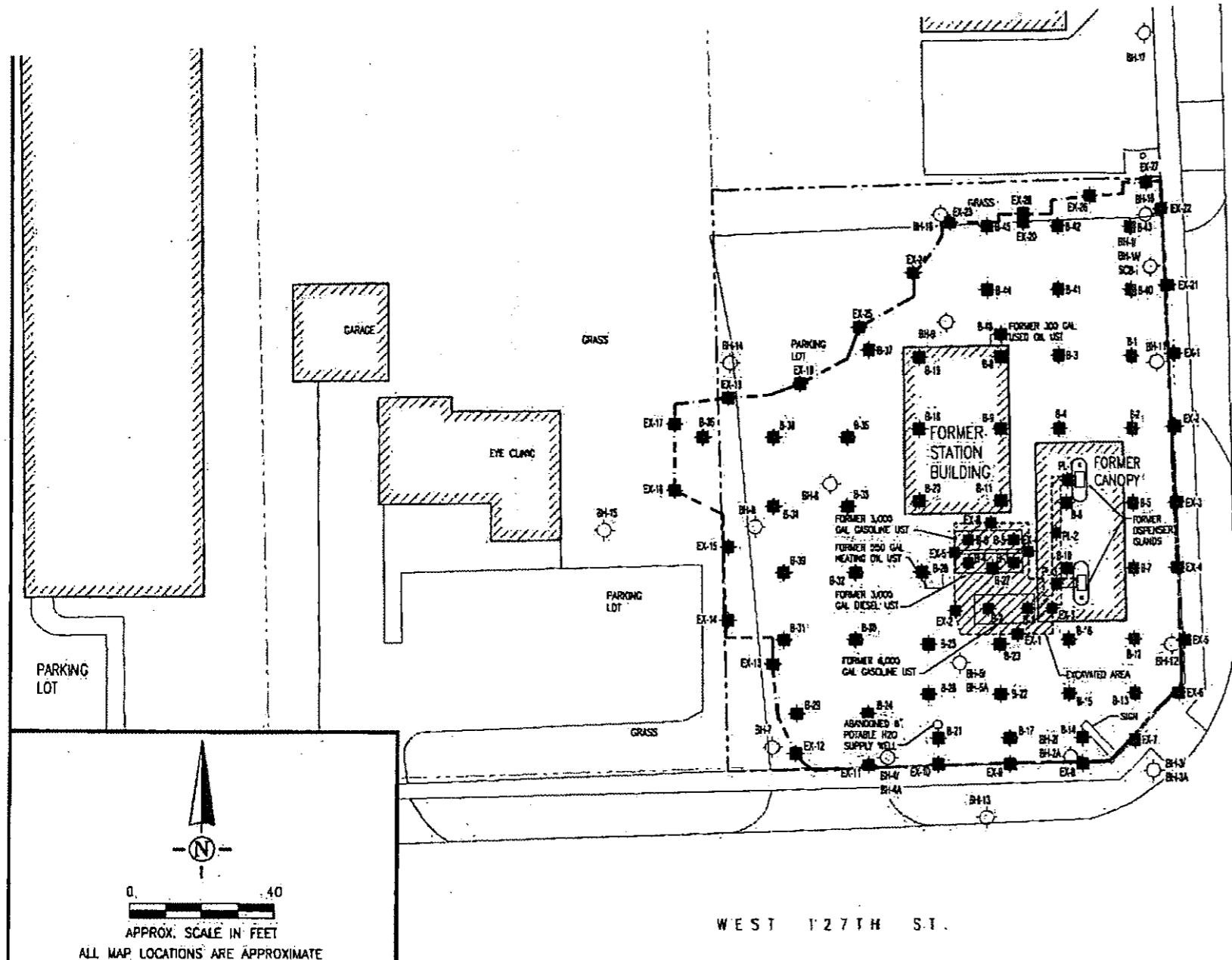
**Tricore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Denny's Drive  
 Suite 5  
 Streator, IL 61364

**SOIL ANALYTICAL RESULTS**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 4/23/2018  
 DRAWING FILE: MD14-170

**3-1**

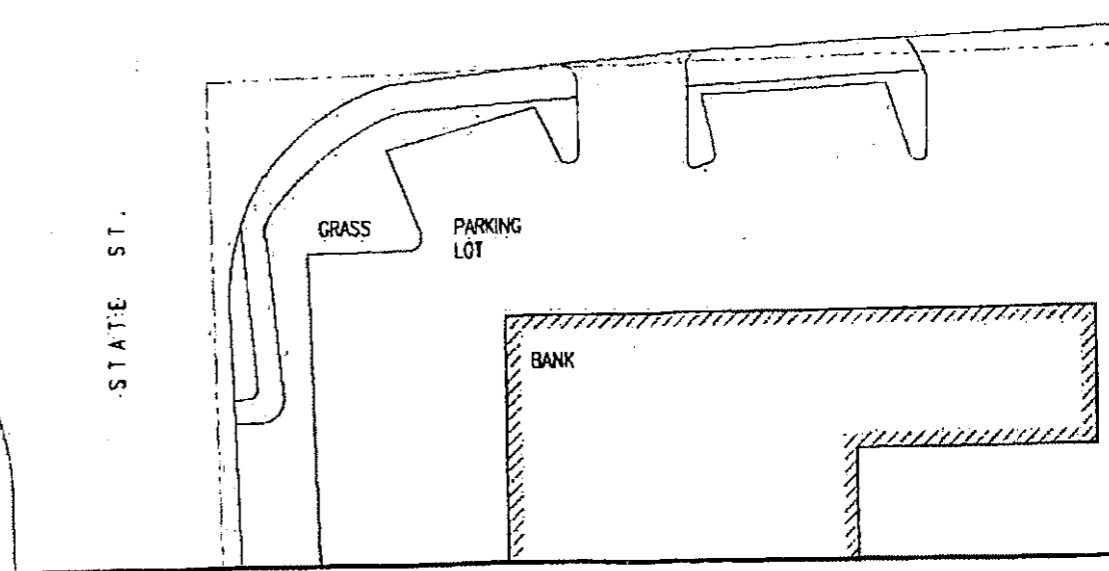
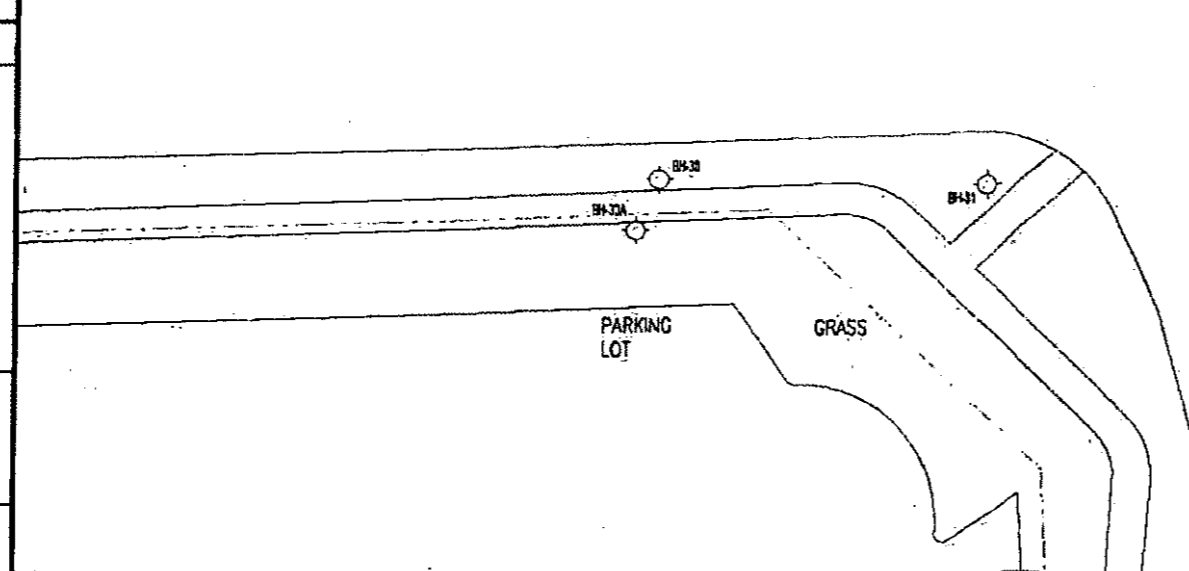


**LEGEND**

- PROPERTY BOUNDARY
- SOIL SAMPLE LOCATION
- SOIL BORING LOCATION
- ⊙ MONITORING WELL LOCATION
- - - EXCAVATION AREA
- - - GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION

MW-1 7/19/17 85.95 1.300 B 1.540 E	SAMPLE LOCATION GROUNDWATER ELEVATION (ft) SAMPLE DATE BENZENE CONCENTRATION (mg/L) ETHYLBENZENE CONCENTRATION (mg/L)
--	---

NOTES: ONLY THE DETECTED CONCENTRATIONS OR METHOD DETECTION LIMITS EXCEEDING THE TIER 1 GROs ARE SHOWN.



**TriCore Environmental, LLC**  
2368 Corporate Lane, Suite 116  
Naperville, IL 60563  
(630) 520-9973

**BOI, LLC**  
201 Danny's Drive  
Suite 5  
Streator, IL 61364

**GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS**  
BOI, LLC  
1196 STATE STREET  
LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
APPROVED BY: MIC  
SCALE: 1" = 40'  
DATE: 4/23/2018  
DRAWING FILE: MD14-170

**EXHIBIT B-2**

**EXHIBIT C**  
**Soil Analytical Results**

**COOK COUNTY  
RECORDER OF DEEDS**

**COOK COUNTY  
RECORDER OF DEEDS**

**COOK COUNTY  
RECORDER OF DEEDS**

**COOK COUNTY  
RECORDER OF DEEDS**

Exhibit C-1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet b/s)	Analytical Results				
BH-1-A	9/18/03	7.5-8	0.316	0.430	6.31	13.2	
BH-1-B	9/18/03	14-14.5	<0.0289	<0.289	<0.289	<0.289	
BH-1-C	8/10/04	18	<0.002	<0.005	<0.005	<0.005	
BH-2-A	9/18/03	4.5-5	3.6000	0.293	5.730	4.030	
BH-2-B	8/10/04	13	0.0879	<0.005	<0.005	<0.005	
BH-2-C	8/10/04	23	<0.002	<0.005	<0.005	<0.005	
BH-3-A	9/18/03	6.5-7	<0.0286	<0.286	0.904	0.596	
BH-3-B	8/10/04	13	0.0293	<0.005	<0.005	<0.005	
BH-3-C	8/10/04	18	<0.002	<0.005	<0.005	<0.005	
BH-4-A	9/18/03	4.5-5	0.184	<0.309	0.309	<0.309	
BH-4-B	8/10/04	13	<0.002	<0.005	<0.005	<0.005	
BH-5-A	9/18/03	4.5-5	2.710	4.86	4.78	10.3	
BH-5-B	8/10/04	13	1.070	1.11	<0.005	0.522	
BH-5-C	8/10/04	24	<0.002	<0.005	<0.005	<0.005	
BH-6-A	8/2/05	5	0.0719	<0.005	<0.005	0.0054	
BH-6-B	8/2/05	9	1.060	1.090	1.91	8.1	
BH-6-C	8/2/05	15	<0.002	<0.005	<0.005	<0.005	
BH-6-D	8/2/05	18	0.0064	<0.005	<0.005	<0.005	
BH-7-A	8/2/05	4	<0.002	<0.005	<0.005	<0.005	
BH-7-B	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-7-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-7-D	8/2/05	18	<0.002	<0.005	<0.005	<0.005	
BH-8-A	8/2/05	3	<0.002	<0.005	<0.005	<0.005	
BH-8-B	8/2/05	9	0.459	<0.005	0.438	0.419	
BH-8-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-9-A	8/2/05	4	<0.002	<0.005	<0.005	<0.005	
BH-9-B	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-9-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-10-A	8/2/05	4	<0.030	0.0882	1.98	4.920	
BH-10-B	8/2/05	9	2.660	0.348	1.79	3.820	
BH-10-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-10-D	8/2/05	18-20	<0.002	<0.005	<0.005	<0.005	



## Exhibit C-1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-11-A	8/2/05	4	24.5	65.8	52.7	207.0	
BH-11-B	8/2/05	9	5.730	0.4	4.030	8.0	
BH-11-C	8/2/05	14	0.0045	0.0056	<0.005	0.0093	
BH-12-A	8/2/05	4	10.2	39.5	12.0	59.0	
BH-12-B	8/2/05	9	14.3	0.897	10.4	9.140	
BH-12-C	8/2/05	14	0.0126	0.0261	<0.005	0.0115	
BH-12-D	8/2/05	19	<0.002	<0.005	<0.005	<0.005	
BH-13-A	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-13-B	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-14-A	9/26/05	4-5	<0.002	<0.005	<0.005	<0.005	
BH-14-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-14-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-15-A	9/26/05	4.5	<0.002	<0.005	<0.005	<0.005	
BH-15-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-15-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-16-A	9/26/05	4.5	<0.002	<0.005	<0.005	<0.005	
BH-16-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-16-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-17-A	9/26/05	5	<0.002	<0.005	<0.005	<0.005	
BH-17-B	9/26/05	9	<0.002	<0.005	<0.005	<0.005	
BH-17-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-18-A	9/27/05	5.5	0.979	0.997	9.19	29.6	
BH-18-B	9/27/05	14.5	5.58	0.681	9.84	24.6	
BH-18-C	9/27/05	19	5.68	6.890	9.11	35.0	
BH-19-A	9/27/05	8	0.0057	<0.005	<0.005	0.0057	
BH-19-B	9/27/05	14	0.0159	0.0097	0.0397	0.0752	
BH-19-C	9/27/05	19	<0.002	<0.005	<0.005	<0.005	
BH-20-A	11/12/05	4	<0.002	<0.005	<0.005	<0.005	
BH-20-B	11/12/05	8	<0.002	<0.005	<0.005	<0.005	
BH-20-C	11/12/05	14	<0.002	<0.005	<0.005	<0.005	
EX-1	11/25/14	7-8	1.240	0.264	7.810	2.910	0.103 J
EX-2	11/25/14	7-8	6.330	3.200	35.900	54.500	0.655 J

## Exhibit C-1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bis)	Analytical Results				
EX-3	11/25/14	7-8	1,890	3,360	32,600	158,000	0.972 J
B-1	11/25/14	12-13	1,860	0.164	0.373	1,630	<0.0301
B-2	11/25/14	12-13	5,200	<0.244	1,460	2,790	<0.244
B-3	11/25/14	7-8	1,340	0.129	0.143	0.345	<0.0293
B-4	11/25/14	7-8	2,070	0.156	0.193	0.398	<0.0295
Backfill #1	11/25/14		5,750	1,400	24,600	7,880	0.450 J
PL-1	11/26/14	2.5-3	3,850	3,340	51,200	112,000	2,060
PL-2	11/26/14	2.5-3	14,100	4,180	96,000	269,000	1,640 J
PL-3	11/26/14	2.5-3	13,700	13,800	103,000	356,000	3,700
B-5	11/26/14	7-8	3,070	0.115	0.351	0.533	<0.0293
B-6	11/26/14	7-8	0.0481	<0.0293	0.0589	0.258	<0.0293
EX-4	11/26/14	4-5	1,460	0.724	13,800	25,700	0.157 J
EX-5	11/26/14	4-5	36,500	6,100	106,000	644,000	5,110 J
EX-6	11/26/14	4-5	9,330	4,990	90,200	159,000	1,790 J
Backfill #2	11/26/14		8,690	37,100	74,100	327,000	3,870
EX-1	4/22/15	7-8	5,010	0.995	7,800	18,400	<0.0294
EX-2	4/22/15	7-8	7,510	0.394	6,910	7,330	<0.0147
B-1	4/22/15	15.5	<0.0105	<0.0128	<0.0142	<0.0553	0.0234 J
B-2	4/22/15	16	<0.0111	<0.0135	<0.0150	<0.0585	0.123
B-3	4/22/15	16	<0.0106	<0.0129	<0.0143	<0.0558	0.0227 J
B-4	4/23/15	16.5	<0.0107	<0.0130	0.0172 J	<0.0560	0.122
B-5	4/23/15	15	0.0308	<0.0129	<0.0143	<0.0558	0.444
EX-3	4/23/15	7-8	9,380	0.462	11,000	20,300	0.0944 J
EX-4	4/23/15	7-8	7,700	0.815	11,900	9,910	0.186
B-6	4/24/15	19	<0.0115	<0.0288	<0.0288	<0.0864	0.388
B-7	4/24/15	19	<0.0113	<0.0283	<0.0283	<0.0849	0.0915
B-8	4/27/15	16	<0.0119	<0.0298	<0.0298	<0.0895	<0.0298
B-9	4/27/15	15	<0.0116	<0.0289	<0.0289	<0.0868	0.148
B-10	4/28/15	15.5	<0.0115	<0.0287	<0.0287	<0.0861	0.468
B-11	4/28/15	17	<0.0116	<0.0290	<0.0290	<0.0869	0.476
B-12	4/29/15	18	<0.0113	<0.0282	<0.0282	<0.0845	0.128
EX-5	4/29/15	4-5	14,500	105,000	44,800	221,000	0.885 J

## Exhibit C-1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bis)	Analytical Results				
EX-6	4/29/15	4-5	7.600	54.500	32.700	149.000	0.891 J
B-13	4/29/15	15.5	<0.0116	<0.0290	<0.0290	<0.0870	1.240
EX-7	4/30/15	4-5	3.120	0.808 J	36.800	76.200	<0.313
B-14	4/30/15	15.5	<0.0107	<0.0130	<0.0144	<0.0563	0.0337 J
EX-8	4/30/15	4-5	8.660	1.070	21.300	7.610	0.158J
B-15	5/1/15	15.5	<0.0107	<0.0130	<0.0144	<0.0560	0.0259 J
B-16	5/1/15	17.5	<0.0104	<0.0126	<0.0140	<0.0544	<0.0142
B-17	5/1/15	15.5	<0.0106	<0.0129	<0.0143	<0.0558	0.0561 J
EX-9	5/4/15	4-5	0.263	0.0508 J	4.790	0.619	<0.0328
B-18	5/4/15	15.5	<0.0108	<0.0131	<0.0146	<0.0567	0.137
B-19	5/4/15	15.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
B-20	5/4/15	14	0.187	<0.129	<0.0143	<0.0556	0.328
EX-10	5/6/15	8-9	2.310	0.130	1.400	0.636	<0.0290
EX-21	5/6/15	15.5	<0.0111	<0.0135	0.0175 J	<0.0582	<0.0152
B-22	5/7/15	15.5	<0.0109	<0.0132	0.0175 J	<0.0570	<0.0149
B-24	5/8/15	9	<0.0104	<0.0127	<0.0140	<0.0546	0.0430 J
B-25	5/8/15	15.5	<0.0107	<0.0130	<0.0144	<0.0560	0.208
B-26	5/8/15	15	<0.0108	<0.0131	<0.0145	<0.0566	<0.0148
EX-11	5/8/15	3-4	0.305	<0.0144	<0.0159	<0.0620	<0.0162
EX-12	5/8/15	3-4	<0.0118	<0.0144	<0.0160	<0.0622	<0.0162
EX-13	5/13/15	4-5	<0.0114	<0.0139	<0.0154	<0.0599	<0.0157
B-27	5/13/15	14	<0.0108	<0.0131	<0.0145	<0.0566	0.395
B-29	5/13/15	9	<0.0108	<0.0131	<0.0146	<0.0567	0.0318 J
EX-14	5/14/15	4-5	<0.0118	<0.0143	<0.0158	<0.0617	<0.0161
B-28	5/14/15	13	<0.0106	<0.0129	<0.0143	<0.0559	0.206
B-30	5/14/15	11	<0.0106	<0.0129	<0.0143	<0.0559	0.0565 J
B-31	5/14/15	11	<0.0106	<0.0159	<0.0143	<0.0559	0.0226 J
EX-15	5/15/15	8-9	<0.0107	<0.0131	0.0207 J	0.0589 J	0.0392 J
B-32	5/15/15	11	<0.0107	<0.0130	<0.0144	<0.0562	0.302
B-33	5/15/15	11	<0.0107	<0.0130	<0.0144	<0.0561	0.241
B-34	5/15/15	11	<0.0109	<0.0133	<0.0147	<0.0573	0.0466 J
Overburden 1	5/15/15		<0.0112	<0.0137	<0.0151	<0.0590	<0.0154

## Exhibit C-1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bis)	Analytical Results				
B-35	5/18/15	12	<0.0107	<0.0130	0.0192 J	0.0576 J	0.570
EX-16	5/18/15	9-10	<0.0110	<0.0134	<0.0149	<0.0579	<0.0151
EX-17	5/18/15	9-10	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
B-36	5/18/15	12	<0.0108	<0.0131	<0.0145	<0.0565	0.0306 J
Overburden-2	5/18/15		<0.0109	<0.0132	<0.0146	<0.0571	<0.0149
B-37	5/19/15	14	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
B-38	5/19/15	14	<0.0107	<0.0131	<0.0145	<0.0565	0.411
B-39	5/19/15	12	<0.0103	<0.0125	<0.0139	<0.0541	0.0511 J
EX-18	5/19/15	3-4	<0.0120	<0.0146	<0.0162	<0.0632	<0.0165
EX-19	5/19/15	3-4	<0.0115	<0.0140	<0.0155	<0.0605	<0.0158
B-40	5/22/15	13	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
B-41	5/27/15	15	<0.0105	<0.0128	<0.0142	<0.0553	<0.0144
EX-20	5/27/15	3-4	<0.0127	<0.0154	<0.0171	<0.0666	<0.0174
EX-21	5/27/15	3-4	0.464	0.627	11.600	12.700	<0.0664
EX-22	5/27/15	4-5	<0.0310	<0.0378	2.140	2.410	<0.0426
B-42	5/27/15	12.5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
B-43	5/27/15	12.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
B-44	5/27/15	15	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
B-45	5/28/15	12.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
EX-23	5/28/15	8.5-9.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
EX-24	5/28/15	3-4	<0.0118	<0.0143	<0.0159	<0.0618	<0.0162
B-46	6/5/15	14.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0146
EX-25	6/5/15	10-11	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
EX-26	6/5/15	3.5-5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
EX-27	6/8/15	8.5-9.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0146
EX-28	6/8/15	3-4	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
EX-28	6/8/15	8-9	<0.0106	<0.0130	<0.0144	<0.0559	<0.0146
BH-21	6/17/15	10-12.5	1.200	0.362	12.700	15.200	<0.0729
BH-22	9/8/15	7.5-10	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-22	9/8/15	25.5-27	7.650	1.260	0.0313 J	<0.110	<0.0288
BH-23	9/8/15	25-26.5	0.0426 J	0.547	2.900	17.000	<0.0376
BH-23	9/8/15	28.5-30	0.0483	<0.0130	<0.0144	<0.0562	<0.0147

Exhibit C-1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
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Inhalation - Residential			0.8	650	400	320	8,800
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SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-24	9/8/15	4-6	<0.0279	<0.0339	0.0593 J	<0.146	<0.0383
BH-24	9/8/15	13.5-15	<0.0112	<0.0136	<0.0151	<0.0587	<0.0153
BH-22A	9/14/16	2.5-5	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
BH-22A	9/14/16	10-12.5	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-22A	9/14/16	15-17.5	<0.0110	<0.0134	<0.0149	<0.0580	<0.0151
BH-22A	9/14/16	20-23	<0.109	1.990	27.800	70.600	<0.150
BH-23A	9/14/16	2.5-5	<0.0130	<0.0158	<0.0176	<0.0684	<0.0179
BH-23A	9/14/16	5-7.5	<0.0114	<0.0139	<0.0154	<0.0600	<0.0157
BH-23A	9/14/16	10-12.5	<0.0107	0.0153 J	<0.0144	<0.0561	<0.0147
BH-23A	9/14/16	15-17.5	<0.0108	<0.0132	<0.0146	<0.0568	<0.0148
BH-23A	9/14/16	21.5-22.5	<0.0110	<0.0133	<0.0148	<0.0576	<0.0150
BH-23A	9/14/16	31-32.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-23A	9/14/16	32.5-35	<0.0118	<0.0144	<0.0159	<0.0621	<0.0162
BH-26	9/14/16	1-2.5	<0.0113	<0.0138	<0.0153	<0.0596	<0.0156
BH-26	9/14/16	7.5-10	<0.0107	0.0135 J	<0.0144	<0.0561	<0.0147
BH-26	9/14/16	10-12.5	<0.0111	<0.0136	<0.0150	<0.0585	<0.0153
BH-26	9/14/16	17.5-20	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-26	9/14/16	20-22.5	<0.0106	<0.0129	<0.0143	<0.0557	<0.0146
BH-26	9/14/16	27.5-29.25	0.0756	<0.0133	<0.0148	<0.0575	<0.0150
BH-27	9/14/16	2.5-5	<0.0117	0.0168 J	<0.0158	<0.0616	<0.0161
BH-27	9/14/16	7.5-10	<0.0107	<0.0130	<0.0144	<0.00563	<0.0147
BH-27	9/14/16	12.5-15	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-27	9/14/16	17.5-20	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
BH-27	9/14/16	22.5-25	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147

Exhibit C-1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bis)	Analytical Results				
BH-27	9/14/16	27.5-30	<0.0101	<0.0123	<0.0137	<0.0533	<0.0139
BH-27	9/14/16	30-32.5	<0.0105	<0.0127	<0.0141	<0.0127	<0.0144
BH-21A	9/15/16	0.5-2.5	<0.0110	<0.0133	<0.0148	<0.0575	<0.0150
BH-21A	9/15/16	7.5-10	0.0398	<0.0128	0.0505 J	0.0807 J	<0.0144
BH-21A	9/15/16	15-17.5	4.100	8.830	9.310	35.500	<0.0367
BH-21A	9/15/16	20-22.5	1.080	0.147	0.918	0.685	<0.0149
BH-21A	9/15/16	25-27.5	4.890	0.0134 J	<0.0146	<0.0568	<0.0148
BH-21A	9/15/16	30-32.5	0.0109 J	<0.0128	<0.0142	<0.0552	<0.014
BH-25	9/15/16	2.5-5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-25	9/15/16	7.5-10	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-25	9/15/16	10-12.5	<0.0107	0.0220 J	<0.0144	<0.0560	<0.0146
BH-25	9/15/16	17.5-20	<0.0108	<0.0132	<0.0146	<0.0568	<0.0149
BH-25	9/15/16	20-22.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-25	9/15/16	25-26.5	0.0266	<0.0132	<0.0147	<0.0571	<0.0149
BH-25	9/15/16	30-32.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-28	9/15/16	2.5-5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-28	9/15/16	5-7.5	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
BH-28	9/15/16	12.5-15	0.0541	0.263	3.300	3.600	<0.0147
BH-28	9/15/16	15-17.5	0.0345	0.106	2.000	0.860	<0.0143
BH-28	9/15/16	20-22.5	0.0928	0.200	3.070	3.050	<0.0151
BH-28	9/15/16	25-27.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-29	9/15/16	2.5-5	<0.0116	<0.0142	<0.0157	<0.0612	<0.0160
BH-29	9/15/16	7.5-10	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-29A	9/15/16	10-12.5	<0.0108	<0.0132	<0.0146	<0.0570	<0.0149
BH-29A	9/15/16	15-20	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-29A	9/15/16	22.5-25	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
BH-29A	9/15/16	27.5-30	<0.0105	<0.0128	<0.0142	<0.0554	<0.0145
BH-29A	9/15/16	32.5-35	<0.0107	<0.0131	<0.0145	<0.0563	<0.0147
BH-30	9/26/16	2.5-5	<0.0105	<0.0128	<0.0142	<0.0553	<0.0145
BH-30	9/26/16	7.5-10	<0.0110	<0.0133	<0.0148	<0.0576	<0.0151
BH-30	9/26/16	12.5-15	<0.0106	<0.0129	<0.0143	<0.0557	<0.0146
BH-30	9/26/16	15-17.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145

Exhibit C-1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bis)	Analytical Results				
BH-30A	9/26/16	22.5-25	<0.0103	<0.0125	<0.0139	<0.0541	<0.0141
BH-30A	9/26/16	27.5-30	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-31	9/26/16	2.5-5	<0.0114	<0.0139	<0.0154	<0.0600	<0.0157
BH-31	9/26/16	5-7.5	<0.0123	<0.0150	0.121	5.680	<0.0169
BH-31	9/26/16	12.5-15	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
BH-31	9/26/16	15-17.5	<0.0105	<0.0127	<0.0141	<0.0550	<0.0144
BH-31	9/26/16	22.5-25	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
BH-31	9/26/16	25-27.5	<0.0109	<0.0132	<0.0147	<0.0571	<0.0149
BH-32	7/6/17	2.5-5	<0.0116	<0.0141	<0.0156	<0.0610	<0.0159
BH-32	7/6/17	5-7.5	<0.0113	<0.0137	<0.0152	<0.0591	<0.0154
BH-32	7/6/17	12.5-15	<0.0109	<0.0132	<0.0147	<0.0571	<0.0149
BH-32	7/6/17	15-17.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-32	7/6/17	20-22.5	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
BH-32	7/6/17	27.5-30	<0.0105	<0.0128	0.0154 J	<0.0553	<0.0144
BH-32	7/6/17	30-30.5	<0.0111	<0.0136	<0.0150	<0.0585	<0.0153
BH-33	7/6/17	2.5-5	<0.0112	<0.0137	<0.0151	<0.0590	<0.0154
BH-33	7/6/17	7.5-10	<0.0114	<0.0139	<0.0154	<0.0601	<0.0157
BH-33	7/6/17	12.5-15	<0.0111	<0.0135	<0.0149	<0.0581	<0.0152
BH-33	7/6/17	15-17.5	<0.0110	<0.0134	<0.0149	<0.0579	<0.0151
BH-33	7/6/17	22.5-25	<0.0107	<0.0131	<0.0145	<0.0563	<0.0147
BH-33	7/6/17	25-27.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-34	7/6/17	0.75-2.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
BH-34	7/6/17	7.5-10	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-34	7/6/17	10-12.5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-34	7/6/17	17.5-20	<0.0108	<0.0131	<0.0145	<0.0567	<0.0148
BH-34	7/6/17	20-22.5	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-34	7/6/17	25-27.5	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
BH-34	7/6/17	30-32.5	<0.0105	<0.0128	<0.0141	<0.0551	<0.0144
BH-35	7/6/17	0.5-2.5	<0.0128	<0.0156	<0.0173	<0.0675	<0.0176
BH-35	7/6/17	7.5-10	<0.0109	<0.0132	<0.0147	<0.0572	<0.0149
BH-35	7/6/17	12.5-15	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-35	7/6/17	15-17.5	<0.0110	<0.0134	<0.0148	<0.0578	<0.0151

Exhibit C-1

Soil Analytical Results - BTEX and MTBE

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes	Indicator Contaminants and Tier 1 SROs						
	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)		
Soil Ingestion - Residential	12	16,000	7,800	16,000	780		
Soil Ingestion - Industrial/Commercial	100	410,000	200,000	410,000	20,000		
Soil Ingestion - Construction Worker	2,300	410,000	20,000	41,000	2,000		
Inhalation - Residential	0.8	650	400	320	8,800		
Inhalation - Industrial/Commercial	1.6	650	400	320	8,800		
Inhalation - Construction Worker	2.2	42	58	5.6	140		
SCGIER - Class I Groundwater	0.03	12	13	150	0.32		
SCGIER - Class II Groundwater	0.17	29	19	150	0.32		
Soil Saturation Limit - Outdoor Inhalation	800	580	350	280	8,400		
Soil Saturation Limit - SCGIER	580	290	150	110	11,000		
Sample Location	Sample Date	Sample Depth (feet b/s)	Analytical Results				
BH-35	7/6/17	20-22.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-35	7/6/17	25-27.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-35	7/6/17	30-35	<0.0104	<0.0127	<0.0141	<0.0548	<0.0143

Notes:

- 1) **Bold** = detected concentration exceeds the Tier 1 SROs listed in 35 IAC Part 742
- 2) Shaded cells = not analyzed or sample location was excavated
- 3) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- 4) For the soil ingestion and outdoor inhalation exposure routes, the SROs for industrial/commercial land use and construction workers were utilized for on-site sample locations, and residential land use and construction workers for off-site sample locations.
- 5) For the SCGIER, Class I SROs were utilized for on-site and off-site sample locations.



Exhibit C-2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1-Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>(b)</sup>	2.1 <sup>(b)</sup>	2.1 <sup>(b)</sup>	2,300	9	88	0.42 <sup>(b)</sup>	3,100	3,100	1.6 <sup>(b)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>(b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			--	--	--	--	--	--	--	--	--	--	--	--	170	--	--	
Inhalation - Industrial/Commercial			--	--	--	--	--	--	--	--	--	--	--	--	270	--	--	
Inhalation - Construction Worker			--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
Sample Location	Sample Date	Sample Depth (feet bis)	Analytical Results															
EX-1	11/25/14	7-8	<0.0992	<0.0887	<0.103	<0.0667	<0.0709	<0.0992	<0.0755	<0.110	<0.0917	<0.0727	<0.0992	<0.0992	<0.0754	3.330	<0.0992	<0.0992
EX-2	11/25/14	7-8	<0.213	<0.199	<0.224	<0.147	<0.152	<0.213	<0.162	<0.235	<0.197	<0.156	<0.218	<0.213	<0.162	5.470	<0.213	<0.213
EX-3	11/25/14	7-8	<0.504	<0.451	<0.523	<0.350	<0.361	<0.504	<0.384	<0.558	<0.465	<0.370	<0.504	<0.504	<0.383	14.500	<0.504	<0.504
B-1	11/25/14	12-13	<0.0500	<0.0447	<0.0518	<0.0348	<0.0357	<0.0500	<0.0381	<0.0563	<0.0462	<0.0367	<0.0500	<0.0500	<0.0380	1.750	<0.0500	<0.0500
B-2	11/25/14	12-13	<0.0504	<0.0451	<0.0522	<0.0349	<0.0360	<0.0504	<0.0384	<0.0557	<0.0466	<0.0369	<0.0504	<0.0504	<0.0383	1.180	<0.0504	<0.0504
B-3	11/25/14	7-8	<0.0489	<0.0437	<0.0507	<0.0339	<0.0350	<0.0489	<0.0372	<0.0541	<0.0462	<0.0359	<0.0489	<0.0489	<0.0371	1.070	<0.0489	<0.0489
B-4	11/25/14	7-8	<0.0492	<0.0440	<0.0510	<0.0341	<0.0352	<0.0492	<0.0374	<0.0544	<0.0465	<0.0361	<0.0492	<0.0492	<0.0374	0.875	<0.0492	<0.0492
Backfill #1	11/25/14		<0.108	<0.0963	<0.112	<0.0748	<0.0770	<0.108	<0.0820	<0.119	<0.0995	<0.0789	<0.108	<0.108	<0.0818	3.420	<0.108	<0.108
PL-1	11/26/14	2.5-3	<0.435	<0.389	<0.451	<0.301	<0.311	<0.435	<0.331	<0.461	<0.402	<0.319	<0.435	<0.435	<0.330	6.440	<0.435	<0.435
PL-2	11/26/14	2.5-3	<0.432	<0.386	<0.448	<0.299	<0.309	<0.432	<0.329	<0.478	<0.399	<0.317	<0.432	<0.432	<0.328	15.000	<0.432	<0.432
PL-3	11/26/14	2.5-3	<0.140	<0.125	<0.145	<0.0922	<0.100	<0.140	<0.107	<0.155	<0.130	<0.103	<0.140	<0.140	<0.107	6.710	<0.140	<0.140
B-5	11/26/14	7-8	<0.0782	<0.0700	<0.0811	<0.0542	<0.0559	<0.0782	<0.0596	<0.0868	<0.0723	<0.0574	<0.0782	<0.0782	<0.0584	2.160	<0.0782	<0.0782
B-6	11/26/14	7-8	<0.010	<0.0089	<0.0103	<0.0069	<0.0071	<0.010	<0.0076	<0.0110	<0.0092	<0.0073	<0.010	<0.010	<0.0075	0.296	<0.010	<0.010
EX-4	11/26/14	4-5	<0.127	<0.114	<0.132	<0.0880	<0.0908	<0.127	<0.0967	<0.140	<0.117	<0.0931	<0.127	<0.127	<0.0965	8.800	<0.127	<0.127
EX-5	11/26/14	4-5	<0.427	<0.382	<0.443	<0.296	<0.306	<0.427	<0.326	<0.473	<0.395	<0.313	<0.427	<0.427	<0.325	20.700	<0.427	<0.427
EX-6	11/26/14	4-5	<0.431	<0.386	<0.447	<0.299	<0.309	<0.431	<0.328	<0.478	<0.399	<0.317	<0.431	<0.431	<0.328	20.900	<0.431	<0.431
Backfill #2	11/26/14		<0.0497	<0.0445	<0.0515	<0.0344	<0.0355	<0.0497	<0.0378	<0.0550	<0.0459	<0.0364	<0.0497	<0.0497	<0.0377	0.962	<0.0497	<0.0497
EX-1	4/22/15	7-8	<0.0483	<0.0432	<0.0501	<0.0335	<0.0346	<0.0483	<0.0368	<0.0535	<0.0447	<0.0355	<0.0483	<0.0483	<0.0367	1.240	<0.0483	<0.0483
EX-2	4/22/15	7-8	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	0.777	<0.0097	<0.0097
B-1	4/22/15	15.5	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	<0.0095	<0.0095
B-2	4/22/15	16	<0.0101	<0.0090	<0.0104	<0.0070	<0.0072	<0.0101	<0.0077	<0.0111	<0.0093	<0.0074	0.0107 J	<0.0101	<0.0076	<0.0101	0.0137 J	<0.0101
B-3	4/22/15	16	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0119 J	<0.0096
B-4	4/23/15	16.5	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-5	4/23/15	15	<0.0096	<0.0086	<0.0099	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0102 J	<0.0096
EX-3	4/23/15	7-8	<0.0956	<0.0855	<0.0991	<0.0663	<0.0684	<0.0956	<0.0728	<0.106	<0.0884	<0.0701	<0.0956	<0.0956	<0.0726	3.890	<0.0956	<0.0956
EX-4	4/23/15	7-8	<0.0482	<0.0431	<0.0500	<0.0334	<0.0345	<0.0482	<0.0367	<0.0533	<0.0446	<0.0353	<0.0482	<0.0482	<0.0366	2.180	<0.0482	<0.0482
B-6	4/24/15	19	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096

Exhibit C-2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1: Exposure Routes			Indicator Contaminants and Tier 1: SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Benzo (h,i) perylene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>h)</sup>	2.1 <sup>a)</sup>	2.1 <sup>h)</sup>	2,300	9	88	0.42 <sup>h)</sup>	3,100	3,100	1.6 <sup>h)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>h)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			--	--	--	--	--	--	--	--	--	--	--	--	170	--	--	
Inhalation - Industrial/Commercial			--	--	--	--	--	--	--	--	--	--	--	--	270	--	--	
Inhalation - Construction Worker			--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
Sample Location	Sample Date	Sample Depth (feet b/s)	Analytical Results															
B-7	4/24/15	19	<0.0094	<0.0084	<0.0098	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0072	<0.0094	<0.0094	<0.0094	
B-8	4/27/15	16	<0.0099	<0.0089	<0.0103	<0.0069	<0.0071	<0.0099	<0.0076	<0.0110	<0.0092	<0.0073	<0.0099	<0.0076	<0.0099	<0.0099	<0.0099	
B-9	4/27/15	15	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	0.0118 J	<0.0096
B-10	4/28/15	15.5	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0088	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0132 J	<0.0096
B-11	4/28/15	17	<0.0097	<0.0086	<0.0100	0.0110 J	0.0090 J	0.0110 J	0.0088 J	<0.0107	0.0191 J	<0.0071	0.0252	<0.0097	<0.0073	0.0308	0.0182 J	0.0236
B-12	4/29/15	18	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0072	<0.0071	<0.0094	<0.0094	<0.0094
EX-5	4/29/15	4-5	<0.391	<0.350	<0.405	<0.271	<0.279	<0.391	<0.298	<0.432	<0.361	<0.287	<0.391	<0.391	<0.297	9.120	<0.391	<0.391
EX-6	4/29/15	4-5	<0.391	<0.350	<0.405	<0.271	<0.280	<0.391	<0.298	<0.433	<0.362	<0.287	<0.391	<0.391	<0.297	10.900	<0.391	<0.391
B-13	4/29/15	15.5	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	0.0129 J	<0.0097
EX-7	4/30/15	4-5	<0.103	<0.0923	<0.107	<0.0715	<0.0737	<0.103	<0.0785	<0.114	<0.0954	<0.0756	<0.103	<0.0103	<0.0783	3.290	<0.103	<0.103
B-14	4/30/15	15.5	<0.0097	<0.0087	<0.010	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-8	4/30/15	4-5	<0.197	<0.176	<0.204	<0.136	<0.141	<0.197	<0.150	<0.218	<0.182	<0.144	<0.197	<0.197	<0.149	3.750	<0.197	<0.197
B-15	5/1/15	15.5	<0.0193	<0.0172	<0.0200	<0.0134	<0.0138	<0.0193	<0.0147	<0.0213	<0.0178	<0.0141	<0.0193	<0.0193	<0.0146	0.0230 J	<0.0193	<0.0193
B-16	5/1/15	17.5	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0071	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
B-17	5/1/15	15.5	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0099 J	<0.0096
EX-9	5/4/15	4-5	<0.0865	<0.0774	<0.0897	<0.0600	<0.0619	0.108 J	<0.0659	<0.0957	<0.0800	<0.0635	<0.0865	<0.0865	<0.0657	1.970	<0.0865	<0.0865
B-18	5/4/15	15.5	<0.0098	<0.0087	<0.0101	<0.0068	<0.0070	<0.0098	<0.0074	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098
B-19	5/4/15	15.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-20	5/4/15	14	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-10	5/6/15	8-9	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	0.0169 J	<0.0073	<0.0106	<0.0088	<0.0070	0.0104 J	<0.0095	<0.0073	<0.0753	<0.0095	<0.0095
EX-21	5/6/15	15.5	<0.0100	<0.0090	<0.0104	<0.0069	<0.0072	0.0130 J	<0.0076	<0.00111	<0.0093	<0.0073	<0.0100	<0.0100	<0.0076	<0.00100	<0.00100	<0.00100
B-22	5/7/15	15.5	<0.0098	<0.0088	<0.0102	<0.068	<0.0070	<0.0128 J	0.0075	<0.0109	<0.0091	<0.0072	<0.0098	<0.0098	<0.0075	<0.0098	<0.0098	<0.0098
B-23	5/7/15	15.5	<0.0099	<0.0088	<0.0102	<0.068	<0.0071	0.0128 J	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099
B-24	5/8/15	9	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
B-25	5/8/15	15.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	0.0165 J	<0.0096
B-26	5/8/15	15	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0096	<0.0097	<0.0074	<0.0097	<0.0097 J	<0.0097
EX-11	5/8/15	3-4	<0.0107	<0.0096	<0.0111	0.0094 J	0.0115 J	0.0141 J	0.0100 J	<0.0118	0.0178 J	<0.0078	0.0246	<0.0107	0.0084 J	<0.0107	<0.0107	0.0193 J

Exhibit C-2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenz (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)	
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>(1)</sup>	2.1 <sup>(6)</sup>	2.1 <sup>(6)</sup>	2,300	9	88	0.42 <sup>(8)</sup>	3,100	3,100	1.6 <sup>(5)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>(6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			--	--	--	--	--	--	--	--	--	--	--	--	--	170	--	--
Inhalation - Industrial/Commercial			--	--	--	--	--	--	--	--	--	--	--	--	--	270	--	--
Inhalation - Construction Worker			--	--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
EX-12	5/8/15	3-4	<0.0107	<0.0096	<0.0111	<0.0074	<0.0076	<0.0107	<0.0081	<0.0118	<0.0099	<0.0078	<0.0107	<0.0107	<0.0081	<0.0107	<0.0107	<0.0107
EX-13	5/13/15	4-5	<0.0103	<0.0092	<0.0107	<0.0072	<0.0074	<0.0103	<0.0079	<0.0114	<0.0095	<0.0076	<0.0103	<0.0103	<0.0078	<0.0103	<0.0103	<0.0103
B-27	5/13/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	0.0097	<0.0097
B-29	5/13/15	9	<0.0098	<0.0087	<0.0101	<0.0068	<0.0070	<0.0098	<0.0074	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098
EX-14	5/14/15	4-5	<0.0106	<0.0095	<0.0110	0.0101 J	0.0157 J	0.0175 J	0.0168 J	0.0159 J	0.0201 J	<0.0078	0.0384	<0.0106	0.0137 J	<0.0106	0.0183 J	0.0276
B-28	5/14/15	13	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-30	5/14/15	11	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-31	5/14/15	11	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	0.0135 J	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-15	5/15/15	8-9	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.007	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-32	5/15/15	11	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-33	5/15/15	11	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-34	5/15/15	11	<0.0099	<0.0088	<0.0102	<0.0068	<0.0071	<0.0099	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099
Overburden 1	5/15/15		<0.0203	<0.0182	<0.0211	0.0410	0.0476	0.0432	0.0410	0.0470	0.0505	<0.0149	0.0948	<0.0203	0.0360 J	0.691	0.0417	0.0748
B-35	5/18/15	12	<0.0097	<0.0087	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-16	5/18/15	9-10	<0.010	<0.0089	<0.0103	<0.0069	<0.0071	<0.010	<0.0076	<0.0110	<0.0092	<0.0073	<0.010	<0.010	<0.0076	<0.010	<0.010	<0.010
EX-17	5/18/15	9-10	<0.0097	<0.0087	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-36	5/18/15	12	<0.0097	<0.0087	<0.0100	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	0.0729	<0.0097	<0.0097
Overburden-2	5/18/15		<0.0098	<0.0088	0.0113 J	0.0478	0.0659	0.0726	0.0609	0.0690	0.0759	0.0154 J	0.135	<0.0098	0.0495	0.0208	0.0582	0.110
B-37	5/19/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-38	5/19/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-39	5/19/15	12	<0.0093	<0.0083	<0.0097	<0.0065	<0.0067	<0.0093	<0.0071	<0.0103	<0.0086	<0.0068	<0.0093	<0.0093	<0.0071	<0.0093	<0.0093	<0.0093
EX-18	5/19/15	3-4	<0.0109	<0.0097	<0.0113	0.0250	0.0282	0.0300	0.0226	0.0274	0.0345	<0.0080	0.0825	<0.0109	0.0200 J	<0.0109	0.0379	0.0564
EX-19	5/19/15	3-4	<0.0104	<0.0093	<0.0108	<0.0072	<0.0074	<0.0104	<0.0079	<0.0115	<0.0096	<0.0076	<0.0104	<0.0104	<0.0079	<0.0104	<0.0104	<0.0104
B-40	5/22/15	13	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-41	5/27/15	15	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	0.0118 J	<0.0095
EX-20	5/27/15	3-4	<0.0015	<0.0103	0.0433	0.296	0.365	0.471	0.295	0.339	0.429	0.0951	0.567	<0.0115	0.257	0.0398	0.126	0.494
EX-21	5/27/15	3-4	<0.0700	<0.0626	<0.0726	<0.0485	<0.0500	<0.0700	<0.0533	<0.0774	<0.0647	<0.0513	<0.0700	<0.0700	<0.0532	1.210	<0.0700	<0.0700

Exhibit C-2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lamont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (e) pyrene (mg/kg)	Benzo (f) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenz (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>(a)</sup>	2.1 <sup>(a)</sup>	2.1 <sup>(a)</sup>	2,300	9	88	0.42 <sup>(a)</sup>	3,100	3,100	1.6 <sup>(a)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>(a)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			--	--	--	--	--	--	--	--	--	--	--	--	170	--	--	
Inhalation - Industrial/Commercial			--	--	--	--	--	--	--	--	--	--	--	--	270	--	--	
Inhalation - Construction Worker			--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
EX-22	5/27/15	4-5	<0.0112	<0.0100	<0.0116	<0.0078	<0.0080	<0.0112	<0.0085	<0.0124	<0.0104	<0.0082	<0.0112	<0.0112	<0.0085	0.367	<0.0112	<0.0112
B-42	5/27/15	12.5	<0.0098	<0.0088	<0.0102	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0091	<0.0072	<0.0098	<0.0098	<0.0074	0.0322	<0.0098	<0.0098
B-43	5/27/15	12.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-44	5/27/15	15	<0.0097	<0.0087	<0.0100	0.0083 J	0.0113 J	0.0130 J	0.0086 J	<0.0107	0.0136 J	<0.0071	0.0124 J	<0.0097	<0.0074	<0.0097	<0.0097	0.0116 J
B-45	5/28/15	12.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-23	5/28/15	8.5-9.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-24	5/28/15	3-4	<0.0106	<0.0095	<0.0110	0.0286	0.0374	0.0401	0.0361	0.0394	0.0432	0.0100 J	0.0795	<0.0106	0.0307	0.0506	0.0190 J	0.0721
B-46	6/5/15	14.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-25	6/5/15	10-11	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0088	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-26	6/5/15	3.5-5	<0.0098	<0.0088	<0.0101	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098
EX-27	6/8/15	8.5-9.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-28	6/8/15	3-4	<0.0099	<0.0088	<0.0102	<0.0068	<0.0070	<0.0099	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099
EX-28	6/8/15	8-9	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
BH-21	6/17/15	10-12.5	<0.0768	<0.0687	<0.0797	<0.0533	<0.0549	<0.0768	<0.0585	<0.0850	<0.0710	<0.0564	<0.0768	<0.0768	<0.0584	1.440	<0.0768	<0.0768
BH-22	9/8/15	7.5-10	<0.0098	<0.0088	<0.0101	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0091	<0.0072	<0.0098	<0.0098	<0.0074	0.0674	<0.0098	<0.0098
BH-22	9/8/15	25.5-27	<0.0095	<0.0085	<0.0098	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	<0.0095	<0.0095
BH-23	9/8/15	25-26.5	<0.0099	<0.0089	<0.0103	<0.0069	<0.0071	<0.0099	<0.0075	<0.0109	<0.0091	<0.0073	<0.0099	<0.0099	<0.0075	0.0156 J	<0.0099	<0.0099
BH-23	9/8/15	28.5-30	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
BH-24	9/8/15	4-6	<0.0101	<0.0090	<0.0104	<0.0070	<0.0072	<0.0101	<0.0077	<0.0112	<0.0093	<0.0074	<0.0101	<0.0101	<0.0077	0.153	<0.0101	<0.0101
BH-24	9/8/15	13.5-15	<0.0101	<0.0090	<0.0105	<0.0070	<0.0072	<0.0101	<0.0077	<0.0112	<0.0093	<0.0074	<0.0101	<0.0101	<0.0077	<0.0101	<0.0101	<0.0101
BH-22A	9/14/16	2.5-5	<0.0046	<0.0039	<0.0068	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0062	<0.0049	<0.0026	<0.010	<0.0138	<0.0053
BH-22A	9/14/16	10-12.5	<0.0045	<0.0038	<0.0066	0.0048 J	0.0052 J	0.0076 J	0.0041 J	0.0064 J	0.0132	<0.0026	0.0152 J	<0.0048	0.0034 J	<0.0097	0.0172 J	0.0111 J
BH-22A	9/14/16	15-17.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	0.0034 J	0.0041 J	<0.0030	0.0084 J	<0.0027	<0.0062	<0.0050	<0.0026	0.0937	0.0148 J	<0.0054
BH-22A	9/14/16	20-23	<0.0046	<0.0039	<0.0068	<0.0037	0.0034 J	0.0058 J	0.0039 J	<0.0030	0.0131 J	<0.0026	0.0076 J	<0.0049	<0.0026	0.185	<0.0138	0.0075 J
BH-23A	9/14/16	2.5-5	<0.0055	<0.0047	<0.0081	<0.0045	<0.0035	<0.0040	<0.0029	<0.0035	<0.0048	<0.0032	<0.0074	<0.0058	<0.0031	<0.0119	<0.0165	<0.0064
BH-23A	9/14/16	5-7.5	<0.0048	<0.0041	<0.0071	<0.0039	<0.0031	<0.0035	<0.0025	<0.0031	<0.0042	<0.0028	<0.0064	<0.0051	<0.0027	<0.0104	<0.0144	<0.0056
BH-23A	9/14/16	10-12.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0070 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052

Exhibit C-2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			A cenaphthene (mg/kg)	A cenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysenes (mg/kg)	Dibenzo (e,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>(1)</sup>	2.1 <sup>(4)</sup>	2.1 <sup>(5)</sup>	2,300	9	88	0.42 <sup>(8)</sup>	3,100	3,100	1.6 <sup>(6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>(5)</sup>	8	61,000	78	780	0.6	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			--	--	--	--	--	--	--	--	--	--	--	--	170	--	--	--
Inhalation - Industrial/Commercial			--	--	--	--	--	--	--	--	--	--	--	--	270	--	--	--
Inhalation - Construction Worker			--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--	--
SCQIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
Sample Location	Sample Date	Sample Depth (feet bis)	Analytical Results															
BH-23A	9/14/16	15-17.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0050 J	<0.0026	0.0075 J	<0.0049	<0.0026	<0.0099	<0.0137	0.0056 J
BH-23A	9/14/16	21.5-22.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054
BH-23A	9/14/16	31-32.5	<0.0045	<0.0038	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0061	<0.0048	<0.0026	<0.0098	<0.0136	<0.0053
BH-23A	9/14/16	32.5-35	<0.0050	<0.0042	<0.0073	0.0068 J	0.0115	0.0221	0.0157	0.0149	0.0201	0.0035 J	0.0187 J	<0.0053	0.0116	<0.0108	<0.0149	0.0134 J
BH-26	9/14/16	1-2.5	<0.0048	0.0310	0.0281	0.0771	0.0974	0.0896	0.0565	0.109	0.0974	0.0217	0.125	<0.0051	0.0544	<0.0104	0.0348 J	0.189
BH-26	9/14/16	7.5-10	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0040 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-26	9/14/16	10-12.5	<0.0047	<0.0040	<0.0069	<0.0038	<0.0030	<0.0034	<0.0025	<0.0030	0.0047 J	<0.0027	<0.0063	<0.0050	<0.0027	<0.0102	<0.0141	<0.0055
BH-26	9/14/16	17.5-20	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0038 J	<0.0029	0.0049 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0141 J	<0.0052
BH-26	9/14/16	20-22.5	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0032	0.0027 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-26	9/14/16	27.5-29.25	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	0.0035 J	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054
BH-27	9/14/16	2.5-5	<0.0048	<0.0042	<0.0073	<0.0040	<0.0032	<0.0036	<0.0026	<0.0032	<0.0043	<0.0028	<0.0066	<0.0053	<0.0028	<0.0107	<0.0148	<0.0057
BH-27	9/14/16	7.5-10	<0.0045	0.0051 J	0.0130 J	0.0238	0.0269	0.0272	0.0184	0.0256	0.0329	0.0064 J	0.0462	<0.0048	0.0168	0.0166 J	0.0371 J	0.0385
BH-27	9/14/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0023	<0.0029	0.0083 J	<0.0028	<0.0060	<0.0048	<0.0025	<0.0097	0.0143 J	<0.0052
BH-27	9/14/16	17.5-20	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	0.0041 J	0.0088	<0.0029	0.0108 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0097	0.0304 J	0.0063 J
BH-27	9/14/16	22.5-25	<0.0045	<0.0038	<0.0066	0.0042 J	0.0046 J	0.0058 J	0.0060 J	0.0044 J	0.0121 J	<0.0026	0.0119 J	<0.0048	<0.0025	<0.0097	<0.0135	0.0116 J
BH-27	9/14/16	27.5-30	<0.0043	<0.0036	<0.0063	<0.0035	<0.0028	<0.0031	0.0044 J	<0.0028	0.0089 J	<0.0025	<0.0057	<0.0046	<0.0024	<0.0093	<0.0128	<0.0050
BH-27	9/14/16	30-32.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0029	<0.0032	0.0039 J	<0.0028	0.0084 J	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	<0.0132	<0.0051
BH-21A	9/15/16	0.5-2.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054
BH-21A	9/15/16	7.5-10	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	0.0138 J	<0.0133	<0.0051
BH-21A	9/15/16	15-17.5	<0.0180	<0.0153	<0.0265	<0.0147	<0.0117	<0.0131	<0.0094	<0.0116	<0.0157	<0.0104	<0.0242	<0.0192	<0.0102	1.750	<0.0541	<0.0209
BH-21A	9/15/16	20-22.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	0.0040 J	<0.0026	<0.0061	<0.0049	<0.0026	0.303	<0.0137	<0.0053
BH-21A	9/15/16	25-27.5	<0.0045	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-21A	9/15/16	30-32.5	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	<0.0133	<0.0051
BH-25	9/15/16	2.5-5	<0.0045	<0.0038	<0.0066	0.0068 J	0.0043 J	0.0050 J	0.0029 J	0.0048 J	0.0095 J	<0.0026	0.0289	<0.0048	<0.0025	<0.0097	0.0227 J	0.0189
BH-25	9/15/16	7.5-10	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	0.0035 J	0.0024 J	<0.0029	0.0098 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-25	9/15/16	10-12.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	0.0045 J	<0.0024	<0.0029	0.0122 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0160 J	<0.0052
BH-25	9/15/16	17.5-20	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053

Exhibit C-2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (f,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>(5)</sup>	2.1 <sup>(5)</sup>	2.1 <sup>(5)</sup>	2,300	9	88	0.42 <sup>(5)</sup>	3,100	3,100	1.6 <sup>(5)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>(5)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			--	--	--	--	--	--	--	--	--	--	--	--	--	170	--	--
Inhalation - Industrial/Commercial			--	--	--	--	--	--	--	--	--	--	--	--	--	270	--	--
Inhalation - Construction Worker			--	--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
Sample Location	Sample Date	Sample Depth (feet pts)	Analytical Results															
BH-25	9/15/16	20-22.5	<0.0045	<0.0038	<0.0066	0.0039 J	<0.0029	<0.0033	0.0030 J	<0.0029	0.0051 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-25	9/15/16	25-26.5	<0.0046	<0.0039	<0.0067	0.0040 J	<0.0030	<0.0033	0.0033 J	<0.0030	<0.0049	<0.0026	<0.0061	<0.0048	<0.0026	<0.0099	<0.0137	<0.0053
BH-25	9/15/16	30-32.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	2.5-5	<0.0045	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-28	9/15/16	5-7.5	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	12.5-15	<0.0045	<0.0038	<0.0066	0.0039 J	<0.0029	<0.0033	<0.0024	<0.0029	0.0045 J	<0.0026	<0.0060	<0.0048	<0.0026	0.262	<0.0135	<0.0052
BH-28	9/15/16	15-17.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0028	<0.0032	<0.0023	<0.0028	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	0.137	<0.0132	<0.0051
BH-28	9/15/16	20-22.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	0.309	<0.0139	<0.0054
BH-28	9/15/16	25-27.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0024 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-29	9/15/16	2.5-5	<0.0049	<0.0042	<0.0072	0.0050 J	0.0034 J	0.0062 J	0.0032 J	<0.0032	0.0053 J	<0.0028	0.0108 J	<0.0052	<0.0028	<0.0106	<0.0147	0.0078 J
BH-29	9/15/16	7.5-10	<0.0045	<0.0038	<0.0066	0.0037 J	<0.0029	0.0033 J	<0.0024	<0.0029	0.0043 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-29A	9/15/16	10-12.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-29A	9/15/16	15-20	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-29A	9/15/16	22.5-25	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0026	<0.0098	<0.0135	<0.0052
BH-29A	9/15/16	27.5-30	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-29A	9/15/16	32.5-35	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0061	<0.0048	<0.0026	<0.0098	<0.0136	<0.0052
BH-30	9/26/16	2.5-5	<0.0044	<0.0038	<0.0065	0.0185	0.0222	0.0305	0.0187	0.0147	0.0254	0.0033 J	0.0397	<0.0047	0.0150	<0.0096	0.0191 J	0.0307
BH-30	9/26/16	7.5-10	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0139	<0.0054
BH-30	9/26/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	0.0033 J	0.0058 J	<0.0029	0.0075 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	0.0071 J
BH-30	9/26/16	15-17.5	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	0.0033 J	0.0062 J	<0.0029	0.0085 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0097	<0.0134	0.0082 J
BH-30A	9/26/16	22.5-25	<0.0043	<0.0037	<0.0064	<0.0035	<0.0028	<0.0032	<0.0023	<0.0028	<0.0038	<0.0025	<0.0058	<0.0046	<0.0025	<0.0094	<0.0130	<0.0050
BH-30A	9/26/16	27.5-30	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0028 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	0.0128 J	<0.0134	<0.0052
BH-31	9/26/16	2.5-5	0.0222	0.0142	0.139	0.593	0.725	0.708	0.367	0.406	0.828	0.112	1.180	0.0317	0.377	0.0107 J	0.747	0.890
BH-31	9/26/16	5-7.5	<0.0052	<0.0044	<0.0076	<0.0042	<0.0034	<0.0038	<0.0027	<0.0033	<0.0045	<0.0030	<0.0069	<0.0055	<0.0029	<0.0112	<0.0155	<0.0060
BH-31	9/26/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0042 J	<0.0029	0.0074 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0135	0.0078 J
BH-31	9/26/16	15-17.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0029	0.0038 J	0.0118	<0.0029	0.0109 J	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	0.0345 J	0.0061 J
BH-31	9/26/16	22.5-25	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0033	0.0037 J	<0.0030	<0.0040	<0.0026	<0.0062	<0.0049	<0.0026	<0.010	<0.0138	<0.0053

Exhibit C-2

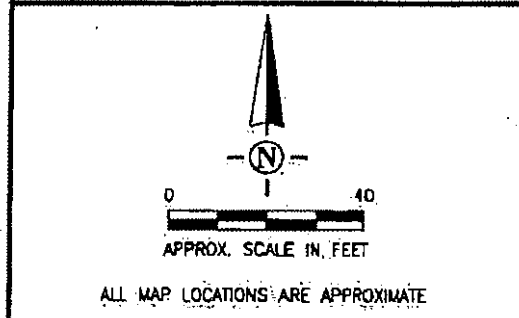
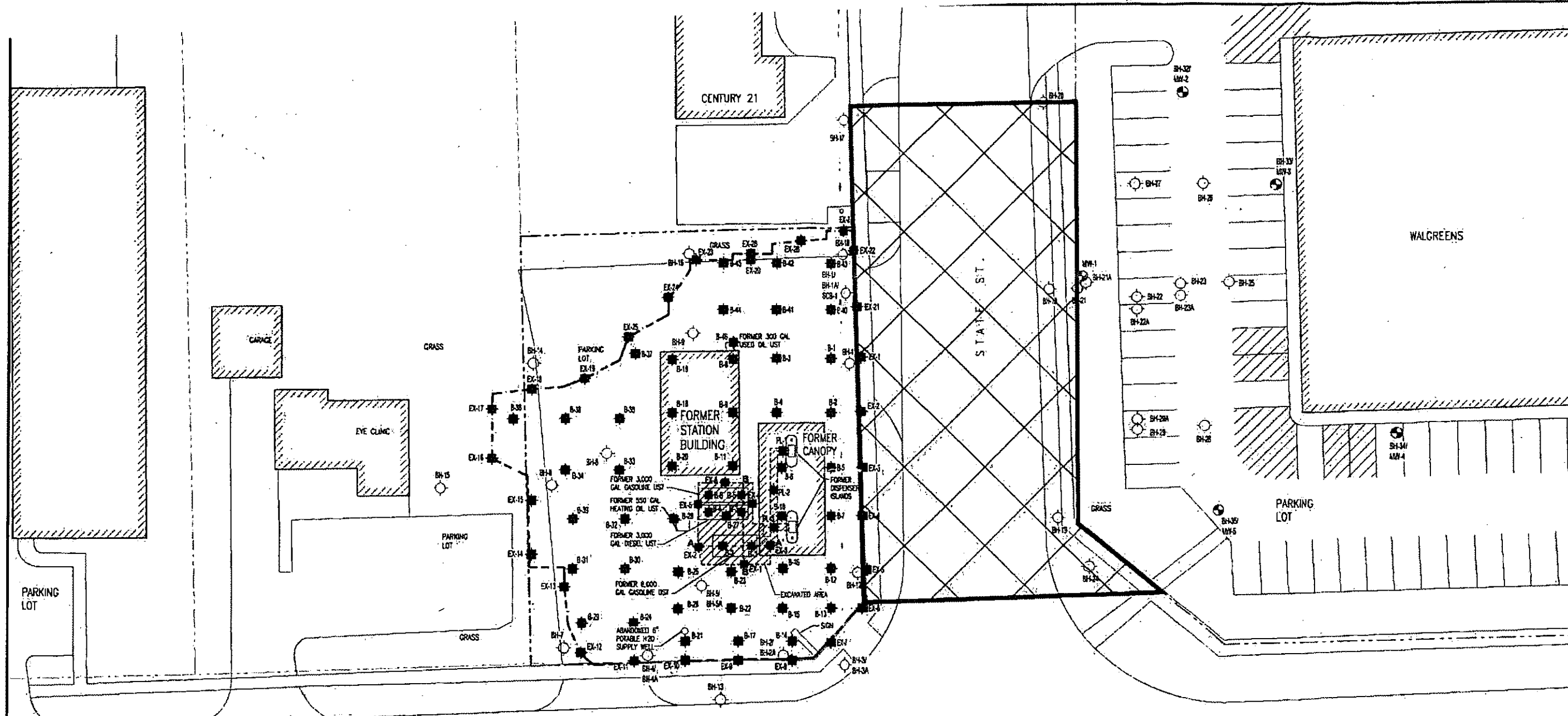
Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

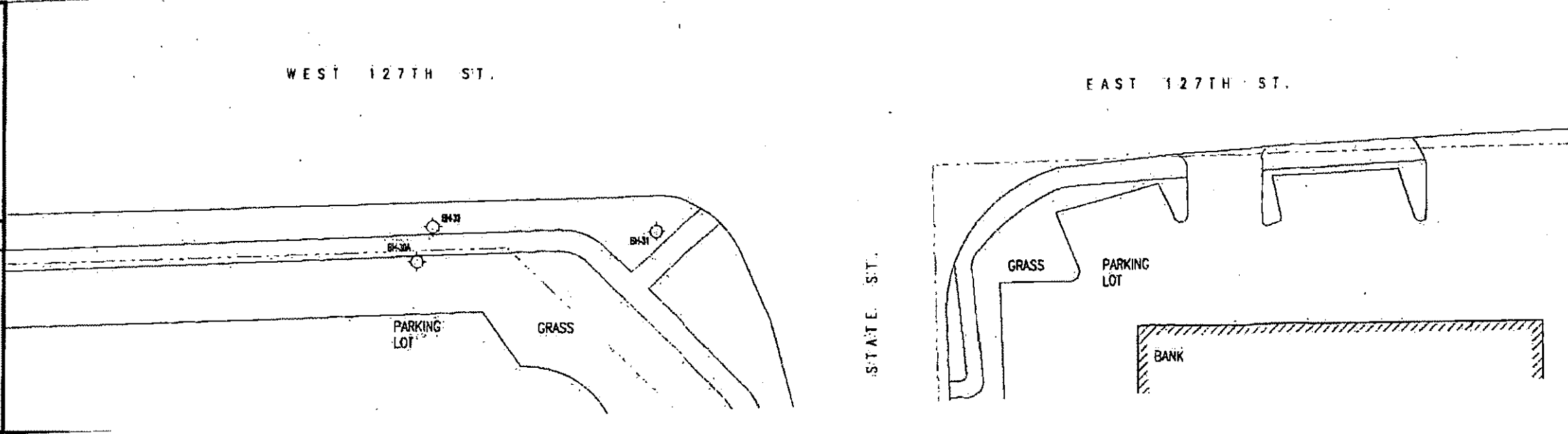
Tier 1 Exposure Routes	Indicator Contaminants and Tier 1 SROs																	
	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)		
Soil Ingestion - Residential	4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300		
Soil Ingestion - Industrial/Commercial	120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000		
Soil Ingestion - Construction Worker	120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000		
Inhalation - Residential	---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---		
Inhalation - Industrial/Commercial	---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---		
Inhalation - Construction Worker	---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---		
SCGIER - Class I Groundwater	570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200		
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-31	9/26/16	25-27.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053

Notes:

- 1) Bold = detected concentration or method detection limit exceeds a SRO listed in 35 IAC Part 742 or in the Non-TACO Objectives tables
- 2) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
- 3) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- 4) --- = no toxicity criteria available for the route of exposure
- 5) Shaded cells = not applicable or sample located was excavated
- 6) For the soil ingestion and outdoor inhalation exposure routes, the SROs for industrial/commercial land use and construction workers were utilized for on-site sample locations, and residential land use and construction workers for off-site sample locations.
- 7) Pursuant to 35 IAC Section 742, Appendix B, Table A, the SRO listed in 35 IAC Section 742, Appendix A, Table H was utilized
- 8) For the SCGIER, Class I SROs were utilized for on-site and off-site sample locations.



LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	CROSS SECTION
	EXCAVATION AREA
	VILLAGE OF LEMONT HAA AREA



 <b>TriCore Environmental, LLC</b> 2368 Corporate Lane, Suite 116 Naperville, IL 60563 (630) 520-9973	<b>BOI, LLC</b> 201 Danny's Drive Suite 5 Streator, IL 61364
	VILLAGE OF LEMONT HAA AREA BOI, LLC 1196 STATE STREET LEMONT, COOK COUNTY, IL 60439
DRAWN BY: SAA APPROVED BY: MIC SCALE: 1" = 40' DATE: 4/23/2018 DRAWING FILE: MD14-170	



92.00

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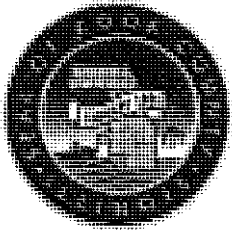
# OVERSIZE EXHIBIT

3 Double pages

Doc # 1821306168

**FORWARD ORIGINAL  
DOCUMENT TO PLAT  
COUNTER IMMEDIATELY  
AFTER RECORDING FOR  
SCANNING**

**APPENDIX P**  
**COOK COUNTY HAA**



**TONI PRECKWINKLE**

**PRESIDENT**

**Cook County Board  
of Commissioners**

RICHARD R. BOYKIN  
1st District

DENNIS DEER  
2nd District

JERRY BUTLER  
3rd District

STANLEY MOORE  
4th District

DEBORAH SIMS  
5th District

EDWARD M. MOODY  
6th District

JESUS G. GARCIA  
7th District

LUIS ARROYO JR.  
8th District

PETER N. SILVESTRI  
9th District

BRIDGET GAINER  
10th District

JOHN P. DALEY  
11th District

JOHN A. FRITCHEY  
12th District

LARRY SUFFREDIN  
13th District

GREGG GOSLIN  
14th District

TIMOTHY O. SCHNEIDER  
15th District

JEFFREY R. TOBOLSKI  
16th District

SEAN M. MORRISON  
17th District

May 22, 2018

Mr. Steve Broadus  
BOI, LLC  
201 Danny's Drive, Suite 5  
Streator, IL 61364

Re: Highway Authority Agreement along with  
an attached Supplemental Agreement  
1196 State Street at 127<sup>th</sup> Street  
Village of Lemont

Dear Mr. Broadus:

Enclosed herewith, please find a conformed copy of the subject Agreement for  
your files.

Very truly yours,

Tara Orbon, P.E.,  
Chief Engineer  
Project Development Bureau

For: John Yonan, P.E.  
Superintendent  
Department of Transportation and Highways  
Cook County, Illinois

Enclosure

**SUPPLEMENTAL AGREEMENT**

This Supplemental Agreement ("Supplemental Agreement") is entered into this 16 day of MAY 2018 by and between BOI, LLC, as owner or operator of underground storage tank(s) ("Owner/Operator") and the County of Cook, Illinois ("the County") as follows:

WHEREAS, Owner/Operator has owned and operated or currently owns and operates certain underground fuel storage tanks which either are currently or were previously located at 1196 State Street, Lemont, Cook County, Illinois (hereinafter "the Site").

WHEREAS, the Illinois Emergency Management Agency ("IEMA") has confirmed a release of contaminants in the soil and groundwater at the Site and the right of way adjacent to the boundary of the Site. The IEMA has assigned incident number 942117 and 20141348 to this release at the Site. The Illinois Environmental Protection Agency ("IEPA") Bureau of Land has assigned LPC Number 0314625010 to the Site. Attached as **Exhibit A of Attachment 1** is a site map which shows the area of estimated contaminant impacted soil and/or groundwater at the time of this Agreement in the right of way above Tier 1 residential levels under 35 Ill. Admin. Code Part 742. Also attached as **Exhibit B of Attachment 1** is a table showing the concentration of contaminants of concern, hereafter "Contaminants", in soil and/or groundwater within the area described in **Exhibit A of Attachment 1** and which shows the applicable Tier 1 objectives for soil and groundwater of the Illinois Environmental Protection Agency ("IEPA") which are exceeded. The right of way described in **Exhibit C of Attachment 1** (commonly described as the intersection of 127<sup>th</sup> St. and State St. and hereinafter described as the "Right-of-Way"), adjacent to the site is subject to this Agreement. As the drawings in the Exhibits are not plats, the boundary of the Right-of-Way in the Exhibits may be an approximation of the actual Right-of-Way lines. The Right-of-Way is impractical to sample for Contaminants, however, the parties believe that the area of the Right-of-Way is adequate to encompass soil and/or groundwater within the Right-of-Way possibly impacted with Contaminants from a release at the Site.

WHEREAS, Owner/Operator is pursuing a corrective action of the Site and of the Right-of-Way adjacent to the boundary of the Site and intends to request risk-based, site specific soil and/or groundwater remediation objectives from the IEPA under 35 Ill. Admin. Code Part 742. Under these rules, use of risk-based, site specific remediation objectives in the Right-of-Way may require the use of a Highway Authority Agreement as defined in 35 Ill. Admin Code Section 742.1020.

WHEREAS, the County holds a fee simple interest or a dedication for highway purposes in the Right-of-Way, and has jurisdiction over it. As such, the County exercises sole control over the access to the soil and use of the groundwater beneath the Right-of-Way.

WHEREAS, Owner/Operator and the County have agreed to enter into a Highway Authority Agreement for incident number 942117 and 20141348 at the Site pursuant to the terms of 35 Ill. Admin. Code Section 742.1020, which restricts the use of the land under the Right-of-Way adjacent to the Site ("Highway Authority Agreement"). A copy of the Highway Authority Agreement is attached as **Attachment 1**.

WHEREAS, this Supplemental Agreement is intended to supplement the rights and responsibilities of the Owner/Operator and the County under the Highway Authority Agreement.

**1. INCORPORATION OF RECITALS**

The recitals set forth above are incorporated by reference as if fully set forth herein.

**2. TERM AND REQUISITES FOR VALIDITY**

(a) This Supplemental Agreement shall commence upon the date the Cook County Board of Commissioners authorizes its execution and execution of the Highway Authority Agreement and shall continue until the Right-of-Way is demonstrated to be suitable for unrestricted land use and there is no longer a need for the Highway Authority Agreement and the IEPA has, upon written request to the IEPA by the Owner/Operator and notice to the County, amended the notice in the chain of title of the Site to reflect unencumbered future use of the Right-of-Way.

(b) The IEPA must review and approve the Highway Authority Agreement. Upon the IEPA's approval of the Highway Authority Agreement and issuance of a "No Further Remediation" letter ("NFR"), the Owner/Operator shall record the NFR letter at its expense at the Cook County Recorder's Office in the chain of title for the Site. The Highway Authority Agreement shall be referenced in the IEPA's NFR letter for the Site. The reference shall direct inquiries to Cook County Bureau of Administration, Department of Transportation and Highways, Attention: Superintendent, 69 West Washington Street, 24th Floor, Chicago, Illinois 60602, tel. (312) 603.1600 for further information regarding the Highway Authority Agreement.

(c) The Highway Authority Agreement shall be null and void as a Highway Authority Agreement if:

- (1) The IEPA does not approve it, or;
- (2) Owner/Operator does not record the NFR letter.

The occurrence of either of the above conditions shall not void this Supplemental Agreement as a land use Agreement between Owner/Operator and the County.

**3. RIGHTS, DUTIES AND RESPONSIBILITIES OF THE PARTIES**

**A. The County**

The County has the right to construct, reconstruct, improve, repair, maintain and operate a highway upon its property or to allow others to use the Right-of-Way by permit. The County reserves the right and the right of those using its property under permit to remove contaminated soil or groundwater above Tier 1 residential remediation objectives from its Right-of-Way and to dispose of the same as deemed appropriate not inconsistent with applicable environmental regulations so as to avoid causing a further release of contaminants and to protect human health and the environment.

Prior to taking any such action, the County will first give Owner/Operator thirty (30) days written notice, unless there is an immediate threat to the health or safety of the public or any individual, that it intends to perform a site investigation in the Right-of-Way and remove or dispose of contaminated soil or groundwater to the extent necessary for its work. The removal or disposal shall be based upon the site investigation and any modifications thereto as field conditions dictate.

If the County deems it practicable, it may request Owner/Operator to review or perform the site investigation and/or to remove and dispose of the contaminated soil and/or groundwater necessary for the County's work in advance of that work. Failure of the County to give notice to Owner/Operator of its intent to perform a site investigation shall not constitute a violation of this Supplemental Agreement.

**B. Owner/Operator**

(1) Owner/Operator agrees to reimburse the County for the reasonable costs it has incurred or will incur in the future in protecting human health and the environment, including, but not limited to, investigating, identifying, handling, storing and disposing of Contaminated soil and groundwater in the Right-of-Way as a result of the release of Contaminants at this Site. There is a rebuttable presumption that Contaminants found in the Right-of-Way arose from a release from the Site. Owner/Operator's reimbursement to the County under this paragraph shall be limited to ten thousand (\$10,000) dollars in the event that the County has not given notice to Owner/Operator and it is determined that there was no immediate threat to the health and safety of the public or any person.

(2) As the pavement in the Right-of-Way may be considered an engineered barrier as defined in 35 Ill. Admin. Code, Subpart B, Section 742.200, Owner/Operator agrees to reimburse the County for: (a) maintenance activities requested by Owner/Operator or (b) maintenance activities performed by the County on the Right-of-Way in order to assure its physical integrity as an engineered barrier. Owner/Operator shall not be obligated to reimburse the County for ordinary maintenance consistent with that performed by the Department on other County Highways; provided, however, that Owner/Operator, pursuant to Paragraphs 3(A) and 3(B)(1) herein, shall reimburse the County for any and all costs it incurs in removing and disposing of any Contaminants

discovered within the Right-of-Way, as required by applicable environmental laws, in the course of performing highway activities other than ordinary maintenance. Owner/Operator understands that the County does not represent that it will perform maintenance on the Right-of-Way, or that it will maintain the Right-of-Way as an engineered barrier, or that the Right-of-Way will always remain a highway.

(3) Owner/Operator agrees to indemnify and hold the County and its commissioners, officers, agents, directors, employees, contractors, consultants and affiliates, permit holders, as well as any other highway authorities maintaining the Right-of-Way pursuant to an agreement with the county harmless from and against any and all liability, losses, claims, costs, damages, demand, penalties, or other expenses (including attorney's fees and other legal expenses occasioned by any real and potential claim, demand or action (whether or not meritorious) associated with the release of Contaminants from the Site, or which arise(s) out of any of the rights granted or performance rendered by the County to Owner/Operator under this Supplemental Agreement or Highway Authority Agreement, or pertaining to any representation made by the County under this Supplemental Agreement or Highway Authority Agreement. Owner/Operator shall promptly reimburse the County, on demand, for any and all liabilities made or incurred by the indemnified parties to which this indemnity applies.

(4) Owner/Operator agrees that it will inform its personnel, if any, at the Site about the Highway Authority Agreement and that such personnel shall notify anyone excavating in the Right-of-Way about the Highway Authority Agreement.

(5) Upon approval of the Highway Authority Agreement by the IEPA, Owner/Operator shall furnish to the County a copy of the NFR letter along with proof that it has been recorded.

#### **4. BREACH**

##### **A. By Owner/Operator**

Should Owner/Operator, or its successors and/or assigns, violate any of the terms of this Supplemental Agreement or the Highway Authority Agreement, the Highway Authority Agreement shall be null and void as a highway authority agreement at the County's option upon thirty (30) days' written notice by the County. If the violation relates to Owner/Operator's failure to reimburse the County, as provided in paragraphs 3(B)(1), (2) or (3), above, Owner/Operator may remedy the breach by making payment within twenty (20) working days from the date the notice is received.

**B. By County**

Violation of the terms of the Highway Authority Agreement by the County shall not void this Supplemental Agreement or the Highway Authority Agreement unless the IEPA has determined that the violation is grounds for avoidance of the Highway Authority Agreement as a highway authority agreement and the County has not cured the violation within such time as the IEPA has granted.

Any and all claims for damages against the County arising at any time for a breach of paragraphs 8 and 9 of the Highway Authority Agreement are limited to an aggregate maximum of twenty thousand (\$20,000) dollars. No other breach by the County of a provision in the Highway Authority Agreement or this Supplemental Agreement is actionable in law or equity by Owner/Operator.

However, should the County convey, vacate or transfer jurisdiction of the Right-of-Way to an entity other than a County agency, Owner/Operator may pursue an action under the Highway Authority Agreement or this Supplemental Agreement against such successor(s) in interest in a Court of Law.

**5. MISCELLANEOUS**

**A. Binding Effect:** This Supplemental Agreement and the Highway Authority Agreement shall be binding upon and inure to the benefit of the successors and assigns of Owner/Operator in the Site and the County in the Right-of-Way as if they too were parties to this Supplemental Agreement and Highway Authority Agreement.

**B. Severability:** The Highway Authority Agreement and this Supplemental Agreement are entered into by the County in recognition of laws passed by the Illinois General Assembly and regulations adopted by the Illinois Pollution Control Board which encourage a tiered approach to remediating environmental contamination. The County enters the Highway Authority Agreement and this Supplemental Agreement in the spirit of those laws and pursuant to its rights and obligations as property owner. Should any part or provision of the Highway Authority Agreement or this Supplemental Agreement be struck down by a court of competent jurisdiction, the Highway Authority Agreement and this Supplemental Agreement shall be null and void.

**C. Notice:** All notices required herein shall be in writing and be served personally, by certified or registered mail, or by facsimile device upon the parties as follows:



To Owner/Operator:

BOI, LLC  
Attn: Mr. Steve Broadus  
201 Danny's Drive, Suite 5  
Streator, IL 61364

To the County:

Cook County Bureau of Administration  
Department of Transportation and Highways  
Attention, Superintendent  
69 West Washington Street, 24th Floor  
Chicago, Illinois 60602

**D. Governing Law:** This Supplemental Agreement and the Highway Authority Agreement shall be governed, interpreted and construed according to the laws of the State of Illinois.

**E. Amendment:** This Supplemental Agreement and the Highway Authority Agreement contain the entire agreement of the parties and shall supersede any prior written or oral agreements or understandings. This Supplemental Agreement and the Highway Authority Agreement may only be altered, modified or amended upon the written consent and agreement of the parties hereto.

**F. Compliance with Laws:** The parties agree to observe and comply with all federal, state and local laws which may in any manner affect performance under this Supplemental Agreement and Highway Authority Agreement.

## 6. ACCEPTANCE AND EXECUTION

The terms of this Supplemental Agreement are hereby accepted and executed by the proper officers and officials of the parties as set forth below.

*[The remainder of this page is intentionally left blank. Signature page follows.]*

COUNTY OF COOK, ILLINOIS

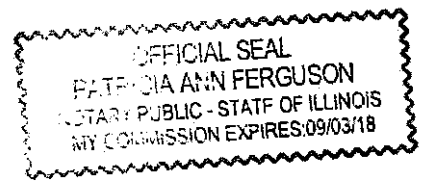
By: Toni Preckwinkle DATE: 5/16/18  
Toni Preckwinkle, President  
Cook County Board of Commissioners

ATTEST: David Orr DATE: 5/16/18  
By: David D. Orr DATE: 5/16/18  
David D. Orr, County Clerk  
Cook County Board of Commissioners

ACKNOWLEDGED:  
By: John Yonan DATE: 4/13/18  
John Yonan, P.E.  
Superintendent  
Department of Transportation and Highways

BOI, LLC  
By: Steve Brewer DATE: 3/22/2018

ATTEST:  
By: Patricia Ann Ferguson DATE: 3/22/2018



I, DAVID D. ORR, County Clerk of Cook County, in the State of Illinois aforesaid and keeper of the records and files of said Cook County, do hereby certify that The Board of Commissioners of The County of Cook, at their regular meeting held on May 16, 2018, passed the following Resolution:

**18-R-  
RESOLUTION**

**Sponsored by**

**THE HONORABLE TONI PRECKWINKLE**

**PRESIDENT OF THE COOK COUNTY BOARD OF COMMISSIONERS**

**RESOLVED** by the members of The Board of Commissioners of Cook County, Illinois, on behalf of the County of Cook, to authorize and direct its President to execute, by original signature or authorized signature stamp, three (3) copies of a HIGHWAY AUTHORITY AGREEMENT along with a SUPPLEMENTAL AGREEMENT with BOI, LLC, attached hereto and made part hereof, wherein, on highways under Cook County jurisdiction, adjacent to BOI, LLC owned facilities and subject to said Agreements for Tier 1 residential remediation objectives, the County of Cook shall prohibit the extraction of potable water from its right-of-way and shall notify Permittees of proscribed status and requirements at the following location as part of its Department of Transportation and Highways Permit process.

**RESOLVED** that the following location is approved as being subject to HIGHWAY AUTHORITY AGREEMENT along with a SUPPLEMENTAL AGREEMENT:

1196 State Street at 127<sup>th</sup> Street (CH B50)  
in the Village of Lemont

**RESOLVED** and accepted; that BOI, LLC indemnifies and holds the County of Cook harmless from damages and liabilities arising from the presence of contaminants in County of Cook right-of-way; and, that the reimbursement procedure be accepted for the County of Cook to be reimbursed for costs incurred should, in the course of normal highway maintenance, the County of Cook be required to excavate and dispose of contaminated soils.

**RESOLVED** that the Department of Transportation and Highways is directed to take the necessary action called for in the HIGHWAY AUTHORITY AGREEMENT along with SUPPLEMENTAL AGREEMENT and to return one (1) executed copy of the Agreements to BOI, LLC.

All of which appears from the records and files of my office.

**IN WITNESS WHEREOF** I have hereunto set my hand and affixed the SEAL of said County at my office in the City of Chicago, in said County this day 16<sup>th</sup> of May A.D. 2018.

(SEAL)



County Clerk

Electronic Filing: Received, Clerk's Office 03/23/2021

**ATTACHMENT 1: HIGHWAY AUTHORITY AGREEMENT**

**HIGHWAY AUTHORITY AGREEMENT**

This Agreement is entered into this \_\_\_\_ day of \_\_\_\_\_, 201\_\_  
pursuant to 35 Ill. Adm. Code 742.1020 by and between (1) BOI, LLC  
("Owner/Operator") and (2) the County of Cook ("Highway Authority"), collectively  
known as the "Parties."

**WHEREAS,** BOI, LLC is the owner or operator of one or  
more leaking underground storage tanks presently or formerly located at 1196 State  
Street, Lemont, Illinois ("the Site");

**WHEREAS,** as a result of one or more releases of contaminants from the above-  
referenced underground storage tanks ("the Release"), soil and/or groundwater  
contamination at the Site exceeds the Tier 1 residential remediation objectives of 35 Ill.  
Adm. Code 742;

**WHEREAS,** the soil and/or groundwater contamination exceeding Tier 1  
residential remediation objectives extends or may extend into the Highway Authority's  
right-of-way;

**WHEREAS,** the Owner/Operator is conducting corrective action in response to  
the Release;

**WHEREAS,** the Parties desire to prevent groundwater beneath the Highway  
Authority's right-of-way that exceeds Tier 1 remediation objectives from use as a supply  
of potable or domestic water and to limit access to soil within the right-of-way that  
exceeds Tier 1 residential remediation objectives so that human health and the  
environment are protected during and after any access;

**NOW, THEREFORE,** the Parties agree as follows:

1. The recitals set forth above are incorporated by reference as if fully set forth herein.
2. The Illinois Emergency Management Agency has assigned incident number 942117 and 20141348 to the Release.
3. Attached as **Exhibit A** is a scaled map(s) prepared by the Owner/Operator that shows the Site and surrounding area and delineates the current and estimated future extent of soil and groundwater contamination above the applicable Tier 1 residential remediation objectives as a result of the Release. *[Use the following sentence if either soil or groundwater is not contaminated above applicable Tier 1 residential remediation objectives: [Soil] [Groundwater] is not contaminated above the applicable Tier 1 residential remediation objectives.]*
4. Attached as **Exhibit B** is a table(s) prepared by the Owner/Operator that lists each contaminant of concern that exceeds its Tier 1 residential remediation objective, its Tier 1 residential remediation objective and its concentrations within the zone where Tier 1 residential remediation objectives are exceeded. The locations of the concentrations listed in **Exhibit B** are identified on the map(s) in **Exhibit A**.
5. Attached as **Exhibit C** is a scaled map prepared by the Owner/Operator showing the area of the Highway Authority's right-of-way that is governed by this agreement ("Right-of-Way"). Because **Exhibit C** is not a surveyed plat, the Right-of-Way boundary may be an approximation of the actual Right-of-Way lines.
6. *[Use this paragraph if samples have not been collected within the Right-of-Way, sampling within the Right-of-Way is not practical, and contamination does not*

*extend beyond the Right-of-Way.]* Because the collection of samples within the Right-of-Way is not practical, the Parties stipulate that, based on modeling, soil and groundwater contamination exceeding Tier 1 residential remediation objectives does not and will not extend beyond the boundaries of the Right-of-Way.

7. The Highway Authority stipulates it has jurisdiction over the Right-of-Way that gives it sole control over the use of the groundwater and access to the soil located within or beneath the Right-of-Way.

8. The Highway Authority agrees to prohibit within the Right-of-Way all potable and domestic uses of groundwater exceeding Tier 1 residential remediation objectives.

9. The Highway Authority further agrees to limit access by itself and others to soil within the Right-of-Way exceeding Tier 1 residential remediation objectives. Access shall be allowed only if human health (including worker safety) and the environment are protected during and after any access. The Highway Authority may construct, reconstruct, improve, repair, maintain and operate a highway upon the Right-of-Way, or allow others to do the same by permit. In addition, the Highway Authority and others using or working in the Right-of-Way under permit have the right to remove soil or groundwater from the Right-of-Way and dispose of the same in accordance with applicable environmental laws and regulations. The Highway Authority agrees to issue all permits for work in the Right-of-Way, and make all existing permits for work in the Right-of-Way, subject to the following or a substantially similar condition:

As a condition of this permit the permittee shall request the office issuing this permit to identify sites in the Right-of-Way where a Highway Authority Agreement governs access to soil that exceeds the Tier 1 residential remediation objectives of 35 Ill. Adm. Code 742. The permittee shall take all measures necessary to protect human health (including worker safety) and the environment during and after any access to such soil.

10. This agreement shall be referenced in the Agency's no further remediation determination issued for the Release.

11. The Agency shall be notified of any transfer of jurisdiction over the Right-of-Way at least 30 days prior to the date the transfer takes effect. This agreement shall be null and void upon the transfer unless the transferee agrees to be bound by this agreement as if the transferee were an original party to this agreement. The transferee's agreement to be bound by the terms of this agreement shall be memorialized at the time of transfer in a writing ("Rider") that references this Highway Authority Agreement and is signed by the Highway Authority, or subsequent transferor, and the transferee.

12. This agreement shall become effective on the date the Agency issues a no further remediation determination for the Release. It shall remain effective until the Right-of-Way is demonstrated to be suitable for unrestricted use and the Agency issues a new no further remediation determination to reflect there is no longer a need for this agreement, or until the agreement is otherwise terminated or voided.



13. In addition to any other remedies that may be available, the Agency may bring suit to enforce the terms of this agreement or may, in its sole discretion, declare this agreement null and void if any of the Parties or any transferee violates any term of this agreement. The Parties or transferee shall be notified in writing of any such declaration.

14. This agreement shall be null and void if a court of competent jurisdiction strikes down any part or provision of the agreement.

15. This agreement supersedes any prior written or oral agreements or understandings between the Parties on the subject matter addressed herein. It may be altered, modified or amended only upon the written consent and agreement of the Parties.

16. Any notices or other correspondence regarding this agreement shall be sent to the Parties at following addresses:

Manager, Division of Remediation Management  
Bureau of Land  
Illinois Environmental Protection Agency  
P.O. Box 19276  
Springfield, IL 62794-9276

BOI, LLC  
201 Danny's Drive, Suite 5  
Streator, IL 61364  
Attention: Mr. Steve Broadus

Cook County Bureau of Administration  
Department of Transportation and Highways  
Attention: Superintendent  
69 West Washington Street, 24<sup>th</sup> Floor  
Chicago, IL 60602

IN WITNESS WHEREOF, the Parties have caused this agreement to be signed by their duly authorized representatives.

Date: 5/16/18

County of Cook, Illinois

By: Toni Preckwinkle

Toni Preckwinkle, President

Date: 5/16/18

Cook County Board of Commissioners

ATTEST David Orr  
By: \_\_\_\_\_

David D. Orr, County Clerk

Date: 4/13/18

ACKNOWLEDGED:

By: John Yonan

John Yonan, P.E.

Superintendent

Department of Transportation and Highways

Date: 3/23/18

Owner:

BOI, LLC

By: Steve Broadus

Title: Owner

Steve P. Broadus

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**THE HONORABLE TONI PRECKWINKLE**

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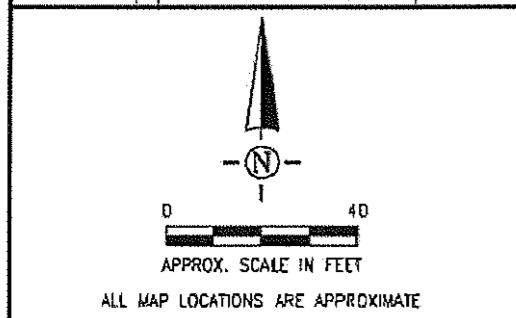
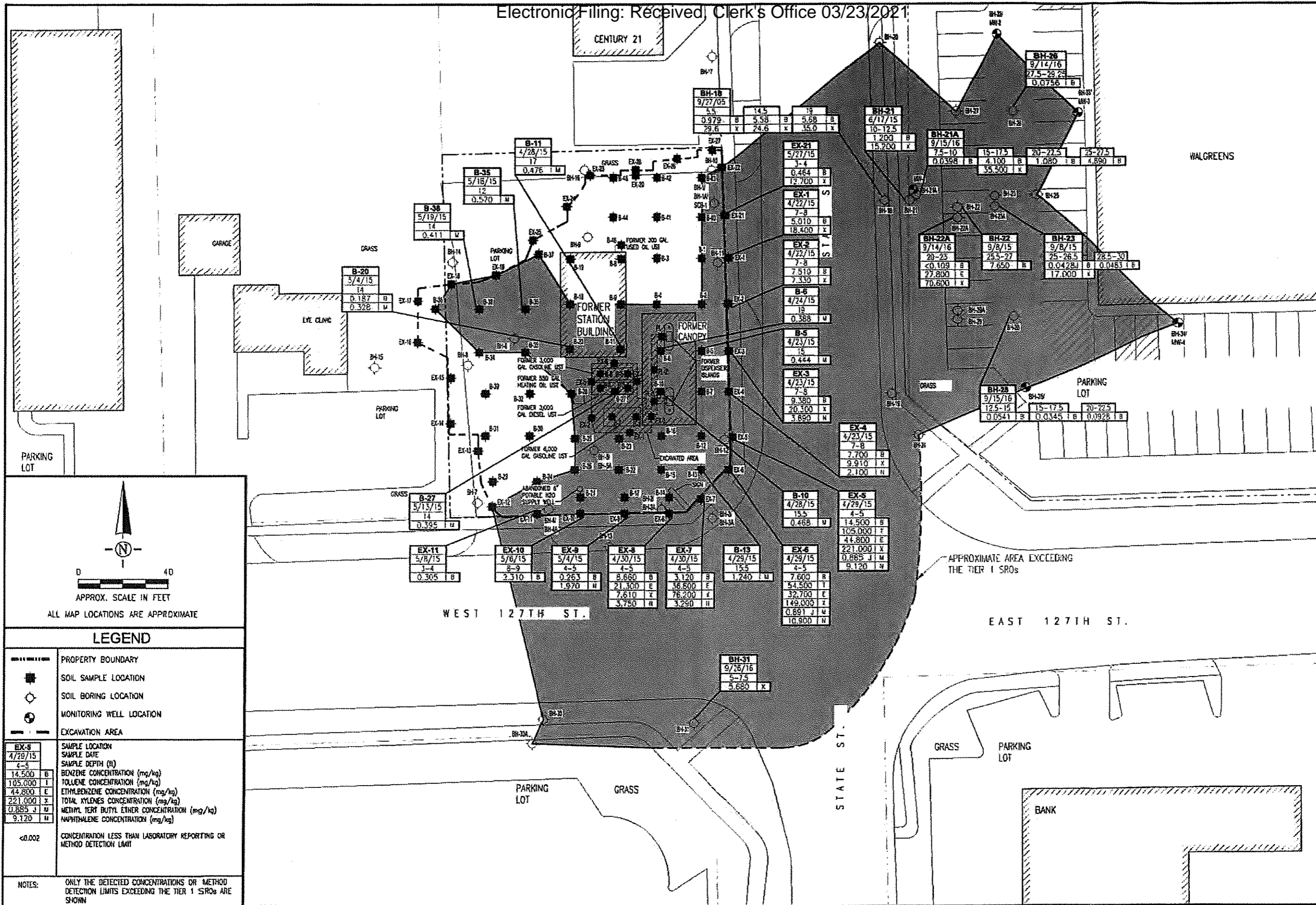
**IN WITNESS WHEREOF** I have hereunto set my hand and affixed the SEAL of said County at my office in the City of Chicago, in said County this day 16<sup>th</sup> of May A.D. 2018.

(SEAL)



County Clerk

**EXHIBIT A**



LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	EXCAVATION AREA
EX-5 4/28/15 4-5	SAMPLE LOCATION SAMPLE DATE SAMPLE DEPTH (ft)
14.500 B	BENZENE CONCENTRATION (mg/kg)
105.000 T	TOLUENE CONCENTRATION (mg/kg)
44.800 E	ETHYLBENZENE CONCENTRATION (mg/kg)
221.000 X	TOTAL XYLENES CONCENTRATION (mg/kg)
0.885 J M	METHYL TERT BUTYL ETHER CONCENTRATION (mg/kg)
9.120 H	NAPHTHALENE CONCENTRATION (mg/kg)
<0.002	CONCENTRATION LESS THAN LABORATORY REPORTING OR METHOD DETECTION LIMIT
NOTES:	ONLY THE DETECTED CONCENTRATIONS OR METHOD DETECTION LIMITS EXCEEDING THE TIER 1 SROs ARE SHOWN

**TriCore Environmental, LLC**  
236B Corporate Lane, Suite 116  
Naperville, IL 60563  
(630) 520-9973

---

**BOI, LLC**  
201 Danny's Drive  
Suite 5  
Sreator, IL 61364

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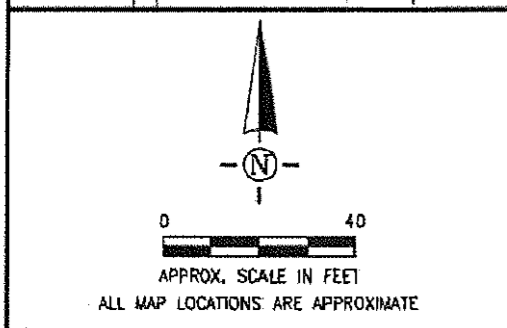
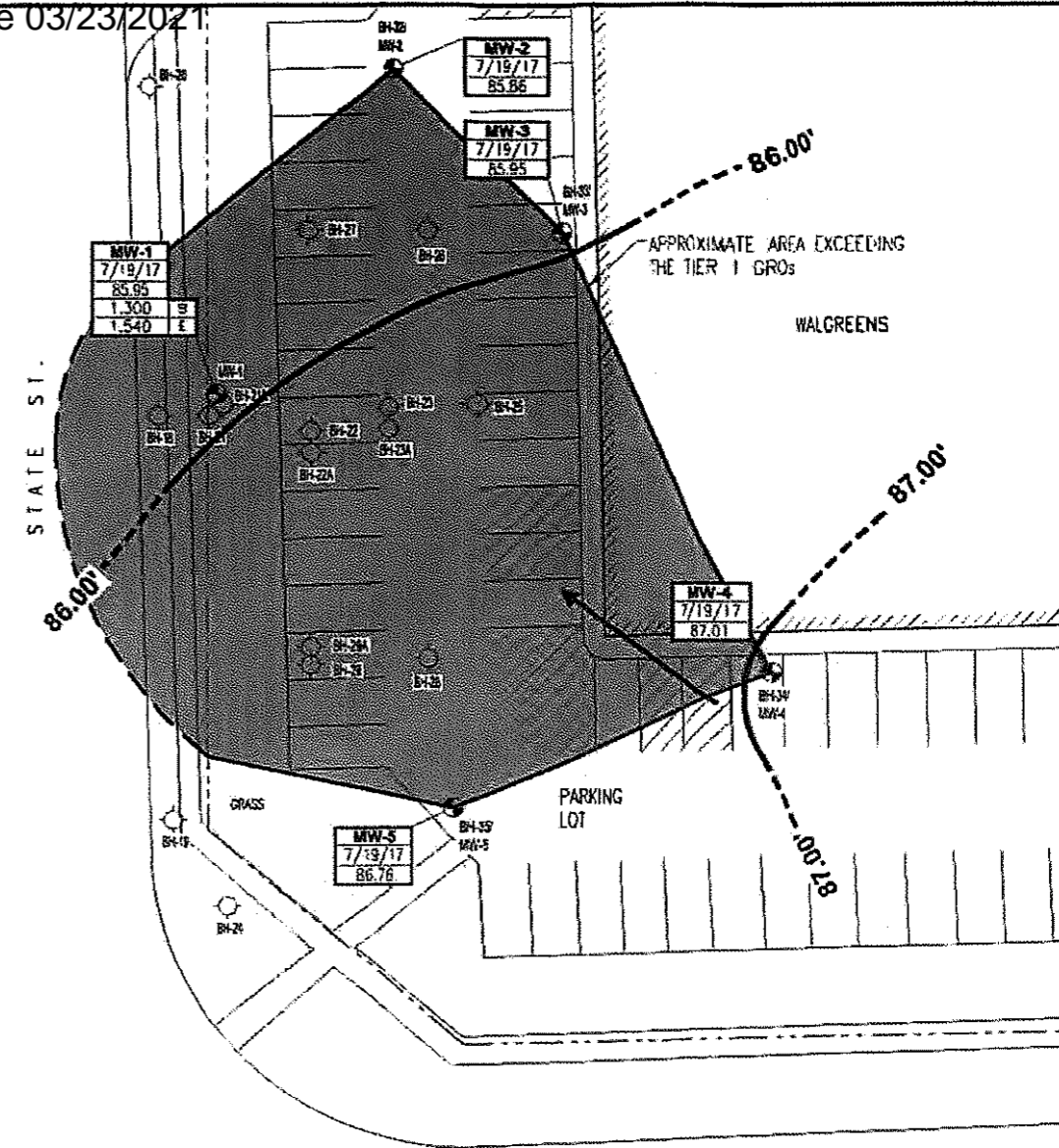
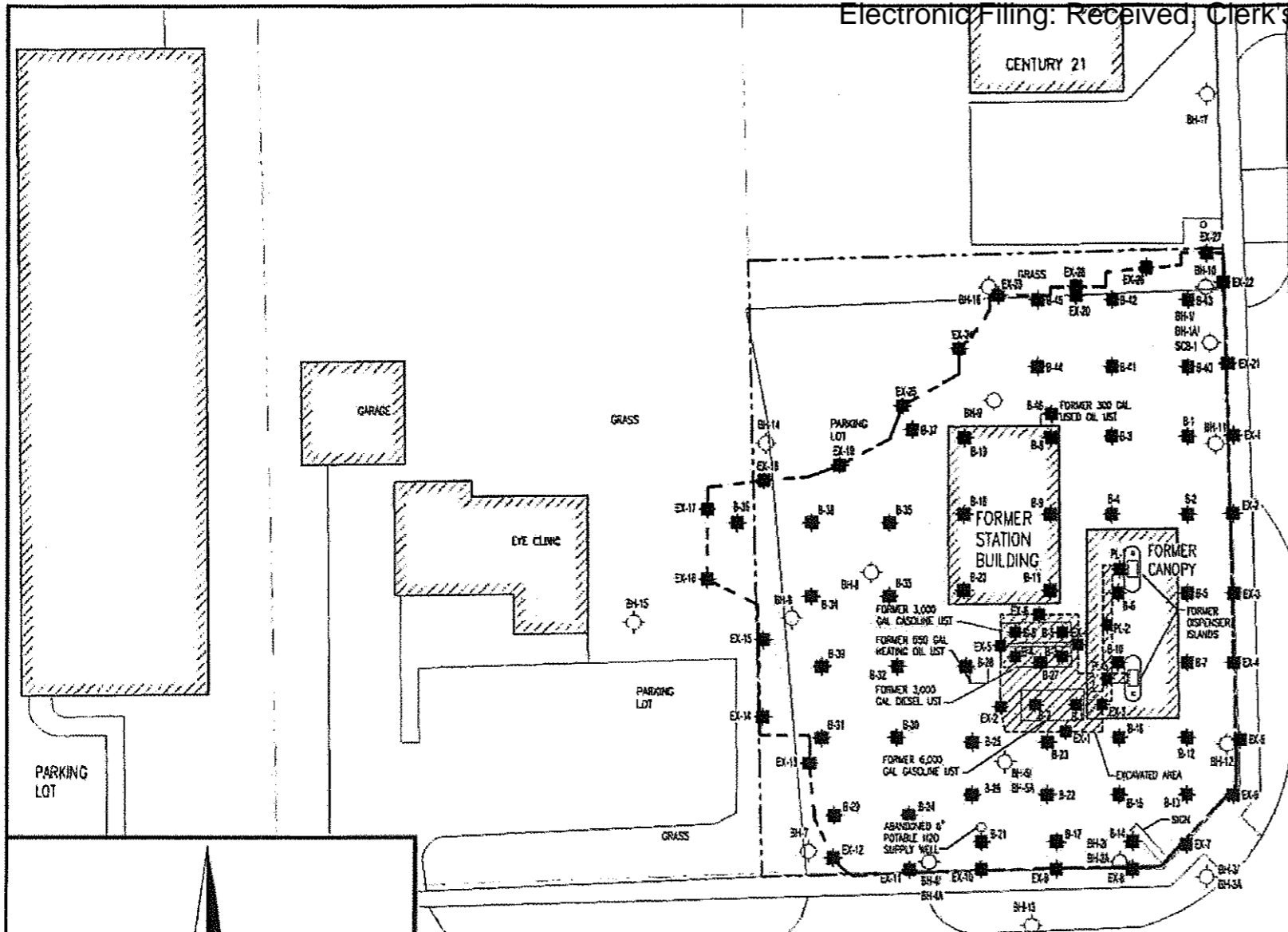
**SOIL ANALYTICAL RESULTS**

BOI, LLC  
1196 STATE STREET  
LEMONT, COOK COUNTY, IL 60439

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DRAWN BY:	SAA
APPROVED BY:	MIC
SCALE:	1" = 40'
DATE:	3/19/2018
DRAWING FILE:	MD14-170

EXHIBIT  
**A-1**

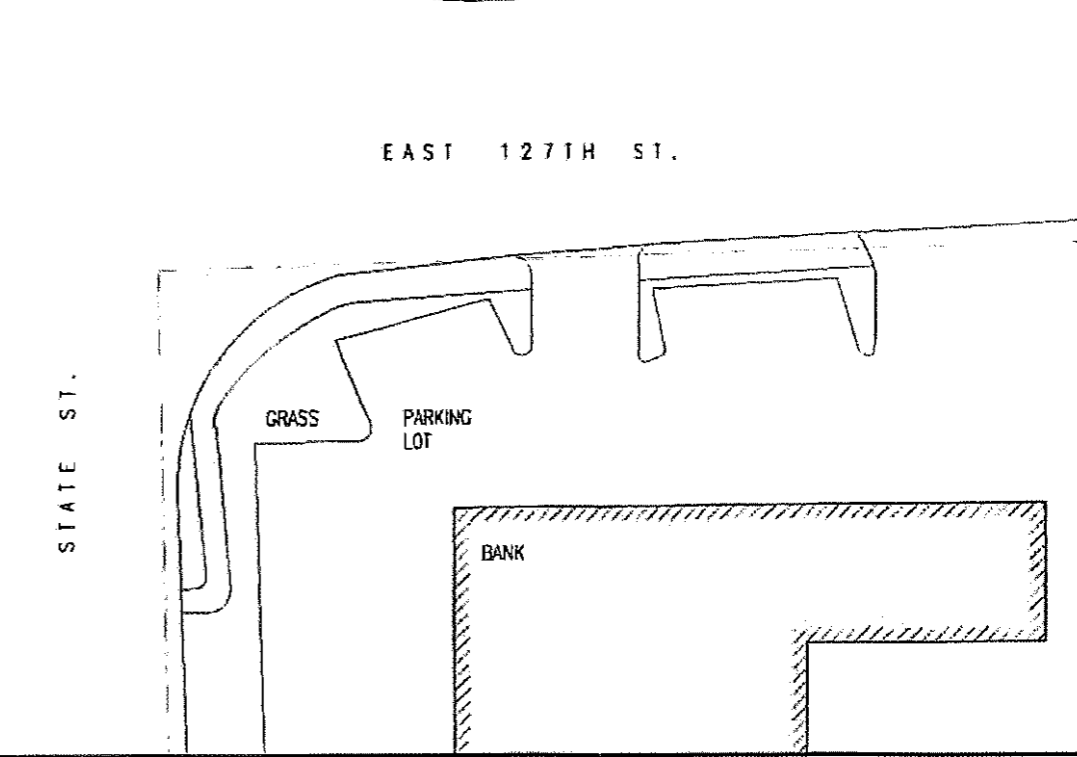
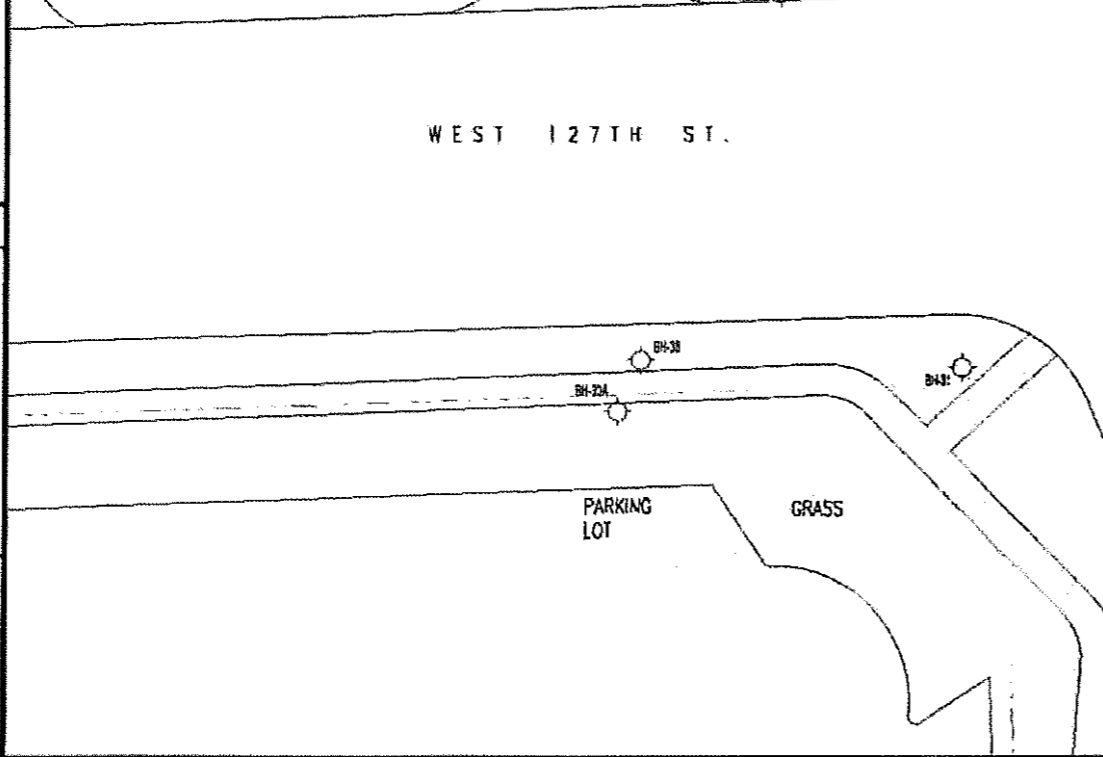


LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	EXCAVATION AREA
	GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
	GROUNDWATER FLOW DIRECTION

MW-1	SAMPLE LOCATION
7/19/17	GROUNDWATER ELEVATION (ft)
85.95	SAMPLE DATE
1.300 B	BENZENE CONCENTRATION (mg/L)
1.540 E	ETHYLBENZENE CONCENTRATION (mg/L)

NOTES: ONLY THE DETECTED CONCENTRATIONS OR METHOD DETECTION LIMITS EXCEEDING THE TIER 1 GROs ARE SHOWN.



**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61384

**GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 3/19/2018  
 DRAWING FILE: MD14-170

EXHIBIT **A-2**

**EXHIBIT B**

Exhibit B-1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-1-A	9/18/03	7.5-8	0.316	0.430	6.31	13.2	
BH-1-B	9/18/03	14-14.5	<0.0289	<0.289	<0.289	<0.289	
BH-1-C	8/10/04	18	<0.002	<0.005	<0.005	<0.005	
BH-2-A	9/18/03	4.5-5	3.6000	0.293	5.730	4.030	
BH-2-B	8/10/04	13	0.0879	<0.005	<0.005	<0.005	
BH-2-C	8/10/04	23	<0.002	<0.005	<0.005	<0.005	
BH-3-A	9/18/03	6.5-7	<0.0286	<0.286	0.904	0.596	
BH-3-B	8/10/04	13	0.0293	<0.005	<0.005	<0.005	
BH-3-C	8/10/04	18	<0.002	<0.005	<0.005	<0.005	
BH-4-A	9/18/03	4.5-5	0.184	<0.309	0.309	<0.309	
BH-4-B	8/10/04	13	<0.002	<0.005	<0.005	<0.005	
BH-5-A	9/18/03	4.5-5	2.710	4.86	4.78	10.3	
BH-5-B	8/10/04	13	1.070	1.11	<0.005	0.522	
BH-5-C	8/10/04	24	<0.002	<0.005	<0.005	<0.005	
BH-6-A	8/2/05	5	0.0719	<0.005	<0.005	0.0054	
BH-6-B	8/2/05	9	1.060	1.090	1.91	8.1	
BH-6-C	8/2/05	15	<0.002	<0.005	<0.005	<0.005	
BH-6-D	8/2/05	18	0.0064	<0.005	<0.005	<0.005	
BH-7-A	8/2/05	4	<0.002	<0.005	<0.005	<0.005	
BH-7-B	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-7-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-7-D	8/2/05	18	<0.002	<0.005	<0.005	<0.005	
BH-8-A	8/2/05	3	<0.002	<0.005	<0.005	<0.005	
BH-8-B	8/2/05	9	0.459	<0.005	0.438	0.419	
BH-8-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-9-A	8/2/05	4	<0.002	<0.005	<0.005	<0.005	
BH-9-B	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-9-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-10-A	8/2/05	4	<0.030	0.0882	1.98	4.920	
BH-10-B	8/2/05	9	2.660	0.348	1.79	3.820	
BH-10-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-10-D	8/2/05	18-20	<0.002	<0.005	<0.005	<0.005	
BH-11-A	8/2/05	4	24.5	65.8	52.7	207.0	
BH-11-B	8/2/05	9	5.730	0.4	4.030	8.0	
BH-11-C	8/2/05	14	0.0045	0.0056	<0.005	0.0093	
BH-12-A	8/2/05	4	10.2	39.5	12.0	59.0	
BH-12-B	8/2/05	9	14.3	0.897	10.4	9.140	
BH-12-C	8/2/05	14	0.0126	0.0261	<0.005	0.0115	
BH-12-D	8/2/05	19	<0.002	<0.005	<0.005	<0.005	
BH-13-A	8/2/05	9	<0.002	<0.005	<0.005	<0.005	



Exhibit B-1

Soil Analytical Results - BTEX and MTBE

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
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SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-13-B	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-14-A	9/26/05	4-5	<0.002	<0.005	<0.005	<0.005	
BH-14-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-14-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-15-A	9/26/05	4.5	<0.002	<0.005	<0.005	<0.005	
BH-15-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-15-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-16-A	9/26/05	4.5	<0.002	<0.005	<0.005	<0.005	
BH-16-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-16-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-17-A	9/26/05	5	<0.002	<0.005	<0.005	<0.005	
BH-17-B	9/26/05	9	<0.002	<0.005	<0.005	<0.005	
BH-17-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-18-A	9/27/05	5.5	0.979	0.997	9.19	29.6	
BH-18-B	9/27/05	14.5	5.58	0.681	9.84	24.6	
BH-18-C	9/27/05	19	5.68	6.890	9.11	35.0	
BH-19-A	9/27/05	8	0.0057	<0.005	<0.005	0.0057	
BH-19-B	9/27/05	14	0.0159	0.0097	0.0397	0.0752	
BH-19-C	9/27/05	19	<0.002	<0.005	<0.005	<0.005	
BH-20-A	11/12/05	4	<0.002	<0.005	<0.005	<0.005	
BH-20-B	11/12/05	8	<0.002	<0.005	<0.005	<0.005	
BH-20-C	11/12/05	14	<0.002	<0.005	<0.005	<0.005	
EX-1	11/25/14	7-8	1.240	0.264	7.810	2.910	0.103 J
EX-2	11/25/14	7-8	6.330	3.200	35.900	54.500	0.655 J
EX-3	11/25/14	7-8	1.890	3.360	32.600	158.000	0.972 J
B-1	11/25/14	12-13	1.860	0.164	0.373	1.630	<0.0301
B-2	11/25/14	12-13	5.200	<0.244	1.460	2.790	<0.244
B-3	11/25/14	7-8	1.340	0.129	0.143	0.345	<0.0293
B-4	11/25/14	7-8	2.070	0.156	0.193	0.398	<0.0295
Backfill #1	11/25/14		5.750	1.400	24.600	7.880	0.450 J
PL-1	11/26/14	2.5-3	3.850	3.340	51.200	112.000	2.060
PL-2	11/26/14	2.5-3	14.100	4.180	96.000	269.000	1.640 J
PL-3	11/26/14	2.5-3	13.700	13.800	103.000	356.000	3.700
B-5	11/26/14	7-8	3.070	0.115	0.351	0.533	<0.0293
B-6	11/26/14	7-8	0.0481	<0.0293	0.0589	0.258	<0.0293
EX-4	11/26/14	4-5	1.460	0.724	13.800	25.700	0.157 J
EX-5	11/26/14	4-5	36.500	6.100	106.000	644.000	5.110 J
EX-6	11/26/14	4-5	9.330	4.990	90.200	159.000	1.790 J
Backfill #2	11/26/14		8.690	37.100	74.100	327.000	3.870
EX-1	4/22/15	7-8	5.010	0.995	7.800	18.400	<0.0294

A.R. 000573

Exhibit B-1

Soil Analytical Results - BTEX and MTBE

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bis)	Analytical Results				
EX-2	4/22/15	7-8	7.510	0.394	6.910	7.330	<0.0147
B-1	4/22/15	15.5	<0.0105	<0.0128	<0.0142	<0.0553	0.0234 J
B-2	4/22/15	16	<0.0111	<0.0135	<0.0150	<0.0585	0.123
B-3	4/22/15	16	<0.0106	<0.0129	<0.0143	<0.0558	0.0227 J
B-4	4/23/15	16.5	<0.0107	<0.0130	0.0172 J	<0.0560	0.122
B-5	4/23/15	15	0.0308	<0.0129	<0.0143	<0.0558	0.444
EX-3	4/23/15	7-8	9.380	0.462	11.000	20.300	0.0944 J
EX-4	4/23/15	7-8	7.700	0.815	11.900	9.910	0.186
B-6	4/24/15	19	<0.0115	<0.0288	<0.0288	<0.0864	0.388
B-7	4/24/15	19	<0.0113	<0.0283	<0.0283	<0.0849	0.0915
B-8	4/27/15	16	<0.0119	<0.0298	<0.0298	<0.0895	<0.0298
B-9	4/27/15	15	<0.0116	<0.0289	<0.0289	<0.0868	0.148
B-10	4/28/15	15.5	<0.0115	<0.0287	<0.0287	<0.0861	0.468
B-11	4/28/15	17	<0.0116	<0.0290	<0.0290	<0.0869	0.476
B-12	4/29/15	18	<0.0113	<0.0282	<0.0282	<0.0845	0.126
EX-5	4/29/15	4-5	14.500	105.000	44.800	221.000	0.885 J
EX-6	4/29/15	4-5	7.600	54.500	32.700	149.000	0.891 J
B-13	4/29/15	15.5	<0.0116	<0.0290	<0.0290	<0.0870	1.240
EX-7	4/30/15	4-5	3.120	0.808 J	36.800	76.200	<0.313
B-14	4/30/15	15.5	<0.0107	<0.0130	<0.0144	<0.0563	0.0337 J
EX-8	4/30/15	4-5	8.660	1.070	21.300	7.610	0.158 J
B-15	5/1/15	15.5	<0.0107	<0.0130	<0.0144	<0.0560	0.0259 J
B-16	5/1/15	17.5	<0.0104	<0.0126	<0.0140	<0.0544	<0.0142
B-17	5/1/15	15.5	<0.0106	<0.0129	<0.0143	<0.0558	0.0561 J
EX-9	5/4/15	4-5	0.263	0.0508 J	4.790	0.619	<0.0328
B-18	5/4/15	15.5	<0.0108	<0.0131	<0.0146	<0.0567	0.137
B-19	5/4/15	15.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
B-20	5/4/15	14	0.187	<0.129	<0.0143	<0.0556	0.328
EX-10	5/6/15	8-9	2.310	0.130	1.400	0.636	<0.0290
EX-21	5/6/15	15.5	<0.0111	<0.0135	0.0175 J	<0.0582	<0.0152
B-22	5/7/15	15.5	<0.0109	<0.0132	0.0175 J	<0.0570	<0.0149
B-24	5/8/15	9	<0.0104	<0.0127	<0.0140	<0.0546	0.0430 J
B-25	5/8/15	15.5	<0.0107	<0.0130	<0.0144	<0.0560	0.208
B-26	5/8/15	15	<0.0108	<0.0131	<0.0145	<0.0566	<0.0148
EX-11	5/8/15	3-4	0.305	<0.0144	<0.0159	<0.0620	<0.0162
EX-12	5/8/15	3-4	<0.0118	<0.0144	<0.0160	<0.0622	<0.0162
EX-13	5/13/15	4-5	<0.0114	<0.0139	<0.0154	<0.0599	<0.0157
B-27	5/13/15	14	<0.0108	<0.0131	<0.0145	<0.0566	0.395
B-29	5/13/15	9	<0.0108	<0.0131	<0.0146	<0.0567	0.0318 J
EX-14	5/14/15	4-5	<0.0118	<0.0143	<0.0158	<0.0617	<0.0161

A.R. 000574

Exhibit B-1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
B-28	5/14/15	13	<0.0106	<0.0129	<0.0143	<0.0559	0.206
B-30	5/14/15	11	<0.0106	<0.0129	<0.0143	<0.0559	0.0565 J
B-31	5/14/15	11	<0.0106	<0.0159	<0.0143	<0.0559	0.0226 J
EX-15	5/15/15	8-9	<0.0107	<0.0131	0.0207 J	0.0589 J	0.0392 J
B-32	5/15/15	11	<0.0107	<0.0130	<0.0144	<0.0562	0.302
B-33	5/15/15	11	<0.0107	<0.0130	<0.0144	<0.0561	0.241
B-34	5/15/15	11	<0.0109	<0.0133	<0.0147	<0.0573	0.0466 J
Overburden 1	5/15/15		<0.0112	<0.0137	<0.0151	<0.0590	<0.0154
B-35	5/18/15	12	<0.0107	<0.0130	0.0192 J	0.0576 J	0.570
EX-16	5/18/15	9-10	<0.0110	<0.0134	<0.0149	<0.0579	<0.0151
EX-17	5/18/15	9-10	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
B-36	5/18/15	12	<0.0108	<0.0131	<0.0145	<0.0565	0.0306 J
Overburden-2	5/18/15		<0.0109	<0.0132	<0.0146	<0.0571	<0.0149
B-37	5/19/15	14	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
B-38	5/19/15	14	<0.0107	<0.0131	<0.0145	<0.0565	0.411
B-39	5/19/15	12	<0.0103	<0.0125	<0.0139	<0.0541	0.0511 J
EX-18	5/19/15	3-4	<0.0120	<0.0146	<0.0162	<0.0632	<0.0165
EX-19	5/19/15	3-4	<0.0115	<0.0140	<0.0155	<0.0605	<0.0158
B-40	5/22/15	13	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
B-41	5/27/15	15	<0.0105	<0.0128	<0.0142	<0.0553	<0.0144
EX-20	5/27/15	3-4	<0.0127	<0.0154	<0.0171	<0.0666	<0.0174
EX-21	5/27/15	3-4	0.464	0.627	11.600	12.700	<0.0664
EX-22	5/27/15	4-5	<0.0310	<0.0378	2.140	2.410	<0.0426
B-42	5/27/15	12.5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
B-43	5/27/15	12.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
B-44	5/27/15	15	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
B-45	5/28/15	12.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
EX-23	5/28/15	8.5-9.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
EX-24	5/28/15	3-4	<0.0118	<0.0143	<0.0159	<0.0618	<0.0162
B-46	6/5/15	14.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0146
EX-25	6/5/15	10-11	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
EX-26	6/5/15	3.5-5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
EX-27	6/8/15	8.5-9.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0146
EX-28	6/8/15	3-4	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
EX-28	6/8/15	8-9	<0.0106	<0.0130	<0.0144	<0.0559	<0.0146
BH-21	6/17/15	10-12.5	1.200	0.362	12.700	15.200	<0.0729
BH-22	9/8/15	7.5-10	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-22	9/8/15	25.5-27	7.650	1.260	0.0313 J	<0.110	<0.0288
BH-23	9/8/15	25-26.5	0.0428 J	0.547	2.900	17.000	<0.0376
BH-23	9/8/15	28.5-30	0.0483	<0.0130	<0.0144	<0.0562	<0.0147

Exhibit B-1

Soil Analytical Results - BTEX and MTBE

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-24	9/8/15	4-6	<0.0279	<0.0339	0.0593 J	<0.146	<0.0383
BH-24	9/8/15	13.5-15	<0.0112	<0.0136	<0.0151	<0.0587	<0.0153
BH-22A	9/14/16	2.5-5	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
BH-22A	9/14/16	10-12.5	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-22A	9/14/16	15-17.5	<0.0110	<0.0134	<0.0149	<0.0580	<0.0151
BH-22A	9/14/16	20-23	<0.109	1.990	27.800	70.600	<0.150
BH-23A	9/14/16	2.5-5	<0.0130	<0.0158	<0.0176	<0.0684	<0.0179
BH-23A	9/14/16	5-7.5	<0.0114	<0.0139	<0.0154	<0.0600	<0.0157
BH-23A	9/14/16	10-12.5	<0.0107	0.0153 J	<0.0144	<0.0561	<0.0147
BH-23A	9/14/16	15-17.5	<0.0108	<0.0132	<0.0146	<0.0568	<0.0148
BH-23A	9/14/16	21.5-22.5	<0.0110	<0.0133	<0.0148	<0.0576	<0.0150
BH-23A	9/14/16	31-32.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-23A	9/14/16	32.5-35	<0.0118	<0.0144	<0.0159	<0.0621	<0.0162
BH-26	9/14/16	1-2.5	<0.0113	<0.0138	<0.0153	<0.0596	<0.0156
BH-26	9/14/16	7.5-10	<0.0107	0.0135 J	<0.0144	<0.0561	<0.0147
BH-26	9/14/16	10-12.5	<0.0111	<0.0136	<0.0150	<0.0585	<0.0153
BH-26	9/14/16	17.5-20	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-26	9/14/16	20-22.5	<0.0106	<0.0129	<0.0143	<0.0557	<0.0146
BH-26	9/14/16	27.5-29.25	0.0756	<0.0133	<0.0148	<0.0575	<0.0150
BH-27	9/14/16	2.5-5	<0.0117	0.0168 J	<0.0158	<0.0616	<0.0161
BH-27	9/14/16	7.5-10	<0.0107	<0.0130	<0.0144	<0.00563	<0.0147
BH-27	9/14/16	12.5-15	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-27	9/14/16	17.5-20	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
BH-27	9/14/16	22.5-25	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-27	9/14/16	27.5-30	<0.0101	<0.0123	<0.0137	<0.0533	<0.0139
BH-27	9/14/16	30-32.5	<0.0105	<0.0127	<0.0141	<0.0127	<0.0144
BH-21A	9/15/16	0.5-2.5	<0.0110	<0.0133	<0.0148	<0.0575	<0.0150
BH-21A	9/15/16	7.5-10	0.0398	<0.0128	0.0505 J	0.0807 J	<0.0144
BH-21A	9/15/16	15-17.5	4.100	8.830	9.310	35.500	<0.0367
BH-21A	9/15/16	20-22.5	1.080	0.147	0.918	0.685	<0.0149
BH-21A	9/15/16	25-27.5	4.890	0.0134 J	<0.0146	<0.0568	<0.0148
BH-21A	9/15/16	30-32.5	0.0109 J	<0.0128	<0.0142	<0.0552	<0.014
BH-25	9/15/16	2.5-5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-25	9/15/16	7.5-10	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-25	9/15/16	10-12.5	<0.0107	0.0220 J	<0.0144	<0.0560	<0.0146
BH-25	9/15/16	17.5-20	<0.0108	<0.0132	<0.0146	<0.0568	<0.0149
BH-25	9/15/16	20-22.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-25	9/15/16	25-26.5	0.0266	<0.0132	<0.0147	<0.0571	<0.0149
BH-25	9/15/16	30-32.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-28	9/15/16	2.5-5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149

Exhibit B-1

Soil Analytical Results - BTEX and MTBE

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
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Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-28	9/15/16	5-7.5	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
BH-28	9/15/16	12.5-15	0.0541	0.263	3.300	3.600	<0.0147
BH-28	9/15/16	15-17.5	0.0345	0.106	2.000	0.860	<0.0143
BH-28	9/15/16	20-22.5	0.0928	0.200	3.070	3.050	<0.0151
BH-28	9/15/16	25-27.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-29	9/15/16	2.5-5	<0.0116	<0.0142	<0.0157	<0.0612	<0.0160
BH-29	9/15/16	7.5-10	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-29A	9/15/16	10-12.5	<0.0108	<0.0132	<0.0146	<0.0570	<0.0149
BH-29A	9/15/16	15-20	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-29A	9/15/16	22.5-25	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
BH-29A	9/15/16	27.5-30	<0.0105	<0.0128	<0.0142	<0.0554	<0.0145
BH-29A	9/15/16	32.5-35	<0.0107	<0.0131	<0.0145	<0.0563	<0.0147
BH-30	9/26/16	2.5-5	<0.0105	<0.0128	<0.0142	<0.0553	<0.0145
BH-30	9/26/16	7.5-10	<0.0110	<0.0133	<0.0148	<0.0576	<0.0151
BH-30	9/26/16	12.5-15	<0.0106	<0.0129	<0.0143	<0.0557	<0.0146
BH-30	9/26/16	15-17.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-30A	9/26/16	22.5-25	<0.0103	<0.0125	<0.0139	<0.0541	<0.0141
BH-30A	9/26/16	27.5-30	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-31	9/26/16	2.5-5	<0.0114	<0.0139	<0.0154	<0.0600	<0.0157
BH-31	9/26/16	5-7.5	<0.0123	<0.0150	0.121	5.680	<0.0169
BH-31	9/26/16	12.5-15	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
BH-31	9/26/16	15-17.5	<0.0105	<0.0127	<0.0141	<0.0550	<0.0144
BH-31	9/26/16	22.5-25	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
BH-31	9/26/16	25-27.5	<0.0109	<0.0132	<0.0147	<0.0571	<0.0149
BH-32	7/6/17	2.5-5	<0.0116	<0.0141	<0.0156	<0.0610	<0.0159
BH-32	7/6/17	5-7.5	<0.0113	<0.0137	<0.0152	<0.0591	<0.0154
BH-32	7/6/17	12.5-15	<0.0109	<0.0132	<0.0147	<0.0571	<0.0149
BH-32	7/6/17	15-17.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-32	7/6/17	20-22.5	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
BH-32	7/6/17	27.5-30	<0.0105	<0.0128	0.0154 J	<0.0553	<0.0144
BH-32	7/6/17	30-30.5	<0.0111	<0.0136	<0.0150	<0.0585	<0.0153
BH-33	7/6/17	2.5-5	<0.0112	<0.0137	<0.0151	<0.0590	<0.0154
BH-33	7/6/17	7.5-10	<0.0114	<0.0139	<0.0154	<0.0601	<0.0157
BH-33	7/6/17	12.5-15	<0.0111	<0.0135	<0.0149	<0.0581	<0.0152
BH-33	7/6/17	15-17.5	<0.0110	<0.0134	<0.0149	<0.0579	<0.0151
BH-33	7/6/17	22.5-25	<0.0107	<0.0131	<0.0145	<0.0563	<0.0147
BH-33	7/6/17	25-27.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-34	7/6/17	0.75-2.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
BH-34	7/6/17	7.5-10	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-34	7/6/17	10-12.5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149

Exhibit B-1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-34	7/6/17	17.5-20	<0.0108	<0.0131	<0.0145	<0.0567	<0.0148
BH-34	7/6/17	20-22.5	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-34	7/6/17	25-27.5	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
BH-34	7/6/17	30-32.5	<0.0105	<0.0128	<0.0141	<0.0551	<0.0144
BH-35	7/6/17	0.5-2.5	<0.0128	<0.0156	<0.0173	<0.0675	<0.0176
BH-35	7/6/17	7.5-10	<0.0109	<0.0132	<0.0147	<0.0572	<0.0149
BH-35	7/6/17	12.5-15	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-35	7/6/17	15-17.5	<0.0110	<0.0134	<0.0148	<0.0578	<0.0151
BH-35	7/6/17	20-22.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-35	7/6/17	25-27.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-35	7/6/17	30-35	<0.0104	<0.0127	<0.0141	<0.0548	<0.0143

Notes:

- 1) Bold = detected concentration exceeds the Tier 1 SROs listed in 35 IAC Part 742
- 2) Shaded cells = not analyzed or sample location was excavated
- 3) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- 4) For the soil ingestion and outdoor inhalation exposure routes, the SROs for industrial/commercial land use and construction workers were utilized for on-site sample locations, and residential land use and construction workers for off-site sample locations.
- 5) For the SCGIER, Class I SROs were utilized for on-site and off-site sample locations.

Exhibit B-2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Sample Location			Profession: Construction and Demolition															
			Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene
Sample Location	Sample Date	Sample Depth (ft)	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	Acetylene	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	







Exhibit B-2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>b)</sup>	2.1 <sup>b)</sup>	2.1 <sup>b)</sup>	2,300	9	88	0.42 <sup>b)</sup>	3,100	3,100	1.6 <sup>b)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>b)</sup>	8	81,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			--	--	--	--	--	--	--	--	--	--	--	--	170	--	--	
Inhalation - Industrial/Commercial			--	--	--	--	--	--	--	--	--	--	--	--	270	--	--	
Inhalation - Construction Worker			--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
Sample Location	Sample Date	Sample Depth (feet bis)	Analytical Results															
EX-24	5/28/15	3-4	<0.0106	<0.0095	<0.0110	0.0286	0.0374	0.0401	0.0361	0.0394	0.0432	0.0100 J	0.0795	<0.0106	0.0307	0.0508	0.0190 J	0.0721
B-46	6/5/15	14.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-25	6/5/15	10-11	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0088	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-26	6/5/15	3.5-5	<0.0098	<0.0088	<0.0101	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098
EX-27	6/8/15	8.5-9.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-28	6/8/15	3-4	<0.0099	<0.0088	<0.0102	<0.0068	<0.0070	<0.0099	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099
EX-28	6/8/15	8-9	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
BH-21	6/17/15	10-12.5	<0.0768	<0.0687	<0.0797	<0.0533	<0.0549	<0.0768	<0.0585	<0.0850	<0.0710	<0.0564	<0.0768	<0.0768	<0.0584	1.440	<0.0768	<0.0768
BH-22	9/8/15	7.5-10	<0.0098	<0.0088	<0.0101	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0091	<0.0072	<0.0098	<0.0098	<0.0074	0.0674	<0.0098	<0.0098
BH-22	9/8/15	25.5-27	<0.0095	<0.0085	<0.0098	<0.0068	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	<0.0095	<0.0095
BH-23	9/8/15	25-26.5	<0.0099	<0.0089	<0.0103	<0.0069	<0.0071	<0.0099	<0.0075	<0.0109	<0.0091	<0.0073	<0.0099	<0.0099	<0.0075	0.0156 J	<0.0099	<0.0099
BH-23	9/8/15	28.5-30	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
BH-24	9/8/15	4-6	<0.0101	<0.0090	<0.0104	<0.0070	<0.0072	<0.0101	<0.0077	<0.0112	<0.0093	<0.0074	<0.0101	<0.0101	<0.0077	0.153	<0.0101	<0.0101
BH-24	9/8/15	13.5-15	<0.0101	<0.0090	<0.0105	<0.0070	<0.0072	<0.0101	<0.0077	<0.0112	<0.0093	<0.0074	<0.0101	<0.0101	<0.0077	0.153	<0.0101	<0.0101
BH-22A	9/14/16	2.5-5	<0.0046	<0.0039	<0.0068	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0062	<0.0049	<0.0026	<0.010	<0.0138	<0.0053
BH-22A	9/14/16	10-12.5	<0.0045	<0.0038	<0.0066	0.0048 J	0.0052 J	0.0076 J	0.0041 J	0.0064 J	0.0132	<0.0026	0.0152 J	<0.0048	0.0034 J	<0.0097	0.0172 J	0.0111 J
BH-22A	9/14/16	15-17.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	0.0034 J	0.0041 J	<0.0030	0.0084 J	<0.0027	<0.0062	<0.0050	<0.0026	0.0937	0.0146 J	<0.0054
BH-22A	9/14/16	20-23	<0.0046	<0.0039	<0.0068	<0.0037	0.0034 J	0.0058 J	0.0039 J	<0.0030	0.0131 J	<0.0026	0.0076 J	<0.0049	<0.0026	0.165	<0.0138	0.0075 J
BH-23A	9/14/16	2.5-5	<0.0055	<0.0047	<0.0081	<0.0045	<0.0035	<0.0040	<0.0029	<0.0035	<0.0048	<0.0032	<0.0074	<0.0058	<0.0031	<0.0119	<0.0165	<0.0064
BH-23A	9/14/16	5-7.5	<0.0048	<0.0041	<0.0071	<0.0039	<0.0031	<0.0035	<0.0025	<0.0031	<0.0042	<0.0028	<0.0064	<0.0051	<0.0027	<0.0104	<0.0144	<0.0056
BH-23A	9/14/16	10-12.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0033	<0.0024	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-23A	9/14/16	15-17.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0070 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0099	<0.0137	0.0056 J
BH-23A	9/14/16	21.5-22.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054
BH-23A	9/14/16	31-32.5	<0.0045	<0.0038	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0061	<0.0048	<0.0026	<0.0098	<0.0136	<0.0053
BH-23A	9/14/16	32.5-35	<0.0050	<0.0042	<0.0073	0.0068 J	0.0115	0.0221	0.0157	0.0149	0.0201	0.0035 J	0.0187 J	<0.0053	0.0116	<0.0108	<0.0149	0.0134 J
BH-26	9/14/16	1-2.5	<0.0048	0.0310	0.0281	0.0771	0.0974	0.0996	0.0565	0.109	0.0974	0.0217	0.125	<0.0051	0.0544	<0.0104	0.0349 J	0.109
BH-26	9/14/16	7.5-10	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0040 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-26	9/14/16	10-12.5	<0.0047	<0.0040	<0.0069	<0.0038	<0.0030	<0.0034	<0.0025	<0.0030	0.0047 J	<0.0027	<0.0063	<0.0050	<0.0027	<0.0102	<0.0141	<0.0055
BH-26	9/14/16	17.5-20	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0038 J	<0.0029	0.0049 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0141 J	0.0052

Exhibit B-2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>(b)</sup>	2.1 <sup>(b)</sup>	2.1 <sup>(b)</sup>	2,300	9	88	0.42 <sup>(b)</sup>	3,100	3,100	1.6 <sup>(b)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>(b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			--	--	--	--	--	--	--	--	--	--	--	--	170	--	--	
Inhalation - Industrial/Commercial			--	--	--	--	--	--	--	--	--	--	--	--	270	--	--	
Inhalation - Construction Worker			--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	210	4,200	
Sample Location	Sample Date	Sample Depth (feet b/s)	Analytical Results															
BH-26	9/14/16	20-22.5	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0032	0.0027 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-26	9/14/16	27.5-29.25	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	0.0035 J	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054
BH-27	9/14/16	2.5-5	<0.0049	<0.0042	<0.0073	<0.0040	<0.0032	<0.0036	<0.0026	<0.0032	<0.0043	<0.0028	<0.0066	<0.0053	<0.0028	<0.0107	<0.0148	<0.0057
BH-27	9/14/16	7.5-10	<0.0045	0.0051 J	0.0130 J	0.0238	0.0269	0.0272	0.0184	0.0256	0.0329	0.0064 J	0.0462	<0.0048	0.0168	0.0166 J	0.0371 J	0.0385
BH-27	9/14/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0023	<0.0029	0.0083 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0143 J	<0.0052
BH-27	9/14/16	17.5-20	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	0.0041 J	0.0088	<0.0029	0.0108 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0097	0.0304 J	0.0063 J
BH-27	9/14/16	22.5-25	<0.0045	<0.0038	<0.0066	0.0042 J	0.0046 J	0.0058 J	0.0060 J	0.0044 J	0.0121 J	<0.0026	0.0119 J	<0.0048	<0.0025	<0.0097	<0.0135	0.0116 J
BH-27	9/14/16	27.5-30	<0.0043	<0.0036	<0.0063	<0.0035	<0.0028	<0.0031	0.0044 J	<0.0028	0.0089 J	<0.0025	<0.0057	<0.0046	<0.0024	<0.0093	<0.0128	<0.0050
BH-27	9/14/16	30-32.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0029	<0.0032	0.0039 J	<0.0028	0.0084 J	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	<0.0132	<0.0051
BH-21A	9/15/16	0.5-2.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054
BH-21A	9/15/16	7.5-10	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	0.0138 J	<0.0133	<0.0051
BH-21A	9/15/16	15-17.5	<0.0180	<0.0153	<0.0265	<0.0147	<0.0117	<0.0131	<0.0094	<0.0116	<0.0157	<0.0104	<0.0242	<0.0192	<0.0102	1.750	<0.0541	<0.0209
BH-21A	9/15/16	20-22.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	0.0040 J	<0.0026	<0.0061	<0.0049	<0.0026	0.303	<0.0137	<0.0053
BH-21A	9/15/16	25-27.5	<0.0045	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-21A	9/15/16	30-32.5	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	<0.0133	<0.0051
BH-25	9/15/16	2.5-5	<0.0045	<0.0038	<0.0066	0.0068 J	0.0043 J	0.0050 J	0.0029 J	0.0048 J	0.0095 J	<0.0026	0.0289	<0.0048	<0.0025	<0.0097	0.0227 J	0.0189
BH-25	9/15/16	7.5-10	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	0.0035 J	0.0024 J	<0.0029	0.0098 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-25	9/15/16	10-12.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	0.0045 J	<0.0024	<0.0029	0.0122 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0160 J	<0.0052
BH-25	9/15/16	17.5-20	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0051 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-25	9/15/16	20-22.5	<0.0045	<0.0038	<0.0066	0.0039 J	<0.0029	<0.0033	0.0030 J	<0.0029	0.0051 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-25	9/15/16	25-28.5	<0.0046	<0.0039	<0.0067	0.0040 J	<0.0030	<0.0033	0.0033 J	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-25	9/15/16	30-32.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-28	9/15/16	2.5-5	<0.0045	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	5-7.5	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	12.5-15	<0.0045	<0.0038	<0.0066	0.0039 J	<0.0029	<0.0033	<0.0024	<0.0029	0.0045 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	15-17.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0028	<0.0032	<0.0023	<0.0028	0.0045 J	<0.0026	<0.0060	<0.0048	<0.0026	0.262	<0.0135	<0.0052
BH-28	9/15/16	20-22.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	0.309	<0.0139	<0.0054
BH-28	9/15/16	25-27.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0024 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-29	9/15/16	2.5-5	<0.0049	<0.0042	<0.0072	0.0050 J	0.0034 J	0.0062 J	0.0032 J	<0.0032	0.0053 J	<0.0028	0.0108 J	<0.0052	<0.0028	<0.0106	<0.0147	0.0189 J

Exhibit B-2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes	Indicator Contaminants and Tier 1 SROs																	
	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)		
Soil Ingestion - Residential	4,700	2,300	23,000	1.8 <sup>5)</sup>	2.1 <sup>5)</sup>	2.1 <sup>5)</sup>	2,300	9	88	0.42 <sup>5)</sup>	3,100	3,100	1.6 <sup>5)</sup>	1,600	2,300	2,300		
Soil Ingestion - Industrial/Commercial	120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000		
Soil Ingestion - Construction Worker	120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000		
Inhalation - Residential	---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---		
Inhalation - Industrial/Commercial	---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---		
Inhalation - Construction Worker	---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---		
SCGIER - Class I Groundwater	570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200		
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-29	9/15/16	7.5-10	<0.0045	<0.0038	<0.0066	0.0037 J	<0.0029	0.0033 J	<0.0024	<0.0029	0.0043 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-29A	9/15/16	10-12.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-29A	9/15/16	15-20	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-29A	9/15/16	22.5-25	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0026	<0.0098	<0.0135	<0.0052
BH-29A	9/15/16	27.5-30	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-29A	9/15/16	32.5-35	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-30	9/26/16	2.5-5	<0.0044	<0.0038	<0.0065	0.0185	0.0222	0.0305	0.0187	0.0147	0.0254	0.0033 J	0.0397	<0.0047	0.0150	<0.0096	0.0191 J	0.0307
BH-30	9/26/16	7.5-10	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0139	<0.0054
BH-30	9/26/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	0.0033 J	0.0058 J	<0.0029	0.0075 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	0.0071 J
BH-30	9/26/16	15-17.5	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	0.0033 J	0.0062 J	<0.0029	0.0085 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0097	<0.0134	0.0082 J
BH-30A	9/26/16	22.5-25	<0.0043	<0.0037	<0.0064	<0.0035	<0.0028	<0.0032	<0.0023	<0.0028	<0.0038	<0.0025	<0.0058	<0.0046	<0.0025	<0.0094	<0.0130	<0.0050
BH-30A	9/26/16	27.5-30	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0028 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	0.0128 J	<0.0134	<0.0052
BH-31	9/26/16	2.5-5	0.0222	0.0142	0.139	0.593	0.725	0.708	0.367	0.406	0.828	0.112	1.160	0.0317	0.377	0.0107 J	0.747	0.890
BH-31	9/26/16	5-7.5	<0.0052	<0.0044	<0.0076	<0.0042	<0.0034	<0.0038	<0.0027	<0.0033	<0.0045	<0.0030	<0.0069	<0.0055	<0.0029	<0.0112	<0.0155	<0.0060
BH-31	9/26/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0042 J	<0.0029	0.0074 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0135	<0.0078 J
BH-31	9/26/16	15-17.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0029	0.0038 J	0.0118	<0.0029	0.0109 J	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	0.0345 J	0.0061 J
BH-31	9/26/16	22.5-25	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0033	0.0037 J	<0.0030	<0.0040	<0.0026	<0.0062	<0.0049	<0.0026	<0.010	<0.0138	<0.0053
BH-31	9/26/16	25-27.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053

Notes:

- 1) Bold = detected concentration or method detection limit exceeds a SRO listed in 35 IAC Part 742 or in the Non-TACO Objectives tables
- 2) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
- 3) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- 4) --- = no toxicity criteria available for the route of exposure
- 5) Shaded cells = not applicable or sample located was excavated
- 6) For the soil ingestion and outdoor inhalation exposure routes, the SROs for industrial/commercial land use and construction workers were utilized for on-site sample locations, and residential land use and construction workers for off-site sample locations.
- 7) Pursuant to 35 IAC Section 742, Appendix B, Table A, the SRO listed in 35 IAC Section 742, Appendix A, Table H was utilized
- 8) For the SCGIER, Class I SROs were utilized for on-site and off-site sample locations.

Exhibit B-3

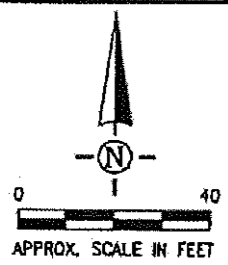
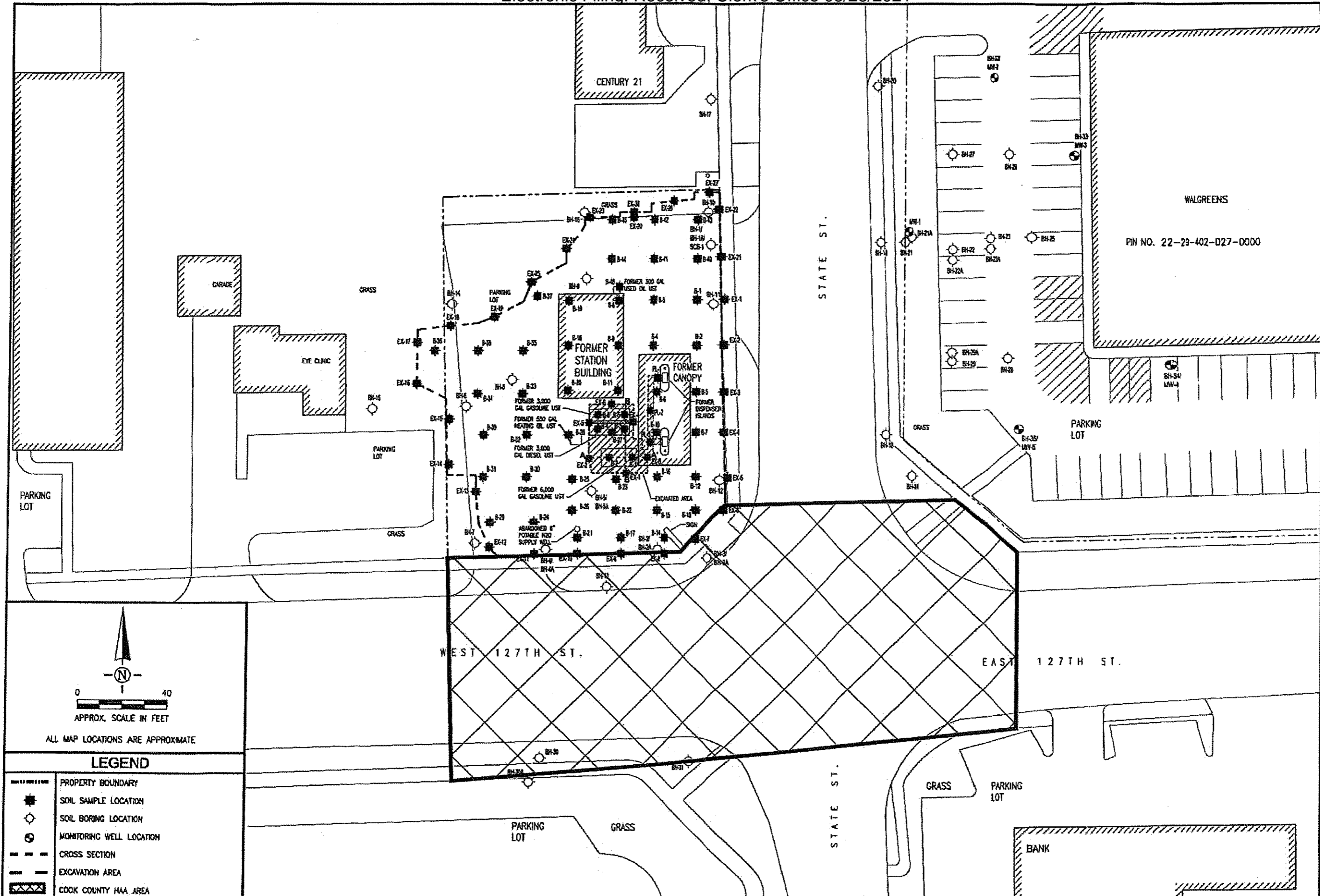
Groundwater Elevations and Analytical Results

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes						Indicator Contaminants and Tier 1 GROs				
						Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater						0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater						0.025	2.5	1	10	0.07
Sample Location	Sample Date	Ground Elevation (feet)	TOC Elevation (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	Analytical Results				
MW-1	7/19/17	99.44	99.04	13.09	85.95	1.300	0.476	1.540	4.600	<0.0035
MW-2	7/19/17	99.30	98.84	12.98	85.86	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017
MW-3	7/19/17	100.53	100.16	14.21	85.95	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017
MW-4	7/19/17	100.72	100.34	13.33	87.01	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017
MW-5	7/19/17	100.01	99.44	12.68	86.78	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017

Notes:

- 1) Bold = detected concentration exceeds a Tier 1 GRO listed in 35 IAC Part 742 based on the groundwater classification below.
- 2) For the GCGIER, Class I GROs were utilized for on-site and off-site sample locations.
- 3) Groundwater elevations are relative to a site-specific benchmark of 100 feet.
- 4) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
- 5) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit



ALL MAP LOCATIONS ARE APPROXIMATE

**LEGEND**

	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	CROSS SECTION
	EXCAVATION AREA
	COCK COUNTY HAA AREA

**TriCore Environmental, LLC**  
 2358 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973



**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streeter, IL 61364

**SITE MAP**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY:	SAA
APPROVED BY:	MIC
SCALE:	1" = 40'
DATE:	3/12/2018
DRAWING FILE:	MD14-170

**EXHIBIT**  
**C-1**



October 25, 2019

**VIA USPS PRIORITY MAIL  
WITH DELIVERY CONFIRMATION**

Mr. Trent Benanti  
Illinois Environmental Protection Agency  
Bureau of Land #24  
Leaking Underground Storage Tank Section  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794-9276

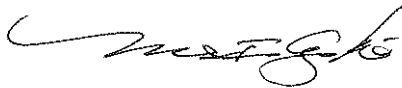
RE: LPC No. 0314625010 – Cook County  
Lemont/BOI, LLC  
1196 State Street  
Leaking UST Incident No. 20141348  
Leaking UST Technical File

Dear Mr. Benanti:

TriCore Environmental, LLC, on behalf of BOI, LLC, is providing an original and one copy of Site Investigation Completion Report and Stage 3 Site Investigation Budget for the leaking underground storage tank incident number referenced above.

If you should have any questions concerning this submittal or require additional information, please contact the undersigned at (630) 520-9973, or by email at [marcos.czako@tricoreweb.com](mailto:marcos.czako@tricoreweb.com) or [shawn.rodeck@tricoreweb.com](mailto:shawn.rodeck@tricoreweb.com).

Sincerely,



Marcos I. Czakó, P.G.  
Sr. Project Manager



Shawn Rodeck, P.E.  
President

cc: Mr. Steve Broadus, BOI, LLC, 201 Danny's Drive, Suite 5, Streator, IL 61364  
Mr. Robert M. Riffle, Esq., 133A South Main Street, Morton, IL 61550  
Mr. Brian Bauer, Illinois EPA, [Brian.Bauer@Illinois.gov](mailto:Brian.Bauer@Illinois.gov)  
Mr. Greg Dunn, Illinois EPA, [Greg.Dunn@Illinois.gov](mailto:Greg.Dunn@Illinois.gov)  
Ms. Melanie Jarvis, Illinois EPA, [Melanie.Jarvis@Illinois.gov](mailto:Melanie.Jarvis@Illinois.gov)

Attachment



**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
LEAKING UNDERGROUND STORAGE TANK SECTION  
SITE INVESTIGATION COMPLETION REPORT**

BOI, LLC  
1196 State Street  
Lemont, Cook, Illinois 60439  
Leaking UST Incident No. 20141348  
LPC No. 0314625010

***Prepared for:***

Mr. Steve Broadus  
BOI, LLC  
201 Danny's Drive, Suite 5  
Streator, Illinois 61364

***Prepared by:***

TriCore Environmental, LLC  
2368 Corporate Lane, Suite 116  
Naperville, Illinois 60563  
Phone: (630) 520-9973  
Fax: (630) 520-9976

October 25, 2019



**TABLE OF CONTENTS**

<b>Section</b>	<b>Page</b>
<b>A. Site Identification .....</b>	<b>1</b>
<b>B. Site Information .....</b>	<b>1</b>
<b>C. Site Investigation Results .....</b>	<b>1</b>
<b>D. Signatures .....</b>	<b>7</b>

**FIGURES**

<b>FIGURE 1.....</b>	<b>Site Map</b>
<b>FIGURE 2.....</b>	<b>Soil Analytical Results</b>
<b>FIGURE 3.....</b>	<b>Site Location Map</b>
<b>FIGURE 4.....</b>	<b>Community Water Supply Well Locations and Setback Zones</b>
<b>FIGURE 5.....</b>	<b>Geologic Cross-Section A-A'</b>

**TABLES**

<b>TABLE 1.....</b>	<b>Soil Analytical Results – BTEX and MTBE</b>
<b>TABLE 2.....</b>	<b>Soil Analytical Results - PAHs</b>

**APPENDICES**

<b>APPENDIX A.....</b>	<b>IEMA Incident Report</b>
<b>APPENDIX B.....</b>	<b>Soil Analytical Laboratory Reports and Certifications</b>
<b>APPENDIX C.....</b>	<b>Soil Boring Logs</b>
<b>APPENDIX D.....</b>	<b>Stage 3 Site Investigation Budget</b>
<b>APPENDIX E.....</b>	<b>Owner/Operator and Licensed Professional Engineer/Geologist Budget</b>
<b>.....</b>	<b>Certification Form</b>
<b>APPENDIX F.....</b>	<b>OSFM Eligibility and Deductible Determination Letter</b>
<b>APPENDIX G.....</b>	<b>Potable Water Supply Well Information</b>



1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

## Leaking Underground Storage Tank Program Site Investigation Completion Report

### A. Site Identification

IEMA Incident # (6- or 8-digit): 20141348      IEPA LPC # (10-digit): 0314625010

Site Name: BOI, LLC

Site Address (not a P.O. Box): 1196 State Street

City: Lemont      County: Cook      Zip Code: 60439

### B. Site Information

1. Will the owner or operator seek payment from the Underground Storage Tank Fund?    Yes       No

2. Has a Site Investigation Plan been approved?    Yes    No

Date(s) of approval letter(s): 5/28/2015

### C. Site Investigation Results

**Provide the following:**

**1. Site history with respect to the release**

Leaking UST Incident No. 20141348

On November 25 and 26, 2014, RW Collins Company (RW Collins) of Chicago, Illinois removed one 6,000-gallon steel underground storage tank (UST), two 3,000-gallon steel USTs, one dispenser island, fiberglass product piping, and steel vent piping. The 6,000-gallon UST and one of the 3,000-gallon USTs last contained gasoline. The other 3,000-gallon UST last contained diesel fuel. The dispenser island contained two dispensers. The USTs and associated piping were removed in accordance with the Corrective Action Plan (CAP) dated July 6, 2006 for Leaking UST incident number 942I17, prepared by United Science Industries, Inc. The CAP was approved by the Illinois Environmental Protection Agency on November 9, 2006. The locations of the former USTs, dispenser island, and associated piping are illustrated on Figure 1.

TriCore Environmental, LLC (TriCore) was on site documenting the UST removal activities. Mr. Charles Southern with the Office of the Illinois State Fire Marshal (OSFM) was also on-site overseeing the UST and piping removal. Based on visual and olfactory observations of the soil and backfill material in the UST area, there appeared to be impacts from gasoline and/or diesel fuel. Therefore, Mr. Southern suspected that a release had occurred in association with the USTs and required a release to be reported to the Illinois Emergency Management Agency (IEMA). On November 26, 2014, Mr. Marcos I. Czakó of TriCore, on behalf of BOI, LLC, reported a release of gasoline and diesel to the IEMA. IEMA incident number 20141348 was assigned to the release. A copy of the IEMA Hazardous Materials Incident Report is provided in Appendix A.

Since the release involved gasoline and/or diesel, the indicator contaminants for the release are benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl tertiary butyl ether (MTBE), and the polynuclear aromatic hydrocarbons (PAHs) listed in 35 Illinois Administrative Code (IAC) Part 734, Appendix B.

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 - 57.19). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false, fictitious, or fraudulent material statement or representation, orally or in writing, to the Agency, or to a unit of local government to which the Agency has delegated authority under subsection (r) of Section 4 of this Act, related to or required by this Act, a regulation adopted under this Act, any federal law or regulation for which the Agency has responsibility, or any permit, term, or condition thereof, commits a Class 4 felony, and each such statement or writing shall be considered a separate Class 4 felony. A person who, after being convicted under paragraph 415 ILCS 5/44 (h)(8), violates paragraph 415 ILCS 5/44 (h)(8) a second or subsequent time, commits a Class 3 felony. (415 ILCS 5/44). This form has been approved by the Forms Management Center.

Early Action Activities

After the USTs were removed, 12 confirmation soil samples were collected from the sidewalls and floor of the UST area for laboratory analysis. The floor samples were collected at locations from beneath each end of each UST. Three confirmation soil samples were also collected from beneath the product piping for laboratory analysis. The soil samples collected from the sidewalls of the UST excavation area and from beneath the product piping were collected at a maximum distance of every 20 linear feet. The locations of the soil samples are illustrated on Figure 1. Since the backfill material and soil that was stock piled during the UST and piping removal activities was going to be returned to the excavated areas, pursuant to 35 IAC Section 734.210 h) 1) D), two representative soil samples were collected from the stock-piled material for laboratory analysis.

The soil samples were shipped in a cooler containing ice under standard chain-of-custody protocol to Pace Analytical Services, Inc. (Pace) in Green Bay, Wisconsin for the analysis of BTEX and MTBE using United States Environmental Protection Agency (USEPA) Method 8021, and the PAHs listed in 35 IAC Part 734, Appendix B using USEPA Method 8270 by SIM.

Analytical laboratory results revealed indicator contaminant concentrations exceeding a Tier 1 soil remediation objective (SRO) at the sample locations indicated below.

Indicator Contaminant	Sample Location Exceeding a Tier 1 SRO
Benzene	EX-1, EX-2, EX-3, EX-4, EX-5, EX-6, B-1, B-2, B-3, B-4, B-5, B-6, PL-1, PL-2, PL-3, Backfill #1, and Backfill #2
Toluene	PL-3 and Backfill #2
Ethylbenzene	EX-2, EX-3, EX-4, EX-5, EX-6, PL-1, PL-2, PL-3, Backfill #1, and Backfill #2
Total Xylenes	EX-2, EX-3, EX-4, EX-5, EX-6, PL-1, PL-2, PL-3, Backfill #1, and Backfill #2
MTBE	EX-2, EX-3, EX-5, EX-6, PL-1, PL-2, PL-3, Backfill #1, and Backfill #2
Naphthalene	EX-1, EX-2, EX-3, EX-4, EX-5, EX-6, B-5, PL-1, PL-2, PL-3, and Backfill #1

Analytical laboratory results are summarized in Tables 1 and 2. Copies of the analytical laboratory reports and certifications are provided in Appendix B. Further details regarding the early action activities were provided in the 45-Day Report dated January 23, 2015.

Stage 1 Site Investigation Activities

Between April 20 and June 8, 2015, a total of approximately 8,913 cubic yards of contaminated soil was excavated from the site and the adjacent property to the west by TriCore utilizing an equipment operator and track hoe provided by RW Collins. The area was excavated to a depth ranging between 9 and 19 feet below land surface (bls). The excavation was completed in accordance with the CAP dated July 6, 2006. The excavation area is illustrated on Figure 1.

Based on the area of excavation, a total of 74 confirmation soil samples were collected from the walls and floor of the excavation. Two composite samples were collected from the overburden piles for laboratory analysis. The soil samples were shipped in a cooler containing ice under standard chain-of-custody protocol to Pace for laboratory analysis. The soil samples were submitted for the analysis of BTEX and MTBE using USEPA Method 8021 or 8260, and the PAHs listed in 35 IAC Part 734, Appendix B using USEPA Method 8270 by SIM.

Analytical laboratory results revealed indicator contaminant concentrations exceeding a Tier 1 SRO at the sample locations indicated below. Note that all of the soil samples collected during the early action activities described above were excavated and the EX-1 through EX-6 and B-1 through B-6 sample designations were re-used.

Indicator Contaminant	Sample Location Exceeding a Tier 1 SRO
Benzene	EX-1, EX-2, EX-3, EX-4, EX-5, EX-6, EX-7, EX-8, EX-9, EX-10, EX-11, EX-21, and B-20
Toluene	EX-5 and EX-6

Ethylbenzene	EX-5, EX-6, EX-7, and EX-8
Total Xylenes	EX-1, EX-2, EX-3, EX-4, EX-5, EX-6, EX-7, EX-8, and EX-21
MTBE	EX-5, EX-6, B-5, B-6, B-10, B-11, B-13, B-20, B-27, B-35, and B-38
Naphthalene	EX-3, EX-4, EX-5, EX-6, EX-7, EX-8, and EX-9

Analytical laboratory results are summarized in Tables 1 and 2 with the analytical laboratory results exceeding the Tier 1 SROs illustrated on Figure 2. Copies of the analytical laboratory reports and certifications are provided in Appendix B. Further details regarding the soil excavation activities were provided in the Amended CAP dated October 19, 2015.

Stage 3 Site Investigation Activities

As part of the off-site soil investigation activities associated with Leaking UST incident number 942117, soil borings were installed within the right-of-ways of State Street and W. 127<sup>th</sup> Street, and on the commercial property owned by TCK, Inc. located east of the site, across State Street. The property owned by TCK is currently being leased to Walgreens. The soil borings were installed between June 17, 2015 and September 26, 2016. Soil borings BH-21, BH-21A, and BH-24 were installed in the eastern right-of-way of State Street. Soil borings BH-30, BH-30A, and BH-31 were installed in the southern right-of-way of W. 127<sup>th</sup> Street. Soil borings BH-22, BH-22A, BH-23, BH-23A, BH-25 through BH-29, and BH-29A were installed on the property owned by TCK. The locations of the soil borings are illustrated on Figure 1.

Select soil samples from each soil boring location were shipped in a cooler containing ice under standard chain-of-custody protocol to Pace for laboratory analysis. The soil samples were submitted for the analysis of BTEX and MTBE using USEPA Method 8260, and the PAHs listed in 35 IAC Part 734, Appendix B using USEPA Method 8270 by SIM.

Analytical laboratory results revealed indicator contaminant concentrations exceeding a Tier 1 SRO at the sample locations indicated below.

Indicator Contaminant	Sample Location Exceeding a Tier 1 SRO
Benzene	BH-21, BH-21A, BH-22, BH-22A, BH-23, BH-26, and BH-28
Ethylbenzene	BH-22A
Total Xylenes	BH-21, BH-21A, BH-22A, BH-23, and BH-31

Analytical laboratory results are summarized in Tables 1 and 2 with the analytical laboratory results exceeding the Tier 1 SROs illustrated on Figure 2. Copies of the analytical laboratory reports and certifications are provided in Appendix B. Soil boring logs are provided in Appendix C.

During the installation of soil borings BH-21A, BH-22A, BH-23A, BH-25, BH-26, BH-27, and BH-28, groundwater was observed as shallow as 22.5 feet bls in BH-28 and as deep as 32.5 feet bls in BH-27. Although groundwater was observed in the soil borings, and monitoring wells were later installed at the location of BH-21 and BH-21A, and in soil borings BH-32 through BH-35, there is no evidence that PAH concentrations exceeding the Tier 1 SROs have been in contact with groundwater. Therefore, the groundwater samples that were later collected from the monitoring wells that were installed were not sampled for PAHs.

The activities described above were completed in association with IEMA incident number 942117, which was reported as a gasoline release. Further details regarding the investigation activities described above are provided in the Amended CAPs dated October 19, 2015 and January 27, 2017. Since IEMA incident number 942117 involved gasoline, PAHs are not an indicator contaminant for that release. However, since IEMA incident number 20141348 involved gasoline and diesel fuel, PAHs are an indicator contaminant. Therefore, the costs associated with the analysis of the soil samples for PAHs are included in the Stage 3 site investigation budget provided in Appendix D. An Owner/Operator and Licensed Professional Engineer/Geologist Budget Certification form is provided in Appendix E. A copy of the OSFM Eligibility and Deductible Determination letter is provided in Appendix F.

Potable Water Supply Well Survey

According to maps obtained from the Illinois EPA Source Water Assessment Program (SWAP) ArcIMS Mapping Tool and the Illinois State Geological Survey (ISGS) Illinois Water Well Internet Map Service, 75 private potable water supply wells, one non-community water supply (non-CWS) well, and two CWS wells are located within 2,500 feet of the former UST area.

The closest potable water supply wells to the site are located approximately 374 feet and 456 feet northeast of the former UST area, north of the TCK property. These wells are identified as CWS Well #2 and CWS Well #3. CWS Well #2 is a shallow bedrock well with a reported total depth of 241 feet bls and CWS Well #3 is a deep bedrock well with a reported total depth of 1,723 feet bls. According to the Illinois EPA SWAP ArcIMS Mapping Tool and the Illinois EPA SWAP Factsheet, both wells have reported minimum setback zones of 200 feet. The extent of the 200-foot setback zones reaches into State Street, northeast of the site, and onto the northern portion of the TCK property. The 200-foot setback zones are illustrated on Figure 4.

Copies of the information obtained from the Illinois EPA SWAP and the ISGS Illinois Water Well Internet Map Service are provided in Appendix G.

**2. Site Description**

**a. Area surrounding the site**

The property is located at 1196 State Street in Lemont, Cook County, Illinois. The property is located in a commercial area of Lemont, Illinois. North of the property, is a former Century 21 office that is now vacant. East of the property, across State Street, is a commercial property owned by TCK which is currently being leased to Walgreens. Southeast of the site, across the intersection of State Street and 127<sup>th</sup> Street, is Lemont National Bank. South of the site, across W. 127<sup>th</sup> Street, is a strip mall with multiple commercial businesses. The surrounding properties are illustrated on Figure 3.

**b. Local geology, hydrogeology, and hydrology**

According to the Surficial Geology of the Chicago Region map included within ISGS Circular 460, Summary of the Geology of the Chicago Area, circa 1970, the site is located in the Wheaton Moraine of the Valparaiso Morainic System. The Valparaiso undifferentiated sediments are described as gray to light brownish gray clayey till.

According to the ISGS Illinois Map 14, Bedrock Geology of Illinois, bedrock found in the area of the site is of the Silurian System. The Silurian System in northern Illinois includes the Wilhelmi Formation, the Elwood Dolomite, the Kankakee Dolomite, the Joliet Dolomite, the Sugar Run Dolomite, and/or the Racine Dolomite. Note that bedrock was not encountered during the early action or site investigation activities.

During the on-site and off-site investigation activities completed at the site and in the right-of-ways, the geology observed consisted predominantly of silty clays and clays to the maximum depth explored of 30 feet bls. As the depth of the soil borings increased, the hardness of the clay also increased, as noted in the boring logs. The hardness of the clay was also observed during the excavation activities as several shear walls remained intact from ground surface to a depth of 19 feet bls. Traces amounts of sand and gravel were noted during the installation of several of the soil borings. In soil boring BH-31, a clayey silt was observed at a depth of 27.5 to 30 feet bls. Groundwater was not encountered during the investigation and excavation activities referenced above to the maximum depth explored of 30 feet bls.

During the off-site investigation activities completed on the TCK property, the geology observed consisted predominantly of clays and silty clays with interbedded lenses of clayey silt. In soil borings BH-21A, BH-22A, BH-23A, BH-25, BH-26, BH-27, and BH-28, smaller lenses of sand, silt, and clayey sand and gravel were observed. Groundwater was encountered in soil borings BH-21A, BH-22A, BH-23A, BH-25, BH-26, BH-27, and BH-28 in the lenses of sand, silt, and clayey sand and gravel. The groundwater observed during the installation of these soil borings was observed as shallow as 22.5 feet bls in BH-28 and as deep as 32.5 feet bls in BH-27. This information suggests the lack of a continuous groundwater table. Soil boring logs are provided in Appendix C.

**c. Local geography and topography;**

The site is located at the northwest corner of the intersection of State Street and W. 127<sup>th</sup> Street in Lemont, Cook County, Illinois. The site is located in the southwest quarter of the southeast quarter of Section 29, Township 37 North, Range 11 East, of the United States Geological Survey (USGS) 7.5-Minute Series Romeoville and Sag Bridge Quadrangles as illustrated on Figure 3. According to the USGS 7.5-Minute Series Romeoville and Sag Bridge Quadrangles, the topography of the site is relatively flat with a land surface elevation of approximately 750 feet above mean sea level.

**d. Existing and potential migration pathways and exposure routes**

Subsurface utilities that were identified are located on site and off site. The subsurface utilities include storm and sanitary sewers, electric, gas, and communications. The locations of the subsurface utilities were removed from the site map at the request of Mr. Benanti. The potential exposure routes include the outdoor inhalation exposure route for construction workers.

**e. Current and projected post-remediation land use**

The property is currently a vacant property. The owner plans to redevelop the property into commercial land use.

**3. Site Investigation Results**

Analytical laboratory results revealed indicator contaminant concentrations exceeding a Tier 1 SRO at the sample locations indicated below.

Indicator Contaminant	Sample Location Exceeding a Tier 1 SRO
Benzene	EX-1, EX-2, EX-3, EX-4, EX-5, EX-6, EX-7, EX-8, EX-9, EX-10, EX-11, EX-21, B-20, BH-21, BH-22, BH-23, BH-21A, BH-22A, BH-26, and BH-28
Toluene	EX-5 and EX-6
Ethylbenzene	EX-5, EX-6, EX-7, EX-8, and BH-22A
Total xylenes	EX-1, EX-2, EX-3, EX-4, EX-5, EX-6, EX-7, EX-8, EX-21, BH-21, BH-23, BH-21A, BH-22A, and BH-31
MTBE	EX-5, EX-6, B-5, B-6, B-10, B-11, B-13, B-20, B-27, B-35, and B-38
Naphthalene	EX-3, EX-4, EX-5, EX-6, EX-7, EX-8, and EX-9

Analytical laboratory results for the soil samples analyzed for BTEX, MTBE, and the PAHs listed in 35 IAC Part 742, Appendix B are summarized in Tables 1 and 2 with the analytical laboratory results exceeding the Tier 1 SROs illustrated on Figure 2.

**Provide each of the following items, and indicate the location where the item can be found.**

Item	Location
a. Map(s) showing locations of all borings and groundwater monitoring wells completed as part of site investigation and groundwater flow direction.	Figures 1 and 2
b. Map(s) showing the horizontal extent of soil and groundwater contamination exceeding the most stringent Tier 1 remediation objectives (ROs);	Figure 2
c. Map cross-section(s) showing the horizontal and vertical extents of soil and groundwater contamination exceeding the most stringent Tier 1 ROs;	Figure 5
d. Soil boring logs and monitoring well construction diagrams for all borings drilled and groundwater monitoring wells installed as part of site investigation;	Appendix C
e. Analytical results, chain of custody forms, and laboratory certifications;	Appendix B
f. Table(s) comparing analytical results to the most stringent Tier 1 ROs (include sample depth, date collected, and detection limits);	Tables 1 and 2

g. Potable water supply well survey:

Appendix G

**Note:** Site map(s) meeting the requirements of 35 Ill. Adm. Code 734.440:

- a. The maps must be of sufficient detail and accuracy to show required information;
- b. The maps must contain the map scale, an arrow indicating north orientation, and the date the map was created; and
- c. The maps must show the following:
  1. The property boundary lines of the site, properties adjacent to the site, and other properties that are, or may be, adversely affected by the release;
  2. The uses of the site, properties adjacent to the site, and other properties that are, or may be, adversely affected by the release;
  3. The locations of all current and former USTs at the site, and the contents of each UST; and
  4. All structures, other improvements, and other features at the site, properties adjacent to the site, and other properties that are, or may be, adversely affected by the release, including but not limited to buildings, pump islands, canopies, roadways and other paved areas, utilities, easements, rights-of-way, and actual or potential natural or man-made pathways.

**4. Conclusion that includes an assessment of the sufficiency of the data**

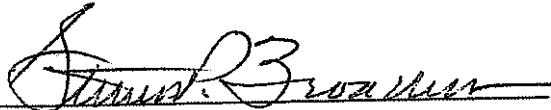
Analytical laboratory results indicate that indicator contaminant concentrations in the soil are delineated on site to the north by excavation sample locations and off-site to the north by soil borings BH-20, BH-27, and BH-32; to the east by off-site soil borings BH-33, BH-25, and BH-34; to the south by off-site soil boring locations BH-35, BH-24, BH-19, BH-31, BH-30, and BH-30A; and on site to the west by excavation sample locations.

**D. Signatures**

All plans, budgets, and reports must be signed by the owner or operator and list the owner's or operator's full name, address, and telephone number.

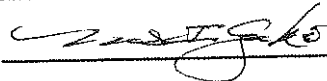
**UST Owner or Operator**

Name BOI, LLC  
 Contact Steven Broadus  
 Address 201 Danny's Drive, Suite 5  
 City Streator  
 State Illinois  
 Zip Code 61364  
 Phone (815) 673-5515

Signature   
 Date 10/22/2019

**Consultant**

Company TriCore Environmental, LLC  
 Contact Marcos I. Czako  
 Address 2368 Corporate Lane, Suite 116  
 City Naperville  
 State IL  
 Zip Code 60563  
 Phone (630) 520-9973  
 Email marcos.czako@tricoreweb.com

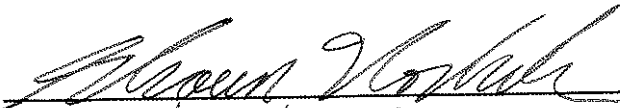
Signature   
 Date 10/25/2019

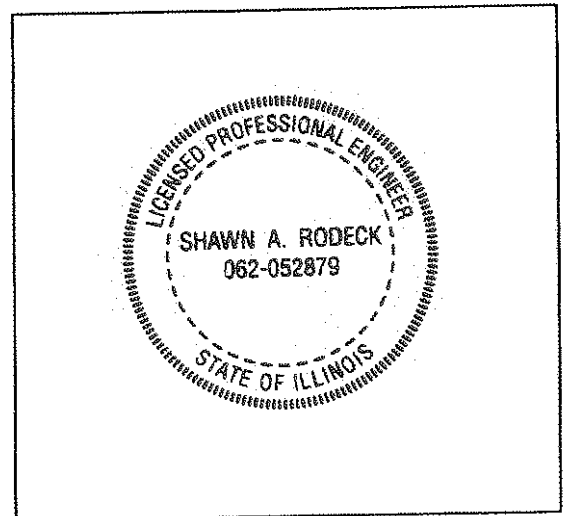
I certify under penalty of law that all activities that are the subject of this report were conducted under my supervision or were conducted under the supervision of another Licensed Professional Engineer or Licensed Professional Geologist and reviewed by me; that this report and all attachments were prepared under my supervision; that, to the best of my knowledge and belief, the work described in this report has been completed in accordance with the Environmental Protection Act [415 ILCS 5], 35 Ill. Adm. Code 734, and generally accepted standards and practices of my profession; and that the information presented is accurate and complete. I am aware there are significant penalties for submitting false statements or representations to the Illinois EPA, including but not limited to fines, imprisonment, or both as provided in Section 44 of the Environmental Protection Act [415 ILCS 5/44].

**Licensed Professional Engineer or Geologist**

**L.P.E. or L.P.G. Seal**

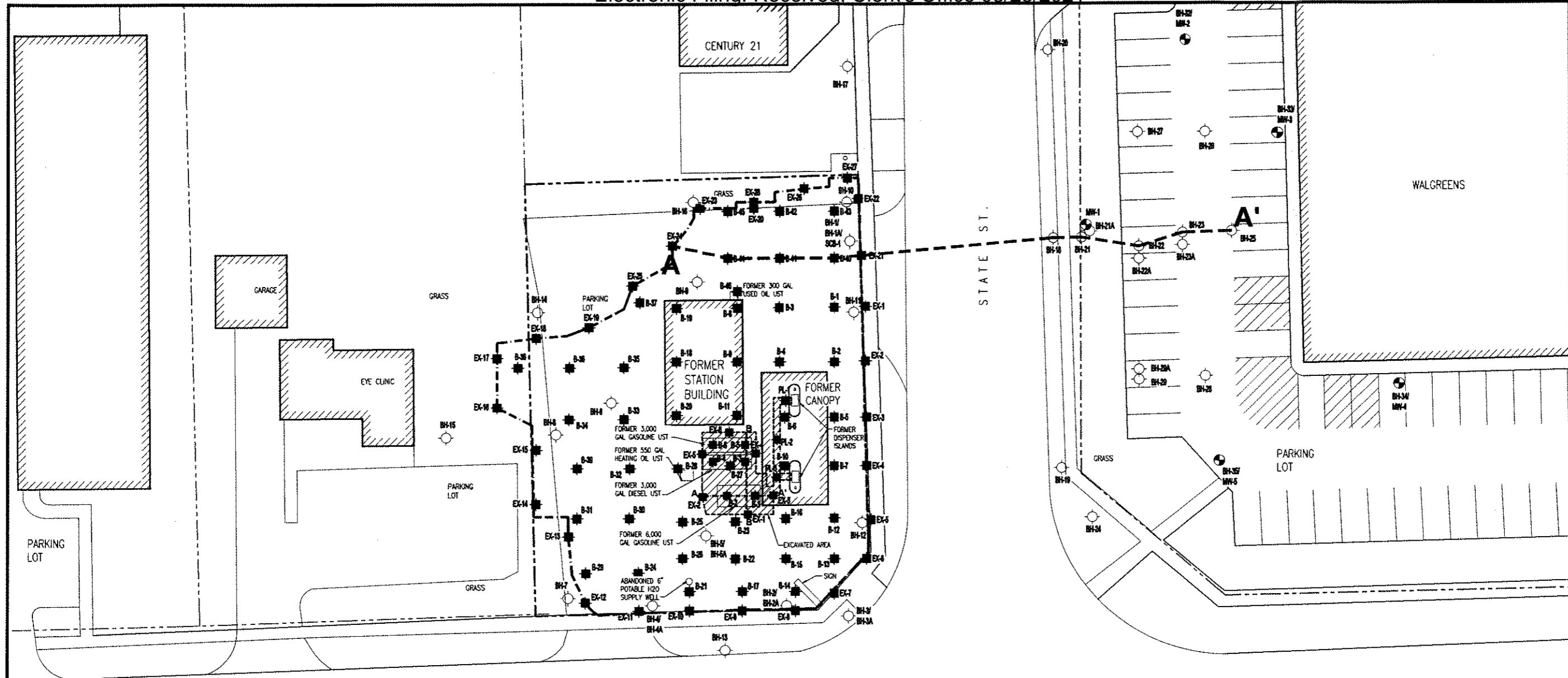
Name Shawn Rodeck, P.E.  
 Company TriCore Environmental, LLC  
 Address 2368 Corporate Lane, Suite 116  
 City Naperville  
 State IL  
 Zip Code 60563  
 Phone 630-520-9973  
 Ill. Registration No. 062-052879  
 License Expiration Date November 30, 2019

Signature   
 Date 10/25/2019



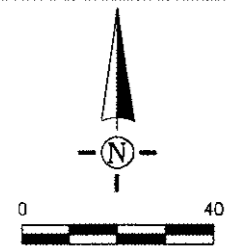


**FIGURES**



WEST 127TH ST.

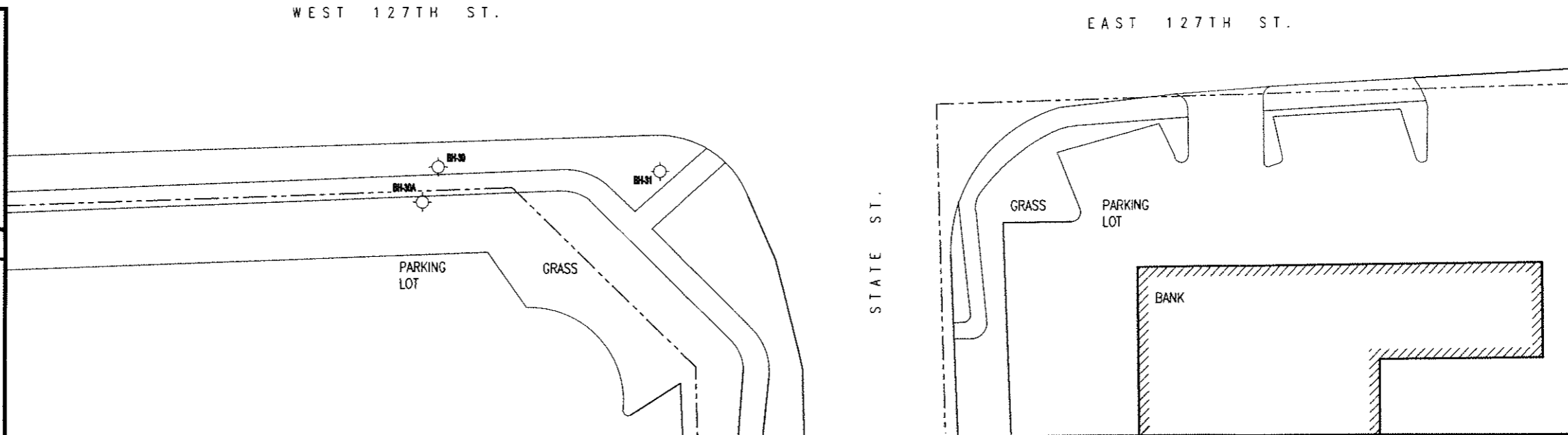
EAST 127TH ST.



APPROX. SCALE IN FEET  
ALL MAP LOCATIONS ARE APPROXIMATE

**LEGEND**

- PROPERTY BOUNDARY
- SOIL SAMPLE LOCATION
- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- CROSS SECTION
- EXCAVATION AREA



**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**FIGURE**

1

DRAWN BY:

SAA

APPROVED BY:

MIC

SCALE:

1" = 40'

DATE:

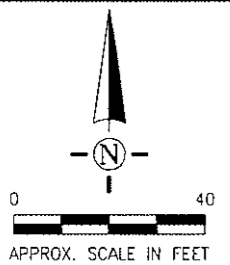
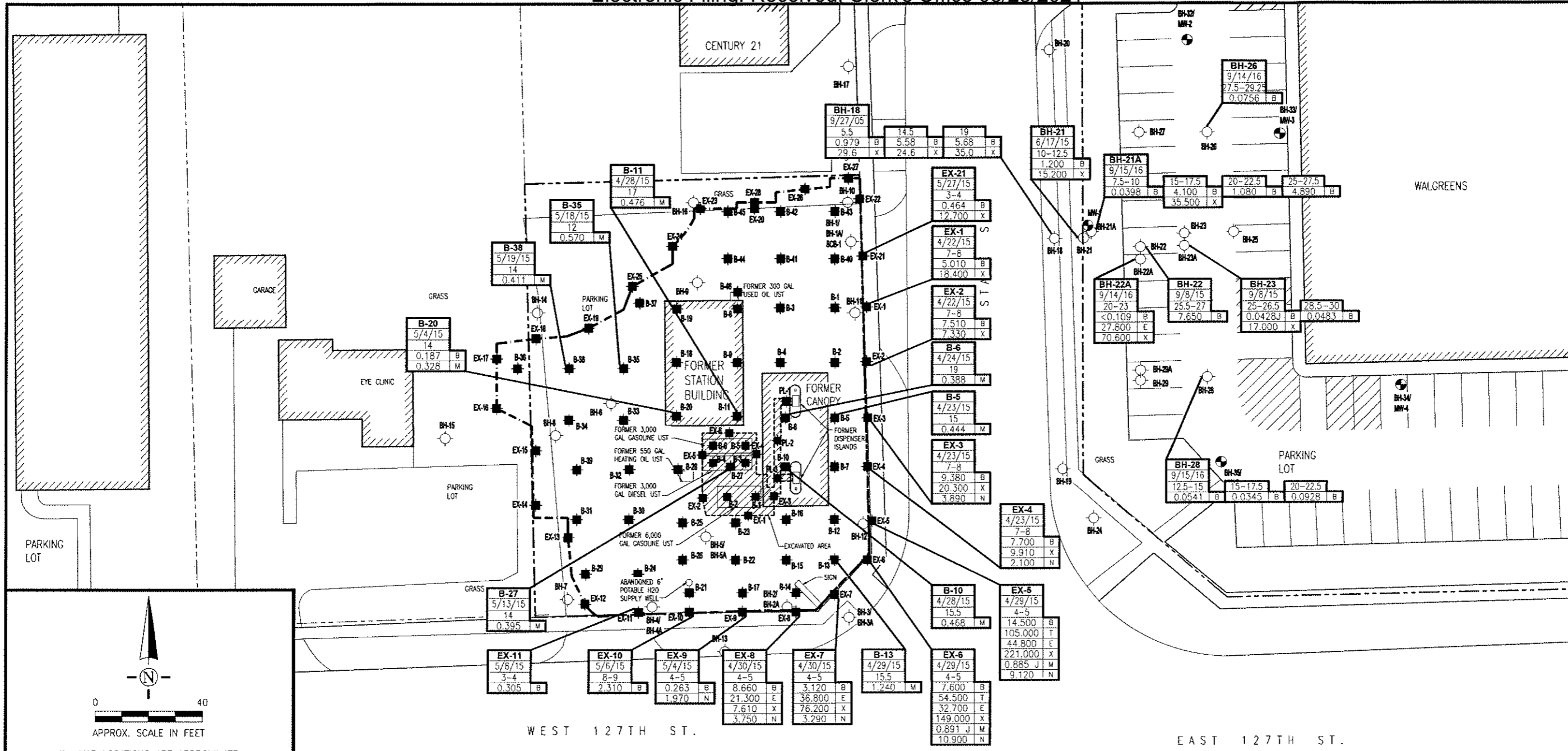
10/24/2019

DRAWING FILE:

MD14-170

**SITE MAP**

**BOI, LLC**  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439



ALL MAP LOCATIONS ARE APPROXIMATE

LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	EXCAVATION AREA
<b>EX-5</b>	SAMPLE LOCATION
4/29/15	SAMPLE DATE
4-5	SAMPLE DEPTH (ft)
14,500 B	BENZENE CONCENTRATION (mg/kg)
105,000 T	TOLUENE CONCENTRATION (mg/kg)
44,800 E	ETHYLBENZENE CONCENTRATION (mg/kg)
221,000 X	TOTAL XYLENES CONCENTRATION (mg/kg)
0.885 J M	METHYL TERT BUTYL ETHER CONCENTRATION (mg/kg)
9,120 N	NAPHTHALENE CONCENTRATION (mg/kg)
<0.002	CONCENTRATION LESS THAN METHOD DETECTION LIMIT
NOTES: ONLY THE INDICATOR CONTAMINANT CONCENTRATIONS EXCEEDING THE TIER 1 SROs ARE SHOWN	

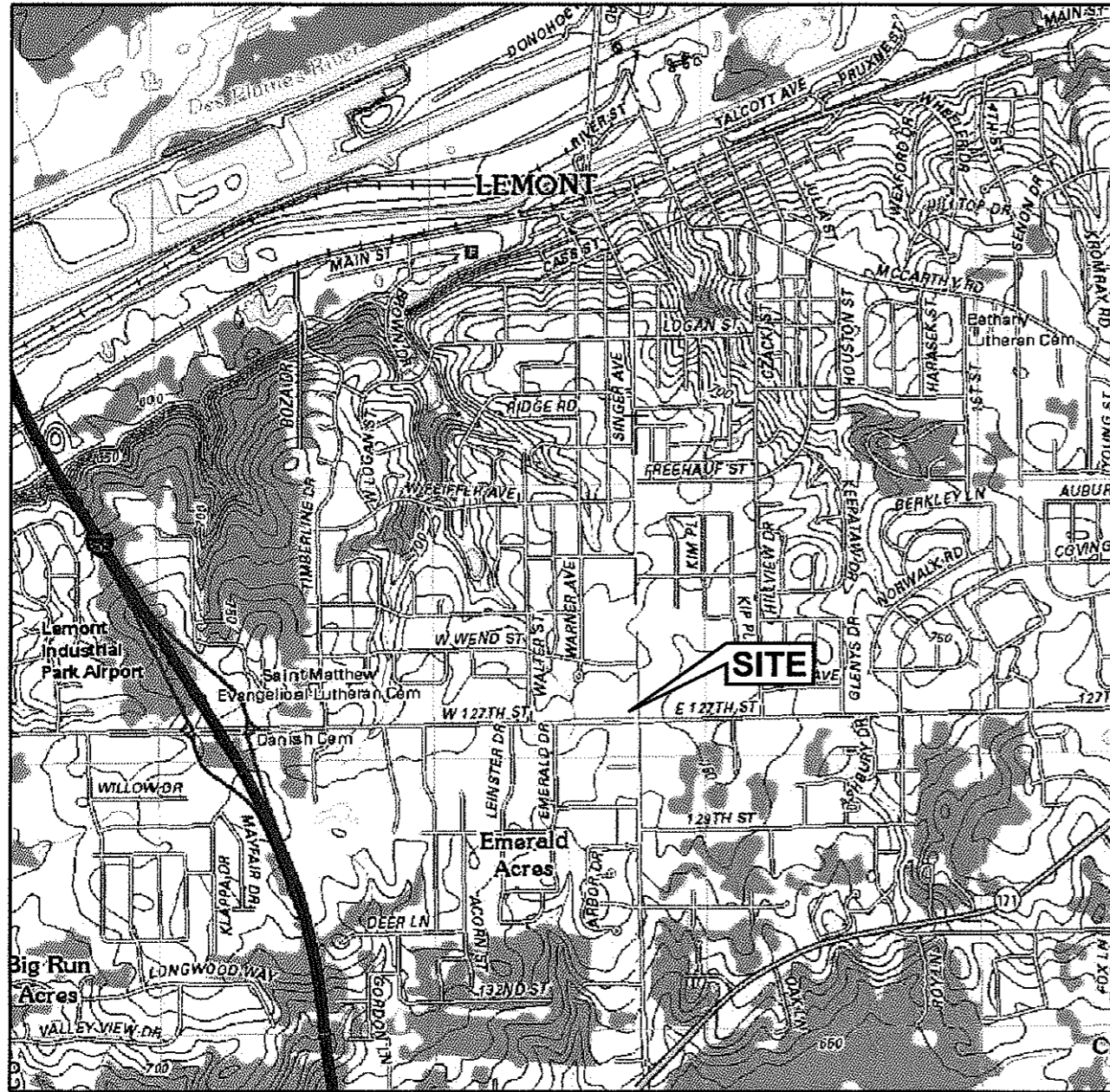
**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

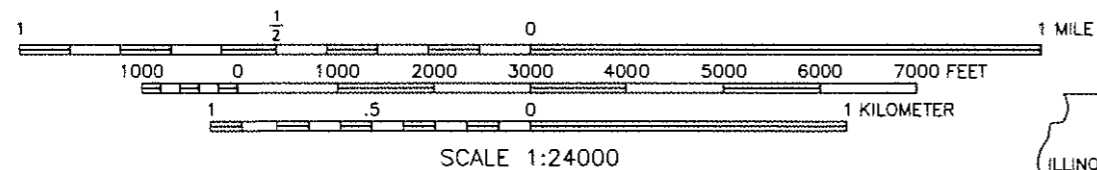
**SOIL ANALYTICAL RESULTS**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

**FIGURE**  
2

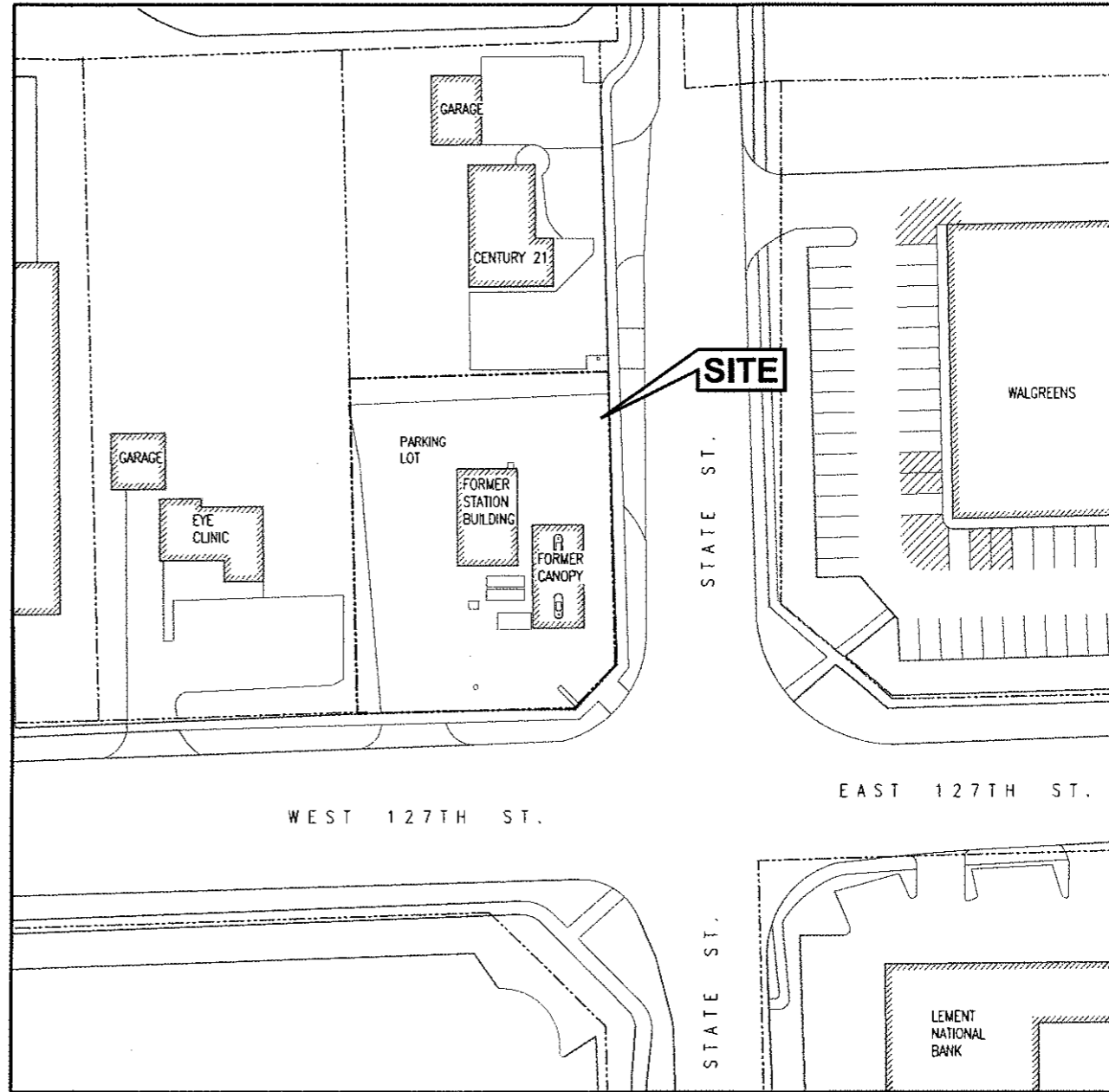
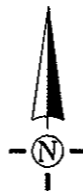
**DRAWN BY:** JB  
**APPROVED BY:** MIC  
**SCALE:** 1" = 40'  
**DATE:** 10/24/2019  
**DRAWING FILE:** MD14-170



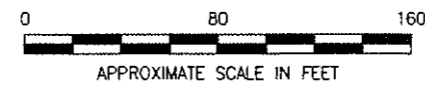
U.S.G.S. TOPOGRAPHIC MAP



SCALE 1:24000  
 ROMEOVILLE AND SAG BRIDGE QUADRANGLES  
 COOK COUNTY, ILLINOIS  
 7.5 MINUTE SERIES (TOPOGRAPHIC)




SCHEMATIC OF SURROUNDING AREA



APPROXIMATE SCALE IN FEET

**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
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
**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streamer, IL 61364

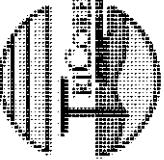
**SITE LOCATION MAP**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

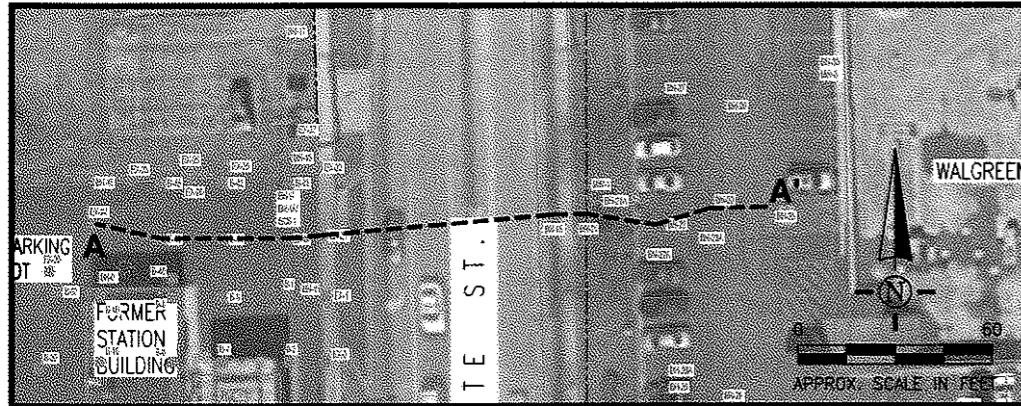
DRAWN BY: SAA  
 APPROVED BY: MIC  
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 DATE: 10/25/2019  
 DRAWING FILE: MD14-170



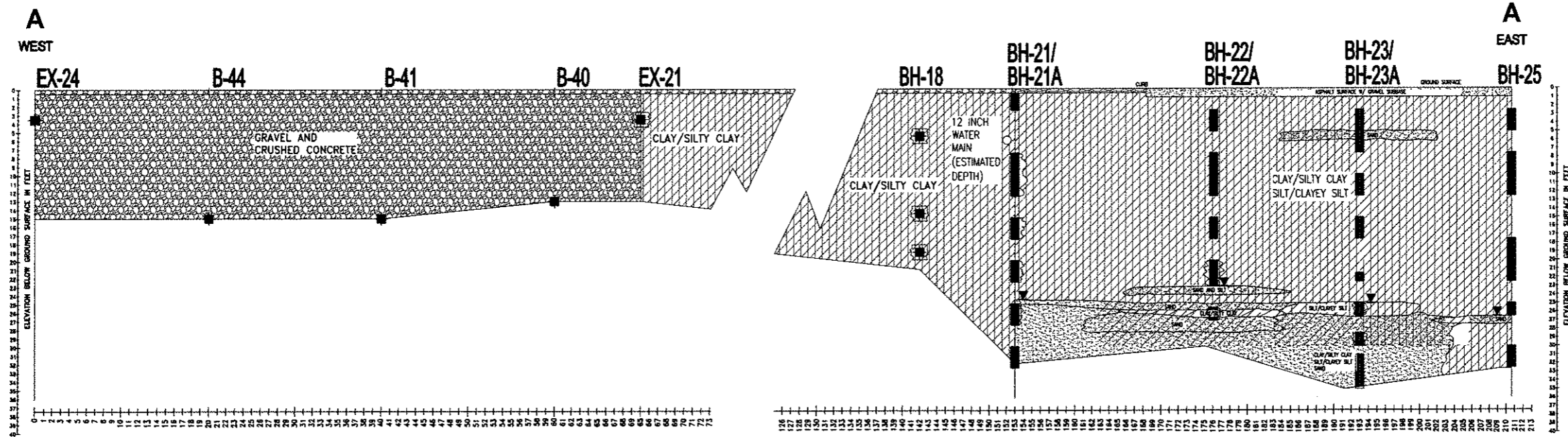
  
  
 APPROX. SCALE IN FEET  
 ALL MAP LOCATIONS ARE APPROXIMATE

LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	EXCAVATION AREA
	COMMUNITY WATER SUPPLY WELL AND 200 FT SETBACK ZONE




	<b>TIC-CORE Environmental, LLC</b> 2340 Corporate Lane, Suite 110 Naperville, IL 60563 (630) 502-2873
	<b>BOI, LLC</b> 301 Boon's Cove Suite 5 Naperville, IL 60563
<b>COMMUNITY WATER SUPPLY WELL LOCATIONS AND SETBACK ZONES</b> BOI, LLC 1100 STATE STREET LEMONT, COOK COUNTY, IL 60439	
<b>FIGURE</b> <span style="font-size: 2em; font-weight: bold;">4</span>	DRAWN BY: SMA APPROVED BY: MJC SCALE: 1" = 50' DATE: 10/24/2019 DRAWING FILE: 1014-179




CROSS SECTION REFERENCE MAP



LEGEND

-  SOIL SAMPLE LOCATIONS
-  INDICATOR CONTAMINANT CONCENTRATIONS EXCEEDING A TIER 1 SRO
-  DEPTH TO GROUNDWATER DURING DRILLING

**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973



**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**GEOLOGIC CROSS SECTION A-A'**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY: JB  
 APPROVED BY: MIC  
 SCALE: AS NOTED  
 DATE: 10/25/2019  
 DRAWING FILE: MD14-170

**5**

**TABLES**

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-1-A	9/18/03	7.5-8	0.316	0.430	6.31	13.2	
BH-1-B	9/18/03	14-14.5	<0.0289	<0.289	<0.289	<0.289	
BH-1-C	8/10/04	18	<0.002	<0.005	<0.005	<0.005	
BH-2-A	9/18/03	4.5-5	3.6000	0.293	5.730	4.030	
BH-2-B	8/10/04	13	0.0879	<0.005	<0.005	<0.005	
BH-2-C	8/10/04	23	<0.002	<0.005	<0.005	<0.005	
BH-3-A	9/18/03	6.5-7	<0.0286	<0.286	0.904	0.596	
BH-3-B	8/10/04	13	0.0293	<0.005	<0.005	<0.005	
BH-3-C	8/10/04	18	<0.002	<0.005	<0.005	<0.005	
BH-4-A	9/18/03	4.5-5	0.184	<0.309	0.309	<0.309	
BH-4-B	8/10/04	13	<0.002	<0.005	<0.005	<0.005	
BH-5-A	9/18/03	4.5-5	2.710	4.86	4.78	10.3	
BH-5-B	8/10/04	13	1.070	1.11	<0.005	0.522	
BH-5-C	8/10/04	24	<0.002	<0.005	<0.005	<0.005	
BH-6-A	8/2/05	5	0.0719	<0.005	<0.005	0.0054	
BH-6-B	8/2/05	9	1.060	1.090	1.91	8.1	
BH-6-C	8/2/05	15	<0.002	<0.005	<0.005	<0.005	
BH-6-D	8/2/05	18	0.0064	<0.005	<0.005	<0.005	
BH-7-A	8/2/05	4	<0.002	<0.005	<0.005	<0.005	
BH-7-B	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-7-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-7-D	8/2/05	18	<0.002	<0.005	<0.005	<0.005	
BH-8-A	8/2/05	3	<0.002	<0.005	<0.005	<0.005	
BH-8-B	8/2/05	9	0.459	<0.005	0.438	0.419	
BH-8-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-9-A	8/2/05	4	<0.002	<0.005	<0.005	<0.005	
BH-9-B	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-9-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-10-A	8/2/05	4	<0.030	0.0882	1.98	4.920	
BH-10-B	8/2/05	9	2.660	0.348	1.79	3.820	
BH-10-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	



Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-10-D	8/2/05	18-20	<0.002	<0.005	<0.005	<0.005	
BH-11-A	8/2/05	4	24.5	65.8	52.7	207.0	
BH-11-B	8/2/05	9	5.730	0.4	4.030	8.0	
BH-11-C	8/2/05	14	0.0045	0.0056	<0.005	0.0093	
BH-12-A	8/2/05	4	10.2	39.5	12.0	59.0	
BH-12-B	8/2/05	9	14.3	0.897	10.4	9.140	
BH-12-C	8/2/05	14	0.0126	0.0261	<0.005	0.0115	
BH-12-D	8/2/05	19	<0.002	<0.005	<0.005	<0.005	
BH-13-A	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-13-B	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-14-A	9/26/05	4-5	<0.002	<0.005	<0.005	<0.005	
BH-14-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-14-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-15-A	9/26/05	4.5	<0.002	<0.005	<0.005	<0.005	
BH-15-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-15-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-16-A	9/26/05	4.5	<0.002	<0.005	<0.005	<0.005	
BH-16-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-16-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-17-A	9/26/05	5	<0.002	<0.005	<0.005	<0.005	
BH-17-B	9/26/05	9	<0.002	<0.005	<0.005	<0.005	
BH-17-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-18-A	9/27/05	5.5	0.979	0.997	9.19	29.6	
BH-18-B	9/27/05	14.5	5.58	0.681	9.84	24.6	
BH-18-C	9/27/05	19	5.68	6.890	9.11	35.0	
BH-19-A	9/27/05	8	0.0057	<0.005	<0.005	0.0057	
BH-19-B	9/27/05	14	0.0159	0.0097	0.0397	0.0752	
BH-19-C	9/27/05	19	<0.002	<0.005	<0.005	<0.005	
BH-20-A	11/12/05	4	<0.002	<0.005	<0.005	<0.005	
BH-20-B	11/12/05	8	<0.002	<0.005	<0.005	<0.005	
BH-20-C	11/12/05	14	<0.002	<0.005	<0.005	<0.005	

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bis)	Analytical Results				
EX-1	11/25/14	7-8	1.240	0.264	7.810	2.910	0.103 J
EX-2	11/25/14	7-8	6.330	3.200	35.900	54.500	0.655 J
EX-3	11/25/14	7-8	1.890	3.360	32.600	158.000	0.972 J
B-1	11/25/14	12-13	1.860	0.164	0.373	1.630	<0.0301
B-2	11/25/14	12-13	5.200	<0.244	1.460	2.790	<0.244
B-3	11/25/14	7-8	1.340	0.129	0.143	0.345	<0.0293
B-4	11/25/14	7-8	2.070	0.156	0.193	0.398	<0.0295
Backfill #1	11/25/14		5.750	1.400	24.600	7.880	0.450 J
PL-1	11/26/14	2.5-3	3.850	3.340	51.200	112.000	2.060
PL-2	11/26/14	2.5-3	14.100	4.180	96.000	269.000	1.640 J
PL-3	11/26/14	2.5-3	13.700	13.800	103.000	356.000	3.700
B-5	11/26/14	7-8	3.070	0.115	0.351	0.533	<0.0293
B-6	11/26/14	7-8	0.0481	<0.0293	0.0589	0.258	<0.0293
EX-4	11/26/14	4-5	1.460	0.724	13.800	25.700	0.157 J
EX-5	11/26/14	4-5	36.500	6.100	106.000	644.000	5.110 J
EX-6	11/26/14	4-5	9.330	4.990	90.200	159.000	1.790 J
Backfill #2	11/26/14		8.690	37.100	74.100	327.000	3.870
EX-1	4/22/15	7-8	5.010	0.995	7.800	18.400	<0.0294
EX-2	4/22/15	7-8	7.510	0.394	6.910	7.330	<0.0147
B-1	4/22/15	15.5	<0.0105	<0.0128	<0.0142	<0.0553	0.0234 J
B-2	4/22/15	16	<0.0111	<0.0135	<0.0150	<0.0585	0.123
B-3	4/22/15	16	<0.0106	<0.0129	<0.0143	<0.0558	0.0227 J
B-4	4/23/15	16.5	<0.0107	<0.0130	0.0172 J	<0.0560	0.122
B-5	4/23/15	15	0.0308	<0.0129	<0.0143	<0.0558	0.444
EX-3	4/23/15	7-8	9.380	0.462	11.000	20.300	0.0944 J
EX-4	4/23/15	7-8	7.700	0.815	11.900	9.910	0.186
B-6	4/24/15	19	<0.0115	<0.0288	<0.0288	<0.0864	0.388
B-7	4/24/15	19	<0.0113	<0.0283	<0.0283	<0.0849	0.0915
B-8	4/27/15	16	<0.0119	<0.0298	<0.0298	<0.0895	<0.0298
B-9	4/27/15	15	<0.0116	<0.0289	<0.0289	<0.0868	0.148
B-10	4/28/15	15.5	<0.0115	<0.0287	<0.0287	<0.0861	0.468

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
B-11	4/28/15	17	<0.0116	<0.0290	<0.0290	<0.0869	0.476
B-12	4/29/15	18	<0.0113	<0.0282	<0.0282	<0.0845	0.128
EX-5	4/29/15	4-5	14.500	105.000	44.800	221.000	0.885 J
EX-6	4/29/15	4-5	7.600	54.500	32.700	149.000	0.891 J
B-13	4/29/15	15.5	<0.0116	<0.0290	<0.0290	<0.0870	1.240
EX-7	4/30/15	4-5	3.120	0.808 J	36.800	76.200	<0.313
B-14	4/30/15	15.5	<0.0107	<0.0130	<0.0144	<0.0563	0.0337 J
EX-8	4/30/15	4-5	8.660	1.070	21.300	7.610	0.158J
B-15	5/1/15	15.5	<0.0107	<0.0130	<0.0144	<0.0560	0.0259 J
B-16	5/1/15	17.5	<0.0104	<0.0126	<0.0140	<0.0544	<0.0142
B-17	5/1/15	15.5	<0.0106	<0.0129	<0.0143	<0.0558	0.0561 J
EX-9	5/4/15	4-5	0.263	0.0508 J	4.790	0.619	<0.0328
B-18	5/4/15	15.5	<0.0108	<0.0131	<0.0146	<0.0567	0.137
B-19	5/4/15	15.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
B-20	5/4/15	14	0.187	<0.129	<0.0143	<0.0556	0.328
EX-10	5/6/15	8-9	2.310	0.130	1.400	0.636	<0.0290
B-21	5/6/15	15.5	<0.0111	<0.0135	0.0175 J	<0.0582	<0.0152
B-22	5/7/15	15.5	<0.0109	<0.0132	0.0175 J	<0.0570	<0.0149
B-23	5/7/15	15.5	<0.0109	<0.0133	<0.0147	<0.0573	0.318
B-24	5/8/15	9	<0.0104	<0.0127	<0.0140	<0.0546	0.0430 J
B-25	5/8/15	15.5	<0.0107	<0.0130	<0.0144	<0.0560	0.208
B-26	5/8/15	15	<0.0108	<0.0131	<0.0145	<0.0566	<0.0148
EX-11	5/8/15	3-4	0.305	<0.0144	<0.0159	<0.0620	<0.0162
EX-12	5/8/15	3-4	<0.0118	<0.0144	<0.0160	<0.0622	<0.0162
EX-13	5/13/15	4-5	<0.0114	<0.0139	<0.0154	<0.0599	<0.0157
B-27	5/13/15	14	<0.0108	<0.0131	<0.0145	<0.0566	0.395
B-29	5/13/15	9	<0.0108	<0.0131	<0.0146	<0.0567	0.0318 J
EX-14	5/14/15	4-5	<0.0118	<0.0143	<0.0158	<0.0617	<0.0161
B-28	5/14/15	13	<0.0106	<0.0129	<0.0143	<0.0559	0.206
B-30	5/14/15	11	<0.0106	<0.0129	<0.0143	<0.0559	0.0565 J
B-31	5/14/15	11	<0.0106	<0.0159	<0.0143	<0.0559	0.0226 J

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
EX-15	5/15/15	8-9	<0.0107	<0.0131	0.0207 J	0.0589 J	0.0392 J
B-32	5/15/15	11	<0.0107	<0.0130	<0.0144	<0.0562	0.302
B-33	5/15/15	11	<0.0107	<0.0130	<0.0144	<0.0561	0.241
B-34	5/15/15	11	<0.0109	<0.0133	<0.0147	<0.0573	0.0466 J
Overburden 1	5/15/15		<0.0112	<0.0137	<0.0151	<0.0590	<0.0154
B-35	5/18/15	12	<0.0107	<0.0130	0.0192 J	0.0576 J	0.570
EX-16	5/18/15	9-10	<0.0110	<0.0134	<0.0149	<0.0579	<0.0151
EX-17	5/18/15	9-10	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
B-36	5/18/15	12	<0.0108	<0.0131	<0.0145	<0.0565	0.0306 J
Overburden-2	5/18/15		<0.0109	<0.0132	<0.0146	<0.0571	<0.0149
B-37	5/19/15	14	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
B-38	5/19/15	14	<0.0107	<0.0131	<0.0145	<0.0565	0.411
B-39	5/19/15	12	<0.0103	<0.0125	<0.0139	<0.0541	0.0511 J
EX-18	5/19/15	3-4	<0.0120	<0.0146	<0.0162	<0.0632	<0.0165
EX-19	5/19/15	3-4	<0.0115	<0.0140	<0.0155	<0.0605	<0.0158
B-40	5/22/15	13	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
B-41	5/27/15	15	<0.0105	<0.0128	<0.0142	<0.0553	<0.0144
EX-20	5/27/15	3-4	<0.0127	<0.0154	<0.0171	<0.0666	<0.0174
EX-21	5/27/15	3-4	0.464	0.627	11.600	12.700	<0.0664
EX-22	5/27/15	4-5	<0.0310	<0.0378	2.140	2.410	<0.0426
B-42	5/27/15	12.5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
B-43	5/27/15	12.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
B-44	5/27/15	15	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
B-45	5/28/15	12.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
EX-23	5/28/15	8.5-9.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
EX-24	5/28/15	3-4	<0.0118	<0.0143	<0.0159	<0.0618	<0.0162
B-46	6/5/15	14.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0146
EX-25	6/5/15	10-11	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
EX-26	6/5/15	3.5-5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
EX-27	6/5/15	8.5-9.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0146
EX-28	6/8/15	3-4	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

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Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
EX-28	6/8/15	8-9	<0.0106	<0.0130	<0.0144	<0.0559	<0.0146
BH-21	6/17/15	10-12.5	1.200	0.362	12.700	15.200	<0.0729
BH-22	9/8/15	7.5-10	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-22	9/8/15	25.5-27	7.650	1.260	0.0313 J	<0.110	<0.0288
BH-23	9/8/15	25-26.5	0.0428 J	0.547	2.900	17.000	<0.0376
BH-23	9/8/15	28.5-30	0.0483	<0.0130	<0.0144	<0.0562	<0.0147
BH-24	9/8/15	4-6	<0.0279	<0.0339	0.0593 J	<0.146	<0.0383
BH-24	9/8/15	13.5-15	<0.0112	<0.0136	<0.0151	<0.0587	<0.0153
BH-22A	9/14/16	2.5-5	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
BH-22A	9/14/16	10-12.5	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-22A	9/14/16	15-17.5	<0.0110	<0.0134	<0.0149	<0.0580	<0.0151
BH-22A	9/14/16	20-23	<0.109	1.990	27.800	70.600	<0.150
BH-23A	9/14/16	2.5-5	<0.0130	<0.0158	<0.0176	<0.0684	<0.0179
BH-23A	9/14/16	5-7.5	<0.0114	<0.0139	<0.0154	<0.0600	<0.0157
BH-23A	9/14/16	10-12.5	<0.0107	0.0153 J	<0.0144	<0.0561	<0.0147
BH-23A	9/14/16	15-17.5	<0.0108	<0.0132	<0.0146	<0.0568	<0.0148
BH-23A	9/14/16	21.5-22.5	<0.0110	<0.0133	<0.0148	<0.0576	<0.0150
BH-23A	9/14/16	31-32.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-23A	9/14/16	32.5-35	<0.0118	<0.0144	<0.0159	<0.0621	<0.0162
BH-26	9/14/16	1-2.5	<0.0113	<0.0138	<0.0153	<0.0596	<0.0156
BH-26	9/14/16	7.5-10	<0.0107	0.0135 J	<0.0144	<0.0561	<0.0147
BH-26	9/14/16	10-12.5	<0.0111	<0.0136	<0.0150	<0.0585	<0.0153
BH-26	9/14/16	17.5-20	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-26	9/14/16	20-22.5	<0.0106	<0.0129	<0.0143	<0.0557	<0.0146
BH-26	9/14/16	27.5-29.25	0.0756	<0.0133	<0.0148	<0.0575	<0.0150
BH-27	9/14/16	2.5-5	<0.0117	0.0168 J	<0.0158	<0.0616	<0.0161
BH-27	9/14/16	7.5-10	<0.0107	<0.0130	<0.0144	<0.00563	<0.0147
BH-27	9/14/16	12.5-15	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-27	9/14/16	17.5-20	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
BH-27	9/14/16	22.5-25	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-27	9/14/16	27.5-30	<0.0101	<0.0123	<0.0137	<0.0533	<0.0139
BH-27	9/14/16	30-32.5	<0.0105	<0.0127	<0.0141	<0.0127	<0.0144
BH-21A	9/15/16	0.5-2.5	<0.0110	<0.0133	<0.0148	<0.0575	<0.0150
BH-21A	9/15/16	7.5-10	0.0398	<0.0128	0.0505 J	0.0807 J	<0.0144
BH-21A	9/15/16	15-17.5	4.100	8.830	9.310	35.500	<0.0367
BH-21A	9/15/16	20-22.5	1.080	0.147	0.918	0.685	<0.0149
BH-21A	9/15/16	25-27.5	4.890	0.0134 J	<0.0146	<0.0568	<0.0148
BH-21A	9/15/16	30-32.5	0.0109 J	<0.0128	<0.0142	<0.0552	<0.014
BH-25	9/15/16	2.5-5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-25	9/15/16	7.5-10	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-25	9/15/16	10-12.5	<0.0107	0.0220 J	<0.0144	<0.0560	<0.0146
BH-25	9/15/16	17.5-20	<0.0108	<0.0132	<0.0146	<0.0568	<0.0149
BH-25	9/15/16	20-22.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-25	9/15/16	25-26.5	0.0266	<0.0132	<0.0147	<0.0571	<0.0149
BH-25	9/15/16	30-32.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-28	9/15/16	2.5-5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-28	9/15/16	5-7.5	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
BH-28	9/15/16	12.5-15	0.0541	0.263	3.300	3.600	<0.0147
BH-28	9/15/16	15-17.5	0.0345	0.106	2.000	0.860	<0.0143
BH-28	9/15/16	20-22.5	0.0928	0.200	3.070	3.050	<0.0151
BH-28	9/15/16	25-27.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-29	9/15/16	2.5-5	<0.0116	<0.0142	<0.0157	<0.0612	<0.0160
BH-29	9/15/16	7.5-10	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-29A	9/15/16	10-12.5	<0.0108	<0.0132	<0.0146	<0.0570	<0.0149
BH-29A	9/15/16	15-20	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-29A	9/15/16	22.5-25	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
BH-29A	9/15/16	27.5-30	<0.0105	<0.0128	<0.0142	<0.0554	<0.0145
BH-29A	9/15/16	32.5-35	<0.0107	<0.0131	<0.0145	<0.0563	<0.0147
BH-30	9/26/16	2.5-5	<0.0105	<0.0128	<0.0142	<0.0553	<0.0145
BH-30	9/26/16	7.5-10	<0.0110	<0.0133	<0.0148	<0.0576	<0.0151
BH-30	9/26/16	12.5-15	<0.0106	<0.0129	<0.0143	<0.0557	<0.0146

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-30	9/26/16	15-17.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-30A	9/26/16	22.5-25	<0.0103	<0.0125	<0.0139	<0.0541	<0.0141
BH-30A	9/26/16	27.5-30	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-31	9/26/16	2.5-5	<0.0114	<0.0139	<0.0154	<0.0600	<0.0157
BH-31	9/26/16	5-7.5	<0.0123	<0.0150	0.121	5.680	<0.0169
BH-31	9/26/16	12.5-15	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
BH-31	9/26/16	15-17.5	<0.0105	<0.0127	<0.0141	<0.0550	<0.0144
BH-31	9/26/16	22.5-25	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
BH-31	9/26/16	25-27.5	<0.0109	<0.0132	<0.0147	<0.0571	<0.0149
BH-32	7/5/17	2.5-5	<0.0116	<0.0141	<0.0156	<0.0610	<0.0159
BH-32	7/5/17	5-7.5	<0.0113	<0.0137	<0.0152	<0.0591	<0.0154
BH-32	7/5/17	12.5-15	<0.0109	<0.0132	<0.0147	<0.0571	<0.0149
BH-32	7/5/17	15-17.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-32	7/5/17	20-22.5	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
BH-32	7/5/17	27.5-30	<0.0105	<0.0128	0.0154 J	<0.0553	<0.0144
BH-32	7/5/17	30-30.5	<0.0111	<0.0136	<0.0150	<0.0585	<0.0153
BH-33	7/5/17	2.5-5	<0.0112	<0.0137	<0.0151	<0.0590	<0.0154
BH-33	7/5/17	7.5-10	<0.0114	<0.0139	<0.0154	<0.0601	<0.0157
BH-33	7/5/17	12.5-15	<0.0111	<0.0135	<0.0149	<0.0581	<0.0152
BH-33	7/5/17	15-17.5	<0.0110	<0.0134	<0.0149	<0.0579	<0.0151
BH-33	7/5/17	22.5-25	<0.0107	<0.0131	<0.0145	<0.0563	<0.0147
BH-33	7/5/17	25-27.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-34	7/6/17	0.75-2.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
BH-34	7/6/17	7.5-10	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-34	7/6/17	10-12.5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-34	7/6/17	17.5-20	<0.0108	<0.0131	<0.0145	<0.0567	<0.0148
BH-34	7/6/17	20-22.5	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-34	7/6/17	25-27.5	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
BH-34	7/6/17	30-32.5	<0.0105	<0.0128	<0.0141	<0.0551	<0.0144
BH-35	7/6/17	0.5-2.5	<0.0128	<0.0156	<0.0173	<0.0675	<0.0176
BH-35	7/6/17	7.5-10	<0.0109	<0.0132	<0.0147	<0.0572	<0.0149

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-35	7/6/17	12.5-15	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-35	7/6/17	15-17.5	<0.0110	<0.0134	<0.0148	<0.0578	<0.0151
BH-35	7/6/17	20-22.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-35	7/6/17	25-27.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-35	7/6/17	30-35	<0.0104	<0.0127	<0.0141	<0.0548	<0.0143

Notes:

- 1) Bold = detected concentration exceeds a Tier 1 SRO listed in 35 IAC Part 742
- 2) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
- 3) Shaded cells = not applicable, not analyzed, or sample location was excavated
- 4) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit



Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenz(a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>NI</sup>	2.1 <sup>NI</sup>	2.1 <sup>NI</sup>	2,300	8	88	0.42 <sup>NI</sup>	3,100	3,100	1.6 <sup>NI</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>NI</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	550	14	12	210	4,200
SCGIER - Class II Groundwater			2,800	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	59	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
EX-1	11/25/14	7-8	<0.0992	<0.0887	<0.103	<0.0657	<0.0709	<0.0932	<0.0755	<0.110	<0.0917	<0.0727	<0.0992	<0.0962	<0.0754	2.336	<0.0992	<0.0992
EX-2	11/25/14	7-8	<0.213	<0.190	<0.221	<0.147	<0.152	<0.213	<0.162	<0.235	<0.197	<0.156	<0.213	<0.213	<0.182	5.470	<0.213	<0.213
EX-3	11/25/14	7-8	<0.504	<0.451	<0.523	<0.360	<0.361	<0.504	<0.384	<0.558	<0.466	<0.370	<0.504	<0.504	<0.385	14.500	<0.504	<0.504
B-1	11/25/14	12-13	<0.0500	<0.0447	<0.0518	<0.0348	<0.0357	<0.0500	<0.0361	<0.0553	<0.0462	<0.0387	<0.0500	<0.0500	<0.0380	1.750	<0.0500	<0.0500
B-2	11/25/14	12-13	<0.0604	<0.0451	<0.0522	<0.0349	<0.0360	<0.0504	<0.0384	<0.0557	<0.0465	<0.0389	<0.0504	<0.0504	<0.0383	1.180	<0.0504	<0.0504
B-3	11/25/14	7-8	<0.0489	<0.0437	<0.0507	<0.0339	<0.0350	<0.0489	<0.0372	<0.0541	<0.0452	<0.0359	<0.0489	<0.0489	<0.0371	1.070	<0.0489	<0.0489
B-4	11/25/14	7-8	<0.0492	<0.0440	<0.0510	<0.0341	<0.0352	<0.0492	<0.0374	<0.0544	<0.0455	<0.0361	<0.0492	<0.0492	<0.0374	0.875	<0.0492	<0.0492
Backfill #1	11/25/14		<0.108	<0.0963	<0.112	<0.0746	<0.0770	<0.108	<0.0820	<0.119	<0.0995	<0.0789	<0.108	<0.108	<0.0818	2.420	<0.108	<0.108
PL-1	11/26/14	2-5-3	<0.435	<0.389	<0.451	<0.301	<0.311	<0.435	<0.331	<0.481	<0.402	<0.319	<0.435	<0.435	<0.320	8.440	<0.435	<0.435
PL-2	11/26/14	2-5-3	<0.432	<0.386	<0.446	<0.289	<0.309	<0.432	<0.329	<0.478	<0.389	<0.317	<0.432	<0.432	<0.326	15.000	<0.432	<0.432
PL-3	11/26/14	2-5-3	<0.140	<0.125	<0.145	<0.0972	<0.100	<0.140	<0.107	<0.155	<0.130	<0.103	<0.140	<0.140	<0.107	6.710	<0.140	<0.140
B-5	11/26/14	7-8	<0.0782	<0.0700	<0.0811	<0.0542	<0.0559	<0.0782	<0.0596	<0.0866	<0.0723	<0.0574	<0.0782	<0.0782	<0.0594	2.180	<0.0782	<0.0782
B-6	11/26/14	7-8	<0.070	<0.0639	<0.0703	<0.0469	<0.0471	<0.070	<0.0476	<0.0510	<0.0422	<0.0473	<0.070	<0.070	<0.0476	0.296	<0.070	<0.070
EX-4	11/26/14	4-5	<0.127	<0.114	<0.132	<0.0880	<0.0908	<0.127	<0.0867	<0.140	<0.117	<0.0931	<0.127	<0.127	<0.0865	8.500	<0.127	<0.127
EX-5	11/26/14	4-5	<0.427	<0.382	<0.443	<0.296	<0.305	<0.427	<0.325	<0.473	<0.385	<0.313	<0.427	<0.427	<0.325	20.700	<0.427	<0.427
EX-6	11/26/14	4-5	<0.431	<0.385	<0.447	<0.299	<0.309	<0.431	<0.329	<0.478	<0.389	<0.317	<0.431	<0.431	<0.326	20.900	<0.431	<0.431
Backfill #2	11/26/14		<0.0497	<0.0445	<0.0515	<0.0344	<0.0355	<0.0497	<0.0376	<0.0550	<0.0459	<0.0364	<0.0497	<0.0497	<0.0377	0.982	<0.0497	<0.0497
EX-1	4/22/15	7-8	<0.0483	<0.0432	<0.0501	<0.0335	<0.0346	<0.0483	<0.0368	<0.0535	<0.0447	<0.0355	<0.0483	<0.0483	<0.0367	1.240	<0.0483	<0.0483
EX-2	4/22/15	7-8	<0.0097	<0.0093	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0069	<0.0071	<0.0097	<0.0097	<0.0073	0.777	<0.0097	<0.0097
B-1	4/22/15	15.5	<0.0095	<0.0085	<0.0099	<0.0066	<0.0069	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	<0.0095	<0.0095
B-2	4/22/15	18	<0.0101	<0.0090	<0.0104	<0.0070	<0.0072	<0.0101	<0.0077	<0.0111	<0.0093	<0.0074	0.0107 J	<0.0101	<0.0076	<0.0101	0.0137 J	<0.0101
B-3	4/22/15	18	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0105	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0119 J	<0.0096

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>(b)</sup>	2.1 <sup>(b)</sup>	2.1 <sup>(b)</sup>	2,300	9	88	0.42 <sup>(b)</sup>	3,100	3,100	1.6 <sup>(b)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>(b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-4	4/23/15	16.5	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-5	4/23/15	15	<0.0096	<0.0086	<0.0099	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0102 J	<0.0096
EX-3	4/23/15	7-8	<0.0956	<0.0855	<0.0991	<0.0663	<0.0684	<0.0956	<0.0728	<0.106	<0.0884	<0.0701	<0.0956	<0.0956	<0.0726	<b>3.890</b>	<0.0956	<0.0956
EX-4	4/23/15	7-8	<0.0482	<0.0431	<0.0500	<0.0334	<0.0345	<0.0482	<0.0367	<0.0533	<0.0446	<0.0353	<0.0482	<0.0482	<0.0366	<b>2.100</b>	<0.0482	<0.0482
B-6	4/24/15	19	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-7	4/24/15	19	<0.0094	<0.0084	<0.0098	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0072	<0.0094	<0.0094	<0.0094
B-8	4/27/15	16	<0.0099	<0.0089	<0.0103	<0.0069	<0.0071	<0.0099	<0.0076	<0.0110	<0.0092	<0.0073	<0.0099	<0.0099	<0.0076	<0.0099	<0.0099	<0.0099
B-9	4/27/15	15	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	0.0118 J	<0.0096
B-10	4/28/15	15.5	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0088	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0132 J	<0.0096
B-11	4/28/15	17	<0.0097	<0.0086	<0.0100	0.0110 J	0.0090 J	0.0110 J	0.0088 J	<0.0107	0.0191 J	<0.0071	0.0252	<0.0097	<0.0073	0.0308	0.0182 J	0.0236
B-12	4/29/15	18	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
EX-5	4/29/15	4-5	<0.391	<0.350	<0.405	<0.271	<0.279	<0.391	<0.298	<0.432	<0.361	<0.287	<0.391	<0.391	<0.297	<b>9.120</b>	<0.391	<0.391
EX-6	4/29/15	4-5	<0.391	<0.350	<0.405	<0.271	<0.280	<0.391	<0.298	<0.433	<0.362	<0.287	<0.391	<0.391	<0.297	<b>10.900</b>	<0.391	<0.391
B-13	4/29/15	15.5	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	0.0129 J	<0.0097
EX-7	4/30/15	4-5	<0.103	<0.0923	<0.107	<0.0715	<0.0737	<0.103	<0.0785	<0.114	<0.0954	<0.0756	<0.103	<0.0103	<0.0783	<b>3.290</b>	<0.103	<0.103
B-14	4/30/15	15.5	<0.0097	<0.0087	<0.010	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-8	4/30/15	4-5	<0.197	<0.176	<0.204	<0.136	<0.141	<0.197	<0.150	<0.218	<0.182	<0.144	<0.197	<0.197	<0.149	<b>3.750</b>	<0.197	<0.197
B-15	5/1/15	15.5	<0.0193	<0.0172	<0.0200	<0.0134	<0.0138	<0.0193	<0.0147	<0.0213	<0.0178	<0.0141	<0.0193	<0.0193	<0.0146	0.0230 J	<0.0193	<0.0193
B-16	5/1/15	17.5	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0071	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
B-17	5/1/15	15.5	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0099 J	<0.0096
EX-9	5/4/15	4-5	<0.0865	<0.0774	<0.0897	<0.0600	<0.0619	0.108 J	<0.0659	<0.0957	<0.0800	<0.0635	<0.0865	<0.0865	<0.0657	<b>1.970</b>	<0.0865	<0.0865
B-18	5/4/15	15.5	<0.0098	<0.0087	<0.0101	<0.0068	<0.0070	<0.0098	<0.0074	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>b)</sup>	2.1 <sup>b)</sup>	2.1 <sup>b)</sup>	2,300	9	88	0.42 <sup>b)</sup>	3,100	3,100	1.6 <sup>b)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-19	5/4/15	15.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-20	5/4/15	14	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-10	5/6/15	8-9	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	0.0169 J	<0.0073	<0.0106	<0.0088	<0.0070	0.0104 J	<0.0095	<0.0073	<0.0753	<0.0095	<0.0095
B-21	5/6/15	15.5	<0.0100	<0.0090	<0.0104	<0.0069	<0.0072	0.0130 J	<0.0076	<0.00111	<0.0093	<0.0073	<0.0100	<0.0100	<0.0076	<0.00100	<0.00100	<0.00100
B-22	5/7/15	15.5	<0.0098	<0.0088	<0.0102	<0.068	<0.0070	<0.0128 J	0.0075	<0.0109	<0.0091	<0.0072	<0.0098	<0.0098	<0.0075	<0.0098	<0.0098	<0.0098
B-23	5/7/15	15.5	<0.0099	<0.0088	<0.0102	<0.068	<0.0071	0.0128 J	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099
B-24	5/8/15	9	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
B-25	5/8/15	15.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	0.0165 J	<0.0096
B-26	5/8/15	15	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	0.0097 J	<0.0097
EX-11	5/8/15	3-4	<0.0107	<0.0096	<0.0111	0.0094 J	0.0115 J	0.0141 J	0.0100 J	<0.0118	0.0178 J	<0.0078	0.0246	<0.0107	0.0084 J	<0.0107	<0.0107	0.0193 J
EX-12	5/8/15	3-4	<0.0107	<0.0096	<0.0111	<0.0074	<0.0076	<0.0107	<0.0081	<0.0118	<0.0099	<0.0078	<0.0107	<0.0107	<0.0081	<0.0107	<0.0107	<0.0107
EX-13	5/13/15	4-5	<0.0103	<0.0092	<0.0107	<0.0072	<0.0074	<0.0103	<0.0079	<0.0114	<0.0095	<0.0076	<0.0103	<0.0103	<0.0078	<0.0103	<0.0103	<0.0103
B-27	5/13/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	0.0097	<0.0097
B-29	5/13/15	9	<0.0098	<0.0087	<0.0101	<0.0068	<0.0070	<0.0098	<0.0074	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098
EX-14	5/14/15	4-5	<0.0106	<0.0095	<0.0110	0.0101 J	0.0157 J	0.0175 J	0.0168 J	0.0159 J	0.0201 J	<0.0078	0.0384	<0.0106	0.0137 J	<0.0106	0.0183 J	0.0276
B-28	5/14/15	13	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-30	5/14/15	11	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-31	5/14/15	11	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	0.0135 J	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-15	5/15/15	8-9	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.007	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-32	5/15/15	11	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-33	5/15/15	11	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-34	5/15/15	11	<0.0099	<0.0088	<0.0102	<0.0068	<0.0071	<0.0099	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>b)</sup>	2.1 <sup>b)</sup>	2.1 <sup>b)</sup>	2,300	9	88	0.42 <sup>b)</sup>	3,100	3,100	1.6 <sup>b)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
Overburden 1	5/15/15		<0.0203	<0.0182	<0.0211	0.0410	0.0476	0.0432	0.0410	0.0470	0.0505	<0.0149	0.0948	<0.0203	0.0360 J	0.691	0.0417	0.0748
B-35	5/18/15	12	<0.0097	<0.0087	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-16	5/18/15	9-10	<0.010	<0.0089	<0.0103	<0.0069	<0.0071	<0.010	<0.0076	<0.0110	<0.0092	<0.0073	<0.010	<0.010	<0.0076	<0.010	<0.010	<0.010
EX-17	5/18/15	9-10	<0.0097	<0.0087	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-36	5/18/15	12	<0.0097	<0.0087	<0.0100	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	0.0729	<0.0097	<0.0097
Overburden-2	5/18/15		<0.0098	<0.0088	0.0113 J	0.0478	0.0659	0.0726	0.0609	0.0690	0.0759	0.0154 J	0.135	<0.0098	0.0495	0.0208	0.0582	0.110
B-37	5/19/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-38	5/19/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-39	5/19/15	12	<0.0093	<0.0083	<0.0097	<0.0065	<0.0067	<0.0093	<0.0071	<0.0103	<0.0086	<0.0068	<0.0093	<0.0093	<0.0071	<0.0093	<0.0093	<0.0093
EX-18	5/19/15	3-4	<0.0109	<0.0097	<0.0113	0.0250	0.0282	0.0300	0.0226	0.0274	0.0345	<0.0080	0.0825	<0.0109	0.0200 J	<0.0109	0.0379	0.0564
EX-19	5/19/15	3-4	<0.0104	<0.0093	<0.0108	<0.0072	<0.0074	<0.0104	<0.0079	<0.0115	<0.0096	<0.0076	<0.0104	<0.0104	<0.0079	<0.0104	<0.0104	<0.0104
B-40	5/22/15	13	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-41	5/27/15	15	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	0.0118 J	<0.0095
EX-20	5/27/15	3-4	<0.0015	<0.0103	0.0433	0.296	0.365	0.471	0.295	0.339	0.429	0.0951	0.567	<0.0115	0.257	0.0398	0.126	0.494
EX-21	5/27/15	3-4	<0.0700	<0.0626	<0.0726	<0.0485	<0.0500	<0.0700	<0.0533	<0.0774	<0.0647	<0.0513	<0.0700	<0.0700	<0.0532	1.210	<0.0700	<0.0700
EX-22	5/27/15	4-5	<0.0112	<0.0100	<0.0116	<0.0078	<0.0080	<0.0112	<0.0085	<0.0124	<0.0104	<0.0082	<0.0112	<0.0112	<0.0085	0.367	<0.0112	<0.0112
B-42	5/27/15	12.5	<0.0098	<0.0088	<0.0102	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0091	<0.0072	<0.0098	<0.0098	<0.0074	0.0322	<0.0098	<0.0098
B-43	5/27/15	12.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-44	5/27/15	15	<0.0097	<0.0087	<0.0100	0.0083 J	0.0113 J	0.0130 J	0.0086 J	<0.0107	0.0136 J	<0.0071	0.0124 J	<0.0097	<0.0074	<0.0097	<0.0097	0.0116 J
B-45	5/28/15	12.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-23	5/28/15	8.5-9.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-24	5/28/15	3-4	<0.0106	<0.0095	<0.0110	0.0286	0.0374	0.0401	0.0361	0.0394	0.0432	0.0100 J	0.0795	<0.0106	0.0307	0.0506	0.0190 J	0.0721

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>b)</sup>	2.1 <sup>b)</sup>	2.1 <sup>b)</sup>	2,300	9	88	0.42 <sup>b)</sup>	3,100	3,100	1.6 <sup>b)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-46	6/5/15	14.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-25	6/5/15	10-11	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0088	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-26	6/5/15	3.5-5	<0.0098	<0.0088	<0.0101	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098
EX-27	6/5/15	8.5-9.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-28	6/8/15	3-4	<0.0099	<0.0088	<0.0102	<0.0068	<0.0070	<0.0099	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099
EX-28	6/8/15	8-9	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
BH-21	6/17/15	10-12.5	<0.0768	<0.0687	<0.0797	<0.0533	<0.0549	<0.0768	<0.0585	<0.0850	<0.0710	<0.0564	<0.0768	<0.0768	<0.0584	1.440	<0.0768	<0.0768
BH-22	9/8/15	7.5-10	<0.0098	<0.0088	<0.0101	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0091	<0.0072	<0.0098	<0.0098	<0.0074	0.0674	<0.0098	<0.0098
BH-22	9/8/15	25.5-27	<0.0095	<0.0085	<0.0098	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	<0.0095	<0.0095
BH-23	9/8/15	25-26.5	<0.0099	<0.0089	<0.0103	<0.0069	<0.0071	<0.0099	<0.0075	<0.0109	<0.0091	<0.0073	<0.0099	<0.0099	<0.0075	0.0156 J	<0.0099	<0.0099
BH-23	9/8/15	28.5-30	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
BH-24	9/8/15	4-6	<0.0101	<0.0090	<0.0104	<0.0070	<0.0072	<0.0101	<0.0077	<0.0112	<0.0093	<0.0074	<0.0101	<0.0101	<0.0077	0.153	<0.0101	<0.0101
BH-24	9/8/15	13.5-15	<0.0101	<0.0090	<0.0105	<0.0070	<0.0072	<0.0101	<0.0077	<0.0112	<0.0093	<0.0074	<0.0101	<0.0101	<0.0077	<0.0101	<0.0101	<0.0101
BH-22A	9/14/16	2.5-5	<0.0046	<0.0039	<0.0068	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0062	<0.0049	<0.0026	<0.010	<0.0138	<0.0053
BH-22A	9/14/16	10-12.5	<0.0045	<0.0038	<0.0066	0.0048 J	0.0052 J	0.0076 J	0.0041 J	0.0064 J	0.0132	<0.0026	0.0152 J	<0.0048	0.0034 J	<0.0097	0.0172 J	0.0111 J
BH-22A	9/14/16	15-17.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	0.0034 J	0.0041 J	<0.0030	0.0084 J	<0.0027	<0.0062	<0.0050	<0.0026	0.0937	0.0146 J	<0.0054
BH-22A	9/14/16	20-23	<0.0046	<0.0039	<0.0068	<0.0037	0.0034 J	0.0058 J	0.0039 J	<0.0030	0.0131 J	<0.0026	0.0076 J	<0.0049	<0.0026	0.165	<0.0138	0.0075 J
BH-23A	9/14/16	2.5-5	<0.0055	<0.0047	<0.0081	<0.0045	<0.0035	<0.0040	<0.0029	<0.0035	<0.0048	<0.0032	<0.0074	<0.0058	<0.0031	<0.0119	<0.0165	<0.0064
BH-23A	9/14/16	5-7.5	<0.0048	<0.0041	<0.0071	<0.0039	<0.0031	<0.0035	<0.0025	<0.0031	<0.0042	<0.0028	<0.0064	<0.0051	<0.0027	<0.0104	<0.0144	<0.0056
BH-23A	9/14/16	10-12.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0070 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-23A	9/14/16	15-17.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0050 J	<0.0026	0.0075 J	<0.0049	<0.0026	<0.0099	<0.0137	0.0056 J
BH-23A	9/14/16	21.5-22.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>b)</sup>	2.1 <sup>b)</sup>	2.1 <sup>b)</sup>	2,300	9	88	0.42 <sup>b)</sup>	3,100	3,100	1.6 <sup>b)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-23A	9/14/16	31-32.5	<0.0045	<0.0038	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0061	<0.0048	<0.0026	<0.0098	<0.0136	<0.0053
BH-23A	9/14/16	32.5-35	<0.0050	<0.0042	<0.0073	0.0068 J	0.0115	0.0221	0.0157	0.0149	0.0201	0.0035 J	0.0187 J	<0.0053	0.0116	<0.0108	<0.0149	0.0134 J
BH-26	9/14/16	1-2.5	<0.0048	0.0310	0.0281	0.0771	0.0974	0.0896	0.0565	0.109	0.0974	0.0217	0.125	<0.0051	0.0544	<0.0104	0.0349 J	0.109
BH-26	9/14/16	7.5-10	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0040 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-26	9/14/16	10-12.5	<0.0047	<0.0040	<0.0069	<0.0038	<0.0030	<0.0034	<0.0025	<0.0030	0.0047 J	<0.0027	<0.0063	<0.0050	<0.0027	<0.0102	<0.0141	<0.0055
BH-26	9/14/16	17.5-20	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0038 J	<0.0029	0.0049 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0141 J	<0.0052
BH-26	9/14/16	20-22.5	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0032	0.0027 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-26	9/14/16	27.5-29.25	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	0.0035 J	<0.0030	<0.0040	<0.0027	<0.0062	<0.00049	<0.0026	<0.0100	<0.0138	<0.0054
BH-27	9/14/16	2.5-5	<0.0049	<0.0042	<0.0073	<0.0040	<0.0032	<0.0036	<0.0026	<0.00032	<0.0043	<0.0028	<0.0066	<0.0053	<0.0028	<0.0107	<0.0148	<0.0057
BH-27	9/14/16	7.5-10	<0.0045	0.0051 J	0.0130 J	0.0238	0.0269	0.0272	0.0184	0.0256	0.0329	0.0064 J	0.0462	<0.0048	0.0168	0.0166 J	0.0371 J	0.0385
BH-27	9/14/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0023	<0.0029	0.0083 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0143 J	<0.0052
BH-27	9/14/16	17.5-20	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	0.0041 J	0.0088	<0.0029	0.0108 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0097	0.0304 J	0.0063 J
BH-27	9/14/16	22.5-25	<0.0045	<0.0038	<0.0066	0.0042 J	0.0046 J	0.0058 J	0.0060 J	0.0044 J	0.0121 J	<0.0026	0.0119 J	<0.0048	<0.00025	<0.0097	<0.0135	0.0116 J
BH-27	9/14/16	27.5-30	<0.0043	<0.0036	<0.0063	<0.0035	<0.0028	<0.0031	0.0044 J	<0.0028	0.0089 J	<0.0025	<0.0057	<0.0046	<0.0024	<0.0093	<0.0128	<0.0050
BH-27	9/14/16	30-32.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0029	<0.0032	0.0039 J	<0.0028	0.0084 J	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	<0.0132	<0.0051
BH-21A	9/15/16	0.5-2.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054
BH-21A	9/15/16	7.5-10	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	0.0138 J	<0.0133	<0.0051
BH-21A	9/15/16	15-17.5	<0.0180	<0.0153	<0.0265	<0.0147	<0.0117	<0.0131	<0.0094	<0.0116	<0.0157	<0.0104	<0.0242	<0.0192	<0.0102	1.750	<0.0541	<0.0209
BH-21A	9/15/16	20-22.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	0.0040 J	<0.0026	<0.0061	<0.0049	<0.0026	0.303	<0.0137	<0.0053
BH-21A	9/15/16	25-27.5	<0.0045	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-21A	9/15/16	30-32.5	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	<0.0133	<0.0051
BH-25	9/15/16	2.5-5	<0.0045	<0.0038	<0.0066	0.0068 J	0.0043 J	0.0050 J	0.0029 J	0.0048 J	0.0095 J	<0.0026	0.0289	<0.0048	<0.0025	<0.0097	0.0227 J	0.0189

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>b)</sup>	2.1 <sup>b)</sup>	2.1 <sup>b)</sup>	2,300	9	88	0.42 <sup>b)</sup>	3,100	3,100	1.6 <sup>b)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-25	9/15/16	7.5-10	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	0.0035 J	0.0024 J	<0.0029	0.0098 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-25	9/15/16	10-12.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	0.0045 J	<0.0024	<0.0029	0.0122 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0160 J	<0.0052
BH-25	9/15/16	17.5-20	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-25	9/15/16	20-22.5	<0.0045	<0.0038	<0.0066	0.0039 J	<0.0029	<0.0033	0.0030 J	<0.0029	0.0051 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-25	9/15/16	25-26.5	<0.0046	<0.0039	<0.0067	0.0040 J	<0.0030	<0.0033	0.0033 J	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-25	9/15/16	30-32.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	2.5-5	<0.0045	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-28	9/15/16	5-7.5	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	12.5-15	<0.0045	<0.0038	<0.0066	0.0039 J	<0.0029	<0.0033	<0.0024	<0.0029	0.0045 J	<0.0026	<0.0060	<0.0048	<0.0026	0.262	<0.0135	<0.0052
BH-28	9/15/16	15-17.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0028	<0.0032	<0.0023	<0.0028	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	0.137	<0.0132	<0.0051
BH-28	9/15/16	20-22.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	0.309	<0.0139	<0.0054
BH-28	9/15/16	25-27.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0024 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-29	9/15/16	2.5-5	<0.0049	<0.0042	<0.0072	0.0050 J	0.0034 J	0.0062 J	0.0032 J	<0.0032	0.0053 J	<0.0028	0.0108 J	<0.0052	<0.0028	<0.0106	<0.0147	0.0078 J
BH-29	9/15/16	7.5-10	<0.0045	<0.0038	<0.0066	0.0037 J	<0.0029	0.0033 J	<0.0024	<0.0029	0.0043 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-29A	9/15/16	10-12.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-29A	9/15/16	15-20	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-29A	9/15/16	22.5-25	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0026	<0.0098	<0.0135	<0.0052
BH-29A	9/15/16	27.5-30	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-29A	9/15/16	32.5-35	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0061	<0.0048	<0.0026	<0.0098	<0.0136	<0.0052
BH-30	9/26/16	2.5-5	<0.0044	<0.0038	<0.0065	0.0185	0.0222	0.0305	0.0187	0.0147	0.0254	0.0033 J	0.0397	<0.0047	0.0150	<0.0096	0.0191 J	0.0307
BH-30	9/26/16	7.5-10	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0139	<0.0054
BH-30	9/26/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	0.0033 J	0.0058 J	<0.0029	0.0075 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	0.0071 J

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-30	9/26/16	15-17.5	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	0.0033 J	0.0062 J	<0.0029	0.0085 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0097	<0.0134	0.0082 J
BH-30A	9/26/16	22.5-25	<0.0043	<0.0037	<0.0064	<0.0035	<0.0028	<0.0032	<0.0023	<0.0028	<0.0038	<0.0025	<0.0058	<0.0046	<0.0025	<0.0094	<0.0130	<0.0050
BH-30A	9/26/16	27.5-30	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0028 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	0.0128 J	<0.0134	<0.0052
BH-31	9/26/16	2.5-5	0.0222	0.0142	0.139	0.593	0.725	0.708	0.367	0.406	0.828	0.112	1.160	0.0317	0.377	0.0107 J	0.747	0.890
BH-31	9/26/16	5-7.5	<0.0052	<0.0044	<0.0076	<0.0042	<0.0034	<0.0038	<0.0027	<0.0033	<0.0045	<0.0030	<0.0069	<0.0055	<0.0029	<0.0112	<0.0155	<0.0060
BH-31	9/26/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0042 J	<0.0029	0.0074 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0135	0.0078 J
BH-31	9/26/16	15-17.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0029	0.0038 J	0.0118	<0.0029	0.0109 J	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	0.0345 J	0.0061 J
BH-31	9/26/16	22.5-25	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0033	0.0037 J	<0.0030	<0.0040	<0.0026	<0.0062	<0.0049	<0.0026	<0.010	<0.0138	<0.0053
BH-31	9/26/16	25-27.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053

- Notes:
- 1) **Bold** = detected concentration or method detection limit exceeds a SRO listed in 35 IAC Part 742 or in the Non-TACO Objectives tables
  - 2) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
  - 3) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
  - 4) --- = no toxicity criteria available for the route of exposure
  - 5) Shaded cells = not applicable or sample located was excavated
  - 6) Pursuant to 35 IAC Section 742, Appendix B, Table A, the SRO listed in 35 IAC Section 742, Appendix A, Table H was utilized



**APPENDIX A**  
**IEMA INCIDENT REPORT**

**Hazardous Materials Incident Report**

**\*NOTE:** The following fields have been deleted or redacted from some of the reports contained in this database: Callback Phone, Number Injured, Number killed, On Scene Contact Phone, Responsible Party Contact Person, Responsible Party Callback Phone.

Incident Number: H-2014-1348  
Incident Report Date: 11/26/2014 11:34:46 AM  
Street Address of Incident Location: 1196 State St  
Incident Location City: Lemont  
Incident Location County: Cook  
Entered By: Kattner, Paul (IEMA)  
Data Input Status: Closed  
Leaking Underground Storage Tank (LUST)?: Yes  
Caller: Marcos Czako  
Caller Represents: Tricore Environmental  
Hazmat Incident Type: HAZMAT: Leak or spill

**Incident Location**

Date/Time Occurred:  
Street: 1196 State St  
City: Lemont  
State:  
County: Cook  
Milepost: N/A  
Section: N/A  
Township: N/A  
Range:  
Area Involved: Fixed Facility  
Media or medium into which the release occurred: Ground

**Weather Information**

Temp: 28 Degrees  
Wind: Calm

**Materials Involved**

Name: Gasoline & Diesel  
Type: Liquid  
CHRIS CODE: Unknown  
CAS#: Unknown  
UN/NA #: Unknown  
Is this a 302(a) Extremely Hazardous Substance?: Unknown  
Is this a RCRA Hazardous Waste?: Unknown  
Is this a RCRA regulated facility?: Unknown  
Container Type: Under ground storage tank  
Container Size: 1 x 6,000 gallons (Gasoline), 1 x 3,000 gallons (Gasoline), & 1 x 3,000 gallons (Diesel)  
Amount Released: Unknown  
Rate of Release/min: Unknown  
Duration of Release: Unknown

# Electronic Filing: Received, Clerk's Office 03/23/2021

Cause of Release: Suspected overfills

Estimated Spill Extent: Unknown

Spill Extent Units:

Date/Time Incident Occurred:

Check if Unknown (Occurrence):

Date/Time Discovered: 2014-11-25 14:00

Check if Unknown (Discovered):

Where Taken: N/A

On Scene Contact: Marcos Czako

Proper safety precautions to take as a result of the release, including evacuation: None

Number of People Evacuated: 0

Assistance needed from State Agencies: None

Containment/cleanup actions and plans: Tanks were removed and site will be put into the LUST program.....Tricore Environmental (Contractor) will handle coordinate cleanup and remediation.

## Responsible Party

Name: BOI, LLC

Facility Manager: N/A

Facility Manager Phone #: N/A

Street: 201 Danny's Dr, Suite #5

## Emergency Units Contacted

Contacted ESDA?:

ESDA on Scene?:

Specific ESDA Agency Contacted: None

Contacted Fire Department?:

Fire Department on Scene?:

Name of Fire Department Contacted: None

Contacted Police Department?:

Police Department on Scene?:

Name of Police Department Contacted: None

Sheriff Police Department?:

Sheriff Department on Scene?:

Name of Sheriff Department Contacted: None

Was an Agency Other than ESDA, Fire Police or Sheriff Contacted?:

Was this Other Agency On Scene?:

Name of Other Agency Contacted: None

## Agency or Persons Notified

Agency	Date/Time	Name of Person	Notification Action
IEPA, OSFM, NRTP, & IEMA Region #4	2014-11-26 11:40	E-mailed	Report Sent

## Narrative

**APPENDIX B**

**SOIL ANALYTICAL LABORATORY REPORTS AND CERTIFICATIONS**

December 04, 2014

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

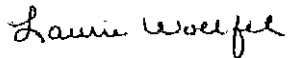
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107650

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on November 26, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



**REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

## CERTIFICATIONS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107650

---

### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

New York Certification #: 11888  
North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

---

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107650

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40107650001	EX-1 @ 7-8'	Solid	11/25/14 12:10	11/26/14 10:30
40107650002	EX-2 @ 7-8'	Solid	11/25/14 12:15	11/26/14 10:30
40107650003	EX-3 @ 7-8'	Solid	11/25/14 12:20	11/26/14 10:30
40107650004	B-1 @ 12-13'	Solid	11/25/14 12:40	11/26/14 10:30
40107650005	B-2 @ 12-13'	Solid	11/25/14 12:45	11/26/14 10:30
40107650006	BACKFILL #1	Solid	11/25/14 12:50	11/26/14 10:30
40107650007	B-3 @ 7-8'	Solid	11/25/14 14:20	11/26/14 10:30
40107650008	B-4 @ 7-8'	Solid	11/25/14 14:25	11/26/14 10:30

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107650

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40107650001	EX-1 @ 7-8'	EPA 8021	LCF	6	PASI-G
		ASTM D2974-87	RMS	1	PASI-G
40107650002	EX-2 @ 7-8'	EPA 8021	LCF	6	PASI-G
		ASTM D2974-87	RMS	1	PASI-G
40107650003	EX-3 @ 7-8'	EPA 8021	LCF	6	PASI-G
		ASTM D2974-87	RMS	1	PASI-G
40107650004	B-1 @ 12-13'	EPA 8021	LCF	6	PASI-G
		ASTM D2974-87	RMS	1	PASI-G
40107650005	B-2 @ 12-13'	EPA 8021	LCF	6	PASI-G
		ASTM D2974-87	RMS	1	PASI-G
40107650006	BACKFILL #1	EPA 8021	LCF	6	PASI-G
		ASTM D2974-87	RMS	1	PASI-G
40107650007	B-3 @ 7-8'	EPA 8021	LCF	6	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	RMS	1	PASI-G
40107650008	B-4 @ 7-8'	EPA 8021	LCF	6	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	RMS	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS
Pace Project No.: 40107650

Sample: EX-1 @ 7-8' Lab ID: 40107650001 Collected: 11/25/14 12:10 Received: 11/26/14 10:30 Matrix: Solid

Results reported on a "dry-weight" basis

Table with 10 columns: Parameters, Results, Units, PQL, MDL, DF, Prepared, Analyzed, CAS No., Qual. Rows include 8021 GCV Med BTEX (Benzene, Ethylbenzene, Methyl-tert-butyl ether, Toluene, Xylene) and Percent Moisture.

REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107650

Sample: EX-2 @ 7-8' Lab ID: 40107650002 Collected: 11/25/14 12:15 Received: 11/26/14 10:30 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	6330	ug/kg	323	161	12.5	12/02/14 06:55	12/02/14 12:00	71-43-2	
Ethylbenzene	35900	ug/kg	807	404	12.5	12/02/14 06:55	12/02/14 12:00	100-41-4	
Methyl-tert-butyl ether	655J	ug/kg	807	404	12.5	12/02/14 06:55	12/02/14 12:00	1634-04-4	
Toluene	3200	ug/kg	807	404	12.5	12/02/14 06:55	12/02/14 12:00	108-88-3	
Xylene (Total)	54500	ug/kg	2420	1210	12.5	12/02/14 06:55	12/02/14 12:00	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	146	%	41-178		12.5	12/02/14 06:55	12/02/14 12:00	98-08-8	S4
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	22.6	%	0.10	0.10	1		12/01/14 15:19		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107650

Sample: EX-3 @ 7-8' Lab ID: 40107650003 Collected: 11/25/14 12:20 Received: 11/26/14 10:30 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	1890	ug/kg	484	242	20	12/02/14 06:55	12/02/14 14:34	71-43-2	
Ethylbenzene	32600	ug/kg	1210	604	20	12/02/14 06:55	12/02/14 14:34	100-41-4	
Methyl-tert-butyl ether	972J	ug/kg	1210	604	20	12/02/14 06:55	12/02/14 14:34	1634-04-4	
Toluene	3360	ug/kg	1210	604	20	12/02/14 06:55	12/02/14 14:34	108-88-3	
Xylene (Total)	158000	ug/kg	3630	1810	20	12/02/14 06:55	12/02/14 14:34	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	131	%	41-178		20	12/02/14 06:55	12/02/14 14:34	98-08-8	S4
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	17.3	%	0.10	0.10	1		12/01/14 15:20		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107650

Sample: B-1 @ 12-13' Lab ID: 40107650004 Collected: 11/25/14 12:40 Received: 11/26/14 10:30 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	1860	ug/kg	24.1	12.1	1	12/02/14 06:55	12/02/14 11:35	71-43-2	
Ethylbenzene	373	ug/kg	60.3	30.1	1	12/02/14 06:55	12/02/14 11:35	100-41-4	
Methyl-tert-butyl ether	<30.1	ug/kg	60.3	30.1	1	12/02/14 06:55	12/02/14 11:35	1634-04-4	
Toluene	164	ug/kg	60.3	30.1	1	12/02/14 06:55	12/02/14 11:35	108-88-3	
Xylene (Total)	1630	ug/kg	181	90.4	1	12/02/14 06:55	12/02/14 11:35	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	94	%	41-178		1	12/02/14 06:55	12/02/14 11:35	98-08-8	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	17.0	%	0.10	0.10	1		12/01/14 15:20		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107650

Sample: B-2 @ 12-13' Lab ID: 40107650005 Collected: 11/25/14 12:45 Received: 11/26/14 10:30 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	5200	ug/kg	195	97.4	8	12/02/14 06:55	12/02/14 17:07	71-43-2	
Ethylbenzene	1460	ug/kg	487	244	8	12/02/14 06:55	12/02/14 17:07	100-41-4	
Methyl-tert-butyl ether	<244	ug/kg	487	244	8	12/02/14 06:55	12/02/14 17:07	1634-04-4	
Toluene	<244	ug/kg	487	244	8	12/02/14 06:55	12/02/14 17:07	108-88-3	
Xylene (Total)	2790	ug/kg	1460	731	8	12/02/14 06:55	12/02/14 17:07	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	120	%	41-178		8	12/02/14 06:55	12/02/14 17:07	98-08-8	D3,S4
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	17.9	%	0.10	0.10	1		12/01/14 15:20		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
 Pace Project No.: 40107650

Sample: BACKFILL #1 Lab ID: 40107650006 Collected: 11/25/14 12:50 Received: 11/26/14 10:30 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>		Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil							
Benzene	5750	ug/kg	205	102	8	12/02/14 06:55	12/02/14 17:33	71-43-2	
Ethylbenzene	24600	ug/kg	512	256	8	12/02/14 06:55	12/02/14 17:33	100-41-4	
Methyl-tert-butyl ether	450J	ug/kg	512	256	8	12/02/14 06:55	12/02/14 17:33	1634-04-4	
Toluene	1400	ug/kg	512	256	8	12/02/14 06:55	12/02/14 17:33	108-88-3	
Xylene (Total)	7880	ug/kg	1540	768	8	12/02/14 06:55	12/02/14 17:33	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	122	%	41-178		8	12/02/14 06:55	12/02/14 17:33	98-08-8	S4
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	21.9	%	0.10	0.10	1		12/01/14 15:20		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107650

Sample: B-3 @ 7-8' Lab ID: 40107650007 Collected: 11/25/14 14:20 Received: 11/26/14 10:30 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>									
Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil									
Benzene	1340	ug/kg	23.5	11.7	1	12/02/14 06:55	12/02/14 09:53	71-43-2	
Ethylbenzene	143	ug/kg	58.7	29.3	1	12/02/14 06:55	12/02/14 09:53	100-41-4	
Methyl-tert-butyl ether	<29.3	ug/kg	58.7	29.3	1	12/02/14 06:55	12/02/14 09:53	1634-04-4	
Toluene	129	ug/kg	58.7	29.3	1	12/02/14 06:55	12/02/14 09:53	108-88-3	
Xylene (Total)	345	ug/kg	176	88.0	1	12/02/14 06:55	12/02/14 09:53	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	96	%	41-178		1	12/02/14 06:55	12/02/14 09:53	98-08-8	
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<48.9	ug/kg	97.8	48.9	5	12/01/14 14:12	12/03/14 17:47	83-32-9	
Acenaphthylene	<43.7	ug/kg	97.8	43.7	5	12/01/14 14:12	12/03/14 17:47	208-96-8	
Anthracene	<50.7	ug/kg	97.8	50.7	5	12/01/14 14:12	12/03/14 17:47	120-12-7	
Benzo(a)anthracene	<33.9	ug/kg	97.8	33.9	5	12/01/14 14:12	12/03/14 17:47	56-55-3	
Benzo(a)pyrene	<35.0	ug/kg	97.8	35.0	5	12/01/14 14:12	12/03/14 17:47	50-32-8	
Benzo(b)fluoranthene	<48.9	ug/kg	97.8	48.9	5	12/01/14 14:12	12/03/14 17:47	205-99-2	
Benzo(g,h,i)perylene	<37.2	ug/kg	97.8	37.2	5	12/01/14 14:12	12/03/14 17:47	191-24-2	
Benzo(k)fluoranthene	<54.1	ug/kg	97.8	54.1	5	12/01/14 14:12	12/03/14 17:47	207-08-9	
Chrysene	<45.2	ug/kg	97.8	45.2	5	12/01/14 14:12	12/03/14 17:47	218-01-9	
Dibenz(a,h)anthracene	<35.9	ug/kg	97.8	35.9	5	12/01/14 14:12	12/03/14 17:47	53-70-3	
Fluoranthene	<48.9	ug/kg	97.8	48.9	5	12/01/14 14:12	12/03/14 17:47	206-44-0	
Fluorene	<48.9	ug/kg	97.8	48.9	5	12/01/14 14:12	12/03/14 17:47	86-73-7	
Indeno(1,2,3-cd)pyrene	<37.1	ug/kg	97.8	37.1	5	12/01/14 14:12	12/03/14 17:47	193-39-5	
Naphthalene	1070	ug/kg	97.8	48.9	5	12/01/14 14:12	12/03/14 17:47	91-20-3	
Phenanthrene	<48.9	ug/kg	97.8	48.9	5	12/01/14 14:12	12/03/14 17:47	85-01-8	
Pyrene	<48.9	ug/kg	97.8	48.9	5	12/01/14 14:12	12/03/14 17:47	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	54	%	40-130		5	12/01/14 14:12	12/03/14 17:47	321-60-8	
Terphenyl-d14 (S)	52	%	40-130		5	12/01/14 14:12	12/03/14 17:47	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.8	%	0.10	0.10	1		12/01/14 15:20		

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107650

Sample: B-4 @ 7-8' Lab ID: 40107650008 Collected: 11/25/14 14:25 Received: 11/26/14 10:30 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>									
Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil									
Benzene	2070	ug/kg	23.6	11.8	1	12/02/14 06:55	12/02/14 10:18	71-43-2	
Ethylbenzene	193	ug/kg	59.0	29.5	1	12/02/14 06:55	12/02/14 10:18	100-41-4	
Methyl-tert-butyl ether	<29.5	ug/kg	59.0	29.5	1	12/02/14 06:55	12/02/14 10:18	1634-04-4	
Toluene	156	ug/kg	59.0	29.5	1	12/02/14 06:55	12/02/14 10:18	108-88-3	
Xylene (Total)	398	ug/kg	177	88.5	1	12/02/14 06:55	12/02/14 10:18	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	96	%	41-178		1	12/02/14 06:55	12/02/14 10:18	98-08-8	
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<49.2	ug/kg	98.3	49.2	5	12/01/14 14:12	12/03/14 16:38	83-32-9	
Acenaphthylene	<44.0	ug/kg	98.3	44.0	5	12/01/14 14:12	12/03/14 16:38	208-96-8	
Anthracene	<51.0	ug/kg	98.3	51.0	5	12/01/14 14:12	12/03/14 16:38	120-12-7	
Benzo(a)anthracene	<34.1	ug/kg	98.3	34.1	5	12/01/14 14:12	12/03/14 16:38	56-55-3	
Benzo(a)pyrene	<35.2	ug/kg	98.3	35.2	5	12/01/14 14:12	12/03/14 16:38	50-32-8	
Benzo(b)fluoranthene	<49.2	ug/kg	98.3	49.2	5	12/01/14 14:12	12/03/14 16:38	205-99-2	
Benzo(g,h,i)perylene	<37.4	ug/kg	98.3	37.4	5	12/01/14 14:12	12/03/14 16:38	191-24-2	
Benzo(k)fluoranthene	<54.4	ug/kg	98.3	54.4	5	12/01/14 14:12	12/03/14 16:38	207-08-9	
Chrysene	<45.5	ug/kg	98.3	45.5	5	12/01/14 14:12	12/03/14 16:38	218-01-9	
Dibenz(a,h)anthracene	<36.1	ug/kg	98.3	36.1	5	12/01/14 14:12	12/03/14 16:38	53-70-3	
Fluoranthene	<49.2	ug/kg	98.3	49.2	5	12/01/14 14:12	12/03/14 16:38	206-44-0	
Fluorene	<49.2	ug/kg	98.3	49.2	5	12/01/14 14:12	12/03/14 16:38	86-73-7	
Indeno(1,2,3-cd)pyrene	<37.4	ug/kg	98.3	37.4	5	12/01/14 14:12	12/03/14 16:38	193-39-5	
Naphthalene	875	ug/kg	98.3	49.2	5	12/01/14 14:12	12/03/14 16:38	91-20-3	M1
Phenanthrene	<49.2	ug/kg	98.3	49.2	5	12/01/14 14:12	12/03/14 16:38	85-01-8	
Pyrene	<49.2	ug/kg	98.3	49.2	5	12/01/14 14:12	12/03/14 16:38	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	53	%	40-130		5	12/01/14 14:12	12/03/14 16:38	321-60-8	
Terphenyl-d14 (S)	50	%	40-130		5	12/01/14 14:12	12/03/14 16:38	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	15.2	%	0.10	0.10	1		12/01/14 15:20		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107650

QC Batch: GCV/13655 Analysis Method: EPA 8021  
QC Batch Method: EPA 5030 Medium Soil Analysis Description: 8021 Med Level Solid GCV  
Associated Lab Samples: 40107650001, 40107650002, 40107650003, 40107650004, 40107650005, 40107650006, 40107650007, 40107650008

METHOD BLANK: 1090066 Matrix: Solid  
Associated Lab Samples: 40107650001, 40107650002, 40107650003, 40107650004, 40107650005, 40107650006, 40107650007, 40107650008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<10.0	20.0	12/02/14 08:10	
Ethylbenzene	ug/kg	<25.0	50.0	12/02/14 08:10	
Methyl-tert-butyl ether	ug/kg	<25.0	50.0	12/02/14 08:10	
Toluene	ug/kg	<25.0	50.0	12/02/14 08:10	
Xylene (Total)	ug/kg	<75.0	150	12/02/14 08:10	
a,a,a-Trifluorotoluene (S)	%	107	41-178	12/02/14 08:10	

LABORATORY CONTROL SAMPLE & LCSD: 1090067

1090068

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	1000	1070	1110	107	111	80-120	4	20	
Ethylbenzene	ug/kg	1000	1090	1140	109	114	80-120	4	20	
Methyl-tert-butyl ether	ug/kg	1000	1070	1120	107	112	80-120	4	20	
Toluene	ug/kg	1000	1080	1120	108	112	80-120	4	20	
Xylene (Total)	ug/kg	3000	3220	3340	107	111	80-120	4	20	
a,a,a-Trifluorotoluene (S)	%				110	111	41-178			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107650

QC Batch: OEXT/25353 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40107650007, 40107650008

METHOD BLANK: 1089863 Matrix: Solid  
Associated Lab Samples: 40107650007, 40107650008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	12/02/14 08:26	
Acenaphthylene	ug/kg	<7.5	16.7	12/02/14 08:26	
Anthracene	ug/kg	<8.6	16.7	12/02/14 08:26	
Benzo(a)anthracene	ug/kg	<5.8	16.7	12/02/14 08:26	
Benzo(a)pyrene	ug/kg	<6.0	16.7	12/02/14 08:26	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	12/02/14 08:26	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	12/02/14 08:26	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	12/02/14 08:26	
Chrysene	ug/kg	<7.7	16.7	12/02/14 08:26	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	12/02/14 08:26	
Fluoranthene	ug/kg	<8.3	16.7	12/02/14 08:26	
Fluorene	ug/kg	<8.3	16.7	12/02/14 08:26	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	12/02/14 08:26	
Naphthalene	ug/kg	<8.3	16.7	12/02/14 08:26	
Phenanthrene	ug/kg	<8.3	16.7	12/02/14 08:26	
Pyrene	ug/kg	<8.3	16.7	12/02/14 08:26	
2-Fluorobiphenyl (S)	%	72	40-130	12/02/14 08:26	
Terphenyl-d14 (S)	%	75	40-130	12/02/14 08:26	

LABORATORY CONTROL SAMPLE: 1089864

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	284	85	55-130	
Acenaphthylene	ug/kg	333	290	87	55-130	
Anthracene	ug/kg	333	330	99	66-130	
Benzo(a)anthracene	ug/kg	333	243	73	55-130	
Benzo(a)pyrene	ug/kg	333	281	84	56-130	
Benzo(b)fluoranthene	ug/kg	333	206	62	53-130	
Benzo(g,h,i)perylene	ug/kg	333	268	80	51-130	
Benzo(k)fluoranthene	ug/kg	333	303	91	52-130	
Chrysene	ug/kg	333	320	96	58-130	
Dibenz(a,h)anthracene	ug/kg	333	254	76	55-130	
Fluoranthene	ug/kg	333	268	81	62-130	
Fluorene	ug/kg	333	283	85	58-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	265	79	54-130	
Naphthalene	ug/kg	333	279	84	41-130	
Phenanthrene	ug/kg	333	249	75	60-130	
Pyrene	ug/kg	333	268	80	51-130	
2-Fluorobiphenyl (S)	%			79	40-130	
Terphenyl-d14 (S)	%			79	40-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107650

Parameter	Units	1089865		1089866		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40107650008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Acenaphthene	ug/kg	<49.2	393	393	239	243	61	62	31-130	2	35		
Acenaphthylene	ug/kg	<44.0	393	393	247	250	63	64	32-130	1	25		
Anthracene	ug/kg	<51.0	393	393	267	270	68	69	39-131	1	38		
Benzo(a)anthracene	ug/kg	<34.1	393	393	205	203	50	50	29-130	1	30		
Benzo(a)pyrene	ug/kg	<35.2	393	393	232	216	59	55	35-130	7	33		
Benzo(b)fluoranthene	ug/kg	<49.2	393	393	187	194	47	49	21-142	4	44		
Benzo(g,h,i)perylene	ug/kg	<37.4	393	393	232	230	59	59	12-134	1	33		
Benzo(k)fluoranthene	ug/kg	<54.4	393	393	301	284	77	72	35-130	6	37		
Chrysene	ug/kg	<45.5	393	393	289	280	74	71	37-130	3	38		
Dibenz(a,h)anthracene	ug/kg	<36.1	393	393	222	214	56	54	23-130	4	27		
Fluoranthene	ug/kg	<49.2	393	393	237	233	60	59	29-137	1	50		
Fluorene	ug/kg	<49.2	393	393	242	242	62	62	32-130	0	32		
Indeno(1,2,3-cd)pyrene	ug/kg	<37.4	393	393	235	228	60	58	17-134	3	28		
Naphthalene	ug/kg	875	393	393	1030	1510	39	161	24-130	38	40	M1	
Phenanthrene	ug/kg	<49.2	393	393	222	222	56	57	27-135	0	46		
Pyrene	ug/kg	<49.2	393	393	231	226	59	57	24-130	2	49		
2-Fluorobiphenyl (S)	%						53	53	40-130				
Terphenyl-d14 (S)	%						49	50	40-130				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107650

QC Batch: PMST/10700 Analysis Method: ASTM D2974-87  
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture  
Associated Lab Samples: 40107650001, 40107650002, 40107650003, 40107650004, 40107650005, 40107650006, 40107650007, 40107650008

SAMPLE DUPLICATE: 1089953

Parameter	Units	40107654007 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	10.1	10.5	5	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107650

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSSV/7452

[IP] Benzo(b)fluoranthene and benzo(k)fluoranthene were in the check standard but did not meet the resolution criteria in SW846 Method 8270C. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.

Batch: GCV/13660

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

S4 Surrogate recovery not evaluated against control limits due to sample dilution.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107650

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40107650001	EX-1 @ 7-8'	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107650002	EX-2 @ 7-8'	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107650003	EX-3 @ 7-8'	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107650004	B-1 @ 12-13'	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107650005	B-2 @ 12-13'	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107650006	BACKFILL #1	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107650007	B-3 @ 7-8'	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107650008	B-4 @ 7-8'	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107650007	B-3 @ 7-8'	EPA 3546	OEXT/25353	EPA 8270 by SIM	MSSV/7452
40107650008	B-4 @ 7-8'	EPA 3546	OEXT/25353	EPA 8270 by SIM	MSSV/7452
40107650001	EX-1 @ 7-8'	ASTM D2974-87	PMST/10700		
40107650002	EX-2 @ 7-8'	ASTM D2974-87	PMST/10700		
40107650003	EX-3 @ 7-8'	ASTM D2974-87	PMST/10700		
40107650004	B-1 @ 12-13'	ASTM D2974-87	PMST/10700		
40107650005	B-2 @ 12-13'	ASTM D2974-87	PMST/10700		
40107650006	BACKFILL #1	ASTM D2974-87	PMST/10700		
40107650007	B-3 @ 7-8'	ASTM D2974-87	PMST/10700		
40107650008	B-4 @ 7-8'	ASTM D2974-87	PMST/10700		

**REPORT OF LABORATORY ANALYSIS**

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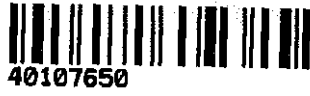
Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302



Client Name: Tricore

Project #: WO#: 40107650



Courier: Fed Ex UPS Client Pace Other: Logistics
Tracking #:

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no
Custody Seal on Samples Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used: SR32 Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: 3 / Corr: 3 Biological Tissue is Frozen: yes

Temp Blank Present: yes no

Person examining contents:
Date: 11-26-14
Initials: PCB

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

Comments:

Table with 15 rows for Chain of Custody Present, Chain of Custody Filled Out, Chain of Custody Relinquished, Sampler Name & Signature on COC, Samples Arrived within Hold Time, Short Hold Time Analysis (<72hr), Rush Turn Around Time Requested, Sufficient Volume, Correct Containers Used, Containers Intact, Filtered volume received for Dissolved tests, Sample Labels match COC, All containers needing preservation have been checked, All containers needing preservation are found to be in compliance with EPA recommendation, exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER, Headspace in VOA Vials (>6mm), Trip Blank Present, Trip Blank Custody Seals Present, Pace Trip Blank Lot # (if purchased).

Client Notification/ Resolution:
Person Contacted: Date/Time:
Comments/ Resolution:
If checked, see attached form for additional comments

Project Manager Review: Date: 11/26/14





40107650

# Illinois Environmental Protection Agency

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 - 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

## Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

### B. Sample Collector

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. MIR  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. MIR  
(Initial)
- 3. Sample integrity was maintained by proper preservation. MIR  
(Initial)
- 4. All samples were properly labeled. MIR  
(Initial)

### C. Laboratory Representative

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms UW  
(Initial)
- 2. Sample integrity was maintained by proper preservation. UW  
(Initial)
- 3. All samples were properly labeled. UW  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. UW  
(Initial)
- 5. Sample holding times were not exceeded. UW  
(Initial)

401071050

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako

Title Geologist III

Company TriCore Environmental, LLC

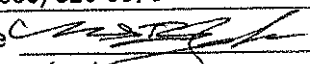
Address 2368 Corporate Lane, Suite 116

City Naperville

State Illinois

Zip Code 60563

Phone (630) 520-9973

Signature 

Date 11/25/14

**Laboratory Representative**

Name Laurie Woelfel

Title Project Manager

Company Pace Analytical Services, Inc.

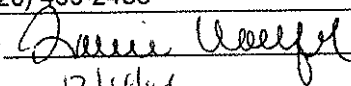
Address 1241 Bellevue Street, Suite 9

City Green Bay

State Wisconsin

Zip Code 64302

Phone (920) 469-2436

Signature 

Date 12/4/14

December 12, 2014

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

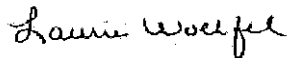
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107651

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on November 26, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



**REPORT OF LABORATORY ANALYSIS**

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**CERTIFICATIONS**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40107651

**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

New York Certification #: 11888  
North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

**REPORT OF LABORATORY ANALYSIS**

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**SAMPLE SUMMARY**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107651

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40107651001	EX-1 @ 7-8'	Solid	11/25/14 12:10	11/26/14 10:30
40107651002	EX-2 @ 7-8'	Solid	11/25/14 12:15	11/26/14 10:30
40107651003	EX-3 @ 7-8'	Solid	11/25/14 12:20	11/26/14 10:30
40107651004	B-1 @ 12-13'	Solid	11/25/14 12:40	11/26/14 10:30
40107651005	B-2 @ 12-13'	Solid	11/25/14 12:45	11/26/14 10:30
40107651006	BACKFILL #1	Solid	11/25/14 12:50	11/26/14 10:30

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107651

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40107651001	EX-1 @ 7-8'	EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	RMS	1	PASI-G
40107651002	EX-2 @ 7-8'	EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	RMS	1	PASI-G
40107651003	EX-3 @ 7-8'	EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	RMS	1	PASI-G
40107651004	B-1 @ 12-13'	EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	RMS	1	PASI-G
40107651005	B-2 @ 12-13'	EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	RMS	1	PASI-G
40107651006	BACKFILL #1	EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	RMS	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107651

Sample: EX-1 @ 7-8' Lab ID: 40107651001 Collected: 11/25/14 12:10 Received: 11/26/14 10:30 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<99.2	ug/kg	198	99.2	10	12/05/14 14:01	12/09/14 10:47	83-32-9	
Acenaphthylene	<88.7	ug/kg	198	88.7	10	12/05/14 14:01	12/09/14 10:47	208-96-8	
Anthracene	<103	ug/kg	198	103	10	12/05/14 14:01	12/09/14 10:47	120-12-7	
Benzo(a)anthracene	<68.7	ug/kg	198	68.7	10	12/05/14 14:01	12/09/14 10:47	56-55-3	
Benzo(a)pyrene	<70.9	ug/kg	198	70.9	10	12/05/14 14:01	12/09/14 10:47	50-32-8	
Benzo(b)fluoranthene	<99.2	ug/kg	198	99.2	10	12/05/14 14:01	12/09/14 10:47	205-99-2	
Benzo(g,h,i)perylene	<75.5	ug/kg	198	75.5	10	12/05/14 14:01	12/09/14 10:47	191-24-2	
Benzo(k)fluoranthene	<110	ug/kg	198	110	10	12/05/14 14:01	12/09/14 10:47	207-08-9	
Chrysene	<91.7	ug/kg	198	91.7	10	12/05/14 14:01	12/09/14 10:47	218-01-9	
Dibenz(a,h)anthracene	<72.7	ug/kg	198	72.7	10	12/05/14 14:01	12/09/14 10:47	53-70-3	
Fluoranthene	<99.2	ug/kg	198	99.2	10	12/05/14 14:01	12/09/14 10:47	206-44-0	
Fluorene	<99.2	ug/kg	198	99.2	10	12/05/14 14:01	12/09/14 10:47	86-73-7	
Indeno(1,2,3-cd)pyrene	<75.4	ug/kg	198	75.4	10	12/05/14 14:01	12/09/14 10:47	193-39-5	
Naphthalene	3330	ug/kg	198	99.2	10	12/05/14 14:01	12/09/14 10:47	91-20-3	
Phenanthrene	<99.2	ug/kg	198	99.2	10	12/05/14 14:01	12/09/14 10:47	85-01-8	
Pyrene	<99.2	ug/kg	198	99.2	10	12/05/14 14:01	12/09/14 10:47	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	61 %		40-130		10	12/05/14 14:01	12/09/14 10:47	321-60-8	
Terphenyl-d14 (S)	66 %		40-130		10	12/05/14 14:01	12/09/14 10:47	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	16.0 %		0.10	0.10	1		12/01/14 15:20		

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107651

Sample: EX-2 @ 7-8' Lab ID: 40107651002 Collected: 11/25/14 12:15 Received: 11/26/14 10:30 Matrix: Solid  
Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<213	ug/kg	425	213	20	12/05/14 14:01	12/10/14 09:23	83-32-9	
Acenaphthylene	<190	ug/kg	425	190	20	12/05/14 14:01	12/10/14 09:23	208-96-8	
Anthracene	<221	ug/kg	425	221	20	12/05/14 14:01	12/10/14 09:23	120-12-7	
Benzo(a)anthracene	<147	ug/kg	425	147	20	12/05/14 14:01	12/10/14 09:23	56-55-3	
Benzo(a)pyrene	<152	ug/kg	425	152	20	12/05/14 14:01	12/10/14 09:23	50-32-8	
Benzo(b)fluoranthene	<213	ug/kg	425	213	20	12/05/14 14:01	12/10/14 09:23	205-99-2	
Benzo(g,h,i)perylene	<162	ug/kg	425	162	20	12/05/14 14:01	12/10/14 09:23	191-24-2	
Benzo(k)fluoranthene	<235	ug/kg	425	235	20	12/05/14 14:01	12/10/14 09:23	207-08-9	
Chrysene	<197	ug/kg	425	197	20	12/05/14 14:01	12/10/14 09:23	218-01-9	
Dibenz(a,h)anthracene	<156	ug/kg	425	156	20	12/05/14 14:01	12/10/14 09:23	53-70-3	
Fluoranthene	<213	ug/kg	425	213	20	12/05/14 14:01	12/10/14 09:23	206-44-0	
Fluorene	<213	ug/kg	425	213	20	12/05/14 14:01	12/10/14 09:23	86-73-7	
Indeno(1,2,3-cd)pyrene	<162	ug/kg	425	162	20	12/05/14 14:01	12/10/14 09:23	193-39-5	
Naphthalene	5470	ug/kg	425	213	20	12/05/14 14:01	12/10/14 09:23	91-20-3	
Phenanthrene	<213	ug/kg	425	213	20	12/05/14 14:01	12/10/14 09:23	85-01-8	
Pyrene	<213	ug/kg	425	213	20	12/05/14 14:01	12/10/14 09:23	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	53 %		40-130		20	12/05/14 14:01	12/10/14 09:23	321-60-8	
Terphenyl-d14 (S)	56 %		40-130		20	12/05/14 14:01	12/10/14 09:23	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	21.7 %		0.10	0.10	1		12/01/14 15:20		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107651

Sample: EX-3 @ 7-8' Lab ID: 40107651003 Collected: 11/25/14 12:20 Received: 11/26/14 10:30 Matrix: Solid  
Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<504	ug/kg	1010	504	50	12/09/14 09:43	12/10/14 09:57	83-32-9	
Acenaphthylene	<451	ug/kg	1010	451	50	12/09/14 09:43	12/10/14 09:57	208-96-8	
Anthracene	<523	ug/kg	1010	523	50	12/09/14 09:43	12/10/14 09:57	120-12-7	
Benzo(a)anthracene	<350	ug/kg	1010	350	50	12/09/14 09:43	12/10/14 09:57	56-55-3	
Benzo(a)pyrene	<361	ug/kg	1010	361	50	12/09/14 09:43	12/10/14 09:57	50-32-8	
Benzo(b)fluoranthene	<504	ug/kg	1010	504	50	12/09/14 09:43	12/10/14 09:57	205-99-2	
Benzo(g,h,i)perylene	<384	ug/kg	1010	384	50	12/09/14 09:43	12/10/14 09:57	191-24-2	
Benzo(k)fluoranthene	<558	ug/kg	1010	558	50	12/09/14 09:43	12/10/14 09:57	207-08-9	
Chrysene	<466	ug/kg	1010	466	50	12/09/14 09:43	12/10/14 09:57	218-01-9	
Dibenz(a,h)anthracene	<370	ug/kg	1010	370	50	12/09/14 09:43	12/10/14 09:57	53-70-3	
Fluoranthene	<504	ug/kg	1010	504	50	12/09/14 09:43	12/10/14 09:57	206-44-0	
Fluorene	<504	ug/kg	1010	504	50	12/09/14 09:43	12/10/14 09:57	86-73-7	
Indeno(1,2,3-cd)pyrene	<383	ug/kg	1010	383	50	12/09/14 09:43	12/10/14 09:57	193-39-5	
Naphthalene	14500	ug/kg	1010	504	50	12/09/14 09:43	12/10/14 09:57	91-20-3	
Phenanthrene	<504	ug/kg	1010	504	50	12/09/14 09:43	12/10/14 09:57	85-01-8	
Pyrene	<504	ug/kg	1010	504	50	12/09/14 09:43	12/10/14 09:57	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	62 %		40-130		50	12/09/14 09:43	12/10/14 09:57	321-60-8	
Terphenyl-d14 (S)	62 %		40-130		50	12/09/14 09:43	12/10/14 09:57	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	17.4 %		0.10	0.10	1		12/01/14 15:20		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107651

Sample: B-1 @ 12-13' Lab ID: 40107651004 Collected: 11/25/14 12:40 Received: 11/26/14 10:30 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<50.0	ug/kg	99.9	50.0	5	12/09/14 09:43	12/10/14 10:14	83-32-9	
Acenaphthylene	<44.7	ug/kg	99.9	44.7	5	12/09/14 09:43	12/10/14 10:14	208-96-8	
Anthracene	<51.8	ug/kg	99.9	51.8	5	12/09/14 09:43	12/10/14 10:14	120-12-7	
Benzo(a)anthracene	<34.6	ug/kg	99.9	34.6	5	12/09/14 09:43	12/10/14 10:14	56-55-3	
Benzo(a)pyrene	<35.7	ug/kg	99.9	35.7	5	12/09/14 09:43	12/10/14 10:14	50-32-8	
Benzo(b)fluoranthene	<50.0	ug/kg	99.9	50.0	5	12/09/14 09:43	12/10/14 10:14	205-99-2	
Benzo(g,h,i)perylene	<38.1	ug/kg	99.9	38.1	5	12/09/14 09:43	12/10/14 10:14	191-24-2	
Benzo(k)fluoranthene	<55.3	ug/kg	99.9	55.3	5	12/09/14 09:43	12/10/14 10:14	207-08-9	
Chrysene	<46.2	ug/kg	99.9	46.2	5	12/09/14 09:43	12/10/14 10:14	218-01-9	
Dibenz(a,h)anthracene	<36.7	ug/kg	99.9	36.7	5	12/09/14 09:43	12/10/14 10:14	53-70-3	
Fluoranthene	<50.0	ug/kg	99.9	50.0	5	12/09/14 09:43	12/10/14 10:14	206-44-0	
Fluorene	<50.0	ug/kg	99.9	50.0	5	12/09/14 09:43	12/10/14 10:14	86-73-7	
Indeno(1,2,3-cd)pyrene	<38.0	ug/kg	99.9	38.0	5	12/09/14 09:43	12/10/14 10:14	193-39-5	
Naphthalene	1750	ug/kg	99.9	50.0	5	12/09/14 09:43	12/10/14 10:14	91-20-3	
Phenanthrene	<50.0	ug/kg	99.9	50.0	5	12/09/14 09:43	12/10/14 10:14	85-01-8	
Pyrene	<50.0	ug/kg	99.9	50.0	5	12/09/14 09:43	12/10/14 10:14	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	65 %		40-130		5	12/09/14 09:43	12/10/14 10:14	321-60-8	
Terphenyl-d14 (S)	65 %		40-130		5	12/09/14 09:43	12/10/14 10:14	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	16.6 %		0.10	0.10	1		12/01/14 15:21		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107651

Sample: B-2 @ 12-13' Lab ID: 40107651005 Collected: 11/25/14 12:45 Received: 11/26/14 10:30 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<50.4	ug/kg	101	50.4	5	12/09/14 09:43	12/10/14 10:31	83-32-9	
Acenaphthylene	<45.1	ug/kg	101	45.1	5	12/09/14 09:43	12/10/14 10:31	208-96-8	
Anthracene	<52.2	ug/kg	101	52.2	5	12/09/14 09:43	12/10/14 10:31	120-12-7	
Benzo(a)anthracene	<34.9	ug/kg	101	34.9	5	12/09/14 09:43	12/10/14 10:31	56-55-3	
Benzo(a)pyrene	<36.0	ug/kg	101	36.0	5	12/09/14 09:43	12/10/14 10:31	50-32-8	
Benzo(b)fluoranthene	<50.4	ug/kg	101	50.4	5	12/09/14 09:43	12/10/14 10:31	205-99-2	
Benzo(g,h,i)perylene	<38.4	ug/kg	101	38.4	5	12/09/14 09:43	12/10/14 10:31	191-24-2	
Benzo(k)fluoranthene	<55.7	ug/kg	101	55.7	5	12/09/14 09:43	12/10/14 10:31	207-08-9	
Chrysene	<46.6	ug/kg	101	46.6	5	12/09/14 09:43	12/10/14 10:31	218-01-9	
Dibenz(a,h)anthracene	<36.9	ug/kg	101	36.9	5	12/09/14 09:43	12/10/14 10:31	53-70-3	
Fluoranthene	<50.4	ug/kg	101	50.4	5	12/09/14 09:43	12/10/14 10:31	206-44-0	
Fluorene	<50.4	ug/kg	101	50.4	5	12/09/14 09:43	12/10/14 10:31	86-73-7	
Indeno(1,2,3-cd)pyrene	<38.3	ug/kg	101	38.3	5	12/09/14 09:43	12/10/14 10:31	193-39-5	
Naphthalene	1180	ug/kg	101	50.4	5	12/09/14 09:43	12/10/14 10:31	91-20-3	
Phenanthrene	<50.4	ug/kg	101	50.4	5	12/09/14 09:43	12/10/14 10:31	85-01-8	
Pyrene	<50.4	ug/kg	101	50.4	5	12/09/14 09:43	12/10/14 10:31	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	65 %		40-130		5	12/09/14 09:43	12/10/14 10:31	321-60-8	
Terphenyl-d14 (S)	64 %		40-130		5	12/09/14 09:43	12/10/14 10:31	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	17.3 %		0.10	0.10	1		12/01/14 15:21		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107651

Sample: BACKFILL #1 Lab ID: 40107651006 Collected: 11/25/14 12:50 Received: 11/26/14 10:30 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<108	ug/kg	215	108	10	12/09/14 09:43	12/10/14 10:48	83-32-9	
Acenaphthylene	<96.3	ug/kg	215	96.3	10	12/09/14 09:43	12/10/14 10:48	208-96-8	
Anthracene	<112	ug/kg	215	112	10	12/09/14 09:43	12/10/14 10:48	120-12-7	
Benzo(a)anthracene	<74.6	ug/kg	215	74.6	10	12/09/14 09:43	12/10/14 10:48	56-55-3	
Benzo(a)pyrene	<77.0	ug/kg	215	77.0	10	12/09/14 09:43	12/10/14 10:48	50-32-8	
Benzo(b)fluoranthene	<108	ug/kg	215	108	10	12/09/14 09:43	12/10/14 10:48	205-99-2	
Benzo(g,h,i)perylene	<82.0	ug/kg	215	82.0	10	12/09/14 09:43	12/10/14 10:48	191-24-2	
Benzo(k)fluoranthene	<119	ug/kg	215	119	10	12/09/14 09:43	12/10/14 10:48	207-08-9	
Chrysene	<99.5	ug/kg	215	99.5	10	12/09/14 09:43	12/10/14 10:48	218-01-9	
Dibenz(a,h)anthracene	<78.9	ug/kg	215	78.9	10	12/09/14 09:43	12/10/14 10:48	53-70-3	
Fluoranthene	<108	ug/kg	215	108	10	12/09/14 09:43	12/10/14 10:48	206-44-0	
Fluorene	<108	ug/kg	215	108	10	12/09/14 09:43	12/10/14 10:48	86-73-7	
Indeno(1,2,3-cd)pyrene	<81.8	ug/kg	215	81.8	10	12/09/14 09:43	12/10/14 10:48	193-39-5	
Naphthalene	3420	ug/kg	215	108	10	12/09/14 09:43	12/10/14 10:48	91-20-3	
Phenanthrene	<108	ug/kg	215	108	10	12/09/14 09:43	12/10/14 10:48	85-01-8	
Pyrene	<108	ug/kg	215	108	10	12/09/14 09:43	12/10/14 10:48	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	65 %		40-130		10	12/09/14 09:43	12/10/14 10:48	321-60-8	
Terphenyl-d14 (S)	64 %		40-130		10	12/09/14 09:43	12/10/14 10:48	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	22.6 %		0.10	0.10	1		12/01/14 15:21		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107651

QC Batch: OEXT/25395 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40107651001, 40107651002

METHOD BLANK: 1092381 Matrix: Solid  
Associated Lab Samples: 40107651001, 40107651002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	12/08/14 11:57	
Acenaphthylene	ug/kg	<7.5	16.7	12/08/14 11:57	
Anthracene	ug/kg	<8.6	16.7	12/08/14 11:57	
Benzo(a)anthracene	ug/kg	<5.8	16.7	12/08/14 11:57	
Benzo(a)pyrene	ug/kg	<6.0	16.7	12/08/14 11:57	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	12/08/14 11:57	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	12/08/14 11:57	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	12/08/14 11:57	
Chrysene	ug/kg	<7.7	16.7	12/08/14 11:57	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	12/08/14 11:57	
Fluoranthene	ug/kg	<8.3	16.7	12/08/14 11:57	
Fluorene	ug/kg	<8.3	16.7	12/08/14 11:57	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	12/08/14 11:57	
Naphthalene	ug/kg	<8.3	16.7	12/08/14 11:57	
Phenanthrene	ug/kg	<8.3	16.7	12/08/14 11:57	
Pyrene	ug/kg	<8.3	16.7	12/08/14 11:57	
2-Fluorobiphenyl (S)	%	79	40-130	12/08/14 11:57	
Terphenyl-d14 (S)	%	77	40-130	12/08/14 11:57	

LABORATORY CONTROL SAMPLE: 1092382

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	243	73	55-130	
Acenaphthylene	ug/kg	333	248	74	55-130	
Anthracene	ug/kg	333	294	88	66-130	
Benzo(a)anthracene	ug/kg	333	240	72	55-130	
Benzo(a)pyrene	ug/kg	333	227	68	56-130	
Benzo(b)fluoranthene	ug/kg	333	205	62	53-130	
Benzo(g,h,i)perylene	ug/kg	333	251	75	51-130	
Benzo(k)fluoranthene	ug/kg	333	277	83	52-130	
Chrysene	ug/kg	333	285	85	58-130	
Dibenz(a,h)anthracene	ug/kg	333	239	72	55-130	
Fluoranthene	ug/kg	333	253	76	62-130	
Fluorene	ug/kg	333	252	76	58-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	246	74	54-130	
Naphthalene	ug/kg	333	188	57	41-130	
Phenanthrene	ug/kg	333	239	72	60-130	
Pyrene	ug/kg	333	255	77	51-130	
2-Fluorobiphenyl (S)	%			68	40-130	
Terphenyl-d14 (S)	%			71	40-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107651

Parameter	Units	1092383		1092384		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Acenaphthene	ug/kg	<21.1	421	421	328	310	78	74	31-130	6	35		
Acenaphthylene	ug/kg	<21.1	421	421	340	321	81	76	32-130	6	25		
Anthracene	ug/kg	<21.1	421	421	377	350	89	83	39-131	7	38		
Benzo(a)anthracene	ug/kg	<21.1	421	421	302	273	72	65	29-130	10	30		
Benzo(a)pyrene	ug/kg	<21.1	421	421	330	275	78	65	35-130	18	33		
Benzo(b)fluoranthene	ug/kg	<21.1	421	421	277	250	65	59	21-142	10	44		
Benzo(g,h,i)perylene	ug/kg	<21.1	421	421	313	278	74	65	12-134	12	33		
Benzo(k)fluoranthene	ug/kg	<21.1	421	421	339	308	80	73	35-130	9	37		
Chrysene	ug/kg	<21.1	421	421	367	334	86	78	37-130	9	38		
Dibenz(a,h)anthracene	ug/kg	<21.1	421	421	300	267	71	63	23-130	12	27		
Fluoranthene	ug/kg	<21.1	421	421	324	298	77	71	29-137	8	50		
Fluorene	ug/kg	<21.1	421	421	338	315	80	75	32-130	7	32		
Indeno(1,2,3-cd)pyrene	ug/kg	<21.1	421	421	310	276	74	66	17-134	12	28		
Naphthalene	ug/kg	<21.1	421	421	285	289	67	68	24-130	1	40		
Phenanthrene	ug/kg	<21.1	421	421	310	287	74	68	27-135	7	46		
Pyrene	ug/kg	<21.1	421	421	326	299	77	71	24-130	9	49		
2-Fluorobiphenyl (S)	%						72	69	40-130				
Terphenyl-d14 (S)	%						71	65	40-130				

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107651

QC Batch: OEXT/25409 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40107651003, 40107651004, 40107651005, 40107651006

METHOD BLANK: 1093243 Matrix: Solid  
Associated Lab Samples: 40107651003, 40107651004, 40107651005, 40107651006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	12/09/14 12:12	
Acenaphthylene	ug/kg	<7.5	16.7	12/09/14 12:12	
Anthracene	ug/kg	<8.6	16.7	12/09/14 12:12	
Benzo(a)anthracene	ug/kg	<5.8	16.7	12/09/14 12:12	
Benzo(a)pyrene	ug/kg	<6.0	16.7	12/09/14 12:12	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	12/09/14 12:12	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	12/09/14 12:12	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	12/09/14 12:12	
Chrysene	ug/kg	<7.7	16.7	12/09/14 12:12	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	12/09/14 12:12	
Fluoranthene	ug/kg	<8.3	16.7	12/09/14 12:12	
Fluorene	ug/kg	<8.3	16.7	12/09/14 12:12	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	12/09/14 12:12	
Naphthalene	ug/kg	<8.3	16.7	12/09/14 12:12	
Phenanthrene	ug/kg	<8.3	16.7	12/09/14 12:12	
Pyrene	ug/kg	<8.3	16.7	12/09/14 12:12	
2-Fluorobiphenyl (S)	%	70	40-130	12/09/14 12:12	
Terphenyl-d14 (S)	%	75	40-130	12/09/14 12:12	

LABORATORY CONTROL SAMPLE: 1093244

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	240	72	55-130	
Acenaphthylene	ug/kg	333	247	74	55-130	
Anthracene	ug/kg	333	292	88	66-130	
Benzo(a)anthracene	ug/kg	333	216	65	55-130	
Benzo(a)pyrene	ug/kg	333	248	75	56-130	
Benzo(b)fluoranthene	ug/kg	333	185	56	53-130	
Benzo(g,h,i)perylene	ug/kg	333	217	65	51-130	
Benzo(k)fluoranthene	ug/kg	333	275	82	52-130	
Chrysene	ug/kg	333	278	83	58-130	
Dibenz(a,h)anthracene	ug/kg	333	203	61	55-130	
Fluoranthene	ug/kg	333	238	71	62-130	
Fluorene	ug/kg	333	246	74	58-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	213	64	54-130	
Naphthalene	ug/kg	333	231	69	41-130	
Phenanthrene	ug/kg	333	219	66	60-130	
Pyrene	ug/kg	333	242	73	51-130	
2-Fluorobiphenyl (S)	%			69	40-130	
Terphenyl-d14 (S)	%			70	40-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107651

Parameter	Units	1093245		1093246		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max		Qual
		40107970009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						MSD Result	RPD	
Acenaphthene	ug/kg	<86.4	431	431	503	325	101	60	31-130	43	35	R1	
Acenaphthylene	ug/kg	<77.3	431	431	401	273	93	63	32-130	38	25	R1	
Anthracene	ug/kg	<89.6	431	431	839	388	174	70	39-131	74	38	M1,R1	
Benzo(a)anthracene	ug/kg	1270	431	431	2500	1320	286	12	29-130	62	30	M1,R1	
Benzo(a)pyrene	ug/kg	2830	431	431	3770	2750	217	-18	35-130	31	33	M1	
Benzo(b)fluoranthene	ug/kg	2310	431	431	3510	2480	278	40	21-142	34	44	M1	
Benzo(g,h,i)perylene	ug/kg	2140	431	431	2380	1940	55	-47	12-134	20	33	M1	
Benzo(k)fluoranthene	ug/kg	3040	431	431	3260	2270	50	-178	35-130	36	37	M1	
Chrysene	ug/kg	1850	431	431	3240	1810	322	-8	37-130	56	38	M1,R1	
Dibenz(a,h)anthracene	ug/kg	696	431	431	1030	792	78	22	23-130	26	27	M1	
Fluoranthene	ug/kg	756	431	431	3640	944	667	44	29-137	118	50	M1,R1	
Fluorene	ug/kg	<86.4	431	431	534	302	119	65	32-130	56	32	R1	
Indeno(1,2,3-cd)pyrene	ug/kg	1920	431	431	2260	1770	80	-34	17-134	24	28	M1	
Naphthalene	ug/kg	117J	431	431	519	344	93	53	24-130	41	40	R1	
Phenanthrene	ug/kg	292	431	431	2880	508	600	50	27-135	140	46	M1,R1	
Pyrene	ug/kg	921	431	431	3340	1100	561	41	24-130	101	49	M1,R1	
2-Fluorobiphenyl (S)	%						63	54	40-130				
Terphenyl-d14 (S)	%						64	54	40-130				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107651

---

QC Batch: PMST/10700                      Analysis Method: ASTM D2974-87  
QC Batch Method: ASTM D2974-87                      Analysis Description: Dry Weight/Percent Moisture  
Associated Lab Samples: 40107651001, 40107651002, 40107651003, 40107651004, 40107651005, 40107651006

---

SAMPLE DUPLICATE: 1089953

Parameter	Units	40107654007 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	10.1	10.5	5	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107651

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSSV/7464

[IP] Benzo(b)fluoranthene and benzo(k)fluoranthene were in the check standard but did not meet the resolution criteria in SW846 Method 8270C. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.

Batch: MSSV/7468

[IP] Benzo(b)fluoranthene and benzo(k)fluoranthene were in the check standard but did not meet the resolution criteria in SW846 Method 8270C. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107651

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40107651001	EX-1 @ 7-8'	EPA 3546	OEXT/25395	EPA 8270 by SIM	MSSV/7464
40107651002	EX-2 @ 7-8'	EPA 3546	OEXT/25395	EPA 8270 by SIM	MSSV/7464
40107651003	EX-3 @ 7-8'	EPA 3546	OEXT/25409	EPA 8270 by SIM	MSSV/7468
40107651004	B-1 @ 12-13'	EPA 3546	OEXT/25409	EPA 8270 by SIM	MSSV/7468
40107651005	B-2 @ 12-13'	EPA 3546	OEXT/25409	EPA 8270 by SIM	MSSV/7468
40107651006	BACKFILL #1	EPA 3546	OEXT/25409	EPA 8270 by SIM	MSSV/7468
40107651001	EX-1 @ 7-8'	ASTM D2974-87	PMST/10700		
40107651002	EX-2 @ 7-8'	ASTM D2974-87	PMST/10700		
40107651003	EX-3 @ 7-8'	ASTM D2974-87	PMST/10700		
40107651004	B-1 @ 12-13'	ASTM D2974-87	PMST/10700		
40107651005	B-2 @ 12-13'	ASTM D2974-87	PMST/10700		
40107651006	BACKFILL #1	ASTM D2974-87	PMST/10700		

**REPORT OF LABORATORY ANALYSIS**

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**CHAIN-OF-CUSTODY / Analytical Request Document**

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



REW

40107651

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:	
Company: TriCore Environmental, LLC		Report To: Marcos I. Czako		Attention: Shawn Rodeck	
Address: 2368 Corporate Lane, Suite 116 Naperville, Illinois 60563		Copy To:		Company Name: TriCore Environmental, LLC	
Email To: marcos.czako@tricoreweb.com		Purchase Order No.: 100137		Address: 2368 Corporate Lane, Suite 116, Naperville, Illinois 60563	
Phone: 630-520-9973   Fax 630-520-9976		Project Name: Lemont Kar Gas		Pace Quote Reference:	
Requested Due Date/TAT: standard		Project Number: 100137		Pace Project Manager:	
				Pace Profile #:	

**REGULATORY AGENCY**

NPDES  GROUND WATER  DRINKING WATER

UST  RCRA  OTHER \_\_\_\_\_

**SITE LOCATION**

GA  IL  IN  MI  NC

OH  SC  WI  OTHER \_\_\_\_\_

ITEM #	Section D Required Client Information		COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Filtered (Y/N)	Requested Anal:	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
	SAMPLE ID		COMPOSITE START		COMPOSITE END/GRAB				Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub>	Methanol	Other				
	One Character per box. (A-Z, 0-9 / -)	Sample IDs MUST BE UNIQUE	DATE	TIME	DATE	TIME														
1	EX-1	07-8'			11/25/14	1210	1	1								X	N	1-4oz yg A		
2	EX-2	07-8'				1215	1	1								X	N			
3	EX-3	07-8'				1220	1	1								X	N			
4	B-1	012-13'				1240	1	1								X	N			
5	B-2	012-13'				1245	1	1								X	N			
6	Backfill #1					1250	1	1								X	N			
7	<del>EX-4</del>																			
8	<del>EX-5</del>																			
9																				
10																				
11																				
12																				

Additional Comments:	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Hold All Samples on This Chain Until Further Notice Run per MC LW 12/5/14	Marcos Czako	11/25/14	1510	Brian Kuzynski	11/25/14	1510		Y/N	Y/N	Y/N
	Brian Kuzynski	11/25/14	1700	CS Lagarde	11/25/14			Y/N	Y/N	Y/N
	Logistics	11-26-14	1030		11-26-14	1030	3	N	N	N

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: Marcos I. Czako

SIGNATURE of SAMPLER: *Marcos Czako*

DATE Signed (MM/DD/YY): 11/25/14

Temp in °C: \_\_\_\_\_

Received on Ice:

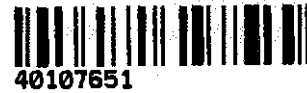
Custody Sealed Cooler:

Samples Intact:



Project #:

WO#: 40107651



Client Name: Tecore

Courier:  Fed Ex  UPS  Client  Pace Other: CS Logistics  
 Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  Yes  No Seals intact:  Yes  No

Custody Seal on Samples Present:  Yes  No Seals intact:  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: SA32 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: 3 / Corr: 3 Biological Tissue is Frozen:  Yes  No

Temp Blank Present:  Yes  No  No

Temp should be above freezing to 8°C for all sample except Biota.  
 Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:  
 Date: 11-26-14  
 Initials: KCB

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

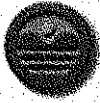
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

If checked, see attached form for additional comments

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: \_\_\_\_\_

Date: 11/26/14



# Illinois Environmental Protection Agency

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

## Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

### B. Sample Collector

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. MTC  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. MTC  
(Initial)
- 3. Sample integrity was maintained by proper preservation. MTC  
(Initial)
- 4. All samples were properly labeled. MTC  
(Initial)

### C. Laboratory Representative

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms UW  
(Initial)
- 2. Sample integrity was maintained by proper preservation. UW  
(Initial)
- 3. All samples were properly labeled. UW  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. UW  
(Initial)
- 5. Sample holding times were not exceeded. UW  
(Initial)

40107651

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

LW  
(Initial)

LW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako

Title Geologist III

Company TriCore Environmental, LLC

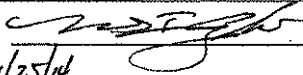
Address 2368 Corporate Lane, Suite 116

City Naperville

State Illinois

Zip Code 60563

Phone (630) 520-9973

Signature 

Date 11/25/14

**Laboratory Representative**

Name Laurie Woelfel

Title Project Manager

Company Pace Analytical Services, Inc.

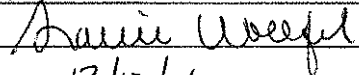
Address 1241 Bellevue Street, Suite 9

City Green Bay

State Wisconsin

Zip Code 64302

Phone (920) 469-2436

Signature 

Date 12/12/14

December 12, 2014

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

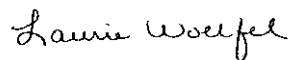
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107675

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on November 29, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



**REPORT OF LABORATORY ANALYSIS**

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## CERTIFICATIONS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107675

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

New York Certification #: 11888  
North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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## REPORT OF LABORATORY ANALYSIS

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**SAMPLE SUMMARY**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107675

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40107675001	B-5 @ 7-8'	Solid	11/26/14 10:45	11/29/14 08:55
40107675002	B-6 @ 7-8'	Solid	11/26/14 10:50	11/29/14 08:55
40107675003	EX-6 @ 4-5'	Solid	11/26/14 11:10	11/29/14 08:55

**REPORT OF LABORATORY ANALYSIS**

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107675

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40107675001	B-5 @ 7-8'	EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40107675002	B-6 @ 7-8'	EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40107675003	EX-6 @ 4-5'	EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	SKW	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107675

Sample: B-5 @ 7-8' Lab ID: 40107675001 Collected: 11/26/14 10:45 Received: 11/29/14 08:55 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<78.2	ug/kg	156	78.2	8	12/09/14 09:43	12/10/14 17:21	83-32-9	
Acenaphthylene	<70.0	ug/kg	156	70.0	8	12/09/14 09:43	12/10/14 17:21	208-96-8	
Anthracene	<81.1	ug/kg	156	81.1	8	12/09/14 09:43	12/10/14 17:21	120-12-7	
Benzo(a)anthracene	<54.2	ug/kg	156	54.2	8	12/09/14 09:43	12/10/14 17:21	56-55-3	
Benzo(a)pyrene	<55.9	ug/kg	156	55.9	8	12/09/14 09:43	12/10/14 17:21	50-32-8	
Benzo(b)fluoranthene	<78.2	ug/kg	156	78.2	8	12/09/14 09:43	12/10/14 17:21	205-99-2	
Benzo(g,h,i)perylene	<59.6	ug/kg	156	59.6	8	12/09/14 09:43	12/10/14 17:21	191-24-2	
Benzo(k)fluoranthene	<86.6	ug/kg	156	86.6	8	12/09/14 09:43	12/10/14 17:21	207-08-9	
Chrysene	<72.3	ug/kg	156	72.3	8	12/09/14 09:43	12/10/14 17:21	218-01-9	
Dibenz(a,h)anthracene	<57.4	ug/kg	156	57.4	8	12/09/14 09:43	12/10/14 17:21	53-70-3	
Fluoranthene	<78.2	ug/kg	156	78.2	8	12/09/14 09:43	12/10/14 17:21	206-44-0	
Fluorene	<78.2	ug/kg	156	78.2	8	12/09/14 09:43	12/10/14 17:21	86-73-7	
Indeno(1,2,3-cd)pyrene	<59.4	ug/kg	156	59.4	8	12/09/14 09:43	12/10/14 17:21	193-39-5	
Naphthalene	2160	ug/kg	156	78.2	8	12/09/14 09:43	12/10/14 17:21	91-20-3	
Phenanthrene	<78.2	ug/kg	156	78.2	8	12/09/14 09:43	12/10/14 17:21	85-01-8	
Pyrene	<78.2	ug/kg	156	78.2	8	12/09/14 09:43	12/10/14 17:21	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	63 %		40-130		8	12/09/14 09:43	12/10/14 17:21	321-60-8	
Terphenyl-d14 (S)	64 %		40-130		8	12/09/14 09:43	12/10/14 17:21	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	14.8 %		0.10	0.10	1		12/02/14 13:54		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107675

Sample: B-6 @ 7-8' Lab ID: 40107675002 Collected: 11/26/14 10:50 Received: 11/29/14 08:55 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<10	ug/kg	19.9	10	1	12/09/14 09:43	12/09/14 15:20	83-32-9	
Acenaphthylene	<8.9	ug/kg	19.9	8.9	1	12/09/14 09:43	12/09/14 15:20	208-96-8	
Anthracene	<10.3	ug/kg	19.9	10.3	1	12/09/14 09:43	12/09/14 15:20	120-12-7	
Benzo(a)anthracene	<6.9	ug/kg	19.9	6.9	1	12/09/14 09:43	12/09/14 15:20	56-55-3	
Benzo(a)pyrene	<7.1	ug/kg	19.9	7.1	1	12/09/14 09:43	12/09/14 15:20	50-32-8	
Benzo(b)fluoranthene	<10	ug/kg	19.9	10	1	12/09/14 09:43	12/09/14 15:20	205-99-2	
Benzo(g,h,i)perylene	<7.6	ug/kg	19.9	7.6	1	12/09/14 09:43	12/09/14 15:20	191-24-2	
Benzo(k)fluoranthene	<11.0	ug/kg	19.9	11.0	1	12/09/14 09:43	12/09/14 15:20	207-08-9	
Chrysene	<9.2	ug/kg	19.9	9.2	1	12/09/14 09:43	12/09/14 15:20	218-01-9	
Dibenz(a,h)anthracene	<7.3	ug/kg	19.9	7.3	1	12/09/14 09:43	12/09/14 15:20	53-70-3	
Fluoranthene	<10	ug/kg	19.9	10	1	12/09/14 09:43	12/09/14 15:20	206-44-0	
Fluorene	<10	ug/kg	19.9	10	1	12/09/14 09:43	12/09/14 15:20	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.6	ug/kg	19.9	7.6	1	12/09/14 09:43	12/09/14 15:20	193-39-5	
Naphthalene	296	ug/kg	19.9	10	1	12/09/14 09:43	12/09/14 15:20	91-20-3	
Phenanthrene	<10	ug/kg	19.9	10	1	12/09/14 09:43	12/09/14 15:20	85-01-8	
Pyrene	<10	ug/kg	19.9	10	1	12/09/14 09:43	12/09/14 15:20	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	61	%	40-130		1	12/09/14 09:43	12/09/14 15:20	321-60-8	
Terphenyl-d14 (S)	59	%	40-130		1	12/09/14 09:43	12/09/14 15:20	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	16.4	%	0.10	0.10	1		12/02/14 13:54		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107675

Sample: EX-6 @ 4-5' Lab ID: 40107675003 Collected: 11/26/14 11:10 Received: 11/29/14 08:55 Matrix: Solid  
Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<431	ug/kg	863	431	40	12/09/14 09:43	12/10/14 17:39	83-32-9	
Acenaphthylene	<386	ug/kg	863	386	40	12/09/14 09:43	12/10/14 17:39	208-96-8	
Anthracene	<447	ug/kg	863	447	40	12/09/14 09:43	12/10/14 17:39	120-12-7	
Benzo(a)anthracene	<299	ug/kg	863	299	40	12/09/14 09:43	12/10/14 17:39	56-55-3	
Benzo(a)pyrene	<309	ug/kg	863	309	40	12/09/14 09:43	12/10/14 17:39	50-32-8	
Benzo(b)fluoranthene	<431	ug/kg	863	431	40	12/09/14 09:43	12/10/14 17:39	205-99-2	
Benzo(g,h,i)perylene	<329	ug/kg	863	329	40	12/09/14 09:43	12/10/14 17:39	191-24-2	
Benzo(k)fluoranthene	<478	ug/kg	863	478	40	12/09/14 09:43	12/10/14 17:39	207-08-9	
Chrysene	<399	ug/kg	863	399	40	12/09/14 09:43	12/10/14 17:39	218-01-9	
Dibenz(a,h)anthracene	<317	ug/kg	863	317	40	12/09/14 09:43	12/10/14 17:39	53-70-3	
Fluoranthene	<431	ug/kg	863	431	40	12/09/14 09:43	12/10/14 17:39	206-44-0	
Fluorene	<431	ug/kg	863	431	40	12/09/14 09:43	12/10/14 17:39	86-73-7	
Indeno(1,2,3-cd)pyrene	<328	ug/kg	863	328	40	12/09/14 09:43	12/10/14 17:39	193-39-5	
Naphthalene	20900	ug/kg	863	431	40	12/09/14 09:43	12/10/14 17:39	91-20-3	
Phenanthrene	<431	ug/kg	863	431	40	12/09/14 09:43	12/10/14 17:39	85-01-8	
Pyrene	<431	ug/kg	863	431	40	12/09/14 09:43	12/10/14 17:39	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	55 %		40-130		40	12/09/14 09:43	12/10/14 17:39	321-60-8	
Terphenyl-d14 (S)	53 %		40-130		40	12/09/14 09:43	12/10/14 17:39	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	22.7 %		0.10	0.10	1		12/02/14 13:54		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107675

QC Batch: OEXT/25409 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40107675001, 40107675002, 40107675003

METHOD BLANK: 1093243 Matrix: Solid  
Associated Lab Samples: 40107675001, 40107675002, 40107675003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	12/09/14 12:12	
Acenaphthylene	ug/kg	<7.5	16.7	12/09/14 12:12	
Anthracene	ug/kg	<8.6	16.7	12/09/14 12:12	
Benzo(a)anthracene	ug/kg	<5.8	16.7	12/09/14 12:12	
Benzo(a)pyrene	ug/kg	<6.0	16.7	12/09/14 12:12	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	12/09/14 12:12	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	12/09/14 12:12	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	12/09/14 12:12	
Chrysene	ug/kg	<7.7	16.7	12/09/14 12:12	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	12/09/14 12:12	
Fluoranthene	ug/kg	<8.3	16.7	12/09/14 12:12	
Fluorene	ug/kg	<8.3	16.7	12/09/14 12:12	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	12/09/14 12:12	
Naphthalene	ug/kg	<8.3	16.7	12/09/14 12:12	
Phenanthrene	ug/kg	<8.3	16.7	12/09/14 12:12	
Pyrene	ug/kg	<8.3	16.7	12/09/14 12:12	
2-Fluorobiphenyl (S)	%	70	40-130	12/09/14 12:12	
Terphenyl-d14 (S)	%	75	40-130	12/09/14 12:12	

LABORATORY CONTROL SAMPLE: 1093244

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	240	72	55-130	
Acenaphthylene	ug/kg	333	247	74	55-130	
Anthracene	ug/kg	333	292	88	66-130	
Benzo(a)anthracene	ug/kg	333	216	65	55-130	
Benzo(a)pyrene	ug/kg	333	248	75	56-130	
Benzo(b)fluoranthene	ug/kg	333	185	56	53-130	
Benzo(g,h,i)perylene	ug/kg	333	217	65	51-130	
Benzo(k)fluoranthene	ug/kg	333	275	82	52-130	
Chrysene	ug/kg	333	278	83	58-130	
Dibenz(a,h)anthracene	ug/kg	333	203	61	55-130	
Fluoranthene	ug/kg	333	238	71	62-130	
Fluorene	ug/kg	333	246	74	58-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	213	64	54-130	
Naphthalene	ug/kg	333	231	69	41-130	
Phenanthrene	ug/kg	333	219	66	60-130	
Pyrene	ug/kg	333	242	73	51-130	
2-Fluorobiphenyl (S)	%			69	40-130	
Terphenyl-d14 (S)	%			70	40-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107675

Parameter	Units	1093245		1093246		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40107970009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Acenaphthene	ug/kg	<86.4	431	431	503	325	101	60	31-130	43	35	R1	
Acenaphthylene	ug/kg	<77.3	431	431	401	273	93	63	32-130	38	25	R1	
Anthracene	ug/kg	<89.6	431	431	839	388	174	70	39-131	74	38	M1,R1	
Benzo(a)anthracene	ug/kg	1270	431	431	2500	1320	286	12	29-130	62	30	M1,R1	
Benzo(a)pyrene	ug/kg	2830	431	431	3770	2750	217	-18	35-130	31	33	M1	
Benzo(b)fluoranthene	ug/kg	2310	431	431	3510	2480	278	40	21-142	34	44	M1	
Benzo(g,h,i)perylene	ug/kg	2140	431	431	2380	1940	55	-47	12-134	20	33	M1	
Benzo(k)fluoranthene	ug/kg	3040	431	431	3260	2270	50	-178	35-130	36	37	M1	
Chrysene	ug/kg	1850	431	431	3240	1810	322	-8	37-130	56	38	M1,R1	
Dibenz(a,h)anthracene	ug/kg	696	431	431	1030	792	78	22	23-130	26	27	M1	
Fluoranthene	ug/kg	756	431	431	3640	944	667	44	29-137	118	50	M1,R1	
Fluorene	ug/kg	<86.4	431	431	534	302	119	65	32-130	56	32	R1	
Indeno(1,2,3-cd)pyrene	ug/kg	1920	431	431	2260	1770	80	-34	17-134	24	28	M1	
Naphthalene	ug/kg	117J	431	431	519	344	93	53	24-130	41	40	R1	
Phenanthrene	ug/kg	292	431	431	2880	508	600	50	27-135	140	46	M1,R1	
Pyrene	ug/kg	921	431	431	3340	1100	561	41	24-130	101	49	M1,R1	
2-Fluorobiphenyl (S)	%						63	54	40-130				
Terphenyl-d14 (S)	%						64	54	40-130				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107675

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QC Batch: PMST/10701                      Analysis Method: ASTM D2974-87  
 QC Batch Method: ASTM D2974-87                      Analysis Description: Dry Weight/Percent Moisture  
 Associated Lab Samples: 40107675001, 40107675002, 40107675003

---

SAMPLE DUPLICATE: 1090468

Parameter	Units	40107720004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	8.7	8.8	1	10	

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**REPORT OF LABORATORY ANALYSIS**

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107675

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSSV/7468

[IP] Benzo(b)fluoranthene and benzo(k)fluoranthene were in the check standard but did not meet the resolution criteria in SW846 Method 8270C. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107675

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40107675001	B-5 @ 7-8'	EPA 3546	OEXT/25409	EPA 8270 by SIM	MSSV/7468
40107675002	B-6 @ 7-8'	EPA 3546	OEXT/25409	EPA 8270 by SIM	MSSV/7468
40107675003	EX-6 @ 4-5'	EPA 3546	OEXT/25409	EPA 8270 by SIM	MSSV/7468
40107675001	B-5 @ 7-8'	ASTM D2974-87	PMST/10701		
40107675002	B-6 @ 7-8'	ASTM D2974-87	PMST/10701		
40107675003	EX-6 @ 4-5'	ASTM D2974-87	PMST/10701		

**REPORT OF LABORATORY ANALYSIS**

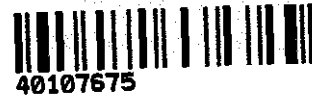
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Project #:

WO#: 40107675



Client Name: TriCore  
Courier:  Fed Ex  UPS  Client  Pace Other: Cslogistics  
Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: SR32 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: 3 /Corr: 3 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no  no

Temp should be above freezing to 8°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:  
Date: 11-29-14  
Initials: KB

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: [Signature]

Date: 12/1/14



40107675

# Illinois Environmental Protection Agency

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

## Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010  
 Site Name: Lemont Kar Gas  
 Site Address (Not a P.O. Box): 1196 State Street  
 City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

### B. Sample Collector

I certify that:

- Appropriate sampling equipment/methods were utilized to obtain representative samples. MFE  
(Initial)
- Chain-of-custody procedures were followed in the field. MFE  
(Initial)
- Sample integrity was maintained by proper preservation. MFE  
(Initial)
- All samples were properly labeled. MFE  
(Initial)

### C. Laboratory Representative

I certify that:

- Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms UW  
(Initial)
- Sample integrity was maintained by proper preservation. UW  
(Initial)
- All samples were properly labeled. UW  
(Initial)
- Quality assurance/quality control procedures were established and carried out. UW  
(Initial)
- Sample holding times were not exceeded. UW  
(Initial)

40107675

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako

Title Geologist III

Company TriCore Environmental, LLC

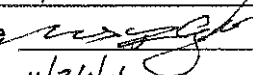
Address 2368 Corporate Lane, Suite 116

City Naperville

State Illinois

Zip Code 60563

Phone (630) 520-9973

Signature 

Date 11/26/14

**Laboratory Representative**

Name Laurie Woelfel

Title Project Manager

Company Pace Analytical Services, Inc.

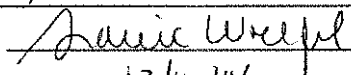
Address 1241 Bellevue Street, Suite 9

City Green Bay

State Wisconsin

Zip Code 64302

Phone (920) 469-2436

Signature 

Date 12/2/14

December 08, 2014

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

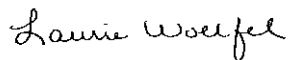
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on November 29, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



**REPORT OF LABORATORY ANALYSIS**

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## CERTIFICATIONS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

New York Certification #: 11888  
North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40107676001	PL-1 @ 2.5-3'	Solid	11/26/14 10:10	11/29/14 08:55
40107676002	PL-2 @ 2.5-3'	Solid	11/26/14 10:15	11/29/14 08:55
40107676003	PL-3 @ 2.5-3'	Solid	11/26/14 10:30	11/29/14 08:55
40107676004	B-5 @ 7-8'	Solid	11/26/14 10:45	11/29/14 08:55
40107676005	B-6 @ 7-8'	Solid	11/26/14 10:50	11/29/14 08:55
40107676006	EX-4 @ 4-5'	Solid	11/26/14 11:00	11/29/14 08:55
40107676007	EX-5 @ 4-5'	Solid	11/26/14 11:05	11/29/14 08:55
40107676008	EX-6 @ 4-5'	Solid	11/26/14 11:10	11/29/14 08:55
40107676009	BACKFILL #2	Solid	11/26/14 11:15	11/29/14 08:55

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40107676001	PL-1 @ 2.5-3'	EPA 8021	LCF	6	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40107676002	PL-2 @ 2.5-3'	EPA 8021	LCF	6	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40107676003	PL-3 @ 2.5-3'	EPA 8021	LCF	6	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40107676004	B-5 @ 7-8'	EPA 8021	LCF	6	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
		EPA 8021	LCF	6	PASI-G
40107676005	B-6 @ 7-8'	EPA 8021	LCF	6	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
		EPA 8021	LCF	6	PASI-G
40107676006	EX-4 @ 4-5'	EPA 8021	LCF	6	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40107676007	EX-5 @ 4-5'	EPA 8021	LCF	6	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40107676008	EX-6 @ 4-5'	EPA 8021	LCF	6	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
		EPA 8021	LCF	6	PASI-G
40107676009	BACKFILL #2	EPA 8021	LCF	6	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	SKW	1	PASI-G

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

Sample: PL-1 @ 2.5' Lab ID: 40107676001 Collected: 11/26/14 10:10 Received: 11/29/14 08:55 Matrix: Solid  
Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>		Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil							
Benzene	3850	ug/kg	652	326	25	12/02/14 06:55	12/02/14 16:42	71-43-2	
Ethylbenzene	51200	ug/kg	1630	815	25	12/02/14 06:55	12/02/14 16:42	100-41-4	
Methyl-tert-butyl ether	2060	ug/kg	1630	815	25	12/02/14 06:55	12/02/14 16:42	1634-04-4	
Toluene	3340	ug/kg	1630	815	25	12/02/14 06:55	12/02/14 16:42	108-88-3	
Xylene (Total)	112000	ug/kg	4890	2450	25	12/02/14 06:55	12/02/14 16:42	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	120	%	41-178		25	12/02/14 06:55	12/02/14 16:42	98-08-8	S4
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<435	ug/kg	870	435	40	12/02/14 08:53	12/03/14 18:05	83-32-9	
Acenaphthylene	<389	ug/kg	870	389	40	12/02/14 08:53	12/03/14 18:05	208-96-8	
Anthracene	<451	ug/kg	870	451	40	12/02/14 08:53	12/03/14 18:05	120-12-7	
Benzo(a)anthracene	<301	ug/kg	870	301	40	12/02/14 08:53	12/03/14 18:05	56-55-3	
Benzo(a)pyrene	<311	ug/kg	870	311	40	12/02/14 08:53	12/03/14 18:05	50-32-8	
Benzo(b)fluoranthene	<435	ug/kg	870	435	40	12/02/14 08:53	12/03/14 18:05	205-99-2	
Benzo(g,h,i)perylene	<331	ug/kg	870	331	40	12/02/14 08:53	12/03/14 18:05	191-24-2	
Benzo(k)fluoranthene	<481	ug/kg	870	481	40	12/02/14 08:53	12/03/14 18:05	207-08-9	
Chrysene	<402	ug/kg	870	402	40	12/02/14 08:53	12/03/14 18:05	218-01-9	
Dibenz(a,h)anthracene	<319	ug/kg	870	319	40	12/02/14 08:53	12/03/14 18:05	53-70-3	
Fluoranthene	<435	ug/kg	870	435	40	12/02/14 08:53	12/03/14 18:05	206-44-0	
Fluorene	<435	ug/kg	870	435	40	12/02/14 08:53	12/03/14 18:05	86-73-7	
Indeno(1,2,3-cd)pyrene	<330	ug/kg	870	330	40	12/02/14 08:53	12/03/14 18:05	193-39-5	
Naphthalene	8440	ug/kg	870	435	40	12/02/14 08:53	12/03/14 18:05	91-20-3	M6
Phenanthrene	<435	ug/kg	870	435	40	12/02/14 08:53	12/03/14 18:05	85-01-8	
Pyrene	<435	ug/kg	870	435	40	12/02/14 08:53	12/03/14 18:05	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	49	%	40-130		40	12/02/14 08:53	12/03/14 18:05	321-60-8	
Terphenyl-d14 (S)	45	%	40-130		40	12/02/14 08:53	12/03/14 18:05	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	23.4	%	0.10	0.10	1		12/02/14 16:04		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

Sample: PL-2 @ 2.5-3' Lab ID: 40107676002 Collected: 11/26/14 10:15 Received: 11/29/14 08:55 Matrix: Solid  
Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>									
Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil									
Benzene	14100	ug/kg	1040	518	40	12/02/14 06:55	12/02/14 16:16	71-43-2	
Ethylbenzene	96000	ug/kg	2590	1290	40	12/02/14 06:55	12/02/14 16:16	100-41-4	
Methyl-tert-butyl ether	1640J	ug/kg	2590	1290	40	12/02/14 06:55	12/02/14 16:16	1634-04-4	
Toluene	4180	ug/kg	2590	1290	40	12/02/14 06:55	12/02/14 16:16	108-88-3	
Xylene (Total)	269000	ug/kg	7770	3880	40	12/02/14 06:55	12/02/14 16:16	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	290	%	41-178		40	12/02/14 06:55	12/02/14 16:16	98-08-8	S4
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<432	ug/kg	863	432	40	12/02/14 08:53	12/03/14 18:56	83-32-9	
Acenaphthylene	<386	ug/kg	863	386	40	12/02/14 08:53	12/03/14 18:56	208-96-8	
Anthracene	<448	ug/kg	863	448	40	12/02/14 08:53	12/03/14 18:56	120-12-7	
Benzo(a)anthracene	<299	ug/kg	863	299	40	12/02/14 08:53	12/03/14 18:56	56-55-3	
Benzo(a)pyrene	<309	ug/kg	863	309	40	12/02/14 08:53	12/03/14 18:56	50-32-8	
Benzo(b)fluoranthene	<432	ug/kg	863	432	40	12/02/14 08:53	12/03/14 18:56	205-99-2	
Benzo(g,h,i)perylene	<329	ug/kg	863	329	40	12/02/14 08:53	12/03/14 18:56	191-24-2	
Benzo(k)fluoranthene	<478	ug/kg	863	478	40	12/02/14 08:53	12/03/14 18:56	207-08-9	
Chrysene	<399	ug/kg	863	399	40	12/02/14 08:53	12/03/14 18:56	218-01-9	
Dibenz(a,h)anthracene	<317	ug/kg	863	317	40	12/02/14 08:53	12/03/14 18:56	53-70-3	
Fluoranthene	<432	ug/kg	863	432	40	12/02/14 08:53	12/03/14 18:56	206-44-0	
Fluorene	<432	ug/kg	863	432	40	12/02/14 08:53	12/03/14 18:56	86-73-7	
Indeno(1,2,3-cd)pyrene	<328	ug/kg	863	328	40	12/02/14 08:53	12/03/14 18:56	193-39-5	
Naphthalene	15000	ug/kg	863	432	40	12/02/14 08:53	12/03/14 18:56	91-20-3	
Phenanthrene	<432	ug/kg	863	432	40	12/02/14 08:53	12/03/14 18:56	85-01-8	
Pyrene	<432	ug/kg	863	432	40	12/02/14 08:53	12/03/14 18:56	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	62	%	40-130		40	12/02/14 08:53	12/03/14 18:56	321-60-8	
Terphenyl-d14 (S)	58	%	40-130		40	12/02/14 08:53	12/03/14 18:56	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	22.8	%	0.10	0.10	1		12/02/14 16:05		

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

Sample: PL-3 @ 2.5' Lab ID: 40107676003 Collected: 11/26/14 10:30 Received: 11/29/14 08:55 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>		Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil							
Benzene	13700	ug/kg	1350	673	50	12/02/14 06:55	12/02/14 15:25	71-43-2	
Ethylbenzene	103000	ug/kg	3370	1680	50	12/02/14 06:55	12/02/14 15:25	100-41-4	
Methyl-tert-butyl ether	3700	ug/kg	3370	1680	50	12/02/14 06:55	12/02/14 15:25	1634-04-4	
Toluene	13800	ug/kg	3370	1680	50	12/02/14 06:55	12/02/14 15:25	108-88-3	
Xylene (Total)	356000	ug/kg	10100	5050	50	12/02/14 06:55	12/02/14 15:25	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	157	%	41-178		50	12/02/14 06:55	12/02/14 15:25	98-08-8	S4
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<140	ug/kg	280	140	12.5	12/02/14 08:53	12/03/14 19:13	83-32-9	
Acenaphthylene	<125	ug/kg	280	125	12.5	12/02/14 08:53	12/03/14 19:13	208-96-8	
Anthracene	<145	ug/kg	280	145	12.5	12/02/14 08:53	12/03/14 19:13	120-12-7	
Benzo(a)anthracene	<97.2	ug/kg	280	97.2	12.5	12/02/14 08:53	12/03/14 19:13	56-55-3	
Benzo(a)pyrene	<100	ug/kg	280	100	12.5	12/02/14 08:53	12/03/14 19:13	50-32-8	
Benzo(b)fluoranthene	<140	ug/kg	280	140	12.5	12/02/14 08:53	12/03/14 19:13	205-99-2	
Benzo(g,h,i)perylene	<107	ug/kg	280	107	12.5	12/02/14 08:53	12/03/14 19:13	191-24-2	
Benzo(k)fluoranthene	<155	ug/kg	280	155	12.5	12/02/14 08:53	12/03/14 19:13	207-08-9	
Chrysene	<130	ug/kg	280	130	12.5	12/02/14 08:53	12/03/14 19:13	218-01-9	
Dibenz(a,h)anthracene	<103	ug/kg	280	103	12.5	12/02/14 08:53	12/03/14 19:13	53-70-3	
Fluoranthene	<140	ug/kg	280	140	12.5	12/02/14 08:53	12/03/14 19:13	206-44-0	
Fluorene	<140	ug/kg	280	140	12.5	12/02/14 08:53	12/03/14 19:13	86-73-7	
Indeno(1,2,3-cd)pyrene	<107	ug/kg	280	107	12.5	12/02/14 08:53	12/03/14 19:13	193-39-5	
Naphthalene	6710	ug/kg	280	140	12.5	12/02/14 08:53	12/03/14 19:13	91-20-3	
Phenanthrene	<140	ug/kg	280	140	12.5	12/02/14 08:53	12/03/14 19:13	85-01-8	
Pyrene	<140	ug/kg	280	140	12.5	12/02/14 08:53	12/03/14 19:13	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	72	%	40-130		12.5	12/02/14 08:53	12/03/14 19:13	321-60-8	
Terphenyl-d14 (S)	64	%	40-130		12.5	12/02/14 08:53	12/03/14 19:13	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	25.7	%	0.10	0.10	1		12/02/14 16:05		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

Sample: B-5 @ 7-8' Lab ID: 40107676004 Collected: 11/26/14 10:45 Received: 11/29/14 08:55 Matrix: Solid  
Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	3070	ug/kg	23.5	11.7	1	12/02/14 06:55	12/02/14 10:44	71-43-2	
Ethylbenzene	351	ug/kg	58.6	29.3	1	12/02/14 06:55	12/02/14 10:44	100-41-4	
Methyl-tert-butyl ether	<29.3	ug/kg	58.6	29.3	1	12/02/14 06:55	12/02/14 10:44	1634-04-4	
Toluene	115	ug/kg	58.6	29.3	1	12/02/14 06:55	12/02/14 10:44	108-88-3	
Xylene (Total)	533	ug/kg	176	88.0	1	12/02/14 06:55	12/02/14 10:44	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	89	%	41-178		1	12/02/14 06:55	12/02/14 10:44	98-08-8	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	14.7	%	0.10	0.10	1		12/02/14 16:05		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

Sample: B-6 @ 7-8' Lab ID: 40107676005 Collected: 11/26/14 10:50 Received: 11/29/14 08:55 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	48.1	ug/kg	23.4	11.7	1	12/02/14 06:55	12/02/14 09:27	71-43-2	
Ethylbenzene	58.9	ug/kg	58.6	29.3	1	12/02/14 06:55	12/02/14 09:27	100-41-4	
Methyl-tert-butyl ether	<29.3	ug/kg	58.6	29.3	1	12/02/14 06:55	12/02/14 09:27	1634-04-4	
Toluene	<29.3	ug/kg	58.6	29.3	1	12/02/14 06:55	12/02/14 09:27	108-88-3	
Xylene (Total)	258	ug/kg	176	87.9	1	12/02/14 06:55	12/02/14 09:27	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	93	%	41-178		1	12/02/14 06:55	12/02/14 09:27	98-08-8	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	14.7	%	0.10	0.10	1		12/02/14 16:05		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

Sample: EX-4 @ 4-5' Lab ID: 40107676006 Collected: 11/26/14 11:00 Received: 11/29/14 08:55 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>		Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil							
Benzene	1460	ug/kg	122	60.9	5	12/02/14 06:55	12/02/14 15:51	71-43-2	
Ethylbenzene	13800	ug/kg	305	152	5	12/02/14 06:55	12/02/14 15:51	100-41-4	
Methyl-tert-butyl ether	157J	ug/kg	305	152	5	12/02/14 06:55	12/02/14 15:51	1634-04-4	
Toluene	724	ug/kg	305	152	5	12/02/14 06:55	12/02/14 15:51	108-88-3	
Xylene (Total)	25700	ug/kg	914	457	5	12/02/14 06:55	12/02/14 15:51	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	122	%	41-178		5	12/02/14 06:55	12/02/14 15:51	98-08-8	S4
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<127	ug/kg	254	127	12.5	12/02/14 08:53	12/04/14 21:08	83-32-9	
Acenaphthylene	<114	ug/kg	254	114	12.5	12/02/14 08:53	12/04/14 21:08	208-96-8	
Anthracene	<132	ug/kg	254	132	12.5	12/02/14 08:53	12/04/14 21:08	120-12-7	
Benzo(a)anthracene	<88.0	ug/kg	254	88.0	12.5	12/02/14 08:53	12/04/14 21:08	56-55-3	
Benzo(a)pyrene	<90.8	ug/kg	254	90.8	12.5	12/02/14 08:53	12/04/14 21:08	50-32-8	
Benzo(b)fluoranthene	<127	ug/kg	254	127	12.5	12/02/14 08:53	12/04/14 21:08	205-99-2	
Benzo(g,h,i)perylene	<96.7	ug/kg	254	96.7	12.5	12/02/14 08:53	12/04/14 21:08	191-24-2	
Benzo(k)fluoranthene	<140	ug/kg	254	140	12.5	12/02/14 08:53	12/04/14 21:08	207-08-9	
Chrysene	<117	ug/kg	254	117	12.5	12/02/14 08:53	12/04/14 21:08	218-01-9	
Dibenz(a,h)anthracene	<93.1	ug/kg	254	93.1	12.5	12/02/14 08:53	12/04/14 21:08	53-70-3	
Fluoranthene	<127	ug/kg	254	127	12.5	12/02/14 08:53	12/04/14 21:08	206-44-0	
Fluorene	<127	ug/kg	254	127	12.5	12/02/14 08:53	12/04/14 21:08	86-73-7	
Indeno(1,2,3-cd)pyrene	<96.5	ug/kg	254	96.5	12.5	12/02/14 08:53	12/04/14 21:08	193-39-5	
Naphthalene	8600	ug/kg	254	127	12.5	12/02/14 08:53	12/04/14 21:08	91-20-3	
Phenanthrene	<127	ug/kg	254	127	12.5	12/02/14 08:53	12/04/14 21:08	85-01-8	
Pyrene	<127	ug/kg	254	127	12.5	12/02/14 08:53	12/04/14 21:08	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	62	%	40-130		12.5	12/02/14 08:53	12/04/14 21:08	321-60-8	
Terphenyl-d14 (S)	69	%	40-130		12.5	12/02/14 08:53	12/04/14 21:08	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	17.9	%	0.10	0.10	1		12/02/14 16:05		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

Sample: EX-5 @ 4-5' Lab ID: 40107676007 Collected: 11/26/14 11:05 Received: 11/29/14 08:55 Matrix: Solid  
Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>		Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil							
Benzene	36500	ug/kg	2050	1030	80	12/02/14 06:55	12/02/14 14:08	71-43-2	
Ethylbenzene	106000	ug/kg	5130	2560	80	12/02/14 06:55	12/02/14 14:08	100-41-4	
Methyl-tert-butyl ether	5110J	ug/kg	5130	2560	80	12/02/14 06:55	12/02/14 14:08	1634-04-4	
Toluene	6100	ug/kg	5130	2560	80	12/02/14 06:55	12/02/14 14:08	108-88-3	
Xylene (Total)	644000	ug/kg	15400	7690	80	12/02/14 06:55	12/02/14 14:08	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	411	%	41-178		80	12/02/14 06:55	12/02/14 14:08	98-08-8	S4
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<427	ug/kg	855	427	40	12/02/14 08:53	12/04/14 20:50	83-32-9	
Acenaphthylene	<382	ug/kg	855	382	40	12/02/14 08:53	12/04/14 20:50	208-96-8	
Anthracene	<443	ug/kg	855	443	40	12/02/14 08:53	12/04/14 20:50	120-12-7	
Benzo(a)anthracene	<296	ug/kg	855	296	40	12/02/14 08:53	12/04/14 20:50	56-55-3	
Benzo(a)pyrene	<306	ug/kg	855	306	40	12/02/14 08:53	12/04/14 20:50	50-32-8	
Benzo(b)fluoranthene	<427	ug/kg	855	427	40	12/02/14 08:53	12/04/14 20:50	205-99-2	
Benzo(g,h,i)perylene	<325	ug/kg	855	325	40	12/02/14 08:53	12/04/14 20:50	191-24-2	
Benzo(k)fluoranthene	<473	ug/kg	855	473	40	12/02/14 08:53	12/04/14 20:50	207-08-9	
Chrysene	<395	ug/kg	855	395	40	12/02/14 08:53	12/04/14 20:50	218-01-9	
Dibenz(a,h)anthracene	<313	ug/kg	855	313	40	12/02/14 08:53	12/04/14 20:50	53-70-3	
Fluoranthene	<427	ug/kg	855	427	40	12/02/14 08:53	12/04/14 20:50	206-44-0	
Fluorene	<427	ug/kg	855	427	40	12/02/14 08:53	12/04/14 20:50	86-73-7	
Indeno(1,2,3-cd)pyrene	<325	ug/kg	855	325	40	12/02/14 08:53	12/04/14 20:50	193-39-5	
Naphthalene	20700	ug/kg	855	427	40	12/02/14 08:53	12/04/14 20:50	91-20-3	
Phenanthrene	<427	ug/kg	855	427	40	12/02/14 08:53	12/04/14 20:50	85-01-8	
Pyrene	<427	ug/kg	855	427	40	12/02/14 08:53	12/04/14 20:50	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	63	%	40-130		40	12/02/14 08:53	12/04/14 20:50	321-60-8	
Terphenyl-d14 (S)	67	%	40-130		40	12/02/14 08:53	12/04/14 20:50	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	22.0	%	0.10	0.10	1		12/02/14 16:05		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
 Pace Project No.: 40107676

Sample: EX-6 @ 4-5' Lab ID: 40107676008 Collected: 11/26/14 11:10 Received: 11/29/14 08:55 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>		Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil							
Benzene	9330	ug/kg	1050	524	40	12/02/14 06:55	12/02/14 13:43	71-43-2	
Ethylbenzene	90200	ug/kg	2620	1310	40	12/02/14 06:55	12/02/14 13:43	100-41-4	
Methyl-tert-butyl ether	1790J	ug/kg	2620	1310	40	12/02/14 06:55	12/02/14 13:43	1634-04-4	
Toluene	4990	ug/kg	2620	1310	40	12/02/14 06:55	12/02/14 13:43	108-88-3	
Xylene (Total)	159000	ug/kg	7860	3930	40	12/02/14 06:55	12/02/14 13:43	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	217	%	41-178		40	12/02/14 06:55	12/02/14 13:43	98-08-8	S4
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	23.7	%	0.10	0.10	1		12/02/14 16:05		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

Sample: BACKFILL #2 Lab ID: 40107676009 Collected: 11/26/14 11:15 Received: 11/29/14 08:55 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>		Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil							
Benzene	8690	ug/kg	1190	596	50	12/02/14 06:55	12/02/14 14:59	71-43-2	
Ethylbenzene	74100	ug/kg	2980	1490	50	12/02/14 06:55	12/02/14 14:59	100-41-4	
Methyl-tert-butyl ether	3870	ug/kg	2980	1490	50	12/02/14 06:55	12/02/14 14:59	1634-04-4	
Toluene	37100	ug/kg	2980	1490	50	12/02/14 06:55	12/02/14 14:59	108-88-3	
Xylene (Total)	327000	ug/kg	8940	4470	50	12/02/14 06:55	12/02/14 14:59	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	153	%	41-178		50	12/02/14 06:55	12/02/14 14:59	98-08-8	S4
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<49.7	ug/kg	99.4	49.7	5	12/02/14 08:53	12/05/14 11:17	83-32-9	
Acenaphthylene	<44.5	ug/kg	99.4	44.5	5	12/02/14 08:53	12/05/14 11:17	208-96-8	
Anthracene	<51.5	ug/kg	99.4	51.5	5	12/02/14 08:53	12/05/14 11:17	120-12-7	
Benzo(a)anthracene	<34.4	ug/kg	99.4	34.4	5	12/02/14 08:53	12/05/14 11:17	56-55-3	
Benzo(a)pyrene	<35.5	ug/kg	99.4	35.5	5	12/02/14 08:53	12/05/14 11:17	50-32-8	
Benzo(b)fluoranthene	<49.7	ug/kg	99.4	49.7	5	12/02/14 08:53	12/05/14 11:17	205-99-2	
Benzo(g,h,i)perylene	<37.8	ug/kg	99.4	37.8	5	12/02/14 08:53	12/05/14 11:17	191-24-2	
Benzo(k)fluoranthene	<55.0	ug/kg	99.4	55.0	5	12/02/14 08:53	12/05/14 11:17	207-08-9	
Chrysene	<45.9	ug/kg	99.4	45.9	5	12/02/14 08:53	12/05/14 11:17	218-01-9	
Dibenz(a,h)anthracene	<36.4	ug/kg	99.4	36.4	5	12/02/14 08:53	12/05/14 11:17	53-70-3	
Fluoranthene	<49.7	ug/kg	99.4	49.7	5	12/02/14 08:53	12/05/14 11:17	206-44-0	
Fluorene	<49.7	ug/kg	99.4	49.7	5	12/02/14 08:53	12/05/14 11:17	86-73-7	
Indeno(1,2,3-cd)pyrene	<37.7	ug/kg	99.4	37.7	5	12/02/14 08:53	12/05/14 11:17	193-39-5	
Naphthalene	962	ug/kg	99.4	49.7	5	12/02/14 08:53	12/05/14 11:17	91-20-3	
Phenanthrene	<49.7	ug/kg	99.4	49.7	5	12/02/14 08:53	12/05/14 11:17	85-01-8	
Pyrene	<49.7	ug/kg	99.4	49.7	5	12/02/14 08:53	12/05/14 11:17	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	44	%	40-130		5	12/02/14 08:53	12/05/14 11:17	321-60-8	
Terphenyl-d14 (S)	43	%	40-130		5	12/02/14 08:53	12/05/14 11:17	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	16.1	%	0.10	0.10	1		12/02/14 16:06		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

QC Batch: GCV/13655 Analysis Method: EPA 8021  
QC Batch Method: EPA 5030 Medium Soil Analysis Description: 8021 Med Level Solid GCV  
Associated Lab Samples: 40107676001, 40107676002, 40107676003, 40107676004, 40107676005, 40107676006, 40107676007, 40107676008, 40107676009

METHOD BLANK: 1090066 Matrix: Solid  
Associated Lab Samples: 40107676001, 40107676002, 40107676003, 40107676004, 40107676005, 40107676006, 40107676007, 40107676008, 40107676009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<10.0	20.0	12/02/14 08:10	
Ethylbenzene	ug/kg	<25.0	50.0	12/02/14 08:10	
Methyl-tert-butyl ether	ug/kg	<25.0	50.0	12/02/14 08:10	
Toluene	ug/kg	<25.0	50.0	12/02/14 08:10	
Xylene (Total)	ug/kg	<75.0	150	12/02/14 08:10	
a,a,a-Trifluorotoluene (S)	%	107	41-178	12/02/14 08:10	

LABORATORY CONTROL SAMPLE & LCSD: 1090067 1090068

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	1000	1070	1110	107	111	80-120	4	20	
Ethylbenzene	ug/kg	1000	1090	1140	109	114	80-120	4	20	
Methyl-tert-butyl ether	ug/kg	1000	1070	1120	107	112	80-120	4	20	
Toluene	ug/kg	1000	1080	1120	108	112	80-120	4	20	
Xylene (Total)	ug/kg	3000	3220	3340	107	111	80-120	4	20	
a,a,a-Trifluorotoluene (S)	%				110	111	41-178			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

QC Batch: OEXT/25356 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40107676001, 40107676002, 40107676003, 40107676006, 40107676007, 40107676009

METHOD BLANK: 1090144 Matrix: Solid  
Associated Lab Samples: 40107676001, 40107676002, 40107676003, 40107676006, 40107676007, 40107676009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	12/02/14 11:35	
Acenaphthylene	ug/kg	<7.5	16.7	12/02/14 11:35	
Anthracene	ug/kg	<8.6	16.7	12/02/14 11:35	
Benzo(a)anthracene	ug/kg	<5.8	16.7	12/02/14 11:35	
Benzo(a)pyrene	ug/kg	<6.0	16.7	12/02/14 11:35	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	12/02/14 11:35	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	12/02/14 11:35	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	12/02/14 11:35	
Chrysene	ug/kg	<7.7	16.7	12/02/14 11:35	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	12/02/14 11:35	
Fluoranthene	ug/kg	<8.3	16.7	12/02/14 11:35	
Fluorene	ug/kg	<8.3	16.7	12/02/14 11:35	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	12/02/14 11:35	
Naphthalene	ug/kg	<8.3	16.7	12/02/14 11:35	
Phenanthrene	ug/kg	<8.3	16.7	12/02/14 11:35	
Pyrene	ug/kg	<8.3	16.7	12/02/14 11:35	
2-Fluorobiphenyl (S)	%	68	40-130	12/02/14 11:35	
Terphenyl-d14 (S)	%	77	40-130	12/02/14 11:35	

LABORATORY CONTROL SAMPLE: 1090145

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	274	82	55-130	
Acenaphthylene	ug/kg	333	278	83	55-130	
Anthracene	ug/kg	333	334	100	66-130	
Benzo(a)anthracene	ug/kg	333	251	75	55-130	
Benzo(a)pyrene	ug/kg	333	330	99	56-130	
Benzo(b)fluoranthene	ug/kg	333	248	74	53-130	
Benzo(g,h,i)perylene	ug/kg	333	318	95	51-130	
Benzo(k)fluoranthene	ug/kg	333	359	108	52-130	
Chrysene	ug/kg	333	324	97	58-130	
Dibenz(a,h)anthracene	ug/kg	333	303	91	55-130	
Fluoranthene	ug/kg	333	278	84	62-130	
Fluorene	ug/kg	333	281	84	58-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	314	94	54-130	
Naphthalene	ug/kg	333	257	77	41-130	
Phenanthrene	ug/kg	333	256	77	60-130	
Pyrene	ug/kg	333	274	82	51-130	
2-Fluorobiphenyl (S)	%			76	40-130	
Terphenyl-d14 (S)	%			81	40-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		1090146			1090147								
Parameter	Units	40107676001	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	RPD	RPD	Qual
		Result	Spike	Spike	Result	Result	% Rec	% Rec	Limits				
Acenaphthene	ug/kg	<435	434	434	<435	<435	46	61	31-130	35			
Acenaphthylene	ug/kg	<389	434	434	<389	<389	45	66	32-130	25			
Anthracene	ug/kg	<451	434	434	<451	<451	58	73	39-131	38			
Benzo(a)anthracene	ug/kg	<301	434	434	<301	<301	51	59	29-130	30			
Benzo(a)pyrene	ug/kg	<311	434	434	<311	<311	37	48	35-130	33			
Benzo(b)fluoranthene	ug/kg	<435	434	434	<435	<435	31	42	21-142	44			
Benzo(g,h,i)perylene	ug/kg	<331	434	434	<331	<331	41	52	12-134	33			
Benzo(k)fluoranthene	ug/kg	<481	434	434	<481	<481	62	78	35-130	37			
Chrysene	ug/kg	<402	434	434	<402	<402	67	86	37-130	38			
Dibenz(a,h)anthracene	ug/kg	<319	434	434	<319	<319	34	44	23-130	27			
Fluoranthene	ug/kg	<435	434	434	<435	<435	45	59	29-137	50			
Fluorene	ug/kg	<435	434	434	<435	<435	57	75	32-130	32			
Indeno(1,2,3-cd)pyrene	ug/kg	<330	434	434	<330	<330	36	46	17-134	28			
Naphthalene	ug/kg	8440	434	434	8930	11600	112	726	24-130	26	40	M6	
Phenanthrene	ug/kg	<435	434	434	<435	<435	59	76	27-135	46			
Pyrene	ug/kg	<435	434	434	<435	<435	41	54	24-130	49			
2-Fluorobiphenyl (S)	%						40	54	40-130				
Terphenyl-d14 (S)	%						37	49	40-130				S4

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

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QC Batch:	PMST/10704	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40107676001, 40107676002, 40107676003, 40107676004, 40107676005, 40107676006, 40107676007, 40107676008, 40107676009		

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SAMPLE DUPLICATE: 1090533

Parameter	Units	40107720005 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	8.3	8.4	1	10	

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: GCV/13660

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSSV/7453

[IP] Benzo(b)fluoranthene and benzo(k)fluoranthene were in the check standard but did not meet the resolution criteria in SW846 Method 8270C. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.

### ANALYTE QUALIFIERS

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

S4 Surrogate recovery not evaluated against control limits due to sample dilution.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

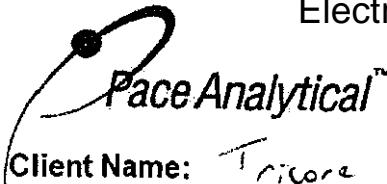
Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40107676

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40107676001	PL-1 @ 2.5-3'	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107676002	PL-2 @ 2.5-3'	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107676003	PL-3 @ 2.5-3'	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107676004	B-5 @ 7-8'	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107676005	B-6 @ 7-8'	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107676006	EX-4 @ 4-5'	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107676007	EX-5 @ 4-5'	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107676008	EX-6 @ 4-5'	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107676009	BACKFILL #2	EPA 5030 Medium Soil	GCV/13655	EPA 8021	GCV/13660
40107676001	PL-1 @ 2.5-3'	EPA 3546	OEXT/25356	EPA 8270 by SIM	MSSV/7453
40107676002	PL-2 @ 2.5-3'	EPA 3546	OEXT/25356	EPA 8270 by SIM	MSSV/7453
40107676003	PL-3 @ 2.5-3'	EPA 3546	OEXT/25356	EPA 8270 by SIM	MSSV/7453
40107676006	EX-4 @ 4-5'	EPA 3546	OEXT/25356	EPA 8270 by SIM	MSSV/7453
40107676007	EX-5 @ 4-5'	EPA 3546	OEXT/25356	EPA 8270 by SIM	MSSV/7453
40107676009	BACKFILL #2	EPA 3546	OEXT/25356	EPA 8270 by SIM	MSSV/7453
40107676001	PL-1 @ 2.5-3'	ASTM D2974-87	PMST/10704		
40107676002	PL-2 @ 2.5-3'	ASTM D2974-87	PMST/10704		
40107676003	PL-3 @ 2.5-3'	ASTM D2974-87	PMST/10704		
40107676004	B-5 @ 7-8'	ASTM D2974-87	PMST/10704		
40107676005	B-6 @ 7-8'	ASTM D2974-87	PMST/10704		
40107676006	EX-4 @ 4-5'	ASTM D2974-87	PMST/10704		
40107676007	EX-5 @ 4-5'	ASTM D2974-87	PMST/10704		
40107676008	EX-6 @ 4-5'	ASTM D2974-87	PMST/10704		
40107676009	BACKFILL #2	ASTM D2974-87	PMST/10704		

**REPORT OF LABORATORY ANALYSIS**

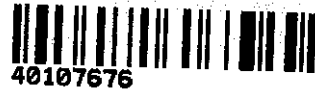
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Project #:

WO#: 40107676



Client Name: Tricore  
 Courier:  Fed Ex  UPS  Client  Pace Other: Cslogistic  
 Tracking #:

Custody Seal on Cooler/Box Present:  yes  no    Seals intact:  yes  no  
 Custody Seal on Samples Present:  yes  no    Seals intact:  yes  no  
 Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: SR32    Type of Ice:  Wet  Blue  Dry  None     Samples on ice, cooling process has begun  
 Cooler Temperature: Uncorr: 3    I.Corr: 3    Biological Tissue is Frozen:  yes  no  
 Temp Blank Present:  yes  no

Person examining contents:  
 Date: 11-29-14  
 Initials: KB

Temp should be above freezing to 6°C for all sample except Biota.  
 Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #/ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:  If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: Tare weights covered by client 11-29-14 KB

Project Manager Review: UW Date: 12/1/14



Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

**Leaking Underground Storage Tank Program  
 Laboratory Certification for Chemical Analysis**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010  
 Site Name: Lemont Kar Gas  
 Site Address (Not a P.O. Box): 1196 State Street  
 City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

**B. Sample Collector**

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. NJR  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. NJR  
(Initial)
- 3. Sample integrity was maintained by proper preservation. NJR  
(Initial)
- 4. All samples were properly labeled. NJR  
(Initial)

**C. Laboratory Representative**

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms CLW  
(Initial)
- 2. Sample integrity was maintained by proper preservation. CLW  
(Initial)
- 3. All samples were properly labeled. CLW  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. CLW  
(Initial)
- 5. Sample holding times were not exceeded. CLW  
(Initial)

6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.

UW  
(Initial)

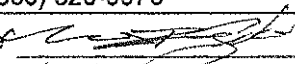
7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

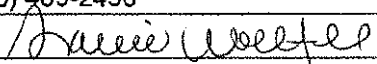
**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako  
Title Geologist III  
Company TriCore Environmental, LLC  
Address 2368 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone (630) 520-9973  
Signature   
Date 11/26/14

**Laboratory Representative**

Name Laurie Woelfel  
Title Project Manager  
Company Pace Analytical Services, Inc.  
Address 1241 Bellevue Street, Suite 9  
City Green Bay  
State Wisconsin  
Zip Code 64302  
Phone (920) 469-2436  
Signature   
Date 12/8/14

April 29, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

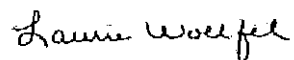
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113625

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on April 23, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



**REPORT OF LABORATORY ANALYSIS**

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**CERTIFICATIONS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113625

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**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113625

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40113625001	EX-1(7-8)	Solid	04/22/15 10:25	04/23/15 09:35
40113625002	EX-2(7-8)	Solid	04/22/15 10:32	04/23/15 09:35
40113625003	B-1(15.5)	Solid	04/22/15 11:00	04/23/15 09:35
40113625004	B-2(16)	Solid	04/22/15 11:05	04/23/15 09:35

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113625

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40113625001	EX-1(7-8)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	RMS	1	PASI-G
40113625002	EX-2(7-8)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	RMS	1	PASI-G
40113625003	B-1(15.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	RMS	1	PASI-G
40113625004	B-2(16)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	RMS	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113625

Sample: EX-1(7-8) Lab ID: 40113625001 Collected: 04/22/15 10:25 Received: 04/23/15 09:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<48.3	ug/kg	96.7	48.3	5	04/24/15 08:46	04/27/15 18:08	83-32-9	
Acenaphthylene	<43.2	ug/kg	96.7	43.2	5	04/24/15 08:46	04/27/15 18:08	208-96-8	
Anthracene	<50.1	ug/kg	96.7	50.1	5	04/24/15 08:46	04/27/15 18:08	120-12-7	
Benzo(a)anthracene	<33.5	ug/kg	96.7	33.5	5	04/24/15 08:46	04/27/15 18:08	56-55-3	
Benzo(a)pyrene	<34.6	ug/kg	96.7	34.6	5	04/24/15 08:46	04/27/15 18:08	50-32-8	
Benzo(b)fluoranthene	<48.3	ug/kg	96.7	48.3	5	04/24/15 08:46	04/27/15 18:08	205-99-2	
Benzo(g,h,i)perylene	<36.8	ug/kg	96.7	36.8	5	04/24/15 08:46	04/27/15 18:08	191-24-2	
Benzo(k)fluoranthene	<53.5	ug/kg	96.7	53.5	5	04/24/15 08:46	04/27/15 18:08	207-08-9	
Chrysene	<44.7	ug/kg	96.7	44.7	5	04/24/15 08:46	04/27/15 18:08	218-01-9	
Dibenz(a,h)anthracene	<35.5	ug/kg	96.7	35.5	5	04/24/15 08:46	04/27/15 18:08	53-70-3	
Fluoranthene	<48.3	ug/kg	96.7	48.3	5	04/24/15 08:46	04/27/15 18:08	206-44-0	
Fluorene	<48.3	ug/kg	96.7	48.3	5	04/24/15 08:46	04/27/15 18:08	86-73-7	
Indeno(1,2,3-cd)pyrene	<36.7	ug/kg	96.7	36.7	5	04/24/15 08:46	04/27/15 18:08	193-39-5	
Naphthalene	1240	ug/kg	96.7	48.3	5	04/24/15 08:46	04/27/15 18:08	91-20-3	M1
Phenanthrene	<48.3	ug/kg	96.7	48.3	5	04/24/15 08:46	04/27/15 18:08	85-01-8	
Pyrene	<48.3	ug/kg	96.7	48.3	5	04/24/15 08:46	04/27/15 18:08	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	58	%	39-130		5	04/24/15 08:46	04/27/15 18:08	321-60-8	
Terphenyl-d14 (S)	60	%	37-130		5	04/24/15 08:46	04/27/15 18:08	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	5010	ug/kg	46.4	21.4	2	04/24/15 07:40	04/24/15 18:06	71-43-2	
Ethylbenzene	7800	ug/kg	116	28.8	2	04/24/15 07:40	04/24/15 18:06	100-41-4	
Methyl-tert-butyl ether	<29.4	ug/kg	116	29.4	2	04/24/15 07:40	04/24/15 18:06	1634-04-4	
Toluene	995	ug/kg	116	26.0	2	04/24/15 07:40	04/24/15 18:06	108-88-3	
Xylene (Total)	18400	ug/kg	348	112	2	04/24/15 07:40	04/24/15 18:06	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	49-157		2	04/24/15 07:40	04/24/15 18:06	1868-53-7	
4-Bromofluorobenzene (S)	104	%	53-134		2	04/24/15 07:40	04/24/15 18:06	460-00-4	
Toluene-d8 (S)	98	%	61-148		2	04/24/15 07:40	04/24/15 18:06	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.8	%	0.10	0.10	1		04/28/15 13:42		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113625

Sample: EX-2(7-8) Lab ID: 40113625002 Collected: 04/22/15 10:32 Received: 04/23/15 09:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.7	ug/kg	19.3	9.7	1	04/24/15 08:46	04/24/15 15:03	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.3	8.6	1	04/24/15 08:46	04/24/15 15:03	208-96-8	
Anthracene	<10.0	ug/kg	19.3	10.0	1	04/24/15 08:46	04/24/15 15:03	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.3	6.7	1	04/24/15 08:46	04/24/15 15:03	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.3	6.9	1	04/24/15 08:46	04/24/15 15:03	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.3	9.7	1	04/24/15 08:46	04/24/15 15:03	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.3	7.4	1	04/24/15 08:46	04/24/15 15:03	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.3	10.7	1	04/24/15 08:46	04/24/15 15:03	207-08-9	
Chrysene	<8.9	ug/kg	19.3	8.9	1	04/24/15 08:46	04/24/15 15:03	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.3	7.1	1	04/24/15 08:46	04/24/15 15:03	53-70-3	
Fluoranthene	<9.7	ug/kg	19.3	9.7	1	04/24/15 08:46	04/24/15 15:03	206-44-0	
Fluorene	<9.7	ug/kg	19.3	9.7	1	04/24/15 08:46	04/24/15 15:03	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.3	7.3	1	04/24/15 08:46	04/24/15 15:03	193-39-5	
Naphthalene	777	ug/kg	19.3	9.7	1	04/24/15 08:46	04/24/15 15:03	91-20-3	
Phenanthrene	<9.7	ug/kg	19.3	9.7	1	04/24/15 08:46	04/24/15 15:03	85-01-8	
Pyrene	<9.7	ug/kg	19.3	9.7	1	04/24/15 08:46	04/24/15 15:03	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	64	%	39-130		1	04/24/15 08:46	04/24/15 15:03	321-60-8	
Terphenyl-d14 (S)	66	%	37-130		1	04/24/15 08:46	04/24/15 15:03	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	7510	ug/kg	23.2	10.7	1	04/24/15 07:40	04/24/15 17:43	71-43-2	
Ethylbenzene	6910	ug/kg	58.0	14.4	1	04/24/15 07:40	04/24/15 17:43	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.0	14.7	1	04/24/15 07:40	04/24/15 17:43	1634-04-4	
Toluene	394	ug/kg	58.0	13.0	1	04/24/15 07:40	04/24/15 17:43	108-88-3	
Xylene (Total)	7330	ug/kg	174	56.2	1	04/24/15 07:40	04/24/15 17:43	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	49-157		1	04/24/15 07:40	04/24/15 17:43	1868-53-7	
4-Bromofluorobenzene (S)	102	%	53-134		1	04/24/15 07:40	04/24/15 17:43	460-00-4	
Toluene-d8 (S)	99	%	61-148		1	04/24/15 07:40	04/24/15 17:43	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.8	%	0.10	0.10	1		04/28/15 13:43		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113625

Sample: B-1(15.5) Lab ID: 40113625003 Collected: 04/22/15 11:00 Received: 04/23/15 09:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.5	ug/kg	19.0	9.5	1	04/24/15 08:46	04/24/15 15:20	83-32-9	
Acenaphthylene	<8.5	ug/kg	19.0	8.5	1	04/24/15 08:46	04/24/15 15:20	208-96-8	
Anthracene	<9.9	ug/kg	19.0	9.9	1	04/24/15 08:46	04/24/15 15:20	120-12-7	
Benzo(a)anthracene	<6.6	ug/kg	19.0	6.6	1	04/24/15 08:46	04/24/15 15:20	56-55-3	
Benzo(a)pyrene	<6.8	ug/kg	19.0	6.8	1	04/24/15 08:46	04/24/15 15:20	50-32-8	
Benzo(b)fluoranthene	<9.5	ug/kg	19.0	9.5	1	04/24/15 08:46	04/24/15 15:20	205-99-2	
Benzo(g,h,i)perylene	<7.2	ug/kg	19.0	7.2	1	04/24/15 08:46	04/24/15 15:20	191-24-2	
Benzo(k)fluoranthene	<10.5	ug/kg	19.0	10.5	1	04/24/15 08:46	04/24/15 15:20	207-08-9	
Chrysene	<8.8	ug/kg	19.0	8.8	1	04/24/15 08:46	04/24/15 15:20	218-01-9	
Dibenz(a,h)anthracene	<7.0	ug/kg	19.0	7.0	1	04/24/15 08:46	04/24/15 15:20	53-70-3	
Fluoranthene	<9.5	ug/kg	19.0	9.5	1	04/24/15 08:46	04/24/15 15:20	206-44-0	
Fluorene	<9.5	ug/kg	19.0	9.5	1	04/24/15 08:46	04/24/15 15:20	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.2	ug/kg	19.0	7.2	1	04/24/15 08:46	04/24/15 15:20	193-39-5	
Naphthalene	<9.5	ug/kg	19.0	9.5	1	04/24/15 08:46	04/24/15 15:20	91-20-3	
Phenanthrene	<9.5	ug/kg	19.0	9.5	1	04/24/15 08:46	04/24/15 15:20	85-01-8	
Pyrene	<9.5	ug/kg	19.0	9.5	1	04/24/15 08:46	04/24/15 15:20	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	60	%	39-130		1	04/24/15 08:46	04/24/15 15:20	321-60-8	
Terphenyl-d14 (S)	57	%	37-130		1	04/24/15 08:46	04/24/15 15:20	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.5	ug/kg	22.8	10.5	1	04/24/15 07:40	04/24/15 10:48	71-43-2	
Ethylbenzene	<14.2	ug/kg	57.1	14.2	1	04/24/15 07:40	04/24/15 10:48	100-41-4	
Methyl-tert-butyl ether	23.4J	ug/kg	57.1	14.4	1	04/24/15 07:40	04/24/15 10:48	1634-04-4	
Toluene	<12.8	ug/kg	57.1	12.8	1	04/24/15 07:40	04/24/15 10:48	108-88-3	
Xylene (Total)	<55.3	ug/kg	171	55.3	1	04/24/15 07:40	04/24/15 10:48	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	49-157		1	04/24/15 07:40	04/24/15 10:48	1868-53-7	
4-Bromofluorobenzene (S)	90	%	53-134		1	04/24/15 07:40	04/24/15 10:48	460-00-4	
Toluene-d8 (S)	95	%	61-148		1	04/24/15 07:40	04/24/15 10:48	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	12.4	%	0.10	0.10	1		04/28/15 13:43		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113625

Sample: B-2(16) Lab ID: 40113625004 Collected: 04/22/15 11:05 Received: 04/23/15 09:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<10.1	ug/kg	20.1	10.1	1	04/24/15 08:46	04/24/15 15:38	83-32-9	
Acenaphthylene	<9.0	ug/kg	20.1	9.0	1	04/24/15 08:46	04/24/15 15:38	208-96-8	
Anthracene	<10.4	ug/kg	20.1	10.4	1	04/24/15 08:46	04/24/15 15:38	120-12-7	
Benzo(a)anthracene	<7.0	ug/kg	20.1	7.0	1	04/24/15 08:46	04/24/15 15:38	56-55-3	
Benzo(a)pyrene	<7.2	ug/kg	20.1	7.2	1	04/24/15 08:46	04/24/15 15:38	50-32-8	
Benzo(b)fluoranthene	<10.1	ug/kg	20.1	10.1	1	04/24/15 08:46	04/24/15 15:38	205-99-2	
Benzo(g,h,i)perylene	<7.7	ug/kg	20.1	7.7	1	04/24/15 08:46	04/24/15 15:38	191-24-2	
Benzo(k)fluoranthene	<11.1	ug/kg	20.1	11.1	1	04/24/15 08:46	04/24/15 15:38	207-08-9	
Chrysene	<9.3	ug/kg	20.1	9.3	1	04/24/15 08:46	04/24/15 15:38	218-01-9	
Dibenz(a,h)anthracene	<7.4	ug/kg	20.1	7.4	1	04/24/15 08:46	04/24/15 15:38	53-70-3	
Fluoranthene	10.7J	ug/kg	20.1	10.1	1	04/24/15 08:46	04/24/15 15:38	206-44-0	
Fluorene	<10.1	ug/kg	20.1	10.1	1	04/24/15 08:46	04/24/15 15:38	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.6	ug/kg	20.1	7.6	1	04/24/15 08:46	04/24/15 15:38	193-39-5	
Naphthalene	<10.1	ug/kg	20.1	10.1	1	04/24/15 08:46	04/24/15 15:38	91-20-3	
Phenanthrene	13.7J	ug/kg	20.1	10.1	1	04/24/15 08:46	04/24/15 15:38	85-01-8	
Pyrene	<10.1	ug/kg	20.1	10.1	1	04/24/15 08:46	04/24/15 15:38	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	68	%	39-130		1	04/24/15 08:46	04/24/15 15:38	321-60-8	
Terphenyl-d14 (S)	61	%	37-130		1	04/24/15 08:46	04/24/15 15:38	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<11.1	ug/kg	24.1	11.1	1	04/24/15 07:40	04/24/15 11:11	71-43-2	
Ethylbenzene	<15.0	ug/kg	60.4	15.0	1	04/24/15 07:40	04/24/15 11:11	100-41-4	
Methyl-tert-butyl ether	123	ug/kg	60.4	15.3	1	04/24/15 07:40	04/24/15 11:11	1634-04-4	
Toluene	<13.5	ug/kg	60.4	13.5	1	04/24/15 07:40	04/24/15 11:11	108-88-3	
Xylene (Total)	<58.5	ug/kg	181	58.5	1	04/24/15 07:40	04/24/15 11:11	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	49-157		1	04/24/15 07:40	04/24/15 11:11	1868-53-7	
4-Bromofluorobenzene (S)	84	%	53-134		1	04/24/15 07:40	04/24/15 11:11	460-00-4	
Toluene-d8 (S)	91	%	61-148		1	04/24/15 07:40	04/24/15 11:11	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	17.2	%	0.10	0.10	1		04/28/15 13:43		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113625

QC Batch: MSV/28179 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40113625001, 40113625002, 40113625003, 40113625004

METHOD BLANK: 1146798 Matrix: Solid  
Associated Lab Samples: 40113625001, 40113625002, 40113625003, 40113625004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	04/24/15 09:39	
Ethylbenzene	ug/kg	<12.4	50.0	04/24/15 09:39	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	04/24/15 09:39	
Toluene	ug/kg	<11.2	50.0	04/24/15 09:39	
Xylene (Total)	ug/kg	<48.4	150	04/24/15 09:39	
4-Bromofluorobenzene (S)	%	94	53-134	04/24/15 09:39	
Dibromofluoromethane (S)	%	104	49-157	04/24/15 09:39	
Toluene-d8 (S)	%	100	61-148	04/24/15 09:39	

Parameter	Units	1146799		1146800			% Rec Limits	RPD	Max RPD	Qualifiers
		Spike Conc.	LCS Result	LCS Result	LCS % Rec	LCS % Rec				
Benzene	ug/kg	2500	2760	2700	110	108	70-130	2	20	
Ethylbenzene	ug/kg	2500	2630	2620	105	105	70-130	0	20	
Methyl-tert-butyl ether	ug/kg	2500	2480	2420	99	97	70-130	3	20	
Toluene	ug/kg	2500	2570	2580	103	103	70-130	0	20	
Xylene (Total)	ug/kg	7500	7940	7940	106	106	70-130	0	20	
4-Bromofluorobenzene (S)	%				100	99	53-134			
Dibromofluoromethane (S)	%				102	100	49-157			
Toluene-d8 (S)	%				98	96	61-148			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113625

QC Batch: OEXT/26339 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40113625001, 40113625002, 40113625003, 40113625004

METHOD BLANK: 1146511 Matrix: Solid  
Associated Lab Samples: 40113625001, 40113625002, 40113625003, 40113625004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	04/24/15 13:37	
Acenaphthylene	ug/kg	<7.5	16.7	04/24/15 13:37	
Anthracene	ug/kg	<8.6	16.7	04/24/15 13:37	
Benzo(a)anthracene	ug/kg	<5.8	16.7	04/24/15 13:37	
Benzo(a)pyrene	ug/kg	<6.0	16.7	04/24/15 13:37	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	04/24/15 13:37	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	04/24/15 13:37	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	04/24/15 13:37	
Chrysene	ug/kg	<7.7	16.7	04/24/15 13:37	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	04/24/15 13:37	
Fluoranthene	ug/kg	<8.3	16.7	04/24/15 13:37	
Fluorene	ug/kg	<8.3	16.7	04/24/15 13:37	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	04/24/15 13:37	
Naphthalene	ug/kg	<8.3	16.7	04/24/15 13:37	
Phenanthrene	ug/kg	<8.3	16.7	04/24/15 13:37	
Pyrene	ug/kg	<8.3	16.7	04/24/15 13:37	
2-Fluorobiphenyl (S)	%	61	39-130	04/24/15 13:37	
Terphenyl-d14 (S)	%	67	37-130	04/24/15 13:37	

LABORATORY CONTROL SAMPLE: 1146512

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	223	67	54-130	
Acenaphthylene	ug/kg	333	228	68	55-130	
Anthracene	ug/kg	333	250	75	64-130	
Benzo(a)anthracene	ug/kg	333	230	69	50-130	
Benzo(a)pyrene	ug/kg	333	236	71	46-130	
Benzo(b)fluoranthene	ug/kg	333	234	70	43-130	
Benzo(g,h,i)perylene	ug/kg	333	224	67	48-130	
Benzo(k)fluoranthene	ug/kg	333	228	68	55-130	
Chrysene	ug/kg	333	237	71	62-130	
Dibenz(a,h)anthracene	ug/kg	333	240	72	49-130	
Fluoranthene	ug/kg	333	238	71	57-130	
Fluorene	ug/kg	333	226	68	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	238	71	50-130	
Naphthalene	ug/kg	333	197	59	48-130	
Phenanthrene	ug/kg	333	235	70	51-130	
Pyrene	ug/kg	333	220	66	55-130	
2-Fluorobiphenyl (S)	%			65	39-130	
Terphenyl-d14 (S)	%			67	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113625

Parameter	Units	1146513		1146514		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		40113625001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Acenaphthene	ug/kg	<48.3	386	386	292	245	76	63	46-130	18	26	
Acenaphthylene	ug/kg	<43.2	386	386	293	245	76	63	49-130	18	23	
Anthracene	ug/kg	<50.1	386	386	314	258	81	67	52-130	20	28	
Benzo(a)anthracene	ug/kg	<33.5	386	386	293	248	76	64	34-130	16	36	
Benzo(a)pyrene	ug/kg	<34.6	386	386	287	229	74	59	34-130	22	40	
Benzo(b)fluoranthene	ug/kg	<48.3	386	386	280	236	72	61	22-130	17	40	
Benzo(g,h,i)perylene	ug/kg	<36.8	386	386	226	189	59	49	24-130	18	35	
Benzo(k)fluoranthene	ug/kg	<53.5	386	386	302	243	78	63	41-130	21	37	
Chrysene	ug/kg	<44.7	386	386	311	270	81	70	49-130	14	33	
Dibenz(a,h)anthracene	ug/kg	<35.5	386	386	238	193	62	50	27-130	21	31	
Fluoranthene	ug/kg	<48.3	386	386	309	262	80	68	34-130	16	37	
Fluorene	ug/kg	<48.3	386	386	300	249	78	64	45-130	19	25	
Indeno(1,2,3-cd)pyrene	ug/kg	<36.7	386	386	242	203	63	52	30-130	18	34	
Naphthalene	ug/kg	1240	386	386	1920	1590	174	90	38-130	19	30	M1
Phenanthrene	ug/kg	<48.3	386	386	305	252	78	64	38-130	19	34	
Pyrene	ug/kg	<48.3	386	386	301	258	78	67	35-130	15	35	
2-Fluorobiphenyl (S)	%						69	57	39-130			
Terphenyl-d14 (S)	%						71	59	37-130			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113625

QC Batch: PMST/11099      Analysis Method: ASTM D2974-87  
QC Batch Method: ASTM D2974-87      Analysis Description: Dry Weight/Percent Moisture  
Associated Lab Samples: 40113625001, 40113625002, 40113625003, 40113625004

SAMPLE DUPLICATE: 1148465

Parameter	Units	40113603008 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	20.5	21.1	3	10	

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113625

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSV/28181

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSSV/7818

[IP] Benzo(b)fluoranthene and benzo(k)fluoranthene were in the check standard but did not meet the resolution criteria in SW846 Method 8270C. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113625

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40113625001	EX-1(7-8)	EPA 3546	OEXT/26339	EPA 8270 by SIM	MSSV/7818
40113625002	EX-2(7-8)	EPA 3546	OEXT/26339	EPA 8270 by SIM	MSSV/7818
40113625003	B-1(15.5)	EPA 3546	OEXT/26339	EPA 8270 by SIM	MSSV/7818
40113625004	B-2(16)	EPA 3546	OEXT/26339	EPA 8270 by SIM	MSSV/7818
40113625001	EX-1(7-8)	EPA 5035/5030B	MSV/28179	EPA 8260	MSV/28181
40113625002	EX-2(7-8)	EPA 5035/5030B	MSV/28179	EPA 8260	MSV/28181
40113625003	B-1(15.5)	EPA 5035/5030B	MSV/28179	EPA 8260	MSV/28181
40113625004	B-2(16)	EPA 5035/5030B	MSV/28179	EPA 8260	MSV/28181
40113625001	EX-1(7-8)	ASTM D2974-87	PMST/11099		
40113625002	EX-2(7-8)	ASTM D2974-87	PMST/11099		
40113625003	B-1(15.5)	ASTM D2974-87	PMST/11099		
40113625004	B-2(16)	ASTM D2974-87	PMST/11099		

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Client Name: TriCore

Project #: **WO#: 40113625**

Courier:  Fed Ex  UPS  Client  Pace Other: CS Logistics  
Tracking #: NA

Custody Seal on Cooler/Box Present:  Yes  No Seals intact:  yes  no

Custody Seal on Samples Present:  Yes  No Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: SR-47 Type of Ice:  Wet  Blue Dry None  Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: 4 ICorr: 4 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  Yes  no  no

Person examining contents:  
Date: 3/23/21  
Initials: ML

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:  If checked, see attached form for additional comments  
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_

Project Manager Review: UW Date: 3/23/21



40113625

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The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

### Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

#### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPALPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

#### B. Sample Collector

I certify that:

1. Appropriate sampling equipment/methods were utilized to obtain representative samples.
2. Chain-of-custody procedures were followed in the field.
3. Sample integrity was maintained by proper preservation.
4. All samples were properly labeled.

MTR  
(Initial)  
MTR  
(Initial)  
MTR  
(Initial)  
MTR  
(Initial)

#### C. Laboratory Representative

I certify that:

1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms
2. Sample integrity was maintained by proper preservation.
3. All samples were properly labeled.
4. Quality assurance/quality control procedures were established and carried out.
5. Sample holding times were not exceeded.

UW  
(Initial)  
UW  
(Initial)  
UW  
(Initial)  
UW  
(Initial)  
UW  
(Initial)

4013625

6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.

UW  
(Initial)

7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name ~~CS~~ Marcus I Cooke  
Title Geologist III  
Company TriCore Environmental, LLC  
Address 2368 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone (630) 520-9973  
Signature *Marcus I Cooke*  
Date 04/22/15

**Laboratory Representative**

Name Laurie Woelfel  
Title Project Manager  
Company Pace Analytical Services, Inc.  
Address 1241 Bellevue Street, Suite 9  
City Green Bay  
State Wisconsin  
Zip Code 54302  
Phone (920) 469-2436  
Signature *Laurie Woelfel*  
Date 4/29/15



May 06, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

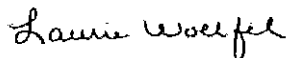
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113724

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on April 24, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113724

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113724

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40113724001	B-4 (16.5)	Solid	04/23/15 09:30	04/24/15 09:20
40113724002	B-3 (16)	Solid	04/22/15 14:15	04/24/15 09:20
40113724003	B-5 (15)	Solid	04/23/15 14:20	04/24/15 09:20

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113724

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40113724001	B-4 (16.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40113724002	B-3 (16)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40113724003	B-5 (15)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	AH	1	PASI-G

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113724

Sample: B-4 (16.5) Lab ID: 40113724001 Collected: 04/23/15 09:30 Received: 04/24/15 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.6	ug/kg	19.3	9.6	1	04/28/15 09:03	04/30/15 02:13	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.3	8.6	1	04/28/15 09:03	04/30/15 02:13	208-96-8	
Anthracene	<10	ug/kg	19.3	10	1	04/28/15 09:03	04/30/15 02:13	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.3	6.7	1	04/28/15 09:03	04/30/15 02:13	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.3	6.9	1	04/28/15 09:03	04/30/15 02:13	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.3	9.6	1	04/28/15 09:03	04/30/15 02:13	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.3	7.3	1	04/28/15 09:03	04/30/15 02:13	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.3	10.7	1	04/28/15 09:03	04/30/15 02:13	207-08-9	
Chrysene	<8.9	ug/kg	19.3	8.9	1	04/28/15 09:03	04/30/15 02:13	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.3	7.1	1	04/28/15 09:03	04/30/15 02:13	53-70-3	
Fluoranthene	<9.6	ug/kg	19.3	9.6	1	04/28/15 09:03	04/30/15 02:13	206-44-0	
Fluorene	<9.6	ug/kg	19.3	9.6	1	04/28/15 09:03	04/30/15 02:13	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.3	7.3	1	04/28/15 09:03	04/30/15 02:13	193-39-5	
Naphthalene	<9.6	ug/kg	19.3	9.6	1	04/28/15 09:03	04/30/15 02:13	91-20-3	
Phenanthrene	<9.6	ug/kg	19.3	9.6	1	04/28/15 09:03	04/30/15 02:13	85-01-8	
Pyrene	<9.6	ug/kg	19.3	9.6	1	04/28/15 09:03	04/30/15 02:13	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	64	%	39-130		1	04/28/15 09:03	04/30/15 02:13	321-60-8	
Terphenyl-d14 (S)	63	%	37-130		1	04/28/15 09:03	04/30/15 02:13	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.7	ug/kg	23.1	10.7	1	04/27/15 11:15	04/27/15 21:57	71-43-2	
Ethylbenzene	17.2J	ug/kg	57.8	14.4	1	04/27/15 11:15	04/27/15 21:57	100-41-4	
Methyl-tert-butyl ether	122	ug/kg	57.8	14.6	1	04/27/15 11:15	04/27/15 21:57	1634-04-4	
Toluene	<13.0	ug/kg	57.8	13.0	1	04/27/15 11:15	04/27/15 21:57	108-88-3	
Xylene (Total)	<56.0	ug/kg	173	56.0	1	04/27/15 11:15	04/27/15 21:57	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	49-157		1	04/27/15 11:15	04/27/15 21:57	1868-53-7	
4-Bromofluorobenzene (S)	85	%	53-134		1	04/27/15 11:15	04/27/15 21:57	460-00-4	
Toluene-d8 (S)	93	%	61-148		1	04/27/15 11:15	04/27/15 21:57	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.5	%	0.10	0.10	1		04/30/15 14:02		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113724

Sample: B-3 (16) Lab ID: 40113724002 Collected: 04/22/15 14:15 Received: 04/24/15 09:20 Matrix: Solid  
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.6	ug/kg	19.2	9.6	1	04/28/15 09:03	04/30/15 02:30	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.2	8.6	1	04/28/15 09:03	04/30/15 02:30	208-96-8	
Anthracene	<10	ug/kg	19.2	10	1	04/28/15 09:03	04/30/15 02:30	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.2	6.7	1	04/28/15 09:03	04/30/15 02:30	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.2	6.9	1	04/28/15 09:03	04/30/15 02:30	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.2	9.6	1	04/28/15 09:03	04/30/15 02:30	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.2	7.3	1	04/28/15 09:03	04/30/15 02:30	191-24-2	
Benzo(k)fluoranthene	<10.6	ug/kg	19.2	10.6	1	04/28/15 09:03	04/30/15 02:30	207-08-9	
Chrysene	<8.9	ug/kg	19.2	8.9	1	04/28/15 09:03	04/30/15 02:30	218-01-9	
Dibenz(a,h)anthracene	<7.0	ug/kg	19.2	7.0	1	04/28/15 09:03	04/30/15 02:30	53-70-3	
Fluoranthene	<9.6	ug/kg	19.2	9.6	1	04/28/15 09:03	04/30/15 02:30	206-44-0	
Fluorene	<9.6	ug/kg	19.2	9.6	1	04/28/15 09:03	04/30/15 02:30	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.2	7.3	1	04/28/15 09:03	04/30/15 02:30	193-39-5	
Naphthalene	<9.6	ug/kg	19.2	9.6	1	04/28/15 09:03	04/30/15 02:30	91-20-3	
Phenanthrene	11.9J	ug/kg	19.2	9.6	1	04/28/15 09:03	04/30/15 02:30	85-01-8	
Pyrene	<9.6	ug/kg	19.2	9.6	1	04/28/15 09:03	04/30/15 02:30	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	64	%	39-130		1	04/28/15 09:03	04/30/15 02:30	321-60-8	
Terphenyl-d14 (S)	64	%	37-130		1	04/28/15 09:03	04/30/15 02:30	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.6	ug/kg	23.1	10.6	1	04/27/15 11:15	04/27/15 22:20	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.7	14.3	1	04/27/15 11:15	04/27/15 22:20	100-41-4	
Methyl-tert-butyl ether	22.7J	ug/kg	57.7	14.6	1	04/27/15 11:15	04/27/15 22:20	1634-04-4	
Toluene	<12.9	ug/kg	57.7	12.9	1	04/27/15 11:15	04/27/15 22:20	108-88-3	
Xylene (Total)	<55.8	ug/kg	173	55.8	1	04/27/15 11:15	04/27/15 22:20	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	97	%	49-157		1	04/27/15 11:15	04/27/15 22:20	1868-53-7	
4-Bromofluorobenzene (S)	90	%	53-134		1	04/27/15 11:15	04/27/15 22:20	460-00-4	
Toluene-d8 (S)	98	%	61-148		1	04/27/15 11:15	04/27/15 22:20	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.3	%	0.10	0.10	1		04/30/15 14:02		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113724

Sample: B-5 (15) Lab ID: 40113724003 Collected: 04/23/15 14:20 Received: 04/24/15 09:20 Matrix: Solid  
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.6	ug/kg	19.2	9.6	1	04/28/15 09:03	04/30/15 02:47	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.2	8.6	1	04/28/15 09:03	04/30/15 02:47	208-96-8	
Anthracene	<9.9	ug/kg	19.2	9.9	1	04/28/15 09:03	04/30/15 02:47	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.2	6.7	1	04/28/15 09:03	04/30/15 02:47	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.2	6.9	1	04/28/15 09:03	04/30/15 02:47	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.2	9.6	1	04/28/15 09:03	04/30/15 02:47	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.2	7.3	1	04/28/15 09:03	04/30/15 02:47	191-24-2	
Benzo(k)fluoranthene	<10.6	ug/kg	19.2	10.6	1	04/28/15 09:03	04/30/15 02:47	207-08-9	
Chrysene	<8.9	ug/kg	19.2	8.9	1	04/28/15 09:03	04/30/15 02:47	218-01-9	
Dibenz(a,h)anthracene	<7.0	ug/kg	19.2	7.0	1	04/28/15 09:03	04/30/15 02:47	53-70-3	
Fluoranthene	<9.6	ug/kg	19.2	9.6	1	04/28/15 09:03	04/30/15 02:47	206-44-0	
Fluorene	<9.6	ug/kg	19.2	9.6	1	04/28/15 09:03	04/30/15 02:47	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.2	7.3	1	04/28/15 09:03	04/30/15 02:47	193-39-5	
Naphthalene	<9.6	ug/kg	19.2	9.6	1	04/28/15 09:03	04/30/15 02:47	91-20-3	
Phenanthrene	10.2J	ug/kg	19.2	9.6	1	04/28/15 09:03	04/30/15 02:47	85-01-8	
Pyrene	<9.6	ug/kg	19.2	9.6	1	04/28/15 09:03	04/30/15 02:47	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	53	%	39-130		1	04/28/15 09:03	04/30/15 02:47	321-60-8	
Terphenyl-d14 (S)	57	%	37-130		1	04/28/15 09:03	04/30/15 02:47	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	30.8	ug/kg	23.0	10.6	1	04/27/15 11:15	04/27/15 23:28	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.6	14.3	1	04/27/15 11:15	04/27/15 23:28	100-41-4	
Methyl-tert-butyl ether	444	ug/kg	57.6	14.6	1	04/27/15 11:15	04/27/15 23:28	1634-04-4	
Toluene	<12.9	ug/kg	57.6	12.9	1	04/27/15 11:15	04/27/15 23:28	108-88-3	
Xylene (Total)	<55.8	ug/kg	173	55.8	1	04/27/15 11:15	04/27/15 23:28	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	49-157		1	04/27/15 11:15	04/27/15 23:28	1868-53-7	
4-Bromofluorobenzene (S)	90	%	53-134		1	04/27/15 11:15	04/27/15 23:28	460-00-4	
Toluene-d8 (S)	99	%	61-148		1	04/27/15 11:15	04/27/15 23:28	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.1	%	0.10	0.10	1		04/30/15 14:02		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113724

QC Batch: MSV/28220 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40113724001, 40113724002, 40113724003

METHOD BLANK: 1148196 Matrix: Solid  
Associated Lab Samples: 40113724001, 40113724002, 40113724003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	04/27/15 20:49	
Ethylbenzene	ug/kg	<12.4	50.0	04/27/15 20:49	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	04/27/15 20:49	
Toluene	ug/kg	<11.2	50.0	04/27/15 20:49	
Xylene (Total)	ug/kg	<48.4	150	04/27/15 20:49	
4-Bromofluorobenzene (S)	%	92	53-134	04/27/15 20:49	
Dibromofluoromethane (S)	%	102	49-157	04/27/15 20:49	
Toluene-d8 (S)	%	105	61-148	04/27/15 20:49	

LABORATORY CONTROL SAMPLE & LCSD: 1148197

Parameter	Units	1148197		1148198		% Rec Limits	RPD	Max RPD	Qualifiers
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec				
Benzene	ug/kg	2500	2410	2410	96	96	70-130	0	20
Ethylbenzene	ug/kg	2500	2570	2510	103	100	70-130	2	20
Methyl-tert-butyl ether	ug/kg	2500	2350	2510	94	101	70-130	7	20
Toluene	ug/kg	2500	2460	2530	99	101	70-130	3	20
Xylene (Total)	ug/kg	7500	7940	7490	106	100	70-130	6	20
4-Bromofluorobenzene (S)	%				102	96	53-134		
Dibromofluoromethane (S)	%				108	104	49-157		
Toluene-d8 (S)	%				101	103	61-148		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113724

QC Batch: OEXT/26372 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40113724001, 40113724002, 40113724003

METHOD BLANK: 1148178 Matrix: Solid  
Associated Lab Samples: 40113724001, 40113724002, 40113724003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	04/28/15 11:11	
Acenaphthylene	ug/kg	<7.5	16.7	04/28/15 11:11	
Anthracene	ug/kg	<8.6	16.7	04/28/15 11:11	
Benzo(a)anthracene	ug/kg	<5.8	16.7	04/28/15 11:11	
Benzo(a)pyrene	ug/kg	<6.0	16.7	04/28/15 11:11	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	04/28/15 11:11	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	04/28/15 11:11	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	04/28/15 11:11	
Chrysene	ug/kg	<7.7	16.7	04/28/15 11:11	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	04/28/15 11:11	
Fluoranthene	ug/kg	<8.3	16.7	04/28/15 11:11	
Fluorene	ug/kg	<8.3	16.7	04/28/15 11:11	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	04/28/15 11:11	
Naphthalene	ug/kg	<8.3	16.7	04/28/15 11:11	
Phenanthrene	ug/kg	<8.3	16.7	04/28/15 11:11	
Pyrene	ug/kg	<8.3	16.7	04/28/15 11:11	
2-Fluorobiphenyl (S)	%	65	39-130	04/28/15 11:11	
Terphenyl-d14 (S)	%	69	37-130	04/28/15 11:11	

LABORATORY CONTROL SAMPLE: 1148179

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	228	68	54-130	
Acenaphthylene	ug/kg	333	232	70	55-130	
Anthracene	ug/kg	333	271	81	64-130	
Benzo(a)anthracene	ug/kg	333	253	76	50-130	
Benzo(a)pyrene	ug/kg	333	264	79	46-130	
Benzo(b)fluoranthene	ug/kg	333	267	80	43-130	
Benzo(g,h,i)perylene	ug/kg	333	249	75	48-130	
Benzo(k)fluoranthene	ug/kg	333	246	74	55-130	
Chrysene	ug/kg	333	268	81	62-130	
Dibenz(a,h)anthracene	ug/kg	333	269	81	49-130	
Fluoranthene	ug/kg	333	256	77	57-130	
Fluorene	ug/kg	333	237	71	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	266	80	50-130	
Naphthalene	ug/kg	333	203	61	48-130	
Phenanthrene	ug/kg	333	250	75	51-130	
Pyrene	ug/kg	333	247	74	55-130	
2-Fluorobiphenyl (S)	%			67	39-130	
Terphenyl-d14 (S)	%			74	37-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113724

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		1148180		1148181									
Parameter	Units	40113780002 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD		
Acenaphthene	ug/kg	<19.6	391	391	256	264	65	67	46-130	3	26		
Acenaphthylene	ug/kg	<19.6	391	391	262	273	67	69	49-130	4	23		
Anthracene	ug/kg	<19.6	391	391	279	281	71	71	52-130	1	28		
Benzo(a)anthracene	ug/kg	<19.6	391	391	254	262	63	65	34-130	3	36		
Benzo(a)pyrene	ug/kg	<19.6	391	391	266	275	66	68	34-130	3	40		
Benzo(b)fluoranthene	ug/kg	<19.6	391	391	289	276	72	69	22-130	4	40		
Benzo(g,h,i)perylene	ug/kg	<19.6	391	391	221	223	55	56	24-130	1	35		
Benzo(k)fluoranthene	ug/kg	<19.6	391	391	241	269	60	67	41-130	11	37		
Chrysene	ug/kg	<19.6	391	391	265	275	66	68	49-130	4	33		
Dibenz(a,h)anthracene	ug/kg	<19.6	391	391	254	259	65	66	27-130	2	31		
Fluoranthene	ug/kg	<19.6	391	391	270	277	66	68	34-130	2	37		
Fluorene	ug/kg	<19.6	391	391	257	267	66	68	45-130	4	25		
Indeno(1,2,3-cd)pyrene	ug/kg	<19.6	391	391	248	253	62	64	30-130	2	34		
Naphthalene	ug/kg	<19.6	391	391	232	255	59	65	38-130	9	30		
Phenanthrene	ug/kg	<19.6	391	391	263	272	66	68	38-130	4	34		
Pyrene	ug/kg	<19.6	391	391	257	264	63	65	35-130	3	35		
2-Fluorobiphenyl (S)	%						60	62	39-130				
Terphenyl-d14 (S)	%						57	58	37-130				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113724

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSV/28221

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSSV/7825

[IP] Benzo(b)fluoranthene and benzo(k)fluoranthene were in the check standard but did not meet the resolution criteria in SW846 Method 8270C. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113724

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40113724001	B-4 (16.5)	EPA 3546	OEXT/26372	EPA 8270 by SIM	MSSV/7825
40113724002	B-3 (16)	EPA 3546	OEXT/26372	EPA 8270 by SIM	MSSV/7825
40113724003	B-5 (15)	EPA 3546	OEXT/26372	EPA 8270 by SIM	MSSV/7825
40113724001	B-4 (16.5)	EPA 5035/5030B	MSV/28220	EPA 8260	MSV/28221
40113724002	B-3 (16)	EPA 5035/5030B	MSV/28220	EPA 8260	MSV/28221
40113724003	B-5 (15)	EPA 5035/5030B	MSV/28220	EPA 8260	MSV/28221
40113724001	B-4 (16.5)	ASTM D2974-87	PMST/11109		
40113724002	B-3 (16)	ASTM D2974-87	PMST/11109		
40113724003	B-5 (15)	ASTM D2974-87	PMST/11109		

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Sample Condition Upon Receipt

Electronic Filing: Received, Clerk's Office 03/23/2021

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302



Project #:

WO#: 40113724

Client Name: TriCore

Courier: Fed Ex UPS Client Pace Other: CS Logistics

Tracking #: NA



Custody Seal on Cooler/Box Present: Yes no Seals intact: Yes no

Custody Seal on Samples Present: Yes no Seals intact: Yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used: SR-47 Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: 4 ICorr: 4 Biological Tissue is Frozen: Yes

Temp Blank Present: Yes no

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:
Date: 4/24/15
Initials: MC

Comments:

Table with 15 rows of checklist items (Chain of Custody Present, Chain of Custody Filled Out, etc.) and checkboxes for Yes, No, N/A.

Client Notification/ Resolution:

If checked, see attached form for additional comments

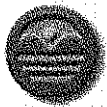
Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review:

CW

Date: 4/24/15



Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

**Leaking Underground Storage Tank Program  
 Laboratory Certification for Chemical Analysis**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010  
 Site Name: Lemont Kar Gas  
 Site Address (Not a P.O. Box): 1196 State Street  
 City: Lemont County: Cook ZIP Code: 60439  
 Leaking UST Technical File

**B. Sample Collector**

I certify that:

1. Appropriate sampling equipment/methods were utilized to obtain representative samples.
2. Chain-of-custody procedures were followed in the field.
3. Sample integrity was maintained by proper preservation.
4. All samples were properly labeled.

Jlm  
(Initial)  
Jlm  
(Initial)  
Jlm  
(Initial)  
Jlm  
(Initial)

**C. Laboratory Representative**

I certify that:

1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms
2. Sample integrity was maintained by proper preservation.
3. All samples were properly labeled.
4. Quality assurance/quality control procedures were established and carried out.
5. Sample holding times were not exceeded.

CW  
(Initial)  
CW  
(Initial)  
CW  
(Initial)  
CW  
(Initial)  
CW  
(Initial)



40113724

6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.

lw  
(Initial)

7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

lw  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name \_\_\_\_\_  
Title \_\_\_\_\_  
Company TriCore Environmental, LLC  
Address 2368 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone (630) 520-9973  
Signature \_\_\_\_\_  
Date \_\_\_\_\_

**Laboratory Representative**

Name Laurie Woelfel  
Title Project Manager  
Company Pace Analytical Services, Inc.  
Address 1241 Bellevue Street, Suite 9  
City Green Bay  
State Wisconsin  
Zip Code 64302  
Phone (920) 469-2436  
Signature Laurie Woelfel  
Date 3/1/15

May 06, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

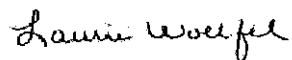
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113789

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on April 25, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



**REPORT OF LABORATORY ANALYSIS**

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**CERTIFICATIONS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113789

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**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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**SAMPLE SUMMARY**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113789

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40113789001	EX-3 (7-8)	Solid	04/23/15 15:40	04/25/15 09:10
40113789002	EX-4 (7-8)	Solid	04/23/15 15:50	04/25/15 09:10
40113789003	B-6 (19)	Solid	04/24/15 09:48	04/25/15 09:10
40113789004	B-7 (19)	Solid	04/24/15 13:08	04/25/15 09:10

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113789

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40113789001	EX-3 (7-8)	EPA 8021	PMS	6	PASI-G
		EPA 8270 by SIM	RJN	18	PASI-G
		ASTM D2974-87	KEW	1	PASI-G
40113789002	EX-4 (7-8)	EPA 8021	PMS	6	PASI-G
		EPA 8270 by SIM	RJN	18	PASI-G
		ASTM D2974-87	KEW	1	PASI-G
40113789003	B-6 (19)	EPA 8021	PMS	6	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	KEW	1	PASI-G
40113789004	B-7 (19)	EPA 8021	PMS	6	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	KEW	1	PASI-G

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
 Pace Project No.: 40113789

Sample: EX-3 (7-8) Lab ID: 40113789001 Collected: 04/23/15 15:40 Received: 04/25/15 09:10 Matrix: Solid  
 Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>		Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil							
Benzene	9380	ug/kg	45.9	22.9	2	04/28/15 06:15	04/29/15 12:28	71-43-2	
Ethylbenzene	11000	ug/kg	115	57.4	2	04/28/15 06:15	04/29/15 12:28	100-41-4	
Methyl-tert-butyl ether	94.4J	ug/kg	115	57.4	2	04/28/15 06:15	04/29/15 12:28	1634-04-4	
Toluene	462	ug/kg	115	57.4	2	04/28/15 06:15	04/29/15 12:28	108-88-3	
Xylene (Total)	20300	ug/kg	344	172	2	04/28/15 06:15	04/29/15 12:28	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	90	%	51-146		2	04/28/15 06:15	04/29/15 12:28	98-08-8	
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<95.6	ug/kg	191	95.6	10	04/28/15 14:01	04/30/15 23:41	83-32-9	
Acenaphthylene	<85.5	ug/kg	191	85.5	10	04/28/15 14:01	04/30/15 23:41	208-96-8	
Anthracene	<99.1	ug/kg	191	99.1	10	04/28/15 14:01	04/30/15 23:41	120-12-7	
Benzo(a)anthracene	<66.3	ug/kg	191	66.3	10	04/28/15 14:01	04/30/15 23:41	56-55-3	
Benzo(a)pyrene	<68.4	ug/kg	191	68.4	10	04/28/15 14:01	04/30/15 23:41	50-32-8	
Benzo(b)fluoranthene	<95.6	ug/kg	191	95.6	10	04/28/15 14:01	04/30/15 23:41	205-99-2	
Benzo(g,h,i)perylene	<72.8	ug/kg	191	72.8	10	04/28/15 14:01	04/30/15 23:41	191-24-2	
Benzo(k)fluoranthene	<106	ug/kg	191	106	10	04/28/15 14:01	04/30/15 23:41	207-08-9	
Chrysene	<88.4	ug/kg	191	88.4	10	04/28/15 14:01	04/30/15 23:41	218-01-9	
Dibenz(a,h)anthracene	<70.1	ug/kg	191	70.1	10	04/28/15 14:01	04/30/15 23:41	53-70-3	
Fluoranthene	<95.6	ug/kg	191	95.6	10	04/28/15 14:01	04/30/15 23:41	206-44-0	
Fluorene	<95.6	ug/kg	191	95.6	10	04/28/15 14:01	04/30/15 23:41	86-73-7	
Indeno(1,2,3-cd)pyrene	<72.6	ug/kg	191	72.6	10	04/28/15 14:01	04/30/15 23:41	193-39-5	
Naphthalene	3890	ug/kg	191	95.6	10	04/28/15 14:01	04/30/15 23:41	91-20-3	
Phenanthrene	<95.6	ug/kg	191	95.6	10	04/28/15 14:01	04/30/15 23:41	85-01-8	
Pyrene	<95.6	ug/kg	191	95.6	10	04/28/15 14:01	04/30/15 23:41	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	63	%	39-130		10	04/28/15 14:01	04/30/15 23:41	321-60-8	
Terphenyl-d14 (S)	64	%	37-130		10	04/28/15 14:01	04/30/15 23:41	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	12.8	%	0.10	0.10	1		04/30/15 17:08		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
 Pace Project No.: 40113789

Sample: EX-4 (7-8) Lab ID: 40113789002 Collected: 04/23/15 15:50 Received: 04/25/15 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>									
Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil									
Benzene	7700	ug/kg	46.3	23.1	2	04/28/15 06:15	04/29/15 12:02	71-43-2	
Ethylbenzene	11900	ug/kg	116	57.8	2	04/28/15 06:15	04/29/15 12:02	100-41-4	
Methyl-tert-butyl ether	186	ug/kg	116	57.8	2	04/28/15 06:15	04/29/15 12:02	1634-04-4	
Toluene	815	ug/kg	116	57.8	2	04/28/15 06:15	04/29/15 12:02	108-88-3	
Xylene (Total)	9910	ug/kg	347	173	2	04/28/15 06:15	04/29/15 12:02	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	94	%	51-146		2	04/28/15 06:15	04/29/15 12:02	98-08-8	
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<48.2	ug/kg	96.4	48.2	5	04/28/15 14:01	05/01/15 00:50	83-32-9	
Acenaphthylene	<43.1	ug/kg	96.4	43.1	5	04/28/15 14:01	05/01/15 00:50	208-96-8	
Anthracene	<50.0	ug/kg	96.4	50.0	5	04/28/15 14:01	05/01/15 00:50	120-12-7	
Benzo(a)anthracene	<33.4	ug/kg	96.4	33.4	5	04/28/15 14:01	05/01/15 00:50	56-55-3	
Benzo(a)pyrene	<34.5	ug/kg	96.4	34.5	5	04/28/15 14:01	05/01/15 00:50	50-32-8	
Benzo(b)fluoranthene	<48.2	ug/kg	96.4	48.2	5	04/28/15 14:01	05/01/15 00:50	205-99-2	
Benzo(g,h,i)perylene	<36.7	ug/kg	96.4	36.7	5	04/28/15 14:01	05/01/15 00:50	191-24-2	
Benzo(k)fluoranthene	<53.3	ug/kg	96.4	53.3	5	04/28/15 14:01	05/01/15 00:50	207-08-9	
Chrysene	<44.6	ug/kg	96.4	44.6	5	04/28/15 14:01	05/01/15 00:50	218-01-9	
Dibenz(a,h)anthracene	<35.3	ug/kg	96.4	35.3	5	04/28/15 14:01	05/01/15 00:50	53-70-3	
Fluoranthene	<48.2	ug/kg	96.4	48.2	5	04/28/15 14:01	05/01/15 00:50	206-44-0	
Fluorene	<48.2	ug/kg	96.4	48.2	5	04/28/15 14:01	05/01/15 00:50	86-73-7	
Indeno(1,2,3-cd)pyrene	<36.6	ug/kg	96.4	36.6	5	04/28/15 14:01	05/01/15 00:50	193-39-5	
Naphthalene	2100	ug/kg	96.4	48.2	5	04/28/15 14:01	05/01/15 00:50	91-20-3	
Phenanthrene	<48.2	ug/kg	96.4	48.2	5	04/28/15 14:01	05/01/15 00:50	85-01-8	
Pyrene	<48.2	ug/kg	96.4	48.2	5	04/28/15 14:01	05/01/15 00:50	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	61	%	39-130		5	04/28/15 14:01	05/01/15 00:50	321-60-8	
Terphenyl-d14 (S)	62	%	37-130		5	04/28/15 14:01	05/01/15 00:50	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.5	%	0.10	0.10	1		04/30/15 17:08		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113789

Sample: B-6 (19) Lab ID: 40113789003 Collected: 04/24/15 09:48 Received: 04/25/15 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>		Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil							
Benzene	<11.5	ug/kg	23.0	11.5	1	04/28/15 06:15	04/29/15 15:02	71-43-2	
Ethylbenzene	<28.8	ug/kg	57.6	28.8	1	04/28/15 06:15	04/29/15 15:02	100-41-4	
Methyl-tert-butyl ether	388	ug/kg	57.6	28.8	1	04/28/15 06:15	04/29/15 15:02	1634-04-4	
Toluene	<28.8	ug/kg	57.6	28.8	1	04/28/15 06:15	04/29/15 15:02	108-88-3	
Xylene (Total)	<86.4	ug/kg	173	86.4	1	04/28/15 06:15	04/29/15 15:02	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	94	%	51-146		1	04/28/15 06:15	04/29/15 15:02	98-08-8	
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.6	ug/kg	19.2	9.6	1	04/28/15 14:01	04/29/15 13:36	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.2	8.6	1	04/28/15 14:01	04/29/15 13:36	208-96-8	
Anthracene	<10	ug/kg	19.2	10	1	04/28/15 14:01	04/29/15 13:36	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.2	6.7	1	04/28/15 14:01	04/29/15 13:36	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.2	6.9	1	04/28/15 14:01	04/29/15 13:36	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.2	9.6	1	04/28/15 14:01	04/29/15 13:36	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.2	7.3	1	04/28/15 14:01	04/29/15 13:36	191-24-2	
Benzo(k)fluoranthene	<10.6	ug/kg	19.2	10.6	1	04/28/15 14:01	04/29/15 13:36	207-08-9	
Chrysene	<8.9	ug/kg	19.2	8.9	1	04/28/15 14:01	04/29/15 13:36	218-01-9	
Dibenz(a,h)anthracene	<7.0	ug/kg	19.2	7.0	1	04/28/15 14:01	04/29/15 13:36	53-70-3	
Fluoranthene	<9.6	ug/kg	19.2	9.6	1	04/28/15 14:01	04/29/15 13:36	206-44-0	
Fluorene	<9.6	ug/kg	19.2	9.6	1	04/28/15 14:01	04/29/15 13:36	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.2	7.3	1	04/28/15 14:01	04/29/15 13:36	193-39-5	
Naphthalene	<9.6	ug/kg	19.2	9.6	1	04/28/15 14:01	04/29/15 13:36	91-20-3	
Phenanthrene	<9.6	ug/kg	19.2	9.6	1	04/28/15 14:01	04/29/15 13:36	85-01-8	
Pyrene	<9.6	ug/kg	19.2	9.6	1	04/28/15 14:01	04/29/15 13:36	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	64	%	39-130		1	04/28/15 14:01	04/29/15 13:36	321-60-8	
Terphenyl-d14 (S)	61	%	37-130		1	04/28/15 14:01	04/29/15 13:36	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.2	%	0.10	0.10	1		04/30/15 17:08		

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113789

Sample: B-7 (19) Lab ID: 40113789004 Collected: 04/24/15 13:08 Received: 04/25/15 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>		Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil							
Benzene	<11.3	ug/kg	22.6	11.3	1	04/28/15 06:15	04/29/15 14:37	71-43-2	
Ethylbenzene	<28.3	ug/kg	56.6	28.3	1	04/28/15 06:15	04/29/15 14:37	100-41-4	
Methyl-tert-butyl ether	91.5	ug/kg	56.6	28.3	1	04/28/15 06:15	04/29/15 14:37	1634-04-4	
Toluene	<28.3	ug/kg	56.6	28.3	1	04/28/15 06:15	04/29/15 14:37	108-88-3	
Xylene (Total)	<84.9	ug/kg	170	84.9	1	04/28/15 06:15	04/29/15 14:37	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	96	%	51-146		1	04/28/15 06:15	04/29/15 14:37	98-08-8	
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.4	ug/kg	18.9	9.4	1	04/28/15 14:01	04/29/15 13:53	83-32-9	
Acenaphthylene	<8.4	ug/kg	18.9	8.4	1	04/28/15 14:01	04/29/15 13:53	208-96-8	
Anthracene	<9.8	ug/kg	18.9	9.8	1	04/28/15 14:01	04/29/15 13:53	120-12-7	
Benzo(a)anthracene	<6.5	ug/kg	18.9	6.5	1	04/28/15 14:01	04/29/15 13:53	56-55-3	
Benzo(a)pyrene	<6.7	ug/kg	18.9	6.7	1	04/28/15 14:01	04/29/15 13:53	50-32-8	
Benzo(b)fluoranthene	<9.4	ug/kg	18.9	9.4	1	04/28/15 14:01	04/29/15 13:53	205-99-2	
Benzo(g,h,i)perylene	<7.2	ug/kg	18.9	7.2	1	04/28/15 14:01	04/29/15 13:53	191-24-2	
Benzo(k)fluoranthene	<10.4	ug/kg	18.9	10.4	1	04/28/15 14:01	04/29/15 13:53	207-08-9	
Chrysene	<8.7	ug/kg	18.9	8.7	1	04/28/15 14:01	04/29/15 13:53	218-01-9	
Dibenz(a,h)anthracene	<6.9	ug/kg	18.9	6.9	1	04/28/15 14:01	04/29/15 13:53	53-70-3	
Fluoranthene	<9.4	ug/kg	18.9	9.4	1	04/28/15 14:01	04/29/15 13:53	206-44-0	
Fluorene	<9.4	ug/kg	18.9	9.4	1	04/28/15 14:01	04/29/15 13:53	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.2	ug/kg	18.9	7.2	1	04/28/15 14:01	04/29/15 13:53	193-39-5	
Naphthalene	<9.4	ug/kg	18.9	9.4	1	04/28/15 14:01	04/29/15 13:53	91-20-3	
Phenanthrene	<9.4	ug/kg	18.9	9.4	1	04/28/15 14:01	04/29/15 13:53	85-01-8	
Pyrene	<9.4	ug/kg	18.9	9.4	1	04/28/15 14:01	04/29/15 13:53	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	69	%	39-130		1	04/28/15 14:01	04/29/15 13:53	321-60-8	
Terphenyl-d14 (S)	68	%	37-130		1	04/28/15 14:01	04/29/15 13:53	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	11.7	%	0.10	0.10	1		04/30/15 17:08		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113789

QC Batch: GCV/14291 Analysis Method: EPA 8021  
QC Batch Method: EPA 5030 Medium Soil Analysis Description: 8021 Med Level Solid GCV  
Associated Lab Samples: 40113789001, 40113789002, 40113789003, 40113789004

METHOD BLANK: 1148106 Matrix: Solid  
Associated Lab Samples: 40113789001, 40113789002, 40113789003, 40113789004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<10.0	20.0	04/28/15 09:29	
Ethylbenzene	ug/kg	<25.0	50.0	04/28/15 09:29	
Methyl-tert-butyl ether	ug/kg	<25.0	50.0	04/28/15 09:29	
Toluene	ug/kg	<25.0	50.0	04/28/15 09:29	
Xylene (Total)	ug/kg	<75.0	150	04/28/15 09:29	
a,a,a-Trifluorotoluene (S)	%	108	51-146	04/28/15 09:29	

LABORATORY CONTROL SAMPLE & LCSD: 1148107 1148108

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	1000	1110	1160	111	116	80-120	4	20	
Ethylbenzene	ug/kg	1000	1140	1200	114	120	80-120	5	20	
Methyl-tert-butyl ether	ug/kg	1000	1080	1130	108	113	80-120	5	20	
Toluene	ug/kg	1000	1110	1170	111	117	80-120	5	20	
Xylene (Total)	ug/kg	3000	3430	3590	114	120	80-120	5	20	
a,a,a-Trifluorotoluene (S)	%				110	115	51-146			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1148109 1148110

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40113637001 Result	Spike Conc.	Spike Conc.	MS Result						
Benzene	ug/kg	<10.5	1050	1050	1060	1070	101	102	77-120	1	20
Ethylbenzene	ug/kg	<26.2	1050	1050	1090	1110	104	106	80-120	2	20
Methyl-tert-butyl ether	ug/kg	<26.2	1050	1050	1030	1050	98	101	74-120	3	20
Toluene	ug/kg	<26.2	1050	1050	1060	1080	101	103	80-120	2	20
Xylene (Total)	ug/kg	<78.6	3140	3140	3290	3340	105	106	80-120	2	20
a,a,a-Trifluorotoluene (S)	%						102	104	51-146		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113789

QC Batch: OEXT/26384 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40113789001, 40113789002, 40113789003, 40113789004

METHOD BLANK: 1148491 Matrix: Solid  
Associated Lab Samples: 40113789001, 40113789002, 40113789003, 40113789004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	04/29/15 08:22	
Acenaphthylene	ug/kg	<7.5	16.7	04/29/15 08:22	
Anthracene	ug/kg	<8.6	16.7	04/29/15 08:22	
Benzo(a)anthracene	ug/kg	<5.8	16.7	04/29/15 08:22	
Benzo(a)pyrene	ug/kg	<6.0	16.7	04/29/15 08:22	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	04/29/15 08:22	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	04/29/15 08:22	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	04/29/15 08:22	
Chrysene	ug/kg	<7.7	16.7	04/29/15 08:22	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	04/29/15 08:22	
Fluoranthene	ug/kg	<8.3	16.7	04/29/15 08:22	
Fluorene	ug/kg	<8.3	16.7	04/29/15 08:22	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	04/29/15 08:22	
Naphthalene	ug/kg	<8.3	16.7	04/29/15 08:22	
Phenanthrene	ug/kg	<8.3	16.7	04/29/15 08:22	
Pyrene	ug/kg	<8.3	16.7	04/29/15 08:22	
2-Fluorobiphenyl (S)	%	76	39-130	04/29/15 08:22	
Terphenyl-d14 (S)	%	80	37-130	04/29/15 08:22	

LABORATORY CONTROL SAMPLE: 1148492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	255	77	54-130	
Acenaphthylene	ug/kg	333	262	79	55-130	
Anthracene	ug/kg	333	285	86	64-130	
Benzo(a)anthracene	ug/kg	333	262	79	50-130	
Benzo(a)pyrene	ug/kg	333	257	77	46-130	
Benzo(b)fluoranthene	ug/kg	333	284	85	43-130	
Benzo(g,h,i)perylene	ug/kg	333	263	79	48-130	
Benzo(k)fluoranthene	ug/kg	333	247	74	55-130	
Chrysene	ug/kg	333	278	83	62-130	
Dibenz(a,h)anthracene	ug/kg	333	286	86	49-130	
Fluoranthene	ug/kg	333	267	80	57-130	
Fluorene	ug/kg	333	259	78	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	278	83	50-130	
Naphthalene	ug/kg	333	233	70	48-130	
Phenanthrene	ug/kg	333	266	80	51-130	
Pyrene	ug/kg	333	256	77	55-130	
2-Fluorobiphenyl (S)	%			78	39-130	
Terphenyl-d14 (S)	%			77	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113789

Parameter	Units	1148493		1148494		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		40113782002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Acenaphthene	ug/kg	<17.9	358	358	268	245	75	68	46-130	9	26	
Acenaphthylene	ug/kg	<17.9	358	358	275	252	77	70	49-130	9	23	
Anthracene	ug/kg	<17.9	358	358	296	277	83	77	52-130	6	28	
Benzo(a)anthracene	ug/kg	<17.9	358	358	270	251	75	70	34-130	7	36	
Benzo(a)pyrene	ug/kg	<17.9	358	358	277	254	77	71	34-130	9	40	
Benzo(b)fluoranthene	ug/kg	<17.9	358	358	272	249	76	70	22-130	9	40	
Benzo(g,h,i)perylene	ug/kg	<17.9	358	358	267	250	75	70	24-130	7	35	
Benzo(k)fluoranthene	ug/kg	<17.9	358	358	268	258	75	72	41-130	4	37	
Chrysene	ug/kg	<17.9	358	358	281	265	78	74	49-130	6	33	
Dibenz(a,h)anthracene	ug/kg	<17.9	358	358	290	272	81	76	27-130	7	31	
Fluoranthene	ug/kg	<17.9	358	358	275	258	77	72	34-130	7	37	
Fluorene	ug/kg	<17.9	358	358	270	249	75	70	45-130	8	25	
Indeno(1,2,3-cd)pyrene	ug/kg	<17.9	358	358	285	267	80	75	30-130	7	34	
Naphthalene	ug/kg	<17.9	358	358	239	220	67	61	38-130	8	30	
Phenanthrene	ug/kg	<17.9	358	358	274	257	76	72	38-130	6	34	
Pyrene	ug/kg	<17.9	358	358	265	249	74	69	35-130	6	35	
2-Fluorobiphenyl (S)	%						72	70	39-130			
Terphenyl-d14 (S)	%						70	70	37-130			

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113789

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113789

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40113789001	EX-3 (7-8)	EPA 5030 Medium Soil	GCV/14291	EPA 8021	GCV/14293
40113789002	EX-4 (7-8)	EPA 5030 Medium Soil	GCV/14291	EPA 8021	GCV/14293
40113789003	B-6 (19)	EPA 5030 Medium Soil	GCV/14291	EPA 8021	GCV/14293
40113789004	B-7 (19)	EPA 5030 Medium Soil	GCV/14291	EPA 8021	GCV/14293
40113789001	EX-3 (7-8)	EPA 3546	OEXT/26384	EPA 8270 by SIM	MSSV/7829
40113789002	EX-4 (7-8)	EPA 3546	OEXT/26384	EPA 8270 by SIM	MSSV/7829
40113789003	B-6 (19)	EPA 3546	OEXT/26384	EPA 8270 by SIM	MSSV/7829
40113789004	B-7 (19)	EPA 3546	OEXT/26384	EPA 8270 by SIM	MSSV/7829
40113789001	EX-3 (7-8)	ASTM D2974-87	PMST/11116		
40113789002	EX-4 (7-8)	ASTM D2974-87	PMST/11116		
40113789003	B-6 (19)	ASTM D2974-87	PMST/11116		
40113789004	B-7 (19)	ASTM D2974-87	PMST/11116		

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**Pace Analytical**  
Client Name: TriCore

Project #: **WO# : 40113789**

Courier:  Fed Ex  UPS  Client  Pace Other: CS Logistics  
Tracking #: NA



Custody Seal on Cooler/Box Present:  yes  no    Seals intact:  yes  no  
Custody Seal on Samples Present:  yes  no    Seals intact:  yes  no  
Packing Material:  Bubble Wrap  Bubble Bags  None  Other  
Thermometer Used: SK-47    Type of Ice:  Wet  Blue  Dry  None     Samples on ice, cooling process has begun  
Cooler Temperature:    Uncorr: 3    ICorr: 3    Biological Tissue is Frozen:  yes  no  
Temp Blank Present:  yes  no

Person examining contents:  
Date: 4/25/15  
Initials: [Signature]

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

		Comments:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed    Lab Std #ID of preservative    Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments   
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_

Project Manager Review: [Signature] Date: 4/27/15



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The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

**Leaking Underground Storage Tank Program  
Laboratory Certification for Chemical Analysis**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

**B. Sample Collector**

I certify that:

1. Appropriate sampling equipment/methods were utilized to obtain representative samples.
2. Chain-of-custody procedures were followed in the field.
3. Sample integrity was maintained by proper preservation.
4. All samples were properly labeled.

JM  
(Initial)  
JM  
(Initial)  
JM  
(Initial)  
JM  
(Initial)

**C. Laboratory Representative**

I certify that:

1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms
2. Sample integrity was maintained by proper preservation.
3. All samples were properly labeled.
4. Quality assurance/quality control procedures were established and carried out.
5. Sample holding times were not exceeded.

UW  
(Initial)  
UW  
(Initial)  
UW  
(Initial)  
UW  
(Initial)  
UW  
(Initial)

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

lw  
(Initial)

lw  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako

Title Geologist III

Company TriCore Environmental, LLC

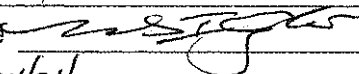
Address 2368 Corporate Lane, Suite 116

City Naperville

State Illinois

Zip Code 60563

Phone (630) 520-9973

Signature 

Date 04/24/15

**Laboratory Representative**

Name Laurie Woelfel

Title Project Manager

Company Pace Analytical Services, Inc.

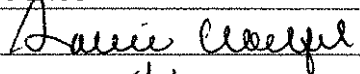
Address 1241 Bellevue Street, Suite 9

City Green Bay

State Wisconsin

Zip Code 54302

Phone (920) 469-2436

Signature 

Date 5/1/15

May 05, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

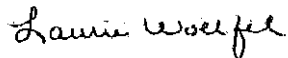
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113824

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on April 28, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



### REPORT OF LABORATORY ANALYSIS

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**CERTIFICATIONS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113824

---

**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113824

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40113824001	B-8(16)	Solid	04/27/15 09:45	04/28/15 09:00
40113824002	B-9(15)	Solid	04/27/15 13:00	04/28/15 09:00

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113824

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40113824001	B-8(16)	EPA 8021	LCF	6	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40113824002	B-9(15)	EPA 8021	LCF	6	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	AH	1	PASI-G

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113824

Sample: B-8(16) Lab ID: 40113824001 Collected: 04/27/15 09:45 Received: 04/28/15 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>									
Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil									
Benzene	<11.9	ug/kg	23.9	11.9	1	05/01/15 07:38	05/01/15 14:55	71-43-2	
Ethylbenzene	<29.8	ug/kg	59.6	29.8	1	05/01/15 07:38	05/01/15 14:55	100-41-4	
Methyl-tert-butyl ether	<29.8	ug/kg	59.6	29.8	1	05/01/15 07:38	05/01/15 14:55	1634-04-4	
Toluene	<29.8	ug/kg	59.6	29.8	1	05/01/15 07:38	05/01/15 14:55	108-88-3	
Xylene (Total)	<89.5	ug/kg	179	89.5	1	05/01/15 07:38	05/01/15 14:55	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	87	%	51-146		1	05/01/15 07:38	05/01/15 14:55	98-08-8	
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.9	ug/kg	19.9	9.9	1	04/29/15 08:42	04/30/15 04:47	83-32-9	
Acenaphthylene	<8.9	ug/kg	19.9	8.9	1	04/29/15 08:42	04/30/15 04:47	208-96-8	
Anthracene	<10.3	ug/kg	19.9	10.3	1	04/29/15 08:42	04/30/15 04:47	120-12-7	
Benzo(a)anthracene	<6.9	ug/kg	19.9	6.9	1	04/29/15 08:42	04/30/15 04:47	56-55-3	
Benzo(a)pyrene	<7.1	ug/kg	19.9	7.1	1	04/29/15 08:42	04/30/15 04:47	50-32-8	
Benzo(b)fluoranthene	<9.9	ug/kg	19.9	9.9	1	04/29/15 08:42	04/30/15 04:47	205-99-2	
Benzo(g,h,i)perylene	<7.6	ug/kg	19.9	7.6	1	04/29/15 08:42	04/30/15 04:47	191-24-2	
Benzo(k)fluoranthene	<11.0	ug/kg	19.9	11.0	1	04/29/15 08:42	04/30/15 04:47	207-08-9	
Chrysene	<9.2	ug/kg	19.9	9.2	1	04/29/15 08:42	04/30/15 04:47	218-01-9	
Dibenz(a,h)anthracene	<7.3	ug/kg	19.9	7.3	1	04/29/15 08:42	04/30/15 04:47	53-70-3	
Fluoranthene	<9.9	ug/kg	19.9	9.9	1	04/29/15 08:42	04/30/15 04:47	206-44-0	
Fluorene	<9.9	ug/kg	19.9	9.9	1	04/29/15 08:42	04/30/15 04:47	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.6	ug/kg	19.9	7.6	1	04/29/15 08:42	04/30/15 04:47	193-39-5	
Naphthalene	<9.9	ug/kg	19.9	9.9	1	04/29/15 08:42	04/30/15 04:47	91-20-3	
Phenanthrene	<9.9	ug/kg	19.9	9.9	1	04/29/15 08:42	04/30/15 04:47	85-01-8	
Pyrene	<9.9	ug/kg	19.9	9.9	1	04/29/15 08:42	04/30/15 04:47	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	66	%	39-130		1	04/29/15 08:42	04/30/15 04:47	321-60-8	
Terphenyl-d14 (S)	61	%	37-130		1	04/29/15 08:42	04/30/15 04:47	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	16.2	%	0.10	0.10	1		05/04/15 10:29		

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113824

Sample: B-9(15) Lab ID: 40113824002 Collected: 04/27/15 13:00 Received: 04/28/15 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>									
Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil									
Benzene	<11.6	ug/kg	23.1	11.6	1	05/01/15 07:38	05/01/15 15:21	71-43-2	
Ethylbenzene	<28.9	ug/kg	57.8	28.9	1	05/01/15 07:38	05/01/15 15:21	100-41-4	
Methyl-tert-butyl ether	148	ug/kg	57.8	28.9	1	05/01/15 07:38	05/01/15 15:21	1634-04-4	
Toluene	<28.9	ug/kg	57.8	28.9	1	05/01/15 07:38	05/01/15 15:21	108-88-3	
Xylene (Total)	<86.8	ug/kg	174	86.8	1	05/01/15 07:38	05/01/15 15:21	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	92	%	51-146		1	05/01/15 07:38	05/01/15 15:21	98-08-8	
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.6	ug/kg	19.3	9.6	1	04/29/15 08:42	04/30/15 04:13	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.3	8.6	1	04/29/15 08:42	04/30/15 04:13	208-96-8	
Anthracene	<10	ug/kg	19.3	10	1	04/29/15 08:42	04/30/15 04:13	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.3	6.7	1	04/29/15 08:42	04/30/15 04:13	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.3	6.9	1	04/29/15 08:42	04/30/15 04:13	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.3	9.6	1	04/29/15 08:42	04/30/15 04:13	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.3	7.3	1	04/29/15 08:42	04/30/15 04:13	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.3	10.7	1	04/29/15 08:42	04/30/15 04:13	207-08-9	
Chrysene	<8.9	ug/kg	19.3	8.9	1	04/29/15 08:42	04/30/15 04:13	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.3	7.1	1	04/29/15 08:42	04/30/15 04:13	53-70-3	
Fluoranthene	<9.6	ug/kg	19.3	9.6	1	04/29/15 08:42	04/30/15 04:13	206-44-0	
Fluorene	<9.6	ug/kg	19.3	9.6	1	04/29/15 08:42	04/30/15 04:13	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.3	7.3	1	04/29/15 08:42	04/30/15 04:13	193-39-5	
Naphthalene	<9.6	ug/kg	19.3	9.6	1	04/29/15 08:42	04/30/15 04:13	91-20-3	
Phenanthrene	11.8J	ug/kg	19.3	9.6	1	04/29/15 08:42	04/30/15 04:13	85-01-8	
Pyrene	<9.6	ug/kg	19.3	9.6	1	04/29/15 08:42	04/30/15 04:13	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	61	%	39-130		1	04/29/15 08:42	04/30/15 04:13	321-60-8	
Terphenyl-d14 (S)	60	%	37-130		1	04/29/15 08:42	04/30/15 04:13	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.6	%	0.10	0.10	1		05/04/15 10:29		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113824

QC Batch: GCV/14310 Analysis Method: EPA 8021  
QC Batch Method: EPA 5030 Medium Soil Analysis Description: 8021 Med Level Solid GCV  
Associated Lab Samples: 40113824001, 40113824002

METHOD BLANK: 1150524 Matrix: Solid  
Associated Lab Samples: 40113824001, 40113824002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<10.0	20.0	05/01/15 08:56	
Ethylbenzene	ug/kg	<25.0	50.0	05/01/15 08:56	
Methyl-tert-butyl ether	ug/kg	<25.0	50.0	05/01/15 08:56	
Toluene	ug/kg	<25.0	50.0	05/01/15 08:56	
Xylene (Total)	ug/kg	<75.0	150	05/01/15 08:56	
a,a,a-Trifluorotoluene (S)	%	99	51-146	05/01/15 08:56	

Parameter	Units	1150525		1150526			% Rec Limits	RPD	Max RPD	Qualifiers
		Spike Conc.	LCS Result	LCS Result	LCS % Rec	LCSD % Rec				
Benzene	ug/kg	1000	1010	1010	101	101	80-120	0	20	
Ethylbenzene	ug/kg	1000	972	988	97	99	80-120	2	20	
Methyl-tert-butyl ether	ug/kg	1000	1040	1040	104	104	80-120	1	20	
Toluene	ug/kg	1000	983	1010	98	101	80-120	3	20	
Xylene (Total)	ug/kg	3000	2930	2890	98	96	80-120	1	20	
a,a,a-Trifluorotoluene (S)	%				103	100	51-146			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113824

QC Batch: OEXT/26386 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40113824001, 40113824002

METHOD BLANK: 1148717 Matrix: Solid  
Associated Lab Samples: 40113824001, 40113824002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	04/29/15 14:44	
Acenaphthylene	ug/kg	<7.5	16.7	04/29/15 14:44	
Anthracene	ug/kg	<8.6	16.7	04/29/15 14:44	
Benzo(a)anthracene	ug/kg	<5.8	16.7	04/29/15 14:44	
Benzo(a)pyrene	ug/kg	<6.0	16.7	04/29/15 14:44	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	04/29/15 14:44	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	04/29/15 14:44	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	04/29/15 14:44	
Chrysene	ug/kg	<7.7	16.7	04/29/15 14:44	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	04/29/15 14:44	
Fluoranthene	ug/kg	<8.3	16.7	04/29/15 14:44	
Fluorene	ug/kg	<8.3	16.7	04/29/15 14:44	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	04/29/15 14:44	
Naphthalene	ug/kg	<8.3	16.7	04/29/15 14:44	
Phenanthrene	ug/kg	<8.3	16.7	04/29/15 14:44	
Pyrene	ug/kg	<8.3	16.7	04/29/15 14:44	
2-Fluorobiphenyl (S)	%	59	39-130	04/29/15 14:44	
Terphenyl-d14 (S)	%	63	37-130	04/29/15 14:44	

LABORATORY CONTROL SAMPLE: 1148718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	253	76	54-130	
Acenaphthylene	ug/kg	333	259	78	55-130	
Anthracene	ug/kg	333	285	86	64-130	
Benzo(a)anthracene	ug/kg	333	261	78	50-130	
Benzo(a)pyrene	ug/kg	333	272	82	46-130	
Benzo(b)fluoranthene	ug/kg	333	261	78	43-130	
Benzo(g,h,i)perylene	ug/kg	333	245	74	48-130	
Benzo(k)fluoranthene	ug/kg	333	274	82	55-130	
Chrysene	ug/kg	333	281	84	62-130	
Dibenz(a,h)anthracene	ug/kg	333	273	82	49-130	
Fluoranthene	ug/kg	333	262	79	57-130	
Fluorene	ug/kg	333	258	77	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	270	81	50-130	
Naphthalene	ug/kg	333	233	70	48-130	
Phenanthrene	ug/kg	333	265	79	51-130	
Pyrene	ug/kg	333	265	80	55-130	
2-Fluorobiphenyl (S)	%			76	39-130	
Terphenyl-d14 (S)	%			79	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113824

Parameter	Units	1148719		1148720		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Acenaphthene	ug/kg	<9.9	397	397	302	274	76	69	46-130	10	26		
Acenaphthylene	ug/kg	<8.9	397	397	313	283	79	71	49-130	10	23		
Anthracene	ug/kg	<10.3	397	397	338	305	85	77	52-130	10	28		
Benzo(a)anthracene	ug/kg	<6.9	397	397	305	268	77	67	34-130	13	36		
Benzo(a)pyrene	ug/kg	<7.1	397	397	315	277	79	70	34-130	13	40		
Benzo(b)fluoranthene	ug/kg	<9.9	397	397	320	288	80	72	22-130	11	40		
Benzo(g,h,i)perylene	ug/kg	<7.6	397	397	244	221	61	56	24-130	10	35		
Benzo(k)fluoranthene	ug/kg	<11.0	397	397	313	268	79	67	41-130	15	37		
Chrysene	ug/kg	<9.2	397	397	321	287	80	72	49-130	11	33		
Dibenz(a,h)anthracene	ug/kg	<7.3	397	397	298	266	75	67	27-130	11	31		
Fluoranthene	ug/kg	<9.9	397	397	316	283	79	71	34-130	11	37		
Fluorene	ug/kg	<9.9	397	397	305	281	77	71	45-130	8	25		
Indeno(1,2,3-cd)pyrene	ug/kg	<7.6	397	397	283	253	71	64	30-130	11	34		
Naphthalene	ug/kg	<9.9	397	397	287	258	72	65	38-130	11	30		
Phenanthrene	ug/kg	<9.9	397	397	319	291	80	72	38-130	9	34		
Pyrene	ug/kg	<9.9	397	397	308	272	77	68	35-130	12	35		
2-Fluorobiphenyl (S)	%						73	63	39-130				
Terphenyl-d14 (S)	%						70	59	37-130				

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113824

QC Batch: PMST/11120      Analysis Method: ASTM D2974-87  
QC Batch Method: ASTM D2974-87      Analysis Description: Dry Weight/Percent Moisture  
Associated Lab Samples: 40113824001, 40113824002

SAMPLE DUPLICATE: 1151748

Parameter	Units	40113469003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	8.0	7.9	1	10	

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113824

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: GCV/14314

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40113824

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40113824001	B-8(16)	EPA 5030 Medium Soil	GCV/14310	EPA 8021	GCV/14314
40113824002	B-9(15)	EPA 5030 Medium Soil	GCV/14310	EPA 8021	GCV/14314
40113824001	B-8(16)	EPA 3546	OEXT/26386	EPA 8270 by SIM	MSSV/7831
40113824002	B-9(15)	EPA 3546	OEXT/26386	EPA 8270 by SIM	MSSV/7831
40113824001	B-8(16)	ASTM D2974-87	PMST/11120		
40113824002	B-9(15)	ASTM D2974-87	PMST/11120		

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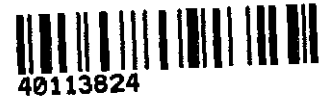




Client Name: Tricore

Project #: **WO# : 40113824**

Courier:  Fed Ex  UPS  Client  Pace Other: CS Logistic



Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR-41 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 5 / Corr: 5.5 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no  no

Person examining contents: Date: 4-28-15 Initials: mm

Temp should be above freezing to 6°C for all sample except Biota. Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<u>mm</u> <u>4-28-15</u> <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<u>mm</u> <u>4-28-15</u> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>W S</u>	
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12) exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH +ZnAct
	Initial when completed	Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ If checked, see attached form for additional comments

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: CKW Date: 4/15/15



Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

### Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

#### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPALPC# (10-digit): 0314625010  
Site Name: Lemont Kar Gas  
Site Address (Not a P.O. Box): 1196 State Street  
City: Lemont County: Cook ZIP Code: 60439  
Leaking UST Technical File

#### B. Sample Collector

I certify that:

1. Appropriate sampling equipment/methods were utilized to obtain representative samples.
2. Chain-of-custody procedures were followed in the field.
3. Sample integrity was maintained by proper preservation.
4. All samples were properly labeled.

MJE  
(Initial)  
MJC  
(Initial)  
MJR  
(Initial)  
MJC  
(Initial)

#### C. Laboratory Representative

I certify that:

1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms
2. Sample integrity was maintained by proper preservation.
3. All samples were properly labeled.
4. Quality assurance/quality control procedures were established and carried out.
5. Sample holding times were not exceeded.

CW  
(Initial)  
CW  
(Initial)  
CW  
(Initial)  
CW  
(Initial)  
CW  
(Initial)

40113524

6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.

UW  
(Initial)

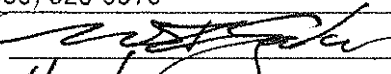
7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

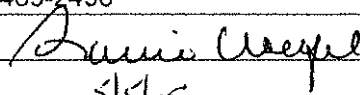
**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako  
Title Geologist III  
Company TriCore Environmental, LLC  
Address 2368 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone (630) 520-9973  
Signature   
Date 04/21/15

**Laboratory Representative**

Name Laurie Woelfel  
Title Project Manager  
Company Pace Analytical Services, Inc.  
Address 1241 Bellevue Street, Suite 9  
City Green Bay  
State Wisconsin  
Zip Code 64302  
Phone (920) 469-2436  
Signature   
Date 5/5/16

May 05, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

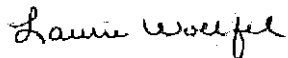
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113923

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on April 29, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



**REPORT OF LABORATORY ANALYSIS**

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**CERTIFICATIONS**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40113923

**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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**SAMPLE SUMMARY**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40113923

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40113923001	B-10 (15.5)	Solid	04/28/15 08:45	04/29/15 09:30
40113923002	B-11 (17)	Solid	04/28/15 12:00	04/29/15 09:30

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113923

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40113923001	B-10 (15.5)	EPA 8021	LCF	6	PASI-G
		EPA 8270 by SIM	RJN	18	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40113923002	B-11 (17)	EPA 8021	LCF	6	PASI-G
		EPA 8270 by SIM	RJN	18	PASI-G
		ASTM D2974-87	AH	1	PASI-G

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113923

Sample: B-10 (15.5) Lab ID: 40113923001 Collected: 04/28/15 08:45 Received: 04/29/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>		Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil							
Benzene	<11.5	ug/kg	22.9	11.5	1	05/01/15 07:38	05/01/15 15:46	71-43-2	
Ethylbenzene	<28.7	ug/kg	57.4	28.7	1	05/01/15 07:38	05/01/15 15:46	100-41-4	
Methyl-tert-butyl ether	468	ug/kg	57.4	28.7	1	05/01/15 07:38	05/01/15 15:46	1634-04-4	
Toluene	<28.7	ug/kg	57.4	28.7	1	05/01/15 07:38	05/01/15 15:46	108-88-3	
Xylene (Total)	<86.1	ug/kg	172	86.1	1	05/01/15 07:38	05/01/15 15:46	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	93	%	51-146		1	05/01/15 07:38	05/01/15 15:46	98-08-8	
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.6	ug/kg	19.1	9.6	1	04/30/15 11:59	05/01/15 23:33	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.1	8.6	1	04/30/15 11:59	05/01/15 23:33	208-96-8	
Anthracene	<9.9	ug/kg	19.1	9.9	1	04/30/15 11:59	05/01/15 23:33	120-12-7	
Benzo(a)anthracene	<6.6	ug/kg	19.1	6.6	1	04/30/15 11:59	05/01/15 23:33	56-55-3	
Benzo(a)pyrene	<6.8	ug/kg	19.1	6.8	1	04/30/15 11:59	05/01/15 23:33	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.1	9.6	1	04/30/15 11:59	05/01/15 23:33	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.1	7.3	1	04/30/15 11:59	05/01/15 23:33	191-24-2	
Benzo(k)fluoranthene	<10.6	ug/kg	19.1	10.6	1	04/30/15 11:59	05/01/15 23:33	207-08-9	
Chrysene	<8.8	ug/kg	19.1	8.8	1	04/30/15 11:59	05/01/15 23:33	218-01-9	
Dibenz(a,h)anthracene	<7.0	ug/kg	19.1	7.0	1	04/30/15 11:59	05/01/15 23:33	53-70-3	
Fluoranthene	<9.6	ug/kg	19.1	9.6	1	04/30/15 11:59	05/01/15 23:33	206-44-0	
Fluorene	<9.6	ug/kg	19.1	9.6	1	04/30/15 11:59	05/01/15 23:33	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.1	7.3	1	04/30/15 11:59	05/01/15 23:33	193-39-5	
Naphthalene	<9.6	ug/kg	19.1	9.6	1	04/30/15 11:59	05/01/15 23:33	91-20-3	
Phenanthrene	13.2J	ug/kg	19.1	9.6	1	04/30/15 11:59	05/01/15 23:33	85-01-8	
Pyrene	<9.6	ug/kg	19.1	9.6	1	04/30/15 11:59	05/01/15 23:33	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	71	%	39-130		1	04/30/15 11:59	05/01/15 23:33	321-60-8	
Terphenyl-d14 (S)	72	%	37-130		1	04/30/15 11:59	05/01/15 23:33	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	12.8	%	0.10	0.10	1		05/04/15 16:32		

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113923

Sample: B-11 (17) Lab ID: 40113923002 Collected: 04/28/15 12:00 Received: 04/29/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>		Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil							
Benzene	<11.6	ug/kg	23.2	11.6	1	05/01/15 07:38	05/01/15 16:12	71-43-2	
Ethylbenzene	<29.0	ug/kg	57.9	29.0	1	05/01/15 07:38	05/01/15 16:12	100-41-4	
Methyl-tert-butyl ether	476	ug/kg	57.9	29.0	1	05/01/15 07:38	05/01/15 16:12	1634-04-4	
Toluene	<29.0	ug/kg	57.9	29.0	1	05/01/15 07:38	05/01/15 16:12	108-88-3	
Xylene (Total)	<86.9	ug/kg	174	86.9	1	05/01/15 07:38	05/01/15 16:12	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	94	%	51-146		1	05/01/15 07:38	05/01/15 16:12	98-08-8	
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.7	ug/kg	19.3	9.7	1	04/30/15 11:59	05/01/15 23:50	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.3	8.6	1	04/30/15 11:59	05/01/15 23:50	208-96-8	
Anthracene	<10.0	ug/kg	19.3	10.0	1	04/30/15 11:59	05/01/15 23:50	120-12-7	
Benzo(a)anthracene	11.0J	ug/kg	19.3	6.7	1	04/30/15 11:59	05/01/15 23:50	56-55-3	
Benzo(a)pyrene	9.0J	ug/kg	19.3	6.9	1	04/30/15 11:59	05/01/15 23:50	50-32-8	
Benzo(b)fluoranthene	11.0J	ug/kg	19.3	9.7	1	04/30/15 11:59	05/01/15 23:50	205-99-2	
Benzo(g,h,i)perylene	8.8J	ug/kg	19.3	7.4	1	04/30/15 11:59	05/01/15 23:50	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.3	10.7	1	04/30/15 11:59	05/01/15 23:50	207-08-9	
Chrysene	19.1J	ug/kg	19.3	8.9	1	04/30/15 11:59	05/01/15 23:50	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.3	7.1	1	04/30/15 11:59	05/01/15 23:50	53-70-3	
Fluoranthene	25.2	ug/kg	19.3	9.7	1	04/30/15 11:59	05/01/15 23:50	206-44-0	
Fluorene	<9.7	ug/kg	19.3	9.7	1	04/30/15 11:59	05/01/15 23:50	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.3	7.3	1	04/30/15 11:59	05/01/15 23:50	193-39-5	
Naphthalene	30.8	ug/kg	19.3	9.7	1	04/30/15 11:59	05/01/15 23:50	91-20-3	
Phenanthrene	18.2J	ug/kg	19.3	9.7	1	04/30/15 11:59	05/01/15 23:50	85-01-8	
Pyrene	23.6	ug/kg	19.3	9.7	1	04/30/15 11:59	05/01/15 23:50	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	75	%	39-130		1	04/30/15 11:59	05/01/15 23:50	321-60-8	
Terphenyl-d14 (S)	75	%	37-130		1	04/30/15 11:59	05/01/15 23:50	1718-51-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.7	%	0.10	0.10	1		05/04/15 16:32		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113923

QC Batch: GCV/14310 Analysis Method: EPA 8021  
QC Batch Method: EPA 5030 Medium Soil Analysis Description: 8021 Med Level Solid GCV  
Associated Lab Samples: 40113923001, 40113923002

METHOD BLANK: 1150524 Matrix: Solid  
Associated Lab Samples: 40113923001, 40113923002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<10.0	20.0	05/01/15 08:56	
Ethylbenzene	ug/kg	<25.0	50.0	05/01/15 08:56	
Methyl-tert-butyl ether	ug/kg	<25.0	50.0	05/01/15 08:56	
Toluene	ug/kg	<25.0	50.0	05/01/15 08:56	
Xylene (Total)	ug/kg	<75.0	150	05/01/15 08:56	
a,a,a-Trifluorotoluene (S)	%	99	51-146	05/01/15 08:56	

LABORATORY CONTROL SAMPLE & LCSD: 1150525

Parameter	Units	1150526							RPD	Max RPD	Qualifiers
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits				
Benzene	ug/kg	1000	1010	1010	101	101	80-120	0	20		
Ethylbenzene	ug/kg	1000	972	988	97	99	80-120	2	20		
Methyl-tert-butyl ether	ug/kg	1000	1040	1040	104	104	80-120	1	20		
Toluene	ug/kg	1000	983	1010	98	101	80-120	3	20		
Xylene (Total)	ug/kg	3000	2930	2890	98	96	80-120	1	20		
a,a,a-Trifluorotoluene (S)	%				103	100	51-146				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113923

QC Batch: OEXT/26404 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40113923001, 40113923002

METHOD BLANK: 1150009 Matrix: Solid  
Associated Lab Samples: 40113923001, 40113923002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	05/01/15 09:06	
Acenaphthylene	ug/kg	<7.5	16.7	05/01/15 09:06	
Anthracene	ug/kg	<8.6	16.7	05/01/15 09:06	
Benzo(a)anthracene	ug/kg	<5.8	16.7	05/01/15 09:06	
Benzo(a)pyrene	ug/kg	<6.0	16.7	05/01/15 09:06	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	05/01/15 09:06	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	05/01/15 09:06	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	05/01/15 09:06	
Chrysene	ug/kg	<7.7	16.7	05/01/15 09:06	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	05/01/15 09:06	
Fluoranthene	ug/kg	<8.3	16.7	05/01/15 09:06	
Fluorene	ug/kg	<8.3	16.7	05/01/15 09:06	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	05/01/15 09:06	
Naphthalene	ug/kg	<8.3	16.7	05/01/15 09:06	
Phenanthrene	ug/kg	<8.3	16.7	05/01/15 09:06	
Pyrene	ug/kg	<8.3	16.7	05/01/15 09:06	
2-Fluorobiphenyl (S)	%	80	39-130	05/01/15 09:06	
Terphenyl-d14 (S)	%	86	37-130	05/01/15 09:06	

LABORATORY CONTROL SAMPLE: 1150010

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	294	88	54-130	
Acenaphthylene	ug/kg	333	299	90	55-130	
Anthracene	ug/kg	333	338	101	64-130	
Benzo(a)anthracene	ug/kg	333	292	88	50-130	
Benzo(a)pyrene	ug/kg	333	318	95	46-130	
Benzo(b)fluoranthene	ug/kg	333	321	96	43-130	
Benzo(g,h,i)perylene	ug/kg	333	316	95	48-130	
Benzo(k)fluoranthene	ug/kg	333	311	93	55-130	
Chrysene	ug/kg	333	332	100	62-130	
Dibenz(a,h)anthracene	ug/kg	333	340	102	49-130	
Fluoranthene	ug/kg	333	309	93	57-130	
Fluorene	ug/kg	333	296	89	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	334	100	50-130	
Naphthalene	ug/kg	333	270	81	48-130	
Phenanthrene	ug/kg	333	298	89	51-130	
Pyrene	ug/kg	333	315	94	55-130	
2-Fluorobiphenyl (S)	%			86	39-130	
Terphenyl-d14 (S)	%			86	37-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113923

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1150011		1150012		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40113887003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Acenaphthene	ug/kg	<19.3	386	386	340	312	88	81	46-130	9	26		
Acenaphthylene	ug/kg	<19.3	386	386	348	329	90	85	49-130	6	23		
Anthracene	ug/kg	<19.3	386	386	391	369	101	95	52-130	6	28		
Benzo(a)anthracene	ug/kg	<19.3	386	386	332	314	86	81	34-130	6	36		
Benzo(a)pyrene	ug/kg	<19.3	386	386	355	331	91	85	34-130	7	40		
Benzo(b)fluoranthene	ug/kg	<19.3	386	386	317	291	81	75	22-130	9	40		
Benzo(g,h,i)perylene	ug/kg	<19.3	386	386	355	325	91	83	24-130	9	35		
Benzo(k)fluoranthene	ug/kg	<19.3	386	386	395	380	102	98	41-130	4	37		
Chrysene	ug/kg	<19.3	386	386	379	365	97	93	49-130	4	33		
Dibenz(a,h)anthracene	ug/kg	<19.3	386	386	379	345	98	89	27-130	9	31		
Fluoranthene	ug/kg	<19.3	386	386	368	347	94	89	34-130	6	37		
Fluorene	ug/kg	<19.3	386	386	334	314	86	81	45-130	6	25		
Indeno(1,2,3-cd)pyrene	ug/kg	<19.3	386	386	376	341	97	88	30-130	10	34		
Naphthalene	ug/kg	<19.3	386	386	314	297	80	76	38-130	6	30		
Phenanthrene	ug/kg	<19.3	386	386	359	336	91	85	38-130	7	34		
Pyrene	ug/kg	<19.3	386	386	364	330	93	84	35-130	10	35		
2-Fluorobiphenyl (S)	%						76	71	39-130				
Terphenyl-d14 (S)	%						77	67	37-130				

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113923

QC Batch: PMST/11130      Analysis Method: ASTM D2974-87  
QC Batch Method: ASTM D2974-87      Analysis Description: Dry Weight/Percent Moisture  
Associated Lab Samples: 40113923001, 40113923002

SAMPLE DUPLICATE: 1151999

Parameter	Units	40113640011 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.9	16.3	9	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113923

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: GCV/14314

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40113923

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40113923001	B-10 (15.5)	EPA 5030 Medium Soil	GCV/14310	EPA 8021	GCV/14314
40113923002	B-11 (17)	EPA 5030 Medium Soil	GCV/14310	EPA 8021	GCV/14314
40113923001	B-10 (15.5)	EPA 3546	OEXT/26404	EPA 8270 by SIM	MSSV/7841
40113923002	B-11 (17)	EPA 3546	OEXT/26404	EPA 8270 by SIM	MSSV/7841
40113923001	B-10 (15.5)	ASTM D2974-87	PMST/11130		
40113923002	B-11 (17)	ASTM D2974-87	PMST/11130		

**REPORT OF LABORATORY ANALYSIS**

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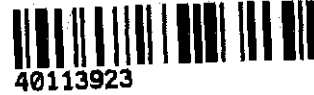
Client Name: TriCore

Project #:

WO#: **40113923**

Courier:  Fed Ex  UPS  Client  Pace Other: CS Logistics

Tracking #: MA



Custody Seal on Cooler/Box Present:  Yes  No Seals intact:  Yes  No

Custody Seal on Samples Present:  Yes  No Seals intact:  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: SR-97 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: 3 / Corr: 3 Biological Tissue is Frozen:  Yes  No

Temp Blank Present:  Yes  No

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:  
Date: 4/29/15  
Initials: MB

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>5</u>	<u>0015</u>
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12) exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Initial when completed	Lab Std #ID of preservative	Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

W2 ID is "B-9 (17)"  
No collected time on 4/29/15  
MB

HNO3  H2SO4  NaOH  NaOH + ZnAct

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments   
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_

Project Manager Review: UW

Date: 4/30/15



40113423

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

### Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

#### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010  
Site Name: Lemont Kar Gas  
Site Address (Not a P.O. Box): 1196 State Street  
City: Lemont County: Cook ZIP Code: 60439  
Leaking UST Technical File

#### B. Sample Collector

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. NTE  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. NTE  
(Initial)
- 3. Sample integrity was maintained by proper preservation. NTE  
(Initial)
- 4. All samples were properly labeled. NTE  
(Initial)

#### C. Laboratory Representative

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms UW  
(Initial)
- 2. Sample integrity was maintained by proper preservation. UW  
(Initial)
- 3. All samples were properly labeled. UW  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. UW  
(Initial)
- 5. Sample holding times were not exceeded. UW  
(Initial)

4013923

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako

Title Geologist III

Company TriCore Environmental, LLC


Address 2368 Corporate Lane, Suite 116

City Naperville

State Illinois

Zip Code 60563

Phone (630) 520-9973

Signature 

Date 04/28/15

**Laboratory Representative**

Name Laurie Woelfel

Title Project Manager

Company Pace Analytical Services, Inc.

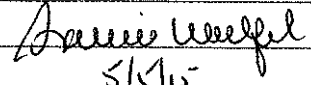
Address 1241 Bellevue Street, Suite 9

City Green Bay

State Wisconsin

Zip Code 64302

Phone (920) 469-2436

Signature 

Date 5/5/15

May 07, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

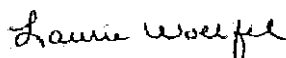
RE: Project: 100137 LEMONT KAR GAS (LKG)  
Pace Project No.: 40113962

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on April 30, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



### REPORT OF LABORATORY ANALYSIS

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**CERTIFICATIONS**

Project: 100137 LEMONT KAR GAS (LKG)

Pace Project No.: 40113962

**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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**SAMPLE SUMMARY**

Project: 100137 LEMONT KAR GAS (LKG)

Pace Project No.: 40113962

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40113962001	B-12 (18)	Solid	04/29/15 12:20	04/30/15 09:05
40113962002	EX-5 (4-5)	Solid	04/29/15 12:55	04/30/15 09:05
40113962003	EX-6 (4-5)	Solid	04/29/15 12:58	04/30/15 09:05
40113962004	B-13 (15.5)	Solid	04/29/15 13:45	04/30/15 09:05

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS (LKG)  
Pace Project No.: 40113962

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40113962001	B-12 (18)	EPA 8021	LCF	6	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40113962002	EX-5 (4-5)	EPA 8021	LCF	6	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40113962003	EX-6 (4-5)	EPA 8021	LCF	6	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40113962004	B-13 (15.5)	EPA 8021	LCF	6	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		ASTM D2974-87	SKW	1	PASI-G

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS (LKG)  
Pace Project No.: 40113962

Sample: B-12 (18) Lab ID: 40113962001 Collected: 04/29/15 12:20 Received: 04/30/15 09:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>									
Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil									
Benzene	<11.3	ug/kg	22.5	11.3	1	05/01/15 07:38	05/01/15 16:37	71-43-2	
Ethylbenzene	<28.2	ug/kg	56.3	28.2	1	05/01/15 07:38	05/01/15 16:37	100-41-4	
Methyl-tert-butyl ether	128	ug/kg	56.3	28.2	1	05/01/15 07:38	05/01/15 16:37	1634-04-4	
Toluene	<28.2	ug/kg	56.3	28.2	1	05/01/15 07:38	05/01/15 16:37	108-88-3	
Xylene (Total)	<84.5	ug/kg	169	84.5	1	05/01/15 07:38	05/01/15 16:37	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	89	%	51-146		1	05/01/15 07:38	05/01/15 16:37	98-08-8	
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.4	ug/kg	18.8	9.4	1	05/01/15 11:56	05/02/15 15:58	83-32-9	
Acenaphthylene	<8.4	ug/kg	18.8	8.4	1	05/01/15 11:56	05/02/15 15:58	208-96-8	
Anthracene	<9.7	ug/kg	18.8	9.7	1	05/01/15 11:56	05/02/15 15:58	120-12-7	
Benzo(a)anthracene	<6.5	ug/kg	18.8	6.5	1	05/01/15 11:56	05/02/15 15:58	56-55-3	
Benzo(a)pyrene	<6.7	ug/kg	18.8	6.7	1	05/01/15 11:56	05/02/15 15:58	50-32-8	
Benzo(b)fluoranthene	<9.4	ug/kg	18.8	9.4	1	05/01/15 11:56	05/02/15 15:58	205-99-2	
Benzo(g,h,i)perylene	<7.2	ug/kg	18.8	7.2	1	05/01/15 11:56	05/02/15 15:58	191-24-2	
Benzo(k)fluoranthene	<10.4	ug/kg	18.8	10.4	1	05/01/15 11:56	05/02/15 15:58	207-08-9	
Chrysene	<8.7	ug/kg	18.8	8.7	1	05/01/15 11:56	05/02/15 15:58	218-01-9	
Dibenz(a,h)anthracene	<6.9	ug/kg	18.8	6.9	1	05/01/15 11:56	05/02/15 15:58	53-70-3	
Fluoranthene	<9.4	ug/kg	18.8	9.4	1	05/01/15 11:56	05/02/15 15:58	206-44-0	
Fluorene	<9.4	ug/kg	18.8	9.4	1	05/01/15 11:56	05/02/15 15:58	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.1	ug/kg	18.8	7.1	1	05/01/15 11:56	05/02/15 15:58	193-39-5	
Naphthalene	<9.4	ug/kg	18.8	9.4	1	05/01/15 11:56	05/02/15 15:58	91-20-3	
Phenanthrene	<9.4	ug/kg	18.8	9.4	1	05/01/15 11:56	05/02/15 15:58	85-01-8	
Pyrene	<9.4	ug/kg	18.8	9.4	1	05/01/15 11:56	05/02/15 15:58	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	59	%	39-130		1	05/01/15 11:56	05/02/15 15:58	321-60-8	
Terphenyl-d14 (S)	51	%	37-130		1	05/01/15 11:56	05/02/15 15:58	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	11.3	%	0.10	0.10	1		05/06/15 15:12		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS (LKG)  
 Pace Project No.: 40113962

Sample: EX-5 (4-5) Lab ID: 40113962002 Collected: 04/29/15 12:55 Received: 04/30/15 09:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>									
Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil									
Benzene	14500	ug/kg	586	293	25	05/01/15 07:38	05/01/15 13:13	71-43-2	
Ethylbenzene	44800	ug/kg	1460	732	25	05/01/15 07:38	05/01/15 13:13	100-41-4	
Methyl-tert-butyl ether	885J	ug/kg	1460	732	25	05/01/15 07:38	05/01/15 13:13	1634-04-4	
Toluene	105000	ug/kg	1460	732	25	05/01/15 07:38	05/01/15 13:13	108-88-3	
Xylene (Total)	221000	ug/kg	4390	2200	25	05/01/15 07:38	05/01/15 13:13	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	126	%	51-146		25	05/01/15 07:38	05/01/15 13:13	98-08-8	S4
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<391	ug/kg	781	391	40	05/01/15 11:56	05/06/15 11:04	83-32-9	
Acenaphthylene	<350	ug/kg	781	350	40	05/01/15 11:56	05/06/15 11:04	208-96-8	
Anthracene	<405	ug/kg	781	405	40	05/01/15 11:56	05/06/15 11:04	120-12-7	
Benzo(a)anthracene	<271	ug/kg	781	271	40	05/01/15 11:56	05/06/15 11:04	56-55-3	
Benzo(a)pyrene	<279	ug/kg	781	279	40	05/01/15 11:56	05/06/15 11:04	50-32-8	
Benzo(b)fluoranthene	<391	ug/kg	781	391	40	05/01/15 11:56	05/06/15 11:04	205-99-2	1q
Benzo(g,h,i)perylene	<298	ug/kg	781	298	40	05/01/15 11:56	05/06/15 11:04	191-24-2	
Benzo(k)fluoranthene	<432	ug/kg	781	432	40	05/01/15 11:56	05/06/15 11:04	207-08-9	1q
Chrysene	<361	ug/kg	781	361	40	05/01/15 11:56	05/06/15 11:04	218-01-9	
Dibenz(a,h)anthracene	<287	ug/kg	781	287	40	05/01/15 11:56	05/06/15 11:04	53-70-3	
Fluoranthene	<391	ug/kg	781	391	40	05/01/15 11:56	05/06/15 11:04	206-44-0	
Fluorene	<391	ug/kg	781	391	40	05/01/15 11:56	05/06/15 11:04	86-73-7	
Indeno(1,2,3-cd)pyrene	<297	ug/kg	781	297	40	05/01/15 11:56	05/06/15 11:04	193-39-5	
Naphthalene	9120	ug/kg	781	391	40	05/01/15 11:56	05/06/15 11:04	91-20-3	
Phenanthrene	<391	ug/kg	781	391	40	05/01/15 11:56	05/06/15 11:04	85-01-8	
Pyrene	<391	ug/kg	781	391	40	05/01/15 11:56	05/06/15 11:04	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	49	%	39-130		40	05/01/15 11:56	05/06/15 11:04	321-60-8	
Terphenyl-d14 (S)	46	%	37-130		40	05/01/15 11:56	05/06/15 11:04	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.7	%	0.10	0.10	1		05/06/15 15:12		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS (LKG)

Pace Project No.: 40113962

Sample: EX-6 (4-5) Lab ID: 40113962003 Collected: 04/29/15 12:58 Received: 04/30/15 09:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>									
Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil									
Benzene	7600	ug/kg	469	235	20	05/01/15 07:38	05/01/15 12:47	71-43-2	
Ethylbenzene	32700	ug/kg	1170	586	20	05/01/15 07:38	05/01/15 12:47	100-41-4	
Methyl-tert-butyl ether	891J	ug/kg	1170	586	20	05/01/15 07:38	05/01/15 12:47	1634-04-4	
Toluene	54500	ug/kg	1170	586	20	05/01/15 07:38	05/01/15 12:47	108-88-3	
Xylene (Total)	149000	ug/kg	3520	1760	20	05/01/15 07:38	05/01/15 12:47	1330-20-7	
<b>Surrogates</b>									
a, a, a-Trifluorotoluene (S)	106	%	51-146		20	05/01/15 07:38	05/01/15 12:47	98-08-8	S4
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<391	ug/kg	782	391	40	05/01/15 11:56	05/06/15 13:05	83-32-9	
Acenaphthylene	<350	ug/kg	782	350	40	05/01/15 11:56	05/06/15 13:05	208-96-8	
Anthracene	<405	ug/kg	782	405	40	05/01/15 11:56	05/06/15 13:05	120-12-7	
Benzo(a)anthracene	<271	ug/kg	782	271	40	05/01/15 11:56	05/06/15 13:05	56-55-3	
Benzo(a)pyrene	<280	ug/kg	782	280	40	05/01/15 11:56	05/06/15 13:05	50-32-8	
Benzo(b)fluoranthene	<391	ug/kg	782	391	40	05/01/15 11:56	05/06/15 13:05	205-99-2	1q
Benzo(g,h,i)perylene	<298	ug/kg	782	298	40	05/01/15 11:56	05/06/15 13:05	191-24-2	
Benzo(k)fluoranthene	<433	ug/kg	782	433	40	05/01/15 11:56	05/06/15 13:05	207-08-9	1q
Chrysene	<362	ug/kg	782	362	40	05/01/15 11:56	05/06/15 13:05	218-01-9	
Dibenz(a,h)anthracene	<287	ug/kg	782	287	40	05/01/15 11:56	05/06/15 13:05	53-70-3	
Fluoranthene	<391	ug/kg	782	391	40	05/01/15 11:56	05/06/15 13:05	206-44-0	
Fluorene	<391	ug/kg	782	391	40	05/01/15 11:56	05/06/15 13:05	86-73-7	
Indeno(1,2,3-cd)pyrene	<297	ug/kg	782	297	40	05/01/15 11:56	05/06/15 13:05	193-39-5	
Naphthalene	10900	ug/kg	782	391	40	05/01/15 11:56	05/06/15 13:05	91-20-3	
Phenanthrene	<391	ug/kg	782	391	40	05/01/15 11:56	05/06/15 13:05	85-01-8	
Pyrene	<391	ug/kg	782	391	40	05/01/15 11:56	05/06/15 13:05	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	60	%	39-130		40	05/01/15 11:56	05/06/15 13:05	321-60-8	
Terphenyl-d14 (S)	55	%	37-130		40	05/01/15 11:56	05/06/15 13:05	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.7	%	0.10	0.10	1		05/06/15 15:12		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS (LKG)  
 Pace Project No.: 40113962

Sample: B-13 (15.5) Lab ID: 40113962004 Collected: 04/29/15 13:45 Received: 04/30/15 09:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8021 GCV Med BTEX</b>									
Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil									
Benzene	<11.6	ug/kg	23.2	11.6	1	05/01/15 07:38	05/01/15 17:03	71-43-2	
Ethylbenzene	<29.0	ug/kg	58.0	29.0	1	05/01/15 07:38	05/01/15 17:03	100-41-4	
Methyl-tert-butyl ether	1240	ug/kg	58.0	29.0	1	05/01/15 07:38	05/01/15 17:03	1634-04-4	
Toluene	<29.0	ug/kg	58.0	29.0	1	05/01/15 07:38	05/01/15 17:03	108-88-3	
Xylene (Total)	<87.0	ug/kg	174	87.0	1	05/01/15 07:38	05/01/15 17:03	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	95	%	51-146		1	05/01/15 07:38	05/01/15 17:03	98-08-8	
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.7	ug/kg	19.3	9.7	1	05/01/15 11:56	05/02/15 16:33	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.3	8.6	1	05/01/15 11:56	05/02/15 16:33	208-96-8	
Anthracene	<10.0	ug/kg	19.3	10.0	1	05/01/15 11:56	05/02/15 16:33	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.3	6.7	1	05/01/15 11:56	05/02/15 16:33	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.3	6.9	1	05/01/15 11:56	05/02/15 16:33	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.3	9.7	1	05/01/15 11:56	05/02/15 16:33	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.3	7.4	1	05/01/15 11:56	05/02/15 16:33	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.3	10.7	1	05/01/15 11:56	05/02/15 16:33	207-08-9	
Chrysene	<8.9	ug/kg	19.3	8.9	1	05/01/15 11:56	05/02/15 16:33	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.3	7.1	1	05/01/15 11:56	05/02/15 16:33	53-70-3	
Fluoranthene	<9.7	ug/kg	19.3	9.7	1	05/01/15 11:56	05/02/15 16:33	206-44-0	
Fluorene	<9.7	ug/kg	19.3	9.7	1	05/01/15 11:56	05/02/15 16:33	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.3	7.3	1	05/01/15 11:56	05/02/15 16:33	193-39-5	
Naphthalene	<9.7	ug/kg	19.3	9.7	1	05/01/15 11:56	05/02/15 16:33	91-20-3	
Phenanthrene	12.9J	ug/kg	19.3	9.7	1	05/01/15 11:56	05/02/15 16:33	85-01-8	
Pyrene	<9.7	ug/kg	19.3	9.7	1	05/01/15 11:56	05/02/15 16:33	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	72	%	39-130		1	05/01/15 11:56	05/02/15 16:33	321-60-8	
Terphenyl-d14 (S)	75	%	37-130		1	05/01/15 11:56	05/02/15 16:33	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.8	%	0.10	0.10	1		05/06/15 15:12		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS (LKG)  
Pace Project No.: 40113962

QC Batch: GCV/14310 Analysis Method: EPA 8021  
QC Batch Method: EPA 5030 Medium Soil Analysis Description: 8021 Med Level Solid GCV  
Associated Lab Samples: 40113962001, 40113962002, 40113962003, 40113962004

METHOD BLANK: 1150524 Matrix: Solid  
Associated Lab Samples: 40113962001, 40113962002, 40113962003, 40113962004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<10.0	20.0	05/01/15 08:56	
Ethylbenzene	ug/kg	<25.0	50.0	05/01/15 08:56	
Methyl-tert-butyl ether	ug/kg	<25.0	50.0	05/01/15 08:56	
Toluene	ug/kg	<25.0	50.0	05/01/15 08:56	
Xylene (Total)	ug/kg	<75.0	150	05/01/15 08:56	
a,a,a-Trifluorotoluene (S)	%	99	51-146	05/01/15 08:56	

Parameter	Units	1150525		1150526		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qualifiers
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec						
Benzene	ug/kg	1000	1010	1010	101	101	80-120	0	20		
Ethylbenzene	ug/kg	1000	972	988	97	99	80-120	2	20		
Methyl-tert-butyl ether	ug/kg	1000	1040	1040	104	104	80-120	1	20		
Toluene	ug/kg	1000	983	1010	98	101	80-120	3	20		
Xylene (Total)	ug/kg	3000	2930	2890	98	96	80-120	1	20		
a,a,a-Trifluorotoluene (S)	%				103	100	51-146				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS (LKG)  
Pace Project No.: 40113962

QC Batch: OEXT/26416 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40113962001, 40113962002, 40113962003, 40113962004

METHOD BLANK: 1150815 Matrix: Solid  
Associated Lab Samples: 40113962001, 40113962002, 40113962003, 40113962004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	05/02/15 09:01	
Acenaphthylene	ug/kg	<7.5	16.7	05/02/15 09:01	
Anthracene	ug/kg	<8.6	16.7	05/02/15 09:01	
Benzo(a)anthracene	ug/kg	<5.8	16.7	05/02/15 09:01	
Benzo(a)pyrene	ug/kg	<6.0	16.7	05/02/15 09:01	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	05/02/15 09:01	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	05/02/15 09:01	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	05/02/15 09:01	
Chrysene	ug/kg	<7.7	16.7	05/02/15 09:01	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	05/02/15 09:01	
Fluoranthene	ug/kg	<8.3	16.7	05/02/15 09:01	
Fluorene	ug/kg	<8.3	16.7	05/02/15 09:01	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	05/02/15 09:01	
Naphthalene	ug/kg	<8.3	16.7	05/02/15 09:01	
Phenanthrene	ug/kg	<8.3	16.7	05/02/15 09:01	
Pyrene	ug/kg	<8.3	16.7	05/02/15 09:01	
2-Fluorobiphenyl (S)	%	81	39-130	05/02/15 09:01	
Terphenyl-d14 (S)	%	93	37-130	05/02/15 09:01	

LABORATORY CONTROL SAMPLE: 1150816

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	243	73	54-130	
Acenaphthylene	ug/kg	333	247	74	55-130	
Anthracene	ug/kg	333	289	87	64-130	
Benzo(a)anthracene	ug/kg	333	223	67	50-130	
Benzo(a)pyrene	ug/kg	333	273	82	46-130	
Benzo(b)fluoranthene	ug/kg	333	259	78	43-130	
Benzo(g,h,i)perylene	ug/kg	333	268	81	48-130	
Benzo(k)fluoranthene	ug/kg	333	276	83	55-130	
Chrysene	ug/kg	333	256	77	62-130	
Dibenz(a,h)anthracene	ug/kg	333	277	83	49-130	
Fluoranthene	ug/kg	333	259	78	57-130	
Fluorene	ug/kg	333	243	73	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	275	83	50-130	
Naphthalene	ug/kg	333	214	64	48-130	
Phenanthrene	ug/kg	333	244	73	51-130	
Pyrene	ug/kg	333	242	73	55-130	
2-Fluorobiphenyl (S)	%			75	39-130	
Terphenyl-d14 (S)	%			71	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS (LKG)

Pace Project No.: 40113962

Parameter	Units	1150817		1150818		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40113823009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Acenaphthene	ug/kg	<9.8	392	392	311	283	79	72	46-130	10	26		
Acenaphthylene	ug/kg	<8.8	392	392	311	280	79	71	49-130	10	23		
Anthracene	ug/kg	<10.2	392	392	352	305	89	77	52-130	14	28		
Benzo(a)anthracene	ug/kg	<6.8	392	392	292	263	74	67	34-130	10	36		
Benzo(a)pyrene	ug/kg	<7.0	392	392	310	287	79	73	34-130	8	40		
Benzo(b)fluoranthene	ug/kg	<9.8	392	392	290	264	74	67	22-130	9	40		
Benzo(g,h,i)perylene	ug/kg	<7.5	392	392	314	284	80	72	24-130	10	35		
Benzo(k)fluoranthene	ug/kg	<10.9	392	392	334	307	85	78	41-130	8	37		
Chrysene	ug/kg	<9.1	392	392	338	307	85	77	49-130	10	33		
Dibenz(a,h)anthracene	ug/kg	<7.2	392	392	324	297	82	76	27-130	9	31		
Fluoranthene	ug/kg	<9.8	392	392	307	283	78	72	34-130	8	37		
Fluorene	ug/kg	<9.8	392	392	304	275	77	70	45-130	10	25		
Indeno(1,2,3-cd)pyrene	ug/kg	<7.5	392	392	322	297	82	76	30-130	8	34		
Naphthalene	ug/kg	<9.8	392	392	282	250	72	64	38-130	12	30		
Phenanthrene	ug/kg	<9.8	392	392	300	277	75	70	38-130	8	34		
Pyrene	ug/kg	<9.8	392	392	310	281	79	71	35-130	10	35		
2-Fluorobiphenyl (S)	%						70	59	39-130				
Terphenyl-d14 (S)	%						67	56	37-130				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS (LKG)  
Pace Project No.: 40113962

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: GCV/14314

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

1q Benzo(b)fluoranthene and benzo(k)fluoranthene were in the check standard but did not meet the resolution criteria in SW846 Method 8270C. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.  
S4 Surrogate recovery not evaluated against control limits due to sample dilution.

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS (LKG)  
Pace Project No.: 40113962

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40113962001	B-12 (18)	EPA 5030 Medium Soil	GCV/14310	EPA 8021	GCV/14314
40113962002	EX-5 (4-5)	EPA 5030 Medium Soil	GCV/14310	EPA 8021	GCV/14314
40113962003	EX-6 (4-5)	EPA 5030 Medium Soil	GCV/14310	EPA 8021	GCV/14314
40113962004	B-13 (15.5)	EPA 5030 Medium Soil	GCV/14310	EPA 8021	GCV/14314
40113962001	B-12 (18)	EPA 3546	OEXT/26416	EPA 8270 by SIM	MSSV/7845
40113962002	EX-5 (4-5)	EPA 3546	OEXT/26416	EPA 8270 by SIM	MSSV/7845
40113962003	EX-6 (4-5)	EPA 3546	OEXT/26416	EPA 8270 by SIM	MSSV/7845
40113962004	B-13 (15.5)	EPA 3546	OEXT/26416	EPA 8270 by SIM	MSSV/7845
40113962001	B-12 (18)	ASTM D2974-87	PMST/11140		
40113962002	EX-5 (4-5)	ASTM D2974-87	PMST/11140		
40113962003	EX-6 (4-5)	ASTM D2974-87	PMST/11140		
40113962004	B-13 (15.5)	ASTM D2974-87	PMST/11140		

**REPORT OF LABORATORY ANALYSIS**

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(Please Print Clearly)

Company Name: TriCore Environmental  
 Branch/Location: Naperville  
 Project Contact: Marcos Czako  
 Phone: 630 520 9973  
 Project Number: 100137  
 Project Name: Lemont Kar Gas (LKG)  
 Project State: IL  
 Sampled By (Print): Holly Moore  
 Sampled By (Sign): Holly Moore

Electronic Filing: Received, Clerk's Office 05/23/2021  
 OFFER MIDWEST REGION  
 MN: 612-607-1700 WI: 920-469-2436



40113962

Page 15 of 16

### CHAIN OF CUSTODY

**\*Preservation Codes**  
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?  
(YES/NO)  
 PRESERVATION  
(CODE)\*

Y/N	N	N	N								
Y	F	A	A								
Analysis Requested	BTEX	MTBE	PAH	Moisture							

Quote #: 40113962

Mail To Contact: Marcos Czako

Mail To Company: TriCore Environmental LLC

Mail To Address: 2368 Corporate Lane, Ste 116  
Naperville, IL 60563

Invoice To Contact: Shawn Rodeck

Invoice To Company: SAA

Invoice To Address: SAA

Invoice To Phone: \_\_\_\_\_

CLIENT COMMENTS: \_\_\_\_\_

LAB COMMENTS (Lab Use Only): 2-40ml VF, 1-40zPA, 1-40zQA

Profile #: \_\_\_\_\_

**Data Package Options** (billable)  
 EPA Level III  
 EPA Level IV

**MS/MSD**  
 On your sample (billable)  
 NOT needed on your sample

**Matrix Codes**  
 A = Air W = Water  
 B = Biota DW = Drinking Water  
 C = Charcoal GW = Ground Water  
 O = Oil SW = Surface Water  
 S = Soil WW = Waste Water  
 SI = Sludge WP = Wipe

FACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
001	B-12 (18)	4/29/15	12:20	S
002	EX-5 (4-5)	4/29/15	12:53	S
003	EX-6 (4-5)	4/29/15	12:58	S
004	B-13 (15.5)	4/29/15	13:45	S

Rush Turnaround Time Requested - Prelims  
 (Rush TAT subject to approval/surcharge)  
 Date Needed: \_\_\_\_\_

Transmit Prelim Rush Results by (complete what you want): \_\_\_\_\_

Email #1: \_\_\_\_\_  
 Email #2: \_\_\_\_\_  
 Telephone: \_\_\_\_\_  
 Fax: \_\_\_\_\_

Samples on HOLD are subject to special pricing and release of liability

Relinquished By: [Signature] Date/Time: 4/29/15 14:08

Relinquished By: [Signature] Date/Time: 4/29/15 12:00

Relinquished By: CO Logistic Date/Time: 4-30-15 905

Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: [Signature] Date/Time: 4/29/15 14:08

Received By: [Signature] Date/Time: 4/29/15

Received By: Marimckay Date/Time: 4-30-15 905

Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

PAGE Project No. 40113962

Receipt Temp = 4.5 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal  
 Present / Not Present  
 Present  
 Not Present



Sample Condition Upon Receipt  
Electronic Filing: Received, Clerk's Office 03/23/2021

Pace Analytical Services, Inc.  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302

Client Name: TriCore

Project #: **WO# : 40113962**



Courier:  Fed Ex  UPS  Client  Pace Other: \_\_\_\_\_

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no    Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no    Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: SR-50    Type of Ice:  Wet  Blue  Dry  None     Samples on ice, cooling process has begun

Cooler Temperature    Uncorr: 4    /Corr: 4.5    Biological Tissue is Frozen:  yes

Temp Blank Present:  yes  no     no

Temp should be above freezing to 6°C for all sample except Biota.

Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:  
Date: 4-30-15  
Initials: mm

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis    Matrix: <u>S</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics,    OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: UKW

Date: 4/30/15



# Illinois Environmental Protection Agency

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

## Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

### B. Sample Collector

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. NRC  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. NRC  
(Initial)
- 3. Sample integrity was maintained by proper preservation. NRC  
(Initial)
- 4. All samples were properly labeled. NRC  
(Initial)

### C. Laboratory Representative

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms CKV  
(Initial)
- 2. Sample integrity was maintained by proper preservation. CKV  
(Initial)
- 3. All samples were properly labeled. CKV  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. CKV  
(Initial)
- 5. Sample holding times were not exceeded. CKV  
(Initial)

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

          
(Initial) *ck* ✓  
          
(Initial) *ck* ✓

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako  
Title Geologist III  
Company TriCore Environmental, LLC  
Address 2388 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone (630) 520-9973  
Signature *Marcos I. Czako*  
Date 10/19/15

**Laboratory Representative**

Name Cindy Varga  
Title Project Manager  
Company Pace Analytical Services, Inc.  
Address 1241 Bellevue Street, Suite 9  
City Green Bay  
State Wisconsin  
Zip Code 54302  
Phone (920) 469-2436  
Signature *Cindy Varga*  
Date 10/19/15

May 08, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

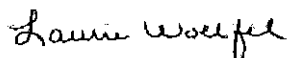
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114056

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on May 01, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114056

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114056

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40114056001	EX-7 (4-5)	Solid	04/30/15 09:30	05/01/15 09:10
40114056002	B-14 (15.5)	Solid	04/30/15 11:00	05/01/15 09:10
40114056003	EX-8 (4-5)	Solid	04/30/15 14:30	05/01/15 09:10

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114056

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40114056001	EX-7 (4-5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40114056002	B-14 (15.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40114056003	EX-8 (4-5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114056

Sample: EX-7 (4-5) Lab ID: 40114056001 Collected: 04/30/15 09:30 Received: 05/01/15 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<103	ug/kg	206	103	10	05/04/15 12:56	05/06/15 12:31	83-32-9	
Acenaphthylene	<92.3	ug/kg	206	92.3	10	05/04/15 12:56	05/06/15 12:31	208-96-8	
Anthracene	<107	ug/kg	206	107	10	05/04/15 12:56	05/06/15 12:31	120-12-7	
Benzo(a)anthracene	<71.5	ug/kg	206	71.5	10	05/04/15 12:56	05/06/15 12:31	56-55-3	
Benzo(a)pyrene	<73.7	ug/kg	206	73.7	10	05/04/15 12:56	05/06/15 12:31	50-32-8	
Benzo(b)fluoranthene	<103	ug/kg	206	103	10	05/04/15 12:56	05/06/15 12:31	205-99-2	
Benzo(g,h,i)perylene	<78.5	ug/kg	206	78.5	10	05/04/15 12:56	05/06/15 12:31	191-24-2	
Benzo(k)fluoranthene	<114	ug/kg	206	114	10	05/04/15 12:56	05/06/15 12:31	207-08-9	
Chrysene	<95.4	ug/kg	206	95.4	10	05/04/15 12:56	05/06/15 12:31	218-01-9	
Dibenz(a,h)anthracene	<75.6	ug/kg	206	75.6	10	05/04/15 12:56	05/06/15 12:31	53-70-3	
Fluoranthene	<103	ug/kg	206	103	10	05/04/15 12:56	05/06/15 12:31	206-44-0	
Fluorene	<103	ug/kg	206	103	10	05/04/15 12:56	05/06/15 12:31	86-73-7	
Indeno(1,2,3-cd)pyrene	<78.3	ug/kg	206	78.3	10	05/04/15 12:56	05/06/15 12:31	193-39-5	
Naphthalene	3290	ug/kg	206	103	10	05/04/15 12:56	05/06/15 12:31	91-20-3	
Phenanthrene	<103	ug/kg	206	103	10	05/04/15 12:56	05/06/15 12:31	85-01-8	
Pyrene	<103	ug/kg	206	103	10	05/04/15 12:56	05/06/15 12:31	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	56	%	39-130		10	05/04/15 12:56	05/06/15 12:31	321-60-8	
Terphenyl-d14 (S)	56	%	37-130		10	05/04/15 12:56	05/06/15 12:31	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	3120	ug/kg	495	228	20	05/05/15 10:00	05/06/15 06:17	71-43-2	
Ethylbenzene	36800	ug/kg	1240	308	20	05/05/15 10:00	05/06/15 06:17	100-41-4	
Methyl-tert-butyl ether	<313	ug/kg	1240	313	20	05/05/15 10:00	05/06/15 06:17	1634-04-4	
Toluene	808J	ug/kg	1240	278	20	05/05/15 10:00	05/06/15 06:17	108-88-3	
Xylene (Total)	76200	ug/kg	3710	1200	20	05/05/15 10:00	05/06/15 06:17	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	0	%	49-157		20	05/05/15 10:00	05/06/15 06:17	1868-53-7	D3,S4
4-Bromofluorobenzene (S)	0	%	53-134		20	05/05/15 10:00	05/06/15 06:17	460-00-4	S4
Toluene-d8 (S)	0	%	61-148		20	05/05/15 10:00	05/06/15 06:17	2037-26-5	S4
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	19.2	%	0.10	0.10	1		05/07/15 16:34		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114056

Sample: B-14 (15.5) Lab ID: 40114056002 Collected: 04/30/15 11:00 Received: 05/01/15 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.7	ug/kg	19.4	9.7	1	05/04/15 12:56	05/04/15 18:21	83-32-9	
Acenaphthylene	<8.7	ug/kg	19.4	8.7	1	05/04/15 12:56	05/04/15 18:21	208-96-8	
Anthracene	<10.0	ug/kg	19.4	10.0	1	05/04/15 12:56	05/04/15 18:21	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.4	6.7	1	05/04/15 12:56	05/04/15 18:21	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.4	6.9	1	05/04/15 12:56	05/04/15 18:21	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.4	9.7	1	05/04/15 12:56	05/04/15 18:21	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.4	7.4	1	05/04/15 12:56	05/04/15 18:21	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.4	10.7	1	05/04/15 12:56	05/04/15 18:21	207-08-9	
Chrysene	<9.0	ug/kg	19.4	9.0	1	05/04/15 12:56	05/04/15 18:21	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.4	7.1	1	05/04/15 12:56	05/04/15 18:21	53-70-3	
Fluoranthene	<9.7	ug/kg	19.4	9.7	1	05/04/15 12:56	05/04/15 18:21	206-44-0	
Fluorene	<9.7	ug/kg	19.4	9.7	1	05/04/15 12:56	05/04/15 18:21	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.4	7.4	1	05/04/15 12:56	05/04/15 18:21	193-39-5	
Naphthalene	<9.7	ug/kg	19.4	9.7	1	05/04/15 12:56	05/04/15 18:21	91-20-3	
Phenanthrene	<9.7	ug/kg	19.4	9.7	1	05/04/15 12:56	05/04/15 18:21	85-01-8	
Pyrene	<9.7	ug/kg	19.4	9.7	1	05/04/15 12:56	05/04/15 18:21	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	65	%	39-130		1	05/04/15 12:56	05/04/15 18:21	321-60-8	
Terphenyl-d14 (S)	67	%	37-130		1	05/04/15 12:56	05/04/15 18:21	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.7	ug/kg	23.2	10.7	1	05/05/15 10:00	05/06/15 05:31	71-43-2	
Ethylbenzene	<14.4	ug/kg	58.1	14.4	1	05/05/15 10:00	05/06/15 05:31	100-41-4	
Methyl-tert-butyl ether	33.7J	ug/kg	58.1	14.7	1	05/05/15 10:00	05/06/15 05:31	1634-04-4	
Toluene	<13.0	ug/kg	58.1	13.0	1	05/05/15 10:00	05/06/15 05:31	108-88-3	
Xylene (Total)	<56.3	ug/kg	174	56.3	1	05/05/15 10:00	05/06/15 05:31	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	49-157		1	05/05/15 10:00	05/06/15 05:31	1868-53-7	
4-Bromofluorobenzene (S)	89	%	53-134		1	05/05/15 10:00	05/06/15 05:31	460-00-4	
Toluene-d8 (S)	95	%	61-148		1	05/05/15 10:00	05/06/15 05:31	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.9	%	0.10	0.10	1		05/07/15 16:35		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114056

Sample: EX-8 (4-5) Lab ID: 40114056003 Collected: 04/30/15 14:30 Received: 05/01/15 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<197	ug/kg	393	197	20	05/04/15 12:56	05/06/15 12:48	83-32-9	
Acenaphthylene	<176	ug/kg	393	176	20	05/04/15 12:56	05/06/15 12:48	208-96-8	
Anthracene	<204	ug/kg	393	204	20	05/04/15 12:56	05/06/15 12:48	120-12-7	
Benzo(a)anthracene	<136	ug/kg	393	136	20	05/04/15 12:56	05/06/15 12:48	56-55-3	
Benzo(a)pyrene	<141	ug/kg	393	141	20	05/04/15 12:56	05/06/15 12:48	50-32-8	
Benzo(b)fluoranthene	<197	ug/kg	393	197	20	05/04/15 12:56	05/06/15 12:48	205-99-2	
Benzo(g,h,i)perylene	<150	ug/kg	393	150	20	05/04/15 12:56	05/06/15 12:48	191-24-2	
Benzo(k)fluoranthene	<218	ug/kg	393	218	20	05/04/15 12:56	05/06/15 12:48	207-08-9	
Chrysene	<182	ug/kg	393	182	20	05/04/15 12:56	05/06/15 12:48	218-01-9	
Dibenz(a,h)anthracene	<144	ug/kg	393	144	20	05/04/15 12:56	05/06/15 12:48	53-70-3	
Fluoranthene	<197	ug/kg	393	197	20	05/04/15 12:56	05/06/15 12:48	206-44-0	
Fluorene	<197	ug/kg	393	197	20	05/04/15 12:56	05/06/15 12:48	86-73-7	
Indeno(1,2,3-cd)pyrene	<149	ug/kg	393	149	20	05/04/15 12:56	05/06/15 12:48	193-39-5	
Naphthalene	3750	ug/kg	393	197	20	05/04/15 12:56	05/06/15 12:48	91-20-3	
Phenanthrene	<197	ug/kg	393	197	20	05/04/15 12:56	05/06/15 12:48	85-01-8	
Pyrene	<197	ug/kg	393	197	20	05/04/15 12:56	05/06/15 12:48	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	0	%	39-130		20	05/04/15 12:56	05/06/15 12:48	321-60-8	S4
Terphenyl-d14 (S)	0	%	37-130		20	05/04/15 12:56	05/06/15 12:48	1718-51-0	S4
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	8660	ug/kg	118	54.4	5	05/05/15 10:00	05/06/15 11:40	71-43-2	
Ethylbenzene	21300	ug/kg	295	73.3	5	05/05/15 10:00	05/06/15 11:40	100-41-4	
Methyl-tert-butyl ether	158J	ug/kg	295	74.6	5	05/05/15 10:00	05/06/15 11:40	1634-04-4	
Toluene	1070	ug/kg	295	66.2	5	05/05/15 10:00	05/06/15 11:40	108-88-3	
Xylene (Total)	7610	ug/kg	885	286	5	05/05/15 10:00	05/06/15 11:40	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	106	%	49-157		5	05/05/15 10:00	05/06/15 11:40	1868-53-7	
4-Bromofluorobenzene (S)	124	%	53-134		5	05/05/15 10:00	05/06/15 11:40	460-00-4	
Toluene-d8 (S)	100	%	61-148		5	05/05/15 10:00	05/06/15 11:40	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	15.2	%	0.10	0.10	1		05/07/15 16:35		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114056

QC Batch: MSV/28319 Analysis Method: EPA 8260  
 QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
 Associated Lab Samples: 40114056001, 40114056002, 40114056003

METHOD BLANK: 1152253 Matrix: Solid

Associated Lab Samples: 40114056001, 40114056002, 40114056003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	05/05/15 21:47	
Ethylbenzene	ug/kg	<12.4	50.0	05/05/15 21:47	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	05/05/15 21:47	
Toluene	ug/kg	<11.2	50.0	05/05/15 21:47	
Xylene (Total)	ug/kg	<48.4	150	05/05/15 21:47	
4-Bromofluorobenzene (S)	%	95	53-134	05/05/15 21:47	
Dibromofluoromethane (S)	%	101	49-157	05/05/15 21:47	
Toluene-d8 (S)	%	100	61-148	05/05/15 21:47	

LABORATORY CONTROL SAMPLE & LCSD: 1152254 1152255

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	2500	2810	2830	113	113	70-130	1	20	
Ethylbenzene	ug/kg	2500	2600	2640	104	106	70-130	1	20	
Methyl-tert-butyl ether	ug/kg	2500	2720	2740	109	110	70-130	1	20	
Toluene	ug/kg	2500	2570	2580	103	103	70-130	0	20	
Xylene (Total)	ug/kg	7500	7990	7990	106	107	70-130	0	20	
4-Bromofluorobenzene (S)	%				102	102	53-134			
Dibromofluoromethane (S)	%				106	106	49-157			
Toluene-d8 (S)	%				98	99	61-148			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114056

QC Batch: OEXT/26431 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40114056001, 40114056002, 40114056003

METHOD BLANK: 1151843 Matrix: Solid

Associated Lab Samples: 40114056001, 40114056002, 40114056003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	05/04/15 16:20	
Acenaphthylene	ug/kg	<7.5	16.7	05/04/15 16:20	
Anthracene	ug/kg	<8.6	16.7	05/04/15 16:20	
Benzo(a)anthracene	ug/kg	<5.8	16.7	05/04/15 16:20	
Benzo(a)pyrene	ug/kg	<6.0	16.7	05/04/15 16:20	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	05/04/15 16:20	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	05/04/15 16:20	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	05/04/15 16:20	
Chrysene	ug/kg	<7.7	16.7	05/04/15 16:20	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	05/04/15 16:20	
Fluoranthene	ug/kg	<8.3	16.7	05/04/15 16:20	
Fluorene	ug/kg	<8.3	16.7	05/04/15 16:20	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	05/04/15 16:20	
Naphthalene	ug/kg	<8.3	16.7	05/04/15 16:20	
Phenanthrene	ug/kg	<8.3	16.7	05/04/15 16:20	
Pyrene	ug/kg	<8.3	16.7	05/04/15 16:20	
2-Fluorobiphenyl (S)	%	77	39-130	05/04/15 16:20	
Terphenyl-d14 (S)	%	84	37-130	05/04/15 16:20	

LABORATORY CONTROL SAMPLE: 1151844

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	276	83	54-130	
Acenaphthylene	ug/kg	333	286	86	55-130	
Anthracene	ug/kg	333	309	93	64-130	
Benzo(a)anthracene	ug/kg	333	270	81	50-130	
Benzo(a)pyrene	ug/kg	333	294	88	46-130	
Benzo(b)fluoranthene	ug/kg	333	290	87	43-130	
Benzo(g,h,i)perylene	ug/kg	333	211	63	48-130	
Benzo(k)fluoranthene	ug/kg	333	320	96	55-130	
Chrysene	ug/kg	333	314	94	62-130	
Dibenz(a,h)anthracene	ug/kg	333	261	78	49-130	
Fluoranthene	ug/kg	333	284	85	57-130	
Fluorene	ug/kg	333	276	83	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	245	74	50-130	
Naphthalene	ug/kg	333	243	73	48-130	
Phenanthrene	ug/kg	333	273	82	51-130	
Pyrene	ug/kg	333	294	88	55-130	
2-Fluorobiphenyl (S)	%			84	39-130	
Terphenyl-d14 (S)	%			97	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114056

Parameter	Units	1151845		1151846		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual	
		40114061002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result									MSD Result
Acenaphthene	ug/kg	<8.9	355	355	262	301	74	85	46-130	14	26			
Acenaphthylene	ug/kg	<8.0	355	355	271	299	76	84	49-130	10	23			
Anthracene	ug/kg	<9.2	355	355	292	350	82	98	52-130	18	28			
Benzo(a)anthracene	ug/kg	<6.2	355	355	244	269	69	76	34-130	10	36			
Benzo(a)pyrene	ug/kg	<6.4	355	355	274	300	77	84	34-130	9	40			
Benzo(b)fluoranthene	ug/kg	<8.9	355	355	281	306	79	86	22-130	9	40			
Benzo(g,h,i)perylene	ug/kg	<6.8	355	355	182	200	51	56	24-130	9	35			
Benzo(k)fluoranthene	ug/kg	<9.8	355	355	294	323	83	91	41-130	9	37			
Chrysene	ug/kg	<8.2	355	355	284	310	80	87	49-130	9	33			
Dibenz(a,h)anthracene	ug/kg	<6.5	355	355	232	254	65	71	27-130	9	31			
Fluoranthene	ug/kg	<8.9	355	355	265	296	74	83	34-130	11	37			
Fluorene	ug/kg	<8.9	355	355	263	293	74	83	45-130	11	25			
Indeno(1,2,3-cd)pyrene	ug/kg	<6.8	355	355	216	239	61	67	30-130	10	34			
Naphthalene	ug/kg	<8.9	355	355	234	267	66	75	38-130	13	30			
Phenanthrene	ug/kg	<8.9	355	355	261	287	73	81	38-130	10	34			
Pyrene	ug/kg	<8.9	355	355	292	296	82	83	35-130	1	35			
2-Fluorobiphenyl (S)	%							71	76	39-130				
Terphenyl-d14 (S)	%							77	81	37-130				

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114056

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSSV/7850

[IP] Benzo(b)fluoranthene and benzo(k)fluoranthene were in the check standard but did not meet the resolution criteria in SW846 Method 8270C. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.

Batch: MSV/28320

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

S4 Surrogate recovery not evaluated against control limits due to sample dilution.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114056

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40114056001	EX-7 (4-5)	EPA 3546	OEXT/26431	EPA 8270 by SIM	MSSV/7850
40114056002	B-14 (15.5)	EPA 3546	OEXT/26431	EPA 8270 by SIM	MSSV/7850
40114056003	EX-8 (4-5)	EPA 3546	OEXT/26431	EPA 8270 by SIM	MSSV/7850
40114056001	EX-7 (4-5)	EPA 5035/5030B	MSV/28319	EPA 8260	MSV/28320
40114056002	B-14 (15.5)	EPA 5035/5030B	MSV/28319	EPA 8260	MSV/28320
40114056003	EX-8 (4-5)	EPA 5035/5030B	MSV/28319	EPA 8260	MSV/28320
40114056001	EX-7 (4-5)	ASTM D2974-87	PMST/11148		
40114056002	B-14 (15.5)	ASTM D2974-87	PMST/11148		
40114056003	EX-8 (4-5)	ASTM D2974-87	PMST/11148		

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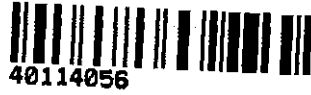




Client Name: TriCore Env.

Project #:

WO#: 40114056



Courier: Fed Ex UPS Client Pace Other: CS Logistics

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Custody Seal on Samples Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used: SR-45 Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: 3.5 / Corr: 3.5 Biological Tissue is Frozen: yes no

Temp Blank Present: yes no

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:
Date: 5-1-15
Initials: KEW

Table with 15 rows of inspection criteria and checkboxes. Includes items like Chain of Custody Present, Short Hold Time Analysis, Containers Intact, etc.

Client Notification/ Resolution:
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_
Comments/ Resolution: \_\_\_\_\_

Project Manager Review: \_\_\_\_\_ Date: 5/1/15



Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

**Leaking Underground Storage Tank Program  
Laboratory Certification for Chemical Analysis**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

**B. Sample Collector**

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. MLR  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. MLR  
(Initial)
- 3. Sample integrity was maintained by proper preservation. MLR  
(Initial)
- 4. All samples were properly labeled. MLR  
(Initial)

**C. Laboratory Representative**

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms UW  
(Initial)
- 2. Sample integrity was maintained by proper preservation. UW  
(Initial)
- 3. All samples were properly labeled. UW  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. UW  
(Initial)
- 5. Sample holding times were not exceeded. UW  
(Initial)

6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.

UW  
(Initial)

7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcus J. Conko  
Title Geologist III  
Company TriCore Environmental, LLC  
Address 2368 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone (630) 520-9973  
Signature [Handwritten Signature]  
Date 04/30/15

**Laboratory Representative**

Name Laurie Woelfel  
Title Project Manager  
Company Pace Analytical Services, Inc.  
Address 1241 Bellevue Street, Suite 9  
City Green Bay  
State Wisconsin  
Zip Code 54302  
Phone (920) 469-2436  
Signature [Handwritten Signature]  
Date 5/8/15

May 11, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

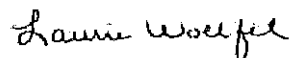
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114124

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on May 02, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



**REPORT OF LABORATORY ANALYSIS**

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### CERTIFICATIONS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114124

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#### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114124

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40114124001	B-15 (15.5)	Solid	05/01/15 10:00	05/02/15 09:15
40114124002	B-16 (17.5)	Solid	05/01/15 11:45	05/02/15 09:15
40114124003	B-17 (15.5)	Solid	05/01/15 14:00	05/02/15 09:15

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114124

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40114124001	B-15 (15.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40114124002	B-16 (17.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40114124003	B-17 (15.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114124

Sample: B-15 (15.5) Lab ID: 40114124001 Collected: 05/01/15 10:00 Received: 05/02/15 09:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<19.3	ug/kg	38.5	19.3	1	05/05/15 08:53	05/05/15 16:51	83-32-9	
Acenaphthylene	<17.2	ug/kg	38.5	17.2	1	05/05/15 08:53	05/05/15 16:51	208-96-8	
Anthracene	<20.0	ug/kg	38.5	20.0	1	05/05/15 08:53	05/05/15 16:51	120-12-7	
Benzo(a)anthracene	<13.4	ug/kg	38.5	13.4	1	05/05/15 08:53	05/05/15 16:51	56-55-3	
Benzo(a)pyrene	<13.8	ug/kg	38.5	13.8	1	05/05/15 08:53	05/05/15 16:51	50-32-8	
Benzo(b)fluoranthene	<19.3	ug/kg	38.5	19.3	1	05/05/15 08:53	05/05/15 16:51	205-99-2	
Benzo(g,h,i)perylene	<14.7	ug/kg	38.5	14.7	1	05/05/15 08:53	05/05/15 16:51	191-24-2	
Benzo(k)fluoranthene	<21.3	ug/kg	38.5	21.3	1	05/05/15 08:53	05/05/15 16:51	207-08-9	
Chrysene	<17.8	ug/kg	38.5	17.8	1	05/05/15 08:53	05/05/15 16:51	218-01-9	
Dibenz(a,h)anthracene	<14.1	ug/kg	38.5	14.1	1	05/05/15 08:53	05/05/15 16:51	53-70-3	
Fluoranthene	<19.3	ug/kg	38.5	19.3	1	05/05/15 08:53	05/05/15 16:51	206-44-0	
Fluorene	<19.3	ug/kg	38.5	19.3	1	05/05/15 08:53	05/05/15 16:51	86-73-7	
Indeno(1,2,3-cd)pyrene	<14.6	ug/kg	38.5	14.6	1	05/05/15 08:53	05/05/15 16:51	193-39-5	
Naphthalene	23.0J	ug/kg	38.5	19.3	1	05/05/15 08:53	05/05/15 16:51	91-20-3	
Phenanthrene	<19.3	ug/kg	38.5	19.3	1	05/05/15 08:53	05/05/15 16:51	85-01-8	
Pyrene	<19.3	ug/kg	38.5	19.3	1	05/05/15 08:53	05/05/15 16:51	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	80	%	39-130		1	05/05/15 08:53	05/05/15 16:51	321-60-8	
Terphenyl-d14 (S)	80	%	37-130		1	05/05/15 08:53	05/05/15 16:51	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.7	ug/kg	23.1	10.7	1	05/05/15 10:00	05/06/15 04:44	71-43-2	
Ethylbenzene	<14.4	ug/kg	57.8	14.4	1	05/05/15 10:00	05/06/15 04:44	100-41-4	
Methyl-tert-butyl ether	25.9J	ug/kg	57.8	14.6	1	05/05/15 10:00	05/06/15 04:44	1634-04-4	
Toluene	<13.0	ug/kg	57.8	13.0	1	05/05/15 10:00	05/06/15 04:44	108-88-3	
Xylene (Total)	<56.0	ug/kg	173	56.0	1	05/05/15 10:00	05/06/15 04:44	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	107	%	49-157		1	05/05/15 10:00	05/06/15 04:44	1868-53-7	
4-Bromofluorobenzene (S)	102	%	53-134		1	05/05/15 10:00	05/06/15 04:44	460-00-4	
Toluene-d8 (S)	101	%	61-148		1	05/05/15 10:00	05/06/15 04:44	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.5	%	0.10	0.10	1		05/08/15 07:57		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114124

Sample: B-16 (17.5) Lab ID: 40114124002 Collected: 05/01/15 11:45 Received: 05/02/15 09:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.4	ug/kg	18.7	9.4	1	05/05/15 08:53	05/05/15 17:08	83-32-9	
Acenaphthylene	<8.4	ug/kg	18.7	8.4	1	05/05/15 08:53	05/05/15 17:08	208-96-8	
Anthracene	<9.7	ug/kg	18.7	9.7	1	05/05/15 08:53	05/05/15 17:08	120-12-7	
Benzo(a)anthracene	<6.5	ug/kg	18.7	6.5	1	05/05/15 08:53	05/05/15 17:08	56-55-3	
Benzo(a)pyrene	<6.7	ug/kg	18.7	6.7	1	05/05/15 08:53	05/05/15 17:08	50-32-8	
Benzo(b)fluoranthene	<9.4	ug/kg	18.7	9.4	1	05/05/15 08:53	05/05/15 17:08	205-99-2	
Benzo(g,h,i)perylene	<7.1	ug/kg	18.7	7.1	1	05/05/15 08:53	05/05/15 17:08	191-24-2	
Benzo(k)fluoranthene	<10.4	ug/kg	18.7	10.4	1	05/05/15 08:53	05/05/15 17:08	207-08-9	
Chrysene	<8.7	ug/kg	18.7	8.7	1	05/05/15 08:53	05/05/15 17:08	218-01-9	
Dibenz(a,h)anthracene	<6.9	ug/kg	18.7	6.9	1	05/05/15 08:53	05/05/15 17:08	53-70-3	
Fluoranthene	<9.4	ug/kg	18.7	9.4	1	05/05/15 08:53	05/05/15 17:08	206-44-0	
Fluorene	<9.4	ug/kg	18.7	9.4	1	05/05/15 08:53	05/05/15 17:08	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.1	ug/kg	18.7	7.1	1	05/05/15 08:53	05/05/15 17:08	193-39-5	
Naphthalene	<9.4	ug/kg	18.7	9.4	1	05/05/15 08:53	05/05/15 17:08	91-20-3	
Phenanthrene	<9.4	ug/kg	18.7	9.4	1	05/05/15 08:53	05/05/15 17:08	85-01-8	
Pyrene	<9.4	ug/kg	18.7	9.4	1	05/05/15 08:53	05/05/15 17:08	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	59	%	39-130		1	05/05/15 08:53	05/05/15 17:08	321-60-8	
Terphenyl-d14 (S)	61	%	37-130		1	05/05/15 08:53	05/05/15 17:08	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.4	ug/kg	22.5	10.4	1	05/05/15 10:00	05/06/15 05:07	71-43-2	
Ethylbenzene	<14.0	ug/kg	56.2	14.0	1	05/05/15 10:00	05/06/15 05:07	100-41-4	
Methyl-tert-butyl ether	<14.2	ug/kg	56.2	14.2	1	05/05/15 10:00	05/06/15 05:07	1634-04-4	
Toluene	<12.6	ug/kg	56.2	12.6	1	05/05/15 10:00	05/06/15 05:07	108-88-3	
Xylene (Total)	<54.4	ug/kg	169	54.4	1	05/05/15 10:00	05/06/15 05:07	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	56	%	49-157		1	05/05/15 10:00	05/06/15 05:07	1868-53-7	
4-Bromofluorobenzene (S)	51	%	53-134		1	05/05/15 10:00	05/06/15 05:07	460-00-4	S1
Toluene-d8 (S)	54	%	61-148		1	05/05/15 10:00	05/06/15 05:07	2037-26-5	S1
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	11.0	%	0.10	0.10	1		05/08/15 08:30		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114124

Sample: B-17 (15.5) Lab ID: 40114124003 Collected: 05/01/15 14:00 Received: 05/02/15 09:15 Matrix: Solid  
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.6	ug/kg	19.2	9.6	1	05/05/15 08:53	05/05/15 17:25	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.2	8.6	1	05/05/15 08:53	05/05/15 17:25	208-96-8	
Anthracene	<10	ug/kg	19.2	10	1	05/05/15 08:53	05/05/15 17:25	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.2	6.7	1	05/05/15 08:53	05/05/15 17:25	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.2	6.9	1	05/05/15 08:53	05/05/15 17:25	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.2	9.6	1	05/05/15 08:53	05/05/15 17:25	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.2	7.3	1	05/05/15 08:53	05/05/15 17:25	191-24-2	
Benzo(k)fluoranthene	<10.6	ug/kg	19.2	10.6	1	05/05/15 08:53	05/05/15 17:25	207-08-9	
Chrysene	<8.9	ug/kg	19.2	8.9	1	05/05/15 08:53	05/05/15 17:25	218-01-9	
Dibenz(a,h)anthracene	<7.0	ug/kg	19.2	7.0	1	05/05/15 08:53	05/05/15 17:25	53-70-3	
Fluoranthene	<9.6	ug/kg	19.2	9.6	1	05/05/15 08:53	05/05/15 17:25	206-44-0	
Fluorene	<9.6	ug/kg	19.2	9.6	1	05/05/15 08:53	05/05/15 17:25	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.2	7.3	1	05/05/15 08:53	05/05/15 17:25	193-39-5	
Naphthalene	<9.6	ug/kg	19.2	9.6	1	05/05/15 08:53	05/05/15 17:25	91-20-3	
Phenanthrene	9.9J	ug/kg	19.2	9.6	1	05/05/15 08:53	05/05/15 17:25	85-01-8	
Pyrene	<9.6	ug/kg	19.2	9.6	1	05/05/15 08:53	05/05/15 17:25	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	53	%	39-130		1	05/05/15 08:53	05/05/15 17:25	321-60-8	
Terphenyl-d14 (S)	54	%	37-130		1	05/05/15 08:53	05/05/15 17:25	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.6	ug/kg	23.1	10.6	1	05/06/15 07:00	05/06/15 12:03	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.6	14.3	1	05/06/15 07:00	05/06/15 12:03	100-41-4	
Methyl-tert-butyl ether	56.1J	ug/kg	57.6	14.6	1	05/06/15 07:00	05/06/15 12:03	1634-04-4	
Toluene	<12.9	ug/kg	57.6	12.9	1	05/06/15 07:00	05/06/15 12:03	108-88-3	
Xylene (Total)	<55.8	ug/kg	173	55.8	1	05/06/15 07:00	05/06/15 12:03	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	49-157		1	05/06/15 07:00	05/06/15 12:03	1868-53-7	
4-Bromofluorobenzene (S)	90	%	53-134		1	05/06/15 07:00	05/06/15 12:03	460-00-4	
Toluene-d8 (S)	93	%	61-148		1	05/06/15 07:00	05/06/15 12:03	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.3	%	0.10	0.10	1		05/08/15 08:30		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114124

QC Batch: MSV/28319 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40114124001, 40114124002

METHOD BLANK: 1152253 Matrix: Solid  
Associated Lab Samples: 40114124001, 40114124002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	05/05/15 21:47	
Ethylbenzene	ug/kg	<12.4	50.0	05/05/15 21:47	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	05/05/15 21:47	
Toluene	ug/kg	<11.2	50.0	05/05/15 21:47	
Xylene (Total)	ug/kg	<48.4	150	05/05/15 21:47	
4-Bromofluorobenzene (S)	%	95	53-134	05/05/15 21:47	
Dibromofluoromethane (S)	%	101	49-157	05/05/15 21:47	
Toluene-d8 (S)	%	100	61-148	05/05/15 21:47	

LABORATORY CONTROL SAMPLE & LCSD: 1152254

1152255

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	2500	2810	2830	113	113	70-130	1	20	
Ethylbenzene	ug/kg	2500	2600	2640	104	106	70-130	1	20	
Methyl-tert-butyl ether	ug/kg	2500	2720	2740	109	110	70-130	1	20	
Toluene	ug/kg	2500	2570	2580	103	103	70-130	0	20	
Xylene (Total)	ug/kg	7500	7990	7990	106	107	70-130	0	20	
4-Bromofluorobenzene (S)	%				102	102	53-134			
Dibromofluoromethane (S)	%				106	106	49-157			
Toluene-d8 (S)	%				98	99	61-148			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114124

QC Batch: MSV/28339 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40114124003

METHOD BLANK: 1152857 Matrix: Solid  
Associated Lab Samples: 40114124003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	05/06/15 09:44	
Ethylbenzene	ug/kg	<12.4	50.0	05/06/15 09:44	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	05/06/15 09:44	
Toluene	ug/kg	<11.2	50.0	05/06/15 09:44	
Xylene (Total)	ug/kg	<48.4	150	05/06/15 09:44	
4-Bromofluorobenzene (S)	%	99	53-134	05/06/15 09:44	
Dibromofluoromethane (S)	%	102	49-157	05/06/15 09:44	
Toluene-d8 (S)	%	103	61-148	05/06/15 09:44	

LABORATORY CONTROL SAMPLE & LCSD: 1152858 1152859

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	2500	2950	2980	118	119	70-130	1	20	
Ethylbenzene	ug/kg	2500	2700	2830	108	113	70-130	5	20	
Methyl-tert-butyl ether	ug/kg	2500	2850	2850	114	114	70-130	0	20	
Toluene	ug/kg	2500	2630	2710	105	108	70-130	3	20	
Xylene (Total)	ug/kg	7500	8220	8490	110	113	70-130	3	20	
4-Bromofluorobenzene (S)	%				106	104	53-134			
Dibromofluoromethane (S)	%				109	108	49-157			
Toluene-d8 (S)	%				97	100	61-148			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114124

QC Batch: OEXT/26441 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40114124001, 40114124002, 40114124003

METHOD BLANK: 1152068 Matrix: Solid  
Associated Lab Samples: 40114124001, 40114124002, 40114124003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	05/05/15 12:49	
Acenaphthylene	ug/kg	<7.5	16.7	05/05/15 12:49	
Anthracene	ug/kg	<8.6	16.7	05/05/15 12:49	
Benzo(a)anthracene	ug/kg	<5.8	16.7	05/05/15 12:49	
Benzo(a)pyrene	ug/kg	<6.0	16.7	05/05/15 12:49	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	05/05/15 12:49	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	05/05/15 12:49	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	05/05/15 12:49	
Chrysene	ug/kg	<7.7	16.7	05/05/15 12:49	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	05/05/15 12:49	
Fluoranthene	ug/kg	<8.3	16.7	05/05/15 12:49	
Fluorene	ug/kg	<8.3	16.7	05/05/15 12:49	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	05/05/15 12:49	
Naphthalene	ug/kg	<8.3	16.7	05/05/15 12:49	
Phenanthrene	ug/kg	<8.3	16.7	05/05/15 12:49	
Pyrene	ug/kg	<8.3	16.7	05/05/15 12:49	
2-Fluorobiphenyl (S)	%	63	39-130	05/05/15 12:49	
Terphenyl-d14 (S)	%	80	37-130	05/05/15 12:49	

LABORATORY CONTROL SAMPLE: 1152069

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	227	68	54-130	
Acenaphthylene	ug/kg	333	222	67	55-130	
Anthracene	ug/kg	333	255	76	64-130	
Benzo(a)anthracene	ug/kg	333	215	65	50-130	
Benzo(a)pyrene	ug/kg	333	242	73	46-130	
Benzo(b)fluoranthene	ug/kg	333	219	66	43-130	
Benzo(g,h,i)perylene	ug/kg	333	214	64	48-130	
Benzo(k)fluoranthene	ug/kg	333	268	80	55-130	
Chrysene	ug/kg	333	257	77	62-130	
Dibenz(a,h)anthracene	ug/kg	333	225	67	49-130	
Fluoranthene	ug/kg	333	237	71	57-130	
Fluorene	ug/kg	333	217	65	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	222	67	50-130	
Naphthalene	ug/kg	333	201	60	48-130	
Phenanthrene	ug/kg	333	225	67	51-130	
Pyrene	ug/kg	333	229	69	55-130	
2-Fluorobiphenyl (S)	%			64	39-130	
Terphenyl-d14 (S)	%			74	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114124

Parameter	Units	40114023002		1152070		1152071		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Acenaphthene	ug/kg	<0.0083 mg/kg	333	333	226	252	68	76	46-130	11	26			
Acenaphthylene	ug/kg	<0.0075 mg/kg	333	333	236	257	71	77	49-130	9	23			
Anthracene	ug/kg	<0.0086 mg/kg	333	333	276	298	83	89	52-130	8	28			
Benzo(a)anthracene	ug/kg	<0.0058 mg/kg	333	333	210	232	62	69	34-130	10	36			
Benzo(a)pyrene	ug/kg	<0.0060 mg/kg	333	333	231	259	68	76	34-130	11	40			
Benzo(b)fluoranthene	ug/kg	<0.0083 mg/kg	333	333	211	255	62	76	22-130	19	40			
Benzo(g,h,i)perylene	ug/kg	<0.0063 mg/kg	333	333	214	240	63	71	24-130	12	35			
Benzo(k)fluoranthene	ug/kg	<0.0092 mg/kg	333	333	260	266	77	78	41-130	2	37			
Chrysene	ug/kg	<0.0077 mg/kg	333	333	254	277	75	82	49-130	9	33			
Dibenz(a,h)anthracene	ug/kg	<0.0061 mg/kg	333	333	227	254	68	76	27-130	11	31			
Fluoranthene	ug/kg	<0.0083 mg/kg	333	333	233	250	69	74	34-130	7	37			
Fluorene	ug/kg	<0.0083 mg/kg	333	333	226	246	68	74	45-130	9	25			
Indeno(1,2,3-cd)pyrene	ug/kg	<0.0063 mg/kg	333	333	224	252	66	75	30-130	12	34			
Naphthalene	ug/kg	<0.0083 mg/kg	333	333	218	230	65	69	38-130	6	30			
Phenanthrene	ug/kg	<0.0083 mg/kg	333	333	222	242	66	72	38-130	9	34			
Pyrene	ug/kg	<0.0083 mg/kg	333	333	227	247	67	73	35-130	8	35			
2-Fluorobiphenyl (S)	%						65	69	39-130					
Terphenyl-d14 (S)	%						66	71	37-130					

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114124

---

QC Batch:	PMST/11151	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40114124001		

---

SAMPLE DUPLICATE: 1154281

Parameter	Units	40114112003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.2	17.5	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114124

---

QC Batch:	PMST/11152	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40114124002, 40114124003		

---

SAMPLE DUPLICATE: 1154307

Parameter	Units	40114124003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	13.3	13.0	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114124

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSV/28320

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/28346

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

S1 Surrogate recovery outside laboratory control limits (confirmed by re-analysis).

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114124

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40114124001	B-15 (15.5)	EPA 3546	OEXT/26441	EPA 8270 by SIM	MSSV/7852
40114124002	B-16 (17.5)	EPA 3546	OEXT/26441	EPA 8270 by SIM	MSSV/7852
40114124003	B-17 (15.5)	EPA 3546	OEXT/26441	EPA 8270 by SIM	MSSV/7852
40114124001	B-15 (15.5)	EPA 5035/5030B	MSV/28319	EPA 8260	MSV/28320
40114124002	B-16 (17.5)	EPA 5035/5030B	MSV/28319	EPA 8260	MSV/28320
40114124003	B-17 (15.5)	EPA 5035/5030B	MSV/28339	EPA 8260	MSV/28346
40114124001	B-15 (15.5)	ASTM D2974-87	PMST/11151		
40114124002	B-16 (17.5)	ASTM D2974-87	PMST/11152		
40114124003	B-17 (15.5)	ASTM D2974-87	PMST/11152		

**REPORT OF LABORATORY ANALYSIS**

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Project #:

WO#: 40114124



40114124

Client Name: tricare

Courier:  Fed Ex  UPS  Client  Pace Other: SC LOGISTIC

Tracking #:

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used DR-62 Type of Ice:  Wet  Blue Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 5 / Corr: 5.5 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Person examining contents:

Date: 3-2-15

Initials: MM

Temp should be above freezing to 6°C for all sample except Biota.

Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>Sh</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

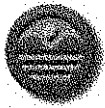
if checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: UW

Date: 5/4/15



# Illinois Environmental Protection Agency

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

## Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

### B. Sample Collector

I certify that:

1. Appropriate sampling equipment/methods were utilized to obtain representative samples.
2. Chain-of-custody procedures were followed in the field.
3. Sample integrity was maintained by proper preservation.
4. All samples were properly labeled.

NR  
(Initial)  
NR  
(Initial)  
NR  
(Initial)  
NR  
(Initial)

### C. Laboratory Representative

I certify that:

1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms
2. Sample integrity was maintained by proper preservation.
3. All samples were properly labeled.
4. Quality assurance/quality control procedures were established and carried out.
5. Sample holding times were not exceeded.

UW  
(Initial)  
UW  
(Initial)  
UW  
(Initial)  
UW  
(Initial)  
UW  
(Initial)



6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.

Uw  
(Initial)

7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

Uw  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcel J. Coats  
Title Geologist III  
Company TriCore Environmental, LLC  
Address 2368 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone (630) 520-9973  
Signature *Marcel J. Coats*  
Date 05/01/15

**Laboratory Representative**

Name Laurie Woelfel  
Title Project Manager  
Company Pace Analytical Services, Inc.  
Address 1241 Bellevue Street, Suite 9  
City Green Bay  
State Wisconsin  
Zip Code 64302  
Phone (920) 469-2436  
Signature *Laurie Woelfel*  
Date 5/11/15

May 08, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

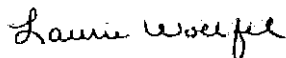
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114174

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on May 05, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114174

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114174

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40114174001	EX-9 (4-5)	Solid	05/04/15 09:00	05/05/15 10:10
40114174002	B-18 (15.5)	Solid	05/04/15 10:00	05/05/15 10:10
40114174003	B-19 (15.5)	Solid	05/04/15 10:05	05/05/15 10:10
40114174004	B-20 (14)	Solid	05/04/15 12:00	05/05/15 10:10

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114174

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40114174001	EX-9 (4-5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40114174002	B-18 (15.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40114174003	B-19 (15.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40114174004	B-20 (14)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
 Pace Project No.: 40114174

Sample: EX-9 (4-5) Lab ID: 40114174001 Collected: 05/04/15 09:00 Received: 05/05/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<86.5	ug/kg	173	86.5	8	05/06/15 09:12	05/08/15 04:14	83-32-9	
Acenaphthylene	<77.4	ug/kg	173	77.4	8	05/06/15 09:12	05/08/15 04:14	208-96-8	
Anthracene	<89.7	ug/kg	173	89.7	8	05/06/15 09:12	05/08/15 04:14	120-12-7	
Benzo(a)anthracene	<60.0	ug/kg	173	60.0	8	05/06/15 09:12	05/08/15 04:14	56-55-3	
Benzo(a)pyrene	<61.9	ug/kg	173	61.9	8	05/06/15 09:12	05/08/15 04:14	50-32-8	
Benzo(b)fluoranthene	108J	ug/kg	173	86.5	8	05/06/15 09:12	05/08/15 04:14	205-99-2	
Benzo(g,h,i)perylene	<65.9	ug/kg	173	65.9	8	05/06/15 09:12	05/08/15 04:14	191-24-2	
Benzo(k)fluoranthene	<95.7	ug/kg	173	95.7	8	05/06/15 09:12	05/08/15 04:14	207-08-9	
Chrysene	<80.0	ug/kg	173	80.0	8	05/06/15 09:12	05/08/15 04:14	218-01-9	
Dibenz(a,h)anthracene	<63.5	ug/kg	173	63.5	8	05/06/15 09:12	05/08/15 04:14	53-70-3	
Fluoranthene	<86.5	ug/kg	173	86.5	8	05/06/15 09:12	05/08/15 04:14	206-44-0	
Fluorene	<86.5	ug/kg	173	86.5	8	05/06/15 09:12	05/08/15 04:14	86-73-7	L2
Indeno(1,2,3-cd)pyrene	<65.7	ug/kg	173	65.7	8	05/06/15 09:12	05/08/15 04:14	193-39-5	
Naphthalene	1970	ug/kg	173	86.5	8	05/06/15 09:12	05/08/15 04:14	91-20-3	
Phenanthrene	<86.5	ug/kg	173	86.5	8	05/06/15 09:12	05/08/15 04:14	85-01-8	
Pyrene	<86.5	ug/kg	173	86.5	8	05/06/15 09:12	05/08/15 04:14	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	63	%	39-130		8	05/06/15 09:12	05/08/15 04:14	321-60-8	
Terphenyl-d14 (S)	55	%	37-130		8	05/06/15 09:12	05/08/15 04:14	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	263	ug/kg	51.9	23.9	2	05/07/15 07:24	05/07/15 18:20	71-43-2	
Ethylbenzene	4790	ug/kg	130	32.2	2	05/07/15 07:24	05/07/15 18:20	100-41-4	
Methyl-tert-butyl ether	<32.8	ug/kg	130	32.8	2	05/07/15 07:24	05/07/15 18:20	1634-04-4	
Toluene	50.8J	ug/kg	130	29.1	2	05/07/15 07:24	05/07/15 18:20	108-88-3	
Xylene (Total)	619	ug/kg	389	126	2	05/07/15 07:24	05/07/15 18:20	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	67	%	49-157		2	05/07/15 07:24	05/07/15 18:20	1868-53-7	D3
4-Bromofluorobenzene (S)	83	%	53-134		2	05/07/15 07:24	05/07/15 18:20	460-00-4	
Toluene-d8 (S)	80	%	61-148		2	05/07/15 07:24	05/07/15 18:20	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	22.9	%	0.10	0.10	1		05/06/15 15:48		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114174

Sample: B-18 (15.5) Lab ID: 40114174002 Collected: 05/04/15 10:00 Received: 05/05/15 10:10 Matrix: Solid  
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.8	ug/kg	19.5	9.8	1	05/06/15 09:12	05/06/15 16:38	83-32-9	
Acenaphthylene	<8.7	ug/kg	19.5	8.7	1	05/06/15 09:12	05/06/15 16:38	208-96-8	
Anthracene	<10.1	ug/kg	19.5	10.1	1	05/06/15 09:12	05/06/15 16:38	120-12-7	
Benzo(a)anthracene	<6.8	ug/kg	19.5	6.8	1	05/06/15 09:12	05/06/15 16:38	56-55-3	
Benzo(a)pyrene	<7.0	ug/kg	19.5	7.0	1	05/06/15 09:12	05/06/15 16:38	50-32-8	
Benzo(b)fluoranthene	<9.8	ug/kg	19.5	9.8	1	05/06/15 09:12	05/06/15 16:38	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.5	7.4	1	05/06/15 09:12	05/06/15 16:38	191-24-2	
Benzo(k)fluoranthene	<10.8	ug/kg	19.5	10.8	1	05/06/15 09:12	05/06/15 16:38	207-08-9	
Chrysene	<9.0	ug/kg	19.5	9.0	1	05/06/15 09:12	05/06/15 16:38	218-01-9	
Dibenz(a,h)anthracene	<7.2	ug/kg	19.5	7.2	1	05/06/15 09:12	05/06/15 16:38	53-70-3	
Fluoranthene	<9.8	ug/kg	19.5	9.8	1	05/06/15 09:12	05/06/15 16:38	206-44-0	
Fluorene	<9.8	ug/kg	19.5	9.8	1	05/06/15 09:12	05/06/15 16:38	86-73-7	L2
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.5	7.4	1	05/06/15 09:12	05/06/15 16:38	193-39-5	
Naphthalene	<9.8	ug/kg	19.5	9.8	1	05/06/15 09:12	05/06/15 16:38	91-20-3	
Phenanthrene	<9.8	ug/kg	19.5	9.8	1	05/06/15 09:12	05/06/15 16:38	85-01-8	
Pyrene	<9.8	ug/kg	19.5	9.8	1	05/06/15 09:12	05/06/15 16:38	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	56	%	39-130		1	05/06/15 09:12	05/06/15 16:38	321-60-8	
Terphenyl-d14 (S)	59	%	37-130		1	05/06/15 09:12	05/06/15 16:38	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.8	ug/kg	23.4	10.8	1	05/07/15 07:24	05/08/15 09:40	71-43-2	
Ethylbenzene	<14.6	ug/kg	58.6	14.6	1	05/07/15 07:24	05/08/15 09:40	100-41-4	
Methyl-tert-butyl ether	137	ug/kg	58.6	14.8	1	05/07/15 07:24	05/08/15 09:40	1634-04-4	
Toluene	<13.1	ug/kg	58.6	13.1	1	05/07/15 07:24	05/08/15 09:40	108-88-3	
Xylene (Total)	<56.7	ug/kg	176	56.7	1	05/07/15 07:24	05/08/15 09:40	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	94	%	49-157		1	05/07/15 07:24	05/08/15 09:40	1868-53-7	
4-Bromofluorobenzene (S)	96	%	53-134		1	05/07/15 07:24	05/08/15 09:40	460-00-4	
Toluene-d8 (S)	104	%	61-148		1	05/07/15 07:24	05/08/15 09:40	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.6	%	0.10	0.10	1		05/06/15 15:48		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114174

Sample: B-19 (15.5) Lab ID: 40114174003 Collected: 05/04/15 10:05 Received: 05/05/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.7	ug/kg	19.4	9.7	1	05/06/15 09:12	05/06/15 17:02	83-32-9	
Acenaphthylene	<8.7	ug/kg	19.4	8.7	1	05/06/15 09:12	05/06/15 17:02	208-96-8	
Anthracene	<10.1	ug/kg	19.4	10.1	1	05/06/15 09:12	05/06/15 17:02	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.4	6.7	1	05/06/15 09:12	05/06/15 17:02	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.4	6.9	1	05/06/15 09:12	05/06/15 17:02	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.4	9.7	1	05/06/15 09:12	05/06/15 17:02	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.4	7.4	1	05/06/15 09:12	05/06/15 17:02	191-24-2	
Benzo(k)fluoranthene	<10.8	ug/kg	19.4	10.8	1	05/06/15 09:12	05/06/15 17:02	207-08-9	
Chrysene	<9.0	ug/kg	19.4	9.0	1	05/06/15 09:12	05/06/15 17:02	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.4	7.1	1	05/06/15 09:12	05/06/15 17:02	53-70-3	
Fluoranthene	<9.7	ug/kg	19.4	9.7	1	05/06/15 09:12	05/06/15 17:02	206-44-0	
Fluorene	<9.7	ug/kg	19.4	9.7	1	05/06/15 09:12	05/06/15 17:02	86-73-7	L2
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.4	7.4	1	05/06/15 09:12	05/06/15 17:02	193-39-5	
Naphthalene	<9.7	ug/kg	19.4	9.7	1	05/06/15 09:12	05/06/15 17:02	91-20-3	
Phenanthrene	<9.7	ug/kg	19.4	9.7	1	05/06/15 09:12	05/06/15 17:02	85-01-8	
Pyrene	<9.7	ug/kg	19.4	9.7	1	05/06/15 09:12	05/06/15 17:02	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	55	%	39-130		1	05/06/15 09:12	05/06/15 17:02	321-60-8	
Terphenyl-d14 (S)	59	%	37-130		1	05/06/15 09:12	05/06/15 17:02	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.8	ug/kg	23.3	10.8	1	05/07/15 07:24	05/08/15 10:03	71-43-2	
Ethylbenzene	<14.5	ug/kg	58.3	14.5	1	05/07/15 07:24	05/08/15 10:03	100-41-4	
Methyl-tert-butyl ether	<14.8	ug/kg	58.3	14.8	1	05/07/15 07:24	05/08/15 10:03	1634-04-4	
Toluene	<13.1	ug/kg	58.3	13.1	1	05/07/15 07:24	05/08/15 10:03	108-88-3	
Xylene (Total)	<56.5	ug/kg	175	56.5	1	05/07/15 07:24	05/08/15 10:03	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	91	%	49-157		1	05/07/15 07:24	05/08/15 10:03	1868-53-7	
4-Bromofluorobenzene (S)	93	%	53-134		1	05/07/15 07:24	05/08/15 10:03	460-00-4	
Toluene-d8 (S)	103	%	61-148		1	05/07/15 07:24	05/08/15 10:03	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	14.2	%	0.10	0.10	1		05/06/15 15:48		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114174

Sample: B-20 (14) Lab ID: 40114174004 Collected: 05/04/15 12:00 Received: 05/05/15 10:10 Matrix: Solid  
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.6	ug/kg	19.1	9.6	1	05/06/15 09:12	05/06/15 17:19	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.1	8.6	1	05/06/15 09:12	05/06/15 17:19	208-96-8	
Anthracene	<9.9	ug/kg	19.1	9.9	1	05/06/15 09:12	05/06/15 17:19	120-12-7	
Benzo(a)anthracene	<6.6	ug/kg	19.1	6.6	1	05/06/15 09:12	05/06/15 17:19	56-55-3	
Benzo(a)pyrene	<6.8	ug/kg	19.1	6.8	1	05/06/15 09:12	05/06/15 17:19	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.1	9.6	1	05/06/15 09:12	05/06/15 17:19	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.1	7.3	1	05/06/15 09:12	05/06/15 17:19	191-24-2	
Benzo(k)fluoranthene	<10.6	ug/kg	19.1	10.6	1	05/06/15 09:12	05/06/15 17:19	207-08-9	
Chrysene	<8.9	ug/kg	19.1	8.9	1	05/06/15 09:12	05/06/15 17:19	218-01-9	
Dibenz(a,h)anthracene	<7.0	ug/kg	19.1	7.0	1	05/06/15 09:12	05/06/15 17:19	53-70-3	
Fluoranthene	<9.6	ug/kg	19.1	9.6	1	05/06/15 09:12	05/06/15 17:19	206-44-0	
Fluorene	<9.6	ug/kg	19.1	9.6	1	05/06/15 09:12	05/06/15 17:19	86-73-7	L2
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.1	7.3	1	05/06/15 09:12	05/06/15 17:19	193-39-5	
Naphthalene	<9.6	ug/kg	19.1	9.6	1	05/06/15 09:12	05/06/15 17:19	91-20-3	
Phenanthrene	<9.6	ug/kg	19.1	9.6	1	05/06/15 09:12	05/06/15 17:19	85-01-8	
Pyrene	<9.6	ug/kg	19.1	9.6	1	05/06/15 09:12	05/06/15 17:19	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	52	%	39-130		1	05/06/15 09:12	05/06/15 17:19	321-60-8	
Terphenyl-d14 (S)	54	%	37-130		1	05/06/15 09:12	05/06/15 17:19	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	187	ug/kg	23.0	10.6	1	05/07/15 07:24	05/07/15 17:57	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.4	14.3	1	05/07/15 07:24	05/07/15 17:57	100-41-4	
Methyl-tert-butyl ether	328	ug/kg	57.4	14.5	1	05/07/15 07:24	05/07/15 17:57	1634-04-4	
Toluene	<12.9	ug/kg	57.4	12.9	1	05/07/15 07:24	05/07/15 17:57	108-88-3	
Xylene (Total)	<55.6	ug/kg	172	55.6	1	05/07/15 07:24	05/07/15 17:57	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	102	%	49-157		1	05/07/15 07:24	05/07/15 17:57	1868-53-7	
4-Bromofluorobenzene (S)	100	%	53-134		1	05/07/15 07:24	05/07/15 17:57	460-00-4	
Toluene-d8 (S)	113	%	61-148		1	05/07/15 07:24	05/07/15 17:57	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	12.9	%	0.10	0.10	1		05/06/15 15:48		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114174

QC Batch: MSV/28354 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40114174001, 40114174002, 40114174003, 40114174004

METHOD BLANK: 1153423 Matrix: Solid  
Associated Lab Samples: 40114174001, 40114174002, 40114174003, 40114174004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	05/07/15 09:17	
Ethylbenzene	ug/kg	<12.4	50.0	05/07/15 09:17	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	05/07/15 09:17	
Toluene	ug/kg	<11.2	50.0	05/07/15 09:17	
Xylene (Total)	ug/kg	<48.4	150	05/07/15 09:17	
4-Bromofluorobenzene (S)	%	98	53-134	05/07/15 09:17	
Dibromofluoromethane (S)	%	98	49-157	05/07/15 09:17	
Toluene-d8 (S)	%	111	61-148	05/07/15 09:17	

LABORATORY CONTROL SAMPLE & LCSD: 1153424

Parameter	Units	Spike Conc.	1153425		LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
			LCS Result	LCSD Result						
Benzene	ug/kg	2500	2420	2540	97	102	70-130	5	20	
Ethylbenzene	ug/kg	2500	2660	2760	106	111	70-130	4	20	
Methyl-tert-butyl ether	ug/kg	2500	2630	2700	105	108	70-130	3	20	
Toluene	ug/kg	2500	2700	2770	108	111	70-130	2	20	
Xylene (Total)	ug/kg	7500	7630	7800	102	104	70-130	2	20	
4-Bromofluorobenzene (S)	%				104	105	53-134			
Dibromofluoromethane (S)	%				102	106	49-157			
Toluene-d8 (S)	%				112	115	61-148			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114174

QC Batch: OEXT/26450 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40114174001, 40114174002, 40114174003, 40114174004

METHOD BLANK: 1152769 Matrix: Solid  
Associated Lab Samples: 40114174001, 40114174002, 40114174003, 40114174004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	05/06/15 14:02	
Acenaphthylene	ug/kg	<7.5	16.7	05/06/15 14:02	
Anthracene	ug/kg	<8.6	16.7	05/06/15 14:02	
Benzo(a)anthracene	ug/kg	<5.8	16.7	05/06/15 14:02	
Benzo(a)pyrene	ug/kg	<6.0	16.7	05/06/15 14:02	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	05/06/15 14:02	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	05/06/15 14:02	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	05/06/15 14:02	
Chrysene	ug/kg	<7.7	16.7	05/06/15 14:02	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	05/06/15 14:02	
Fluoranthene	ug/kg	<8.3	16.7	05/06/15 14:02	
Fluorene	ug/kg	<8.3	16.7	05/06/15 14:02	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	05/06/15 14:02	
Naphthalene	ug/kg	<8.3	16.7	05/06/15 14:02	
Phenanthrene	ug/kg	<8.3	16.7	05/06/15 14:02	
Pyrene	ug/kg	<8.3	16.7	05/06/15 14:02	
2-Fluorobiphenyl (S)	%	58	39-130	05/06/15 14:02	
Terphenyl-d14 (S)	%	68	37-130	05/06/15 14:02	

LABORATORY CONTROL SAMPLE: 1152770

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	230	69	54-130	
Acenaphthylene	ug/kg	333	228	68	55-130	
Anthracene	ug/kg	333	247	74	64-130	
Benzo(a)anthracene	ug/kg	333	204	61	50-130	
Benzo(a)pyrene	ug/kg	333	230	69	46-130	
Benzo(b)fluoranthene	ug/kg	333	184	55	43-130	
Benzo(g,h,i)perylene	ug/kg	333	234	70	48-130	
Benzo(k)fluoranthene	ug/kg	333	287	86	55-130	
Chrysene	ug/kg	333	261	78	62-130	
Dibenz(a,h)anthracene	ug/kg	333	233	70	49-130	
Fluoranthene	ug/kg	333	231	69	57-130	
Fluorene	ug/kg	333	181	54	57-130 L0	
Indeno(1,2,3-cd)pyrene	ug/kg	333	235	70	50-130	
Naphthalene	ug/kg	333	208	62	48-130	
Phenanthrene	ug/kg	333	207	62	51-130	
Pyrene	ug/kg	333	220	66	55-130	
2-Fluorobiphenyl (S)	%			65	39-130	
Terphenyl-d14 (S)	%			67	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114174

Parameter	Units	1152771		1152772		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40114023006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Acenaphthene	ug/kg	<0.0083 mg/kg	333	333	225	212	68	64	46-130	6	26		
Acenaphthylene	ug/kg	<0.0075 mg/kg	333	333	227	205	68	62	49-130	10	23		
Anthracene	ug/kg	<0.0086 mg/kg	333	333	244	252	73	75	52-130	3	28		
Benzo(a)anthracene	ug/kg	<0.0058 mg/kg	333	333	204	186	61	56	34-130	9	36		
Benzo(a)pyrene	ug/kg	<0.0060 mg/kg	333	333	225	208	68	62	34-130	8	40		
Benzo(b)fluoranthene	ug/kg	<0.0083 mg/kg	333	333	201	179	60	54	22-130	11	40		
Benzo(g,h,i)perylene	ug/kg	<0.0063 mg/kg	333	333	221	204	66	61	24-130	8	35		
Benzo(k)fluoranthene	ug/kg	<0.0092 mg/kg	333	333	257	245	77	73	41-130	5	37		
Chrysene	ug/kg	<0.0077 mg/kg	333	333	253	232	76	70	49-130	8	33		
Dibenz(a,h)anthracene	ug/kg	<0.0061 mg/kg	333	333	224	209	67	63	27-130	7	31		
Fluoranthene	ug/kg	<0.0083 mg/kg	333	333	227	210	68	63	34-130	8	37		
Fluorene	ug/kg	<0.0083 mg/kg	333	333	185	160	55	48	45-130	14	25		
Indeno(1,2,3-cd)pyrene	ug/kg	<0.0063 mg/kg	333	333	222	207	67	62	30-130	7	34		
Naphthalene	ug/kg	<0.0083 mg/kg	333	333	212	192	64	58	38-130	10	30		
Phenanthrene	ug/kg	<0.0083 mg/kg	333	333	208	195	62	59	38-130	6	34		
Pyrene	ug/kg	<0.0083 mg/kg	333	333	220	199	66	60	35-130	10	35		
2-Fluorobiphenyl (S)	%						65	53	39-130				
Terphenyl-d14 (S)	%						67	55	37-130				

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114174

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSSV/7857

[IP] Benzo(b)fluoranthene and benzo(k)fluoranthene were in the check standard but did not meet the resolution criteria in SW846 Method 8270C. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.

Batch: MSV/28362

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.  
L0 Analyte recovery in the laboratory control sample (LCS) was outside QC limits.  
L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114174

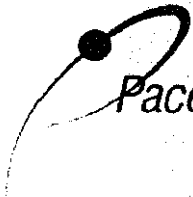
Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40114174001	EX-9 (4-5)	EPA 3546	OEXT/26450	EPA 8270 by SIM	MSSV/7857
40114174002	B-18 (15.5)	EPA 3546	OEXT/26450	EPA 8270 by SIM	MSSV/7857
40114174003	B-19 (15.5)	EPA 3546	OEXT/26450	EPA 8270 by SIM	MSSV/7857
40114174004	B-20 (14)	EPA 3546	OEXT/26450	EPA 8270 by SIM	MSSV/7857
40114174001	EX-9 (4-5)	EPA 5035/5030B	MSV/28354	EPA 8260	MSV/28362
40114174002	B-18 (15.5)	EPA 5035/5030B	MSV/28354	EPA 8260	MSV/28362
40114174003	B-19 (15.5)	EPA 5035/5030B	MSV/28354	EPA 8260	MSV/28362
40114174004	B-20 (14)	EPA 5035/5030B	MSV/28354	EPA 8260	MSV/28362
40114174001	EX-9 (4-5)	ASTM D2974-87	PMST/11141		
40114174002	B-18 (15.5)	ASTM D2974-87	PMST/11141		
40114174003	B-19 (15.5)	ASTM D2974-87	PMST/11141		
40114174004	B-20 (14)	ASTM D2974-87	PMST/11141		

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Pace Analytical Services, Inc.  
1241 Bellevue Street, Suite  
Green Bay, WI 54301

**Sample Condition Upon Receipt**

Client Name: Tri Core Project # 40114174

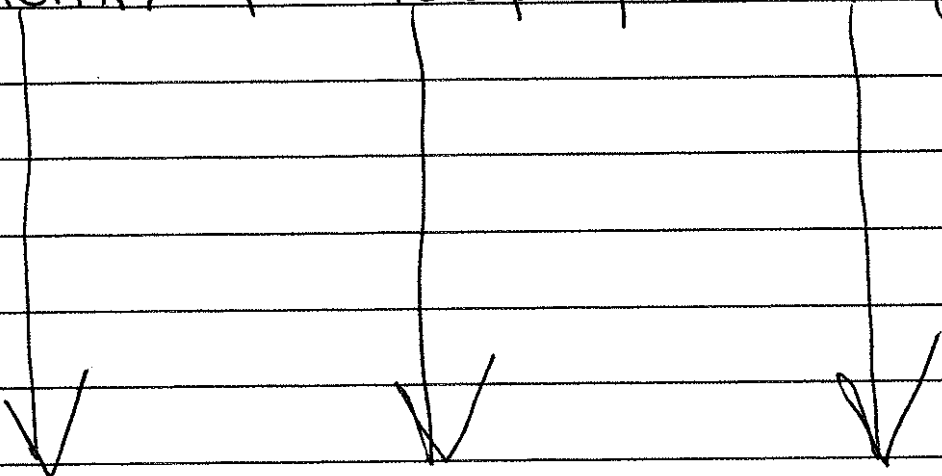
Additional Comments/Resolution: \_\_\_\_\_

001 - 2-40mly<sup>F</sup>, 1-40zP<sup>A</sup>, 1-40zag<sup>A</sup>

002 -

003 -

004 -



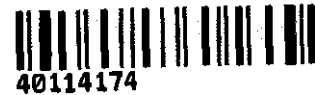
Project Manager Review: \_\_\_\_\_

Date: mm. max 5, 15



Client Name: Tricore

Project #: **WO#: 40114174**



Courier:  Fed Ex  UPS  Client  Pace Other: CS Logistic

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no    Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no    Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR-62    Type of Ice:  Wet  Blue Dry  None     Samples on ice, cooling process has begun

Cooler Temperature    Uncorr: 5    ICorr: 5.5    Biological Tissue Is Frozen:  yes  no

Temp Blank Present:  yes  no     no

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:  
Date: 5-5-15  
Initials: mm

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis    Matrix: <u>S</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics,    OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: llw    Date: 5/5/15



Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

**Leaking Underground Storage Tank Program  
 Laboratory Certification for Chemical Analysis**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010  
 Site Name: Lemont Kar Gas  
 Site Address (Not a P.O. Box): 1196 State Street  
 City: Lemont County: Cook ZIP Code: 60439  
 Leaking UST Technical File

**B. Sample Collector**

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. NJR  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. NJR  
(Initial)
- 3. Sample integrity was maintained by proper preservation. NJR  
(Initial)
- 4. All samples were properly labeled. NJR  
(Initial)

**C. Laboratory Representative**

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms Uw  
(Initial)
- 2. Sample integrity was maintained by proper preservation. Uw  
(Initial)
- 3. All samples were properly labeled. Uw  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. Uw  
(Initial)
- 5. Sample holding times were not exceeded. Uw  
(Initial)

6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.

UW  
(Initial)

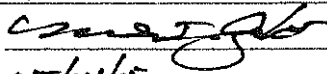
7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

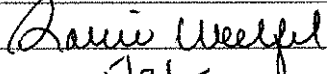
**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcus I. Coats  
Title ~~Project~~ Sr. PM  
Company TriCore Environmental, LLC  
Address 2368 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone (630) 520-9973  
Signature   
Date 05/04/15

**Laboratory Representative**

Name Laurie Woelfel  
Title Project Manager  
Company Pace Analytical Services, Inc.  
Address 1241 Bellevue Street, Suite 9  
City Green Bay  
State Wisconsin  
Zip Code 64302  
Phone (920) 469-2436  
Signature   
Date 5/8/15

May 14, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

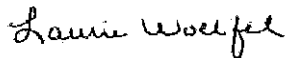
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114321

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on May 07, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114321

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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## REPORT OF LABORATORY ANALYSIS

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**SAMPLE SUMMARY**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114321

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<b>Lab ID</b>	<b>Sample ID</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Date Received</b>
40114321001	EX-10(8-9)	Solid	05/06/15 12:36	05/07/15 09:10
40114321002	B-21(15.5)	Solid	05/06/15 12:25	05/07/15 09:10

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114321

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40114321001	EX-10(8-9)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	RMS	1	PASI-G
40114321002	B-21(15.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	RMS	1	PASI-G

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114321

Sample: EX-10(8-9) Lab ID: 40114321001 Collected: 05/06/15 12:36 Received: 05/07/15 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.5	ug/kg	19.1	9.5	1	05/08/15 09:41	05/08/15 16:40	83-32-9	
Acenaphthylene	<8.5	ug/kg	19.1	8.5	1	05/08/15 09:41	05/08/15 16:40	208-96-8	
Anthracene	<9.9	ug/kg	19.1	9.9	1	05/08/15 09:41	05/08/15 16:40	120-12-7	
Benzo(a)anthracene	<6.6	ug/kg	19.1	6.6	1	05/08/15 09:41	05/08/15 16:40	56-55-3	
Benzo(a)pyrene	<6.8	ug/kg	19.1	6.8	1	05/08/15 09:41	05/08/15 16:40	50-32-8	
Benzo(b)fluoranthene	16.9J	ug/kg	19.1	9.5	1	05/08/15 09:41	05/08/15 16:40	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.1	7.3	1	05/08/15 09:41	05/08/15 16:40	191-24-2	
Benzo(k)fluoranthene	<10.6	ug/kg	19.1	10.6	1	05/08/15 09:41	05/08/15 16:40	207-08-9	
Chrysene	<8.8	ug/kg	19.1	8.8	1	05/08/15 09:41	05/08/15 16:40	218-01-9	
Dibenz(a,h)anthracene	<7.0	ug/kg	19.1	7.0	1	05/08/15 09:41	05/08/15 16:40	53-70-3	
Fluoranthene	10.4J	ug/kg	19.1	9.5	1	05/08/15 09:41	05/08/15 16:40	206-44-0	
Fluorene	<9.5	ug/kg	19.1	9.5	1	05/08/15 09:41	05/08/15 16:40	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.1	7.3	1	05/08/15 09:41	05/08/15 16:40	193-39-5	
Naphthalene	75.3	ug/kg	19.1	9.5	1	05/08/15 09:41	05/08/15 16:40	91-20-3	
Phenanthrene	<9.5	ug/kg	19.1	9.5	1	05/08/15 09:41	05/08/15 16:40	85-01-8	
Pyrene	<9.5	ug/kg	19.1	9.5	1	05/08/15 09:41	05/08/15 16:40	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	70	%	39-130		1	05/08/15 09:41	05/08/15 16:40	321-60-8	
Terphenyl-d14 (S)	69	%	37-130		1	05/08/15 09:41	05/08/15 16:40	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	2310	ug/kg	45.8	21.1	2	05/08/15 06:50	05/08/15 16:49	71-43-2	
Ethylbenzene	1400	ug/kg	115	28.5	2	05/08/15 06:50	05/08/15 16:49	100-41-4	
Methyl-tert-butyl ether	<29.0	ug/kg	115	29.0	2	05/08/15 06:50	05/08/15 16:49	1634-04-4	
Toluene	130	ug/kg	115	25.7	2	05/08/15 06:50	05/08/15 16:49	108-88-3	
Xylene (Total)	636	ug/kg	344	111	2	05/08/15 06:50	05/08/15 16:49	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	87	%	49-157		2	05/08/15 06:50	05/08/15 16:49	1868-53-7	D3
4-Bromofluorobenzene (S)	99	%	53-134		2	05/08/15 06:50	05/08/15 16:49	460-00-4	
Toluene-d8 (S)	108	%	61-148		2	05/08/15 06:50	05/08/15 16:49	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	12.7	%	0.10	0.10	1		05/13/15 14:59		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
 Pace Project No.: 40114321

Sample: B-21(15.5) Lab ID: 40114321002 Collected: 05/06/15 12:25 Received: 05/07/15 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<10.0	ug/kg	20.0	10.0	1	05/08/15 09:41	05/08/15 16:58	83-32-9	
Acenaphthylene	<9.0	ug/kg	20.0	9.0	1	05/08/15 09:41	05/08/15 16:58	208-96-8	
Anthracene	<10.4	ug/kg	20.0	10.4	1	05/08/15 09:41	05/08/15 16:58	120-12-7	
Benzo(a)anthracene	<6.9	ug/kg	20.0	6.9	1	05/08/15 09:41	05/08/15 16:58	56-55-3	
Benzo(a)pyrene	<7.2	ug/kg	20.0	7.2	1	05/08/15 09:41	05/08/15 16:58	50-32-8	
Benzo(b)fluoranthene	13.0J	ug/kg	20.0	10.0	1	05/08/15 09:41	05/08/15 16:58	205-99-2	
Benzo(g,h,i)perylene	<7.6	ug/kg	20.0	7.6	1	05/08/15 09:41	05/08/15 16:58	191-24-2	
Benzo(k)fluoranthene	<11.1	ug/kg	20.0	11.1	1	05/08/15 09:41	05/08/15 16:58	207-08-9	
Chrysene	<9.3	ug/kg	20.0	9.3	1	05/08/15 09:41	05/08/15 16:58	218-01-9	
Dibenz(a,h)anthracene	<7.3	ug/kg	20.0	7.3	1	05/08/15 09:41	05/08/15 16:58	53-70-3	
Fluoranthene	<10.0	ug/kg	20.0	10.0	1	05/08/15 09:41	05/08/15 16:58	206-44-0	
Fluorene	<10.0	ug/kg	20.0	10.0	1	05/08/15 09:41	05/08/15 16:58	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.6	ug/kg	20.0	7.6	1	05/08/15 09:41	05/08/15 16:58	193-39-5	
Naphthalene	<10.0	ug/kg	20.0	10.0	1	05/08/15 09:41	05/08/15 16:58	91-20-3	
Phenanthrene	<10.0	ug/kg	20.0	10.0	1	05/08/15 09:41	05/08/15 16:58	85-01-8	
Pyrene	<10.0	ug/kg	20.0	10.0	1	05/08/15 09:41	05/08/15 16:58	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	61	%	39-130		1	05/08/15 09:41	05/08/15 16:58	321-60-8	
Terphenyl-d14 (S)	57	%	37-130		1	05/08/15 09:41	05/08/15 16:58	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<11.1	ug/kg	24.0	11.1	1	05/08/15 06:50	05/08/15 11:11	71-43-2	
Ethylbenzene	17.5J	ug/kg	60.1	14.9	1	05/08/15 06:50	05/08/15 11:11	100-41-4	
Methyl-tert-butyl ether	<15.2	ug/kg	60.1	15.2	1	05/08/15 06:50	05/08/15 11:11	1634-04-4	
Toluene	<13.5	ug/kg	60.1	13.5	1	05/08/15 06:50	05/08/15 11:11	108-88-3	
Xylene (Total)	<58.2	ug/kg	180	58.2	1	05/08/15 06:50	05/08/15 11:11	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	95	%	49-157		1	05/08/15 06:50	05/08/15 11:11	1868-53-7	
4-Bromofluorobenzene (S)	93	%	53-134		1	05/08/15 06:50	05/08/15 11:11	460-00-4	
Toluene-d8 (S)	103	%	61-148		1	05/08/15 06:50	05/08/15 11:11	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	16.8	%	0.10	0.10	1		05/13/15 14:59		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114321

QC Batch: MSV/28376 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40114321001, 40114321002

METHOD BLANK: 1154297 Matrix: Solid  
Associated Lab Samples: 40114321001, 40114321002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	05/08/15 09:17	
Ethylbenzene	ug/kg	<12.4	50.0	05/08/15 09:17	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	05/08/15 09:17	
Toluene	ug/kg	<11.2	50.0	05/08/15 09:17	
Xylene (Total)	ug/kg	<48.4	150	05/08/15 09:17	
4-Bromofluorobenzene (S)	%	100	53-134	05/08/15 09:17	
Dibromofluoromethane (S)	%	103	49-157	05/08/15 09:17	
Toluene-d8 (S)	%	110	61-148	05/08/15 09:17	

LABORATORY CONTROL SAMPLE & LCSD: 1154298 1154299

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	2500	2430	2540	97	102	70-130	4	20	
Ethylbenzene	ug/kg	2500	2510	2690	101	108	70-130	7	20	
Methyl-tert-butyl ether	ug/kg	2500	2570	2720	103	109	70-130	6	20	
Toluene	ug/kg	2500	2570	2670	103	107	70-130	4	20	
Xylene (Total)	ug/kg	7500	7100	7740	95	103	70-130	9	20	
4-Bromofluorobenzene (S)	%				97	102	53-134			
Dibromofluoromethane (S)	%				99	103	49-157			
Toluene-d8 (S)	%				104	110	61-148			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114321

QC Batch: OEXT/26471 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40114321001, 40114321002

METHOD BLANK: 1154368 Matrix: Solid  
Associated Lab Samples: 40114321001, 40114321002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	05/08/15 13:12	
Acenaphthylene	ug/kg	<7.5	16.7	05/08/15 13:12	
Anthracene	ug/kg	<8.6	16.7	05/08/15 13:12	
Benzo(a)anthracene	ug/kg	<5.8	16.7	05/08/15 13:12	
Benzo(a)pyrene	ug/kg	<6.0	16.7	05/08/15 13:12	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	05/08/15 13:12	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	05/08/15 13:12	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	05/08/15 13:12	
Chrysene	ug/kg	<7.7	16.7	05/08/15 13:12	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	05/08/15 13:12	
Fluoranthene	ug/kg	<8.3	16.7	05/08/15 13:12	
Fluorene	ug/kg	<8.3	16.7	05/08/15 13:12	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	05/08/15 13:12	
Naphthalene	ug/kg	<8.3	16.7	05/08/15 13:12	
Phenanthrene	ug/kg	<8.3	16.7	05/08/15 13:12	
Pyrene	ug/kg	<8.3	16.7	05/08/15 13:12	
2-Fluorobiphenyl (S)	%	75	39-130	05/08/15 13:12	
Terphenyl-d14 (S)	%	83	37-130	05/08/15 13:12	

LABORATORY CONTROL SAMPLE: 1154369

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	221	66	54-130	
Acenaphthylene	ug/kg	333	238	72	55-130	
Anthracene	ug/kg	333	245	73	64-130	
Benzo(a)anthracene	ug/kg	333	231	69	50-130	
Benzo(a)pyrene	ug/kg	333	239	72	46-130	
Benzo(b)fluoranthene	ug/kg	333	257	77	43-130	
Benzo(g,h,i)perylene	ug/kg	333	229	69	48-130	
Benzo(k)fluoranthene	ug/kg	333	208	62	55-130	
Chrysene	ug/kg	333	238	72	62-130	
Dibenz(a,h)anthracene	ug/kg	333	236	71	49-130	
Fluoranthene	ug/kg	333	235	70	57-130	
Fluorene	ug/kg	333	237	71	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	244	73	50-130	
Naphthalene	ug/kg	333	209	63	48-130	
Phenanthrene	ug/kg	333	237	71	51-130	
Pyrene	ug/kg	333	240	72	55-130	
2-Fluorobiphenyl (S)	%			73	39-130	
Terphenyl-d14 (S)	%			72	37-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114321

Parameter	Units	1154370		1154371		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		40114120001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Acenaphthene	ug/kg	<9.2	368	368	248	238	67	65	46-130	4	26	
Acenaphthylene	ug/kg	<8.2	368	368	269	258	73	70	49-130	4	23	
Anthracene	ug/kg	<9.5	368	368	276	252	75	69	52-130	9	28	
Benzo(a)anthracene	ug/kg	<6.4	368	368	254	227	69	62	34-130	11	36	
Benzo(a)pyrene	ug/kg	<6.6	368	368	255	234	69	64	34-130	9	40	
Benzo(b)fluoranthene	ug/kg	<9.2	368	368	286	208	78	56	22-130	32	40	
Benzo(g,h,i)perylene	ug/kg	<7.0	368	368	251	229	68	62	24-130	9	35	
Benzo(k)fluoranthene	ug/kg	<10.2	368	368	223	241	61	65	41-130	8	37	
Chrysene	ug/kg	<8.5	368	368	262	238	71	65	49-130	10	33	
Dibenz(a,h)anthracene	ug/kg	<6.7	368	368	260	240	71	65	27-130	8	31	
Fluoranthene	ug/kg	<9.2	368	368	262	234	71	64	34-130	11	37	
Fluorene	ug/kg	<9.2	368	368	266	250	72	68	45-130	6	25	
Indeno(1,2,3-cd)pyrene	ug/kg	<7.0	368	368	268	241	73	66	30-130	10	34	
Naphthalene	ug/kg	<9.2	368	368	239	234	65	63	38-130	2	30	
Phenanthrene	ug/kg	<9.2	368	368	267	245	73	67	38-130	9	34	
Pyrene	ug/kg	<9.2	368	368	263	235	71	64	35-130	11	35	
2-Fluorobiphenyl (S)	%						70	66	39-130			
Terphenyl-d14 (S)	%						69	61	37-130			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114321

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QC Batch: PMST/11176	Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87	Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 40114321001, 40114321002	

---

SAMPLE DUPLICATE: 1157341

Parameter	Units	40113953008 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	2.8	2.8	1	10	

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114321

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSV/28380  
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114321

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40114321001	EX-10(8-9)	EPA 3546	OEXT/26471	EPA 8270 by SIM	MSSV/7866
40114321002	B-21(15.5)	EPA 3546	OEXT/26471	EPA 8270 by SIM	MSSV/7866
40114321001	EX-10(8-9)	EPA 5035/5030B	MSV/28376	EPA 8260	MSV/28380
40114321002	B-21(15.5)	EPA 5035/5030B	MSV/28376	EPA 8260	MSV/28380
40114321001	EX-10(8-9)	ASTM D2974-87	PMST/11176		
40114321002	B-21(15.5)	ASTM D2974-87	PMST/11176		

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**Pace Analytical**

Project #: **WO#: 40114321**

Client Name: Tri Core



Courier:  Fed Ex  UPS  Client  Pace Other: Sologate  
Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  Yes  No Seals intact:  Yes  No

Custody Seal on Samples Present:  Yes  No Seals intact:  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used SR44 Type of Ice:  Wet  Blue Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 9 / Corr: 4 Biological Tissue is Frozen:  Yes  No

Temp Blank Present:  Yes  No  No

Person examining contents:

Date: 5-7-15

Initials: SKW

Temp should be above freezing to 6°C for all sample except Biota.

Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>No Matrix</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>DOI - ID on samples is B-10(8-9)</u>
-Includes date/time/ID/Analysis Matrix: <u>5</u>		<u>5-7-15 SKW</u>
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤ 2; NaOH+ZnAct ≥ 9, NaOH ≥ 12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: <u>VOA</u> Coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: \_\_\_\_\_

SKW

Date: 5/7/15



Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

**Leaking Underground Storage Tank Program  
Laboratory Certification for Chemical Analysis**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

**B. Sample Collector**

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples.
- 2. Chain-of-custody procedures were followed in the field.
- 3. Sample integrity was maintained by proper preservation.
- 4. All samples were properly labeled.

Jm  
(Initial)

Jm  
(Initial)

Jm  
(Initial)

Jm  
(Initial)

**C. Laboratory Representative**

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms
- 2. Sample integrity was maintained by proper preservation.
- 3. All samples were properly labeled.
- 4. Quality assurance/quality control procedures were established and carried out.
- 5. Sample holding times were not exceeded.

Uw  
(Initial)

Uw  
(Initial)

Uw  
(Initial)

Uw  
(Initial)

Uw  
(Initial)

40114321

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Holly Moore

Title Environmental Scientist

Company TriCore Environmental, LLC

Address 2368 Corporate Lane, Suite 116

City Naperville

State Illinois

Zip Code 60563

Phone (630) 520-9973

Signature Holly Moore

Date 5/6/15

**Laboratory Representative**

Name Laurie Woelfel

Title Project Manager

Company Pace Analytical Services, Inc.

Address 1241 Bellevue Street, Suite 9

City Green Bay

State Wisconsin

Zip Code 54302

Phone (920) 469-2436

Signature Laurie Woelfel

Date 5/14/15

May 15, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

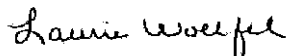
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114430

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on May 08, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



**REPORT OF LABORATORY ANALYSIS**

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**CERTIFICATIONS**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114430

**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NE LAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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**SAMPLE SUMMARY**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114430

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40114430001	B-22 (15.5)	Solid	05/07/15 11:50	05/08/15 10:45
40114430002	B-23 (15.5)	Solid	05/07/15 11:55	05/08/15 10:45

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114430

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40114430001	B-22 (15.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	KEW	1	PASI-G
40114430002	B-23 (15.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	KEW	1	PASI-G

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114430

Sample: B-22 (15.5) Lab ID: 40114430001 Collected: 05/07/15 11:50 Received: 05/08/15 10:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.8	ug/kg	19.6	9.8	1	05/11/15 08:24	05/11/15 12:42	83-32-9	
Acenaphthylene	<8.8	ug/kg	19.6	8.8	1	05/11/15 08:24	05/11/15 12:42	208-96-8	
Anthracene	<10.2	ug/kg	19.6	10.2	1	05/11/15 08:24	05/11/15 12:42	120-12-7	
Benzo(a)anthracene	<6.8	ug/kg	19.6	6.8	1	05/11/15 08:24	05/11/15 12:42	56-55-3	
Benzo(a)pyrene	<7.0	ug/kg	19.6	7.0	1	05/11/15 08:24	05/11/15 12:42	50-32-8	
Benzo(b)fluoranthene	12.8J	ug/kg	19.6	9.8	1	05/11/15 08:24	05/11/15 12:42	205-99-2	B
Benzo(g,h,i)perylene	<7.5	ug/kg	19.6	7.5	1	05/11/15 08:24	05/11/15 12:42	191-24-2	
Benzo(k)fluoranthene	<10.9	ug/kg	19.6	10.9	1	05/11/15 08:24	05/11/15 12:42	207-08-9	
Chrysene	<9.1	ug/kg	19.6	9.1	1	05/11/15 08:24	05/11/15 12:42	218-01-9	
Dibenz(a,h)anthracene	<7.2	ug/kg	19.6	7.2	1	05/11/15 08:24	05/11/15 12:42	53-70-3	
Fluoranthene	<9.8	ug/kg	19.6	9.8	1	05/11/15 08:24	05/11/15 12:42	206-44-0	
Fluorene	<9.8	ug/kg	19.6	9.8	1	05/11/15 08:24	05/11/15 12:42	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.5	ug/kg	19.6	7.5	1	05/11/15 08:24	05/11/15 12:42	193-39-5	
Naphthalene	<9.8	ug/kg	19.6	9.8	1	05/11/15 08:24	05/11/15 12:42	91-20-3	
Phenanthrene	<9.8	ug/kg	19.6	9.8	1	05/11/15 08:24	05/11/15 12:42	85-01-8	
Pyrene	<9.8	ug/kg	19.6	9.8	1	05/11/15 08:24	05/11/15 12:42	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	64	%	39-130		1	05/11/15 08:24	05/11/15 12:42	321-60-8	
Terphenyl-d14 (S)	58	%	37-130		1	05/11/15 08:24	05/11/15 12:42	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.9	ug/kg	23.5	10.9	1	05/12/15 07:20	05/12/15 10:08	71-43-2	
Ethylbenzene	17.5J	ug/kg	58.9	14.6	1	05/12/15 07:20	05/12/15 10:08	100-41-4	
Methyl-tert-butyl ether	<14.9	ug/kg	58.9	14.9	1	05/12/15 07:20	05/12/15 10:08	1634-04-4	
Toluene	<13.2	ug/kg	58.9	13.2	1	05/12/15 07:20	05/12/15 10:08	108-88-3	
Xylene (Total)	<57.0	ug/kg	177	57.0	1	05/12/15 07:20	05/12/15 10:08	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	79	%	49-157		1	05/12/15 07:20	05/12/15 10:08	1868-53-7	
4-Bromofluorobenzene (S)	80	%	53-134		1	05/12/15 07:20	05/12/15 10:08	460-00-4	
Toluene-d8 (S)	90	%	61-148		1	05/12/15 07:20	05/12/15 10:08	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	15.1	%	0.10	0.10	1		05/15/15 09:35		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114430

Sample: B-23 (15.5) Lab ID: 40114430002 Collected: 05/07/15 11:55 Received: 05/08/15 10:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.9	ug/kg	19.7	9.9	1	05/11/15 08:24	05/11/15 15:36	83-32-9	
Acenaphthylene	<8.8	ug/kg	19.7	8.8	1	05/11/15 08:24	05/11/15 15:36	208-96-8	
Anthracene	<10.2	ug/kg	19.7	10.2	1	05/11/15 08:24	05/11/15 15:36	120-12-7	
Benzo(a)anthracene	<6.8	ug/kg	19.7	6.8	1	05/11/15 08:24	05/11/15 15:36	56-55-3	
Benzo(a)pyrene	<7.1	ug/kg	19.7	7.1	1	05/11/15 08:24	05/11/15 15:36	50-32-8	
Benzo(b)fluoranthene	12.8J	ug/kg	19.7	9.9	1	05/11/15 08:24	05/11/15 15:36	205-99-2	B
Benzo(g,h,i)perylene	<7.5	ug/kg	19.7	7.5	1	05/11/15 08:24	05/11/15 15:36	191-24-2	
Benzo(k)fluoranthene	<10.9	ug/kg	19.7	10.9	1	05/11/15 08:24	05/11/15 15:36	207-08-9	
Chrysene	<9.1	ug/kg	19.7	9.1	1	05/11/15 08:24	05/11/15 15:36	218-01-9	
Dibenz(a,h)anthracene	<7.2	ug/kg	19.7	7.2	1	05/11/15 08:24	05/11/15 15:36	53-70-3	
Fluoranthene	<9.9	ug/kg	19.7	9.9	1	05/11/15 08:24	05/11/15 15:36	206-44-0	
Fluorene	<9.9	ug/kg	19.7	9.9	1	05/11/15 08:24	05/11/15 15:36	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.5	ug/kg	19.7	7.5	1	05/11/15 08:24	05/11/15 15:36	193-39-5	
Naphthalene	<9.9	ug/kg	19.7	9.9	1	05/11/15 08:24	05/11/15 15:36	91-20-3	
Phenanthrene	<9.9	ug/kg	19.7	9.9	1	05/11/15 08:24	05/11/15 15:36	85-01-8	
Pyrene	<9.9	ug/kg	19.7	9.9	1	05/11/15 08:24	05/11/15 15:36	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	59	%	39-130		1	05/11/15 08:24	05/11/15 15:36	321-60-8	
Terphenyl-d14 (S)	57	%	37-130		1	05/11/15 08:24	05/11/15 15:36	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.9	ug/kg	23.7	10.9	1	05/12/15 07:20	05/12/15 10:31	71-43-2	
Ethylbenzene	<14.7	ug/kg	59.2	14.7	1	05/12/15 07:20	05/12/15 10:31	100-41-4	
Methyl-tert-butyl ether	318	ug/kg	59.2	15.0	1	05/12/15 07:20	05/12/15 10:31	1634-04-4	
Toluene	<13.3	ug/kg	59.2	13.3	1	05/12/15 07:20	05/12/15 10:31	108-88-3	
Xylene (Total)	<57.3	ug/kg	178	57.3	1	05/12/15 07:20	05/12/15 10:31	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	88	%	49-157		1	05/12/15 07:20	05/12/15 10:31	1868-53-7	
4-Bromofluorobenzene (S)	89	%	53-134		1	05/12/15 07:20	05/12/15 10:31	460-00-4	
Toluene-d8 (S)	95	%	61-148		1	05/12/15 07:20	05/12/15 10:31	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	15.5	%	0.10	0.10	1		05/15/15 09:36		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114430

QC Batch: MSV/28413 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40114430001, 40114430002

METHOD BLANK: 1155999 Matrix: Solid  
Associated Lab Samples: 40114430001, 40114430002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	05/12/15 08:37	
Ethylbenzene	ug/kg	<12.4	50.0	05/12/15 08:37	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	05/12/15 08:37	
Toluene	ug/kg	<11.2	50.0	05/12/15 08:37	
Xylene (Total)	ug/kg	<48.4	150	05/12/15 08:37	
4-Bromofluorobenzene (S)	%	95	53-134	05/12/15 08:37	
Dibromofluoromethane (S)	%	97	49-157	05/12/15 08:37	
Toluene-d8 (S)	%	106	61-148	05/12/15 08:37	

LABORATORY CONTROL SAMPLE & LCSD: 1156000

Parameter	Units	1156001								
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	2500	2410	2360	97	94	70-130	2	20	
Ethylbenzene	ug/kg	2500	2630	2600	105	104	70-130	1	20	
Methyl-tert-butyl ether	ug/kg	2500	2430	2330	97	93	70-130	4	20	
Toluene	ug/kg	2500	2640	2610	106	104	70-130	1	20	
Xylene (Total)	ug/kg	7500	7630	7420	102	99	70-130	3	20	
4-Bromofluorobenzene (S)	%				103	101	53-134			
Dibromofluoromethane (S)	%				103	96	49-157			
Toluene-d8 (S)	%				107	104	61-148			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114430

QC Batch: OEXT/26481 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40114430001, 40114430002

METHOD BLANK: 1155301 Matrix: Solid  
Associated Lab Samples: 40114430001, 40114430002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	05/11/15 11:50	
Acenaphthylene	ug/kg	<7.5	16.7	05/11/15 11:50	
Anthracene	ug/kg	<8.6	16.7	05/11/15 11:50	
Benzo(a)anthracene	ug/kg	<5.8	16.7	05/11/15 11:50	
Benzo(a)pyrene	ug/kg	<6.0	16.7	05/11/15 11:50	
Benzo(b)fluoranthene	ug/kg	9.8J	16.7	05/11/15 11:50	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	05/11/15 11:50	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	05/11/15 11:50	
Chrysene	ug/kg	<7.7	16.7	05/11/15 11:50	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	05/11/15 11:50	
Fluoranthene	ug/kg	<8.3	16.7	05/11/15 11:50	
Fluorene	ug/kg	<8.3	16.7	05/11/15 11:50	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	05/11/15 11:50	
Naphthalene	ug/kg	<8.3	16.7	05/11/15 11:50	
Phenanthrene	ug/kg	<8.3	16.7	05/11/15 11:50	
Pyrene	ug/kg	<8.3	16.7	05/11/15 11:50	
2-Fluorobiphenyl (S)	%	73	39-130	05/11/15 11:50	
Terphenyl-d14 (S)	%	76	37-130	05/11/15 11:50	

LABORATORY CONTROL SAMPLE: 1155302

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	220	66	54-130	
Acenaphthylene	ug/kg	333	235	71	55-130	
Anthracene	ug/kg	333	241	72	64-130	
Benzo(a)anthracene	ug/kg	333	225	68	50-130	
Benzo(a)pyrene	ug/kg	333	232	70	46-130	
Benzo(b)fluoranthene	ug/kg	333	238	71	43-130	
Benzo(g,h,i)perylene	ug/kg	333	210	63	48-130	
Benzo(k)fluoranthene	ug/kg	333	214	64	55-130	
Chrysene	ug/kg	333	235	70	62-130	
Dibenz(a,h)anthracene	ug/kg	333	221	66	49-130	
Fluoranthene	ug/kg	333	228	68	57-130	
Fluorene	ug/kg	333	237	71	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	230	69	50-130	
Naphthalene	ug/kg	333	205	62	48-130	
Phenanthrene	ug/kg	333	228	68	51-130	
Pyrene	ug/kg	333	256	77	55-130	
2-Fluorobiphenyl (S)	%			71	39-130	
Terphenyl-d14 (S)	%			70	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114430

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1155303		1155304		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40114430001 Result	MS Spike Conc.	MSD Spike Conc.									
Acenaphthene	ug/kg	<9.8	392	392	253	246	65	63	46-130	3	26		
Acenaphthylene	ug/kg	<8.8	392	392	273	262	70	67	49-130	4	23		
Anthracene	ug/kg	<10.2	392	392	278	268	71	68	52-130	4	28		
Benzo(a)anthracene	ug/kg	<6.8	392	392	264	249	67	63	34-130	6	36		
Benzo(a)pyrene	ug/kg	<7.0	392	392	279	268	71	68	34-130	4	40		
Benzo(b)fluoranthene	ug/kg	12.8J	392	392	263	243	64	59	22-130	8	40		
Benzo(g,h,i)perylene	ug/kg	<7.5	392	392	264	245	67	62	24-130	7	35		
Benzo(k)fluoranthene	ug/kg	<10.9	392	392	277	274	71	70	41-130	1	37		
Chrysene	ug/kg	<9.1	392	392	267	253	67	64	49-130	5	33		
Dibenz(a,h)anthracene	ug/kg	<7.2	392	392	274	256	69	64	27-130	7	31		
Fluoranthene	ug/kg	<9.8	392	392	269	253	69	65	34-130	6	37		
Fluorene	ug/kg	<9.8	392	392	278	233	71	59	45-130	18	25		
Indeno(1,2,3-cd)pyrene	ug/kg	<7.5	392	392	285	269	73	68	30-130	6	34		
Naphthalene	ug/kg	<9.8	392	392	232	229	59	58	38-130	1	30		
Phenanthrene	ug/kg	<9.8	392	392	274	252	69	63	38-130	8	34		
Pyrene	ug/kg	<9.8	392	392	275	264	69	66	35-130	4	35		
2-Fluorobiphenyl (S)	%						65	61	39-130				
Terphenyl-d14 (S)	%						54	55	37-130				

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114430

QC Batch: PMST/11190      Analysis Method: ASTM D2974-87  
QC Batch Method: ASTM D2974-87      Analysis Description: Dry Weight/Percent Moisture  
Associated Lab Samples: 40114430001, 40114430002

SAMPLE DUPLICATE: 1158644

Parameter	Units	40114438002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	20.8	21.5	3	10	

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**QUALIFIERS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114430

**DEFINITIONS**

- DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
- ND - Not Detected at or above adjusted reporting limit.
- J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
- MDL - Adjusted Method Detection Limit.
- PQL - Practical Quantitation Limit.
- RL - Reporting Limit.
- S - Surrogate
- 1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
- Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
- LCS(D) - Laboratory Control Sample (Duplicate)
- MS(D) - Matrix Spike (Duplicate)
- DUP - Sample Duplicate
- RPD - Relative Percent Difference
- NC - Not Calculable.
- SG - Silica Gel - Clean-Up
- U - Indicates the compound was analyzed for, but not detected.
- N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
- Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
- TNI - The NELAC Institute.

**LABORATORIES**

PASI-G Pace Analytical Services - Green Bay

**BATCH QUALIFIERS**

Batch: MSV/28415  
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

**ANALYTE QUALIFIERS**

B Analyte was detected in the associated method blank.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114430

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40114430001	B-22 (15.5)	EPA 3546	OEXT/26481	EPA 8270 by SIM	MSSV/7868
40114430002	B-23 (15.5)	EPA 3546	OEXT/26481	EPA 8270 by SIM	MSSV/7868
40114430001	B-22 (15.5)	EPA 5035/5030B	MSV/28413	EPA 8260	MSV/28415
40114430002	B-23 (15.5)	EPA 5035/5030B	MSV/28413	EPA 8260	MSV/28415
40114430001	B-22 (15.5)	ASTM D2974-87	PMST/11190		
40114430002	B-23 (15.5)	ASTM D2974-87	PMST/11190		

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Client Name: TriCore Env.

Project #:

WO#: **40114430**



Courier:  Fed Ex  UPS  Client  Pace Other: CS Logistics  
Tracking #:

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: SR-45 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 3.5 / Corr: 3.5 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Person examining contents:  
Date: 5-7-15  
Initials: KEW

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed   Lab Std #ID of preservative   Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:  If checked, see attached form for additional comments  
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_

Project Manager Review: KEW

Date: 5/8/15



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The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

**Leaking Underground Storage Tank Program  
Laboratory Certification for Chemical Analysis**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

**B. Sample Collector**

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples.
- 2. Chain-of-custody procedures were followed in the field.
- 3. Sample integrity was maintained by proper preservation.
- 4. All samples were properly labeled.

Jem  
(Initial)  
Jem  
(Initial)  
Jem  
(Initial)  
Jem  
(Initial)

**C. Laboratory Representative**

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms
- 2. Sample integrity was maintained by proper preservation.
- 3. All samples were properly labeled.
- 4. Quality assurance/quality control procedures were established and carried out.
- 5. Sample holding times were not exceeded.

LW  
(Initial)  
LW  
(Initial)  
LW  
(Initial)  
LW  
(Initial)  
LW  
(Initial)

40114430

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Holly Moore

Title Environmental Scientist

Company TriCore Environmental, LLC

Address 2368 Corporate Lane, Suite 116

City Naperville

State Illinois

Zip Code 60563

Phone (630) 520-9973

Signature Holly Moore

Date 5/7/15

**Laboratory Representative**

Name Laurie Woelfel

Title Project Manager

Company Pace Analytical Services, Inc.

Address 1241 Bellevue Street, Suite 9

City Green Bay

State Wisconsin

Zip Code 64302

Phone (920) 469-2436

Signature \_\_\_\_\_

Date 5/15/15

May 18, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

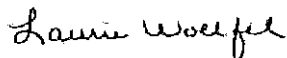
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114492

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on May 09, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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**CERTIFICATIONS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114492

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**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114492

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40114492001	B-24 (9)	Solid	05/08/15 07:45	05/09/15 09:00
40114492002	B-25 (15.5)	Solid	05/08/15 10:30	05/09/15 09:00
40114492003	B-26 (15)	Solid	05/08/15 10:35	05/09/15 09:00
40114492004	EX-11 (3-4)	Solid	05/08/15 12:00	05/09/15 09:00
40114492005	EX-12 (3-4)	Solid	05/08/15 13:25	05/09/15 09:00

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114492

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40114492001	B-24 (9)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAM	1	PASI-G
40114492002	B-25 (15.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAM	1	PASI-G
40114492003	B-26 (15)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAM	1	PASI-G
40114492004	EX-11 (3-4)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAM	1	PASI-G
40114492005	EX-12 (3-4)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAM	1	PASI-G

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114492

Sample: B-24 (9) Lab ID: 40114492001 Collected: 05/08/15 07:45 Received: 05/09/15 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.4	ug/kg	18.8	9.4	1	05/12/15 09:29	05/12/15 13:39	83-32-9	
Acenaphthylene	<8.4	ug/kg	18.8	8.4	1	05/12/15 09:29	05/12/15 13:39	208-96-8	
Anthracene	<9.7	ug/kg	18.8	9.7	1	05/12/15 09:29	05/12/15 13:39	120-12-7	
Benzo(a)anthracene	<6.5	ug/kg	18.8	6.5	1	05/12/15 09:29	05/12/15 13:39	56-55-3	
Benzo(a)pyrene	<6.7	ug/kg	18.8	6.7	1	05/12/15 09:29	05/12/15 13:39	50-32-8	
Benzo(b)fluoranthene	<9.4	ug/kg	18.8	9.4	1	05/12/15 09:29	05/12/15 13:39	205-99-2	
Benzo(g,h,i)perylene	<7.2	ug/kg	18.8	7.2	1	05/12/15 09:29	05/12/15 13:39	191-24-2	
Benzo(k)fluoranthene	<10.4	ug/kg	18.8	10.4	1	05/12/15 09:29	05/12/15 13:39	207-08-9	
Chrysene	<8.7	ug/kg	18.8	8.7	1	05/12/15 09:29	05/12/15 13:39	218-01-9	
Dibenz(a,h)anthracene	<6.9	ug/kg	18.8	6.9	1	05/12/15 09:29	05/12/15 13:39	53-70-3	
Fluoranthene	<9.4	ug/kg	18.8	9.4	1	05/12/15 09:29	05/12/15 13:39	206-44-0	
Fluorene	<9.4	ug/kg	18.8	9.4	1	05/12/15 09:29	05/12/15 13:39	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.1	ug/kg	18.8	7.1	1	05/12/15 09:29	05/12/15 13:39	193-39-5	
Naphthalene	<9.4	ug/kg	18.8	9.4	1	05/12/15 09:29	05/12/15 13:39	91-20-3	
Phenanthrene	<9.4	ug/kg	18.8	9.4	1	05/12/15 09:29	05/12/15 13:39	85-01-8	
Pyrene	<9.4	ug/kg	18.8	9.4	1	05/12/15 09:29	05/12/15 13:39	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	66	%	39-130		1	05/12/15 09:29	05/12/15 13:39	321-60-8	
Terphenyl-d14 (S)	63	%	37-130		1	05/12/15 09:29	05/12/15 13:39	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.4	ug/kg	22.6	10.4	1	05/12/15 07:20	05/12/15 15:47	71-43-2	
Ethylbenzene	<14.0	ug/kg	56.4	14.0	1	05/12/15 07:20	05/12/15 15:47	100-41-4	
Methyl-tert-butyl ether	43.0J	ug/kg	56.4	14.3	1	05/12/15 07:20	05/12/15 15:47	1634-04-4	
Toluene	<12.7	ug/kg	56.4	12.7	1	05/12/15 07:20	05/12/15 15:47	108-88-3	
Xylene (Total)	<54.6	ug/kg	169	54.6	1	05/12/15 07:20	05/12/15 15:47	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	49-157		1	05/12/15 07:20	05/12/15 15:47	1868-53-7	
4-Bromofluorobenzene (S)	97	%	53-134		1	05/12/15 07:20	05/12/15 15:47	460-00-4	
Toluene-d8 (S)	105	%	61-148		1	05/12/15 07:20	05/12/15 15:47	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	11.4	%	0.10	0.10	1		05/16/15 09:27		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114492

Sample: B-25 (15.5) Lab ID: 40114492002 Collected: 05/08/15 10:30 Received: 05/09/15 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.6	ug/kg	19.3	9.6	1	05/12/15 09:29	05/12/15 13:56	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.3	8.6	1	05/12/15 09:29	05/12/15 13:56	208-96-8	
Anthracene	<10	ug/kg	19.3	10	1	05/12/15 09:29	05/12/15 13:56	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.3	6.7	1	05/12/15 09:29	05/12/15 13:56	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.3	6.9	1	05/12/15 09:29	05/12/15 13:56	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.3	9.6	1	05/12/15 09:29	05/12/15 13:56	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.3	7.3	1	05/12/15 09:29	05/12/15 13:56	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.3	10.7	1	05/12/15 09:29	05/12/15 13:56	207-08-9	
Chrysene	<8.9	ug/kg	19.3	8.9	1	05/12/15 09:29	05/12/15 13:56	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.3	7.1	1	05/12/15 09:29	05/12/15 13:56	53-70-3	
Fluoranthene	<9.6	ug/kg	19.3	9.6	1	05/12/15 09:29	05/12/15 13:56	206-44-0	
Fluorene	<9.6	ug/kg	19.3	9.6	1	05/12/15 09:29	05/12/15 13:56	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.3	7.3	1	05/12/15 09:29	05/12/15 13:56	193-39-5	
Naphthalene	<9.6	ug/kg	19.3	9.6	1	05/12/15 09:29	05/12/15 13:56	91-20-3	
Phenanthrene	16.5J	ug/kg	19.3	9.6	1	05/12/15 09:29	05/12/15 13:56	85-01-8	
Pyrene	<9.6	ug/kg	19.3	9.6	1	05/12/15 09:29	05/12/15 13:56	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	64	%	39-130		1	05/12/15 09:29	05/12/15 13:56	321-60-8	
Terphenyl-d14 (S)	61	%	37-130		1	05/12/15 09:29	05/12/15 13:56	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.7	ug/kg	23.1	10.7	1	05/12/15 07:20	05/12/15 16:10	71-43-2	
Ethylbenzene	<14.4	ug/kg	57.8	14.4	1	05/12/15 07:20	05/12/15 16:10	100-41-4	
Methyl-tert-butyl ether	208	ug/kg	57.8	14.6	1	05/12/15 07:20	05/12/15 16:10	1634-04-4	
Toluene	<13.0	ug/kg	57.8	13.0	1	05/12/15 07:20	05/12/15 16:10	108-88-3	
Xylene (Total)	<56.0	ug/kg	174	56.0	1	05/12/15 07:20	05/12/15 16:10	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	84	%	49-157		1	05/12/15 07:20	05/12/15 16:10	1868-53-7	
4-Bromofluorobenzene (S)	89	%	53-134		1	05/12/15 07:20	05/12/15 16:10	460-00-4	
Toluene-d8 (S)	97	%	61-148		1	05/12/15 07:20	05/12/15 16:10	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.6	%	0.10	0.10	1		05/16/15 09:27		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114492

Sample: B-26 (15) Lab ID: 40114492003 Collected: 05/08/15 10:35 Received: 05/09/15 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.7	ug/kg	19.5	9.7	1	05/12/15 09:29	05/12/15 14:14	83-32-9	
Acenaphthylene	<8.7	ug/kg	19.5	8.7	1	05/12/15 09:29	05/12/15 14:14	208-96-8	
Anthracene	<10.1	ug/kg	19.5	10.1	1	05/12/15 09:29	05/12/15 14:14	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.5	6.7	1	05/12/15 09:29	05/12/15 14:14	56-55-3	
Benzo(a)pyrene	<7.0	ug/kg	19.5	7.0	1	05/12/15 09:29	05/12/15 14:14	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.5	9.7	1	05/12/15 09:29	05/12/15 14:14	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.5	7.4	1	05/12/15 09:29	05/12/15 14:14	191-24-2	
Benzo(k)fluoranthene	<10.8	ug/kg	19.5	10.8	1	05/12/15 09:29	05/12/15 14:14	207-08-9	
Chrysene	<9.0	ug/kg	19.5	9.0	1	05/12/15 09:29	05/12/15 14:14	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.5	7.1	1	05/12/15 09:29	05/12/15 14:14	53-70-3	
Fluoranthene	<9.7	ug/kg	19.5	9.7	1	05/12/15 09:29	05/12/15 14:14	206-44-0	
Fluorene	<9.7	ug/kg	19.5	9.7	1	05/12/15 09:29	05/12/15 14:14	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.5	7.4	1	05/12/15 09:29	05/12/15 14:14	193-39-5	
Naphthalene	<9.7	ug/kg	19.5	9.7	1	05/12/15 09:29	05/12/15 14:14	91-20-3	
Phenanthrene	9.7J	ug/kg	19.5	9.7	1	05/12/15 09:29	05/12/15 14:14	85-01-8	
Pyrene	<9.7	ug/kg	19.5	9.7	1	05/12/15 09:29	05/12/15 14:14	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	62	%	39-130		1	05/12/15 09:29	05/12/15 14:14	321-60-8	
Terphenyl-d14 (S)	63	%	37-130		1	05/12/15 09:29	05/12/15 14:14	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.8	ug/kg	23.4	10.8	1	05/12/15 07:20	05/12/15 16:32	71-43-2	
Ethylbenzene	<14.5	ug/kg	58.4	14.5	1	05/12/15 07:20	05/12/15 16:32	100-41-4	
Methyl-tert-butyl ether	<14.8	ug/kg	58.4	14.8	1	05/12/15 07:20	05/12/15 16:32	1634-04-4	
Toluene	<13.1	ug/kg	58.4	13.1	1	05/12/15 07:20	05/12/15 16:32	108-88-3	
Xylene (Total)	<56.6	ug/kg	175	56.6	1	05/12/15 07:20	05/12/15 16:32	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	49-157		1	05/12/15 07:20	05/12/15 16:32	1868-53-7	
4-Bromofluorobenzene (S)	99	%	53-134		1	05/12/15 07:20	05/12/15 16:32	460-00-4	
Toluene-d8 (S)	104	%	61-148		1	05/12/15 07:20	05/12/15 16:32	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	14.4	%	0.10	0.10	1		05/16/15 09:27		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114492

Sample: EX-11 (3-4) Lab ID: 40114492004 Collected: 05/08/15 12:00 Received: 05/09/15 09:00 Matrix: Solid  
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<10.7	ug/kg	21.3	10.7	1	05/12/15 09:29	05/12/15 14:31	83-32-9	
Acenaphthylene	<9.6	ug/kg	21.3	9.6	1	05/12/15 09:29	05/12/15 14:31	208-96-8	
Anthracene	<11.1	ug/kg	21.3	11.1	1	05/12/15 09:29	05/12/15 14:31	120-12-7	
Benzo(a)anthracene	9.4J	ug/kg	21.3	7.4	1	05/12/15 09:29	05/12/15 14:31	56-55-3	
Benzo(a)pyrene	11.5J	ug/kg	21.3	7.6	1	05/12/15 09:29	05/12/15 14:31	50-32-8	
Benzo(b)fluoranthene	14.1J	ug/kg	21.3	10.7	1	05/12/15 09:29	05/12/15 14:31	205-99-2	
Benzo(g,h,i)perylene	10J	ug/kg	21.3	8.1	1	05/12/15 09:29	05/12/15 14:31	191-24-2	
Benzo(k)fluoranthene	<11.8	ug/kg	21.3	11.8	1	05/12/15 09:29	05/12/15 14:31	207-08-9	
Chrysene	17.8J	ug/kg	21.3	9.9	1	05/12/15 09:29	05/12/15 14:31	218-01-9	
Dibenz(a,h)anthracene	<7.8	ug/kg	21.3	7.8	1	05/12/15 09:29	05/12/15 14:31	53-70-3	
Fluoranthene	24.6	ug/kg	21.3	10.7	1	05/12/15 09:29	05/12/15 14:31	206-44-0	
Fluorene	<10.7	ug/kg	21.3	10.7	1	05/12/15 09:29	05/12/15 14:31	86-73-7	
Indeno(1,2,3-cd)pyrene	8.4J	ug/kg	21.3	8.1	1	05/12/15 09:29	05/12/15 14:31	193-39-5	
Naphthalene	<10.7	ug/kg	21.3	10.7	1	05/12/15 09:29	05/12/15 14:31	91-20-3	
Phenanthrene	<10.7	ug/kg	21.3	10.7	1	05/12/15 09:29	05/12/15 14:31	85-01-8	
Pyrene	19.3J	ug/kg	21.3	10.7	1	05/12/15 09:29	05/12/15 14:31	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	65	%	39-130		1	05/12/15 09:29	05/12/15 14:31	321-60-8	
Terphenyl-d14 (S)	64	%	37-130		1	05/12/15 09:29	05/12/15 14:31	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	305	ug/kg	25.6	11.8	1	05/12/15 07:20	05/12/15 16:55	71-43-2	
Ethylbenzene	<15.9	ug/kg	64.0	15.9	1	05/12/15 07:20	05/12/15 16:55	100-41-4	
Methyl-tert-butyl ether	<16.2	ug/kg	64.0	16.2	1	05/12/15 07:20	05/12/15 16:55	1634-04-4	
Toluene	<14.4	ug/kg	64.0	14.4	1	05/12/15 07:20	05/12/15 16:55	108-88-3	
Xylene (Total)	<62.0	ug/kg	192	62.0	1	05/12/15 07:20	05/12/15 16:55	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	87	%	49-157		1	05/12/15 07:20	05/12/15 16:55	1868-53-7	
4-Bromofluorobenzene (S)	92	%	53-134		1	05/12/15 07:20	05/12/15 16:55	460-00-4	
Toluene-d8 (S)	101	%	61-148		1	05/12/15 07:20	05/12/15 16:55	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	21.9	%	0.10	0.10	1		05/16/15 09:27		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114492

Sample: EX-12 (3-4) Lab ID: 40114492005 Collected: 05/08/15 13:25 Received: 05/09/15 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<10.7	ug/kg	21.4	10.7	1	05/12/15 09:29	05/12/15 14:48	83-32-9	
Acenaphthylene	<9.6	ug/kg	21.4	9.6	1	05/12/15 09:29	05/12/15 14:48	208-96-8	
Anthracene	<11.1	ug/kg	21.4	11.1	1	05/12/15 09:29	05/12/15 14:48	120-12-7	
Benzo(a)anthracene	<7.4	ug/kg	21.4	7.4	1	05/12/15 09:29	05/12/15 14:48	56-55-3	
Benzo(a)pyrene	<7.6	ug/kg	21.4	7.6	1	05/12/15 09:29	05/12/15 14:48	50-32-8	
Benzo(b)fluoranthene	<10.7	ug/kg	21.4	10.7	1	05/12/15 09:29	05/12/15 14:48	205-99-2	
Benzo(g,h,i)perylene	<8.1	ug/kg	21.4	8.1	1	05/12/15 09:29	05/12/15 14:48	191-24-2	
Benzo(k)fluoranthene	<11.8	ug/kg	21.4	11.8	1	05/12/15 09:29	05/12/15 14:48	207-08-9	
Chrysene	<9.9	ug/kg	21.4	9.9	1	05/12/15 09:29	05/12/15 14:48	218-01-9	
Dibenz(a,h)anthracene	<7.8	ug/kg	21.4	7.8	1	05/12/15 09:29	05/12/15 14:48	53-70-3	
Fluoranthene	<10.7	ug/kg	21.4	10.7	1	05/12/15 09:29	05/12/15 14:48	206-44-0	
Fluorene	<10.7	ug/kg	21.4	10.7	1	05/12/15 09:29	05/12/15 14:48	86-73-7	
Indeno(1,2,3-cd)pyrene	<8.1	ug/kg	21.4	8.1	1	05/12/15 09:29	05/12/15 14:48	193-39-5	
Naphthalene	<10.7	ug/kg	21.4	10.7	1	05/12/15 09:29	05/12/15 14:48	91-20-3	
Phenanthrene	<10.7	ug/kg	21.4	10.7	1	05/12/15 09:29	05/12/15 14:48	85-01-8	
Pyrene	<10.7	ug/kg	21.4	10.7	1	05/12/15 09:29	05/12/15 14:48	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	45	%	39-130		1	05/12/15 09:29	05/12/15 14:48	321-60-8	
Terphenyl-d14 (S)	48	%	37-130		1	05/12/15 09:29	05/12/15 14:48	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<11.8	ug/kg	25.7	11.8	1	05/12/15 07:20	05/12/15 17:17	71-43-2	
Ethylbenzene	<16.0	ug/kg	64.2	16.0	1	05/12/15 07:20	05/12/15 17:17	100-41-4	
Methyl-tert-butyl ether	<16.2	ug/kg	64.2	16.2	1	05/12/15 07:20	05/12/15 17:17	1634-04-4	
Toluene	<14.4	ug/kg	64.2	14.4	1	05/12/15 07:20	05/12/15 17:17	108-88-3	
Xylene (Total)	<62.2	ug/kg	193	62.2	1	05/12/15 07:20	05/12/15 17:17	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	49-157		1	05/12/15 07:20	05/12/15 17:17	1868-53-7	
4-Bromofluorobenzene (S)	100	%	53-134		1	05/12/15 07:20	05/12/15 17:17	460-00-4	
Toluene-d8 (S)	104	%	61-148		1	05/12/15 07:20	05/12/15 17:17	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	22.1	%	0.10	0.10	1		05/16/15 09:27		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114492

QC Batch: MSV/28413 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40114492001, 40114492002, 40114492003, 40114492004, 40114492005

METHOD BLANK: 1155999 Matrix: Solid  
Associated Lab Samples: 40114492001, 40114492002, 40114492003, 40114492004, 40114492005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	05/12/15 08:37	
Ethylbenzene	ug/kg	<12.4	50.0	05/12/15 08:37	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	05/12/15 08:37	
Toluene	ug/kg	<11.2	50.0	05/12/15 08:37	
Xylene (Total)	ug/kg	<48.4	150	05/12/15 08:37	
4-Bromofluorobenzene (S)	%	95	53-134	05/12/15 08:37	
Dibromofluoromethane (S)	%	97	49-157	05/12/15 08:37	
Toluene-d8 (S)	%	106	61-148	05/12/15 08:37	

LABORATORY CONTROL SAMPLE & LCSD: 1156000

Parameter	Units	1156001								
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	2500	2410	2360	97	94	70-130	2	20	
Ethylbenzene	ug/kg	2500	2630	2600	105	104	70-130	1	20	
Methyl-tert-butyl ether	ug/kg	2500	2430	2330	97	93	70-130	4	20	
Toluene	ug/kg	2500	2640	2610	106	104	70-130	1	20	
Xylene (Total)	ug/kg	7500	7630	7420	102	99	70-130	3	20	
4-Bromofluorobenzene (S)	%				103	101	53-134			
Dibromofluoromethane (S)	%				103	96	49-157			
Toluene-d8 (S)	%				107	104	61-148			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114492

QC Batch: OEXT/26489 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40114492001, 40114492002, 40114492003, 40114492004, 40114492005

METHOD BLANK: 1156006 Matrix: Solid  
Associated Lab Samples: 40114492001, 40114492002, 40114492003, 40114492004, 40114492005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	05/12/15 11:22	
Acenaphthylene	ug/kg	<7.5	16.7	05/12/15 11:22	
Anthracene	ug/kg	<8.6	16.7	05/12/15 11:22	
Benzo(a)anthracene	ug/kg	<5.8	16.7	05/12/15 11:22	
Benzo(a)pyrene	ug/kg	<6.0	16.7	05/12/15 11:22	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	05/12/15 11:22	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	05/12/15 11:22	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	05/12/15 11:22	
Chrysene	ug/kg	<7.7	16.7	05/12/15 11:22	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	05/12/15 11:22	
Fluoranthene	ug/kg	<8.3	16.7	05/12/15 11:22	
Fluorene	ug/kg	<8.3	16.7	05/12/15 11:22	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	05/12/15 11:22	
Naphthalene	ug/kg	<8.3	16.7	05/12/15 11:22	
Phenanthrene	ug/kg	<8.3	16.7	05/12/15 11:22	
Pyrene	ug/kg	<8.3	16.7	05/12/15 11:22	
2-Fluorobiphenyl (S)	%	76	39-130	05/12/15 11:22	
Terphenyl-d14 (S)	%	84	37-130	05/12/15 11:22	

LABORATORY CONTROL SAMPLE: 1156007

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	252	76	54-130	
Acenaphthylene	ug/kg	333	261	78	55-130	
Anthracene	ug/kg	333	295	88	64-130	
Benzo(a)anthracene	ug/kg	333	261	78	50-130	
Benzo(a)pyrene	ug/kg	333	270	81	46-130	
Benzo(b)fluoranthene	ug/kg	333	250	75	43-130	
Benzo(g,h,i)perylene	ug/kg	333	259	78	48-130	
Benzo(k)fluoranthene	ug/kg	333	279	84	55-130	
Chrysene	ug/kg	333	280	84	62-130	
Dibenz(a,h)anthracene	ug/kg	333	281	84	49-130	
Fluoranthene	ug/kg	333	267	80	57-130	
Fluorene	ug/kg	333	255	76	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	280	84	50-130	
Naphthalene	ug/kg	333	241	72	48-130	
Phenanthrene	ug/kg	333	266	80	51-130	
Pyrene	ug/kg	333	255	77	55-130	
2-Fluorobiphenyl (S)	%			74	39-130	
Terphenyl-d14 (S)	%			76	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114492

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1156057		1156058		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40114493001 Result	MS Spike Conc.	MSD Spike Conc.									
Acenaphthene	ug/kg	<11.0	441	441	283	332	64	75	46-130	16	26		
Acenaphthylene	ug/kg	<9.9	441	441	294	345	67	78	49-130	16	23		
Anthracene	ug/kg	<11.4	441	441	322	376	73	85	52-130	16	28		
Benzo(a)anthracene	ug/kg	<7.7	441	441	273	324	62	73	34-130	17	36		
Benzo(a)pyrene	ug/kg	<7.9	441	441	283	331	64	75	34-130	16	40		
Benzo(b)fluoranthene	ug/kg	<11.0	441	441	274	321	62	73	22-130	16	40		
Benzo(g,h,i)perylene	ug/kg	<8.4	441	441	279	319	63	72	24-130	13	35		
Benzo(k)fluoranthene	ug/kg	<12.2	441	441	283	332	64	75	41-130	16	37		
Chrysene	ug/kg	<10.2	441	441	294	346	66	78	49-130	16	33		
Dibenz(a,h)anthracene	ug/kg	<8.1	441	441	301	349	68	79	27-130	15	31		
Fluoranthene	ug/kg	<11.0	441	441	289	336	65	76	34-130	15	37		
Fluorene	ug/kg	<11.0	441	441	286	334	65	76	45-130	16	25		
Indeno(1,2,3-cd)pyrene	ug/kg	<8.4	441	441	300	346	68	78	30-130	14	34		
Naphthalene	ug/kg	<11.0	441	441	262	307	59	69	38-130	16	30		
Phenanthrene	ug/kg	<11.0	441	441	288	341	65	77	38-130	17	34		
Pyrene	ug/kg	<11.0	441	441	271	315	61	71	35-130	15	35		
2-Fluorobiphenyl (S)	%						61	69	39-130				
Terphenyl-d14 (S)	%						59	65	37-130				

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114492

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSV/28415

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114492

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40114492001	B-24 (9)	EPA 3546	OEXT/26489	EPA 8270 by SIM	MSSV/7873
40114492002	B-25 (15.5)	EPA 3546	OEXT/26489	EPA 8270 by SIM	MSSV/7873
40114492003	B-26 (15)	EPA 3546	OEXT/26489	EPA 8270 by SIM	MSSV/7873
40114492004	EX-11 (3-4)	EPA 3546	OEXT/26489	EPA 8270 by SIM	MSSV/7873
40114492005	EX-12 (3-4)	EPA 3546	OEXT/26489	EPA 8270 by SIM	MSSV/7873
40114492001	B-24 (9)	EPA 5035/5030B	MSV/28413	EPA 8260	MSV/28415
40114492002	B-25 (15.5)	EPA 5035/5030B	MSV/28413	EPA 8260	MSV/28415
40114492003	B-26 (15)	EPA 5035/5030B	MSV/28413	EPA 8260	MSV/28415
40114492004	EX-11 (3-4)	EPA 5035/5030B	MSV/28413	EPA 8260	MSV/28415
40114492005	EX-12 (3-4)	EPA 5035/5030B	MSV/28413	EPA 8260	MSV/28415
40114492001	B-24 (9)	ASTM D2974-87	PMST/11191		
40114492002	B-25 (15.5)	ASTM D2974-87	PMST/11191		
40114492003	B-26 (15)	ASTM D2974-87	PMST/11191		
40114492004	EX-11 (3-4)	ASTM D2974-87	PMST/11191		
40114492005	EX-12 (3-4)	ASTM D2974-87	PMST/11191		

**REPORT OF LABORATORY ANALYSIS**

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Sample Condition Upon Receipt

Project #:

WO#: 40114492

Client Name: TriCore



Courier:  Fed Ex  UPS  Client  Pace Other: CS Logistics

Tracking #:

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR-23 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 3 / Corr: 2 Biological Tissue is Frozen:  yes

Temp Blank Present:  yes  no  no

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:  
Date: 3/19/15  
Initials: DA

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: <007 to <005 all fast weights are covered plus 8/15

Project Manager Review: \_\_\_\_\_

Date: 3/19/15



40114492

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW

(Initial)

UW

(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Holly Moore  
 Title Environmental Scientist  
 Company TriCore Environmental, LLC  
 Address 2368 Corporate Lane, Suite 116  
 City Naperville  
 State Illinois  
 Zip Code 60563  
 Phone (630) 520-9973  
 Signature Holly Moore  
 Date 5/8/15

**Laboratory Representative**

Name Laurie Woelfel  
 Title Project Manager  
 Company Pace Analytical Services, Inc.  
 Address 1241 Bellevue Street, Suite 9  
 City Green Bay  
 State Wisconsin  
 Zip Code 64302  
 Phone (920) 469-2436  
 Signature Laurie Woelfel  
 Date 5/13/15

May 21, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

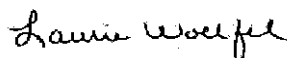
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114782

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on May 14, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



### REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114782

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#### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

US Dept of Agriculture #: S-76505

Wisconsin Certification #: 405132750

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### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114782

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40114782001	B-27 (14)	Solid	05/13/15 08:15	05/14/15 09:45
40114782002	B-29 (9)	Solid	05/13/15 12:30	05/14/15 09:45
40114782003	EX-13 (4-5)	Solid	05/13/15 12:35	05/14/15 09:45

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114782

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40114782001	B-27 (14)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	KEW	1	PASI-G
40114782002	B-29 (9)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	KEW	1	PASI-G
40114782003	EX-13 (4-5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	KEW	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114782

Sample: B-27 (14) Lab ID: 40114782001 Collected: 05/13/15 08:15 Received: 05/14/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.7	ug/kg	19.5	9.7	1	05/18/15 08:43	05/18/15 16:57	83-32-9	
Acenaphthylene	<8.7	ug/kg	19.5	8.7	1	05/18/15 08:43	05/18/15 16:57	208-96-8	
Anthracene	<10.1	ug/kg	19.5	10.1	1	05/18/15 08:43	05/18/15 16:57	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.5	6.7	1	05/18/15 08:43	05/18/15 16:57	56-55-3	
Benzo(a)pyrene	<7.0	ug/kg	19.5	7.0	1	05/18/15 08:43	05/18/15 16:57	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.5	9.7	1	05/18/15 08:43	05/18/15 16:57	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.5	7.4	1	05/18/15 08:43	05/18/15 16:57	191-24-2	
Benzo(k)fluoranthene	<10.8	ug/kg	19.5	10.8	1	05/18/15 08:43	05/18/15 16:57	207-08-9	
Chrysene	<9.0	ug/kg	19.5	9.0	1	05/18/15 08:43	05/18/15 16:57	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.5	7.1	1	05/18/15 08:43	05/18/15 16:57	53-70-3	
Fluoranthene	<9.7	ug/kg	19.5	9.7	1	05/18/15 08:43	05/18/15 16:57	206-44-0	
Fluorene	<9.7	ug/kg	19.5	9.7	1	05/18/15 08:43	05/18/15 16:57	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.5	7.4	1	05/18/15 08:43	05/18/15 16:57	193-39-5	
Naphthalene	<9.7	ug/kg	19.5	9.7	1	05/18/15 08:43	05/18/15 16:57	91-20-3	
Phenanthrene	<9.7	ug/kg	19.5	9.7	1	05/18/15 08:43	05/18/15 16:57	85-01-8	
Pyrene	<9.7	ug/kg	19.5	9.7	1	05/18/15 08:43	05/18/15 16:57	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	66	%	39-130		1	05/18/15 08:43	05/18/15 16:57	321-60-8	
Terphenyl-d14 (S)	75	%	37-130		1	05/18/15 08:43	05/18/15 16:57	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.8	ug/kg	23.4	10.8	1	05/18/15 07:50	05/18/15 15:48	71-43-2	
Ethylbenzene	<14.5	ug/kg	58.4	14.5	1	05/18/15 07:50	05/18/15 15:48	100-41-4	
Methyl-tert-butyl ether	395	ug/kg	58.4	14.8	1	05/18/15 07:50	05/18/15 15:48	1634-04-4	
Toluene	<13.1	ug/kg	58.4	13.1	1	05/18/15 07:50	05/18/15 15:48	108-88-3	
Xylene (Total)	<56.6	ug/kg	175	56.6	1	05/18/15 07:50	05/18/15 15:48	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	49-157		1	05/18/15 07:50	05/18/15 15:48	1868-53-7	
4-Bromofluorobenzene (S)	108	%	53-134		1	05/18/15 07:50	05/18/15 15:48	460-00-4	
Toluene-d8 (S)	114	%	61-148		1	05/18/15 07:50	05/18/15 15:48	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.4	%	0.10	0.10	1		05/19/15 15:47		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114782

Sample: B-29 (9) Lab ID: 40114782002 Collected: 05/13/15 12:30 Received: 05/14/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.8	ug/kg	19.5	9.8	1	05/18/15 08:43	05/18/15 17:14	83-32-9	
Acenaphthylene	<8.7	ug/kg	19.5	8.7	1	05/18/15 08:43	05/18/15 17:14	208-96-8	
Anthracene	<10.1	ug/kg	19.5	10.1	1	05/18/15 08:43	05/18/15 17:14	120-12-7	
Benzo(a)anthracene	<6.8	ug/kg	19.5	6.8	1	05/18/15 08:43	05/18/15 17:14	56-55-3	
Benzo(a)pyrene	<7.0	ug/kg	19.5	7.0	1	05/18/15 08:43	05/18/15 17:14	50-32-8	
Benzo(b)fluoranthene	<9.8	ug/kg	19.5	9.8	1	05/18/15 08:43	05/18/15 17:14	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.5	7.4	1	05/18/15 08:43	05/18/15 17:14	191-24-2	
Benzo(k)fluoranthene	<10.8	ug/kg	19.5	10.8	1	05/18/15 08:43	05/18/15 17:14	207-08-9	
Chrysene	<9.0	ug/kg	19.5	9.0	1	05/18/15 08:43	05/18/15 17:14	218-01-9	
Dibenz(a,h)anthracene	<7.2	ug/kg	19.5	7.2	1	05/18/15 08:43	05/18/15 17:14	53-70-3	
Fluoranthene	<9.8	ug/kg	19.5	9.8	1	05/18/15 08:43	05/18/15 17:14	206-44-0	
Fluorene	<9.8	ug/kg	19.5	9.8	1	05/18/15 08:43	05/18/15 17:14	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.5	7.4	1	05/18/15 08:43	05/18/15 17:14	193-39-5	
Naphthalene	<9.8	ug/kg	19.5	9.8	1	05/18/15 08:43	05/18/15 17:14	91-20-3	
Phenanthrene	<9.8	ug/kg	19.5	9.8	1	05/18/15 08:43	05/18/15 17:14	85-01-8	
Pyrene	<9.8	ug/kg	19.5	9.8	1	05/18/15 08:43	05/18/15 17:14	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	71	%	39-130		1	05/18/15 08:43	05/18/15 17:14	321-60-8	
Terphenyl-d14 (S)	78	%	37-130		1	05/18/15 08:43	05/18/15 17:14	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.8	ug/kg	23.4	10.8	1	05/18/15 07:50	05/18/15 16:10	71-43-2	
Ethylbenzene	<14.6	ug/kg	58.6	14.6	1	05/18/15 07:50	05/18/15 16:10	100-41-4	
Methyl-tert-butyl ether	31.8J	ug/kg	58.6	14.8	1	05/18/15 07:50	05/18/15 16:10	1634-04-4	
Toluene	<13.1	ug/kg	58.6	13.1	1	05/18/15 07:50	05/18/15 16:10	108-88-3	
Xylene (Total)	<56.7	ug/kg	176	56.7	1	05/18/15 07:50	05/18/15 16:10	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	89	%	49-157		1	05/18/15 07:50	05/18/15 16:10	1868-53-7	
4-Bromofluorobenzene (S)	93	%	53-134		1	05/18/15 07:50	05/18/15 16:10	460-00-4	
Toluene-d8 (S)	102	%	61-148		1	05/18/15 07:50	05/18/15 16:10	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.6	%	0.10	0.10	1		05/19/15 15:47		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114782

Sample: EX-13 (4-5) Lab ID: 40114782003 Collected: 05/13/15 12:35 Received: 05/14/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<10.3	ug/kg	20.6	10.3	1	05/18/15 08:43	05/18/15 17:31	83-32-9	
Acenaphthylene	<9.2	ug/kg	20.6	9.2	1	05/18/15 08:43	05/18/15 17:31	208-96-8	
Anthracene	<10.7	ug/kg	20.6	10.7	1	05/18/15 08:43	05/18/15 17:31	120-12-7	
Benzo(a)anthracene	<7.2	ug/kg	20.6	7.2	1	05/18/15 08:43	05/18/15 17:31	56-55-3	
Benzo(a)pyrene	<7.4	ug/kg	20.6	7.4	1	05/18/15 08:43	05/18/15 17:31	50-32-8	
Benzo(b)fluoranthene	<10.3	ug/kg	20.6	10.3	1	05/18/15 08:43	05/18/15 17:31	205-99-2	
Benzo(g,h,i)perylene	<7.9	ug/kg	20.6	7.9	1	05/18/15 08:43	05/18/15 17:31	191-24-2	
Benzo(k)fluoranthene	<11.4	ug/kg	20.6	11.4	1	05/18/15 08:43	05/18/15 17:31	207-08-9	
Chrysene	<9.5	ug/kg	20.6	9.5	1	05/18/15 08:43	05/18/15 17:31	218-01-9	
Dibenz(a,h)anthracene	<7.6	ug/kg	20.6	7.6	1	05/18/15 08:43	05/18/15 17:31	53-70-3	
Fluoranthene	<10.3	ug/kg	20.6	10.3	1	05/18/15 08:43	05/18/15 17:31	206-44-0	
Fluorene	<10.3	ug/kg	20.6	10.3	1	05/18/15 08:43	05/18/15 17:31	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.8	ug/kg	20.6	7.8	1	05/18/15 08:43	05/18/15 17:31	193-39-5	
Naphthalene	<10.3	ug/kg	20.6	10.3	1	05/18/15 08:43	05/18/15 17:31	91-20-3	
Phenanthrene	<10.3	ug/kg	20.6	10.3	1	05/18/15 08:43	05/18/15 17:31	85-01-8	
Pyrene	<10.3	ug/kg	20.6	10.3	1	05/18/15 08:43	05/18/15 17:31	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	62	%	39-130		1	05/18/15 08:43	05/18/15 17:31	321-60-8	
Terphenyl-d14 (S)	66	%	37-130		1	05/18/15 08:43	05/18/15 17:31	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<11.4	ug/kg	24.8	11.4	1	05/18/15 07:50	05/18/15 16:33	71-43-2	
Ethylbenzene	<15.4	ug/kg	61.9	15.4	1	05/18/15 07:50	05/18/15 16:33	100-41-4	
Methyl-tert-butyl ether	<15.7	ug/kg	61.9	15.7	1	05/18/15 07:50	05/18/15 16:33	1634-04-4	
Toluene	<13.9	ug/kg	61.9	13.9	1	05/18/15 07:50	05/18/15 16:33	108-88-3	
Xylene (Total)	<59.9	ug/kg	186	59.9	1	05/18/15 07:50	05/18/15 16:33	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	49-157		1	05/18/15 07:50	05/18/15 16:33	1868-53-7	
4-Bromofluorobenzene (S)	102	%	53-134		1	05/18/15 07:50	05/18/15 16:33	460-00-4	
Toluene-d8 (S)	105	%	61-148		1	05/18/15 07:50	05/18/15 16:33	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	19.2	%	0.10	0.10	1		05/19/15 15:47		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114782

QC Batch: MSV/28497 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40114782001, 40114782002, 40114782003

METHOD BLANK: 1159756 Matrix: Solid  
Associated Lab Samples: 40114782001, 40114782002, 40114782003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	05/18/15 11:05	
Ethylbenzene	ug/kg	<12.4	50.0	05/18/15 11:05	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	05/18/15 11:05	
Toluene	ug/kg	<11.2	50.0	05/18/15 11:05	
Xylene (Total)	ug/kg	<48.4	150	05/18/15 11:05	
4-Bromofluorobenzene (S)	%	99	53-134	05/18/15 11:05	
Dibromofluoromethane (S)	%	97	49-157	05/18/15 11:05	
Toluene-d8 (S)	%	104	61-148	05/18/15 11:05	

LABORATORY CONTROL SAMPLE & LCSD: 1159757

Parameter	Units	1159758								
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	2500	2420	2400	97	96	70-130	1	20	
Ethylbenzene	ug/kg	2500	2580	2590	103	104	70-130	1	20	
Methyl-tert-butyl ether	ug/kg	2500	2610	2520	104	101	70-130	3	20	
Toluene	ug/kg	2500	2590	2580	104	103	70-130	1	20	
Xylene (Total)	ug/kg	7500	7310	7480	98	100	70-130	2	20	
4-Bromofluorobenzene (S)	%				102	106	53-134			
Dibromofluoromethane (S)	%				97	95	49-157			
Toluene-d8 (S)	%				106	106	61-148			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114782

QC Batch: OEXT/26555 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40114782001, 40114782002, 40114782003

METHOD BLANK: 1159662 Matrix: Solid  
Associated Lab Samples: 40114782001, 40114782002, 40114782003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	05/18/15 11:43	
Acenaphthylene	ug/kg	<7.5	16.7	05/18/15 11:43	
Anthracene	ug/kg	<8.6	16.7	05/18/15 11:43	
Benzo(a)anthracene	ug/kg	<5.8	16.7	05/18/15 11:43	
Benzo(a)pyrene	ug/kg	<6.0	16.7	05/18/15 11:43	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	05/18/15 11:43	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	05/18/15 11:43	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	05/18/15 11:43	
Chrysene	ug/kg	<7.7	16.7	05/18/15 11:43	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	05/18/15 11:43	
Fluoranthene	ug/kg	<8.3	16.7	05/18/15 11:43	
Fluorene	ug/kg	<8.3	16.7	05/18/15 11:43	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	05/18/15 11:43	
Naphthalene	ug/kg	<8.3	16.7	05/18/15 11:43	
Phenanthrene	ug/kg	<8.3	16.7	05/18/15 11:43	
Pyrene	ug/kg	<8.3	16.7	05/18/15 11:43	
2-Fluorobiphenyl (S)	%	70	39-130	05/18/15 11:43	
Terphenyl-d14 (S)	%	81	37-130	05/18/15 11:43	

LABORATORY CONTROL SAMPLE: 1159663

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	268	80	54-130	
Acenaphthylene	ug/kg	333	274	82	55-130	
Anthracene	ug/kg	333	324	97	64-130	
Benzo(a)anthracene	ug/kg	333	279	84	50-130	
Benzo(a)pyrene	ug/kg	333	288	87	46-130	
Benzo(b)fluoranthene	ug/kg	333	271	81	43-130	
Benzo(g,h,i)perylene	ug/kg	333	287	86	48-130	
Benzo(k)fluoranthene	ug/kg	333	295	88	55-130	
Chrysene	ug/kg	333	295	89	62-130	
Dibenz(a,h)anthracene	ug/kg	333	316	95	49-130	
Fluoranthene	ug/kg	333	296	89	57-130	
Fluorene	ug/kg	333	276	83	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	310	93	50-130	
Naphthalene	ug/kg	333	252	76	48-130	
Phenanthrene	ug/kg	333	286	86	51-130	
Pyrene	ug/kg	333	264	79	55-130	
2-Fluorobiphenyl (S)	%			79	39-130	
Terphenyl-d14 (S)	%			85	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114782

Parameter	Units	1159664		1159665		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40114820007 Result	MS Spike Conc.	MSD Spike Conc.	MSD Result								
Acenaphthene	ug/kg	11.8J	383	383	303	291	76	73	46-130	4	26		
Acenaphthylene	ug/kg	<8.6	383	383	309	300	79	77	49-130	3	23		
Anthracene	ug/kg	24.7	383	383	395	387	97	95	52-130	2	28		
Benzo(a)anthracene	ug/kg	13.2J	383	383	577	588	147	150	34-130	2	36	M1	
Benzo(a)pyrene	ug/kg	12.2J	383	383	605	623	155	160	34-130	3	40	M1	
Benzo(b)fluoranthene	ug/kg	11.8J	383	383	589	631	151	162	22-130	7	40	M1	
Benzo(g,h,i)perylene	ug/kg	8.4J	383	383	510	512	131	131	24-130	0	35	M1	
Benzo(k)fluoranthene	ug/kg	10.8J	383	383	565	561	145	144	41-130	1	37	M1	
Chrysene	ug/kg	23.1	383	383	652	678	164	171	49-130	4	33	M1	
Dibenz(a,h)anthracene	ug/kg	<7.0	383	383	416	422	108	109	27-130	1	31		
Fluoranthene	ug/kg	31.3	383	383	991	1010	251	256	34-130	2	37	E,M1	
Fluorene	ug/kg	18.1J	383	383	312	302	77	74	45-130	3	25		
Indeno(1,2,3-cd)pyrene	ug/kg	7.5J	383	383	522	528	134	136	30-130	1	34	M1	
Naphthalene	ug/kg	<9.6	383	383	294	288	76	75	38-130	2	30		
Phenanthrene	ug/kg	22.4	383	383	607	609	152	153	38-130	0	34	M1	
Pyrene	ug/kg	70.2	383	383	803	822	191	196	35-130	2	35	M1	
2-Fluorobiphenyl (S)	%						69	65	39-130				
Terphenyl-d14 (S)	%						67	70	37-130				

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114782

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSV/28498

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.  
M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114782

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40114782001	B-27 (14)	EPA 3546	OEXT/26555	EPA 8270 by SIM	MSSV/7890
40114782002	B-29 (9)	EPA 3546	OEXT/26555	EPA 8270 by SIM	MSSV/7890
40114782003	EX-13 (4-5)	EPA 3546	OEXT/26555	EPA 8270 by SIM	MSSV/7890
40114782001	B-27 (14)	EPA 5035/5030B	MSV/28497	EPA 8260	MSV/28498
40114782002	B-29 (9)	EPA 5035/5030B	MSV/28497	EPA 8260	MSV/28498
40114782003	EX-13 (4-5)	EPA 5035/5030B	MSV/28497	EPA 8260	MSV/28498
40114782001	B-27 (14)	ASTM D2974-87	PMST/11214		
40114782002	B-29 (9)	ASTM D2974-87	PMST/11214		
40114782003	EX-13 (4-5)	ASTM D2974-87	PMST/11214		

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Client Name: TriCore  
Courier:  Fed Ex  UPS  Client  Pace Other: CS Logistics  
Tracking #: \_\_\_\_\_

Project #: \_\_\_\_\_  
**WO#: 40114782**  
  
40114782

Custody Seal on Cooler/Box Present:  Yes  No Seals intact:  Yes  No  
Custody Seal on Samples Present:  Yes  No Seals intact:  Yes  No  
Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_  
Thermometer Used SR44 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun  
Cooler Temperature Uncorr: 3 / Corr: 3 Biological Tissue is Frozen:  Yes  No  
Temp Blank Present:  Yes  No

Person examining contents:  
Date: 5-14-15  
Initials: SDW

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>S</u>	
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments   
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_

Project Manager Review: UW Date: 5/15/15



# Illinois Environmental Protection Agency

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

## Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

### B. Sample Collector

I certify that:

1. Appropriate sampling equipment/methods were utilized to obtain representative samples.
2. Chain-of-custody procedures were followed in the field.
3. Sample integrity was maintained by proper preservation.
4. All samples were properly labeled.

Jlm  
(Initial)  
Jlm  
(Initial)  
Jlm  
(Initial)  
Jlm  
(Initial)

### C. Laboratory Representative

I certify that:

1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms
2. Sample integrity was maintained by proper preservation.
3. All samples were properly labeled.
4. Quality assurance/quality control procedures were established and carried out.
5. Sample holding times were not exceeded.

Uw  
(Initial)  
Uw  
(Initial)  
Uw  
(Initial)  
Uw  
(Initial)  
Uw  
(Initial)

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Holly Moore

Title Environmental Scientist

Company TriCore Environmental, LLC

Address 2368 Corporate Lane, Suite 116

City Naperville

State Illinois

Zip Code 60563

Phone (630) 520-9973

Signature Holly Moore

Date 5/13/15

**Laboratory Representative**

Name Laurie Woelfel

Title Project Manager

Company Pace Analytical Services, Inc.

Address 1241 Bellevue Street, Suite 9

City Green Bay

State Wisconsin

Zip Code 64302

Phone (920) 469-2436

Signature Laurie Woelfel

Date 5/22/15



June 17, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

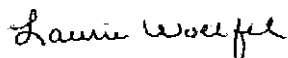
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114845

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on May 15, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



### REPORT OF LABORATORY ANALYSIS

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**CERTIFICATIONS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114845

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**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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**SAMPLE SUMMARY**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114845

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40114845001	B-28 (13)	Solid	05/14/15 09:15	05/15/15 09:30
40114845002	EX-14 (4-5)	Solid	05/14/15 13:00	05/15/15 09:30
40114845003	B-30 (11)	Solid	05/14/15 13:10	05/15/15 09:30
40114845004	B-31 (11)	Solid	05/14/15 13:15	05/15/15 09:30

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114845

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40114845001	B-28 (13)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAM	1	PASI-G
40114845002	EX-14 (4-5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAM	1	PASI-G
40114845003	B-30 (11)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAM	1	PASI-G
40114845004	B-31 (11)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAM	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114845

Sample: B-28 (13) Lab ID: 40114845001 Collected: 05/14/15 09:15 Received: 05/15/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.6	ug/kg	19.2	9.6	1	05/18/15 08:43	05/18/15 18:39	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.2	8.6	1	05/18/15 08:43	05/18/15 18:39	208-96-8	
Anthracene	<10	ug/kg	19.2	10	1	05/18/15 08:43	05/18/15 18:39	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.2	6.7	1	05/18/15 08:43	05/18/15 18:39	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.2	6.9	1	05/18/15 08:43	05/18/15 18:39	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.2	9.6	1	05/18/15 08:43	05/18/15 18:39	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.2	7.3	1	05/18/15 08:43	05/18/15 18:39	191-24-2	
Benzo(k)fluoranthene	<10.6	ug/kg	19.2	10.6	1	05/18/15 08:43	05/18/15 18:39	207-08-9	
Chrysene	<8.9	ug/kg	19.2	8.9	1	05/18/15 08:43	05/18/15 18:39	218-01-9	
Dibenz(a,h)anthracene	<7.0	ug/kg	19.2	7.0	1	05/18/15 08:43	05/18/15 18:39	53-70-3	
Fluoranthene	<9.6	ug/kg	19.2	9.6	1	05/18/15 08:43	05/18/15 18:39	206-44-0	
Fluorene	<9.6	ug/kg	19.2	9.6	1	05/18/15 08:43	05/18/15 18:39	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.2	7.3	1	05/18/15 08:43	05/18/15 18:39	193-39-5	
Naphthalene	<9.6	ug/kg	19.2	9.6	1	05/18/15 08:43	05/18/15 18:39	91-20-3	
Phenanthrene	<9.6	ug/kg	19.2	9.6	1	05/18/15 08:43	05/18/15 18:39	85-01-8	
Pyrene	<9.6	ug/kg	19.2	9.6	1	05/18/15 08:43	05/18/15 18:39	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	61	%	39-130		1	05/18/15 08:43	05/18/15 18:39	321-60-8	
Terphenyl-d14 (S)	68	%	37-130		1	05/18/15 08:43	05/18/15 18:39	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.6	ug/kg	23.1	10.6	1	05/18/15 07:50	05/18/15 16:56	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.7	14.3	1	05/18/15 07:50	05/18/15 16:56	100-41-4	
Methyl-tert-butyl ether	206	ug/kg	57.7	14.6	1	05/18/15 07:50	05/18/15 16:56	1634-04-4	
Toluene	<12.9	ug/kg	57.7	12.9	1	05/18/15 07:50	05/18/15 16:56	108-88-3	
Xylene (Total)	<55.9	ug/kg	173	55.9	1	05/18/15 07:50	05/18/15 16:56	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	49-157		1	05/18/15 07:50	05/18/15 16:56	1868-53-7	
4-Bromofluorobenzene (S)	98	%	53-134		1	05/18/15 07:50	05/18/15 16:56	460-00-4	
Toluene-d8 (S)	105	%	61-148		1	05/18/15 07:50	05/18/15 16:56	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.3	%	0.10	0.10	1		05/21/15 15:39		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114845

Sample: EX-14 (4-5) Lab ID: 40114845002 Collected: 05/14/15 13:00 Received: 05/15/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<10.6	ug/kg	21.2	10.6	1	05/19/15 09:19	05/19/15 12:42	83-32-9	
Acenaphthylene	<9.5	ug/kg	21.2	9.5	1	05/19/15 09:19	05/19/15 12:42	208-96-8	
Anthracene	<11.0	ug/kg	21.2	11.0	1	05/19/15 09:19	05/19/15 12:42	120-12-7	
Benzo(a)anthracene	10.1J	ug/kg	21.2	7.4	1	05/19/15 09:19	05/19/15 12:42	56-55-3	
Benzo(a)pyrene	15.7J	ug/kg	21.2	7.6	1	05/19/15 09:19	05/19/15 12:42	50-32-8	
Benzo(b)fluoranthene	17.5J	ug/kg	21.2	10.6	1	05/19/15 09:19	05/19/15 12:42	205-99-2	
Benzo(g,h,i)perylene	16.8J	ug/kg	21.2	8.1	1	05/19/15 09:19	05/19/15 12:42	191-24-2	
Benzo(k)fluoranthene	15.9J	ug/kg	21.2	11.8	1	05/19/15 09:19	05/19/15 12:42	207-08-9	
Chrysene	20.1J	ug/kg	21.2	9.8	1	05/19/15 09:19	05/19/15 12:42	218-01-9	
Dibenz(a,h)anthracene	<7.8	ug/kg	21.2	7.8	1	05/19/15 09:19	05/19/15 12:42	53-70-3	
Fluoranthene	38.4	ug/kg	21.2	10.6	1	05/19/15 09:19	05/19/15 12:42	206-44-0	
Fluorene	<10.6	ug/kg	21.2	10.6	1	05/19/15 09:19	05/19/15 12:42	86-73-7	
Indeno(1,2,3-cd)pyrene	13.7J	ug/kg	21.2	8.1	1	05/19/15 09:19	05/19/15 12:42	193-39-5	
Naphthalene	<10.6	ug/kg	21.2	10.6	1	05/19/15 09:19	05/19/15 12:42	91-20-3	
Phenanthrene	18.3J	ug/kg	21.2	10.6	1	05/19/15 09:19	05/19/15 12:42	85-01-8	
Pyrene	27.6	ug/kg	21.2	10.6	1	05/19/15 09:19	05/19/15 12:42	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	55	%	39-130		1	05/19/15 09:19	05/19/15 12:42	321-60-8	
Terphenyl-d14 (S)	58	%	37-130		1	05/19/15 09:19	05/19/15 12:42	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<11.8	ug/kg	25.5	11.8	1	05/18/15 07:50	05/18/15 17:18	71-43-2	
Ethylbenzene	<15.8	ug/kg	63.7	15.8	1	05/18/15 07:50	05/18/15 17:18	100-41-4	
Methyl-tert-butyl ether	<16.1	ug/kg	63.7	16.1	1	05/18/15 07:50	05/18/15 17:18	1634-04-4	
Toluene	<14.3	ug/kg	63.7	14.3	1	05/18/15 07:50	05/18/15 17:18	108-88-3	
Xylene (Total)	<61.7	ug/kg	191	61.7	1	05/18/15 07:50	05/18/15 17:18	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	49-157		1	05/18/15 07:50	05/18/15 17:18	1868-53-7	
4-Bromofluorobenzene (S)	96	%	53-134		1	05/18/15 07:50	05/18/15 17:18	460-00-4	
Toluene-d8 (S)	103	%	61-148		1	05/18/15 07:50	05/18/15 17:18	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	21.5	%	0.10	0.10	1		05/21/15 15:39		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114845

Sample: B-30 (11) Lab ID: 40114845003 Collected: 05/14/15 13:10 Received: 05/15/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.6	ug/kg	19.2	9.6	1	05/19/15 09:19	05/19/15 13:00	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.2	8.6	1	05/19/15 09:19	05/19/15 13:00	208-96-8	
Anthracene	<10	ug/kg	19.2	10	1	05/19/15 09:19	05/19/15 13:00	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.2	6.7	1	05/19/15 09:19	05/19/15 13:00	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.2	6.9	1	05/19/15 09:19	05/19/15 13:00	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.2	9.6	1	05/19/15 09:19	05/19/15 13:00	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.2	7.3	1	05/19/15 09:19	05/19/15 13:00	191-24-2	
Benzo(k)fluoranthene	<10.6	ug/kg	19.2	10.6	1	05/19/15 09:19	05/19/15 13:00	207-08-9	
Chrysene	<8.9	ug/kg	19.2	8.9	1	05/19/15 09:19	05/19/15 13:00	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.2	7.1	1	05/19/15 09:19	05/19/15 13:00	53-70-3	
Fluoranthene	<9.6	ug/kg	19.2	9.6	1	05/19/15 09:19	05/19/15 13:00	206-44-0	
Fluorene	<9.6	ug/kg	19.2	9.6	1	05/19/15 09:19	05/19/15 13:00	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.2	7.3	1	05/19/15 09:19	05/19/15 13:00	193-39-5	
Naphthalene	<9.6	ug/kg	19.2	9.6	1	05/19/15 09:19	05/19/15 13:00	91-20-3	
Phenanthrene	<9.6	ug/kg	19.2	9.6	1	05/19/15 09:19	05/19/15 13:00	85-01-8	
Pyrene	<9.6	ug/kg	19.2	9.6	1	05/19/15 09:19	05/19/15 13:00	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	61	%	39-130		1	05/19/15 09:19	05/19/15 13:00	321-60-8	
Terphenyl-d14 (S)	66	%	37-130		1	05/19/15 09:19	05/19/15 13:00	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.6	ug/kg	23.1	10.6	1	05/18/15 07:50	05/18/15 17:41	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.7	14.3	1	05/18/15 07:50	05/18/15 17:41	100-41-4	
Methyl-tert-butyl ether	56.5J	ug/kg	57.7	14.6	1	05/18/15 07:50	05/18/15 17:41	1634-04-4	
Toluene	<12.9	ug/kg	57.7	12.9	1	05/18/15 07:50	05/18/15 17:41	108-88-3	
Xylene (Total)	<55.9	ug/kg	173	55.9	1	05/18/15 07:50	05/18/15 17:41	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	49-157		1	05/18/15 07:50	05/18/15 17:41	1868-53-7	
4-Bromofluorobenzene (S)	102	%	53-134		1	05/18/15 07:50	05/18/15 17:41	460-00-4	
Toluene-d8 (S)	113	%	61-148		1	05/18/15 07:50	05/18/15 17:41	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.3	%	0.10	0.10	1		05/21/15 15:39		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114845

Sample: B-31 (11) Lab ID: 40114845004 Collected: 05/14/15 13:15 Received: 05/15/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.6	ug/kg	19.2	9.6	1	05/19/15 09:19	05/19/15 13:17	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.2	8.6	1	05/19/15 09:19	05/19/15 13:17	208-96-8	
Anthracene	<10	ug/kg	19.2	10	1	05/19/15 09:19	05/19/15 13:17	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.2	6.7	1	05/19/15 09:19	05/19/15 13:17	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.2	6.9	1	05/19/15 09:19	05/19/15 13:17	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.2	9.6	1	05/19/15 09:19	05/19/15 13:17	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.2	7.3	1	05/19/15 09:19	05/19/15 13:17	191-24-2	
Benzo(k)fluoranthene	<10.6	ug/kg	19.2	10.6	1	05/19/15 09:19	05/19/15 13:17	207-08-9	
Chrysene	<8.9	ug/kg	19.2	8.9	1	05/19/15 09:19	05/19/15 13:17	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.2	7.1	1	05/19/15 09:19	05/19/15 13:17	53-70-3	
Fluoranthene	13.5J	ug/kg	19.2	9.6	1	05/19/15 09:19	05/19/15 13:17	206-44-0	
Fluorene	<9.6	ug/kg	19.2	9.6	1	05/19/15 09:19	05/19/15 13:17	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.2	7.3	1	05/19/15 09:19	05/19/15 13:17	193-39-5	
Naphthalene	<9.6	ug/kg	19.2	9.6	1	05/19/15 09:19	05/19/15 13:17	91-20-3	
Phenanthrene	<9.6	ug/kg	19.2	9.6	1	05/19/15 09:19	05/19/15 13:17	85-01-8	
Pyrene	<9.6	ug/kg	19.2	9.6	1	05/19/15 09:19	05/19/15 13:17	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	69	%	39-130		1	05/19/15 09:19	05/19/15 13:17	321-60-8	
Terphenyl-d14 (S)	71	%	37-130		1	05/19/15 09:19	05/19/15 13:17	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.6	ug/kg	23.1	10.6	1	05/18/15 07:50	05/18/15 18:03	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.7	14.3	1	05/18/15 07:50	05/18/15 18:03	100-41-4	
Methyl-tert-butyl ether	22.6J	ug/kg	57.7	14.6	1	05/18/15 07:50	05/18/15 18:03	1634-04-4	
Toluene	<12.9	ug/kg	57.7	12.9	1	05/18/15 07:50	05/18/15 18:03	108-88-3	
Xylene (Total)	<55.9	ug/kg	173	55.9	1	05/18/15 07:50	05/18/15 18:03	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	88	%	49-157		1	05/18/15 07:50	05/18/15 18:03	1868-53-7	
4-Bromofluorobenzene (S)	91	%	53-134		1	05/18/15 07:50	05/18/15 18:03	460-00-4	
Toluene-d8 (S)	97	%	61-148		1	05/18/15 07:50	05/18/15 18:03	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.3	%	0.10	0.10	1		05/21/15 15:40		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114845

QC Batch: MSV/28497 Analysis Method: EPA 8260  
 QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
 Associated Lab Samples: 40114845001, 40114845002, 40114845003, 40114845004

METHOD BLANK: 1159756 Matrix: Solid  
 Associated Lab Samples: 40114845001, 40114845002, 40114845003, 40114845004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	05/18/15 11:05	
Ethylbenzene	ug/kg	<12.4	50.0	05/18/15 11:05	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	05/18/15 11:05	
Toluene	ug/kg	<11.2	50.0	05/18/15 11:05	
Xylene (Total)	ug/kg	<48.4	150	05/18/15 11:05	
4-Bromofluorobenzene (S)	%	99	53-134	05/18/15 11:05	
Dibromofluoromethane (S)	%	97	49-157	05/18/15 11:05	
Toluene-d8 (S)	%	104	61-148	05/18/15 11:05	

LABORATORY CONTROL SAMPLE & LCSD: 1159757

1159758

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	2500	2420	2400	97	96	70-130	1	20	
Ethylbenzene	ug/kg	2500	2580	2590	103	104	70-130	1	20	
Methyl-tert-butyl ether	ug/kg	2500	2610	2520	104	101	70-130	3	20	
Toluene	ug/kg	2500	2590	2580	104	103	70-130	1	20	
Xylene (Total)	ug/kg	7500	7310	7480	98	100	70-130	2	20	
4-Bromofluorobenzene (S)	%				102	106	53-134			
Dibromofluoromethane (S)	%				97	95	49-157			
Toluene-d8 (S)	%				106	106	61-148			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114845

QC Batch: OEXT/26555 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40114845001

METHOD BLANK: 1159662 Matrix: Solid  
Associated Lab Samples: 40114845001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	05/18/15 11:43	
Acenaphthylene	ug/kg	<7.5	16.7	05/18/15 11:43	
Anthracene	ug/kg	<8.6	16.7	05/18/15 11:43	
Benzo(a)anthracene	ug/kg	<5.8	16.7	05/18/15 11:43	
Benzo(a)pyrene	ug/kg	<6.0	16.7	05/18/15 11:43	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	05/18/15 11:43	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	05/18/15 11:43	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	05/18/15 11:43	
Chrysene	ug/kg	<7.7	16.7	05/18/15 11:43	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	05/18/15 11:43	
Fluoranthene	ug/kg	<8.3	16.7	05/18/15 11:43	
Fluorene	ug/kg	<8.3	16.7	05/18/15 11:43	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	05/18/15 11:43	
Naphthalene	ug/kg	<8.3	16.7	05/18/15 11:43	
Phenanthrene	ug/kg	<8.3	16.7	05/18/15 11:43	
Pyrene	ug/kg	<8.3	16.7	05/18/15 11:43	
2-Fluorobiphenyl (S)	%	70	39-130	05/18/15 11:43	
Terphenyl-d14 (S)	%	81	37-130	05/18/15 11:43	

LABORATORY CONTROL SAMPLE: 1159663

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	268	80	54-130	
Acenaphthylene	ug/kg	333	274	82	55-130	
Anthracene	ug/kg	333	324	97	64-130	
Benzo(a)anthracene	ug/kg	333	279	84	50-130	
Benzo(a)pyrene	ug/kg	333	288	87	46-130	
Benzo(b)fluoranthene	ug/kg	333	271	81	43-130	
Benzo(g,h,i)perylene	ug/kg	333	287	86	48-130	
Benzo(k)fluoranthene	ug/kg	333	295	88	55-130	
Chrysene	ug/kg	333	295	89	62-130	
Dibenz(a,h)anthracene	ug/kg	333	316	95	49-130	
Fluoranthene	ug/kg	333	296	89	57-130	
Fluorene	ug/kg	333	276	83	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	310	93	50-130	
Naphthalene	ug/kg	333	252	76	48-130	
Phenanthrene	ug/kg	333	286	86	51-130	
Pyrene	ug/kg	333	264	79	55-130	
2-Fluorobiphenyl (S)	%			79	39-130	
Terphenyl-d14 (S)	%			85	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114845

Parameter	Units	1159664		1159665		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40114820007 Result	MS Spike Conc.	MSD Spike Conc.	MSD Result								
Acenaphthene	ug/kg	11.8J	383	383	303	291	76	73	46-130	4	26		
Acenaphthylene	ug/kg	<8.6	383	383	309	300	79	77	49-130	3	23		
Anthracene	ug/kg	24.7	383	383	395	387	97	95	52-130	2	28		
Benzo(a)anthracene	ug/kg	13.2J	383	383	577	588	147	150	34-130	2	36	M1	
Benzo(a)pyrene	ug/kg	12.2J	383	383	605	623	155	160	34-130	3	40	M1	
Benzo(b)fluoranthene	ug/kg	11.8J	383	383	589	631	151	162	22-130	7	40	M1	
Benzo(g,h,i)perylene	ug/kg	8.4J	383	383	510	512	131	131	24-130	0	35	M1	
Benzo(k)fluoranthene	ug/kg	10.8J	383	383	565	561	145	144	41-130	1	37	M1	
Chrysene	ug/kg	23.1	383	383	652	678	164	171	49-130	4	33	M1	
Dibenz(a,h)anthracene	ug/kg	<7.0	383	383	416	422	108	109	27-130	1	31		
Fluoranthene	ug/kg	31.3	383	383	991	1010	251	256	34-130	2	37	E,M1	
Fluorene	ug/kg	18.1J	383	383	312	302	77	74	45-130	3	25		
Indeno(1,2,3-cd)pyrene	ug/kg	7.5J	383	383	522	528	134	136	30-130	1	34	M1	
Naphthalene	ug/kg	<9.6	383	383	294	288	76	75	38-130	2	30		
Phenanthrene	ug/kg	22.4	383	383	607	609	152	153	38-130	0	34	M1	
Pyrene	ug/kg	70.2	383	383	803	822	191	196	35-130	2	35	M1	
2-Fluorobiphenyl (S)	%						69	65	39-130				
Terphenyl-d14 (S)	%						67	70	37-130				

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114845

QC Batch: OEXT/26568 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40114845002, 40114845003, 40114845004

METHOD BLANK: 1160102 Matrix: Solid  
Associated Lab Samples: 40114845002, 40114845003, 40114845004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	05/19/15 11:17	
Acenaphthylene	ug/kg	<7.5	16.7	05/19/15 11:17	
Anthracene	ug/kg	<8.6	16.7	05/19/15 11:17	
Benzo(a)anthracene	ug/kg	<5.8	16.7	05/19/15 11:17	
Benzo(a)pyrene	ug/kg	<6.0	16.7	05/19/15 11:17	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	05/19/15 11:17	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	05/19/15 11:17	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	05/19/15 11:17	
Chrysene	ug/kg	<7.7	16.7	05/19/15 11:17	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	05/19/15 11:17	
Fluoranthene	ug/kg	<8.3	16.7	05/19/15 11:17	
Fluorene	ug/kg	<8.3	16.7	05/19/15 11:17	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	05/19/15 11:17	
Naphthalene	ug/kg	<8.3	16.7	05/19/15 11:17	
Phenanthrene	ug/kg	<8.3	16.7	05/19/15 11:17	
Pyrene	ug/kg	<8.3	16.7	05/19/15 11:17	
2-Fluorobiphenyl (S)	%	66	39-130	05/19/15 11:17	
Terphenyl-d14 (S)	%	80	37-130	05/19/15 11:17	

LABORATORY CONTROL SAMPLE: 1160103

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	255	77	54-130	
Acenaphthylene	ug/kg	333	254	76	55-130	
Anthracene	ug/kg	333	296	89	64-130	
Benzo(a)anthracene	ug/kg	333	259	78	50-130	
Benzo(a)pyrene	ug/kg	333	268	80	46-130	
Benzo(b)fluoranthene	ug/kg	333	257	77	43-130	
Benzo(g,h,i)perylene	ug/kg	333	273	82	48-130	
Benzo(k)fluoranthene	ug/kg	333	268	80	55-130	
Chrysene	ug/kg	333	271	81	62-130	
Dibenz(a,h)anthracene	ug/kg	333	300	90	49-130	
Fluoranthene	ug/kg	333	267	80	57-130	
Fluorene	ug/kg	333	254	76	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	292	88	50-130	
Naphthalene	ug/kg	333	240	72	48-130	
Phenanthrene	ug/kg	333	262	78	51-130	
Pyrene	ug/kg	333	244	73	55-130	
2-Fluorobiphenyl (S)	%			71	39-130	
Terphenyl-d14 (S)	%			81	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114845

Parameter	Units	1160104		1160105		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40114923001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Acenaphthene	ug/kg	<20.0	399	399	271	275	68	69	46-130	1	26		
Acenaphthylene	ug/kg	<20.0	399	399	281	286	70	72	49-130	2	23		
Anthracene	ug/kg	<20.0	399	399	313	321	78	80	52-130	2	28		
Benzo(a)anthracene	ug/kg	<20.0	399	399	259	275	65	69	34-130	6	36		
Benzo(a)pyrene	ug/kg	<20.0	399	399	265	281	66	70	34-130	6	40		
Benzo(b)fluoranthene	ug/kg	<20.0	399	399	259	274	64	68	22-130	6	40		
Benzo(g,h,i)perylene	ug/kg	<20.0	399	399	262	282	65	70	24-130	7	35		
Benzo(k)fluoranthene	ug/kg	<20.0	399	399	265	283	66	71	41-130	7	37		
Chrysene	ug/kg	<20.0	399	399	273	293	67	72	49-130	7	33		
Dibenz(a,h)anthracene	ug/kg	<20.0	399	399	295	313	74	78	27-130	6	31		
Fluoranthene	ug/kg	<20.0	399	399	279	291	69	72	34-130	4	37		
Fluorene	ug/kg	<20.0	399	399	277	283	69	71	45-130	2	25		
Indeno(1,2,3-cd)pyrene	ug/kg	<20.0	399	399	281	302	70	75	30-130	7	34		
Naphthalene	ug/kg	<20.0	399	399	273	277	68	69	38-130	2	30		
Phenanthrene	ug/kg	<20.0	399	399	280	288	69	71	38-130	3	34		
Pyrene	ug/kg	<20.0	399	399	253	265	62	65	35-130	5	35		
2-Fluorobiphenyl (S)	%						63	62	39-130				
Terphenyl-d14 (S)	%						67	66	37-130				

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114845

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSV/28498

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.  
M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114845

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40114845001	B-28 (13)	EPA 3546	OEXT/26555	EPA 8270 by SIM	MSSV/7890
40114845002	EX-14 (4-5)	EPA 3546	OEXT/26568	EPA 8270 by SIM	MSSV/7897
40114845003	B-30 (11)	EPA 3546	OEXT/26568	EPA 8270 by SIM	MSSV/7897
40114845004	B-31 (11)	EPA 3546	OEXT/26568	EPA 8270 by SIM	MSSV/7897
40114845001	B-28 (13)	EPA 5035/5030B	MSV/28497	EPA 8260	MSV/28498
40114845002	EX-14 (4-5)	EPA 5035/5030B	MSV/28497	EPA 8260	MSV/28498
40114845003	B-30 (11)	EPA 5035/5030B	MSV/28497	EPA 8260	MSV/28498
40114845004	B-31 (11)	EPA 5035/5030B	MSV/28497	EPA 8260	MSV/28498
40114845001	B-28 (13)	ASTM D2974-87	PMST/11221		
40114845002	EX-14 (4-5)	ASTM D2974-87	PMST/11221		
40114845003	B-30 (11)	ASTM D2974-87	PMST/11221		
40114845004	B-31 (11)	ASTM D2974-87	PMST/11221		

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Client Name: TriCore

Project #: **WO# : 40114845**

Courier:  Fed Ex  UPS  Client  Pace Other: CS Logistics



Tracking #: \_\_\_\_\_ Custody Seal on Cooler/Box Present:  Yes  No Seals intact:  Yes  No

Custody Seal on Samples Present:  Yes  No Seals intact:  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR44 Type of Ice:  Wet  Blue Dry None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 3 / Corr: 3 Biological Tissue is Frozen:  Yes  No

Temp Blank Present:  Yes  No  No

Person examining contents: Date: 5-15-15 Initials: SPW

Temp should be above freezing to 6°C for all sample except Biota. Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sample Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: (VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER: _____)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: UW

Date: 5/15/15



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The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

**Leaking Underground Storage Tank Program  
Laboratory Certification for Chemical Analysis**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

**B. Sample Collector**

I certify that:

1. Appropriate sampling equipment/methods were utilized to obtain representative samples.
2. Chain-of-custody procedures were followed in the field.
3. Sample integrity was maintained by proper preservation.
4. All samples were properly labeled.

JLm  
(Initial)  
JLm  
(Initial)  
JLm  
(Initial)  
JLm  
(Initial)

**C. Laboratory Representative**

I certify that:

1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms
2. Sample integrity was maintained by proper preservation.
3. All samples were properly labeled.
4. Quality assurance/quality control procedures were established and carried out.
5. Sample holding times were not exceeded.

CLW  
(Initial)  
CLW  
(Initial)  
CLW  
(Initial)  
CLW  
(Initial)  
CLW  
(Initial)

6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.

UW  
(Initial)

7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name: Holly Moore  
Title: Environmental Scientist  
Company: TriCore Environmental, LLC  
Address: 2368 Corporate Lane, Suite 116  
City: Naperville  
State: Illinois  
Zip Code: 60563  
Phone: (630) 520-9973  
Signature: Holly Moore  
Date: 5/14/15

**Laboratory Representative**

Name: Laurie Woelfel  
Title: Project Manager  
Company: Pace Analytical Services, Inc.  
Address: 1241 Bellevue Street, Suite 9  
City: Green Bay  
State: Wisconsin  
Zip Code: 64302  
Phone: (920) 469-2436  
Signature: Laurie Woelfel  
Date: 5/22/15

May 19, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

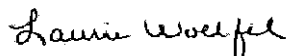
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114914

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on May 16, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114914

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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## REPORT OF LABORATORY ANALYSIS

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**SAMPLE SUMMARY**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114914

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40114914001	EX-15 (8-9)	Solid	05/15/15 09:45	05/16/15 09:15
40114914002	B-32 (11)	Solid	05/15/15 09:50	05/16/15 09:15
40114914003	B-33 (11)	Solid	05/15/15 09:55	05/16/15 09:15
40114914004	B-34 (11)	Solid	05/15/15 10:00	05/16/15 09:15
40114914005	OVERBURDEN-1	Solid	05/15/15 12:05	05/16/15 09:15

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114914

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40114914001	EX-15 (8-9)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40114914002	B-32 (11)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40114914003	B-33 (11)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40114914004	B-34 (11)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40114914005	OVERBURDEN-1	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114914

Sample: EX-15 (8-9) Lab ID: 40114914001 Collected: 05/15/15 09:45 Received: 05/16/15 09:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.7	ug/kg	19.4	9.7	1	05/18/15 08:43	05/18/15 15:48	83-32-9	
Acenaphthylene	<8.7	ug/kg	19.4	8.7	1	05/18/15 08:43	05/18/15 15:48	208-96-8	
Anthracene	<10.1	ug/kg	19.4	10.1	1	05/18/15 08:43	05/18/15 15:48	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.4	6.7	1	05/18/15 08:43	05/18/15 15:48	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.4	6.9	1	05/18/15 08:43	05/18/15 15:48	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.4	9.7	1	05/18/15 08:43	05/18/15 15:48	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.4	7.4	1	05/18/15 08:43	05/18/15 15:48	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.4	10.7	1	05/18/15 08:43	05/18/15 15:48	207-08-9	
Chrysene	<9.0	ug/kg	19.4	9.0	1	05/18/15 08:43	05/18/15 15:48	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.4	7.1	1	05/18/15 08:43	05/18/15 15:48	53-70-3	
Fluoranthene	<9.7	ug/kg	19.4	9.7	1	05/18/15 08:43	05/18/15 15:48	206-44-0	
Fluorene	<9.7	ug/kg	19.4	9.7	1	05/18/15 08:43	05/18/15 15:48	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.4	7.4	1	05/18/15 08:43	05/18/15 15:48	193-39-5	
Naphthalene	<9.7	ug/kg	19.4	9.7	1	05/18/15 08:43	05/18/15 15:48	91-20-3	
Phenanthrene	<9.7	ug/kg	19.4	9.7	1	05/18/15 08:43	05/18/15 15:48	85-01-8	
Pyrene	<9.7	ug/kg	19.4	9.7	1	05/18/15 08:43	05/18/15 15:48	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	62	%	39-130		1	05/18/15 08:43	05/18/15 15:48	321-60-8	
Terphenyl-d14 (S)	66	%	37-130		1	05/18/15 08:43	05/18/15 15:48	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.7	ug/kg	23.3	10.7	1	05/18/15 07:50	05/18/15 12:58	71-43-2	
Ethylbenzene	20.7J	ug/kg	58.3	14.5	1	05/18/15 07:50	05/18/15 12:58	100-41-4	
Methyl-tert-butyl ether	39.2J	ug/kg	58.3	14.7	1	05/18/15 07:50	05/18/15 12:58	1634-04-4	
Toluene	<13.1	ug/kg	58.3	13.1	1	05/18/15 07:50	05/18/15 12:58	108-88-3	
Xylene (Total)	58.9J	ug/kg	175	56.4	1	05/18/15 07:50	05/18/15 12:58	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	94	%	49-157		1	05/18/15 07:50	05/18/15 12:58	1868-53-7	
4-Bromofluorobenzene (S)	98	%	53-134		1	05/18/15 07:50	05/18/15 12:58	460-00-4	
Toluene-d8 (S)	105	%	61-148		1	05/18/15 07:50	05/18/15 12:58	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.2	%	0.10	0.10	1		05/18/15 10:12		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114914

Sample: B-32 (11) Lab ID: 40114914002 Collected: 05/15/15 09:50 Received: 05/16/15 09:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.7	ug/kg	19.3	9.7	1	05/18/15 08:43	05/18/15 16:05	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.3	8.6	1	05/18/15 08:43	05/18/15 16:05	208-96-8	
Anthracene	<10.0	ug/kg	19.3	10.0	1	05/18/15 08:43	05/18/15 16:05	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.3	6.7	1	05/18/15 08:43	05/18/15 16:05	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.3	6.9	1	05/18/15 08:43	05/18/15 16:05	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.3	9.7	1	05/18/15 08:43	05/18/15 16:05	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.3	7.4	1	05/18/15 08:43	05/18/15 16:05	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.3	10.7	1	05/18/15 08:43	05/18/15 16:05	207-08-9	
Chrysene	<8.9	ug/kg	19.3	8.9	1	05/18/15 08:43	05/18/15 16:05	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.3	7.1	1	05/18/15 08:43	05/18/15 16:05	53-70-3	
Fluoranthene	<9.7	ug/kg	19.3	9.7	1	05/18/15 08:43	05/18/15 16:05	206-44-0	
Fluorene	<9.7	ug/kg	19.3	9.7	1	05/18/15 08:43	05/18/15 16:05	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.3	7.3	1	05/18/15 08:43	05/18/15 16:05	193-39-5	
Naphthalene	<9.7	ug/kg	19.3	9.7	1	05/18/15 08:43	05/18/15 16:05	91-20-3	
Phenanthrene	<9.7	ug/kg	19.3	9.7	1	05/18/15 08:43	05/18/15 16:05	85-01-8	
Pyrene	<9.7	ug/kg	19.3	9.7	1	05/18/15 08:43	05/18/15 16:05	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	67	%	39-130		1	05/18/15 08:43	05/18/15 16:05	321-60-8	
Terphenyl-d14 (S)	71	%	37-130		1	05/18/15 08:43	05/18/15 16:05	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.7	ug/kg	23.2	10.7	1	05/18/15 07:50	05/18/15 13:20	71-43-2	
Ethylbenzene	<14.4	ug/kg	58.0	14.4	1	05/18/15 07:50	05/18/15 13:20	100-41-4	
Methyl-tert-butyl ether	302	ug/kg	58.0	14.7	1	05/18/15 07:50	05/18/15 13:20	1634-04-4	
Toluene	<13.0	ug/kg	58.0	13.0	1	05/18/15 07:50	05/18/15 13:20	108-88-3	
Xylene (Total)	<56.2	ug/kg	174	56.2	1	05/18/15 07:50	05/18/15 13:20	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	97	%	49-157		1	05/18/15 07:50	05/18/15 13:20	1868-53-7	
4-Bromofluorobenzene (S)	102	%	53-134		1	05/18/15 07:50	05/18/15 13:20	460-00-4	
Toluene-d8 (S)	105	%	61-148		1	05/18/15 07:50	05/18/15 13:20	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.8	%	0.10	0.10	1		05/18/15 10:12		

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114914

Sample: B-33 (11) Lab ID: 40114914003 Collected: 05/15/15 09:55 Received: 05/16/15 09:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.7	ug/kg	19.3	9.7	1	05/18/15 08:43	05/18/15 16:22	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.3	8.6	1	05/18/15 08:43	05/18/15 16:22	208-96-8	
Anthracene	<10.0	ug/kg	19.3	10.0	1	05/18/15 08:43	05/18/15 16:22	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.3	6.7	1	05/18/15 08:43	05/18/15 16:22	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.3	6.9	1	05/18/15 08:43	05/18/15 16:22	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.3	9.7	1	05/18/15 08:43	05/18/15 16:22	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.3	7.4	1	05/18/15 08:43	05/18/15 16:22	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.3	10.7	1	05/18/15 08:43	05/18/15 16:22	207-08-9	
Chrysene	<8.9	ug/kg	19.3	8.9	1	05/18/15 08:43	05/18/15 16:22	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.3	7.1	1	05/18/15 08:43	05/18/15 16:22	53-70-3	
Fluoranthene	<9.7	ug/kg	19.3	9.7	1	05/18/15 08:43	05/18/15 16:22	206-44-0	
Fluorene	<9.7	ug/kg	19.3	9.7	1	05/18/15 08:43	05/18/15 16:22	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.3	7.3	1	05/18/15 08:43	05/18/15 16:22	193-39-5	
Naphthalene	<9.7	ug/kg	19.3	9.7	1	05/18/15 08:43	05/18/15 16:22	91-20-3	
Phenanthrene	<9.7	ug/kg	19.3	9.7	1	05/18/15 08:43	05/18/15 16:22	85-01-8	
Pyrene	<9.7	ug/kg	19.3	9.7	1	05/18/15 08:43	05/18/15 16:22	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	65	%	39-130		1	05/18/15 08:43	05/18/15 16:22	321-60-8	
Terphenyl-d14 (S)	70	%	37-130		1	05/18/15 08:43	05/18/15 16:22	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.7	ug/kg	23.2	10.7	1	05/18/15 07:50	05/18/15 13:43	71-43-2	
Ethylbenzene	<14.4	ug/kg	58.0	14.4	1	05/18/15 07:50	05/18/15 13:43	100-41-4	
Methyl-tert-butyl ether	241	ug/kg	58.0	14.7	1	05/18/15 07:50	05/18/15 13:43	1634-04-4	
Toluene	<13.0	ug/kg	58.0	13.0	1	05/18/15 07:50	05/18/15 13:43	108-88-3	
Xylene (Total)	<56.1	ug/kg	174	56.1	1	05/18/15 07:50	05/18/15 13:43	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	49-157		1	05/18/15 07:50	05/18/15 13:43	1868-53-7	
4-Bromofluorobenzene (S)	100	%	53-134		1	05/18/15 07:50	05/18/15 13:43	460-00-4	
Toluene-d8 (S)	107	%	61-148		1	05/18/15 07:50	05/18/15 13:43	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.7	%	0.10	0.10	1		05/18/15 10:12		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114914

Sample: B-34 (11) Lab ID: 40114914004 Collected: 05/15/15 10:00 Received: 05/16/15 09:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.9	ug/kg	19.7	9.9	1	05/18/15 08:43	05/18/15 16:39	83-32-9	
Acenaphthylene	<8.8	ug/kg	19.7	8.8	1	05/18/15 08:43	05/18/15 16:39	208-96-8	
Anthracene	<10.2	ug/kg	19.7	10.2	1	05/18/15 08:43	05/18/15 16:39	120-12-7	
Benzo(a)anthracene	<6.8	ug/kg	19.7	6.8	1	05/18/15 08:43	05/18/15 16:39	56-55-3	
Benzo(a)pyrene	<7.1	ug/kg	19.7	7.1	1	05/18/15 08:43	05/18/15 16:39	50-32-8	
Benzo(b)fluoranthene	<9.9	ug/kg	19.7	9.9	1	05/18/15 08:43	05/18/15 16:39	205-99-2	
Benzo(g,h,i)perylene	<7.5	ug/kg	19.7	7.5	1	05/18/15 08:43	05/18/15 16:39	191-24-2	
Benzo(k)fluoranthene	<10.9	ug/kg	19.7	10.9	1	05/18/15 08:43	05/18/15 16:39	207-08-9	
Chrysene	<9.1	ug/kg	19.7	9.1	1	05/18/15 08:43	05/18/15 16:39	218-01-9	
Dibenz(a,h)anthracene	<7.2	ug/kg	19.7	7.2	1	05/18/15 08:43	05/18/15 16:39	53-70-3	
Fluoranthene	<9.9	ug/kg	19.7	9.9	1	05/18/15 08:43	05/18/15 16:39	206-44-0	
Fluorene	<9.9	ug/kg	19.7	9.9	1	05/18/15 08:43	05/18/15 16:39	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.5	ug/kg	19.7	7.5	1	05/18/15 08:43	05/18/15 16:39	193-39-5	
Naphthalene	<9.9	ug/kg	19.7	9.9	1	05/18/15 08:43	05/18/15 16:39	91-20-3	
Phenanthrene	<9.9	ug/kg	19.7	9.9	1	05/18/15 08:43	05/18/15 16:39	85-01-8	
Pyrene	<9.9	ug/kg	19.7	9.9	1	05/18/15 08:43	05/18/15 16:39	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	67	%	39-130		1	05/18/15 08:43	05/18/15 16:39	321-60-8	
Terphenyl-d14 (S)	71	%	37-130		1	05/18/15 08:43	05/18/15 16:39	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.9	ug/kg	23.7	10.9	1	05/18/15 07:50	05/18/15 14:06	71-43-2	
Ethylbenzene	<14.7	ug/kg	59.2	14.7	1	05/18/15 07:50	05/18/15 14:06	100-41-4	
Methyl-tert-butyl ether	46.6J	ug/kg	59.2	15.0	1	05/18/15 07:50	05/18/15 14:06	1634-04-4	
Toluene	<13.3	ug/kg	59.2	13.3	1	05/18/15 07:50	05/18/15 14:06	108-88-3	
Xylene (Total)	<57.3	ug/kg	178	57.3	1	05/18/15 07:50	05/18/15 14:06	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	94	%	49-157		1	05/18/15 07:50	05/18/15 14:06	1868-53-7	
4-Bromofluorobenzene (S)	94	%	53-134		1	05/18/15 07:50	05/18/15 14:06	460-00-4	
Toluene-d8 (S)	101	%	61-148		1	05/18/15 07:50	05/18/15 14:06	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	15.5	%	0.10	0.10	1		05/18/15 10:12		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114914

Sample: **OVERBURDEN-1** Lab ID: **40114914005** Collected: 05/15/15 12:05 Received: 05/16/15 09:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<20.3	ug/kg	40.6	20.3	2	05/18/15 08:43	05/19/15 08:39	83-32-9	
Acenaphthylene	<18.2	ug/kg	40.6	18.2	2	05/18/15 08:43	05/19/15 08:39	208-96-8	
Anthracene	<21.1	ug/kg	40.6	21.1	2	05/18/15 08:43	05/19/15 08:39	120-12-7	
Benzo(a)anthracene	41.0	ug/kg	40.6	14.1	2	05/18/15 08:43	05/19/15 08:39	56-55-3	
Benzo(a)pyrene	47.6	ug/kg	40.6	14.5	2	05/18/15 08:43	05/19/15 08:39	50-32-8	
Benzo(b)fluoranthene	43.2	ug/kg	40.6	20.3	2	05/18/15 08:43	05/19/15 08:39	205-99-2	
Benzo(g,h,i)perylene	41.0	ug/kg	40.6	15.5	2	05/18/15 08:43	05/19/15 08:39	191-24-2	
Benzo(k)fluoranthene	47.0	ug/kg	40.6	22.5	2	05/18/15 08:43	05/19/15 08:39	207-08-9	
Chrysene	50.5	ug/kg	40.6	18.8	2	05/18/15 08:43	05/19/15 08:39	218-01-9	
Dibenz(a,h)anthracene	<14.9	ug/kg	40.6	14.9	2	05/18/15 08:43	05/19/15 08:39	53-70-3	
Fluoranthene	94.8	ug/kg	40.6	20.3	2	05/18/15 08:43	05/19/15 08:39	206-44-0	
Fluorene	<20.3	ug/kg	40.6	20.3	2	05/18/15 08:43	05/19/15 08:39	86-73-7	
Indeno(1,2,3-cd)pyrene	36.0J	ug/kg	40.6	15.4	2	05/18/15 08:43	05/19/15 08:39	193-39-5	
Naphthalene	691	ug/kg	40.6	20.3	2	05/18/15 08:43	05/19/15 08:39	91-20-3	
Phenanthrene	41.7	ug/kg	40.6	20.3	2	05/18/15 08:43	05/19/15 08:39	85-01-8	
Pyrene	74.8	ug/kg	40.6	20.3	2	05/18/15 08:43	05/19/15 08:39	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	66	%	39-130		2	05/18/15 08:43	05/19/15 08:39	321-60-8	
Terphenyl-d14 (S)	71	%	37-130		2	05/18/15 08:43	05/19/15 08:39	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<11.2	ug/kg	24.4	11.2	1	05/18/15 07:50	05/18/15 14:28	71-43-2	
Ethylbenzene	<15.1	ug/kg	60.9	15.1	1	05/18/15 07:50	05/18/15 14:28	100-41-4	
Methyl-tert-butyl ether	<15.4	ug/kg	60.9	15.4	1	05/18/15 07:50	05/18/15 14:28	1634-04-4	
Toluene	<13.7	ug/kg	60.9	13.7	1	05/18/15 07:50	05/18/15 14:28	108-88-3	
Xylene (Total)	<59.0	ug/kg	183	59.0	1	05/18/15 07:50	05/18/15 14:28	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	88	%	49-157		1	05/18/15 07:50	05/18/15 14:28	1868-53-7	
4-Bromofluorobenzene (S)	95	%	53-134		1	05/18/15 07:50	05/18/15 14:28	460-00-4	
Toluene-d8 (S)	101	%	61-148		1	05/18/15 07:50	05/18/15 14:28	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	18.0	%	0.10	0.10	1		05/18/15 10:12		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114914

QC Batch: MSV/28497 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40114914001, 40114914002, 40114914003, 40114914004, 40114914005

METHOD BLANK: 1159756 Matrix: Solid  
Associated Lab Samples: 40114914001, 40114914002, 40114914003, 40114914004, 40114914005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	05/18/15 11:05	
Ethylbenzene	ug/kg	<12.4	50.0	05/18/15 11:05	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	05/18/15 11:05	
Toluene	ug/kg	<11.2	50.0	05/18/15 11:05	
Xylene (Total)	ug/kg	<48.4	150	05/18/15 11:05	
4-Bromofluorobenzene (S)	%	99	53-134	05/18/15 11:05	
Dibromofluoromethane (S)	%	97	49-157	05/18/15 11:05	
Toluene-d8 (S)	%	104	61-148	05/18/15 11:05	

LABORATORY CONTROL SAMPLE & LCSD: 1159757

Parameter	Units	1159758								
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	2500	2420	2400	97	96	70-130	1	20	
Ethylbenzene	ug/kg	2500	2580	2590	103	104	70-130	1	20	
Methyl-tert-butyl ether	ug/kg	2500	2610	2520	104	101	70-130	3	20	
Toluene	ug/kg	2500	2590	2580	104	103	70-130	1	20	
Xylene (Total)	ug/kg	7500	7310	7480	98	100	70-130	2	20	
4-Bromofluorobenzene (S)	%				102	106	53-134			
Dibromofluoromethane (S)	%				97	95	49-157			
Toluene-d8 (S)	%				106	106	61-148			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114914

QC Batch: OEXT/26555 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40114914001, 40114914002, 40114914003, 40114914004, 40114914005

METHOD BLANK: 1159662 Matrix: Solid  
Associated Lab Samples: 40114914001, 40114914002, 40114914003, 40114914004, 40114914005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	05/18/15 11:43	
Acenaphthylene	ug/kg	<7.5	16.7	05/18/15 11:43	
Anthracene	ug/kg	<8.6	16.7	05/18/15 11:43	
Benzo(a)anthracene	ug/kg	<5.8	16.7	05/18/15 11:43	
Benzo(a)pyrene	ug/kg	<6.0	16.7	05/18/15 11:43	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	05/18/15 11:43	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	05/18/15 11:43	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	05/18/15 11:43	
Chrysene	ug/kg	<7.7	16.7	05/18/15 11:43	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	05/18/15 11:43	
Fluoranthene	ug/kg	<8.3	16.7	05/18/15 11:43	
Fluorene	ug/kg	<8.3	16.7	05/18/15 11:43	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	05/18/15 11:43	
Naphthalene	ug/kg	<8.3	16.7	05/18/15 11:43	
Phenanthrene	ug/kg	<8.3	16.7	05/18/15 11:43	
Pyrene	ug/kg	<8.3	16.7	05/18/15 11:43	
2-Fluorobiphenyl (S)	%	70	39-130	05/18/15 11:43	
Terphenyl-d14 (S)	%	81	37-130	05/18/15 11:43	

LABORATORY CONTROL SAMPLE: 1159663

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	268	80	54-130	
Acenaphthylene	ug/kg	333	274	82	55-130	
Anthracene	ug/kg	333	324	97	64-130	
Benzo(a)anthracene	ug/kg	333	279	84	50-130	
Benzo(a)pyrene	ug/kg	333	288	87	46-130	
Benzo(b)fluoranthene	ug/kg	333	271	81	43-130	
Benzo(g,h,i)perylene	ug/kg	333	287	86	48-130	
Benzo(k)fluoranthene	ug/kg	333	295	88	55-130	
Chrysene	ug/kg	333	295	89	62-130	
Dibenz(a,h)anthracene	ug/kg	333	316	95	49-130	
Fluoranthene	ug/kg	333	296	89	57-130	
Fluorene	ug/kg	333	276	83	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	310	93	50-130	
Naphthalene	ug/kg	333	252	76	48-130	
Phenanthrene	ug/kg	333	286	86	51-130	
Pyrene	ug/kg	333	264	79	55-130	
2-Fluorobiphenyl (S)	%			79	39-130	
Terphenyl-d14 (S)	%			85	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114914

Parameter	Units	40114820007		1159664		1159665		% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Acenaphthene	ug/kg	10.3J	333	333	264	253	76	73	46-130	4	26		
Acenaphthylene	ug/kg	<7.5	333	333	268	261	79	77	49-130	3	23		
Anthracene	ug/kg	21.5	333	333	343	337	97	95	52-130	2	28		
Benzo(a)anthracene	ug/kg	11.5J	333	333	502	512	147	150	34-130	2	36 M1		
Benzo(a)pyrene	ug/kg	10.6J	333	333	526	542	155	160	34-130	3	40 M1		
Benzo(b)fluoranthene	ug/kg	10.2J	333	333	512	549	151	162	22-130	7	40 M1		
Benzo(g,h,i)perylene	ug/kg	7.3J	333	333	444	446	131	131	24-130	0	35 M1		
Benzo(k)fluoranthene	ug/kg	9.4J	333	333	492	488	145	144	41-130	1	37 M1		
Chrysene	ug/kg	20.1	333	333	567	590	164	171	49-130	4	33 M1		
Dibenz(a,h)anthracene	ug/kg	<6.1	333	333	362	367	108	109	27-130	1	31		
Fluoranthene	ug/kg	27.3	333	333	862	882	251	256	34-130	2	37 E,M1		
Fluorene	ug/kg	15.7J	333	333	271	263	77	74	45-130	3	25		
Indeno(1,2,3-cd)pyrene	ug/kg	6.5J	333	333	454	460	134	136	30-130	1	34 M1		
Naphthalene	ug/kg	<8.3	333	333	256	251	76	75	38-130	2	30		
Phenanthrene	ug/kg	19.5	333	333	528	530	152	153	38-130	0	34 M1		
Pyrene	ug/kg	61.1	333	333	699	716	191	196	35-130	2	35 M1		
2-Fluorobiphenyl (S)	%						69	65	39-130				
Terphenyl-d14 (S)	%						67	70	37-130				

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114914

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSV/28498

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.  
M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114914

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40114914001	EX-15 (8-9)	EPA 3546	OEXT/26555	EPA 8270 by SIM	MSSV/7890
40114914002	B-32 (11)	EPA 3546	OEXT/26555	EPA 8270 by SIM	MSSV/7890
40114914003	B-33 (11)	EPA 3546	OEXT/26555	EPA 8270 by SIM	MSSV/7890
40114914004	B-34 (11)	EPA 3546	OEXT/26555	EPA 8270 by SIM	MSSV/7890
40114914005	OVERBURDEN-1	EPA 3546	OEXT/26555	EPA 8270 by SIM	MSSV/7890
40114914001	EX-15 (8-9)	EPA 5035/5030B	MSV/28497	EPA 8260	MSV/28498
40114914002	B-32 (11)	EPA 5035/5030B	MSV/28497	EPA 8260	MSV/28498
40114914003	B-33 (11)	EPA 5035/5030B	MSV/28497	EPA 8260	MSV/28498
40114914004	B-34 (11)	EPA 5035/5030B	MSV/28497	EPA 8260	MSV/28498
40114914005	OVERBURDEN-1	EPA 5035/5030B	MSV/28497	EPA 8260	MSV/28498
40114914001	EX-15 (8-9)	ASTM D2974-87	PMST/11194		
40114914002	B-32 (11)	ASTM D2974-87	PMST/11194		
40114914003	B-33 (11)	ASTM D2974-87	PMST/11194		
40114914004	B-34 (11)	ASTM D2974-87	PMST/11194		
40114914005	OVERBURDEN-1	ASTM D2974-87	PMST/11194		

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Client Name: Tri Core

Project #:

WO#: **40114914**

Courier:  Fed Ex  UPS  Client  Pace Other: CS LOGISTIC



Tracking #: \_\_\_\_\_  
Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used SR-32 Type of Ice: Wet Blue Dry None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 4 /Corr: 4 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Person examining contents:  
Date: 3-16-15  
Initials: mm

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<u>mm</u> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<u>3-16-15</u> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>3</u>	
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12) exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: (u)

Date: 3/16/15



40114914

# Illinois Environmental Protection Agency

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

## Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

### B. Sample Collector

I certify that:

1. Appropriate sampling equipment/methods were utilized to obtain representative samples.
2. Chain-of-custody procedures were followed in the field.
3. Sample integrity was maintained by proper preservation.
4. All samples were properly labeled.

NTC  
(Initial)

NTC  
(Initial)

NTC  
(Initial)

NTC  
(Initial)

### C. Laboratory Representative

I certify that:

1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms
2. Sample integrity was maintained by proper preservation.
3. All samples were properly labeled.
4. Quality assurance/quality control procedures were established and carried out.
5. Sample holding times were not exceeded.

UW  
(Initial)

UW  
(Initial)

UW  
(Initial)

UW  
(Initial)

UW  
(Initial)

4014914

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos J. Ceato

Title Geo III

Company TriCore Environmental, LLC

Address 2368 Corporate Lane, Suite 116

City Naperville

State Illinois

Zip Code 60563

Phone (630) 520-9973

Signature [Signature]

Date 05/15/15

**Laboratory Representative**

Name Laurie Woelfel

Title Project Manager

Company Pace Analytical Services, Inc.

Address 1241 Bellevue Street, Suite 9

City Green Bay

State Wisconsin

Zip Code 64302

Phone (920) 469-2436

Signature [Signature]

Date 5/19/15

May 21, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

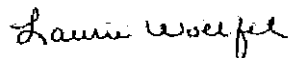
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114967

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on May 19, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114967

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114967

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40114967001	B-35 (12)	Solid	05/18/15 09:30	05/19/15 09:30
40114967002	EX-16 (9-10)	Solid	05/18/15 11:00	05/19/15 09:30
40114967003	EX-17 (9-10)	Solid	05/18/15 11:09	05/19/15 09:30
40114967004	B-36 (12)	Solid	05/18/15 13:00	05/19/15 09:30
40114967005	OVERBURDEN-2	Solid	05/18/15 14:10	05/19/15 09:30

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114967

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40114967001	B-35 (12)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	KEW	1	PASI-G
40114967002	EX-16 (9-10)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	KEW	1	PASI-G
40114967003	EX-17 (9-10)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	KEW	1	PASI-G
40114967004	B-36 (12)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	KEW	1	PASI-G
40114967005	OVERBURDEN-2	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	KEW	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114967

Sample: B-35 (12) Lab ID: 40114967001 Collected: 05/18/15 09:30 Received: 05/19/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.7	ug/kg	19.4	9.7	1	05/20/15 08:49	05/20/15 12:46	83-32-9	
Acenaphthylene	<8.7	ug/kg	19.4	8.7	1	05/20/15 08:49	05/20/15 12:46	208-96-8	
Anthracene	<10.0	ug/kg	19.4	10.0	1	05/20/15 08:49	05/20/15 12:46	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.4	6.7	1	05/20/15 08:49	05/20/15 12:46	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.4	6.9	1	05/20/15 08:49	05/20/15 12:46	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.4	9.7	1	05/20/15 08:49	05/20/15 12:46	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.4	7.4	1	05/20/15 08:49	05/20/15 12:46	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.4	10.7	1	05/20/15 08:49	05/20/15 12:46	207-08-9	
Chrysene	<9.0	ug/kg	19.4	9.0	1	05/20/15 08:49	05/20/15 12:46	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.4	7.1	1	05/20/15 08:49	05/20/15 12:46	53-70-3	
Fluoranthene	<9.7	ug/kg	19.4	9.7	1	05/20/15 08:49	05/20/15 12:46	206-44-0	
Fluorene	<9.7	ug/kg	19.4	9.7	1	05/20/15 08:49	05/20/15 12:46	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.4	7.4	1	05/20/15 08:49	05/20/15 12:46	193-39-5	
Naphthalene	<9.7	ug/kg	19.4	9.7	1	05/20/15 08:49	05/20/15 12:46	91-20-3	
Phenanthrene	<9.7	ug/kg	19.4	9.7	1	05/20/15 08:49	05/20/15 12:46	85-01-8	
Pyrene	<9.7	ug/kg	19.4	9.7	1	05/20/15 08:49	05/20/15 12:46	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	67	%	39-130		1	05/20/15 08:49	05/20/15 12:46	321-60-8	
Terphenyl-d14 (S)	73	%	37-130		1	05/20/15 08:49	05/20/15 12:46	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.7	ug/kg	23.2	10.7	1	05/20/15 08:20	05/20/15 12:56	71-43-2	
Ethylbenzene	19.2J	ug/kg	58.1	14.4	1	05/20/15 08:20	05/20/15 12:56	100-41-4	
Methyl-tert-butyl ether	570	ug/kg	58.1	14.7	1	05/20/15 08:20	05/20/15 12:56	1634-04-4	
Toluene	<13.0	ug/kg	58.1	13.0	1	05/20/15 08:20	05/20/15 12:56	108-88-3	
Xylene (Total)	57.6J	ug/kg	174	56.3	1	05/20/15 08:20	05/20/15 12:56	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	88	%	49-157		1	05/20/15 08:20	05/20/15 12:56	1868-53-7	
4-Bromofluorobenzene (S)	86	%	53-134		1	05/20/15 08:20	05/20/15 12:56	460-00-4	
Toluene-d8 (S)	94	%	61-148		1	05/20/15 08:20	05/20/15 12:56	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.9	%	0.10	0.10	1		05/20/15 15:23		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40114967

Sample: EX-16 (9-10) Lab ID: 40114967002 Collected: 05/18/15 11:00 Received: 05/19/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<10	ug/kg	19.9	10	1	05/20/15 08:49	05/20/15 13:03	83-32-9	
Acenaphthylene	<8.9	ug/kg	19.9	8.9	1	05/20/15 08:49	05/20/15 13:03	208-96-8	
Anthracene	<10.3	ug/kg	19.9	10.3	1	05/20/15 08:49	05/20/15 13:03	120-12-7	
Benzo(a)anthracene	<6.9	ug/kg	19.9	6.9	1	05/20/15 08:49	05/20/15 13:03	56-55-3	
Benzo(a)pyrene	<7.1	ug/kg	19.9	7.1	1	05/20/15 08:49	05/20/15 13:03	50-32-8	
Benzo(b)fluoranthene	<10	ug/kg	19.9	10	1	05/20/15 08:49	05/20/15 13:03	205-99-2	
Benzo(g,h,i)perylene	<7.6	ug/kg	19.9	7.6	1	05/20/15 08:49	05/20/15 13:03	191-24-2	
Benzo(k)fluoranthene	<11.0	ug/kg	19.9	11.0	1	05/20/15 08:49	05/20/15 13:03	207-08-9	
Chrysene	<9.2	ug/kg	19.9	9.2	1	05/20/15 08:49	05/20/15 13:03	218-01-9	
Dibenz(a,h)anthracene	<7.3	ug/kg	19.9	7.3	1	05/20/15 08:49	05/20/15 13:03	53-70-3	
Fluoranthene	<10	ug/kg	19.9	10	1	05/20/15 08:49	05/20/15 13:03	206-44-0	
Fluorene	<10	ug/kg	19.9	10	1	05/20/15 08:49	05/20/15 13:03	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.6	ug/kg	19.9	7.6	1	05/20/15 08:49	05/20/15 13:03	193-39-5	
Naphthalene	<10	ug/kg	19.9	10	1	05/20/15 08:49	05/20/15 13:03	91-20-3	
Phenanthrene	<10	ug/kg	19.9	10	1	05/20/15 08:49	05/20/15 13:03	85-01-8	
Pyrene	<10	ug/kg	19.9	10	1	05/20/15 08:49	05/20/15 13:03	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	60	%	39-130		1	05/20/15 08:49	05/20/15 13:03	321-60-8	
Terphenyl-d14 (S)	62	%	37-130		1	05/20/15 08:49	05/20/15 13:03	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<11.0	ug/kg	23.9	11.0	1	05/20/15 08:20	05/20/15 13:19	71-43-2	
Ethylbenzene	<14.9	ug/kg	59.8	14.9	1	05/20/15 08:20	05/20/15 13:19	100-41-4	
Methyl-tert-butyl ether	<15.1	ug/kg	59.8	15.1	1	05/20/15 08:20	05/20/15 13:19	1634-04-4	
Toluene	<13.4	ug/kg	59.8	13.4	1	05/20/15 08:20	05/20/15 13:19	108-88-3	
Xylene (Total)	<57.9	ug/kg	179	57.9	1	05/20/15 08:20	05/20/15 13:19	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	49-157		1	05/20/15 08:20	05/20/15 13:19	1868-53-7	
4-Bromofluorobenzene (S)	102	%	53-134		1	05/20/15 08:20	05/20/15 13:19	460-00-4	
Toluene-d8 (S)	107	%	61-148		1	05/20/15 08:20	05/20/15 13:19	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	16.4	%	0.10	0.10	1		05/20/15 15:23		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114967

Sample: EX-17 (9-10) Lab ID: 40114967003 Collected: 05/18/15 11:09 Received: 05/19/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.7	ug/kg	19.3	9.7	1	05/20/15 08:49	05/20/15 13:20	83-32-9	
Acenaphthylene	<8.7	ug/kg	19.3	8.7	1	05/20/15 08:49	05/20/15 13:20	208-96-8	
Anthracene	<10.0	ug/kg	19.3	10.0	1	05/20/15 08:49	05/20/15 13:20	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.3	6.7	1	05/20/15 08:49	05/20/15 13:20	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.3	6.9	1	05/20/15 08:49	05/20/15 13:20	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.3	9.7	1	05/20/15 08:49	05/20/15 13:20	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.3	7.4	1	05/20/15 08:49	05/20/15 13:20	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.3	10.7	1	05/20/15 08:49	05/20/15 13:20	207-08-9	
Chrysene	<8.9	ug/kg	19.3	8.9	1	05/20/15 08:49	05/20/15 13:20	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.3	7.1	1	05/20/15 08:49	05/20/15 13:20	53-70-3	
Fluoranthene	<9.7	ug/kg	19.3	9.7	1	05/20/15 08:49	05/20/15 13:20	206-44-0	
Fluorene	<9.7	ug/kg	19.3	9.7	1	05/20/15 08:49	05/20/15 13:20	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.3	7.3	1	05/20/15 08:49	05/20/15 13:20	193-39-5	
Naphthalene	<9.7	ug/kg	19.3	9.7	1	05/20/15 08:49	05/20/15 13:20	91-20-3	
Phenanthrene	<9.7	ug/kg	19.3	9.7	1	05/20/15 08:49	05/20/15 13:20	85-01-8	
Pyrene	<9.7	ug/kg	19.3	9.7	1	05/20/15 08:49	05/20/15 13:20	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	59	%	39-130		1	05/20/15 08:49	05/20/15 13:20	321-60-8	
Terphenyl-d14 (S)	64	%	37-130		1	05/20/15 08:49	05/20/15 13:20	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.7	ug/kg	23.2	10.7	1	05/20/15 08:20	05/20/15 13:43	71-43-2	
Ethylbenzene	<14.4	ug/kg	58.0	14.4	1	05/20/15 08:20	05/20/15 13:43	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.0	14.7	1	05/20/15 08:20	05/20/15 13:43	1634-04-4	
Toluene	<13.0	ug/kg	58.0	13.0	1	05/20/15 08:20	05/20/15 13:43	108-88-3	
Xylene (Total)	<56.2	ug/kg	174	56.2	1	05/20/15 08:20	05/20/15 13:43	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	91	%	49-157		1	05/20/15 08:20	05/20/15 13:43	1868-53-7	
4-Bromofluorobenzene (S)	96	%	53-134		1	05/20/15 08:20	05/20/15 13:43	460-00-4	
Toluene-d8 (S)	106	%	61-148		1	05/20/15 08:20	05/20/15 13:43	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.8	%	0.10	0.10	1		05/20/15 15:23		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114967

Sample: B-36 (12) Lab ID: 40114967004 Collected: 05/18/15 13:00 Received: 05/19/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.7	ug/kg	19.5	9.7	1	05/20/15 08:49	05/20/15 13:37	83-32-9	
Acenaphthylene	<8.7	ug/kg	19.5	8.7	1	05/20/15 08:49	05/20/15 13:37	208-96-8	
Anthracene	<10.1	ug/kg	19.5	10.1	1	05/20/15 08:49	05/20/15 13:37	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.5	6.7	1	05/20/15 08:49	05/20/15 13:37	56-55-3	
Benzo(a)pyrene	<7.0	ug/kg	19.5	7.0	1	05/20/15 08:49	05/20/15 13:37	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.5	9.7	1	05/20/15 08:49	05/20/15 13:37	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.5	7.4	1	05/20/15 08:49	05/20/15 13:37	191-24-2	
Benzo(k)fluoranthene	<10.8	ug/kg	19.5	10.8	1	05/20/15 08:49	05/20/15 13:37	207-08-9	
Chrysene	<9.0	ug/kg	19.5	9.0	1	05/20/15 08:49	05/20/15 13:37	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.5	7.1	1	05/20/15 08:49	05/20/15 13:37	53-70-3	
Fluoranthene	<9.7	ug/kg	19.5	9.7	1	05/20/15 08:49	05/20/15 13:37	206-44-0	
Fluorene	<9.7	ug/kg	19.5	9.7	1	05/20/15 08:49	05/20/15 13:37	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.5	7.4	1	05/20/15 08:49	05/20/15 13:37	193-39-5	
Naphthalene	72.9	ug/kg	19.5	9.7	1	05/20/15 08:49	05/20/15 13:37	91-20-3	
Phenanthrene	<9.7	ug/kg	19.5	9.7	1	05/20/15 08:49	05/20/15 13:37	85-01-8	
Pyrene	<9.7	ug/kg	19.5	9.7	1	05/20/15 08:49	05/20/15 13:37	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	61	%	39-130		1	05/20/15 08:49	05/20/15 13:37	321-60-8	
Terphenyl-d14 (S)	67	%	37-130		1	05/20/15 08:49	05/20/15 13:37	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.8	ug/kg	23.3	10.8	1	05/20/15 08:20	05/20/15 14:06	71-43-2	
Ethylbenzene	<14.5	ug/kg	58.4	14.5	1	05/20/15 08:20	05/20/15 14:06	100-41-4	
Methyl-tert-butyl ether	30.6J	ug/kg	58.4	14.8	1	05/20/15 08:20	05/20/15 14:06	1634-04-4	
Toluene	<13.1	ug/kg	58.4	13.1	1	05/20/15 08:20	05/20/15 14:06	108-88-3	
Xylene (Total)	<56.5	ug/kg	175	56.5	1	05/20/15 08:20	05/20/15 14:06	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	95	%	49-157		1	05/20/15 08:20	05/20/15 14:06	1868-53-7	
4-Bromofluorobenzene (S)	97	%	53-134		1	05/20/15 08:20	05/20/15 14:06	460-00-4	
Toluene-d8 (S)	106	%	61-148		1	05/20/15 08:20	05/20/15 14:06	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.3	%	0.10	0.10	1		05/20/15 15:23		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114967

Sample: **OVERBURDEN-2** Lab ID: **40114967005** Collected: 05/18/15 14:10 Received: 05/19/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.8	ug/kg	19.6	9.8	1	05/20/15 08:49	05/20/15 18:29	83-32-9	
Acenaphthylene	<8.8	ug/kg	19.6	8.8	1	05/20/15 08:49	05/20/15 18:29	208-96-8	
Anthracene	11.3J	ug/kg	19.6	10.2	1	05/20/15 08:49	05/20/15 18:29	120-12-7	
Benzo(a)anthracene	47.8	ug/kg	19.6	6.8	1	05/20/15 08:49	05/20/15 18:29	56-55-3	
Benzo(a)pyrene	65.9	ug/kg	19.6	7.0	1	05/20/15 08:49	05/20/15 18:29	50-32-8	
Benzo(b)fluoranthene	72.6	ug/kg	19.6	9.8	1	05/20/15 08:49	05/20/15 18:29	205-99-2	
Benzo(g,h,i)perylene	60.9	ug/kg	19.6	7.5	1	05/20/15 08:49	05/20/15 18:29	191-24-2	
Benzo(k)fluoranthene	69.0	ug/kg	19.6	10.9	1	05/20/15 08:49	05/20/15 18:29	207-08-9	
Chrysene	75.9	ug/kg	19.6	9.1	1	05/20/15 08:49	05/20/15 18:29	218-01-9	
Dibenz(a,h)anthracene	15.4J	ug/kg	19.6	7.2	1	05/20/15 08:49	05/20/15 18:29	53-70-3	
Fluoranthene	135	ug/kg	19.6	9.8	1	05/20/15 08:49	05/20/15 18:29	206-44-0	
Fluorene	<9.8	ug/kg	19.6	9.8	1	05/20/15 08:49	05/20/15 18:29	86-73-7	
Indeno(1,2,3-cd)pyrene	49.5	ug/kg	19.6	7.5	1	05/20/15 08:49	05/20/15 18:29	193-39-5	
Naphthalene	20.8	ug/kg	19.6	9.8	1	05/20/15 08:49	05/20/15 18:29	91-20-3	
Phenanthrene	58.2	ug/kg	19.6	9.8	1	05/20/15 08:49	05/20/15 18:29	85-01-8	
Pyrene	110	ug/kg	19.6	9.8	1	05/20/15 08:49	05/20/15 18:29	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	59	%	39-130		1	05/20/15 08:49	05/20/15 18:29	321-60-8	
Terphenyl-d14 (S)	64	%	37-130		1	05/20/15 08:49	05/20/15 18:29	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.9	ug/kg	23.6	10.9	1	05/20/15 08:20	05/20/15 14:28	71-43-2	
Ethylbenzene	<14.6	ug/kg	58.9	14.6	1	05/20/15 08:20	05/20/15 14:28	100-41-4	
Methyl-tert-butyl ether	<14.9	ug/kg	58.9	14.9	1	05/20/15 08:20	05/20/15 14:28	1634-04-4	
Toluene	<13.2	ug/kg	58.9	13.2	1	05/20/15 08:20	05/20/15 14:28	108-88-3	
Xylene (Total)	<57.1	ug/kg	177	57.1	1	05/20/15 08:20	05/20/15 14:28	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	90	%	49-157		1	05/20/15 08:20	05/20/15 14:28	1868-53-7	
4-Bromofluorobenzene (S)	92	%	53-134		1	05/20/15 08:20	05/20/15 14:28	460-00-4	
Toluene-d8 (S)	99	%	61-148		1	05/20/15 08:20	05/20/15 14:28	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	15.2	%	0.10	0.10	1		05/20/15 15:23		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114967

QC Batch: MSV/28546 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40114967001, 40114967002, 40114967003, 40114967004, 40114967005

METHOD BLANK: 1161119 Matrix: Solid  
Associated Lab Samples: 40114967001, 40114967002, 40114967003, 40114967004, 40114967005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	05/20/15 11:25	
Ethylbenzene	ug/kg	<12.4	50.0	05/20/15 11:25	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	05/20/15 11:25	
Toluene	ug/kg	<11.2	50.0	05/20/15 11:25	
Xylene (Total)	ug/kg	<48.4	150	05/20/15 11:25	
4-Bromofluorobenzene (S)	%	101	53-134	05/20/15 11:25	
Dibromofluoromethane (S)	%	98	49-157	05/20/15 11:25	
Toluene-d8 (S)	%	106	61-148	05/20/15 11:25	

LABORATORY CONTROL SAMPLE & LCSD: 1161120

Parameter	Units	1161121							Max RPD	Qualifiers
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD		
Benzene	ug/kg	2500	2470	2440	99	98	70-130	1	20	
Ethylbenzene	ug/kg	2500	2590	2650	104	106	70-130	2	20	
Methyl-tert-butyl ether	ug/kg	2500	2710	2490	109	100	70-130	8	20	
Toluene	ug/kg	2500	2600	2690	104	108	70-130	3	20	
Xylene (Total)	ug/kg	7500	7310	7460	97	99	70-130	2	20	
4-Bromofluorobenzene (S)	%				104	105	53-134			
Dibromofluoromethane (S)	%				102	98	49-157			
Toluene-d8 (S)	%				107	109	61-148			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114967

QC Batch: OEXT/26584 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40114967001, 40114967002, 40114967003, 40114967004, 40114967005

METHOD BLANK: 1160769 Matrix: Solid  
Associated Lab Samples: 40114967001, 40114967002, 40114967003, 40114967004, 40114967005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	05/20/15 11:37	
Acenaphthylene	ug/kg	<7.5	16.7	05/20/15 11:37	
Anthracene	ug/kg	<8.6	16.7	05/20/15 11:37	
Benzo(a)anthracene	ug/kg	<5.8	16.7	05/20/15 11:37	
Benzo(a)pyrene	ug/kg	<6.0	16.7	05/20/15 11:37	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	05/20/15 11:37	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	05/20/15 11:37	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	05/20/15 11:37	
Chrysene	ug/kg	<7.7	16.7	05/20/15 11:37	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	05/20/15 11:37	
Fluoranthene	ug/kg	<8.3	16.7	05/20/15 11:37	
Fluorene	ug/kg	<8.3	16.7	05/20/15 11:37	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	05/20/15 11:37	
Naphthalene	ug/kg	<8.3	16.7	05/20/15 11:37	
Phenanthrene	ug/kg	<8.3	16.7	05/20/15 11:37	
Pyrene	ug/kg	<8.3	16.7	05/20/15 11:37	
2-Fluorobiphenyl (S)	%	59	39-130	05/20/15 11:37	
Terphenyl-d14 (S)	%	71	37-130	05/20/15 11:37	

LABORATORY CONTROL SAMPLE: 1160770

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	258	77	54-130	
Acenaphthylene	ug/kg	333	256	77	55-130	
Anthracene	ug/kg	333	299	90	64-130	
Benzo(a)anthracene	ug/kg	333	263	79	50-130	
Benzo(a)pyrene	ug/kg	333	274	82	46-130	
Benzo(b)fluoranthene	ug/kg	333	264	79	43-130	
Benzo(g,h,i)perylene	ug/kg	333	254	76	48-130	
Benzo(k)fluoranthene	ug/kg	333	280	84	55-130	
Chrysene	ug/kg	333	278	83	62-130	
Dibenz(a,h)anthracene	ug/kg	333	289	87	49-130	
Fluoranthene	ug/kg	333	272	81	57-130	
Fluorene	ug/kg	333	257	77	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	281	84	50-130	
Naphthalene	ug/kg	333	238	71	48-130	
Phenanthrene	ug/kg	333	264	79	51-130	
Pyrene	ug/kg	333	253	76	55-130	
2-Fluorobiphenyl (S)	%			74	39-130	
Terphenyl-d14 (S)	%			85	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114967

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1160771		1160772		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40114822003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Acenaphthene	ug/kg	<8.3	333	333	237	253	71	76	46-130	7	26
Acenaphthylene	ug/kg	<7.5	333	333	244	260	73	78	49-130	6	23
Anthracene	ug/kg	<8.6	333	333	274	295	82	89	52-130	8	28
Benzo(a)anthracene	ug/kg	<5.8	333	333	231	246	69	74	34-130	6	36
Benzo(a)pyrene	ug/kg	<6.0	333	333	229	247	69	74	34-130	8	40
Benzo(b)fluoranthene	ug/kg	<8.3	333	333	228	245	68	74	22-130	7	40
Benzo(g,h,i)perylene	ug/kg	<6.3	333	333	196	210	59	63	24-130	7	35
Benzo(k)fluoranthene	ug/kg	<9.2	333	333	246	266	74	80	41-130	8	37
Chrysene	ug/kg	<7.7	333	333	248	265	74	79	49-130	7	33
Dibenz(a,h)anthracene	ug/kg	<6.1	333	333	194	207	58	62	27-130	6	31
Fluoranthene	ug/kg	<8.3	333	333	246	266	74	80	34-130	8	37
Fluorene	ug/kg	<8.3	333	333	240	257	72	77	45-130	7	25
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	333	333	201	216	60	65	30-130	7	34
Naphthalene	ug/kg	<8.3	333	333	236	249	71	75	38-130	5	30
Phenanthrene	ug/kg	<8.3	333	333	245	262	73	79	38-130	7	34
Pyrene	ug/kg	<8.3	333	333	234	250	70	75	35-130	7	35
2-Fluorobiphenyl (S)	%						67	71	39-130		
Terphenyl-d14 (S)	%						72	76	37-130		

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114967

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PAS1-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSV/28547

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40114967

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40114967001	B-35 (12)	EPA 3546	OEXT/26584	EPA 8270 by SIM	MSSV/7902
40114967002	EX-16 (9-10)	EPA 3546	OEXT/26584	EPA 8270 by SIM	MSSV/7902
40114967003	EX-17 (9-10)	EPA 3546	OEXT/26584	EPA 8270 by SIM	MSSV/7902
40114967004	B-36 (12)	EPA 3546	OEXT/26584	EPA 8270 by SIM	MSSV/7902
40114967005	OVERBURDEN-2	EPA 3546	OEXT/26584	EPA 8270 by SIM	MSSV/7902
40114967001	B-35 (12)	EPA 5035/5030B	MSV/28546	EPA 8260	MSV/28547
40114967002	EX-16 (9-10)	EPA 5035/5030B	MSV/28546	EPA 8260	MSV/28547
40114967003	EX-17 (9-10)	EPA 5035/5030B	MSV/28546	EPA 8260	MSV/28547
40114967004	B-36 (12)	EPA 5035/5030B	MSV/28546	EPA 8260	MSV/28547
40114967005	OVERBURDEN-2	EPA 5035/5030B	MSV/28546	EPA 8260	MSV/28547
40114967001	B-35 (12)	ASTM D2974-87	PMST/11218		
40114967002	EX-16 (9-10)	ASTM D2974-87	PMST/11218		
40114967003	EX-17 (9-10)	ASTM D2974-87	PMST/11218		
40114967004	B-36 (12)	ASTM D2974-87	PMST/11218		
40114967005	OVERBURDEN-2	ASTM D2974-87	PMST/11218		

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Sample Condition Upon Receipt

Electronic Filing: Received, Clerk's Office 03/23/2021

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302



Project #:

WO#: 40114967



Client Name: TriCore

Courier: Fed Ex UPS Client Pace Other: CS Logistic

Tracking #:

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Custody Seal on Samples Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used SR-32 Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 5 /Corr: 5.0 Biological Tissue is Frozen: yes no

Temp Blank Present: yes no

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:
Date: 5-19-15
Initials: mm.

Comments:

Table with 15 rows for Chain of Custody Present, Chain of Custody Filled Out, Chain of Custody Relinquished, Sampler Name & Signature on COC, Samples Arrived within Hold Time, Short Hold Time Analysis, Rush Turn Around Time Requested, Sufficient Volume, Correct Containers Used, Containers Intact, Filtered volume received for Dissolved tests, Sample Labels match COC, All containers needing preservation have been checked, All containers needing preservation are found to be in compliance with EPA recommendation, Headspace in VOA Vials, Trip Blank Present, Trip Blank Custody Seals Present, Pace Trip Blank Lot #.

Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review:

Signature

Date: 5/19/15





40114967

# Illinois Environmental Protection Agency

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

## Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010  
 Site Name: Lemont Kar Gas  
 Site Address (Not a P.O. Box): 1196 State Street  
 City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

### B. Sample Collector

I certify that:

1. Appropriate sampling equipment/methods were utilized to obtain representative samples.
2. Chain-of-custody procedures were followed in the field.
3. Sample integrity was maintained by proper preservation.
4. All samples were properly labeled.

NTE  
(Initial)  
NTE  
(Initial)  
NTE  
(Initial)  
NTE  
(Initial)

### C. Laboratory Representative

I certify that:

1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms
2. Sample integrity was maintained by proper preservation.
3. All samples were properly labeled.
4. Quality assurance/quality control procedures were established and carried out.
5. Sample holding times were not exceeded.

Clw  
(Initial)  
Clw  
(Initial)  
Clw  
(Initial)  
Clw  
(Initial)  
Clw  
(Initial)

40114967

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcus E. Ceato

Title Geotech

Company TriCore Environmental, LLC

Address 2368 Corporate Lane, Suite 116

City Naperville

State Illinois

Zip Code 60563

Phone (630) 520-9973

Signature [Signature]

Date 05/13/15

**Laboratory Representative**

Name Laurie Woelfel

Title Project Manager

Company Pace Analytical Services, Inc.

Address 1241 Bellevue Street, Suite 9

City Green Bay

State Wisconsin

Zip Code 54302

Phone (920) 469-2436

Signature [Signature]

Date 5/21/15

May 27, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

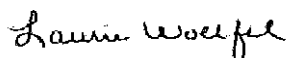
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115064

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on May 20, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115064

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40115064

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40115064001	B-37 (14)	Solid	05/19/15 11:25	05/20/15 09:20
40115064002	B-38 (14)	Solid	05/19/15 12:09	05/20/15 09:20
40115064003	EX-19 (3-4)	Solid	05/19/15 11:26	05/20/15 09:20
40115064004	EX-18 (3-4)	Solid	05/19/15 13:20	05/20/15 09:20
40115064005	B-39 (12)	Solid	05/19/15 13:40	05/20/15 09:20

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115064

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40115064001	B-37 (14)	EPA 8270 by SIM	RJN	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40115064002	B-38 (14)	EPA 8270 by SIM	RJN	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40115064003	EX-19 (3-4)	EPA 8270 by SIM	RJN	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40115064004	EX-18 (3-4)	EPA 8270 by SIM	RJN	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40115064005	B-39 (12)	EPA 8270 by SIM	RJN	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115064

Sample: B-37 (14) Lab ID: 40115064001 Collected: 05/19/15 11:25 Received: 05/20/15 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.7	ug/kg	19.4	9.7	1	05/26/15 08:27	05/26/15 12:00	83-32-9	
Acenaphthylene	<8.7	ug/kg	19.4	8.7	1	05/26/15 08:27	05/26/15 12:00	208-96-8	
Anthracene	<10.1	ug/kg	19.4	10.1	1	05/26/15 08:27	05/26/15 12:00	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.4	6.7	1	05/26/15 08:27	05/26/15 12:00	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.4	6.9	1	05/26/15 08:27	05/26/15 12:00	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.4	9.7	1	05/26/15 08:27	05/26/15 12:00	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.4	7.4	1	05/26/15 08:27	05/26/15 12:00	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.4	10.7	1	05/26/15 08:27	05/26/15 12:00	207-08-9	
Chrysene	<9.0	ug/kg	19.4	9.0	1	05/26/15 08:27	05/26/15 12:00	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.4	7.1	1	05/26/15 08:27	05/26/15 12:00	53-70-3	
Fluoranthene	<9.7	ug/kg	19.4	9.7	1	05/26/15 08:27	05/26/15 12:00	206-44-0	
Fluorene	<9.7	ug/kg	19.4	9.7	1	05/26/15 08:27	05/26/15 12:00	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.4	7.4	1	05/26/15 08:27	05/26/15 12:00	193-39-5	
Naphthalene	<9.7	ug/kg	19.4	9.7	1	05/26/15 08:27	05/26/15 12:00	91-20-3	
Phenanthrene	<9.7	ug/kg	19.4	9.7	1	05/26/15 08:27	05/26/15 12:00	85-01-8	
Pyrene	<9.7	ug/kg	19.4	9.7	1	05/26/15 08:27	05/26/15 12:00	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	66	%	39-130		1	05/26/15 08:27	05/26/15 12:00	321-60-8	
Terphenyl-d14 (S)	77	%	37-130		1	05/26/15 08:27	05/26/15 12:00	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.7	ug/kg	23.3	10.7	1	05/22/15 08:00	05/22/15 16:09	71-43-2	
Ethylbenzene	<14.5	ug/kg	58.3	14.5	1	05/22/15 08:00	05/22/15 16:09	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.3	14.7	1	05/22/15 08:00	05/22/15 16:09	1634-04-4	
Toluene	<13.1	ug/kg	58.3	13.1	1	05/22/15 08:00	05/22/15 16:09	108-88-3	
Xylene (Total)	<56.4	ug/kg	175	56.4	1	05/22/15 08:00	05/22/15 16:09	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	49-157		1	05/22/15 08:00	05/22/15 16:09	1868-53-7	
4-Bromofluorobenzene (S)	104	%	53-134		1	05/22/15 08:00	05/22/15 16:09	460-00-4	
Toluene-d8 (S)	115	%	61-148		1	05/22/15 08:00	05/22/15 16:09	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	14.2	%	0.10	0.10	1		05/26/15 17:03		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115064

Sample: B-38 (14) Lab ID: 40115064002 Collected: 05/19/15 12:09 Received: 05/20/15 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.7	ug/kg	19.4	9.7	1	05/26/15 08:27	05/26/15 12:17	83-32-9	
Acenaphthylene	<8.7	ug/kg	19.4	8.7	1	05/26/15 08:27	05/26/15 12:17	208-96-8	
Anthracene	<10.1	ug/kg	19.4	10.1	1	05/26/15 08:27	05/26/15 12:17	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.4	6.7	1	05/26/15 08:27	05/26/15 12:17	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.4	6.9	1	05/26/15 08:27	05/26/15 12:17	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.4	9.7	1	05/26/15 08:27	05/26/15 12:17	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.4	7.4	1	05/26/15 08:27	05/26/15 12:17	191-24-2	
Benzo(k)fluoranthene	<10.8	ug/kg	19.4	10.8	1	05/26/15 08:27	05/26/15 12:17	207-08-9	
Chrysene	<9.0	ug/kg	19.4	9.0	1	05/26/15 08:27	05/26/15 12:17	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.4	7.1	1	05/26/15 08:27	05/26/15 12:17	53-70-3	
Fluoranthene	<9.7	ug/kg	19.4	9.7	1	05/26/15 08:27	05/26/15 12:17	206-44-0	
Fluorene	<9.7	ug/kg	19.4	9.7	1	05/26/15 08:27	05/26/15 12:17	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.4	7.4	1	05/26/15 08:27	05/26/15 12:17	193-39-5	
Naphthalene	<9.7	ug/kg	19.4	9.7	1	05/26/15 08:27	05/26/15 12:17	91-20-3	
Phenanthrene	<9.7	ug/kg	19.4	9.7	1	05/26/15 08:27	05/26/15 12:17	85-01-8	
Pyrene	<9.7	ug/kg	19.4	9.7	1	05/26/15 08:27	05/26/15 12:17	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	73	%	39-130		1	05/26/15 08:27	05/26/15 12:17	321-60-8	
Terphenyl-d14 (S)	79	%	37-130		1	05/26/15 08:27	05/26/15 12:17	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.7	ug/kg	23.3	10.7	1	05/22/15 08:00	05/22/15 16:32	71-43-2	
Ethylbenzene	<14.5	ug/kg	58.3	14.5	1	05/22/15 08:00	05/22/15 16:32	100-41-4	
Methyl-tert-butyl ether	411	ug/kg	58.3	14.8	1	05/22/15 08:00	05/22/15 16:32	1634-04-4	
Toluene	<13.1	ug/kg	58.3	13.1	1	05/22/15 08:00	05/22/15 16:32	108-88-3	
Xylene (Total)	<56.5	ug/kg	175	56.5	1	05/22/15 08:00	05/22/15 16:32	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	109	%	49-157		1	05/22/15 08:00	05/22/15 16:32	1868-53-7	
4-Bromofluorobenzene (S)	109	%	53-134		1	05/22/15 08:00	05/22/15 16:32	460-00-4	
Toluene-d8 (S)	121	%	61-148		1	05/22/15 08:00	05/22/15 16:32	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.2	%	0.10	0.10	1		05/26/15 17:03		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115064

Sample: EX-19 (3-4) Lab ID: 40115064003 Collected: 05/19/15 11:26 Received: 05/20/15 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<10.4	ug/kg	20.8	10.4	1	05/26/15 08:27	05/26/15 12:34	83-32-9	
Acenaphthylene	<9.3	ug/kg	20.8	9.3	1	05/26/15 08:27	05/26/15 12:34	208-96-8	
Anthracene	<10.8	ug/kg	20.8	10.8	1	05/26/15 08:27	05/26/15 12:34	120-12-7	
Benzo(a)anthracene	<7.2	ug/kg	20.8	7.2	1	05/26/15 08:27	05/26/15 12:34	56-55-3	
Benzo(a)pyrene	<7.4	ug/kg	20.8	7.4	1	05/26/15 08:27	05/26/15 12:34	50-32-8	
Benzo(b)fluoranthene	<10.4	ug/kg	20.8	10.4	1	05/26/15 08:27	05/26/15 12:34	205-99-2	
Benzo(g,h,i)perylene	<7.9	ug/kg	20.8	7.9	1	05/26/15 08:27	05/26/15 12:34	191-24-2	
Benzo(k)fluoranthene	<11.5	ug/kg	20.8	11.5	1	05/26/15 08:27	05/26/15 12:34	207-08-9	
Chrysene	<9.6	ug/kg	20.8	9.6	1	05/26/15 08:27	05/26/15 12:34	218-01-9	
Dibenz(a,h)anthracene	<7.6	ug/kg	20.8	7.6	1	05/26/15 08:27	05/26/15 12:34	53-70-3	
Fluoranthene	<10.4	ug/kg	20.8	10.4	1	05/26/15 08:27	05/26/15 12:34	206-44-0	
Fluorene	<10.4	ug/kg	20.8	10.4	1	05/26/15 08:27	05/26/15 12:34	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.9	ug/kg	20.8	7.9	1	05/26/15 08:27	05/26/15 12:34	193-39-5	
Naphthalene	<10.4	ug/kg	20.8	10.4	1	05/26/15 08:27	05/26/15 12:34	91-20-3	
Phenanthrene	<10.4	ug/kg	20.8	10.4	1	05/26/15 08:27	05/26/15 12:34	85-01-8	
Pyrene	<10.4	ug/kg	20.8	10.4	1	05/26/15 08:27	05/26/15 12:34	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	66	%	39-130		1	05/26/15 08:27	05/26/15 12:34	321-60-8	
Terphenyl-d14 (S)	70	%	37-130		1	05/26/15 08:27	05/26/15 12:34	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<11.5	ug/kg	25.0	11.5	1	05/22/15 08:00	05/22/15 16:55	71-43-2	
Ethylbenzene	<15.5	ug/kg	62.5	15.5	1	05/22/15 08:00	05/22/15 16:55	100-41-4	
Methyl-tert-butyl ether	<15.8	ug/kg	62.5	15.8	1	05/22/15 08:00	05/22/15 16:55	1634-04-4	
Toluene	<14.0	ug/kg	62.5	14.0	1	05/22/15 08:00	05/22/15 16:55	108-88-3	
Xylene (Total)	<60.5	ug/kg	187	60.5	1	05/22/15 08:00	05/22/15 16:55	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	49-157		1	05/22/15 08:00	05/22/15 16:55	1868-53-7	
4-Bromofluorobenzene (S)	97	%	53-134		1	05/22/15 08:00	05/22/15 16:55	460-00-4	
Toluene-d8 (S)	109	%	61-148		1	05/22/15 08:00	05/22/15 16:55	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	20.0	%	0.10	0.10	1		05/26/15 17:03		

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40115064

Sample: EX-18 (3-4) Lab ID: 40115064004 Collected: 05/19/15 13:20 Received: 05/20/15 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<10.9	ug/kg	21.7	10.9	1	05/26/15 08:27	05/26/15 12:51	83-32-9	
Acenaphthylene	<9.7	ug/kg	21.7	9.7	1	05/26/15 08:27	05/26/15 12:51	208-96-8	
Anthracene	<11.3	ug/kg	21.7	11.3	1	05/26/15 08:27	05/26/15 12:51	120-12-7	
Benzo(a)anthracene	25.0	ug/kg	21.7	7.5	1	05/26/15 08:27	05/26/15 12:51	56-55-3	
Benzo(a)pyrene	28.2	ug/kg	21.7	7.8	1	05/26/15 08:27	05/26/15 12:51	50-32-8	
Benzo(b)fluoranthene	30.0	ug/kg	21.7	10.9	1	05/26/15 08:27	05/26/15 12:51	205-99-2	
Benzo(g,h,i)perylene	22.6	ug/kg	21.7	8.3	1	05/26/15 08:27	05/26/15 12:51	191-24-2	
Benzo(k)fluoranthene	27.4	ug/kg	21.7	12.0	1	05/26/15 08:27	05/26/15 12:51	207-08-9	
Chrysene	34.5	ug/kg	21.7	10.1	1	05/26/15 08:27	05/26/15 12:51	218-01-9	
Dibenz(a,h)anthracene	<8.0	ug/kg	21.7	8.0	1	05/26/15 08:27	05/26/15 12:51	53-70-3	
Fluoranthene	82.5	ug/kg	21.7	10.9	1	05/26/15 08:27	05/26/15 12:51	206-44-0	
Fluorene	<10.9	ug/kg	21.7	10.9	1	05/26/15 08:27	05/26/15 12:51	86-73-7	
Indeno(1,2,3-cd)pyrene	20.0J	ug/kg	21.7	8.3	1	05/26/15 08:27	05/26/15 12:51	193-39-5	
Naphthalene	<10.9	ug/kg	21.7	10.9	1	05/26/15 08:27	05/26/15 12:51	91-20-3	
Phenanthrene	37.9	ug/kg	21.7	10.9	1	05/26/15 08:27	05/26/15 12:51	85-01-8	
Pyrene	56.4	ug/kg	21.7	10.9	1	05/26/15 08:27	05/26/15 12:51	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	74	%	39-130		1	05/26/15 08:27	05/26/15 12:51	321-60-8	
Terphenyl-d14 (S)	78	%	37-130		1	05/26/15 08:27	05/26/15 12:51	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<12.0	ug/kg	26.1	12.0	1	05/22/15 08:00	05/22/15 17:17	71-43-2	
Ethylbenzene	<16.2	ug/kg	65.2	16.2	1	05/22/15 08:00	05/22/15 17:17	100-41-4	
Methyl-tert-butyl ether	<16.5	ug/kg	65.2	16.5	1	05/22/15 08:00	05/22/15 17:17	1634-04-4	
Toluene	<14.6	ug/kg	65.2	14.6	1	05/22/15 08:00	05/22/15 17:17	108-88-3	
Xylene (Total)	<63.2	ug/kg	196	63.2	1	05/22/15 08:00	05/22/15 17:17	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	105	%	49-157		1	05/22/15 08:00	05/22/15 17:17	1868-53-7	
4-Bromofluorobenzene (S)	103	%	53-134		1	05/22/15 08:00	05/22/15 17:17	460-00-4	
Toluene-d8 (S)	112	%	61-148		1	05/22/15 08:00	05/22/15 17:17	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	23.3	%	0.10	0.10	1		05/26/15 17:03		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115064

Sample: B-39 (12) Lab ID: 40115064005 Collected: 05/19/15 13:40 Received: 05/20/15 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.3	ug/kg	18.6	9.3	1	05/26/15 08:27	05/26/15 13:09	83-32-9	
Acenaphthylene	<8.3	ug/kg	18.6	8.3	1	05/26/15 08:27	05/26/15 13:09	208-96-8	
Anthracene	<9.7	ug/kg	18.6	9.7	1	05/26/15 08:27	05/26/15 13:09	120-12-7	
Benzo(a)anthracene	<6.5	ug/kg	18.6	6.5	1	05/26/15 08:27	05/26/15 13:09	56-55-3	
Benzo(a)pyrene	<6.7	ug/kg	18.6	6.7	1	05/26/15 08:27	05/26/15 13:09	50-32-8	
Benzo(b)fluoranthene	<9.3	ug/kg	18.6	9.3	1	05/26/15 08:27	05/26/15 13:09	205-99-2	
Benzo(g,h,i)perylene	<7.1	ug/kg	18.6	7.1	1	05/26/15 08:27	05/26/15 13:09	191-24-2	
Benzo(k)fluoranthene	<10.3	ug/kg	18.6	10.3	1	05/26/15 08:27	05/26/15 13:09	207-08-9	
Chrysene	<8.6	ug/kg	18.6	8.6	1	05/26/15 08:27	05/26/15 13:09	218-01-9	
Dibenz(a,h)anthracene	<6.8	ug/kg	18.6	6.8	1	05/26/15 08:27	05/26/15 13:09	53-70-3	
Fluoranthene	<9.3	ug/kg	18.6	9.3	1	05/26/15 08:27	05/26/15 13:09	206-44-0	
Fluorene	<9.3	ug/kg	18.6	9.3	1	05/26/15 08:27	05/26/15 13:09	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.1	ug/kg	18.6	7.1	1	05/26/15 08:27	05/26/15 13:09	193-39-5	
Naphthalene	<9.3	ug/kg	18.6	9.3	1	05/26/15 08:27	05/26/15 13:09	91-20-3	
Phenanthrene	<9.3	ug/kg	18.6	9.3	1	05/26/15 08:27	05/26/15 13:09	85-01-8	
Pyrene	<9.3	ug/kg	18.6	9.3	1	05/26/15 08:27	05/26/15 13:09	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	60	%	39-130		1	05/26/15 08:27	05/26/15 13:09	321-60-8	
Terphenyl-d14 (S)	67	%	37-130		1	05/26/15 08:27	05/26/15 13:09	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.3	ug/kg	22.3	10.3	1	05/22/15 08:00	05/22/15 17:40	71-43-2	
Ethylbenzene	<13.9	ug/kg	55.9	13.9	1	05/22/15 08:00	05/22/15 17:40	100-41-4	
Methyl-tert-butyl ether	51.1J	ug/kg	55.9	14.1	1	05/22/15 08:00	05/22/15 17:40	1634-04-4	
Toluene	<12.5	ug/kg	55.9	12.5	1	05/22/15 08:00	05/22/15 17:40	108-88-3	
Xylene (Total)	<54.1	ug/kg	168	54.1	1	05/22/15 08:00	05/22/15 17:40	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	105	%	49-157		1	05/22/15 08:00	05/22/15 17:40	1868-53-7	
4-Bromofluorobenzene (S)	109	%	53-134		1	05/22/15 08:00	05/22/15 17:40	460-00-4	
Toluene-d8 (S)	118	%	61-148		1	05/22/15 08:00	05/22/15 17:40	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	10.5	%	0.10	0.10	1		05/26/15 17:03		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115064

QC Batch: MSV/28592 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40115064001, 40115064002, 40115064003, 40115064004, 40115064005

METHOD BLANK: 1162747 Matrix: Solid  
Associated Lab Samples: 40115064001, 40115064002, 40115064003, 40115064004, 40115064005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	05/22/15 10:07	
Ethylbenzene	ug/kg	<12.4	50.0	05/22/15 10:07	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	05/22/15 10:07	
Toluene	ug/kg	<11.2	50.0	05/22/15 10:07	
Xylene (Total)	ug/kg	<48.4	150	05/22/15 10:07	
4-Bromofluorobenzene (S)	%	102	53-134	05/22/15 10:07	
Dibromofluoromethane (S)	%	95	49-157	05/22/15 10:07	
Toluene-d8 (S)	%	112	61-148	05/22/15 10:07	

Parameter	Units	1162748		1162749			% Rec Limits	RPD	Max RPD	Qualifiers
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec				
Benzene	ug/kg	2500	2420	2350	97	94	70-130	3	20	
Ethylbenzene	ug/kg	2500	2610	2680	105	107	70-130	2	20	
Methyl-tert-butyl ether	ug/kg	2500	2720	2790	109	112	70-130	3	20	
Toluene	ug/kg	2500	2670	2670	107	107	70-130	0	20	
Xylene (Total)	ug/kg	7500	7630	7710	102	103	70-130	1	20	
4-Bromofluorobenzene (S)	%				104	110	53-134			
Dibromofluoromethane (S)	%				97	100	49-157			
Toluene-d8 (S)	%				110	110	61-148			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115064

QC Batch: OEXT/26627 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40115064001, 40115064002, 40115064003, 40115064004, 40115064005

METHOD BLANK: 1164003 Matrix: Solid  
Associated Lab Samples: 40115064001, 40115064002, 40115064003, 40115064004, 40115064005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	05/26/15 10:17	
Acenaphthylene	ug/kg	<7.5	16.7	05/26/15 10:17	
Anthracene	ug/kg	<8.6	16.7	05/26/15 10:17	
Benzo(a)anthracene	ug/kg	<5.8	16.7	05/26/15 10:17	
Benzo(a)pyrene	ug/kg	<6.0	16.7	05/26/15 10:17	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	05/26/15 10:17	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	05/26/15 10:17	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	05/26/15 10:17	
Chrysene	ug/kg	<7.7	16.7	05/26/15 10:17	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	05/26/15 10:17	
Fluoranthene	ug/kg	<8.3	16.7	05/26/15 10:17	
Fluorene	ug/kg	<8.3	16.7	05/26/15 10:17	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	05/26/15 10:17	
Naphthalene	ug/kg	<8.3	16.7	05/26/15 10:17	
Phenanthrene	ug/kg	<8.3	16.7	05/26/15 10:17	
Pyrene	ug/kg	<8.3	16.7	05/26/15 10:17	
2-Fluorobiphenyl (S)	%	69	39-130	05/26/15 10:17	
Terphenyl-d14 (S)	%	81	37-130	05/26/15 10:17	

LABORATORY CONTROL SAMPLE: 1164004

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	236	71	54-130	
Acenaphthylene	ug/kg	333	243	73	55-130	
Anthracene	ug/kg	333	284	85	64-130	
Benzo(a)anthracene	ug/kg	333	243	73	50-130	
Benzo(a)pyrene	ug/kg	333	248	75	46-130	
Benzo(b)fluoranthene	ug/kg	333	249	75	43-130	
Benzo(g,h,i)perylene	ug/kg	333	249	75	48-130	
Benzo(k)fluoranthene	ug/kg	333	234	70	55-130	
Chrysene	ug/kg	333	259	78	62-130	
Dibenz(a,h)anthracene	ug/kg	333	273	82	49-130	
Fluoranthene	ug/kg	333	259	78	57-130	
Fluorene	ug/kg	333	239	72	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	268	80	50-130	
Naphthalene	ug/kg	333	227	68	48-130	
Phenanthrene	ug/kg	333	249	75	51-130	
Pyrene	ug/kg	333	227	68	55-130	
2-Fluorobiphenyl (S)	%			68	39-130	
Terphenyl-d14 (S)	%			72	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115064

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1164005		1164006		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40115167002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Acenaphthene	ug/kg	<8.3	333	333	278	266	84	80	46-130	5	26		
Acenaphthylene	ug/kg	<7.5	333	333	287	274	86	82	49-130	5	23		
Anthracene	ug/kg	<8.6	333	333	326	320	98	96	52-130	2	28		
Benzo(a)anthracene	ug/kg	<5.8	333	333	276	277	83	83	34-130	0	36		
Benzo(a)pyrene	ug/kg	<6.0	333	333	281	279	84	84	34-130	1	40		
Benzo(b)fluoranthene	ug/kg	<8.3	333	333	287	265	86	79	22-130	8	40		
Benzo(g,h,i)perylene	ug/kg	<6.3	333	333	278	275	83	82	24-130	1	35		
Benzo(k)fluoranthene	ug/kg	<9.2	333	333	270	288	81	86	41-130	7	37		
Chrysene	ug/kg	<7.7	333	333	295	293	88	88	49-130	1	33		
Dibenz(a,h)anthracene	ug/kg	<6.1	333	333	312	307	93	92	27-130	1	31		
Fluoranthene	ug/kg	<8.3	333	333	295	292	88	88	34-130	1	37		
Fluorene	ug/kg	<8.3	333	333	282	273	85	82	45-130	3	25		
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	333	333	302	298	91	89	30-130	1	34		
Naphthalene	ug/kg	<8.3	333	333	271	246	81	74	38-130	10	30		
Phenanthrene	ug/kg	<8.3	333	333	289	283	87	85	38-130	2	34		
Pyrene	ug/kg	<8.3	333	333	261	260	78	78	35-130	1	35		
2-Fluorobiphenyl (S)	%						78	73	39-130				
Terphenyl-d14 (S)	%						83	79	37-130				

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115064

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSV/28595

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115064

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40115064001	B-37 (14)	EPA 3546	OEXT/26627	EPA 8270 by SIM	MSSV/7913
40115064002	B-38 (14)	EPA 3546	OEXT/26627	EPA 8270 by SIM	MSSV/7913
40115064003	EX-19 (3-4)	EPA 3546	OEXT/26627	EPA 8270 by SIM	MSSV/7913
40115064004	EX-18 (3-4)	EPA 3546	OEXT/26627	EPA 8270 by SIM	MSSV/7913
40115064005	B-39 (12)	EPA 3546	OEXT/26627	EPA 8270 by SIM	MSSV/7913
40115064001	B-37 (14)	EPA 5035/5030B	MSV/28592	EPA 8260	MSV/28595
40115064002	B-38 (14)	EPA 5035/5030B	MSV/28592	EPA 8260	MSV/28595
40115064003	EX-19 (3-4)	EPA 5035/5030B	MSV/28592	EPA 8260	MSV/28595
40115064004	EX-18 (3-4)	EPA 5035/5030B	MSV/28592	EPA 8260	MSV/28595
40115064005	B-39 (12)	EPA 5035/5030B	MSV/28592	EPA 8260	MSV/28595
40115064001	B-37 (14)	ASTM D2974-87	PMST/11232		
40115064002	B-38 (14)	ASTM D2974-87	PMST/11232		
40115064003	EX-19 (3-4)	ASTM D2974-87	PMST/11232		
40115064004	EX-18 (3-4)	ASTM D2974-87	PMST/11232		
40115064005	B-39 (12)	ASTM D2974-87	PMST/11232		

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**CHAIN-OF-CUSTODY / Analytical Request Document**

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



40115064

mm.

Page: / of /

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:	
Company: TriCore Environmental, LLC		Report To: Marcos I. Czako		Attention: Shawn Rodeck	
Address: 2368 Corporate Lane, Suite 116 Naperville, Illinois 60563		Copy To:		Company Name: TriCore Environmental, LLC	
Email To: marcos.czako@tricoreweb.com		Purchase Order No.: 100137		Address: 2368 Corporate Lane, Suite 116, Naperville, Illinois 60563	
Phone: 630-520-9973 Fax 630-520-9976		Project Name: Lemont Kar Gas		Pace Quote Reference:	
Requested Due Date/TAT: <u>Standard</u>		Project Number: 100137		Pace Project Manager:	
				Pace Profile #:	

**REGULATORY AGENCY**

NPDES  GROUND WATER  DRINKING WATER

UST  RCRA  OTHER \_\_\_\_\_

**SITE LOCATION**

GA  IL  IN  MI  NC

OH  SC  WI  OTHER \_\_\_\_\_

ITEM #	Section D Required Client Information		Valid Matrix Codes		MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Filtered (Y/N)	Requested Analyte	Pace Project No. Lab ID.	
	SAMPLE ID		MATRIX				COMPOSITE START		COMPOSITE END/GRAB				Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Methanol				Other
	One Character per box. (A-Z, 0-9 / -)		DRINKING WATER	WASTE WATER			DATE	TIME	DATE	TIME													
	Sample IDs MUST BE UNIQUE		WATER	PRODUCT			DATE	TIME	DATE	TIME													
1	B-37	(14)			001	SL G			5/19/15	11:25								X	X	X	1-402P	N	2-40m/F1-40cc
2	B-38	(14)			002	SL G			5/19/15	12:09								X	X	X		N	
3	EX-19	(3-4)			003	SL G			5/19/15	11:26								X	X	X		N	
4	EX-18	(3-4)			004	SL G			5/19/15	13:20								X	X	X		N	
5	B-39	(12)			005	SL G			5/19/15	13:40								X	X	X		N	

Additional Comments:	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS				
		<i>[Signature]</i>	5/19/15	14:10	<i>[Signature]</i>	5/19/15	14:10		Y/N	Y/N	Y/N
	<i>[Signature]</i>	5/19/15	17:00	<i>[Signature]</i>	5/19/15			Y/N	Y/N	Y/N	Y/N
	CS Logistics	5/20/15	09:20	Kathleen Wendel	5/20/15	09:20	4:5	Y/N	Y/N	Y/N	Y/N

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: Marcos I. Czako

SIGNATURE of SAMPLER: *[Signature]* DATE Signed (MM/DD/YY): 05/19/15

Temp in °C: \_\_\_\_\_

Received on Ice: \_\_\_\_\_

Custody Sealed Cooler: \_\_\_\_\_

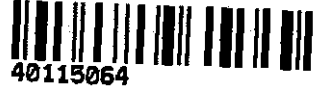
Samples Intact: \_\_\_\_\_

Client Name: TriCore

Project #

WO#: **40115064**

Courier:  Fed Ex  UPS  Client  Pace Other: CS Logistics



Tracking #: \_\_\_\_\_  
Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: SR-01 Type of Ice:  Wet  Blue  Dry  None

Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: 4.5 / Corr: 4.5 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Person examining contents:  
Date: 5-20-15  
Initials: KEW

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>003 1-4oz pA time @ 1112</u> <u>KW 5-20-15</u>
-Includes date/time/ID/Analysis Matrix:	<u>S</u>	
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

If checked, see attached form for additional comments

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: \_\_\_\_\_

KEW

Date: 5-20-15

(To be completed by sending lab)



Ship To:  
Pace Analytical Minnesota  
1700 Elm Street SE  
Suite 200  
Minneapolis, MN 55414  
Phone (612)607-1700

Sending Project No:	40115296
Receiving Project No:	
Check Box for Consolidated Invoice:	<input type="checkbox"/>
Date Prepared:	05/22/15
<b>REQUESTED COMPLETION DATE:</b>	<b>6/8/2015</b>

Sending Region	IR40-Green Bay	Sending Project Mgr.	Laurie Woelfel
Receiving Region	IR10-Minnesota	External Client	AMEC - CANADIAN PACIFIC
State of Sample Origin	MN	QC Deliverable	STD REPORT

All questions should be addressed to sending project manager.

Requested Reportable Units \_\_\_\_\_ Report Wet or Dry Weight? Dry Weight Cert. Needed \_\_\_\_\_

WORK REQUESTED						
Method Description	Container Type	Quantity of containers	Preservative	Quantity of Samples	Unit Price	Amount
	BP3U		Unpreserved	5	<del>\$30.00</del>	<del>\$150.00</del>
<b>TOTAL</b>						<del>\$150.00</del>

Special Requirements: \_\_\_\_\_

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept. Sending Region (20%)
Wet Chemistry	21	<del>\$150.00</del>	<del>\$120.00</del>	<del>\$30.00</del>
<b>TOTAL</b>		<del>\$150.00</del>	<del>\$120.00</del>	<del>\$30.00</del>

\* Custom Revenue Allocation

**FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO**

Chain of Custody Included:  Yes  No Return Samples to Sending Region:  Yes  No  
Matrix:  Soil  Water  Air  Other (identify) \_\_\_\_\_

**CONFIRMATION OF WORK COMPLETED**

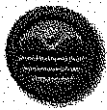
Date Completed: \_\_\_\_\_ Receiving Project Manager: \_\_\_\_\_

**DISPOSITION OF FORM**

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

*Resampled LW  
5/22/15*



# Illinois Environmental Protection Agency

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

## Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

### B. Sample Collector

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. WJR  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. WJR  
(Initial)
- 3. Sample integrity was maintained by proper preservation. WJR  
(Initial)
- 4. All samples were properly labeled. WJR  
(Initial)

### C. Laboratory Representative

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms CW  
(Initial)
- 2. Sample integrity was maintained by proper preservation. CW  
(Initial)
- 3. All samples were properly labeled. CW  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. CW  
(Initial)
- 5. Sample holding times were not exceeded. CW  
(Initial)

40115064  
LW  
(Initial)  
LW  
(Initial)

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marvin J. Crako  
 Title Geo. III  
 Company TriCore Environmental, LLC  
 Address 2368 Corporate Lane, Suite 116  
 City Naperville  
 State Illinois  
 Zip Code 60563  
 Phone (630) 520-9973  
 Signature [Handwritten Signature]  
 Date 05/19/15

**Laboratory Representative**

Name Laurie Woelfel  
 Title Project Manager  
 Company Pace Analytical Services, Inc.  
 Address 1241 Bellevue Street, Suite 9  
 City Green Bay  
 State Wisconsin  
 Zip Code 64302  
 Phone (920) 469-2436  
 Signature [Handwritten Signature]  
 Date 5/27/15

June 03, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

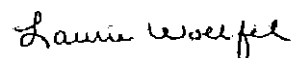
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115347

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on May 23, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



### REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115347

---

#### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115347

---

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40115347001	B-40 (13)	Solid	05/22/15 12:00	05/23/15 09:15

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115347

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Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40115347001	B-40 (13)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	AH	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115347

Sample: B-40 (13) Lab ID: 40115347001 Collected: 05/22/15 12:00 Received: 05/23/15 09:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.6	ug/kg	19.3	9.6	1	05/29/15 08:17	06/01/15 13:51	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.3	8.6	1	05/29/15 08:17	06/01/15 13:51	208-96-8	
Anthracene	<10	ug/kg	19.3	10	1	05/29/15 08:17	06/01/15 13:51	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.3	6.7	1	05/29/15 08:17	06/01/15 13:51	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.3	6.9	1	05/29/15 08:17	06/01/15 13:51	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.3	9.6	1	05/29/15 08:17	06/01/15 13:51	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.3	7.3	1	05/29/15 08:17	06/01/15 13:51	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.3	10.7	1	05/29/15 08:17	06/01/15 13:51	207-08-9	
Chrysene	<8.9	ug/kg	19.3	8.9	1	05/29/15 08:17	06/01/15 13:51	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.3	7.1	1	05/29/15 08:17	06/01/15 13:51	53-70-3	
Fluoranthene	<9.6	ug/kg	19.3	9.6	1	05/29/15 08:17	06/01/15 13:51	206-44-0	
Fluorene	<9.6	ug/kg	19.3	9.6	1	05/29/15 08:17	06/01/15 13:51	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.3	7.3	1	05/29/15 08:17	06/01/15 13:51	193-39-5	
Naphthalene	<9.6	ug/kg	19.3	9.6	1	05/29/15 08:17	06/01/15 13:51	91-20-3	
Phenanthrene	<9.6	ug/kg	19.3	9.6	1	05/29/15 08:17	06/01/15 13:51	85-01-8	
Pyrene	<9.6	ug/kg	19.3	9.6	1	05/29/15 08:17	06/01/15 13:51	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	52	%	39-130		1	05/29/15 08:17	06/01/15 13:51	321-60-8	
Terphenyl-d14 (S)	51	%	37-130		1	05/29/15 08:17	06/01/15 13:51	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.7	ug/kg	23.1	10.7	1	05/27/15 09:45	05/27/15 23:09	71-43-2	
Ethylbenzene	<14.4	ug/kg	57.8	14.4	1	05/27/15 09:45	05/27/15 23:09	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.8	14.6	1	05/27/15 09:45	05/27/15 23:09	1634-04-4	
Toluene	<13.0	ug/kg	57.8	13.0	1	05/27/15 09:45	05/27/15 23:09	108-88-3	
Xylene (Total)	<56.0	ug/kg	173	56.0	1	05/27/15 09:45	05/27/15 23:09	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	105	%	49-157		1	05/27/15 09:45	05/27/15 23:09	1868-53-7	
4-Bromofluorobenzene (S)	86	%	53-134		1	05/27/15 09:45	05/27/15 23:09	460-00-4	
Toluene-d8 (S)	96	%	61-148		1	05/27/15 09:45	05/27/15 23:09	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.4	%	0.10	0.10	1		05/29/15 10:04		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115347

QC Batch: MSV/28631 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40115347001

METHOD BLANK: 1164736 Matrix: Solid  
Associated Lab Samples: 40115347001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	05/27/15 21:59	
Ethylbenzene	ug/kg	<12.4	50.0	05/27/15 21:59	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	05/27/15 21:59	
Toluene	ug/kg	<11.2	50.0	05/27/15 21:59	
Xylene (Total)	ug/kg	<48.4	150	05/27/15 21:59	
4-Bromofluorobenzene (S)	%	87	53-134	05/27/15 21:59	
Dibromofluoromethane (S)	%	105	49-157	05/27/15 21:59	
Toluene-d8 (S)	%	99	61-148	05/27/15 21:59	

LABORATORY CONTROL SAMPLE & LCSD: 1164737

Parameter	Units	1164738							RPD	Max RPD	Qualifiers
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits				
Benzene	ug/kg	2500	2560	2420	103	97	70-130	6	20		
Ethylbenzene	ug/kg	2500	2790	2630	111	105	70-130	6	20		
Methyl-tert-butyl ether	ug/kg	2500	2380	2290	95	92	70-130	4	20		
Toluene	ug/kg	2500	2730	2560	109	103	70-130	6	20		
Xylene (Total)	ug/kg	7500	8090	7730	108	103	70-130	5	20		
4-Bromofluorobenzene (S)	%				92	87	53-134				
Dibromofluoromethane (S)	%				108	106	49-157				
Toluene-d8 (S)	%				99	96	61-148				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115347

QC Batch: OEXT/26672      Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546      Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40115347001

METHOD BLANK: 1165967      Matrix: Solid  
Associated Lab Samples: 40115347001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	06/01/15 12:08	
Acenaphthylene	ug/kg	<7.5	16.7	06/01/15 12:08	
Anthracene	ug/kg	<8.6	16.7	06/01/15 12:08	
Benzo(a)anthracene	ug/kg	<5.8	16.7	06/01/15 12:08	
Benzo(a)pyrene	ug/kg	<6.0	16.7	06/01/15 12:08	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	06/01/15 12:08	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	06/01/15 12:08	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	06/01/15 12:08	
Chrysene	ug/kg	<7.7	16.7	06/01/15 12:08	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	06/01/15 12:08	
Fluoranthene	ug/kg	<8.3	16.7	06/01/15 12:08	
Fluorene	ug/kg	<8.3	16.7	06/01/15 12:08	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	06/01/15 12:08	
Naphthalene	ug/kg	<8.3	16.7	06/01/15 12:08	
Phenanthrene	ug/kg	<8.3	16.7	06/01/15 12:08	
Pyrene	ug/kg	<8.3	16.7	06/01/15 12:08	
2-Fluorobiphenyl (S)	%	63	39-130	06/01/15 12:08	
Terphenyl-d14 (S)	%	74	37-130	06/01/15 12:08	

LABORATORY CONTROL SAMPLE: 1165968

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	227	68	54-130	
Acenaphthylene	ug/kg	333	225	68	55-130	
Anthracene	ug/kg	333	250	75	64-130	
Benzo(a)anthracene	ug/kg	333	224	67	50-130	
Benzo(a)pyrene	ug/kg	333	247	74	46-130	
Benzo(b)fluoranthene	ug/kg	333	239	72	43-130	
Benzo(g,h,i)perylene	ug/kg	333	238	71	48-130	
Benzo(k)fluoranthene	ug/kg	333	249	75	55-130	
Chrysene	ug/kg	333	230	69	62-130	
Dibenz(a,h)anthracene	ug/kg	333	251	75	49-130	
Fluoranthene	ug/kg	333	228	68	57-130	
Fluorene	ug/kg	333	221	66	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	255	77	50-130	
Naphthalene	ug/kg	333	198	59	48-130	
Phenanthrene	ug/kg	333	231	69	51-130	
Pyrene	ug/kg	333	220	66	55-130	
2-Fluorobiphenyl (S)	%			65	39-130	
Terphenyl-d14 (S)	%			67	37-130	

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40115347

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1165969		1165970		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40115309003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Acenaphthene	ug/kg	<8.3	333	333	218	208	65	62	46-130	5	26		
Acenaphthylene	ug/kg	<7.5	333	333	222	211	66	63	49-130	5	23		
Anthracene	ug/kg	<8.6	333	333	234	249	69	74	52-130	6	28		
Benzo(a)anthracene	ug/kg	<5.8	333	333	200	225	60	67	34-130	12	36		
Benzo(a)pyrene	ug/kg	<6.0	333	333	213	239	64	71	34-130	12	40		
Benzo(b)fluoranthene	ug/kg	<8.3	333	333	220	240	66	72	22-130	9	40		
Benzo(g,h,i)perylene	ug/kg	<6.3	333	333	203	229	61	69	24-130	12	35		
Benzo(k)fluoranthene	ug/kg	<9.2	333	333	203	223	61	67	41-130	9	37		
Chrysene	ug/kg	<7.7	333	333	202	229	60	68	49-130	13	33		
Dibenz(a,h)anthracene	ug/kg	<6.1	333	333	214	237	64	71	27-130	10	31		
Fluoranthene	ug/kg	<8.3	333	333	209	234	62	69	34-130	11	37		
Fluorene	ug/kg	<8.3	333	333	211	213	63	63	45-130	1	25		
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	333	333	213	245	64	73	30-130	14	34		
Naphthalene	ug/kg	<8.3	333	333	203	180	61	54	38-130	12	30		
Phenanthrene	ug/kg	<8.3	333	333	213	229	63	68	38-130	7	34		
Pyrene	ug/kg	<8.3	333	333	201	223	60	66	35-130	10	35		
2-Fluorobiphenyl (S)	%						60	56	39-130				
Terphenyl-d14 (S)	%						55	63	37-130				

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115347

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSV/28640

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115347

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40115347001	B-40 (13)	EPA 3546	OEXT/26672	EPA 8270 by SIM	MSSV/7931
40115347001	B-40 (13)	EPA 5035/5030B	MSV/28631	EPA 8260	MSV/28640
40115347001	B-40 (13)	ASTM D2974-87	PMST/11246		

### REPORT OF LABORATORY ANALYSIS

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Project #:

WO#: 40115347



Client Name: TriCore Environmental, LLC

Courier: [ ] Fed Ex [ ] UPS [ ] Client [ ] Pace [ ] Other: CS Logistics
Tracking #:

Custody Seal on Cooler/Box Present: [x] yes [ ] no Seals intact: [x] yes [ ] no

Custody Seal on Samples Present: [ ] yes [x] no Seals intact: [ ] yes [ ] no

Packing Material: [x] Bubble Wrap [x] Bubble Bags [ ] None [ ] Other

Thermometer Used SR-45 Type of Ice: (Wet) Blue Dry None [x] Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 5.5 /Corr: 5.5 Biological Tissue is Frozen: [ ] yes [ ] no

Temp Blank Present: [x] yes [ ] no

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:
Date: 5/23/15
Initials: RJ

Comments:

Table with 15 rows of inspection items and checkboxes. Items include Chain of Custody Present, Short Hold Time Analysis, Containers Intact, etc.

Client Notification/ Resolution:
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_
Comments/ Resolution: \_\_\_\_\_

Project Manager Review: [Signature] Date: 5/26/15



# Illinois Environmental Protection Agency

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The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

## Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPALPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

### B. Sample Collector

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. NJR  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. NJR  
(Initial)
- 3. Sample integrity was maintained by proper preservation. NJR  
(Initial)
- 4. All samples were properly labeled. NJR  
(Initial)

### C. Laboratory Representative

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms Clw  
(Initial)
- 2. Sample integrity was maintained by proper preservation. Clw  
(Initial)
- 3. All samples were properly labeled. Clw  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. Clw  
(Initial)
- 5. Sample holding times were not exceeded. Clw  
(Initial)

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

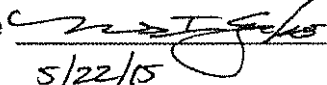
CW  
(Initial)

CW  
(Initial)

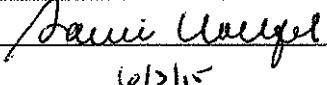
**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name \_\_\_\_\_  
Title \_\_\_\_\_  
Company TriCore Environmental, LLC  
Address 2368 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone (630) 520-9973  
Signature   
Date 5/22/15

**Laboratory Representative**

Name Laurie Woelfel  
Title Project Manager  
Company Pace Analytical Services, Inc.  
Address 1241 Bellevue Street, Suite 9  
City Green Bay  
State Wisconsin  
Zip Code 64302  
Phone (920) 469-2436  
Signature   
Date 6/2/15

June 04, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

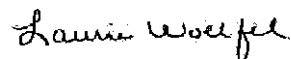
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115533

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on May 28, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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**CERTIFICATIONS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115533

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**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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**REPORT OF LABORATORY ANALYSIS**

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115533

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40115533001	B-41 (15)	Solid	05/27/15 08:45	05/28/15 09:55
40115533002	EX-20 (3-4)	Solid	05/27/15 09:25	05/28/15 09:55
40115533003	B-44 (15)	Solid	05/27/15 13:00	05/28/15 09:55
40115533004	B-42 (12.5)	Solid	05/27/15 13:47	05/28/15 09:55
40115533005	B-43 (12.5)	Solid	05/27/15 13:48	05/28/15 09:55
40115533006	EX-21 (3-4)	Solid	05/27/15 13:50	05/28/15 09:55

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115533

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40115533001	B-41 (15)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40115533002	EX-20 (3-4)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40115533003	B-44 (15)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40115533004	B-42 (12.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40115533005	B-43 (12.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40115533006	EX-21 (3-4)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115533

Sample: B-41 (15) Lab ID: 40115533001 Collected: 05/27/15 08:45 Received: 05/28/15 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.5	ug/kg	19.0	9.5	1	06/01/15 09:52	06/02/15 14:55	83-32-9	
Acenaphthylene	<8.5	ug/kg	19.0	8.5	1	06/01/15 09:52	06/02/15 14:55	208-96-8	
Anthracene	<9.9	ug/kg	19.0	9.9	1	06/01/15 09:52	06/02/15 14:55	120-12-7	
Benzo(a)anthracene	<6.6	ug/kg	19.0	6.6	1	06/01/15 09:52	06/02/15 14:55	56-55-3	
Benzo(a)pyrene	<6.8	ug/kg	19.0	6.8	1	06/01/15 09:52	06/02/15 14:55	50-32-8	
Benzo(b)fluoranthene	<9.5	ug/kg	19.0	9.5	1	06/01/15 09:52	06/02/15 14:55	205-99-2	
Benzo(g,h,i)perylene	<7.2	ug/kg	19.0	7.2	1	06/01/15 09:52	06/02/15 14:55	191-24-2	
Benzo(k)fluoranthene	<10.5	ug/kg	19.0	10.5	1	06/01/15 09:52	06/02/15 14:55	207-08-9	
Chrysene	<8.8	ug/kg	19.0	8.8	1	06/01/15 09:52	06/02/15 14:55	218-01-9	
Dibenz(a,h)anthracene	<7.0	ug/kg	19.0	7.0	1	06/01/15 09:52	06/02/15 14:55	53-70-3	
Fluoranthene	<9.5	ug/kg	19.0	9.5	1	06/01/15 09:52	06/02/15 14:55	206-44-0	
Fluorene	<9.5	ug/kg	19.0	9.5	1	06/01/15 09:52	06/02/15 14:55	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.2	ug/kg	19.0	7.2	1	06/01/15 09:52	06/02/15 14:55	193-39-5	
Naphthalene	<9.5	ug/kg	19.0	9.5	1	06/01/15 09:52	06/02/15 14:55	91-20-3	
Phenanthrene	11.8J	ug/kg	19.0	9.5	1	06/01/15 09:52	06/02/15 14:55	85-01-8	
Pyrene	<9.5	ug/kg	19.0	9.5	1	06/01/15 09:52	06/02/15 14:55	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	71	%	39-130		1	06/01/15 09:52	06/02/15 14:55	321-60-8	
Terphenyl-d14 (S)	72	%	37-130		1	06/01/15 09:52	06/02/15 14:55	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.5	ug/kg	22.8	10.5	1	05/29/15 08:00	05/29/15 19:13	71-43-2	
Ethylbenzene	<14.2	ug/kg	57.1	14.2	1	05/29/15 08:00	05/29/15 19:13	100-41-4	
Methyl-tert-butyl ether	<14.4	ug/kg	57.1	14.4	1	05/29/15 08:00	05/29/15 19:13	1634-04-4	
Toluene	<12.8	ug/kg	57.1	12.8	1	05/29/15 08:00	05/29/15 19:13	108-88-3	
Xylene (Total)	<55.3	ug/kg	171	55.3	1	05/29/15 08:00	05/29/15 19:13	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	110	%	49-157		1	05/29/15 08:00	05/29/15 19:13	1868-53-7	
4-Bromofluorobenzene (S)	80	%	53-134		1	05/29/15 08:00	05/29/15 19:13	460-00-4	
Toluene-d8 (S)	97	%	61-148		1	05/29/15 08:00	05/29/15 19:13	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	12.4	%	0.10	0.10	1		06/03/15 08:13		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115533

Sample: EX-20 (3-4) Lab ID: 40115533002 Collected: 05/27/15 09:25 Received: 05/28/15 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<11.5	ug/kg	22.9	11.5	1	06/01/15 09:52	06/02/15 18:32	83-32-9	
Acenaphthylene	<10.3	ug/kg	22.9	10.3	1	06/01/15 09:52	06/02/15 18:32	208-96-8	
Anthracene	43.3	ug/kg	22.9	11.9	1	06/01/15 09:52	06/02/15 18:32	120-12-7	
Benzo(a)anthracene	296	ug/kg	22.9	7.9	1	06/01/15 09:52	06/02/15 18:32	56-55-3	
Benzo(a)pyrene	365	ug/kg	22.9	8.2	1	06/01/15 09:52	06/02/15 18:32	50-32-8	
Benzo(b)fluoranthene	471	ug/kg	22.9	11.5	1	06/01/15 09:52	06/02/15 18:32	205-99-2	
Benzo(g,h,i)perylene	295	ug/kg	22.9	8.7	1	06/01/15 09:52	06/02/15 18:32	191-24-2	
Benzo(k)fluoranthene	339	ug/kg	22.9	12.7	1	06/01/15 09:52	06/02/15 18:32	207-08-9	
Chrysene	429	ug/kg	22.9	10.6	1	06/01/15 09:52	06/02/15 18:32	218-01-9	
Dibenz(a,h)anthracene	95.1	ug/kg	22.9	8.4	1	06/01/15 09:52	06/02/15 18:32	53-70-3	
Fluoranthene	567	ug/kg	22.9	11.5	1	06/01/15 09:52	06/02/15 18:32	206-44-0	
Fluorene	<11.5	ug/kg	22.9	11.5	1	06/01/15 09:52	06/02/15 18:32	86-73-7	
Indeno(1,2,3-cd)pyrene	257	ug/kg	22.9	8.7	1	06/01/15 09:52	06/02/15 18:32	193-39-5	
Naphthalene	39.8	ug/kg	22.9	11.5	1	06/01/15 09:52	06/02/15 18:32	91-20-3	
Phenanthrene	126	ug/kg	22.9	11.5	1	06/01/15 09:52	06/02/15 18:32	85-01-8	
Pyrene	494	ug/kg	22.9	11.5	1	06/01/15 09:52	06/02/15 18:32	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	65	%	39-130		1	06/01/15 09:52	06/02/15 18:32	321-60-8	
Terphenyl-d14 (S)	58	%	37-130		1	06/01/15 09:52	06/02/15 18:32	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<12.7	ug/kg	27.5	12.7	1	05/29/15 08:00	06/01/15 09:01	71-43-2	
Ethylbenzene	<17.1	ug/kg	68.8	17.1	1	05/29/15 08:00	06/01/15 09:01	100-41-4	
Methyl-tert-butyl ether	<17.4	ug/kg	68.8	17.4	1	05/29/15 08:00	06/01/15 09:01	1634-04-4	
Toluene	<15.4	ug/kg	68.8	15.4	1	05/29/15 08:00	06/01/15 09:01	108-88-3	
Xylene (Total)	<66.6	ug/kg	206	66.6	1	05/29/15 08:00	06/01/15 09:01	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	49-157		1	05/29/15 08:00	06/01/15 09:01	1868-53-7	
4-Bromofluorobenzene (S)	76	%	53-134		1	05/29/15 08:00	06/01/15 09:01	460-00-4	
Toluene-d8 (S)	94	%	61-148		1	05/29/15 08:00	06/01/15 09:01	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	27.3	%	0.10	0.10	1		06/03/15 08:13		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115533

Sample: B-44 (15) Lab ID: 40115533003 Collected: 05/27/15 13:00 Received: 05/28/15 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.7	ug/kg	19.4	9.7	1	06/01/15 09:52	06/01/15 19:37	83-32-9	
Acenaphthylene	<8.7	ug/kg	19.4	8.7	1	06/01/15 09:52	06/01/15 19:37	208-96-8	
Anthracene	<10.0	ug/kg	19.4	10.0	1	06/01/15 09:52	06/01/15 19:37	120-12-7	
Benzo(a)anthracene	8.3J	ug/kg	19.4	6.7	1	06/01/15 09:52	06/01/15 19:37	56-55-3	
Benzo(a)pyrene	11.3J	ug/kg	19.4	6.9	1	06/01/15 09:52	06/01/15 19:37	50-32-8	
Benzo(b)fluoranthene	13.0J	ug/kg	19.4	9.7	1	06/01/15 09:52	06/01/15 19:37	205-99-2	
Benzo(g,h,i)perylene	8.6J	ug/kg	19.4	7.4	1	06/01/15 09:52	06/01/15 19:37	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.4	10.7	1	06/01/15 09:52	06/01/15 19:37	207-08-9	
Chrysene	13.6J	ug/kg	19.4	8.9	1	06/01/15 09:52	06/01/15 19:37	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.4	7.1	1	06/01/15 09:52	06/01/15 19:37	53-70-3	
Fluoranthene	12.4J	ug/kg	19.4	9.7	1	06/01/15 09:52	06/01/15 19:37	206-44-0	
Fluorene	<9.7	ug/kg	19.4	9.7	1	06/01/15 09:52	06/01/15 19:37	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.4	7.4	1	06/01/15 09:52	06/01/15 19:37	193-39-5	
Naphthalene	<9.7	ug/kg	19.4	9.7	1	06/01/15 09:52	06/01/15 19:37	91-20-3	
Phenanthrene	<9.7	ug/kg	19.4	9.7	1	06/01/15 09:52	06/01/15 19:37	85-01-8	
Pyrene	11.6J	ug/kg	19.4	9.7	1	06/01/15 09:52	06/01/15 19:37	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	74	%	39-130		1	06/01/15 09:52	06/01/15 19:37	321-60-8	
Terphenyl-d14 (S)	62	%	37-130		1	06/01/15 09:52	06/01/15 19:37	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.7	ug/kg	23.2	10.7	1	05/29/15 08:00	06/01/15 09:24	71-43-2	
Ethylbenzene	<14.4	ug/kg	58.1	14.4	1	05/29/15 08:00	06/01/15 09:24	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.1	14.7	1	05/29/15 08:00	06/01/15 09:24	1634-04-4	
Toluene	<13.0	ug/kg	58.1	13.0	1	05/29/15 08:00	06/01/15 09:24	108-88-3	
Xylene (Total)	<56.2	ug/kg	174	56.2	1	05/29/15 08:00	06/01/15 09:24	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	129	%	49-157		1	05/29/15 08:00	06/01/15 09:24	1868-53-7	
4-Bromofluorobenzene (S)	95	%	53-134		1	05/29/15 08:00	06/01/15 09:24	460-00-4	
Toluene-d8 (S)	116	%	61-148		1	05/29/15 08:00	06/01/15 09:24	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.9	%	0.10	0.10	1		06/03/15 08:13		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115533

Sample: B-42 (12.5) Lab ID: 40115533004 Collected: 05/27/15 13:47 Received: 05/28/15 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.8	ug/kg	19.6	9.8	1	06/01/15 09:52	06/01/15 21:55	83-32-9	
Acenaphthylene	<8.8	ug/kg	19.6	8.8	1	06/01/15 09:52	06/01/15 21:55	208-96-8	
Anthracene	<10.2	ug/kg	19.6	10.2	1	06/01/15 09:52	06/01/15 21:55	120-12-7	
Benzo(a)anthracene	<6.8	ug/kg	19.6	6.8	1	06/01/15 09:52	06/01/15 21:55	56-55-3	
Benzo(a)pyrene	<7.0	ug/kg	19.6	7.0	1	06/01/15 09:52	06/01/15 21:55	50-32-8	
Benzo(b)fluoranthene	<9.8	ug/kg	19.6	9.8	1	06/01/15 09:52	06/01/15 21:55	205-99-2	
Benzo(g,h,i)perylene	<7.5	ug/kg	19.6	7.5	1	06/01/15 09:52	06/01/15 21:55	191-24-2	
Benzo(k)fluoranthene	<10.8	ug/kg	19.6	10.8	1	06/01/15 09:52	06/01/15 21:55	207-08-9	
Chrysene	<9.1	ug/kg	19.6	9.1	1	06/01/15 09:52	06/01/15 21:55	218-01-9	
Dibenz(a,h)anthracene	<7.2	ug/kg	19.6	7.2	1	06/01/15 09:52	06/01/15 21:55	53-70-3	
Fluoranthene	<9.8	ug/kg	19.6	9.8	1	06/01/15 09:52	06/01/15 21:55	206-44-0	
Fluorene	<9.8	ug/kg	19.6	9.8	1	06/01/15 09:52	06/01/15 21:55	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.6	7.4	1	06/01/15 09:52	06/01/15 21:55	193-39-5	
Naphthalene	32.2	ug/kg	19.6	9.8	1	06/01/15 09:52	06/01/15 21:55	91-20-3	
Phenanthrene	<9.8	ug/kg	19.6	9.8	1	06/01/15 09:52	06/01/15 21:55	85-01-8	
Pyrene	<9.8	ug/kg	19.6	9.8	1	06/01/15 09:52	06/01/15 21:55	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	68	%	39-130		1	06/01/15 09:52	06/01/15 21:55	321-60-8	
Terphenyl-d14 (S)	69	%	37-130		1	06/01/15 09:52	06/01/15 21:55	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.8	ug/kg	23.5	10.8	1	05/29/15 08:00	06/01/15 09:47	71-43-2	
Ethylbenzene	<14.6	ug/kg	58.7	14.6	1	05/29/15 08:00	06/01/15 09:47	100-41-4	
Methyl-tert-butyl ether	<14.9	ug/kg	58.7	14.9	1	05/29/15 08:00	06/01/15 09:47	1634-04-4	
Toluene	<13.2	ug/kg	58.7	13.2	1	05/29/15 08:00	06/01/15 09:47	108-88-3	
Xylene (Total)	<56.9	ug/kg	176	56.9	1	05/29/15 08:00	06/01/15 09:47	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	105	%	49-157		1	05/29/15 08:00	06/01/15 09:47	1868-53-7	
4-Bromofluorobenzene (S)	75	%	53-134		1	05/29/15 08:00	06/01/15 09:47	460-00-4	
Toluene-d8 (S)	92	%	61-148		1	05/29/15 08:00	06/01/15 09:47	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.9	%	0.10	0.10	1		06/03/15 08:13		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115533

Sample: B-43 (12.5) Lab ID: 40115533005 Collected: 05/27/15 13:48 Received: 05/28/15 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.7	ug/kg	19.4	9.7	1	06/01/15 09:52	06/01/15 22:12	83-32-9	
Acenaphthylene	<8.7	ug/kg	19.4	8.7	1	06/01/15 09:52	06/01/15 22:12	208-96-8	
Anthracene	<10.1	ug/kg	19.4	10.1	1	06/01/15 09:52	06/01/15 22:12	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.4	6.7	1	06/01/15 09:52	06/01/15 22:12	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.4	6.9	1	06/01/15 09:52	06/01/15 22:12	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.4	9.7	1	06/01/15 09:52	06/01/15 22:12	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.4	7.4	1	06/01/15 09:52	06/01/15 22:12	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.4	10.7	1	06/01/15 09:52	06/01/15 22:12	207-08-9	
Chrysene	<9.0	ug/kg	19.4	9.0	1	06/01/15 09:52	06/01/15 22:12	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.4	7.1	1	06/01/15 09:52	06/01/15 22:12	53-70-3	
Fluoranthene	<9.7	ug/kg	19.4	9.7	1	06/01/15 09:52	06/01/15 22:12	206-44-0	
Fluorene	<9.7	ug/kg	19.4	9.7	1	06/01/15 09:52	06/01/15 22:12	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.4	7.4	1	06/01/15 09:52	06/01/15 22:12	193-39-5	
Naphthalene	<9.7	ug/kg	19.4	9.7	1	06/01/15 09:52	06/01/15 22:12	91-20-3	
Phenanthrene	<9.7	ug/kg	19.4	9.7	1	06/01/15 09:52	06/01/15 22:12	85-01-8	
Pyrene	<9.7	ug/kg	19.4	9.7	1	06/01/15 09:52	06/01/15 22:12	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	68	%	39-130		1	06/01/15 09:52	06/01/15 22:12	321-60-8	
Terphenyl-d14 (S)	66	%	37-130		1	06/01/15 09:52	06/01/15 22:12	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.7	ug/kg	23.3	10.7	1	05/29/15 08:00	06/01/15 12:29	71-43-2	
Ethylbenzene	<14.5	ug/kg	58.2	14.5	1	05/29/15 08:00	06/01/15 12:29	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.2	14.7	1	05/29/15 08:00	06/01/15 12:29	1634-04-4	
Toluene	<13.1	ug/kg	58.2	13.1	1	05/29/15 08:00	06/01/15 12:29	108-88-3	
Xylene (Total)	<56.4	ug/kg	175	56.4	1	05/29/15 08:00	06/01/15 12:29	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	49-157		1	05/29/15 08:00	06/01/15 12:29	1868-53-7	
4-Bromofluorobenzene (S)	74	%	53-134		1	05/29/15 08:00	06/01/15 12:29	460-00-4	
Toluene-d8 (S)	89	%	61-148		1	05/29/15 08:00	06/01/15 12:29	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	14.1	%	0.10	0.10	1		06/03/15 08:13		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115533

Sample: EX-21 (3-4) Lab ID: 40115533006 Collected: 05/27/15 13:50 Received: 05/28/15 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<70.0	ug/kg	140	70.0	8	06/01/15 09:52	06/02/15 15:37	83-32-9	
Acenaphthylene	<62.6	ug/kg	140	62.6	8	06/01/15 09:52	06/02/15 15:37	208-96-8	
Anthracene	<72.6	ug/kg	140	72.6	8	06/01/15 09:52	06/02/15 15:37	120-12-7	
Benzo(a)anthracene	<48.5	ug/kg	140	48.5	8	06/01/15 09:52	06/02/15 15:37	56-55-3	
Benzo(a)pyrene	<50.0	ug/kg	140	50.0	8	06/01/15 09:52	06/02/15 15:37	50-32-8	
Benzo(b)fluoranthene	<70.0	ug/kg	140	70.0	8	06/01/15 09:52	06/02/15 15:37	205-99-2	
Benzo(g,h,i)perylene	<53.3	ug/kg	140	53.3	8	06/01/15 09:52	06/02/15 15:37	191-24-2	
Benzo(k)fluoranthene	<77.4	ug/kg	140	77.4	8	06/01/15 09:52	06/02/15 15:37	207-08-9	
Chrysene	<64.7	ug/kg	140	64.7	8	06/01/15 09:52	06/02/15 15:37	218-01-9	
Dibenz(a,h)anthracene	<51.3	ug/kg	140	51.3	8	06/01/15 09:52	06/02/15 15:37	53-70-3	
Fluoranthene	<70.0	ug/kg	140	70.0	8	06/01/15 09:52	06/02/15 15:37	206-44-0	
Fluorene	<70.0	ug/kg	140	70.0	8	06/01/15 09:52	06/02/15 15:37	86-73-7	
Indeno(1,2,3-cd)pyrene	<53.2	ug/kg	140	53.2	8	06/01/15 09:52	06/02/15 15:37	193-39-5	
Naphthalene	1210	ug/kg	140	70.0	8	06/01/15 09:52	06/02/15 15:37	91-20-3	
Phenanthrene	<70.0	ug/kg	140	70.0	8	06/01/15 09:52	06/02/15 15:37	85-01-8	
Pyrene	<70.0	ug/kg	140	70.0	8	06/01/15 09:52	06/02/15 15:37	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	53	%	39-130		8	06/01/15 09:52	06/02/15 15:37	321-60-8	
Terphenyl-d14 (S)	58	%	37-130		8	06/01/15 09:52	06/02/15 15:37	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	464	ug/kg	105	48.4	5	06/01/15 08:30	06/02/15 01:48	71-43-2	
Ethylbenzene	11600	ug/kg	262	65.2	5	06/01/15 08:30	06/02/15 01:48	100-41-4	
Methyl-tert-butyl ether	<66.4	ug/kg	262	66.4	5	06/01/15 08:30	06/02/15 01:48	1634-04-4	
Toluene	627	ug/kg	262	58.9	5	06/01/15 08:30	06/02/15 01:48	108-88-3	
Xylene (Total)	12700	ug/kg	787	254	5	06/01/15 08:30	06/02/15 01:48	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	83	%	49-157		5	06/01/15 08:30	06/02/15 01:48	1868-53-7	
4-Bromofluorobenzene (S)	89	%	53-134		5	06/01/15 08:30	06/02/15 01:48	460-00-4	
Toluene-d8 (S)	92	%	61-148		5	06/01/15 08:30	06/02/15 01:48	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	4.7	%	0.10	0.10	1		06/03/15 13:55		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115533

QC Batch: MSV/28668 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40115533001, 40115533002, 40115533003, 40115533004, 40115533005

METHOD BLANK: 1166171 Matrix: Solid  
Associated Lab Samples: 40115533001, 40115533002, 40115533003, 40115533004, 40115533005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	05/29/15 18:04	
Ethylbenzene	ug/kg	<12.4	50.0	05/29/15 18:04	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	05/29/15 18:04	
Toluene	ug/kg	<11.2	50.0	05/29/15 18:04	
Xylene (Total)	ug/kg	<48.4	150	05/29/15 18:04	
4-Bromofluorobenzene (S)	%	83	53-134	05/29/15 18:04	
Dibromofluoromethane (S)	%	109	49-157	05/29/15 18:04	
Toluene-d8 (S)	%	100	61-148	05/29/15 18:04	

LABORATORY CONTROL SAMPLE & LCSD: 1166172

Parameter	Units	1166173								
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	2500	2520	2600	101	104	70-130	3	20	
Ethylbenzene	ug/kg	2500	2490	2550	99	102	70-130	3	20	
Methyl-tert-butyl ether	ug/kg	2500	2210	2350	88	94	70-130	6	20	
Toluene	ug/kg	2500	2420	2500	97	100	70-130	3	20	
Xylene (Total)	ug/kg	7500	7770	7980	104	106	70-130	3	20	
4-Bromofluorobenzene (S)	%				89	89	53-134			
Dibromofluoromethane (S)	%				110	113	49-157			
Toluene-d8 (S)	%				100	100	61-148			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115533

QC Batch: MSV/28690 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40115533006

METHOD BLANK: 1167471 Matrix: Solid  
Associated Lab Samples: 40115533006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	06/01/15 16:22	
Ethylbenzene	ug/kg	<12.4	50.0	06/01/15 16:22	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	06/01/15 16:22	
Toluene	ug/kg	<11.2	50.0	06/01/15 16:22	
Xylene (Total)	ug/kg	<48.4	150	06/01/15 16:22	
4-Bromofluorobenzene (S)	%	98	53-134	06/01/15 16:22	
Dibromofluoromethane (S)	%	102	49-157	06/01/15 16:22	
Toluene-d8 (S)	%	100	61-148	06/01/15 16:22	

LABORATORY CONTROL SAMPLE & LCSD: 1167472 1167473

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	2500	2170	2280	87	91	70-130	5	20	
Ethylbenzene	ug/kg	2500	2270	2420	91	97	70-130	6	20	
Methyl-tert-butyl ether	ug/kg	2500	2290	2410	92	96	70-130	5	20	
Toluene	ug/kg	2500	2300	2250	92	90	70-130	2	20	
Xylene (Total)	ug/kg	7500	6720	7280	90	97	70-130	8	20	
4-Bromofluorobenzene (S)	%				90	101	53-134			
Dibromofluoromethane (S)	%				89	102	49-157			
Toluene-d8 (S)	%				96	97	61-148			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1167805 1167806

Parameter	Units	40115709002		MSD		MS		MSD		% Rec Limits	Max RPD	Qual
		Result	MS Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Benzene	ug/kg	<24.2	2760	2760	2380	2300	86	83	56-131	4	20	
Ethylbenzene	ug/kg	<60.4	2760	2760	2540	2490	92	90	64-130	2	20	
Methyl-tert-butyl ether	ug/kg	<60.4	2760	2760	2400	2430	87	88	52-134	1	20	
Toluene	ug/kg	<60.4	2760	2760	2550	2490	92	90	65-130	2	20	
Xylene (Total)	ug/kg	<181	8280	8290	7600	7320	92	88	60-130	4	20	
4-Bromofluorobenzene (S)	%						93	93	53-134			
Dibromofluoromethane (S)	%						96	95	49-157			
Toluene-d8 (S)	%						99	98	61-148			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115533

QC Batch: OEXT/26685 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40115533001, 40115533002, 40115533003, 40115533004, 40115533005, 40115533006

METHOD BLANK: 1167343 Matrix: Solid  
Associated Lab Samples: 40115533001, 40115533002, 40115533003, 40115533004, 40115533005, 40115533006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	06/01/15 12:42	
Acenaphthylene	ug/kg	<7.5	16.7	06/01/15 12:42	
Anthracene	ug/kg	<8.6	16.7	06/01/15 12:42	
Benzo(a)anthracene	ug/kg	<5.8	16.7	06/01/15 12:42	
Benzo(a)pyrene	ug/kg	<6.0	16.7	06/01/15 12:42	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	06/01/15 12:42	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	06/01/15 12:42	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	06/01/15 12:42	
Chrysene	ug/kg	<7.7	16.7	06/01/15 12:42	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	06/01/15 12:42	
Fluoranthene	ug/kg	<8.3	16.7	06/01/15 12:42	
Fluorene	ug/kg	<8.3	16.7	06/01/15 12:42	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	06/01/15 12:42	
Naphthalene	ug/kg	<8.3	16.7	06/01/15 12:42	
Phenanthrene	ug/kg	<8.3	16.7	06/01/15 12:42	
Pyrene	ug/kg	<8.3	16.7	06/01/15 12:42	
2-Fluorobiphenyl (S)	%	73	39-130	06/01/15 12:42	
Terphenyl-d14 (S)	%	85	37-130	06/01/15 12:42	

LABORATORY CONTROL SAMPLE: 1167344

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	265	79	54-130	
Acenaphthylene	ug/kg	333	262	79	55-130	
Anthracene	ug/kg	333	308	92	64-130	
Benzo(a)anthracene	ug/kg	333	275	82	50-130	
Benzo(a)pyrene	ug/kg	333	279	84	46-130	
Benzo(b)fluoranthene	ug/kg	333	271	81	43-130	
Benzo(g,h,i)perylene	ug/kg	333	276	83	48-130	
Benzo(k)fluoranthene	ug/kg	333	285	86	55-130	
Chrysene	ug/kg	333	279	84	62-130	
Dibenz(a,h)anthracene	ug/kg	333	290	87	49-130	
Fluoranthene	ug/kg	333	279	84	57-130	
Fluorene	ug/kg	333	262	79	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	290	87	50-130	
Naphthalene	ug/kg	333	227	68	48-130	
Phenanthrene	ug/kg	333	276	83	51-130	
Pyrene	ug/kg	333	263	79	55-130	
2-Fluorobiphenyl (S)	%			76	39-130	
Terphenyl-d14 (S)	%			82	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40115533

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1167345		1167346		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40115533003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Acenaphthene	ug/kg	<9.7	387	387	322	331	83	85	46-130	3	26		
Acenaphthylene	ug/kg	<8.7	387	387	352	348	91	90	49-130	1	23		
Anthracene	ug/kg	<10.0	387	387	364	368	94	95	52-130	1	28		
Benzo(a)anthracene	ug/kg	8.3J	387	387	319	346	80	87	34-130	8	36		
Benzo(a)pyrene	ug/kg	11.3J	387	387	331	355	83	89	34-130	7	40		
Benzo(b)fluoranthene	ug/kg	13.0J	387	387	355	347	88	86	22-130	2	40		
Benzo(g,h,i)perylene	ug/kg	8.6J	387	387	309	332	78	84	24-130	7	35		
Benzo(k)fluoranthene	ug/kg	<10.7	387	387	303	337	76	85	41-130	11	37		
Chrysene	ug/kg	13.6J	387	387	343	373	85	93	49-130	8	33		
Dibenz(a,h)anthracene	ug/kg	<7.1	387	387	331	335	85	86	27-130	1	31		
Fluoranthene	ug/kg	12.4J	387	387	360	442	90	111	34-130	20	37		
Fluorene	ug/kg	<9.7	387	387	339	341	88	88	45-130	1	25		
Indeno(1,2,3-cd)pyrene	ug/kg	<7.4	387	387	337	347	85	88	30-130	3	34		
Naphthalene	ug/kg	<9.7	387	387	272	299	70	77	38-130	10	30		
Phenanthrene	ug/kg	<9.7	387	387	339	383	86	97	38-130	12	34		
Pyrene	ug/kg	11.6J	387	387	359	397	90	100	35-130	10	35		
2-Fluorobiphenyl (S)	%						75	76	39-130				
Terphenyl-d14 (S)	%						69	72	37-130				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115533

---

QC Batch:	PMST/11265	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40115533006		

---

SAMPLE DUPLICATE: 1169212

Parameter	Units	40115861001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	8.5	8.5	0	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40115533

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSV/28669

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115533

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40115533001	B-41 (15)	EPA 3546	OEXT/26685	EPA 8270 by SIM	MSSV/7935
40115533002	EX-20 (3-4)	EPA 3546	OEXT/26685	EPA 8270 by SIM	MSSV/7935
40115533003	B-44 (15)	EPA 3546	OEXT/26685	EPA 8270 by SIM	MSSV/7935
40115533004	B-42 (12.5)	EPA 3546	OEXT/26685	EPA 8270 by SIM	MSSV/7935
40115533005	B-43 (12.5)	EPA 3546	OEXT/26685	EPA 8270 by SIM	MSSV/7935
40115533006	EX-21 (3-4)	EPA 3546	OEXT/26685	EPA 8270 by SIM	MSSV/7935
40115533001	B-41 (15)	EPA 5035/5030B	MSV/28668	EPA 8260	MSV/28669
40115533002	EX-20 (3-4)	EPA 5035/5030B	MSV/28668	EPA 8260	MSV/28669
40115533003	B-44 (15)	EPA 5035/5030B	MSV/28668	EPA 8260	MSV/28669
40115533004	B-42 (12.5)	EPA 5035/5030B	MSV/28668	EPA 8260	MSV/28669
40115533005	B-43 (12.5)	EPA 5035/5030B	MSV/28668	EPA 8260	MSV/28669
40115533006	EX-21 (3-4)	EPA 5035/5030B	MSV/28690	EPA 8260	MSV/28693
40115533001	B-41 (15)	ASTM D2974-87	PMST/11263		
40115533002	EX-20 (3-4)	ASTM D2974-87	PMST/11263		
40115533003	B-44 (15)	ASTM D2974-87	PMST/11263		
40115533004	B-42 (12.5)	ASTM D2974-87	PMST/11263		
40115533005	B-43 (12.5)	ASTM D2974-87	PMST/11263		
40115533006	EX-21 (3-4)	ASTM D2974-87	PMST/11265		

**REPORT OF LABORATORY ANALYSIS**

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Electronic Filing: Received, Clerk's Office 03/23/2021  
**CHAIN-OF-CUSTODY / Analytical Request Document**

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

40115533

Page: / of /

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: TriCore Environmental, LLC	Report To: Marcos I. Czako	Attention: Shawn Rodeck
Address: 2368 Corporate Lane, Suite 116 Naperville, Illinois 60563	Copy To:	Company Name: TriCore Environmental, LLC
Email To: marcos.czako@tricoreweb.com	Purchase Order No.: 100137	Address: 2368 Corporate Lane, Suite 116, Naperville, Illinois 60563
Phone: 630-520-9973 Fax 630-520-9976	Project Name: Lemont Kar Gas	Pace Quote Reference:
Requested Due Date/TAT:	Project Number: 100137	Pace Project Manager:
		Pace Profile #:

**REGULATORY AGENCY**

NPDES    GROUND WATER    DRINKING WATER  
 UST    RCRA    OTHER \_\_\_\_\_

**SITE LOCATION**  
 GA    IL    IN    MI    NC  
 OH    SC    WI    OTHER \_\_\_\_\_

Filtered (Y/N)   N   N   N

ITEM #	Section D Required Client Information			MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Requested Analyte	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.			
	SAMPLE ID					COMPOSITE START		COMPOSITE END/GRAB				Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub>	Methanol	Other				BTEXM 8260	Moisture	PAHs 8270
	One Character per box. (A-Z, 0-9 / -)					DATE	TIME	DATE	TIME																
	Sample IDs MUST BE UNIQUE																								
1	B-41	(15)		SL G		5/27/15	08:45												X X X	2-40MWF	N	1-402PA, 1-40209			
2	EX-20	(3-4)		SL G		5/27/15	09:25												X X X		N				
3	B-44	(15)		SL G		5/27/15	12:00												X X X		N				
4	B-42	(12.5)		SL G		5/27/15	13:47												X X X		N				
5	B-43	(12.5)		SL G		5/27/15	13:48												X X X		N				
6	EX-21	(3-4)		SL G		5/27/15	13:50												X X X	✓	N	✓			

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
<i>[Signature]</i> / sampler	5/27/15	14:50	Shawn Rodeck	5/27/15	14:50	Y/N   Y/N   Y/N
Shawn Rodeck	5/27/15	17:00	CS LOGISTIC	5/27/15		Y/N   Y/N   Y/N
CS LOGISTIC S	5-28-15	9:55	marimckay	5-28-15	9:55	4.5   Y/N   Y/N   Y/N

**SAMPLER NAME AND SIGNATURE**  
 PRINT Name of SAMPLER: Marcos I. Czako  
 SIGNATURE of SAMPLER: *[Signature]*   DATE Signed (MM / DD / YY): 05/27/15  
 Temp in °C:   Received on Ice:   Custody Sealed Cooler:   Samples Intact:



Project #:

WO#: 40115533

Client Name: Tri Core

Courier:  Fed Ex  UPS  Client  Pace Other: CS LOGISTIC



Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: SR-56 Type of Ice:  Wet  Blue Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 4 / Corr: 4.5 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no  no

Person examining contents:  
Date: 5-28-15  
Initials: MM

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed   Lab Std #ID of preservative   Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_

Project Manager Review: uw Date: 5/29/15





Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

**Leaking Underground Storage Tank Program  
 Laboratory Certification for Chemical Analysis**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010  
 Site Name: Lemont Kar Gas  
 Site Address (Not a P.O. Box): 1196 State Street  
 City: Lemont County: Cook ZIP Code: 60439  
 Leaking UST Technical File

**B. Sample Collector**

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. MLC  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. MLC  
(Initial)
- 3. Sample integrity was maintained by proper preservation. MLC  
(Initial)
- 4. All samples were properly labeled. MLC  
(Initial)

**C. Laboratory Representative**

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms CLW  
(Initial)
- 2. Sample integrity was maintained by proper preservation. CLW  
(Initial)
- 3. All samples were properly labeled. CLW  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. CLW  
(Initial)
- 5. Sample holding times were not exceeded. CLW  
(Initial)

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)  
UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos T. Czako  
Title Geologist III  
Company TriCore Environmental, LLC  
Address 2368 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone (630) 520-9973  
Signature [Signature]  
Date 05/27/15

**Laboratory Representative**

Name Laurie Woelfel  
Title Project Manager  
Company Pace Analytical Services, Inc.  
Address 1241 Bellevue Street, Suite 9  
City Green Bay  
State Wisconsin  
Zip Code 64302  
Phone (920) 469-2436  
Signature [Signature]  
Date 6/4/15

June 05, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

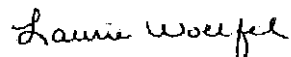
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115633

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on May 29, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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**CERTIFICATIONS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115633

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**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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**REPORT OF LABORATORY ANALYSIS**

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40115633

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40115633001	EX-22 (4-5)	Solid	05/27/15 15:15	05/29/15 10:25
40115633002	B-45 (12.5)	Solid	05/28/15 09:00	05/29/15 10:25
40115633003	EX-23 (8.5-9.5)	Solid	05/28/15 09:45	05/29/15 10:25
40115633004	EX-24 (3-4)	Solid	05/28/15 12:38	05/29/15 10:25

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115633

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40115633001	EX-22 (4-5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40115633002	B-45 (12.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40115633003	EX-23 (8.5-9.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40115633004	EX-24 (3-4)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40115633

Sample: EX-22 (4-5) Lab ID: 40115633001 Collected: 05/27/15 15:15 Received: 05/29/15 10:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<11.2	ug/kg	22.4	11.2	1	06/01/15 15:19	06/02/15 17:43	83-32-9	
Acenaphthylene	<10.0	ug/kg	22.4	10.0	1	06/01/15 15:19	06/02/15 17:43	208-96-8	
Anthracene	<11.6	ug/kg	22.4	11.6	1	06/01/15 15:19	06/02/15 17:43	120-12-7	
Benzo(a)anthracene	<7.8	ug/kg	22.4	7.8	1	06/01/15 15:19	06/02/15 17:43	56-55-3	
Benzo(a)pyrene	<8.0	ug/kg	22.4	8.0	1	06/01/15 15:19	06/02/15 17:43	50-32-8	
Benzo(b)fluoranthene	<11.2	ug/kg	22.4	11.2	1	06/01/15 15:19	06/02/15 17:43	205-99-2	
Benzo(g,h,i)perylene	<8.5	ug/kg	22.4	8.5	1	06/01/15 15:19	06/02/15 17:43	191-24-2	
Benzo(k)fluoranthene	<12.4	ug/kg	22.4	12.4	1	06/01/15 15:19	06/02/15 17:43	207-08-9	
Chrysene	<10.4	ug/kg	22.4	10.4	1	06/01/15 15:19	06/02/15 17:43	218-01-9	
Dibenz(a,h)anthracene	<8.2	ug/kg	22.4	8.2	1	06/01/15 15:19	06/02/15 17:43	53-70-3	
Fluoranthene	<11.2	ug/kg	22.4	11.2	1	06/01/15 15:19	06/02/15 17:43	206-44-0	
Fluorene	<11.2	ug/kg	22.4	11.2	1	06/01/15 15:19	06/02/15 17:43	86-73-7	
Indeno(1,2,3-cd)pyrene	<8.5	ug/kg	22.4	8.5	1	06/01/15 15:19	06/02/15 17:43	193-39-5	
Naphthalene	367	ug/kg	22.4	11.2	1	06/01/15 15:19	06/02/15 17:43	91-20-3	
Phenanthrene	<11.2	ug/kg	22.4	11.2	1	06/01/15 15:19	06/02/15 17:43	85-01-8	
Pyrene	<11.2	ug/kg	22.4	11.2	1	06/01/15 15:19	06/02/15 17:43	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	51	%	39-130		1	06/01/15 15:19	06/02/15 17:43	321-60-8	
Terphenyl-d14 (S)	43	%	37-130		1	06/01/15 15:19	06/02/15 17:43	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<31.0	ug/kg	67.3	31.0	2.5	06/01/15 08:30	06/02/15 01:25	71-43-2	
Ethylbenzene	2140	ug/kg	168	41.8	2.5	06/01/15 08:30	06/02/15 01:25	100-41-4	
Methyl-tert-butyl ether	<42.6	ug/kg	168	42.6	2.5	06/01/15 08:30	06/02/15 01:25	1634-04-4	
Toluene	<37.8	ug/kg	168	37.8	2.5	06/01/15 08:30	06/02/15 01:25	108-88-3	
Xylene (Total)	2410	ug/kg	505	163	2.5	06/01/15 08:30	06/02/15 01:25	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	84	%	49-157		2.5	06/01/15 08:30	06/02/15 01:25	1868-53-7	D3
4-Bromofluorobenzene (S)	95	%	53-134		2.5	06/01/15 08:30	06/02/15 01:25	460-00-4	
Toluene-d8 (S)	95	%	61-148		2.5	06/01/15 08:30	06/02/15 01:25	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	25.7	%	0.10	0.10	1		06/04/15 07:35		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115633

Sample: B-45 (12.5) Lab ID: 40115633002 Collected: 05/28/15 09:00 Received: 05/29/15 10:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.7	ug/kg	19.5	9.7	1	06/01/15 15:19	06/02/15 18:00	83-32-9	
Acenaphthylene	<8.7	ug/kg	19.5	8.7	1	06/01/15 15:19	06/02/15 18:00	208-96-8	
Anthracene	<10.1	ug/kg	19.5	10.1	1	06/01/15 15:19	06/02/15 18:00	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.5	6.7	1	06/01/15 15:19	06/02/15 18:00	56-55-3	
Benzo(a)pyrene	<7.0	ug/kg	19.5	7.0	1	06/01/15 15:19	06/02/15 18:00	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.5	9.7	1	06/01/15 15:19	06/02/15 18:00	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.5	7.4	1	06/01/15 15:19	06/02/15 18:00	191-24-2	
Benzo(k)fluoranthene	<10.8	ug/kg	19.5	10.8	1	06/01/15 15:19	06/02/15 18:00	207-08-9	
Chrysene	<9.0	ug/kg	19.5	9.0	1	06/01/15 15:19	06/02/15 18:00	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.5	7.1	1	06/01/15 15:19	06/02/15 18:00	53-70-3	
Fluoranthene	<9.7	ug/kg	19.5	9.7	1	06/01/15 15:19	06/02/15 18:00	206-44-0	
Fluorene	<9.7	ug/kg	19.5	9.7	1	06/01/15 15:19	06/02/15 18:00	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.5	7.4	1	06/01/15 15:19	06/02/15 18:00	193-39-5	
Naphthalene	<9.7	ug/kg	19.5	9.7	1	06/01/15 15:19	06/02/15 18:00	91-20-3	
Phenanthrene	<9.7	ug/kg	19.5	9.7	1	06/01/15 15:19	06/02/15 18:00	85-01-8	
Pyrene	<9.7	ug/kg	19.5	9.7	1	06/01/15 15:19	06/02/15 18:00	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	64	%	39-130		1	06/01/15 15:19	06/02/15 18:00	321-60-8	
Terphenyl-d14 (S)	59	%	37-130		1	06/01/15 15:19	06/02/15 18:00	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.8	ug/kg	23.3	10.8	1	06/01/15 08:30	06/01/15 23:54	71-43-2	
Ethylbenzene	<14.5	ug/kg	58.4	14.5	1	06/01/15 08:30	06/01/15 23:54	100-41-4	
Methyl-tert-butyl ether	<14.8	ug/kg	58.4	14.8	1	06/01/15 08:30	06/01/15 23:54	1634-04-4	
Toluene	<13.1	ug/kg	58.4	13.1	1	06/01/15 08:30	06/01/15 23:54	108-88-3	
Xylene (Total)	<56.5	ug/kg	175	56.5	1	06/01/15 08:30	06/01/15 23:54	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	94	%	49-157		1	06/01/15 08:30	06/01/15 23:54	1868-53-7	
4-Bromofluorobenzene (S)	93	%	53-134		1	06/01/15 08:30	06/01/15 23:54	460-00-4	
Toluene-d8 (S)	91	%	61-148		1	06/01/15 08:30	06/01/15 23:54	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.3	%	0.10	0.10	1		06/04/15 07:35		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40115633

Sample: EX-23 (8.5-9.5) Lab ID: 40115633003 Collected: 05/28/15 09:45 Received: 05/29/15 10:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.7	ug/kg	19.4	9.7	1	06/01/15 15:19	06/02/15 18:18	83-32-9	
Acenaphthylene	<8.7	ug/kg	19.4	8.7	1	06/01/15 15:19	06/02/15 18:18	208-96-8	
Anthracene	<10.1	ug/kg	19.4	10.1	1	06/01/15 15:19	06/02/15 18:18	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.4	6.7	1	06/01/15 15:19	06/02/15 18:18	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.4	6.9	1	06/01/15 15:19	06/02/15 18:18	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.4	9.7	1	06/01/15 15:19	06/02/15 18:18	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.4	7.4	1	06/01/15 15:19	06/02/15 18:18	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.4	10.7	1	06/01/15 15:19	06/02/15 18:18	207-08-9	
Chrysene	<9.0	ug/kg	19.4	9.0	1	06/01/15 15:19	06/02/15 18:18	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.4	7.1	1	06/01/15 15:19	06/02/15 18:18	53-70-3	
Fluoranthene	<9.7	ug/kg	19.4	9.7	1	06/01/15 15:19	06/02/15 18:18	206-44-0	
Fluorene	<9.7	ug/kg	19.4	9.7	1	06/01/15 15:19	06/02/15 18:18	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.4	7.4	1	06/01/15 15:19	06/02/15 18:18	193-39-5	
Naphthalene	<9.7	ug/kg	19.4	9.7	1	06/01/15 15:19	06/02/15 18:18	91-20-3	
Phenanthrene	<9.7	ug/kg	19.4	9.7	1	06/01/15 15:19	06/02/15 18:18	85-01-8	
Pyrene	<9.7	ug/kg	19.4	9.7	1	06/01/15 15:19	06/02/15 18:18	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	55	%	39-130		1	06/01/15 15:19	06/02/15 18:18	321-60-8	
Terphenyl-d14 (S)	53	%	37-130		1	06/01/15 15:19	06/02/15 18:18	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.7	ug/kg	23.3	10.7	1	06/01/15 08:30	06/02/15 00:17	71-43-2	
Ethylbenzene	<14.5	ug/kg	58.3	14.5	1	06/01/15 08:30	06/02/15 00:17	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.3	14.7	1	06/01/15 08:30	06/02/15 00:17	1634-04-4	
Toluene	<13.1	ug/kg	58.3	13.1	1	06/01/15 08:30	06/02/15 00:17	108-88-3	
Xylene (Total)	<56.4	ug/kg	175	56.4	1	06/01/15 08:30	06/02/15 00:17	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	49-157		1	06/01/15 08:30	06/02/15 00:17	1868-53-7	
4-Bromofluorobenzene (S)	99	%	53-134		1	06/01/15 08:30	06/02/15 00:17	460-00-4	
Toluene-d8 (S)	101	%	61-148		1	06/01/15 08:30	06/02/15 00:17	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	14.2	%	0.10	0.10	1		06/04/15 07:35		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40115633

Sample: EX-24 (3-4) Lab ID: 40115633004 Collected: 05/28/15 12:38 Received: 05/29/15 10:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<10.6	ug/kg	21.3	10.6	1	06/01/15 15:19	06/03/15 16:50	83-32-9	
Acenaphthylene	<9.5	ug/kg	21.3	9.5	1	06/01/15 15:19	06/03/15 16:50	208-96-8	
Anthracene	<11.0	ug/kg	21.3	11.0	1	06/01/15 15:19	06/03/15 16:50	120-12-7	
Benzo(a)anthracene	28.6	ug/kg	21.3	7.4	1	06/01/15 15:19	06/03/15 16:50	56-55-3	
Benzo(a)pyrene	37.4	ug/kg	21.3	7.6	1	06/01/15 15:19	06/03/15 16:50	50-32-8	
Benzo(b)fluoranthene	40.1	ug/kg	21.3	10.6	1	06/01/15 15:19	06/03/15 16:50	205-99-2	
Benzo(g,h,i)perylene	36.1	ug/kg	21.3	8.1	1	06/01/15 15:19	06/03/15 16:50	191-24-2	
Benzo(k)fluoranthene	39.4	ug/kg	21.3	11.8	1	06/01/15 15:19	06/03/15 16:50	207-08-9	
Chrysene	43.2	ug/kg	21.3	9.8	1	06/01/15 15:19	06/03/15 16:50	218-01-9	
Dibenz(a,h)anthracene	10.0J	ug/kg	21.3	7.8	1	06/01/15 15:19	06/03/15 16:50	53-70-3	
Fluoranthene	79.5	ug/kg	21.3	10.6	1	06/01/15 15:19	06/03/15 16:50	206-44-0	
Fluorene	<10.6	ug/kg	21.3	10.6	1	06/01/15 15:19	06/03/15 16:50	86-73-7	
Indeno(1,2,3-cd)pyrene	30.7	ug/kg	21.3	8.1	1	06/01/15 15:19	06/03/15 16:50	193-39-5	
Naphthalene	50.6	ug/kg	21.3	10.6	1	06/01/15 15:19	06/03/15 16:50	91-20-3	
Phenanthrene	19.0J	ug/kg	21.3	10.6	1	06/01/15 15:19	06/03/15 16:50	85-01-8	
Pyrene	72.1	ug/kg	21.3	10.6	1	06/01/15 15:19	06/03/15 16:50	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	67	%	39-130		1	06/01/15 15:19	06/03/15 16:50	321-60-8	
Terphenyl-d14 (S)	68	%	37-130		1	06/01/15 15:19	06/03/15 16:50	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<11.8	ug/kg	25.5	11.8	1	06/01/15 08:30	06/02/15 00:39	71-43-2	
Ethylbenzene	<15.9	ug/kg	63.8	15.9	1	06/01/15 08:30	06/02/15 00:39	100-41-4	
Methyl-tert-butyl ether	<16.2	ug/kg	63.8	16.2	1	06/01/15 08:30	06/02/15 00:39	1634-04-4	
Toluene	<14.3	ug/kg	63.8	14.3	1	06/01/15 08:30	06/02/15 00:39	108-88-3	
Xylene (Total)	<61.8	ug/kg	191	61.8	1	06/01/15 08:30	06/02/15 00:39	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	87	%	49-157		1	06/01/15 08:30	06/02/15 00:39	1868-53-7	
4-Bromofluorobenzene (S)	80	%	53-134		1	06/01/15 08:30	06/02/15 00:39	460-00-4	
Toluene-d8 (S)	85	%	61-148		1	06/01/15 08:30	06/02/15 00:39	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	21.7	%	0.10	0.10	1		06/04/15 07:35		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40115633

QC Batch: MSV/28690 Analysis Method: EPA 8260  
 QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
 Associated Lab Samples: 40115633001, 40115633002, 40115633003, 40115633004

METHOD BLANK: 1167471 Matrix: Solid  
 Associated Lab Samples: 40115633001, 40115633002, 40115633003, 40115633004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	06/01/15 16:22	
Ethylbenzene	ug/kg	<12.4	50.0	06/01/15 16:22	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	06/01/15 16:22	
Toluene	ug/kg	<11.2	50.0	06/01/15 16:22	
Xylene (Total)	ug/kg	<48.4	150	06/01/15 16:22	
4-Bromofluorobenzene (S)	%	98	53-134	06/01/15 16:22	
Dibromofluoromethane (S)	%	102	49-157	06/01/15 16:22	
Toluene-d8 (S)	%	100	61-148	06/01/15 16:22	

LABORATORY CONTROL SAMPLE & LCSD: 1167472

1167473

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	2500	2170	2280	87	91	70-130	5	20	
Ethylbenzene	ug/kg	2500	2270	2420	91	97	70-130	6	20	
Methyl-tert-butyl ether	ug/kg	2500	2290	2410	92	96	70-130	5	20	
Toluene	ug/kg	2500	2300	2250	92	90	70-130	2	20	
Xylene (Total)	ug/kg	7500	6720	7280	90	97	70-130	8	20	
4-Bromofluorobenzene (S)	%				90	101	53-134			
Dibromofluoromethane (S)	%				89	102	49-157			
Toluene-d8 (S)	%				96	97	61-148			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1167805

1167806

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40115709002 Result	Spike Conc.	Spike Conc.	MS Result						
Benzene	ug/kg	<24.2	2760	2760	2380	2300	86	83	56-131	4	20
Ethylbenzene	ug/kg	<60.4	2760	2760	2540	2490	92	90	64-130	2	20
Methyl-tert-butyl ether	ug/kg	<60.4	2760	2760	2400	2430	87	88	52-134	1	20
Toluene	ug/kg	<60.4	2760	2760	2550	2490	92	90	65-130	2	20
Xylene (Total)	ug/kg	<181	8280	8290	7600	7320	92	88	60-130	4	20
4-Bromofluorobenzene (S)	%						93	93	53-134		
Dibromofluoromethane (S)	%						96	95	49-157		
Toluene-d8 (S)	%						99	98	61-148		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40115633

QC Batch: OEXT/26694 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40115633001, 40115633002, 40115633003, 40115633004

METHOD BLANK: 1167581 Matrix: Solid  
Associated Lab Samples: 40115633001, 40115633002, 40115633003, 40115633004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	06/02/15 14:51	
Acenaphthylene	ug/kg	<7.5	16.7	06/02/15 14:51	
Anthracene	ug/kg	<8.6	16.7	06/02/15 14:51	
Benzo(a)anthracene	ug/kg	<5.8	16.7	06/02/15 14:51	
Benzo(a)pyrene	ug/kg	<6.0	16.7	06/02/15 14:51	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	06/02/15 14:51	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	06/02/15 14:51	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	06/02/15 14:51	
Chrysene	ug/kg	<7.7	16.7	06/02/15 14:51	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	06/02/15 14:51	
Fluoranthene	ug/kg	<8.3	16.7	06/02/15 14:51	
Fluorene	ug/kg	<8.3	16.7	06/02/15 14:51	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	06/02/15 14:51	
Naphthalene	ug/kg	<8.3	16.7	06/02/15 14:51	
Phenanthrene	ug/kg	<8.3	16.7	06/02/15 14:51	
Pyrene	ug/kg	<8.3	16.7	06/02/15 14:51	
2-Fluorobiphenyl (S)	%	66	39-130	06/02/15 14:51	
Terphenyl-d14 (S)	%	71	37-130	06/02/15 14:51	

LABORATORY CONTROL SAMPLE: 1167582

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	255	77	54-130	
Acenaphthylene	ug/kg	333	259	78	55-130	
Anthracene	ug/kg	333	295	89	64-130	
Benzo(a)anthracene	ug/kg	333	261	78	50-130	
Benzo(a)pyrene	ug/kg	333	272	82	46-130	
Benzo(b)fluoranthene	ug/kg	333	257	77	43-130	
Benzo(g,h,i)perylene	ug/kg	333	255	77	48-130	
Benzo(k)fluoranthene	ug/kg	333	289	87	55-130	
Chrysene	ug/kg	333	282	85	62-130	
Dibenz(a,h)anthracene	ug/kg	333	275	83	49-130	
Fluoranthene	ug/kg	333	267	80	57-130	
Fluorene	ug/kg	333	258	77	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	273	82	50-130	
Naphthalene	ug/kg	333	270	81	48-130	
Phenanthrene	ug/kg	333	270	81	51-130	
Pyrene	ug/kg	333	256	77	55-130	
2-Fluorobiphenyl (S)	%			73	39-130	
Terphenyl-d14 (S)	%			74	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115633

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1167583		1167584		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40115433003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Acenaphthene	ug/kg	<10.0	401	401	268	270	67	67	46-130	1	26		
Acenaphthylene	ug/kg	<9.0	401	401	272	267	68	67	49-130	2	23		
Anthracene	ug/kg	<10.4	401	401	297	307	74	76	52-130	3	28		
Benzo(a)anthracene	ug/kg	<7.0	401	401	255	256	63	64	34-130	1	36		
Benzo(a)pyrene	ug/kg	<7.2	401	401	263	264	66	66	34-130	0	40		
Benzo(b)fluoranthene	ug/kg	<10.0	401	401	268	272	67	68	22-130	1	40		
Benzo(g,h,i)perylene	ug/kg	<7.6	401	401	253	251	63	63	24-130	1	35		
Benzo(k)fluoranthene	ug/kg	<11.1	401	401	264	260	66	65	41-130	1	37		
Chrysene	ug/kg	<9.3	401	401	274	275	68	68	49-130	0	33		
Dibenz(a,h)anthracene	ug/kg	<7.4	401	401	273	277	68	69	27-130	1	31		
Fluoranthene	ug/kg	<10.0	401	401	263	269	65	67	34-130	2	37		
Fluorene	ug/kg	<10.0	401	401	267	271	67	68	45-130	2	25		
Indeno(1,2,3-cd)pyrene	ug/kg	<7.6	401	401	269	270	67	67	30-130	0	34		
Naphthalene	ug/kg	<10.0	401	401	264	254	65	63	38-130	4	30		
Phenanthrene	ug/kg	<10.0	401	401	275	285	66	69	38-130	4	34		
Pyrene	ug/kg	<10.0	401	401	257	262	64	65	35-130	2	35		
2-Fluorobiphenyl (S)	%						63	60	39-130				
Terphenyl-d14 (S)	%						57	58	37-130				

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40115633

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40115633

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40115633001	EX-22 (4-5)	EPA 3546	OEXT/26694	EPA 8270 by SIM	MSSV/7942
40115633002	B-45 (12.5)	EPA 3546	OEXT/26694	EPA 8270 by SIM	MSSV/7942
40115633003	EX-23 (8.5-9.5)	EPA 3546	OEXT/26694	EPA 8270 by SIM	MSSV/7942
40115633004	EX-24 (3-4)	EPA 3546	OEXT/26694	EPA 8270 by SIM	MSSV/7942
40115633001	EX-22 (4-5)	EPA 5035/5030B	MSV/28690	EPA 8260	MSV/28693
40115633002	B-45 (12.5)	EPA 5035/5030B	MSV/28690	EPA 8260	MSV/28693
40115633003	EX-23 (8.5-9.5)	EPA 5035/5030B	MSV/28690	EPA 8260	MSV/28693
40115633004	EX-24 (3-4)	EPA 5035/5030B	MSV/28690	EPA 8260	MSV/28693
40115633001	EX-22 (4-5)	ASTM D2974-87	PMST/11272		
40115633002	B-45 (12.5)	ASTM D2974-87	PMST/11272		
40115633003	EX-23 (8.5-9.5)	ASTM D2974-87	PMST/11272		
40115633004	EX-24 (3-4)	ASTM D2974-87	PMST/11272		

**REPORT OF LABORATORY ANALYSIS**

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Project #: **WO# : 40115633**

Client Name: TriCore Environmental LLC

Courier:  Fed Ex  UPS  Client  Pace Other: C&E Logistics

Tracking #: \_\_\_\_\_



Custody Seal on Cooler/Box Present:  Yes  no Seals intact:  Yes  no

Custody Seal on Samples Present:  Yes  No Seals intact:  Yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SN 25 Type of Ice: Wet Blue Dry None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 2 /Corr: 2 Biological Tissue is Frozen:  yes

Temp Blank Present:  Yes  no  no

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:  
Date: 3/23/15  
Initials: EJA

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>S</u>	
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ If checked, see attached form for additional comments

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: UW

Date: 3/15/15



Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

**Leaking Underground Storage Tank Program  
 Laboratory Certification for Chemical Analysis**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

**B. Sample Collector**

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. WFE  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. WFE  
(Initial)
- 3. Sample integrity was maintained by proper preservation. WFE  
(Initial)
- 4. All samples were properly labeled. WFE  
(Initial)

**C. Laboratory Representative**

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms Chw  
(Initial)
- 2. Sample integrity was maintained by proper preservation. Chw  
(Initial)
- 3. All samples were properly labeled. Chw  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. Chw  
(Initial)
- 5. Sample holding times were not exceeded. Chw  
(Initial)

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

CLW  
(Initial)

CLW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos J. Czako  
Title Geologist III  
Company TriCore Environmental, LLC  
Address 2368 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone (630) 520-9973  
Signature [Handwritten Signature]  
Date 05/28/15

**Laboratory Representative**

Name Laurie Woelfel  
Title Project Manager  
Company Pace Analytical Services, Inc.  
Address 1241 Bellevue Street, Suite 9  
City Green Bay  
State Wisconsin  
Zip Code 64302  
Phone (920) 469-2436  
Signature [Handwritten Signature]  
Date 11/5/15

June 15, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

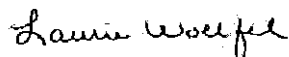
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on June 06, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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**CERTIFICATIONS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

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**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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**REPORT OF LABORATORY ANALYSIS**

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40116099

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40116099001	B-46 (14.5)	Solid	06/05/15 08:47	06/06/15 07:30
40116099002	EX-25 (10-11)	Solid	06/05/15 11:24	06/06/15 07:30
40116099003	EX-26 (3.5-5)	Solid	06/05/15 12:00	06/06/15 07:30

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40116099001	B-46 (14.5)	EPA 6010	JBR	7	PASI-G
		EPA 6010	DLB	7	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
		EPA 9045	SJR	1	PASI-G
40116099002	EX-25 (10-11)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	KTS	1	PASI-G
40116099003	EX-26 (3.5-5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	KTS	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

Sample: B-46 (14.5) Lab ID: 40116099001 Collected: 06/05/15 08:47 Received: 06/06/15 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	12.1	mg/kg	2.0	0.65	1	06/10/15 09:37	06/10/15 20:49	7440-38-2	
Barium	55.4	mg/kg	0.51	0.12	1	06/10/15 09:37	06/10/15 20:49	7440-39-3	
Cadmium	<0.067	mg/kg	0.51	0.067	1	06/10/15 09:37	06/10/15 20:49	7440-43-9	
Chromium	25.5	mg/kg	0.51	0.20	1	06/10/15 09:37	06/10/15 20:49	7440-47-3	
Lead	12.4	mg/kg	1.0	0.44	1	06/10/15 09:37	06/10/15 20:49	7439-92-1	
Selenium	<0.78	mg/kg	2.0	0.78	1	06/10/15 09:37	06/10/15 20:49	7782-49-2	
Silver	<0.28	mg/kg	1.0	0.28	1	06/10/15 09:37	06/10/15 20:49	7440-22-4	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 06/10/15 00:00									
Arsenic	<0.025	mg/L	0.050	0.025	1	06/11/15 09:46	06/11/15 17:36	7440-38-2	
Barium	0.33J	mg/L	0.50	0.25	1	06/11/15 09:46	06/11/15 17:36	7440-39-3	
Cadmium	<0.0025	mg/L	0.0050	0.0025	1	06/11/15 09:46	06/11/15 17:36	7440-43-9	
Chromium	0.041J	mg/L	0.050	0.025	1	06/11/15 09:46	06/11/15 17:36	7440-47-3	
Lead	0.014	mg/L	0.0075	0.0038	1	06/11/15 09:46	06/11/15 17:36	7439-92-1	
Selenium	<0.025	mg/L	0.050	0.025	1	06/11/15 09:46	06/11/15 17:36	7782-49-2	
Silver	<0.025	mg/L	0.050	0.025	1	06/11/15 09:46	06/11/15 17:36	7440-22-4	
<b>7470 Mercury, SPLP</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Leachate Method/Date: EPA 1312; 06/10/15 00:00									
Mercury	0.17J	ug/L	0.20	0.10	1	06/11/15 11:00	06/12/15 08:38	7439-97-6	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.017	mg/kg	0.0075	0.0038	1	06/09/15 08:15	06/09/15 13:10	7439-97-6	
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.6	ug/kg	19.3	9.6	1	06/09/15 09:34	06/10/15 08:46	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.3	8.6	1	06/09/15 09:34	06/10/15 08:46	208-96-8	
Anthracene	<10.0	ug/kg	19.3	10.0	1	06/09/15 09:34	06/10/15 08:46	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.3	6.7	1	06/09/15 09:34	06/10/15 08:46	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.3	6.9	1	06/09/15 09:34	06/10/15 08:46	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.3	9.6	1	06/09/15 09:34	06/10/15 08:46	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.3	7.3	1	06/09/15 09:34	06/10/15 08:46	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.3	10.7	1	06/09/15 09:34	06/10/15 08:46	207-08-9	
Chrysene	<8.9	ug/kg	19.3	8.9	1	06/09/15 09:34	06/10/15 08:46	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.3	7.1	1	06/09/15 09:34	06/10/15 08:46	53-70-3	
Fluoranthene	<9.6	ug/kg	19.3	9.6	1	06/09/15 09:34	06/10/15 08:46	206-44-0	
Fluorene	<9.6	ug/kg	19.3	9.6	1	06/09/15 09:34	06/10/15 08:46	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.3	7.3	1	06/09/15 09:34	06/10/15 08:46	193-39-5	
Naphthalene	<9.6	ug/kg	19.3	9.6	1	06/09/15 09:34	06/10/15 08:46	91-20-3	
Phenanthrene	<9.6	ug/kg	19.3	9.6	1	06/09/15 09:34	06/10/15 08:46	85-01-8	
Pyrene	<9.6	ug/kg	19.3	9.6	1	06/09/15 09:34	06/10/15 08:46	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	55	%	39-130		1	06/09/15 09:34	06/10/15 08:46	321-60-8	
Terphenyl-d14 (S)	52	%	37-130		1	06/09/15 09:34	06/10/15 08:46	1718-51-0	

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

Sample: B-46 (14.5) Lab ID: 40116099001 Collected: 06/05/15 08:47 Received: 06/06/15 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.7	ug/kg	23.1	10.7	1	06/09/15 08:15	06/10/15 11:39	71-43-2	
Ethylbenzene	<14.4	ug/kg	57.9	14.4	1	06/09/15 08:15	06/10/15 11:39	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.9	14.6	1	06/09/15 08:15	06/10/15 11:39	1634-04-4	
Toluene	<13.0	ug/kg	57.9	13.0	1	06/09/15 08:15	06/10/15 11:39	108-88-3	
Xylene (Total)	<56.1	ug/kg	174	56.1	1	06/09/15 08:15	06/10/15 11:39	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	49-157		1	06/09/15 08:15	06/10/15 11:39	1868-53-7	
4-Bromofluorobenzene (S)	100	%	53-134		1	06/09/15 08:15	06/10/15 11:39	460-00-4	
Toluene-d8 (S)	103	%	61-148		1	06/09/15 08:15	06/10/15 11:39	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.6	%	0.10	0.10	1		06/09/15 15:15		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	8.71	Std. Units	0.100	0.0100	1		06/10/15 15:12		H6

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

Sample: EX-25 (10-11) Lab ID: 40116099002 Collected: 06/05/15 11:24 Received: 06/06/15 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.6	ug/kg	19.1	9.6	1	06/09/15 09:34	06/10/15 09:03	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.1	8.6	1	06/09/15 09:34	06/10/15 09:03	208-96-8	
Anthracene	<9.9	ug/kg	19.1	9.9	1	06/09/15 09:34	06/10/15 09:03	120-12-7	
Benzo(a)anthracene	<6.6	ug/kg	19.1	6.6	1	06/09/15 09:34	06/10/15 09:03	56-55-3	
Benzo(a)pyrene	<6.8	ug/kg	19.1	6.8	1	06/09/15 09:34	06/10/15 09:03	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.1	9.6	1	06/09/15 09:34	06/10/15 09:03	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.1	7.3	1	06/09/15 09:34	06/10/15 09:03	191-24-2	
Benzo(k)fluoranthene	<10.6	ug/kg	19.1	10.6	1	06/09/15 09:34	06/10/15 09:03	207-08-9	
Chrysene	<8.8	ug/kg	19.1	8.8	1	06/09/15 09:34	06/10/15 09:03	218-01-9	
Dibenz(a,h)anthracene	<7.0	ug/kg	19.1	7.0	1	06/09/15 09:34	06/10/15 09:03	53-70-3	
Fluoranthene	<9.6	ug/kg	19.1	9.6	1	06/09/15 09:34	06/10/15 09:03	206-44-0	
Fluorene	<9.6	ug/kg	19.1	9.6	1	06/09/15 09:34	06/10/15 09:03	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.1	7.3	1	06/09/15 09:34	06/10/15 09:03	193-39-5	
Naphthalene	<9.6	ug/kg	19.1	9.6	1	06/09/15 09:34	06/10/15 09:03	91-20-3	
Phenanthrene	<9.6	ug/kg	19.1	9.6	1	06/09/15 09:34	06/10/15 09:03	85-01-8	
Pyrene	<9.6	ug/kg	19.1	9.6	1	06/09/15 09:34	06/10/15 09:03	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	50	%	39-130		1	06/09/15 09:34	06/10/15 09:03	321-60-8	
Terphenyl-d14 (S)	47	%	37-130		1	06/09/15 09:34	06/10/15 09:03	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.6	ug/kg	23.0	10.6	1	06/09/15 08:15	06/10/15 12:02	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.4	14.3	1	06/09/15 08:15	06/10/15 12:02	100-41-4	
Methyl-tert-butyl ether	<14.5	ug/kg	57.4	14.5	1	06/09/15 08:15	06/10/15 12:02	1634-04-4	
Toluene	<12.9	ug/kg	57.4	12.9	1	06/09/15 08:15	06/10/15 12:02	108-88-3	
Xylene (Total)	<55.6	ug/kg	172	55.6	1	06/09/15 08:15	06/10/15 12:02	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	105	%	49-157		1	06/09/15 08:15	06/10/15 12:02	1868-53-7	
4-Bromofluorobenzene (S)	108	%	53-134		1	06/09/15 08:15	06/10/15 12:02	460-00-4	
Toluene-d8 (S)	107	%	61-148		1	06/09/15 08:15	06/10/15 12:02	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	12.9	%	0.10	0.10	1		06/10/15 12:25		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

Sample: EX-26 (3.5-5) Lab ID: 40116099003 Collected: 06/05/15 12:00 Received: 06/06/15 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.8	ug/kg	19.6	9.8	1	06/09/15 09:34	06/10/15 09:20	83-32-9	
Acenaphthylene	<8.8	ug/kg	19.6	8.8	1	06/09/15 09:34	06/10/15 09:20	208-96-8	
Anthracene	<10.1	ug/kg	19.6	10.1	1	06/09/15 09:34	06/10/15 09:20	120-12-7	
Benzo(a)anthracene	<6.8	ug/kg	19.6	6.8	1	06/09/15 09:34	06/10/15 09:20	56-55-3	
Benzo(a)pyrene	<7.0	ug/kg	19.6	7.0	1	06/09/15 09:34	06/10/15 09:20	50-32-8	
Benzo(b)fluoranthene	<9.8	ug/kg	19.6	9.8	1	06/09/15 09:34	06/10/15 09:20	205-99-2	
Benzo(g,h,i)perylene	<7.5	ug/kg	19.6	7.5	1	06/09/15 09:34	06/10/15 09:20	191-24-2	
Benzo(k)fluoranthene	<10.8	ug/kg	19.6	10.8	1	06/09/15 09:34	06/10/15 09:20	207-08-9	
Chrysene	<9.0	ug/kg	19.6	9.0	1	06/09/15 09:34	06/10/15 09:20	218-01-9	
Dibenz(a,h)anthracene	<7.2	ug/kg	19.6	7.2	1	06/09/15 09:34	06/10/15 09:20	53-70-3	
Fluoranthene	<9.8	ug/kg	19.6	9.8	1	06/09/15 09:34	06/10/15 09:20	206-44-0	
Fluorene	<9.8	ug/kg	19.6	9.8	1	06/09/15 09:34	06/10/15 09:20	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.6	7.4	1	06/09/15 09:34	06/10/15 09:20	193-39-5	
Naphthalene	<9.8	ug/kg	19.6	9.8	1	06/09/15 09:34	06/10/15 09:20	91-20-3	
Phenanthrene	<9.8	ug/kg	19.6	9.8	1	06/09/15 09:34	06/10/15 09:20	85-01-8	
Pyrene	<9.8	ug/kg	19.6	9.8	1	06/09/15 09:34	06/10/15 09:20	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	47	%	39-130		1	06/09/15 09:34	06/10/15 09:20	321-60-8	
Terphenyl-d14 (S)	48	%	37-130		1	06/09/15 09:34	06/10/15 09:20	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.8	ug/kg	23.5	10.8	1	06/09/15 08:15	06/10/15 12:25	71-43-2	
Ethylbenzene	<14.6	ug/kg	58.7	14.6	1	06/09/15 08:15	06/10/15 12:25	100-41-4	
Methyl-tert-butyl ether	<14.9	ug/kg	58.7	14.9	1	06/09/15 08:15	06/10/15 12:25	1634-04-4	
Toluene	<13.2	ug/kg	58.7	13.2	1	06/09/15 08:15	06/10/15 12:25	108-88-3	
Xylene (Total)	<56.9	ug/kg	176	56.9	1	06/09/15 08:15	06/10/15 12:25	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	95	%	49-157		1	06/09/15 08:15	06/10/15 12:25	1868-53-7	
4-Bromofluorobenzene (S)	102	%	53-134		1	06/09/15 08:15	06/10/15 12:25	460-00-4	
Toluene-d8 (S)	104	%	61-148		1	06/09/15 08:15	06/10/15 12:25	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.8	%	0.10	0.10	1		06/10/15 12:25		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

QC Batch: MERP/4985 Analysis Method: EPA 7470  
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury SPLP  
Associated Lab Samples: 40116099001

METHOD BLANK: 1173969 Matrix: Water  
Associated Lab Samples: 40116099001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.10	0.20	06/12/15 08:22	

METHOD BLANK: 1173146 Matrix: Solid  
Associated Lab Samples: 40116099001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.10	0.20	06/12/15 08:40	

LABORATORY CONTROL SAMPLE: 1173970

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1173971 1173972

Parameter	Units	40115970001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.9	5.0	98	100	85-115	2	20	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

QC Batch: MERP/4977      Analysis Method: EPA 7471  
QC Batch Method: EPA 7471      Analysis Description: 7471 Mercury  
Associated Lab Samples: 40116099001

METHOD BLANK: 1171819      Matrix: Solid  
Associated Lab Samples: 40116099001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.0033	0.0067	06/09/15 12:16	

LABORATORY CONTROL SAMPLE: 1171820

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.17	0.18	106	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1171821      1171822

Parameter	Units	1171821		1171822		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40116017001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/kg	0.39	.19	.19	0.59	0.52	107	68	85-115	13	20 M0

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

QC Batch: MPRP/12031 Analysis Method: EPA 6010  
QC Batch Method: EPA 3050 Analysis Description: 6010 MET  
Associated Lab Samples: 40116099001

METHOD BLANK: 1172429 Matrix: Solid  
Associated Lab Samples: 40116099001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<0.64	2.0	06/10/15 19:37	
Barium	mg/kg	<0.12	0.50	06/10/15 19:37	
Cadmium	mg/kg	<0.066	0.50	06/10/15 19:37	
Chromium	mg/kg	<0.19	0.50	06/10/15 19:37	
Lead	mg/kg	<0.43	1.0	06/10/15 19:37	
Selenium	mg/kg	<0.77	2.0	06/10/15 19:37	
Silver	mg/kg	<0.28	1.0	06/10/15 19:37	

LABORATORY CONTROL SAMPLE & LCSD: 1172430

1172449

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Arsenic	mg/kg	50	47.4	47.0	95	94	80-120	1	20	
Barium	mg/kg	50	51.9	51.0	104	102	80-120	2	20	
Cadmium	mg/kg	50	48.0	47.6	96	95	80-120	1	20	
Chromium	mg/kg	50	49.4	49.0	99	98	80-120	1	20	
Lead	mg/kg	50	45.8	45.8	92	92	80-120	0	20	
Selenium	mg/kg	50	45.2	45.3	90	91	80-120	0	20	
Silver	mg/kg	25	22.8	22.8	91	91	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1172431

1172432

Parameter	Units	40115659002		MSD		MS		MSD		% Rec Limits	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec	% Rec				
Arsenic	mg/kg	<0.73	57.4	57.4	54.0	53.1	93	91	75-125	2	20	
Barium	mg/kg	9.1	57.4	57.4	72.1	67.9	110	102	75-125	6	20	
Cadmium	mg/kg	<0.076	57.4	57.4	54.1	53.4	94	93	75-125	1	20	
Chromium	mg/kg	3.9	57.4	57.4	60.0	58.3	98	95	75-125	3	20	
Lead	mg/kg	2.9	57.4	57.4	55.1	52.9	91	87	75-125	4	20	
Selenium	mg/kg	<0.88	57.4	57.4	49.5	49.5	86	86	75-125	0	20	
Silver	mg/kg	<0.32	28.7	28.7	25.7	25.2	88	87	75-125	2	20	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

QC Batch: MPRP/12046 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET SPLP  
Associated Lab Samples: 40116099001

METHOD BLANK: 1173938 Matrix: Water  
Associated Lab Samples: 40116099001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.025	0.050	06/11/15 17:15	
Barium	mg/L	<0.25	0.50	06/11/15 17:15	
Cadmium	mg/L	<0.0025	0.0050	06/11/15 17:15	
Chromium	mg/L	<0.025	0.050	06/11/15 17:15	
Lead	mg/L	<0.0038	0.0075	06/11/15 17:15	
Selenium	mg/L	<0.025	0.050	06/11/15 17:15	
Silver	mg/L	<0.025	0.050	06/11/15 17:15	

METHOD BLANK: 1173145 Matrix: Solid  
Associated Lab Samples: 40116099001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.025	0.050	06/11/15 17:38	
Barium	mg/L	<0.25	0.50	06/11/15 17:38	
Cadmium	mg/L	<0.0025	0.0050	06/11/15 17:38	
Chromium	mg/L	<0.025	0.050	06/11/15 17:38	
Lead	mg/L	<0.0038	0.0075	06/11/15 17:38	
Selenium	mg/L	<0.025	0.050	06/11/15 17:38	
Silver	mg/L	<0.025	0.050	06/11/15 17:38	

LABORATORY CONTROL SAMPLE: 1173939

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.5	0.48	97	80-120	
Barium	mg/L	.5	0.48J	96	80-120	
Cadmium	mg/L	.5	0.49	98	80-120	
Chromium	mg/L	.5	0.49	97	80-120	
Lead	mg/L	.5	0.49	97	80-120	
Selenium	mg/L	.5	0.48	96	80-120	
Silver	mg/L	.25	0.24	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1173940 1173941

Parameter	Units	40115970001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
			Spike Conc.	Spike Conc.							
Arsenic	mg/L	ND	.5	.5	0.50	0.50	99	99	75-125	0	20

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

Parameter	Units	1173940		1173941		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		40115970001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Barium	mg/L	1.4	.5	.5	1.9	1.9	96	91	75-125	1	20	
Cadmium	mg/L	ND	.5	.5	0.49	0.50	99	99	75-125	0	20	
Chromium	mg/L	0.070	.5	.5	0.56	0.56	99	98	75-125	1	20	
Lead	mg/L	ND	.5	.5	0.49	0.49	97	98	75-125	1	20	
Selenium	mg/L	ND	.5	.5	0.51	0.51	101	101	75-125	0	20	
Silver	mg/L	ND	.25	.25	0.24	0.24	95	95	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

QC Batch: MSV/28829 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40116099001, 40116099002, 40116099003

METHOD BLANK: 1172353 Matrix: Solid  
Associated Lab Samples: 40116099001, 40116099002, 40116099003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	06/10/15 08:38	
Ethylbenzene	ug/kg	<12.4	50.0	06/10/15 08:38	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	06/10/15 08:38	
Toluene	ug/kg	<11.2	50.0	06/10/15 08:38	
Xylene (Total)	ug/kg	<48.4	150	06/10/15 08:38	
4-Bromofluorobenzene (S)	%	109	53-134	06/10/15 08:38	
Dibromofluoromethane (S)	%	104	49-157	06/10/15 08:38	
Toluene-d8 (S)	%	112	61-148	06/10/15 08:38	

LABORATORY CONTROL SAMPLE & LCSD: 1172354 1172355

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	2500	2400	2380	96	95	70-130	1	20	
Ethylbenzene	ug/kg	2500	2530	2520	101	101	70-130	0	20	
Methyl-tert-butyl ether	ug/kg	2500	2610	2440	104	98	70-130	7	20	
Toluene	ug/kg	2500	2620	2610	105	104	70-130	0	20	
Xylene (Total)	ug/kg	7500	7450	7550	99	101	70-130	1	20	
4-Bromofluorobenzene (S)	%				105	104	53-134			
Dibromofluoromethane (S)	%				103	104	49-157			
Toluene-d8 (S)	%				105	106	61-148			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

QC Batch: OEXT/26772 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40116099001, 40116099002, 40116099003

METHOD BLANK: 1172193 Matrix: Solid  
Associated Lab Samples: 40116099001, 40116099002, 40116099003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	06/09/15 13:44	
Acenaphthylene	ug/kg	<7.5	16.7	06/09/15 13:44	
Anthracene	ug/kg	<8.6	16.7	06/09/15 13:44	
Benzo(a)anthracene	ug/kg	<5.8	16.7	06/09/15 13:44	
Benzo(a)pyrene	ug/kg	<6.0	16.7	06/09/15 13:44	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	06/09/15 13:44	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	06/09/15 13:44	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	06/09/15 13:44	
Chrysene	ug/kg	<7.7	16.7	06/09/15 13:44	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	06/09/15 13:44	
Fluoranthene	ug/kg	<8.3	16.7	06/09/15 13:44	
Fluorene	ug/kg	<8.3	16.7	06/09/15 13:44	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	06/09/15 13:44	
Naphthalene	ug/kg	<8.3	16.7	06/09/15 13:44	
Phenanthrene	ug/kg	<8.3	16.7	06/09/15 13:44	
Pyrene	ug/kg	<8.3	16.7	06/09/15 13:44	
2-Fluorobiphenyl (S)	%	64	39-130	06/09/15 13:44	
Terphenyl-d14 (S)	%	74	37-130	06/09/15 13:44	

LABORATORY CONTROL SAMPLE: 1172194

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	240	72	54-130	
Acenaphthylene	ug/kg	333	246	74	55-130	
Anthracene	ug/kg	333	283	85	64-130	
Benzo(a)anthracene	ug/kg	333	246	74	50-130	
Benzo(a)pyrene	ug/kg	333	259	78	46-130	
Benzo(b)fluoranthene	ug/kg	333	257	77	43-130	
Benzo(g,h,i)perylene	ug/kg	333	218	65	48-130	
Benzo(k)fluoranthene	ug/kg	333	266	80	55-130	
Chrysene	ug/kg	333	263	79	62-130	
Dibenz(a,h)anthracene	ug/kg	333	249	75	49-130	
Fluoranthene	ug/kg	333	248	74	57-130	
Fluorene	ug/kg	333	246	74	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	243	73	50-130	
Naphthalene	ug/kg	333	223	67	48-130	
Phenanthrene	ug/kg	333	252	76	51-130	
Pyrene	ug/kg	333	249	75	55-130	
2-Fluorobiphenyl (S)	%			69	39-130	
Terphenyl-d14 (S)	%			75	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1172195		1172196		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40116083004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Acenaphthene	ug/kg	<19.0	380	380	234	243	62	64	46-130	3	26		
Acenaphthylene	ug/kg	<19.0	380	380	246	255	65	67	49-130	4	23		
Anthracene	ug/kg	<19.0	380	380	261	269	69	71	52-130	3	28		
Benzo(a)anthracene	ug/kg	<19.0	380	380	209	217	55	57	34-130	3	36		
Benzo(a)pyrene	ug/kg	<19.0	380	380	215	223	57	59	34-130	4	40		
Benzo(b)fluoranthene	ug/kg	<19.0	380	380	238	246	63	65	22-130	4	40		
Benzo(g,h,i)perylene	ug/kg	<19.0	380	380	110	121	29	32	24-130	9	35		
Benzo(k)fluoranthene	ug/kg	<19.0	380	380	264	271	69	71	41-130	3	37		
Chrysene	ug/kg	<19.0	380	380	232	242	61	64	49-130	4	33		
Dibenz(a,h)anthracene	ug/kg	<19.0	380	380	151	159	40	42	27-130	5	31		
Fluoranthene	ug/kg	<19.0	380	380	219	227	58	60	34-130	4	37		
Fluorene	ug/kg	<19.0	380	380	234	242	62	64	45-130	3	25		
Indeno(1,2,3-cd)pyrene	ug/kg	<19.0	380	380	136	145	36	38	30-130	7	34		
Naphthalene	ug/kg	<19.0	380	380	227	231	60	61	38-130	2	30		
Phenanthrene	ug/kg	<19.0	380	380	235	242	61	63	38-130	3	34		
Pyrene	ug/kg	<19.0	380	380	230	237	61	62	35-130	3	35		
2-Fluorobiphenyl (S)	%						55	56	39-130				
Terphenyl-d14 (S)	%						60	59	37-130				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

---

QC Batch: PMST/11302	Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87	Analysis Description: Dry Weigh/Percent Moisture
Associated Lab Samples: 40116099001	

---

SAMPLE DUPLICATE: 1172523

Parameter	Units	40116093001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	23.3	22.1	5	10	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

---

QC Batch: PMST/11312	Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87	Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 40116099002, 40116099003	

---

SAMPLE DUPLICATE: 1173318

Parameter	Units	40116109002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	18.0	17.0	6	10	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

---

QC Batch: WET/22323	Analysis Method: EPA 9045
QC Batch Method: EPA 9045	Analysis Description: 9045 pH
Associated Lab Samples: 40116099001	

---

SAMPLE DUPLICATE: 1173648

Parameter	Units	40115883001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	11.7	11.8	1	5	H6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSV/28830

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

H6 Analysis initiated outside of the 15 minute EPA recommended holding time.  
M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116099

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40116099001	B-46 (14.5)	EPA 3050	MPRP/12031	EPA 6010	ICP/10712
40116099001	B-46 (14.5)	EPA 3010	MPRP/12046	EPA 6010	ICP/10716
40116099001	B-46 (14.5)	EPA 7470	MERP/4985	EPA 7470	MERC/6835
40116099001	B-46 (14.5)	EPA 7471	MERP/4977	EPA 7471	MERC/6823
40116099001	B-46 (14.5)	EPA 3546	OEXT/26772	EPA 8270 by SIM	MSSV/7970
40116099002	EX-25 (10-11)	EPA 3546	OEXT/26772	EPA 8270 by SIM	MSSV/7970
40116099003	EX-26 (3.5-5)	EPA 3546	OEXT/26772	EPA 8270 by SIM	MSSV/7970
40116099001	B-46 (14.5)	EPA 5035/5030B	MSV/28829	EPA 8260	MSV/28830
40116099002	EX-25 (10-11)	EPA 5035/5030B	MSV/28829	EPA 8260	MSV/28830
40116099003	EX-26 (3.5-5)	EPA 5035/5030B	MSV/28829	EPA 8260	MSV/28830
40116099001	B-46 (14.5)	ASTM D2974-87	PMST/11302		
40116099002	EX-25 (10-11)	ASTM D2974-87	PMST/11312		
40116099003	EX-26 (3.5-5)	ASTM D2974-87	PMST/11312		
40116099001	B-46 (14.5)	EPA 9045	WET/22323		

**REPORT OF LABORATORY ANALYSIS**

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(Please Print Clearly)

Company Name: Trilene Environmental, LLC  
 Branch/Location: Naperville, IL  
 Project Contact: Marcos Czako  
 Phone: (630) 520-9973  
 Project Number: 100137  
 Project Name: Neutral Kar Gas  
 Project State: IL  
 Sampled By (Print): Marcos Czako  
 Sampled By (Sign): [Signature]  
 PO #: \_\_\_\_\_ Regulatory Program: \_\_\_\_\_



### CHAIN OF CUSTODY

**\*Preservation Codes**  
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED? (YES/NO)  
 PRESERVATION (CODE)\*

Y/N	Analyses Requested						
	PH	PAHS	MOISTURE	SPLP METALS	PH	TOTAL METALS	
N	N	N	N	N	N	N	
F	A	A	A	A	A	A	

**Data Package Options** (billable)  
 EPA Level III  
 EPA Level IV

**MS/MSD**  
 On your sample (billable)  
 NOT needed on your sample

**Matrix Codes**  
 A = Air W = Water  
 B = Biota DW = Drinking Water  
 C = Charcoal GW = Ground Water  
 O = Oil SW = Surface Water  
 S = Soil WW = Waste Water  
 SI = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
001	B-46 (14.5)	6/5/15	08:47	S
002	EX-25 (10-11)	6/5/15	11:24	S
003	EX-26 (3.5-5)	6/5/15	12:00	S

Quote #: \_\_\_\_\_

Mail To Contact: Marcos Czako

Mail To Company: Trilene Environmental, LLC

Mail To Address: 2368 Corporate Ln., Suite 116 Naperville, IL 60563

Invoice To Contact: Shawn Rodak

Invoice To Company: SAA

Invoice To Address: SAA

Invoice To Phone: \_\_\_\_\_

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
<u>4-40zgaA, 1-40zgaA</u>	<u>2-40mlVF, 1-40zpaA</u>	
↓	↓	↓

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)  
 Date Needed: \_\_\_\_\_

Transmit Prelim Rush Results by (complete what you want): \_\_\_\_\_

Email #1: \_\_\_\_\_  
 Email #2: \_\_\_\_\_  
 Telephone: \_\_\_\_\_  
 Fax: \_\_\_\_\_

Samples on HOLD are subject to special pricing and release of liability

Relinquished By: [Signature] Date/Time: 6/6/15 14:00

Relinquished By: [Signature] Date/Time: 6/5/15 1700

Relinquished By: [Signature] Date/Time: 6-6-15 730

Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: [Signature] Date/Time: 6/7/15 1400

Received By: [Signature] Date/Time: 6/7/15

Received By: [Signature] Date/Time: 6-6-15 730

Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

PACE Project No. 40116099

Receipt Temp = 3.5 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present  
Intact / Not Intact



Project #:

WO#: 40116099

Client Name: Tri Core

Courier:  Fed Ex  UPS  Client  Pace Other: CS Logistics

Tracking #:



40116099

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: SR-50 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 3 /Corr: 3.5 Biological Tissue is Frozen:  yes

Temp Blank Present:  yes  no  no

Person examining contents:

Date: 6-6-15

Initials: mm

Temp should be above freezing to 6°C for all sample except Biota.  
 Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	10. 1 - 4oz bag B-46 (14.5) cracked. mm 6-6
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. 004 - no time on vial (1). mm 6-6-15
-Includes date (time)/ID/Analysis Matrix: <u>5</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12) exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #/ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: \_\_\_\_\_

mm

Date: 6/6/15



Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

**Leaking Underground Storage Tank Program  
 Laboratory Certification for Chemical Analysis**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010  
 Site Name: Lemont Kar Gas  
 Site Address (Not a P.O. Box): 1196 State Street  
 City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

**B. Sample Collector**

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. MJC  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. MJC  
(Initial)
- 3. Sample integrity was maintained by proper preservation. MJC  
(Initial)
- 4. All samples were properly labeled. MJC  
(Initial)

**C. Laboratory Representative**

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms UW  
(Initial)
- 2. Sample integrity was maintained by proper preservation. UW  
(Initial)
- 3. All samples were properly labeled. UW  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. UW  
(Initial)
- 5. Sample holding times were not exceeded. UW  
(Initial)

6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.

CLW  
(Initial)


7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

CLW  
(Initial)

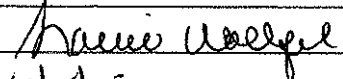
**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcus J. Ceato  
Title Geo III  
Company TriCore Environmental, LLC  
Address 2368 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone (630) 520-9973  
Signature   
Date 06/05/15

**Laboratory Representative**

Name Laurie Woelfel  
Title Project Manager  
Company Pace Analytical Services, Inc.  
Address 1241 Bellevue Street, Suite 9  
City Green Bay  
State Wisconsin  
Zip Code 64302  
Phone (920) 469-2436  
Signature   
Date 6/15/15

June 12, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

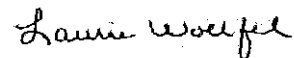
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116177

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on June 09, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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**CERTIFICATIONS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116177

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**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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**REPORT OF LABORATORY ANALYSIS**

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116177

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40116177001	EX-27 (8.5-9.5)	Solid	06/05/15 14:33	06/09/15 10:20
40116177002	EX-28 (3'-4')	Solid	06/08/15 07:30	06/09/15 10:20
40116177003	EX-28 (8'-9')	Solid	06/08/15 07:30	06/09/15 10:20

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116177

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40116177001	EX-27 (8.5-9.5)	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	EMM	1	PASI-G
40116177002	EX-28 (3'-4')	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	EMM	1	PASI-G
40116177003	EX-28 (8'-9')	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	EMM	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116177

Sample: EX-27 (8.5-9.5) Lab ID: 40116177001 Collected: 06/05/15 14:33 Received: 06/09/15 10:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.6	ug/kg	19.3	9.6	1	06/10/15 09:03	06/11/15 08:35	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.3	8.6	1	06/10/15 09:03	06/11/15 08:35	208-96-8	
Anthracene	<10.0	ug/kg	19.3	10.0	1	06/10/15 09:03	06/11/15 08:35	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.3	6.7	1	06/10/15 09:03	06/11/15 08:35	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.3	6.9	1	06/10/15 09:03	06/11/15 08:35	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.3	9.6	1	06/10/15 09:03	06/11/15 08:35	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.3	7.3	1	06/10/15 09:03	06/11/15 08:35	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.3	10.7	1	06/10/15 09:03	06/11/15 08:35	207-08-9	
Chrysene	<8.9	ug/kg	19.3	8.9	1	06/10/15 09:03	06/11/15 08:35	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.3	7.1	1	06/10/15 09:03	06/11/15 08:35	53-70-3	
Fluoranthene	<9.6	ug/kg	19.3	9.6	1	06/10/15 09:03	06/11/15 08:35	206-44-0	
Fluorene	<9.6	ug/kg	19.3	9.6	1	06/10/15 09:03	06/11/15 08:35	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.3	7.3	1	06/10/15 09:03	06/11/15 08:35	193-39-5	
Naphthalene	<9.6	ug/kg	19.3	9.6	1	06/10/15 09:03	06/11/15 08:35	91-20-3	
Phenanthrene	<9.6	ug/kg	19.3	9.6	1	06/10/15 09:03	06/11/15 08:35	85-01-8	
Pyrene	<9.6	ug/kg	19.3	9.6	1	06/10/15 09:03	06/11/15 08:35	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	68	%	39-130		1	06/10/15 09:03	06/11/15 08:35	321-60-8	
Terphenyl-d14 (S)	66	%	37-130		1	06/10/15 09:03	06/11/15 08:35	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.7	ug/kg	23.2	10.7	1	06/10/15 08:10	06/11/15 09:16	71-43-2	
Ethylbenzene	<14.4	ug/kg	57.9	14.4	1	06/10/15 08:10	06/11/15 09:16	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.9	14.6	1	06/10/15 08:10	06/11/15 09:16	1634-04-4	
Toluene	<13.0	ug/kg	57.9	13.0	1	06/10/15 08:10	06/11/15 09:16	108-88-3	
Xylene (Total)	<56.1	ug/kg	174	56.1	1	06/10/15 08:10	06/11/15 09:16	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	49-157		1	06/10/15 08:10	06/11/15 09:16	1868-53-7	
4-Bromofluorobenzene (S)	109	%	53-134		1	06/10/15 08:10	06/11/15 09:16	460-00-4	
Toluene-d8 (S)	111	%	61-148		1	06/10/15 08:10	06/11/15 09:16	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.6	%	0.10	0.10	1		06/10/15 12:00		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116177

Sample: EX-28 (3'-4') Lab ID: 40116177002 Collected: 06/08/15 07:30 Received: 06/09/15 10:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.9	ug/kg	19.7	9.9	1	06/10/15 09:03	06/11/15 08:52	83-32-9	
Acenaphthylene	<8.8	ug/kg	19.7	8.8	1	06/10/15 09:03	06/11/15 08:52	208-96-8	
Anthracene	<10.2	ug/kg	19.7	10.2	1	06/10/15 09:03	06/11/15 08:52	120-12-7	
Benzo(a)anthracene	<6.8	ug/kg	19.7	6.8	1	06/10/15 09:03	06/11/15 08:52	56-55-3	
Benzo(a)pyrene	<7.0	ug/kg	19.7	7.0	1	06/10/15 09:03	06/11/15 08:52	50-32-8	
Benzo(b)fluoranthene	<9.9	ug/kg	19.7	9.9	1	06/10/15 09:03	06/11/15 08:52	205-99-2	
Benzo(g,h,i)perylene	<7.5	ug/kg	19.7	7.5	1	06/10/15 09:03	06/11/15 08:52	191-24-2	
Benzo(k)fluoranthene	<10.9	ug/kg	19.7	10.9	1	06/10/15 09:03	06/11/15 08:52	207-08-9	
Chrysene	<9.1	ug/kg	19.7	9.1	1	06/10/15 09:03	06/11/15 08:52	218-01-9	
Dibenz(a,h)anthracene	<7.2	ug/kg	19.7	7.2	1	06/10/15 09:03	06/11/15 08:52	53-70-3	
Fluoranthene	<9.9	ug/kg	19.7	9.9	1	06/10/15 09:03	06/11/15 08:52	206-44-0	
Fluorene	<9.9	ug/kg	19.7	9.9	1	06/10/15 09:03	06/11/15 08:52	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.5	ug/kg	19.7	7.5	1	06/10/15 09:03	06/11/15 08:52	193-39-5	
Naphthalene	<9.9	ug/kg	19.7	9.9	1	06/10/15 09:03	06/11/15 08:52	91-20-3	
Phenanthrene	<9.9	ug/kg	19.7	9.9	1	06/10/15 09:03	06/11/15 08:52	85-01-8	
Pyrene	<9.9	ug/kg	19.7	9.9	1	06/10/15 09:03	06/11/15 08:52	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	59	%	39-130		1	06/10/15 09:03	06/11/15 08:52	321-60-8	
Terphenyl-d14 (S)	57	%	37-130		1	06/10/15 09:03	06/11/15 08:52	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.9	ug/kg	23.6	10.9	1	06/10/15 08:10	06/11/15 09:39	71-43-2	
Ethylbenzene	<14.7	ug/kg	59.1	14.7	1	06/10/15 08:10	06/11/15 09:39	100-41-4	
Methyl-tert-butyl ether	<15.0	ug/kg	59.1	15.0	1	06/10/15 08:10	06/11/15 09:39	1634-04-4	
Toluene	<13.3	ug/kg	59.1	13.3	1	06/10/15 08:10	06/11/15 09:39	108-88-3	
Xylene (Total)	<57.3	ug/kg	177	57.3	1	06/10/15 08:10	06/11/15 09:39	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	102	%	49-157		1	06/10/15 08:10	06/11/15 09:39	1868-53-7	
4-Bromofluorobenzene (S)	112	%	53-134		1	06/10/15 08:10	06/11/15 09:39	460-00-4	
Toluene-d8 (S)	106	%	61-148		1	06/10/15 08:10	06/11/15 09:39	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	15.4	%	0.10	0.10	1		06/10/15 12:01		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116177

Sample: EX-28 (8'-9') Lab ID: 40116177003 Collected: 06/08/15 07:30 Received: 06/09/15 10:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.6	ug/kg	19.2	9.6	1	06/10/15 09:03	06/11/15 09:09	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.2	8.6	1	06/10/15 09:03	06/11/15 09:09	208-96-8	
Anthracene	<10	ug/kg	19.2	10	1	06/10/15 09:03	06/11/15 09:09	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.2	6.7	1	06/10/15 09:03	06/11/15 09:09	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.2	6.9	1	06/10/15 09:03	06/11/15 09:09	50-32-8	
Benzo(b)fluoranthene	<9.6	ug/kg	19.2	9.6	1	06/10/15 09:03	06/11/15 09:09	205-99-2	
Benzo(g,h,i)perylene	<7.3	ug/kg	19.2	7.3	1	06/10/15 09:03	06/11/15 09:09	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.2	10.7	1	06/10/15 09:03	06/11/15 09:09	207-08-9	
Chrysene	<8.9	ug/kg	19.2	8.9	1	06/10/15 09:03	06/11/15 09:09	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.2	7.1	1	06/10/15 09:03	06/11/15 09:09	53-70-3	
Fluoranthene	<9.6	ug/kg	19.2	9.6	1	06/10/15 09:03	06/11/15 09:09	206-44-0	
Fluorene	<9.6	ug/kg	19.2	9.6	1	06/10/15 09:03	06/11/15 09:09	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.2	7.3	1	06/10/15 09:03	06/11/15 09:09	193-39-5	
Naphthalene	<9.6	ug/kg	19.2	9.6	1	06/10/15 09:03	06/11/15 09:09	91-20-3	
Phenanthrene	<9.6	ug/kg	19.2	9.6	1	06/10/15 09:03	06/11/15 09:09	85-01-8	
Pyrene	<9.6	ug/kg	19.2	9.6	1	06/10/15 09:03	06/11/15 09:09	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	64	%	39-130		1	06/10/15 09:03	06/11/15 09:09	321-60-8	
Terphenyl-d14 (S)	66	%	37-130		1	06/10/15 09:03	06/11/15 09:09	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.6	ug/kg	23.1	10.6	1	06/10/15 08:10	06/11/15 12:40	71-43-2	
Ethylbenzene	<14.4	ug/kg	57.7	14.4	1	06/10/15 08:10	06/11/15 12:40	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.7	14.6	1	06/10/15 08:10	06/11/15 12:40	1634-04-4	
Toluene	<13.0	ug/kg	57.7	13.0	1	06/10/15 08:10	06/11/15 12:40	108-88-3	
Xylene (Total)	<55.9	ug/kg	173	55.9	1	06/10/15 08:10	06/11/15 12:40	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	94	%	49-157		1	06/10/15 08:10	06/11/15 12:40	1868-53-7	
4-Bromofluorobenzene (S)	99	%	53-134		1	06/10/15 08:10	06/11/15 12:40	460-00-4	
Toluene-d8 (S)	99	%	61-148		1	06/10/15 08:10	06/11/15 12:40	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.4	%	0.10	0.10	1		06/10/15 12:02		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116177

QC Batch: MSV/28842 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40116177001, 40116177002, 40116177003

METHOD BLANK: 1173383 Matrix: Solid  
Associated Lab Samples: 40116177001, 40116177002, 40116177003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	06/11/15 07:46	
Ethylbenzene	ug/kg	<12.4	50.0	06/11/15 07:46	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	06/11/15 07:46	
Toluene	ug/kg	<11.2	50.0	06/11/15 07:46	
Xylene (Total)	ug/kg	<48.4	150	06/11/15 07:46	
4-Bromofluorobenzene (S)	%	103	53-134	06/11/15 07:46	
Dibromofluoromethane (S)	%	93	49-157	06/11/15 07:46	
Toluene-d8 (S)	%	99	61-148	06/11/15 07:46	

LABORATORY CONTROL SAMPLE & LCSD: 1173384

Parameter	Units	1173385								
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	2500	2730	2340	109	94	70-130	15	20	
Ethylbenzene	ug/kg	2500	2960	2500	118	100	70-130	17	20	
Methyl-tert-butyl ether	ug/kg	2500	2750	2410	110	96	70-130	13	20	
Toluene	ug/kg	2500	2820	2490	113	100	70-130	12	20	
Xylene (Total)	ug/kg	7500	8990	7630	120	102	70-130	16	20	
4-Bromofluorobenzene (S)	%				125	104	53-134			
Dibromofluoromethane (S)	%				120	97	49-157			
Toluene-d8 (S)	%				114	100	61-148			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116177

QC Batch: OEXT/26786 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40116177001, 40116177002, 40116177003

METHOD BLANK: 1173009 Matrix: Solid  
Associated Lab Samples: 40116177001, 40116177002, 40116177003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	06/10/15 14:48	
Acenaphthylene	ug/kg	<7.5	16.7	06/10/15 14:48	
Anthracene	ug/kg	<8.6	16.7	06/10/15 14:48	
Benzo(a)anthracene	ug/kg	<5.8	16.7	06/10/15 14:48	
Benzo(a)pyrene	ug/kg	<6.0	16.7	06/10/15 14:48	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	06/10/15 14:48	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	06/10/15 14:48	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	06/10/15 14:48	
Chrysene	ug/kg	<7.7	16.7	06/10/15 14:48	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	06/10/15 14:48	
Fluoranthene	ug/kg	<8.3	16.7	06/10/15 14:48	
Fluorene	ug/kg	<8.3	16.7	06/10/15 14:48	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	06/10/15 14:48	
Naphthalene	ug/kg	<8.3	16.7	06/10/15 14:48	
Phenanthrene	ug/kg	<8.3	16.7	06/10/15 14:48	
Pyrene	ug/kg	<8.3	16.7	06/10/15 14:48	
2-Fluorobiphenyl (S)	%	66	39-130	06/10/15 14:48	
Terphenyl-d14 (S)	%	74	37-130	06/10/15 14:48	

LABORATORY CONTROL SAMPLE: 1173010

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	272	81	54-130	
Acenaphthylene	ug/kg	333	274	82	55-130	
Anthracene	ug/kg	333	327	98	64-130	
Benzo(a)anthracene	ug/kg	333	274	82	50-130	
Benzo(a)pyrene	ug/kg	333	290	87	46-130	
Benzo(b)fluoranthene	ug/kg	333	297	89	43-130	
Benzo(g,h,i)perylene	ug/kg	333	229	69	48-130	
Benzo(k)fluoranthene	ug/kg	333	299	90	55-130	
Chrysene	ug/kg	333	305	92	62-130	
Dibenz(a,h)anthracene	ug/kg	333	253	76	49-130	
Fluoranthene	ug/kg	333	284	85	57-130	
Fluorene	ug/kg	333	275	82	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	250	75	50-130	
Naphthalene	ug/kg	333	246	74	48-130	
Phenanthrene	ug/kg	333	283	85	51-130	
Pyrene	ug/kg	333	280	84	55-130	
2-Fluorobiphenyl (S)	%			74	39-130	
Terphenyl-d14 (S)	%			79	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40116177

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1173011		1173012		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40116134024 Result	MS Spike Conc.	MSD Spike Conc.									
Acenaphthene	ug/kg	<21.7	434	434	323	309	74	71	46-130	4	26		
Acenaphthylene	ug/kg	<21.7	434	434	334	315	77	73	49-130	6	23		
Anthracene	ug/kg	<21.7	434	434	361	348	82	79	52-130	4	28		
Benzo(a)anthracene	ug/kg	<21.7	434	434	300	296	65	65	34-130	1	36		
Benzo(a)pyrene	ug/kg	<21.7	434	434	311	309	68	67	34-130	1	40		
Benzo(b)fluoranthene	ug/kg	<21.7	434	434	326	298	72	65	22-130	9	40		
Benzo(g,h,i)perylene	ug/kg	<21.7	434	434	241	232	54	52	24-130	4	35		
Benzo(k)fluoranthene	ug/kg	<21.7	434	434	319	335	69	73	41-130	5	37		
Chrysene	ug/kg	<21.7	434	434	335	326	73	71	49-130	3	33		
Dibenz(a,h)anthracene	ug/kg	<21.7	434	434	279	258	64	59	27-130	8	31		
Fluoranthene	ug/kg	35.5	434	434	325	317	67	65	34-130	2	37		
Fluorene	ug/kg	<21.7	434	434	319	304	73	70	45-130	5	25		
Indeno(1,2,3-cd)pyrene	ug/kg	<21.7	434	434	265	254	59	57	30-130	4	34		
Naphthalene	ug/kg	<21.7	434	434	322	299	74	68	38-130	8	30		
Phenanthrene	ug/kg	<21.7	434	434	324	310	71	68	38-130	4	34		
Pyrene	ug/kg	29.3	434	434	308	305	64	64	35-130	1	35		
2-Fluorobiphenyl (S)	%						66	61	39-130				
Terphenyl-d14 (S)	%						63	58	37-130				

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40116177

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QC Batch:	PMST/11311	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40116177001, 40116177002, 40116177003		

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SAMPLE DUPLICATE: 1173298

Parameter	Units	40116211007 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.4	16.3	1	10	

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116177

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSV/28843

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116177

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40116177001	EX-27 (8.5-9.5)	EPA 3546	OEXT/26786	EPA 8270 by SIM	MSSV/7974
40116177002	EX-28 (3'-4')	EPA 3546	OEXT/26786	EPA 8270 by SIM	MSSV/7974
40116177003	EX-28 (8'-9')	EPA 3546	OEXT/26786	EPA 8270 by SIM	MSSV/7974
40116177001	EX-27 (8.5-9.5)	EPA 5035/5030B	MSV/28842	EPA 8260	MSV/28843
40116177002	EX-28 (3'-4')	EPA 5035/5030B	MSV/28842	EPA 8260	MSV/28843
40116177003	EX-28 (8'-9')	EPA 5035/5030B	MSV/28842	EPA 8260	MSV/28843
40116177001	EX-27 (8.5-9.5)	ASTM D2974-87	PMST/11311		
40116177002	EX-28 (3'-4')	ASTM D2974-87	PMST/11311		
40116177003	EX-28 (8'-9')	ASTM D2974-87	PMST/11311		

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**CHAIN-OF-CUSTODY / Analytical Request Document**

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



Page 14 of 15  
4011617A

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:	
Company: TriCore Environmental, LLC		Report To: Marcos J. Czako		Attention: Shawn Rodeck	
Address: 2368 Corporate Lane, Suite 116 Naperville, Illinois 60563		Copy To:		Company Name: TriCore Environmental, LLC	
Email To: marcos.czako@tricoreweb.com		Purchase Order No.: 100137		Address: 2368 Corporate Lane, Suite 116, Naperville, Illinois 60563	
Phone: 630-520-9973 Fax 630-520-9976		Project Name: Lemont Kar Gas		Pace Quote Reference:	
Requested Due Date/TAT:		Project Number: 100137		Pace Profile #:	

REGULATORY AGENCY									
<input type="checkbox"/> NPDES	<input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER								
<input checked="" type="checkbox"/> UST	<input type="checkbox"/> RCRA <input type="checkbox"/> OTHER								
SITE LOCATION	<input type="checkbox"/> GA <input checked="" type="checkbox"/> IL <input type="checkbox"/> IN <input type="checkbox"/> MI <input type="checkbox"/> NC <input type="checkbox"/> OH <input type="checkbox"/> SC <input type="checkbox"/> WI <input type="checkbox"/> OTHER								
Filtered (Y/N)	N / N / N								
Requested Anal:	<table border="1"> <tr> <td>BTEXM 8260</td> <td>Moisture</td> <td>PAHs 8270</td> <td>Residual Chlorine (Y/N)</td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td>1-4020A, 1-4020B, 24</td> </tr> </table>	BTEXM 8260	Moisture	PAHs 8270	Residual Chlorine (Y/N)	X	X	X	1-4020A, 1-4020B, 24
BTEXM 8260	Moisture	PAHs 8270	Residual Chlorine (Y/N)						
X	X	X	1-4020A, 1-4020B, 24						

ITEM #	Section D Required Client Information <b>SAMPLE ID</b> One Character per box. (A-Z, 0-9 / . -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW MPCOLLECT P SOLID/SOLID SL OIL CL WIPE WP AIR AR OTHER OT TISL TS	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives														
					COMPOSITE SWMT		COMPOSITE EN/GRAB				Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	Methanol	Other							
					DATE	TIME	DATE	TIME																	
1	EX-27 (0.5-9.5)		SL	G				6-5-15	14:33	4	2														
2	EX-28 (3'-4')		SL	G				6-8-15	7:30	4	2														
3	EX-28 (8'-9')		SL	G				6-8-15	7:30	4	2														

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Randy Wilson / TriCore	6/8/15	15:05	Brian Kuszynski	6/8/15	19:15	Y/N
Brian Kuszynski	6/8/15	17:00	C. Logan	6/8/15		Y/N
CS Logistic	6-9-15	10:20	M. McKay	6-9-15	10:20	4.5 Y/N

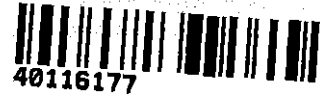
SAMPLER NAME AND SIGNATURE		Temp in °C A.R. 001103	received on Ice	Custody Sealed Cooler	Samples Intact
PRINT Name of SAMPLER: Randy Wilson					
SIGNATURE of SAMPLER: <i>Randy Wilson</i>					
DATE Signed (MM/DD/YYYY): 06/08/2015					



Client Name: Tri Core

Project #:

WO#: **40116177**



Courier:  Fed Ex  UPS  Client  Pace Other: CS LOGISTICS

Tracking #:

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: SR-65 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: 4 / Corr: 4.5 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Person examining contents:  
 Date: 6-9-15  
 Initials: mm

Temp should be above freezing to 6°C for all sample except Biota.  
 Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>SL</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ If checked, see attached form for additional comments

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: \_\_\_\_\_

Date: 6/9/15



# Illinois Environmental Protection Agency

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

## Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPALPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

### B. Sample Collector

I certify that:

1. Appropriate sampling equipment/methods were utilized to obtain representative samples.
2. Chain-of-custody procedures were followed in the field.
3. Sample integrity was maintained by proper preservation.
4. All samples were properly labeled.

RW  
(Initial)

RW  
(Initial)

RW  
(Initial)

RW  
(Initial)

### C. Laboratory Representative

I certify that:

1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms
2. Sample integrity was maintained by proper preservation.
3. All samples were properly labeled.
4. Quality assurance/quality control procedures were established and carried out.
5. Sample holding times were not exceeded.

UW  
(Initial)

UW  
(Initial)

UW  
(Initial)

UW  
(Initial)

UW  
(Initial)

40116177

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Randy Wilson  
 Title Senior Technician  
 Company TriCore Environmental, LLC  
 Address 2368 Corporate Lane, Suite 116  
 City Naperville  
 State Illinois  
 Zip Code 60563  
 Phone (630) 520-9973  
 Signature Randy Wilson  
 Date 6-8-15

**Laboratory Representative**

Name Laurie Woelfel  
 Title Project Manager  
 Company Pace Analytical Services, Inc.  
 Address 1241 Bellevue Street, Suite 9  
 City Green Bay  
 State Wisconsin  
 Zip Code 64302  
 Phone (920) 469-2436  
 Signature Laurie Woelfel  
 Date 6/12/15

June 25, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

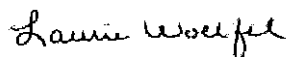
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116777

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on June 18, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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**CERTIFICATIONS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116777

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**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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**REPORT OF LABORATORY ANALYSIS**

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116777

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40116777001	BH-21 @ 10-12.5	Solid	06/17/15 09:10	06/18/15 11:05
40116777002	WO @ 14.5-16	Solid	06/17/15 10:37	06/18/15 11:05

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40116777

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40116777001	BH-21 @ 10-12.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	CMP	1	PASI-G
40116777002	WO @ 14.5-16	EPA 8270	RJN	56	PASI-G
		EPA 8260	HNW	38	PASI-G
		ASTM D2974-87	CMP	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40116777

Sample: BH-21 @ 10-12.5 Lab ID: 40116777001 Collected: 06/17/15 09:10 Received: 06/18/15 11:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<76.8	ug/kg	154	76.8	8	06/19/15 09:10	06/22/15 17:48	83-32-9	
Acenaphthylene	<68.7	ug/kg	154	68.7	8	06/19/15 09:10	06/22/15 17:48	208-96-8	
Anthracene	<79.7	ug/kg	154	79.7	8	06/19/15 09:10	06/22/15 17:48	120-12-7	
Benzo(a)anthracene	<53.3	ug/kg	154	53.3	8	06/19/15 09:10	06/22/15 17:48	56-55-3	
Benzo(a)pyrene	<54.9	ug/kg	154	54.9	8	06/19/15 09:10	06/22/15 17:48	50-32-8	
Benzo(b)fluoranthene	<76.8	ug/kg	154	76.8	8	06/19/15 09:10	06/22/15 17:48	205-99-2	
Benzo(g,h,i)perylene	<58.5	ug/kg	154	58.5	8	06/19/15 09:10	06/22/15 17:48	191-24-2	
Benzo(k)fluoranthene	<85.0	ug/kg	154	85.0	8	06/19/15 09:10	06/22/15 17:48	207-08-9	
Chrysene	<71.0	ug/kg	154	71.0	8	06/19/15 09:10	06/22/15 17:48	218-01-9	
Dibenz(a,h)anthracene	<56.4	ug/kg	154	56.4	8	06/19/15 09:10	06/22/15 17:48	53-70-3	
Fluoranthene	<76.8	ug/kg	154	76.8	8	06/19/15 09:10	06/22/15 17:48	206-44-0	
Fluorene	<76.8	ug/kg	154	76.8	8	06/19/15 09:10	06/22/15 17:48	86-73-7	
Indeno(1,2,3-cd)pyrene	<58.4	ug/kg	154	58.4	8	06/19/15 09:10	06/22/15 17:48	193-39-5	
Naphthalene	1440	ug/kg	154	76.8	8	06/19/15 09:10	06/22/15 17:48	91-20-3	
Phenanthrene	<76.8	ug/kg	154	76.8	8	06/19/15 09:10	06/22/15 17:48	85-01-8	
Pyrene	<76.8	ug/kg	154	76.8	8	06/19/15 09:10	06/22/15 17:48	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	65	%	39-130		8	06/19/15 09:10	06/22/15 17:48	321-60-8	
Terphenyl-d14 (S)	64	%	37-130		8	06/19/15 09:10	06/22/15 17:48	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	1200	ug/kg	115	53.1	5	06/19/15 08:30	06/20/15 13:41	71-43-2	
Ethylbenzene	12700	ug/kg	288	71.6	5	06/19/15 08:30	06/20/15 13:41	100-41-4	
Methyl-tert-butyl ether	<72.9	ug/kg	288	72.9	5	06/19/15 08:30	06/20/15 13:41	1634-04-4	
Toluene	362	ug/kg	288	64.6	5	06/19/15 08:30	06/20/15 13:41	108-88-3	
Xylene (Total)	15200	ug/kg	864	279	5	06/19/15 08:30	06/20/15 13:41	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	88	%	49-157		5	06/19/15 08:30	06/20/15 13:41	1868-53-7	
4-Bromofluorobenzene (S)	103	%	53-134		5	06/19/15 08:30	06/20/15 13:41	460-00-4	
Toluene-d8 (S)	100	%	61-148		5	06/19/15 08:30	06/20/15 13:41	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.2	%	0.10	0.10	1		06/24/15 14:57		

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116777

Sample: WO @ 14.5-16 Lab ID: 40116777002 Collected: 06/17/15 10:37 Received: 06/18/15 11:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Acenaphthene	<45.3	ug/kg	190	45.3	1	06/23/15 11:12	06/25/15 11:08	83-32-9	
Acenaphthylene	<42.4	ug/kg	190	42.4	1	06/23/15 11:12	06/25/15 11:08	208-96-8	
Anthracene	<50.1	ug/kg	190	50.1	1	06/23/15 11:12	06/25/15 11:08	120-12-7	
Benzo(a)anthracene	<34.4	ug/kg	190	34.4	1	06/23/15 11:12	06/25/15 11:08	56-55-3	
Benzo(a)pyrene	<37.7	ug/kg	190	37.7	1	06/23/15 11:12	06/25/15 11:08	50-32-8	
Benzo(b)fluoranthene	<44.9	ug/kg	190	44.9	1	06/23/15 11:12	06/25/15 11:08	205-99-2	
Benzo(g,h,i)perylene	<38.1	ug/kg	190	38.1	1	06/23/15 11:12	06/25/15 11:08	191-24-2	
Benzo(k)fluoranthene	<51.5	ug/kg	190	51.5	1	06/23/15 11:12	06/25/15 11:08	207-08-9	
4-Bromophenylphenyl ether	<40.0	ug/kg	190	40.0	1	06/23/15 11:12	06/25/15 11:08	101-55-3	
Butylbenzylphthalate	<35.7	ug/kg	190	35.7	1	06/23/15 11:12	06/25/15 11:08	85-68-7	
Carbazole	<40.9	ug/kg	190	40.9	1	06/23/15 11:12	06/25/15 11:08	86-74-8	
4-Chloroaniline	<23.6	ug/kg	379	23.6	1	06/23/15 11:12	06/25/15 11:08	106-47-8	
bis(2-Chloroethoxy)methane	<33.6	ug/kg	190	33.6	1	06/23/15 11:12	06/25/15 11:08	111-91-1	
bis(2-Chloroethyl) ether	<37.0	ug/kg	190	37.0	1	06/23/15 11:12	06/25/15 11:08	111-44-4	
2-Chloronaphthalene	<34.6	ug/kg	190	34.6	1	06/23/15 11:12	06/25/15 11:08	91-58-7	
4-Chlorophenylphenyl ether	<39.7	ug/kg	190	39.7	1	06/23/15 11:12	06/25/15 11:08	7005-72-3	
Chrysene	<37.4	ug/kg	190	37.4	1	06/23/15 11:12	06/25/15 11:08	218-01-9	
Dibenz(a,h)anthracene	<28.0	ug/kg	190	28.0	1	06/23/15 11:12	06/25/15 11:08	53-70-3	
Dibenzofuran	<41.8	ug/kg	190	41.8	1	06/23/15 11:12	06/25/15 11:08	132-64-9	
1,2-Dichlorobenzene	<31.5	ug/kg	190	31.5	1	06/23/15 11:12	06/25/15 11:08	95-50-1	
1,3-Dichlorobenzene	<25.2	ug/kg	190	25.2	1	06/23/15 11:12	06/25/15 11:08	541-73-1	
1,4-Dichlorobenzene	<28.6	ug/kg	190	28.6	1	06/23/15 11:12	06/25/15 11:08	106-46-7	
3,3'-Dichlorobenzidine	<23.5	ug/kg	190	23.5	1	06/23/15 11:12	06/25/15 11:08	91-94-1	
Diethylphthalate	<37.6	ug/kg	190	37.6	1	06/23/15 11:12	06/25/15 11:08	84-66-2	
Dimethylphthalate	<36.3	ug/kg	190	36.3	1	06/23/15 11:12	06/25/15 11:08	131-11-3	
Di-n-butylphthalate	<40.8	ug/kg	190	40.8	1	06/23/15 11:12	06/25/15 11:08	84-74-2	
2,4-Dinitrotoluene	<58.5	ug/kg	190	58.5	1	06/23/15 11:12	06/25/15 11:08	121-14-2	
2,6-Dinitrotoluene	<20.7	ug/kg	190	20.7	1	06/23/15 11:12	06/25/15 11:08	606-20-2	
Di-n-octylphthalate	<29.5	ug/kg	190	29.5	1	06/23/15 11:12	06/25/15 11:08	117-84-0	
bis(2-Ethylhexyl)phthalate	463	ug/kg	190	24.0	1	06/23/15 11:12	06/25/15 11:08	117-81-7	
Fluoranthene	<41.9	ug/kg	190	41.9	1	06/23/15 11:12	06/25/15 11:08	206-44-0	
Fluorene	<35.0	ug/kg	190	35.0	1	06/23/15 11:12	06/25/15 11:08	86-73-7	
Hexachloro-1,3-butadiene	<30.3	ug/kg	190	30.3	1	06/23/15 11:12	06/25/15 11:08	87-68-3	
Hexachlorobenzene	<42.9	ug/kg	190	42.9	1	06/23/15 11:12	06/25/15 11:08	118-74-1	
Hexachlorocyclopentadiene	<19.6	ug/kg	190	19.6	1	06/23/15 11:12	06/25/15 11:08	77-47-4	
Hexachloroethane	<43.0	ug/kg	190	43.0	1	06/23/15 11:12	06/25/15 11:08	67-72-1	
Indeno(1,2,3-cd)pyrene	<42.9	ug/kg	190	42.9	1	06/23/15 11:12	06/25/15 11:08	193-39-5	
Isophorone	<35.3	ug/kg	190	35.3	1	06/23/15 11:12	06/25/15 11:08	78-59-1	
2-Methylnaphthalene	<35.2	ug/kg	190	35.2	1	06/23/15 11:12	06/25/15 11:08	91-57-6	
Naphthalene	<33.6	ug/kg	190	33.6	1	06/23/15 11:12	06/25/15 11:08	91-20-3	
2-Nitroaniline	<35.7	ug/kg	190	35.7	1	06/23/15 11:12	06/25/15 11:08	88-74-4	
3-Nitroaniline	<52.4	ug/kg	190	52.4	1	06/23/15 11:12	06/25/15 11:08	99-09-2	
4-Nitroaniline	<50.0	ug/kg	190	50.0	1	06/23/15 11:12	06/25/15 11:08	100-01-6	
Nitrobenzene	<46.4	ug/kg	190	46.4	1	06/23/15 11:12	06/25/15 11:08	98-95-3	
N-Nitroso-di-n-propylamine	<40.5	ug/kg	190	40.5	1	06/23/15 11:12	06/25/15 11:08	621-64-7	

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116777

Sample: WO @ 14.5-16 Lab ID: 40116777002 Collected: 06/17/15 10:37 Received: 06/18/15 11:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
N-Nitrosodiphenylamine	<144	ug/kg	379	144	1	06/23/15 11:12	06/25/15 11:08	86-30-6	
2,2'-Oxybis(1-chloropropane)	<32.9	ug/kg	190	32.9	1	06/23/15 11:12	06/25/15 11:08	108-60-1	
Phenanthrene	<39.8	ug/kg	190	39.8	1	06/23/15 11:12	06/25/15 11:08	85-01-8	
Pyrene	<53.2	ug/kg	190	53.2	1	06/23/15 11:12	06/25/15 11:08	129-00-0	
1,2,4-Trichlorobenzene	<47.5	ug/kg	190	47.5	1	06/23/15 11:12	06/25/15 11:08	120-82-1	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	89	%	45-130		1	06/23/15 11:12	06/25/15 11:08	4165-60-0	
2-Fluorobiphenyl (S)	68	%	51-130		1	06/23/15 11:12	06/25/15 11:08	321-60-8	
Terphenyl-d14 (S)	69	%	37-134		1	06/23/15 11:12	06/25/15 11:08	1718-51-0	
Phenol-d6 (S)	80	%	36-130		1	06/23/15 11:12	06/25/15 11:08	13127-88-3	
2-Fluorophenol (S)	79	%	37-130		1	06/23/15 11:12	06/25/15 11:08	367-12-4	
2,4,6-Tribromophenol (S)	73	%	30-130		1	06/23/15 11:12	06/25/15 11:08	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
Acetone	<5.2	ug/kg	16.8	5.2	1	06/19/15 12:00	06/19/15 16:02	67-64-1	
Benzene	<1.4	ug/kg	4.2	1.4	1	06/19/15 12:00	06/19/15 16:02	71-43-2	
Bromodichloromethane	<0.92	ug/kg	4.2	0.92	1	06/19/15 12:00	06/19/15 16:02	75-27-4	
Bromoform	<0.71	ug/kg	4.2	0.71	1	06/19/15 12:00	06/19/15 16:02	75-25-2	
Bromomethane	<1.3	ug/kg	8.4	1.3	1	06/19/15 12:00	06/19/15 16:02	74-83-9	
2-Butanone (MEK)	<2.4	ug/kg	16.8	2.4	1	06/19/15 12:00	06/19/15 16:02	78-93-3	
Carbon disulfide	<1.1	ug/kg	4.2	1.1	1	06/19/15 12:00	06/19/15 16:02	75-15-0	
Carbon tetrachloride	<1.3	ug/kg	4.2	1.3	1	06/19/15 12:00	06/19/15 16:02	56-23-5	
Chlorobenzene	<1.3	ug/kg	4.2	1.3	1	06/19/15 12:00	06/19/15 16:02	108-90-7	
Chloroethane	<1.7	ug/kg	4.2	1.7	1	06/19/15 12:00	06/19/15 16:02	75-00-3	
Chloroform	<0.80	ug/kg	4.2	0.80	1	06/19/15 12:00	06/19/15 16:02	67-66-3	
Chloromethane	<0.47	ug/kg	4.2	0.47	1	06/19/15 12:00	06/19/15 16:02	74-87-3	
Dibromochloromethane	<1.4	ug/kg	4.2	1.4	1	06/19/15 12:00	06/19/15 16:02	124-48-1	
1,1-Dichloroethane	<2.0	ug/kg	4.2	2.0	1	06/19/15 12:00	06/19/15 16:02	75-34-3	
1,2-Dichloroethane	<0.83	ug/kg	4.2	0.83	1	06/19/15 12:00	06/19/15 16:02	107-06-2	
1,1-Dichloroethene	<1.9	ug/kg	4.2	1.9	1	06/19/15 12:00	06/19/15 16:02	75-35-4	
cis-1,2-Dichloroethene	<1.1	ug/kg	4.2	1.1	1	06/19/15 12:00	06/19/15 16:02	156-59-2	
trans-1,2-Dichloroethene	<1.0	ug/kg	4.2	1.0	1	06/19/15 12:00	06/19/15 16:02	156-60-5	
1,2-Dichloropropane	<1.1	ug/kg	4.2	1.1	1	06/19/15 12:00	06/19/15 16:02	78-87-5	
cis-1,3-Dichloropropene	<0.56	ug/kg	4.2	0.56	1	06/19/15 12:00	06/19/15 16:02	10061-01-5	
trans-1,3-Dichloropropene	<0.78	ug/kg	4.2	0.78	1	06/19/15 12:00	06/19/15 16:02	10061-02-6	
Ethylbenzene	<1.2	ug/kg	4.2	1.2	1	06/19/15 12:00	06/19/15 16:02	100-41-4	
2-Hexanone	<1.2	ug/kg	4.2	1.2	1	06/19/15 12:00	06/19/15 16:02	591-78-6	
Methylene Chloride	<1.6	ug/kg	4.2	1.6	1	06/19/15 12:00	06/19/15 16:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	<1.0	ug/kg	4.2	1.0	1	06/19/15 12:00	06/19/15 16:02	108-10-1	
Methyl-tert-butyl ether	<0.84	ug/kg	4.2	0.84	1	06/19/15 12:00	06/19/15 16:02	1634-04-4	
Styrene	<0.64	ug/kg	4.2	0.64	1	06/19/15 12:00	06/19/15 16:02	100-42-5	
1,1,2,2-Tetrachloroethane	<1.7	ug/kg	4.2	1.7	1	06/19/15 12:00	06/19/15 16:02	79-34-5	
Tetrachloroethene	<1.3	ug/kg	4.2	1.3	1	06/19/15 12:00	06/19/15 16:02	127-18-4	
Toluene	<1.3	ug/kg	4.2	1.3	1	06/19/15 12:00	06/19/15 16:02	108-88-3	
1,1,1-Trichloroethane	<1.3	ug/kg	4.2	1.3	1	06/19/15 12:00	06/19/15 16:02	71-55-6	

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40116777

Sample: WO @ 14.5-16 Lab ID: 40116777002 Collected: 06/17/15 10:37 Received: 06/18/15 11:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
1,1,2-Trichloroethane	<1.6	ug/kg	4.2	1.6	1	06/19/15 12:00	06/19/15 16:02	79-00-5	
Trichloroethene	<1.6	ug/kg	4.2	1.6	1	06/19/15 12:00	06/19/15 16:02	79-01-6	
Vinyl chloride	<0.46	ug/kg	4.2	0.46	1	06/19/15 12:00	06/19/15 16:02	75-01-4	
Xylene (Total)	<3.8	ug/kg	12.6	3.8	1	06/19/15 12:00	06/19/15 16:02	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	70-130		1	06/19/15 12:00	06/19/15 16:02	1868-53-7	
Toluene-d8 (S)	101	%	67-138		1	06/19/15 12:00	06/19/15 16:02	2037-26-5	
4-Bromofluorobenzene (S)	93	%	68-130		1	06/19/15 12:00	06/19/15 16:02	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	12.2	%	0.10	0.10	1		06/24/15 14:58		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116777

QC Batch: MSV/29081 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low  
Associated Lab Samples: 40116777002

METHOD BLANK: 1180923 Matrix: Solid  
Associated Lab Samples: 40116777002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/kg	<1.5	5.0	06/19/15 07:19	
1,1,2,2-Tetrachloroethane	ug/kg	<2.1	5.0	06/19/15 07:19	
1,1,2-Trichloroethane	ug/kg	<1.9	5.0	06/19/15 07:19	
1,1-Dichloroethane	ug/kg	<2.4	5.0	06/19/15 07:19	
1,1-Dichloroethene	ug/kg	<2.3	5.0	06/19/15 07:19	
1,2-Dichloroethane	ug/kg	<0.98	5.0	06/19/15 07:19	
1,2-Dichloropropane	ug/kg	<1.3	5.0	06/19/15 07:19	
2-Butanone (MEK)	ug/kg	<2.8	20.0	06/19/15 07:19	
2-Hexanone	ug/kg	<1.5	5.0	06/19/15 07:19	
4-Methyl-2-pentanone (MIBK)	ug/kg	<1.2	5.0	06/19/15 07:19	
Acetone	ug/kg	<6.2	20.0	06/19/15 07:19	
Benzene	ug/kg	<1.6	5.0	06/19/15 07:19	
Bromodichloromethane	ug/kg	<1.1	5.0	06/19/15 07:19	
Bromoform	ug/kg	<0.85	5.0	06/19/15 07:19	
Bromomethane	ug/kg	<1.5	10.0	06/19/15 07:19	
Carbon disulfide	ug/kg	<1.3	5.0	06/19/15 07:19	
Carbon tetrachloride	ug/kg	<1.6	5.0	06/19/15 07:19	
Chlorobenzene	ug/kg	<1.6	5.0	06/19/15 07:19	
Chloroethane	ug/kg	<2.0	5.0	06/19/15 07:19	
Chloroform	ug/kg	<0.95	5.0	06/19/15 07:19	
Chloromethane	ug/kg	<0.56	5.0	06/19/15 07:19	
cis-1,2-Dichloroethene	ug/kg	<1.3	5.0	06/19/15 07:19	
cis-1,3-Dichloropropene	ug/kg	<0.67	5.0	06/19/15 07:19	
Dibromochloromethane	ug/kg	<1.7	5.0	06/19/15 07:19	
Ethylbenzene	ug/kg	<1.4	5.0	06/19/15 07:19	
Methyl-tert-butyl ether	ug/kg	<1.0	5.0	06/19/15 07:19	
Methylene Chloride	ug/kg	<1.8	5.0	06/19/15 07:19	
Styrene	ug/kg	<0.76	5.0	06/19/15 07:19	
Tetrachloroethene	ug/kg	<1.6	5.0	06/19/15 07:19	
Toluene	ug/kg	<1.5	5.0	06/19/15 07:19	
trans-1,2-Dichloroethene	ug/kg	<1.2	5.0	06/19/15 07:19	
trans-1,3-Dichloropropene	ug/kg	<0.93	5.0	06/19/15 07:19	
Trichloroethene	ug/kg	<1.9	5.0	06/19/15 07:19	
Vinyl chloride	ug/kg	<0.55	5.0	06/19/15 07:19	
Xylene (Total)	ug/kg	<4.5	15.0	06/19/15 07:19	
4-Bromofluorobenzene (S)	%	99	68-130	06/19/15 07:19	
Dibromofluoromethane (S)	%	101	70-130	06/19/15 07:19	
Toluene-d8 (S)	%	104	67-138	06/19/15 07:19	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40116777

LABORATORY CONTROL SAMPLE & LCSD:		1180924		1180925							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers	
1,1,1-Trichloroethane	ug/kg	50	49.0	50.8	98	102	65-131	4	20		
1,1,2,2-Tetrachloroethane	ug/kg	50	53.7	54.4	107	109	56-137	1	20		
1,1,2-Trichloroethane	ug/kg	50	53.2	54.9	106	110	66-130	3	20		
1,1-Dichloroethane	ug/kg	50	51.6	53.3	103	107	69-130	3	20		
1,1-Dichloroethene	ug/kg	50	47.3	50.1	95	100	59-130	6	20		
1,2-Dichloroethane	ug/kg	50	52.0	53.1	104	106	60-130	2	20		
1,2-Dichloropropane	ug/kg	50	50.6	52.1	101	104	70-130	3	20		
Benzene	ug/kg	50	50.1	50.7	100	101	67-130	1	20		
Bromodichloromethane	ug/kg	50	50.1	51.4	100	103	70-130	2	20		
Bromoform	ug/kg	50	50.4	55.0	101	110	70-130	9	20		
Bromomethane	ug/kg	50	45.3	49.3	91	99	54-130	8	20		
Carbon disulfide	ug/kg	50	49.1	50.6	98	101	57-130	3	20		
Carbon tetrachloride	ug/kg	50	46.4	48.5	93	97	58-135	4	20		
Chlorobenzene	ug/kg	50	48.0	51.0	96	102	70-130	6	20		
Chloroethane	ug/kg	50	46.9	50.1	94	100	59-130	7	20		
Chloroform	ug/kg	50	51.1	51.1	102	102	70-130	0	20		
Chloromethane	ug/kg	50	41.9	43.3	84	87	45-130	3	20		
cis-1,2-Dichloroethene	ug/kg	50	47.3	48.8	95	98	70-130	3	20		
cis-1,3-Dichloropropene	ug/kg	50	47.9	50.4	96	101	70-130	5	20		
Dibromochloromethane	ug/kg	50	51.4	53.5	103	107	70-130	4	20		
Ethylbenzene	ug/kg	50	48.7	50.8	97	102	70-130	4	22		
Methyl-tert-butyl ether	ug/kg	50	52.7	53.3	105	107	70-130	1	20		
Methylene Chloride	ug/kg	50	52.6	52.8	105	106	58-130	0	22		
Styrene	ug/kg	50	49.0	50.3	98	101	70-130	3	20		
Tetrachloroethene	ug/kg	50	48.8	51.4	98	103	70-130	5	22		
Toluene	ug/kg	50	49.2	50.2	98	100	69-130	2	20		
trans-1,2-Dichloroethene	ug/kg	50	50.3	50.5	101	101	70-130	1	22		
trans-1,3-Dichloropropene	ug/kg	50	48.4	52.0	97	104	70-130	7	20		
Trichloroethene	ug/kg	50	49.7	51.7	99	103	70-130	4	20		
Vinyl chloride	ug/kg	50	43.1	45.3	86	91	50-130	5	20		
Xylene (Total)	ug/kg	150	146	151	97	101	70-130	3	21		
4-Bromofluorobenzene (S)	%				102	103	68-130				
Dibromofluoromethane (S)	%				103	101	70-130				
Toluene-d8 (S)	%				102	102	67-138				

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		1180926		1180927								
Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	Max RPD	Qual
		40116768011 Result	Spike Conc.	Spike Conc.	Result	MSD Result	% Rec	% Rec				
1,1,1-Trichloroethane	ug/kg	<0.95	32.1	32.1	32.0	35.1	100	109	60-136	9	37	
1,1,2,2-Tetrachloroethane	ug/kg	<1.3	32.1	32.1	31.1	41.0	97	128	10-200	27	50	
1,1,2-Trichloroethane	ug/kg	<1.2	32.1	32.1	31.6	37.5	98	117	59-130	17	46	
1,1-Dichloroethane	ug/kg	<1.5	32.1	32.1	32.6	34.6	101	108	64-130	6	35	
1,1-Dichloroethene	ug/kg	<1.4	32.1	32.1	32.9	34.6	102	108	59-130	5	41	
1,2-Dichloroethane	ug/kg	<0.60	32.1	32.1	33.1	36.6	103	114	47-130	10	36	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40116777

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1180926		1180927		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40116768011 Result	MS Spike Conc.	MSD Spike Conc.									
1,2-Dichloropropane	ug/kg	<0.77	32.1	32.1	32.1	34.5	100	108	56-130	7	31		
Benzene	ug/kg	<0.99	32.1	32.1	31.1	33.3	97	104	56-130	7	37		
Bromodichloromethane	ug/kg	<0.67	32.1	32.1	31.5	35.1	98	109	40-132	11	29		
Bromoform	ug/kg	<0.52	32.1	32.1	29.2	35.4	91	110	23-140	19	41		
Bromomethane	ug/kg	<0.92	32.1	32.1	30.2	30.4	94	95	52-130	1	36		
Carbon disulfide	ug/kg	<0.79	32.1	32.1	32.7	34.6	102	108	53-130	6	39		
Carbon tetrachloride	ug/kg	<0.97	32.1	32.1	31.7	33.3	99	104	51-139	5	43		
Chlorobenzene	ug/kg	<0.97	32.1	32.1	29.9	32.2	93	100	19-148	7	40		
Chloroethane	ug/kg	<1.2	32.1	32.1	31.4	33.1	98	103	59-130	5	35		
Chloroform	ug/kg	<0.58	32.1	32.1	31.5	34.1	98	106	61-130	8	36		
Chloromethane	ug/kg	<0.34	32.1	32.1	26.4	26.6	82	83	41-137	1	38		
cis-1,2-Dichloroethene	ug/kg	<0.81	32.1	32.1	31.0	32.4	97	101	44-130	4	35		
cis-1,3-Dichloropropene	ug/kg	<0.41	32.1	32.1	30.2	31.8	94	99	21-138	5	30		
Dibromochloromethane	ug/kg	<1.0	32.1	32.1	31.0	35.6	97	111	33-141	14	40		
Ethylbenzene	ug/kg	<0.89	32.1	32.1	31.5	33.0	98	103	30-153	5	48		
Methyl-tert-butyl ether	ug/kg	<0.62	32.1	32.1	30.4	34.3	95	107	66-130	12	36		
Methylene Chloride	ug/kg	<1.1	32.1	32.1	34.4	35.6	107	111	58-130	3	41		
Styrene	ug/kg	<0.47	32.1	32.1	28.9	30.1	90	94	12-139	4	33		
Tetrachloroethene	ug/kg	<0.96	32.1	32.1	32.9	34.7	102	108	20-185	5	46		
Toluene	ug/kg	<0.91	32.1	32.1	31.3	33.6	97	105	36-154	7	47		
trans-1,2-Dichloroethene	ug/kg	<0.76	32.1	32.1	31.9	33.9	99	106	48-140	6	41		
trans-1,3-Dichloropropene	ug/kg	<0.57	32.1	32.1	28.9	33.1	90	103	18-138	14	42		
Trichloroethene	ug/kg	<1.2	32.1	32.1	31.3	33.6	97	105	44-137	7	33		
Vinyl chloride	ug/kg	<0.34	32.1	32.1	29.9	30.4	93	95	50-130	2	38		
Xylene (Total)	ug/kg	<2.7	96.4	96.3	91.3	95.4	95	99	20-163	4	50		
4-Bromofluorobenzene (S)	%						100	96	68-130				
Dibromofluoromethane (S)	%						100	103	70-130				
Toluene-d8 (S)	%						103	105	67-138				

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40116777

QC Batch: MSV/29055 Analysis Method: EPA 8260  
 QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
 Associated Lab Samples: 40116777001

METHOD BLANK: 1179541 Matrix: Solid

Associated Lab Samples: 40116777001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	06/20/15 11:02	
Ethylbenzene	ug/kg	<12.4	50.0	06/20/15 11:02	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	06/20/15 11:02	
Toluene	ug/kg	<11.2	50.0	06/20/15 11:02	
Xylene (Total)	ug/kg	<48.4	150	06/20/15 11:02	
4-Bromofluorobenzene (S)	%	103	53-134	06/20/15 11:02	
Dibromofluoromethane (S)	%	103	49-157	06/20/15 11:02	
Toluene-d8 (S)	%	110	61-148	06/20/15 11:02	

LABORATORY CONTROL SAMPLE & LCSD: 1179542 1179543

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	2500	2570	2560	103	102	70-130	1	20	
Ethylbenzene	ug/kg	2500	2570	2630	103	105	70-130	2	20	
Methyl-tert-butyl ether	ug/kg	2500	2550	2500	102	100	70-130	2	20	
Toluene	ug/kg	2500	2690	2700	107	108	70-130	1	20	
Xylene (Total)	ug/kg	7500	7710	7920	103	106	70-130	3	20	
4-Bromofluorobenzene (S)	%				104	106	53-134			
Dibromofluoromethane (S)	%				103	102	49-157			
Toluene-d8 (S)	%				107	109	61-148			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40116777

QC Batch: OEXT/26962

Analysis Method: EPA 8270 by SIM

QC Batch Method: EPA 3546

Analysis Description: 8270/3546 MSSV PAH by SIM

Associated Lab Samples: 40116777001

METHOD BLANK: 1179263

Matrix: Solid

Associated Lab Samples: 40116777001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	06/19/15 15:36	
Acenaphthylene	ug/kg	<7.5	16.7	06/19/15 15:36	
Anthracene	ug/kg	<8.6	16.7	06/19/15 15:36	
Benzo(a)anthracene	ug/kg	<5.8	16.7	06/19/15 15:36	
Benzo(a)pyrene	ug/kg	<6.0	16.7	06/19/15 15:36	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	06/19/15 15:36	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	06/19/15 15:36	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	06/19/15 15:36	
Chrysene	ug/kg	<7.7	16.7	06/19/15 15:36	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	06/19/15 15:36	
Fluoranthene	ug/kg	<8.3	16.7	06/19/15 15:36	
Fluorene	ug/kg	<8.3	16.7	06/19/15 15:36	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	06/19/15 15:36	
Naphthalene	ug/kg	<8.3	16.7	06/19/15 15:36	
Phenanthrene	ug/kg	<8.3	16.7	06/19/15 15:36	
Pyrene	ug/kg	<8.3	16.7	06/19/15 15:36	
2-Fluorobiphenyl (S)	%	68	39-130	06/19/15 15:36	
Terphenyl-d14 (S)	%	72	37-130	06/19/15 15:36	

LABORATORY CONTROL SAMPLE: 1179264

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	238	72	54-130	
Acenaphthylene	ug/kg	333	245	73	55-130	
Anthracene	ug/kg	333	299	90	64-130	
Benzo(a)anthracene	ug/kg	333	252	76	50-130	
Benzo(a)pyrene	ug/kg	333	262	79	46-130	
Benzo(b)fluoranthene	ug/kg	333	275	82	43-130	
Benzo(g,h,i)perylene	ug/kg	333	262	79	48-130	
Benzo(k)fluoranthene	ug/kg	333	233	70	55-130	
Chrysene	ug/kg	333	257	77	62-130	
Dibenz(a,h)anthracene	ug/kg	333	282	85	49-130	
Fluoranthene	ug/kg	333	245	74	57-130	
Fluorene	ug/kg	333	233	70	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	281	84	50-130	
Naphthalene	ug/kg	333	216	65	48-130	
Phenanthrene	ug/kg	333	258	77	51-130	
Pyrene	ug/kg	333	254	76	55-130	
2-Fluorobiphenyl (S)	%			74	39-130	
Terphenyl-d14 (S)	%			79	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40116777

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1179265		1179266		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		40116688004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Acenaphthene	ug/kg	<244	390	390	<244	<244	59	53	46-130		26	
Acenaphthylene	ug/kg	<218	390	390	233J	<218	60	54	49-130		23	
Anthracene	ug/kg	<253	390	390	<253	<253	64	56	52-130		28	
Benzo(a)anthracene	ug/kg	<169	390	390	232J	202J	60	52	34-130		36	
Benzo(a)pyrene	ug/kg	<174	390	390	192J	<174	49	42	34-130		40	
Benzo(b)fluoranthene	ug/kg	<244	390	390	<244	<244	45	38	22-130		40	
Benzo(g,h,i)perylene	ug/kg	<186	390	390	<186	<186	44	37	24-130		35	
Benzo(k)fluoranthene	ug/kg	<270	390	390	<270	<270	55	48	41-130		37	
Chrysene	ug/kg	<225	390	390	237J	<225	61	55	49-130		33	
Dibenz(a,h)anthracene	ug/kg	<179	390	390	<179	<179	41	33	27-130		31	
Fluoranthene	ug/kg	<244	390	390	<244	<244	52	46	34-130		37	
Fluorene	ug/kg	<244	390	390	<244	<244	56	51	45-130		25	
Indeno(1,2,3-cd)pyrene	ug/kg	<185	390	390	<185	<185	44	36	30-130		34	
Naphthalene	ug/kg	6840	390	390	9730	10400	740	910	38-130	7	30 M6	
Phenanthrene	ug/kg	<244	390	390	253J	<244	58	52	38-130		34	
Pyrene	ug/kg	<244	390	390	<244	<244	62	55	35-130		35	
2-Fluorobiphenyl (S)	%						49	47	39-130			
Terphenyl-d14 (S)	%						48	46	37-130			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40116777

QC Batch: OEXT/27016

Analysis Method: EPA 8270

QC Batch Method: EPA 3546

Analysis Description: 8270 Solid MSSV Microwave

Associated Lab Samples: 40116777002

METHOD BLANK: 1181287

Matrix: Solid

Associated Lab Samples: 40116777002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	<41.7	167	06/23/15 16:49	
1,2-Dichlorobenzene	ug/kg	<27.7	167	06/23/15 16:49	
1,3-Dichlorobenzene	ug/kg	<22.1	167	06/23/15 16:49	
1,4-Dichlorobenzene	ug/kg	<25.1	167	06/23/15 16:49	
2,2'-Oxybis(1-chloropropane)	ug/kg	<28.9	167	06/23/15 16:49	
2,4-Dinitrotoluene	ug/kg	<51.4	167	06/23/15 16:49	
2,6-Dinitrotoluene	ug/kg	<18.2	167	06/23/15 16:49	
2-Chloronaphthalene	ug/kg	<30.4	167	06/23/15 16:49	
2-Methylnaphthalene	ug/kg	<30.9	167	06/23/15 16:49	
2-Nitroaniline	ug/kg	<31.4	167	06/23/15 16:49	
3,3'-Dichlorobenzidine	ug/kg	<20.6	167	06/23/15 16:49	
3-Nitroaniline	ug/kg	<46.0	167	06/23/15 16:49	
4-Bromophenylphenyl ether	ug/kg	<35.1	167	06/23/15 16:49	
4-Chloroaniline	ug/kg	<20.7	333	06/23/15 16:49	
4-Chlorophenylphenyl ether	ug/kg	<34.9	167	06/23/15 16:49	
4-Nitroaniline	ug/kg	<43.9	167	06/23/15 16:49	
Acenaphthene	ug/kg	<39.8	167	06/23/15 16:49	
Acenaphthylene	ug/kg	<37.2	167	06/23/15 16:49	
Anthracene	ug/kg	<44.0	167	06/23/15 16:49	
Benzo(a)anthracene	ug/kg	<30.2	167	06/23/15 16:49	
Benzo(a)pyrene	ug/kg	<33.1	167	06/23/15 16:49	
Benzo(b)fluoranthene	ug/kg	<39.4	167	06/23/15 16:49	
Benzo(g,h,i)perylene	ug/kg	<33.4	167	06/23/15 16:49	
Benzo(k)fluoranthene	ug/kg	<45.2	167	06/23/15 16:49	
bis(2-Chloroethoxy)methane	ug/kg	<29.5	167	06/23/15 16:49	
bis(2-Chloroethyl) ether	ug/kg	<32.5	167	06/23/15 16:49	
bis(2-Ethylhexyl)phthalate	ug/kg	<21.1	167	06/23/15 16:49	
Butylbenzylphthalate	ug/kg	<31.3	167	06/23/15 16:49	
Carbazole	ug/kg	<35.9	167	06/23/15 16:49	
Chrysene	ug/kg	<32.8	167	06/23/15 16:49	
Di-n-butylphthalate	ug/kg	<35.8	167	06/23/15 16:49	
Di-n-octylphthalate	ug/kg	<26.0	167	06/23/15 16:49	
Dibenz(a,h)anthracene	ug/kg	<24.6	167	06/23/15 16:49	
Dibenzofuran	ug/kg	<36.7	167	06/23/15 16:49	
Diethylphthalate	ug/kg	<33.1	167	06/23/15 16:49	
Dimethylphthalate	ug/kg	<31.9	167	06/23/15 16:49	
Fluoranthene	ug/kg	<36.8	167	06/23/15 16:49	
Fluorene	ug/kg	<30.8	167	06/23/15 16:49	
Hexachloro-1,3-butadiene	ug/kg	<26.6	167	06/23/15 16:49	
Hexachlorobenzene	ug/kg	<37.7	167	06/23/15 16:49	
Hexachlorocyclopentadiene	ug/kg	<17.2	167	06/23/15 16:49	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40116777

METHOD BLANK: 1181287

Matrix: Solid

Associated Lab Samples: 40116777002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloroethane	ug/kg	<37.8	167	06/23/15 16:49	
Indeno(1,2,3-cd)pyrene	ug/kg	<37.7	167	06/23/15 16:49	
Isophorone	ug/kg	<31.0	167	06/23/15 16:49	
N-Nitroso-di-n-propylamine	ug/kg	<35.6	167	06/23/15 16:49	
N-Nitrosodiphenylamine	ug/kg	<127	333	06/23/15 16:49	
Naphthalene	ug/kg	<29.5	167	06/23/15 16:49	
Nitrobenzene	ug/kg	<40.8	167	06/23/15 16:49	
Phenanthrene	ug/kg	<35.0	167	06/23/15 16:49	
Pyrene	ug/kg	<46.8	167	06/23/15 16:49	
2,4,6-Tribromophenol (S)	%	95	30-130	06/23/15 16:49	
2-Fluorobiphenyl (S)	%	78	51-130	06/23/15 16:49	
2-Fluorophenol (S)	%	79	37-130	06/23/15 16:49	
Nitrobenzene-d5 (S)	%	92	45-130	06/23/15 16:49	
Phenol-d6 (S)	%	76	36-130	06/23/15 16:49	
Terphenyl-d14 (S)	%	70	37-134	06/23/15 16:49	

LABORATORY CONTROL SAMPLE: 1181288

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	1670	1400	84	57-130	
1,2-Dichlorobenzene	ug/kg	1670	1440	86	52-130	
1,3-Dichlorobenzene	ug/kg	1670	1370	82	51-130	
1,4-Dichlorobenzene	ug/kg	1670	1370	82	51-130	
2,2'-Oxybis(1-chloropropane)	ug/kg	1670	1610	97	42-130	
2,4-Dinitrotoluene	ug/kg	1670	1710	103	61-139	
2,6-Dinitrotoluene	ug/kg	1670	1730	104	63-142	
2-Chloronaphthalene	ug/kg	1670	1570	94	70-130	
2-Methylnaphthalene	ug/kg	1670	1520	91	62-130	
2-Nitroaniline	ug/kg	1670	2110	127	51-136	
3,3'-Dichlorobenzidine	ug/kg	1670	1440	86	47-130	
3-Nitroaniline	ug/kg	1670	1660	100	53-132	
4-Bromophenylphenyl ether	ug/kg	1670	1820	109	69-130	
4-Chloroaniline	ug/kg	1670	1630	98	57-130	
4-Chlorophenylphenyl ether	ug/kg	1670	1630	98	69-130	
4-Nitroaniline	ug/kg	1670	1960	117	46-142	
Acenaphthene	ug/kg	1670	1560	94	66-130	
Acenaphthylene	ug/kg	1670	1670	100	69-130	
Anthracene	ug/kg	1670	1570	94	70-130	
Benzo(a)anthracene	ug/kg	1670	1610	96	70-130	
Benzo(a)pyrene	ug/kg	1670	1460	88	62-130	
Benzo(b)fluoranthene	ug/kg	1670	1600	96	59-130	
Benzo(g,h,i)perylene	ug/kg	1670	1360	81	48-130	
Benzo(k)fluoranthene	ug/kg	1670	1430	86	61-132	
bis(2-Chloroethoxy)methane	ug/kg	1670	1650	99	58-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40116777

LABORATORY CONTROL SAMPLE: 1181288

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
bis(2-Chloroethyl) ether	ug/kg	1670	1730	104	44-130	
bis(2-Ethylhexyl)phthalate	ug/kg	1670	1660	99	57-137	
Butylbenzylphthalate	ug/kg	1670	1610	97	59-134	
Carbazole	ug/kg	1670	1810	109	62-130	
Chrysene	ug/kg	1670	1640	98	70-130	
Di-n-butylphthalate	ug/kg	1670	1660	100	59-130	
Di-n-octylphthalate	ug/kg	1670	1610	97	56-138	
Dibenz(a,h)anthracene	ug/kg	1670	1180	71	10-130	
Dibenzofuran	ug/kg	1670	1640	98	70-130	
Diethylphthalate	ug/kg	1670	1590	95	63-130	
Dimethylphthalate	ug/kg	1670	1620	97	68-130	
Fluoranthene	ug/kg	1670	1550	93	56-130	
Fuorene	ug/kg	1670	1510	91	65-130	
Hexachloro-1,3-butadiene	ug/kg	1670	1370	82	58-130	
Hexachlorobenzene	ug/kg	1670	1740	104	66-130	
Hexachlorocyclopentadiene	ug/kg	1670	1290	77	31-130	
Hexachloroethane	ug/kg	1670	1460	88	51-130	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1660	99	37-130	
Isophorone	ug/kg	1670	1590	95	57-140	
N-Nitroso-di-n-propylamine	ug/kg	1670	1610	97	50-130	
N-Nitrosodiphenylamine	ug/kg	1670	1710	103	68-135	
Naphthalene	ug/kg	1670	1470	88	64-130	
Nitrobenzene	ug/kg	1670	1670	100	48-134	
Phenanthrene	ug/kg	1670	1630	98	70-130	
Pyrene	ug/kg	1670	1420	85	63-130	
2,4,6-Tribromophenol (S)	%			111	30-130	
2-Fluorobiphenyl (S)	%			95	51-130	
2-Fluorophenol (S)	%			91	37-130	
Nitrobenzene-d5 (S)	%			98	45-130	
Phenol-d6 (S)	%			87	36-130	
Terphenyl-d14 (S)	%			88	37-134	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1181289 1181290

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual	
		40116540006 Result	Spike Conc.	Spike Conc.	MS Result						MSD Result
1,2,4-Trichlorobenzene	ug/kg	<51.5	2060	2060	1750	1620	85	79	47-130	7	35
1,2-Dichlorobenzene	ug/kg	<34.1	2060	2060	1740	1700	85	83	41-130	2	37
1,3-Dichlorobenzene	ug/kg	<27.3	2060	2060	1790	1730	87	84	40-130	4	41
1,4-Dichlorobenzene	ug/kg	<30.9	2060	2060	1800	1770	88	86	40-130	1	38
2,2'-Oxybis(1-chloropropane)	ug/kg	<35.6	2060	2060	2000	1970	97	96	26-130	2	35
2,4-Dinitrotoluene	ug/kg	<63.4	2060	2060	2030	1940	99	94	25-139	5	33
2,6-Dinitrotoluene	ug/kg	<22.4	2060	2060	2050	1870	100	91	25-142	9	28
2-Chloronaphthalene	ug/kg	<37.5	2060	2060	1890	1730	92	84	46-130	9	20
2-Methylnaphthalene	ug/kg	<38.1	2060	2060	1850	1680	90	82	49-130	10	33

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QUALITY CONTROL DATA

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40116777

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1181289		1181290		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40116540006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
2-Nitroaniline	ug/kg	<38.7	2060	2060	2490	2220	121	108	20-136	12	23		
3,3'-Dichlorobenzidine	ug/kg	<25.4	2060	2060	1720	1670	83	81	10-141	3	50		
3-Nitroaniline	ug/kg	<56.8	2060	2060	2100	1940	102	95	10-134	8	27		
4-Bromophenylphenyl ether	ug/kg	<43.3	2060	2060	2030	1990	99	97	44-130	2	28		
4-Chloroaniline	ug/kg	<25.6	2060	2060	1940	1840	95	89	10-136	6	36		
4-Chlorophenylphenyl ether	ug/kg	<43.0	2060	2060	1910	1790	93	87	45-130	6	30		
4-Nitroaniline	ug/kg	<54.1	2060	2060	2310	2160	112	105	10-142	7	33		
Acenaphthene	ug/kg	<49.1	2060	2060	1820	1670	89	81	43-130	9	23		
Acenaphthylene	ug/kg	<45.9	2060	2060	1920	1820	94	88	44-130	6	24		
Anthracene	ug/kg	<54.3	2060	2060	1750	1680	85	82	42-130	4	32		
Benzo(a)anthracene	ug/kg	<37.2	2060	2060	1820	1750	88	85	33-130	4	35		
Benzo(a)pyrene	ug/kg	<40.9	2060	2060	1620	1590	79	78	25-130	2	38		
Benzo(b)fluoranthene	ug/kg	<48.6	2060	2060	1630	1480	79	72	36-130	9	38		
Benzo(g,h,i)perylene	ug/kg	<41.2	2060	2060	1490	1380	72	67	18-130	8	40		
Benzo(k)fluoranthene	ug/kg	<55.7	2060	2060	1760	1670	86	81	22-133	5	50		
bis(2-Chloroethoxy)methane	ug/kg	<36.4	2060	2060	2030	1840	99	89	32-131	10	24		
bis(2-Chloroethyl) ether	ug/kg	<40.1	2060	2060	2100	2090	102	102	25-130	0	35		
bis(2-Ethylhexyl)phthalate	ug/kg	<26.0	2060	2060	1870	1830	91	89	13-166	2	37		
Butylbenzylphthalate	ug/kg	<38.6	2060	2060	1860	1790	90	87	19-153	4	43		
Carbazole	ug/kg	<44.3	2060	2060	1970	1910	96	93	32-130	3	34		
Chrysene	ug/kg	<40.5	2060	2060	1790	1760	87	85	20-138	2	50		
Di-n-butylphthalate	ug/kg	<44.2	2060	2060	1960	1850	95	90	39-130	6	33		
Di-n-octylphthalate	ug/kg	<32.0	2060	2060	1860	1830	91	89	21-154	2	35		
Dibenz(a,h)anthracene	ug/kg	<30.3	2060	2060	1290	1080	63	53	10-130	17	41		
Dibenzofuran	ug/kg	<45.2	2060	2060	1910	1750	93	85	44-130	9	24		
Diethylphthalate	ug/kg	<40.8	2060	2060	1990	1850	97	90	42-130	7	29		
Dimethylphthalate	ug/kg	<39.4	2060	2060	1880	1760	91	86	45-130	7	25		
Fluoranthene	ug/kg	<45.4	2060	2060	1810	1660	88	81	36-130	9	46		
Fluorene	ug/kg	<37.9	2060	2060	1750	1620	85	79	41-130	8	29		
Hexachloro-1,3-butadiene	ug/kg	<32.8	2060	2060	1650	1560	80	76	41-130	6	34		
Hexachlorobenzene	ug/kg	<46.4	2060	2060	1940	1860	94	91	42-130	4	28		
Hexachlorocyclopentadiene	ug/kg	<21.3	2060	2060	1540	1420	75	69	10-130	8	35		
Hexachloroethane	ug/kg	<46.6	2060	2060	1770	1830	86	89	27-130	4	40		
Indeno(1,2,3-cd)pyrene	ug/kg	<46.5	2060	2060	1870	1700	91	83	10-130	9	44		
Isophorone	ug/kg	<38.3	2060	2060	1960	1840	96	89	29-140	7	22		
N-Nitroso-di-n-propylamine	ug/kg	<43.9	2060	2060	1920	1820	93	89	28-130	5	21		
N-Nitrosodiphenylamine	ug/kg	<156	2060	2060	1920	1770	93	86	39-142	8	32		
Naphthalene	ug/kg	<36.4	2060	2060	1790	1700	87	83	45-130	5	35		
Nitrobenzene	ug/kg	<50.3	2060	2060	2010	1870	98	91	23-134	8	26		
Phenanthrene	ug/kg	<43.1	2060	2060	1780	1670	87	81	39-130	7	41		
Pyrene	ug/kg	<57.7	2060	2060	1560	1490	76	73	15-146	4	50		
2,4,6-Tribromophenol (S)	%						101	96	30-130				
2-Fluorobiphenyl (S)	%						86	78	51-130				
2-Fluorophenol (S)	%						91	88	37-130				
Nitrobenzene-d5 (S)	%						100	94	45-130				
Phenol-d6 (S)	%						79	77	36-130				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116777

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1181289		1181290		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40116540006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Terphenyl-d14 (S)	%					74	72	37-134			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116777

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: MSV/29056

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40116777

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40116777001	BH-21 @ 10-12.5	EPA 3546	OEXT/26962	EPA 8270 by SIM	MSSV/8016
40116777002	WO @ 14.5-16	EPA 3546	OEXT/27016	EPA 8270	MSSV/8027
40116777002	WO @ 14.5-16	EPA 8260	MSV/29081	EPA 8260	MSV/29086
40116777001	BH-21 @ 10-12.5	EPA 5035/5030B	MSV/29055	EPA 8260	MSV/29056
40116777001	BH-21 @ 10-12.5	ASTM D2974-87	PMST/11369		
40116777002	WO @ 14.5-16	ASTM D2974-87	PMST/11369		

**REPORT OF LABORATORY ANALYSIS**

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Project #:

WO#: 40116777



Client Name: TriCore Environmental, LLC

Courier:  Fed Ex  UPS  Client  Pace  Other: CS Logistics

Tracking #:

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SE-45 Type of Ice:  Wet  Blue Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr:      /Corr:      Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Temp should be above freezing to 6°C for all sample except Biota. Frozen Biota Samples should be received ≤ 0°C.

Person examining contents: Date: 6/18/15 Initials:     

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>SL</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #/ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_

Project Manager Review:      Date: 6/18/15



Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

### Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

#### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010  
Site Name: Lemont Kar Gas  
Site Address (Not a P.O. Box): 1196 State Street  
City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

#### B. Sample Collector

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. NER  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. NER  
(Initial)
- 3. Sample integrity was maintained by proper preservation. NER  
(Initial)
- 4. All samples were properly labeled. NER  
(Initial)

#### C. Laboratory Representative

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms UW  
(Initial)
- 2. Sample integrity was maintained by proper preservation. UW  
(Initial)
- 3. All samples were properly labeled. UW  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. UW  
(Initial)
- 5. Sample holding times were not exceeded. UW  
(Initial)

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

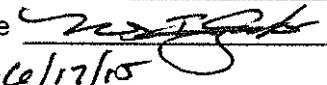
UW  
(Initial)

UW  
(Initial)

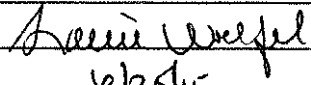
**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako  
Title Geologist III  
Company TriCore Environmental, LLC  
Address 2368 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone (630) 520-9973  
Signature   
Date 02/17/15

**Laboratory Representative**

Name Laurie Woelfel  
Title Project Manager  
Company Pace Analytical Services, Inc.  
Address 1241 Bellevue Street, Suite 9  
City Green Bay  
State Wisconsin  
Zip Code 64302  
Phone (920) 469-2436  
Signature   
Date 02/25/15



September 18, 2015

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

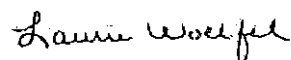
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40120844

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on September 10, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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**CERTIFICATIONS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40120844

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**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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**REPORT OF LABORATORY ANALYSIS**

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40120844

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40120844001	BH-22 @ 7.5-10	Solid	09/08/15 09:05	09/10/15 08:55
40120844002	BH-22 @ 25.5-27	Solid	09/08/15 10:21	09/10/15 08:55
40120844003	BH-23 @ 25-26.5	Solid	09/08/15 11:46	09/10/15 08:55
40120844004	BH-23 @ 28.5-30	Solid	09/08/15 11:51	09/10/15 08:55
40120844005	BH-24 @ 4-6	Solid	09/08/15 14:04	09/10/15 08:55
40120844006	BH-24 @ 13.5-15	Solid	09/08/15 14:19	09/10/15 08:55

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40120844

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40120844001	BH-22 @ 7.5-10	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAM	1	PASI-G
40120844002	BH-22 @ 25.5-27	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAM	1	PASI-G
40120844003	BH-23 @ 25-26.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAM	1	PASI-G
40120844004	BH-23 @ 28.5-30	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAM	1	PASI-G
40120844005	BH-24 @ 4-6	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAM	1	PASI-G
40120844006	BH-24 @ 13.5-15	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAM	1	PASI-G

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40120844

Sample: BH-22 @ 7.5-10 Lab ID: 40120844001 Collected: 09/08/15 09:05 Received: 09/10/15 08:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.8	ug/kg	19.6	9.8	1	09/14/15 09:54	09/14/15 18:19	83-32-9	
Acenaphthylene	<8.8	ug/kg	19.6	8.8	1	09/14/15 09:54	09/14/15 18:19	208-96-8	
Anthracene	<10.1	ug/kg	19.6	10.1	1	09/14/15 09:54	09/14/15 18:19	120-12-7	
Benzo(a)anthracene	<6.8	ug/kg	19.6	6.8	1	09/14/15 09:54	09/14/15 18:19	56-55-3	
Benzo(a)pyrene	<7.0	ug/kg	19.6	7.0	1	09/14/15 09:54	09/14/15 18:19	50-32-8	
Benzo(b)fluoranthene	<9.8	ug/kg	19.6	9.8	1	09/14/15 09:54	09/14/15 18:19	205-99-2	
Benzo(g,h,i)perylene	<7.5	ug/kg	19.6	7.5	1	09/14/15 09:54	09/14/15 18:19	191-24-2	
Benzo(k)fluoranthene	<10.8	ug/kg	19.6	10.8	1	09/14/15 09:54	09/14/15 18:19	207-08-9	
Chrysene	<9.1	ug/kg	19.6	9.1	1	09/14/15 09:54	09/14/15 18:19	218-01-9	
Dibenz(a,h)anthracene	<7.2	ug/kg	19.6	7.2	1	09/14/15 09:54	09/14/15 18:19	53-70-3	
Fluoranthene	<9.8	ug/kg	19.6	9.8	1	09/14/15 09:54	09/14/15 18:19	206-44-0	
Fluorene	<9.8	ug/kg	19.6	9.8	1	09/14/15 09:54	09/14/15 18:19	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.4	ug/kg	19.6	7.4	1	09/14/15 09:54	09/14/15 18:19	193-39-5	
Naphthalene	67.4	ug/kg	19.6	9.8	1	09/14/15 09:54	09/14/15 18:19	91-20-3	
Phenanthrene	<9.8	ug/kg	19.6	9.8	1	09/14/15 09:54	09/14/15 18:19	85-01-8	
Pyrene	<9.8	ug/kg	19.6	9.8	1	09/14/15 09:54	09/14/15 18:19	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	62	%	39-130		1	09/14/15 09:54	09/14/15 18:19	321-60-8	
Terphenyl-d14 (S)	69	%	37-130		1	09/14/15 09:54	09/14/15 18:19	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.8	ug/kg	23.5	10.8	1	09/11/15 07:15	09/11/15 10:49	71-43-2	
Ethylbenzene	<14.6	ug/kg	58.7	14.6	1	09/11/15 07:15	09/11/15 10:49	100-41-4	
Methyl-tert-butyl ether	<14.9	ug/kg	58.7	14.9	1	09/11/15 07:15	09/11/15 10:49	1634-04-4	
Toluene	<13.2	ug/kg	58.7	13.2	1	09/11/15 07:15	09/11/15 10:49	108-88-3	
Xylene (Total)	<56.9	ug/kg	176	56.9	1	09/11/15 07:15	09/11/15 10:49	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	97	%	49-157		1	09/11/15 07:15	09/11/15 10:49	1868-53-7	
4-Bromofluorobenzene (S)	91	%	53-134		1	09/11/15 07:15	09/11/15 10:49	460-00-4	
Toluene-d8 (S)	102	%	61-148		1	09/11/15 07:15	09/11/15 10:49	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.9	%	0.10	0.10	1		09/10/15 15:58		

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40120844

Sample: BH-22 @ 25.5-27 Lab ID: 40120844002 Collected: 09/08/15 10:21 Received: 09/10/15 08:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.5	ug/kg	19.0	9.5	1	09/14/15 09:54	09/14/15 18:36	83-32-9	
Acenaphthylene	<8.5	ug/kg	19.0	8.5	1	09/14/15 09:54	09/14/15 18:36	208-96-8	
Anthracene	<9.8	ug/kg	19.0	9.8	1	09/14/15 09:54	09/14/15 18:36	120-12-7	
Benzo(a)anthracene	<6.6	ug/kg	19.0	6.6	1	09/14/15 09:54	09/14/15 18:36	56-55-3	
Benzo(a)pyrene	<6.8	ug/kg	19.0	6.8	1	09/14/15 09:54	09/14/15 18:36	50-32-8	
Benzo(b)fluoranthene	<9.5	ug/kg	19.0	9.5	1	09/14/15 09:54	09/14/15 18:36	205-99-2	
Benzo(g,h,i)perylene	<7.2	ug/kg	19.0	7.2	1	09/14/15 09:54	09/14/15 18:36	191-24-2	
Benzo(k)fluoranthene	<10.5	ug/kg	19.0	10.5	1	09/14/15 09:54	09/14/15 18:36	207-08-9	
Chrysene	<8.8	ug/kg	19.0	8.8	1	09/14/15 09:54	09/14/15 18:36	218-01-9	
Dibenz(a,h)anthracene	<7.0	ug/kg	19.0	7.0	1	09/14/15 09:54	09/14/15 18:36	53-70-3	
Fluoranthene	<9.5	ug/kg	19.0	9.5	1	09/14/15 09:54	09/14/15 18:36	206-44-0	
Fluorene	<9.5	ug/kg	19.0	9.5	1	09/14/15 09:54	09/14/15 18:36	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.2	ug/kg	19.0	7.2	1	09/14/15 09:54	09/14/15 18:36	193-39-5	
Naphthalene	<9.5	ug/kg	19.0	9.5	1	09/14/15 09:54	09/14/15 18:36	91-20-3	
Phenanthrene	<9.5	ug/kg	19.0	9.5	1	09/14/15 09:54	09/14/15 18:36	85-01-8	
Pyrene	<9.5	ug/kg	19.0	9.5	1	09/14/15 09:54	09/14/15 18:36	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	66	%	39-130		1	09/14/15 09:54	09/14/15 18:36	321-60-8	
Terphenyl-d14 (S)	69	%	37-130		1	09/14/15 09:54	09/14/15 18:36	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	7650	ug/kg	45.6	21.0	2	09/11/15 07:15	09/11/15 17:22	71-43-2	
Ethylbenzene	31.3J	ug/kg	114	28.3	2	09/11/15 07:15	09/11/15 17:22	100-41-4	
Methyl-tert-butyl ether	<28.8	ug/kg	114	28.8	2	09/11/15 07:15	09/11/15 17:22	1634-04-4	
Toluene	1260	ug/kg	114	25.6	2	09/11/15 07:15	09/11/15 17:22	108-88-3	
Xylene (Total)	<110	ug/kg	342	110	2	09/11/15 07:15	09/11/15 17:22	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	90	%	49-157		2	09/11/15 07:15	09/11/15 17:22	1868-53-7	
4-Bromofluorobenzene (S)	83	%	53-134		2	09/11/15 07:15	09/11/15 17:22	460-00-4	
Toluene-d8 (S)	98	%	61-148		2	09/11/15 07:15	09/11/15 17:22	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	12.2	%	0.10	0.10	1		09/10/15 15:58		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40120844

Sample: BH-23 @ 25-26.5 Lab ID: 40120844003 Collected: 09/08/15 11:46 Received: 09/10/15 08:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<9.9	ug/kg	19.8	9.9	1	09/14/15 09:54	09/14/15 18:54	83-32-9	
Acenaphthylene	<8.9	ug/kg	19.8	8.9	1	09/14/15 09:54	09/14/15 18:54	208-96-8	
Anthracene	<10.3	ug/kg	19.8	10.3	1	09/14/15 09:54	09/14/15 18:54	120-12-7	
Benzo(a)anthracene	<6.9	ug/kg	19.8	6.9	1	09/14/15 09:54	09/14/15 18:54	56-55-3	
Benzo(a)pyrene	<7.1	ug/kg	19.8	7.1	1	09/14/15 09:54	09/14/15 18:54	50-32-8	
Benzo(b)fluoranthene	<9.9	ug/kg	19.8	9.9	1	09/14/15 09:54	09/14/15 18:54	205-99-2	
Benzo(g,h,i)perylene	<7.5	ug/kg	19.8	7.5	1	09/14/15 09:54	09/14/15 18:54	191-24-2	
Benzo(k)fluoranthene	<10.9	ug/kg	19.8	10.9	1	09/14/15 09:54	09/14/15 18:54	207-08-9	
Chrysene	<9.1	ug/kg	19.8	9.1	1	09/14/15 09:54	09/14/15 18:54	218-01-9	
Dibenz(a,h)anthracene	<7.3	ug/kg	19.8	7.3	1	09/14/15 09:54	09/14/15 18:54	53-70-3	
Fluoranthene	<9.9	ug/kg	19.8	9.9	1	09/14/15 09:54	09/14/15 18:54	206-44-0	
Fluorene	<9.9	ug/kg	19.8	9.9	1	09/14/15 09:54	09/14/15 18:54	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.5	ug/kg	19.8	7.5	1	09/14/15 09:54	09/14/15 18:54	193-39-5	
Naphthalene	15.6J	ug/kg	19.8	9.9	1	09/14/15 09:54	09/14/15 18:54	91-20-3	
Phenanthrene	<9.9	ug/kg	19.8	9.9	1	09/14/15 09:54	09/14/15 18:54	85-01-8	
Pyrene	<9.9	ug/kg	19.8	9.9	1	09/14/15 09:54	09/14/15 18:54	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	52	%	39-130		1	09/14/15 09:54	09/14/15 18:54	321-60-8	
Terphenyl-d14 (S)	60	%	37-130		1	09/14/15 09:54	09/14/15 18:54	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	42.8J	ug/kg	59.4	27.4	2.5	09/11/15 07:15	09/11/15 17:45	71-43-2	
Ethylbenzene	2900	ug/kg	148	36.9	2.5	09/11/15 07:15	09/11/15 17:45	100-41-4	
Methyl-tert-butyl ether	<37.6	ug/kg	148	37.6	2.5	09/11/15 07:15	09/11/15 17:45	1634-04-4	
Toluene	547	ug/kg	148	33.3	2.5	09/11/15 07:15	09/11/15 17:45	108-88-3	
Xylene (Total)	17000	ug/kg	445	144	2.5	09/11/15 07:15	09/11/15 17:45	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	94	%	49-157		2.5	09/11/15 07:15	09/11/15 17:45	1868-53-7	
4-Bromofluorobenzene (S)	90	%	53-134		2.5	09/11/15 07:15	09/11/15 17:45	460-00-4	
Toluene-d8 (S)	106	%	61-148		2.5	09/11/15 07:15	09/11/15 17:45	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	15.8	%	0.10	0.10	1		09/10/15 15:58		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40120844

Sample: BH-23 @ 28.5-30 Lab ID: 40120844004 Collected: 09/08/15 11:51 Received: 09/10/15 08:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<9.7	ug/kg	19.3	9.7	1	09/14/15 09:54	09/14/15 19:11	83-32-9	
Acenaphthylene	<8.6	ug/kg	19.3	8.6	1	09/14/15 09:54	09/14/15 19:11	208-96-8	
Anthracene	<10.0	ug/kg	19.3	10.0	1	09/14/15 09:54	09/14/15 19:11	120-12-7	
Benzo(a)anthracene	<6.7	ug/kg	19.3	6.7	1	09/14/15 09:54	09/14/15 19:11	56-55-3	
Benzo(a)pyrene	<6.9	ug/kg	19.3	6.9	1	09/14/15 09:54	09/14/15 19:11	50-32-8	
Benzo(b)fluoranthene	<9.7	ug/kg	19.3	9.7	1	09/14/15 09:54	09/14/15 19:11	205-99-2	
Benzo(g,h,i)perylene	<7.4	ug/kg	19.3	7.4	1	09/14/15 09:54	09/14/15 19:11	191-24-2	
Benzo(k)fluoranthene	<10.7	ug/kg	19.3	10.7	1	09/14/15 09:54	09/14/15 19:11	207-08-9	
Chrysene	<8.9	ug/kg	19.3	8.9	1	09/14/15 09:54	09/14/15 19:11	218-01-9	
Dibenz(a,h)anthracene	<7.1	ug/kg	19.3	7.1	1	09/14/15 09:54	09/14/15 19:11	53-70-3	
Fluoranthene	<9.7	ug/kg	19.3	9.7	1	09/14/15 09:54	09/14/15 19:11	206-44-0	
Fluorene	<9.7	ug/kg	19.3	9.7	1	09/14/15 09:54	09/14/15 19:11	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.3	ug/kg	19.3	7.3	1	09/14/15 09:54	09/14/15 19:11	193-39-5	
Naphthalene	<9.7	ug/kg	19.3	9.7	1	09/14/15 09:54	09/14/15 19:11	91-20-3	
Phenanthrene	<9.7	ug/kg	19.3	9.7	1	09/14/15 09:54	09/14/15 19:11	85-01-8	
Pyrene	<9.7	ug/kg	19.3	9.7	1	09/14/15 09:54	09/14/15 19:11	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	65	%	39-130		1	09/14/15 09:54	09/14/15 19:11	321-60-8	
Terphenyl-d14 (S)	69	%	37-130		1	09/14/15 09:54	09/14/15 19:11	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	48.3	ug/kg	23.2	10.7	1	09/11/15 07:15	09/11/15 11:12	71-43-2	
Ethylbenzene	<14.4	ug/kg	58.0	14.4	1	09/11/15 07:15	09/11/15 11:12	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.0	14.7	1	09/11/15 07:15	09/11/15 11:12	1634-04-4	
Toluene	<13.0	ug/kg	58.0	13.0	1	09/11/15 07:15	09/11/15 11:12	108-88-3	
Xylene (Total)	<56.2	ug/kg	174	56.2	1	09/11/15 07:15	09/11/15 11:12	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	49-157		1	09/11/15 07:15	09/11/15 11:12	1868-53-7	
4-Bromofluorobenzene (S)	88	%	53-134		1	09/11/15 07:15	09/11/15 11:12	460-00-4	
Toluene-d8 (S)	102	%	61-148		1	09/11/15 07:15	09/11/15 11:12	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.8	%	0.10	0.10	1		09/10/15 15:58		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40120844

Sample: BH-24 @ 4-6 Lab ID: 40120844005 Collected: 09/08/15 14:04 Received: 09/10/15 08:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<10.1	ug/kg	20.2	10.1	1	09/15/15 09:17	09/15/15 14:19	83-32-9	
Acenaphthylene	<9.0	ug/kg	20.2	9.0	1	09/15/15 09:17	09/15/15 14:19	208-96-8	
Anthracene	<10.4	ug/kg	20.2	10.4	1	09/15/15 09:17	09/15/15 14:19	120-12-7	
Benzo(a)anthracene	<7.0	ug/kg	20.2	7.0	1	09/15/15 09:17	09/15/15 14:19	56-55-3	
Benzo(a)pyrene	<7.2	ug/kg	20.2	7.2	1	09/15/15 09:17	09/15/15 14:19	50-32-8	
Benzo(b)fluoranthene	<10.1	ug/kg	20.2	10.1	1	09/15/15 09:17	09/15/15 14:19	205-99-2	
Benzo(g,h,i)perylene	<7.7	ug/kg	20.2	7.7	1	09/15/15 09:17	09/15/15 14:19	191-24-2	
Benzo(k)fluoranthene	<11.2	ug/kg	20.2	11.2	1	09/15/15 09:17	09/15/15 14:19	207-08-9	
Chrysene	<9.3	ug/kg	20.2	9.3	1	09/15/15 09:17	09/15/15 14:19	218-01-9	
Dibenz(a,h)anthracene	<7.4	ug/kg	20.2	7.4	1	09/15/15 09:17	09/15/15 14:19	53-70-3	
Fluoranthene	<10.1	ug/kg	20.2	10.1	1	09/15/15 09:17	09/15/15 14:19	206-44-0	
Fluorene	<10.1	ug/kg	20.2	10.1	1	09/15/15 09:17	09/15/15 14:19	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.7	ug/kg	20.2	7.7	1	09/15/15 09:17	09/15/15 14:19	193-39-5	
Naphthalene	153	ug/kg	20.2	10.1	1	09/15/15 09:17	09/15/15 14:19	91-20-3	
Phenanthrene	<10.1	ug/kg	20.2	10.1	1	09/15/15 09:17	09/15/15 14:19	85-01-8	
Pyrene	<10.1	ug/kg	20.2	10.1	1	09/15/15 09:17	09/15/15 14:19	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	51	%	39-130		1	09/15/15 09:17	09/15/15 14:19	321-60-8	
Terphenyl-d14 (S)	51	%	37-130		1	09/15/15 09:17	09/15/15 14:19	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<27.9	ug/kg	60.5	27.9	2.5	09/11/15 07:15	09/11/15 18:08	71-43-2	
Ethylbenzene	59.3J	ug/kg	151	37.6	2.5	09/11/15 07:15	09/11/15 18:08	100-41-4	
Methyl-tert-butyl ether	<38.3	ug/kg	151	38.3	2.5	09/11/15 07:15	09/11/15 18:08	1634-04-4	
Toluene	<33.9	ug/kg	151	33.9	2.5	09/11/15 07:15	09/11/15 18:08	108-88-3	
Xylene (Total)	<146	ug/kg	453	146	2.5	09/11/15 07:15	09/11/15 18:08	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	93	%	49-157		2.5	09/11/15 07:15	09/11/15 18:08	1868-53-7	D3
4-Bromofluorobenzene (S)	105	%	53-134		2.5	09/11/15 07:15	09/11/15 18:08	460-00-4	
Toluene-d8 (S)	107	%	61-148		2.5	09/11/15 07:15	09/11/15 18:08	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	17.3	%	0.10	0.10	1		09/10/15 15:58		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40120844

Sample: BH-24 @ 13.5-15 Lab ID: 40120844006 Collected: 09/08/15 14:19 Received: 09/10/15 08:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<10.1	ug/kg	20.2	10.1	1	09/17/15 09:58	09/17/15 16:25	83-32-9	
Acenaphthylene	<9.0	ug/kg	20.2	9.0	1	09/17/15 09:58	09/17/15 16:25	208-96-8	
Anthracene	<10.5	ug/kg	20.2	10.5	1	09/17/15 09:58	09/17/15 16:25	120-12-7	
Benzo(a)anthracene	<7.0	ug/kg	20.2	7.0	1	09/17/15 09:58	09/17/15 16:25	56-55-3	
Benzo(a)pyrene	<7.2	ug/kg	20.2	7.2	1	09/17/15 09:58	09/17/15 16:25	50-32-8	
Benzo(b)fluoranthene	<10.1	ug/kg	20.2	10.1	1	09/17/15 09:58	09/17/15 16:25	205-99-2	
Benzo(g,h,i)perylene	<7.7	ug/kg	20.2	7.7	1	09/17/15 09:58	09/17/15 16:25	191-24-2	
Benzo(k)fluoranthene	<11.2	ug/kg	20.2	11.2	1	09/17/15 09:58	09/17/15 16:25	207-08-9	
Chrysene	<9.3	ug/kg	20.2	9.3	1	09/17/15 09:58	09/17/15 16:25	218-01-9	
Dibenz(a,h)anthracene	<7.4	ug/kg	20.2	7.4	1	09/17/15 09:58	09/17/15 16:25	53-70-3	
Fluoranthene	<10.1	ug/kg	20.2	10.1	1	09/17/15 09:58	09/17/15 16:25	206-44-0	
Fluorene	<10.1	ug/kg	20.2	10.1	1	09/17/15 09:58	09/17/15 16:25	86-73-7	
Indeno(1,2,3-cd)pyrene	<7.7	ug/kg	20.2	7.7	1	09/17/15 09:58	09/17/15 16:25	193-39-5	
Naphthalene	<10.1	ug/kg	20.2	10.1	1	09/17/15 09:58	09/17/15 16:25	91-20-3	
Phenanthrene	<10.1	ug/kg	20.2	10.1	1	09/17/15 09:58	09/17/15 16:25	85-01-8	
Pyrene	<10.1	ug/kg	20.2	10.1	1	09/17/15 09:58	09/17/15 16:25	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	37	%	39-130		1	09/17/15 09:58	09/17/15 16:25	321-60-8	1q,S0
Terphenyl-d14 (S)	39	%	37-130		1	09/17/15 09:58	09/17/15 16:25	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<11.2	ug/kg	24.3	11.2	1	09/11/15 07:15	09/11/15 16:59	71-43-2	
Ethylbenzene	<15.1	ug/kg	60.6	15.1	1	09/11/15 07:15	09/11/15 16:59	100-41-4	
Methyl-tert-butyl ether	<15.3	ug/kg	60.6	15.3	1	09/11/15 07:15	09/11/15 16:59	1634-04-4	
Toluene	<13.6	ug/kg	60.6	13.6	1	09/11/15 07:15	09/11/15 16:59	108-88-3	
Xylene (Total)	<58.7	ug/kg	182	58.7	1	09/11/15 07:15	09/11/15 16:59	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	91	%	49-157		1	09/11/15 07:15	09/11/15 16:59	1868-53-7	
4-Bromofluorobenzene (S)	82	%	53-134		1	09/11/15 07:15	09/11/15 16:59	460-00-4	
Toluene-d8 (S)	98	%	61-148		1	09/11/15 07:15	09/11/15 16:59	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	17.6	%	0.10	0.10	1		09/10/15 15:58		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40120844

QC Batch: MSV/30115 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40120844001, 40120844002, 40120844003, 40120844004, 40120844005, 40120844006

METHOD BLANK: 1219013 Matrix: Solid  
Associated Lab Samples: 40120844001, 40120844002, 40120844003, 40120844004, 40120844005, 40120844006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	09/11/15 08:53	
Ethylbenzene	ug/kg	<12.4	50.0	09/11/15 08:53	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	09/11/15 08:53	
Toluene	ug/kg	<11.2	50.0	09/11/15 08:53	
Xylene (Total)	ug/kg	<48.4	150	09/11/15 08:53	
4-Bromofluorobenzene (S)	%	93	53-134	09/11/15 08:53	
Dibromofluoromethane (S)	%	98	49-157	09/11/15 08:53	
Toluene-d8 (S)	%	106	61-148	09/11/15 08:53	

LABORATORY CONTROL SAMPLE: 1219014

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2550	102	70-130	
Ethylbenzene	ug/kg	2500	2500	100	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2500	100	70-130	
Toluene	ug/kg	2500	2680	107	70-130	
Xylene (Total)	ug/kg	7500	7880	105	70-130	
4-Bromofluorobenzene (S)	%			90	53-134	
Dibromofluoromethane (S)	%			101	49-157	
Toluene-d8 (S)	%			103	61-148	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40120844

QC Batch: OEXT/27964 Analysis Method: EPA 8270 by SIM  
 QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
 Associated Lab Samples: 40120844001, 40120844002, 40120844003, 40120844004

METHOD BLANK: 1220219 Matrix: Solid  
 Associated Lab Samples: 40120844001, 40120844002, 40120844003, 40120844004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	09/14/15 14:15	
Acenaphthylene	ug/kg	<7.5	16.7	09/14/15 14:15	
Anthracene	ug/kg	<8.6	16.7	09/14/15 14:15	
Benzo(a)anthracene	ug/kg	<5.8	16.7	09/14/15 14:15	
Benzo(a)pyrene	ug/kg	<6.0	16.7	09/14/15 14:15	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	09/14/15 14:15	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	09/14/15 14:15	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	09/14/15 14:15	
Chrysene	ug/kg	<7.7	16.7	09/14/15 14:15	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	09/14/15 14:15	
Fluoranthene	ug/kg	<8.3	16.7	09/14/15 14:15	
Fluorene	ug/kg	<8.3	16.7	09/14/15 14:15	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	09/14/15 14:15	
Naphthalene	ug/kg	<8.3	16.7	09/14/15 14:15	
Phenanthrene	ug/kg	<8.3	16.7	09/14/15 14:15	
Pyrene	ug/kg	<8.3	16.7	09/14/15 14:15	
2-Fluorobiphenyl (S)	%	66	39-130	09/14/15 14:15	
Terphenyl-d14 (S)	%	76	37-130	09/14/15 14:15	

LABORATORY CONTROL SAMPLE: 1220220

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	238	72	54-130	
Acenaphthylene	ug/kg	333	245	73	55-130	
Anthracene	ug/kg	333	304	91	64-130	
Benzo(a)anthracene	ug/kg	333	246	74	50-130	
Benzo(a)pyrene	ug/kg	333	255	77	46-130	
Benzo(b)fluoranthene	ug/kg	333	273	82	43-130	
Benzo(g,h,i)perylene	ug/kg	333	189	57	48-130	
Benzo(k)fluoranthene	ug/kg	333	261	78	55-130	
Chrysene	ug/kg	333	256	77	62-130	
Dibenz(a,h)anthracene	ug/kg	333	218	66	49-130	
Fluoranthene	ug/kg	333	253	76	57-130	
Fluorene	ug/kg	333	241	72	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	213	64	50-130	
Naphthalene	ug/kg	333	222	67	48-130	
Phenanthrene	ug/kg	333	254	76	51-130	
Pyrene	ug/kg	333	245	73	55-130	
2-Fluorobiphenyl (S)	%			73	39-130	
Terphenyl-d14 (S)	%			77	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40120844

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1220221		1220222		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		40120789005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Acenaphthene	ug/kg	<0.010 mg/kg	408	408	273	273	66	66	46-130	0	26	
Acenaphthylene	ug/kg	<0.0091 mg/kg	408	408	285	282	70	69	49-130	1	23	
Anthracene	ug/kg	<0.011 mg/kg	408	408	345	332	83	80	52-130	4	28	
Benzo(a)anthracene	ug/kg	0.011J mg/kg	408	408	280	265	66	62	34-130	6	36	
Benzo(a)pyrene	ug/kg	0.010J mg/kg	408	408	284	272	67	64	34-130	5	40	
Benzo(b)fluoranthene	ug/kg	<0.010 mg/kg	408	408	310	280	74	67	22-130	10	40	
Benzo(g,h,i)perylene	ug/kg	<0.0078 mg/kg	408	408	206	183	49	44	24-130	11	35	
Benzo(k)fluoranthene	ug/kg	<0.011 mg/kg	408	408	293	292	69	69	41-130	0	37	
Chrysene	ug/kg	0.014J mg/kg	408	408	302	290	70	67	49-130	4	33	
Dibenz(a,h)anthracene	ug/kg	<0.0075 mg/kg	408	408	240	222	58	54	27-130	7	31	
Fluoranthene	ug/kg	0.022 mg/kg	408	408	292	276	66	62	34-130	6	37	
Fluorene	ug/kg	<0.010 mg/kg	408	408	277	275	67	67	45-130	1	25	
Indeno(1,2,3-cd)pyrene	ug/kg	<0.0078 mg/kg	408	408	234	213	56	51	30-130	9	34	
Naphthalene	ug/kg	<0.010 mg/kg	408	408	258	262	62	63	38-130	1	30	
Phenanthrene	ug/kg	0.021 mg/kg	408	408	294	286	67	65	38-130	3	34	
Pyrene	ug/kg	0.019J mg/kg	408	408	292	279	67	64	35-130	4	35	
2-Fluorobiphenyl (S)	%						65	64	39-130			
Terphenyl-d14 (S)	%						67	66	37-130			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40120844

QC Batch: OEXT/27974

Analysis Method: EPA 8270 by SIM

QC Batch Method: EPA 3546

Analysis Description: 8270/3546 MSSV PAH by SIM

Associated Lab Samples: 40120844005

METHOD BLANK: 1220521

Matrix: Solid

Associated Lab Samples: 40120844005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	09/15/15 11:12	
Acenaphthylene	ug/kg	<7.5	16.7	09/15/15 11:12	
Anthracene	ug/kg	<8.6	16.7	09/15/15 11:12	
Benzo(a)anthracene	ug/kg	<5.8	16.7	09/15/15 11:12	
Benzo(a)pyrene	ug/kg	<6.0	16.7	09/15/15 11:12	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	09/15/15 11:12	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	09/15/15 11:12	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	09/15/15 11:12	
Chrysene	ug/kg	<7.7	16.7	09/15/15 11:12	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	09/15/15 11:12	
Fluoranthene	ug/kg	<8.3	16.7	09/15/15 11:12	
Fluorene	ug/kg	<8.3	16.7	09/15/15 11:12	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	09/15/15 11:12	
Naphthalene	ug/kg	<8.3	16.7	09/15/15 11:12	
Phenanthrene	ug/kg	<8.3	16.7	09/15/15 11:12	
Pyrene	ug/kg	<8.3	16.7	09/15/15 11:12	
2-Fluorobiphenyl (S)	%	65	39-130	09/15/15 11:12	
Terphenyl-d14 (S)	%	69	37-130	09/15/15 11:12	

LABORATORY CONTROL SAMPLE: 1220522

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	250	75	54-130	
Acenaphthylene	ug/kg	333	255	77	55-130	
Anthracene	ug/kg	333	304	91	64-130	
Benzo(a)anthracene	ug/kg	333	253	76	50-130	
Benzo(a)pyrene	ug/kg	333	253	76	46-130	
Benzo(b)fluoranthene	ug/kg	333	245	74	43-130	
Benzo(g,h,i)perylene	ug/kg	333	251	75	48-130	
Benzo(k)fluoranthene	ug/kg	333	254	76	55-130	
Chrysene	ug/kg	333	278	83	62-130	
Dibenz(a,h)anthracene	ug/kg	333	255	77	49-130	
Fluoranthene	ug/kg	333	255	77	57-130	
Fluorene	ug/kg	333	246	74	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	261	78	50-130	
Naphthalene	ug/kg	333	236	71	48-130	
Phenanthrene	ug/kg	333	251	75	51-130	
Pyrene	ug/kg	333	250	75	55-130	
2-Fluorobiphenyl (S)	%			75	39-130	
Terphenyl-d14 (S)	%			76	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40120844

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1220523		1220524		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40120975003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Acenaphthene	ug/kg	<9.6	385	385	240	238	62	62	46-130	0	26		
Acenaphthylene	ug/kg	<8.6	385	385	248	243	64	63	49-130	2	23		
Anthracene	ug/kg	<10	385	385	292	295	76	76	52-130	1	28		
Benzo(a)anthracene	ug/kg	<6.7	385	385	232	234	60	61	34-130	1	36		
Benzo(a)pyrene	ug/kg	<6.9	385	385	235	236	61	61	34-130	0	40		
Benzo(b)fluoranthene	ug/kg	<9.6	385	385	221	228	57	59	22-130	3	40		
Benzo(g,h,i)perylene	ug/kg	<7.3	385	385	234	231	61	60	24-130	1	35		
Benzo(k)fluoranthene	ug/kg	<10.7	385	385	259	248	67	64	41-130	4	37		
Chrysene	ug/kg	<8.9	385	385	252	252	65	65	49-130	0	33		
Dibenz(a,h)anthracene	ug/kg	<7.1	385	385	243	240	63	62	27-130	1	31		
Fluoranthene	ug/kg	<9.6	385	385	242	245	63	64	34-130	1	37		
Fluorene	ug/kg	<9.6	385	385	237	236	62	61	45-130	0	25		
Indeno(1,2,3-cd)pyrene	ug/kg	<7.3	385	385	245	244	63	63	30-130	0	34		
Naphthalene	ug/kg	<9.6	385	385	225	223	58	57	38-130	1	30		
Phenanthrene	ug/kg	<9.6	385	385	243	242	63	63	38-130	0	34		
Pyrene	ug/kg	<9.6	385	385	231	233	60	60	35-130	1	35		
2-Fluorobiphenyl (S)	%						60	58	39-130				
Terphenyl-d14 (S)	%						58	58	37-130				

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40120844

QC Batch: OEXT/28009 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40120844006

METHOD BLANK: 1222267 Matrix: Solid  
Associated Lab Samples: 40120844006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<8.3	16.7	09/17/15 12:21	
Acenaphthylene	ug/kg	<7.5	16.7	09/17/15 12:21	
Anthracene	ug/kg	<8.6	16.7	09/17/15 12:21	
Benzo(a)anthracene	ug/kg	<5.8	16.7	09/17/15 12:21	
Benzo(a)pyrene	ug/kg	<6.0	16.7	09/17/15 12:21	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	09/17/15 12:21	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	09/17/15 12:21	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	09/17/15 12:21	
Chrysene	ug/kg	<7.7	16.7	09/17/15 12:21	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	09/17/15 12:21	
Fluoranthene	ug/kg	<8.3	16.7	09/17/15 12:21	
Fluorene	ug/kg	<8.3	16.7	09/17/15 12:21	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	09/17/15 12:21	
Naphthalene	ug/kg	<8.3	16.7	09/17/15 12:21	
Phenanthrene	ug/kg	<8.3	16.7	09/17/15 12:21	
Pyrene	ug/kg	<8.3	16.7	09/17/15 12:21	
2-Fluorobiphenyl (S)	%	72	39-130	09/17/15 12:21	
Terphenyl-d14 (S)	%	77	37-130	09/17/15 12:21	

LABORATORY CONTROL SAMPLE: 1222268

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	251	75	54-130	
Acenaphthylene	ug/kg	333	261	78	55-130	
Anthracene	ug/kg	333	312	93	64-130	
Benzo(a)anthracene	ug/kg	333	255	77	50-130	
Benzo(a)pyrene	ug/kg	333	259	78	46-130	
Benzo(b)fluoranthene	ug/kg	333	269	81	43-130	
Benzo(g,h,i)perylene	ug/kg	333	252	76	48-130	
Benzo(k)fluoranthene	ug/kg	333	239	72	55-130	
Chrysene	ug/kg	333	258	77	62-130	
Dibenz(a,h)anthracene	ug/kg	333	261	78	49-130	
Fluoranthene	ug/kg	333	258	77	57-130	
Fluorene	ug/kg	333	250	75	57-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	262	78	50-130	
Naphthalene	ug/kg	333	224	67	48-130	
Phenanthrene	ug/kg	333	254	76	51-130	
Pyrene	ug/kg	333	251	75	55-130	
2-Fluorobiphenyl (S)	%			78	39-130	
Terphenyl-d14 (S)	%			78	37-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40120844

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1222269		1222270		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40120785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Acenaphthene	ug/kg	<8.7	348	348	244	272	70	78	46-130	11	26		
Acenaphthylene	ug/kg	<7.8	348	348	250	275	72	79	49-130	10	23		
Anthracene	ug/kg	<9.0	348	348	302	336	87	96	52-130	10	28		
Benzo(a)anthracene	ug/kg	<6.0	348	348	221	262	63	75	34-130	17	36		
Benzo(a)pyrene	ug/kg	<6.2	348	348	227	273	65	78	34-130	19	40		
Benzo(b)fluoranthene	ug/kg	<8.7	348	348	239	276	69	79	22-130	15	40		
Benzo(g,h,i)perylene	ug/kg	<6.6	348	348	201	271	58	78	24-130	30	35		
Benzo(k)fluoranthene	ug/kg	<9.6	348	348	223	267	64	77	41-130	18	37		
Chrysene	ug/kg	<8.0	348	348	242	295	70	85	49-130	20	33		
Dibenz(a,h)anthracene	ug/kg	<6.4	348	348	230	280	66	80	27-130	20	31		
Fluoranthene	ug/kg	<8.7	348	348	254	276	73	79	34-130	8	37		
Fluorene	ug/kg	<8.7	348	348	243	267	70	77	45-130	9	25		
Indeno(1,2,3-cd)pyrene	ug/kg	<6.6	348	348	230	280	66	80	30-130	20	34		
Naphthalene	ug/kg	<8.7	348	348	207	232	59	66	38-130	11	30		
Phenanthrene	ug/kg	<8.7	348	348	251	278	72	80	38-130	10	34		
Pyrene	ug/kg	<8.7	348	348	175	265	50	76	35-130	41	35	R1	
2-Fluorobiphenyl (S)	%						96	76	39-130				
Terphenyl-d14 (S)	%						90	73	37-130				

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40120844

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

1q Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-extraction and re-analysis).

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

R1 RPD value was outside control limits.

S0 Surrogate recovery outside laboratory control limits.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS

Pace Project No.: 40120844

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40120844001	BH-22 @ 7.5-10	EPA 3546	OEXT/27964	EPA 8270 by SIM	MSSV/8265
40120844002	BH-22 @ 25.5-27	EPA 3546	OEXT/27964	EPA 8270 by SIM	MSSV/8265
40120844003	BH-23 @ 25-26.5	EPA 3546	OEXT/27964	EPA 8270 by SIM	MSSV/8265
40120844004	BH-23 @ 28.5-30	EPA 3546	OEXT/27964	EPA 8270 by SIM	MSSV/8265
40120844005	BH-24 @ 4-6	EPA 3546	OEXT/27974	EPA 8270 by SIM	MSSV/8267
40120844006	BH-24 @ 13.5-15	EPA 3546	OEXT/28009	EPA 8270 by SIM	MSSV/8276
40120844001	BH-22 @ 7.5-10	EPA 5035/5030B	MSV/30115	EPA 8260	MSV/30118
40120844002	BH-22 @ 25.5-27	EPA 5035/5030B	MSV/30115	EPA 8260	MSV/30118
40120844003	BH-23 @ 25-26.5	EPA 5035/5030B	MSV/30115	EPA 8260	MSV/30118
40120844004	BH-23 @ 28.5-30	EPA 5035/5030B	MSV/30115	EPA 8260	MSV/30118
40120844005	BH-24 @ 4-6	EPA 5035/5030B	MSV/30115	EPA 8260	MSV/30118
40120844006	BH-24 @ 13.5-15	EPA 5035/5030B	MSV/30115	EPA 8260	MSV/30118
40120844001	BH-22 @ 7.5-10	ASTM D2974-87	PMST/11755		
40120844002	BH-22 @ 25.5-27	ASTM D2974-87	PMST/11755		
40120844003	BH-23 @ 25-26.5	ASTM D2974-87	PMST/11755		
40120844004	BH-23 @ 28.5-30	ASTM D2974-87	PMST/11755		
40120844005	BH-24 @ 4-6	ASTM D2974-87	PMST/11755		
40120844006	BH-24 @ 13.5-15	ASTM D2974-87	PMST/11755		

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MN: 612-607-1700 WI: 920-469-2436

Company Name: **TRICORE ENVIRONMENTAL**  
 Branch/Location: **NAPERVILLE IL**  
 Project Contact: **MARCOS CZAKO**  
 Phone: **630-570-9973**  
 Project Number: **100137**  
 Project Name: **LEMONT KAR GAS**  
 Project State: **ILLINOIS**  
 Sampled By (Print): **KYLE ARDUBY**  
 Sampled By (Sign): *[Signature]*  
 PO #: **0100137** Regulatory Program: **LUST**

**Data Package Options** (billable)  
 EPA Level III  
 EPA Level IV

**MS/MSD**  
 On your sample (billable)  
 NOT needed on your sample

**Matrix Codes**  
 A = Air W = Water  
 B = Biota DW = Drinking Water  
 C = Charcoal GW = Ground Water  
 O = Oil SW = Surface Water  
 S = Soil WW = Waste Water  
 SI = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
001	BH-22@7.5-10	9/8/15	0905	S
002	BH-22@25.5-27		1021	I
003	BH-23@25-26.5		1146	I
004	BH-23@28.5-30		1151	I
005	BH-24@4-G		1404	I
006	BH-24@13.5-15		1419	I



### CHAIN OF CUSTODY

**Preservation Codes**  
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	

*Analysis Requested: MISE, OIL, PUMPH, N, A, BTEX, 820, PATH, 820, MOISTURE*

**Quote #:** 40120844

**Mail To Contact:**

**Mail To Company:**

**Mail To Address:** *[Handwritten Address]*

**Invoice To Contact:**

**Invoice To Company:**

**Invoice To Address:**

**Invoice To Phone:**

**CLIENT COMMENTS:** PID: 1404 ppm 2-40mL<sup>F</sup> 1-40zag<sup>A</sup>  
 PID: 106.1 ppm  
 PID: 127.2 ppm  
 PID: 16.3 ppm  
 PID: 573.4 ppm  
 PID: 17.5 ppm

**LAB COMMENTS (Lab Use Only):**

**Profile #:**

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)  
 Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:  
 Email #2:  
 Telephone:  
 Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By: *[Signature]* Date/Time: 9/9/15 12:15  
 Relinquished By: *[Signature]* Date/Time: 9/9/15 1700  
 Relinquished By: *[Signature]* Date/Time: 9/10/15 0855  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: *[Signature]* Date/Time: 9/9/15 1245  
 Received By: *[Signature]* Date/Time: 9/9/15  
 Received By: *[Signature]* Date/Time: 9/10/15 0855  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

PACE Project No. 40120844

Receipt Temp = 1 °C

Sample Receipt pH OK / Adjusted

**Cooler Custody Seal**  
 Present / Not Present  
 Intact / Not Intact



Project #: **WO# : 40120844**

Client Name: TriCore Environmental

Courier:  Fed Ex  UPS  Client  Pace  Other: CS Logistics



Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR-506 Type of Ice:  Blue Dry None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 1 / Corr: 1 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no  no

Person examining contents:  
Date: 9/10/15  
Initials: AS

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: - VOA Samples frozen upon receipt	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used: -Pace Containers Used: -Pace IR Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12. 005 time 1408 all samples K8 9/10/15
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed: _____ Lab Std #/ID of preservative: _____ Date/Time: _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present: Trip Blank Custody Seals Present Pace Trip Blank Lot # (if purchased):	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15. MeOH blanks K8 9/10/15

Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: 006 no sample in vials x2 vials K8 9/10/15

Project Manager Review: UW Date: 9/10/15



# Illinois Environmental Protection Agency

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

## Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

### A. Site Identification

IEMA Incident # (6- or 8-digit): 20141348 IEPA LPC# (10-digit): 0314625010  
Site Name: BOI, LLC  
Site Address (Not a P.O. Box): 1196 State Street  
City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

### B. Sample Collector

I certify that:

1. Appropriate sampling equipment/methods were utilized to obtain representative samples.
2. Chain-of-custody procedures were followed in the field.
3. Sample integrity was maintained by proper preservation.
4. All samples were properly labeled.

[Signature]  
(Initial)  
[Signature]  
(Initial)  
[Signature]  
(Initial)  
[Signature]  
(Initial)

### C. Laboratory Representative

I certify that:

1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms
2. Sample integrity was maintained by proper preservation.
3. All samples were properly labeled.
4. Quality assurance/quality control procedures were established and carried out.
5. Sample holding times were not exceeded.

[Signature]  
(Initial)  
[Signature]  
(Initial)  
[Signature]  
(Initial)  
[Signature]  
(Initial)  
[Signature]  
(Initial)

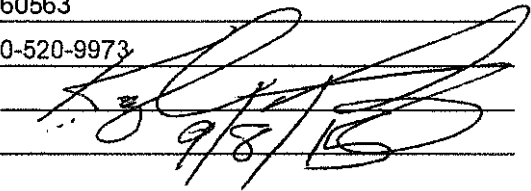
- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

LW  
(Initial)  
LW  
(Initial)

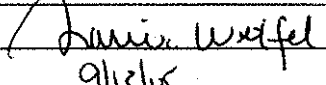
**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Kyle Arney  
Title Geologist III  
Company TriCore Environmental, LLC  
Address 2368 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone 630-520-9973  
Signature   
Date 9/8/15

**Laboratory Representative**

Name Lucine Wolfel  
Title Project Manager  
Company Pace Analytical Services  
Address 1241 Bellevue Street, Suite #9  
City Green Bay  
State Wisconsin  
Zip Code 54302  
Phone 920-469-2436  
Signature   
Date 9/15/15



September 22, 2016

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

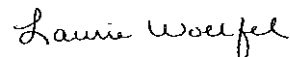
RE: Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on September 15, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138313

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#### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

Virginia VELAP ID: 460263

North Dakota Certification #: R-150

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

US Dept of Agriculture #: S-76505

Virginia VELAP Certification ID: 460263

Virginia VELAP ID: 460263

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

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### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138313

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40138313001	BH-27 @ 2.5-5	Solid	09/14/16 08:33	09/15/16 10:05
40138313002	BH-27 @ 7.5-10	Solid	09/14/16 08:38	09/15/16 10:05
40138313003	BH-27 @ 12.5-15	Solid	09/14/16 08:45	09/15/16 10:05
40138313004	BH-27 @ 17.5-20	Solid	09/14/16 08:56	09/15/16 10:05
40138313005	BH-27 @ 22.5-25	Solid	09/14/16 09:15	09/15/16 10:05
40138313006	BH-27 @ 27.5-30	Solid	09/14/16 09:33	09/15/16 10:05
40138313007	BH-27 @ 30-32.5	Solid	09/14/16 09:48	09/15/16 10:05
40138313008	BH-26 @ 1-2.5	Solid	09/14/16 10:02	09/15/16 10:05
40138313009	BH-26 @ 7.5-10	Solid	09/14/16 10:09	09/15/16 10:05
40138313010	BH-26 @ 10-12.5	Solid	09/14/16 10:20	09/15/16 10:05
40138313011	BH-26 @ 17.5-20	Solid	09/14/16 10:34	09/15/16 10:05
40138313012	BH-26 @ 20-22.5	Solid	09/14/16 10:38	09/15/16 10:05
40138313013	BH-26 @ 27.5-29.25	Solid	09/14/16 11:01	09/15/16 10:05
40138313014	BH-22A @ 2.5-5	Solid	09/14/16 12:36	09/15/16 10:05
40138313015	BH-22A @ 10-12.5	Solid	09/14/16 12:49	09/15/16 10:05
40138313016	BH-22A @ 15-17.5	Solid	09/14/16 12:58	09/15/16 10:05
40138313017	BH-22A @ 20-23	Solid	09/14/16 13:13	09/15/16 10:05

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40138313001	BH-27 @ 2.5-5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	LAP	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138313002	BH-27 @ 7.5-10	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	LAP	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138313003	BH-27 @ 12.5-15	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	LAP	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138313004	BH-27 @ 17.5-20	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	LAP	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138313005	BH-27 @ 22.5-25	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	LAP	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138313006	BH-27 @ 27.5-30	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	LAP	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138313007	BH-27 @ 30-32.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	LAP	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138313008	BH-26 @ 1-2.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	LAP	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138313009	BH-26 @ 7.5-10	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	LAP	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138313010	BH-26 @ 10-12.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	KRM	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138313011	BH-26 @ 17.5-20	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	KRM	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138313012	BH-26 @ 20-22.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	KRM	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138313013	BH-26 @ 27.5-29.25	EPA 8270 by SIM	ARO	18	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138313

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40138313014	BH-22A @ 2.5-5	EPA 8260	KRM	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
40138313015	BH-22A @ 10-12.5	EPA 8260	KRM	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
40138313016	BH-22A @ 15-17.5	EPA 8260	KRM	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
40138313017	BH-22A @ 20-23	EPA 8260	KRM	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138313

Sample: BH-27 @ 2.5-5 Lab ID: 40138313001 Collected: 09/14/16 08:33 Received: 09/15/16 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.9	ug/kg	16.4	4.9	1	09/19/16 09:35	09/19/16 15:46	83-32-9	
Acenaphthylene	<4.2	ug/kg	14.0	4.2	1	09/19/16 09:35	09/19/16 15:46	208-96-8	
Anthracene	<7.3	ug/kg	24.2	7.3	1	09/19/16 09:35	09/19/16 15:46	120-12-7	
Benzo(a)anthracene	<4.0	ug/kg	13.5	4.0	1	09/19/16 09:35	09/19/16 15:46	56-55-3	
Benzo(a)pyrene	<3.2	ug/kg	10.6	3.2	1	09/19/16 09:35	09/19/16 15:46	50-32-8	
Benzo(b)fluoranthene	<3.6	ug/kg	12.0	3.6	1	09/19/16 09:35	09/19/16 15:46	205-99-2	
Benzo(g,h,i)perylene	<2.6	ug/kg	8.6	2.6	1	09/19/16 09:35	09/19/16 15:46	191-24-2	
Benzo(k)fluoranthene	<3.2	ug/kg	10.6	3.2	1	09/19/16 09:35	09/19/16 15:46	207-08-9	
Chrysene	<4.3	ug/kg	14.2	4.3	1	09/19/16 09:35	09/19/16 15:46	218-01-9	
Dibenz(a,h)anthracene	<2.8	ug/kg	9.5	2.8	1	09/19/16 09:35	09/19/16 15:46	53-70-3	
Fluoranthene	<6.6	ug/kg	22.1	6.6	1	09/19/16 09:35	09/19/16 15:46	206-44-0	
Fluorene	<5.3	ug/kg	17.6	5.3	1	09/19/16 09:35	09/19/16 15:46	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.8	ug/kg	9.3	2.8	1	09/19/16 09:35	09/19/16 15:46	193-39-5	
Naphthalene	<10.7	ug/kg	35.7	10.7	1	09/19/16 09:35	09/19/16 15:46	91-20-3	
Phenanthrene	<14.8	ug/kg	49.3	14.8	1	09/19/16 09:35	09/19/16 15:46	85-01-8	
Pyrene	<5.7	ug/kg	19.1	5.7	1	09/19/16 09:35	09/19/16 15:46	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	52	%	26-130		1	09/19/16 09:35	09/19/16 15:46	321-60-8	
Terphenyl-d14 (S)	58	%	10-130		1	09/19/16 09:35	09/19/16 15:46	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<11.7	ug/kg	25.4	11.7	1	09/16/16 07:45	09/16/16 16:58	71-43-2	
Ethylbenzene	<15.8	ug/kg	63.6	15.8	1	09/16/16 07:45	09/16/16 16:58	100-41-4	
Methyl-tert-butyl ether	<16.1	ug/kg	63.6	16.1	1	09/16/16 07:45	09/16/16 16:58	1634-04-4	
Toluene	16.8J	ug/kg	63.6	14.3	1	09/16/16 07:45	09/16/16 16:58	108-88-3	
Xylene (Total)	<61.6	ug/kg	191	61.6	1	09/16/16 07:45	09/16/16 16:58	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	105	%	53-165		1	09/16/16 07:45	09/16/16 16:58	1868-53-7	
4-Bromofluorobenzene (S)	110	%	48-138		1	09/16/16 07:45	09/16/16 16:58	460-00-4	
Toluene-d8 (S)	109	%	54-163		1	09/16/16 07:45	09/16/16 16:58	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	21.4	%	0.10	0.10	1		09/21/16 09:13		

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138313

Sample: BH-27 @ 7.5-10 Lab ID: 40138313002 Collected: 09/14/16 08:38 Received: 09/15/16 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.5	ug/kg	15.0	4.5	1	09/19/16 09:35	09/19/16 16:03	83-32-9	
Acenaphthylene	5.1J	ug/kg	12.8	3.8	1	09/19/16 09:35	09/19/16 16:03	208-96-8	
Anthracene	13.0J	ug/kg	22.1	6.6	1	09/19/16 09:35	09/19/16 16:03	120-12-7	
Benzo(a)anthracene	23.8	ug/kg	12.3	3.7	1	09/19/16 09:35	09/19/16 16:03	56-55-3	
Benzo(a)pyrene	26.9	ug/kg	9.7	2.9	1	09/19/16 09:35	09/19/16 16:03	50-32-8	
Benzo(b)fluoranthene	27.2	ug/kg	10.9	3.3	1	09/19/16 09:35	09/19/16 16:03	205-99-2	
Benzo(g,h,i)perylene	18.4	ug/kg	7.9	2.4	1	09/19/16 09:35	09/19/16 16:03	191-24-2	
Benzo(k)fluoranthene	25.6	ug/kg	9.7	2.9	1	09/19/16 09:35	09/19/16 16:03	207-08-9	
Chrysene	32.9	ug/kg	13.0	3.9	1	09/19/16 09:35	09/19/16 16:03	218-01-9	
Dibenz(a,h)anthracene	6.4J	ug/kg	8.7	2.6	1	09/19/16 09:35	09/19/16 16:03	53-70-3	
Fluoranthene	46.2	ug/kg	20.2	6.1	1	09/19/16 09:35	09/19/16 16:03	206-44-0	
Fluorene	<4.8	ug/kg	16.0	4.8	1	09/19/16 09:35	09/19/16 16:03	86-73-7	
Indeno(1,2,3-cd)pyrene	16.8	ug/kg	8.5	2.6	1	09/19/16 09:35	09/19/16 16:03	193-39-5	
Naphthalene	16.6J	ug/kg	32.7	9.8	1	09/19/16 09:35	09/19/16 16:03	91-20-3	
Phenanthrene	37.1J	ug/kg	45.1	13.5	1	09/19/16 09:35	09/19/16 16:03	85-01-8	
Pyrene	38.5	ug/kg	17.4	5.2	1	09/19/16 09:35	09/19/16 16:03	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	52	%	26-130		1	09/19/16 09:35	09/19/16 16:03	321-60-8	
Terphenyl-d14 (S)	59	%	10-130		1	09/19/16 09:35	09/19/16 16:03	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.7	ug/kg	23.2	10.7	1	09/16/16 07:45	09/16/16 17:21	71-43-2	
Ethylbenzene	<14.4	ug/kg	58.1	14.4	1	09/16/16 07:45	09/16/16 17:21	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.1	14.7	1	09/16/16 07:45	09/16/16 17:21	1634-04-4	
Toluene	<13.0	ug/kg	58.1	13.0	1	09/16/16 07:45	09/16/16 17:21	108-88-3	
Xylene (Total)	<56.3	ug/kg	174	56.3	1	09/16/16 07:45	09/16/16 17:21	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	107	%	53-165		1	09/16/16 07:45	09/16/16 17:21	1868-53-7	
4-Bromofluorobenzene (S)	110	%	48-138		1	09/16/16 07:45	09/16/16 17:21	460-00-4	
Toluene-d8 (S)	113	%	54-163		1	09/16/16 07:45	09/16/16 17:21	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.0	%	0.10	0.10	1		09/21/16 09:13		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

Sample: BH-27 @ 12.5-15 Lab ID: 40138313003 Collected: 09/14/16 08:45 Received: 09/15/16 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.5	ug/kg	14.9	4.5	1	09/19/16 09:35	09/19/16 16:20	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.7	3.8	1	09/19/16 09:35	09/19/16 16:20	208-96-8	
Anthracene	<6.6	ug/kg	21.9	6.6	1	09/19/16 09:35	09/19/16 16:20	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.2	3.7	1	09/19/16 09:35	09/19/16 16:20	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.7	2.9	1	09/19/16 09:35	09/19/16 16:20	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	10.8	3.3	1	09/19/16 09:35	09/19/16 16:20	205-99-2	
Benzo(g,h,i)perylene	<2.3	ug/kg	7.8	2.3	1	09/19/16 09:35	09/19/16 16:20	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.6	2.9	1	09/19/16 09:35	09/19/16 16:20	207-08-9	
Chrysene	8.3J	ug/kg	12.9	3.9	1	09/19/16 09:35	09/19/16 16:20	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/19/16 09:35	09/19/16 16:20	53-70-3	
Fluoranthene	<6.0	ug/kg	20.1	6.0	1	09/19/16 09:35	09/19/16 16:20	206-44-0	
Fluorene	<4.8	ug/kg	15.9	4.8	1	09/19/16 09:35	09/19/16 16:20	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.5	2.5	1	09/19/16 09:35	09/19/16 16:20	193-39-5	
Naphthalene	<9.7	ug/kg	32.4	9.7	1	09/19/16 09:35	09/19/16 16:20	91-20-3	
Phenanthrene	14.3J	ug/kg	44.7	13.4	1	09/19/16 09:35	09/19/16 16:20	85-01-8	
Pyrene	<5.2	ug/kg	17.3	5.2	1	09/19/16 09:35	09/19/16 16:20	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	59	%	26-130		1	09/19/16 09:35	09/19/16 16:20	321-60-8	
Terphenyl-d14 (S)	68	%	10-130		1	09/19/16 09:35	09/19/16 16:20	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.6	ug/kg	23.1	10.6	1	09/16/16 07:45	09/16/16 17:45	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.6	14.3	1	09/16/16 07:45	09/16/16 17:45	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.6	14.6	1	09/16/16 07:45	09/16/16 17:45	1634-04-4	
Toluene	<12.9	ug/kg	57.6	12.9	1	09/16/16 07:45	09/16/16 17:45	108-88-3	
Xylene (Total)	<55.8	ug/kg	173	55.8	1	09/16/16 07:45	09/16/16 17:45	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	53-165		1	09/16/16 07:45	09/16/16 17:45	1868-53-7	
4-Bromofluorobenzene (S)	98	%	48-138		1	09/16/16 07:45	09/16/16 17:45	460-00-4	
Toluene-d8 (S)	101	%	54-163		1	09/16/16 07:45	09/16/16 17:45	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.3	%	0.10	0.10	1		09/21/16 09:13		

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138313

Sample: BH-27 @ 17.5-20 Lab ID: 40138313004 Collected: 09/14/16 08:56 Received: 09/15/16 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.5	ug/kg	14.8	4.5	1	09/19/16 09:35	09/19/16 14:19	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.6	3.8	1	09/19/16 09:35	09/19/16 14:19	208-96-8	
Anthracene	<6.6	ug/kg	21.8	6.6	1	09/19/16 09:35	09/19/16 14:19	120-12-7	
Benzo(a)anthracene	<3.6	ug/kg	12.2	3.6	1	09/19/16 09:35	09/19/16 14:19	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.6	2.9	1	09/19/16 09:35	09/19/16 14:19	50-32-8	
Benzo(b)fluoranthene	4.1J	ug/kg	10.8	3.2	1	09/19/16 09:35	09/19/16 14:19	205-99-2	
Benzo(g,h,i)perylene	8.8	ug/kg	7.8	2.3	1	09/19/16 09:35	09/19/16 14:19	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.6	2.9	1	09/19/16 09:35	09/19/16 14:19	207-08-9	
Chrysene	10.8J	ug/kg	12.8	3.9	1	09/19/16 09:35	09/19/16 14:19	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.5	2.6	1	09/19/16 09:35	09/19/16 14:19	53-70-3	
Fluoranthene	<6.0	ug/kg	20.0	6.0	1	09/19/16 09:35	09/19/16 14:19	206-44-0	
Fluorene	<4.7	ug/kg	15.8	4.7	1	09/19/16 09:35	09/19/16 14:19	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.4	2.5	1	09/19/16 09:35	09/19/16 14:19	193-39-5	
Naphthalene	<9.7	ug/kg	32.2	9.7	1	09/19/16 09:35	09/19/16 14:19	91-20-3	
Phenanthrene	30.4J	ug/kg	44.5	13.4	1	09/19/16 09:35	09/19/16 14:19	85-01-8	
Pyrene	6.3J	ug/kg	17.2	5.2	1	09/19/16 09:35	09/19/16 14:19	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	61	%	26-130		1	09/19/16 09:35	09/19/16 14:19	321-60-8	
Terphenyl-d14 (S)	72	%	10-130		1	09/19/16 09:35	09/19/16 14:19	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.6	ug/kg	22.9	10.6	1	09/16/16 07:45	09/16/16 18:08	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.4	14.3	1	09/16/16 07:45	09/16/16 18:08	100-41-4	
Methyl-tert-butyl ether	<14.5	ug/kg	57.4	14.5	1	09/16/16 07:45	09/16/16 18:08	1634-04-4	
Toluene	<12.9	ug/kg	57.4	12.9	1	09/16/16 07:45	09/16/16 18:08	108-88-3	
Xylene (Total)	<55.6	ug/kg	172	55.6	1	09/16/16 07:45	09/16/16 18:08	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	53-165		1	09/16/16 07:45	09/16/16 18:08	1868-53-7	
4-Bromofluorobenzene (S)	104	%	48-138		1	09/16/16 07:45	09/16/16 18:08	460-00-4	
Toluene-d8 (S)	103	%	54-163		1	09/16/16 07:45	09/16/16 18:08	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	12.8	%	0.10	0.10	1		09/21/16 09:13		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138313

Sample: BH-27 @ 22.5-25 Lab ID: 40138313005 Collected: 09/14/16 09:15 Received: 09/15/16 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.5	ug/kg	14.9	4.5	1	09/19/16 09:35	09/19/16 16:38	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.7	3.8	1	09/19/16 09:35	09/19/16 16:38	208-96-8	
Anthracene	<6.6	ug/kg	22.0	6.6	1	09/19/16 09:35	09/19/16 16:38	120-12-7	
Benzo(a)anthracene	4.2J	ug/kg	12.3	3.7	1	09/19/16 09:35	09/19/16 16:38	56-55-3	
Benzo(a)pyrene	4.6J	ug/kg	9.7	2.9	1	09/19/16 09:35	09/19/16 16:38	50-32-8	
Benzo(b)fluoranthene	5.8J	ug/kg	10.9	3.3	1	09/19/16 09:35	09/19/16 16:38	205-99-2	
Benzo(g,h,i)perylene	6.0J	ug/kg	7.8	2.4	1	09/19/16 09:35	09/19/16 16:38	191-24-2	
Benzo(k)fluoranthene	4.4J	ug/kg	9.7	2.9	1	09/19/16 09:35	09/19/16 16:38	207-08-9	
Chrysene	12.1J	ug/kg	13.0	3.9	1	09/19/16 09:35	09/19/16 16:38	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/19/16 09:35	09/19/16 16:38	53-70-3	
Fluoranthene	11.9J	ug/kg	20.1	6.0	1	09/19/16 09:35	09/19/16 16:38	206-44-0	
Fluorene	<4.8	ug/kg	16.0	4.8	1	09/19/16 09:35	09/19/16 16:38	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.5	2.5	1	09/19/16 09:35	09/19/16 16:38	193-39-5	
Naphthalene	<9.7	ug/kg	32.5	9.7	1	09/19/16 09:35	09/19/16 16:38	91-20-3	
Phenanthrene	<13.5	ug/kg	44.9	13.5	1	09/19/16 09:35	09/19/16 16:38	85-01-8	
Pyrene	11.6J	ug/kg	17.4	5.2	1	09/19/16 09:35	09/19/16 16:38	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	59	%	26-130		1	09/19/16 09:35	09/19/16 16:38	321-60-8	
Terphenyl-d14 (S)	68	%	10-130		1	09/19/16 09:35	09/19/16 16:38	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.7	ug/kg	23.2	10.7	1	09/16/16 07:45	09/16/16 20:27	71-43-2	
Ethylbenzene	<14.4	ug/kg	57.9	14.4	1	09/16/16 07:45	09/16/16 20:27	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	57.9	14.7	1	09/16/16 07:45	09/16/16 20:27	1634-04-4	
Toluene	<13.0	ug/kg	57.9	13.0	1	09/16/16 07:45	09/16/16 20:27	108-88-3	
Xylene (Total)	<56.1	ug/kg	174	56.1	1	09/16/16 07:45	09/16/16 20:27	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	105	%	53-165		1	09/16/16 07:45	09/16/16 20:27	1868-53-7	
4-Bromofluorobenzene (S)	106	%	48-138		1	09/16/16 07:45	09/16/16 20:27	460-00-4	
Toluene-d8 (S)	108	%	54-163		1	09/16/16 07:45	09/16/16 20:27	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.6	%	0.10	0.10	1		09/21/16 09:13		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

Sample: BH-27 @ 27.5-30 Lab ID: 40138313006 Collected: 09/14/16 09:33 Received: 09/15/16 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.3	ug/kg	14.2	4.3	1	09/19/16 09:35	09/19/16 16:55	83-32-9	
Acenaphthylene	<3.6	ug/kg	12.1	3.6	1	09/19/16 09:35	09/19/16 16:55	208-96-8	
Anthracene	<6.3	ug/kg	20.9	6.3	1	09/19/16 09:35	09/19/16 16:55	120-12-7	
Benzo(a)anthracene	<3.5	ug/kg	11.7	3.5	1	09/19/16 09:35	09/19/16 16:55	56-55-3	
Benzo(a)pyrene	<2.8	ug/kg	9.2	2.8	1	09/19/16 09:35	09/19/16 16:55	50-32-8	
Benzo(b)fluoranthene	<3.1	ug/kg	10.4	3.1	1	09/19/16 09:35	09/19/16 16:55	205-99-2	
Benzo(g,h,i)perylene	4.4J	ug/kg	7.4	2.2	1	09/19/16 09:35	09/19/16 16:55	191-24-2	
Benzo(k)fluoranthene	<2.8	ug/kg	9.2	2.8	1	09/19/16 09:35	09/19/16 16:55	207-08-9	
Chrysene	8.9J	ug/kg	12.3	3.7	1	09/19/16 09:35	09/19/16 16:55	218-01-9	
Dibenz(a,h)anthracene	<2.5	ug/kg	8.2	2.5	1	09/19/16 09:35	09/19/16 16:55	53-70-3	
Fluoranthene	<5.7	ug/kg	19.1	5.7	1	09/19/16 09:35	09/19/16 16:55	206-44-0	
Fluorene	<4.6	ug/kg	15.2	4.6	1	09/19/16 09:35	09/19/16 16:55	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.4	ug/kg	8.1	2.4	1	09/19/16 09:35	09/19/16 16:55	193-39-5	
Naphthalene	<9.3	ug/kg	30.9	9.3	1	09/19/16 09:35	09/19/16 16:55	91-20-3	
Phenanthrene	<12.8	ug/kg	42.7	12.8	1	09/19/16 09:35	09/19/16 16:55	85-01-8	
Pyrene	<5.0	ug/kg	16.5	5.0	1	09/19/16 09:35	09/19/16 16:55	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	64	%	26-130		1	09/19/16 09:35	09/19/16 16:55	321-60-8	
Terphenyl-d14 (S)	75	%	10-130		1	09/19/16 09:35	09/19/16 16:55	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.1	ug/kg	22.0	10.1	1	09/16/16 07:45	09/16/16 20:50	71-43-2	
Ethylbenzene	<13.7	ug/kg	55.0	13.7	1	09/16/16 07:45	09/16/16 20:50	100-41-4	
Methyl-tert-butyl ether	<13.9	ug/kg	55.0	13.9	1	09/16/16 07:45	09/16/16 20:50	1634-04-4	
Toluene	<12.3	ug/kg	55.0	12.3	1	09/16/16 07:45	09/16/16 20:50	108-88-3	
Xylene (Total)	<53.3	ug/kg	165	53.3	1	09/16/16 07:45	09/16/16 20:50	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	53-165		1	09/16/16 07:45	09/16/16 20:50	1868-53-7	
4-Bromofluorobenzene (S)	105	%	48-138		1	09/16/16 07:45	09/16/16 20:50	460-00-4	
Toluene-d8 (S)	107	%	54-163		1	09/16/16 07:45	09/16/16 20:50	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	9.1	%	0.10	0.10	1		09/21/16 09:13		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

Sample: BH-27 @ 30-32.5 Lab ID: 40138313007 Collected: 09/14/16 09:48 Received: 09/15/16 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.4	ug/kg	14.6	4.4	1	09/19/16 09:35	09/19/16 17:12	83-32-9	
Acenaphthylene	<3.7	ug/kg	12.5	3.7	1	09/19/16 09:35	09/19/16 17:12	208-96-8	
Anthracene	<6.5	ug/kg	21.6	6.5	1	09/19/16 09:35	09/19/16 17:12	120-12-7	
Benzo(a)anthracene	<3.6	ug/kg	12.0	3.6	1	09/19/16 09:35	09/19/16 17:12	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.5	2.9	1	09/19/16 09:35	09/19/16 17:12	50-32-8	
Benzo(b)fluoranthene	<3.2	ug/kg	10.7	3.2	1	09/19/16 09:35	09/19/16 17:12	205-99-2	
Benzo(g,h,i)perylene	3.9J	ug/kg	7.7	2.3	1	09/19/16 09:35	09/19/16 17:12	191-24-2	
Benzo(k)fluoranthene	<2.8	ug/kg	9.5	2.8	1	09/19/16 09:35	09/19/16 17:12	207-08-9	
Chrysene	8.4J	ug/kg	12.7	3.8	1	09/19/16 09:35	09/19/16 17:12	218-01-9	
Dibenz(a,h)anthracene	<2.5	ug/kg	8.5	2.5	1	09/19/16 09:35	09/19/16 17:12	53-70-3	
Fluoranthene	<5.9	ug/kg	19.7	5.9	1	09/19/16 09:35	09/19/16 17:12	206-44-0	
Fluorene	<4.7	ug/kg	15.7	4.7	1	09/19/16 09:35	09/19/16 17:12	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.3	2.5	1	09/19/16 09:35	09/19/16 17:12	193-39-5	
Naphthalene	<9.6	ug/kg	31.9	9.6	1	09/19/16 09:35	09/19/16 17:12	91-20-3	
Phenanthrene	<13.2	ug/kg	44.0	13.2	1	09/19/16 09:35	09/19/16 17:12	85-01-8	
Pyrene	<5.1	ug/kg	17.0	5.1	1	09/19/16 09:35	09/19/16 17:12	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	56	%	26-130		1	09/19/16 09:35	09/19/16 17:12	321-60-8	
Terphenyl-d14 (S)	68	%	10-130		1	09/19/16 09:35	09/19/16 17:12	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.5	ug/kg	22.7	10.5	1	09/16/16 07:45	09/16/16 21:13	71-43-2	
Ethylbenzene	<14.1	ug/kg	56.8	14.1	1	09/16/16 07:45	09/16/16 21:13	100-41-4	
Methyl-tert-butyl ether	<14.4	ug/kg	56.8	14.4	1	09/16/16 07:45	09/16/16 21:13	1634-04-4	
Toluene	<12.7	ug/kg	56.8	12.7	1	09/16/16 07:45	09/16/16 21:13	108-88-3	
Xylene (Total)	<55.0	ug/kg	170	55.0	1	09/16/16 07:45	09/16/16 21:13	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	53-165		1	09/16/16 07:45	09/16/16 21:13	1868-53-7	
4-Bromofluorobenzene (S)	97	%	48-138		1	09/16/16 07:45	09/16/16 21:13	460-00-4	
Toluene-d8 (S)	104	%	54-163		1	09/16/16 07:45	09/16/16 21:13	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	11.9	%	0.10	0.10	1		09/21/16 09:14		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138313

Sample: BH-26 @ 1-2.5 Lab ID: 40138313008 Collected: 09/14/16 10:02 Received: 09/15/16 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.8	ug/kg	15.9	4.8	1	09/19/16 09:35	09/19/16 19:48	83-32-9	
Acenaphthylene	31.0	ug/kg	13.5	4.1	1	09/19/16 09:35	09/19/16 19:48	208-96-8	
Anthracene	28.1	ug/kg	23.4	7.0	1	09/19/16 09:35	09/19/16 19:48	120-12-7	
Benzo(a)anthracene	77.1	ug/kg	13.0	3.9	1	09/19/16 09:35	09/19/16 19:48	56-55-3	
Benzo(a)pyrene	97.4	ug/kg	10.3	3.1	1	09/19/16 09:35	09/19/16 19:48	50-32-8	
Benzo(b)fluoranthene	89.6	ug/kg	11.6	3.5	1	09/19/16 09:35	09/19/16 19:48	205-99-2	
Benzo(g,h,i)perylene	56.5	ug/kg	8.3	2.5	1	09/19/16 09:35	09/19/16 19:48	191-24-2	
Benzo(k)fluoranthene	109	ug/kg	10.3	3.1	1	09/19/16 09:35	09/19/16 19:48	207-08-9	
Chrysene	97.4	ug/kg	13.8	4.1	1	09/19/16 09:35	09/19/16 19:48	218-01-9	
Dibenz(a,h)anthracene	21.7	ug/kg	9.2	2.8	1	09/19/16 09:35	09/19/16 19:48	53-70-3	
Fluoranthene	125	ug/kg	21.4	6.4	1	09/19/16 09:35	09/19/16 19:48	206-44-0	
Fluorene	<5.1	ug/kg	17.0	5.1	1	09/19/16 09:35	09/19/16 19:48	86-73-7	
Indeno(1,2,3-cd)pyrene	54.4	ug/kg	9.0	2.7	1	09/19/16 09:35	09/19/16 19:48	193-39-5	
Naphthalene	<10.4	ug/kg	34.6	10.4	1	09/19/16 09:35	09/19/16 19:48	91-20-3	
Phenanthrene	34.9J	ug/kg	47.7	14.3	1	09/19/16 09:35	09/19/16 19:48	85-01-8	
Pyrene	109	ug/kg	18.5	5.6	1	09/19/16 09:35	09/19/16 19:48	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	65	%	26-130		1	09/19/16 09:35	09/19/16 19:48	321-60-8	
Terphenyl-d14 (S)	65	%	10-130		1	09/19/16 09:35	09/19/16 19:48	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<11.3	ug/kg	24.6	11.3	1	09/16/16 07:45	09/16/16 21:36	71-43-2	
Ethylbenzene	<15.3	ug/kg	61.5	15.3	1	09/16/16 07:45	09/16/16 21:36	100-41-4	
Methyl-tert-butyl ether	<15.6	ug/kg	61.5	15.6	1	09/16/16 07:45	09/16/16 21:36	1634-04-4	
Toluene	<13.8	ug/kg	61.5	13.8	1	09/16/16 07:45	09/16/16 21:36	108-88-3	
Xylene (Total)	<59.6	ug/kg	185	59.6	1	09/16/16 07:45	09/16/16 21:36	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	90	%	53-165		1	09/16/16 07:45	09/16/16 21:36	1868-53-7	
4-Bromofluorobenzene (S)	92	%	48-138		1	09/16/16 07:45	09/16/16 21:36	460-00-4	
Toluene-d8 (S)	95	%	54-163		1	09/16/16 07:45	09/16/16 21:36	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	18.7	%	0.10	0.10	1		09/21/16 09:14		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

Sample: BH-26 @ 7.5-10 Lab ID: 40138313009 Collected: 09/14/16 10:09 Received: 09/15/16 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.5	ug/kg	15.0	4.5	1	09/19/16 09:35	09/19/16 17:30	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.7	3.8	1	09/19/16 09:35	09/19/16 17:30	208-96-8	
Anthracene	<6.6	ug/kg	22.0	6.6	1	09/19/16 09:35	09/19/16 17:30	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.3	3.7	1	09/19/16 09:35	09/19/16 17:30	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.7	2.9	1	09/19/16 09:35	09/19/16 17:30	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	10.9	3.3	1	09/19/16 09:35	09/19/16 17:30	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	7.8	2.4	1	09/19/16 09:35	09/19/16 17:30	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.7	2.9	1	09/19/16 09:35	09/19/16 17:30	207-08-9	
Chrysene	4.0J	ug/kg	13.0	3.9	1	09/19/16 09:35	09/19/16 17:30	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/19/16 09:35	09/19/16 17:30	53-70-3	
Fluoranthene	<6.0	ug/kg	20.2	6.0	1	09/19/16 09:35	09/19/16 17:30	206-44-0	
Fluorene	<4.8	ug/kg	16.0	4.8	1	09/19/16 09:35	09/19/16 17:30	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.5	2.5	1	09/19/16 09:35	09/19/16 17:30	193-39-5	
Naphthalene	<9.8	ug/kg	32.6	9.8	1	09/19/16 09:35	09/19/16 17:30	91-20-3	
Phenanthrene	<13.5	ug/kg	45.0	13.5	1	09/19/16 09:35	09/19/16 17:30	85-01-8	
Pyrene	<5.2	ug/kg	17.4	5.2	1	09/19/16 09:35	09/19/16 17:30	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	52	%	26-130		1	09/19/16 09:35	09/19/16 17:30	321-60-8	
Terphenyl-d14 (S)	62	%	10-130		1	09/19/16 09:35	09/19/16 17:30	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.7	ug/kg	23.2	10.7	1	09/16/16 07:45	09/16/16 21:59	71-43-2	
Ethylbenzene	<14.4	ug/kg	57.9	14.4	1	09/16/16 07:45	09/16/16 21:59	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	57.9	14.7	1	09/16/16 07:45	09/16/16 21:59	1634-04-4	
Toluene	13.5J	ug/kg	57.9	13.0	1	09/16/16 07:45	09/16/16 21:59	108-88-3	
Xylene (Total)	<56.1	ug/kg	174	56.1	1	09/16/16 07:45	09/16/16 21:59	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	106	%	53-165		1	09/16/16 07:45	09/16/16 21:59	1868-53-7	
4-Bromofluorobenzene (S)	104	%	48-138		1	09/16/16 07:45	09/16/16 21:59	460-00-4	
Toluene-d8 (S)	108	%	54-163		1	09/16/16 07:45	09/16/16 21:59	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.7	%	0.10	0.10	1		09/21/16 09:14		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

Sample: BH-26 @ 10-12.5 Lab ID: 40138313010 Collected: 09/14/16 10:20 Received: 09/15/16 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.7	ug/kg	15.6	4.7	1	09/19/16 09:35	09/19/16 17:47	83-32-9	
Acenaphthylene	<4.0	ug/kg	13.3	4.0	1	09/19/16 09:35	09/19/16 17:47	208-96-8	
Anthracene	<6.9	ug/kg	23.0	6.9	1	09/19/16 09:35	09/19/16 17:47	120-12-7	
Benzo(a)anthracene	<3.8	ug/kg	12.8	3.8	1	09/19/16 09:35	09/19/16 17:47	56-55-3	
Benzo(a)pyrene	<3.0	ug/kg	10.1	3.0	1	09/19/16 09:35	09/19/16 17:47	50-32-8	
Benzo(b)fluoranthene	<3.4	ug/kg	11.4	3.4	1	09/19/16 09:35	09/19/16 17:47	205-99-2	
Benzo(g,h,i)perylene	<2.5	ug/kg	8.2	2.5	1	09/19/16 09:35	09/19/16 17:47	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	10.1	3.0	1	09/19/16 09:35	09/19/16 17:47	207-08-9	
Chrysene	4.7J	ug/kg	13.5	4.1	1	09/19/16 09:35	09/19/16 17:47	218-01-9	
Dibenz(a,h)anthracene	<2.7	ug/kg	9.0	2.7	1	09/19/16 09:35	09/19/16 17:47	53-70-3	
Fluoranthene	<6.3	ug/kg	21.0	6.3	1	09/19/16 09:35	09/19/16 17:47	206-44-0	
Fluorene	<5.0	ug/kg	16.7	5.0	1	09/19/16 09:35	09/19/16 17:47	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.7	ug/kg	8.9	2.7	1	09/19/16 09:35	09/19/16 17:47	193-39-5	
Naphthalene	<10.2	ug/kg	34.0	10.2	1	09/19/16 09:35	09/19/16 17:47	91-20-3	
Phenanthrene	<14.1	ug/kg	46.9	14.1	1	09/19/16 09:35	09/19/16 17:47	85-01-8	
Pyrene	<5.5	ug/kg	18.1	5.5	1	09/19/16 09:35	09/19/16 17:47	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	50	%	26-130		1	09/19/16 09:35	09/19/16 17:47	321-60-8	
Terphenyl-d14 (S)	59	%	10-130		1	09/19/16 09:35	09/19/16 17:47	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<11.1	ug/kg	24.2	11.1	1	09/16/16 08:00	09/16/16 16:29	71-43-2	
Ethylbenzene	<15.0	ug/kg	60.4	15.0	1	09/16/16 08:00	09/16/16 16:29	100-41-4	
Methyl-tert-butyl ether	<15.3	ug/kg	60.4	15.3	1	09/16/16 08:00	09/16/16 16:29	1634-04-4	
Toluene	<13.6	ug/kg	60.4	13.6	1	09/16/16 08:00	09/16/16 16:29	108-88-3	
Xylene (Total)	<58.5	ug/kg	181	58.5	1	09/16/16 08:00	09/16/16 16:29	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	97	%	53-165		1	09/16/16 08:00	09/16/16 16:29	1868-53-7	
4-Bromofluorobenzene (S)	84	%	48-138		1	09/16/16 08:00	09/16/16 16:29	460-00-4	
Toluene-d8 (S)	93	%	54-163		1	09/16/16 08:00	09/16/16 16:29	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	17.3	%	0.10	0.10	1		09/21/16 09:14		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

Sample: BH-26 @ 17.5-20 Lab ID: 40138313011 Collected: 09/14/16 10:34 Received: 09/15/16 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.5	ug/kg	14.9	4.5	1	09/19/16 09:35	09/19/16 18:05	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.7	3.8	1	09/19/16 09:35	09/19/16 18:05	208-96-8	
Anthracene	<6.6	ug/kg	21.9	6.6	1	09/19/16 09:35	09/19/16 18:05	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.2	3.7	1	09/19/16 09:35	09/19/16 18:05	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.6	2.9	1	09/19/16 09:35	09/19/16 18:05	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	10.8	3.3	1	09/19/16 09:35	09/19/16 18:05	205-99-2	
Benzo(g,h,i)perylene	3.8J	ug/kg	7.8	2.3	1	09/19/16 09:35	09/19/16 18:05	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.6	2.9	1	09/19/16 09:35	09/19/16 18:05	207-08-9	
Chrysene	4.9J	ug/kg	12.9	3.9	1	09/19/16 09:35	09/19/16 18:05	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/19/16 09:35	09/19/16 18:05	53-70-3	
Fluoranthene	<6.0	ug/kg	20.0	6.0	1	09/19/16 09:35	09/19/16 18:05	206-44-0	
Fluorene	<4.8	ug/kg	15.9	4.8	1	09/19/16 09:35	09/19/16 18:05	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.4	2.5	1	09/19/16 09:35	09/19/16 18:05	193-39-5	
Naphthalene	<9.7	ug/kg	32.4	9.7	1	09/19/16 09:35	09/19/16 18:05	91-20-3	
Phenanthrene	14.1J	ug/kg	44.7	13.4	1	09/19/16 09:35	09/19/16 18:05	85-01-8	
Pyrene	<5.2	ug/kg	17.3	5.2	1	09/19/16 09:35	09/19/16 18:05	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	51	%	26-130		1	09/19/16 09:35	09/19/16 18:05	321-60-8	
Terphenyl-d14 (S)	66	%	10-130		1	09/19/16 09:35	09/19/16 18:05	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.6	ug/kg	23.0	10.6	1	09/16/16 08:00	09/16/16 16:50	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.6	14.3	1	09/16/16 08:00	09/16/16 16:50	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.6	14.6	1	09/16/16 08:00	09/16/16 16:50	1634-04-4	
Toluene	<12.9	ug/kg	57.6	12.9	1	09/16/16 08:00	09/16/16 16:50	108-88-3	
Xylene (Total)	<55.8	ug/kg	173	55.8	1	09/16/16 08:00	09/16/16 16:50	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	53-165		1	09/16/16 08:00	09/16/16 16:50	1868-53-7	
4-Bromofluorobenzene (S)	94	%	48-138		1	09/16/16 08:00	09/16/16 16:50	460-00-4	
Toluene-d8 (S)	94	%	54-163		1	09/16/16 08:00	09/16/16 16:50	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.2	%	0.10	0.10	1		09/21/16 09:14		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

Sample: BH-26 @ 20-22.5 Lab ID: 40138313012 Collected: 09/14/16 10:38 Received: 09/15/16 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.5	ug/kg	14.8	4.5	1	09/19/16 09:35	09/19/16 18:22	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.7	3.8	1	09/19/16 09:35	09/19/16 18:22	208-96-8	
Anthracene	<6.6	ug/kg	21.9	6.6	1	09/19/16 09:35	09/19/16 18:22	120-12-7	
Benzo(a)anthracene	<3.6	ug/kg	12.2	3.6	1	09/19/16 09:35	09/19/16 18:22	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.6	2.9	1	09/19/16 09:35	09/19/16 18:22	50-32-8	
Benzo(b)fluoranthene	<3.2	ug/kg	10.8	3.2	1	09/19/16 09:35	09/19/16 18:22	205-99-2	
Benzo(g,h,i)perylene	2.7J	ug/kg	7.8	2.3	1	09/19/16 09:35	09/19/16 18:22	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.6	2.9	1	09/19/16 09:35	09/19/16 18:22	207-08-9	
Chrysene	<3.9	ug/kg	12.9	3.9	1	09/19/16 09:35	09/19/16 18:22	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/19/16 09:35	09/19/16 18:22	53-70-3	
Fluoranthene	<6.0	ug/kg	20.0	6.0	1	09/19/16 09:35	09/19/16 18:22	206-44-0	
Fluorene	<4.8	ug/kg	15.9	4.8	1	09/19/16 09:35	09/19/16 18:22	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.4	2.5	1	09/19/16 09:35	09/19/16 18:22	193-39-5	
Naphthalene	<9.7	ug/kg	32.3	9.7	1	09/19/16 09:35	09/19/16 18:22	91-20-3	
Phenanthrene	<13.4	ug/kg	44.6	13.4	1	09/19/16 09:35	09/19/16 18:22	85-01-8	
Pyrene	<5.2	ug/kg	17.3	5.2	1	09/19/16 09:35	09/19/16 18:22	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	58	%	26-130		1	09/19/16 09:35	09/19/16 18:22	321-60-8	
Terphenyl-d14 (S)	73	%	10-130		1	09/19/16 09:35	09/19/16 18:22	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.6	ug/kg	23.0	10.6	1	09/16/16 08:00	09/16/16 17:12	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.5	14.3	1	09/16/16 08:00	09/16/16 17:12	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.5	14.6	1	09/16/16 08:00	09/16/16 17:12	1634-04-4	
Toluene	<12.9	ug/kg	57.5	12.9	1	09/16/16 08:00	09/16/16 17:12	108-88-3	
Xylene (Total)	<55.7	ug/kg	173	55.7	1	09/16/16 08:00	09/16/16 17:12	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	53-165		1	09/16/16 08:00	09/16/16 17:12	1868-53-7	
4-Bromofluorobenzene (S)	91	%	48-138		1	09/16/16 08:00	09/16/16 17:12	460-00-4	
Toluene-d8 (S)	93	%	54-163		1	09/16/16 08:00	09/16/16 17:12	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.1	%	0.10	0.10	1		09/21/16 09:14		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

Sample: BH-26 @ 27.5-29.25 Lab ID: 40138313013 Collected: 09/14/16 11:01 Received: 09/15/16 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.6	ug/kg	15.3	4.6	1	09/19/16 09:35	09/19/16 18:39	83-32-9	
Acenaphthylene	<3.9	ug/kg	13.1	3.9	1	09/19/16 09:35	09/19/16 18:39	208-96-8	
Anthracene	<6.8	ug/kg	22.6	6.8	1	09/19/16 09:35	09/19/16 18:39	120-12-7	
Benzo(a)anthracene	<3.8	ug/kg	12.6	3.8	1	09/19/16 09:35	09/19/16 18:39	56-55-3	
Benzo(a)pyrene	<3.0	ug/kg	9.9	3.0	1	09/19/16 09:35	09/19/16 18:39	50-32-8	
Benzo(b)fluoranthene	<3.4	ug/kg	11.2	3.4	1	09/19/16 09:35	09/19/16 18:39	205-99-2	
Benzo(g,h,i)perylene	3.5J	ug/kg	8.0	2.4	1	09/19/16 09:35	09/19/16 18:39	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	9.9	3.0	1	09/19/16 09:35	09/19/16 18:39	207-08-9	
Chrysene	<4.0	ug/kg	13.3	4.0	1	09/19/16 09:35	09/19/16 18:39	218-01-9	
Dibenz(a,h)anthracene	<2.7	ug/kg	8.8	2.7	1	09/19/16 09:35	09/19/16 18:39	53-70-3	
Fluoranthene	<6.2	ug/kg	20.7	6.2	1	09/19/16 09:35	09/19/16 18:39	206-44-0	
Fluorene	<4.9	ug/kg	16.4	4.9	1	09/19/16 09:35	09/19/16 18:39	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.7	2.6	1	09/19/16 09:35	09/19/16 18:39	193-39-5	
Naphthalene	<10.0	ug/kg	33.4	10.0	1	09/19/16 09:35	09/19/16 18:39	91-20-3	
Phenanthrene	<13.8	ug/kg	46.1	13.8	1	09/19/16 09:35	09/19/16 18:39	85-01-8	
Pyrene	<5.4	ug/kg	17.8	5.4	1	09/19/16 09:35	09/19/16 18:39	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	49	%	26-130		1	09/19/16 09:35	09/19/16 18:39	321-60-8	
Terphenyl-d14 (S)	62	%	10-130		1	09/19/16 09:35	09/19/16 18:39	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	75.6	ug/kg	23.8	11.0	1	09/16/16 08:00	09/16/16 17:34	71-43-2	
Ethylbenzene	<14.8	ug/kg	59.4	14.8	1	09/16/16 08:00	09/16/16 17:34	100-41-4	
Methyl-tert-butyl ether	<15.0	ug/kg	59.4	15.0	1	09/16/16 08:00	09/16/16 17:34	1634-04-4	
Toluene	<13.3	ug/kg	59.4	13.3	1	09/16/16 08:00	09/16/16 17:34	108-88-3	
Xylene (Total)	<57.5	ug/kg	178	57.5	1	09/16/16 08:00	09/16/16 17:34	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	53-165		1	09/16/16 08:00	09/16/16 17:34	1868-53-7	
4-Bromofluorobenzene (S)	93	%	48-138		1	09/16/16 08:00	09/16/16 17:34	460-00-4	
Toluene-d8 (S)	97	%	54-163		1	09/16/16 08:00	09/16/16 17:34	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	15.8	%	0.10	0.10	1		09/21/16 09:14		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

Sample: BH-22A @ 2.5-5 Lab ID: 40138313014 Collected: 09/14/16 12:36 Received: 09/15/16 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.6	ug/kg	15.3	4.6	1	09/19/16 09:35	09/19/16 18:56	83-32-9	
Acenaphthylene	<3.9	ug/kg	13.0	3.9	1	09/19/16 09:35	09/19/16 18:56	208-96-8	
Anthracene	<6.8	ug/kg	22.5	6.8	1	09/19/16 09:35	09/19/16 18:56	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.5	3.7	1	09/19/16 09:35	09/19/16 18:56	56-55-3	
Benzo(a)pyrene	<3.0	ug/kg	9.9	3.0	1	09/19/16 09:35	09/19/16 18:56	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	11.1	3.3	1	09/19/16 09:35	09/19/16 18:56	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	8.0	2.4	1	09/19/16 09:35	09/19/16 18:56	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	9.9	3.0	1	09/19/16 09:35	09/19/16 18:56	207-08-9	
Chrysene	<4.0	ug/kg	13.2	4.0	1	09/19/16 09:35	09/19/16 18:56	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.8	2.6	1	09/19/16 09:35	09/19/16 18:56	53-70-3	
Fluoranthene	<6.2	ug/kg	20.6	6.2	1	09/19/16 09:35	09/19/16 18:56	206-44-0	
Fluorene	<4.9	ug/kg	16.3	4.9	1	09/19/16 09:35	09/19/16 18:56	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.7	2.6	1	09/19/16 09:35	09/19/16 18:56	193-39-5	
Naphthalene	<10	ug/kg	33.2	10	1	09/19/16 09:35	09/19/16 18:56	91-20-3	
Phenanthrene	<13.8	ug/kg	45.9	13.8	1	09/19/16 09:35	09/19/16 18:56	85-01-8	
Pyrene	<5.3	ug/kg	17.7	5.3	1	09/19/16 09:35	09/19/16 18:56	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	53	%	26-130		1	09/19/16 09:35	09/19/16 18:56	321-60-8	
Terphenyl-d14 (S)	58	%	10-130		1	09/19/16 09:35	09/19/16 18:56	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.9	ug/kg	23.7	10.9	1	09/16/16 08:00	09/16/16 17:56	71-43-2	
Ethylbenzene	<14.7	ug/kg	59.1	14.7	1	09/16/16 08:00	09/16/16 17:56	100-41-4	
Methyl-tert-butyl ether	<15.0	ug/kg	59.1	15.0	1	09/16/16 08:00	09/16/16 17:56	1634-04-4	
Toluene	<13.3	ug/kg	59.1	13.3	1	09/16/16 08:00	09/16/16 17:56	108-88-3	
Xylene (Total)	<57.3	ug/kg	177	57.3	1	09/16/16 08:00	09/16/16 17:56	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	106	%	53-165		1	09/16/16 08:00	09/16/16 17:56	1868-53-7	
4-Bromofluorobenzene (S)	95	%	48-138		1	09/16/16 08:00	09/16/16 17:56	460-00-4	
Toluene-d8 (S)	102	%	54-163		1	09/16/16 08:00	09/16/16 17:56	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	15.4	%	0.10	0.10	1		09/21/16 09:14		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

Sample: BH-22A @ 10-12.5 Lab ID: 40138313015 Collected: 09/14/16 12:49 Received: 09/15/16 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.5	ug/kg	14.9	4.5	1	09/19/16 09:35	09/19/16 19:14	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.7	3.8	1	09/19/16 09:35	09/19/16 19:14	208-96-8	
Anthracene	<6.6	ug/kg	21.9	6.6	1	09/19/16 09:35	09/19/16 19:14	120-12-7	
Benzo(a)anthracene	4.8J	ug/kg	12.2	3.7	1	09/19/16 09:35	09/19/16 19:14	56-55-3	
Benzo(a)pyrene	5.2J	ug/kg	9.7	2.9	1	09/19/16 09:35	09/19/16 19:14	50-32-8	
Benzo(b)fluoranthene	7.6J	ug/kg	10.8	3.3	1	09/19/16 09:35	09/19/16 19:14	205-99-2	
Benzo(g,h,i)perylene	4.1J	ug/kg	7.8	2.3	1	09/19/16 09:35	09/19/16 19:14	191-24-2	
Benzo(k)fluoranthene	6.4J	ug/kg	9.6	2.9	1	09/19/16 09:35	09/19/16 19:14	207-08-9	
Chrysene	13.2	ug/kg	12.9	3.9	1	09/19/16 09:35	09/19/16 19:14	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/19/16 09:35	09/19/16 19:14	53-70-3	
Fluoranthene	15.2J	ug/kg	20.1	6.0	1	09/19/16 09:35	09/19/16 19:14	206-44-0	
Fluorene	<4.8	ug/kg	15.9	4.8	1	09/19/16 09:35	09/19/16 19:14	86-73-7	
Indeno(1,2,3-cd)pyrene	3.4J	ug/kg	8.5	2.5	1	09/19/16 09:35	09/19/16 19:14	193-39-5	
Naphthalene	<9.7	ug/kg	32.4	9.7	1	09/19/16 09:35	09/19/16 19:14	91-20-3	
Phenanthrene	17.2J	ug/kg	44.7	13.4	1	09/19/16 09:35	09/19/16 19:14	85-01-8	
Pyrene	11.1J	ug/kg	17.3	5.2	1	09/19/16 09:35	09/19/16 19:14	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	56	%	26-130		1	09/19/16 09:35	09/19/16 19:14	321-60-8	
Terphenyl-d14 (S)	70	%	10-130		1	09/19/16 09:35	09/19/16 19:14	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.6	ug/kg	23.1	10.6	1	09/16/16 08:00	09/16/16 18:18	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.7	14.3	1	09/16/16 08:00	09/16/16 18:18	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.7	14.6	1	09/16/16 08:00	09/16/16 18:18	1634-04-4	
Toluene	<12.9	ug/kg	57.7	12.9	1	09/16/16 08:00	09/16/16 18:18	108-88-3	
Xylene (Total)	<55.8	ug/kg	173	55.8	1	09/16/16 08:00	09/16/16 18:18	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	97	%	53-165		1	09/16/16 08:00	09/16/16 18:18	1868-53-7	
4-Bromofluorobenzene (S)	88	%	48-138		1	09/16/16 08:00	09/16/16 18:18	460-00-4	
Toluene-d8 (S)	94	%	54-163		1	09/16/16 08:00	09/16/16 18:18	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.3	%	0.10	0.10	1		09/21/16 09:14		

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138313

Sample: BH-22A @ 15-17.5 Lab ID: 40138313016 Collected: 09/14/16 12:58 Received: 09/15/16 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.6	ug/kg	15.4	4.6	1	09/19/16 09:35	09/19/16 19:31	83-32-9	
Acenaphthylene	<3.9	ug/kg	13.2	3.9	1	09/19/16 09:35	09/19/16 19:31	208-96-8	
Anthracene	<6.8	ug/kg	22.7	6.8	1	09/19/16 09:35	09/19/16 19:31	120-12-7	
Benzo(a)anthracene	<3.8	ug/kg	12.7	3.8	1	09/19/16 09:35	09/19/16 19:31	56-55-3	
Benzo(a)pyrene	<3.0	ug/kg	10.0	3.0	1	09/19/16 09:35	09/19/16 19:31	50-32-8	
Benzo(b)fluoranthene	3.4J	ug/kg	11.3	3.4	1	09/19/16 09:35	09/19/16 19:31	205-99-2	
Benzo(g,h,i)perylene	4.1J	ug/kg	8.1	2.4	1	09/19/16 09:35	09/19/16 19:31	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	10.0	3.0	1	09/19/16 09:35	09/19/16 19:31	207-08-9	
Chrysene	8.4J	ug/kg	13.4	4.0	1	09/19/16 09:35	09/19/16 19:31	218-01-9	
Dibenz(a,h)anthracene	<2.7	ug/kg	8.9	2.7	1	09/19/16 09:35	09/19/16 19:31	53-70-3	
Fluoranthene	<6.2	ug/kg	20.8	6.2	1	09/19/16 09:35	09/19/16 19:31	206-44-0	
Fluorene	<5.0	ug/kg	16.5	5.0	1	09/19/16 09:35	09/19/16 19:31	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.8	2.6	1	09/19/16 09:35	09/19/16 19:31	193-39-5	
Naphthalene	93.7	ug/kg	33.6	10.1	1	09/19/16 09:35	09/19/16 19:31	91-20-3	
Phenanthrene	14.6J	ug/kg	46.4	13.9	1	09/19/16 09:35	09/19/16 19:31	85-01-8	
Pyrene	<5.4	ug/kg	18.0	5.4	1	09/19/16 09:35	09/19/16 19:31	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	59	%	26-130		1	09/19/16 09:35	09/19/16 19:31	321-60-8	
Terphenyl-d14 (S)	67	%	10-130		1	09/19/16 09:35	09/19/16 19:31	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<11.0	ug/kg	23.9	11.0	1	09/16/16 08:00	09/16/16 18:40	71-43-2	
Ethylbenzene	<14.9	ug/kg	59.8	14.9	1	09/16/16 08:00	09/16/16 18:40	100-41-4	
Methyl-tert-butyl ether	<15.1	ug/kg	59.8	15.1	1	09/16/16 08:00	09/16/16 18:40	1634-04-4	
Toluene	<13.4	ug/kg	59.8	13.4	1	09/16/16 08:00	09/16/16 18:40	108-88-3	
Xylene (Total)	<58.0	ug/kg	180	58.0	1	09/16/16 08:00	09/16/16 18:40	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	97	%	53-165		1	09/16/16 08:00	09/16/16 18:40	1868-53-7	
4-Bromofluorobenzene (S)	96	%	48-138		1	09/16/16 08:00	09/16/16 18:40	460-00-4	
Toluene-d8 (S)	92	%	54-163		1	09/16/16 08:00	09/16/16 18:40	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	16.4	%	0.10	0.10	1		09/21/16 09:14		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

Sample: BH-22A @ 20-23 Lab ID: 40138313017 Collected: 09/14/16 13:13 Received: 09/15/16 10:05 Matrix: Solid  
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.6	ug/kg	15.2	4.6	1	09/19/16 09:35	09/19/16 20:05	83-32-9	
Acenaphthylene	<3.9	ug/kg	13.0	3.9	1	09/19/16 09:35	09/19/16 20:05	208-96-8	
Anthracene	<6.8	ug/kg	22.5	6.8	1	09/19/16 09:35	09/19/16 20:05	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.5	3.7	1	09/19/16 09:35	09/19/16 20:05	56-55-3	
Benzo(a)pyrene	3.4J	ug/kg	9.9	3.0	1	09/19/16 09:35	09/19/16 20:05	50-32-8	
Benzo(b)fluoranthene	5.8J	ug/kg	11.1	3.3	1	09/19/16 09:35	09/19/16 20:05	205-99-2	
Benzo(g,h,i)perylene	3.9J	ug/kg	8.0	2.4	1	09/19/16 09:35	09/19/16 20:05	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	9.9	3.0	1	09/19/16 09:35	09/19/16 20:05	207-08-9	
Chrysene	13.1J	ug/kg	13.2	4.0	1	09/19/16 09:35	09/19/16 20:05	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.8	2.6	1	09/19/16 09:35	09/19/16 20:05	53-70-3	
Fluoranthene	7.6J	ug/kg	20.6	6.2	1	09/19/16 09:35	09/19/16 20:05	206-44-0	
Fluorene	<4.9	ug/kg	16.3	4.9	1	09/19/16 09:35	09/19/16 20:05	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.7	2.6	1	09/19/16 09:35	09/19/16 20:05	193-39-5	
Naphthalene	165	ug/kg	33.2	10	1	09/19/16 09:35	09/19/16 20:05	91-20-3	
Phenanthrene	<13.8	ug/kg	45.9	13.8	1	09/19/16 09:35	09/19/16 20:05	85-01-8	
Pyrene	7.5J	ug/kg	17.7	5.3	1	09/19/16 09:35	09/19/16 20:05	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	52	%	26-130		1	09/19/16 09:35	09/19/16 20:05	321-60-8	
Terphenyl-d14 (S)	64	%	10-130		1	09/19/16 09:35	09/19/16 20:05	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<109	ug/kg	236	109	10	09/16/16 08:00	09/16/16 19:01	71-43-2	
Ethylbenzene	27800	ug/kg	591	147	10	09/16/16 08:00	09/16/16 19:01	100-41-4	
Methyl-tert-butyl ether	<150	ug/kg	591	150	10	09/16/16 08:00	09/16/16 19:01	1634-04-4	
Toluene	1990	ug/kg	591	133	10	09/16/16 08:00	09/16/16 19:01	108-88-3	
Xylene (Total)	70600	ug/kg	1770	572	10	09/16/16 08:00	09/16/16 19:01	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	53-165		10	09/16/16 08:00	09/16/16 19:01	1868-53-7	
4-Bromofluorobenzene (S)	126	%	48-138		10	09/16/16 08:00	09/16/16 19:01	460-00-4	
Toluene-d8 (S)	90	%	54-163		10	09/16/16 08:00	09/16/16 19:01	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	15.4	%	0.10	0.10	1		09/21/16 09:14		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

QC Batch: 235130 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40138313001, 40138313002, 40138313003, 40138313004, 40138313005, 40138313006, 40138313007, 40138313008, 40138313009

METHOD BLANK: 1393450 Matrix: Solid  
Associated Lab Samples: 40138313001, 40138313002, 40138313003, 40138313004, 40138313005, 40138313006, 40138313007, 40138313008, 40138313009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	9.2	09/16/16 15:26	
Ethylbenzene	ug/kg	<12.4	50.0	12.4	09/16/16 15:26	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	12.7	09/16/16 15:26	
Toluene	ug/kg	<11.2	50.0	11.2	09/16/16 15:26	
Xylene (Total)	ug/kg	<48.4	150	48.4	09/16/16 15:26	
4-Bromofluorobenzene (S)	%	107	48-138		09/16/16 15:26	
Dibromofluoromethane (S)	%	104	53-165		09/16/16 15:26	
Toluene-d8 (S)	%	110	54-163		09/16/16 15:26	

LABORATORY CONTROL SAMPLE: 1393451

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2510	101	70-130	
Ethylbenzene	ug/kg	2500	2540	102	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2630	105	70-130	
Toluene	ug/kg	2500	2570	103	70-130	
Xylene (Total)	ug/kg	7500	7750	103	70-130	
4-Bromofluorobenzene (S)	%			104	48-138	
Dibromofluoromethane (S)	%			105	53-165	
Toluene-d8 (S)	%			104	54-163	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138313

QC Batch: 235139 Analysis Method: EPA 8260  
 QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
 Associated Lab Samples: 40138313010, 40138313011, 40138313012, 40138313013, 40138313014, 40138313015, 40138313016, 40138313017

METHOD BLANK: 1393464 Matrix: Solid  
 Associated Lab Samples: 40138313010, 40138313011, 40138313012, 40138313013, 40138313014, 40138313015, 40138313016, 40138313017

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	9.2	09/16/16 09:32	
Ethylbenzene	ug/kg	<12.4	50.0	12.4	09/16/16 09:32	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	12.7	09/16/16 09:32	
Toluene	ug/kg	<11.2	50.0	11.2	09/16/16 09:32	
Xylene (Total)	ug/kg	<48.4	150	48.4	09/16/16 09:32	
4-Bromofluorobenzene (S)	%	92	48-138		09/16/16 09:32	
Dibromofluoromethane (S)	%	102	53-165		09/16/16 09:32	
Toluene-d8 (S)	%	98	54-163		09/16/16 09:32	

LABORATORY CONTROL SAMPLE: 1393465

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2520	101	70-130	
Ethylbenzene	ug/kg	2500	2450	98	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2060	82	70-130	
Toluene	ug/kg	2500	2490	99	70-130	
Xylene (Total)	ug/kg	7500	7600	101	70-130	
4-Bromofluorobenzene (S)	%			99	48-138	
Dibromofluoromethane (S)	%			101	53-165	
Toluene-d8 (S)	%			94	54-163	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1393466 1393467

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40138262013 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Benzene	ug/kg	<25.0	1300	1300	1110	1120	85	86	70-130	1	20	
Ethylbenzene	ug/kg	<25.0	1300	1300	1060	1040	82	80	70-130	2	20	
Methyl-tert-butyl ether	ug/kg	<25.0	1300	1300	967	973	74	75	70-130	1	20	
Toluene	ug/kg	<25.0	1300	1300	1060	1080	82	83	70-130	2	20	
Xylene (Total)	ug/kg	<75.0	3900	3900	3280	3250	84	83	70-130	1	20	
4-Bromofluorobenzene (S)	%						96	91	48-138			
Dibromofluoromethane (S)	%						89	87	53-165			
Toluene-d8 (S)	%						89	83	54-163			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

QC Batch: 235244 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40138313001, 40138313002, 40138313003, 40138313004, 40138313005, 40138313006, 40138313007, 40138313008, 40138313009, 40138313010, 40138313011, 40138313012, 40138313013, 40138313014, 40138313015, 40138313016, 40138313017

METHOD BLANK: 1394569 Matrix: Solid  
Associated Lab Samples: 40138313001, 40138313002, 40138313003, 40138313004, 40138313005, 40138313006, 40138313007, 40138313008, 40138313009, 40138313010, 40138313011, 40138313012, 40138313013, 40138313014, 40138313015, 40138313016, 40138313017

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	ug/kg	<3.9	12.9	3.9	09/19/16 12:18	
Acenaphthylene	ug/kg	<3.3	11.0	3.3	09/19/16 12:18	
Anthracene	ug/kg	<5.7	19.0	5.7	09/19/16 12:18	
Benzo(a)anthracene	ug/kg	<3.2	10.6	3.2	09/19/16 12:18	
Benzo(a)pyrene	ug/kg	<2.5	8.4	2.5	09/19/16 12:18	
Benzo(b)fluoranthene	ug/kg	<2.8	9.4	2.8	09/19/16 12:18	
Benzo(g,h,i)perylene	ug/kg	<2.0	6.8	2.0	09/19/16 12:18	
Benzo(k)fluoranthene	ug/kg	<2.5	8.4	2.5	09/19/16 12:18	
Chrysene	ug/kg	<3.4	11.2	3.4	09/19/16 12:18	
Dibenz(a,h)anthracene	ug/kg	<2.2	7.4	2.2	09/19/16 12:18	
Fluoranthene	ug/kg	<5.2	17.4	5.2	09/19/16 12:18	
Fluorene	ug/kg	<4.1	13.8	4.1	09/19/16 12:18	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.2	7.3	2.2	09/19/16 12:18	
Naphthalene	ug/kg	<8.4	28.1	8.4	09/19/16 12:18	
Phenanthrene	ug/kg	<11.6	38.8	11.6	09/19/16 12:18	
Pyrene	ug/kg	<4.5	15.0	4.5	09/19/16 12:18	
2-Fluorobiphenyl (S)	%	59	26-130		09/19/16 12:18	
Terphenyl-d14 (S)	%	73	10-130		09/19/16 12:18	

LABORATORY CONTROL SAMPLE: 1394570

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	208	63	54-130	
Acenaphthylene	ug/kg	333	212	63	56-130	
Anthracene	ug/kg	333	262	79	70-130	
Benzo(a)anthracene	ug/kg	333	254	76	58-130	
Benzo(a)pyrene	ug/kg	333	271	81	58-130	
Benzo(b)fluoranthene	ug/kg	333	266	80	50-130	
Benzo(g,h,i)perylene	ug/kg	333	247	74	39-130	
Benzo(k)fluoranthene	ug/kg	333	264	79	57-130	
Chrysene	ug/kg	333	270	81	64-130	
Dibenz(a,h)anthracene	ug/kg	333	259	78	44-130	
Fluoranthene	ug/kg	333	258	77	59-130	
Fluorene	ug/kg	333	217	65	56-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	255	76	45-130	
Naphthalene	ug/kg	333	227	68	46-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

LABORATORY CONTROL SAMPLE: 1394570

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/kg	333	261	78	56-130	
Pyrene	ug/kg	333	245	73	59-130	
2-Fluorobiphenyl (S)	%			64	26-130	
Terphenyl-d14 (S)	%			75	10-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1394571 1394572

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40138313004 Result	Spike Conc.	Spike Conc.	MS Result						
Acenaphthene	ug/kg	<4.5	382	382	245	223	64	58	49-130	9	27
Acenaphthylene	ug/kg	<3.8	382	382	247	227	65	59	52-130	9	26
Anthracene	ug/kg	<6.6	382	382	292	269	76	70	61-130	8	29
Benzo(a)anthracene	ug/kg	<3.6	382	382	277	254	72	66	45-130	9	28
Benzo(a)pyrene	ug/kg	<2.9	382	382	287	260	74	68	39-130	10	34
Benzo(b)fluoranthene	ug/kg	4.1J	382	382	309	265	80	68	30-130	16	43
Benzo(g,h,i)perylene	ug/kg	8.8	382	382	261	241	66	61	24-130	8	34
Benzo(k)fluoranthene	ug/kg	<2.9	382	382	269	258	70	67	41-130	4	32
Chrysene	ug/kg	10.8J	382	382	298	268	75	67	46-130	11	37
Dibenz(a,h)anthracene	ug/kg	<2.6	382	382	283	261	74	68	33-130	8	34
Fluoranthene	ug/kg	<6.0	382	382	289	261	75	67	41-130	10	25
Fluorene	ug/kg	<4.7	382	382	249	230	65	60	49-130	8	30
Indeno(1,2,3-cd)pyrene	ug/kg	<2.5	382	382	274	256	71	67	30-130	7	28
Naphthalene	ug/kg	<9.7	382	382	283	247	73	64	39-130	13	26
Phenanthrene	ug/kg	30.4J	382	382	311	274	73	64	47-130	13	26
Pyrene	ug/kg	6.3J	382	382	273	249	70	63	37-130	9	30
2-Fluorobiphenyl (S)	%						66	60	26-130		
Terphenyl-d14 (S)	%						76	67	10-130		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI  
 Pace Project No.: 40138313

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QC Batch: 235554 Analysis Method: ASTM D2974-87  
 QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture  
 Associated Lab Samples: 40138313001, 40138313002, 40138313003, 40138313004, 40138313005, 40138313006, 40138313007,  
 40138313008, 40138313009, 40138313010, 40138313011, 40138313012, 40138313013, 40138313014,  
 40138313015, 40138313016, 40138313017

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SAMPLE DUPLICATE: 1396133

Parameter	Units	40138313001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	21.4	21.1	1	10	

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138313

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40138313001	BH-27 @ 2.5-5	EPA 3546	235244	EPA 8270 by SIM	235275
40138313002	BH-27 @ 7.5-10	EPA 3546	235244	EPA 8270 by SIM	235275
40138313003	BH-27 @ 12.5-15	EPA 3546	235244	EPA 8270 by SIM	235275
40138313004	BH-27 @ 17.5-20	EPA 3546	235244	EPA 8270 by SIM	235275
40138313005	BH-27 @ 22.5-25	EPA 3546	235244	EPA 8270 by SIM	235275
40138313006	BH-27 @ 27.5-30	EPA 3546	235244	EPA 8270 by SIM	235275
40138313007	BH-27 @ 30-32.5	EPA 3546	235244	EPA 8270 by SIM	235275
40138313008	BH-26 @ 1-2.5	EPA 3546	235244	EPA 8270 by SIM	235275
40138313009	BH-26 @ 7.5-10	EPA 3546	235244	EPA 8270 by SIM	235275
40138313010	BH-26 @ 10-12.5	EPA 3546	235244	EPA 8270 by SIM	235275
40138313011	BH-26 @ 17.5-20	EPA 3546	235244	EPA 8270 by SIM	235275
40138313012	BH-26 @ 20-22.5	EPA 3546	235244	EPA 8270 by SIM	235275
40138313013	BH-26 @ 27.5-29.25	EPA 3546	235244	EPA 8270 by SIM	235275
40138313014	BH-22A @ 2.5-5	EPA 3546	235244	EPA 8270 by SIM	235275
40138313015	BH-22A @ 10-12.5	EPA 3546	235244	EPA 8270 by SIM	235275
40138313016	BH-22A @ 15-17.5	EPA 3546	235244	EPA 8270 by SIM	235275
40138313017	BH-22A @ 20-23	EPA 3546	235244	EPA 8270 by SIM	235275
40138313001	BH-27 @ 2.5-5	EPA 5035/5030B	235130	EPA 8260	235135
40138313002	BH-27 @ 7.5-10	EPA 5035/5030B	235130	EPA 8260	235135
40138313003	BH-27 @ 12.5-15	EPA 5035/5030B	235130	EPA 8260	235135
40138313004	BH-27 @ 17.5-20	EPA 5035/5030B	235130	EPA 8260	235135
40138313005	BH-27 @ 22.5-25	EPA 5035/5030B	235130	EPA 8260	235135
40138313006	BH-27 @ 27.5-30	EPA 5035/5030B	235130	EPA 8260	235135
40138313007	BH-27 @ 30-32.5	EPA 5035/5030B	235130	EPA 8260	235135
40138313008	BH-26 @ 1-2.5	EPA 5035/5030B	235130	EPA 8260	235135
40138313009	BH-26 @ 7.5-10	EPA 5035/5030B	235130	EPA 8260	235135
40138313010	BH-26 @ 10-12.5	EPA 5035/5030B	235139	EPA 8260	235148
40138313011	BH-26 @ 17.5-20	EPA 5035/5030B	235139	EPA 8260	235148
40138313012	BH-26 @ 20-22.5	EPA 5035/5030B	235139	EPA 8260	235148
40138313013	BH-26 @ 27.5-29.25	EPA 5035/5030B	235139	EPA 8260	235148
40138313014	BH-22A @ 2.5-5	EPA 5035/5030B	235139	EPA 8260	235148
40138313015	BH-22A @ 10-12.5	EPA 5035/5030B	235139	EPA 8260	235148
40138313016	BH-22A @ 15-17.5	EPA 5035/5030B	235139	EPA 8260	235148
40138313017	BH-22A @ 20-23	EPA 5035/5030B	235139	EPA 8260	235148
40138313001	BH-27 @ 2.5-5	ASTM D2974-87	235554		
40138313002	BH-27 @ 7.5-10	ASTM D2974-87	235554		
40138313003	BH-27 @ 12.5-15	ASTM D2974-87	235554		
40138313004	BH-27 @ 17.5-20	ASTM D2974-87	235554		
40138313005	BH-27 @ 22.5-25	ASTM D2974-87	235554		
40138313006	BH-27 @ 27.5-30	ASTM D2974-87	235554		
40138313007	BH-27 @ 30-32.5	ASTM D2974-87	235554		
40138313008	BH-26 @ 1-2.5	ASTM D2974-87	235554		
40138313009	BH-26 @ 7.5-10	ASTM D2974-87	235554		
40138313010	BH-26 @ 10-12.5	ASTM D2974-87	235554		
40138313011	BH-26 @ 17.5-20	ASTM D2974-87	235554		
40138313012	BH-26 @ 20-22.5	ASTM D2974-87	235554		
40138313013	BH-26 @ 27.5-29.25	ASTM D2974-87	235554		

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138313

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40138313014	BH-22A @ 2.5-5	ASTM D2974-87	235554		
40138313015	BH-22A @ 10-12.5	ASTM D2974-87	235554		
40138313016	BH-22A @ 15-17.5	ASTM D2974-87	235554		
40138313017	BH-22A @ 20-23	ASTM D2974-87	235554		

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**CHAIN-OF-CUSTODY / Analytical Request Document**

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



40188313

Page: 1 of 2

<b>Section A</b> Required Client Information:	<b>Section B</b> Required Project Information:	<b>Section C</b> Invoice Information:
Company: TriCore Environmental, LLC	Report To: Marcos I. Czako	Attention: Shawn Rodeck
Address: 2368 Corporate Lane, Suite 116 Naperville, Illinois 60563	Copy To:	Company Name: TriCore Environmental, LLC
Email To: marcos.czako@tricoreweb.com	Purchase Order No.: 100137	Address: 2368 Corporate Lane, Suite 116, Naperville, Illinois 60563
Phone: 630-520-9973 Fax 630-520-9976	Project Name: Lemont Kar Gas / <i>BOI</i>	Pace Quote Reference:
Requested Due Date/TAT: standard	Project Number: 100137	Pace Profile #:

**REGULATORY AGENCY**

NPDES  GROUND WATER  DRINKING WATER

UST  RCRA  OTHER \_\_\_\_\_

**SITE LOCATION**  GA  IL  IN  MI  NC

OH  SC  WI  OTHER \_\_\_\_\_

Filtered (Y/N) *N N N*

ITEM #	Section D Required Client Information										COLLECTED	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Requested Analyte	IB TEAM 8260 Mokulure PAKs 8270	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.	
	SAMPLE ID		Valid Matrix Codes		MATRIX CODE	SAMPLE TYPE	COMPOSITE START		COMPOSITE END/GRAB					Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub>	Methanol	Other					
	One Character per box. (A-Z, 0-9 / . -)	Sample IDs MUST BE UNIQUE	MATRIX	CODE			DATE	TIME	DATE	TIME																
			DRINKING WATER WATER WASTE WATER PRODUCT SOL/SOLID OIL WIFE AIR OTHER TISSUE	DW WF WW P SL OL WF AR OT TS																						
1	BH-27	e	2.5-5		001	SLG			9/14/16	0833	3	1									X	X	X	N	2-40ml + 40ml	
2	BH-27	e	7.5-10		002	SLG			9/14/16	0838	3	1										X	X	X	N	
3	BH-27	e	12.5-15		003	SLG			9/14/16	0845	3	1										X	X	X	N	
4	BH-27	e	17.5-20		004	SLG			9/14/16	0850	3	1										X	X	X	N	
5	BH-27	e	22.5-25		005	SLG			9/14/16	0915	3	1										X	X	X	N	
6	BH-27	e	27.5-30		006	SLG			9/14/16	0933	3	1										X	X	X	N	
7	BH-27	e	30-32.5		007	SLG			9/14/16	0948	3	1										X	X	X	N	
8	BH-26	e	1-2.5		008	SLG			9/14/16	1002	3	1										X	X	X	N	
9	BH-26	e	7.5-10		009	SLG			9/14/16	1009	3	1										X	X	X	N	
10	BH-26	e	10-12.5		010	SLG			9/14/16	1020	3	1										X	X	X	N	
11	BH-26	e	17.5-20		011	SLG			9/14/16	1034	3	1										X	X	X	N	
12	BH-26	e	20-22.5		012	SLG			9/14/16	1038	3	1										X	X	X	N	

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
<i>2368 Corporate Lane / sampler</i>	9/14/16	1415	Kathleen Demore	9/14/16	1415	Y/N Y/N Y/N
Kathleen Demore	9/14/16	1700	CS Logistics	9/14/16		Y/N Y/N Y/N
CS LOGISTICS	9/15/16	1005	Shawn Rodeck	9/15/16	1005	3 Y/N Y/N Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Marcos I. Czako

SIGNATURE of SAMPLER: *[Signature]* DATE Signed (MM/DD/YY): 09/14/16

Temp in °C: \_\_\_\_\_  
 Received on Ice: \_\_\_\_\_  
 Custody Sealed Cooler: \_\_\_\_\_  
 Samples intact: \_\_\_\_\_





Pace Analytical

Project #: WO#: 40138313

Client Name: TRICORP

Courier: Fed Ex UPS Client Pace Other: CS LOGISTICS



Custody Seal on Cooler/Box Present: Yes - no Seals intact: Yes - no

Custody Seal on Samples Present: yes - no Seals intact: yes - no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used: SR47 Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: 3 / Corr: 3 Biological Tissue is Frozen: yes

Temp Blank Present: Yes - no

Temp should be above freezing to 6°C for all sample except Biota. Frozen Biota Samples should be received ≤ 0°C.

Person examining contents: Date: 3/15/16 Initials: [Signature]

Comments:

Table with 15 rows of inspection items and checkboxes. Items include Chain of Custody Present, Samples Arrived within Hold Time, Short Hold Time Analysis, Containers Intact, etc.

Client Notification/ Resolution: Person Contacted: Date/Time: Comments/ Resolution:

Project Manager Review: [Signature] Date: 3/15/16



700000

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

**Leaking Underground Storage Tank Program  
 Laboratory Certification for Chemical Analysis**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

**B. Sample Collector**

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. NER  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. NER  
(Initial)
- 3. Sample integrity was maintained by proper preservation. NER  
(Initial)
- 4. All samples were properly labeled. NER  
(Initial)

**C. Laboratory Representative**

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms (LW)  
(Initial)
- 2. Sample integrity was maintained by proper preservation. (LW)  
(Initial)
- 3. All samples were properly labeled. (LW)  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. (LW)  
(Initial)
- 5. Sample holding times were not exceeded. (LW)  
(Initial)

6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.

UW  
(Initial)


7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

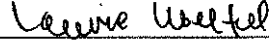
**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako  
Title Geologist III  
Company TriCore Environmental, LLC  
Address 2368 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone (630) 520-9973  
Signature   
Date 09/14/16

**Laboratory Representative**

Name Laurie Woelfel  
Title Project Manager  
Company Pace Analytical Services, Inc.  
Address 1241 Bellevue Street, Suite 9  
City Green Bay  
State Wisconsin  
Zip Code 64302  
Phone (920) 469-2436  
Signature   
Date 9/22/16

September 23, 2016

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

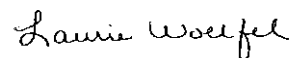
RE: Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on September 16, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138420

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

Virginia VELAP ID: 460263

North Dakota Certification #: R-150

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

US Dept of Agriculture #: S-76505

Virginia VELAP Certification ID: 460263

Virginia VELAP ID: 460263

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

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## REPORT OF LABORATORY ANALYSIS

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**SAMPLE SUMMARY**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40138420001	BH-23A @ 2.5-5	Solid	09/14/16 14:24	09/16/16 09:45
40138420002	BH-23A @ 5-7.5	Solid	09/14/16 14:26	09/16/16 09:45
40138420003	BH-23A @ 10-12.5	Solid	09/14/16 14:32	09/16/16 09:45
40138420004	BH-23A @ 15-17.5	Solid	09/14/16 14:44	09/16/16 09:45
40138420005	BH-23A @ 21.5-22.5	Solid	09/14/16 14:58	09/16/16 09:45
40138420006	BH-23A @ 31-32.5	Solid	09/14/16 16:01	09/16/16 09:45
40138420007	BH-23A @ 32.5-35	Solid	09/14/16 16:02	09/16/16 09:45
40138420008	BH-25 @ 2.5-5	Solid	09/15/16 08:30	09/16/16 09:45
40138420009	BH-25 @ 7.5-10	Solid	09/15/16 08:34	09/16/16 09:45
40138420010	BH-25 @ 10-12.5	Solid	09/15/16 08:38	09/16/16 09:45
40138420011	BH-25 @ 17.5-20	Solid	09/15/16 08:59	09/16/16 09:45
40138420012	BH-25 @ 20-22.5	Solid	09/15/16 09:02	09/16/16 09:45
40138420013	BH-25 @ 25-26.5	Solid	09/15/16 09:30	09/16/16 09:45
40138420014	BH-25 @ 30-32.5	Solid	09/15/16 09:58	09/16/16 09:45
40138420015	BH-29 @ 2.5-5	Solid	09/15/16 10:10	09/16/16 09:45
40138420016	BH-29 @ 7.5-10	Solid	09/15/16 10:15	09/16/16 09:45
40138420017	BH-29A @ 10-12.5	Solid	09/15/16 10:26	09/16/16 09:45
40138420018	BH-29A @ 15-20	Solid	09/15/16 10:40	09/16/16 09:45
40138420019	BH-29A @ 22.5-25	Solid	09/15/16 10:54	09/16/16 09:45
40138420020	BH-29A @ 27.5-30	Solid	09/15/16 11:06	09/16/16 09:45
40138420021	BH-29A @ 32.5-35	Solid	09/15/16 11:15	09/16/16 09:45
40138420022	BH-28 @ 2.5-5	Solid	09/15/16 12:05	09/16/16 09:45
40138420023	BH-28 @ 5-7.5	Solid	09/15/16 12:08	09/16/16 09:45
40138420024	BH-28 @ 12.5-15	Solid	09/15/16 12:16	09/16/16 09:45
40138420025	BH-28 @ 15-17.5	Solid	09/15/16 12:28	09/16/16 09:45
40138420026	BH-28 @ 20-22.5	Solid	09/15/16 12:30	09/16/16 09:45
40138420027	BH-28 @ 25-27.5	Solid	09/15/16 12:38	09/16/16 09:45

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40138420001	BH-23A @ 2.5-5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138420002	BH-23A @ 5-7.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	KRM	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138420003	BH-23A @ 10-12.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	KRM	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138420004	BH-23A @ 15-17.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	KRM	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138420005	BH-23A @ 21.5-22.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	KRM	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138420006	BH-23A @ 31-32.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	KRM	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138420007	BH-23A @ 32.5-35	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138420008	BH-25 @ 2.5-5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138420009	BH-25 @ 7.5-10	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138420010	BH-25 @ 10-12.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138420011	BH-25 @ 17.5-20	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138420012	BH-25 @ 20-22.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138420013	BH-25 @ 25-26.5	EPA 8270 by SIM	ARO	18	PASI-G

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40138420014	BH-25 @ 30-32.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
40138420015	BH-29 @ 2.5-5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
40138420016	BH-29 @ 7.5-10	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
40138420017	BH-29A @ 10-12.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
40138420018	BH-29A @ 15-20	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
40138420019	BH-29A @ 22.5-25	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
40138420020	BH-29A @ 27.5-30	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
40138420021	BH-29A @ 32.5-35	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
40138420022	BH-28 @ 2.5-5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
40138420023	BH-28 @ 5-7.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
40138420024	BH-28 @ 12.5-15	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
40138420025	BH-28 @ 15-17.5	EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40138420026	BH-28 @ 20-22.5	ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	KRM	8	PASI-G
40138420027	BH-28 @ 25-27.5	ASTM D2974-87	MAV	1	PASI-G
		EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-23A @ 2.5-5 Lab ID: 40138420001 Collected: 09/14/16 14:24 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<5.5	ug/kg	18.2	5.5	1	09/20/16 07:50	09/20/16 18:15	83-32-9	
Acenaphthylene	<4.7	ug/kg	15.5	4.7	1	09/20/16 07:50	09/20/16 18:15	208-96-8	
Anthracene	<8.1	ug/kg	26.8	8.1	1	09/20/16 07:50	09/20/16 18:15	120-12-7	
Benzo(a)anthracene	<4.5	ug/kg	15.0	4.5	1	09/20/16 07:50	09/20/16 18:15	56-55-3	
Benzo(a)pyrene	<3.5	ug/kg	11.8	3.5	1	09/20/16 07:50	09/20/16 18:15	50-32-8	
Benzo(b)fluoranthene	<4.0	ug/kg	13.3	4.0	1	09/20/16 07:50	09/20/16 18:15	205-99-2	
Benzo(g,h,i)perylene	<2.9	ug/kg	9.6	2.9	1	09/20/16 07:50	09/20/16 18:15	191-24-2	
Benzo(k)fluoranthene	<3.5	ug/kg	11.8	3.5	1	09/20/16 07:50	09/20/16 18:15	207-08-9	
Chrysene	<4.8	ug/kg	15.8	4.8	1	09/20/16 07:50	09/20/16 18:15	218-01-9	
Dibenz(a,h)anthracene	<3.2	ug/kg	10.5	3.2	1	09/20/16 07:50	09/20/16 18:15	53-70-3	
Fluoranthene	<7.4	ug/kg	24.6	7.4	1	09/20/16 07:50	09/20/16 18:15	206-44-0	
Fluorene	<5.8	ug/kg	19.5	5.8	1	09/20/16 07:50	09/20/16 18:15	86-73-7	
Indeno(1,2,3-cd)pyrene	<3.1	ug/kg	10.4	3.1	1	09/20/16 07:50	09/20/16 18:15	193-39-5	
Naphthalene	<11.9	ug/kg	39.7	11.9	1	09/20/16 07:50	09/20/16 18:15	91-20-3	
Phenanthrene	<16.5	ug/kg	54.8	16.5	1	09/20/16 07:50	09/20/16 18:15	85-01-8	
Pyrene	<6.4	ug/kg	21.2	6.4	1	09/20/16 07:50	09/20/16 18:15	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	53	%	26-130		1	09/20/16 07:50	09/20/16 18:15	321-60-8	
Terphenyl-d14 (S)	60	%	10-130		1	09/20/16 07:50	09/20/16 18:15	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<13.0	ug/kg	28.3	13.0	1	09/20/16 08:15	09/20/16 20:23	71-43-2	
Ethylbenzene	<17.6	ug/kg	70.6	17.6	1	09/20/16 08:15	09/20/16 20:23	100-41-4	
Methyl-tert-butyl ether	<17.9	ug/kg	70.6	17.9	1	09/20/16 08:15	09/20/16 20:23	1634-04-4	
Toluene	<15.8	ug/kg	70.6	15.8	1	09/20/16 08:15	09/20/16 20:23	108-88-3	
Xylene (Total)	<68.4	ug/kg	212	68.4	1	09/20/16 08:15	09/20/16 20:23	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	110	%	53-165		1	09/20/16 08:15	09/20/16 20:23	1868-53-7	
4-Bromofluorobenzene (S)	74	%	48-138		1	09/20/16 08:15	09/20/16 20:23	460-00-4	
Toluene-d8 (S)	95	%	54-163		1	09/20/16 08:15	09/20/16 20:23	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	29.2	%	0.10	0.10	1		09/22/16 10:02		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-23A @ 5-7.5 Lab ID: 40138420002 Collected: 09/14/16 14:26 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.8	ug/kg	16.0	4.8	1	09/20/16 07:50	09/20/16 18:32	83-32-9	
Acenaphthylene	<4.1	ug/kg	13.6	4.1	1	09/20/16 07:50	09/20/16 18:32	208-96-8	
Anthracene	<7.1	ug/kg	23.5	7.1	1	09/20/16 07:50	09/20/16 18:32	120-12-7	
Benzo(a)anthracene	<3.9	ug/kg	13.1	3.9	1	09/20/16 07:50	09/20/16 18:32	56-55-3	
Benzo(a)pyrene	<3.1	ug/kg	10.4	3.1	1	09/20/16 07:50	09/20/16 18:32	50-32-8	
Benzo(b)fluoranthene	<3.5	ug/kg	11.7	3.5	1	09/20/16 07:50	09/20/16 18:32	205-99-2	
Benzo(g,h,i)perylene	<2.5	ug/kg	8.4	2.5	1	09/20/16 07:50	09/20/16 18:32	191-24-2	
Benzo(k)fluoranthene	<3.1	ug/kg	10.4	3.1	1	09/20/16 07:50	09/20/16 18:32	207-08-9	
Chrysene	<4.2	ug/kg	13.9	4.2	1	09/20/16 07:50	09/20/16 18:32	218-01-9	
Dibenz(a,h)anthracene	<2.8	ug/kg	9.2	2.8	1	09/20/16 07:50	09/20/16 18:32	53-70-3	
Fluoranthene	<6.4	ug/kg	21.5	6.4	1	09/20/16 07:50	09/20/16 18:32	206-44-0	
Fluorene	<5.1	ug/kg	17.1	5.1	1	09/20/16 07:50	09/20/16 18:32	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.7	ug/kg	9.1	2.7	1	09/20/16 07:50	09/20/16 18:32	193-39-5	
Naphthalene	<10.4	ug/kg	34.8	10.4	1	09/20/16 07:50	09/20/16 18:32	91-20-3	
Phenanthrene	<14.4	ug/kg	48.0	14.4	1	09/20/16 07:50	09/20/16 18:32	85-01-8	
Pyrene	<5.6	ug/kg	18.6	5.6	1	09/20/16 07:50	09/20/16 18:32	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	52	%	26-130		1	09/20/16 07:50	09/20/16 18:32	321-60-8	
Terphenyl-d14 (S)	54	%	10-130		1	09/20/16 07:50	09/20/16 18:32	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<11.4	ug/kg	24.8	11.4	1	09/19/16 13:15	09/20/16 16:52	71-43-2	
Ethylbenzene	<15.4	ug/kg	61.9	15.4	1	09/19/16 13:15	09/20/16 16:52	100-41-4	
Methyl-tert-butyl ether	<15.7	ug/kg	61.9	15.7	1	09/19/16 13:15	09/20/16 16:52	1634-04-4	
Toluene	<13.9	ug/kg	61.9	13.9	1	09/19/16 13:15	09/20/16 16:52	108-88-3	
Xylene (Total)	<60.0	ug/kg	186	60.0	1	09/19/16 13:15	09/20/16 16:52	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	53-165		1	09/19/16 13:15	09/20/16 16:52	1868-53-7	
4-Bromofluorobenzene (S)	91	%	48-138		1	09/19/16 13:15	09/20/16 16:52	460-00-4	
Toluene-d8 (S)	98	%	54-163		1	09/19/16 13:15	09/20/16 16:52	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	19.2	%	0.10	0.10	1		09/22/16 10:02		

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138420

Sample: BH-23A @ 10-12.5 Lab ID: 40138420003 Collected: 09/14/16 14:32 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.5	ug/kg	15.0	4.5	1	09/20/16 07:50	09/20/16 18:50	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.7	3.8	1	09/20/16 07:50	09/20/16 18:50	208-96-8	
Anthracene	<6.6	ug/kg	22.0	6.6	1	09/20/16 07:50	09/20/16 18:50	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.3	3.7	1	09/20/16 07:50	09/20/16 18:50	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.7	2.9	1	09/20/16 07:50	09/20/16 18:50	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	10.9	3.3	1	09/20/16 07:50	09/20/16 18:50	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	7.8	2.4	1	09/20/16 07:50	09/20/16 18:50	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.7	2.9	1	09/20/16 07:50	09/20/16 18:50	207-08-9	
Chrysene	7.0J	ug/kg	13.0	3.9	1	09/20/16 07:50	09/20/16 18:50	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/20/16 07:50	09/20/16 18:50	53-70-3	
Fluoranthene	<6.0	ug/kg	20.2	6.0	1	09/20/16 07:50	09/20/16 18:50	206-44-0	
Fluorene	<4.8	ug/kg	16.0	4.8	1	09/20/16 07:50	09/20/16 18:50	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.5	2.5	1	09/20/16 07:50	09/20/16 18:50	193-39-5	
Naphthalene	<9.8	ug/kg	32.6	9.8	1	09/20/16 07:50	09/20/16 18:50	91-20-3	
Phenanthrene	<13.5	ug/kg	45.0	13.5	1	09/20/16 07:50	09/20/16 18:50	85-01-8	
Pyrene	<5.2	ug/kg	17.4	5.2	1	09/20/16 07:50	09/20/16 18:50	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	58	%	26-130		1	09/20/16 07:50	09/20/16 18:50	321-60-8	
Terphenyl-d14 (S)	61	%	10-130		1	09/20/16 07:50	09/20/16 18:50	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.7	ug/kg	23.2	10.7	1	09/19/16 13:15	09/20/16 17:13	71-43-2	
Ethylbenzene	<14.4	ug/kg	58.0	14.4	1	09/19/16 13:15	09/20/16 17:13	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.0	14.7	1	09/19/16 13:15	09/20/16 17:13	1634-04-4	
Toluene	15.3J	ug/kg	58.0	13.0	1	09/19/16 13:15	09/20/16 17:13	108-88-3	
Xylene (Total)	<56.1	ug/kg	174	56.1	1	09/19/16 13:15	09/20/16 17:13	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	53-165		1	09/19/16 13:15	09/20/16 17:13	1868-53-7	
4-Bromofluorobenzene (S)	87	%	48-138		1	09/19/16 13:15	09/20/16 17:13	460-00-4	
Toluene-d8 (S)	94	%	54-163		1	09/19/16 13:15	09/20/16 17:13	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.7	%	0.10	0.10	1		09/22/16 10:02		

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-23A @ 15-17.5 Lab ID: 40138420004 Collected: 09/14/16 14:44 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.6	ug/kg	15.1	4.6	1	09/20/16 07:50	09/20/16 19:07	83-32-9	
Acenaphthylene	<3.9	ug/kg	12.9	3.9	1	09/20/16 07:50	09/20/16 19:07	208-96-8	
Anthracene	<6.7	ug/kg	22.3	6.7	1	09/20/16 07:50	09/20/16 19:07	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.4	3.7	1	09/20/16 07:50	09/20/16 19:07	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.8	2.9	1	09/20/16 07:50	09/20/16 19:07	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	11.0	3.3	1	09/20/16 07:50	09/20/16 19:07	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	7.9	2.4	1	09/20/16 07:50	09/20/16 19:07	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.8	2.9	1	09/20/16 07:50	09/20/16 19:07	207-08-9	
Chrysene	5.0J	ug/kg	13.1	4.0	1	09/20/16 07:50	09/20/16 19:07	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.7	2.6	1	09/20/16 07:50	09/20/16 19:07	53-70-3	
Fluoranthene	7.5J	ug/kg	20.4	6.1	1	09/20/16 07:50	09/20/16 19:07	206-44-0	
Fluorene	<4.9	ug/kg	16.2	4.9	1	09/20/16 07:50	09/20/16 19:07	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.6	2.6	1	09/20/16 07:50	09/20/16 19:07	193-39-5	
Naphthalene	<9.9	ug/kg	33.0	9.9	1	09/20/16 07:50	09/20/16 19:07	91-20-3	
Phenanthrene	<13.7	ug/kg	45.5	13.7	1	09/20/16 07:50	09/20/16 19:07	85-01-8	
Pyrene	5.6J	ug/kg	17.6	5.3	1	09/20/16 07:50	09/20/16 19:07	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	60	%	26-130		1	09/20/16 07:50	09/20/16 19:07	321-60-8	
Terphenyl-d14 (S)	61	%	10-130		1	09/20/16 07:50	09/20/16 19:07	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.8	ug/kg	23.5	10.8	1	09/19/16 13:15	09/20/16 17:35	71-43-2	
Ethylbenzene	<14.6	ug/kg	58.7	14.6	1	09/19/16 13:15	09/20/16 17:35	100-41-4	
Methyl-tert-butyl ether	<14.8	ug/kg	58.7	14.8	1	09/19/16 13:15	09/20/16 17:35	1634-04-4	
Toluene	<13.2	ug/kg	58.7	13.2	1	09/19/16 13:15	09/20/16 17:35	108-88-3	
Xylene (Total)	<56.8	ug/kg	176	56.8	1	09/19/16 13:15	09/20/16 17:35	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	53-165		1	09/19/16 13:15	09/20/16 17:35	1868-53-7	
4-Bromofluorobenzene (S)	87	%	48-138		1	09/19/16 13:15	09/20/16 17:35	460-00-4	
Toluene-d8 (S)	94	%	54-163		1	09/19/16 13:15	09/20/16 17:35	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.8	%	0.10	0.10	1		09/22/16 10:02		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138420

Sample: BH-23A @ 21.5-22.5 Lab ID: 40138420005 Collected: 09/14/16 14:58 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.6	ug/kg	15.3	4.6	1	09/20/16 07:50	09/20/16 19:24	83-32-9	
Acenaphthylene	<3.9	ug/kg	13.1	3.9	1	09/20/16 07:50	09/20/16 19:24	208-96-8	
Anthracene	<6.8	ug/kg	22.6	6.8	1	09/20/16 07:50	09/20/16 19:24	120-12-7	
Benzo(a)anthracene	<3.8	ug/kg	12.6	3.8	1	09/20/16 07:50	09/20/16 19:24	56-55-3	
Benzo(a)pyrene	<3.0	ug/kg	10	3.0	1	09/20/16 07:50	09/20/16 19:24	50-32-8	
Benzo(b)fluoranthene	<3.4	ug/kg	11.2	3.4	1	09/20/16 07:50	09/20/16 19:24	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	8.0	2.4	1	09/20/16 07:50	09/20/16 19:24	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	9.9	3.0	1	09/20/16 07:50	09/20/16 19:24	207-08-9	
Chrysene	<4.0	ug/kg	13.3	4.0	1	09/20/16 07:50	09/20/16 19:24	218-01-9	
Dibenz(a,h)anthracene	<2.7	ug/kg	8.9	2.7	1	09/20/16 07:50	09/20/16 19:24	53-70-3	
Fluoranthene	<6.2	ug/kg	20.7	6.2	1	09/20/16 07:50	09/20/16 19:24	206-44-0	
Fluorene	<4.9	ug/kg	16.4	4.9	1	09/20/16 07:50	09/20/16 19:24	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.7	2.6	1	09/20/16 07:50	09/20/16 19:24	193-39-5	
Naphthalene	<10.0	ug/kg	33.4	10.0	1	09/20/16 07:50	09/20/16 19:24	91-20-3	
Phenanthrene	<13.8	ug/kg	46.1	13.8	1	09/20/16 07:50	09/20/16 19:24	85-01-8	
Pyrene	<5.4	ug/kg	17.8	5.4	1	09/20/16 07:50	09/20/16 19:24	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	51	%	26-130		1	09/20/16 07:50	09/20/16 19:24	321-60-8	
Terphenyl-d14 (S)	51	%	10-130		1	09/20/16 07:50	09/20/16 19:24	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<11.0	ug/kg	23.8	11.0	1	09/19/16 13:15	09/20/16 17:57	71-43-2	
Ethylbenzene	<14.8	ug/kg	59.4	14.8	1	09/19/16 13:15	09/20/16 17:57	100-41-4	
Methyl-tert-butyl ether	<15.0	ug/kg	59.4	15.0	1	09/19/16 13:15	09/20/16 17:57	1634-04-4	
Toluene	<13.3	ug/kg	59.4	13.3	1	09/19/16 13:15	09/20/16 17:57	108-88-3	
Xylene (Total)	<57.6	ug/kg	178	57.6	1	09/19/16 13:15	09/20/16 17:57	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	53-165		1	09/19/16 13:15	09/20/16 17:57	1868-53-7	
4-Bromofluorobenzene (S)	94	%	48-138		1	09/19/16 13:15	09/20/16 17:57	460-00-4	
Toluene-d8 (S)	94	%	54-163		1	09/19/16 13:15	09/20/16 17:57	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	15.9	%	0.10	0.10	1		09/22/16 10:02		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138420

Sample: BH-23A @ 31-32.5 Lab ID: 40138420006 Collected: 09/14/16 16:01 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.5	ug/kg	15.0	4.5	1	09/20/16 07:50	09/20/16 19:41	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.8	3.8	1	09/20/16 07:50	09/20/16 19:41	208-96-8	
Anthracene	<6.7	ug/kg	22.1	6.7	1	09/20/16 07:50	09/20/16 19:41	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.3	3.7	1	09/20/16 07:50	09/20/16 19:41	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.7	2.9	1	09/20/16 07:50	09/20/16 19:41	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	11.0	3.3	1	09/20/16 07:50	09/20/16 19:41	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	7.9	2.4	1	09/20/16 07:50	09/20/16 19:41	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.7	2.9	1	09/20/16 07:50	09/20/16 19:41	207-08-9	
Chrysene	<3.9	ug/kg	13.0	3.9	1	09/20/16 07:50	09/20/16 19:41	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.7	2.6	1	09/20/16 07:50	09/20/16 19:41	53-70-3	
Fluoranthene	<6.1	ug/kg	20.3	6.1	1	09/20/16 07:50	09/20/16 19:41	206-44-0	
Fluorene	<4.8	ug/kg	16.1	4.8	1	09/20/16 07:50	09/20/16 19:41	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.5	2.6	1	09/20/16 07:50	09/20/16 19:41	193-39-5	
Naphthalene	<9.8	ug/kg	32.7	9.8	1	09/20/16 07:50	09/20/16 19:41	91-20-3	
Phenanthrene	<13.6	ug/kg	45.2	13.6	1	09/20/16 07:50	09/20/16 19:41	85-01-8	
Pyrene	<5.3	ug/kg	17.5	5.3	1	09/20/16 07:50	09/20/16 19:41	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	46	%	26-130		1	09/20/16 07:50	09/20/16 19:41	321-60-8	
Terphenyl-d14 (S)	45	%	10-130		1	09/20/16 07:50	09/20/16 19:41	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.7	ug/kg	23.3	10.7	1	09/19/16 13:15	09/20/16 18:19	71-43-2	
Ethylbenzene	<14.5	ug/kg	58.2	14.5	1	09/19/16 13:15	09/20/16 18:19	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.2	14.7	1	09/19/16 13:15	09/20/16 18:19	1634-04-4	
Toluene	<13.1	ug/kg	58.2	13.1	1	09/19/16 13:15	09/20/16 18:19	108-88-3	
Xylene (Total)	<56.4	ug/kg	175	56.4	1	09/19/16 13:15	09/20/16 18:19	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	53-165		1	09/19/16 13:15	09/20/16 18:19	1868-53-7	
4-Bromofluorobenzene (S)	99	%	48-138		1	09/19/16 13:15	09/20/16 18:19	460-00-4	
Toluene-d8 (S)	103	%	54-163		1	09/19/16 13:15	09/20/16 18:19	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	14.1	%	0.10	0.10	1		09/22/16 10:02		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-23A @ 32.5-35 Lab ID: 40138420007 Collected: 09/14/16 16:02 Received: 09/16/16 09:45 Matrix: Solid  
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<5.0	ug/kg	16.5	5.0	1	09/20/16 07:50	09/20/16 17:06	83-32-9	
Acenaphthylene	<4.2	ug/kg	14.1	4.2	1	09/20/16 07:50	09/20/16 17:06	208-96-8	
Anthracene	<7.3	ug/kg	24.4	7.3	1	09/20/16 07:50	09/20/16 17:06	120-12-7	
Benzo(a)anthracene	6.8J	ug/kg	13.6	4.1	1	09/20/16 07:50	09/20/16 17:06	56-55-3	
Benzo(a)pyrene	11.5	ug/kg	10.7	3.2	1	09/20/16 07:50	09/20/16 17:06	50-32-8	
Benzo(b)fluoranthene	22.1	ug/kg	12.1	3.6	1	09/20/16 07:50	09/20/16 17:06	205-99-2	
Benzo(g,h,i)perylene	15.7	ug/kg	8.7	2.6	1	09/20/16 07:50	09/20/16 17:06	191-24-2	
Benzo(k)fluoranthene	14.9	ug/kg	10.7	3.2	1	09/20/16 07:50	09/20/16 17:06	207-08-9	
Chrysene	20.1	ug/kg	14.4	4.3	1	09/20/16 07:50	09/20/16 17:06	218-01-9	
Dibenz(a,h)anthracene	3.5J	ug/kg	9.5	2.9	1	09/20/16 07:50	09/20/16 17:06	53-70-3	
Fluoranthene	18.7J	ug/kg	22.3	6.7	1	09/20/16 07:50	09/20/16 17:06	206-44-0	
Fluorene	<5.3	ug/kg	17.7	5.3	1	09/20/16 07:50	09/20/16 17:06	86-73-7	
Indeno(1,2,3-cd)pyrene	11.6	ug/kg	9.4	2.8	1	09/20/16 07:50	09/20/16 17:06	193-39-5	
Naphthalene	<10.8	ug/kg	36.0	10.8	1	09/20/16 07:50	09/20/16 17:06	91-20-3	
Phenanthrene	<14.9	ug/kg	49.7	14.9	1	09/20/16 07:50	09/20/16 17:06	85-01-8	
Pyrene	13.4J	ug/kg	19.2	5.8	1	09/20/16 07:50	09/20/16 17:06	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	55	%	26-130		1	09/20/16 07:50	09/20/16 17:06	321-60-8	
Terphenyl-d14 (S)	55	%	10-130		1	09/20/16 07:50	09/20/16 17:06	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<11.8	ug/kg	25.6	11.8	1	09/20/16 08:15	09/20/16 20:45	71-43-2	
Ethylbenzene	<15.9	ug/kg	64.1	15.9	1	09/20/16 08:15	09/20/16 20:45	100-41-4	
Methyl-tert-butyl ether	<16.2	ug/kg	64.1	16.2	1	09/20/16 08:15	09/20/16 20:45	1634-04-4	
Toluene	<14.4	ug/kg	64.1	14.4	1	09/20/16 08:15	09/20/16 20:45	108-88-3	
Xylene (Total)	<62.1	ug/kg	192	62.1	1	09/20/16 08:15	09/20/16 20:45	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	118	%	53-165		1	09/20/16 08:15	09/20/16 20:45	1868-53-7	
4-Bromofluorobenzene (S)	77	%	48-138		1	09/20/16 08:15	09/20/16 20:45	460-00-4	
Toluene-d8 (S)	94	%	54-163		1	09/20/16 08:15	09/20/16 20:45	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	22.0	%	0.10	0.10	1		09/22/16 10:03		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-25 @ 2.5-5 Lab ID: 40138420008 Collected: 09/15/16 08:30 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.5	ug/kg	14.9	4.5	1	09/20/16 07:50	09/21/16 09:52	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.7	3.8	1	09/20/16 07:50	09/21/16 09:52	208-96-8	
Anthracene	<6.6	ug/kg	21.9	6.6	1	09/20/16 07:50	09/21/16 09:52	120-12-7	
Benzo(a)anthracene	6.8J	ug/kg	12.2	3.7	1	09/20/16 07:50	09/21/16 09:52	56-55-3	
Benzo(a)pyrene	4.3J	ug/kg	9.7	2.9	1	09/20/16 07:50	09/21/16 09:52	50-32-8	
Benzo(b)fluoranthene	5.0J	ug/kg	10.9	3.3	1	09/20/16 07:50	09/21/16 09:52	205-99-2	
Benzo(g,h,i)perylene	2.9J	ug/kg	7.8	2.3	1	09/20/16 07:50	09/21/16 09:52	191-24-2	
Benzo(k)fluoranthene	4.8J	ug/kg	9.6	2.9	1	09/20/16 07:50	09/21/16 09:52	207-08-9	
Chrysene	9.5J	ug/kg	12.9	3.9	1	09/20/16 07:50	09/21/16 09:52	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/20/16 07:50	09/21/16 09:52	53-70-3	
Fluoranthene	28.9	ug/kg	20.1	6.0	1	09/20/16 07:50	09/21/16 09:52	206-44-0	
Fluorene	<4.8	ug/kg	15.9	4.8	1	09/20/16 07:50	09/21/16 09:52	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.5	2.5	1	09/20/16 07:50	09/21/16 09:52	193-39-5	
Naphthalene	<9.7	ug/kg	32.4	9.7	1	09/20/16 07:50	09/21/16 09:52	91-20-3	
Phenanthrene	22.7J	ug/kg	44.7	13.4	1	09/20/16 07:50	09/21/16 09:52	85-01-8	
Pyrene	18.9	ug/kg	17.3	5.2	1	09/20/16 07:50	09/21/16 09:52	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	46	%	26-130		1	09/20/16 07:50	09/21/16 09:52	321-60-8	
Terphenyl-d14 (S)	53	%	10-130		1	09/20/16 07:50	09/21/16 09:52	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.6	ug/kg	23.1	10.6	1	09/20/16 08:15	09/20/16 21:08	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.7	14.3	1	09/20/16 08:15	09/20/16 21:08	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.7	14.6	1	09/20/16 08:15	09/20/16 21:08	1634-04-4	
Toluene	<12.9	ug/kg	57.7	12.9	1	09/20/16 08:15	09/20/16 21:08	108-88-3	
Xylene (Total)	<55.9	ug/kg	173	55.9	1	09/20/16 08:15	09/20/16 21:08	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	131	%	53-165		1	09/20/16 08:15	09/20/16 21:08	1868-53-7	
4-Bromofluorobenzene (S)	89	%	48-138		1	09/20/16 08:15	09/20/16 21:08	460-00-4	
Toluene-d8 (S)	106	%	54-163		1	09/20/16 08:15	09/20/16 21:08	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.3	%	0.10	0.10	1		09/22/16 10:03		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-25 @ 7.5-10 Lab ID: 40138420009 Collected: 09/15/16 08:34 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.4	ug/kg	14.8	4.4	1	09/20/16 07:50	09/20/16 19:59	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.6	3.8	1	09/20/16 07:50	09/20/16 19:59	208-96-8	
Anthracene	<6.5	ug/kg	21.8	6.5	1	09/20/16 07:50	09/20/16 19:59	120-12-7	
Benzo(a)anthracene	<3.6	ug/kg	12.1	3.6	1	09/20/16 07:50	09/20/16 19:59	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.6	2.9	1	09/20/16 07:50	09/20/16 19:59	50-32-8	
Benzo(b)fluoranthene	3.5J	ug/kg	10.8	3.2	1	09/20/16 07:50	09/20/16 19:59	205-99-2	
Benzo(g,h,i)perylene	2.4J	ug/kg	7.8	2.3	1	09/20/16 07:50	09/20/16 19:59	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.6	2.9	1	09/20/16 07:50	09/20/16 19:59	207-08-9	
Chrysene	9.8J	ug/kg	12.8	3.9	1	09/20/16 07:50	09/20/16 19:59	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.5	2.6	1	09/20/16 07:50	09/20/16 19:59	53-70-3	
Fluoranthene	<6.0	ug/kg	19.9	6.0	1	09/20/16 07:50	09/20/16 19:59	206-44-0	
Fluorene	<4.7	ug/kg	15.8	4.7	1	09/20/16 07:50	09/20/16 19:59	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.4	2.5	1	09/20/16 07:50	09/20/16 19:59	193-39-5	
Naphthalene	<9.6	ug/kg	32.2	9.6	1	09/20/16 07:50	09/20/16 19:59	91-20-3	
Phenanthrene	<13.3	ug/kg	44.5	13.3	1	09/20/16 07:50	09/20/16 19:59	85-01-8	
Pyrene	<5.2	ug/kg	17.2	5.2	1	09/20/16 07:50	09/20/16 19:59	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	53	%	26-130		1	09/20/16 07:50	09/20/16 19:59	321-60-8	
Terphenyl-d14 (S)	59	%	10-130		1	09/20/16 07:50	09/20/16 19:59	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.6	ug/kg	22.9	10.6	1	09/20/16 08:15	09/20/16 21:30	71-43-2	
Ethylbenzene	<14.2	ug/kg	57.3	14.2	1	09/20/16 08:15	09/20/16 21:30	100-41-4	
Methyl-tert-butyl ether	<14.5	ug/kg	57.3	14.5	1	09/20/16 08:15	09/20/16 21:30	1634-04-4	
Toluene	<12.9	ug/kg	57.3	12.9	1	09/20/16 08:15	09/20/16 21:30	108-88-3	
Xylene (Total)	<55.5	ug/kg	172	55.5	1	09/20/16 08:15	09/20/16 21:30	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	127	%	53-165		1	09/20/16 08:15	09/20/16 21:30	1868-53-7	
4-Bromofluorobenzene (S)	83	%	48-138		1	09/20/16 08:15	09/20/16 21:30	460-00-4	
Toluene-d8 (S)	100	%	54-163		1	09/20/16 08:15	09/20/16 21:30	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	12.7	%	0.10	0.10	1		09/22/16 11:02		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-25 @ 10-12.5 Lab ID: 40138420010 Collected: 09/15/16 08:38 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.5	ug/kg	14.9	4.5	1	09/20/16 07:50	09/20/16 20:16	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.7	3.8	1	09/20/16 07:50	09/20/16 20:16	208-96-8	
Anthracene	<6.6	ug/kg	22.0	6.6	1	09/20/16 07:50	09/20/16 20:16	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.3	3.7	1	09/20/16 07:50	09/20/16 20:16	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.7	2.9	1	09/20/16 07:50	09/20/16 20:16	50-32-8	
Benzo(b)fluoranthene	4.5J	ug/kg	10.9	3.3	1	09/20/16 07:50	09/20/16 20:16	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	7.8	2.4	1	09/20/16 07:50	09/20/16 20:16	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.7	2.9	1	09/20/16 07:50	09/20/16 20:16	207-08-9	
Chrysene	12.2J	ug/kg	13.0	3.9	1	09/20/16 07:50	09/20/16 20:16	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/20/16 07:50	09/20/16 20:16	53-70-3	
Fluoranthene	<6.0	ug/kg	20.1	6.0	1	09/20/16 07:50	09/20/16 20:16	206-44-0	
Fluorene	<4.8	ug/kg	16.0	4.8	1	09/20/16 07:50	09/20/16 20:16	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.5	2.5	1	09/20/16 07:50	09/20/16 20:16	193-39-5	
Naphthalene	<9.7	ug/kg	32.5	9.7	1	09/20/16 07:50	09/20/16 20:16	91-20-3	
Phenanthrene	16.0J	ug/kg	44.9	13.5	1	09/20/16 07:50	09/20/16 20:16	85-01-8	
Pyrene	<5.2	ug/kg	17.3	5.2	1	09/20/16 07:50	09/20/16 20:16	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	56	%	26-130		1	09/20/16 07:50	09/20/16 20:16	321-60-8	
Terphenyl-d14 (S)	64	%	10-130		1	09/20/16 07:50	09/20/16 20:16	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.7	ug/kg	23.1	10.7	1	09/20/16 08:15	09/20/16 21:53	71-43-2	
Ethylbenzene	<14.4	ug/kg	57.8	14.4	1	09/20/16 08:15	09/20/16 21:53	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.8	14.6	1	09/20/16 08:15	09/20/16 21:53	1634-04-4	
Toluene	22.0J	ug/kg	57.8	13.0	1	09/20/16 08:15	09/20/16 21:53	108-88-3	
Xylene (Total)	<56.0	ug/kg	173	56.0	1	09/20/16 08:15	09/20/16 21:53	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	126	%	53-165		1	09/20/16 08:15	09/20/16 21:53	1868-53-7	
4-Bromofluorobenzene (S)	85	%	48-138		1	09/20/16 08:15	09/20/16 21:53	460-00-4	
Toluene-d8 (S)	108	%	54-163		1	09/20/16 08:15	09/20/16 21:53	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.5	%	0.10	0.10	1		09/22/16 11:02		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-25 @ 17.5-20 Lab ID: 40138420011 Collected: 09/15/16 08:59 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.6	ug/kg	15.1	4.6	1	09/20/16 07:50	09/20/16 19:19	83-32-9	
Acenaphthylene	<3.9	ug/kg	12.9	3.9	1	09/20/16 07:50	09/20/16 19:19	208-96-8	
Anthracene	<6.7	ug/kg	22.3	6.7	1	09/20/16 07:50	09/20/16 19:19	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.4	3.7	1	09/20/16 07:50	09/20/16 19:19	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.8	2.9	1	09/20/16 07:50	09/20/16 19:19	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	11.0	3.3	1	09/20/16 07:50	09/20/16 19:19	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	7.9	2.4	1	09/20/16 07:50	09/20/16 19:19	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.8	2.9	1	09/20/16 07:50	09/20/16 19:19	207-08-9	
Chrysene	<4.0	ug/kg	13.1	4.0	1	09/20/16 07:50	09/20/16 19:19	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.7	2.6	1	09/20/16 07:50	09/20/16 19:19	53-70-3	
Fluoranthene	<6.1	ug/kg	20.4	6.1	1	09/20/16 07:50	09/20/16 19:19	206-44-0	
Fluorene	<4.9	ug/kg	16.2	4.9	1	09/20/16 07:50	09/20/16 19:19	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.6	2.6	1	09/20/16 07:50	09/20/16 19:19	193-39-5	
Naphthalene	<9.9	ug/kg	33.0	9.9	1	09/20/16 07:50	09/20/16 19:19	91-20-3	
Phenanthrene	<13.7	ug/kg	45.5	13.7	1	09/20/16 07:50	09/20/16 19:19	85-01-8	
Pyrene	<5.3	ug/kg	17.6	5.3	1	09/20/16 07:50	09/20/16 19:19	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	35	%	26-130		1	09/20/16 07:50	09/20/16 19:19	321-60-8	
Terphenyl-d14 (S)	40	%	10-130		1	09/20/16 07:50	09/20/16 19:19	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.8	ug/kg	23.5	10.8	1	09/20/16 08:15	09/20/16 22:15	71-43-2	
Ethylbenzene	<14.6	ug/kg	58.7	14.6	1	09/20/16 08:15	09/20/16 22:15	100-41-4	
Methyl-tert-butyl ether	<14.9	ug/kg	58.7	14.9	1	09/20/16 08:15	09/20/16 22:15	1634-04-4	
Toluene	<13.2	ug/kg	58.7	13.2	1	09/20/16 08:15	09/20/16 22:15	108-88-3	
Xylene (Total)	<56.8	ug/kg	176	56.8	1	09/20/16 08:15	09/20/16 22:15	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	120	%	53-165		1	09/20/16 08:15	09/20/16 22:15	1868-53-7	
4-Bromofluorobenzene (S)	74	%	48-138		1	09/20/16 08:15	09/20/16 22:15	460-00-4	
Toluene-d8 (S)	94	%	54-163		1	09/20/16 08:15	09/20/16 22:15	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.8	%	0.10	0.10	1		09/22/16 11:02		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138420

Sample: BH-25 @ 20-22.5 Lab ID: 40138420012 Collected: 09/15/16 09:02 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.5	ug/kg	14.9	4.5	1	09/20/16 07:50	09/20/16 19:36	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.7	3.8	1	09/20/16 07:50	09/20/16 19:36	208-96-8	
Anthracene	<6.6	ug/kg	21.9	6.6	1	09/20/16 07:50	09/20/16 19:36	120-12-7	
Benzo(a)anthracene	3.9J	ug/kg	12.2	3.7	1	09/20/16 07:50	09/20/16 19:36	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.7	2.9	1	09/20/16 07:50	09/20/16 19:36	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	10.9	3.3	1	09/20/16 07:50	09/20/16 19:36	205-99-2	
Benzo(g,h,i)perylene	3.0J	ug/kg	7.8	2.3	1	09/20/16 07:50	09/20/16 19:36	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.6	2.9	1	09/20/16 07:50	09/20/16 19:36	207-08-9	
Chrysene	5.1J	ug/kg	12.9	3.9	1	09/20/16 07:50	09/20/16 19:36	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/20/16 07:50	09/20/16 19:36	53-70-3	
Fluoranthene	<6.0	ug/kg	20.1	6.0	1	09/20/16 07:50	09/20/16 19:36	206-44-0	
Fluorene	<4.8	ug/kg	15.9	4.8	1	09/20/16 07:50	09/20/16 19:36	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.5	2.5	1	09/20/16 07:50	09/20/16 19:36	193-39-5	
Naphthalene	<9.7	ug/kg	32.4	9.7	1	09/20/16 07:50	09/20/16 19:36	91-20-3	
Phenanthrene	<13.4	ug/kg	44.8	13.4	1	09/20/16 07:50	09/20/16 19:36	85-01-8	
Pyrene	<5.2	ug/kg	17.3	5.2	1	09/20/16 07:50	09/20/16 19:36	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	68	%	26-130		1	09/20/16 07:50	09/20/16 19:36	321-60-8	
Terphenyl-d14 (S)	76	%	10-130		1	09/20/16 07:50	09/20/16 19:36	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.6	ug/kg	23.1	10.6	1	09/20/16 08:15	09/20/16 22:38	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.7	14.3	1	09/20/16 08:15	09/20/16 22:38	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.7	14.6	1	09/20/16 08:15	09/20/16 22:38	1634-04-4	
Toluene	<12.9	ug/kg	57.7	12.9	1	09/20/16 08:15	09/20/16 22:38	108-88-3	
Xylene (Total)	<55.9	ug/kg	173	55.9	1	09/20/16 08:15	09/20/16 22:38	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	120	%	53-165		1	09/20/16 08:15	09/20/16 22:38	1868-53-7	
4-Bromofluorobenzene (S)	77	%	48-138		1	09/20/16 08:15	09/20/16 22:38	460-00-4	
Toluene-d8 (S)	93	%	54-163		1	09/20/16 08:15	09/20/16 22:38	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.3	%	0.10	0.10	1		09/22/16 11:02		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-25 @ 25-26.5 Lab ID: 40138420013 Collected: 09/15/16 09:30 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.6	ug/kg	15.2	4.6	1	09/20/16 07:50	09/20/16 19:53	83-32-9	
Acenaphthylene	<3.9	ug/kg	13.0	3.9	1	09/20/16 07:50	09/20/16 19:53	208-96-8	
Anthracene	<6.7	ug/kg	22.4	6.7	1	09/20/16 07:50	09/20/16 19:53	120-12-7	
Benzo(a)anthracene	4.0J	ug/kg	12.5	3.7	1	09/20/16 07:50	09/20/16 19:53	56-55-3	
Benzo(a)pyrene	<3.0	ug/kg	9.9	3.0	1	09/20/16 07:50	09/20/16 19:53	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	11.1	3.3	1	09/20/16 07:50	09/20/16 19:53	205-99-2	
Benzo(g,h,i)perylene	3.3J	ug/kg	8.0	2.4	1	09/20/16 07:50	09/20/16 19:53	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	9.9	3.0	1	09/20/16 07:50	09/20/16 19:53	207-08-9	
Chrysene	<4.0	ug/kg	13.2	4.0	1	09/20/16 07:50	09/20/16 19:53	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.8	2.6	1	09/20/16 07:50	09/20/16 19:53	53-70-3	
Fluoranthene	<6.1	ug/kg	20.5	6.1	1	09/20/16 07:50	09/20/16 19:53	206-44-0	
Fluorene	<4.9	ug/kg	16.3	4.9	1	09/20/16 07:50	09/20/16 19:53	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.6	2.6	1	09/20/16 07:50	09/20/16 19:53	193-39-5	
Naphthalene	<9.9	ug/kg	33.1	9.9	1	09/20/16 07:50	09/20/16 19:53	91-20-3	
Phenanthrene	<13.7	ug/kg	45.8	13.7	1	09/20/16 07:50	09/20/16 19:53	85-01-8	
Pyrene	<5.3	ug/kg	17.7	5.3	1	09/20/16 07:50	09/20/16 19:53	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	64	%	26-130		1	09/20/16 07:50	09/20/16 19:53	321-60-8	
Terphenyl-d14 (S)	75	%	10-130		1	09/20/16 07:50	09/20/16 19:53	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	26.6	ug/kg	23.6	10.9	1	09/20/16 08:15	09/20/16 23:00	71-43-2	
Ethylbenzene	<14.7	ug/kg	59.0	14.7	1	09/20/16 08:15	09/20/16 23:00	100-41-4	
Methyl-tert-butyl ether	<14.9	ug/kg	59.0	14.9	1	09/20/16 08:15	09/20/16 23:00	1634-04-4	
Toluene	<13.2	ug/kg	59.0	13.2	1	09/20/16 08:15	09/20/16 23:00	108-88-3	
Xylene (Total)	<57.1	ug/kg	177	57.1	1	09/20/16 08:15	09/20/16 23:00	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	124	%	53-165		1	09/20/16 08:15	09/20/16 23:00	1868-53-7	
4-Bromofluorobenzene (S)	81	%	48-138		1	09/20/16 08:15	09/20/16 23:00	460-00-4	
Toluene-d8 (S)	95	%	54-163		1	09/20/16 08:15	09/20/16 23:00	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	15.2	%	0.10	0.10	1		09/22/16 11:02		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-25 @ 30-32.5 Lab ID: 40138420014 Collected: 09/15/16 09:58 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.5	ug/kg	14.9	4.5	1	09/20/16 07:50	09/20/16 20:10	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.7	3.8	1	09/20/16 07:50	09/20/16 20:10	208-96-8	
Anthracene	<6.6	ug/kg	21.9	6.6	1	09/20/16 07:50	09/20/16 20:10	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.2	3.7	1	09/20/16 07:50	09/20/16 20:10	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.7	2.9	1	09/20/16 07:50	09/20/16 20:10	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	10.9	3.3	1	09/20/16 07:50	09/20/16 20:10	205-99-2	
Benzo(g,h,i)perylene	<2.3	ug/kg	7.8	2.3	1	09/20/16 07:50	09/20/16 20:10	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.6	2.9	1	09/20/16 07:50	09/20/16 20:10	207-08-9	
Chrysene	<3.9	ug/kg	12.9	3.9	1	09/20/16 07:50	09/20/16 20:10	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/20/16 07:50	09/20/16 20:10	53-70-3	
Fluoranthene	<6.0	ug/kg	20.1	6.0	1	09/20/16 07:50	09/20/16 20:10	206-44-0	
Fluorene	<4.8	ug/kg	15.9	4.8	1	09/20/16 07:50	09/20/16 20:10	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.5	2.5	1	09/20/16 07:50	09/20/16 20:10	193-39-5	
Naphthalene	<9.7	ug/kg	32.4	9.7	1	09/20/16 07:50	09/20/16 20:10	91-20-3	
Phenanthrene	<13.4	ug/kg	44.7	13.4	1	09/20/16 07:50	09/20/16 20:10	85-01-8	
Pyrene	<5.2	ug/kg	17.3	5.2	1	09/20/16 07:50	09/20/16 20:10	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	42	%	26-130		1	09/20/16 07:50	09/20/16 20:10	321-60-8	
Terphenyl-d14 (S)	50	%	10-130		1	09/20/16 07:50	09/20/16 20:10	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.6	ug/kg	23.1	10.6	1	09/20/16 08:15	09/20/16 23:23	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.7	14.3	1	09/20/16 08:15	09/20/16 23:23	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.7	14.6	1	09/20/16 08:15	09/20/16 23:23	1634-04-4	
Toluene	<12.9	ug/kg	57.7	12.9	1	09/20/16 08:15	09/20/16 23:23	108-88-3	
Xylene (Total)	<55.9	ug/kg	173	55.9	1	09/20/16 08:15	09/20/16 23:23	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	124	%	53-165		1	09/20/16 08:15	09/20/16 23:23	1868-53-7	
4-Bromofluorobenzene (S)	72	%	48-138		1	09/20/16 08:15	09/20/16 23:23	460-00-4	
Toluene-d8 (S)	92	%	54-163		1	09/20/16 08:15	09/20/16 23:23	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.3	%	0.10	0.10	1		09/22/16 11:02		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-29 @ 2.5-5 Lab ID: 40138420015 Collected: 09/15/16 10:10 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.9	ug/kg	16.3	4.9	1	09/20/16 07:50	09/20/16 20:28	83-32-9	
Acenaphthylene	<4.2	ug/kg	13.9	4.2	1	09/20/16 07:50	09/20/16 20:28	208-96-8	
Anthracene	<7.2	ug/kg	24.0	7.2	1	09/20/16 07:50	09/20/16 20:28	120-12-7	
Benzo(a)anthracene	5.0J	ug/kg	13.4	4.0	1	09/20/16 07:50	09/20/16 20:28	56-55-3	
Benzo(a)pyrene	3.4J	ug/kg	10.6	3.2	1	09/20/16 07:50	09/20/16 20:28	50-32-8	
Benzo(b)fluoranthene	6.2J	ug/kg	11.9	3.6	1	09/20/16 07:50	09/20/16 20:28	205-99-2	
Benzo(g,h,i)perylene	3.2J	ug/kg	8.5	2.6	1	09/20/16 07:50	09/20/16 20:28	191-24-2	
Benzo(k)fluoranthene	<3.2	ug/kg	10.6	3.2	1	09/20/16 07:50	09/20/16 20:28	207-08-9	
Chrysene	5.3J	ug/kg	14.1	4.3	1	09/20/16 07:50	09/20/16 20:28	218-01-9	
Dibenz(a,h)anthracene	<2.8	ug/kg	9.4	2.8	1	09/20/16 07:50	09/20/16 20:28	53-70-3	
Fluoranthene	10.8J	ug/kg	22.0	6.6	1	09/20/16 07:50	09/20/16 20:28	206-44-0	
Fluorene	<5.2	ug/kg	17.4	5.2	1	09/20/16 07:50	09/20/16 20:28	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.8	ug/kg	9.3	2.8	1	09/20/16 07:50	09/20/16 20:28	193-39-5	
Naphthalene	<10.6	ug/kg	35.5	10.6	1	09/20/16 07:50	09/20/16 20:28	91-20-3	
Phenanthrene	<14.7	ug/kg	49.0	14.7	1	09/20/16 07:50	09/20/16 20:28	85-01-8	
Pyrene	7.8J	ug/kg	18.9	5.7	1	09/20/16 07:50	09/20/16 20:28	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	64	%	26-130		1	09/20/16 07:50	09/20/16 20:28	321-60-8	
Terphenyl-d14 (S)	68	%	10-130		1	09/20/16 07:50	09/20/16 20:28	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<11.6	ug/kg	25.3	11.6	1	09/20/16 08:15	09/20/16 23:45	71-43-2	
Ethylbenzene	<15.7	ug/kg	63.1	15.7	1	09/20/16 08:15	09/20/16 23:45	100-41-4	
Methyl-tert-butyl ether	<16.0	ug/kg	63.1	16.0	1	09/20/16 08:15	09/20/16 23:45	1634-04-4	
Toluene	<14.2	ug/kg	63.1	14.2	1	09/20/16 08:15	09/20/16 23:45	108-88-3	
Xylene (Total)	<61.2	ug/kg	189	61.2	1	09/20/16 08:15	09/20/16 23:45	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	119	%	53-165		1	09/20/16 08:15	09/20/16 23:45	1868-53-7	
4-Bromofluorobenzene (S)	76	%	48-138		1	09/20/16 08:15	09/20/16 23:45	460-00-4	
Toluene-d8 (S)	97	%	54-163		1	09/20/16 08:15	09/20/16 23:45	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	20.8	%	0.10	0.10	1		09/22/16 11:02		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-29 @ 7.5-10 Lab ID: 40138420016 Collected: 09/15/16 10:15 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.5	ug/kg	14.9	4.5	1	09/20/16 07:50	09/20/16 20:45	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.7	3.8	1	09/20/16 07:50	09/20/16 20:45	208-96-8	
Anthracene	<6.6	ug/kg	22.0	6.6	1	09/20/16 07:50	09/20/16 20:45	120-12-7	
Benzo(a)anthracene	3.7J	ug/kg	12.3	3.7	1	09/20/16 07:50	09/20/16 20:45	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.7	2.9	1	09/20/16 07:50	09/20/16 20:45	50-32-8	
Benzo(b)fluoranthene	3.3J	ug/kg	10.9	3.3	1	09/20/16 07:50	09/20/16 20:45	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	7.8	2.4	1	09/20/16 07:50	09/20/16 20:45	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.7	2.9	1	09/20/16 07:50	09/20/16 20:45	207-08-9	
Chrysene	4.3J	ug/kg	13.0	3.9	1	09/20/16 07:50	09/20/16 20:45	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/20/16 07:50	09/20/16 20:45	53-70-3	
Fluoranthene	<6.0	ug/kg	20.2	6.0	1	09/20/16 07:50	09/20/16 20:45	206-44-0	
Fluorene	<4.8	ug/kg	16.0	4.8	1	09/20/16 07:50	09/20/16 20:45	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.5	2.5	1	09/20/16 07:50	09/20/16 20:45	193-39-5	
Naphthalene	<9.8	ug/kg	32.6	9.8	1	09/20/16 07:50	09/20/16 20:45	91-20-3	
Phenanthrene	<13.5	ug/kg	45.0	13.5	1	09/20/16 07:50	09/20/16 20:45	85-01-8	
Pyrene	<5.2	ug/kg	17.4	5.2	1	09/20/16 07:50	09/20/16 20:45	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	60	%	26-130		1	09/20/16 07:50	09/20/16 20:45	321-60-8	
Terphenyl-d14 (S)	64	%	10-130		1	09/20/16 07:50	09/20/16 20:45	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.7	ug/kg	23.2	10.7	1	09/20/16 08:15	09/21/16 00:08	71-43-2	
Ethylbenzene	<14.4	ug/kg	57.9	14.4	1	09/20/16 08:15	09/21/16 00:08	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	57.9	14.7	1	09/20/16 08:15	09/21/16 00:08	1634-04-4	
Toluene	<13.0	ug/kg	57.9	13.0	1	09/20/16 08:15	09/21/16 00:08	108-88-3	
Xylene (Total)	<56.1	ug/kg	174	56.1	1	09/20/16 08:15	09/21/16 00:08	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	122	%	53-165		1	09/20/16 08:15	09/21/16 00:08	1868-53-7	
4-Bromofluorobenzene (S)	79	%	48-138		1	09/20/16 08:15	09/21/16 00:08	460-00-4	
Toluene-d8 (S)	97	%	54-163		1	09/20/16 08:15	09/21/16 00:08	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.7	%	0.10	0.10	1		09/22/16 11:05		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-29A @ 10-12.5 Lab ID: 40138420017 Collected: 09/15/16 10:26 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.6	ug/kg	15.2	4.6	1	09/20/16 07:50	09/20/16 21:02	83-32-9	
Acenaphthylene	<3.9	ug/kg	12.9	3.9	1	09/20/16 07:50	09/20/16 21:02	208-96-8	
Anthracene	<6.7	ug/kg	22.3	6.7	1	09/20/16 07:50	09/20/16 21:02	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.5	3.7	1	09/20/16 07:50	09/20/16 21:02	56-55-3	
Benzo(a)pyrene	<3.0	ug/kg	9.8	3.0	1	09/20/16 07:50	09/20/16 21:02	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	11.1	3.3	1	09/20/16 07:50	09/20/16 21:02	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	8.0	2.4	1	09/20/16 07:50	09/20/16 21:02	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	9.8	3.0	1	09/20/16 07:50	09/20/16 21:02	207-08-9	
Chrysene	<4.0	ug/kg	13.2	4.0	1	09/20/16 07:50	09/20/16 21:02	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.8	2.6	1	09/20/16 07:50	09/20/16 21:02	53-70-3	
Fluoranthene	<6.1	ug/kg	20.5	6.1	1	09/20/16 07:50	09/20/16 21:02	206-44-0	
Fluorene	<4.9	ug/kg	16.2	4.9	1	09/20/16 07:50	09/20/16 21:02	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.6	2.6	1	09/20/16 07:50	09/20/16 21:02	193-39-5	
Naphthalene	<9.9	ug/kg	33.1	9.9	1	09/20/16 07:50	09/20/16 21:02	91-20-3	
Phenanthrene	<13.7	ug/kg	45.6	13.7	1	09/20/16 07:50	09/20/16 21:02	85-01-8	
Pyrene	<5.3	ug/kg	17.6	5.3	1	09/20/16 07:50	09/20/16 21:02	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	63	%	26-130		1	09/20/16 07:50	09/20/16 21:02	321-60-8	
Terphenyl-d14 (S)	70	%	10-130		1	09/20/16 07:50	09/20/16 21:02	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.8	ug/kg	23.5	10.8	1	09/20/16 08:15	09/21/16 00:31	71-43-2	
Ethylbenzene	<14.6	ug/kg	58.8	14.6	1	09/20/16 08:15	09/21/16 00:31	100-41-4	
Methyl-tert-butyl ether	<14.9	ug/kg	58.8	14.9	1	09/20/16 08:15	09/21/16 00:31	1634-04-4	
Toluene	<13.2	ug/kg	58.8	13.2	1	09/20/16 08:15	09/21/16 00:31	108-88-3	
Xylene (Total)	<57.0	ug/kg	176	57.0	1	09/20/16 08:15	09/21/16 00:31	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	120	%	53-165		1	09/20/16 08:15	09/21/16 00:31	1868-53-7	
4-Bromofluorobenzene (S)	74	%	48-138		1	09/20/16 08:15	09/21/16 00:31	460-00-4	
Toluene-d8 (S)	96	%	54-163		1	09/20/16 08:15	09/21/16 00:31	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	15.0	%	0.10	0.10	1		09/22/16 11:05		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-29A @ 15-20 Lab ID: 40138420018 Collected: 09/15/16 10:40 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.6	ug/kg	15.1	4.6	1	09/20/16 07:50	09/20/16 21:19	83-32-9	
Acenaphthylene	<3.9	ug/kg	12.9	3.9	1	09/20/16 07:50	09/20/16 21:19	208-96-8	
Anthracene	<6.7	ug/kg	22.3	6.7	1	09/20/16 07:50	09/20/16 21:19	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.4	3.7	1	09/20/16 07:50	09/20/16 21:19	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.8	2.9	1	09/20/16 07:50	09/20/16 21:19	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	11.0	3.3	1	09/20/16 07:50	09/20/16 21:19	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	7.9	2.4	1	09/20/16 07:50	09/20/16 21:19	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.8	2.9	1	09/20/16 07:50	09/20/16 21:19	207-08-9	
Chrysene	<4.0	ug/kg	13.2	4.0	1	09/20/16 07:50	09/20/16 21:19	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.7	2.6	1	09/20/16 07:50	09/20/16 21:19	53-70-3	
Fluoranthene	<6.1	ug/kg	20.4	6.1	1	09/20/16 07:50	09/20/16 21:19	206-44-0	
Fluorene	<4.9	ug/kg	16.2	4.9	1	09/20/16 07:50	09/20/16 21:19	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.6	2.6	1	09/20/16 07:50	09/20/16 21:19	193-39-5	
Naphthalene	<9.9	ug/kg	33.0	9.9	1	09/20/16 07:50	09/20/16 21:19	91-20-3	
Phenanthrene	<13.7	ug/kg	45.6	13.7	1	09/20/16 07:50	09/20/16 21:19	85-01-8	
Pyrene	<5.3	ug/kg	17.6	5.3	1	09/20/16 07:50	09/20/16 21:19	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	57	%	26-130		1	09/20/16 07:50	09/20/16 21:19	321-60-8	
Terphenyl-d14 (S)	63	%	10-130		1	09/20/16 07:50	09/20/16 21:19	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.8	ug/kg	23.5	10.8	1	09/20/16 08:15	09/21/16 00:53	71-43-2	
Ethylbenzene	<14.6	ug/kg	58.7	14.6	1	09/20/16 08:15	09/21/16 00:53	100-41-4	
Methyl-tert-butyl ether	<14.9	ug/kg	58.7	14.9	1	09/20/16 08:15	09/21/16 00:53	1634-04-4	
Toluene	<13.2	ug/kg	58.7	13.2	1	09/20/16 08:15	09/21/16 00:53	108-88-3	
Xylene (Total)	<56.9	ug/kg	176	56.9	1	09/20/16 08:15	09/21/16 00:53	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	117	%	53-165		1	09/20/16 08:15	09/21/16 00:53	1868-53-7	
4-Bromofluorobenzene (S)	68	%	48-138		1	09/20/16 08:15	09/21/16 00:53	460-00-4	
Toluene-d8 (S)	87	%	54-163		1	09/20/16 08:15	09/21/16 00:53	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.8	%	0.10	0.10	1		09/22/16 12:06		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138420

Sample: BH-29A @ 22.5-25 Lab ID: 40138420019 Collected: 09/15/16 10:54 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.5	ug/kg	15.0	4.5	1	09/21/16 09:06	09/21/16 17:03	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.8	3.8	1	09/21/16 09:06	09/21/16 17:03	208-96-8	
Anthracene	<6.6	ug/kg	22.1	6.6	1	09/21/16 09:06	09/21/16 17:03	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.3	3.7	1	09/21/16 09:06	09/21/16 17:03	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.7	2.9	1	09/21/16 09:06	09/21/16 17:03	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	10.9	3.3	1	09/21/16 09:06	09/21/16 17:03	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	7.9	2.4	1	09/21/16 09:06	09/21/16 17:03	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.7	2.9	1	09/21/16 09:06	09/21/16 17:03	207-08-9	
Chrysene	<3.9	ug/kg	13.0	3.9	1	09/21/16 09:06	09/21/16 17:03	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/21/16 09:06	09/21/16 17:03	53-70-3	
Fluoranthene	<6.0	ug/kg	20.2	6.0	1	09/21/16 09:06	09/21/16 17:03	206-44-0	
Fluorene	<4.8	ug/kg	16.0	4.8	1	09/21/16 09:06	09/21/16 17:03	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.5	2.6	1	09/21/16 09:06	09/21/16 17:03	193-39-5	
Naphthalene	<9.8	ug/kg	32.6	9.8	1	09/21/16 09:06	09/21/16 17:03	91-20-3	
Phenanthrene	<13.5	ug/kg	45.0	13.5	1	09/21/16 09:06	09/21/16 17:03	85-01-8	
Pyrene	<5.2	ug/kg	17.4	5.2	1	09/21/16 09:06	09/21/16 17:03	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	48	%	26-130		1	09/21/16 09:06	09/21/16 17:03	321-60-8	
Terphenyl-d14 (S)	52	%	10-130		1	09/21/16 09:06	09/21/16 17:03	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.7	ug/kg	23.2	10.7	1	09/20/16 08:15	09/21/16 01:16	71-43-2	
Ethylbenzene	<14.4	ug/kg	58.0	14.4	1	09/20/16 08:15	09/21/16 01:16	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.0	14.7	1	09/20/16 08:15	09/21/16 01:16	1634-04-4	
Toluene	<13.0	ug/kg	58.0	13.0	1	09/20/16 08:15	09/21/16 01:16	108-88-3	
Xylene (Total)	<56.2	ug/kg	174	56.2	1	09/20/16 08:15	09/21/16 01:16	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	111	%	53-165		1	09/20/16 08:15	09/21/16 01:16	1868-53-7	
4-Bromofluorobenzene (S)	80	%	48-138		1	09/20/16 08:15	09/21/16 01:16	460-00-4	
Toluene-d8 (S)	91	%	54-163		1	09/20/16 08:15	09/21/16 01:16	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.8	%	0.10	0.10	1		09/22/16 11:05		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-29A @ 27.5-30 Lab ID: 40138420020 Collected: 09/15/16 11:06 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.4	ug/kg	14.8	4.4	1	09/21/16 09:06	09/21/16 17:20	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.6	3.8	1	09/21/16 09:06	09/21/16 17:20	208-96-8	
Anthracene	<6.5	ug/kg	21.7	6.5	1	09/21/16 09:06	09/21/16 17:20	120-12-7	
Benzo(a)anthracene	<3.6	ug/kg	12.1	3.6	1	09/21/16 09:06	09/21/16 17:20	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.6	2.9	1	09/21/16 09:06	09/21/16 17:20	50-32-8	
Benzo(b)fluoranthene	<3.2	ug/kg	10.8	3.2	1	09/21/16 09:06	09/21/16 17:20	205-99-2	
Benzo(g,h,i)perylene	<2.3	ug/kg	7.7	2.3	1	09/21/16 09:06	09/21/16 17:20	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.6	2.9	1	09/21/16 09:06	09/21/16 17:20	207-08-9	
Chrysene	<3.9	ug/kg	12.8	3.9	1	09/21/16 09:06	09/21/16 17:20	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.5	2.6	1	09/21/16 09:06	09/21/16 17:20	53-70-3	
Fluoranthene	<6.0	ug/kg	19.9	6.0	1	09/21/16 09:06	09/21/16 17:20	206-44-0	
Fluorene	<4.7	ug/kg	15.8	4.7	1	09/21/16 09:06	09/21/16 17:20	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.4	2.5	1	09/21/16 09:06	09/21/16 17:20	193-39-5	
Naphthalene	<9.6	ug/kg	32.1	9.6	1	09/21/16 09:06	09/21/16 17:20	91-20-3	
Phenanthrene	<13.3	ug/kg	44.4	13.3	1	09/21/16 09:06	09/21/16 17:20	85-01-8	
Pyrene	<5.2	ug/kg	17.2	5.2	1	09/21/16 09:06	09/21/16 17:20	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	59	%	26-130		1	09/21/16 09:06	09/21/16 17:20	321-60-8	
Terphenyl-d14 (S)	67	%	10-130		1	09/21/16 09:06	09/21/16 17:20	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.5	ug/kg	22.9	10.5	1	09/20/16 08:15	09/21/16 01:38	71-43-2	
Ethylbenzene	<14.2	ug/kg	57.2	14.2	1	09/20/16 08:15	09/21/16 01:38	100-41-4	
Methyl-tert-butyl ether	<14.5	ug/kg	57.2	14.5	1	09/20/16 08:15	09/21/16 01:38	1634-04-4	
Toluene	<12.8	ug/kg	57.2	12.8	1	09/20/16 08:15	09/21/16 01:38	108-88-3	
Xylene (Total)	<55.4	ug/kg	172	55.4	1	09/20/16 08:15	09/21/16 01:38	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	120	%	53-165		1	09/20/16 08:15	09/21/16 01:38	1868-53-7	
4-Bromofluorobenzene (S)	77	%	48-138		1	09/20/16 08:15	09/21/16 01:38	460-00-4	
Toluene-d8 (S)	93	%	54-163		1	09/20/16 08:15	09/21/16 01:38	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	12.6	%	0.10	0.10	1		09/22/16 11:05		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138420

Sample: BH-29A @ 32.5-35 Lab ID: 40138420021 Collected: 09/15/16 11:15 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.5	ug/kg	15.0	4.5	1	09/21/16 09:06	09/21/16 15:03	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.8	3.8	1	09/21/16 09:06	09/21/16 15:03	208-96-8	
Anthracene	<6.6	ug/kg	22.1	6.6	1	09/21/16 09:06	09/21/16 15:03	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.3	3.7	1	09/21/16 09:06	09/21/16 15:03	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.7	2.9	1	09/21/16 09:06	09/21/16 15:03	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	10.9	3.3	1	09/21/16 09:06	09/21/16 15:03	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	7.9	2.4	1	09/21/16 09:06	09/21/16 15:03	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.7	2.9	1	09/21/16 09:06	09/21/16 15:03	207-08-9	
Chrysene	<3.9	ug/kg	13.0	3.9	1	09/21/16 09:06	09/21/16 15:03	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.7	2.6	1	09/21/16 09:06	09/21/16 15:03	53-70-3	
Fluoranthene	<6.1	ug/kg	20.2	6.1	1	09/21/16 09:06	09/21/16 15:03	206-44-0	
Fluorene	<4.8	ug/kg	16.1	4.8	1	09/21/16 09:06	09/21/16 15:03	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.5	2.6	1	09/21/16 09:06	09/21/16 15:03	193-39-5	
Naphthalene	<9.8	ug/kg	32.7	9.8	1	09/21/16 09:06	09/21/16 15:03	91-20-3	
Phenanthrene	<13.6	ug/kg	45.1	13.6	1	09/21/16 09:06	09/21/16 15:03	85-01-8	
Pyrene	<5.2	ug/kg	17.5	5.2	1	09/21/16 09:06	09/21/16 15:03	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	61	%	26-130		1	09/21/16 09:06	09/21/16 15:03	321-60-8	
Terphenyl-d14 (S)	62	%	10-130		1	09/21/16 09:06	09/21/16 15:03	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.7	ug/kg	23.3	10.7	1	09/20/16 08:15	09/21/16 02:01	71-43-2	
Ethylbenzene	<14.5	ug/kg	58.2	14.5	1	09/20/16 08:15	09/21/16 02:01	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.2	14.7	1	09/20/16 08:15	09/21/16 02:01	1634-04-4	
Toluene	<13.1	ug/kg	58.2	13.1	1	09/20/16 08:15	09/21/16 02:01	108-88-3	
Xylene (Total)	<56.3	ug/kg	175	56.3	1	09/20/16 08:15	09/21/16 02:01	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	113	%	53-165		1	09/20/16 08:15	09/21/16 02:01	1868-53-7	
4-Bromofluorobenzene (S)	73	%	48-138		1	09/20/16 08:15	09/21/16 02:01	460-00-4	
Toluene-d8 (S)	87	%	54-163		1	09/20/16 08:15	09/21/16 02:01	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	14.0	%	0.10	0.10	1		09/22/16 11:05		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-28 @ 2.5-5 Lab ID: 40138420022 Collected: 09/15/16 12:05 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.6	ug/kg	15.1	4.6	1	09/21/16 09:06	09/21/16 17:37	83-32-9	
Acenaphthylene	<3.9	ug/kg	12.9	3.9	1	09/21/16 09:06	09/21/16 17:37	208-96-8	
Anthracene	<6.7	ug/kg	22.3	6.7	1	09/21/16 09:06	09/21/16 17:37	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.4	3.7	1	09/21/16 09:06	09/21/16 17:37	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.8	2.9	1	09/21/16 09:06	09/21/16 17:37	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	11.0	3.3	1	09/21/16 09:06	09/21/16 17:37	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	7.9	2.4	1	09/21/16 09:06	09/21/16 17:37	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.8	2.9	1	09/21/16 09:06	09/21/16 17:37	207-08-9	
Chrysene	<4.0	ug/kg	13.1	4.0	1	09/21/16 09:06	09/21/16 17:37	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.7	2.6	1	09/21/16 09:06	09/21/16 17:37	53-70-3	
Fluoranthene	<6.1	ug/kg	20.4	6.1	1	09/21/16 09:06	09/21/16 17:37	206-44-0	
Fluorene	<4.9	ug/kg	16.2	4.9	1	09/21/16 09:06	09/21/16 17:37	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.6	2.6	1	09/21/16 09:06	09/21/16 17:37	193-39-5	
Naphthalene	<9.9	ug/kg	33.0	9.9	1	09/21/16 09:06	09/21/16 17:37	91-20-3	
Phenanthrene	<13.7	ug/kg	45.6	13.7	1	09/21/16 09:06	09/21/16 17:37	85-01-8	
Pyrene	<5.3	ug/kg	17.6	5.3	1	09/21/16 09:06	09/21/16 17:37	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	58	%	26-130		1	09/21/16 09:06	09/21/16 17:37	321-60-8	
Terphenyl-d14 (S)	63	%	10-130		1	09/21/16 09:06	09/21/16 17:37	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.8	ug/kg	23.5	10.8	1	09/20/16 08:15	09/21/16 02:24	71-43-2	
Ethylbenzene	<14.6	ug/kg	58.7	14.6	1	09/20/16 08:15	09/21/16 02:24	100-41-4	
Methyl-tert-butyl ether	<14.9	ug/kg	58.7	14.9	1	09/20/16 08:15	09/21/16 02:24	1634-04-4	
Toluene	<13.2	ug/kg	58.7	13.2	1	09/20/16 08:15	09/21/16 02:24	108-88-3	
Xylene (Total)	<56.9	ug/kg	176	56.9	1	09/20/16 08:15	09/21/16 02:24	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	108	%	53-165		1	09/20/16 08:15	09/21/16 02:24	1868-53-7	
4-Bromofluorobenzene (S)	69	%	48-138		1	09/20/16 08:15	09/21/16 02:24	460-00-4	
Toluene-d8 (S)	86	%	54-163		1	09/20/16 08:15	09/21/16 02:24	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.8	%	0.10	0.10	1		09/22/16 11:05		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-28 @ 5-7.5 Lab ID: 40138420023 Collected: 09/15/16 12:08 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.5	ug/kg	14.8	4.5	1	09/21/16 09:06	09/21/16 17:54	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.6	3.8	1	09/21/16 09:06	09/21/16 17:54	208-96-8	
Anthracene	<6.6	ug/kg	21.8	6.6	1	09/21/16 09:06	09/21/16 17:54	120-12-7	
Benzo(a)anthracene	<3.6	ug/kg	12.2	3.6	1	09/21/16 09:06	09/21/16 17:54	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.6	2.9	1	09/21/16 09:06	09/21/16 17:54	50-32-8	
Benzo(b)fluoranthene	<3.2	ug/kg	10.8	3.2	1	09/21/16 09:06	09/21/16 17:54	205-99-2	
Benzo(g,h,i)perylene	<2.3	ug/kg	7.8	2.3	1	09/21/16 09:06	09/21/16 17:54	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.6	2.9	1	09/21/16 09:06	09/21/16 17:54	207-08-9	
Chrysene	<3.9	ug/kg	12.9	3.9	1	09/21/16 09:06	09/21/16 17:54	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/21/16 09:06	09/21/16 17:54	53-70-3	
Fluoranthene	<6.0	ug/kg	20.0	6.0	1	09/21/16 09:06	09/21/16 17:54	206-44-0	
Fluorene	<4.8	ug/kg	15.8	4.8	1	09/21/16 09:06	09/21/16 17:54	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.4	2.5	1	09/21/16 09:06	09/21/16 17:54	193-39-5	
Naphthalene	<9.7	ug/kg	32.3	9.7	1	09/21/16 09:06	09/21/16 17:54	91-20-3	
Phenanthrene	<13.4	ug/kg	44.5	13.4	1	09/21/16 09:06	09/21/16 17:54	85-01-8	
Pyrene	<5.2	ug/kg	17.2	5.2	1	09/21/16 09:06	09/21/16 17:54	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	62	%	26-130		1	09/21/16 09:06	09/21/16 17:54	321-60-8	
Terphenyl-d14 (S)	66	%	10-130		1	09/21/16 09:06	09/21/16 17:54	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.6	ug/kg	23.0	10.6	1	09/20/16 08:15	09/21/16 02:46	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.4	14.3	1	09/20/16 08:15	09/21/16 02:46	100-41-4	
Methyl-tert-butyl ether	<14.5	ug/kg	57.4	14.5	1	09/20/16 08:15	09/21/16 02:46	1634-04-4	
Toluene	<12.9	ug/kg	57.4	12.9	1	09/20/16 08:15	09/21/16 02:46	108-88-3	
Xylene (Total)	<55.6	ug/kg	172	55.6	1	09/20/16 08:15	09/21/16 02:46	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	116	%	53-165		1	09/20/16 08:15	09/21/16 02:46	1868-53-7	
4-Bromofluorobenzene (S)	76	%	48-138		1	09/20/16 08:15	09/21/16 02:46	460-00-4	
Toluene-d8 (S)	98	%	54-163		1	09/20/16 08:15	09/21/16 02:46	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	12.9	%	0.10	0.10	1		09/22/16 11:06		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138420

Sample: BH-28 @ 12.5-15 Lab ID: 40138420024 Collected: 09/15/16 12:16 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.5	ug/kg	15.0	4.5	1	09/21/16 09:06	09/21/16 18:11	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.8	3.8	1	09/21/16 09:06	09/21/16 18:11	208-96-8	
Anthracene	<6.6	ug/kg	22.0	6.6	1	09/21/16 09:06	09/21/16 18:11	120-12-7	
Benzo(a)anthracene	3.9J	ug/kg	12.3	3.7	1	09/21/16 09:06	09/21/16 18:11	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.7	2.9	1	09/21/16 09:06	09/21/16 18:11	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	10.9	3.3	1	09/21/16 09:06	09/21/16 18:11	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	7.9	2.4	1	09/21/16 09:06	09/21/16 18:11	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.7	2.9	1	09/21/16 09:06	09/21/16 18:11	207-08-9	
Chrysene	4.5J	ug/kg	13.0	3.9	1	09/21/16 09:06	09/21/16 18:11	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/21/16 09:06	09/21/16 18:11	53-70-3	
Fluoranthene	<6.0	ug/kg	20.2	6.0	1	09/21/16 09:06	09/21/16 18:11	206-44-0	
Fluorene	<4.8	ug/kg	16.0	4.8	1	09/21/16 09:06	09/21/16 18:11	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.5	2.6	1	09/21/16 09:06	09/21/16 18:11	193-39-5	
Naphthalene	262	ug/kg	32.6	9.8	1	09/21/16 09:06	09/21/16 18:11	91-20-3	
Phenanthrene	<13.5	ug/kg	45.0	13.5	1	09/21/16 09:06	09/21/16 18:11	85-01-8	
Pyrene	<5.2	ug/kg	17.4	5.2	1	09/21/16 09:06	09/21/16 18:11	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	56	%	26-130		1	09/21/16 09:06	09/21/16 18:11	321-60-8	
Terphenyl-d14 (S)	66	%	10-130		1	09/21/16 09:06	09/21/16 18:11	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	54.1	ug/kg	23.2	10.7	1	09/20/16 08:15	09/21/16 11:07	71-43-2	
Ethylbenzene	3300	ug/kg	58.0	14.4	1	09/20/16 08:15	09/21/16 11:07	100-41-4	
Methyl-tert-butyl ether	<14.7	ug/kg	58.0	14.7	1	09/20/16 08:15	09/21/16 11:07	1634-04-4	
Toluene	263	ug/kg	58.0	13.0	1	09/20/16 08:15	09/21/16 11:07	108-88-3	
Xylene (Total)	3360	ug/kg	174	56.2	1	09/20/16 08:15	09/21/16 11:07	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	104	%	53-165		1	09/20/16 08:15	09/21/16 11:07	1868-53-7	
4-Bromofluorobenzene (S)	83	%	48-138		1	09/20/16 08:15	09/21/16 11:07	460-00-4	
Toluene-d8 (S)	95	%	54-163		1	09/20/16 08:15	09/21/16 11:07	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.8	%	0.10	0.10	1		09/22/16 11:06		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-28 @ 15-17.5 Lab ID: 40138420025 Collected: 09/15/16 12:28 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.4	ug/kg	14.6	4.4	1	09/21/16 09:06	09/21/16 18:29	83-32-9	
Acenaphthylene	<3.7	ug/kg	12.5	3.7	1	09/21/16 09:06	09/21/16 18:29	208-96-8	
Anthracene	<6.5	ug/kg	21.5	6.5	1	09/21/16 09:06	09/21/16 18:29	120-12-7	
Benzo(a)anthracene	<3.6	ug/kg	12.0	3.6	1	09/21/16 09:06	09/21/16 18:29	56-55-3	
Benzo(a)pyrene	<2.8	ug/kg	9.5	2.8	1	09/21/16 09:06	09/21/16 18:29	50-32-8	
Benzo(b)fluoranthene	<3.2	ug/kg	10.7	3.2	1	09/21/16 09:06	09/21/16 18:29	205-99-2	
Benzo(g,h,i)perylene	<2.3	ug/kg	7.7	2.3	1	09/21/16 09:06	09/21/16 18:29	191-24-2	
Benzo(k)fluoranthene	<2.8	ug/kg	9.5	2.8	1	09/21/16 09:06	09/21/16 18:29	207-08-9	
Chrysene	<3.8	ug/kg	12.7	3.8	1	09/21/16 09:06	09/21/16 18:29	218-01-9	
Dibenz(a,h)anthracene	<2.5	ug/kg	8.4	2.5	1	09/21/16 09:06	09/21/16 18:29	53-70-3	
Fluoranthene	<5.9	ug/kg	19.7	5.9	1	09/21/16 09:06	09/21/16 18:29	206-44-0	
Fluorene	<4.7	ug/kg	15.6	4.7	1	09/21/16 09:06	09/21/16 18:29	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.3	2.5	1	09/21/16 09:06	09/21/16 18:29	193-39-5	
Naphthalene	137	ug/kg	31.8	9.5	1	09/21/16 09:06	09/21/16 18:29	91-20-3	
Phenanthrene	<13.2	ug/kg	43.9	13.2	1	09/21/16 09:06	09/21/16 18:29	85-01-8	
Pyrene	<5.1	ug/kg	17.0	5.1	1	09/21/16 09:06	09/21/16 18:29	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	56	%	26-130		1	09/21/16 09:06	09/21/16 18:29	321-60-8	
Terphenyl-d14 (S)	60	%	10-130		1	09/21/16 09:06	09/21/16 18:29	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	34.5	ug/kg	22.6	10.4	1	09/20/16 08:15	09/21/16 11:29	71-43-2	
Ethylbenzene	2000	ug/kg	56.6	14.1	1	09/20/16 08:15	09/21/16 11:29	100-41-4	
Methyl-tert-butyl ether	<14.3	ug/kg	56.6	14.3	1	09/20/16 08:15	09/21/16 11:29	1634-04-4	
Toluene	106	ug/kg	56.6	12.7	1	09/20/16 08:15	09/21/16 11:29	108-88-3	
Xylene (Total)	860	ug/kg	170	54.8	1	09/20/16 08:15	09/21/16 11:29	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	53-165		1	09/20/16 08:15	09/21/16 11:29	1868-53-7	
4-Bromofluorobenzene (S)	88	%	48-138		1	09/20/16 08:15	09/21/16 11:29	460-00-4	
Toluene-d8 (S)	94	%	54-163		1	09/20/16 08:15	09/21/16 11:29	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	11.7	%	0.10	0.10	1		09/22/16 11:06		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-28 @ 20-22.5 Lab ID: 40138420026 Collected: 09/15/16 12:30 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.6	ug/kg	15.4	4.6	1	09/21/16 09:06	09/21/16 18:46	83-32-9	
Acenaphthylene	<3.9	ug/kg	13.1	3.9	1	09/21/16 09:06	09/21/16 18:46	208-96-8	
Anthracene	<6.8	ug/kg	22.6	6.8	1	09/21/16 09:06	09/21/16 18:46	120-12-7	
Benzo(a)anthracene	<3.8	ug/kg	12.6	3.8	1	09/21/16 09:06	09/21/16 18:46	56-55-3	
Benzo(a)pyrene	<3.0	ug/kg	10	3.0	1	09/21/16 09:06	09/21/16 18:46	50-32-8	
Benzo(b)fluoranthene	<3.4	ug/kg	11.2	3.4	1	09/21/16 09:06	09/21/16 18:46	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	8.1	2.4	1	09/21/16 09:06	09/21/16 18:46	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	10	3.0	1	09/21/16 09:06	09/21/16 18:46	207-08-9	
Chrysene	<4.0	ug/kg	13.3	4.0	1	09/21/16 09:06	09/21/16 18:46	218-01-9	
Dibenz(a,h)anthracene	<2.7	ug/kg	8.9	2.7	1	09/21/16 09:06	09/21/16 18:46	53-70-3	
Fluoranthene	<6.2	ug/kg	20.7	6.2	1	09/21/16 09:06	09/21/16 18:46	206-44-0	
Fluorene	<4.9	ug/kg	16.4	4.9	1	09/21/16 09:06	09/21/16 18:46	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.7	2.6	1	09/21/16 09:06	09/21/16 18:46	193-39-5	
Naphthalene	309	ug/kg	33.5	10.0	1	09/21/16 09:06	09/21/16 18:46	91-20-3	
Phenanthrene	<13.9	ug/kg	46.2	13.9	1	09/21/16 09:06	09/21/16 18:46	85-01-8	
Pyrene	<5.4	ug/kg	17.9	5.4	1	09/21/16 09:06	09/21/16 18:46	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	45	%	26-130		1	09/21/16 09:06	09/21/16 18:46	321-60-8	
Terphenyl-d14 (S)	47	%	10-130		1	09/21/16 09:06	09/21/16 18:46	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	92.8	ug/kg	23.8	11.0	1	09/20/16 13:00	09/21/16 10:03	71-43-2	
Ethylbenzene	3070	ug/kg	59.6	14.8	1	09/20/16 13:00	09/21/16 10:03	100-41-4	
Methyl-tert-butyl ether	<15.1	ug/kg	59.6	15.1	1	09/20/16 13:00	09/21/16 10:03	1634-04-4	R1
Toluene	200	ug/kg	59.6	13.4	1	09/20/16 13:00	09/21/16 10:03	108-88-3	
Xylene (Total)	3050	ug/kg	179	57.7	1	09/20/16 13:00	09/21/16 10:03	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	93	%	53-165		1	09/20/16 13:00	09/21/16 10:03	1868-53-7	
4-Bromofluorobenzene (S)	89	%	48-138		1	09/20/16 13:00	09/21/16 10:03	460-00-4	
Toluene-d8 (S)	91	%	54-163		1	09/20/16 13:00	09/21/16 10:03	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	16.1	%	0.10	0.10	1		09/22/16 11:06		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Sample: BH-28 @ 25-27.5 Lab ID: 40138420027 Collected: 09/15/16 12:38 Received: 09/16/16 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.5	ug/kg	14.9	4.5	1	09/21/16 09:06	09/21/16 19:03	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.7	3.8	1	09/21/16 09:06	09/21/16 19:03	208-96-8	
Anthracene	<6.6	ug/kg	21.9	6.6	1	09/21/16 09:06	09/21/16 19:03	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.2	3.7	1	09/21/16 09:06	09/21/16 19:03	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.7	2.9	1	09/21/16 09:06	09/21/16 19:03	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	10.9	3.3	1	09/21/16 09:06	09/21/16 19:03	205-99-2	
Benzo(g,h,i)perylene	2.4J	ug/kg	7.8	2.3	1	09/21/16 09:06	09/21/16 19:03	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.6	2.9	1	09/21/16 09:06	09/21/16 19:03	207-08-9	
Chrysene	<3.9	ug/kg	12.9	3.9	1	09/21/16 09:06	09/21/16 19:03	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/21/16 09:06	09/21/16 19:03	53-70-3	
Fluoranthene	<6.0	ug/kg	20.1	6.0	1	09/21/16 09:06	09/21/16 19:03	206-44-0	
Fluorene	<4.8	ug/kg	15.9	4.8	1	09/21/16 09:06	09/21/16 19:03	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.5	2.5	1	09/21/16 09:06	09/21/16 19:03	193-39-5	
Naphthalene	<9.7	ug/kg	32.4	9.7	1	09/21/16 09:06	09/21/16 19:03	91-20-3	
Phenanthrene	<13.4	ug/kg	44.8	13.4	1	09/21/16 09:06	09/21/16 19:03	85-01-8	
Pyrene	<5.2	ug/kg	17.3	5.2	1	09/21/16 09:06	09/21/16 19:03	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	53	%	26-130		1	09/21/16 09:06	09/21/16 19:03	321-60-8	
Terphenyl-d14 (S)	59	%	10-130		1	09/21/16 09:06	09/21/16 19:03	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.6	ug/kg	23.1	10.6	1	09/20/16 13:00	09/21/16 10:24	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.7	14.3	1	09/20/16 13:00	09/21/16 10:24	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.7	14.6	1	09/20/16 13:00	09/21/16 10:24	1634-04-4	
Toluene	<12.9	ug/kg	57.7	12.9	1	09/20/16 13:00	09/21/16 10:24	108-88-3	
Xylene (Total)	<55.9	ug/kg	173	55.9	1	09/20/16 13:00	09/21/16 10:24	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	53-165		1	09/20/16 13:00	09/21/16 10:24	1868-53-7	
4-Bromofluorobenzene (S)	91	%	48-138		1	09/20/16 13:00	09/21/16 10:24	460-00-4	
Toluene-d8 (S)	95	%	54-163		1	09/20/16 13:00	09/21/16 10:24	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.3	%	0.10	0.10	1		09/22/16 11:06		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

QC Batch: 235317 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40138420002, 40138420003, 40138420004, 40138420005, 40138420006

METHOD BLANK: 1394781 Matrix: Solid  
Associated Lab Samples: 40138420002, 40138420003, 40138420004, 40138420005, 40138420006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	9.2	09/20/16 09:15	
Ethylbenzene	ug/kg	<12.4	50.0	12.4	09/20/16 09:15	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	12.7	09/20/16 09:15	
Toluene	ug/kg	<11.2	50.0	11.2	09/20/16 09:15	
Xylene (Total)	ug/kg	<48.4	150	48.4	09/20/16 09:15	
4-Bromofluorobenzene (S)	%	97	48-138		09/20/16 09:15	
Dibromofluoromethane (S)	%	98	53-165		09/20/16 09:15	
Toluene-d8 (S)	%	99	54-163		09/20/16 09:15	

LABORATORY CONTROL SAMPLE: 1394782

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2560	102	70-130	
Ethylbenzene	ug/kg	2500	2400	96	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2080	83	70-130	
Toluene	ug/kg	2500	2430	97	70-130	
Xylene (Total)	ug/kg	7500	7420	99	70-130	
4-Bromofluorobenzene (S)	%			102	48-138	
Dibromofluoromethane (S)	%			97	53-165	
Toluene-d8 (S)	%			98	54-163	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1394783 1394784

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40138333065 Result	Spike Conc.	Spike Conc.	MS Result						
Benzene	ug/kg	<23.2	1450	1450	1310	1380	91	95	70-130	5	20
Ethylbenzene	ug/kg	<58.0	1450	1450	1280	1260	88	87	70-130	2	20
Methyl-tert-butyl ether	ug/kg	<58.0	1450	1450	969	1150	67	80	70-130	17	20 M1
Toluene	ug/kg	<58.0	1450	1450	1350	1320	93	91	70-130	2	20
Xylene (Total)	ug/kg	<174	4350	4350	4030	3950	93	91	70-130	2	20
4-Bromofluorobenzene (S)	%						95	97	48-138		
Dibromofluoromethane (S)	%						89	90	53-165		
Toluene-d8 (S)	%						92	91	54-163		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

QC Batch: 235472 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40138420001, 40138420007, 40138420008, 40138420009, 40138420010, 40138420011, 40138420012, 40138420013, 40138420014, 40138420015, 40138420016, 40138420017, 40138420018, 40138420019, 40138420020, 40138420021, 40138420022, 40138420023, 40138420024, 40138420025

METHOD BLANK: 1395552 Matrix: Solid  
Associated Lab Samples: 40138420001, 40138420007, 40138420008, 40138420009, 40138420010, 40138420011, 40138420012, 40138420013, 40138420014, 40138420015, 40138420016, 40138420017, 40138420018, 40138420019, 40138420020, 40138420021, 40138420022, 40138420023, 40138420024, 40138420025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	9.2	09/20/16 16:37	
Ethylbenzene	ug/kg	<12.4	50.0	12.4	09/20/16 16:37	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	12.7	09/20/16 16:37	
Toluene	ug/kg	<11.2	50.0	11.2	09/20/16 16:37	
Xylene (Total)	ug/kg	<48.4	150	48.4	09/20/16 16:37	
4-Bromofluorobenzene (S)	%	76	48-138		09/20/16 16:37	
Dibromofluoromethane (S)	%	129	53-165		09/20/16 16:37	
Toluene-d8 (S)	%	100	54-163		09/20/16 16:37	

LABORATORY CONTROL SAMPLE: 1395553

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2790	112	70-130	
Ethylbenzene	ug/kg	2500	2530	101	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2130	85	70-130	
Toluene	ug/kg	2500	2810	112	70-130	
Xylene (Total)	ug/kg	7500	7790	104	70-130	
4-Bromofluorobenzene (S)	%			93	48-138	
Dibromofluoromethane (S)	%			108	53-165	
Toluene-d8 (S)	%			102	54-163	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1395554 1395555

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40138420020 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Benzene	ug/kg	<10.5	1430	1430	1510	1520	105	106	70-130	1	20	
Ethylbenzene	ug/kg	<14.2	1430	1430	1270	1190	89	83	70-130	6	20	
Methyl-tert-butyl ether	ug/kg	<14.5	1430	1430	1190	1190	83	83	70-130	0	20	
Toluene	ug/kg	<12.8	1430	1430	1470	1410	103	99	70-130	4	20	
Xylene (Total)	ug/kg	<55.4	4290	4290	3960	3850	92	90	70-130	3	20	
4-Bromofluorobenzene (S)	%						89	89	48-138			
Dibromofluoromethane (S)	%						108	106	53-165			
Toluene-d8 (S)	%						96	95	54-163			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

QC Batch: 235536 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40138420026, 40138420027

METHOD BLANK: 1396066 Matrix: Solid  
Associated Lab Samples: 40138420026, 40138420027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	9.2	09/21/16 08:36	
Ethylbenzene	ug/kg	<12.4	50.0	12.4	09/21/16 08:36	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	12.7	09/21/16 08:36	
Toluene	ug/kg	<11.2	50.0	11.2	09/21/16 08:36	
Xylene (Total)	ug/kg	<48.4	150	48.4	09/21/16 08:36	
4-Bromofluorobenzene (S)	%	89	48-138		09/21/16 08:36	
Dibromofluoromethane (S)	%	86	53-165		09/21/16 08:36	
Toluene-d8 (S)	%	95	54-163		09/21/16 08:36	

LABORATORY CONTROL SAMPLE: 1396067

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2530	101	70-130	
Ethylbenzene	ug/kg	2500	2430	97	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2090	83	70-130	
Toluene	ug/kg	2500	2440	98	70-130	
Xylene (Total)	ug/kg	7500	7500	100	70-130	
4-Bromofluorobenzene (S)	%			105	48-138	
Dibromofluoromethane (S)	%			103	53-165	
Toluene-d8 (S)	%			96	54-163	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1396068 1396069

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40138420026 Result	Spike Conc.	Spike Conc.	MS Result						
Benzene	ug/kg	92.8	1490	1490	1430	1690	89	107	70-130	17	20
Ethylbenzene	ug/kg	3070	1490	1490	4430	4430	91	92	70-130	0	20
Methyl-tert-butyl ether	ug/kg	<15.1	1490	1490	1060	1320	71	88	70-130	22	20 R1
Toluene	ug/kg	200	1490	1490	1560	1570	91	92	70-130	0	20
Xylene (Total)	ug/kg	3050	4470	4470	7330	7210	96	93	70-130	2	20
4-Bromofluorobenzene (S)	%						93	91	48-138		
Dibromofluoromethane (S)	%						94	92	53-165		
Toluene-d8 (S)	%						86	85	54-163		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

QC Batch: 235359 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40138420001, 40138420002, 40138420003, 40138420004, 40138420005, 40138420006, 40138420007, 40138420008, 40138420009, 40138420010, 40138420011, 40138420012, 40138420013, 40138420014, 40138420015, 40138420016, 40138420017, 40138420018

METHOD BLANK: 1395024 Matrix: Solid  
Associated Lab Samples: 40138420001, 40138420002, 40138420003, 40138420004, 40138420005, 40138420006, 40138420007, 40138420008, 40138420009, 40138420010, 40138420011, 40138420012, 40138420013, 40138420014, 40138420015, 40138420016, 40138420017, 40138420018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	ug/kg	<3.9	12.9	3.9	09/20/16 13:22	
Acenaphthylene	ug/kg	<3.3	11.0	3.3	09/20/16 13:22	
Anthracene	ug/kg	<5.7	19.0	5.7	09/20/16 13:22	
Benzo(a)anthracene	ug/kg	<3.2	10.6	3.2	09/20/16 13:22	
Benzo(a)pyrene	ug/kg	<2.5	8.4	2.5	09/20/16 13:22	
Benzo(b)fluoranthene	ug/kg	<2.8	9.4	2.8	09/20/16 13:22	
Benzo(g,h,i)perylene	ug/kg	<2.0	6.8	2.0	09/20/16 13:22	
Benzo(k)fluoranthene	ug/kg	<2.5	8.4	2.5	09/20/16 13:22	
Chrysene	ug/kg	<3.4	11.2	3.4	09/20/16 13:22	
Dibenz(a,h)anthracene	ug/kg	<2.2	7.4	2.2	09/20/16 13:22	
Fluoranthene	ug/kg	<5.2	17.4	5.2	09/20/16 13:22	
Fluorene	ug/kg	<4.1	13.8	4.1	09/20/16 13:22	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.2	7.3	2.2	09/20/16 13:22	
Naphthalene	ug/kg	<8.4	28.1	8.4	09/20/16 13:22	
Phenanthrene	ug/kg	<11.6	38.8	11.6	09/20/16 13:22	
Pyrene	ug/kg	<4.5	15.0	4.5	09/20/16 13:22	
2-Fluorobiphenyl (S)	%	68	26-130		09/20/16 13:22	
Terphenyl-d14 (S)	%	79	10-130		09/20/16 13:22	

LABORATORY CONTROL SAMPLE: 1395025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	231	69	54-130	
Acenaphthylene	ug/kg	333	235	70	56-130	
Anthracene	ug/kg	333	276	83	70-130	
Benzo(a)anthracene	ug/kg	333	274	82	58-130	
Benzo(a)pyrene	ug/kg	333	294	88	58-130	
Benzo(b)fluoranthene	ug/kg	333	280	84	50-130	
Benzo(g,h,i)perylene	ug/kg	333	282	84	39-130	
Benzo(k)fluoranthene	ug/kg	333	305	91	57-130	
Chrysene	ug/kg	333	287	86	64-130	
Dibenz(a,h)anthracene	ug/kg	333	295	88	44-130	
Fluoranthene	ug/kg	333	283	85	59-130	
Fluorene	ug/kg	333	235	71	56-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	292	88	45-130	
Naphthalene	ug/kg	333	255	76	46-130	

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**REPORT OF LABORATORY ANALYSIS**

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QUALITY CONTROL DATA

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

LABORATORY CONTROL SAMPLE: 1395025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/kg	333	278	83	56-130	
Pyrene	ug/kg	333	259	78	59-130	
2-Fluorobiphenyl (S)	%			70	26-130	
Terphenyl-d14 (S)	%			76	10-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1395026 1395027

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40138420007 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Acenaphthene	ug/kg	<5.0	427	427	225	279	53	65	49-130	21	27	
Acenaphthylene	ug/kg	<4.2	427	427	232	285	54	67	52-130	20	26	
Anthracene	ug/kg	<7.3	427	427	262	320	61	75	61-130	20	29	
Benzo(a)anthracene	ug/kg	6.8J	427	427	254	309	58	71	45-130	19	28	
Benzo(a)pyrene	ug/kg	11.5	427	427	265	326	59	74	39-130	21	34	
Benzo(b)fluoranthene	ug/kg	22.1	427	427	251	311	54	68	30-130	21	43	
Benzo(g,h,i)perylene	ug/kg	15.7	427	427	235	294	51	65	24-130	22	34	
Benzo(k)fluoranthene	ug/kg	14.9	427	427	266	328	59	73	41-130	21	32	
Chrysene	ug/kg	20.1	427	427	267	326	58	72	46-130	20	37	
Dibenz(a,h)anthracene	ug/kg	3.5J	427	427	258	315	60	73	33-130	20	34	
Fluoranthene	ug/kg	18.7J	427	427	260	321	56	71	41-130	21	25	
Fluorene	ug/kg	<5.3	427	427	229	281	54	66	49-130	20	30	
Indeno(1,2,3-cd)pyrene	ug/kg	11.6	427	427	249	311	56	70	30-130	22	28	
Naphthalene	ug/kg	<10.8	427	427	254	317	59	74	39-130	22	26	
Phenanthrene	ug/kg	<14.9	427	427	263	324	60	74	47-130	20	26	
Pyrene	ug/kg	13.4J	427	427	242	301	54	67	37-130	22	30	
2-Fluorobiphenyl (S)	%						49	62	26-130			
Terphenyl-d14 (S)	%						50	62	10-130			

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REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

QC Batch: 235549 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40138420019, 40138420020, 40138420021, 40138420022, 40138420023, 40138420024, 40138420025, 40138420026, 40138420027

METHOD BLANK: 1396105 Matrix: Solid  
Associated Lab Samples: 40138420019, 40138420020, 40138420021, 40138420022, 40138420023, 40138420024, 40138420025, 40138420026, 40138420027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	ug/kg	<3.9	12.9	3.9	09/21/16 14:28	
Acenaphthylene	ug/kg	<3.3	11.0	3.3	09/21/16 14:28	
Anthracene	ug/kg	<5.7	19.0	5.7	09/21/16 14:28	
Benzo(a)anthracene	ug/kg	<3.2	10.6	3.2	09/21/16 14:28	
Benzo(a)pyrene	ug/kg	<2.5	8.4	2.5	09/21/16 14:28	
Benzo(b)fluoranthene	ug/kg	<2.8	9.4	2.8	09/21/16 14:28	
Benzo(g,h,i)perylene	ug/kg	<2.0	6.8	2.0	09/21/16 14:28	
Benzo(k)fluoranthene	ug/kg	<2.5	8.4	2.5	09/21/16 14:28	
Chrysene	ug/kg	<3.4	11.2	3.4	09/21/16 14:28	
Dibenz(a,h)anthracene	ug/kg	<2.2	7.4	2.2	09/21/16 14:28	
Fluoranthene	ug/kg	<5.2	17.4	5.2	09/21/16 14:28	
Fluorene	ug/kg	<4.1	13.8	4.1	09/21/16 14:28	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.2	7.3	2.2	09/21/16 14:28	
Naphthalene	ug/kg	<8.4	28.1	8.4	09/21/16 14:28	
Phenanthrene	ug/kg	<11.6	38.8	11.6	09/21/16 14:28	
Pyrene	ug/kg	<4.5	15.0	4.5	09/21/16 14:28	
2-Fluorobiphenyl (S)	%	66	26-130		09/21/16 14:28	
Terphenyl-d14 (S)	%	75	10-130		09/21/16 14:28	

LABORATORY CONTROL SAMPLE: 1396106

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	190	57	54-130	
Acenaphthylene	ug/kg	333	195	58	56-130	
Anthracene	ug/kg	333	237	71	70-130	
Benzo(a)anthracene	ug/kg	333	210	63	58-130	
Benzo(a)pyrene	ug/kg	333	234	70	58-130	
Benzo(b)fluoranthene	ug/kg	333	223	67	50-130	
Benzo(g,h,i)perylene	ug/kg	333	207	62	39-130	
Benzo(k)fluoranthene	ug/kg	333	248	74	57-130	
Chrysene	ug/kg	333	245	73	64-130	
Dibenz(a,h)anthracene	ug/kg	333	219	66	44-130	
Fluoranthene	ug/kg	333	228	68	59-130	
Fluorene	ug/kg	333	191	57	56-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	226	68	45-130	
Naphthalene	ug/kg	333	208	62	46-130	
Phenanthrene	ug/kg	333	225	68	56-130	
Pyrene	ug/kg	333	216	65	59-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

LABORATORY CONTROL SAMPLE: 1396106

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Fluorobiphenyl (S)	%			60	26-130	
Terphenyl-d14 (S)	%			66	10-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1396107 1396108

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40138420021 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Acenaphthene	ug/kg	<4.5	387	387	221	202	57	52	49-130	9	27	
Acenaphthylene	ug/kg	<3.8	387	387	229	211	59	54	52-130	8	26	
Anthracene	ug/kg	<6.6	387	387	255	242	66	62	61-130	5	29	
Benzo(a)anthracene	ug/kg	<3.7	387	387	237	214	61	55	45-130	10	28	
Benzo(a)pyrene	ug/kg	<2.9	387	387	254	232	65	60	39-130	9	34	
Benzo(b)fluoranthene	ug/kg	<3.3	387	387	245	216	63	55	30-130	12	43	
Benzo(g,h,i)perylene	ug/kg	<2.4	387	387	233	211	60	54	24-130	10	34	
Benzo(k)fluoranthene	ug/kg	<2.9	387	387	264	253	68	65	41-130	4	32	
Chrysene	ug/kg	<3.9	387	387	265	243	68	62	46-130	9	37	
Dibenz(a,h)anthracene	ug/kg	<2.6	387	387	242	218	62	56	33-130	11	34	
Fluoranthene	ug/kg	<6.1	387	387	250	234	64	60	41-130	7	25	
Fluorene	ug/kg	<4.8	387	387	222	204	57	52	49-130	8	30	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.6	387	387	249	226	64	58	30-130	10	28	
Naphthalene	ug/kg	<9.8	387	387	254	233	64	58	39-130	9	26	
Phenanthrene	ug/kg	<13.6	387	387	256	237	65	60	47-130	8	26	
Pyrene	ug/kg	<5.2	387	387	244	221	62	56	37-130	10	30	
2-Fluorobiphenyl (S)	%						57	50	26-130			
Terphenyl-d14 (S)	%						59	55	10-130			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

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QC Batch:	235749	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40138420001, 40138420002, 40138420003, 40138420004, 40138420005, 40138420006, 40138420007, 40138420008		

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SAMPLE DUPLICATE: 1397626

Parameter	Units	40138407006 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	8.6	8.8	2	10	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

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QC Batch: 235761 Analysis Method: ASTM D2974-87  
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture  
Associated Lab Samples: 40138420009, 40138420010, 40138420011, 40138420012, 40138420013, 40138420014, 40138420015,  
40138420016, 40138420017, 40138420019, 40138420020, 40138420021, 40138420022, 40138420023,  
40138420024, 40138420025, 40138420026, 40138420027

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SAMPLE DUPLICATE: 1397704

Parameter	Units	40138420014 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	13.3	13.5	1	10	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

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QC Batch: 235775	Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87	Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 40138420018	

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SAMPLE DUPLICATE: 1397833

Parameter	Units	40138413008 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	26.2	26.0	1	10	

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: 235450

[IP] Benzo(b)fluoranthene and benzo(k)fluoranthene were in the check standard but did not meet the resolution criteria in SW846 Method 8270C. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40138420001	BH-23A @ 2.5-5	EPA 3546	235359	EPA 8270 by SIM	235450
40138420002	BH-23A @ 5-7.5	EPA 3546	235359	EPA 8270 by SIM	235450
40138420003	BH-23A @ 10-12.5	EPA 3546	235359	EPA 8270 by SIM	235450
40138420004	BH-23A @ 15-17.5	EPA 3546	235359	EPA 8270 by SIM	235450
40138420005	BH-23A @ 21.5-22.5	EPA 3546	235359	EPA 8270 by SIM	235450
40138420006	BH-23A @ 31-32.5	EPA 3546	235359	EPA 8270 by SIM	235450
40138420007	BH-23A @ 32.5-35	EPA 3546	235359	EPA 8270 by SIM	235450
40138420008	BH-25 @ 2.5-5	EPA 3546	235359	EPA 8270 by SIM	235450
40138420009	BH-25 @ 7.5-10	EPA 3546	235359	EPA 8270 by SIM	235450
40138420010	BH-25 @ 10-12.5	EPA 3546	235359	EPA 8270 by SIM	235450
40138420011	BH-25 @ 17.5-20	EPA 3546	235359	EPA 8270 by SIM	235450
40138420012	BH-25 @ 20-22.5	EPA 3546	235359	EPA 8270 by SIM	235450
40138420013	BH-25 @ 25-26.5	EPA 3546	235359	EPA 8270 by SIM	235450
40138420014	BH-25 @ 30-32.5	EPA 3546	235359	EPA 8270 by SIM	235450
40138420015	BH-29 @ 2.5-5	EPA 3546	235359	EPA 8270 by SIM	235450
40138420016	BH-29 @ 7.5-10	EPA 3546	235359	EPA 8270 by SIM	235450
40138420017	BH-29A @ 10-12.5	EPA 3546	235359	EPA 8270 by SIM	235450
40138420018	BH-29A @ 15-20	EPA 3546	235359	EPA 8270 by SIM	235450
40138420019	BH-29A @ 22.5-25	EPA 3546	235549	EPA 8270 by SIM	235645
40138420020	BH-29A @ 27.5-30	EPA 3546	235549	EPA 8270 by SIM	235645
40138420021	BH-29A @ 32.5-35	EPA 3546	235549	EPA 8270 by SIM	235645
40138420022	BH-28 @ 2.5-5	EPA 3546	235549	EPA 8270 by SIM	235645
40138420023	BH-28 @ 5-7.5	EPA 3546	235549	EPA 8270 by SIM	235645
40138420024	BH-28 @ 12.5-15	EPA 3546	235549	EPA 8270 by SIM	235645
40138420025	BH-28 @ 15-17.5	EPA 3546	235549	EPA 8270 by SIM	235645
40138420026	BH-28 @ 20-22.5	EPA 3546	235549	EPA 8270 by SIM	235645
40138420027	BH-28 @ 25-27.5	EPA 3546	235549	EPA 8270 by SIM	235645
40138420001	BH-23A @ 2.5-5	EPA 5035/5030B	235472	EPA 8260	235474
40138420002	BH-23A @ 5-7.5	EPA 5035/5030B	235317	EPA 8260	235319
40138420003	BH-23A @ 10-12.5	EPA 5035/5030B	235317	EPA 8260	235319
40138420004	BH-23A @ 15-17.5	EPA 5035/5030B	235317	EPA 8260	235319
40138420005	BH-23A @ 21.5-22.5	EPA 5035/5030B	235317	EPA 8260	235319
40138420006	BH-23A @ 31-32.5	EPA 5035/5030B	235317	EPA 8260	235319
40138420007	BH-23A @ 32.5-35	EPA 5035/5030B	235472	EPA 8260	235474
40138420008	BH-25 @ 2.5-5	EPA 5035/5030B	235472	EPA 8260	235474
40138420009	BH-25 @ 7.5-10	EPA 5035/5030B	235472	EPA 8260	235474
40138420010	BH-25 @ 10-12.5	EPA 5035/5030B	235472	EPA 8260	235474
40138420011	BH-25 @ 17.5-20	EPA 5035/5030B	235472	EPA 8260	235474
40138420012	BH-25 @ 20-22.5	EPA 5035/5030B	235472	EPA 8260	235474
40138420013	BH-25 @ 25-26.5	EPA 5035/5030B	235472	EPA 8260	235474
40138420014	BH-25 @ 30-32.5	EPA 5035/5030B	235472	EPA 8260	235474
40138420015	BH-29 @ 2.5-5	EPA 5035/5030B	235472	EPA 8260	235474
40138420016	BH-29 @ 7.5-10	EPA 5035/5030B	235472	EPA 8260	235474
40138420017	BH-29A @ 10-12.5	EPA 5035/5030B	235472	EPA 8260	235474
40138420018	BH-29A @ 15-20	EPA 5035/5030B	235472	EPA 8260	235474
40138420019	BH-29A @ 22.5-25	EPA 5035/5030B	235472	EPA 8260	235474
40138420020	BH-29A @ 27.5-30	EPA 5035/5030B	235472	EPA 8260	235474

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138420

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40138420021	BH-29A @ 32.5-35	EPA 5035/5030B	235472	EPA 8260	235474
40138420022	BH-28 @ 2.5-5	EPA 5035/5030B	235472	EPA 8260	235474
40138420023	BH-28 @ 5-7.5	EPA 5035/5030B	235472	EPA 8260	235474
40138420024	BH-28 @ 12.5-15	EPA 5035/5030B	235472	EPA 8260	235474
40138420025	BH-28 @ 15-17.5	EPA 5035/5030B	235472	EPA 8260	235474
40138420026	BH-28 @ 20-22.5	EPA 5035/5030B	235536	EPA 8260	235537
40138420027	BH-28 @ 25-27.5	EPA 5035/5030B	235536	EPA 8260	235537
40138420001	BH-23A @ 2.5-5	ASTM D2974-87	235749		
40138420002	BH-23A @ 5-7.5	ASTM D2974-87	235749		
40138420003	BH-23A @ 10-12.5	ASTM D2974-87	235749		
40138420004	BH-23A @ 15-17.5	ASTM D2974-87	235749		
40138420005	BH-23A @ 21.5-22.5	ASTM D2974-87	235749		
40138420006	BH-23A @ 31-32.5	ASTM D2974-87	235749		
40138420007	BH-23A @ 32.5-35	ASTM D2974-87	235749		
40138420008	BH-25 @ 2.5-5	ASTM D2974-87	235749		
40138420009	BH-25 @ 7.5-10	ASTM D2974-87	235761		
40138420010	BH-25 @ 10-12.5	ASTM D2974-87	235761		
40138420011	BH-25 @ 17.5-20	ASTM D2974-87	235761		
40138420012	BH-25 @ 20-22.5	ASTM D2974-87	235761		
40138420013	BH-25 @ 25-26.5	ASTM D2974-87	235761		
40138420014	BH-25 @ 30-32.5	ASTM D2974-87	235761		
40138420015	BH-29 @ 2.5-5	ASTM D2974-87	235761		
40138420016	BH-29 @ 7.5-10	ASTM D2974-87	235761		
40138420017	BH-29A @ 10-12.5	ASTM D2974-87	235761		
40138420018	BH-29A @ 15-20	ASTM D2974-87	235775		
40138420019	BH-29A @ 22.5-25	ASTM D2974-87	235761		
40138420020	BH-29A @ 27.5-30	ASTM D2974-87	235761		
40138420021	BH-29A @ 32.5-35	ASTM D2974-87	235761		
40138420022	BH-28 @ 2.5-5	ASTM D2974-87	235761		
40138420023	BH-28 @ 5-7.5	ASTM D2974-87	235761		
40138420024	BH-28 @ 12.5-15	ASTM D2974-87	235761		
40138420025	BH-28 @ 15-17.5	ASTM D2974-87	235761		
40138420026	BH-28 @ 20-22.5	ASTM D2974-87	235761		
40138420027	BH-28 @ 25-27.5	ASTM D2974-87	235761		

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40138420

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:	
Company: TriCore Environmental, LLC		Report To: Marcos I. Czako		Attention: Shawn Rodeck	
Address: 2368 Corporate Lane, Suite 116 Naperville, Illinois 60563		Copy To:		Company Name: TriCore Environmental, LLC	
Email To: marcos.czako@tricoreweb.com		Purchase Order No.: 100137		Address: 2368 Corporate Lane, Suite 116, Naperville, Illinois 60563	
Phone: 630-520-9973 Fax 630-520-9976		Project Name: Lemont Kar Gas / <i>DSI</i>		Pace Quote Reference:	
Requested Due Date/TAT: standard		Project Number: 100137		Pace Project Manager:	
				Pace Profile #:	

**REGULATORY AGENCY**

NPDES  GROUND WATER  DRINKING WATER  
 UST  RCRA  OTHER \_\_\_\_\_

**SITE LOCATION**

GA  IL  IN  MI  NC  
 OH  SC  WI  OTHER \_\_\_\_\_

Filtered (Y/N) N / N / N

ITEM #	Section D Required Client Information		COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Requested Analyte	Residual Chlorine (Y/N)			
	SAMPLE ID One Character per box. (A-Z, 0-9 / .)	Valid Matrix Codes MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START			COMPOSITE END/GRAB		Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> SO <sub>4</sub>			Methanol	Other	
				DATE			TIME	DATE											TIME
13	BH-25 @	25-26.5	SL	G		2/15/16	0930	3	1						2	XXX	N		
14	BH-25 @	30-32.5	SL	G		2/15/16	0958	3	1						2	XXX	N		
15	BH-29 @	2.5-5	SL	G		2/15/16	1010	3	1						2	XXX	N		
16	BH-29 @	7.5-10	SL	G		2/15/16	1015	3	1						2	XXX	N		
17	BH-29A @	10-12.5	SL	G		2/15/16	1026	3	1						2	XXX	N		
18	BH-29A @	15-20	SL	G		2/15/16	1040	3	1						2	XXX	N		
19	BH-29A @	22.5-35	SL	G		2/15/16	1054	3	1						2	XXX	N		
20	BH-29A @	27.5-30	SL	G		2/15/16	1106	3	1						2	XXX	N		
21	BH-29A @	32.5-35	SL	G		2/15/16	1115	3	1						2	XXX	N		
22	BH-28 @	2.5-5	SL	G		2/15/16	1205	3	1						2	XXX	N		
23	BH-28 @	5-7.5	SL	G		2/15/16	1208	3	1						2	XXX	N		
24	BH-28 @	12.5-15	SL	G		2/15/16	1216	3	1						2	XXX	N		

Additional Comments:	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS				
	<i>[Signature]</i>	2/15/16	1400	Kathryn Wendel	2/15/16	1400		Y/N	Y/N	Y/N	Y/N
	Kathryn Wendel	2/15/16	1900	CS Logistics	2/15/16			Y/N	Y/N	Y/N	Y/N
	CS Logistics	2/15/16	0945	A. [Signature]	2/15/16	0945	1.5	Y/N	Y/N	Y/N	Y/N

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: Marcos I. Czako

SIGNATURE of SAMPLER: *[Signature]* DATE Signed (MM/DD/YY): 02/15/16

Temp in °C: \_\_\_\_\_  
 Received on Ice: \_\_\_\_\_  
 Custody Sealed Cooler: \_\_\_\_\_  
 Samples Intact: \_\_\_\_\_



**Pace Analytical**

Project #:

**WO# : 40138420**

Client Name: TRCOP

Courier:  Fed Ex  UPS  Client  Pace Other: CS LOGISTICS

Tracking #:



Custody Seal on Cooler/Box Present:  Yes  no Seals intact:  Yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used MSR47 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 1.5 / Corr: 1.5 Biological Tissue is Frozen:  yes

Temp Blank Present:  yes  no  no

Person examining contents:  
Date: 9/16/16  
Initials: RL

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

**Comments:**

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>S</u>	
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_  
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_  
If checked, see attached form for additional comments

Project Manager Review: ELW Date: 9/16/16



Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

### Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

#### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

#### B. Sample Collector

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. UWR  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. UWR  
(Initial)
- 3. Sample integrity was maintained by proper preservation. UWR  
(Initial)
- 4. All samples were properly labeled. UWR  
(Initial)

#### C. Laboratory Representative

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms UW  
(Initial)
- 2. Sample integrity was maintained by proper preservation. UW  
(Initial)
- 3. All samples were properly labeled. UW  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. UW  
(Initial)
- 5. Sample holding times were not exceeded. UW  
(Initial)

6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.

UW  
(Initial)


7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

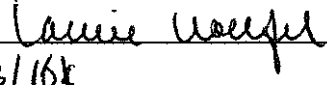
**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako  
Title Geologist III  
Company TriCore Environmental, LLC  
Address 2368 Corporate Lane, Suite 116  
City Naperville  
State Illinois  
Zip Code 60563  
Phone (630) 520-9973  
Signature   
Date 09/15/16

**Laboratory Representative**

Name Laurie Woelfel  
Title Project Manager  
Company Pace Analytical Services, Inc.  
Address 1241 Bellevue Street, Suite 9  
City Green Bay  
State Wisconsin  
Zip Code 64302  
Phone (920) 469-2436  
Signature   
Date 9/23/16

September 26, 2016

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

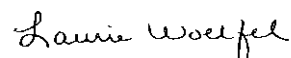
RE: Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138482

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on September 17, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138482

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
Virginia VELAP ID: 460263  
North Dakota Certification #: R-150

South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Virginia VELAP Certification ID: 460263  
Virginia VELAP ID: 460263  
Wisconsin Certification #: 405132750  
Wisconsin DATCP Certification #: 105-444

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138482

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40138482001	BH-21A @ 0.5-2.5	Solid	09/15/16 13:46	09/17/16 07:30
40138482002	BH-21A @ 7.5-10	Solid	09/15/16 13:49	09/17/16 07:30
40138482003	BH-21A @ 15-17.5	Solid	09/15/16 14:02	09/17/16 07:30
40138482004	BH-21A @ 20-22.5	Solid	09/15/16 14:15	09/17/16 07:30
40138482005	BH-21A @ 25-27.5	Solid	09/15/16 14:35	09/17/16 07:30
40138482006	BH-21A @ 30-32.5	Solid	09/15/16 14:52	09/17/16 07:30

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138482

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40138482001	BH-21A @ 0.5-2.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138482002	BH-21A @ 7.5-10	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138482003	BH-21A @ 15-17.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138482004	BH-21A @ 20-22.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138482005	BH-21A @ 25-27.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40138482006	BH-21A @ 30-32.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138482

Sample: BH-21A @ 0.5-2.5 Lab ID: 40138482001 Collected: 09/15/16 13:46 Received: 09/17/16 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.6	ug/kg	15.3	4.6	1	09/22/16 08:11	09/22/16 16:47	83-32-9	
Acenaphthylene	<3.9	ug/kg	13.1	3.9	1	09/22/16 08:11	09/22/16 16:47	208-96-8	
Anthracene	<6.8	ug/kg	22.6	6.8	1	09/22/16 08:11	09/22/16 16:47	120-12-7	
Benzo(a)anthracene	<3.8	ug/kg	12.6	3.8	1	09/22/16 08:11	09/22/16 16:47	56-55-3	
Benzo(a)pyrene	<3.0	ug/kg	9.9	3.0	1	09/22/16 08:11	09/22/16 16:47	50-32-8	
Benzo(b)fluoranthene	<3.4	ug/kg	11.2	3.4	1	09/22/16 08:11	09/22/16 16:47	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	8.0	2.4	1	09/22/16 08:11	09/22/16 16:47	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	9.9	3.0	1	09/22/16 08:11	09/22/16 16:47	207-08-9	
Chrysene	<4.0	ug/kg	13.3	4.0	1	09/22/16 08:11	09/22/16 16:47	218-01-9	
Dibenz(a,h)anthracene	<2.7	ug/kg	8.9	2.7	1	09/22/16 08:11	09/22/16 16:47	53-70-3	
Fluoranthene	<6.2	ug/kg	20.7	6.2	1	09/22/16 08:11	09/22/16 16:47	206-44-0	
Fluorene	<4.9	ug/kg	16.4	4.9	1	09/22/16 08:11	09/22/16 16:47	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.7	2.6	1	09/22/16 08:11	09/22/16 16:47	193-39-5	
Naphthalene	<10.0	ug/kg	33.4	10.0	1	09/22/16 08:11	09/22/16 16:47	91-20-3	
Phenanthrene	<13.8	ug/kg	46.1	13.8	1	09/22/16 08:11	09/22/16 16:47	85-01-8	
Pyrene	<5.4	ug/kg	17.8	5.4	1	09/22/16 08:11	09/22/16 16:47	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	53	%	26-130		1	09/22/16 08:11	09/22/16 16:47	321-60-8	
Terphenyl-d14 (S)	56	%	10-130		1	09/22/16 08:11	09/22/16 16:47	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<11.0	ug/kg	23.8	11.0	1	09/20/16 14:39	09/22/16 00:07	71-43-2	
Ethylbenzene	<14.8	ug/kg	59.4	14.8	1	09/20/16 14:39	09/22/16 00:07	100-41-4	
Methyl-tert-butyl ether	<15.0	ug/kg	59.4	15.0	1	09/20/16 14:39	09/22/16 00:07	1634-04-4	
Toluene	<13.3	ug/kg	59.4	13.3	1	09/20/16 14:39	09/22/16 00:07	108-88-3	
Xylene (Total)	<57.5	ug/kg	178	57.5	1	09/20/16 14:39	09/22/16 00:07	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	89	%	53-165		1	09/20/16 14:39	09/22/16 00:07	1868-53-7	
4-Bromofluorobenzene (S)	63	%	48-138		1	09/20/16 14:39	09/22/16 00:07	460-00-4	
Toluene-d8 (S)	74	%	54-163		1	09/20/16 14:39	09/22/16 00:07	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	15.8	%	0.10	0.10	1		09/22/16 16:10		

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138482

Sample: BH-21A @ 7.5-10 Lab ID: 40138482002 Collected: 09/15/16 13:49 Received: 09/17/16 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.4	ug/kg	14.7	4.4	1	09/22/16 08:11	09/22/16 17:05	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.5	3.8	1	09/22/16 08:11	09/22/16 17:05	208-96-8	
Anthracene	<6.5	ug/kg	21.6	6.5	1	09/22/16 08:11	09/22/16 17:05	120-12-7	
Benzo(a)anthracene	<3.6	ug/kg	12.1	3.6	1	09/22/16 08:11	09/22/16 17:05	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.5	2.9	1	09/22/16 08:11	09/22/16 17:05	50-32-8	
Benzo(b)fluoranthene	<3.2	ug/kg	10.7	3.2	1	09/22/16 08:11	09/22/16 17:05	205-99-2	
Benzo(g,h,i)perylene	<2.3	ug/kg	7.7	2.3	1	09/22/16 08:11	09/22/16 17:05	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.5	2.9	1	09/22/16 08:11	09/22/16 17:05	207-08-9	
Chrysene	<3.8	ug/kg	12.8	3.8	1	09/22/16 08:11	09/22/16 17:05	218-01-9	
Dibenz(a,h)anthracene	<2.5	ug/kg	8.5	2.5	1	09/22/16 08:11	09/22/16 17:05	53-70-3	
Fluoranthene	<5.9	ug/kg	19.8	5.9	1	09/22/16 08:11	09/22/16 17:05	206-44-0	
Fluorene	<4.7	ug/kg	15.7	4.7	1	09/22/16 08:11	09/22/16 17:05	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.3	2.5	1	09/22/16 08:11	09/22/16 17:05	193-39-5	
Naphthalene	13.8J	ug/kg	32.0	9.6	1	09/22/16 08:11	09/22/16 17:05	91-20-3	
Phenanthrene	<13.3	ug/kg	44.2	13.3	1	09/22/16 08:11	09/22/16 17:05	85-01-8	
Pyrene	<5.1	ug/kg	17.1	5.1	1	09/22/16 08:11	09/22/16 17:05	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	54	%	26-130		1	09/22/16 08:11	09/22/16 17:05	321-60-8	
Terphenyl-d14 (S)	61	%	10-130		1	09/22/16 08:11	09/22/16 17:05	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	39.8	ug/kg	22.8	10.5	1	09/20/16 14:39	09/22/16 00:29	71-43-2	
Ethylbenzene	50.5J	ug/kg	56.9	14.2	1	09/20/16 14:39	09/22/16 00:29	100-41-4	
Methyl-tert-butyl ether	<14.4	ug/kg	56.9	14.4	1	09/20/16 14:39	09/22/16 00:29	1634-04-4	
Toluene	<12.8	ug/kg	56.9	12.8	1	09/20/16 14:39	09/22/16 00:29	108-88-3	
Xylene (Total)	80.7J	ug/kg	171	55.2	1	09/20/16 14:39	09/22/16 00:29	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	107	%	53-165		1	09/20/16 14:39	09/22/16 00:29	1868-53-7	
4-Bromofluorobenzene (S)	81	%	48-138		1	09/20/16 14:39	09/22/16 00:29	460-00-4	
Toluene-d8 (S)	94	%	54-163		1	09/20/16 14:39	09/22/16 00:29	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	12.2	%	0.10	0.10	1		09/22/16 16:10		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138482

Sample: BH-21A @ 15-17.5 Lab ID: 40138482003 Collected: 09/15/16 14:02 Received: 09/17/16 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<18.0	ug/kg	59.9	18.0	4	09/22/16 08:11	09/23/16 11:13	83-32-9	
Acenaphthylene	<15.3	ug/kg	51.1	15.3	4	09/22/16 08:11	09/23/16 11:13	208-96-8	
Anthracene	<26.5	ug/kg	88.2	26.5	4	09/22/16 08:11	09/23/16 11:13	120-12-7	
Benzo(a)anthracene	<14.7	ug/kg	49.2	14.7	4	09/22/16 08:11	09/23/16 11:13	56-55-3	
Benzo(a)pyrene	<11.7	ug/kg	38.8	11.7	4	09/22/16 08:11	09/23/16 11:13	50-32-8	
Benzo(b)fluoranthene	<13.1	ug/kg	43.7	13.1	4	09/22/16 08:11	09/23/16 11:13	205-99-2	
Benzo(g,h,i)perylene	<9.4	ug/kg	31.4	9.4	4	09/22/16 08:11	09/23/16 11:13	191-24-2	
Benzo(k)fluoranthene	<11.6	ug/kg	38.8	11.6	4	09/22/16 08:11	09/23/16 11:13	207-08-9	
Chrysene	<15.7	ug/kg	52.0	15.7	4	09/22/16 08:11	09/23/16 11:13	218-01-9	
Dibenz(a,h)anthracene	<10.4	ug/kg	34.6	10.4	4	09/22/16 08:11	09/23/16 11:13	53-70-3	
Fluoranthene	<24.2	ug/kg	80.8	24.2	4	09/22/16 08:11	09/23/16 11:13	206-44-0	
Fluorene	<19.2	ug/kg	64.1	19.2	4	09/22/16 08:11	09/23/16 11:13	86-73-7	
Indeno(1,2,3-cd)pyrene	<10.2	ug/kg	34.0	10.2	4	09/22/16 08:11	09/23/16 11:13	193-39-5	
Naphthalene	1750	ug/kg	130	39.1	4	09/22/16 08:11	09/23/16 11:13	91-20-3	M1
Phenanthrene	<54.1	ug/kg	180	54.1	4	09/22/16 08:11	09/23/16 11:13	85-01-8	
Pyrene	<20.9	ug/kg	69.6	20.9	4	09/22/16 08:11	09/23/16 11:13	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	65	%	26-130		4	09/22/16 08:11	09/23/16 11:13	321-60-8	
Terphenyl-d14 (S)	72	%	10-130		4	09/22/16 08:11	09/23/16 11:13	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	4100	ug/kg	58.0	26.7	2.5	09/20/16 14:39	09/22/16 03:53	71-43-2	
Ethylbenzene	9310	ug/kg	145	36.0	2.5	09/20/16 14:39	09/22/16 03:53	100-41-4	
Methyl-tert-butyl ether	<36.7	ug/kg	145	36.7	2.5	09/20/16 14:39	09/22/16 03:53	1634-04-4	
Toluene	8830	ug/kg	145	32.5	2.5	09/20/16 14:39	09/22/16 03:53	108-88-3	
Xylene (Total)	35500	ug/kg	435	140	2.5	09/20/16 14:39	09/22/16 03:53	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	53-165		2.5	09/20/16 14:39	09/22/16 03:53	1868-53-7	
4-Bromofluorobenzene (S)	92	%	48-138		2.5	09/20/16 14:39	09/22/16 03:53	460-00-4	
Toluene-d8 (S)	94	%	54-163		2.5	09/20/16 14:39	09/22/16 03:53	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.8	%	0.10	0.10	1		09/22/16 16:10		

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138482

Sample: BH-21A @ 20-22.5 Lab ID: 40138482004 Collected: 09/15/16 14:15 Received: 09/17/16 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.6	ug/kg	15.2	4.6	1	09/22/16 08:11	09/22/16 17:22	83-32-9	
Acenaphthylene	<3.9	ug/kg	12.9	3.9	1	09/22/16 08:11	09/22/16 17:22	208-96-8	
Anthracene	<6.7	ug/kg	22.4	6.7	1	09/22/16 08:11	09/22/16 17:22	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.5	3.7	1	09/22/16 08:11	09/22/16 17:22	56-55-3	
Benzo(a)pyrene	<3.0	ug/kg	9.9	3.0	1	09/22/16 08:11	09/22/16 17:22	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	11.1	3.3	1	09/22/16 08:11	09/22/16 17:22	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	8.0	2.4	1	09/22/16 08:11	09/22/16 17:22	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	9.8	3.0	1	09/22/16 08:11	09/22/16 17:22	207-08-9	
Chrysene	4.0J	ug/kg	13.2	4.0	1	09/22/16 08:11	09/22/16 17:22	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.8	2.6	1	09/22/16 08:11	09/22/16 17:22	53-70-3	
Fluoranthene	<6.1	ug/kg	20.5	6.1	1	09/22/16 08:11	09/22/16 17:22	206-44-0	
Fluorene	<4.9	ug/kg	16.2	4.9	1	09/22/16 08:11	09/22/16 17:22	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.6	2.6	1	09/22/16 08:11	09/22/16 17:22	193-39-5	
Naphthalene	303	ug/kg	33.1	9.9	1	09/22/16 08:11	09/22/16 17:22	91-20-3	
Phenanthrene	<13.7	ug/kg	45.7	13.7	1	09/22/16 08:11	09/22/16 17:22	85-01-8	
Pyrene	<5.3	ug/kg	17.7	5.3	1	09/22/16 08:11	09/22/16 17:22	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	57	%	26-130		1	09/22/16 08:11	09/22/16 17:22	321-60-8	
Terphenyl-d14 (S)	66	%	10-130		1	09/22/16 08:11	09/22/16 17:22	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	1080	ug/kg	23.5	10.9	1	09/20/16 14:39	09/22/16 01:37	71-43-2	
Ethylbenzene	918	ug/kg	58.9	14.6	1	09/20/16 14:39	09/22/16 01:37	100-41-4	
Methyl-tert-butyl ether	<14.9	ug/kg	58.9	14.9	1	09/20/16 14:39	09/22/16 01:37	1634-04-4	
Toluene	147	ug/kg	58.9	13.2	1	09/20/16 14:39	09/22/16 01:37	108-88-3	
Xylene (Total)	685	ug/kg	177	57.0	1	09/20/16 14:39	09/22/16 01:37	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	53-165		1	09/20/16 14:39	09/22/16 01:37	1868-53-7	
4-Bromofluorobenzene (S)	83	%	48-138		1	09/20/16 14:39	09/22/16 01:37	460-00-4	
Toluene-d8 (S)	93	%	54-163		1	09/20/16 14:39	09/22/16 01:37	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	15.0	%	0.10	0.10	1		09/22/16 16:11		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138482

Sample: BH-21A @ 25-27.5 Lab ID: 40138482005 Collected: 09/15/16 14:35 Received: 09/17/16 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.5	ug/kg	15.1	4.5	1	09/22/16 08:11	09/22/16 17:39	83-32-9	
Acenaphthylene	<3.9	ug/kg	12.9	3.9	1	09/22/16 08:11	09/22/16 17:39	208-96-8	
Anthracene	<6.7	ug/kg	22.3	6.7	1	09/22/16 08:11	09/22/16 17:39	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.4	3.7	1	09/22/16 08:11	09/22/16 17:39	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.8	2.9	1	09/22/16 08:11	09/22/16 17:39	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	11.0	3.3	1	09/22/16 08:11	09/22/16 17:39	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	7.9	2.4	1	09/22/16 08:11	09/22/16 17:39	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.8	2.9	1	09/22/16 08:11	09/22/16 17:39	207-08-9	
Chrysene	<4.0	ug/kg	13.1	4.0	1	09/22/16 08:11	09/22/16 17:39	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.7	2.6	1	09/22/16 08:11	09/22/16 17:39	53-70-3	
Fluoranthene	<6.1	ug/kg	20.4	6.1	1	09/22/16 08:11	09/22/16 17:39	206-44-0	
Fluorene	<4.9	ug/kg	16.2	4.9	1	09/22/16 08:11	09/22/16 17:39	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.6	2.6	1	09/22/16 08:11	09/22/16 17:39	193-39-5	
Naphthalene	<9.9	ug/kg	32.9	9.9	1	09/22/16 08:11	09/22/16 17:39	91-20-3	
Phenanthrene	<13.7	ug/kg	45.5	13.7	1	09/22/16 08:11	09/22/16 17:39	85-01-8	
Pyrene	<5.3	ug/kg	17.6	5.3	1	09/22/16 08:11	09/22/16 17:39	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	48	%	26-130		1	09/22/16 08:11	09/22/16 17:39	321-60-8	
Terphenyl-d14 (S)	63	%	10-130		1	09/22/16 08:11	09/22/16 17:39	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	4890	ug/kg	23.4	10.8	1	09/20/16 14:39	09/22/16 02:00	71-43-2	
Ethylbenzene	<14.6	ug/kg	58.6	14.6	1	09/20/16 14:39	09/22/16 02:00	100-41-4	
Methyl-tert-butyl ether	<14.8	ug/kg	58.6	14.8	1	09/20/16 14:39	09/22/16 02:00	1634-04-4	
Toluene	13.4J	ug/kg	58.6	13.1	1	09/20/16 14:39	09/22/16 02:00	108-88-3	
Xylene (Total)	<56.8	ug/kg	176	56.8	1	09/20/16 14:39	09/22/16 02:00	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	53-165		1	09/20/16 14:39	09/22/16 02:00	1868-53-7	
4-Bromofluorobenzene (S)	70	%	48-138		1	09/20/16 14:39	09/22/16 02:00	460-00-4	
Toluene-d8 (S)	86	%	54-163		1	09/20/16 14:39	09/22/16 02:00	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.7	%	0.10	0.10	1		09/22/16 16:11		

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS/BOI

Pace Project No.: 40138482

Sample: BH-21A @ 30-32.5 Lab ID: 40138482006 Collected: 09/15/16 14:52 Received: 09/17/16 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.4	ug/kg	14.7	4.4	1	09/22/16 08:11	09/22/16 17:56	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.5	3.8	1	09/22/16 08:11	09/22/16 17:56	208-96-8	
Anthracene	<6.5	ug/kg	21.6	6.5	1	09/22/16 08:11	09/22/16 17:56	120-12-7	
Benzo(a)anthracene	<3.6	ug/kg	12.1	3.6	1	09/22/16 08:11	09/22/16 17:56	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.5	2.9	1	09/22/16 08:11	09/22/16 17:56	50-32-8	
Benzo(b)fluoranthene	<3.2	ug/kg	10.7	3.2	1	09/22/16 08:11	09/22/16 17:56	205-99-2	
Benzo(g,h,i)perylene	<2.3	ug/kg	7.7	2.3	1	09/22/16 08:11	09/22/16 17:56	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.5	2.9	1	09/22/16 08:11	09/22/16 17:56	207-08-9	
Chrysene	<3.8	ug/kg	12.8	3.8	1	09/22/16 08:11	09/22/16 17:56	218-01-9	
Dibenz(a,h)anthracene	<2.5	ug/kg	8.5	2.5	1	09/22/16 08:11	09/22/16 17:56	53-70-3	
Fluoranthene	<5.9	ug/kg	19.8	5.9	1	09/22/16 08:11	09/22/16 17:56	206-44-0	
Fluorene	<4.7	ug/kg	15.7	4.7	1	09/22/16 08:11	09/22/16 17:56	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.3	2.5	1	09/22/16 08:11	09/22/16 17:56	193-39-5	
Naphthalene	<9.6	ug/kg	32.0	9.6	1	09/22/16 08:11	09/22/16 17:56	91-20-3	
Phenanthrene	<13.3	ug/kg	44.2	13.3	1	09/22/16 08:11	09/22/16 17:56	85-01-8	
Pyrene	<5.1	ug/kg	17.1	5.1	1	09/22/16 08:11	09/22/16 17:56	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	55	%	26-130		1	09/22/16 08:11	09/22/16 17:56	321-60-8	
Terphenyl-d14 (S)	60	%	10-130		1	09/22/16 08:11	09/22/16 17:56	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	10.9J	ug/kg	22.8	10.5	1	09/20/16 14:39	09/22/16 07:56	71-43-2	
Ethylbenzene	<14.2	ug/kg	56.9	14.2	1	09/20/16 14:39	09/22/16 07:56	100-41-4	
Methyl-tert-butyl ether	<14.4	ug/kg	56.9	14.4	1	09/20/16 14:39	09/22/16 07:56	1634-04-4	
Toluene	<12.8	ug/kg	56.9	12.8	1	09/20/16 14:39	09/22/16 07:56	108-88-3	
Xylene (Total)	<55.2	ug/kg	171	55.2	1	09/20/16 14:39	09/22/16 07:56	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	109	%	53-165		1	09/20/16 14:39	09/22/16 07:56	1868-53-7	
4-Bromofluorobenzene (S)	77	%	48-138		1	09/20/16 14:39	09/22/16 07:56	460-00-4	
Toluene-d8 (S)	92	%	54-163		1	09/20/16 14:39	09/22/16 07:56	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	12.2	%	0.10	0.10	1		09/22/16 16:11		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138482

QC Batch: 235655 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40138482001, 40138482002, 40138482003, 40138482004, 40138482005, 40138482006

METHOD BLANK: 1396733 Matrix: Solid  
Associated Lab Samples: 40138482001, 40138482002, 40138482003, 40138482004, 40138482005, 40138482006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	9.2	09/21/16 17:43	
Ethylbenzene	ug/kg	<12.4	50.0	12.4	09/21/16 17:43	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	12.7	09/21/16 17:43	
Toluene	ug/kg	<11.2	50.0	11.2	09/21/16 17:43	
Xylene (Total)	ug/kg	<48.4	150	48.4	09/21/16 17:43	
4-Bromofluorobenzene (S)	%	88	48-138		09/21/16 17:43	
Dibromofluoromethane (S)	%	119	53-165		09/21/16 17:43	
Toluene-d8 (S)	%	103	54-163		09/21/16 17:43	

LABORATORY CONTROL SAMPLE: 1396734

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2760	111	70-130	
Ethylbenzene	ug/kg	2500	2550	102	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2370	95	70-130	
Toluene	ug/kg	2500	2580	103	70-130	
Xylene (Total)	ug/kg	7500	7540	101	70-130	
4-Bromofluorobenzene (S)	%			95	48-138	
Dibromofluoromethane (S)	%			109	53-165	
Toluene-d8 (S)	%			103	54-163	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1396735 1396736

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40138262012 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Benzene	ug/kg	<25.0	3350	3350	3480	3510	104	105	70-130	1	20	
Ethylbenzene	ug/kg	<25.0	3350	3350	3090	3090	92	92	70-130	0	20	
Methyl-tert-butyl ether	ug/kg	<25.0	3350	3350	3180	3240	95	97	70-130	2	20	
Toluene	ug/kg	<25.0	3350	3350	3320	3390	99	101	70-130	2	20	
Xylene (Total)	ug/kg	<75.0	10100	10100	9330	9270	93	92	70-130	1	20	
4-Bromofluorobenzene (S)	%						92	88	48-138			
Dibromofluoromethane (S)	%						108	102	53-165			
Toluene-d8 (S)	%						99	96	54-163			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138482

QC Batch: 235722 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40138482001, 40138482002, 40138482003, 40138482004, 40138482005, 40138482006

METHOD BLANK: 1397458 Matrix: Solid  
Associated Lab Samples: 40138482001, 40138482002, 40138482003, 40138482004, 40138482005, 40138482006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	ug/kg	<3.9	12.9	3.9	09/22/16 14:13	
Acenaphthylene	ug/kg	<3.3	11.0	3.3	09/22/16 14:13	
Anthracene	ug/kg	<5.7	19.0	5.7	09/22/16 14:13	
Benzo(a)anthracene	ug/kg	<3.2	10.6	3.2	09/22/16 14:13	
Benzo(a)pyrene	ug/kg	<2.5	8.4	2.5	09/22/16 14:13	
Benzo(b)fluoranthene	ug/kg	<2.8	9.4	2.8	09/22/16 14:13	
Benzo(g,h,i)perylene	ug/kg	<2.0	6.8	2.0	09/22/16 14:13	
Benzo(k)fluoranthene	ug/kg	<2.5	8.4	2.5	09/22/16 14:13	
Chrysene	ug/kg	<3.4	11.2	3.4	09/22/16 14:13	
Dibenz(a,h)anthracene	ug/kg	<2.2	7.4	2.2	09/22/16 14:13	
Fluoranthene	ug/kg	<5.2	17.4	5.2	09/22/16 14:13	
Fluorene	ug/kg	<4.1	13.8	4.1	09/22/16 14:13	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.2	7.3	2.2	09/22/16 14:13	
Naphthalene	ug/kg	<8.4	28.1	8.4	09/22/16 14:13	
Phenanthrene	ug/kg	<11.6	38.8	11.6	09/22/16 14:13	
Pyrene	ug/kg	<4.5	15.0	4.5	09/22/16 14:13	
2-Fluorobiphenyl (S)	%	56	26-130		09/22/16 14:13	
Terphenyl-d14 (S)	%	65	10-130		09/22/16 14:13	

LABORATORY CONTROL SAMPLE: 1397459

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	216	65	54-130	
Acenaphthylene	ug/kg	333	221	66	56-130	
Anthracene	ug/kg	333	265	80	70-130	
Benzo(a)anthracene	ug/kg	333	227	68	58-130	
Benzo(a)pyrene	ug/kg	333	244	73	58-130	
Benzo(b)fluoranthene	ug/kg	333	238	71	50-130	
Benzo(g,h,i)perylene	ug/kg	333	232	70	39-130	
Benzo(k)fluoranthene	ug/kg	333	284	85	57-130	
Chrysene	ug/kg	333	270	81	64-130	
Dibenz(a,h)anthracene	ug/kg	333	239	72	44-130	
Fluoranthene	ug/kg	333	252	76	59-130	
Fluorene	ug/kg	333	215	64	56-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	251	75	45-130	
Naphthalene	ug/kg	333	235	71	46-130	
Phenanthrene	ug/kg	333	250	75	56-130	
Pyrene	ug/kg	333	239	72	59-130	
2-Fluorobiphenyl (S)	%			69	26-130	
Terphenyl-d14 (S)	%			73	10-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138482

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1397460		1397461		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40138482003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Acenaphthene	ug/kg	<18.0	386	386	202	205	52	53	49-130	1	27		
Acenaphthylene	ug/kg	<15.3	386	386	210	215	54	56	52-130	2	26		
Anthracene	ug/kg	<26.5	386	386	236	241	61	62	61-130	2	29		
Benzo(a)anthracene	ug/kg	<14.7	386	386	223	229	55	57	45-130	3	28		
Benzo(a)pyrene	ug/kg	<11.7	386	386	234	231	61	60	39-130	1	34		
Benzo(b)fluoranthene	ug/kg	<13.1	386	386	218	222	56	57	30-130	2	43		
Benzo(g,h,i)perylene	ug/kg	<9.4	386	386	213	211	55	55	24-130	1	34		
Benzo(k)fluoranthene	ug/kg	<11.6	386	386	264	257	68	67	41-130	3	32		
Chrysene	ug/kg	<15.7	386	386	258	259	65	65	46-130	0	37		
Dibenz(a,h)anthracene	ug/kg	<10.4	386	386	229	224	59	58	33-130	2	34		
Fluoranthene	ug/kg	<24.2	386	386	240	248	62	64	41-130	3	25		
Fluorene	ug/kg	<19.2	386	386	204	207	53	54	49-130	1	30		
Indeno(1,2,3-cd)pyrene	ug/kg	<10.2	386	386	228	235	59	61	30-130	3	28		
Naphthalene	ug/kg	1750	386	386	1410	1200	-89	-143	39-130	16	26	M1	
Phenanthrene	ug/kg	<54.1	386	386	241	245	58	59	47-130	2	26		
Pyrene	ug/kg	<20.9	386	386	229	238	59	62	37-130	4	30		
2-Fluorobiphenyl (S)	%						56	55	26-130				
Terphenyl-d14 (S)	%						62	61	10-130				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138482

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS/BOI  
Pace Project No.: 40138482

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40138482001	BH-21A @ 0.5-2.5	EPA 3546	235722	EPA 8270 by SIM	235802
40138482002	BH-21A @ 7.5-10	EPA 3546	235722	EPA 8270 by SIM	235802
40138482003	BH-21A @ 15-17.5	EPA 3546	235722	EPA 8270 by SIM	235802
40138482004	BH-21A @ 20-22.5	EPA 3546	235722	EPA 8270 by SIM	235802
40138482005	BH-21A @ 25-27.5	EPA 3546	235722	EPA 8270 by SIM	235802
40138482006	BH-21A @ 30-32.5	EPA 3546	235722	EPA 8270 by SIM	235802
40138482001	BH-21A @ 0.5-2.5	EPA 5035/5030B	235655	EPA 8260	235658
40138482002	BH-21A @ 7.5-10	EPA 5035/5030B	235655	EPA 8260	235658
40138482003	BH-21A @ 15-17.5	EPA 5035/5030B	235655	EPA 8260	235658
40138482004	BH-21A @ 20-22.5	EPA 5035/5030B	235655	EPA 8260	235658
40138482005	BH-21A @ 25-27.5	EPA 5035/5030B	235655	EPA 8260	235658
40138482006	BH-21A @ 30-32.5	EPA 5035/5030B	235655	EPA 8260	235658
40138482001	BH-21A @ 0.5-2.5	ASTM D2974-87	235860		
40138482002	BH-21A @ 7.5-10	ASTM D2974-87	235860		
40138482003	BH-21A @ 15-17.5	ASTM D2974-87	235860		
40138482004	BH-21A @ 20-22.5	ASTM D2974-87	235860		
40138482005	BH-21A @ 25-27.5	ASTM D2974-87	235860		
40138482006	BH-21A @ 30-32.5	ASTM D2974-87	235860		

**REPORT OF LABORATORY ANALYSIS**

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**Pace Analytical**  
 Client Name: TriCore

Project # **WO#: 40138482**

Courier:  Fed Ex  UPS  Client  Pace Other: C5 LOGISTICS



Tracking #: \_\_\_\_\_  
 Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR-53 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 5 / Corr: 5.5 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Person examining contents:  
 Date: 9-17-16  
 Initials: MM

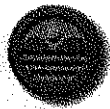
Temp should be above freezing to 6°C for all sample except Biota.  
 Frozen Biota Samples should be received ≤ 0°C.

**Comments:**

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12) exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

**Client Notification/ Resolution:** \_\_\_\_\_ If checked, see attached form for additional comments   
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: \_\_\_\_\_

**Project Manager Review:** UW Date: 9/19/16



40138482

Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

**Leaking Underground Storage Tank Program  
 Laboratory Certification for Chemical Analysis**

**A. Site Identification**

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

**B. Sample Collector**

I certify that:

1. Appropriate sampling equipment/methods were utilized to obtain representative samples.
2. Chain-of-custody procedures were followed in the field.
3. Sample integrity was maintained by proper preservation.
4. All samples were properly labeled.

NBC  
(Initial)  
NBC  
(Initial)  
NBC  
(Initial)  
NBC  
(Initial)

**C. Laboratory Representative**

I certify that:

1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms
2. Sample integrity was maintained by proper preservation.
3. All samples were properly labeled.
4. Quality assurance/quality control procedures were established and carried out.
5. Sample holding times were not exceeded.

UW  
(Initial)  
UW  
(Initial)  
UW  
(Initial)  
UW  
(Initial)  
UW  
(Initial)

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako

Title Geologist III

Company TriCore Environmental, LLC

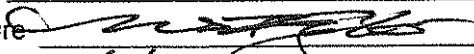
Address 2368 Corporate Lane, Suite 116

City Naperville

State Illinois

Zip Code 60563

Phone (630) 520-9973

Signature 

Date 03/15/16

**Laboratory Representative**

Name Laurie Woelfel

Title Project Manager

Company Pace Analytical Services, Inc.

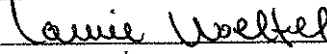
Address 1241 Bellevue Street, Suite 9

City Green Bay

State Wisconsin

Zip Code 64302

Phone (920) 469-2436

Signature 

Date 3/23/16

October 04, 2016

Marcos Czako  
TriCore Environmental, LLC.  
2368 Corporate Lane  
Suite 116  
Naperville, IL 60563

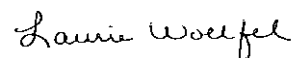
RE: Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Dear Marcos Czako:

Enclosed are the analytical results for sample(s) received by the laboratory on September 28, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
Virginia VELAP ID: 460263  
North Dakota Certification #: R-150

South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Virginia VELAP Certification ID: 460263  
Virginia VELAP ID: 460263  
Wisconsin Certification #: 405132750  
Wisconsin DATCP Certification #: 105-444

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40139128001	BH-31 @ 2.5-5	Solid	09/26/16 09:02	09/28/16 09:30
40139128002	BH-31 @ 5-7.5	Solid	09/26/16 09:04	09/28/16 09:30
40139128003	BH-31 @ 12.5-15	Solid	09/26/16 09:14	09/28/16 09:30
40139128004	BH-31 @ 15-17.5	Solid	09/26/16 09:25	09/28/16 09:30
40139128005	BH-31 @ 22.5-25	Solid	09/26/16 10:06	09/28/16 09:30
40139128006	BH-31 @ 25-27.5	Solid	09/26/16 10:15	09/28/16 09:30
40139128007	BH-30 @ 2.5-5	Solid	09/26/16 11:02	09/28/16 09:30
40139128008	BH-30 @ 7.5-10	Solid	09/26/16 11:08	09/28/16 09:30
40139128009	BH-30 @ 12.5-15	Solid	09/26/16 11:10	09/28/16 09:30
40139128010	BH-30 @ 15-17.5	Solid	09/26/16 11:15	09/28/16 09:30
40139128011	BH-30A @ 22.5-25	Solid	09/26/16 12:12	09/28/16 09:30
40139128012	BH-30A @ 27.5-30	Solid	09/26/16 12:36	09/28/16 09:30

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**SAMPLE ANALYTE COUNT**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40139128001	BH-31 @ 2.5-5	EPA 8270 by SIM	TPO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40139128002	BH-31 @ 5-7.5	EPA 8270 by SIM	TPO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40139128003	BH-31 @ 12.5-15	EPA 8270 by SIM	TPO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40139128004	BH-31 @ 15-17.5	EPA 8270 by SIM	TPO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40139128005	BH-31 @ 22.5-25	EPA 8270 by SIM	TPO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	KTS	1	PASI-G
40139128006	BH-31 @ 25-27.5	EPA 8270 by SIM	TPO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40139128007	BH-30 @ 2.5-5	EPA 8270 by SIM	TPO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40139128008	BH-30 @ 7.5-10	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40139128009	BH-30 @ 12.5-15	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40139128010	BH-30 @ 15-17.5	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40139128011	BH-30A @ 22.5-25	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
40139128012	BH-30A @ 27.5-30	EPA 8270 by SIM	ARO	18	PASI-G
		EPA 8260	SMT	8	PASI-G
		ASTM D2974-87	MAV	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Sample: BH-31 @ 2.5-5 Lab ID: 40139128001 Collected: 09/26/16 09:02 Received: 09/28/16 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	22.2	ug/kg	16.0	4.8	1	09/30/16 11:24	09/30/16 19:28	83-32-9	
Acenaphthylene	14.2	ug/kg	13.6	4.1	1	09/30/16 11:24	09/30/16 19:28	208-96-8	
Anthracene	139	ug/kg	23.5	7.1	1	09/30/16 11:24	09/30/16 19:28	120-12-7	
Benzo(a)anthracene	593	ug/kg	13.1	3.9	1	09/30/16 11:24	09/30/16 19:28	56-55-3	
Benzo(a)pyrene	725	ug/kg	10.4	3.1	1	09/30/16 11:24	09/30/16 19:28	50-32-8	
Benzo(b)fluoranthene	708	ug/kg	116	35.0	10	09/30/16 11:24	09/30/16 20:54	205-99-2	
Benzo(g,h,i)perylene	367	ug/kg	8.4	2.5	1	09/30/16 11:24	09/30/16 19:28	191-24-2	
Benzo(k)fluoranthene	406	ug/kg	10.4	3.1	1	09/30/16 11:24	09/30/16 19:28	207-08-9	
Chrysene	828	ug/kg	13.9	4.2	1	09/30/16 11:24	09/30/16 19:28	218-01-9	
Dibenz(a,h)anthracene	112	ug/kg	9.2	2.8	1	09/30/16 11:24	09/30/16 19:28	53-70-3	
Fluoranthene	1160	ug/kg	215	64.5	10	09/30/16 11:24	09/30/16 20:54	206-44-0	
Fluorene	31.7	ug/kg	17.1	5.1	1	09/30/16 11:24	09/30/16 19:28	86-73-7	
Indeno(1,2,3-cd)pyrene	377	ug/kg	9.1	2.7	1	09/30/16 11:24	09/30/16 19:28	193-39-5	
Naphthalene	10.7J	ug/kg	34.8	10.4	1	09/30/16 11:24	09/30/16 19:28	91-20-3	
Phenanthrene	747	ug/kg	48.0	14.4	1	09/30/16 11:24	09/30/16 19:28	85-01-8	
Pyrene	890	ug/kg	186	55.9	10	09/30/16 11:24	09/30/16 20:54	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	78	%	26-130		1	09/30/16 11:24	09/30/16 19:28	321-60-8	
Terphenyl-d14 (S)	80	%	10-130		1	09/30/16 11:24	09/30/16 19:28	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<11.4	ug/kg	24.8	11.4	1	09/29/16 09:30	09/29/16 18:47	71-43-2	
Ethylbenzene	<15.4	ug/kg	61.9	15.4	1	09/29/16 09:30	09/29/16 18:47	100-41-4	
Methyl-tert-butyl ether	<15.7	ug/kg	61.9	15.7	1	09/29/16 09:30	09/29/16 18:47	1634-04-4	
Toluene	<13.9	ug/kg	61.9	13.9	1	09/29/16 09:30	09/29/16 18:47	108-88-3	
Xylene (Total)	<60.0	ug/kg	186	60.0	1	09/29/16 09:30	09/29/16 18:47	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	53-165		1	09/29/16 09:30	09/29/16 18:47	1868-53-7	
4-Bromofluorobenzene (S)	98	%	48-138		1	09/29/16 09:30	09/29/16 18:47	460-00-4	
Toluene-d8 (S)	93	%	54-163		1	09/29/16 09:30	09/29/16 18:47	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	19.2	%	0.10	0.10	1		10/03/16 15:07		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Sample: BH-31 @ 5-7.5 Lab ID: 40139128002 Collected: 09/26/16 09:04 Received: 09/28/16 09:30 Matrix: Solid  
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<5.2	ug/kg	17.2	5.2	1	09/30/16 11:24	09/30/16 16:54	83-32-9	
Acenaphthylene	<4.4	ug/kg	14.7	4.4	1	09/30/16 11:24	09/30/16 16:54	208-96-8	
Anthracene	<7.6	ug/kg	25.3	7.6	1	09/30/16 11:24	09/30/16 16:54	120-12-7	
Benzo(a)anthracene	<4.2	ug/kg	14.1	4.2	1	09/30/16 11:24	09/30/16 16:54	56-55-3	
Benzo(a)pyrene	<3.4	ug/kg	11.2	3.4	1	09/30/16 11:24	09/30/16 16:54	50-32-8	
Benzo(b)fluoranthene	<3.8	ug/kg	12.6	3.8	1	09/30/16 11:24	09/30/16 16:54	205-99-2	
Benzo(g,h,i)perylene	<2.7	ug/kg	9.0	2.7	1	09/30/16 11:24	09/30/16 16:54	191-24-2	
Benzo(k)fluoranthene	<3.3	ug/kg	11.1	3.3	1	09/30/16 11:24	09/30/16 16:54	207-08-9	
Chrysene	<4.5	ug/kg	14.9	4.5	1	09/30/16 11:24	09/30/16 16:54	218-01-9	
Dibenz(a,h)anthracene	<3.0	ug/kg	9.9	3.0	1	09/30/16 11:24	09/30/16 16:54	53-70-3	
Fluoranthene	<6.9	ug/kg	23.2	6.9	1	09/30/16 11:24	09/30/16 16:54	206-44-0	
Fluorene	<5.5	ug/kg	18.4	5.5	1	09/30/16 11:24	09/30/16 16:54	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.9	ug/kg	9.8	2.9	1	09/30/16 11:24	09/30/16 16:54	193-39-5	
Naphthalene	<11.2	ug/kg	37.5	11.2	1	09/30/16 11:24	09/30/16 16:54	91-20-3	
Phenanthrene	<15.5	ug/kg	51.7	15.5	1	09/30/16 11:24	09/30/16 16:54	85-01-8	
Pyrene	<6.0	ug/kg	20.0	6.0	1	09/30/16 11:24	09/30/16 16:54	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	58	%	26-130		1	09/30/16 11:24	09/30/16 16:54	321-60-8	
Terphenyl-d14 (S)	71	%	10-130		1	09/30/16 11:24	09/30/16 16:54	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<12.3	ug/kg	26.7	12.3	1	09/29/16 09:30	09/29/16 19:08	71-43-2	
Ethylbenzene	121	ug/kg	66.7	16.6	1	09/29/16 09:30	09/29/16 19:08	100-41-4	
Methyl-tert-butyl ether	<16.9	ug/kg	66.7	16.9	1	09/29/16 09:30	09/29/16 19:08	1634-04-4	
Toluene	<15.0	ug/kg	66.7	15.0	1	09/29/16 09:30	09/29/16 19:08	108-88-3	
Xylene (Total)	5680	ug/kg	200	64.6	1	09/29/16 09:30	09/29/16 19:08	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	53-165		1	09/29/16 09:30	09/29/16 19:08	1868-53-7	
4-Bromofluorobenzene (S)	97	%	48-138		1	09/29/16 09:30	09/29/16 19:08	460-00-4	
Toluene-d8 (S)	98	%	54-163		1	09/29/16 09:30	09/29/16 19:08	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	25.0	%	0.10	0.10	1		10/03/16 15:07		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Sample: BH-31 @ 12.5-15 Lab ID: 40139128003 Collected: 09/26/16 09:14 Received: 09/28/16 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.5	ug/kg	14.9	4.5	1	09/30/16 11:24	09/30/16 18:19	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.7	3.8	1	09/30/16 11:24	09/30/16 18:19	208-96-8	
Anthracene	<6.6	ug/kg	22.0	6.6	1	09/30/16 11:24	09/30/16 18:19	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.3	3.7	1	09/30/16 11:24	09/30/16 18:19	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.7	2.9	1	09/30/16 11:24	09/30/16 18:19	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	10.9	3.3	1	09/30/16 11:24	09/30/16 18:19	205-99-2	
Benzo(g,h,i)perylene	4.2J	ug/kg	7.8	2.4	1	09/30/16 11:24	09/30/16 18:19	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.7	2.9	1	09/30/16 11:24	09/30/16 18:19	207-08-9	
Chrysene	7.4J	ug/kg	13.0	3.9	1	09/30/16 11:24	09/30/16 18:19	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	09/30/16 11:24	09/30/16 18:19	53-70-3	
Fluoranthene	<6.0	ug/kg	20.1	6.0	1	09/30/16 11:24	09/30/16 18:19	206-44-0	
Fluorene	<4.8	ug/kg	16.0	4.8	1	09/30/16 11:24	09/30/16 18:19	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.5	2.5	1	09/30/16 11:24	09/30/16 18:19	193-39-5	
Naphthalene	<9.7	ug/kg	32.5	9.7	1	09/30/16 11:24	09/30/16 18:19	91-20-3	
Phenanthrene	<13.5	ug/kg	44.9	13.5	1	09/30/16 11:24	09/30/16 18:19	85-01-8	
Pyrene	7.8J	ug/kg	17.4	5.2	1	09/30/16 11:24	09/30/16 18:19	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	75	%	26-130		1	09/30/16 11:24	09/30/16 18:19	321-60-8	
Terphenyl-d14 (S)	81	%	10-130		1	09/30/16 11:24	09/30/16 18:19	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.7	ug/kg	23.1	10.7	1	09/29/16 09:30	09/29/16 19:28	71-43-2	
Ethylbenzene	<14.4	ug/kg	57.9	14.4	1	09/29/16 09:30	09/29/16 19:28	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.9	14.6	1	09/29/16 09:30	09/29/16 19:28	1634-04-4	
Toluene	<13.0	ug/kg	57.9	13.0	1	09/29/16 09:30	09/29/16 19:28	108-88-3	
Xylene (Total)	<56.0	ug/kg	174	56.0	1	09/29/16 09:30	09/29/16 19:28	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	97	%	53-165		1	09/29/16 09:30	09/29/16 19:28	1868-53-7	
4-Bromofluorobenzene (S)	86	%	48-138		1	09/29/16 09:30	09/29/16 19:28	460-00-4	
Toluene-d8 (S)	92	%	54-163		1	09/29/16 09:30	09/29/16 19:28	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.6	%	0.10	0.10	1		10/03/16 15:07		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Sample: BH-31 @ 15-17.5 Lab ID: 40139128004 Collected: 09/26/16 09:25 Received: 09/28/16 09:30 Matrix: Solid  
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.4	ug/kg	14.7	4.4	1	09/30/16 11:24	09/30/16 16:20	83-32-9	
Acenaphthylene	<3.7	ug/kg	12.5	3.7	1	09/30/16 11:24	09/30/16 16:20	208-96-8	
Anthracene	<6.5	ug/kg	21.6	6.5	1	09/30/16 11:24	09/30/16 16:20	120-12-7	
Benzo(a)anthracene	<3.6	ug/kg	12.0	3.6	1	09/30/16 11:24	09/30/16 16:20	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.5	2.9	1	09/30/16 11:24	09/30/16 16:20	50-32-8	
Benzo(b)fluoranthene	3.8J	ug/kg	10.7	3.2	1	09/30/16 11:24	09/30/16 16:20	205-99-2	
Benzo(g,h,i)perylene	11.8	ug/kg	7.7	2.3	1	09/30/16 11:24	09/30/16 16:20	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.5	2.9	1	09/30/16 11:24	09/30/16 16:20	207-08-9	
Chrysene	10.9J	ug/kg	12.7	3.8	1	09/30/16 11:24	09/30/16 16:20	218-01-9	
Dibenz(a,h)anthracene	<2.5	ug/kg	8.5	2.5	1	09/30/16 11:24	09/30/16 16:20	53-70-3	
Fluoranthene	<5.9	ug/kg	19.8	5.9	1	09/30/16 11:24	09/30/16 16:20	206-44-0	
Fluorene	<4.7	ug/kg	15.7	4.7	1	09/30/16 11:24	09/30/16 16:20	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.3	2.5	1	09/30/16 11:24	09/30/16 16:20	193-39-5	
Naphthalene	<9.6	ug/kg	31.9	9.6	1	09/30/16 11:24	09/30/16 16:20	91-20-3	
Phenanthrene	34.5J	ug/kg	44.1	13.2	1	09/30/16 11:24	09/30/16 16:20	85-01-8	
Pyrene	6.1J	ug/kg	17.0	5.1	1	09/30/16 11:24	09/30/16 16:20	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	69	%	26-130		1	09/30/16 11:24	09/30/16 16:20	321-60-8	
Terphenyl-d14 (S)	71	%	10-130		1	09/30/16 11:24	09/30/16 16:20	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.5	ug/kg	22.7	10.5	1	09/29/16 09:30	09/29/16 19:48	71-43-2	
Ethylbenzene	<14.1	ug/kg	56.8	14.1	1	09/29/16 09:30	09/29/16 19:48	100-41-4	
Methyl-tert-butyl ether	<14.4	ug/kg	56.8	14.4	1	09/29/16 09:30	09/29/16 19:48	1634-04-4	
Toluene	<12.7	ug/kg	56.8	12.7	1	09/29/16 09:30	09/29/16 19:48	108-88-3	
Xylene (Total)	<55.0	ug/kg	170	55.0	1	09/29/16 09:30	09/29/16 19:48	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	53-165		1	09/29/16 09:30	09/29/16 19:48	1868-53-7	
4-Bromofluorobenzene (S)	100	%	48-138		1	09/29/16 09:30	09/29/16 19:48	460-00-4	
Toluene-d8 (S)	94	%	54-163		1	09/29/16 09:30	09/29/16 19:48	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	12.0	%	0.10	0.10	1		10/03/16 15:07		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Sample: BH-31 @ 22.5-25 Lab ID: 40139128005 Collected: 09/26/16 10:06 Received: 09/28/16 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.6	ug/kg	15.3	4.6	1	09/30/16 11:24	09/30/16 16:03	83-32-9	
Acenaphthylene	<3.9	ug/kg	13.0	3.9	1	09/30/16 11:24	09/30/16 16:03	208-96-8	
Anthracene	<6.8	ug/kg	22.5	6.8	1	09/30/16 11:24	09/30/16 16:03	120-12-7	
Benzo(a)anthracene	<3.8	ug/kg	12.5	3.8	1	09/30/16 11:24	09/30/16 16:03	56-55-3	
Benzo(a)pyrene	<3.0	ug/kg	9.9	3.0	1	09/30/16 11:24	09/30/16 16:03	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	11.1	3.3	1	09/30/16 11:24	09/30/16 16:03	205-99-2	
Benzo(g,h,i)perylene	3.7J	ug/kg	8.0	2.4	1	09/30/16 11:24	09/30/16 16:03	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	9.9	3.0	1	09/30/16 11:24	09/30/16 16:03	207-08-9	
Chrysene	<4.0	ug/kg	13.2	4.0	1	09/30/16 11:24	09/30/16 16:03	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.8	2.6	1	09/30/16 11:24	09/30/16 16:03	53-70-3	
Fluoranthene	<6.2	ug/kg	20.6	6.2	1	09/30/16 11:24	09/30/16 16:03	206-44-0	
Fluorene	<4.9	ug/kg	16.3	4.9	1	09/30/16 11:24	09/30/16 16:03	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.7	2.6	1	09/30/16 11:24	09/30/16 16:03	193-39-5	
Naphthalene	<10	ug/kg	33.2	10	1	09/30/16 11:24	09/30/16 16:03	91-20-3	
Phenanthrene	<13.8	ug/kg	45.9	13.8	1	09/30/16 11:24	09/30/16 16:03	85-01-8	
Pyrene	<5.3	ug/kg	17.7	5.3	1	09/30/16 11:24	09/30/16 16:03	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	67	%	26-130		1	09/30/16 11:24	09/30/16 16:03	321-60-8	
Terphenyl-d14 (S)	70	%	10-130		1	09/30/16 11:24	09/30/16 16:03	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.9	ug/kg	23.7	10.9	1	09/29/16 09:30	09/29/16 20:08	71-43-2	
Ethylbenzene	<14.7	ug/kg	59.1	14.7	1	09/29/16 09:30	09/29/16 20:08	100-41-4	
Methyl-tert-butyl ether	<15.0	ug/kg	59.1	15.0	1	09/29/16 09:30	09/29/16 20:08	1634-04-4	
Toluene	<13.3	ug/kg	59.1	13.3	1	09/29/16 09:30	09/29/16 20:08	108-88-3	
Xylene (Total)	<57.3	ug/kg	177	57.3	1	09/29/16 09:30	09/29/16 20:08	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	53-165		1	09/29/16 09:30	09/29/16 20:08	1868-53-7	
4-Bromofluorobenzene (S)	100	%	48-138		1	09/29/16 09:30	09/29/16 20:08	460-00-4	
Toluene-d8 (S)	93	%	54-163		1	09/29/16 09:30	09/29/16 20:08	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	15.4	%	0.10	0.10	1		09/28/16 17:22		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Sample: BH-31 @ 25-27.5 Lab ID: 40139128006 Collected: 09/26/16 10:15 Received: 09/28/16 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.6	ug/kg	15.2	4.6	1	09/30/16 11:24	09/30/16 15:46	83-32-9	
Acenaphthylene	<3.9	ug/kg	13.0	3.9	1	09/30/16 11:24	09/30/16 15:46	208-96-8	
Anthracene	<6.7	ug/kg	22.4	6.7	1	09/30/16 11:24	09/30/16 15:46	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.5	3.7	1	09/30/16 11:24	09/30/16 15:46	56-55-3	
Benzo(a)pyrene	<3.0	ug/kg	9.9	3.0	1	09/30/16 11:24	09/30/16 15:46	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	11.1	3.3	1	09/30/16 11:24	09/30/16 15:46	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	8.0	2.4	1	09/30/16 11:24	09/30/16 15:46	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	9.9	3.0	1	09/30/16 11:24	09/30/16 15:46	207-08-9	
Chrysene	<4.0	ug/kg	13.2	4.0	1	09/30/16 11:24	09/30/16 15:46	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.8	2.6	1	09/30/16 11:24	09/30/16 15:46	53-70-3	
Fluoranthene	<6.1	ug/kg	20.5	6.1	1	09/30/16 11:24	09/30/16 15:46	206-44-0	
Fluorene	<4.9	ug/kg	16.3	4.9	1	09/30/16 11:24	09/30/16 15:46	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.6	2.6	1	09/30/16 11:24	09/30/16 15:46	193-39-5	
Naphthalene	<9.9	ug/kg	33.1	9.9	1	09/30/16 11:24	09/30/16 15:46	91-20-3	
Phenanthrene	<13.7	ug/kg	45.8	13.7	1	09/30/16 11:24	09/30/16 15:46	85-01-8	
Pyrene	<5.3	ug/kg	17.7	5.3	1	09/30/16 11:24	09/30/16 15:46	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	56	%	26-130		1	09/30/16 11:24	09/30/16 15:46	321-60-8	
Terphenyl-d14 (S)	59	%	10-130		1	09/30/16 11:24	09/30/16 15:46	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.9	ug/kg	23.6	10.9	1	09/29/16 09:30	09/29/16 20:29	71-43-2	
Ethylbenzene	<14.7	ug/kg	59.0	14.7	1	09/29/16 09:30	09/29/16 20:29	100-41-4	
Methyl-tert-butyl ether	<14.9	ug/kg	59.0	14.9	1	09/29/16 09:30	09/29/16 20:29	1634-04-4	
Toluene	<13.2	ug/kg	59.0	13.2	1	09/29/16 09:30	09/29/16 20:29	108-88-3	
Xylene (Total)	<57.1	ug/kg	177	57.1	1	09/29/16 09:30	09/29/16 20:29	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	107	%	53-165		1	09/29/16 09:30	09/29/16 20:29	1868-53-7	
4-Bromofluorobenzene (S)	102	%	48-138		1	09/29/16 09:30	09/29/16 20:29	460-00-4	
Toluene-d8 (S)	99	%	54-163		1	09/29/16 09:30	09/29/16 20:29	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	15.2	%	0.10	0.10	1		10/03/16 15:08		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Sample: BH-30 @ 2.5-5 Lab ID: 40139128007 Collected: 09/26/16 11:02 Received: 09/28/16 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.4	ug/kg	14.7	4.4	1	09/30/16 11:24	09/30/16 17:28	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.6	3.8	1	09/30/16 11:24	09/30/16 17:28	208-96-8	
Anthracene	<6.5	ug/kg	21.7	6.5	1	09/30/16 11:24	09/30/16 17:28	120-12-7	
Benzo(a)anthracene	18.5	ug/kg	12.1	3.6	1	09/30/16 11:24	09/30/16 17:28	56-55-3	
Benzo(a)pyrene	22.2	ug/kg	9.6	2.9	1	09/30/16 11:24	09/30/16 17:28	50-32-8	
Benzo(b)fluoranthene	30.5	ug/kg	10.8	3.2	1	09/30/16 11:24	09/30/16 17:28	205-99-2	
Benzo(g,h,i)perylene	18.7	ug/kg	7.7	2.3	1	09/30/16 11:24	09/30/16 17:28	191-24-2	
Benzo(k)fluoranthene	14.7	ug/kg	9.6	2.9	1	09/30/16 11:24	09/30/16 17:28	207-08-9	
Chrysene	25.4	ug/kg	12.8	3.9	1	09/30/16 11:24	09/30/16 17:28	218-01-9	
Dibenz(a,h)anthracene	3.3J	ug/kg	8.5	2.6	1	09/30/16 11:24	09/30/16 17:28	53-70-3	
Fluoranthene	39.7	ug/kg	19.9	6.0	1	09/30/16 11:24	09/30/16 17:28	206-44-0	
Fluorene	<4.7	ug/kg	15.8	4.7	1	09/30/16 11:24	09/30/16 17:28	86-73-7	
Indeno(1,2,3-cd)pyrene	15.0	ug/kg	8.4	2.5	1	09/30/16 11:24	09/30/16 17:28	193-39-5	
Naphthalene	<9.6	ug/kg	32.1	9.6	1	09/30/16 11:24	09/30/16 17:28	91-20-3	
Phenanthrene	19.1J	ug/kg	44.3	13.3	1	09/30/16 11:24	09/30/16 17:28	85-01-8	
Pyrene	30.7	ug/kg	17.1	5.2	1	09/30/16 11:24	09/30/16 17:28	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	71	%	26-130		1	09/30/16 11:24	09/30/16 17:28	321-60-8	
Terphenyl-d14 (S)	73	%	10-130		1	09/30/16 11:24	09/30/16 17:28	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.5	ug/kg	22.8	10.5	1	09/29/16 09:30	09/29/16 20:49	71-43-2	
Ethylbenzene	<14.2	ug/kg	57.1	14.2	1	09/29/16 09:30	09/29/16 20:49	100-41-4	
Methyl-tert-butyl ether	<14.5	ug/kg	57.1	14.5	1	09/29/16 09:30	09/29/16 20:49	1634-04-4	
Toluene	<12.8	ug/kg	57.1	12.8	1	09/29/16 09:30	09/29/16 20:49	108-88-3	
Xylene (Total)	<55.3	ug/kg	171	55.3	1	09/29/16 09:30	09/29/16 20:49	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	53-165		1	09/29/16 09:30	09/29/16 20:49	1868-53-7	
4-Bromofluorobenzene (S)	92	%	48-138		1	09/29/16 09:30	09/29/16 20:49	460-00-4	
Toluene-d8 (S)	94	%	54-163		1	09/29/16 09:30	09/29/16 20:49	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	12.5	%	0.10	0.10	1		10/03/16 15:08		

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### ANALYTICAL RESULTS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Sample: BH-30 @ 7.5-10 Lab ID: 40139128008 Collected: 09/26/16 11:08 Received: 09/28/16 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.6	ug/kg	15.3	4.6	1	10/03/16 09:08	10/03/16 21:38	83-32-9	
Acenaphthylene	<3.9	ug/kg	13.1	3.9	1	10/03/16 09:08	10/03/16 21:38	208-96-8	
Anthracene	<6.8	ug/kg	22.6	6.8	1	10/03/16 09:08	10/03/16 21:38	120-12-7	
Benzo(a)anthracene	<3.8	ug/kg	12.6	3.8	1	10/03/16 09:08	10/03/16 21:38	56-55-3	
Benzo(a)pyrene	<3.0	ug/kg	10	3.0	1	10/03/16 09:08	10/03/16 21:38	50-32-8	
Benzo(b)fluoranthene	<3.4	ug/kg	11.2	3.4	1	10/03/16 09:08	10/03/16 21:38	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	8.1	2.4	1	10/03/16 09:08	10/03/16 21:38	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	9.9	3.0	1	10/03/16 09:08	10/03/16 21:38	207-08-9	
Chrysene	<4.0	ug/kg	13.3	4.0	1	10/03/16 09:08	10/03/16 21:38	218-01-9	
Dibenz(a,h)anthracene	<2.7	ug/kg	8.9	2.7	1	10/03/16 09:08	10/03/16 21:38	53-70-3	
Fluoranthene	<6.2	ug/kg	20.7	6.2	1	10/03/16 09:08	10/03/16 21:38	206-44-0	
Fluorene	<4.9	ug/kg	16.4	4.9	1	10/03/16 09:08	10/03/16 21:38	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.7	2.6	1	10/03/16 09:08	10/03/16 21:38	193-39-5	
Naphthalene	<10.0	ug/kg	33.4	10.0	1	10/03/16 09:08	10/03/16 21:38	91-20-3	
Phenanthrene	<13.9	ug/kg	46.2	13.9	1	10/03/16 09:08	10/03/16 21:38	85-01-8	
Pyrene	<5.4	ug/kg	17.8	5.4	1	10/03/16 09:08	10/03/16 21:38	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	68	%	26-130		1	10/03/16 09:08	10/03/16 21:38	321-60-8	
Terphenyl-d14 (S)	73	%	10-130		1	10/03/16 09:08	10/03/16 21:38	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<11.0	ug/kg	23.8	11.0	1	09/29/16 09:30	09/29/16 21:10	71-43-2	
Ethylbenzene	<14.8	ug/kg	59.5	14.8	1	09/29/16 09:30	09/29/16 21:10	100-41-4	
Methyl-tert-butyl ether	<15.1	ug/kg	59.5	15.1	1	09/29/16 09:30	09/29/16 21:10	1634-04-4	
Toluene	<13.3	ug/kg	59.5	13.3	1	09/29/16 09:30	09/29/16 21:10	108-88-3	
Xylene (Total)	<57.6	ug/kg	178	57.6	1	09/29/16 09:30	09/29/16 21:10	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	53-165		1	09/29/16 09:30	09/29/16 21:10	1868-53-7	
4-Bromofluorobenzene (S)	96	%	48-138		1	09/29/16 09:30	09/29/16 21:10	460-00-4	
Toluene-d8 (S)	101	%	54-163		1	09/29/16 09:30	09/29/16 21:10	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	15.9	%	0.10	0.10	1		10/03/16 15:08		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Sample: BH-30 @ 12.5-15 Lab ID: 40139128009 Collected: 09/26/16 11:10 Received: 09/28/16 09:30 Matrix: Solid  
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.5	ug/kg	14.8	4.5	1	10/03/16 09:08	10/03/16 23:38	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.6	3.8	1	10/03/16 09:08	10/03/16 23:38	208-96-8	
Anthracene	<6.6	ug/kg	21.8	6.6	1	10/03/16 09:08	10/03/16 23:38	120-12-7	
Benzo(a)anthracene	<3.6	ug/kg	12.2	3.6	1	10/03/16 09:08	10/03/16 23:38	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.6	2.9	1	10/03/16 09:08	10/03/16 23:38	50-32-8	
Benzo(b)fluoranthene	3.3J	ug/kg	10.8	3.2	1	10/03/16 09:08	10/03/16 23:38	205-99-2	
Benzo(g,h,i)perylene	5.8J	ug/kg	7.8	2.3	1	10/03/16 09:08	10/03/16 23:38	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.6	2.9	1	10/03/16 09:08	10/03/16 23:38	207-08-9	
Chrysene	7.5J	ug/kg	12.9	3.9	1	10/03/16 09:08	10/03/16 23:38	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	10/03/16 09:08	10/03/16 23:38	53-70-3	
Fluoranthene	<6.0	ug/kg	20.0	6.0	1	10/03/16 09:08	10/03/16 23:38	206-44-0	
Fluorene	<4.8	ug/kg	15.9	4.8	1	10/03/16 09:08	10/03/16 23:38	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.4	2.5	1	10/03/16 09:08	10/03/16 23:38	193-39-5	
Naphthalene	<9.7	ug/kg	32.3	9.7	1	10/03/16 09:08	10/03/16 23:38	91-20-3	
Phenanthrene	<13.4	ug/kg	44.6	13.4	1	10/03/16 09:08	10/03/16 23:38	85-01-8	
Pyrene	7.1J	ug/kg	17.2	5.2	1	10/03/16 09:08	10/03/16 23:38	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	67	%	26-130		1	10/03/16 09:08	10/03/16 23:38	321-60-8	
Terphenyl-d14 (S)	72	%	10-130		1	10/03/16 09:08	10/03/16 23:38	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.6	ug/kg	23.0	10.6	1	09/29/16 09:30	09/29/16 21:30	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.5	14.3	1	09/29/16 09:30	09/29/16 21:30	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.5	14.6	1	09/29/16 09:30	09/29/16 21:30	1634-04-4	
Toluene	<12.9	ug/kg	57.5	12.9	1	09/29/16 09:30	09/29/16 21:30	108-88-3	
Xylene (Total)	<55.7	ug/kg	172	55.7	1	09/29/16 09:30	09/29/16 21:30	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	102	%	53-165		1	09/29/16 09:30	09/29/16 21:30	1868-53-7	
4-Bromofluorobenzene (S)	93	%	48-138		1	09/29/16 09:30	09/29/16 21:30	460-00-4	
Toluene-d8 (S)	98	%	54-163		1	09/29/16 09:30	09/29/16 21:30	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.0	%	0.10	0.10	1		10/03/16 15:08		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Sample: BH-30 @ 15-17.5 Lab ID: 40139128010 Collected: 09/26/16 11:15 Received: 09/28/16 09:30 Matrix: Solid  
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.4	ug/kg	14.8	4.4	1	10/03/16 09:08	10/03/16 23:21	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.6	3.8	1	10/03/16 09:08	10/03/16 23:21	208-96-8	
Anthracene	<6.5	ug/kg	21.8	6.5	1	10/03/16 09:08	10/03/16 23:21	120-12-7	
Benzo(a)anthracene	<3.6	ug/kg	12.2	3.6	1	10/03/16 09:08	10/03/16 23:21	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.6	2.9	1	10/03/16 09:08	10/03/16 23:21	50-32-8	
Benzo(b)fluoranthene	3.3J	ug/kg	10.8	3.2	1	10/03/16 09:08	10/03/16 23:21	205-99-2	
Benzo(g,h,i)perylene	6.2J	ug/kg	7.8	2.3	1	10/03/16 09:08	10/03/16 23:21	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.6	2.9	1	10/03/16 09:08	10/03/16 23:21	207-08-9	
Chrysene	8.5J	ug/kg	12.8	3.9	1	10/03/16 09:08	10/03/16 23:21	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.5	2.6	1	10/03/16 09:08	10/03/16 23:21	53-70-3	
Fluoranthene	<6.0	ug/kg	19.9	6.0	1	10/03/16 09:08	10/03/16 23:21	206-44-0	
Fluorene	<4.7	ug/kg	15.8	4.7	1	10/03/16 09:08	10/03/16 23:21	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.4	2.5	1	10/03/16 09:08	10/03/16 23:21	193-39-5	
Naphthalene	<9.7	ug/kg	32.2	9.7	1	10/03/16 09:08	10/03/16 23:21	91-20-3	
Phenanthrene	<13.4	ug/kg	44.5	13.4	1	10/03/16 09:08	10/03/16 23:21	85-01-8	
Pyrene	8.2J	ug/kg	17.2	5.2	1	10/03/16 09:08	10/03/16 23:21	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	74	%	26-130		1	10/03/16 09:08	10/03/16 23:21	321-60-8	
Terphenyl-d14 (S)	78	%	10-130		1	10/03/16 09:08	10/03/16 23:21	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.6	ug/kg	22.9	10.6	1	09/29/16 09:30	09/29/16 21:50	71-43-2	
Ethylbenzene	<14.2	ug/kg	57.3	14.2	1	09/29/16 09:30	09/29/16 21:50	100-41-4	
Methyl-tert-butyl ether	<14.5	ug/kg	57.3	14.5	1	09/29/16 09:30	09/29/16 21:50	1634-04-4	
Toluene	<12.9	ug/kg	57.3	12.9	1	09/29/16 09:30	09/29/16 21:50	108-88-3	
Xylene (Total)	<55.5	ug/kg	172	55.5	1	09/29/16 09:30	09/29/16 21:50	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	146	%	53-165		1	09/29/16 09:30	09/29/16 21:50	1868-53-7	
4-Bromofluorobenzene (S)	138	%	48-138		1	09/29/16 09:30	09/29/16 21:50	460-00-4	
Toluene-d8 (S)	131	%	54-163		1	09/29/16 09:30	09/29/16 21:50	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	12.8	%	0.10	0.10	1		10/03/16 15:08		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Sample: BH-30A @ 22.5-25 Lab ID: 40139128011 Collected: 09/26/16 12:12 Received: 09/28/16 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	<4.3	ug/kg	14.4	4.3	1	10/03/16 09:08	10/03/16 13:59	83-32-9	
Acenaphthylene	<3.7	ug/kg	12.3	3.7	1	10/03/16 09:08	10/03/16 13:59	208-96-8	
Anthracene	<6.4	ug/kg	21.2	6.4	1	10/03/16 09:08	10/03/16 13:59	120-12-7	
Benzo(a)anthracene	<3.5	ug/kg	11.8	3.5	1	10/03/16 09:08	10/03/16 13:59	56-55-3	
Benzo(a)pyrene	<2.8	ug/kg	9.4	2.8	1	10/03/16 09:08	10/03/16 13:59	50-32-8	
Benzo(b)fluoranthene	<3.2	ug/kg	10.5	3.2	1	10/03/16 09:08	10/03/16 13:59	205-99-2	
Benzo(g,h,i)perylene	<2.3	ug/kg	7.6	2.3	1	10/03/16 09:08	10/03/16 13:59	191-24-2	
Benzo(k)fluoranthene	<2.8	ug/kg	9.3	2.8	1	10/03/16 09:08	10/03/16 13:59	207-08-9	
Chrysene	<3.8	ug/kg	12.5	3.8	1	10/03/16 09:08	10/03/16 13:59	218-01-9	
Dibenz(a,h)anthracene	<2.5	ug/kg	8.3	2.5	1	10/03/16 09:08	10/03/16 13:59	53-70-3	
Fluoranthene	<5.8	ug/kg	19.4	5.8	1	10/03/16 09:08	10/03/16 13:59	206-44-0	
Fluorene	<4.6	ug/kg	15.4	4.6	1	10/03/16 09:08	10/03/16 13:59	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.2	2.5	1	10/03/16 09:08	10/03/16 13:59	193-39-5	
Naphthalene	<9.4	ug/kg	31.4	9.4	1	10/03/16 09:08	10/03/16 13:59	91-20-3	
Phenanthrene	<13.0	ug/kg	43.4	13.0	1	10/03/16 09:08	10/03/16 13:59	85-01-8	
Pyrene	<5.0	ug/kg	16.8	5.0	1	10/03/16 09:08	10/03/16 13:59	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	78	%	26-130		1	10/03/16 09:08	10/03/16 13:59	321-60-8	
Terphenyl-d14 (S)	86	%	10-130		1	10/03/16 09:08	10/03/16 13:59	1718-51-0	
<b>8260 MSV Med Level Short List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<10.3	ug/kg	22.4	10.3	1	09/29/16 09:30	09/29/16 22:10	71-43-2	
Ethylbenzene	<13.9	ug/kg	55.9	13.9	1	09/29/16 09:30	09/29/16 22:10	100-41-4	
Methyl-tert-butyl ether	<14.1	ug/kg	55.9	14.1	1	09/29/16 09:30	09/29/16 22:10	1634-04-4	
Toluene	<12.5	ug/kg	55.9	12.5	1	09/29/16 09:30	09/29/16 22:10	108-88-3	
Xylene (Total)	<54.1	ug/kg	168	54.1	1	09/29/16 09:30	09/29/16 22:10	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	53-165		1	09/29/16 09:30	09/29/16 22:10	1868-53-7	
4-Bromofluorobenzene (S)	94	%	48-138		1	09/29/16 09:30	09/29/16 22:10	460-00-4	
Toluene-d8 (S)	90	%	54-163		1	09/29/16 09:30	09/29/16 22:10	2037-26-5	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	10.5	%	0.10	0.10	1		10/03/16 15:08		

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**ANALYTICAL RESULTS**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Sample: BH-30A @ 27.5-30 Lab ID: 40139128012 Collected: 09/26/16 12:36 Received: 09/28/16 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.5	ug/kg	14.9	4.5	1	10/03/16 09:08	10/03/16 22:47	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.7	3.8	1	10/03/16 09:08	10/03/16 22:47	208-96-8	
Anthracene	<6.6	ug/kg	21.9	6.6	1	10/03/16 09:08	10/03/16 22:47	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.2	3.7	1	10/03/16 09:08	10/03/16 22:47	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.6	2.9	1	10/03/16 09:08	10/03/16 22:47	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	10.8	3.3	1	10/03/16 09:08	10/03/16 22:47	205-99-2	
Benzo(g,h,i)perylene	2.8J	ug/kg	7.8	2.3	1	10/03/16 09:08	10/03/16 22:47	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.6	2.9	1	10/03/16 09:08	10/03/16 22:47	207-08-9	
Chrysene	<3.9	ug/kg	12.9	3.9	1	10/03/16 09:08	10/03/16 22:47	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	10/03/16 09:08	10/03/16 22:47	53-70-3	
Fluoranthene	<6.0	ug/kg	20.0	6.0	1	10/03/16 09:08	10/03/16 22:47	206-44-0	
Fluorene	<4.8	ug/kg	15.9	4.8	1	10/03/16 09:08	10/03/16 22:47	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.4	2.5	1	10/03/16 09:08	10/03/16 22:47	193-39-5	
Naphthalene	12.8J	ug/kg	32.4	9.7	1	10/03/16 09:08	10/03/16 22:47	91-20-3	
Phenanthrene	<13.4	ug/kg	44.7	13.4	1	10/03/16 09:08	10/03/16 22:47	85-01-8	
Pyrene	<5.2	ug/kg	17.3	5.2	1	10/03/16 09:08	10/03/16 22:47	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	58	%	26-130		1	10/03/16 09:08	10/03/16 22:47	321-60-8	
Terphenyl-d14 (S)	63	%	10-130		1	10/03/16 09:08	10/03/16 22:47	1718-51-0	
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<10.6	ug/kg	23.0	10.6	1	09/29/16 09:30	09/29/16 22:30	71-43-2	
Ethylbenzene	<14.3	ug/kg	57.6	14.3	1	09/29/16 09:30	09/29/16 22:30	100-41-4	
Methyl-tert-butyl ether	<14.6	ug/kg	57.6	14.6	1	09/29/16 09:30	09/29/16 22:30	1634-04-4	
Toluene	<12.9	ug/kg	57.6	12.9	1	09/29/16 09:30	09/29/16 22:30	108-88-3	
Xylene (Total)	<55.8	ug/kg	173	55.8	1	09/29/16 09:30	09/29/16 22:30	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	53-165		1	09/29/16 09:30	09/29/16 22:30	1868-53-7	
4-Bromofluorobenzene (S)	99	%	48-138		1	09/29/16 09:30	09/29/16 22:30	460-00-4	
Toluene-d8 (S)	94	%	54-163		1	09/29/16 09:30	09/29/16 22:30	2037-26-5	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.2	%	0.10	0.10	1		10/03/16 15:08		

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

QC Batch: 236666 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Short List  
Associated Lab Samples: 40139128001, 40139128002, 40139128003, 40139128004, 40139128005, 40139128006, 40139128007, 40139128008, 40139128009, 40139128010, 40139128011, 40139128012

METHOD BLANK: 1402622 Matrix: Solid  
Associated Lab Samples: 40139128001, 40139128002, 40139128003, 40139128004, 40139128005, 40139128006, 40139128007, 40139128008, 40139128009, 40139128010, 40139128011, 40139128012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Benzene	ug/kg	<9.2	20.0	9.2	09/29/16 15:25	
Ethylbenzene	ug/kg	<12.4	50.0	12.4	09/29/16 15:25	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	12.7	09/29/16 15:25	
Toluene	ug/kg	<11.2	50.0	11.2	09/29/16 15:25	
Xylene (Total)	ug/kg	<48.4	150	48.4	09/29/16 15:25	
4-Bromofluorobenzene (S)	%	93	48-138		09/29/16 15:25	
Dibromofluoromethane (S)	%	104	53-165		09/29/16 15:25	
Toluene-d8 (S)	%	102	54-163		09/29/16 15:25	

LABORATORY CONTROL SAMPLE: 1402623

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2670	107	70-130	
Ethylbenzene	ug/kg	2500	2540	102	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2040	82	70-130	
Toluene	ug/kg	2500	2580	103	70-130	
Xylene (Total)	ug/kg	7500	7980	106	70-130	
4-Bromofluorobenzene (S)	%			112	48-138	
Dibromofluoromethane (S)	%			109	53-165	
Toluene-d8 (S)	%			104	54-163	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1402624 1402625

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40139129003 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Benzene	ug/kg	<11.4	1540	1540	1530	1590	99	103	70-130	4	20	
Ethylbenzene	ug/kg	<15.3	1540	1540	1430	1550	93	101	70-130	8	20	
Methyl-tert-butyl ether	ug/kg	<15.6	1540	1540	1200	1250	78	81	70-130	4	20	
Toluene	ug/kg	<13.8	1540	1540	1450	1570	94	102	70-130	8	20	
Xylene (Total)	ug/kg	<59.7	4620	4620	4630	4900	100	106	70-130	6	20	
4-Bromofluorobenzene (S)	%						111	115	48-138			
Dibromofluoromethane (S)	%						107	123	53-165			1q
Toluene-d8 (S)	%						100	102	54-163			

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

QC Batch: 236787 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40139128001, 40139128002, 40139128003, 40139128004, 40139128005, 40139128006, 40139128007

METHOD BLANK: 1403458 Matrix: Solid  
Associated Lab Samples: 40139128001, 40139128002, 40139128003, 40139128004, 40139128005, 40139128006, 40139128007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	ug/kg	<3.9	12.9	3.9	09/30/16 14:15	
Acenaphthylene	ug/kg	<3.3	11.0	3.3	09/30/16 14:15	
Anthracene	ug/kg	<5.7	19.0	5.7	09/30/16 14:15	
Benzo(a)anthracene	ug/kg	<3.2	10.6	3.2	09/30/16 14:15	
Benzo(a)pyrene	ug/kg	<2.5	8.4	2.5	09/30/16 14:15	
Benzo(b)fluoranthene	ug/kg	<2.8	9.4	2.8	09/30/16 14:15	
Benzo(g,h,i)perylene	ug/kg	<2.0	6.8	2.0	09/30/16 14:15	
Benzo(k)fluoranthene	ug/kg	<2.5	8.4	2.5	09/30/16 14:15	
Chrysene	ug/kg	<3.4	11.2	3.4	09/30/16 14:15	
Dibenz(a,h)anthracene	ug/kg	<2.2	7.4	2.2	09/30/16 14:15	
Fluoranthene	ug/kg	<5.2	17.4	5.2	09/30/16 14:15	
Fluorene	ug/kg	<4.1	13.8	4.1	09/30/16 14:15	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.2	7.3	2.2	09/30/16 14:15	
Naphthalene	ug/kg	<8.4	28.1	8.4	09/30/16 14:15	
Phenanthrene	ug/kg	<11.6	38.8	11.6	09/30/16 14:15	
Pyrene	ug/kg	<4.5	15.0	4.5	09/30/16 14:15	
2-Fluorobiphenyl (S)	%	81	26-130		09/30/16 14:15	
Terphenyl-d14 (S)	%	87	10-130		09/30/16 14:15	

LABORATORY CONTROL SAMPLE: 1403459

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	281	84	54-130	
Acenaphthylene	ug/kg	333	281	84	56-130	
Anthracene	ug/kg	333	333	100	70-130	
Benzo(a)anthracene	ug/kg	333	279	84	58-130	
Benzo(a)pyrene	ug/kg	333	315	94	58-130	
Benzo(b)fluoranthene	ug/kg	333	305	91	50-130	
Benzo(g,h,i)perylene	ug/kg	333	322	97	39-130	
Benzo(k)fluoranthene	ug/kg	333	344	103	57-130	
Chrysene	ug/kg	333	338	102	64-130	
Dibenz(a,h)anthracene	ug/kg	333	329	99	44-130	
Fluoranthene	ug/kg	333	316	95	59-130	
Fluorene	ug/kg	333	277	83	56-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	341	102	45-130	
Naphthalene	ug/kg	333	281	84	46-130	
Phenanthrene	ug/kg	333	316	95	56-130	
Pyrene	ug/kg	333	301	90	59-130	
2-Fluorobiphenyl (S)	%			86	26-130	
Terphenyl-d14 (S)	%			88	10-130	

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1403462		1403463		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40138622002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Acenaphthene	ug/kg	<3.9	338	338	281	250	83	74	49-130	12	27		
Acenaphthylene	ug/kg	<3.4	338	338	284	253	84	75	52-130	11	26		
Anthracene	ug/kg	<5.8	338	338	325	294	96	87	61-130	10	29		
Benzo(a)anthracene	ug/kg	<3.2	338	338	268	254	79	75	45-130	5	28		
Benzo(a)pyrene	ug/kg	<2.6	338	338	305	278	90	82	39-130	9	34		
Benzo(b)fluoranthene	ug/kg	<2.9	338	338	298	262	88	77	30-130	13	43		
Benzo(g,h,i)perylene	ug/kg	<2.1	338	338	232	225	68	66	24-130	3	34		
Benzo(k)fluoranthene	ug/kg	<2.6	338	338	319	294	94	87	41-130	8	32		
Chrysene	ug/kg	<3.4	338	338	309	291	91	86	46-130	6	37		
Dibenz(a,h)anthracene	ug/kg	<2.3	338	338	262	252	77	74	33-130	4	34		
Fluoranthene	ug/kg	<5.3	338	338	299	275	88	81	41-130	8	25		
Fluorene	ug/kg	<4.2	338	338	279	250	82	74	49-130	11	30		
Indeno(1,2,3-cd)pyrene	ug/kg	<2.2	338	338	268	255	79	75	30-130	5	28		
Naphthalene	ug/kg	<8.6	338	338	275	243	81	72	39-130	12	26		
Phenanthrene	ug/kg	<11.8	338	338	305	277	90	82	47-130	10	26		
Pyrene	ug/kg	<4.6	338	338	290	271	86	80	37-130	7	30		
2-Fluorobiphenyl (S)	%						84	72	26-130				
Terphenyl-d14 (S)	%						83	76	10-130				

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

QC Batch: 236888 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40139128008, 40139128009, 40139128010, 40139128011, 40139128012

METHOD BLANK: 1404411 Matrix: Solid  
Associated Lab Samples: 40139128008, 40139128009, 40139128010, 40139128011, 40139128012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	ug/kg	<3.9	12.9	3.9	10/03/16 13:25	
Acenaphthylene	ug/kg	<3.3	11.0	3.3	10/03/16 13:25	
Anthracene	ug/kg	<5.7	19.0	5.7	10/03/16 13:25	
Benzo(a)anthracene	ug/kg	<3.2	10.6	3.2	10/03/16 13:25	
Benzo(a)pyrene	ug/kg	<2.5	8.4	2.5	10/03/16 13:25	
Benzo(b)fluoranthene	ug/kg	<2.8	9.4	2.8	10/03/16 13:25	
Benzo(g,h,i)perylene	ug/kg	<2.0	6.8	2.0	10/03/16 13:25	
Benzo(k)fluoranthene	ug/kg	<2.5	8.4	2.5	10/03/16 13:25	
Chrysene	ug/kg	<3.4	11.2	3.4	10/03/16 13:25	
Dibenz(a,h)anthracene	ug/kg	<2.2	7.4	2.2	10/03/16 13:25	
Fluoranthene	ug/kg	<5.2	17.4	5.2	10/03/16 13:25	
Fluorene	ug/kg	<4.1	13.8	4.1	10/03/16 13:25	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.2	7.3	2.2	10/03/16 13:25	
Naphthalene	ug/kg	<8.4	28.1	8.4	10/03/16 13:25	
Phenanthrene	ug/kg	<11.6	38.8	11.6	10/03/16 13:25	
Pyrene	ug/kg	<4.5	15.0	4.5	10/03/16 13:25	
2-Fluorobiphenyl (S)	%	84	26-130		10/03/16 13:25	
Terphenyl-d14 (S)	%	103	10-130		10/03/16 13:25	

LABORATORY CONTROL SAMPLE: 1404412

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	333	291	87	54-130	
Acenaphthylene	ug/kg	333	293	88	56-130	
Anthracene	ug/kg	333	351	105	70-130	
Benzo(a)anthracene	ug/kg	333	307	92	58-130	
Benzo(a)pyrene	ug/kg	333	354	106	58-130	
Benzo(b)fluoranthene	ug/kg	333	348	105	50-130	
Benzo(g,h,i)perylene	ug/kg	333	248	75	39-130	
Benzo(k)fluoranthene	ug/kg	333	386	116	57-130	
Chrysene	ug/kg	333	351	105	64-130	
Dibenz(a,h)anthracene	ug/kg	333	291	87	44-130	
Fluoranthene	ug/kg	333	332	100	59-130	
Fluorene	ug/kg	333	293	88	56-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	289	87	45-130	
Naphthalene	ug/kg	333	300	90	46-130	
Phenanthrene	ug/kg	333	332	100	56-130	
Pyrene	ug/kg	333	332	100	59-130	
2-Fluorobiphenyl (S)	%			84	26-130	
Terphenyl-d14 (S)	%			96	10-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1404413		1404414		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40139128011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result										
Acenaphthene	ug/kg	<4.3	372	372	330	330	89	89	49-130	0	27				
Acenaphthylene	ug/kg	<3.7	372	372	336	335	90	90	52-130	0	26				
Anthracene	ug/kg	<6.4	372	372	391	378	105	102	61-130	3	29				
Benzo(a)anthracene	ug/kg	<3.5	372	372	343	333	91	88	45-130	3	28				
Benzo(a)pyrene	ug/kg	<2.8	372	372	390	380	105	102	39-130	3	34				
Benzo(b)fluoranthene	ug/kg	<3.2	372	372	377	361	101	97	30-130	4	43				
Benzo(g,h,i)perylene	ug/kg	<2.3	372	372	258	263	69	70	24-130	2	34				
Benzo(k)fluoranthene	ug/kg	<2.8	372	372	434	428	117	115	41-130	2	32				
Chrysene	ug/kg	<3.8	372	372	400	393	107	105	46-130	2	37				
Dibenz(a,h)anthracene	ug/kg	<2.5	372	372	309	314	83	84	33-130	2	34				
Fluoranthene	ug/kg	<5.8	372	372	375	367	100	98	41-130	2	25				
Fluorene	ug/kg	<4.6	372	372	332	329	89	88	49-130	1	30				
Indeno(1,2,3-cd)pyrene	ug/kg	<2.5	372	372	307	312	82	84	30-130	2	28				
Naphthalene	ug/kg	<9.4	372	372	344	349	92	93	39-130	2	26				
Phenanthrene	ug/kg	<13.0	372	372	377	370	100	98	47-130	2	26				
Pyrene	ug/kg	<5.0	372	372	378	366	101	98	37-130	3	30				
2-Fluorobiphenyl (S)	%						77	85	26-130						
Terphenyl-d14 (S)	%						88	91	10-130						

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

---

QC Batch:	236574	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40139128005		

---

SAMPLE DUPLICATE: 1402216

Parameter	Units	40139128005 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	15.4	14.6	6	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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## QUALIFIERS

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

1q Sample aliquot was taken from a glass jar with head space and MeOH preserved in the laboratory.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 100137 LEMONT KAR GAS  
Pace Project No.: 40139128

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40139128001	BH-31 @ 2.5-5	EPA 3546	236787	EPA 8270 by SIM	236816
40139128002	BH-31 @ 5-7.5	EPA 3546	236787	EPA 8270 by SIM	236816
40139128003	BH-31 @ 12.5-15	EPA 3546	236787	EPA 8270 by SIM	236816
40139128004	BH-31 @ 15-17.5	EPA 3546	236787	EPA 8270 by SIM	236816
40139128005	BH-31 @ 22.5-25	EPA 3546	236787	EPA 8270 by SIM	236816
40139128006	BH-31 @ 25-27.5	EPA 3546	236787	EPA 8270 by SIM	236816
40139128007	BH-30 @ 2.5-5	EPA 3546	236787	EPA 8270 by SIM	236816
40139128008	BH-30 @ 7.5-10	EPA 3546	236888	EPA 8270 by SIM	236925
40139128009	BH-30 @ 12.5-15	EPA 3546	236888	EPA 8270 by SIM	236925
40139128010	BH-30 @ 15-17.5	EPA 3546	236888	EPA 8270 by SIM	236925
40139128011	BH-30A @ 22.5-25	EPA 3546	236888	EPA 8270 by SIM	236925
40139128012	BH-30A @ 27.5-30	EPA 3546	236888	EPA 8270 by SIM	236925
40139128001	BH-31 @ 2.5-5	EPA 5035/5030B	236666	EPA 8260	236669
40139128002	BH-31 @ 5-7.5	EPA 5035/5030B	236666	EPA 8260	236669
40139128003	BH-31 @ 12.5-15	EPA 5035/5030B	236666	EPA 8260	236669
40139128004	BH-31 @ 15-17.5	EPA 5035/5030B	236666	EPA 8260	236669
40139128005	BH-31 @ 22.5-25	EPA 5035/5030B	236666	EPA 8260	236669
40139128006	BH-31 @ 25-27.5	EPA 5035/5030B	236666	EPA 8260	236669
40139128007	BH-30 @ 2.5-5	EPA 5035/5030B	236666	EPA 8260	236669
40139128008	BH-30 @ 7.5-10	EPA 5035/5030B	236666	EPA 8260	236669
40139128009	BH-30 @ 12.5-15	EPA 5035/5030B	236666	EPA 8260	236669
40139128010	BH-30 @ 15-17.5	EPA 5035/5030B	236666	EPA 8260	236669
40139128011	BH-30A @ 22.5-25	EPA 5035/5030B	236666	EPA 8260	236669
40139128012	BH-30A @ 27.5-30	EPA 5035/5030B	236666	EPA 8260	236669
40139128001	BH-31 @ 2.5-5	ASTM D2974-87	236980		
40139128002	BH-31 @ 5-7.5	ASTM D2974-87	236980		
40139128003	BH-31 @ 12.5-15	ASTM D2974-87	236980		
40139128004	BH-31 @ 15-17.5	ASTM D2974-87	236980		
40139128005	BH-31 @ 22.5-25	ASTM D2974-87	236574		
40139128006	BH-31 @ 25-27.5	ASTM D2974-87	236980		
40139128007	BH-30 @ 2.5-5	ASTM D2974-87	236980		
40139128008	BH-30 @ 7.5-10	ASTM D2974-87	236980		
40139128009	BH-30 @ 12.5-15	ASTM D2974-87	236980		
40139128010	BH-30 @ 15-17.5	ASTM D2974-87	236980		
40139128011	BH-30A @ 22.5-25	ASTM D2974-87	236980		
40139128012	BH-30A @ 27.5-30	ASTM D2974-87	236980		

**REPORT OF LABORATORY ANALYSIS**

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Project # **WO#: 40139128**

Client Name: TriCore Environmental

Courier:  Fed Ex  UPS  Client  Pace Other: CS Logistics



Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR-58 Type of Ice: Wet Blue Dry None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 0 / Corr: 0.5 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no  no

Person examining contents: Date: 9/28/10 Initials: KA

Temp should be above freezing to 6°C for all sample except Biota. Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ If checked, see attached form for additional comments

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: Chw Date: 9/28/10



Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

The Agency is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 – 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,000.00 for the violation and an additional civil penalty of not to exceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false material statement or representation, orally or in writing, in any label, manifest, record, report, permit, or license, or other document filed, maintained or used for the purpose of compliance with Title XVI commits a Class 4 felony. Any second or subsequent offense after conviction hereunder is a Class 3 felony (415 ILCS 5/44 and 57.17). This form has been approved by the Forms Management Center.

### Leaking Underground Storage Tank Program Laboratory Certification for Chemical Analysis

#### A. Site Identification

IEMA Incident # (6- or 8-digit): 942117 IEPA LPC# (10-digit): 0314625010

Site Name: Lemont Kar Gas

Site Address (Not a P.O. Box): 1196 State Street

City: Lemont County: Cook ZIP Code: 60439

Leaking UST Technical File

#### B. Sample Collector

I certify that:

- 1. Appropriate sampling equipment/methods were utilized to obtain representative samples. NR  
(Initial)
- 2. Chain-of-custody procedures were followed in the field. NR  
(Initial)
- 3. Sample integrity was maintained by proper preservation. NR  
(Initial)
- 4. All samples were properly labeled. NR  
(Initial)

#### C. Laboratory Representative

I certify that:

- 1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms CLW  
(Initial)
- 2. Sample integrity was maintained by proper preservation. CLW  
(Initial)
- 3. All samples were properly labeled. CLW  
(Initial)
- 4. Quality assurance/quality control procedures were established and carried out. CLW  
(Initial)
- 5. Sample holding times were not exceeded. CLW  
(Initial)

- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- 7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003).

UW  
(Initial)

UW  
(Initial)

**D. Signatures**

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Sample Collector**

Name Marcos I. Czako

Title Geologist III

Company TriCore Environmental, LLC

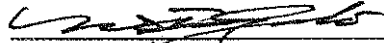
Address 2368 Corporate Lane, Suite 116

City Naperville

State Illinois

Zip Code 60563

Phone (630) 520-9973

Signature 

Date 09/26/16

**Laboratory Representative**

Name Laurie Woelfel

Title Project Manager

Company Pace Analytical Services, Inc.

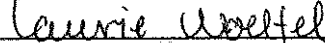
Address 1241 Bellevue Street, Suite 9

City Green Bay

State Wisconsin

Zip Code 64302

Phone (920) 469-2436

Signature 

Date 10/4/16



**APPENDIX C**  
**SOIL BORING LOGS AND MONITORING WELL CONSTRUCTION**  
**DIAGRAMS**

**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-1

BORING LOCATION: See Site Map		TOTAL DEPTH: 15'	
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES		DRILLER: Greg Liggett	
DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers			
DATE/TIME STARTED: 9/18/2003		DATE/TIME ENDED: 9/18/2003	
GW DEPTH WHILE DRILLING: N/A		AFTER DRILLING: NA	TYPE OF BACKFILL: Cuttings
LOGGED BY: Josh Blair		MONITORING EQUIP: PID Model 580B PID	

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Black top				155 ppm at 3-3.5'			Slight odor not discolored
2	Brown silty clay	CL	0-5'	80%				
4					460 ppm at 4-5'			
6	Olive gray silty clay - moist	CL						
8	Brown silty clay w/pebbles	CL	5-10'	100%	280 ppm	Chem grab at 7.5-8'	BH-1A	Slight odor not discolored after 6'
10	Brown silty clay w/pebbles tight	CL						
12			10-15'	100%	39 ppm	Chem grab at 14-14.5'	BH-1B	No odor not discolored
14								
16	15' End of boring							
18	Ground hard, very tight clay							
20	Stand truck on end.							
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Josh Blair
PROJECT NO.: 1803080	



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-1A

BORING LOCATION: See Site Map	TOTAL DEPTH: 30'
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES	DRILLER: Greg Liggett
DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers	
DATE/TIME STARTED: 8/10/2004 0800	DATE/TIME ENDED: 8/10/2004 0945
GW DEPTH WHILE DRILLING: NA	AFTER DRILLING: NA
TYPE OF BACKFILL: Cuttings	
LOGGED BY: Ron Minks	MONITORING EQUIP: PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							No odor no stain to 4' then no odor discolored 4-7'
2	Brown silty clay	CL	0-5'	70%	20 ppm at 4'			
4	Gray silty clay	CL						
6								No stain no odor
8	Hard brown silty clay with pebbles	CL	5-10'	100%	257 ppm at 8'			
10								No stain no odor
12			10-15'	100%	10 ppm at 13'			
14								No stain no odor
16			15-20'	100%	7 ppm	Chem grab at 18'	BH-1C	
18								No stain no odor
20								
22	Hard brown/gray silty clay with pebbles	CL	20-25'	100%	0 ppm	Physical soil at 20-22.5'	SCB-1	
24								No stain no odor
26					0 ppm at 28'			
28			25-30'	100%				
30	30' End of Boring							

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Ron Minks
PROJECT NO.: 1803080	



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-2

BORING LOCATION: See Site Map			TOTAL DEPTH: 10'		
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES			DRILLER: Greg Liggett		
DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers					
DATE/TIME STARTED: 9/18/2003			DATE/TIME ENDED: 9/18/2003		
GW DEPTH WHILE DRILLING: 5'		AFTER DRILLING: NA		TYPE OF BACKFILL: Cuttings	
LOGGED BY: Josh Blair			MONITORING EQUIP: PID Model 580B PID		

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Black top							
2	Black silty clay	CL	0-5'	100%	300+ ppm	Chem grab at 4.5 - 5'	BH-2A	Slight odor slight discolored
4	Olive gray silty clay	CL						
6	Brown silty clay w/pebbles tighter	CL	5-10'	100%	200+ ppm at 6.5 - 7'			very slight odor 6 - 10' not discolored
10	10' End of boring							
12								
14								
16								
18								
20								
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Josh Blair
PROJECT NO.: 1803080	



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-2A

BORING LOCATION: See Site Map      TOTAL DEPTH: 25'  
 DRILLING COMPANY: UNITED SCIENCE INDUSTRIES      DRILLER: Greg Liggett  
 DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
 DATE/TIME STARTED: 8/10/2004 1305      DATE/TIME ENDED: 8/10/2004 1350  
 GW DEPTH WHILE DRILLING: NA      AFTER DRILLING: NA      TYPE OF BACKFILL: Cuttings

LOGGED BY: Ron Minks      MONITORING EQUIP: PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Olive green/gray silty clay with pebbles	CL	0-5'	80%	300+ ppm at 4'			Discolored odor to 7'
8	Hard brown silty clay with pebbles	CL	5-10'	100%	187 ppm at 8'			No stain no odor 7-10'
12	Hard brown silty clay with pebbles	CL	10-15'	100%	400+ ppm	Chem grab at 13'	BH-2B	No stain no odor
18	Hard gray silty clay with pebbles	CL	15-20'	100%	34 ppm at 18'			No stain no odor
22	Brown silty clay w/pebbles	CL	20-25'	100%	9 ppm	Chem grab at 24'	BH-2C	No stain no odor
26	25' End of boring							

PROJECT NAME: Lemont Kar Gas      LOGGED BY: Ron Minks  
 PROJECT NO.: 1803080



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-3

BORING LOCATION: See Site Map		TOTAL DEPTH: 10'	
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES		DRILLER: Greg Liggett	
DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers			
DATE/TIME STARTED: 9/18/2003		DATE/TIME ENDED: 9/18/2003	
GW DEPTH WHILE DRILLING: 5'		AFTER DRILLING: NA	TYPE OF BACKFILL: Cuttings
LOGGED BY: Josh Blair		MONITORING EQUIP: PID Model 580B PID	

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Grass							
2	Brown silty clay with gravel	CL	0-5'	80%	150 ppm	Chem grab at 4.5 - 5'	BH-3A	No odor not discolored
4	Brown silty clay	CL						
6								
8			5-10'	80%	18 ppm at 6.5 - 7'			No odor not discolored
10	10' End of boring							
12	Next to utilities							
14								
16								
18								
20								
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Josh Blair
PROJECT NO.: 1803080	



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-3A

BORING LOCATION: See Site Map      TOTAL DEPTH: 30'  
 DRILLING COMPANY: UNITED SCIENCE INDUSTRIES      DRILLER: Greg Liggett  
 DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
 DATE/TIME STARTED: 8/10/2004 0955      DATE/TIME ENDED: 8/10/2004 1100  
 GW DEPTH WHILE DRILLING: NA      AFTER DRILLING: NA      TYPE OF BACKFILL: cuttings

LOGGED BY: Ron Minks      MONITORING EQUIP: PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Brown/gray silty clay with pebbles	CL	0-5'	100%	400+ ppm at 4'			No stain odor
6								
8	Hard brown silty clay with pebbles	CL	5-10'	100%	201 ppm at 8'			No stain odor
12								
14			10-15'	100%	6 ppm	Chem grab at 13'	BH-3B	No stain no odor 11-15'
16								
18	Hard gray silty clay with pebbles	CL	15-20'	100%	0 ppm	Chem grab at 18'	BH-3C	No stain no odor
22								
24			20-25'	100%	0 ppm at 24'			No stain no odor
26								
28			25-30'	100%	0 ppm at 28'			No stain no odor
30	30' End of boring							

PROJECT NAME: Lemont Kar Gas      LOGGED BY: Ron Minks  
 PROJECT NO.: 1803080



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-4

BORING LOCATION: See Site Map		TOTAL DEPTH: 10'	
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES		DRILLER: Greg Liggett	
DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers			
DATE/TIME STARTED: 9/18/2003		DATE/TIME ENDED: 9/18/2003	
GW DEPTH WHILE DRILLING: 5'	AFTER DRILLING: NA	TYPE OF BACKFILL: Cuttings	
LOGGED BY: Josh Blair		MONITORING EQUIP: PID Model 580B PID	

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Grass							
2	Brown silty clay with gravel	CL	0-5'	50%	26 ppm at 4.5 - 5'			Very slight odor slightly discolored
4	Brown silty clay	CL						
6								
8			5-10'	100%	250 ppm	Chem grab at 6.5 - 7'	BH-4A	Slight odor slightly discolored
10	10' End of boring							
12								
14								
16								
18								
20								
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Josh Blair
PROJECT NO.: 1803080	





**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-4A

BORING LOCATION: See Site Map			TOTAL DEPTH: 20'		
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES			DRILLER: Greg Liggett		
DRILLING SAMPLING/METHOD: GeoProbe 6600 w. 1.5" x 5' & 4.25" Augers					
DATE/TIME STARTED: 8/10/2004		1230		DATE/TIME ENDED: 8/10/2004 1300	
GW DEPTH WHILE DRILLING: NA		AFTER DRILLING: NA		TYPE OF BACKFILL: Cuttings	
LOGGED BY: Ron Minks			MONITORING EQUIP: PID Model 580B PID		

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Olive gray silty clay with pebbles	CL	0-5'	80%	111 ppm at 4'			Discolored odor to 6'
6	Hard brown/gray silty clay with pebbles	CL	5-10'	100%	0 ppm at 8'			No stain no odor
12			10-15'	100%	0 ppm	Chem grab at 13'	BH-4B	No stain no odor
16	Hard brown silty clay with pebbles	CL	15-20'	100%	0 ppm at 18'			No stain no odor
20	20' End of boring							

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Ron Minks
PROJECT NO.: 1803080	



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-5**

BORING LOCATION: See Site Map	TOTAL DEPTH: 8'
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES	DRILLER: Greg Liggett
DRILLING SAMPLING/METHOD: GeoProbe 6600 w. 1.5" x 5' & 4.25" Augers	
DATE/TIME STARTED: 9/18/2003	DATE/TIME ENDED: 9/18/2003
GW DEPTH WHILE DRILLING: 5'	AFTER DRILLING: NA
TYPE OF BACKFILL: Cuttings	
LOGGED BY: Josh Blair	MONITORING EQUIP: PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Black top							
2	Olive gray silty clay	CL	0-5'	80%	400+ ppm	Chem grab at 4.5 - 5'	BH-5A	Odor discolored
6								
8	Olive gray silty clay w/pebbles	CL	5-8'	70%	400+ ppm at 6.5 - 7'			Odor discolored
10	8' Refusal							
12								
14								
16								
18								
20								
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Josh Blair
PROJECT NO.: 1803080	



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-5A**

BORING LOCATION: See Site Map		TOTAL DEPTH: 30'	
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES		DRILLER: Greg Liggett	
DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers			
DATE/TIME STARTED: 8/10/2004 1115		DATE/TIME ENDED: 8/10/2004 1200	
GW DEPTH WHILE DRILLING: NA		AFTER DRILLING: NA	
TYPE OF BACKFILL: cuttings			
LOGGED BY: Ron Minks		MONITORING EQUIP: PID Model 580B PID	

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Olive gray/brown silty clay with pebbles	CL	0-5'	80%	400+ ppm at 4'			Discolored odor to 6'
6								
8	Hard brown/gray silty clay with pebbles	CL	5-10'	100%	213 ppm at 8'			No stain odor 6-10'
12								
12			10-15'	100%	61 ppm	Chem grab at 13'	BH-5B	No stain odor
16								
18			15-20'	100%	21 ppm at 18'			No stain odor
22								
22			20-25'	100%	0 ppm	Chem grab at 24'	BH-5C	No stain no odor
26								
26			25-30'	100%	0 ppm at 28'			No stain no odor
30	30' End of boring							

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Ron Minks
PROJECT NO.: 1803080	



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-6**

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 20'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 8/2/2005      **DATE/TIME ENDED:** 8/2/2005  
**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Bentonite

**LOGGED BY:** Ron Minks      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Hard brown silty clay w/pebbles	CL	0-5'	50%	125 ppm	Chem grab at 5'	BH-6A	No stain no odor
6			5-10'	80%	361 ppm	Chem grab at 9'	BH-6B	No stain no odor to 8' then No stain/odor
12			10-15'	100%	13 ppm	Chem grab at 15'	BH-6C	No stain odor to 14' then No stain/no odor
18			15-20'	100%	0 ppm	Chem grab at 18'	BH-6D	No stain no odor
20	20' End of boring							
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Ron Minks  
**PROJECT NO.:** 1803080      **Transcribed by:** Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-7**

BORING LOCATION: See Site Map	TOTAL DEPTH: 20'
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES	DRILLER: Greg Liggett
DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers	
DATE/TIME STARTED: 8/2/2005	DATE/TIME ENDED: 8/2/2005
GW DEPTH WHILE DRILLING: NA	AFTER DRILLING: NA
TYPE OF BACKFILL: Bentonite	
LOGGED BY: Ron Minks	MONITORING EQUIP: PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Grass							
2	Brown silty clay w/pebbles	CL	0-5'	80%	0 ppm	Chem grab at 4'	BH-7A	No stain no odor
4								
6	Hard brown/gray silty clay w/pebbles	CL	5-10'	100%	0 ppm	Chem grab at 9'	BH-7B	No stain no odor
8								
10								
12			10-15'	100%	0 ppm	Chem grab at 14'	BH-7C	No stain
14								
16			15-20'	100%	0 ppm	Chem grab at 18'	BH-7D	No stain no odor
18								
20	20' End of boring							
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Ron Minks
PROJECT NO.: 1803080	Transcribed by: Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-8

BORING LOCATION: See Site Map	TOTAL DEPTH: 15'
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES	DRILLER: Greg Liggett
DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers	
DATE/TIME STARTED: 8/2/2005	DATE/TIME ENDED: 8/2/2005
GW DEPTH WHILE DRILLING: NA	AFTER DRILLING: NA
TYPE OF BACKFILL: Bentonite	
LOGGED BY: Ron Minks	MONITORING EQUIP: PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Grass							
2	Brown silty clay	CL	0-5'	60%	0 ppm	Chem grab at 3'	BH-8A	No stain no odor
6								
8	Hard brown silty sandy clay	CL	5-10'	60%	98 ppm	Chem grab at 9'	BH-8B	No stain no odor to 9' then No stain/odor to 10'
12								
14			10-15'	100%	0 ppm	Chem grab at 14'	BH-8C	No stain no odor
16	15' End of boring							
18								
20								
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Ron Minks
PROJECT NO.: 1803080	Transcribed by: Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-9**

BORING LOCATION: See Site Map		TOTAL DEPTH: 15'	
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES		DRILLER: Greg Liggett	
DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers			
DATE/TIME STARTED: 8/2/2005		DATE/TIME ENDED: 8/2/2005	
GW DEPTH WHILE DRILLING: NA	AFTER DRILLING: NA	TYPE OF BACKFILL: Bentonite	
LOGGED BY: Ron Minks		MONITORING EQUIP: PID Model 580B PID	

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Hard brown silty clay w/pebbles	CL	0-5'	50%	0 ppm	Chem grab at 4'	BH-9A	No stain no odor
6			5-10'	100%	0 ppm	Chem grab at 9'	BH-9B	No stain no odor
12			10-15'	100%	0 ppm	Chem grab at 14'	BH-9C	No stain no odor
16	15' End of boring							
18								
20								
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Ron Minks
PROJECT NO.: 1803080	Transcribed by: Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

**BOREHOLE NO:** BH-10

<b>BORING LOCATION:</b> See Site Map	<b>TOTAL DEPTH:</b> 20'
<b>DRILLING COMPANY:</b> UNITED SCIENCE INDUSTRIES	<b>DRILLER:</b> Greg Liggett
<b>DRILLING SAMPLING/METHOD:</b> GeoProbe 6600 w.1.5" x 5' & 4.25" Augers	
<b>DATE/TIME STARTED:</b> 8/2/2005	<b>DATE/TIME ENDED:</b> 8/2/2005
<b>GW DEPTH WHILE DRILLING:</b> NA	<b>AFTER DRILLING:</b> NA
<b>TYPE OF BACKFILL:</b> Bentonite	
<b>LOGGED BY:</b> Ron Minks	<b>MONITORING EQUIP:</b> PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Grass							
2	Brown silty clay	CL	0-5'	80%	195 ppm	Chem grab at 4'	BH-10A	No stain no odor to 3' then Discolored odor
4	Olive green silty clay	CL						
6								Discolored/odor to 6'
8	Hard brown silty clay w/pebbles	CL	5-10'	100%	147 ppm	Chem grab at 9'	BH-10B	No stain no odor
10								
12			10-15'	100%	10 ppm	Chem grab at 14'	BH-10C	No stain no odor
14								
16								
18			15-20'	100%	0 ppm	Chem grab at 18-20'	BH-10D	No stain no odor
20	20' End of boring							
22								
24								
26								
28								

<b>PROJECT NAME:</b> Lemont Kar Gas	<b>LOGGED BY:</b> Ron Minks
<b>PROJECT NO.:</b> 1803080	<b>Transcribed by:</b> Jody Richards





**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-11

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 15'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 8/2/2005      **DATE/TIME ENDED:** 8/2/2005  
**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Bentonite  
**LOGGED BY:** Ron Minks      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt		0-5'	100%	250 ppm	Chem grab at 4'	BH-11A	No stain no odor to 3' then Discolored odor
2	Brown silty clay	CL						
4	Olive green silty clay	CL						
6	Hard brown silty clay w/pebbles	CL	5-10'	100%	212 ppm	Chem grab at 9'	BH-11B	Discolored/odor to 6' then No stain odor
8								
10	15' End of boring		10-15'	100%	0 ppm	Chem grab at 14'	BH-11C	No stain no odor
12								
14								
16								
18								
20								
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Ron Minks  
**PROJECT NO.:** 1803080      **Transcribed by:** Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-12

BORING LOCATION: See Site Map      TOTAL DEPTH: 20'  
 DRILLING COMPANY: UNITED SCIENCE INDUSTRIES      DRILLER: Greg Liggett  
 DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
 DATE/TIME STARTED: 8/2/2005      DATE/TIME ENDED: 8/2/2005  
 GW DEPTH WHILE DRILLING: NA      AFTER DRILLING: NA      TYPE OF BACKFILL: Bentonite  
 LOGGED BY: Ron Minks      MONITORING EQUIP: PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Hard brown silty clay w/pebbles	CL	0-5'	100%	303 ppm	Chem grab at 4'	BH-12A	No stain odor
6								
8			5-10'	100%	242 ppm	Chem grab at 9'	BH-12B	No stain odor
12								
14			10-15'	100%	55 ppm	Chem grab at 14'	BH-12C	No stain odor
16	Gray silty clay w/pebbles	CL						
18			15-20'	100%	0 ppm	Chem grab at 19'	BH-12D	No stain no odor
20	20' End of boring							
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas      LOGGED BY: Ron Minks  
 PROJECT NO.: 1803080      Transcribed by: Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-13

BORING LOCATION: See Site Map			TOTAL DEPTH: 15'		
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES			DRILLER: Greg Liggett		
DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers					
DATE/TIME STARTED: 8/2/2005			DATE/TIME ENDED: 8/2/2005		
GW DEPTH WHILE DRILLING: NA		AFTER DRILLING: NA		TYPE OF BACKFILL: Bentonite	
LOGGED BY: Ron Minks			MONITORING EQUIP: PID Model 580B PID		

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Asphalt							
2	Trench sand backfill sand - poor recovery		0-5'					No stain no odor
4								
6								
8			5-10'	80%	0 ppm	Chem grab at 9'	BH-13A	No stain no odor
10	Hard brown silty clay w/pebbles	CL						
12			10-15'	100%	0 ppm	Chem grab at 14'	BH-13B	No stain no odor
14								
16	15' End of boring							
18								
20								
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Ron Minks
PROJECT NO.: 1803080	Transcribed by: Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: ST-1

BORING LOCATION: See Site Map			TOTAL DEPTH: 10'		
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES			DRILLER: Greg Liggett		
DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers					
DATE/TIME STARTED: 8/2/2005			DATE/TIME ENDED: 8/2/2005		
GW DEPTH WHILE DRILLING: NA		AFTER DRILLING: NA		TYPE OF BACKFILL: Bentonite	
LOGGED BY: Ron Minks			MONITORING EQUIP: PID Model 580B PID		

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Grass							
2	Hard brown silty clay w/pebbles	CL	0-5'	100%	0 ppm at 4'			No stain no odor
8	Collect Shelby Tube		5-10'	100%		Shelby Tube at 7.5-10'	ST-1	No stain no odor
10	10' End of boring							
12								
14								
16								
18								
20								
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Ron Minks
PROJECT NO.: 1803080	Transcribed by: Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-14

BORING LOCATION: See Site Map      TOTAL DEPTH: 15'  
 DRILLING COMPANY: UNITED SCIENCE INDUSTRIES      DRILLER: Greg Liggett  
 DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
 DATE/TIME STARTED: 9/26/2005 1500      DATE/TIME ENDED: 9/26/2005 1525  
 GW DEPTH WHILE DRILLING: NA      AFTER DRILLING: NA      TYPE OF BACKFILL: Cuttings

LOGGED BY: Jarrod Yearwood      MONITORING EQUIP: PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Top soil							
2	Brown stiff silty clay	CL	0-5'	40%	2 ppm	Chem grab at 4-5'	BH-14A	No stain no odor
4	Brown & gray - stiff							
6								
8			5-10'	90%	2 ppm	Chem grab at 8'	BH-14B	No stain no odor
10								
12	w/pebbles		10-15'	100%	2 ppm	Chem grab at 14'	BH-14C	No stain no odor
14								
16	15' End of boring							
18								
20								
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas      LOGGED BY: Jarrod Yearwood  
 PROJECT NO.: 1803080      Transcribed by: Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

**BOREHOLE NO: BH-15**

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 15'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w. 1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 9/26/2005 1530      **DATE/TIME ENDED:** 9/26/2005 1600  
**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Cuttings

**LOGGED BY:** Jarrod Yearwood      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Top soil							
2	Dark brown silty stiff clay	CL	0-5'	75%	2 ppm	Chem grab at 4.5'	BH-15A	No stain no odor
4	Brown & gray silty clay	CL						
6								
8			5-10'	100%	1 ppm	Chem grab at 8'	BH-15B	No stain no odor
10								
12	stiff w/pebbles							
14			10-15'	100%	2 ppm	Chem grab at 14'	BH-15C	No stain no odor
16	15' End of boring							
18								
20								
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Jarrod Yearwood  
**PROJECT NO.:** 1803080      **Transcribed by:** Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-16

BORING LOCATION: See Site Map      TOTAL DEPTH: 15'  
 DRILLING COMPANY: UNITED SCIENCE INDUSTRIES      DRILLER: Greg Liggett  
 DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
 DATE/TIME STARTED: 9/26/2005 1610      DATE/TIME ENDED: 9/26/2005 1630  
 GW DEPTH WHILE DRILLING: NA      AFTER DRILLING: NA      TYPE OF BACKFILL: Cuttings

LOGGED BY: Jarrod Yearwood      MONITORING EQUIP: PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Top soil							
2	Brown silty clay	CL	0-5'	75%	2 ppm	Chem grab 4.5'	BH-16A	No stain no odor
4	stiff							
6								
8			5-10'	100%	0.5 ppm	Chem grab at 8'	BH-16B	No stain no odor
10								
12	w/pebbles		10-15'	100%	1 ppm	Chem grab at 14'	BH-16C	No stain no odor
14								
16	15' End of boring							
18								
20								
22								
24								
26								
28								

PROJECT NAME: Lemont Kar Gas      LOGGED BY: Jarrod Yearwood  
 PROJECT NO.: 1803080      Transcribed by: Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-17**

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 15'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 9/26/2005 1630      **DATE/TIME ENDED:** 9/26/2005 1700  
**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Cuttings

**LOGGED BY:** Jarrod Yearwood      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Black top							
2	Low recovery		0-5'	10%				Low Recovery
4								
6	Brown & gray stiff silty clay	CL	5-10'	100%	2 ppm at 5'	Chem grab at 5'	BH-17A	No stain no odor
8					1 ppm at 9'	Chem grab at 9'	BH17B	
10								
12	w/pebbles		10-15'	100%	1 ppm	Chem grab at 14'	BH-17C	No stain no odor
14								
16	15' End of boring							
18								
20								
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Jarrod Yearwood  
**PROJECT NO.:** 1803080      **Transcribed by:** Jody Richards





**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-18**

BORING LOCATION: See Site Map		TOTAL DEPTH: 21'	
DRILLING COMPANY: UNITED SCIENCE INDUSTRIES		DRILLER: Greg Liggett	
DRILLING SAMPLING/METHOD: GeoProbe 6600 w.1.5" x 5' & 4.25" Augers			
DATE/TIME STARTED: 9/27/2005 0910		DATE/TIME ENDED: 9/27/2005 1000	
GW DEPTH WHILE DRILLING: NA		AFTER DRILLING: NA	
TYPE OF BACKFILL: Cuttings			
LOGGED BY: Jarrod Yearwood		MONITORING EQUIP: PID Model 580B PID	

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Top soil							
2	Low recovery		0-5'	10%				Low Recovery
6	Brown & gray stiff silty clay  w/pebbles	CL	5-10'	100%	1500+ ppm	Chem grab at 5.5'	BH-18A	Slight stain moderate to strong odor
8					1050 ppm at 9'			
12			10-15'	100%	1313 ppm	Chem grab at 14.5'	BH-18B	Slight stain moderate to strong odor
18			15-20	100%	500 ppm	Chem grab at 19'	BH-18C	Slight stain slight odor
20			20-21					
22	21' End of boring - Probe Refusal - Bedrock							
24								
26								
28								

PROJECT NAME: Lemont Kar Gas	LOGGED BY: Jarrod Yearwood
PROJECT NO.: 1803080	Transcribed by: Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: BH-19

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 20'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & 4.25" Augers  
**DATE/TIME STARTED:** 9/27/2005 1010      **DATE/TIME ENDED:** 9/27/2005 1050  
**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Cuttings

**LOGGED BY:** Jarrod Yearwood      **MONITORING EQUIP:** PID Model 580B PID

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Top soil							
2	Rock chips		0-5'	65%	3 ppm at 4.5'			No odor no stain
4	Brown silty clay - stiff	CL						
8	Brown & gray w/pebbles		5-10'	100%	8 ppm	Chem grab at 8'	BH-19A	No odor no stain
12	stiff		10-15'	75%	32 ppm	Chem grab at 14'	BH-19B	Slight odor no stain
18	stiff w/pebbles		15-20'	75%	3 ppm	Chem grab at 19'	BH-19C	No odor no stain
20	20' End of boring							
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Jarrod Yearwood  
**PROJECT NO.:** 1803080      **Transcribed by:** Jody Richards



**UNITED SCIENCE INDUSTRIES, INC.**  
**DRILLING BOREHOLE LOG**

BOREHOLE NO: **BH-20**

**BORING LOCATION:** See Site Map      **TOTAL DEPTH:** 15'  
**DRILLING COMPANY:** UNITED SCIENCE INDUSTRIES      **DRILLER:** Greg Liggett  
**DRILLING SAMPLING/METHOD:** GeoProbe 6600 w.1.5" x 5' & Augers  
**DATE/TIME STARTED:** 11/10/2005 0850      **DATE/TIME ENDED:** 11/10/2005 0915  
**GW DEPTH WHILE DRILLING:** NA      **AFTER DRILLING:** NA      **TYPE OF BACKFILL:** Cuttings  
**LOGGED BY:** Jarrod Yearwood      **MONITORING EQUIP:** PID Mini Rae 2000

DEPTH (FEET)	SAMPLE DESCRIPTION	USCS CLASS	SAMPLE INTERVAL	% SAMPLE RECOVERY	PID READING	SAMPLE TYPE	SAMPLE NUMBER	REMARKS
0	Grass							
2	Brown stiff silty clay	CL	0-5'	75%	8 ppm	Chem grab at 4'	BH-20A	No odor no stain
6	w/gray		5-10'	80%	11 ppm	Chem grab at 8'	BH-20B	No odor no stain
14	gray w/pebbles		10-15'	100%	11 ppm	Chem grab at 14'	BH-20C	No odor no stain
16	15' End of boring							
18								
20								
22								
24								
26								
28								

**PROJECT NAME:** Lemont Kar Gas      **LOGGED BY:** Jarrod Yearwood  
**PROJECT NO.:** 1803080      **Transcribed by:** Jody Richards





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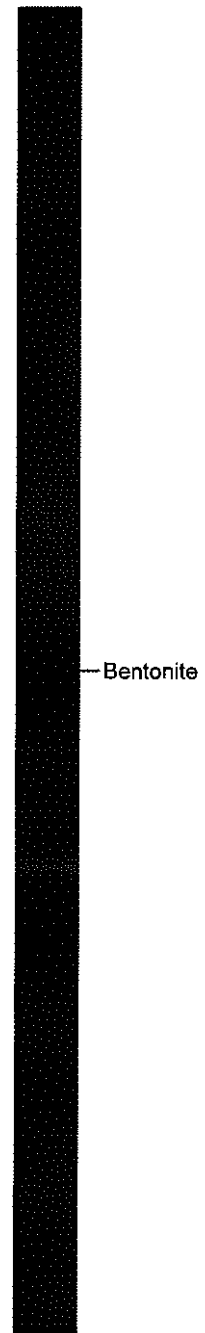
Lemont Kar Gas  
1196 State Street  
Lemont, IL 60439

**BH-21**

Date Started: 06/17/15  
Date Completed: 06/17/15  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Dual Tube

Surface Elevation: NM  
Total Depth: 30 ft.  
DTW While Drilling: None  
Logged By: Marcos Czako  
Project No.: 100037

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0							
0				Topsoil			
1				CLAY, tan trace sand, gravel, stiff, no odor			0.6
2							
3							
4							0.6
5				little gray silt, slight odor			
6							98.5
7				odor			
8							694.7
9							
10				some gravel			
11		CL					1,105
12				trace gravel			
13							570.2
14							
15				brown, some large gravel			
16							395.2
17							
18				very hard drilling 17.5 ft to 22.5 ft			
19							791.4
20				gravel seam from 19.5-19.7 ft			
21							208.4
22							
23		CL		CLAY, grayish-brown, trace silt, sand, and gravel, stiff, no odor, slightly moist			12.9
24							
25				SANDY SILT, gray, slightly stiff, slight odor, slightly moist			
26							143.8
27		SM					
28				no odor			
29							1.1
30				End of Boring			



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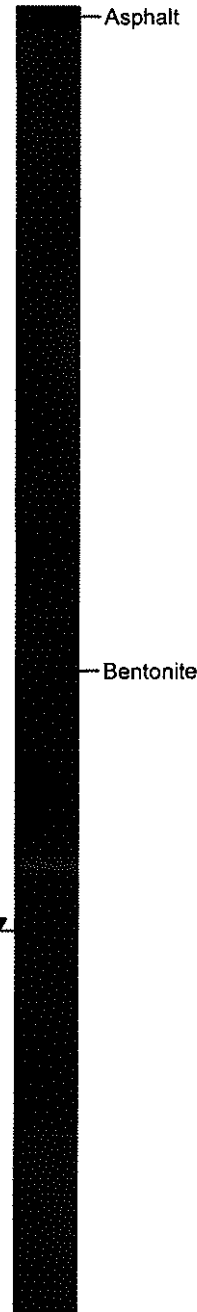
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Lemont, IL 60439

**BH-22**

Date Started: 09/08/15  
Date Completed: 09/08/15  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Dual Tube

Surface Elevation: NM  
Total Depth: 32 ft.  
DTW While Drilling: 22.75 ft.  
Logged By: Kyle Arney  
Project No.: 100037

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0				Asphalt			NA
1				Base Course			8.6
2				CLAY, tan to light brown, little silt, sand, and gravel, stiff, no odor, dry			5.2
3							9.4
4							10.6
5							9.3
6							140.4
7							9.8
8		CL					58.2
9							11.9
10				CLAY, brown, traces of silt, sand, and gravel, hard, no odor, slightly moist			10.7
11				-friable from 16-17 ft, dry			13.6
12				CLAY, olive, some sand, no odor, moist			819.9
13							747.5
14				CLAY, olive to brown, some sand, no odor, moist to very moist			636
15							224.4
16		CL					101.1
17				SILT, olive green, some clay, stiff, odor, very wet to saturated			
18				CLAY, olive gray, some silt, sand, and gravel, soft, very plastic, no odor, very wet			
19							
20							
21							
22							
23		SP					
24		ML					
25							
26							
27							
28				No recovery from 27 - 32 ft; 2 in. piece of limestone/dolomite in end of sampler.			NA
29							
30							
31							
32							
33				End of Boring			



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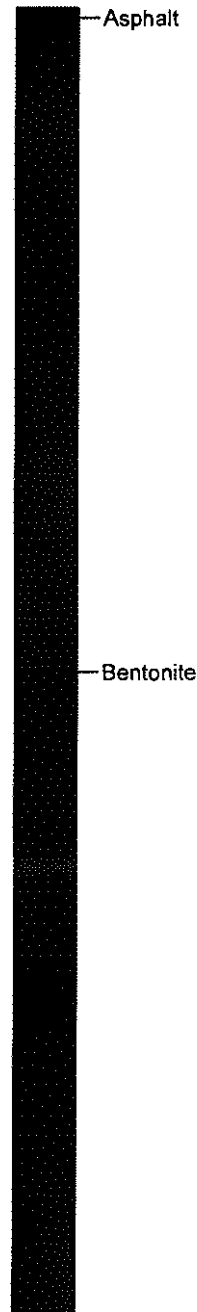
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Lemont, IL 60439

**BH-23**

Date Started: 09/08/15  
Date Completed: 09/08/15  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Dual Tube

Surface Elevation: NM  
Total Depth: 32 ft.  
DTW While Drilling: None  
Logged By: Kyle Arney  
Project No.: 100037

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0				Asphalt			
1				Base Coarse			NA
2		CL		CLAY, olive-brown mottled, traces of clay, silt, and sand, soft, no odor, moist			4.8
3							
4							
5		SP		SAND, brown, loose, some silt and fine gravel, weak odor, moist			5.3
6							
7		CL		CLAY, light brown to tan, little silt, sand, and clay, gray mottling, hard, moist			10.1
8							
9		CL/ML		SILTY CLAY, brown, little sand and gravel, medium stiff, no odor, moist			11.5
10		CL/SP		SANDY CLAY, brown, fine to very fine grained sand, no odor, soft, moist			12.5
11							
12				SAND, brown to gray, coarse grained, very dense, no odor, moist			21.2
13				CLAY, light brown, some silt, little sand and gravel, hard, no odor, moist			20.4
14							
15				little to trace coarse gravel, few isolated wet zones ~1-2 in. thick, no odor			13.3
16		CL					21.7
17							
18							
19				1 in. limestone fragment			21.6
20							
21				moist to wet			16.9
22							
23		CL		CLAY, gray, some silt, very stiff, slightly plastic, no odor, moist			21.3
24							
25				light brown from 24.8-25 ft			20.0
26		SP		SAND, brown to olive, grades from coarse to fine grained, some silt, strong odor, very wet			127.2
27		ML		SILT, olive green to tan, dense, odor, moist			
28		CL		SILTY CLAY to CLAY, olive green, little sand and gravel, soft, plastic, odor, very wet			27.4
29							
30							16.3
31		CL		CLAY, gray, some silt, trace sand and gravel, stiff, no odor, very wet			15.1
32				End of Boring			
33							



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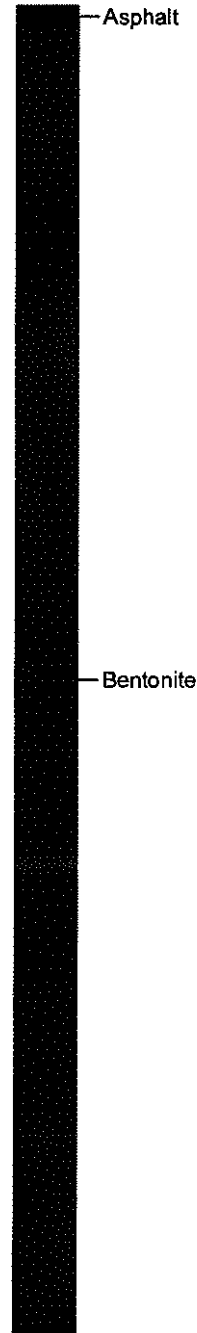
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**BH-24**

Date Started: 09/08/15  
Date Completed: 09/08/15  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Dual Tube

Surface Elevation: NM  
Total Depth: 30 ft.  
DTW While Drilling: None  
Logged By: Kyle Amey  
Project No.: 100037

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input checked="" type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0				Topsoil, silty clay, tan to light brown, no odor, dry			5.2
1				CLAY, tan to light brown, little sand, silt, and gravel, stiff, no odor, dry			6.4
2							6.8
3							
4		CL		odor, moist			
5							573.4
6							
7		CL/SP		SANDY CLAY, olive, little silt, trace gravel, dark gray staining, odor, very wet			390.2
8		ML		SILT, olive gray, little clay, trace sand, medium dense, weak odor, wet			460.2
9							
10							
11		CL		CLAY, brown, little silt, sand, and gravel, stiff, weak odor, moist			46.2
12							
13				CLAY, olive brown, little silt, sand, and gravel, stiff, no odor, moisty			33.8
14		CL					17.5
15							
16							10.5
17		CL		CLAY, gray, little silt, sand, and gravel, stiff, no odor, moist			13.7
18							
19				CLAY, brown and gray mottled, stiff, plastic, no odor, moist			13.7
20		CL					
21							14.2
22				CLAY, gray, little sand and gravel, stiff, plastic no odor, moist			15.3
23							
24		CL		soft, plastic, little coarse gravel, very moist to wet			10.6
25							16.4
26				No Recovery			NA
27							
28							
29		CL		CLAY, gray, little sand and gravel, soft, plastic, very moist to wet			10.9
30				End of Boring			



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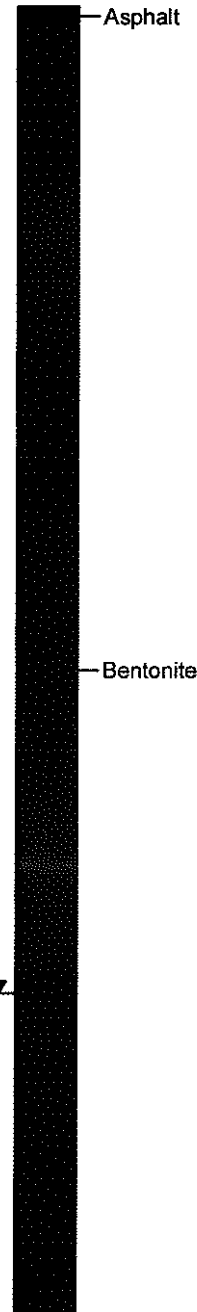
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Lemont, IL 60439

BH-21A

Date Started: 09/15/16  
Date Completed: 09/15/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 32.5 ft.  
DTW While Drilling: 24.5 ft.  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input checked="" type="checkbox"/> Analyzed by Lab	<input checked="" type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0				Topsoil, no odor, dry			NA
1				CLAY, brown, traces of silt, sand, and gravel, stiff, no odor, dry			12.7
2							
3				turning brittle			12.5
4							
5							
6							
7							15.9
8				turning very stiff, slightly moist, odor			
9							55.1
10		CL					
11							889.3
12							
13							879.1
14							
15							
16							959.1
17							
18							
19		CL-ML		SILTY CLAY, brown, no odor, slightly moist			373.9
20				turning sandy from 18.75 to 19 ft.			
21				CLAY, brownish-gray, traces of silt, sand, and gravel, very stiff, no odor, moist			103.2
22		CL					
23				turning stiff			42.8
24							
25		SM		SAND, Well Graded, brown, fine to large grained, traces of clay and silt, odor, saturated			1,041
26				SILT, brown, odor, saturated			114.3
27				SILTY, SANDY CLAY, no odor, stiff, swelling, sticky, moist			
28		CL-ML					10.6
29							
30							
31		CL		CLAY, brown, traces of silt, sand, and gravel, stiff, no odor, slightly swelling, moist			12.6
32							
33				End of boring.			



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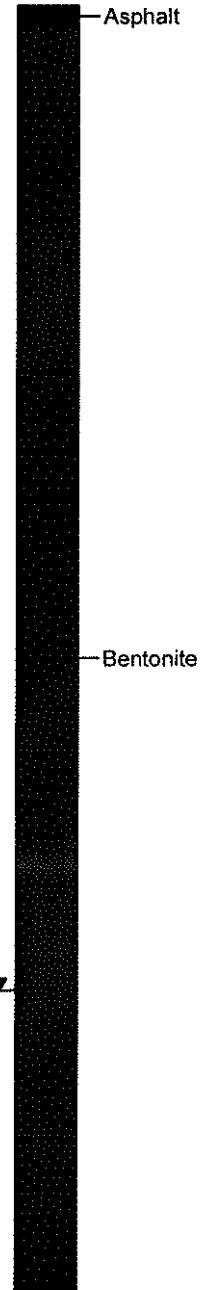
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1196 State Street  
Lemont, IL 60439

**BH-22A**

Date Started: 09/14/16  
Date Completed: 09/14/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 30 ft.  
DTW While Drilling: 23 ft.  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition		Water Levels		Sample No.	PID (ppm)
				Field Screened Only	Not Field Screened	Analyzed by Lab	During Drilling		
DESCRIPTION									
0				Asphalt					NA
1				Gravel fill material, no odor, dry					NA
2				CLAY, brown, traces of silt, sand, and gravel, very stiff, no odor, slightly moist					12.3
3				turning dry					
4									13.3
5									
6									13.4
7									
8									4.5
9									
10									
11									14.3
12		CL		increasing silt content from 13.75 to 15 ft.					
13									2.9
14									
15				some sand, turning stiff					42.3
16									
17									
18									11.5
19									
20									724.3
21									
22									
23		CL		turning gray, traces of silt, sand, and gravel, odor, moist					1,141
24		SM							
25		CL		SILT and SAND, gray, odor, saturated					367.1
26		SP		CLAY, gray, traces of silt, sand, and gravel, odor, moist					
27		CL		SAND, Poorly Graded, gray, fine to medium grained, some silt, strong odor, saturated					NA
28		SP		CLAY, gray, strong odor, saturated					
29		CL		SAND, Poorly Graded, gray, fine to medium grained, some silt, strong odor, saturated					NA
30				CLAY, gray, strong odor, saturated					
31				End of boring.					



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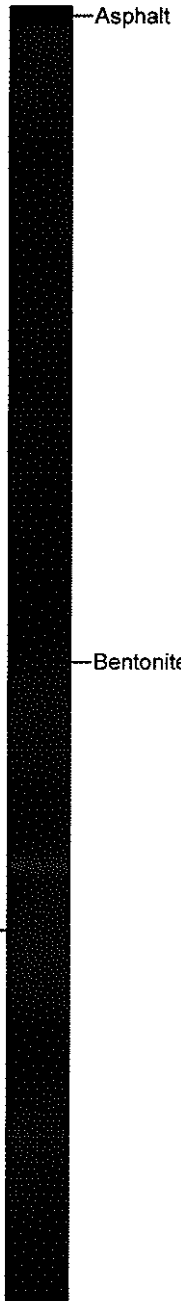
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Lemont, IL 60439

**BH-23A**

Date Started: 09/14/16  
Date Completed: 09/14/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 35 ft.  
DTW While Drilling: 25 ft.  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0							NA
1							NA
2		CL					14.4
3		CL					22.2
4		CL					20.5
5		SW					17.9
6		SW					16.0
7		SW					8.9
8		CL					15.8
9		CL					15.3
10		CL					17.6
11		CL					19.2
12		CL					17.9
13		CL					22.0
14		CL					14.8
15		CL-ML					16.0
16		CL					12.5
17		CL					11.4
18		CL					6.0
19		ML-CL					
20		ML-CL					
21		ML-CL					
22		ML					
23		CL-ML					
24		ML-CL					
25		SP					
26		CL					
27		ML-CL					
28		ML-CL					
29		ML-CL					
30		ML-CL					
31		ML-CL					
32		CL					
33		CL					
34		CL					
35		CL					
36							



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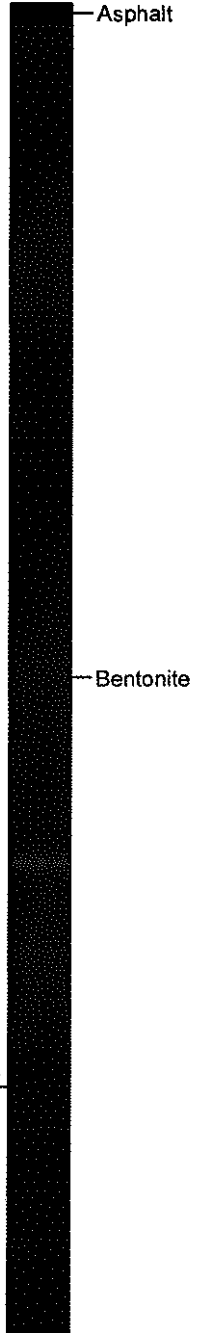
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**BH-25**

Date Started:	09/15/16	Surface Elevation:	NM
Date Completed:	09/15/16	Total Depth:	32.5 ft.
Boring Diameter:	2.25	DTW While Drilling:	26.5 ft.
Drilling Method:	Direct-push	Logged By:	Marcos Czako
Sampling Method:	Macro Core and Dual Tube	Project No.:	100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				☒ Field Screened Only ☐ Not Field Screened ■ Analyzed by Lab	▼ During Drilling ▽ After Completion		
DESCRIPTION							
0				Asphalt			NA
1				Gravel Fill Material, no odor, dry			NA
2				CLAY, brown, traces of silt, sand, and gravel, medium soft, no odor, slightly moist			6.0
3							8.7
4				turning stiff			8.2
5							10.0
6							7.9
7				turning dry and very stiff			7.2
8							8.1
9				turning moist			10.0
10							11.4
11							8.5
12		CL		turning stiff			4.8
13							10.4
14							7.3
15							8.7
16							
17							
18							
19							
20							
21							
22							
23							
24		ML-CL		CLAYEY SILT, brown, little sand, fine to medium grained, no odor, moist			
25		CL		CLAY, brown, traces of silt, sand, and gravel, stiff, no odor, moist			
26							
27		SP		SAND, Poorly Graded, brown, fine to medium grained, some silt, traces of clay and gravel, no odor, saturated			
28							
29		CL		CLAY, brownish-gray, swelling, traces of silt, sand, and gravel, no odor, moist			
30							
31		CL		turning gray			
32							
33				End of boring.			



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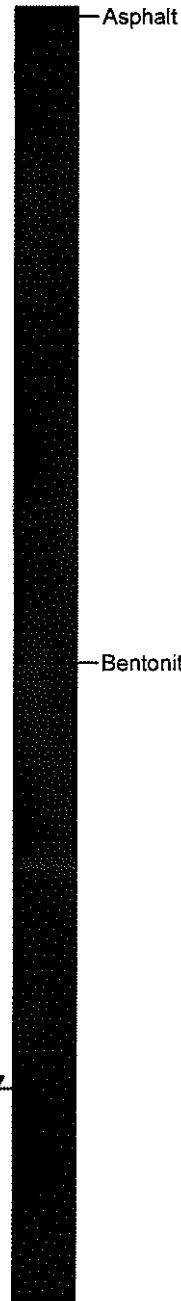
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**BH-26**

Date Started: 09/14/16  
Date Completed: 09/14/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 35 ft.  
DTW While Drilling: 29.25 ft.  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input checked="" type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0				Asphalt			NA
1				Gravel fill material, no odor, dry			NA
2		CL		CLAY, dark gray and olive green, traces of silt, sand, and gravel, odor, moist			12.3
3							
4		CL		turning brown, no odor			11.1
5							
6		CL		turning brown and gray, stiff, no odor, slightly moist			10.3
7							
8							
9				turning brown			11.8
10				turning very stiff			
11		CL					14.3
12							
13							
14							11.4
15				turning grayish brown, expanding			
16							6.0
17		CL					
18							
19							8.6
20				turning gray			
21							13.0
22				increasing moisture content from 22.25 to 22.5 ft.			
23							12.2
24		CL					
25							
26				increasing moisture content from 26.75 to 27.5 ft.			10.5
27							
28							16.5
29							
30		SC		CLAYEY SAND and GRAVEL, brown, no odor, saturated			13.7
31							3.9
32		SW		SAND, Well Graded, gray, no odor, saturated			
33							4.5
34		CL		CLAY, gray, no odor, saturated			
35							
36				End of boring.			



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2368 Corporate Ln., Ste. 116  
Naperville, IL 60563

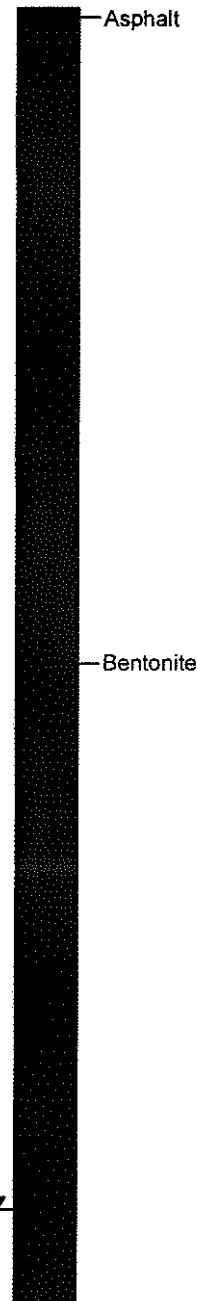
Lemont Kar Gas  
1196 State Street  
Lemont, IL 60439

BH-27

Date Started: 09/14/16  
Date Completed: 09/14/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 35 ft.  
DTW While Drilling: 32.5 ft.  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0				Asphalt			NA
1				Gravel fill material, no odor, dry			NA
2		CL		CLAY, brown and olive green, traces of silt, sand, and gravel, no odor, sticky, moist			5.9
3		CL		turning brown and not sticky			6.6
4							
5				CLAY, brown, traces of silt, stiff, no odor, slightly moist			3.9
6				traces of sand and gravel			6.7
7							
8		CL		very stiff			2.6
9							
10							
11							
12							
13							
14							
15				turning brownish-gray			6.8
16							
17		CL					10.4
18							
19							
20							
21		CL		CLAY, brown, traces of silt, sand, and gravel, very stiff, no odor, slightly moist			7.4
22							
23				turning brownish-gray			
24		CL					7.8
25		SP					
26		CL		SAND, Poorly Graded, brown, some clay and gravel, no odor, moist			7.9
27				CLAY, gray, medium stiff, no odor, pliable, moist			
28				turning brown and gray			
29		CL					11.0
30							
31		CL		CLAY, gray, traces of silt and sand, medium soft, no odor, moist			10.9
32							
33		GP		SAND and GRAVEL, gray, some clay, no odor, moist			
34		CL		CLAY, brown, traces of silt and gravel, stiff, no odor, saturated			7.0
35							
36				End of Boring			



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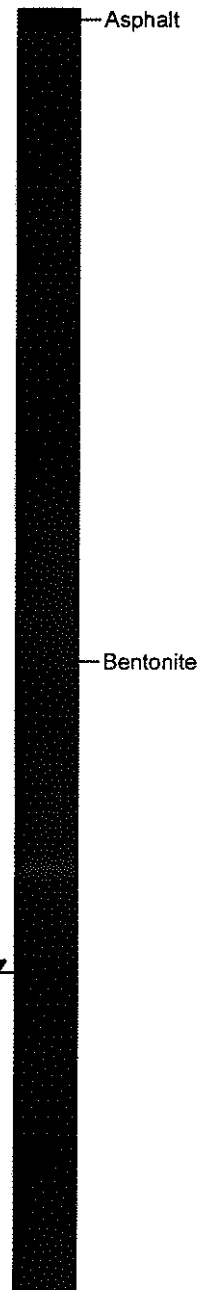
Lemont Kar Gas  
1196 State Street  
Lemont, IL 60439

BH-28

Date Started: 09/15/16  
Date Completed: 09/15/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 30 ft.  
DTW While Drilling: 22.5 ft.  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input checked="" type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input checked="" type="checkbox"/> After Completion		
DESCRIPTION							
0				Asphalt			NA
1				Gravel Fill Material, no odor, dry			NA
2				CLAY, dark gray, some silt, sand, and gravel, slight odor, slight sewer-like odor, slightly moist			10.3
3				turning brown, no odor			
4				trace sand			20.4
5				turning very stiff, dry			
6							15.8
7				traces of silt, sand, and gravel			
8							10.0
9							
10							
11							13.4
12		CL		odor			
13							336.4
14							
15				turning medium stiff, dark gray and black staining, odor from 15 to 17 ft., 1 dime-sized sand pocket with black staining, odor			396.2
16							
17				turning stiff, amount of dark gray and black staining is decreasing			
18							258.1
19							
20							758.3
21							
22							
23		SC ML		CLAYEY SAND, dark gray and black, strong odor, moist			68.0
24		CL-ML		SILT, brown, slight odor, saturated			14.6
25				SILTY, SANDY CLAY, brown, traces of gravel, medium stiff, no odor, moist			
26		CL-ML		turning brownish-gray			12.3
27							
28				turning gray, very moist to saturated			
29		CL-ML		turning moist			8.4
30				End of boring.			
31							



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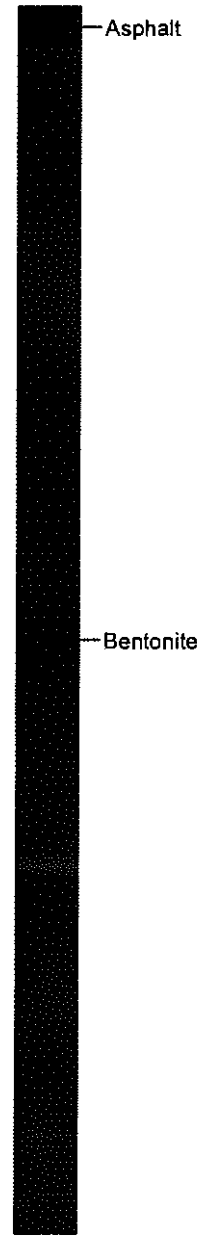
2368 Corporate Ln., Ste. 116  
Naperville, IL 60563

Lemont Kar Gas  
1196 State Street  
Lemont, IL 60439

**BH-29**

Date Started:	09/15/16	Surface Elevation:	NM
Date Completed:	09/15/16	Total Depth:	15 ft.
Boring Diameter:	2.25	DTW While Drilling:	Not Observed
Drilling Method:	Direct-push	Logged By:	Marcos Czako
Sampling Method:	Macro Core and Dual Tube	Project No.:	100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0							NA
0							NA
1							8.0
2		CL					12.0
3							9.8
4							11.0
5		CL-ML					
6							
7							
8							
9							
10							
11							
12							NA
13							
14							
15							
16							



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Naperville, IL 60563

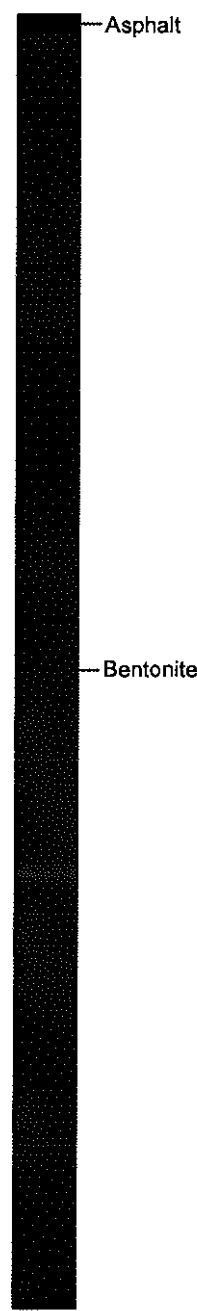
Lemont Kar Gas  
1196 State Street  
Lemont, IL 60439

**BH-29A**

Date Started: 09/15/16  
Date Completed: 09/15/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 35 ft.  
DTW While Drilling: Not Observed  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input checked="" type="checkbox"/> Analyzed by Lab	<input checked="" type="checkbox"/> During Drilling <input checked="" type="checkbox"/> After Completion		
DESCRIPTION							
0							
1							
2							
3							
4							
5							NA
6							
7							
8							
9							
10							
11		CL		CLAY, brown, traces of silt, sand, and gravel, stiff, no odor, slightly moist			8.8
12	little gray silt from 12.5 to 15 ft.						
13							
14							
15							
16							
17							
18							6.4
19							
20				turning medium stiff			
21							
22							8.6
23		CL-ML		SILTY, SANDY CLAY, brown, little dark gray staining, soft, slight odor, moist			22.0
24							
25		CL-ML			turning brownish-gray, medium soft, no odor, increasing moisture content		
26				turning gray, swelling			
27							
28							10.6
29							
30		CL-ML		turning stiff			
31							8.3
32							
33							9.4
34							
35							
36				End of boring.			



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2368 Corporate Ln., Ste. 116  
Naperville, IL 60563

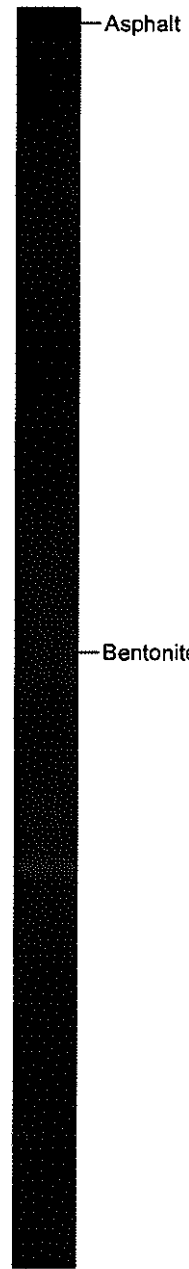
Lemont Kar Gas  
1196 State Street  
Lemont, IL 60439

**BH-30**

Date Started: 09/26/16  
Date Completed: 09/26/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 21 ft.  
DTW While Drilling: Not Observed  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0				Grass and topsoil			NA
1		CL-ML		SILTY, SANDY CLAY, brown, traces of gravel, brittle, no odor, dry			0.0
2				CLAY, brown, traces of silt, sand, and gravel, brittle, no odor, dry			
3		CL					0.4
4							
5				SILTY CLAY, dark brown, no odor, moist			
6		CL-ML					1.4
7		CL		CLAY, dark brown, traces of silt, sand, and gravel, no odor, moist			
8				turning gray and brown, stiff, no odor, slightly moist			1.7
9							
10				turning plyable and medium soft			
11							0.0
12		CL		turning very stiff, slightly moist			
13							0.0
14							
15				traces of silt, sand, and gravel, very stiff, no odor, moist			1.3
16							
17							
18				turning gray, slightly moist			0.7
19		CL					
20							NA
21				End of boring.			
22							



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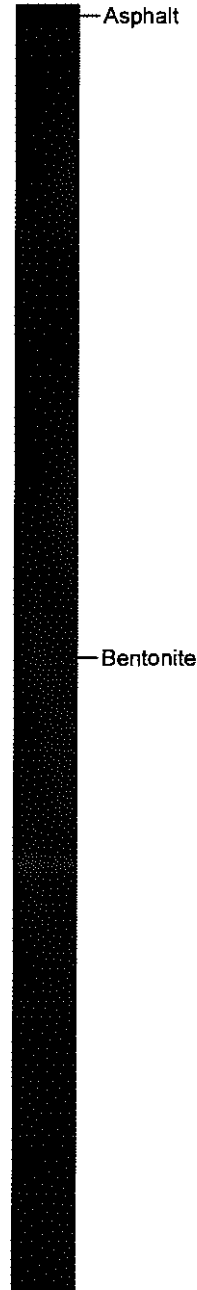
Lemont Kar Gas  
1196 State Street  
Lemont, IL 60439

**BH-30A**

Date Started: 09/26/16  
Date Completed: 09/26/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 30 ft.  
DTW While Drilling: Not Observed  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0				See BH-30 soil boring log for details.			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							NA
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21		CL-ML		SILTY CLAY, gray and brown, little sand, traces of gravel, swelling, medium stiff, no odor, moist			0.9
22							
23							
24							
25							
26		CL-ML		SILTY, SANDY CLAY, gray, traces of gravel, swelling and plyable, medium soft, no odor, moist			1.4
27				decreasing silt and sand content, stiff,			
28				1 to 2 pinhead-sized very moist pockets			0.0
29							
30							
31				End of boring.			



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Naperville, IL 60563

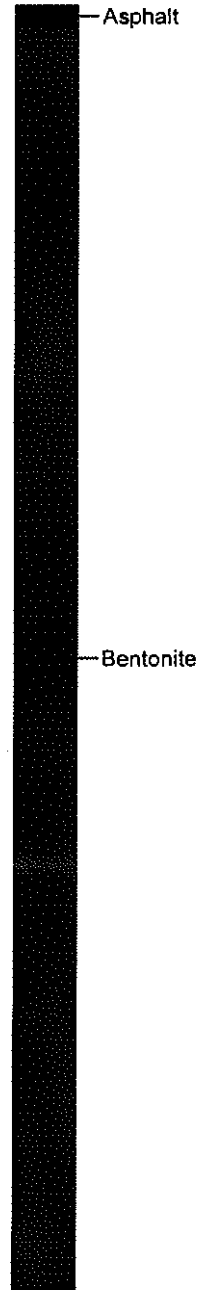
Lemont Kar Gas  
1196 State Street  
Lemont, IL 60439

**BH-31**

Date Started: 09/26/16  
Date Completed: 09/26/16  
Boring Diameter: 2.25  
Drilling Method: Direct-push  
Sampling Method: Macro Core and Dual Tube

Surface Elevation: NM  
Total Depth: 30 ft.  
DTW While Drilling: Not Observed  
Logged By: Marcos Czako  
Project No.: 100137

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	Sample Condition	Water Levels	Sample No.	PID (ppm)
				<input checked="" type="checkbox"/> Field Screened Only <input type="checkbox"/> Not Field Screened <input type="checkbox"/> Analyzed by Lab	<input checked="" type="checkbox"/> During Drilling <input type="checkbox"/> After Completion		
DESCRIPTION							
0							NA
0-1							
1							0.2
1-2							
2		CL-ML					
2-3							2.3
3							
3-5							
5		CL-ML					
5-6							
6		CL					4.7
6-7							
7		CL					
7-9							
9		CL					1.6
9-11							
11							1.4
11-12							
12							
12-13							
13							
13-14							
14		CL					1.9
14-15							
15							2.3
15-16							
16							
16-17							
17							
17-18							
18		CL					2.1
18-19							
19							
19-20							
20							
20-21							
21							
21-22							
22							
22-23							
23							
23-24							
24		CL-ML					2.3
24-25							
25							
25-26							
26							
26-27							
27							
27-28							
28		ML-CL					1.4
28-29							
29							
29-30							
30							
30-31							
31							



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**APPENDIX D**  
**STAGE 3 SITE INVESTIGATION BUDGET**



1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

### General Information for the Budget and Billing Forms

LPC #: 0314625010 County: \_\_\_\_\_ **Cook**

City: Lemont Site Name: Lemont Kar Gas/BOI, LLC

Site Address: 1196 State Street

Date this form was prepared: Oct 22, 2019

List all IEMA Incident numbers associated with this package:

20141348

List all other incidents associated with this site that are not associated with this package:

\_\_\_\_\_

This form is being submitted as a (check one, if applicable):

- Billing Package
- Budget Amendment (Budget amendments must include only the costs over the previous budget.)
- Budget Proposal

Please provide the name(s) and date(s) of report(s) documenting the costs requested:

Name(s): \_\_\_\_\_

Date(s): \_\_\_\_\_

This package is being submitted for the site activities indicated below:

**35 Ill. Adm. Code 734:**

- Early Action
- Free Product Removal after Early Action
- Site Investigation . . . . . Stage 1:  Stage 2:  Stage 3:
- Corrective Action

**35 Ill. Adm. Code 732:**

- Early Action
- Free Product Removal after Early Action
- Site Classification
- Low Priority Corrective Action
- High Priority Corrective Action

**35 Ill. Adm. Code 731:**

- Site Investigation
- Corrective Action

**Electronic Filing: Received, Clerk's Office 03/23/2021  
General Information for the Budget and Billing Forms**

The following address will be used as the mailing address for checks and any final determination letters regarding payment from the Fund for this package.

Pay to the order of: BOI, LLC

Send in care of: Shawn Rodeck

Address: P.O. Box 825

City: Warrenville

State: IL

Zip: 60555-0825

The payee is the: Owner  Operator  (Check one or both.)



10/22/2019  
Date

Signature of the owner or operator of the UST(s) (required)

W-9 must be submitted.  
[Click here to print off a W-9 Form.](#)

Steve Broadus

Printed name of the owner or operator of the UST(s) (required)

Email: steve.broadusoil@frontier.com

Number of petroleum USTs in Illinois presently owned or operated by the owner or operator; any subsidiary, parent or joint stock company of the owner or operator; and any company owned by any parent, subsidiary or joint stock company of the owner or operator:

Fewer than 101:  101 or more:

Please list all tanks that have ever been located at the site and tanks that are presently located at the site.

Product Stored in UST	Size (gallons)	Did UST have a release?		Incident No.	Type of Release Tank Leak / Overfill / Piping Leak
Gasoline	6,000	Yes <input checked="" type="radio"/>	No <input type="radio"/>	942117	Overfill
(same UST as above)	6,000	Yes <input checked="" type="radio"/>	No <input type="radio"/>	20141348	Overfill
Gasoline	3,000	Yes <input checked="" type="radio"/>	No <input type="radio"/>	942117	Overfill
(same UST as above)	3,000	Yes <input checked="" type="radio"/>	No <input type="radio"/>	20141348	Overfill
Gasoline	3,000	Yes <input checked="" type="radio"/>	No <input type="radio"/>	942117	Overfill
Diesel Fuel (same UST as above)	3,000	Yes <input checked="" type="radio"/>	No <input type="radio"/>	20141348	Overfill
Heating Oil	550	Yes <input type="radio"/>	No <input checked="" type="radio"/>	NA	
Used Oil	300	Yes <input type="radio"/>	No <input checked="" type="radio"/>	NA	

**Budget Summary**

Choose the applicable regulation:  734  732

<b>734</b>	Free Product	Stage 1 Site Investigation	Stage 2 Site Investigation	Stage 3 Site Investigation	Corrective Action
				Proposed	
Drilling and Monitoring Well Costs Form	\$	\$	\$	\$ .00	\$
Analytical Costs Form	\$	\$	\$	\$ 4,650.00	\$
Remediation and Disposal Costs Form	\$	\$	\$	\$ .00	\$
UST Removal and Abandonment Costs Form	\$	\$	\$	\$ .00	\$
Paving, Demolition, and Well Abandonment Costs Form	\$	\$	\$	\$ .00	\$
Consulting Personnel Costs Form	\$	\$	\$	\$ 6,849.28	\$
Consultant's Materials Costs Form	\$	\$	\$	\$ 24.00	\$
Handling Charges Form	Handling charges will be determined at the time a billing package is submitted to the Illinois EPA. The amount of allowable handling charges will be determined in accordance with the Handling Charges Form.				
<b>Total</b>	\$	\$	\$	\$ 11,523.28	\$

**Analytical Costs Form**

Laboratory Analysis	Number of Samples		Cost (\$) per Analysis		Total per Parameter
<b>Chemical Analysis</b>					
BETX Soil with MTBE EPA 8260		X		=	
BETX Water with MTBE EPA 8260		X		=	
COD (Chemical Oxygen Demand)		X		=	
Corrosivity		X		=	
Flash Point or Ignitability Analysis EPA 1010		X		=	
Fraction Organic Carbon Content (f <sub>OC</sub> ) ASTM-D 2974-00		X		=	
Fat, Oil, & Grease (FOG)		X		=	
LUST Pollutants Soil - analysis must include volatile, base/neutral, polynuclear aromatics and metals list in Section 732. Appendix B and 734. Appendix B		X		=	
Dissolved Oxygen (DO)		X		=	
Paint Filter (Free Liquids)		X		=	
PCB / Pesticides (combination)		X		=	
PCBs		X		=	
Pesticides		X		=	
pH		X		=	
Phenol		X		=	
Polynuclear Aromatics PNA, or PAH SOIL EPA 8270	62	X	75.00	=	\$4,650.00
Polynuclear Aromatics PNA, or PAH WATER EPA 8270		X		=	
Reactivity		X		=	
SVOC - Soil (Semi-Volatile Organic Compounds)		X		=	
SVOC - Water (Semi-Volatile Organic Compounds)		X		=	
TKN (Total Kjeldahl) "nitrogen"		X		=	
TPH (Total Petroleum Hydrocarbons)		X		=	
VOC (Volatile Organic Compounds) - Soil (Non-Aqueous)		X		=	
VOC (Volatile Organic Compounds) - Water		X		=	
		X		=	
		X		=	
		X		=	
		X		=	
		X		=	
<b>Geo-Technical Analysis</b>					
Soil Bulk Density (ρ <sub>b</sub> ) ASTM D2937-94		X		=	
Ex-situ Hydraulic Conductivity / Permeability		X		=	
Moisture Content (w) ASTM D2216-92 / D4643-93		X		=	
Porosity		X		=	
Rock Hydraulic Conductivity Ex-situ		X		=	
Sieve / Particle Size Analysis ASTM D422-63 / D1140-54		X		=	
Soil Classification ASTM D2488-90 / D2487-90		X		=	
Soil Particle Density (ρ <sub>s</sub> ) ASTM D854-92		X		=	
		X		=	
		X		=	
		X		=	



**Analytical Costs Form**

<b>Metals Analysis</b>					
Soil preparation fee for Metals TCLP Soil (one fee per soil sample)		X		=	
Soil preparation fee for Metals Total Soil (one fee per soil sample)		X		=	
Water preparation fee for Metals Water (one fee per water sample)		X		=	
Arsenic TCLP Soil		X		=	
Arsenic Total Soil		X		=	
Arsenic Water		X		=	
Barium TCLP Soil		X		=	
Barium Total Soil		X		=	
Barium Water		X		=	
Cadmium TCLP Soil		X		=	
Cadmium Total Soil		X		=	
Cadmium Water		X		=	
Chromium TCLP Soil		X		=	
Chromium Total Soil		X		=	
Chromium Water		X		=	
Cyanide TCLP Soil		X		=	
Cyanide Total Soil		X		=	
Cyanide Water		X		=	
Iron TCLP Soil		X		=	
Iron Total Soil		X		=	
Iron Water		X		=	
Lead TCLP Soil		X		=	
Lead Total Soil		X		=	
Lead Water		X		=	
Mercury TCLP Soil		X		=	
Mercury Total Soil		X		=	
Mercury Water		X		=	
Selenium TCLP Soil		X		=	
Selenium Total Soil		X		=	
Selenium Water		X		=	
Silver TCLP Soil		X		=	
Silver Total Soil		X		=	
Silver Water		X		=	
Metals TCLP Soil (a combination of all metals) RCRA		X		=	
Metals Total Soil (a combination of all metals) RCRA		X		=	
Metals Water (a combination of all metals) RCRA		X		=	
		X		=	
Terra Core		X		=	
Ice		X		=	
		X		=	
<b>Other</b>					
EnCore® Sampler, purge-and-trap sampler, or equivalent sampling device		X		=	
Sample Shipping per sampling event <sup>1</sup>		X		=	

<sup>1</sup>A sampling event, at a minimum, is all samples (soil and groundwater) collected in a calendar day.**Total Analytical Costs: \$ 4,650.00**

A.R. 001341

**Consulting Personnel Costs Form**

Employee Name		Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category	Task				
Marcos Czako	Senior Project Manager	33.00	131.51	\$4,339.83	
SICR	Preparation of the SICR				
Meyer Design	Senior Draftperson/CAD	5.00	78.90	\$394.50	
SICR	Preparation of the figures and cross section for the SICR				
Marcos Czako	Senior Project Manager	3.00	131.51	\$394.53	
Stage 3-Budget	Preparation of the Stage 3 Site Investigation Budget				
Shawn Rodeck	Senior Prof. Engineer	3.00	170.97	\$512.91	
SICR	Review and certification of the SICR				
Shawn Rodeck	Senior Prof. Engineer	1.00	170.97	\$170.97	
Stage 3-Budget	Review and certification of the Stage 3 Site Investigation Budget				
Kimberly Henkel	Senior Admin. Assistant	2.00	58.02	\$116.04	
SICR	Preparation, copying, and mailing of the SICR				
Kimberly Henkel	Senior Acct. Technician	8.00	72.32	\$578.56	
Stage 3-Pay	Preparation of a reimbursement claim				
Shawn Rodeck	Senior Prof. Engineer	2.00	170.97	\$341.94	
Stage 3-Pay	Review and certification of a reimbursement claim				

\*Refer to the applicable Maximum Payment Amounts document.

<b>Total of Consulting Personnel Costs</b>	<b>\$6,849.28</b>
--	-------------------

**Consultant's Materials Costs Form**

Materials, Equipment, or Field Purchase	Time or Amount Used	Rate (\$)	Unit	Total Cost
Remediation Category	Description/Justification			
SICR Shipping	1.00	12.00	SICR	\$12.00
SICR	Shipping of the SICR			
Reimbursement Claim Shipping	1.00	12.00	claim	\$12.00
Stage 3-Pay	Shipping of a reimbursement claim			

<b>Total of Consultant Materials Costs</b>	<b>\$24.00</b>
--	----------------

**APPENDIX E**

**OWNER/OPERATOR AND LICENSED PROFESSIONAL  
ENGINEER/GEOLOGIST BUDGET CERTIFICATION FORM**

### Owner/Operator and Licensed Professional Engineer/Geologist Budget Certification Form

I hereby certify that I intend to seek payment from the UST Fund for costs incurred while performing corrective action activities for Leaking UST incident 20141348. I further certify that the costs set forth in this budget are for necessary activities and are reasonable and accurate to the best of my knowledge and belief. I also certify that the costs included in this budget are not for corrective action in excess of the minimum requirements of 415 ILCS 5/57, no costs are included in this budget that are not described in the corrective action plan, and no costs exceed Subpart H: Maximum Payment Amounts, Appendix D Sample Handling and Analysis amounts, and Appendix E Personnel Titles and Rates of 35 Ill. Adm. Code 732 or 734. I further certify that costs ineligible for payment from the Fund pursuant to 35 Ill. Adm. Code 732.606 or 734.630 are not included in the budget proposal or amendment. Such ineligible costs include but are not limited to:

- Costs associated with ineligible tanks.
- Costs associated with site restoration (e.g., pump islands, canopies).
- Costs associated with utility replacement (e.g., sewers, electrical, telephone, etc.).
- Costs incurred prior to IEMA notification.
- Costs associated with planned tank pulls.
- Legal fees or costs.
- Costs incurred prior to July 28, 1989.
- Costs associated with installation of new USTs or the repair of existing USTs.

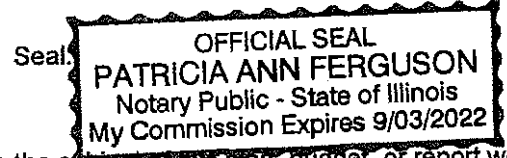
Owner/Operator: BOI, LLC

Authorized Representative: Steve Broadus Title: Owner

Signature: [Signature] Date: 10/22/2019

Subscribed and sworn to before me the 22nd day of October, 2019.

[Signature]  
(Notary Public)



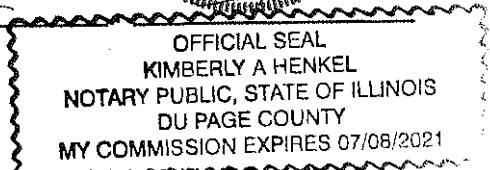
In addition, I certify under penalty of law that all activities that are the subject of this plan, budget, or report were conducted under my supervision or were conducted under the supervision of another Licensed Professional Engineer or Licensed Professional Geologist and reviewed by me; that this plan, budget, or report and all attachments were prepared under my supervision; that, to the best of my knowledge and belief, the work described in the plan, budget, or report has been completed in accordance with the Environmental Protection Act [415 ILCS 5], 35 Ill. Adm. Code 732 or 734, and generally accepted standards and practices of my profession; and that the information presented is accurate and complete. I am aware there are significant penalties for submitting false state health or representations to the Illinois EPA, including but not limited to fines, imprisonment, or both as provided in Sections 44 and 47 of the Environmental Protection Act [415 ILCS 5/44 and 57.17].

L.P.E./L.P.G.: Shawn Rodeck L.P.E./L.P.G. Seal: [Seal]

L.P.E./L.P.G. Signature: [Signature] Date: 10/25/19

Subscribed and sworn to before me the 25 day of October

[Signature]  
(Notary Public)



The Illinois EPA is authorized to require this information under 415 ILCS 5/1. Disclosure of this information is required. Failure to do so may result in the delay or denial of any budget or payment requested hereunder.

**APPENDIX F**

**OSFM ELIGIBILITY AND DEDUCTIBLE DETERMINATION LETTER**



## State Fire Marshal

*"Partnering With the Fire Service to Protect Illinois"*

CERTIFIED MAIL - RECEIPT REQUESTED #7014 1820 0001 3148 4323

April 8, 2015

BOI, LLC  
201 Danny's Dr., Suite 5  
Streator, IL 61364

In Re: Facility No. 2-022271  
IEMA Incident No. 14-1348  
Lemont Village Gas, LLC  
1196 State Street  
Lemont, Cook Co., IL

Dear Applicant:

The Reimbursement Eligibility and Deductible Application received on February 17, 2015 for the above referenced occurrence has been reviewed. The following determinations have been made based upon this review.

It has been determined that you are eligible to seek payment of costs in excess of \$5,000. The costs must be in response to the occurrence referenced above and associated with the following tanks:

#### Eligible Tanks

Tank 1 6,000 gallon Gasoline  
Tank 2 3,000 gallon Gasoline  
Tank 3 3,000 gallon Diesel Fuel

You must contact the Illinois Environmental Protection Agency to receive a packet of Agency billing forms for submitting your request for payment.

An owner or operator is eligible to access the Underground Storage Tank Fund if the eligibility requirements are satisfied:

1. Neither the owner nor the operator is the United States Government,
2. The tank does not contain fuel which is exempt from the Motor Fuel Tax Law,
3. The costs were incurred as a result of a confirmed release of any of the following substances:

"Fuel", as defined in Section 1.19 of the Motor Fuel Tax Law

Aviation fuel

Heating oil

Electronic Filing: Received, Clerk's Office 03/23/2021

Kerosene

Used oil, which has been refined from crude oil used in a motor vehicle, as defined in Section 1.3 of the Motor Fuel Tax Law.

4. The owner or operator registered the tank and paid all fees in accordance with the statutory and regulatory requirements of the Gasoline Storage Act.
5. The owner or operator notified the Illinois Emergency Management Agency of a confirmed release, the costs were incurred after the notification and the costs were a result of a release of a substance listed in this Section. Costs of corrective action or indemnification incurred before providing that notification shall not be eligible for payment.
6. The costs have not already been paid to the owner or operator under a private insurance policy, other written agreement, or court order.
7. The costs were associated with "corrective action".

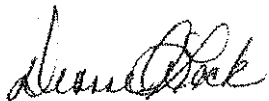
This constitutes the final decision as it relates to your eligibility and deductibility. We reserve the right to change the deductible determination should additional information that would change the determination become available. An underground storage tank owner or operator may appeal the decision to the Illinois Pollution Control Board (Board), pursuant to Section 57.9 (c) (2). An owner or operator who seeks to appeal the decision shall file a petition for a hearing before the Board within 35 days of the date of mailing of the final decision, (35 Illinois Administrative Code 105.504(b)).

For information regarding the filing of an appeal, please contact:

Clerk  
Illinois Pollution Control Board  
State of Illinois Center  
100 West Randolph, Suite 11-500  
Chicago, Illinois 60601  
(312) 814-3620

If you have any questions, please contact our Office at (217) 785-1020 or (217) 785-5878.

Sincerely,



Deanne Lock  
Administrative Assistant  
Division of Petroleum and Chemical Safety

cc: IEPA  
TriCore Environmental, LLC



**APPENDIX G**

**POTABLE WATER SUPPLY WELL INFORMATION**



*Illinois*

Environmental Protection Agency

## Source Water Assessment Program Factsheets

<b>Select Water System Type</b>
Community <input type="checkbox"/>
<b>Select County</b>
Cook <input type="checkbox"/>
<input type="text" value="Search County"/>
-- Or --
<b>Enter any part of a Facility Name</b>
Lemont
<input type="text" value="Search Facility Name"/>
<b>Search Results</b>
LEMONT <input type="checkbox"/>
<input type="text" value="Select Water System"/>

To view a summary version of the completed Source Water Assessments, you may search our records by county or public water supply name. This summary information describes pertinent sub-sections of each completed assessment including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts. However, summaries of Source Water Protection Efforts have not been documented for non-community water supplies. It should be noted that these Source Water Assessment summaries are presented in strict compliance with Illinois EPA's security policy on the release of sensitive information. Therefore, all locational data and maps pertaining to wells, aquifers and/or surface water intakes have been removed. To obtain a complete version of the Source Water Assessment Report, please contact your local water supply officials.

**Water Percentages:**

Surface Water %	Surface Water Purchase %	Ground Water %	Ground Water Purchase %	Ground Water UDI %	Ground Water UDI Purchase %
0.00	0.00	100.00	0.00	0.00	0.00

**Importance Of Source Water:**

The Village of Lemont (Facility Number 0311620) utilizes four active community water supply wells, well #2 (IEPA #20604), well #3 (IEPA #20605), well #4 (IEPA #20606), and well #5 (IEPA # 01101). The facility distributes 1,142,000 gallons per day on average to an estimated population of 11,300 at 3,800 service connections.

**Well Data For This Facility:**

Well ID	Well Description	Status	Depth	Minimum Setback	Pumpage	Aquifer Code	Aquifer Description	Max Zone
WL01101	WELL 5 (01101)	A	1675.00	200	0	8787	Deep Bedrock	0
WL01587	WELL 6 (01587)	A	1665.00	200			Deep Bedrock	0
WL20604	WELL 2 (20604) EMERGENCY	A	241.00	200	41710000	5656	Shallow Bedrock	0
WL20605	WELL 3 (20605)	A	1723.00	200	186528000	6080	Deep Bedrock	0
WL20606	WELL 4 (20606)	A	1658.00	200	232727000	6080	Deep Bedrock	0

**Intake Details:**

No Data

**Source Water Quality:**

Lemont Well #2 was sampled as part of the Statewide Groundwater Monitoring Network on November 12, 1985, and Wells #3 and #4 were sampled on July 17, 1987. The well samples were analyzed for volatile organic compounds (VOC) and inorganic chemicals (IOC). Well #5 was sampled by the Illinois EPA on August 4, 1999 as part of a "new" well monitoring program. On this occasion, samples were collected from the well and were analyzed for IOC and VOC. Review of the VOC analyses did not indicate quantifiable levels of organic compounds. Review of the IOC data for both wells indicated that the parameters are consistent with those of other wells utilizing similar bedrock aquifers in Illinois. It should also be noted that the IOC results were consistent among all of Lemont's wells and all results were below the groundwater quality standards established under 35 Illinois Administrative Code Part 620.410.

**Finished Water Quality:**

Finished water quality data tables of monitored parameters, contaminants detected, health advisory information, drinking water standards or maximum contaminant levels are available at <http://www.epa.gov/ogwdw/>. A review of this information does not indicate levels of organic or inorganic compounds which exceed the drinking water quality standards.

## Potential Sources Of Contamination:

The sites labeled on the Wellhead Protection Planning Map are considered "potential" sources of contamination due to the nature of their activity, the availability of data in electronic databases, and their geographic proximity to the source water protection area. In addition, the Illinois EPA made use of the information from the Illinois EPA leaking underground storage tank database (<http://ust.epa.state.il.us/search.asp>) and site remediation program database (<http://srp.epa.state.il.us/search.asp>) to further assess potential sources of contamination to the community's source water. These databases include information from the Illinois EPA Division of Land Pollution Control (LPC) and the Illinois Emergency Management Agency (IEMA). The following is a list of facilities contained within these databases.

IEMA#	LPC#	Name-Address
20002164	N.A.	Amoco Oil #240334 Southeast Comer of Rt. 83 & Archer Ave. Lemont 60439
851002	N.A.	UNK 411 Talcott Ave. Lemont NA
891845	0434625013	Homerding, Gene Rt. 7 Lemont Rd. Lemont 60439
892593	0311625064	Trust of Rosebloom Walker & McCarthy Lemont 60439
901309	0311620027	Northeast Ill. Railroad 100 State St. Lemont 60439
901690	0311620022	Amoco Oil Co. #18857 1032 State St. Lemont 60439
902972	0311625016	Union Chemical Co. Main & Maley Lemont 60439
903239	1978030004	Uno-ven 135th St. & New Ave. Lemont 60439
903600	1978030004	Uno-ven 135th St. & New Ave. Lemont 60439
911330	0311625063	Steger Automotive 500 Main St. Lemont 60439
911590	0311625042	Enron Liquid Pipeline Co. 1240 Smith Rd. Lemont 60439
912706	1978030004	Uno-ven 135th St. & New Ave. Lemont 60439
913087	1978030004	Uno-ven Co. 135th St. & New Ave. Lemont 60439
913658	0311625066	Cardor Inc. 115 Archer Ave. Lemont 60439
913675	0434625016	U.S. Army Corps pf Engineers 91 St & Cass Ave. Lemont 60439
922066	0434625017	Lemont-Bromerek Combined School Dist. 109th St. & Davey Rd. Lemont 60439-2286
922208	1978030004	Uno-ven 135th St. & New Ave. Lemont 60439
923492	0311625076	Holy Family Villa 123rd & Bell Ave. Lemont 60439
923697	0311625074	AT&T 127th St. near State St. Lemont 60439
930449	0311620007	Heritage Env. Science Canal Bank Rd. Northeast Lemont 60439
940363	0314625007	Mt. Assisi Convent 13900 Main St. Lemont 60439
941766	0314625009	U.S. Army Corps pf Engineers Cass Rd. & I-55 Lemont 60439
942117	0314625010	Citgo 127th & 1196 State St. Lemont 60439
942543	0311620016	Primms Perlman Rocque 16100 West 103rd St. Lemont 60439
950576	1978030008	Austeal/Lemont Inc. New Ave. at Ceco Rd. Lemont 60439
951868	0314625016	Arnold, Joyce 12300 South Archer Lemont 60439
952417	0314625002	Cog Hill Country Club 12294 Archer Lemont 60439
960038	0314623002	Theodore Groski & Sons 46 State St. Lemont 60439
961335	0314625024	Lemont Park Dist. 16028 127th St. Lemont 60439
961864	0314625026	Lemont High School #210 800 Porter St. Lemont 60439
962037	0311625063	Steger Automotive 500 Main St. Lemont 60439
962265	0314625025	Mt. Vernon Memorial Estates 119th & Archer Ave. Lemont 60439
972137	0314625034	Marquette National Bank Trust #13214 30 Stephen St. Lemont 60439
982259	0311623010	K-Five Construction Corp. 1801 Main St. Lemont 60439
990124	0314625039	St. Mary's Seminary 14245 Main St. Lemont 60439

LPC #          Name-Address  
 0311625016 Ashland Chemical Main Street & Maley Road Lemont 60439  
 0311625009 Cook Composites and Polymers 13511 Main Street & Maley Road Lemont 60439  
 0314625016 Night Games 12300 South Archer Avenue Lemont 60439  
 0311620027 Northeast Ill. Railroad Co. 100 State Street Lemont 60439  
 0314620010 Tri-County Building 206 Main Street Lemont 60439

**Site Data For This Facility:**

Well ID	Site/GMZ ID	Map Code	Name	Distance	Status
WL20604	000004736	054B	CITGO	450	A
WL20604	000006653	054B	AMOCO	1340	A
WL20605	000004736	054B	CITGO	375	A
WL20605	000006653	054B	AMOCO	1460	A

**Susceptibility To Contamination:**

Based on information obtained in a Well Site Survey, published in 1993 by the Illinois EPA, four potential secondary sources were identified within the survey area of Lemont's wells. Furthermore, information provided by the Leaking Underground Storage Tank and Remedial Project Management Sections of the Illinois EPA indicated several additional sites with ongoing remediation which may be of concern. The Illinois EPA has determined that the Lemont Community Water Supply's source water has a low susceptibility to contamination. This determination is based on a number of criteria including: monitoring conducted at the wells monitoring conducted at the entry point to the distribution system; and the available hydrogeologic data on the wells.

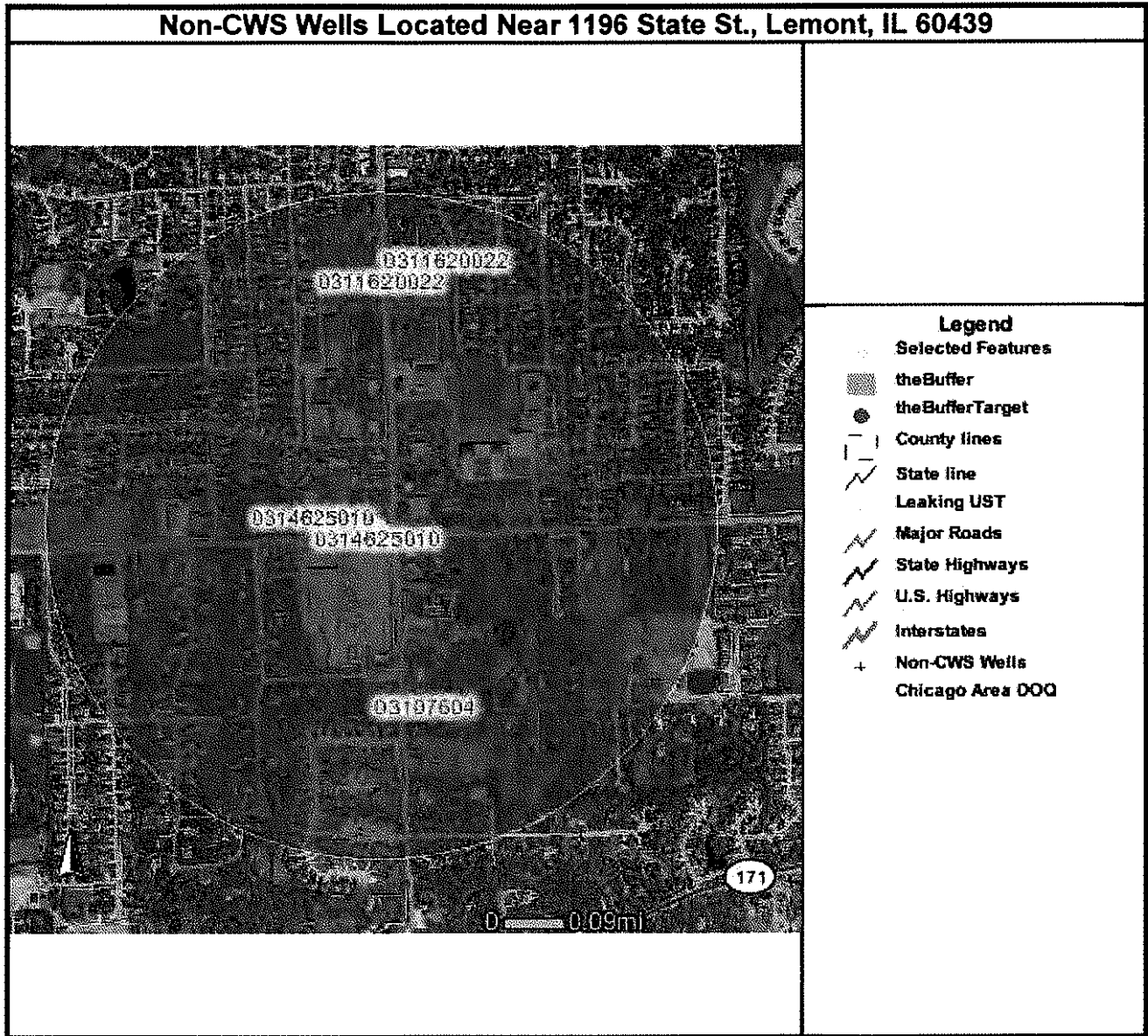
**Source Water Protection Efforts:**

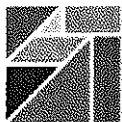
The Illinois Environmental Protection Act provides minimum protection zones of 200 feet for Lemont's wells. These minimum protection zones are regulated by the Illinois EPA. To further reduce the risk to source water, the Village has implemented a source water protection program which includes the proper abandonment of potential routes of groundwater contamination and correction of sanitary defects at the water treatment facility. This effort resulted in the community water supply receiving a special exception permit from the Illinois EPA which allows a reduction in monitoring. The outcome of this monitoring reduction has saved the community considerable laboratory analysis costs. To further minimize the risk to Lemont's groundwater supply, the Illinois EPA recommends that three additional activities be assessed. First, the community may wish to enact a "maximum setback zone" ordinance. These ordinances are authorized by the Environmental Protection Act and allow county and municipal officials the opportunity to provide additional protection up to a fixed distance, normally 1,000 feet from their wells. Second, the water supply staff may wish to revisit their contingency planning documents. Contingency planning documents are a primary means to ensure that, through emergency preparedness, a community will minimize their risk of being without safe and adequate water. Finally, the water supply staff is encouraged to review their cross connection control program to ensure that it remains current and viable. Cross connections to either the water treatment plant (for example, at bulk water loading stations) or in the distribution system may negate all source water protection initiatives provided by the community.

Information and data presented were obtained from various Federal, State, and local agencies and are subject to revision.



Information and data presented were obtained from various Federal, State, and local agencies and are subject to revision.





**ILLINOIS STATE  
GEOLOGICAL SURVEY**  
PRAIRIE RESEARCH INSTITUTE

## ISGS Wells

Printed: Jan 13, 2015



A.R. 001356



Water Well	Top	Bottom
Silurian	94	
Maquoketa	275	
Galena	498	
St Peter	846	
Ironton	1464	
Eau Claire	1648	
<b>Total Depth</b>		<b>1723</b>
Driller's Log filed		
Survey Sample Study filed		
Sample set # 45591 (0' - 1720') Received: January 15, 1964		

Permit Date:

Permit #:

**COMPANY** Wehling Well Works Inc.

**FARM** Lemont Village Well

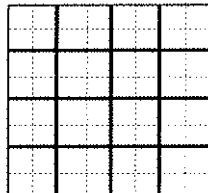
**DATE DRILLED** October 1, 1963 **NO. 4**

**ELEVATION** 742GL **COUNTY NO.** 00489

**LOCATION** 850'S line, 2275'E line of section

**LATITUDE** 41.658871 **LONGITUDE** -87.998431

**COUNTY** Cook **API** 120310048900 **29 - 37N - 11E**

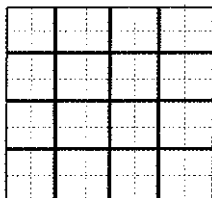


Water Well	Top	Bottom
clay	0	95
broken lime	95	125
brown clean lime	125	170
gray lime	170	238
blue shale	238	241
Silurian	95	
Maquoketa	238	
<b>Total Depth</b>		<b>241</b>
Casing: 12" from 0' to 128'		
Static level 126' below casing top which is ' above GL		
Pumping level 132' when pumping at 550 gpm for 5 hours		
Driller's Log filed		
Sample set # 25109 (50' - 180') Received: December 1, 1954		
Owner Address: ,		
Location source: Location from the driller		

Permit Date:

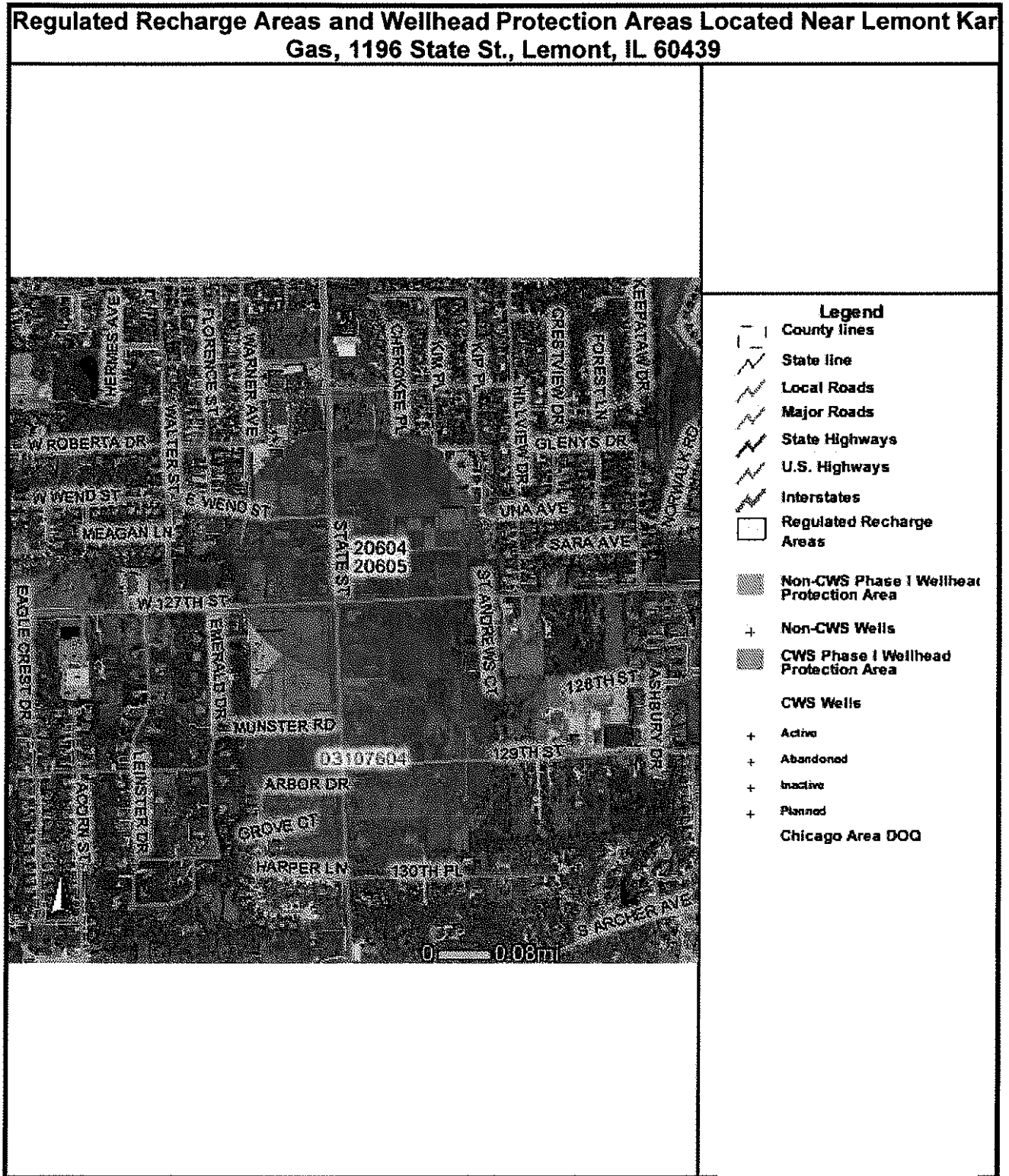
Permit #:

**COMPANY** Miller, J. P. Art Well Co  
**FARM** Lemont City Well  
**DATE DRILLED** December 1, 1954 **NO. 2**  
**ELEVATION** 742GL **COUNTY NO.** 02098  
**LOCATION** 500'S line, 100'W line of SE  
**LATITUDE** 41.657891 **LONGITUDE** -87.999471  
**COUNTY** Cook **API** 120310209800



29 - 37N - 11E

Information and data presented were obtained from various Federal, State, and local agencies and are subject to revision.



# Electronic Filing: Received, Clerk's Office 03/23/2021

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

Piggush, Michael

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**From:** Marcos Czako <marcos.czako@tricoreweb.com>  
**Sent:** Friday, January 24, 2020 09:05  
**To:** Piggush, Michael  
**Subject:** RE: [External] RE: Leaking UST #942117 and 20141348, Lemont Kar Gas/BOI, LLC, 1196 State St., Lemont, IL

Good morning Michael,

I wanted to follow up with you to check on the status of your review of the SICR and Amended CAP dated October 25, 2019 for this site.

Marcos

---

**From:** Benanti, Trent <Trent.Benanti@Illinois.gov>  
**Sent:** Monday, December 09, 2019 4:03 PM  
**To:** Marcos Czako <marcos.czako@tricoreweb.com>  
**Subject:** RE: [External] RE: Leaking UST #942117 and 20141348, Lemont Kar Gas/BOI, LLC, 1196 State St., Lemont, IL

Michael Piggush will be the new project manager.

Trent L. Benanti, P.E.  
Unit Manager  
Leaking UST Program  
Illinois EPA  
Phone: (217) 524-4649  
Email: [trent.benanti@illinois.gov](mailto:trent.benanti@illinois.gov)

---

**From:** Marcos Czako <marcos.czako@tricoreweb.com>  
**Sent:** Monday, December 9, 2019 3:39 PM  
**To:** Benanti, Trent <Trent.Benanti@Illinois.gov>; Bauer, Brian P. <Brian.Bauer@Illinois.gov>; Dunn, Greg <Greg.Dunn@Illinois.gov>; Jarvis, Melanie <Melanie.Jarvis@Illinois.gov>  
**Cc:** Steve Broadus <steve.broadusoil@frontier.com>; Robert Riffle <riffle@rmreenterprises.net>; Shawn Rodeck <Shawn.Rodeck@tricoreweb.com>  
**Subject:** [External] RE: Leaking UST #942117 and 20141348, Lemont Kar Gas/BOI, LLC, 1196 State St., Lemont, IL

Good afternoon,

I wanted to follow up regarding my email below requesting when a project manager would be assigned to the site and when you anticipate the SICR and Amended CAP to be reviewed.

Thank you,  
Marcos

# Electronic Filing: Received, Clerk's Office 03/23/2021

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**From:** Marcos Czako <[marcos.czako@tricoreweb.com](mailto:marcos.czako@tricoreweb.com)>  
**Sent:** Friday, November 22, 2019 1:55 PM  
**To:** Trent Benanti <[Trent.Benanti@illinois.gov](mailto:Trent.Benanti@illinois.gov)>; Brian Bauer <[Brian.Bauer@Illinois.gov](mailto:Brian.Bauer@Illinois.gov)>; 'Dunn, Greg' <[Greg.Dunn@Illinois.gov](mailto:Greg.Dunn@Illinois.gov)>; 'Melanie.Jarvis@Illinois.gov' <[Melanie.Jarvis@Illinois.gov](mailto:Melanie.Jarvis@Illinois.gov)>  
**Cc:** Steve Broadus <[steve.broadusoil@frontier.com](mailto:steve.broadusoil@frontier.com)>; Robert Riffle ([rriffle@rmreenterprises.net](mailto:rriffle@rmreenterprises.net)) <[rriffle@rmreenterprises.net](mailto:rriffle@rmreenterprises.net)>; Shawn Rodeck <[Shawn.Rodeck@tricoreweb.com](mailto:Shawn.Rodeck@tricoreweb.com)>  
**Subject:** RE: Leaking UST #942117 and 20141348, Lemont Kar Gas/BOI, LLC, 1196 State St., Lemont, IL

Good afternoon all,

The Leaking UST database shows the 2 reports recently submitted (SICR and Amended CAP) for this site. However, a new project manager has not yet been assigned. We respectfully request an update as to when a new project manager will be assigned and when we should expect the expedited review discussed during our meeting on September 4, 2019.

Thanks,  
Marcos

---

**From:** Marcos Czako <[marcos.czako@tricoreweb.com](mailto:marcos.czako@tricoreweb.com)>  
**Sent:** Monday, October 28, 2019 5:05 PM  
**To:** Trent Benanti <[Trent.Benanti@illinois.gov](mailto:Trent.Benanti@illinois.gov)>; Brian Bauer <[Brian.Bauer@Illinois.gov](mailto:Brian.Bauer@Illinois.gov)>; 'Dunn, Greg' <[Greg.Dunn@Illinois.gov](mailto:Greg.Dunn@Illinois.gov)>; 'Melanie.Jarvis@Illinois.gov' <[Melanie.Jarvis@Illinois.gov](mailto:Melanie.Jarvis@Illinois.gov)>  
**Cc:** Steve Broadus <[steve.broadusoil@frontier.com](mailto:steve.broadusoil@frontier.com)>; Robert Riffle ([rriffle@rmreenterprises.net](mailto:rriffle@rmreenterprises.net)) <[rriffle@rmreenterprises.net](mailto:rriffle@rmreenterprises.net)>  
**Subject:** Leaking UST #942117 and 20141348, Lemont Kar Gas/BOI, LLC, 1196 State St., Lemont, IL

Good afternoon all,

Please find attached 2 links to the reports (SICR and Amended CAP) that were mailed out today for the Leaking UST site referenced above. The report file sizes were too large to include as an attachment. Please let me know if you have trouble opening the attached links.

<https://www.dropbox.com/s/jly06oxr64d8k5b/2019-10-25%20-%20BOI%2C%20LLC%20SICR.pdf?dl=0>

<https://www.dropbox.com/s/28mkg2qn4tutjlq/2019-10-25%20-%20Lemont%20Kar%20Gas%20Amended%20CAP.pdf?dl=0>

The route to closure proposed in the Amended CAP is being submitted per our meeting on September 4, 2019 at your office in Springfield.

If you have any questions during your review of the reports, please let me know. We respectfully request an expedited review of the SICR and Amended CAP.

Thanks,  
Marcos

Marcos I. Czako, P.G.

TriCore Environmental, LLC  
2368 Corporate Lane, Suite 116  
Naperville, Illinois 60563  
Office: (630) 520-9973 ext. 2  
Cell: (630) 740-5291  
[Marcos.Czako@TriCoreweb.com](mailto:Marcos.Czako@TriCoreweb.com)  
<http://tricoreweb.com>

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# Electronic Filing: Received, Clerk's Office 03/23/2021

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

Piggush, Michael

---

**From:** Piggush, Michael  
**Sent:** Wednesday, January 29, 2020 13:52  
**To:** Holy, Christopher  
**Subject:** Lemont Kar Gas

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

This is in response to your telephone message to Mike Lowder. I have never worked on this site in the past so I do not know anything about it at the moment. There is a report which is due to be reviewed by the end of February but I have not reviewed that yet either. I am sorry if I am not able to be of any more help. You can however download a copy of the report from the consultant using the following links:

<https://www.dropbox.com/s/jly06oxr64d8k5b/2019-10-25%20-%20BOI%2C%20LLC%20SICR.pdf?dl=0>

<https://www.dropbox.com/s/28mkq2qn4tutjlq/2019-10-25%20-%20Lemont%20Kar%20Gas%20Amended%20CAP.pdf?dl=0>

Michael Piggush  
Leaking Underground Storage Tank Section  
Illinois Environmental Protection Agency

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RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

Piggush, Michael

---

**From:** Holy, Christopher  
**Sent:** Wednesday, February 5, 2020 14:46  
**To:** Piggush, Michael  
**Subject:** RE: Lemont Kar Gas

**Importance:** High

Good Afternoon Mike,

Has a violation Notice been sent out to the site owner for his unwillingness to do anything?

---

**From:** Piggush, Michael <Michael.Piggush@Illinois.gov>  
**Sent:** Wednesday, January 29, 2020 1:52 PM  
**To:** Holy, Christopher <Christopher.Holy@Illinois.gov>  
**Subject:** Lemont Kar Gas

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

This is in response to your telephone message to Mike Lowder. I have never worked on this site in the past so I do not know anything about it at the moment. There is a report which is due to be reviewed by the end of February but I have not reviewed that yet either. I am sorry if I am not able to be of any more help. You can however download a copy of the report from the consultant using the following links:

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Michael Piggush  
Leaking Underground Storage Tank Section  
Illinois Environmental Protection Agency

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# Electronic Filing: Received, Clerk's Office 03/23/2021

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

Piggush, Michael

---

**From:** Piggush, Michael  
**Sent:** Wednesday, February 5, 2020 16:20  
**To:** Holy, Christopher  
**Subject:** RE: Lemont Kar Gas

I searched the LUST database and I do not see any violation notices listed.

Michael Piggush

---

**From:** Holy, Christopher <Christopher.Holy@Illinois.gov>  
**Sent:** Wednesday, February 5, 2020 2:46 PM  
**To:** Piggush, Michael <Michael.Piggush@Illinois.gov>  
**Subject:** RE: Lemont Kar Gas  
**Importance:** High

Good Afternoon Mike,

Has a violation Notice been sent out to the site owner for his unwillingness to do anything?

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**From:** Piggush, Michael <[Michael.Piggush@Illinois.gov](mailto:Michael.Piggush@Illinois.gov)>  
**Sent:** Wednesday, January 29, 2020 1:52 PM  
**To:** Holy, Christopher <[Christopher.Holy@Illinois.gov](mailto:Christopher.Holy@Illinois.gov)>  
**Subject:** Lemont Kar Gas

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

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<https://www.dropbox.com/s/28mkg2qn4tutjlq/2019-10-25%20-%20Lemont%20Kar%20Gas%20Amended%20CAP.pdf?dl=0>

Michael Piggush  
Leaking Underground Storage Tank Section  
Illinois Environmental Protection Agency

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Electronic Filing: Received, Clerk's Office 03/23/2021

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

Piggush, Michael

---

**From:** Piggush, Michael  
**Sent:** Friday, February 21, 2020 09:35  
**To:** CZAKO, MARCOS; RODECK, SHAWN  
**Subject:** LUST Incidents 942117 & 20141348 (Lemont Kar Gas)

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

I will need to request a time extension for the October 2019 reports, in accordance with 35 Illinois Administrative Code 734.505(d).

Michael Piggush  
Leaking Underground Storage Tank Section  
Illinois Environmental Protection Agency

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RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

Piggush, Michael

---

**From:** Jarvis, Melanie  
**Sent:** Monday, February 24, 2020 14:32  
**To:** Benanti, Trent; Piggush, Michael  
**Subject:** Broadus Lamont

I received a phone call from Robert Riffle the attorney that we met with on the above case a while back. He informed me that you guys have requested a 60 day extension to review the case. They have a purchaser for the property and want to know if it is for a technical review or if the Agency and Broadus is at an impasse on the denial of access issue. If you could let me know the status, I would appreciate it. Melanie

Melanie A. Jarvis  
Assistant Counsel  
Division of Legal Counsel  
Illinois Environmental Protection Agency  
217 782-2893

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Electronic Filing: Received, Clerk's Office 03/23/2021

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

Piggush, Michael

---

**From:** Piggush, Michael  
**Sent:** Monday, February 24, 2020 14:37  
**To:** Jarvis, Melanie; Benanti, Trent  
**Subject:** RE: Broadus Lamont

If this is the same as Lemont Kar Gas, I just need a little more time (it is a 1,300 page report). When I finish what I am working on now, then I will at least be able to start on it. That is the only reason.

---

**From:** Jarvis, Melanie <Melanie.Jarvis@Illinois.gov>  
**Sent:** Monday, February 24, 2020 2:32 PM  
**To:** Benanti, Trent <Trent.Benanti@Illinois.gov>; Piggush, Michael <Michael.Piggush@Illinois.gov>  
**Subject:** Broadus Lamont

I received a phone call from Robert Riffle the attorney that we met with on the above case a while back. He informed me that you guys have requested a 60 day extension to review the case. They have a purchaser for the property and want to know if it is for a technical review or if the Agency and Broadus is at an impasse on the denial of access issue. If you could let me know the status, I would appreciate it. Melanie

Melanie A. Jarvis  
Assistant Counsel  
Division of Legal Counsel  
Illinois Environmental Protection Agency  
217 782-2893

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Piggush, Michael

---

**From:** Benanti, Trent  
**Sent:** Wednesday, February 26, 2020 13:28  
**To:** Piggush, Michael  
**Cc:** Benanti, Trent  
**Subject:** RE: Broadus Lamont

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

This was discussed this morning in the monthly DLC/Leaking UST meeting. It sounds like they are going to grant the 60-day waiver. They just wanted to make sure that the Illinois EPA was not doing anything nefarious. Make sure the waiver is granted by tomorrow, and let Jayne and me know.

Thank you,

Trent L. Benanti, P.E.  
Unit Manager  
Leaking UST Program  
Illinois EPA  
Phone: (217) 524-4649  
Email: [trent.benanti@illinois.gov](mailto:trent.benanti@illinois.gov)

---

**From:** Piggush, Michael <Michael.Piggush@Illinois.gov>  
**Sent:** Monday, February 24, 2020 2:37 PM  
**To:** Jarvis, Melanie <Melanie.Jarvis@Illinois.gov>; Benanti, Trent <Trent.Benanti@Illinois.gov>  
**Subject:** RE: Broadus Lamont

If this is the same as Lemont Kar Gas, I just need a little more time (it is a 1,300 page report). When I finish what I am working on now, then I will at least be able to start on it. That is the only reason.

---

**From:** Jarvis, Melanie <[Melanie.Jarvis@Illinois.gov](mailto:Melanie.Jarvis@Illinois.gov)>  
**Sent:** Monday, February 24, 2020 2:32 PM  
**To:** Benanti, Trent <[Trent.Benanti@Illinois.gov](mailto:Trent.Benanti@Illinois.gov)>; Piggush, Michael <[Michael.Piggush@Illinois.gov](mailto:Michael.Piggush@Illinois.gov)>  
**Subject:** Broadus Lamont

I received a phone call from Robert Riffle the attorney that we met with on the above case a while back. He informed me that you guys have requested a 60 day extension to review the case. They have a purchaser for the property and want to know if it is for a technical review or if the Agency and Broadus is at an impasse on the denial of access issue. If you could let me know the status, I would appreciate it. Melanie

Melanie A. Jarvis  
Assistant Counsel  
Division of Legal Counsel  
Illinois Environmental Protection Agency  
217 782-2893

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# Electronic Filing: Received, Clerk's Office 03/23/2021

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

Piggush, Michael

---

**From:** Marcos Czako <marcos.czako@tricoreweb.com>  
**Sent:** Wednesday, February 26, 2020 16:36  
**To:** Piggush, Michael; 'RODECK, SHAWN'  
**Cc:** Steve Broadus; Robert Riffle; Bauer, Brian P.; Dunn, Greg; Jarvis, Melanie  
**Subject:** [External] RE: LUST Incidents 942117 & 20141348 (Lemont Kar Gas)  
**Attachments:** 2020-02-26 - Amended CAP and SICR - Review Extension Letter.pdf

Hi Michael,

Attached is a 60-day extension to complete your review of the SICR and Stage 3 Site Investigation Budget, and the Amended CAP and Budget, both dated October 25, 2019. If you have any questions during your review of the reports, please let me know.

Marcos

---

**From:** Piggush, Michael <Michael.Piggush@Illinois.gov>  
**Sent:** Friday, February 21, 2020 9:35 AM  
**To:** CZAKO, MARCOS <MARCOS.CZAKO@TRICOREWEB.COM>; RODECK, SHAWN <SHAWN.RODECK@TRICOREWEB.COM>  
**Subject:** LUST Incidents 942117 & 20141348 (Lemont Kar Gas)

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

I will need to request a time extension for the October 2019 reports, in accordance with 35 Illinois Administrative Code 734.505(d).

Michael Piggush  
Leaking Underground Storage Tank Section  
Illinois Environmental Protection Agency

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February 26, 2020

**VIA EMAIL**

Mr. Michael Piggush  
Illinois Environmental Protection Agency  
Bureau of Land #24  
Leaking Underground Storage Tank Section  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794-9276  
[Michael.Piggush@Illinois.gov](mailto:Michael.Piggush@Illinois.gov)

RE: LPC No. 0314625010 – Cook County  
Lemont/Lemont Kar Gas/BOI, LLC  
1196 State Street  
Leaking UST Incident Nos. 942117 and 20141348  
Leaking UST Technical File

Dear Mr. Piggush:

TriCore Environmental, LLC, on behalf of BOI, LLC, is granting the Illinois Environmental Protection Agency a 60-day extension for the completion of the review of the Site Investigation Completion Report and Stage 3 Site Investigation Budget dated October 25, 2019, and Amended Corrective Action Plan and Budget dated October 25, 2019 for the leaking underground storage tank incident numbers referenced above.

If you should have any questions concerning this submittal or require additional information, please contact the undersigned at (630) 520-9973 ext. 2 or by email at [marcos.czako@tricoreweb.com](mailto:marcos.czako@tricoreweb.com).

Sincerely,

Marcos I. Czako, P.G.  
Senior Project Manager

cc: Mr. Steve Broadus, BOI, LLC, [Steve.Broadusoil@frontier.com](mailto:Steve.Broadusoil@frontier.com)  
Mr. Robert M. Riffle, Esq., Riffle & Associates LLC, [RRiffle@rmrenterprises.net](mailto:RRiffle@rmrenterprises.net)  
Mr. Brian Bauer, Illinois EPA, [Brian.Bauer@Illinois.gov](mailto:Brian.Bauer@Illinois.gov)  
Mr. Greg Dunn, Illinois EPA, [Greg.Dunn@Illinois.gov](mailto:Greg.Dunn@Illinois.gov)  
Ms. Melanie Jarvis, Illinois EPA, [Melanie.Jarvis@Illinois.gov](mailto:Melanie.Jarvis@Illinois.gov)



# Electronic Filing: Received, Clerk's Office 03/23/2021

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

Piggush, Michael

---

**From:** Piggush, Michael  
**Sent:** Monday, March 2, 2020 15:31  
**To:** Benanti, Trent  
**Subject:** FW: [External] RE: LUST Incidents 942117 & 20141348 (Lemont Kar Gas)  
**Attachments:** 2020-02-26 - Amended CAP and SICR - Review Extension Letter.pdf

---

**From:** Marcos Czako <marcos.czako@tricoreweb.com>  
**Sent:** Wednesday, February 26, 2020 4:36 PM  
**To:** Piggush, Michael <Michael.Piggush@Illinois.gov>; 'RODECK, SHAWN' <SHAWN.RODECK@TRICOREWEB.COM>  
**Cc:** Steve Broadus <steve.broadusoil@frontier.com>; Robert Riffle <rriffle@rmreenterprises.net>; Bauer, Brian P. <Brian.Bauer@Illinois.gov>; Dunn, Greg <Greg.Dunn@Illinois.gov>; Jarvis, Melanie <Melanie.Jarvis@Illinois.gov>  
**Subject:** [External] RE: LUST Incidents 942117 & 20141348 (Lemont Kar Gas)

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Marcos

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**From:** Piggush, Michael <[Michael.Piggush@Illinois.gov](mailto:Michael.Piggush@Illinois.gov)>  
**Sent:** Friday, February 21, 2020 9:35 AM  
**To:** CZAKO, MARCOS <[MARCOS.CZAKO@TRICOREWEB.COM](mailto:MARCOS.CZAKO@TRICOREWEB.COM)>; RODECK, SHAWN <[SHAWN.RODECK@TRICOREWEB.COM](mailto:SHAWN.RODECK@TRICOREWEB.COM)>  
**Subject:** LUST Incidents 942117 & 20141348 (Lemont Kar Gas)

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

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Michael Piggush  
Leaking Underground Storage Tank Section  
Illinois Environmental Protection Agency

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February 26, 2020

**VIA EMAIL**

Mr. Michael Piggush  
Illinois Environmental Protection Agency  
Bureau of Land #24  
Leaking Underground Storage Tank Section  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794-9276  
[Michael.Piggush@Illinois.gov](mailto:Michael.Piggush@Illinois.gov)

RE: LPC No. 0314625010 – Cook County  
Lemont/Lemont Kar Gas/BOI, LLC  
1196 State Street  
Leaking UST Incident Nos. 942117 and 20141348  
Leaking UST Technical File

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Sincerely,

Marcos I. Czako, P.G.  
Senior Project Manager

cc: Mr. Steve Broadus, BOI, LLC, [Steve.Broadusoil@frontier.com](mailto:Steve.Broadusoil@frontier.com)  
Mr. Robert M. Riffle, Esq., Riffle & Associates LLC, [RRiffle@rmreenterprises.net](mailto:RRiffle@rmreenterprises.net)  
Mr. Brian Bauer, Illinois EPA, [Brian.Bauer@Illinois.gov](mailto:Brian.Bauer@Illinois.gov)  
Mr. Greg Dunn, Illinois EPA, [Greg.Dunn@Illinois.gov](mailto:Greg.Dunn@Illinois.gov)  
Ms. Melanie Jarvis, Illinois EPA, [Melanie.Jarvis@Illinois.gov](mailto:Melanie.Jarvis@Illinois.gov)

# Electronic Filing: Received, Clerk's Office 03/23/2021

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

Piggush, Michael

---

**From:** Piggush, Michael  
**Sent:** Monday, April 27, 2020 11:50  
**To:** Benanti, Trent  
**Subject:** FW: [External] RE: LUST Incidents 942117 & 20141348 (Lemont Kar Gas)

would you be agreeable with this

---

**From:** Marcos Czako <marcos.czako@tricoreweb.com>  
**Sent:** Monday, April 27, 2020 11:31 AM  
**To:** Piggush, Michael <Michael.Piggush@Illinois.gov>; 'MILLER, KIM' <KIM.MILLER@TRICOREWEB.COM>; 'RODECK, SHAWN' <SHAWN.RODECK@TRICOREWEB.COM>  
**Subject:** [External] RE: LUST Incidents 942117 & 20141348 (Lemont Kar Gas)

Hi Michael,

Since you are close to finishing your review, would you be agreeable to a 20-day extension of the review deadline? Our client and owner of the property, Steve Broadus, is trying to sell the property and getting the NFR letter on an expedited basis would be really appreciated.

Marcos

---

**From:** Piggush, Michael <[Michael.Piggush@Illinois.gov](mailto:Michael.Piggush@Illinois.gov)>  
**Sent:** Monday, April 27, 2020 1:53 AM  
**To:** MILLER, KIM <[KIM.MILLER@TRICOREWEB.COM](mailto:KIM.MILLER@TRICOREWEB.COM)>; CZAKO, MARCOS <[MARCOS.CZAKO@TRICOREWEB.COM](mailto:MARCOS.CZAKO@TRICOREWEB.COM)>; RODECK, SHAWN <[SHAWN.RODECK@TRICOREWEB.COM](mailto:SHAWN.RODECK@TRICOREWEB.COM)>  
**Subject:** LUST Incidents 942117 & 20141348 (Lemont Kar Gas)

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

I apologize but I need to request another time extension for this. I have already reviewed a good portion of it but have not been able to finish it. As the current review deadline is today (Monday) I will need to request more time.

Michael Piggush  
Leaking Underground Storage Tank Section  
Illinois Environmental Protection Agency

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Electronic Filing: Received, Clerk's Office 03/23/2021

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

Piggush, Michael

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**From:** Piggush, Michael  
**Sent:** Monday, April 27, 2020 12:38  
**To:** Wilson, Jayne A.  
**Cc:** Benanti, Trent  
**Subject:** LUST Incidents 942117 & 20141348 (Lemont Kar Gas)

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

The review deadline for the Stage 3 Site Investigation Budget, Site Investigation Completion Report, Corrective Action Plan, and Corrective Action Budget had previously been extended to April 27, 2020, and is now extended until May 17, 2020.

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Electronic Filing: Received, Clerk's Office 03/23/2021

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

Piggush, Michael

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**From:** Wilson, Jayne A.  
**Sent:** Tuesday, April 28, 2020 07:40  
**To:** Piggush, Michael  
**Subject:** RE: LUST Incidents 942117 & 20141348 (Lemont Kar Gas)

60 day ext rqst dated/rcvd 4/27/20 for CAP & CAP Bdgt, is until 6/26/20.

(Minimum of 60 days per extension request.)

You knew that.....right????

Thanks, Jayne



---

**From:** Piggush, Michael <Michael.Piggush@Illinois.gov>  
**Sent:** Monday, April 27, 2020 12:38 PM  
**To:** Wilson, Jayne A. <Jayne.A.Wilson3@Illinois.gov>  
**Cc:** Benanti, Trent <Trent.Benanti@Illinois.gov>  
**Subject:** LUST Incidents 942117 & 20141348 (Lemont Kar Gas)

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

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Electronic Filing: Received, Clerk's Office 03/23/2021

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

Piggush, Michael

---

**From:** Piggush, Michael  
**Sent:** Tuesday, May 12, 2020 16:03  
**To:** CZAKO, MARCOS; MILLER, KIM; RODECK, SHAWN  
**Subject:** LUST Incidents 942117 & 20141348 (Lemont Kar Gas)

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

Would it be possible to send me original PDF copies of the basic site diagrams and tables (as opposed to scanned copies).

Thank you.

Michael Piggush  
Leaking Underground Storage Tank Section  
Illinois Environmental Protection Agency

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# Electronic Filing: Received, Clerk's Office 03/23/2021

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

Piggush, Michael

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**From:** Marcos Czako <marcos.czako@tricoreweb.com>  
**Sent:** Wednesday, May 13, 2020 09:32  
**To:** Piggush, Michael  
**Cc:** kim.miller@tricoreweb.com; Shawn Rodeck  
**Subject:** [External] RE: LUST Incidents 942117 & 20141348 (Lemont Kar Gas)  
**Attachments:** SICR Tables.pdf; SICR Site Diagrams.pdf; Amended CAP Tables.pdf; Amended CAP Site Diagrams.pdf

Hi Michael,

Attached are the site diagrams and tables from their original source both for the SICR and CAP. Let me know if you need any other information.

Marcos

---

**From:** Piggush, Michael <Michael.Piggush@Illinois.gov>  
**Sent:** Tuesday, May 12, 2020 4:03 PM  
**To:** CZAKO, MARCOS <MARCOS.CZAKO@TRICOREWEB.COM>; MILLER, KIM <KIM.MILLER@TRICOREWEB.COM>; RODECK, SHAWN <SHAWN.RODECK@TRICOREWEB.COM>  
**Subject:** LUST Incidents 942117 & 20141348 (Lemont Kar Gas)

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

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Thank you.

Michael Piggush  
Leaking Underground Storage Tank Section  
Illinois Environmental Protection Agency

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Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-1-A	9/18/03	7.5-8	0.316	0.430	6.31	13.2	
BH-1-B	9/18/03	14-14.5	<0.0289	<0.289	<0.289	<0.289	
BH-1-C	8/10/04	18	<0.002	<0.005	<0.005	<0.005	
BH-2-A	9/18/03	4.5-5	3.6000	0.293	5.730	4.030	
BH-2-B	8/10/04	13	0.0879	<0.005	<0.005	<0.005	
BH-2-C	8/10/04	23	<0.002	<0.005	<0.005	<0.005	
BH-3-A	9/18/03	6.5-7	<0.0286	<0.286	0.904	0.596	
BH-3-B	8/10/04	13	0.0293	<0.005	<0.005	<0.005	
BH-3-C	8/10/04	18	<0.002	<0.005	<0.005	<0.005	
BH-4-A	9/18/03	4.5-5	0.184	<0.309	0.309	<0.309	
BH-4-B	8/10/04	13	<0.002	<0.005	<0.005	<0.005	
BH-5-A	9/18/03	4.5-5	2.710	4.86	4.78	10.3	
BH-5-B	8/10/04	13	1.070	1.11	<0.005	0.522	
BH-5-C	8/10/04	24	<0.002	<0.005	<0.005	<0.005	
BH-6-A	8/2/05	5	0.0719	<0.005	<0.005	0.0054	
BH-6-B	8/2/05	9	1.060	1.090	1.91	8.1	
BH-6-C	8/2/05	15	<0.002	<0.005	<0.005	<0.005	
BH-6-D	8/2/05	18	0.0064	<0.005	<0.005	<0.005	
BH-7-A	8/2/05	4	<0.002	<0.005	<0.005	<0.005	
BH-7-B	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-7-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-7-D	8/2/05	18	<0.002	<0.005	<0.005	<0.005	
BH-8-A	8/2/05	3	<0.002	<0.005	<0.005	<0.005	
BH-8-B	8/2/05	9	0.459	<0.005	0.438	0.419	
BH-8-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-9-A	8/2/05	4	<0.002	<0.005	<0.005	<0.005	
BH-9-B	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-9-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-10-A	8/2/05	4	<0.030	0.0882	1.98	4.920	
BH-10-B	8/2/05	9	2.660	0.348	1.79	3.820	
BH-10-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-10-D	8/2/05	18-20	<0.002	<0.005	<0.005	<0.005	

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-11-A	8/2/05	4	24.5	65.8	52.7	207.0	
BH-11-B	8/2/05	9	5.730	0.4	4.030	8.0	
BH-11-C	8/2/05	14	0.0045	0.0056	<0.005	0.0093	
BH-12-A	8/2/05	4	10.2	39.5	12.0	59.0	
BH-12-B	8/2/05	9	14.3	0.897	10.4	9.140	
BH-12-C	8/2/05	14	0.0126	0.0261	<0.005	0.0115	
BH-12-D	8/2/05	19	<0.002	<0.005	<0.005	<0.005	
BH-13-A	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-13-B	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-14-A	9/26/05	4-5	<0.002	<0.005	<0.005	<0.005	
BH-14-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-14-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-15-A	9/26/05	4.5	<0.002	<0.005	<0.005	<0.005	
BH-15-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-15-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-16-A	9/26/05	4.5	<0.002	<0.005	<0.005	<0.005	
BH-16-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-16-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-17-A	9/26/05	5	<0.002	<0.005	<0.005	<0.005	
BH-17-B	9/26/05	9	<0.002	<0.005	<0.005	<0.005	
BH-17-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-18-A	9/27/05	5.5	0.979	0.997	9.19	29.6	
BH-18-B	9/27/05	14.5	5.58	0.681	9.84	24.6	
BH-18-C	9/27/05	19	5.68	6.890	9.11	35.0	
BH-19-A	9/27/05	8	0.0057	<0.005	<0.005	0.0057	
BH-19-B	9/27/05	14	0.0159	0.0097	0.0397	0.0752	
BH-19-C	9/27/05	19	<0.002	<0.005	<0.005	<0.005	
BH-20-A	11/12/05	4	<0.002	<0.005	<0.005	<0.005	
BH-20-B	11/12/05	8	<0.002	<0.005	<0.005	<0.005	
BH-20-C	11/12/05	14	<0.002	<0.005	<0.005	<0.005	
EX-1	11/25/14	7-8	1.240	0.264	7.810	2.910	0.103 J
EX-2	11/25/14	7-8	6.330	3.200	35.900	54.500	0.655 J

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Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
EX-3	11/25/14	7-8	1.890	3.360	32.600	158.000	0.972 J
B-1	11/25/14	12-13	1.860	0.164	0.373	1.630	<0.0301
B-2	11/25/14	12-13	5.200	<0.244	1.460	2.790	<0.244
B-3	11/25/14	7-8	1.340	0.129	0.143	0.345	<0.0293
B-4	11/25/14	7-8	2.070	0.156	0.193	0.398	<0.0295
Backfill #1	11/25/14		5.750	1.400	24.600	7.880	0.450 J
PL-1	11/26/14	2.5-3	3.850	3.340	51.200	112.000	2.060
PL-2	11/26/14	2.5-3	14.100	4.180	96.000	269.000	1.640 J
PL-3	11/26/14	2.5-3	13.700	13.800	103.000	356.000	3.700
B-5	11/26/14	7-8	3.070	0.115	0.351	0.533	<0.0293
B-6	11/26/14	7-8	0.0481	<0.0293	0.0589	0.258	<0.0293
EX-4	11/26/14	4-5	1.460	0.724	13.800	25.700	0.157 J
EX-5	11/26/14	4-5	36.500	6.100	106.000	644.000	5.110 J
EX-6	11/26/14	4-5	9.330	4.990	90.200	159.000	1.790 J
Backfill #2	11/26/14		8.690	37.100	74.100	327.000	3.870
EX-1	4/22/15	7-8	5.010	0.995	7.800	18.400	<0.0294
EX-2	4/22/15	7-8	7.510	0.394	6.910	7.330	<0.0147
B-1	4/22/15	15.5	<0.0105	<0.0128	<0.0142	<0.0553	0.0234 J
B-2	4/22/15	16	<0.0111	<0.0135	<0.0150	<0.0585	0.123
B-3	4/22/15	16	<0.0106	<0.0129	<0.0143	<0.0558	0.0227 J
B-4	4/23/15	16.5	<0.0107	<0.0130	0.0172 J	<0.0560	0.122
B-5	4/23/15	15	0.0308	<0.0129	<0.0143	<0.0558	0.444
EX-3	4/23/15	7-8	9.380	0.462	11.000	20.300	0.0944 J
EX-4	4/23/15	7-8	7.700	0.815	11.900	9.910	0.186
B-6	4/24/15	19	<0.0115	<0.0288	<0.0288	<0.0864	0.388
B-7	4/24/15	19	<0.0113	<0.0283	<0.0283	<0.0849	0.0915
B-8	4/27/15	16	<0.0119	<0.0298	<0.0298	<0.0895	<0.0298
B-9	4/27/15	15	<0.0116	<0.0289	<0.0289	<0.0868	0.148
B-10	4/28/15	15.5	<0.0115	<0.0287	<0.0287	<0.0861	0.468
B-11	4/28/15	17	<0.0116	<0.0290	<0.0290	<0.0869	0.476
B-12	4/29/15	18	<0.0113	<0.0282	<0.0282	<0.0845	0.128
EX-5	4/29/15	4-5	14.500	105.000	44.800	221.000	0.885 J

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

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Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
EX-6	4/29/15	4-5	7.600	54.500	32.700	149.000	0.891 J
B-13	4/29/15	15.5	<0.0116	<0.0290	<0.0290	<0.0870	1.240
EX-7	4/30/15	4-5	3.120	0.808 J	36.800	76.200	<0.313
B-14	4/30/15	15.5	<0.0107	<0.0130	<0.0144	<0.0563	0.0337 J
EX-8	4/30/15	4-5	8.660	1.070	21.300	7.610	0.158J
B-15	5/1/15	15.5	<0.0107	<0.0130	<0.0144	<0.0560	0.0259 J
B-16	5/1/15	17.5	<0.0104	<0.0126	<0.0140	<0.0544	<0.0142
B-17	5/1/15	15.5	<0.0106	<0.0129	<0.0143	<0.0558	0.0561 J
EX-9	5/4/15	4-5	0.263	0.0508 J	4.790	0.619	<0.0328
B-18	5/4/15	15.5	<0.0108	<0.0131	<0.0146	<0.0567	0.137
B-19	5/4/15	15.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
B-20	5/4/15	14	0.187	<0.129	<0.0143	<0.0556	0.328
EX-10	5/6/15	8-9	2.310	0.130	1.400	0.636	<0.0290
B-21	5/6/15	15.5	<0.0111	<0.0135	0.0175 J	<0.0582	<0.0152
B-22	5/7/15	15.5	<0.0109	<0.0132	0.0175 J	<0.0570	<0.0149
B-23	5/7/15	15.5	<0.0109	<0.0133	<0.0147	<0.0573	0.318
B-24	5/8/15	9	<0.0104	<0.0127	<0.0140	<0.0546	0.0430 J
B-25	5/8/15	15.5	<0.0107	<0.0130	<0.0144	<0.0560	0.208
B-26	5/8/15	15	<0.0108	<0.0131	<0.0145	<0.0566	<0.0148
EX-11	5/8/15	3-4	0.305	<0.0144	<0.0159	<0.0620	<0.0162
EX-12	5/8/15	3-4	<0.0118	<0.0144	<0.0160	<0.0622	<0.0162
EX-13	5/13/15	4-5	<0.0114	<0.0139	<0.0154	<0.0599	<0.0157
B-27	5/13/15	14	<0.0108	<0.0131	<0.0145	<0.0566	0.395
B-29	5/13/15	9	<0.0108	<0.0131	<0.0146	<0.0567	0.0318 J
EX-14	5/14/15	4-5	<0.0118	<0.0143	<0.0158	<0.0617	<0.0161
B-28	5/14/15	13	<0.0106	<0.0129	<0.0143	<0.0559	0.206
B-30	5/14/15	11	<0.0106	<0.0129	<0.0143	<0.0559	0.0565 J
B-31	5/14/15	11	<0.0106	<0.0159	<0.0143	<0.0559	0.0226 J
EX-15	5/15/15	8-9	<0.0107	<0.0131	0.0207 J	0.0589 J	0.0392 J
B-32	5/15/15	11	<0.0107	<0.0130	<0.0144	<0.0562	0.302
B-33	5/15/15	11	<0.0107	<0.0130	<0.0144	<0.0561	0.241
B-34	5/15/15	11	<0.0109	<0.0133	<0.0147	<0.0573	0.0466 J

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
Overburden 1	5/15/15		<0.0112	<0.0137	<0.0151	<0.0590	<0.0154
B-35	5/18/15	12	<0.0107	<0.0130	0.0192 J	0.0576 J	0.570
EX-16	5/18/15	9-10	<0.0110	<0.0134	<0.0149	<0.0579	<0.0151
EX-17	5/18/15	9-10	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
B-36	5/18/15	12	<0.0108	<0.0131	<0.0145	<0.0565	0.0306 J
Overburden-2	5/18/15		<0.0109	<0.0132	<0.0146	<0.0571	<0.0149
B-37	5/19/15	14	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
B-38	5/19/15	14	<0.0107	<0.0131	<0.0145	<0.0565	0.411
B-39	5/19/15	12	<0.0103	<0.0125	<0.0139	<0.0541	0.0511 J
EX-18	5/19/15	3-4	<0.0120	<0.0146	<0.0162	<0.0632	<0.0165
EX-19	5/19/15	3-4	<0.0115	<0.0140	<0.0155	<0.0605	<0.0158
B-40	5/22/15	13	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
B-41	5/27/15	15	<0.0105	<0.0128	<0.0142	<0.0553	<0.0144
EX-20	5/27/15	3-4	<0.0127	<0.0154	<0.0171	<0.0666	<0.0174
EX-21	5/27/15	3-4	0.464	0.627	11.600	12.700	<0.0664
EX-22	5/27/15	4-5	<0.0310	<0.0378	2.140	2.410	<0.0426
B-42	5/27/15	12.5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
B-43	5/27/15	12.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
B-44	5/27/15	15	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
B-45	5/28/15	12.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
EX-23	5/28/15	8.5-9.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
EX-24	5/28/15	3-4	<0.0118	<0.0143	<0.0159	<0.0618	<0.0162
B-46	6/5/15	14.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0146
EX-25	6/5/15	10-11	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
EX-26	6/5/15	3.5-5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
EX-27	6/5/15	8.5-9.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0146
EX-28	6/8/15	3-4	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
EX-28	6/8/15	8-9	<0.0106	<0.0130	<0.0144	<0.0559	<0.0146
BH-21	6/17/15	10-12.5	1.200	0.362	12.700	15.200	<0.0729
BH-22	9/8/15	7.5-10	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-22	9/8/15	25.5-27	7.650	1.260	0.0313 J	<0.110	<0.0288
BH-23	9/8/15	25-26.5	0.0428 J	0.547	2.900	17.000	<0.0376

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-23	9/8/15	28.5-30	0.0483	<0.0130	<0.0144	<0.0562	<0.0147
BH-24	9/8/15	4-6	<0.0279	<0.0339	0.0593 J	<0.146	<0.0383
BH-24	9/8/15	13.5-15	<0.0112	<0.0136	<0.0151	<0.0587	<0.0153
BH-22A	9/14/16	2.5-5	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
BH-22A	9/14/16	10-12.5	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-22A	9/14/16	15-17.5	<0.0110	<0.0134	<0.0149	<0.0580	<0.0151
BH-22A	9/14/16	20-23	<0.109	1.990	27.800	70.600	<0.150
BH-23A	9/14/16	2.5-5	<0.0130	<0.0158	<0.0176	<0.0684	<0.0179
BH-23A	9/14/16	5-7.5	<0.0114	<0.0139	<0.0154	<0.0600	<0.0157
BH-23A	9/14/16	10-12.5	<0.0107	0.0153 J	<0.0144	<0.0561	<0.0147
BH-23A	9/14/16	15-17.5	<0.0108	<0.0132	<0.0146	<0.0568	<0.0148
BH-23A	9/14/16	21.5-22.5	<0.0110	<0.0133	<0.0148	<0.0576	<0.0150
BH-23A	9/14/16	31-32.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-23A	9/14/16	32.5-35	<0.0118	<0.0144	<0.0159	<0.0621	<0.0162
BH-26	9/14/16	1-2.5	<0.0113	<0.0138	<0.0153	<0.0596	<0.0156
BH-26	9/14/16	7.5-10	<0.0107	0.0135 J	<0.0144	<0.0561	<0.0147
BH-26	9/14/16	10-12.5	<0.0111	<0.0136	<0.0150	<0.0585	<0.0153
BH-26	9/14/16	17.5-20	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-26	9/14/16	20-22.5	<0.0106	<0.0129	<0.0143	<0.0557	<0.0146
BH-26	9/14/16	27.5-29.25	0.0756	<0.0133	<0.0148	<0.0575	<0.0150
BH-27	9/14/16	2.5-5	<0.0117	0.0168 J	<0.0158	<0.0616	<0.0161
BH-27	9/14/16	7.5-10	<0.0107	<0.0130	<0.0144	<0.00563	<0.0147
BH-27	9/14/16	12.5-15	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-27	9/14/16	17.5-20	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
BH-27	9/14/16	22.5-25	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-27	9/14/16	27.5-30	<0.0101	<0.0123	<0.0137	<0.0533	<0.0139
BH-27	9/14/16	30-32.5	<0.0105	<0.0127	<0.0141	<0.0127	<0.0144
BH-21A	9/15/16	0.5-2.5	<0.0110	<0.0133	<0.0148	<0.0575	<0.0150
BH-21A	9/15/16	7.5-10	0.0398	<0.0128	0.0505 J	0.0807 J	<0.0144
BH-21A	9/15/16	15-17.5	4.100	8.830	9.310	35.500	<0.0367
BH-21A	9/15/16	20-22.5	1.080	0.147	0.918	0.685	<0.0149
BH-21A	9/15/16	25-27.5	4.890	0.0134 J	<0.0146	<0.0568	<0.0148
BH-21A	9/15/16	30-32.5	0.0109 J	<0.0128	<0.0142	<0.0552	<0.014
BH-25	9/15/16	2.5-5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-25	9/15/16	7.5-10	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-25	9/15/16	10-12.5	<0.0107	0.0220 J	<0.0144	<0.0560	<0.0146
BH-25	9/15/16	17.5-20	<0.0108	<0.0132	<0.0146	<0.0568	<0.0149
BH-25	9/15/16	20-22.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-25	9/15/16	25-26.5	0.0266	<0.0132	<0.0147	<0.0571	<0.0149
BH-25	9/15/16	30-32.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-28	9/15/16	2.5-5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-28	9/15/16	5-7.5	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
BH-28	9/15/16	12.5-15	0.0541	0.263	3.300	3.600	<0.0147
BH-28	9/15/16	15-17.5	0.0345	0.106	2.000	0.860	<0.0143
BH-28	9/15/16	20-22.5	0.0928	0.200	3.070	3.050	<0.0151
BH-28	9/15/16	25-27.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-29	9/15/16	2.5-5	<0.0116	<0.0142	<0.0157	<0.0612	<0.0160
BH-29	9/15/16	7.5-10	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-29A	9/15/16	10-12.5	<0.0108	<0.0132	<0.0146	<0.0570	<0.0149
BH-29A	9/15/16	15-20	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-29A	9/15/16	22.5-25	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
BH-29A	9/15/16	27.5-30	<0.0105	<0.0128	<0.0142	<0.0554	<0.0145
BH-29A	9/15/16	32.5-35	<0.0107	<0.0131	<0.0145	<0.0563	<0.0147
BH-30	9/26/16	2.5-5	<0.0105	<0.0128	<0.0142	<0.0553	<0.0145
BH-30	9/26/16	7.5-10	<0.0110	<0.0133	<0.0148	<0.0576	<0.0151
BH-30	9/26/16	12.5-15	<0.0106	<0.0129	<0.0143	<0.0557	<0.0146
BH-30	9/26/16	15-17.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-30A	9/26/16	22.5-25	<0.0103	<0.0125	<0.0139	<0.0541	<0.0141
BH-30A	9/26/16	27.5-30	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-31	9/26/16	2.5-5	<0.0114	<0.0139	<0.0154	<0.0600	<0.0157
BH-31	9/26/16	5-7.5	<0.0123	<0.0150	0.121	5.680	<0.0169
BH-31	9/26/16	12.5-15	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
BH-31	9/26/16	15-17.5	<0.0105	<0.0127	<0.0141	<0.0550	<0.0144
BH-31	9/26/16	22.5-25	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
BH-31	9/26/16	25-27.5	<0.0109	<0.0132	<0.0147	<0.0571	<0.0149
BH-32	7/5/17	2.5-5	<0.0116	<0.0141	<0.0156	<0.0610	<0.0159
BH-32	7/5/17	5-7.5	<0.0113	<0.0137	<0.0152	<0.0591	<0.0154
BH-32	7/5/17	12.5-15	<0.0109	<0.0132	<0.0147	<0.0571	<0.0149
BH-32	7/5/17	15-17.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-32	7/5/17	20-22.5	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
BH-32	7/5/17	27.5-30	<0.0105	<0.0128	0.0154 J	<0.0553	<0.0144
BH-32	7/5/17	30-30.5	<0.0111	<0.0136	<0.0150	<0.0585	<0.0153
BH-33	7/5/17	2.5-5	<0.0112	<0.0137	<0.0151	<0.0590	<0.0154
BH-33	7/5/17	7.5-10	<0.0114	<0.0139	<0.0154	<0.0601	<0.0157
BH-33	7/5/17	12.5-15	<0.0111	<0.0135	<0.0149	<0.0581	<0.0152
BH-33	7/5/17	15-17.5	<0.0110	<0.0134	<0.0149	<0.0579	<0.0151
BH-33	7/5/17	22.5-25	<0.0107	<0.0131	<0.0145	<0.0563	<0.0147
BH-33	7/5/17	25-27.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-34	7/6/17	0.75-2.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
BH-34	7/6/17	7.5-10	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-34	7/6/17	10-12.5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-34	7/6/17	17.5-20	<0.0108	<0.0131	<0.0145	<0.0567	<0.0148
BH-34	7/6/17	20-22.5	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-34	7/6/17	25-27.5	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
BH-34	7/6/17	30-32.5	<0.0105	<0.0128	<0.0141	<0.0551	<0.0144
BH-35	7/6/17	0.5-2.5	<0.0128	<0.0156	<0.0173	<0.0675	<0.0176
BH-35	7/6/17	7.5-10	<0.0109	<0.0132	<0.0147	<0.0572	<0.0149
BH-35	7/6/17	12.5-15	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-35	7/6/17	15-17.5	<0.0110	<0.0134	<0.0148	<0.0578	<0.0151



Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			<b>12</b>	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			<b>0.8</b>	650	400	320	8,800
Inhalation - Industrial/Commercial			<b>1.6</b>	650	400	320	8,800
Inhalation - Construction Worker			<b>2.2</b>	<b>42</b>	58	<b>5.6</b>	140
SCGIER - Class I Groundwater			<b>0.03</b>	<b>12</b>	<b>13</b>	<b>150</b>	<b>0.32</b>
SCGIER - Class II Groundwater			<b>0.17</b>	<b>29</b>	<b>19</b>	<b>150</b>	<b>0.32</b>
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	<b>110</b>	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-35	7/6/17	20-22.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-35	7/6/17	25-27.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-35	7/6/17	30-35	<0.0104	<0.0127	<0.0141	<0.0548	<0.0143

Notes:

- 1) **Bold** = detected concentration exceeds a Tier 1 SRO listed in 35 IAC Part 742
- 2) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
- 3) Shaded cells = not applicable, not analyzed, or sample location was excavated
- 4) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	<b>1.8</b>	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
EX-1	11/25/14	7-8	<0.0992	<0.0887	<0.103	<0.0687	<0.0709	<0.0992	<0.0755	<0.110	<0.0917	<0.0727	<0.0992	<0.0992	<0.0754	<b>3.330</b>	<0.0992	<0.0992
EX-2	11/25/14	7-8	<0.213	<0.190	<0.221	<0.147	<0.152	<0.213	<0.162	<0.235	<0.197	<0.156	<0.213	<0.213	<0.162	<b>5.470</b>	<0.213	<0.213
EX-3	11/25/14	7-8	<0.504	<0.451	<0.523	<0.350	<0.361	<0.504	<0.384	<0.558	<0.466	<0.370	<0.504	<0.504	<0.383	<b>14.500</b>	<0.504	<0.504
B-1	11/25/14	12-13	<0.0500	<0.0447	<0.0518	<0.0346	<0.0357	<0.0500	<0.0381	<0.0553	<0.0462	<0.0367	<0.0500	<0.0500	<0.0380	1.750	<0.0500	<0.0500
B-2	11/25/14	12-13	<0.0504	<0.0451	<0.0522	<0.0349	<0.0360	<0.0504	<0.0384	<0.0557	<0.0466	<0.0369	<0.0504	<0.0504	<0.0383	1.180	<0.0504	<0.0504
B-3	11/25/14	7-8	<0.0489	<0.0437	<0.0507	<0.0339	<0.0350	<0.0489	<0.0372	<0.0541	<0.0452	<0.0359	<0.0489	<0.0489	<0.0371	1.070	<0.0489	<0.0489
B-4	11/25/14	7-8	<0.0492	<0.0440	<0.0510	<0.0341	<0.0352	<0.0492	<0.0374	<0.0544	<0.0455	<0.0361	<0.0492	<0.0492	<0.0374	0.875	<0.0492	<0.0492
Backfill #1	11/25/14		<0.108	<0.0963	<0.112	<0.0746	<0.0770	<0.108	<0.0820	<0.119	<0.0995	<0.0789	<0.108	<0.108	<0.0818	<b>3.420</b>	<0.108	<0.108
PL-1	11/26/14	2.5-3	<0.435	<0.389	<0.451	<0.301	<0.311	<0.435	<0.331	<0.481	<0.402	<0.319	<0.435	<0.435	<0.330	<b>8.440</b>	<0.435	<0.435
PL-2	11/26/14	2.5-3	<0.432	<0.386	<0.448	<0.299	<0.309	<0.432	<0.329	<0.478	<0.399	<0.317	<0.432	<0.432	<0.328	<b>15.000</b>	<0.432	<0.432
PL-3	11/26/14	2.5-3	<0.140	<0.125	<0.145	<0.0972	<0.100	<0.140	<0.107	<0.155	<0.130	<0.103	<0.140	<0.140	<0.107	<b>6.710</b>	<0.140	<0.140
B-5	11/26/14	7-8	<0.0782	<0.0700	<0.0811	<0.0542	<0.0559	<0.0782	<0.0596	<0.0866	<0.0723	<0.0574	<0.0782	<0.0782	<0.0594	<b>2.160</b>	<0.0782	<0.0782
B-6	11/26/14	7-8	<0.010	<0.0089	<0.0103	<0.0069	<0.0071	<0.010	<0.0076	<0.0110	<0.0092	<0.0073	<0.010	<0.010	<0.0076	0.296	<0.010	<0.010
EX-4	11/26/14	4-5	<0.127	<0.114	<0.132	<0.0880	<0.0908	<0.127	<0.0967	<0.140	<0.117	<0.0931	<0.127	<0.127	<0.0965	<b>8.600</b>	<0.127	<0.127
EX-5	11/26/14	4-5	<0.427	<0.382	<0.443	<0.296	<0.306	<0.427	<0.325	<0.473	<0.395	<0.313	<0.427	<0.427	<0.325	<b>20.700</b>	<0.427	<0.427
EX-6	11/26/14	4-5	<0.431	<0.386	<0.447	<0.299	<0.309	<0.431	<0.329	<0.478	<0.399	<0.317	<0.431	<0.431	<0.328	<b>20.900</b>	<0.431	<0.431
Backfill #2	11/26/14		<0.0497	<0.0445	<0.0515	<0.0344	<0.0355	<0.0497	<0.0378	<0.0550	<0.0459	<0.0364	<0.0497	<0.0497	<0.0377	0.962	<0.0497	<0.0497
EX-1	4/22/15	7-8	<0.0483	<0.0432	<0.0501	<0.0335	<0.0346	<0.0483	<0.0368	<0.0535	<0.0447	<0.0355	<0.0483	<0.0483	<0.0367	1.240	<0.0483	<0.0483
EX-2	4/22/15	7-8	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	0.777	<0.0097	<0.0097
B-1	4/22/15	15.5	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	<0.0095	<0.0095
B-2	4/22/15	16	<0.0101	<0.0090	<0.0104	<0.0070	<0.0072	<0.0101	<0.0077	<0.0111	<0.0093	<0.0074	0.0107 J	<0.0101	<0.0076	<0.0101	0.0137 J	<0.0101
B-3	4/22/15	16	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0119 J	<0.0096

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	<b>1.8</b>	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-4	4/23/15	16.5	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-5	4/23/15	15	<0.0096	<0.0086	<0.0099	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0102 J	<0.0096
EX-3	4/23/15	7-8	<0.0956	<0.0855	<0.0991	<0.0663	<0.0684	<0.0956	<0.0728	<0.106	<0.0884	<0.0701	<0.0956	<0.0956	<0.0726	<b>3.890</b>	<0.0956	<0.0956
EX-4	4/23/15	7-8	<0.0482	<0.0431	<0.0500	<0.0334	<0.0345	<0.0482	<0.0367	<0.0533	<0.0446	<0.0353	<0.0482	<0.0482	<0.0366	<b>2.100</b>	<0.0482	<0.0482
B-6	4/24/15	19	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-7	4/24/15	19	<0.0094	<0.0084	<0.0098	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0072	<0.0094	<0.0094	<0.0094
B-8	4/27/15	16	<0.0099	<0.0089	<0.0103	<0.0069	<0.0071	<0.0099	<0.0076	<0.0110	<0.0092	<0.0073	<0.0099	<0.0099	<0.0076	<0.0099	<0.0099	<0.0099
B-9	4/27/15	15	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	0.0118 J	<0.0096
B-10	4/28/15	15.5	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0088	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0132 J	<0.0096
B-11	4/28/15	17	<0.0097	<0.0086	<0.0100	0.0110 J	0.0090 J	0.0110 J	0.0088 J	<0.0107	0.0191 J	<0.0071	0.0252	<0.0097	<0.0073	0.0308	0.0182 J	0.0236
B-12	4/29/15	18	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
EX-5	4/29/15	4-5	<0.391	<0.350	<0.405	<0.271	<0.279	<0.391	<0.298	<0.432	<0.361	<0.287	<0.391	<0.391	<0.297	<b>9.120</b>	<0.391	<0.391
EX-6	4/29/15	4-5	<0.391	<0.350	<0.405	<0.271	<0.280	<0.391	<0.298	<0.433	<0.362	<0.287	<0.391	<0.391	<0.297	<b>10.900</b>	<0.391	<0.391
B-13	4/29/15	15.5	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	0.0129 J	<0.0097
EX-7	4/30/15	4-5	<0.103	<0.0923	<0.107	<0.0715	<0.0737	<0.103	<0.0785	<0.114	<0.0954	<0.0756	<0.103	<0.0103	<0.0783	<b>3.290</b>	<0.103	<0.103
B-14	4/30/15	15.5	<0.0097	<0.0087	<0.010	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-8	4/30/15	4-5	<0.197	<0.176	<0.204	<0.136	<0.141	<0.197	<0.150	<0.218	<0.182	<0.144	<0.197	<0.197	<0.149	<b>3.750</b>	<0.197	<0.197
B-15	5/1/15	15.5	<0.0193	<0.0172	<0.0200	<0.0134	<0.0138	<0.0193	<0.0147	<0.0213	<0.0178	<0.0141	<0.0193	<0.0193	<0.0146	0.0230 J	<0.0193	<0.0193
B-16	5/1/15	17.5	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0071	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
B-17	5/1/15	15.5	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0099 J	<0.0096
EX-9	5/4/15	4-5	<0.0865	<0.0774	<0.0897	<0.0600	<0.0619	0.108 J	<0.0659	<0.0957	<0.0800	<0.0635	<0.0865	<0.0865	<0.0657	<b>1.970</b>	<0.0865	<0.0865
B-18	5/4/15	15.5	<0.0098	<0.0087	<0.0101	<0.0068	<0.0070	<0.0098	<0.0074	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-19	5/4/15	15.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-20	5/4/15	14	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-10	5/6/15	8-9	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	0.0169 J	<0.0073	<0.0106	<0.0088	<0.0070	0.0104 J	<0.0095	<0.0073	<0.0753	<0.0095	<0.0095
B-21	5/6/15	15.5	<0.0100	<0.0090	<0.0104	<0.0069	<0.0072	0.0130 J	<0.0076	<0.00111	<0.0093	<0.0073	<0.0100	<0.0100	<0.0076	<0.00100	<0.00100	<0.00100
B-22	5/7/15	15.5	<0.0098	<0.0088	<0.0102	<0.068	<0.0070	<0.0128 J	0.0075	<0.0109	<0.0091	<0.0072	<0.0098	<0.0098	<0.0075	<0.0098	<0.0098	<0.0098
B-23	5/7/15	15.5	<0.0099	<0.0088	<0.0102	<0.068	<0.0071	0.0128 J	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099
B-24	5/8/15	9	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
B-25	5/8/15	15.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	0.0165 J	<0.0096
B-26	5/8/15	15	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	0.0097 J	<0.0097
EX-11	5/8/15	3-4	<0.0107	<0.0096	<0.0111	0.0094 J	0.0115 J	0.0141 J	0.0100 J	<0.0118	0.0178 J	<0.0078	0.0246	<0.0107	0.0084 J	<0.0107	<0.0107	0.0193 J
EX-12	5/8/15	3-4	<0.0107	<0.0096	<0.0111	<0.0074	<0.0076	<0.0107	<0.0081	<0.0118	<0.0099	<0.0078	<0.0107	<0.0107	<0.0081	<0.0107	<0.0107	<0.0107
EX-13	5/13/15	4-5	<0.0103	<0.0092	<0.0107	<0.0072	<0.0074	<0.0103	<0.0079	<0.0114	<0.0095	<0.0076	<0.0103	<0.0103	<0.0078	<0.0103	<0.0103	<0.0103
B-27	5/13/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	0.0097	<0.0097
B-29	5/13/15	9	<0.0098	<0.0087	<0.0101	<0.0068	<0.0070	<0.0098	<0.0074	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098
EX-14	5/14/15	4-5	<0.0106	<0.0095	<0.0110	0.0101 J	0.0157 J	0.0175 J	0.0168 J	0.0159 J	0.0201 J	<0.0078	0.0384	<0.0106	0.0137 J	<0.0106	0.0183 J	0.0276
B-28	5/14/15	13	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-30	5/14/15	11	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-31	5/14/15	11	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	0.0135 J	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-15	5/15/15	8-9	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.007	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-32	5/15/15	11	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-33	5/15/15	11	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-34	5/15/15	11	<0.0099	<0.0088	<0.0102	<0.0068	<0.0071	<0.0099	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
Overburden 1	5/15/15		<0.0203	<0.0182	<0.0211	0.0410	0.0476	0.0432	0.0410	0.0470	0.0505	<0.0149	0.0948	<0.0203	0.0360 J	0.691	0.0417	0.0748
B-35	5/18/15	12	<0.0097	<0.0087	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-16	5/18/15	9-10	<0.010	<0.0089	<0.0103	<0.0069	<0.0071	<0.010	<0.0076	<0.0110	<0.0092	<0.0073	<0.010	<0.010	<0.0076	<0.010	<0.010	<0.010
EX-17	5/18/15	9-10	<0.0097	<0.0087	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-36	5/18/15	12	<0.0097	<0.0087	<0.0100	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	0.0729	<0.0097	<0.0097
Overburden-2	5/18/15		<0.0098	<0.0088	0.0113 J	0.0478	0.0659	0.0726	0.0609	0.0690	0.0759	0.0154 J	0.135	<0.0098	0.0495	0.0208	0.0582	0.110
B-37	5/19/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-38	5/19/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-39	5/19/15	12	<0.0093	<0.0083	<0.0097	<0.0065	<0.0067	<0.0093	<0.0071	<0.0103	<0.0086	<0.0068	<0.0093	<0.0093	<0.0071	<0.0093	<0.0093	<0.0093
EX-18	5/19/15	3-4	<0.0109	<0.0097	<0.0113	0.0250	0.0282	0.0300	0.0226	0.0274	0.0345	<0.0080	0.0825	<0.0109	0.0200 J	<0.0109	0.0379	0.0564
EX-19	5/19/15	3-4	<0.0104	<0.0093	<0.0108	<0.0072	<0.0074	<0.0104	<0.0079	<0.0115	<0.0096	<0.0076	<0.0104	<0.0104	<0.0079	<0.0104	<0.0104	<0.0104
B-40	5/22/15	13	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-41	5/27/15	15	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	0.0118 J	<0.0095
EX-20	5/27/15	3-4	<0.0015	<0.0103	0.0433	0.296	0.365	0.471	0.295	0.339	0.429	0.0951	0.567	<0.0115	0.257	0.0398	0.126	0.494
EX-21	5/27/15	3-4	<0.0700	<0.0626	<0.0726	<0.0485	<0.0500	<0.0700	<0.0533	<0.0774	<0.0647	<0.0513	<0.0700	<0.0700	<0.0532	1.210	<0.0700	<0.0700
EX-22	5/27/15	4-5	<0.0112	<0.0100	<0.0116	<0.0078	<0.0080	<0.0112	<0.0085	<0.0124	<0.0104	<0.0082	<0.0112	<0.0112	<0.0085	0.367	<0.0112	<0.0112
B-42	5/27/15	12.5	<0.0098	<0.0088	<0.0102	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0091	<0.0072	<0.0098	<0.0098	<0.0074	0.0322	<0.0098	<0.0098
B-43	5/27/15	12.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-44	5/27/15	15	<0.0097	<0.0087	<0.0100	0.0083 J	0.0113 J	0.0130 J	0.0086 J	<0.0107	0.0136 J	<0.0071	0.0124 J	<0.0097	<0.0074	<0.0097	<0.0097	0.0116 J
B-45	5/28/15	12.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-23	5/28/15	8.5-9.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-24	5/28/15	3-4	<0.0106	<0.0095	<0.0110	0.0286	0.0374	0.0401	0.0361	0.0394	0.0432	0.0100 J	0.0795	<0.0106	0.0307	0.0506	0.0190 J	0.0721

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-46	6/5/15	14.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-25	6/5/15	10-11	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0088	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-26	6/5/15	3.5-5	<0.0098	<0.0088	<0.0101	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098
EX-27	6/5/15	8.5-9.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-28	6/8/15	3-4	<0.0099	<0.0088	<0.0102	<0.0068	<0.0070	<0.0099	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099
EX-28	6/8/15	8-9	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
BH-21	6/17/15	10-12.5	<0.0768	<0.0687	<0.0797	<0.0533	<0.0549	<0.0768	<0.0585	<0.0850	<0.0710	<0.0564	<0.0768	<0.0768	<0.0584	1.440	<0.0768	<0.0768
BH-22	9/8/15	7.5-10	<0.0098	<0.0088	<0.0101	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0091	<0.0072	<0.0098	<0.0098	<0.0074	0.0674	<0.0098	<0.0098
BH-22	9/8/15	25.5-27	<0.0095	<0.0085	<0.0098	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	<0.0095	<0.0095
BH-23	9/8/15	25-26.5	<0.0099	<0.0089	<0.0103	<0.0069	<0.0071	<0.0099	<0.0075	<0.0109	<0.0091	<0.0073	<0.0099	<0.0099	<0.0075	0.0156 J	<0.0099	<0.0099
BH-23	9/8/15	28.5-30	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
BH-24	9/8/15	4-6	<0.0101	<0.0090	<0.0104	<0.0070	<0.0072	<0.0101	<0.0077	<0.0112	<0.0093	<0.0074	<0.0101	<0.0101	<0.0077	0.153	<0.0101	<0.0101
BH-24	9/8/15	13.5-15	<0.0101	<0.0090	<0.0105	<0.0070	<0.0072	<0.0101	<0.0077	<0.0112	<0.0093	<0.0074	<0.0101	<0.0101	<0.0077	<0.0101	<0.0101	<0.0101
BH-22A	9/14/16	2.5-5	<0.0046	<0.0039	<0.0068	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0062	<0.0049	<0.0026	<0.010	<0.0138	<0.0053
BH-22A	9/14/16	10-12.5	<0.0045	<0.0038	<0.0066	0.0048 J	0.0052 J	0.0076 J	0.0041 J	0.0064 J	0.0132	<0.0026	0.0152 J	<0.0048	0.0034 J	<0.0097	0.0172 J	0.0111 J
BH-22A	9/14/16	15-17.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	0.0034 J	0.0041 J	<0.0030	0.0084 J	<0.0027	<0.0062	<0.0050	<0.0026	0.0937	0.0146 J	<0.0054
BH-22A	9/14/16	20-23	<0.0046	<0.0039	<0.0068	<0.0037	0.0034 J	0.0058 J	0.0039 J	<0.0030	0.0131 J	<0.0026	0.0076 J	<0.0049	<0.0026	0.165	<0.0138	0.0075 J
BH-23A	9/14/16	2.5-5	<0.0055	<0.0047	<0.0081	<0.0045	<0.0035	<0.0040	<0.0029	<0.0035	<0.0048	<0.0032	<0.0074	<0.0058	<0.0031	<0.0119	<0.0165	<0.0064
BH-23A	9/14/16	5-7.5	<0.0048	<0.0041	<0.0071	<0.0039	<0.0031	<0.0035	<0.0025	<0.0031	<0.0042	<0.0028	<0.0064	<0.0051	<0.0027	<0.0104	<0.0144	<0.0056
BH-23A	9/14/16	10-12.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0070 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-23A	9/14/16	15-17.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0050 J	<0.0026	0.0075 J	<0.0049	<0.0026	<0.0099	<0.0137	0.0056 J
BH-23A	9/14/16	21.5-22.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-23A	9/14/16	31-32.5	<0.0045	<0.0038	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0061	<0.0048	<0.0026	<0.0098	<0.0136	<0.0053
BH-23A	9/14/16	32.5-35	<0.0050	<0.0042	<0.0073	0.0068 J	0.0115	0.0221	0.0157	0.0149	0.0201	0.0035 J	0.0187 J	<0.0053	0.0116	<0.0108	<0.0149	0.0134 J
BH-26	9/14/16	1-2.5	<0.0048	0.0310	0.0281	0.0771	0.0974	0.0896	0.0565	0.109	0.0974	0.0217	0.125	<0.0051	0.0544	<0.0104	0.0349 J	0.109
BH-26	9/14/16	7.5-10	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0040 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-26	9/14/16	10-12.5	<0.0047	<0.0040	<0.0069	<0.0038	<0.0030	<0.0034	<0.0025	<0.0030	0.0047 J	<0.0027	<0.0063	<0.0050	<0.0027	<0.0102	<0.0141	<0.0055
BH-26	9/14/16	17.5-20	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0038 J	<0.0029	0.0049 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0141 J	<0.0052
BH-26	9/14/16	20-22.5	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0032	0.0027 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-26	9/14/16	27.5-29.25	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	0.0035 J	<0.0030	<0.0040	<0.0027	<0.0062	<0.00049	<0.0026	<0.0100	<0.0138	<0.0054
BH-27	9/14/16	2.5-5	<0.0049	<0.0042	<0.0073	<0.0040	<0.0032	<0.0036	<0.0026	<0.00032	<0.0043	<0.0028	<0.0066	<0.0053	<0.0028	<0.0107	<0.0148	<0.0057
BH-27	9/14/16	7.5-10	<0.0045	0.0051 J	0.0130 J	0.0238	0.0269	0.0272	0.0184	0.0256	0.0329	0.0064 J	0.0462	<0.0048	0.0168	0.0166 J	0.0371 J	0.0385
BH-27	9/14/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0023	<0.0029	0.0083 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0143 J	<0.0052
BH-27	9/14/16	17.5-20	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	0.0041 J	0.0088	<0.0029	0.0108 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0097	0.0304 J	0.0063 J
BH-27	9/14/16	22.5-25	<0.0045	<0.0038	<0.0066	0.0042 J	0.0046 J	0.0058 J	0.0060 J	0.0044 J	0.0121 J	<0.0026	0.0119 J	<0.0048	<0.00025	<0.0097	<0.0135	0.0116 J
BH-27	9/14/16	27.5-30	<0.0043	<0.0036	<0.0063	<0.0035	<0.0028	<0.0031	0.0044 J	<0.0028	0.0089 J	<0.0025	<0.0057	<0.0046	<0.0024	<0.0093	<0.0128	<0.0050
BH-27	9/14/16	30-32.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0029	<0.0032	0.0039 J	<0.0028	0.0084 J	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	<0.0132	<0.0051
BH-21A	9/15/16	0.5-2.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054
BH-21A	9/15/16	7.5-10	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	0.0138 J	<0.0133	<0.0051
BH-21A	9/15/16	15-17.5	<0.0180	<0.0153	<0.0265	<0.0147	<0.0117	<0.0131	<0.0094	<0.0116	<0.0157	<0.0104	<0.0242	<0.0192	<0.0102	1.750	<0.0541	<0.0209
BH-21A	9/15/16	20-22.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	0.0040 J	<0.0026	<0.0061	<0.0049	<0.0026	0.303	<0.0137	<0.0053
BH-21A	9/15/16	25-27.5	<0.0045	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-21A	9/15/16	30-32.5	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	<0.0133	<0.0051
BH-25	9/15/16	2.5-5	<0.0045	<0.0038	<0.0066	0.0068 J	0.0043 J	0.0050 J	0.0029 J	0.0048 J	0.0095 J	<0.0026	0.0289	<0.0048	<0.0025	<0.0097	0.0227 J	0.0189

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-25	9/15/16	7.5-10	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	0.0035 J	0.0024 J	<0.0029	0.0098 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-25	9/15/16	10-12.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	0.0045 J	<0.0024	<0.0029	0.0122 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0160 J	<0.0052
BH-25	9/15/16	17.5-20	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-25	9/15/16	20-22.5	<0.0045	<0.0038	<0.0066	0.0039 J	<0.0029	<0.0033	0.0030 J	<0.0029	0.0051 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-25	9/15/16	25-26.5	<0.0046	<0.0039	<0.0067	0.0040 J	<0.0030	<0.0033	0.0033 J	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-25	9/15/16	30-32.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	2.5-5	<0.0045	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-28	9/15/16	5-7.5	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	12.5-15	<0.0045	<0.0038	<0.0066	0.0039 J	<0.0029	<0.0033	<0.0024	<0.0029	0.0045 J	<0.0026	<0.0060	<0.0048	<0.0026	0.262	<0.0135	<0.0052
BH-28	9/15/16	15-17.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0028	<0.0032	<0.0023	<0.0028	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	0.137	<0.0132	<0.0051
BH-28	9/15/16	20-22.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	0.309	<0.0139	<0.0054
BH-28	9/15/16	25-27.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0024 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-29	9/15/16	2.5-5	<0.0049	<0.0042	<0.0072	0.0050 J	0.0034 J	0.0062 J	0.0032 J	<0.0032	0.0053 J	<0.0028	0.0108 J	<0.0052	<0.0028	<0.0106	<0.0147	0.0078 J
BH-29	9/15/16	7.5-10	<0.0045	<0.0038	<0.0066	0.0037 J	<0.0029	0.0033 J	<0.0024	<0.0029	0.0043 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-29A	9/15/16	10-12.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-29A	9/15/16	15-20	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-29A	9/15/16	22.5-25	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0026	<0.0098	<0.0135	<0.0052
BH-29A	9/15/16	27.5-30	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-29A	9/15/16	32.5-35	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0061	<0.0048	<0.0026	<0.0098	<0.0136	<0.0052
BH-30	9/26/16	2.5-5	<0.0044	<0.0038	<0.0065	0.0185	0.0222	0.0305	0.0187	0.0147	0.0254	0.0033 J	0.0397	<0.0047	0.0150	<0.0096	0.0191 J	0.0307
BH-30	9/26/16	7.5-10	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0139	<0.0054
BH-30	9/26/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	0.0033 J	0.0058 J	<0.0029	0.0075 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	0.0071 J



Table 2

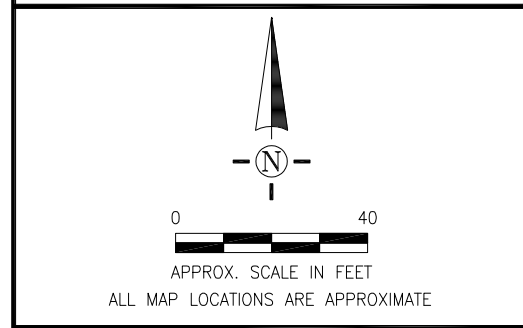
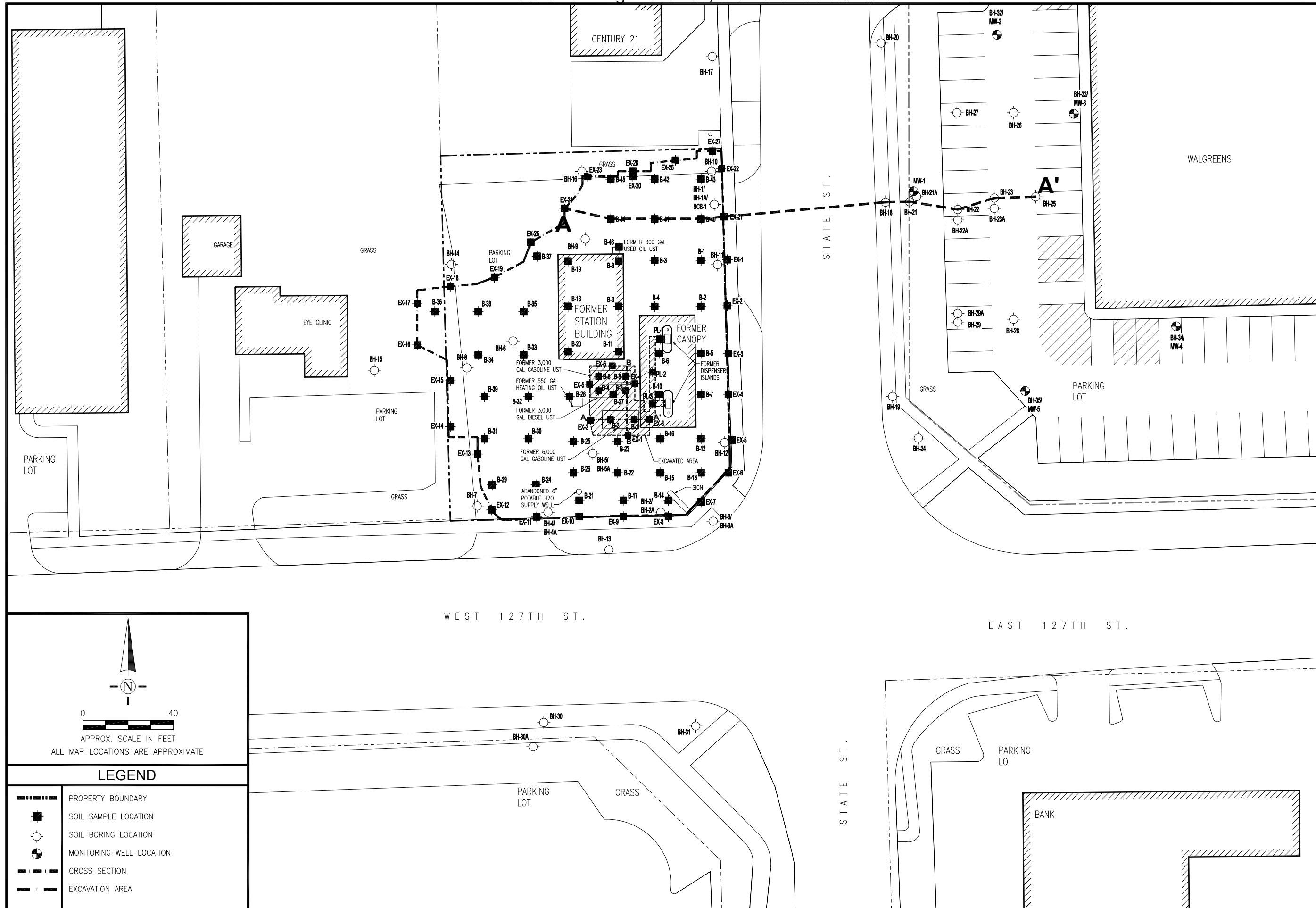
Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes	Indicator Contaminants and Tier 1 SROs																	
	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)		
Soil Ingestion - Residential	4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300		
Soil Ingestion - Industrial/Commercial	120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000		
Soil Ingestion - Construction Worker	120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000		
Inhalation - Residential	---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---		
Inhalation - Industrial/Commercial	---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---		
Inhalation - Construction Worker	---	---	---	---	---	---	---	---	---	---	---	---	---	<b>1.8</b>	---	---		
SCGIER - Class I Groundwater	570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200		
SCGIER - Class II Groundwater	2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000		
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-30	9/26/16	15-17.5	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	0.0033 J	0.0062 J	<0.0029	0.0085 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0097	<0.0134	0.0082 J
BH-30A	9/26/16	22.5-25	<0.0043	<0.0037	<0.0064	<0.0035	<0.0028	<0.0032	<0.0023	<0.0028	<0.0038	<0.0025	<0.0058	<0.0046	<0.0025	<0.0094	<0.0130	<0.0050
BH-30A	9/26/16	27.5-30	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0028 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	0.0128 J	<0.0134	<0.0052
BH-31	9/26/16	2.5-5	0.0222	0.0142	0.139	0.593	0.725	0.708	0.367	0.406	0.828	0.112	1.160	0.0317	0.377	0.0107 J	0.747	0.890
BH-31	9/26/16	5-7.5	<0.0052	<0.0044	<0.0076	<0.0042	<0.0034	<0.0038	<0.0027	<0.0033	<0.0045	<0.0030	<0.0069	<0.0055	<0.0029	<0.0112	<0.0155	<0.0060
BH-31	9/26/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0042 J	<0.0029	0.0074 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0135	0.0078 J
BH-31	9/26/16	15-17.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0029	0.0038 J	0.0118	<0.0029	0.0109 J	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	0.0345 J	0.0061 J
BH-31	9/26/16	22.5-25	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0033	0.0037 J	<0.0030	<0.0040	<0.0026	<0.0062	<0.0049	<0.0026	<0.010	<0.0138	<0.0053
BH-31	9/26/16	25-27.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053

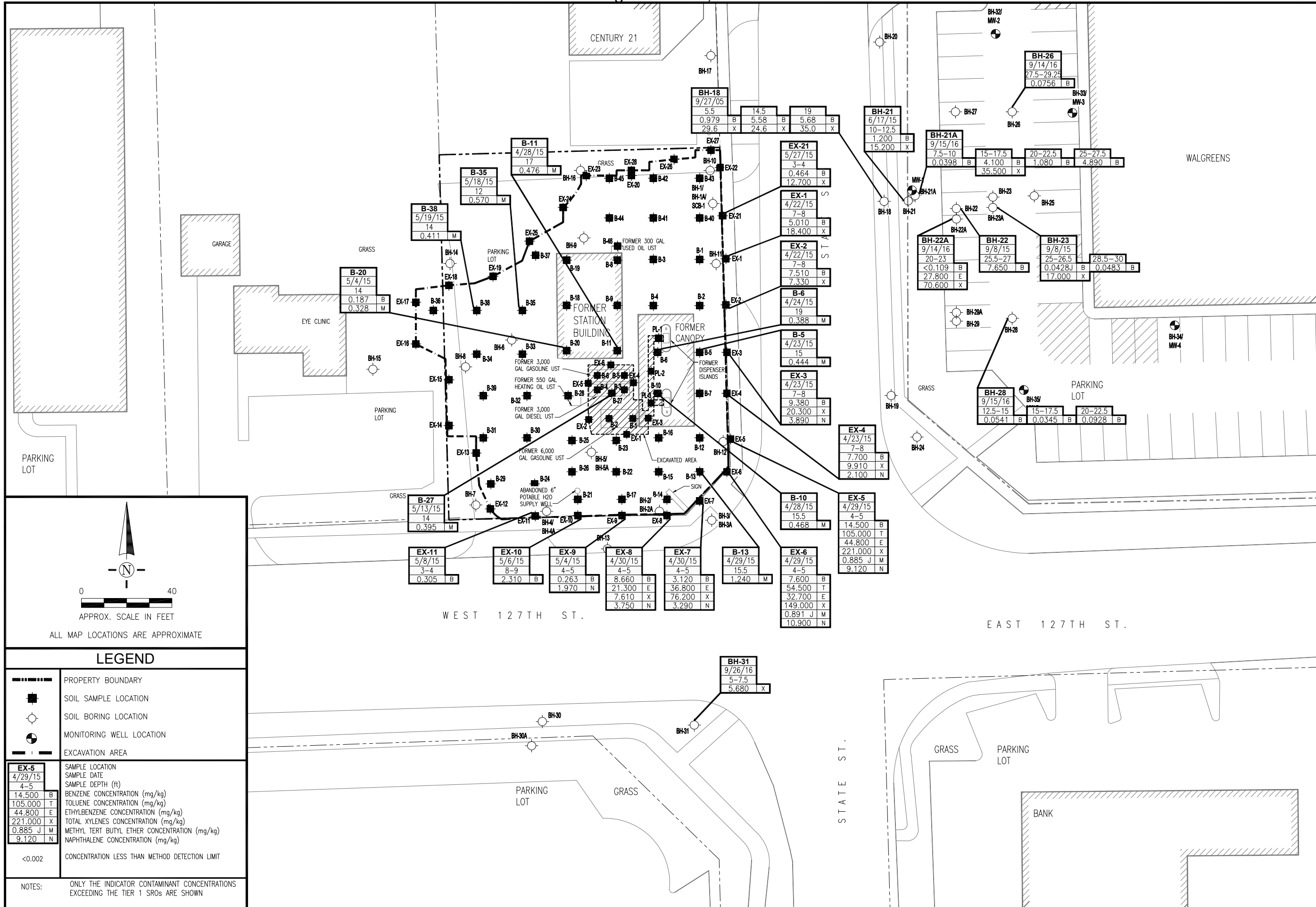
Notes:

- 1) **Bold** = detected concentration or method detection limit exceeds a SRO listed in 35 IAC Part 742 or in the Non-TACO Objectives tables
- 2) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
- 3) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- 4) --- = no toxicity criteria available for the route of exposure
- 5) Shaded cells = not applicable or sample located was excavated
- 6) Pursuant to 35 IAC Section 742, Appendix B, Table A, the SRO listed in 35 IAC Section 742, Appendix A, Table H was utilized



LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	CROSS SECTION
	EXCAVATION AREA

<b>FIGURE 1</b>	DRAWN BY: SAA APPROVED BY: MIC SCALE: 1" = 40' DATE: 10/24/2019 DRAWING FILE: MD14-170
	SAA MIC 1" = 40' 10/24/2019 MD14-170
SITE MAP BOI, LLC 1196 STATE STREET LEMONT, COOK COUNTY, IL 60439	
BOI, LLC 201 Danny's Drive Suite 5 Streator, IL 61364	
TriCore Environmental, LLC 2368 Corporate Lane, Suite 116 Naperville, IL 60563 (630) 520-9973	



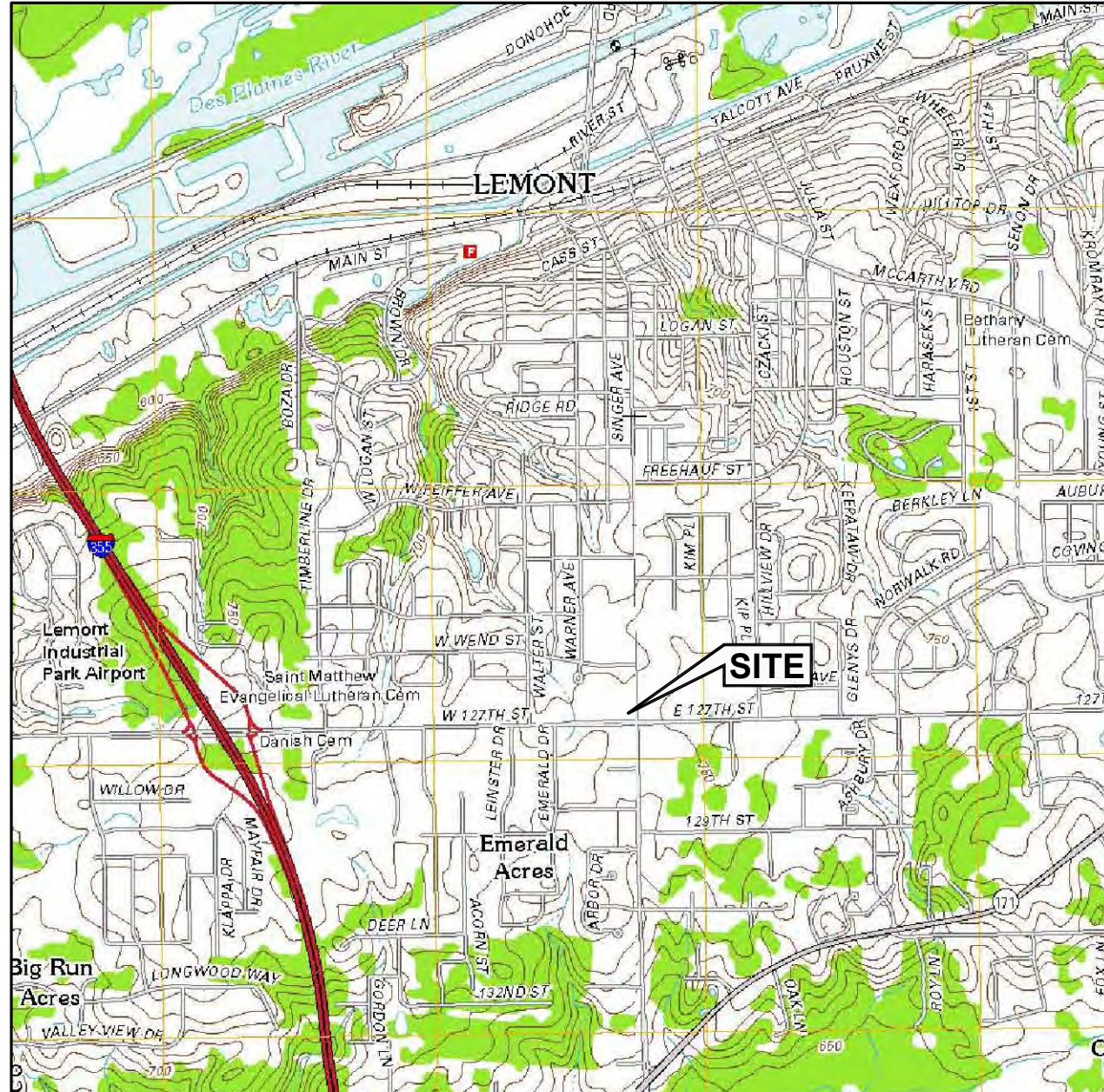
**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

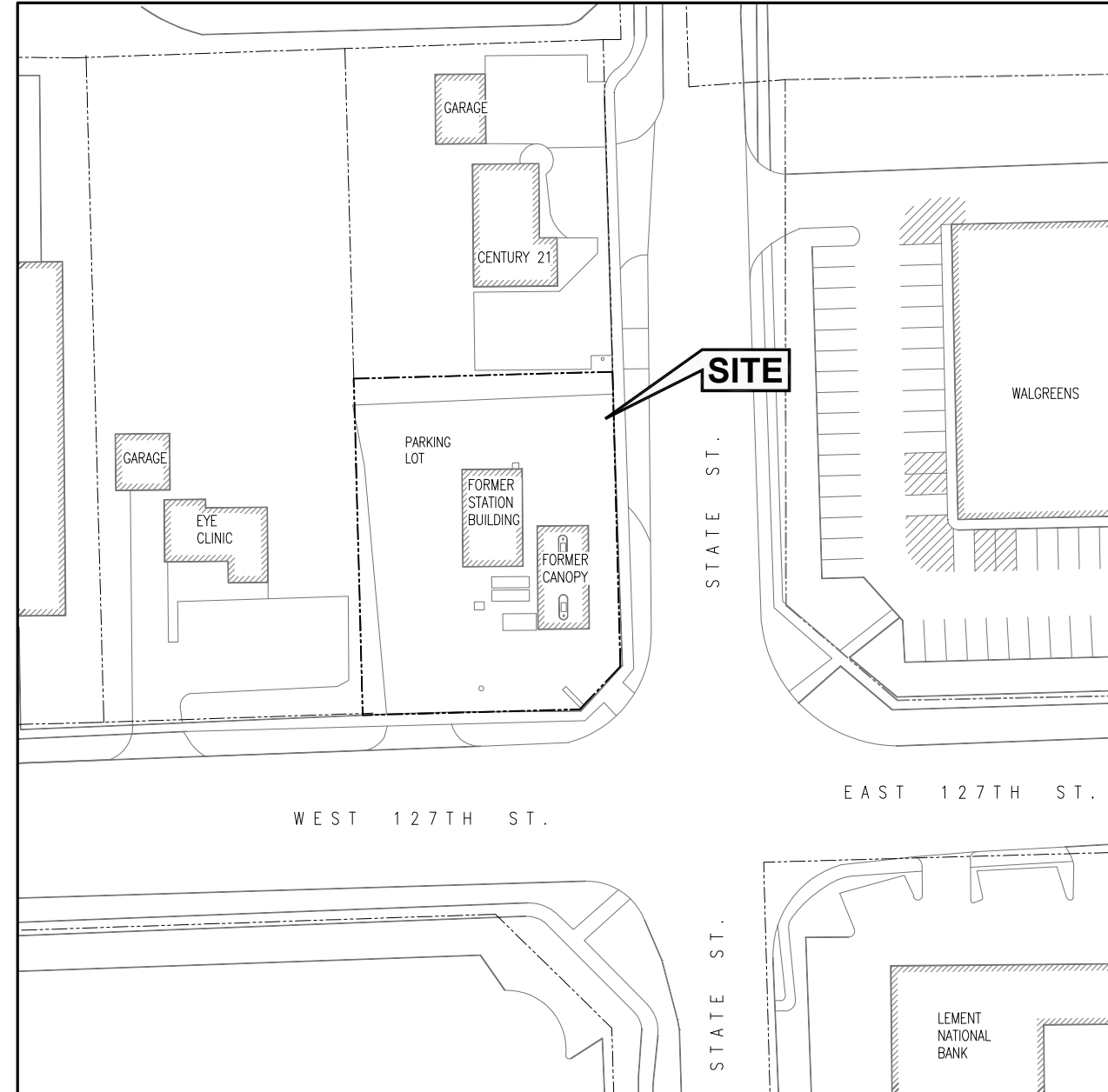
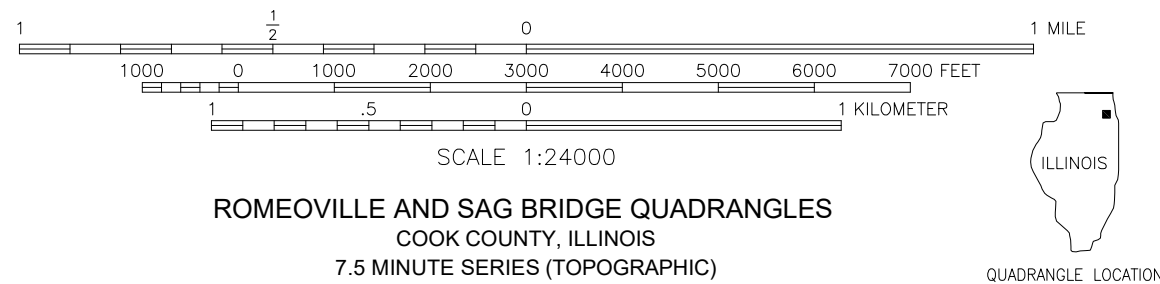
**SOIL ANALYTICAL RESULTS**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY: JB  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 10/24/2019  
 DRAWING FILE: MD14-170

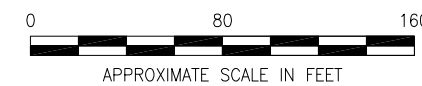
**FIGURE 2**



U.S.G.S. TOPOGRAPHIC MAP



SCHEMATIC OF SURROUNDING AREA



**TriCore Environmental, LLC**  
2388 Corporate Lane, Suite 116  
Naperville, IL 60563  
(630) 520-9973

**BOI, LLC**  
201 Danny's Drive  
Suite 5  
Streator, IL 61364

**SITE LOCATION MAP**  
BOI, LLC  
1196 STATE STREET  
LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
APPROVED BY: MIC  
SCALE: AS NOTED  
DATE: 10/25/2019  
DRAWING FILE: MD14-170



0 80  
APPROX. SCALE IN FEET  
ALL MAP LOCATIONS ARE APPROXIMATE

LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	EXCAVATION AREA
	COMMUNITY WATER SUPPLY WELL AND 200 ft SETBACK ZONE

 <b>TriCore Environmental, LLC</b> 2388 Corporate Lane, Suite 116 Naperville, IL 60563 (630) 520-9973	<b>BOI, LLC</b> 201 Danny's Drive Suite 5 Streator, IL 61364
	<b>COMMUNITY WATER SUPPLY WELL LOCATIONS AND SETBACK ZONES</b> BOI, LLC 1196 STATE STREET LEMONT, COOK COUNTY, IL 60439
DRAWN BY: SAA APPROVED BY: MIC SCALE: 1" = 80' DATE: 10/24/2019 DRAWING FILE: MD14-170	<b>FIGURE 4</b>



Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-1-A	9/18/03	7.5-8	0.316	0.430	6.31	13.2	
BH-1-B	9/18/03	14-14.5	<0.0289	<0.289	<0.289	<0.289	
BH-1-C	8/10/04	18	<0.002	<0.005	<0.005	<0.005	
BH-2-A	9/18/03	4.5-5	3.6000	0.293	5.730	4.030	
BH-2-B	8/10/04	13	0.0879	<0.005	<0.005	<0.005	
BH-2-C	8/10/04	23	<0.002	<0.005	<0.005	<0.005	
BH-3-A	9/18/03	6.5-7	<0.0286	<0.286	0.904	0.596	
BH-3-B	8/10/04	13	0.0293	<0.005	<0.005	<0.005	
BH-3-C	8/10/04	18	<0.002	<0.005	<0.005	<0.005	
BH-4-A	9/18/03	4.5-5	0.184	<0.309	0.309	<0.309	
BH-4-B	8/10/04	13	<0.002	<0.005	<0.005	<0.005	
BH-5-A	9/18/03	4.5-5	2.710	4.86	4.78	10.3	
BH-5-B	8/10/04	13	1.070	1.11	<0.005	0.522	
BH-5-C	8/10/04	24	<0.002	<0.005	<0.005	<0.005	
BH-6-A	8/2/05	5	0.0719	<0.005	<0.005	0.0054	
BH-6-B	8/2/05	9	1.060	1.090	1.91	8.1	
BH-6-C	8/2/05	15	<0.002	<0.005	<0.005	<0.005	
BH-6-D	8/2/05	18	0.0064	<0.005	<0.005	<0.005	
BH-7-A	8/2/05	4	<0.002	<0.005	<0.005	<0.005	
BH-7-B	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-7-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-7-D	8/2/05	18	<0.002	<0.005	<0.005	<0.005	
BH-8-A	8/2/05	3	<0.002	<0.005	<0.005	<0.005	
BH-8-B	8/2/05	9	0.459	<0.005	0.438	0.419	
BH-8-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-9-A	8/2/05	4	<0.002	<0.005	<0.005	<0.005	
BH-9-B	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-9-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-10-A	8/2/05	4	<0.030	0.0882	1.98	4.920	
BH-10-B	8/2/05	9	2.660	0.348	1.79	3.820	
BH-10-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-10-D	8/2/05	18-20	<0.002	<0.005	<0.005	<0.005	

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-11-A	8/2/05	4	24.5	65.8	52.7	207.0	
BH-11-B	8/2/05	9	5.730	0.4	4.030	8.0	
BH-11-C	8/2/05	14	0.0045	0.0056	<0.005	0.0093	
BH-12-A	8/2/05	4	10.2	39.5	12.0	59.0	
BH-12-B	8/2/05	9	14.3	0.897	10.4	9.140	
BH-12-C	8/2/05	14	0.0126	0.0261	<0.005	0.0115	
BH-12-D	8/2/05	19	<0.002	<0.005	<0.005	<0.005	
BH-13-A	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-13-B	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-14-A	9/26/05	4-5	<0.002	<0.005	<0.005	<0.005	
BH-14-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-14-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-15-A	9/26/05	4.5	<0.002	<0.005	<0.005	<0.005	
BH-15-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-15-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-16-A	9/26/05	4.5	<0.002	<0.005	<0.005	<0.005	
BH-16-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-16-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-17-A	9/26/05	5	<0.002	<0.005	<0.005	<0.005	
BH-17-B	9/26/05	9	<0.002	<0.005	<0.005	<0.005	
BH-17-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-18-A	9/27/05	5.5	0.979	0.997	9.19	29.6	
BH-18-B	9/27/05	14.5	5.58	0.681	9.84	24.6	
BH-18-C	9/27/05	19	5.68	6.890	9.11	35.0	
BH-19-A	9/27/05	8	0.0057	<0.005	<0.005	0.0057	
BH-19-B	9/27/05	14	0.0159	0.0097	0.0397	0.0752	
BH-19-C	9/27/05	19	<0.002	<0.005	<0.005	<0.005	
BH-20-A	11/12/05	4	<0.002	<0.005	<0.005	<0.005	
BH-20-B	11/12/05	8	<0.002	<0.005	<0.005	<0.005	
BH-20-C	11/12/05	14	<0.002	<0.005	<0.005	<0.005	
EX-1	11/25/14	7-8	1.240	0.264	7.810	2.910	0.103 J
EX-2	11/25/14	7-8	6.330	3.200	35.900	54.500	0.655 J



Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
EX-3	11/25/14	7-8	1.890	3.360	32.600	158.000	0.972 J
B-1	11/25/14	12-13	1.860	0.164	0.373	1.630	<0.0301
B-2	11/25/14	12-13	5.200	<0.244	1.460	2.790	<0.244
B-3	11/25/14	7-8	1.340	0.129	0.143	0.345	<0.0293
B-4	11/25/14	7-8	2.070	0.156	0.193	0.398	<0.0295
Backfill #1	11/25/14		5.750	1.400	24.600	7.880	0.450 J
PL-1	11/26/14	2.5-3	3.850	3.340	51.200	112.000	2.060
PL-2	11/26/14	2.5-3	14.100	4.180	96.000	269.000	1.640 J
PL-3	11/26/14	2.5-3	13.700	13.800	103.000	356.000	3.700
B-5	11/26/14	7-8	3.070	0.115	0.351	0.533	<0.0293
B-6	11/26/14	7-8	0.0481	<0.0293	0.0589	0.258	<0.0293
EX-4	11/26/14	4-5	1.460	0.724	13.800	25.700	0.157 J
EX-5	11/26/14	4-5	36.500	6.100	106.000	644.000	5.110 J
EX-6	11/26/14	4-5	9.330	4.990	90.200	159.000	1.790 J
Backfill #2	11/26/14		8.690	37.100	74.100	327.000	3.870
EX-1	4/22/15	7-8	5.010	0.995	7.800	18.400	<0.0294
EX-2	4/22/15	7-8	7.510	0.394	6.910	7.330	<0.0147
B-1	4/22/15	15.5	<0.0105	<0.0128	<0.0142	<0.0553	0.0234 J
B-2	4/22/15	16	<0.0111	<0.0135	<0.0150	<0.0585	0.123
B-3	4/22/15	16	<0.0106	<0.0129	<0.0143	<0.0558	0.0227 J
B-4	4/23/15	16.5	<0.0107	<0.0130	0.0172 J	<0.0560	0.122
B-5	4/23/15	15	0.0308	<0.0129	<0.0143	<0.0558	0.444
EX-3	4/23/15	7-8	9.380	0.462	11.000	20.300	0.0944 J
EX-4	4/23/15	7-8	7.700	0.815	11.900	9.910	0.186
B-6	4/24/15	19	<0.0115	<0.0288	<0.0288	<0.0864	0.388
B-7	4/24/15	19	<0.0113	<0.0283	<0.0283	<0.0849	0.0915
B-8	4/27/15	16	<0.0119	<0.0298	<0.0298	<0.0895	<0.0298
B-9	4/27/15	15	<0.0116	<0.0289	<0.0289	<0.0868	0.148
B-10	4/28/15	15.5	<0.0115	<0.0287	<0.0287	<0.0861	0.468
B-11	4/28/15	17	<0.0116	<0.0290	<0.0290	<0.0869	0.476
B-12	4/29/15	18	<0.0113	<0.0282	<0.0282	<0.0845	0.128
EX-5	4/29/15	4-5	14.500	105.000	44.800	221.000	0.885 J

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
EX-6	4/29/15	4-5	7.600	54.500	32.700	149.000	0.891 J
B-13	4/29/15	15.5	<0.0116	<0.0290	<0.0290	<0.0870	1.240
EX-7	4/30/15	4-5	3.120	0.808 J	36.800	76.200	<0.313
B-14	4/30/15	15.5	<0.0107	<0.0130	<0.0144	<0.0563	0.0337 J
EX-8	4/30/15	4-5	8.660	1.070	21.300	7.610	0.158J
B-15	5/1/15	15.5	<0.0107	<0.0130	<0.0144	<0.0560	0.0259 J
B-16	5/1/15	17.5	<0.0104	<0.0126	<0.0140	<0.0544	<0.0142
B-17	5/1/15	15.5	<0.0106	<0.0129	<0.0143	<0.0558	0.0561 J
EX-9	5/4/15	4-5	0.263	0.0508 J	4.790	0.619	<0.0328
B-18	5/4/15	15.5	<0.0108	<0.0131	<0.0146	<0.0567	0.137
B-19	5/4/15	15.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
B-20	5/4/15	14	0.187	<0.129	<0.0143	<0.0556	0.328
EX-10	5/6/15	8-9	2.310	0.130	1.400	0.636	<0.0290
B-21	5/6/15	15.5	<0.0111	<0.0135	0.0175 J	<0.0582	<0.0152
B-22	5/7/15	15.5	<0.0109	<0.0132	0.0175 J	<0.0570	<0.0149
B-23	5/7/15	15.5	<0.0109	<0.0133	<0.0147	<0.0573	0.318
B-24	5/8/15	9	<0.0104	<0.0127	<0.0140	<0.0546	0.0430 J
B-25	5/8/15	15.5	<0.0107	<0.0130	<0.0144	<0.0560	0.208
B-26	5/8/15	15	<0.0108	<0.0131	<0.0145	<0.0566	<0.0148
EX-11	5/8/15	3-4	0.305	<0.0144	<0.0159	<0.0620	<0.0162
EX-12	5/8/15	3-4	<0.0118	<0.0144	<0.0160	<0.0622	<0.0162
EX-13	5/13/15	4-5	<0.0114	<0.0139	<0.0154	<0.0599	<0.0157
B-27	5/13/15	14	<0.0108	<0.0131	<0.0145	<0.0566	0.395
B-29	5/13/15	9	<0.0108	<0.0131	<0.0146	<0.0567	0.0318 J
EX-14	5/14/15	4-5	<0.0118	<0.0143	<0.0158	<0.0617	<0.0161
B-28	5/14/15	13	<0.0106	<0.0129	<0.0143	<0.0559	0.206
B-30	5/14/15	11	<0.0106	<0.0129	<0.0143	<0.0559	0.0565 J
B-31	5/14/15	11	<0.0106	<0.0159	<0.0143	<0.0559	0.0226 J
EX-15	5/15/15	8-9	<0.0107	<0.0131	0.0207 J	0.0589 J	0.0392 J
B-32	5/15/15	11	<0.0107	<0.0130	<0.0144	<0.0562	0.302
B-33	5/15/15	11	<0.0107	<0.0130	<0.0144	<0.0561	0.241
B-34	5/15/15	11	<0.0109	<0.0133	<0.0147	<0.0573	0.0466 J

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
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SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
Overburden 1	5/15/15		<0.0112	<0.0137	<0.0151	<0.0590	<0.0154
B-35	5/18/15	12	<0.0107	<0.0130	0.0192 J	0.0576 J	0.570
EX-16	5/18/15	9-10	<0.0110	<0.0134	<0.0149	<0.0579	<0.0151
EX-17	5/18/15	9-10	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
B-36	5/18/15	12	<0.0108	<0.0131	<0.0145	<0.0565	0.0306 J
Overburden-2	5/18/15		<0.0109	<0.0132	<0.0146	<0.0571	<0.0149
B-37	5/19/15	14	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
B-38	5/19/15	14	<0.0107	<0.0131	<0.0145	<0.0565	0.411
B-39	5/19/15	12	<0.0103	<0.0125	<0.0139	<0.0541	0.0511 J
EX-18	5/19/15	3-4	<0.0120	<0.0146	<0.0162	<0.0632	<0.0165
EX-19	5/19/15	3-4	<0.0115	<0.0140	<0.0155	<0.0605	<0.0158
B-40	5/22/15	13	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
B-41	5/27/15	15	<0.0105	<0.0128	<0.0142	<0.0553	<0.0144
EX-20	5/27/15	3-4	<0.0127	<0.0154	<0.0171	<0.0666	<0.0174
EX-21	5/27/15	3-4	0.464	0.627	11.600	12.700	<0.0664
EX-22	5/27/15	4-5	<0.0310	<0.0378	2.140	2.410	<0.0426
B-42	5/27/15	12.5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
B-43	5/27/15	12.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
B-44	5/27/15	15	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
B-45	5/28/15	12.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
EX-23	5/28/15	8.5-9.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
EX-24	5/28/15	3-4	<0.0118	<0.0143	<0.0159	<0.0618	<0.0162
B-46	6/5/15	14.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0146
EX-25	6/5/15	10-11	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
EX-26	6/5/15	3.5-5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
EX-27	6/5/15	8.5-9.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0146
EX-28	6/8/15	3-4	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
EX-28	6/8/15	8-9	<0.0106	<0.0130	<0.0144	<0.0559	<0.0146
BH-21	6/17/15	10-12.5	1.200	0.362	12.700	15.200	<0.0729
BH-22	9/8/15	7.5-10	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-22	9/8/15	25.5-27	7.650	1.260	0.0313 J	<0.110	<0.0288
BH-23	9/8/15	25-26.5	0.0428 J	0.547	2.900	17.000	<0.0376

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-23	9/8/15	28.5-30	0.0483	<0.0130	<0.0144	<0.0562	<0.0147
BH-24	9/8/15	4-6	<0.0279	<0.0339	0.0593 J	<0.146	<0.0383
BH-24	9/8/15	13.5-15	<0.0112	<0.0136	<0.0151	<0.0587	<0.0153
BH-22A	9/14/16	2.5-5	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
BH-22A	9/14/16	10-12.5	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-22A	9/14/16	15-17.5	<0.0110	<0.0134	<0.0149	<0.0580	<0.0151
BH-22A	9/14/16	20-23	<0.109	1.990	27.800	70.600	<0.150
BH-23A	9/14/16	2.5-5	<0.0130	<0.0158	<0.0176	<0.0684	<0.0179
BH-23A	9/14/16	5-7.5	<0.0114	<0.0139	<0.0154	<0.0600	<0.0157
BH-23A	9/14/16	10-12.5	<0.0107	0.0153 J	<0.0144	<0.0561	<0.0147
BH-23A	9/14/16	15-17.5	<0.0108	<0.0132	<0.0146	<0.0568	<0.0148
BH-23A	9/14/16	21.5-22.5	<0.0110	<0.0133	<0.0148	<0.0576	<0.0150
BH-23A	9/14/16	31-32.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-23A	9/14/16	32.5-35	<0.0118	<0.0144	<0.0159	<0.0621	<0.0162
BH-26	9/14/16	1-2.5	<0.0113	<0.0138	<0.0153	<0.0596	<0.0156
BH-26	9/14/16	7.5-10	<0.0107	0.0135 J	<0.0144	<0.0561	<0.0147
BH-26	9/14/16	10-12.5	<0.0111	<0.0136	<0.0150	<0.0585	<0.0153
BH-26	9/14/16	17.5-20	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-26	9/14/16	20-22.5	<0.0106	<0.0129	<0.0143	<0.0557	<0.0146
BH-26	9/14/16	27.5-29.25	0.0756	<0.0133	<0.0148	<0.0575	<0.0150
BH-27	9/14/16	2.5-5	<0.0117	0.0168 J	<0.0158	<0.0616	<0.0161
BH-27	9/14/16	7.5-10	<0.0107	<0.0130	<0.0144	<0.00563	<0.0147
BH-27	9/14/16	12.5-15	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-27	9/14/16	17.5-20	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
BH-27	9/14/16	22.5-25	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-27	9/14/16	27.5-30	<0.0101	<0.0123	<0.0137	<0.0533	<0.0139
BH-27	9/14/16	30-32.5	<0.0105	<0.0127	<0.0141	<0.0127	<0.0144
BH-21A	9/15/16	0.5-2.5	<0.0110	<0.0133	<0.0148	<0.0575	<0.0150
BH-21A	9/15/16	7.5-10	0.0398	<0.0128	0.0505 J	0.0807 J	<0.0144
BH-21A	9/15/16	15-17.5	4.100	8.830	9.310	35.500	<0.0367
BH-21A	9/15/16	20-22.5	1.080	0.147	0.918	0.685	<0.0149
BH-21A	9/15/16	25-27.5	4.890	0.0134 J	<0.0146	<0.0568	<0.0148
BH-21A	9/15/16	30-32.5	0.0109 J	<0.0128	<0.0142	<0.0552	<0.014
BH-25	9/15/16	2.5-5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-25	9/15/16	7.5-10	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-25	9/15/16	10-12.5	<0.0107	0.0220 J	<0.0144	<0.0560	<0.0146
BH-25	9/15/16	17.5-20	<0.0108	<0.0132	<0.0146	<0.0568	<0.0149
BH-25	9/15/16	20-22.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-25	9/15/16	25-26.5	0.0266	<0.0132	<0.0147	<0.0571	<0.0149
BH-25	9/15/16	30-32.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-28	9/15/16	2.5-5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-28	9/15/16	5-7.5	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
BH-28	9/15/16	12.5-15	0.0541	0.263	3.300	3.600	<0.0147
BH-28	9/15/16	15-17.5	0.0345	0.106	2.000	0.860	<0.0143
BH-28	9/15/16	20-22.5	0.0928	0.200	3.070	3.050	<0.0151
BH-28	9/15/16	25-27.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-29	9/15/16	2.5-5	<0.0116	<0.0142	<0.0157	<0.0612	<0.0160
BH-29	9/15/16	7.5-10	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-29A	9/15/16	10-12.5	<0.0108	<0.0132	<0.0146	<0.0570	<0.0149
BH-29A	9/15/16	15-20	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-29A	9/15/16	22.5-25	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
BH-29A	9/15/16	27.5-30	<0.0105	<0.0128	<0.0142	<0.0554	<0.0145
BH-29A	9/15/16	32.5-35	<0.0107	<0.0131	<0.0145	<0.0563	<0.0147
BH-30	9/26/16	2.5-5	<0.0105	<0.0128	<0.0142	<0.0553	<0.0145
BH-30	9/26/16	7.5-10	<0.0110	<0.0133	<0.0148	<0.0576	<0.0151
BH-30	9/26/16	12.5-15	<0.0106	<0.0129	<0.0143	<0.0557	<0.0146
BH-30	9/26/16	15-17.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-30A	9/26/16	22.5-25	<0.0103	<0.0125	<0.0139	<0.0541	<0.0141
BH-30A	9/26/16	27.5-30	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-31	9/26/16	2.5-5	<0.0114	<0.0139	<0.0154	<0.0600	<0.0157
BH-31	9/26/16	5-7.5	<0.0123	<0.0150	0.121	5.680	<0.0169
BH-31	9/26/16	12.5-15	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
BH-31	9/26/16	15-17.5	<0.0105	<0.0127	<0.0141	<0.0550	<0.0144
BH-31	9/26/16	22.5-25	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
BH-31	9/26/16	25-27.5	<0.0109	<0.0132	<0.0147	<0.0571	<0.0149
BH-32	7/5/17	2.5-5	<0.0116	<0.0141	<0.0156	<0.0610	<0.0159
BH-32	7/5/17	5-7.5	<0.0113	<0.0137	<0.0152	<0.0591	<0.0154
BH-32	7/5/17	12.5-15	<0.0109	<0.0132	<0.0147	<0.0571	<0.0149
BH-32	7/5/17	15-17.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-32	7/5/17	20-22.5	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
BH-32	7/5/17	27.5-30	<0.0105	<0.0128	0.0154 J	<0.0553	<0.0144
BH-32	7/5/17	30-30.5	<0.0111	<0.0136	<0.0150	<0.0585	<0.0153
BH-33	7/5/17	2.5-5	<0.0112	<0.0137	<0.0151	<0.0590	<0.0154
BH-33	7/5/17	7.5-10	<0.0114	<0.0139	<0.0154	<0.0601	<0.0157
BH-33	7/5/17	12.5-15	<0.0111	<0.0135	<0.0149	<0.0581	<0.0152
BH-33	7/5/17	15-17.5	<0.0110	<0.0134	<0.0149	<0.0579	<0.0151
BH-33	7/5/17	22.5-25	<0.0107	<0.0131	<0.0145	<0.0563	<0.0147
BH-33	7/5/17	25-27.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-34	7/6/17	0.75-2.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
BH-34	7/6/17	7.5-10	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-34	7/6/17	10-12.5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-34	7/6/17	17.5-20	<0.0108	<0.0131	<0.0145	<0.0567	<0.0148
BH-34	7/6/17	20-22.5	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-34	7/6/17	25-27.5	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
BH-34	7/6/17	30-32.5	<0.0105	<0.0128	<0.0141	<0.0551	<0.0144
BH-35	7/6/17	0.5-2.5	<0.0128	<0.0156	<0.0173	<0.0675	<0.0176
BH-35	7/6/17	7.5-10	<0.0109	<0.0132	<0.0147	<0.0572	<0.0149
BH-35	7/6/17	12.5-15	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-35	7/6/17	15-17.5	<0.0110	<0.0134	<0.0148	<0.0578	<0.0151

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			<b>12</b>	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			<b>0.8</b>	650	400	320	8,800
Inhalation - Industrial/Commercial			<b>1.6</b>	650	400	320	8,800
Inhalation - Construction Worker			<b>2.2</b>	<b>42</b>	58	<b>5.6</b>	140
SCGIER - Class I Groundwater			<b>0.03</b>	<b>12</b>	<b>13</b>	<b>150</b>	<b>0.32</b>
SCGIER - Class II Groundwater			<b>0.17</b>	<b>29</b>	<b>19</b>	<b>150</b>	<b>0.32</b>
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	<b>110</b>	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-35	7/6/17	20-22.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-35	7/6/17	25-27.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-35	7/6/17	30-35	<0.0104	<0.0127	<0.0141	<0.0548	<0.0143

Notes:

- 1) **Bold** = detected concentration exceeds a Tier 1 SRO listed in 35 IAC Part 742
- 2) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
- 3) Shaded cells = not applicable, not analyzed, or sample location was excavated
- 4) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	<b>1.8</b>	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
EX-1	11/25/14	7-8	<0.0992	<0.0887	<0.103	<0.0687	<0.0709	<0.0992	<0.0755	<0.110	<0.0917	<0.0727	<0.0992	<0.0992	<0.0754	<b>3.330</b>	<0.0992	<0.0992
EX-2	11/25/14	7-8	<0.213	<0.190	<0.221	<0.147	<0.152	<0.213	<0.162	<0.235	<0.197	<0.156	<0.213	<0.213	<0.162	<b>5.470</b>	<0.213	<0.213
EX-3	11/25/14	7-8	<0.504	<0.451	<0.523	<0.350	<0.361	<0.504	<0.384	<0.558	<0.466	<0.370	<0.504	<0.504	<0.383	<b>14.500</b>	<0.504	<0.504
B-1	11/25/14	12-13	<0.0500	<0.0447	<0.0518	<0.0346	<0.0357	<0.0500	<0.0381	<0.0553	<0.0462	<0.0367	<0.0500	<0.0500	<0.0380	1.750	<0.0500	<0.0500
B-2	11/25/14	12-13	<0.0504	<0.0451	<0.0522	<0.0349	<0.0360	<0.0504	<0.0384	<0.0557	<0.0466	<0.0369	<0.0504	<0.0504	<0.0383	1.180	<0.0504	<0.0504
B-3	11/25/14	7-8	<0.0489	<0.0437	<0.0507	<0.0339	<0.0350	<0.0489	<0.0372	<0.0541	<0.0452	<0.0359	<0.0489	<0.0489	<0.0371	1.070	<0.0489	<0.0489
B-4	11/25/14	7-8	<0.0492	<0.0440	<0.0510	<0.0341	<0.0352	<0.0492	<0.0374	<0.0544	<0.0455	<0.0361	<0.0492	<0.0492	<0.0374	0.875	<0.0492	<0.0492
Backfill #1	11/25/14		<0.108	<0.0963	<0.112	<0.0746	<0.0770	<0.108	<0.0820	<0.119	<0.0995	<0.0789	<0.108	<0.108	<0.0818	<b>3.420</b>	<0.108	<0.108
PL-1	11/26/14	2.5-3	<0.435	<0.389	<0.451	<0.301	<0.311	<0.435	<0.331	<0.481	<0.402	<0.319	<0.435	<0.435	<0.330	<b>8.440</b>	<0.435	<0.435
PL-2	11/26/14	2.5-3	<0.432	<0.386	<0.448	<0.299	<0.309	<0.432	<0.329	<0.478	<0.399	<0.317	<0.432	<0.432	<0.328	<b>15.000</b>	<0.432	<0.432
PL-3	11/26/14	2.5-3	<0.140	<0.125	<0.145	<0.0972	<0.100	<0.140	<0.107	<0.155	<0.130	<0.103	<0.140	<0.140	<0.107	<b>6.710</b>	<0.140	<0.140
B-5	11/26/14	7-8	<0.0782	<0.0700	<0.0811	<0.0542	<0.0559	<0.0782	<0.0596	<0.0866	<0.0723	<0.0574	<0.0782	<0.0782	<0.0594	<b>2.160</b>	<0.0782	<0.0782
B-6	11/26/14	7-8	<0.010	<0.0089	<0.0103	<0.0069	<0.0071	<0.010	<0.0076	<0.0110	<0.0092	<0.0073	<0.010	<0.010	<0.0076	0.296	<0.010	<0.010
EX-4	11/26/14	4-5	<0.127	<0.114	<0.132	<0.0880	<0.0908	<0.127	<0.0967	<0.140	<0.117	<0.0931	<0.127	<0.127	<0.0965	<b>8.600</b>	<0.127	<0.127
EX-5	11/26/14	4-5	<0.427	<0.382	<0.443	<0.296	<0.306	<0.427	<0.325	<0.473	<0.395	<0.313	<0.427	<0.427	<0.325	<b>20.700</b>	<0.427	<0.427
EX-6	11/26/14	4-5	<0.431	<0.386	<0.447	<0.299	<0.309	<0.431	<0.329	<0.478	<0.399	<0.317	<0.431	<0.431	<0.328	<b>20.900</b>	<0.431	<0.431
Backfill #2	11/26/14		<0.0497	<0.0445	<0.0515	<0.0344	<0.0355	<0.0497	<0.0378	<0.0550	<0.0459	<0.0364	<0.0497	<0.0497	<0.0377	0.962	<0.0497	<0.0497
EX-1	4/22/15	7-8	<0.0483	<0.0432	<0.0501	<0.0335	<0.0346	<0.0483	<0.0368	<0.0535	<0.0447	<0.0355	<0.0483	<0.0483	<0.0367	1.240	<0.0483	<0.0483
EX-2	4/22/15	7-8	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	0.777	<0.0097	<0.0097
B-1	4/22/15	15.5	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	<0.0095	<0.0095
B-2	4/22/15	16	<0.0101	<0.0090	<0.0104	<0.0070	<0.0072	<0.0101	<0.0077	<0.0111	<0.0093	<0.0074	0.0107 J	<0.0101	<0.0076	<0.0101	0.0137 J	<0.0101
B-3	4/22/15	16	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0119 J	<0.0096



Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	<b>1.8</b>	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-4	4/23/15	16.5	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-5	4/23/15	15	<0.0096	<0.0086	<0.0099	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0102 J	<0.0096
EX-3	4/23/15	7-8	<0.0956	<0.0855	<0.0991	<0.0663	<0.0684	<0.0956	<0.0728	<0.106	<0.0884	<0.0701	<0.0956	<0.0956	<0.0726	<b>3.890</b>	<0.0956	<0.0956
EX-4	4/23/15	7-8	<0.0482	<0.0431	<0.0500	<0.0334	<0.0345	<0.0482	<0.0367	<0.0533	<0.0446	<0.0353	<0.0482	<0.0482	<0.0366	<b>2.100</b>	<0.0482	<0.0482
B-6	4/24/15	19	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-7	4/24/15	19	<0.0094	<0.0084	<0.0098	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0072	<0.0094	<0.0094	<0.0094
B-8	4/27/15	16	<0.0099	<0.0089	<0.0103	<0.0069	<0.0071	<0.0099	<0.0076	<0.0110	<0.0092	<0.0073	<0.0099	<0.0099	<0.0076	<0.0099	<0.0099	<0.0099
B-9	4/27/15	15	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	0.0118 J	<0.0096
B-10	4/28/15	15.5	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0088	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0132 J	<0.0096
B-11	4/28/15	17	<0.0097	<0.0086	<0.0100	0.0110 J	0.0090 J	0.0110 J	0.0088 J	<0.0107	0.0191 J	<0.0071	0.0252	<0.0097	<0.0073	0.0308	0.0182 J	0.0236
B-12	4/29/15	18	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
EX-5	4/29/15	4-5	<0.391	<0.350	<0.405	<0.271	<0.279	<0.391	<0.298	<0.432	<0.361	<0.287	<0.391	<0.391	<0.297	<b>9.120</b>	<0.391	<0.391
EX-6	4/29/15	4-5	<0.391	<0.350	<0.405	<0.271	<0.280	<0.391	<0.298	<0.433	<0.362	<0.287	<0.391	<0.391	<0.297	<b>10.900</b>	<0.391	<0.391
B-13	4/29/15	15.5	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	0.0129 J	<0.0097
EX-7	4/30/15	4-5	<0.103	<0.0923	<0.107	<0.0715	<0.0737	<0.103	<0.0785	<0.114	<0.0954	<0.0756	<0.103	<0.0103	<0.0783	<b>3.290</b>	<0.103	<0.103
B-14	4/30/15	15.5	<0.0097	<0.0087	<0.010	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-8	4/30/15	4-5	<0.197	<0.176	<0.204	<0.136	<0.141	<0.197	<0.150	<0.218	<0.182	<0.144	<0.197	<0.197	<0.149	<b>3.750</b>	<0.197	<0.197
B-15	5/1/15	15.5	<0.0193	<0.0172	<0.0200	<0.0134	<0.0138	<0.0193	<0.0147	<0.0213	<0.0178	<0.0141	<0.0193	<0.0193	<0.0146	0.0230 J	<0.0193	<0.0193
B-16	5/1/15	17.5	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0071	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
B-17	5/1/15	15.5	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0099 J	<0.0096
EX-9	5/4/15	4-5	<0.0865	<0.0774	<0.0897	<0.0600	<0.0619	0.108 J	<0.0659	<0.0957	<0.0800	<0.0635	<0.0865	<0.0865	<0.0657	<b>1.970</b>	<0.0865	<0.0865
B-18	5/4/15	15.5	<0.0098	<0.0087	<0.0101	<0.0068	<0.0070	<0.0098	<0.0074	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-19	5/4/15	15.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-20	5/4/15	14	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-10	5/6/15	8-9	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	0.0169 J	<0.0073	<0.0106	<0.0088	<0.0070	0.0104 J	<0.0095	<0.0073	<0.0753	<0.0095	<0.0095
B-21	5/6/15	15.5	<0.0100	<0.0090	<0.0104	<0.0069	<0.0072	0.0130 J	<0.0076	<0.00111	<0.0093	<0.0073	<0.0100	<0.0100	<0.0076	<0.00100	<0.00100	<0.00100
B-22	5/7/15	15.5	<0.0098	<0.0088	<0.0102	<0.068	<0.0070	<0.0128 J	0.0075	<0.0109	<0.0091	<0.0072	<0.0098	<0.0098	<0.0075	<0.0098	<0.0098	<0.0098
B-23	5/7/15	15.5	<0.0099	<0.0088	<0.0102	<0.068	<0.0071	0.0128 J	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099
B-24	5/8/15	9	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
B-25	5/8/15	15.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	0.0165 J	<0.0096
B-26	5/8/15	15	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	0.0097 J	<0.0097
EX-11	5/8/15	3-4	<0.0107	<0.0096	<0.0111	0.0094 J	0.0115 J	0.0141 J	0.0100 J	<0.0118	0.0178 J	<0.0078	0.0246	<0.0107	0.0084 J	<0.0107	<0.0107	0.0193 J
EX-12	5/8/15	3-4	<0.0107	<0.0096	<0.0111	<0.0074	<0.0076	<0.0107	<0.0081	<0.0118	<0.0099	<0.0078	<0.0107	<0.0107	<0.0081	<0.0107	<0.0107	<0.0107
EX-13	5/13/15	4-5	<0.0103	<0.0092	<0.0107	<0.0072	<0.0074	<0.0103	<0.0079	<0.0114	<0.0095	<0.0076	<0.0103	<0.0103	<0.0078	<0.0103	<0.0103	<0.0103
B-27	5/13/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	0.0097	<0.0097
B-29	5/13/15	9	<0.0098	<0.0087	<0.0101	<0.0068	<0.0070	<0.0098	<0.0074	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098
EX-14	5/14/15	4-5	<0.0106	<0.0095	<0.0110	0.0101 J	0.0157 J	0.0175 J	0.0168 J	0.0159 J	0.0201 J	<0.0078	0.0384	<0.0106	0.0137 J	<0.0106	0.0183 J	0.0276
B-28	5/14/15	13	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-30	5/14/15	11	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-31	5/14/15	11	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	0.0135 J	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-15	5/15/15	8-9	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.007	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-32	5/15/15	11	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-33	5/15/15	11	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-34	5/15/15	11	<0.0099	<0.0088	<0.0102	<0.0068	<0.0071	<0.0099	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
Overburden 1	5/15/15		<0.0203	<0.0182	<0.0211	0.0410	0.0476	0.0432	0.0410	0.0470	0.0505	<0.0149	0.0948	<0.0203	0.0360 J	0.691	0.0417	0.0748
B-35	5/18/15	12	<0.0097	<0.0087	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-16	5/18/15	9-10	<0.010	<0.0089	<0.0103	<0.0069	<0.0071	<0.010	<0.0076	<0.0110	<0.0092	<0.0073	<0.010	<0.010	<0.0076	<0.010	<0.010	<0.010
EX-17	5/18/15	9-10	<0.0097	<0.0087	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-36	5/18/15	12	<0.0097	<0.0087	<0.0100	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	0.0729	<0.0097	<0.0097
Overburden-2	5/18/15		<0.0098	<0.0088	0.0113 J	0.0478	0.0659	0.0726	0.0609	0.0690	0.0759	0.0154 J	0.135	<0.0098	0.0495	0.0208	0.0582	0.110
B-37	5/19/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-38	5/19/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-39	5/19/15	12	<0.0093	<0.0083	<0.0097	<0.0065	<0.0067	<0.0093	<0.0071	<0.0103	<0.0086	<0.0068	<0.0093	<0.0093	<0.0071	<0.0093	<0.0093	<0.0093
EX-18	5/19/15	3-4	<0.0109	<0.0097	<0.0113	0.0250	0.0282	0.0300	0.0226	0.0274	0.0345	<0.0080	0.0825	<0.0109	0.0200 J	<0.0109	0.0379	0.0564
EX-19	5/19/15	3-4	<0.0104	<0.0093	<0.0108	<0.0072	<0.0074	<0.0104	<0.0079	<0.0115	<0.0096	<0.0076	<0.0104	<0.0104	<0.0079	<0.0104	<0.0104	<0.0104
B-40	5/22/15	13	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-41	5/27/15	15	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	0.0118 J	<0.0095
EX-20	5/27/15	3-4	<0.0015	<0.0103	0.0433	0.296	0.365	0.471	0.295	0.339	0.429	0.0951	0.567	<0.0115	0.257	0.0398	0.126	0.494
EX-21	5/27/15	3-4	<0.0700	<0.0626	<0.0726	<0.0485	<0.0500	<0.0700	<0.0533	<0.0774	<0.0647	<0.0513	<0.0700	<0.0700	<0.0532	1.210	<0.0700	<0.0700
EX-22	5/27/15	4-5	<0.0112	<0.0100	<0.0116	<0.0078	<0.0080	<0.0112	<0.0085	<0.0124	<0.0104	<0.0082	<0.0112	<0.0112	<0.0085	0.367	<0.0112	<0.0112
B-42	5/27/15	12.5	<0.0098	<0.0088	<0.0102	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0091	<0.0072	<0.0098	<0.0098	<0.0074	0.0322	<0.0098	<0.0098
B-43	5/27/15	12.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-44	5/27/15	15	<0.0097	<0.0087	<0.0100	0.0083 J	0.0113 J	0.0130 J	0.0086 J	<0.0107	0.0136 J	<0.0071	0.0124 J	<0.0097	<0.0074	<0.0097	<0.0097	0.0116 J
B-45	5/28/15	12.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-23	5/28/15	8.5-9.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-24	5/28/15	3-4	<0.0106	<0.0095	<0.0110	0.0286	0.0374	0.0401	0.0361	0.0394	0.0432	0.0100 J	0.0795	<0.0106	0.0307	0.0506	0.0190 J	0.0721

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-46	6/5/15	14.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-25	6/5/15	10-11	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0088	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-26	6/5/15	3.5-5	<0.0098	<0.0088	<0.0101	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098
EX-27	6/5/15	8.5-9.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-28	6/8/15	3-4	<0.0099	<0.0088	<0.0102	<0.0068	<0.0070	<0.0099	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099
EX-28	6/8/15	8-9	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
BH-21	6/17/15	10-12.5	<0.0768	<0.0687	<0.0797	<0.0533	<0.0549	<0.0768	<0.0585	<0.0850	<0.0710	<0.0564	<0.0768	<0.0768	<0.0584	1.440	<0.0768	<0.0768
BH-22	9/8/15	7.5-10	<0.0098	<0.0088	<0.0101	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0091	<0.0072	<0.0098	<0.0098	<0.0074	0.0674	<0.0098	<0.0098
BH-22	9/8/15	25.5-27	<0.0095	<0.0085	<0.0098	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	<0.0095	<0.0095
BH-23	9/8/15	25-26.5	<0.0099	<0.0089	<0.0103	<0.0069	<0.0071	<0.0099	<0.0075	<0.0109	<0.0091	<0.0073	<0.0099	<0.0099	<0.0075	0.0156 J	<0.0099	<0.0099
BH-23	9/8/15	28.5-30	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
BH-24	9/8/15	4-6	<0.0101	<0.0090	<0.0104	<0.0070	<0.0072	<0.0101	<0.0077	<0.0112	<0.0093	<0.0074	<0.0101	<0.0101	<0.0077	0.153	<0.0101	<0.0101
BH-24	9/8/15	13.5-15	<0.0101	<0.0090	<0.0105	<0.0070	<0.0072	<0.0101	<0.0077	<0.0112	<0.0093	<0.0074	<0.0101	<0.0101	<0.0077	<0.0101	<0.0101	<0.0101
BH-22A	9/14/16	2.5-5	<0.0046	<0.0039	<0.0068	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0062	<0.0049	<0.0026	<0.010	<0.0138	<0.0053
BH-22A	9/14/16	10-12.5	<0.0045	<0.0038	<0.0066	0.0048 J	0.0052 J	0.0076 J	0.0041 J	0.0064 J	0.0132	<0.0026	0.0152 J	<0.0048	0.0034 J	<0.0097	0.0172 J	0.0111 J
BH-22A	9/14/16	15-17.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	0.0034 J	0.0041 J	<0.0030	0.0084 J	<0.0027	<0.0062	<0.0050	<0.0026	0.0937	0.0146 J	<0.0054
BH-22A	9/14/16	20-23	<0.0046	<0.0039	<0.0068	<0.0037	0.0034 J	0.0058 J	0.0039 J	<0.0030	0.0131 J	<0.0026	0.0076 J	<0.0049	<0.0026	0.165	<0.0138	0.0075 J
BH-23A	9/14/16	2.5-5	<0.0055	<0.0047	<0.0081	<0.0045	<0.0035	<0.0040	<0.0029	<0.0035	<0.0048	<0.0032	<0.0074	<0.0058	<0.0031	<0.0119	<0.0165	<0.0064
BH-23A	9/14/16	5-7.5	<0.0048	<0.0041	<0.0071	<0.0039	<0.0031	<0.0035	<0.0025	<0.0031	<0.0042	<0.0028	<0.0064	<0.0051	<0.0027	<0.0104	<0.0144	<0.0056
BH-23A	9/14/16	10-12.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0070 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-23A	9/14/16	15-17.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0050 J	<0.0026	0.0075 J	<0.0049	<0.0026	<0.0099	<0.0137	0.0056 J
BH-23A	9/14/16	21.5-22.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-23A	9/14/16	31-32.5	<0.0045	<0.0038	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0061	<0.0048	<0.0026	<0.0098	<0.0136	<0.0053
BH-23A	9/14/16	32.5-35	<0.0050	<0.0042	<0.0073	0.0068 J	0.0115	0.0221	0.0157	0.0149	0.0201	0.0035 J	0.0187 J	<0.0053	0.0116	<0.0108	<0.0149	0.0134 J
BH-26	9/14/16	1-2.5	<0.0048	0.0310	0.0281	0.0771	0.0974	0.0896	0.0565	0.109	0.0974	0.0217	0.125	<0.0051	0.0544	<0.0104	0.0349 J	0.109
BH-26	9/14/16	7.5-10	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0040 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-26	9/14/16	10-12.5	<0.0047	<0.0040	<0.0069	<0.0038	<0.0030	<0.0034	<0.0025	<0.0030	0.0047 J	<0.0027	<0.0063	<0.0050	<0.0027	<0.0102	<0.0141	<0.0055
BH-26	9/14/16	17.5-20	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0038 J	<0.0029	0.0049 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0141 J	<0.0052
BH-26	9/14/16	20-22.5	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0032	0.0027 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-26	9/14/16	27.5-29.25	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	0.0035 J	<0.0030	<0.0040	<0.0027	<0.0062	<0.00049	<0.0026	<0.0100	<0.0138	<0.0054
BH-27	9/14/16	2.5-5	<0.0049	<0.0042	<0.0073	<0.0040	<0.0032	<0.0036	<0.0026	<0.00032	<0.0043	<0.0028	<0.0066	<0.0053	<0.0028	<0.0107	<0.0148	<0.0057
BH-27	9/14/16	7.5-10	<0.0045	0.0051 J	0.0130 J	0.0238	0.0269	0.0272	0.0184	0.0256	0.0329	0.0064 J	0.0462	<0.0048	0.0168	0.0166 J	0.0371 J	0.0385
BH-27	9/14/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0023	<0.0029	0.0083 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0143 J	<0.0052
BH-27	9/14/16	17.5-20	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	0.0041 J	0.0088	<0.0029	0.0108 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0097	0.0304 J	0.0063 J
BH-27	9/14/16	22.5-25	<0.0045	<0.0038	<0.0066	0.0042 J	0.0046 J	0.0058 J	0.0060 J	0.0044 J	0.0121 J	<0.0026	0.0119 J	<0.0048	<0.00025	<0.0097	<0.0135	0.0116 J
BH-27	9/14/16	27.5-30	<0.0043	<0.0036	<0.0063	<0.0035	<0.0028	<0.0031	0.0044 J	<0.0028	0.0089 J	<0.0025	<0.0057	<0.0046	<0.0024	<0.0093	<0.0128	<0.0050
BH-27	9/14/16	30-32.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0029	<0.0032	0.0039 J	<0.0028	0.0084 J	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	<0.0132	<0.0051
BH-21A	9/15/16	0.5-2.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054
BH-21A	9/15/16	7.5-10	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	0.0138 J	<0.0133	<0.0051
BH-21A	9/15/16	15-17.5	<0.0180	<0.0153	<0.0265	<0.0147	<0.0117	<0.0131	<0.0094	<0.0116	<0.0157	<0.0104	<0.0242	<0.0192	<0.0102	1.750	<0.0541	<0.0209
BH-21A	9/15/16	20-22.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	0.0040 J	<0.0026	<0.0061	<0.0049	<0.0026	0.303	<0.0137	<0.0053
BH-21A	9/15/16	25-27.5	<0.0045	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-21A	9/15/16	30-32.5	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	<0.0133	<0.0051
BH-25	9/15/16	2.5-5	<0.0045	<0.0038	<0.0066	0.0068 J	0.0043 J	0.0050 J	0.0029 J	0.0048 J	0.0095 J	<0.0026	0.0289	<0.0048	<0.0025	<0.0097	0.0227 J	0.0189

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-25	9/15/16	7.5-10	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	0.0035 J	0.0024 J	<0.0029	0.0098 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-25	9/15/16	10-12.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	0.0045 J	<0.0024	<0.0029	0.0122 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0160 J	<0.0052
BH-25	9/15/16	17.5-20	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-25	9/15/16	20-22.5	<0.0045	<0.0038	<0.0066	0.0039 J	<0.0029	<0.0033	0.0030 J	<0.0029	0.0051 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-25	9/15/16	25-26.5	<0.0046	<0.0039	<0.0067	0.0040 J	<0.0030	<0.0033	0.0033 J	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-25	9/15/16	30-32.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	2.5-5	<0.0045	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-28	9/15/16	5-7.5	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	12.5-15	<0.0045	<0.0038	<0.0066	0.0039 J	<0.0029	<0.0033	<0.0024	<0.0029	0.0045 J	<0.0026	<0.0060	<0.0048	<0.0026	0.262	<0.0135	<0.0052
BH-28	9/15/16	15-17.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0028	<0.0032	<0.0023	<0.0028	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	0.137	<0.0132	<0.0051
BH-28	9/15/16	20-22.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	0.309	<0.0139	<0.0054
BH-28	9/15/16	25-27.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0024 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-29	9/15/16	2.5-5	<0.0049	<0.0042	<0.0072	0.0050 J	0.0034 J	0.0062 J	0.0032 J	<0.0032	0.0053 J	<0.0028	0.0108 J	<0.0052	<0.0028	<0.0106	<0.0147	0.0078 J
BH-29	9/15/16	7.5-10	<0.0045	<0.0038	<0.0066	0.0037 J	<0.0029	0.0033 J	<0.0024	<0.0029	0.0043 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-29A	9/15/16	10-12.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-29A	9/15/16	15-20	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-29A	9/15/16	22.5-25	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0026	<0.0098	<0.0135	<0.0052
BH-29A	9/15/16	27.5-30	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-29A	9/15/16	32.5-35	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0061	<0.0048	<0.0026	<0.0098	<0.0136	<0.0052
BH-30	9/26/16	2.5-5	<0.0044	<0.0038	<0.0065	0.0185	0.0222	0.0305	0.0187	0.0147	0.0254	0.0033 J	0.0397	<0.0047	0.0150	<0.0096	0.0191 J	0.0307
BH-30	9/26/16	7.5-10	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0139	<0.0054
BH-30	9/26/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	0.0033 J	0.0058 J	<0.0029	0.0075 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	0.0071 J

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes	Indicator Contaminants and Tier 1 SROs																	
	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)		
Soil Ingestion - Residential	4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300		
Soil Ingestion - Industrial/Commercial	120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000		
Soil Ingestion - Construction Worker	120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000		
Inhalation - Residential	---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---		
Inhalation - Industrial/Commercial	---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---		
Inhalation - Construction Worker	---	---	---	---	---	---	---	---	---	---	---	---	---	<b>1.8</b>	---	---		
SCGIER - Class I Groundwater	570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200		
SCGIER - Class II Groundwater	2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000		
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-30	9/26/16	15-17.5	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	0.0033 J	0.0062 J	<0.0029	0.0085 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0097	<0.0134	0.0082 J
BH-30A	9/26/16	22.5-25	<0.0043	<0.0037	<0.0064	<0.0035	<0.0028	<0.0032	<0.0023	<0.0028	<0.0038	<0.0025	<0.0058	<0.0046	<0.0025	<0.0094	<0.0130	<0.0050
BH-30A	9/26/16	27.5-30	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0028 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	0.0128 J	<0.0134	<0.0052
BH-31	9/26/16	2.5-5	0.0222	0.0142	0.139	0.593	0.725	0.708	0.367	0.406	0.828	0.112	1.160	0.0317	0.377	0.0107 J	0.747	0.890
BH-31	9/26/16	5-7.5	<0.0052	<0.0044	<0.0076	<0.0042	<0.0034	<0.0038	<0.0027	<0.0033	<0.0045	<0.0030	<0.0069	<0.0055	<0.0029	<0.0112	<0.0155	<0.0060
BH-31	9/26/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0042 J	<0.0029	0.0074 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0135	0.0078 J
BH-31	9/26/16	15-17.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0029	0.0038 J	0.0118	<0.0029	0.0109 J	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	0.0345 J	0.0061 J
BH-31	9/26/16	22.5-25	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0033	0.0037 J	<0.0030	<0.0040	<0.0026	<0.0062	<0.0049	<0.0026	<0.010	<0.0138	<0.0053
BH-31	9/26/16	25-27.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053

Notes:

- 1) **Bold** = detected concentration or method detection limit exceeds a SRO listed in 35 IAC Part 742 or in the Non-TACO Objectives tables
- 2) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
- 3) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- 4) --- = no toxicity criteria available for the route of exposure
- 5) Shaded cells = not applicable or sample located was excavated
- 6) Pursuant to 35 IAC Section 742, Appendix B, Table A, the SRO listed in 35 IAC Section 742, Appendix A, Table H was utilized

Table 3

Soil Characterization Results

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Sample Location	BH-1	SCB-1	BH-6A	BH-7A	BH-8A	BH-18	Waste Disposal	Waste Disposal	Waste Disposal-1
Sample Depth (feet bls)	5-7	20-22.5	5	4	3	10-11			
Sample Date	9/18/03	8/10/04	8/2/05	8/2/05	8/2/05	8/25/05	3/18/15	3/25/15	7/7/17
Analysis	Units	Results							
Visual Classification		Silty Clay, some fine to coarse sand, trace fine gravel - Brown (CL)	Silty CLAY (CL) with sand				Fat CLAY - CH (Glacial Till)		
Permeability	cm/sec		3x10 <sup>-6</sup>				5.06x10 <sup>-8</sup>		
Dry Unit Weight	pcf	117.7	115.5				99.4		
Moisture Content	%	15.9	13.7				23.2	29.3	20.0
Grain-Size Analysis	%	35% Clay 38.4% Silt 21.3% Sand 5.3% Gravel					50.1% Clay 35.6% Silt 14.3% Sand		
Hydraulic Conductivity	cm/sec	5.76x10 <sup>-8</sup>							
Fractional Organic Carbon	%			0.82	1.84	0.82			
pH							7.2		7.92
TCLP Lead	mg/L						<0.0030		<0.0043
Flashpoint	°F						>210		>210
Paint Filter Liquid Test							Pass		Pass
Reactive Cyanide	mg/kg							<25.0	
Reactive Sulfide	mg/kg							<50.0	

Notes:

1) Shaded cells = not applicable or not analyzed



# Electronic Filing: Received, Clerk's Office 03/23/2021

Table 4

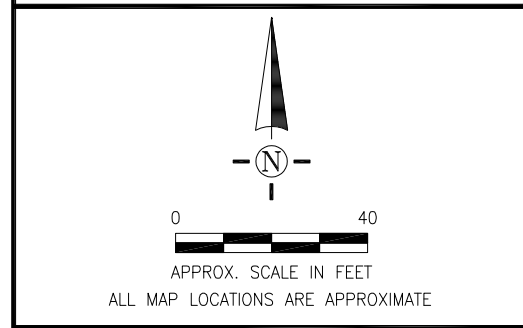
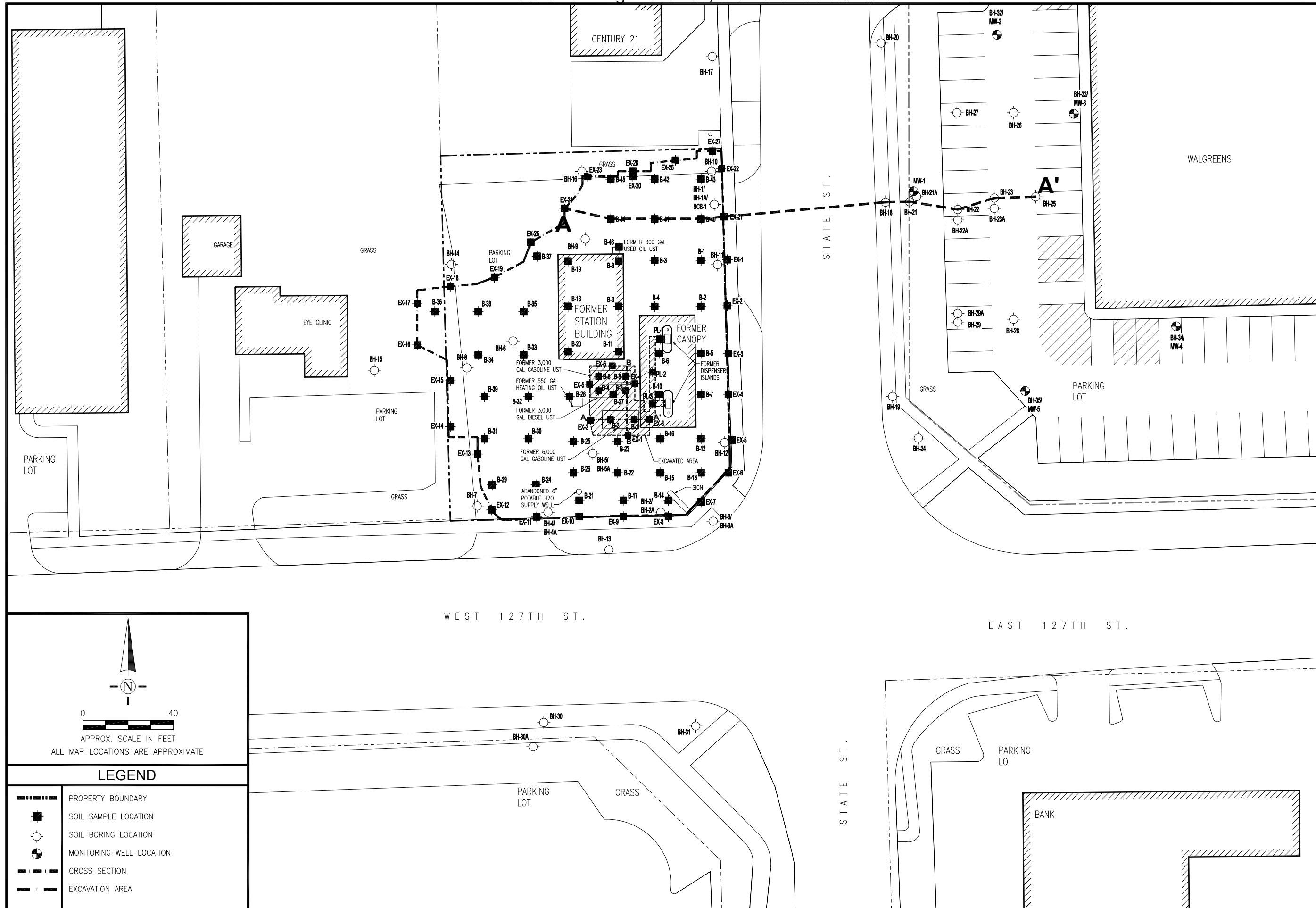
**Groundwater Elevations and Analytical Results**

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes						Indicator Contaminants and Tier 1 GROs				
						Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater						0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater						0.025	2.5	1	10	0.07
Sample Location	Sample Date	Ground Elevation (feet)	TOC Elevation (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	Analytical Results				
MW-1	7/19/17	99.44	99.04	13.09	85.95	<b>1.300</b>	0.476	<b>1.540</b>	4.600	<0.0035
MW-2	7/19/17	99.30	98.84	12.98	85.86	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017
MW-3	7/19/17	100.53	100.16	14.21	85.95	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017
MW-4	7/19/17	100.72	100.34	13.33	87.01	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017
MW-5	7/19/17	100.01	99.44	12.68	86.76	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017

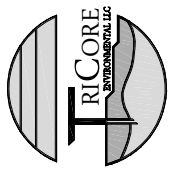
**Notes:**

- 1) **Bold** = detected concentration exceeds a Tier 1 GRO listed in 35 IAC Part 742
- 2) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
- 3) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- 4) Groundwater elevations are relative to a site-specific benchmark of 100 feet.



LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	CROSS SECTION
	EXCAVATION AREA

**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

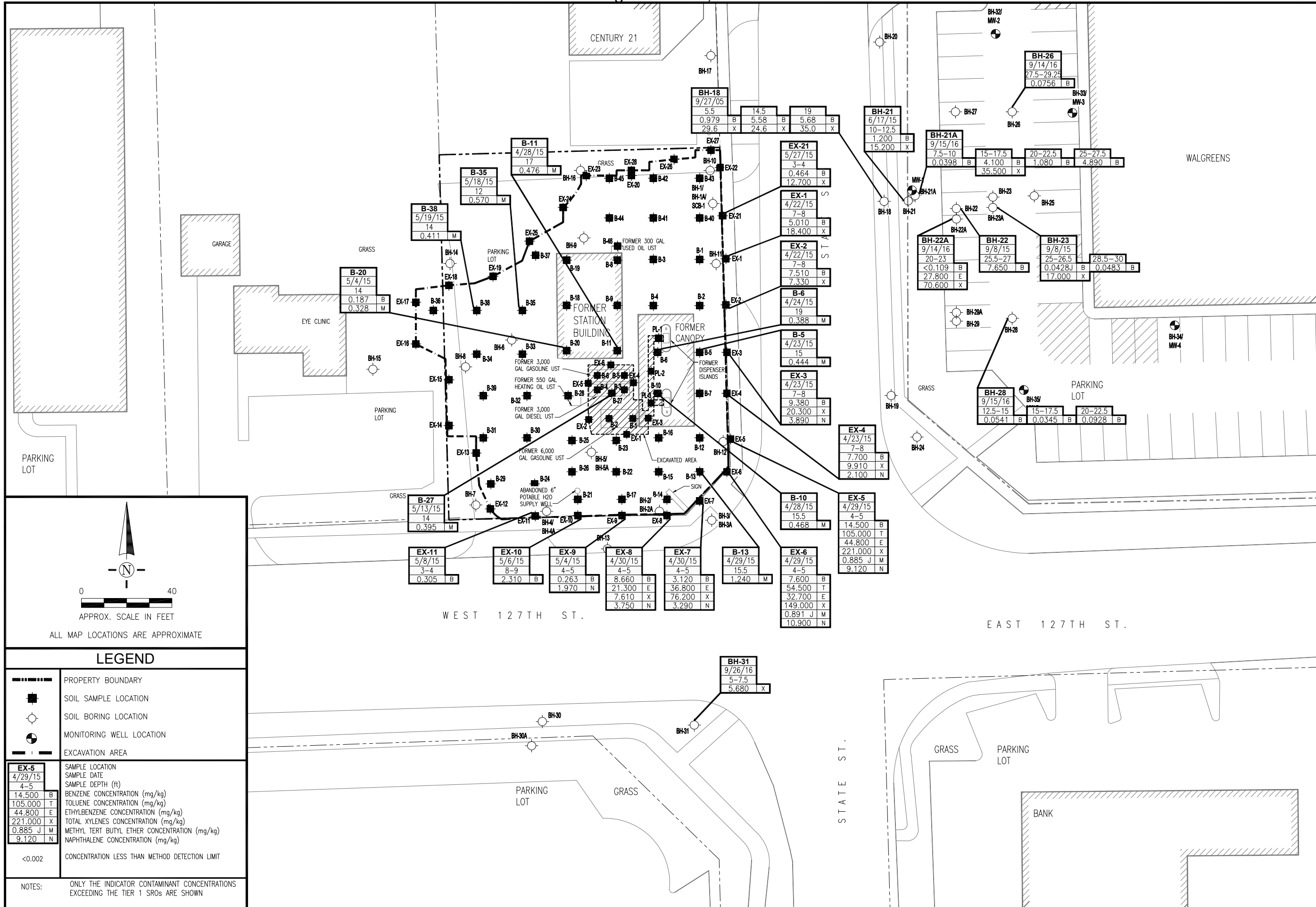


**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**SITE MAP**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY:	SAA
APPROVED BY:	MIC
SCALE:	1" = 40'
DATE:	10/24/2019
DRAWING FILE:	MD14-170

**FIGURE 1**



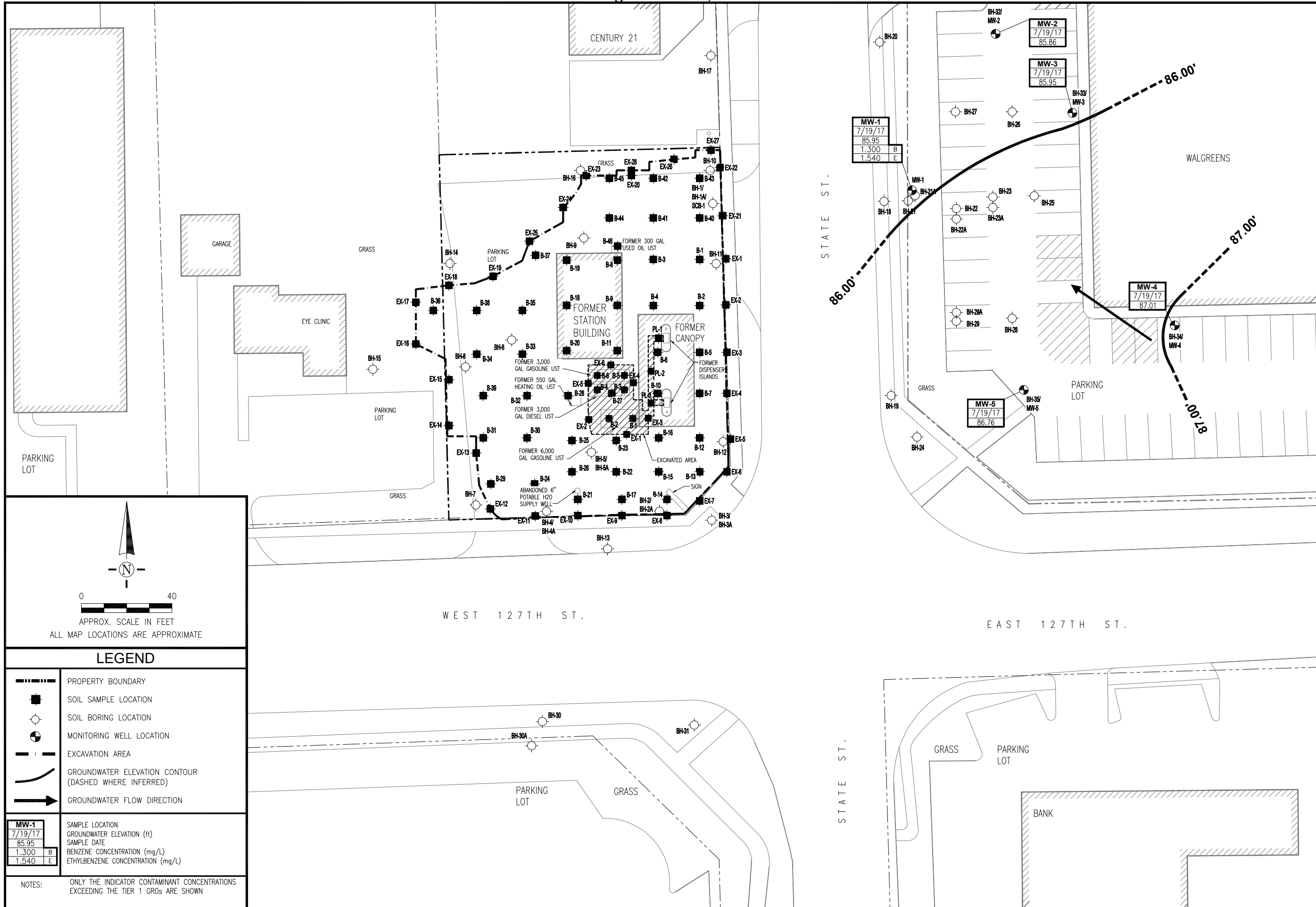
**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**SOIL ANALYTICAL RESULTS**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

JB  
 DRAWN BY: MIC  
 APPROVED BY: 1" = 40'  
 SCALE: 10/24/2019  
 DATE: MD14-170  
 DRAWING FILE:

**FIGURE 2**



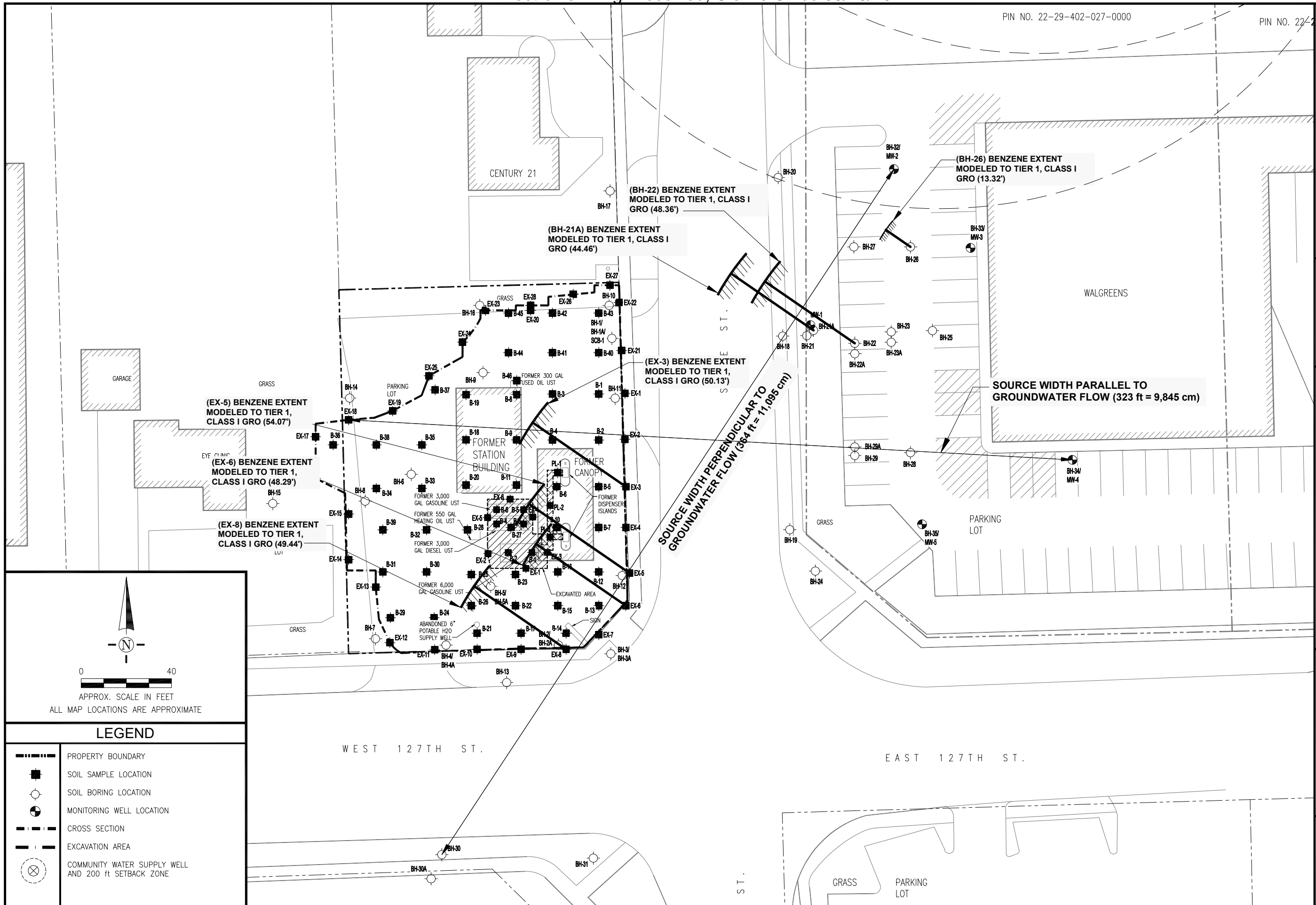
**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 10/24/2019  
 DRAWING FILE: MD14-170

**FIGURE 3**



**BOI, LLC**  
201 Danny's Drive  
Suite 5  
Streator, IL 61364

**SOURCE DIMENSIONS AND MODELED EXTENTS FOR THE SCGIER EVALUATIONS - BENZENE**

DRAWN BY: SAA  
APPROVED BY: MIC  
SCALE: 1" = 40'  
DATE: 10/24/2019  
DRAWING FILE: MD14-170

**FIGURE 4**

0 40  
APPROX. SCALE IN FEET  
ALL MAP LOCATIONS ARE APPROXIMATE

LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	CROSS SECTION
	EXCAVATION AREA
	COMMUNITY WATER SUPPLY WELL AND 200 ft SETBACK ZONE



(EX-5) MTBE EXTENT  
MODELED TO TIER 1,  
CLASS I GRO (1,022.70')

(EX-6) MTBE EXTENT  
MODELED TO TIER 1,  
CLASS I GRO (1,026.44')

SOURCE WIDTH PARALLEL TO  
GROUNDWATER FLOW (323 ft = 9,845 cm)

SOURCE WIDTH PERPENDICULAR TO  
GROUNDWATER FLOW (384 ft = 11,095 cm)

EX-5  
EX-6

0 80  
APPROX. SCALE IN FEET  
ALL MAP LOCATIONS ARE APPROXIMATE

**LEGEND**

- PROPERTY BOUNDARY
- SOIL SAMPLE LOCATION
- SOIL BORING LOCATION
- ⊕ MONITORING WELL LOCATION
- - - EXCAVATION AREA
- ⊗ COMMUNITY WATER SUPPLY WELL AND 200 ft SETBACK ZONE

**TriCore Environmental, LLC**  
2388 Corporate Lane, Suite 116  
Naperville, IL 60563  
(630) 520-9973

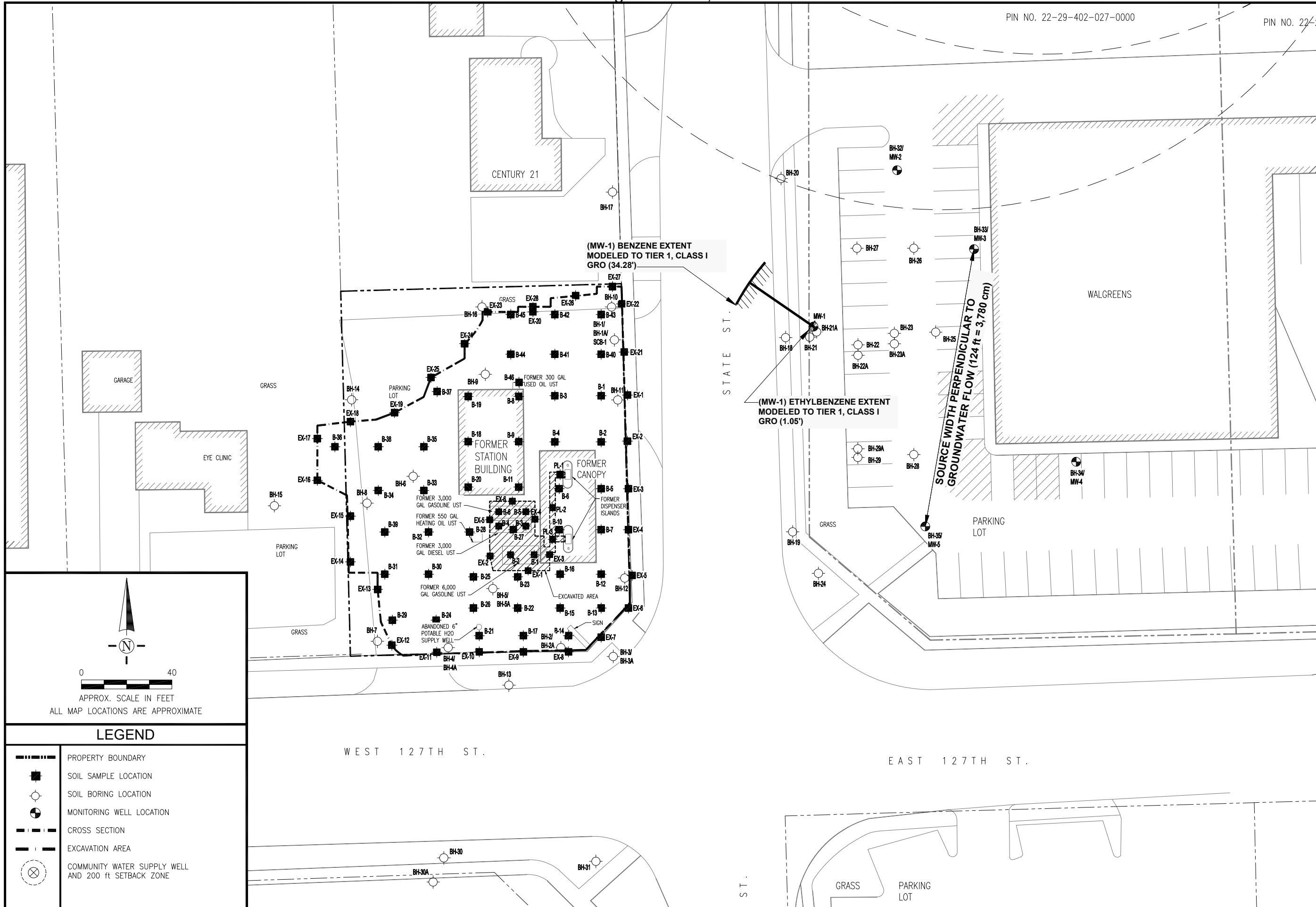
**BOI, LLC**  
201 Danny's Drive  
Suite 5  
Streator, IL 61364

**SOURCE DIMENSIONS AND MODELED EXTENTS  
FOR THE SCGIER EVALUATIONS - MTBE**

BOI, LLC  
1196 STATE STREET  
LEMONT, COOK COUNTY, IL 60439

DRAWN BY:	SAA
APPROVED BY:	MIC
SCALE:	1" = 80'
DATE:	10/15/2019
DRAWING FILE:	MD14-170

**FIGURE 5**



0 40  
APPROX. SCALE IN FEET  
ALL MAP LOCATIONS ARE APPROXIMATE

LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	CROSS SECTION
	EXCAVATION AREA
	COMMUNITY WATER SUPPLY WELL AND 200 ft SETBACK ZONE

**TriCore Environmental, LLC**  
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 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**SOURCE DIMENSION AND MODELED EXTENTS FOR THE GCGIER EVALUATIONS**

BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY:	SAA
APPROVED BY:	MIC
SCALE:	1" = 40'
DATE:	10/15/2019
DRAWING FILE:	MD14-170

**FIGURE 6**

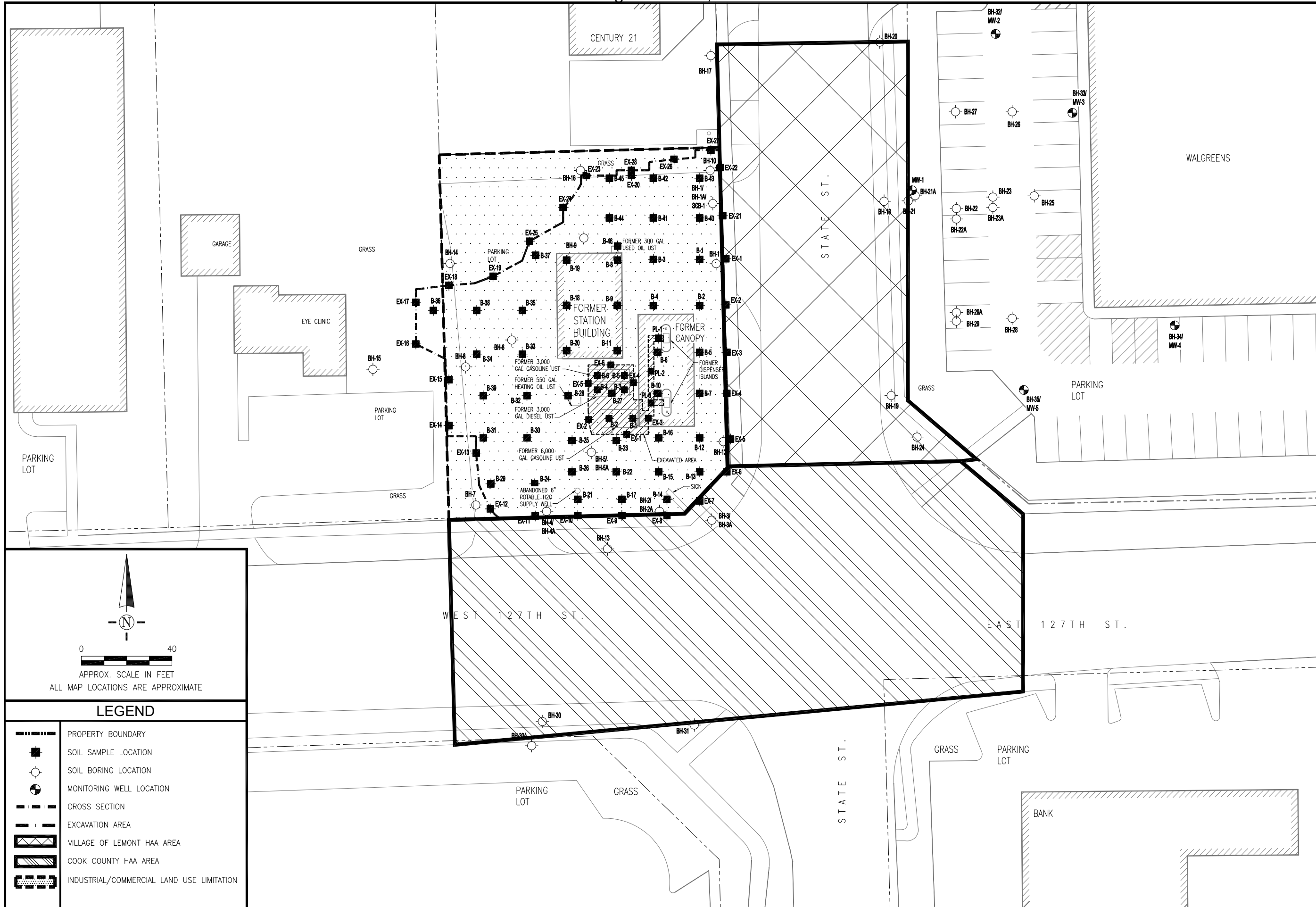


0 80  
APPROX. SCALE IN FEET  
ALL MAP LOCATIONS ARE APPROXIMATE

LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	EXCAVATION AREA
	COMMUNITY WATER SUPPLY WELL AND 200 ft SETBACK ZONE

<b>FIGURE 7</b>	DRAWN BY: SAA	TRICORE Environmental, LLC 2388 Corporate Lane, Suite 116 Naperville, IL 60563 (630) 520-9973
	APPROVED BY: MIC	BOI, LLC 201 Danny's Drive Suite 5 Streator, IL 61364
	SCALE: 1" = 80'	<b>COMMUNITY WATER SUPPLY WELL LOCATIONS AND SETBACK ZONES</b>
	DATE: 10/15/2019	BOI, LLC 1196 STATE STREET LEMONT, COOK COUNTY, IL 60439
	DRAWING FILE: MD14-170	





**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973



**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**PROPOSED INSTITUTIONAL CONTROLS**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 10/15/2019  
 DRAWING FILE: MD14-170

**FIGURE 8**

# Electronic Filing: Received, Clerk's Office 03/23/2021

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

Piggush, Michael

---

**From:** Piggush, Michael  
**Sent:** Thursday, May 14, 2020 11:15  
**To:** Benanti, Trent  
**Subject:** LUST Incidents 942117 & 20141348 (Lemont Kar Gas)  
**Attachments:** 0314625010 2020-05-14 LUST DATABASE SHEET.pdf; 0314625010 DRAFT LETTER (DIAGRAMS).pdf; 0314625010 DRAFT LETTER (TABLES).pdf; 0314625010 DRAFT LETTER.docx

RE: LPC 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
LUST Incidents 942117 & 20141348  
LUST TECHNICAL FILE

- Approval of Stage 3 Site Investigation Budget.
- Denial of Site Investigation Completion Report.
- Denial of Corrective Action Plan.
- Denial of Corrective Action Budget.
- I still need to do the right to know checklist.
- I cannot attach the reports as it says that the file size is too large. Fail. They are in the project manager folder.
- Due Sunday, May 17, 2020.

State of Illinois - CONFIDENTIALITY NOTICE: The information contained in this communication is confidential, may be attorney-client privileged or attorney work product, may constitute inside information or internal deliberative staff communication, and is intended only for the use of the addressee. Unauthorized use, disclosure or copying of this communication or any part thereof is strictly prohibited and may be unlawful. If you have received this communication in error, please notify the sender immediately by return e-mail and destroy this communication and all copies thereof, including all attachments. Receipt by an unintended recipient does not waive attorney-client privilege, attorney work product privilege, or any other exemption from disclosure.



Electronic Filing: Received, Clerk's Office 03/23/2021  
Hazardous Substances

**Product(s):**

Gasoline	Jet Fuel
Unleaded	Used Oil
Diesel Fuel	Non-Petroleum Product
Fuel Oil	Other Petroleum

Is this a 731 Site because ALL tanks contain(ed) hazardous materials?

No  
Yes, Hazardous Substances

**Substance Type(s):**

**TACO**

---

**On-Site**

**Barriers**

Building/Structure  
Pavement  
Soil 3ft (Ingestion)  
10 ft Soil (Inhalation)  
10 ft Soil (Inhalation/Ingestion) Other

**Institutional Controls**

Groundwater Use Restriction  
Ordinance  
Building Prohibition  
Worker Caution  
Concrete Base with No Sumps  
Other

Industrial/Commercial Land Use Restriction  
No Soil or Groundwater Contamination within 5 Feet of Building  
Building Control Technology (existing)  
Building Control Technology (future)  
Maintenance of Soil Layer for Biodegradation

**ELUC**

Groundwater Use Restriction  
Industrial/Commercial Land Use Restriction  
Engineered Barrier  
Worker Caution  
Soil Handling (Contamination left in place > Tier  
1, Class I Residential)  
Other

**Off-Site**

Building Prohibition  
Concrete Base with No Sumps  
No Soil or Groundwater Contamination within 5 Feet of Building  
Building Control Technology (existing)  
Building Control Technology (future)  
Maintenance of Soil Layer for Biodegradation

**Highway Authority Agreements**

Highway Authority  
HAA Memorandum of Understanding

**Alt Tech Used**

---

Bioremediation (EX-SITU)	Chemical Oxication
Bioremediation (IN-SITU)	Landfarming
Thermal Treatment	Vapor Extraction



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

217-524-3300

CERTIFIED MAIL

BOI, LLC  
Attention: Steve Broadus  
201 Danny's Drive  
Suite 5  
Streator, Illinois 61364

RE: 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
Leaking UST Incidents 942117 & 20141348  
Leaking UST Technical File

Dear Mr. Broadus:

The Illinois Environmental Protection Agency (Illinois EPA) has reviewed the October 25, 2019 Stage 3 Site Investigation Budget and Site Investigation Completion Report, as well as the October 25, 2019 Corrective Action Plan and Budget. This information was prepared by TriCore Environmental, LLC. Citations in this letter are from the Illinois Environmental Protection Act (415 ILCS 5) (Act) and 35 Illinois Administrative Code.

A summary of site information is presented in Attachment 1 of this letter. A summary of the Stage 3 Site Investigation Budget and Site Investigation Completion Report is presented in Attachment 2 of this letter. A summary of the Corrective Action Plan and Budget is presented in Attachment 3 of this letter. Site diagrams and tables are presented in Attachment 4 of this letter.

The Illinois EPA approves of the Stage 3 Site Investigation Budget (Sections 57.7(a)(2) and 57.7(c) of the Act and 35 Illinois Administrative Code 734.505(b) and 734.510(b)). Approved Site Investigation Budget amounts are summarized in Attachment 5 of this letter. Please note that the costs must be incurred in accordance with the approved Site Investigation Plan. Be aware that the amount of payment from the Illinois Underground Storage Tank Fund may be limited by Sections 57.7(c), 57.8(d), 57.8(e), and 57.8(g) of the Act, as well as 35 Illinois Administrative Code 734.630 and 734.655.

The Illinois EPA does not approve of the Site Investigation Completion Report, for the reasons which are explained in Attachment 6 of this letter (Sections 57.7(a)(5) and 57.7(c)(4) of the Act and 35 Illinois Administrative Code 734.505(b) and 734.510(a)).

The Illinois EPA does not approve of the Corrective Action Plan, for the reasons which are explained in Attachment 7 of this letter (Sections 57.7(b)(2) and 57.7(c) of the Act and 35 Illinois Administrative Code 734.505(b) and 734.510(a)).

4302 N. Main Street, Rockford, IL 61103 (815) 987-7760  
595 S. State Street, Elgin, IL 60123 (847) 608-3131  
2125 S. First Street, Champaign, IL 61820 (217) 278-5800  
2009 Mall Street Collinsville, IL 62234 (618) 346-5120

9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000  
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022  
2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200  
100 W. Randolph Street, Suite 4-500, Chicago, IL 60601 A.R. 001433

The Illinois EPA does not approve of the Corrective Action Budget, for the reasons which are explained in Attachment 8 of this letter (Sections 57.7(b)(3) and 57.7(c) of the Act and 35 Illinois Administrative Code 734.505(b) and 734.510(b)).

In accordance with Sections 57.7(a)(5) and 57.12(c) and (d) of the Act and 35 Illinois Administrative Code 734.100, 734.125, and 734.305, the Illinois EPA requires the submittal of an additional Site Investigation Plan and Budget, within 120 days of the date of this letter, to:

Illinois Environmental Protection Agency  
Bureau of Land  
Division of Remediation Management  
Leaking Underground Storage Tank Section  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

Please note that the Illinois EPA does not require the submission of a Site Investigation Budget if the owner or operator does not intend to seek payment from the Illinois Underground Storage Tank Fund.

An underground storage tank system owner or operator may appeal this final decision to the Illinois Pollution Control Board. Appeal rights are explained in Attachment 9 of this letter.

Any questions with regard to this letter should be directed to Michael Piggush via telephone (217-782-3101) or electronic mail ([michael.piggush@illinois.gov](mailto:michael.piggush@illinois.gov)).

Sincerely,

Trent L. Benanti, P.E.  
Unit Manager  
Leaking Underground Storage Tank Program  
Remedial Project Management Section  
Bureau of Land

Attachments (9):

1. Summary of Site Information.
2. Summary of Stage 3 Site Investigation Budget and Site Investigation Completion Report.
3. Summary of Corrective Action Plan and Budget.
4. Site Diagrams and Tables.
5. Site Investigation Budget Summary.
6. Site Investigation Completion Report Disapproval Reasons.
7. Corrective Action Plan Disapproval Reasons.
8. Corrective Action Budget Disapproval Reasons.
9. Appeal Rights.

Electronic Copies (3):

1. Marcos Czako (TriCore Environmental, LLC), [marcos.czako@tricoreweb.com](mailto:marcos.czako@tricoreweb.com).
2. Kim Miller (TriCore Environmental, LLC), [kim.miller@tricoreweb.com](mailto:kim.miller@tricoreweb.com).
3. Shawn Rodeck (TriCore Environmental, LLC), [shawn.rodeck@tricoreweb.com](mailto:shawn.rodeck@tricoreweb.com).

Attachment 1

Summary of Site Information

RE: 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
Leaking UST Incidents 942117 & 20141348  
Leaking UST Technical File

The basic site information is summarized as follows:

1. The site property is currently a vacant lot.
  - a. The site property was formerly a gas station.
2. Releases have occurred from the following underground storage tank systems:
  - a. One 6,000 gallon gasoline underground storage tank system.
  - b. One 3,000 gallon gasoline underground storage tank system.
  - c. One 3,000 gallon gasoline / diesel fuel underground storage tank system.
3. The indicator contaminants are BETX, MTBE, and PNAs.
4. The underground storage tank systems were removed from November 25-26, 2014.
5. A total of 8,913 cubic yards of contaminated soil were excavated and disposed of from April 20, 2015 - June 8, 2015.



Attachment 2

Summary of Stage 3 Site Investigation Budget and Site Investigation Completion Report

RE: 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
Leaking UST Incidents 942117 & 20141348  
Leaking UST Technical File

The Stage 3 Site Investigation Budget and Site Investigation Completion Report are summarized as follows:

1. The Stage 3 Site Investigation Budget is for an amount of \$11,523.28.
2. The Stage 3 Site Investigation Budget includes costs for the following activities:
  - a. Costs associated with PNA analyses of 62 soil samples.
  - b. Costs associated with the preparation of the Stage 3 Site Investigation Budget.
  - c. Costs associated with the preparation of the Site Investigation Completion Report.
  - d. Costs associated with the preparation of a reimbursement package.
3. The Site Investigation Completion Report states that the extent of contamination has been defined.

Attachment 3

Summary of Corrective Action Plan and Budget

RE: 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
Leaking UST Incidents 942117 & 20141348  
Leaking UST Technical File

The Corrective Action Plan and Budget are summarized as follows:

1. The Corrective Action Plan states that an industrial / commercial land use restriction would apply to the site property.
2. The Corrective Action Plan states that a Highway Authority Agreement would be utilized, dated May 16, 2018, with Cook County, for a portion of 127th Street.
3. The Corrective Action Plan states that a Highway Authority Agreement would be utilized, dated June 11, 2018, with the Village Of Lemont, for a portion of State Street.
4. The Corrective Action Plan states that measured concentrations would be used in lieu of modeled concentrations for the groundwater ingestion exposure pathway.
5. The Corrective Action Plan states that site access has been denied for the Walgreens property.
6. The Corrective Action Budget is for an amount of \$42,157.32.
7. The Corrective Action Budget includes costs for the following activities:
  - a. Costs associated with the abandonment of five groundwater monitoring wells (groundwater monitoring wells MW-1 - MW-5).
  - b. Costs associated with the preparation of the Highway Authority Agreements.
  - c. Costs associated with obtaining site access for the Walgreens property.
  - d. Costs associated with the preparation of the Corrective Action Plan and Budget.
  - e. Costs associated with the preparation of a Corrective Action Completion Report.
  - f. Costs associated with the recording of the No Further Remediation Letter.
  - g. Costs associated with the preparation of two reimbursement packages.

Attachment 4

Site Diagrams and Tables

Attachment 5

Site Investigation Budget Summary

RE: 0314625010 - Cook County  
 Lemont - Lemont Kar Gas  
 1196 State Street  
 Leaking UST Incidents 942117 & 20141348  
 Leaking UST Technical File

The Site Investigation Budget is approved for the following amounts:

Category	Proposed (and Approved) Stage 3 Site Investigation Budget Amounts
Drilling and Monitoring Well Costs	\$0.00
Analytical Costs	\$4,650.00
Remediation and Disposal Costs	\$0.00
UST Removal and Abandonment Costs	\$0.00
Paving, Demolition, and Well Abandonment Costs	\$0.00
Consulting Personnel Costs	\$6,849.28
Consulting Materials Costs	\$24.00
Total	\$11,523.28

Attachment 6

Site Investigation Completion Report Disapproval Reasons

RE: 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
Leaking UST Incidents 942117 & 20141348  
Leaking UST Technical File

The Illinois EPA does not approve of the Site Investigation Completion Report, for the following reasons:

1. In accordance with 35 Illinois Administrative Code 742.120, the extent of contamination must be defined.
  - a. The extent of contamination, in the soil, has not been defined to either the south or east of soil boring BH-31.
  - b. The extent of contamination, in the groundwater, has not been defined to the west of groundwater monitoring well MW-1.

Attachment 7

Corrective Action Plan Disapproval Reasons

RE: 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
Leaking UST Incidents 942117 & 20141348  
Leaking UST Technical File

The Illinois EPA does not approve of the Corrective Action Plan, for the following reasons:

1. The Illinois EPA cannot approve of a Corrective Action Plan without an approved Site Investigation Completion Report.

The Illinois EPA has not approved of the Site Investigation Completion Report, for the reasons which were previously explained in Attachment 6 of this letter.

2. In accordance with 35 Illinois Administrative Code 742.1020(a), Highway Authority Agreements (except those with the Illinois Department of Transportation) must match the model document which is presented in 35 Illinois Administrative Code 742 Appendix D.

The Highway Authority Agreement, dated May 16, 2018, with Cook County, for a portion of 127th Street, does not match the model document. While the Agreement contains the model document, the Agreement, as a whole, does not match the model document.

3. The Illinois EPA does not agree with the proposal to allow the use of measured concentrations in lieu of modeled concentrations for the groundwater ingestion exposure pathway.

Given the remaining concentration of contaminants, and the proximity of the setback zones of two community water supply wells, the Illinois EPA does not feel that this is appropriate.

4. The Illinois EPA does not agree with the proposal to allow the denial of site access for the Walgreens property.

Given the remaining concentration of contaminants, and the proximity of the setback zones of two community water supply wells, the Illinois EPA does not feel that this is appropriate.

5. With regard to the contaminant modeling which was performed using Equation R26, the plan diagrams illustrate the modeled plumes of contamination in groundwater as being a series of line segments. This is not appropriate. The modeled plumes of contamination in groundwater are a physical area, not a series of line segments.

Attachment 8

Corrective Action Budget Disapproval Reasons

RE: 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
Leaking UST Incidents 942117 & 20141348  
Leaking UST Technical File

The Illinois EPA does not approve of the Corrective Action Budget, for the following reasons:

1. The Illinois EPA cannot approve of a Corrective Action Budget without an approved Corrective Action Plan.

The Illinois EPA has not approved of the Corrective Action Plan, for the reasons which were previously explained in Attachment 7 of this letter.



Attachment 9

Appeal Rights

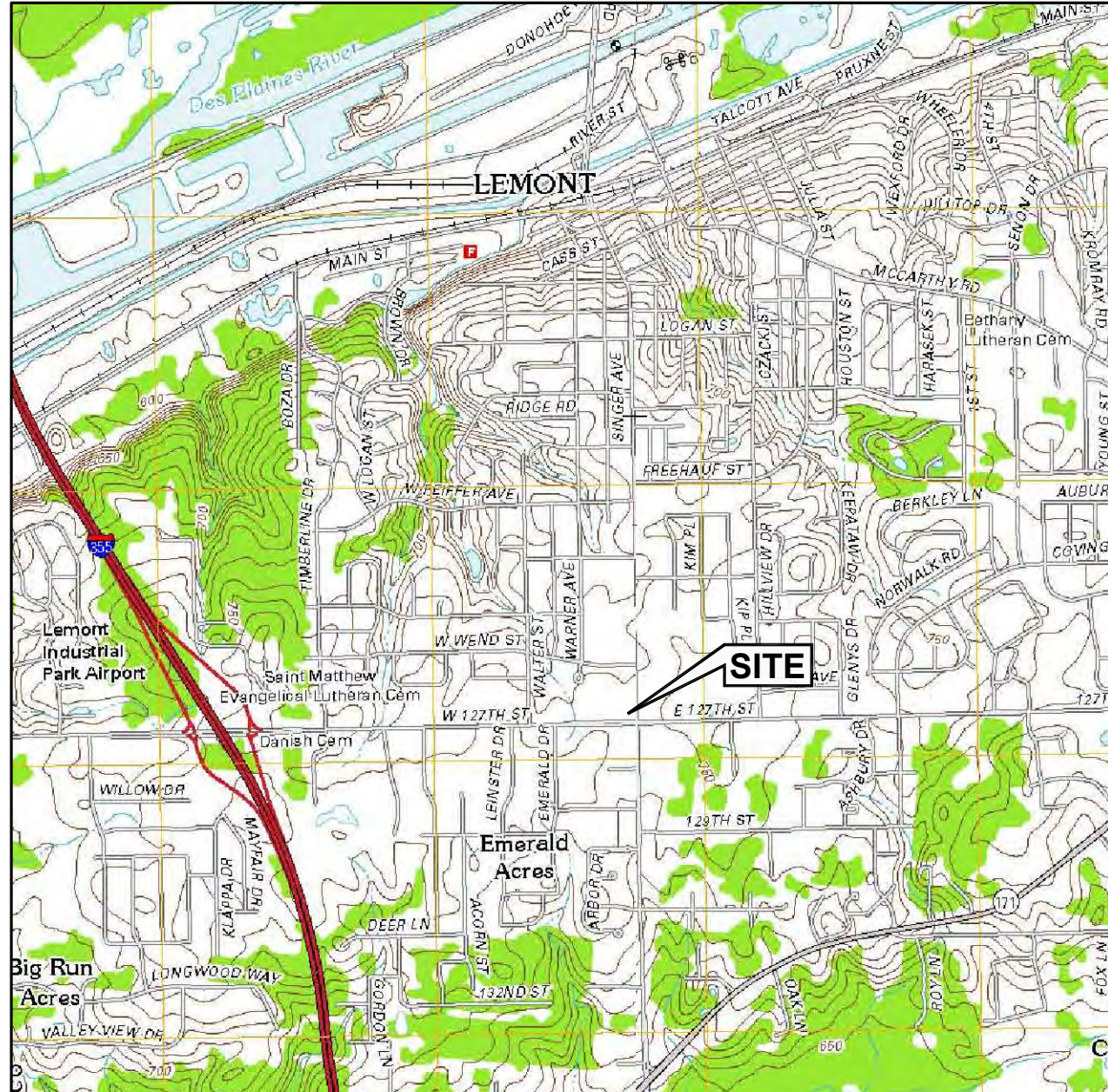
An underground storage tank system owner or operator may appeal this final decision to the Illinois Pollution Control Board pursuant to Sections 40 and 57.7(c)(4) of the Act by filing a petition for a hearing within 35 days after the date of issuance of the final decision. However, the 35 day period may be extended for a period of time not to exceed 90 days by written notice from the owner or operator and the Illinois EPA within the initial 35 day appeal period. If the owner or operator wishes to receive a 90 day extension, a written request that includes a statement of the date the final decision was received, along with a copy of this decision, must be sent to the Illinois EPA as soon as possible.

For information regarding the filing of an appeal, please contact:

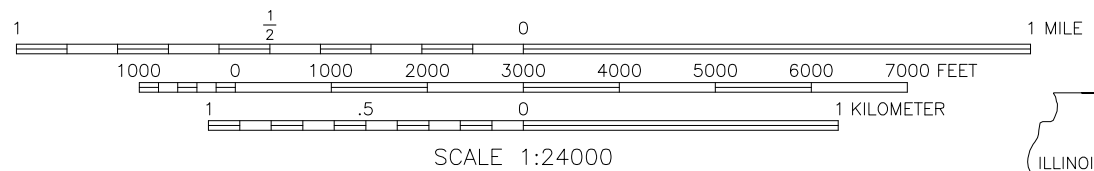
Clerk  
Illinois Pollution Control Board  
James R. Thompson Center  
100 West Randolph Street  
Suite 11-500  
Chicago, Illinois 60601-3233  
312-814-3620

For information regarding the filing of an extension, please contact:

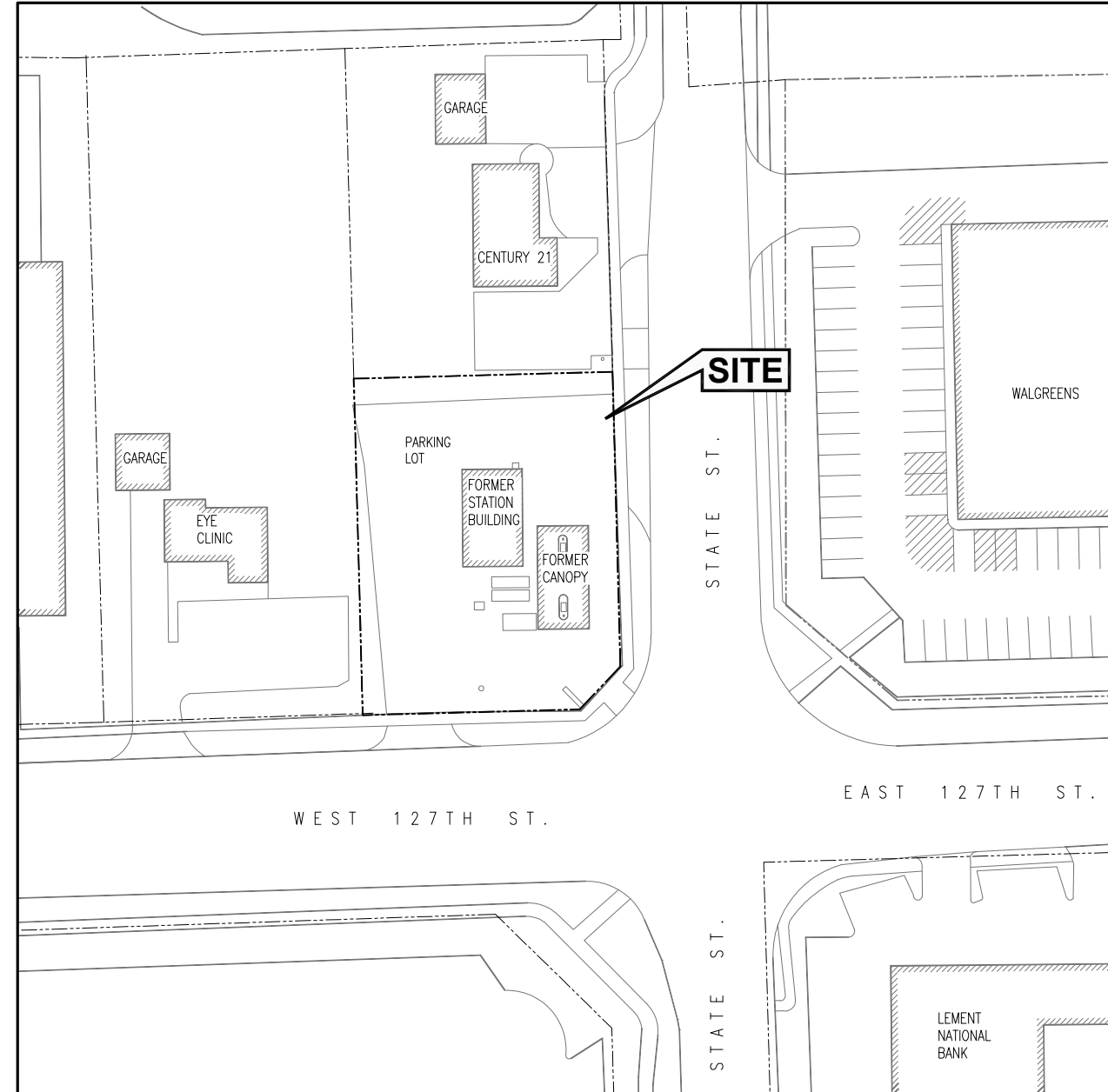
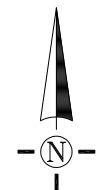
Illinois Environmental Protection Agency  
Division of Legal Counsel  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276  
217-782-5544



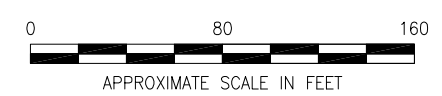
U.S.G.S. TOPOGRAPHIC MAP



ROMEOWILLE AND SAG BRIDGE QUADRANGLES  
 COOK COUNTY, ILLINOIS  
 7.5 MINUTE SERIES (TOPOGRAPHIC)



SCHEMATIC OF SURROUNDING AREA

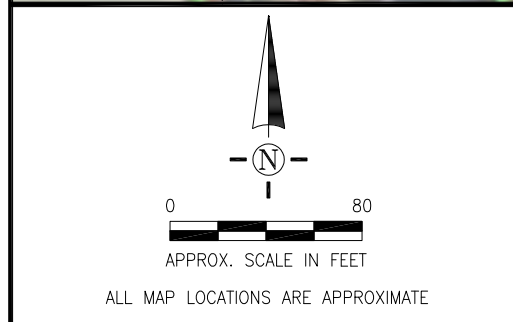


**TriCore Environmental, LLC**  
 2388 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

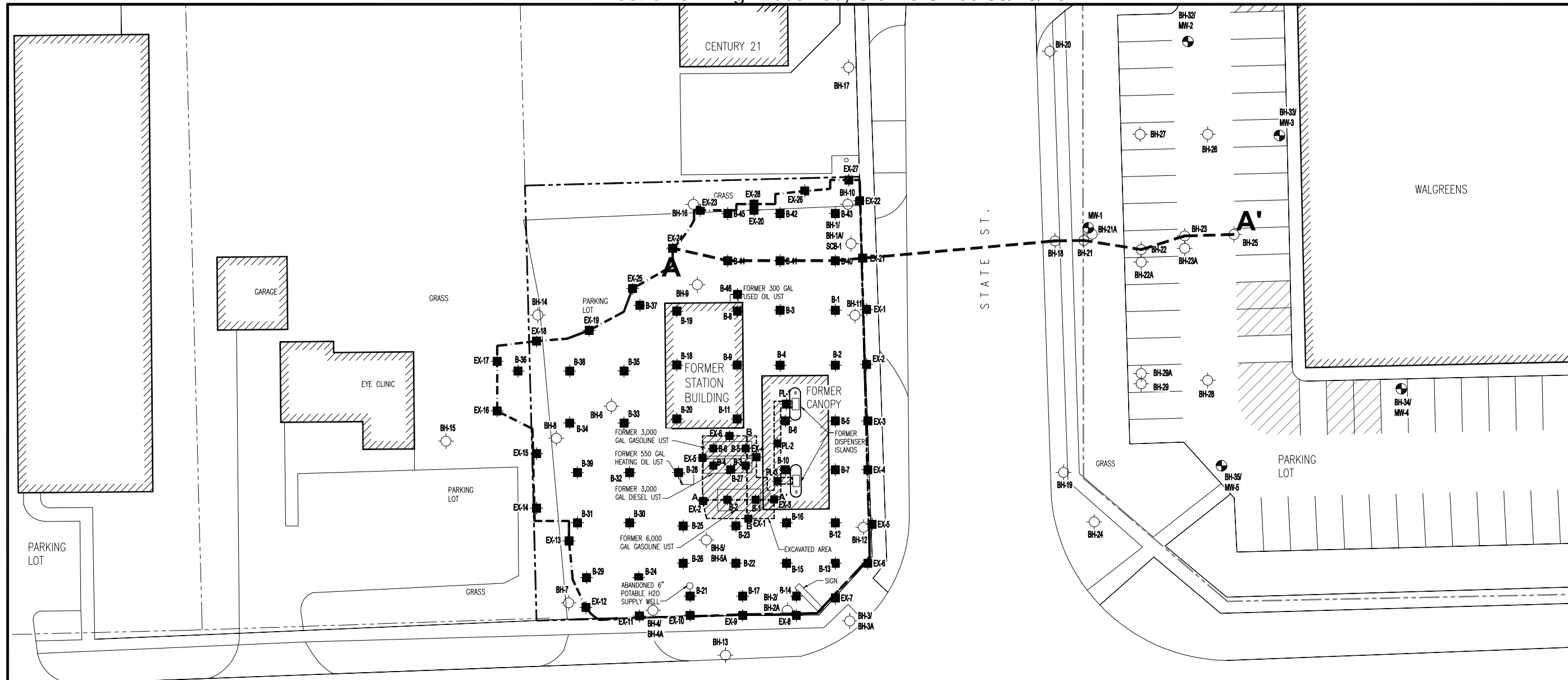
**SITE LOCATION MAP**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: AS NOTED  
 DATE: 10/25/2019  
 DRAWING FILE: MD14-170

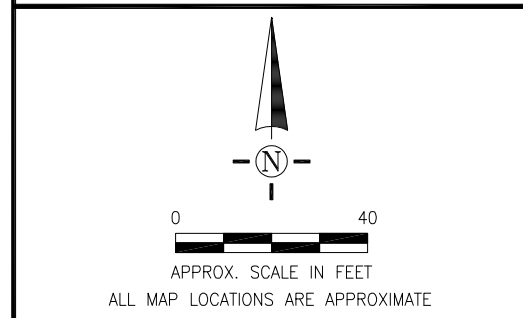


LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	EXCAVATION AREA
	COMMUNITY WATER SUPPLY WELL AND 200 ft SETBACK ZONE

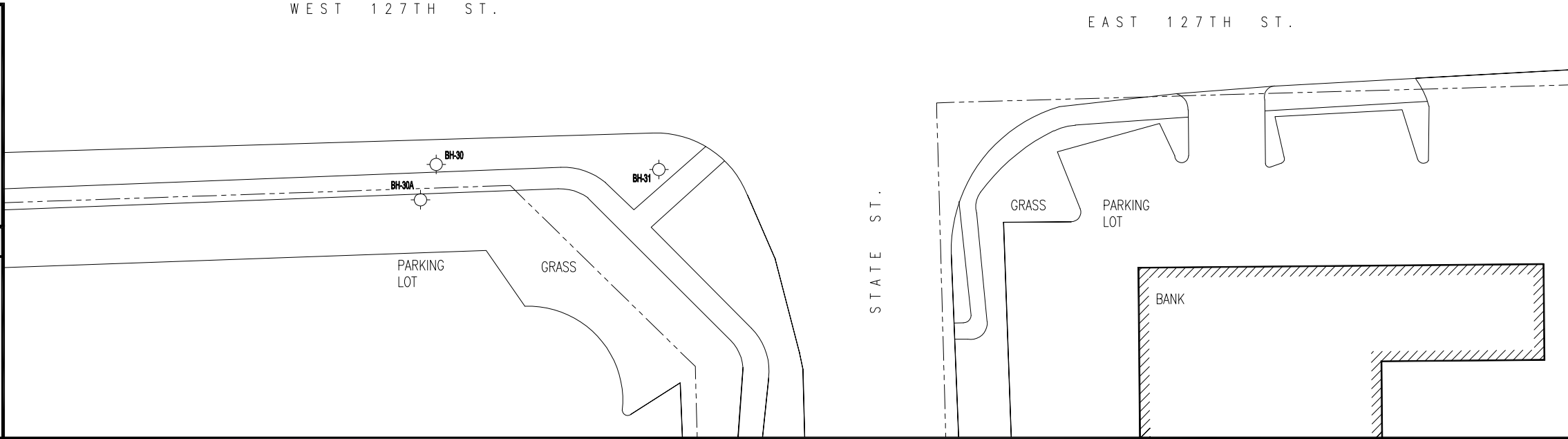
<p><b>TriCore Environmental, LLC</b> 2388 Corporate Lane, Suite 116 Naperville, IL 60563 (630) 520-9973</p>	<p><b>BOI, LLC</b> 201 Danny's Drive Suite 5 Streator, IL 61364</p>
	<p><b>COMMUNITY WATER SUPPLY WELL LOCATIONS AND SETBACK ZONES</b></p> <p>BOI, LLC 1196 STATE STREET LEMONT, COOK COUNTY, IL 60439</p>
<p>FIGURE <b>4</b></p>	<p>DRAWN BY: SAA APPROVED BY: MIC SCALE: 1" = 80' DATE: 10/24/2019 DRAWING FILE: MD14-170</p>



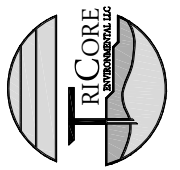
WEST 127TH ST. EAST 127TH ST.



LEGEND	
	PROPERTY BOUNDARY
	SOIL SAMPLE LOCATION
	SOIL BORING LOCATION
	MONITORING WELL LOCATION
	CROSS SECTION
	EXCAVATION AREA



**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

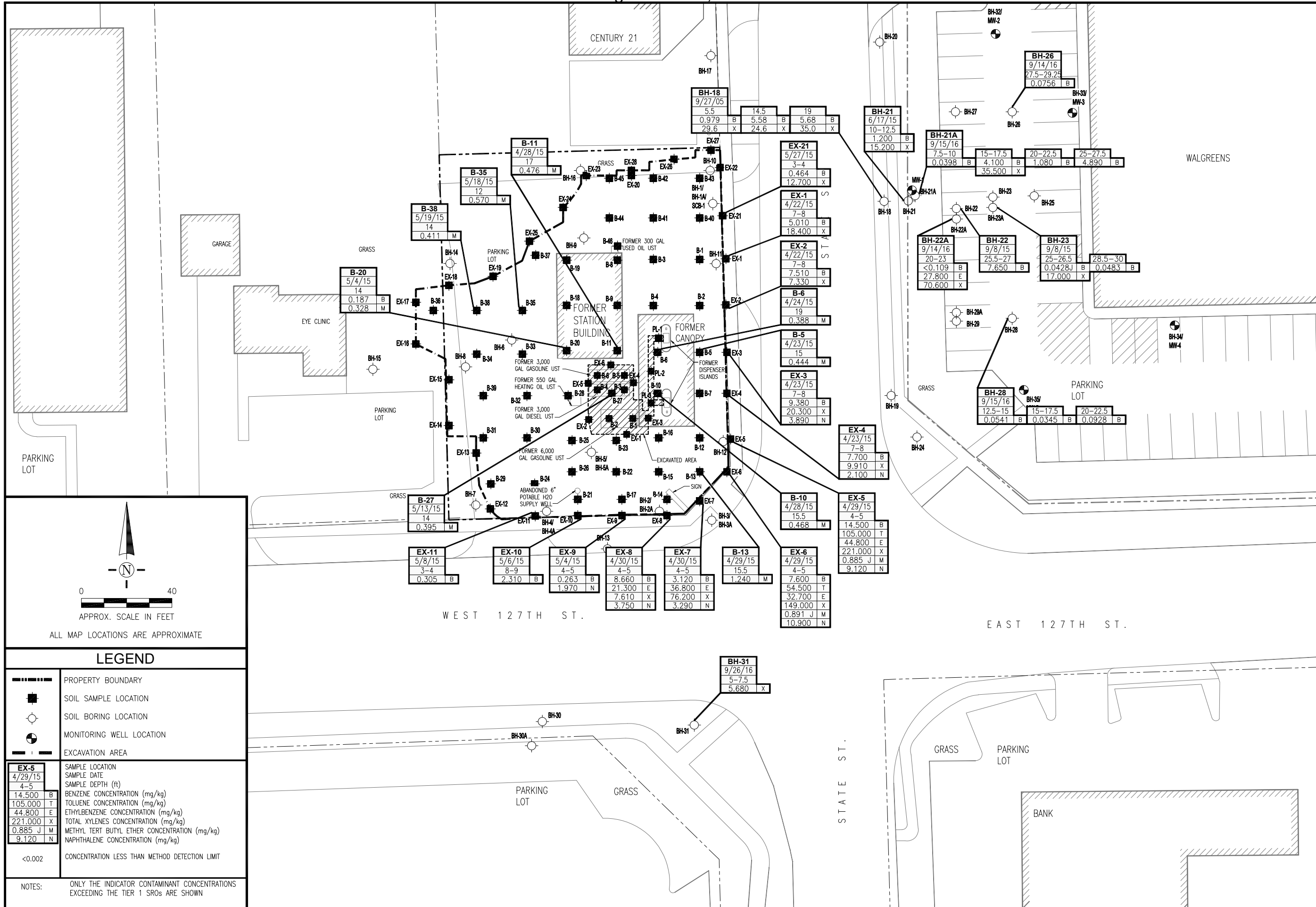


**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**SITE MAP**  
 BOI, LLC  
 1196 STATE STREET,  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY:	SAA
APPROVED BY:	MIC
SCALE:	1" = 40'
DATE:	10/24/2019
DRAWING FILE:	MD14-170

**FIGURE 1**



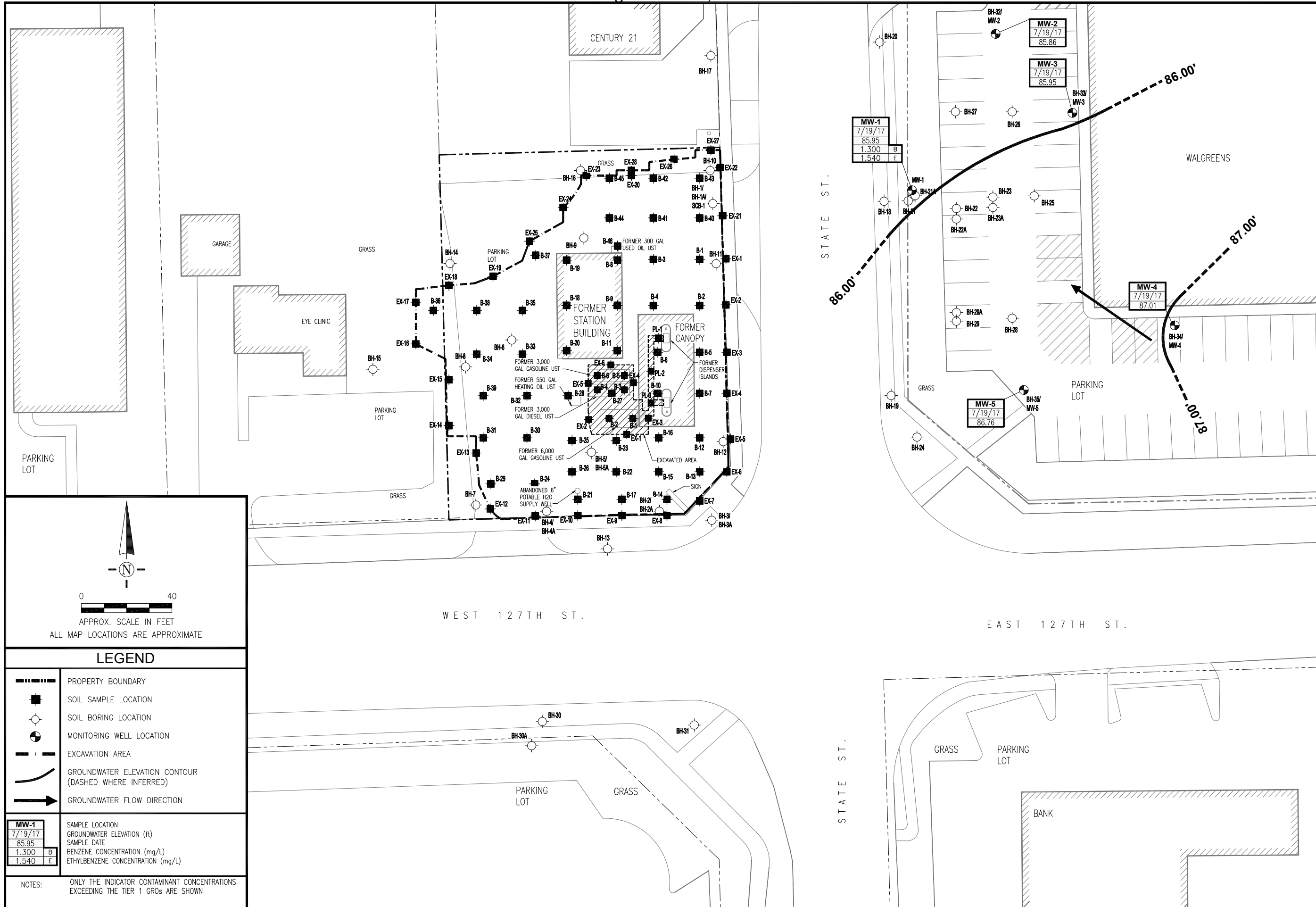
**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**SOIL ANALYTICAL RESULTS**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

JB  
 DRAWN BY: MIC  
 APPROVED BY: 1" = 40'  
 SCALE: 10/24/2019  
 DATE: MD14-170  
 DRAWING FILE:

**FIGURE 2**



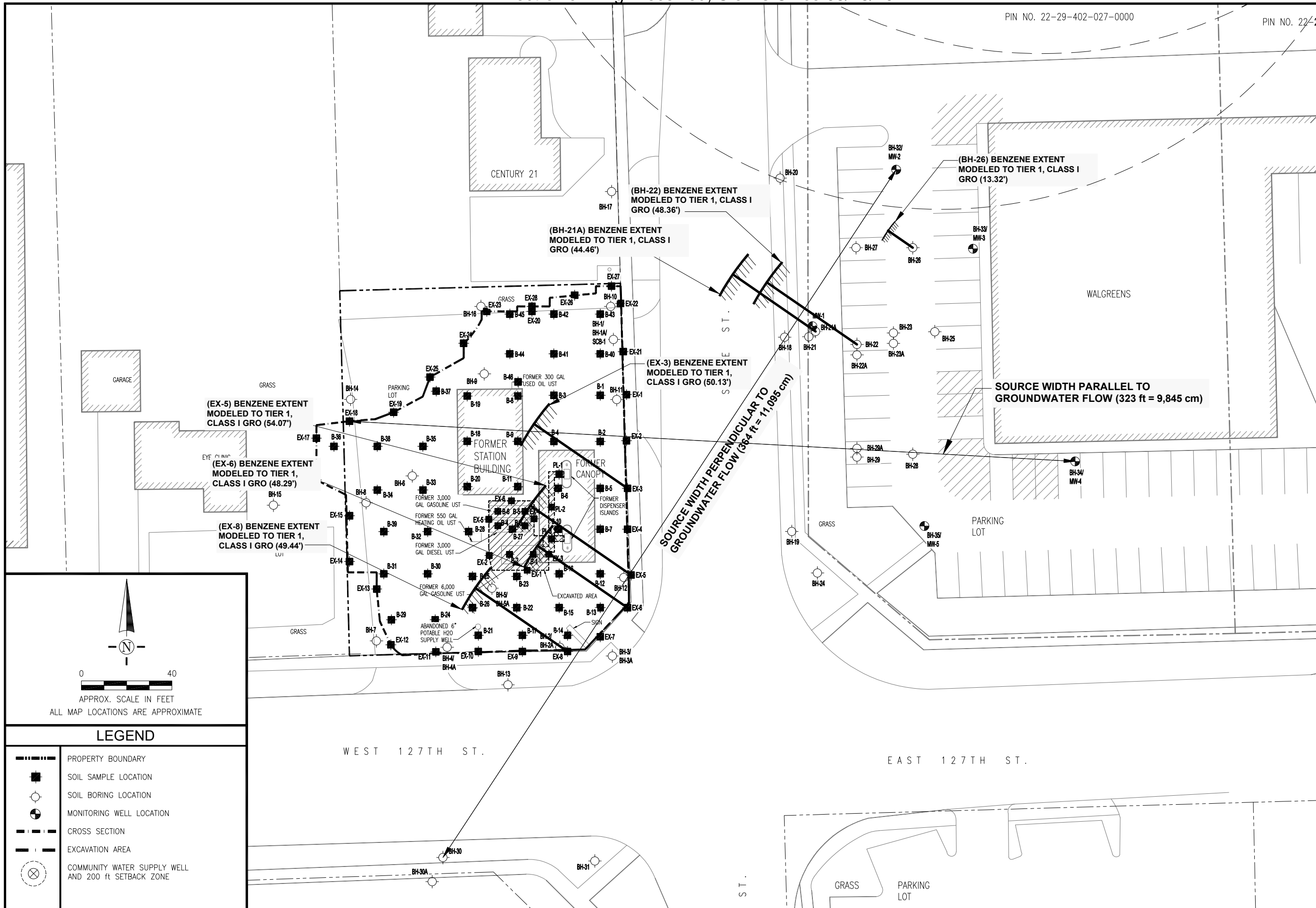
**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 10/24/2019  
 DRAWING FILE: MD14-170

**FIGURE 3**



**TriCore Environmental, LLC**  
 2388 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**SOURCE DIMENSIONS AND MODELED EXTENTS FOR THE SCGIER EVALUATIONS - BENZENE**

BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY:	SAA
APPROVED BY:	MIC
SCALE:	1" = 40'
DATE:	10/24/2019
DRAWING FILE:	MD14-170

**FIGURE 4**

0 40  
 APPROX. SCALE IN FEET  
 ALL MAP LOCATIONS ARE APPROXIMATE

**LEGEND**

- PROPERTY BOUNDARY
- SOIL SAMPLE LOCATION
- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- CROSS SECTION
- EXCAVATION AREA
- COMMUNITY WATER SUPPLY WELL AND 200 ft SETBACK ZONE



(EX-5) MTBE EXTENT  
MODELED TO TIER 1,  
CLASS I GRO (1,022.70')

(EX-6) MTBE EXTENT  
MODELED TO TIER 1,  
CLASS I GRO (1,026.44')

SOURCE WIDTH PARALLEL TO  
GROUNDWATER FLOW (323 ft = 9,845 cm)

SOURCE WIDTH PERPENDICULAR TO  
GROUNDWATER FLOW (384 ft = 11,085 cm)

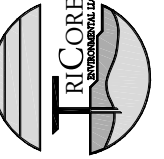
EX-5  
EX-6

0 80  
APPROX. SCALE IN FEET  
ALL MAP LOCATIONS ARE APPROXIMATE

**LEGEND**

- PROPERTY BOUNDARY
- SOIL SAMPLE LOCATION
- SOIL BORING LOCATION
- ⊕ MONITORING WELL LOCATION
- - - EXCAVATION AREA
- ⊗ COMMUNITY WATER SUPPLY WELL AND 200 ft SETBACK ZONE

**TriCore Environmental, LLC**  
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Naperville, IL 60563  
(630) 520-9973



**BOI, LLC**  
201 Danny's Drive  
Suite 5  
Streator, IL 61364

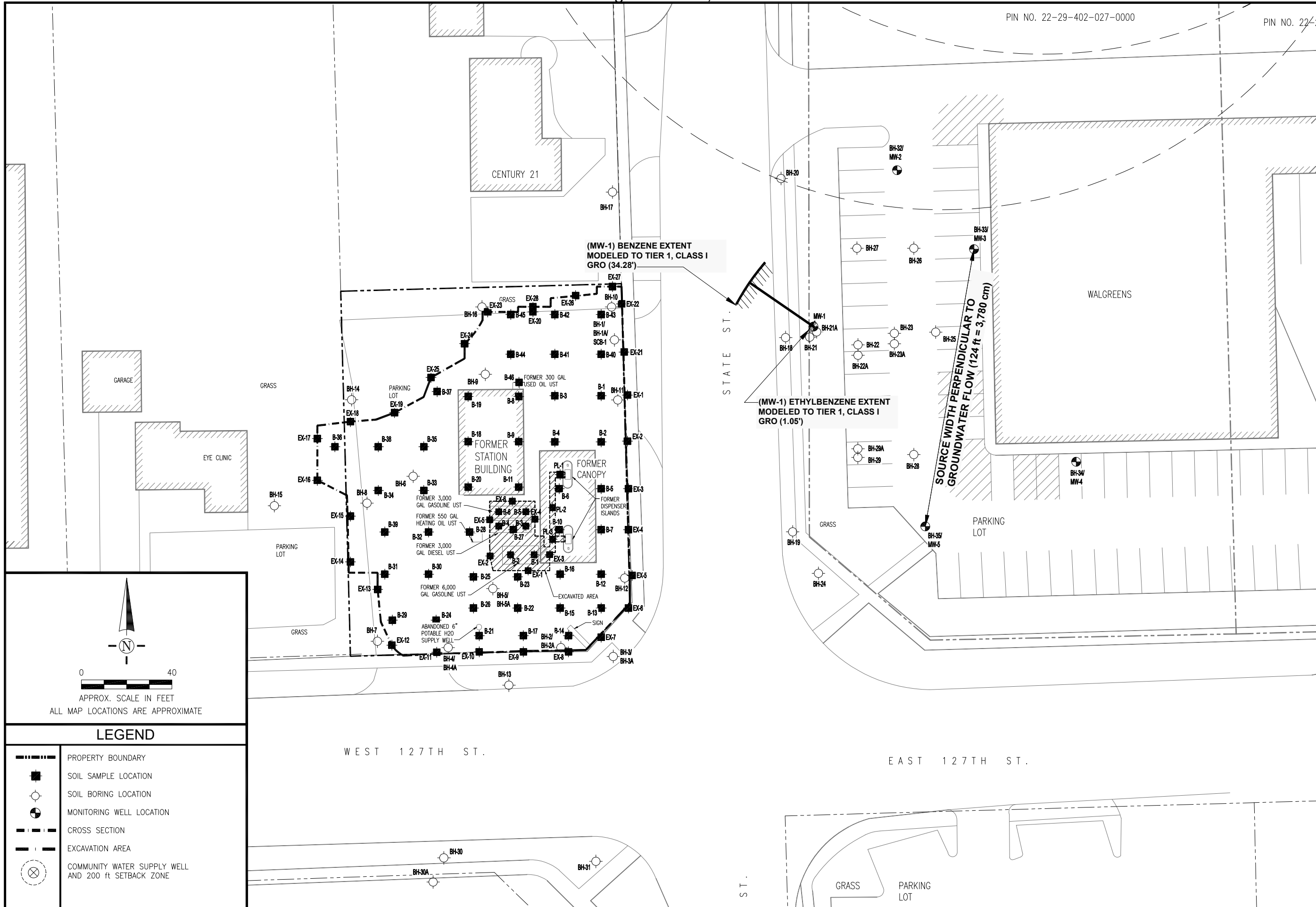
**SOURCE DIMENSIONS AND MODELED EXTENTS  
FOR THE SCGIER EVALUATIONS - MTBE**

BOI, LLC  
1196 STATE STREET  
LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
APPROVED BY: MIC  
SCALE: 1" = 80'  
DATE: 10/15/2019  
DRAWING FILE: MD14-170

**FIGURE 5**





**TriCore Environmental, LLC**  
2368 Corporate Lane, Suite 116  
Naperville, IL 60563  
(630) 520-9973



**BOI, LLC**  
201 Danny's Drive  
Suite 5  
Streator, IL 61364

**SOURCE DIMENSION AND MODELED EXTENTS  
FOR THE GCGIER EVALUATIONS**

BOI, LLC  
1196 STATE STREET  
LEMONT, COOK COUNTY, IL 60439

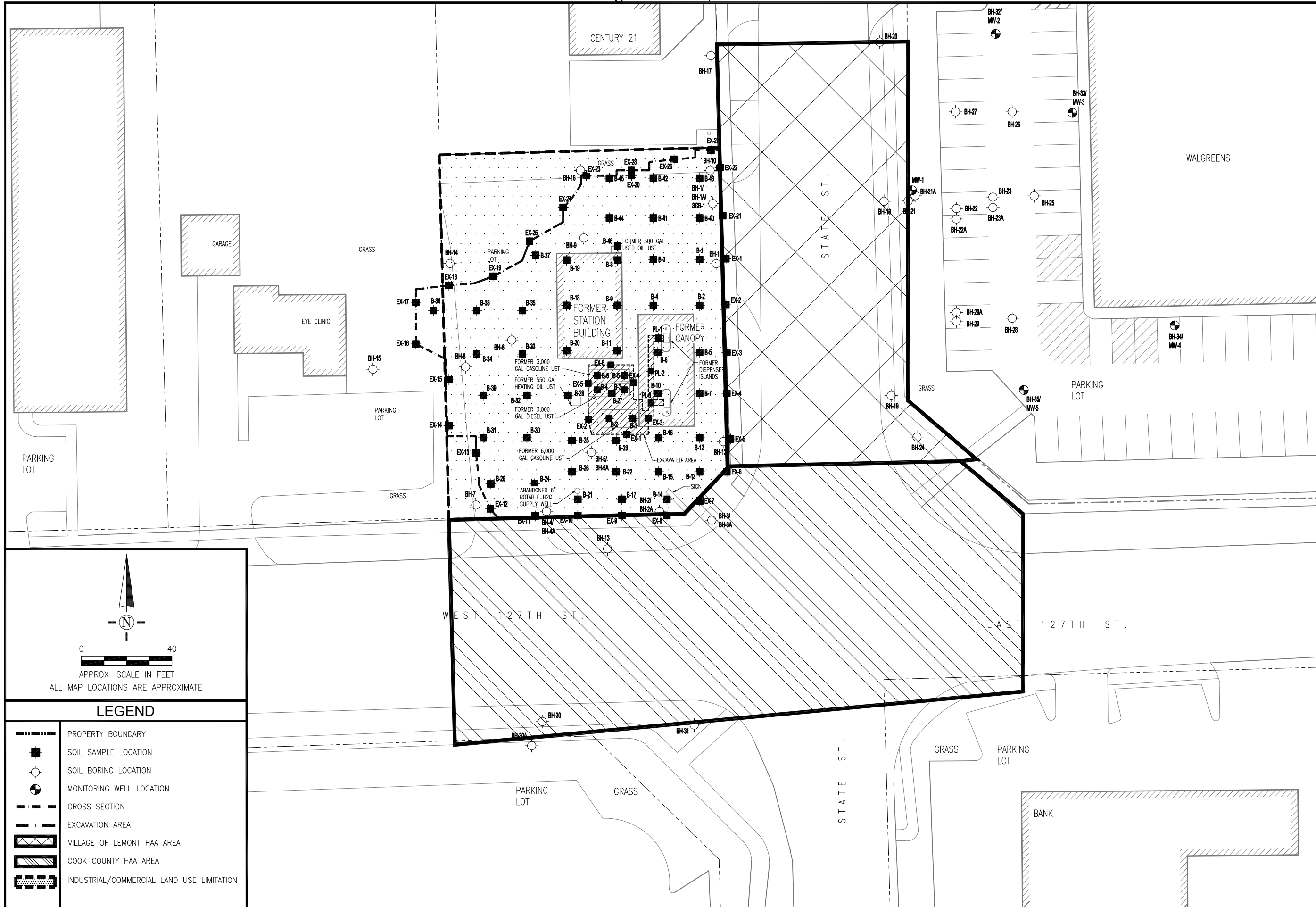
DRAWN BY: SAA  
APPROVED BY: MIC  
SCALE: 1" = 40'  
DATE: 10/15/2019  
DRAWING FILE: MD14-170

**FIGURE 6**

0 40  
APPROX. SCALE IN FEET  
ALL MAP LOCATIONS ARE APPROXIMATE

**LEGEND**

- PROPERTY BOUNDARY
- SOIL SAMPLE LOCATION
- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- - - CROSS SECTION
- - - EXCAVATION AREA
- ⊗ COMMUNITY WATER SUPPLY WELL AND 200 ft SETBACK ZONE



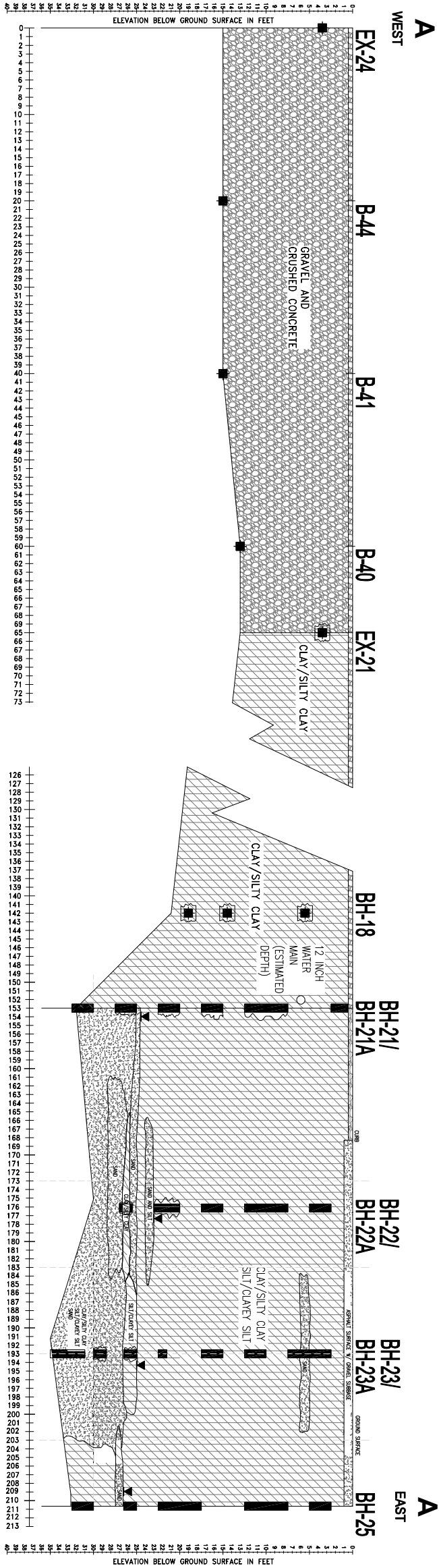
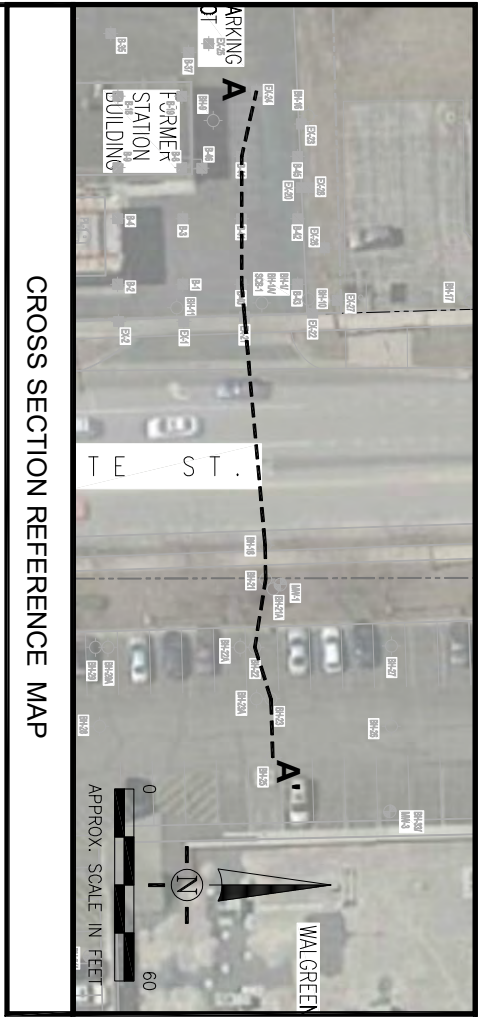
**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364

**PROPOSED INSTITUTIONAL CONTROLS**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
 APPROVED BY: MIC  
 SCALE: 1" = 40'  
 DATE: 10/15/2019  
 DRAWING FILE: MD14-170

**FIGURE 8**



**LEGEND**

- SOIL SAMPLE LOCATIONS
- INDICATOR CONTAMINANT CONCENTRATIONS EXCEEDING A TIER 1 SRO
- DEPTH TO GROUNDWATER DURING DRILLING

DRAWN BY:	JB
APPROVED BY:	MIC
SCALE:	AS NOTED
DATE:	10/25/2019
DRAWING FILE:	MD14-170

**GEOLOGIC CROSS SECTION A-A'**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

**BOI, LLC**  
 201 Danny's Drive  
 Suite 5  
 Streator, IL 61364



**TriCore Environmental, LLC**  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-1-A	9/18/03	7.5-8	0.316	0.430	6.31	13.2	
BH-1-B	9/18/03	14-14.5	<0.0289	<0.289	<0.289	<0.289	
BH-1-C	8/10/04	18	<0.002	<0.005	<0.005	<0.005	
BH-2-A	9/18/03	4.5-5	3.6000	0.293	5.730	4.030	
BH-2-B	8/10/04	13	0.0879	<0.005	<0.005	<0.005	
BH-2-C	8/10/04	23	<0.002	<0.005	<0.005	<0.005	
BH-3-A	9/18/03	6.5-7	<0.0286	<0.286	0.904	0.596	
BH-3-B	8/10/04	13	0.0293	<0.005	<0.005	<0.005	
BH-3-C	8/10/04	18	<0.002	<0.005	<0.005	<0.005	
BH-4-A	9/18/03	4.5-5	0.184	<0.309	0.309	<0.309	
BH-4-B	8/10/04	13	<0.002	<0.005	<0.005	<0.005	
BH-5-A	9/18/03	4.5-5	2.710	4.86	4.78	10.3	
BH-5-B	8/10/04	13	1.070	1.11	<0.005	0.522	
BH-5-C	8/10/04	24	<0.002	<0.005	<0.005	<0.005	
BH-6-A	8/2/05	5	0.0719	<0.005	<0.005	0.0054	
BH-6-B	8/2/05	9	1.060	1.090	1.91	8.1	
BH-6-C	8/2/05	15	<0.002	<0.005	<0.005	<0.005	
BH-6-D	8/2/05	18	0.0064	<0.005	<0.005	<0.005	
BH-7-A	8/2/05	4	<0.002	<0.005	<0.005	<0.005	
BH-7-B	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-7-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-7-D	8/2/05	18	<0.002	<0.005	<0.005	<0.005	
BH-8-A	8/2/05	3	<0.002	<0.005	<0.005	<0.005	
BH-8-B	8/2/05	9	0.459	<0.005	0.438	0.419	
BH-8-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-9-A	8/2/05	4	<0.002	<0.005	<0.005	<0.005	
BH-9-B	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-9-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-10-A	8/2/05	4	<0.030	0.0882	1.98	4.920	
BH-10-B	8/2/05	9	2.660	0.348	1.79	3.820	
BH-10-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-10-D	8/2/05	18-20	<0.002	<0.005	<0.005	<0.005	

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-11-A	8/2/05	4	24.5	65.8	52.7	207.0	
BH-11-B	8/2/05	9	5.730	0.4	4.030	8.0	
BH-11-C	8/2/05	14	0.0045	0.0056	<0.005	0.0093	
BH-12-A	8/2/05	4	10.2	39.5	12.0	59.0	
BH-12-B	8/2/05	9	14.3	0.897	10.4	9.140	
BH-12-C	8/2/05	14	0.0126	0.0261	<0.005	0.0115	
BH-12-D	8/2/05	19	<0.002	<0.005	<0.005	<0.005	
BH-13-A	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-13-B	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-14-A	9/26/05	4-5	<0.002	<0.005	<0.005	<0.005	
BH-14-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-14-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-15-A	9/26/05	4.5	<0.002	<0.005	<0.005	<0.005	
BH-15-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-15-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-16-A	9/26/05	4.5	<0.002	<0.005	<0.005	<0.005	
BH-16-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-16-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-17-A	9/26/05	5	<0.002	<0.005	<0.005	<0.005	
BH-17-B	9/26/05	9	<0.002	<0.005	<0.005	<0.005	
BH-17-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-18-A	9/27/05	5.5	0.979	0.997	9.19	29.6	
BH-18-B	9/27/05	14.5	5.58	0.681	9.84	24.6	
BH-18-C	9/27/05	19	5.68	6.890	9.11	35.0	
BH-19-A	9/27/05	8	0.0057	<0.005	<0.005	0.0057	
BH-19-B	9/27/05	14	0.0159	0.0097	0.0397	0.0752	
BH-19-C	9/27/05	19	<0.002	<0.005	<0.005	<0.005	
BH-20-A	11/12/05	4	<0.002	<0.005	<0.005	<0.005	
BH-20-B	11/12/05	8	<0.002	<0.005	<0.005	<0.005	
BH-20-C	11/12/05	14	<0.002	<0.005	<0.005	<0.005	
EX-1	11/25/14	7-8	1.240	0.264	7.810	2.910	0.103 J
EX-2	11/25/14	7-8	6.330	3.200	35.900	54.500	0.655 J

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
EX-3	11/25/14	7-8	1.890	3.360	32.600	158.000	0.972 J
B-1	11/25/14	12-13	1.860	0.164	0.373	1.630	<0.0301
B-2	11/25/14	12-13	5.200	<0.244	1.460	2.790	<0.244
B-3	11/25/14	7-8	1.340	0.129	0.143	0.345	<0.0293
B-4	11/25/14	7-8	2.070	0.156	0.193	0.398	<0.0295
Backfill #1	11/25/14		5.750	1.400	24.600	7.880	0.450 J
PL-1	11/26/14	2.5-3	3.850	3.340	51.200	112.000	2.060
PL-2	11/26/14	2.5-3	14.100	4.180	96.000	269.000	1.640 J
PL-3	11/26/14	2.5-3	13.700	13.800	103.000	356.000	3.700
B-5	11/26/14	7-8	3.070	0.115	0.351	0.533	<0.0293
B-6	11/26/14	7-8	0.0481	<0.0293	0.0589	0.258	<0.0293
EX-4	11/26/14	4-5	1.460	0.724	13.800	25.700	0.157 J
EX-5	11/26/14	4-5	36.500	6.100	106.000	644.000	5.110 J
EX-6	11/26/14	4-5	9.330	4.990	90.200	159.000	1.790 J
Backfill #2	11/26/14		8.690	37.100	74.100	327.000	3.870
EX-1	4/22/15	7-8	5.010	0.995	7.800	18.400	<0.0294
EX-2	4/22/15	7-8	7.510	0.394	6.910	7.330	<0.0147
B-1	4/22/15	15.5	<0.0105	<0.0128	<0.0142	<0.0553	0.0234 J
B-2	4/22/15	16	<0.0111	<0.0135	<0.0150	<0.0585	0.123
B-3	4/22/15	16	<0.0106	<0.0129	<0.0143	<0.0558	0.0227 J
B-4	4/23/15	16.5	<0.0107	<0.0130	0.0172 J	<0.0560	0.122
B-5	4/23/15	15	0.0308	<0.0129	<0.0143	<0.0558	0.444
EX-3	4/23/15	7-8	9.380	0.462	11.000	20.300	0.0944 J
EX-4	4/23/15	7-8	7.700	0.815	11.900	9.910	0.186
B-6	4/24/15	19	<0.0115	<0.0288	<0.0288	<0.0864	0.388
B-7	4/24/15	19	<0.0113	<0.0283	<0.0283	<0.0849	0.0915
B-8	4/27/15	16	<0.0119	<0.0298	<0.0298	<0.0895	<0.0298
B-9	4/27/15	15	<0.0116	<0.0289	<0.0289	<0.0868	0.148
B-10	4/28/15	15.5	<0.0115	<0.0287	<0.0287	<0.0861	0.468
B-11	4/28/15	17	<0.0116	<0.0290	<0.0290	<0.0869	0.476
B-12	4/29/15	18	<0.0113	<0.0282	<0.0282	<0.0845	0.128
EX-5	4/29/15	4-5	14.500	105.000	44.800	221.000	0.885 J

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
EX-6	4/29/15	4-5	7.600	54.500	32.700	149.000	0.891 J
B-13	4/29/15	15.5	<0.0116	<0.0290	<0.0290	<0.0870	1.240
EX-7	4/30/15	4-5	3.120	0.808 J	36.800	76.200	<0.313
B-14	4/30/15	15.5	<0.0107	<0.0130	<0.0144	<0.0563	0.0337 J
EX-8	4/30/15	4-5	8.660	1.070	21.300	7.610	0.158J
B-15	5/1/15	15.5	<0.0107	<0.0130	<0.0144	<0.0560	0.0259 J
B-16	5/1/15	17.5	<0.0104	<0.0126	<0.0140	<0.0544	<0.0142
B-17	5/1/15	15.5	<0.0106	<0.0129	<0.0143	<0.0558	0.0561 J
EX-9	5/4/15	4-5	0.263	0.0508 J	4.790	0.619	<0.0328
B-18	5/4/15	15.5	<0.0108	<0.0131	<0.0146	<0.0567	0.137
B-19	5/4/15	15.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
B-20	5/4/15	14	0.187	<0.129	<0.0143	<0.0556	0.328
EX-10	5/6/15	8-9	2.310	0.130	1.400	0.636	<0.0290
B-21	5/6/15	15.5	<0.0111	<0.0135	0.0175 J	<0.0582	<0.0152
B-22	5/7/15	15.5	<0.0109	<0.0132	0.0175 J	<0.0570	<0.0149
B-23	5/7/15	15.5	<0.0109	<0.0133	<0.0147	<0.0573	0.318
B-24	5/8/15	9	<0.0104	<0.0127	<0.0140	<0.0546	0.0430 J
B-25	5/8/15	15.5	<0.0107	<0.0130	<0.0144	<0.0560	0.208
B-26	5/8/15	15	<0.0108	<0.0131	<0.0145	<0.0566	<0.0148
EX-11	5/8/15	3-4	0.305	<0.0144	<0.0159	<0.0620	<0.0162
EX-12	5/8/15	3-4	<0.0118	<0.0144	<0.0160	<0.0622	<0.0162
EX-13	5/13/15	4-5	<0.0114	<0.0139	<0.0154	<0.0599	<0.0157
B-27	5/13/15	14	<0.0108	<0.0131	<0.0145	<0.0566	0.395
B-29	5/13/15	9	<0.0108	<0.0131	<0.0146	<0.0567	0.0318 J
EX-14	5/14/15	4-5	<0.0118	<0.0143	<0.0158	<0.0617	<0.0161
B-28	5/14/15	13	<0.0106	<0.0129	<0.0143	<0.0559	0.206
B-30	5/14/15	11	<0.0106	<0.0129	<0.0143	<0.0559	0.0565 J
B-31	5/14/15	11	<0.0106	<0.0159	<0.0143	<0.0559	0.0226 J
EX-15	5/15/15	8-9	<0.0107	<0.0131	0.0207 J	0.0589 J	0.0392 J
B-32	5/15/15	11	<0.0107	<0.0130	<0.0144	<0.0562	0.302
B-33	5/15/15	11	<0.0107	<0.0130	<0.0144	<0.0561	0.241
B-34	5/15/15	11	<0.0109	<0.0133	<0.0147	<0.0573	0.0466 J

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
Overburden 1	5/15/15		<0.0112	<0.0137	<0.0151	<0.0590	<0.0154
B-35	5/18/15	12	<0.0107	<0.0130	0.0192 J	0.0576 J	0.570
EX-16	5/18/15	9-10	<0.0110	<0.0134	<0.0149	<0.0579	<0.0151
EX-17	5/18/15	9-10	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
B-36	5/18/15	12	<0.0108	<0.0131	<0.0145	<0.0565	0.0306 J
Overburden-2	5/18/15		<0.0109	<0.0132	<0.0146	<0.0571	<0.0149
B-37	5/19/15	14	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
B-38	5/19/15	14	<0.0107	<0.0131	<0.0145	<0.0565	0.411
B-39	5/19/15	12	<0.0103	<0.0125	<0.0139	<0.0541	0.0511 J
EX-18	5/19/15	3-4	<0.0120	<0.0146	<0.0162	<0.0632	<0.0165
EX-19	5/19/15	3-4	<0.0115	<0.0140	<0.0155	<0.0605	<0.0158
B-40	5/22/15	13	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
B-41	5/27/15	15	<0.0105	<0.0128	<0.0142	<0.0553	<0.0144
EX-20	5/27/15	3-4	<0.0127	<0.0154	<0.0171	<0.0666	<0.0174
EX-21	5/27/15	3-4	0.464	0.627	11.600	12.700	<0.0664
EX-22	5/27/15	4-5	<0.0310	<0.0378	2.140	2.410	<0.0426
B-42	5/27/15	12.5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
B-43	5/27/15	12.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
B-44	5/27/15	15	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
B-45	5/28/15	12.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
EX-23	5/28/15	8.5-9.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
EX-24	5/28/15	3-4	<0.0118	<0.0143	<0.0159	<0.0618	<0.0162
B-46	6/5/15	14.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0146
EX-25	6/5/15	10-11	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
EX-26	6/5/15	3.5-5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
EX-27	6/5/15	8.5-9.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0146
EX-28	6/8/15	3-4	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
EX-28	6/8/15	8-9	<0.0106	<0.0130	<0.0144	<0.0559	<0.0146
BH-21	6/17/15	10-12.5	1.200	0.362	12.700	15.200	<0.0729
BH-22	9/8/15	7.5-10	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-22	9/8/15	25.5-27	7.650	1.260	0.0313 J	<0.110	<0.0288
BH-23	9/8/15	25-26.5	0.0428 J	0.547	2.900	17.000	<0.0376



Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-23	9/8/15	28.5-30	0.0483	<0.0130	<0.0144	<0.0562	<0.0147
BH-24	9/8/15	4-6	<0.0279	<0.0339	0.0593 J	<0.146	<0.0383
BH-24	9/8/15	13.5-15	<0.0112	<0.0136	<0.0151	<0.0587	<0.0153
BH-22A	9/14/16	2.5-5	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
BH-22A	9/14/16	10-12.5	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-22A	9/14/16	15-17.5	<0.0110	<0.0134	<0.0149	<0.0580	<0.0151
BH-22A	9/14/16	20-23	<0.109	1.990	27.800	70.600	<0.150
BH-23A	9/14/16	2.5-5	<0.0130	<0.0158	<0.0176	<0.0684	<0.0179
BH-23A	9/14/16	5-7.5	<0.0114	<0.0139	<0.0154	<0.0600	<0.0157
BH-23A	9/14/16	10-12.5	<0.0107	0.0153 J	<0.0144	<0.0561	<0.0147
BH-23A	9/14/16	15-17.5	<0.0108	<0.0132	<0.0146	<0.0568	<0.0148
BH-23A	9/14/16	21.5-22.5	<0.0110	<0.0133	<0.0148	<0.0576	<0.0150
BH-23A	9/14/16	31-32.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-23A	9/14/16	32.5-35	<0.0118	<0.0144	<0.0159	<0.0621	<0.0162
BH-26	9/14/16	1-2.5	<0.0113	<0.0138	<0.0153	<0.0596	<0.0156
BH-26	9/14/16	7.5-10	<0.0107	0.0135 J	<0.0144	<0.0561	<0.0147
BH-26	9/14/16	10-12.5	<0.0111	<0.0136	<0.0150	<0.0585	<0.0153
BH-26	9/14/16	17.5-20	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-26	9/14/16	20-22.5	<0.0106	<0.0129	<0.0143	<0.0557	<0.0146
BH-26	9/14/16	27.5-29.25	0.0756	<0.0133	<0.0148	<0.0575	<0.0150
BH-27	9/14/16	2.5-5	<0.0117	0.0168 J	<0.0158	<0.0616	<0.0161
BH-27	9/14/16	7.5-10	<0.0107	<0.0130	<0.0144	<0.00563	<0.0147
BH-27	9/14/16	12.5-15	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-27	9/14/16	17.5-20	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
BH-27	9/14/16	22.5-25	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-27	9/14/16	27.5-30	<0.0101	<0.0123	<0.0137	<0.0533	<0.0139
BH-27	9/14/16	30-32.5	<0.0105	<0.0127	<0.0141	<0.0127	<0.0144
BH-21A	9/15/16	0.5-2.5	<0.0110	<0.0133	<0.0148	<0.0575	<0.0150
BH-21A	9/15/16	7.5-10	0.0398	<0.0128	0.0505 J	0.0807 J	<0.0144
BH-21A	9/15/16	15-17.5	4.100	8.830	9.310	35.500	<0.0367
BH-21A	9/15/16	20-22.5	1.080	0.147	0.918	0.685	<0.0149
BH-21A	9/15/16	25-27.5	4.890	0.0134 J	<0.0146	<0.0568	<0.0148
BH-21A	9/15/16	30-32.5	0.0109 J	<0.0128	<0.0142	<0.0552	<0.014
BH-25	9/15/16	2.5-5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-25	9/15/16	7.5-10	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-25	9/15/16	10-12.5	<0.0107	0.0220 J	<0.0144	<0.0560	<0.0146
BH-25	9/15/16	17.5-20	<0.0108	<0.0132	<0.0146	<0.0568	<0.0149
BH-25	9/15/16	20-22.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-25	9/15/16	25-26.5	0.0266	<0.0132	<0.0147	<0.0571	<0.0149
BH-25	9/15/16	30-32.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-28	9/15/16	2.5-5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-28	9/15/16	5-7.5	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
BH-28	9/15/16	12.5-15	0.0541	0.263	3.300	3.600	<0.0147
BH-28	9/15/16	15-17.5	0.0345	0.106	2.000	0.860	<0.0143
BH-28	9/15/16	20-22.5	0.0928	0.200	3.070	3.050	<0.0151
BH-28	9/15/16	25-27.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-29	9/15/16	2.5-5	<0.0116	<0.0142	<0.0157	<0.0612	<0.0160
BH-29	9/15/16	7.5-10	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-29A	9/15/16	10-12.5	<0.0108	<0.0132	<0.0146	<0.0570	<0.0149
BH-29A	9/15/16	15-20	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-29A	9/15/16	22.5-25	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
BH-29A	9/15/16	27.5-30	<0.0105	<0.0128	<0.0142	<0.0554	<0.0145
BH-29A	9/15/16	32.5-35	<0.0107	<0.0131	<0.0145	<0.0563	<0.0147
BH-30	9/26/16	2.5-5	<0.0105	<0.0128	<0.0142	<0.0553	<0.0145
BH-30	9/26/16	7.5-10	<0.0110	<0.0133	<0.0148	<0.0576	<0.0151
BH-30	9/26/16	12.5-15	<0.0106	<0.0129	<0.0143	<0.0557	<0.0146
BH-30	9/26/16	15-17.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-30A	9/26/16	22.5-25	<0.0103	<0.0125	<0.0139	<0.0541	<0.0141
BH-30A	9/26/16	27.5-30	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-31	9/26/16	2.5-5	<0.0114	<0.0139	<0.0154	<0.0600	<0.0157
BH-31	9/26/16	5-7.5	<0.0123	<0.0150	0.121	5.680	<0.0169
BH-31	9/26/16	12.5-15	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
BH-31	9/26/16	15-17.5	<0.0105	<0.0127	<0.0141	<0.0550	<0.0144
BH-31	9/26/16	22.5-25	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
BH-31	9/26/16	25-27.5	<0.0109	<0.0132	<0.0147	<0.0571	<0.0149
BH-32	7/5/17	2.5-5	<0.0116	<0.0141	<0.0156	<0.0610	<0.0159
BH-32	7/5/17	5-7.5	<0.0113	<0.0137	<0.0152	<0.0591	<0.0154
BH-32	7/5/17	12.5-15	<0.0109	<0.0132	<0.0147	<0.0571	<0.0149
BH-32	7/5/17	15-17.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-32	7/5/17	20-22.5	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
BH-32	7/5/17	27.5-30	<0.0105	<0.0128	0.0154 J	<0.0553	<0.0144
BH-32	7/5/17	30-30.5	<0.0111	<0.0136	<0.0150	<0.0585	<0.0153
BH-33	7/5/17	2.5-5	<0.0112	<0.0137	<0.0151	<0.0590	<0.0154
BH-33	7/5/17	7.5-10	<0.0114	<0.0139	<0.0154	<0.0601	<0.0157
BH-33	7/5/17	12.5-15	<0.0111	<0.0135	<0.0149	<0.0581	<0.0152
BH-33	7/5/17	15-17.5	<0.0110	<0.0134	<0.0149	<0.0579	<0.0151
BH-33	7/5/17	22.5-25	<0.0107	<0.0131	<0.0145	<0.0563	<0.0147
BH-33	7/5/17	25-27.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-34	7/6/17	0.75-2.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
BH-34	7/6/17	7.5-10	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-34	7/6/17	10-12.5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-34	7/6/17	17.5-20	<0.0108	<0.0131	<0.0145	<0.0567	<0.0148
BH-34	7/6/17	20-22.5	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-34	7/6/17	25-27.5	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
BH-34	7/6/17	30-32.5	<0.0105	<0.0128	<0.0141	<0.0551	<0.0144
BH-35	7/6/17	0.5-2.5	<0.0128	<0.0156	<0.0173	<0.0675	<0.0176
BH-35	7/6/17	7.5-10	<0.0109	<0.0132	<0.0147	<0.0572	<0.0149
BH-35	7/6/17	12.5-15	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-35	7/6/17	15-17.5	<0.0110	<0.0134	<0.0148	<0.0578	<0.0151

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-35	7/6/17	20-22.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-35	7/6/17	25-27.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-35	7/6/17	30-35	<0.0104	<0.0127	<0.0141	<0.0548	<0.0143

Notes:

- 1) **Bold** = detected concentration exceeds a Tier 1 SRO listed in 35 IAC Part 742
- 2) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
- 3) Shaded cells = not applicable, not analyzed, or sample location was excavated
- 4) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	<b>1.8</b>	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
EX-1	11/25/14	7-8	<0.0992	<0.0887	<0.103	<0.0687	<0.0709	<0.0992	<0.0755	<0.110	<0.0917	<0.0727	<0.0992	<0.0992	<0.0754	<b>3.330</b>	<0.0992	<0.0992
EX-2	11/25/14	7-8	<0.213	<0.190	<0.221	<0.147	<0.152	<0.213	<0.162	<0.235	<0.197	<0.156	<0.213	<0.213	<0.162	<b>5.470</b>	<0.213	<0.213
EX-3	11/25/14	7-8	<0.504	<0.451	<0.523	<0.350	<0.361	<0.504	<0.384	<0.558	<0.466	<0.370	<0.504	<0.504	<0.383	<b>14.500</b>	<0.504	<0.504
B-1	11/25/14	12-13	<0.0500	<0.0447	<0.0518	<0.0346	<0.0357	<0.0500	<0.0381	<0.0553	<0.0462	<0.0367	<0.0500	<0.0500	<0.0380	1.750	<0.0500	<0.0500
B-2	11/25/14	12-13	<0.0504	<0.0451	<0.0522	<0.0349	<0.0360	<0.0504	<0.0384	<0.0557	<0.0466	<0.0369	<0.0504	<0.0504	<0.0383	1.180	<0.0504	<0.0504
B-3	11/25/14	7-8	<0.0489	<0.0437	<0.0507	<0.0339	<0.0350	<0.0489	<0.0372	<0.0541	<0.0452	<0.0359	<0.0489	<0.0489	<0.0371	1.070	<0.0489	<0.0489
B-4	11/25/14	7-8	<0.0492	<0.0440	<0.0510	<0.0341	<0.0352	<0.0492	<0.0374	<0.0544	<0.0455	<0.0361	<0.0492	<0.0492	<0.0374	0.875	<0.0492	<0.0492
Backfill #1	11/25/14		<0.108	<0.0963	<0.112	<0.0746	<0.0770	<0.108	<0.0820	<0.119	<0.0995	<0.0789	<0.108	<0.108	<0.0818	<b>3.420</b>	<0.108	<0.108
PL-1	11/26/14	2.5-3	<0.435	<0.389	<0.451	<0.301	<0.311	<0.435	<0.331	<0.481	<0.402	<0.319	<0.435	<0.435	<0.330	<b>8.440</b>	<0.435	<0.435
PL-2	11/26/14	2.5-3	<0.432	<0.386	<0.448	<0.299	<0.309	<0.432	<0.329	<0.478	<0.399	<0.317	<0.432	<0.432	<0.328	<b>15.000</b>	<0.432	<0.432
PL-3	11/26/14	2.5-3	<0.140	<0.125	<0.145	<0.0972	<0.100	<0.140	<0.107	<0.155	<0.130	<0.103	<0.140	<0.140	<0.107	<b>6.710</b>	<0.140	<0.140
B-5	11/26/14	7-8	<0.0782	<0.0700	<0.0811	<0.0542	<0.0559	<0.0782	<0.0596	<0.0866	<0.0723	<0.0574	<0.0782	<0.0782	<0.0594	<b>2.160</b>	<0.0782	<0.0782
B-6	11/26/14	7-8	<0.010	<0.0089	<0.0103	<0.0069	<0.0071	<0.010	<0.0076	<0.0110	<0.0092	<0.0073	<0.010	<0.010	<0.0076	0.296	<0.010	<0.010
EX-4	11/26/14	4-5	<0.127	<0.114	<0.132	<0.0880	<0.0908	<0.127	<0.0967	<0.140	<0.117	<0.0931	<0.127	<0.127	<0.0965	<b>8.600</b>	<0.127	<0.127
EX-5	11/26/14	4-5	<0.427	<0.382	<0.443	<0.296	<0.306	<0.427	<0.325	<0.473	<0.395	<0.313	<0.427	<0.427	<0.325	<b>20.700</b>	<0.427	<0.427
EX-6	11/26/14	4-5	<0.431	<0.386	<0.447	<0.299	<0.309	<0.431	<0.329	<0.478	<0.399	<0.317	<0.431	<0.431	<0.328	<b>20.900</b>	<0.431	<0.431
Backfill #2	11/26/14		<0.0497	<0.0445	<0.0515	<0.0344	<0.0355	<0.0497	<0.0378	<0.0550	<0.0459	<0.0364	<0.0497	<0.0497	<0.0377	0.962	<0.0497	<0.0497
EX-1	4/22/15	7-8	<0.0483	<0.0432	<0.0501	<0.0335	<0.0346	<0.0483	<0.0368	<0.0535	<0.0447	<0.0355	<0.0483	<0.0483	<0.0367	1.240	<0.0483	<0.0483
EX-2	4/22/15	7-8	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	0.777	<0.0097	<0.0097
B-1	4/22/15	15.5	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	<0.0095	<0.0095
B-2	4/22/15	16	<0.0101	<0.0090	<0.0104	<0.0070	<0.0072	<0.0101	<0.0077	<0.0111	<0.0093	<0.0074	0.0107 J	<0.0101	<0.0076	<0.0101	0.0137 J	<0.0101
B-3	4/22/15	16	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0119 J	<0.0096

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	<b>1.8</b>	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-4	4/23/15	16.5	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-5	4/23/15	15	<0.0096	<0.0086	<0.0099	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0102 J	<0.0096
EX-3	4/23/15	7-8	<0.0956	<0.0855	<0.0991	<0.0663	<0.0684	<0.0956	<0.0728	<0.106	<0.0884	<0.0701	<0.0956	<0.0956	<0.0726	<b>3.890</b>	<0.0956	<0.0956
EX-4	4/23/15	7-8	<0.0482	<0.0431	<0.0500	<0.0334	<0.0345	<0.0482	<0.0367	<0.0533	<0.0446	<0.0353	<0.0482	<0.0482	<0.0366	<b>2.100</b>	<0.0482	<0.0482
B-6	4/24/15	19	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-7	4/24/15	19	<0.0094	<0.0084	<0.0098	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0072	<0.0094	<0.0094	<0.0094
B-8	4/27/15	16	<0.0099	<0.0089	<0.0103	<0.0069	<0.0071	<0.0099	<0.0076	<0.0110	<0.0092	<0.0073	<0.0099	<0.0099	<0.0076	<0.0099	<0.0099	<0.0099
B-9	4/27/15	15	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	0.0118 J	<0.0096
B-10	4/28/15	15.5	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0088	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0132 J	<0.0096
B-11	4/28/15	17	<0.0097	<0.0086	<0.0100	0.0110 J	0.0090 J	0.0110 J	0.0088 J	<0.0107	0.0191 J	<0.0071	0.0252	<0.0097	<0.0073	0.0308	0.0182 J	0.0236
B-12	4/29/15	18	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
EX-5	4/29/15	4-5	<0.391	<0.350	<0.405	<0.271	<0.279	<0.391	<0.298	<0.432	<0.361	<0.287	<0.391	<0.391	<0.297	<b>9.120</b>	<0.391	<0.391
EX-6	4/29/15	4-5	<0.391	<0.350	<0.405	<0.271	<0.280	<0.391	<0.298	<0.433	<0.362	<0.287	<0.391	<0.391	<0.297	<b>10.900</b>	<0.391	<0.391
B-13	4/29/15	15.5	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	0.0129 J	<0.0097
EX-7	4/30/15	4-5	<0.103	<0.0923	<0.107	<0.0715	<0.0737	<0.103	<0.0785	<0.114	<0.0954	<0.0756	<0.103	<0.0103	<0.0783	<b>3.290</b>	<0.103	<0.103
B-14	4/30/15	15.5	<0.0097	<0.0087	<0.010	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-8	4/30/15	4-5	<0.197	<0.176	<0.204	<0.136	<0.141	<0.197	<0.150	<0.218	<0.182	<0.144	<0.197	<0.197	<0.149	<b>3.750</b>	<0.197	<0.197
B-15	5/1/15	15.5	<0.0193	<0.0172	<0.0200	<0.0134	<0.0138	<0.0193	<0.0147	<0.0213	<0.0178	<0.0141	<0.0193	<0.0193	<0.0146	0.0230 J	<0.0193	<0.0193
B-16	5/1/15	17.5	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0071	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
B-17	5/1/15	15.5	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0099 J	<0.0096
EX-9	5/4/15	4-5	<0.0865	<0.0774	<0.0897	<0.0600	<0.0619	0.108 J	<0.0659	<0.0957	<0.0800	<0.0635	<0.0865	<0.0865	<0.0657	<b>1.970</b>	<0.0865	<0.0865
B-18	5/4/15	15.5	<0.0098	<0.0087	<0.0101	<0.0068	<0.0070	<0.0098	<0.0074	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-19	5/4/15	15.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-20	5/4/15	14	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-10	5/6/15	8-9	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	0.0169 J	<0.0073	<0.0106	<0.0088	<0.0070	0.0104 J	<0.0095	<0.0073	<0.0753	<0.0095	<0.0095
B-21	5/6/15	15.5	<0.0100	<0.0090	<0.0104	<0.0069	<0.0072	0.0130 J	<0.0076	<0.00111	<0.0093	<0.0073	<0.0100	<0.0100	<0.0076	<0.00100	<0.00100	<0.00100
B-22	5/7/15	15.5	<0.0098	<0.0088	<0.0102	<0.068	<0.0070	<0.0128 J	0.0075	<0.0109	<0.0091	<0.0072	<0.0098	<0.0098	<0.0075	<0.0098	<0.0098	<0.0098
B-23	5/7/15	15.5	<0.0099	<0.0088	<0.0102	<0.068	<0.0071	0.0128 J	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099
B-24	5/8/15	9	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
B-25	5/8/15	15.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	0.0165 J	<0.0096
B-26	5/8/15	15	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	0.0097 J	<0.0097
EX-11	5/8/15	3-4	<0.0107	<0.0096	<0.0111	0.0094 J	0.0115 J	0.0141 J	0.0100 J	<0.0118	0.0178 J	<0.0078	0.0246	<0.0107	0.0084 J	<0.0107	<0.0107	0.0193 J
EX-12	5/8/15	3-4	<0.0107	<0.0096	<0.0111	<0.0074	<0.0076	<0.0107	<0.0081	<0.0118	<0.0099	<0.0078	<0.0107	<0.0107	<0.0081	<0.0107	<0.0107	<0.0107
EX-13	5/13/15	4-5	<0.0103	<0.0092	<0.0107	<0.0072	<0.0074	<0.0103	<0.0079	<0.0114	<0.0095	<0.0076	<0.0103	<0.0103	<0.0078	<0.0103	<0.0103	<0.0103
B-27	5/13/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	0.0097	<0.0097
B-29	5/13/15	9	<0.0098	<0.0087	<0.0101	<0.0068	<0.0070	<0.0098	<0.0074	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098
EX-14	5/14/15	4-5	<0.0106	<0.0095	<0.0110	0.0101 J	0.0157 J	0.0175 J	0.0168 J	0.0159 J	0.0201 J	<0.0078	0.0384	<0.0106	0.0137 J	<0.0106	0.0183 J	0.0276
B-28	5/14/15	13	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-30	5/14/15	11	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-31	5/14/15	11	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	0.0135 J	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-15	5/15/15	8-9	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.007	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-32	5/15/15	11	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-33	5/15/15	11	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-34	5/15/15	11	<0.0099	<0.0088	<0.0102	<0.0068	<0.0071	<0.0099	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
Overburden 1	5/15/15		<0.0203	<0.0182	<0.0211	0.0410	0.0476	0.0432	0.0410	0.0470	0.0505	<0.0149	0.0948	<0.0203	0.0360 J	0.691	0.0417	0.0748
B-35	5/18/15	12	<0.0097	<0.0087	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-16	5/18/15	9-10	<0.010	<0.0089	<0.0103	<0.0069	<0.0071	<0.010	<0.0076	<0.0110	<0.0092	<0.0073	<0.010	<0.010	<0.0076	<0.010	<0.010	<0.010
EX-17	5/18/15	9-10	<0.0097	<0.0087	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-36	5/18/15	12	<0.0097	<0.0087	<0.0100	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	0.0729	<0.0097	<0.0097
Overburden-2	5/18/15		<0.0098	<0.0088	0.0113 J	0.0478	0.0659	0.0726	0.0609	0.0690	0.0759	0.0154 J	0.135	<0.0098	0.0495	0.0208	0.0582	0.110
B-37	5/19/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-38	5/19/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-39	5/19/15	12	<0.0093	<0.0083	<0.0097	<0.0065	<0.0067	<0.0093	<0.0071	<0.0103	<0.0086	<0.0068	<0.0093	<0.0093	<0.0071	<0.0093	<0.0093	<0.0093
EX-18	5/19/15	3-4	<0.0109	<0.0097	<0.0113	0.0250	0.0282	0.0300	0.0226	0.0274	0.0345	<0.0080	0.0825	<0.0109	0.0200 J	<0.0109	0.0379	0.0564
EX-19	5/19/15	3-4	<0.0104	<0.0093	<0.0108	<0.0072	<0.0074	<0.0104	<0.0079	<0.0115	<0.0096	<0.0076	<0.0104	<0.0104	<0.0079	<0.0104	<0.0104	<0.0104
B-40	5/22/15	13	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-41	5/27/15	15	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	0.0118 J	<0.0095
EX-20	5/27/15	3-4	<0.0015	<0.0103	0.0433	0.296	0.365	0.471	0.295	0.339	0.429	0.0951	0.567	<0.0115	0.257	0.0398	0.126	0.494
EX-21	5/27/15	3-4	<0.0700	<0.0626	<0.0726	<0.0485	<0.0500	<0.0700	<0.0533	<0.0774	<0.0647	<0.0513	<0.0700	<0.0700	<0.0532	1.210	<0.0700	<0.0700
EX-22	5/27/15	4-5	<0.0112	<0.0100	<0.0116	<0.0078	<0.0080	<0.0112	<0.0085	<0.0124	<0.0104	<0.0082	<0.0112	<0.0112	<0.0085	0.367	<0.0112	<0.0112
B-42	5/27/15	12.5	<0.0098	<0.0088	<0.0102	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0091	<0.0072	<0.0098	<0.0098	<0.0074	0.0322	<0.0098	<0.0098
B-43	5/27/15	12.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-44	5/27/15	15	<0.0097	<0.0087	<0.0100	0.0083 J	0.0113 J	0.0130 J	0.0086 J	<0.0107	0.0136 J	<0.0071	0.0124 J	<0.0097	<0.0074	<0.0097	<0.0097	0.0116 J
B-45	5/28/15	12.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-23	5/28/15	8.5-9.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-24	5/28/15	3-4	<0.0106	<0.0095	<0.0110	0.0286	0.0374	0.0401	0.0361	0.0394	0.0432	0.0100 J	0.0795	<0.0106	0.0307	0.0506	0.0190 J	0.0721



Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-46	6/5/15	14.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-25	6/5/15	10-11	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0088	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-26	6/5/15	3.5-5	<0.0098	<0.0088	<0.0101	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098
EX-27	6/5/15	8.5-9.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
EX-28	6/8/15	3-4	<0.0099	<0.0088	<0.0102	<0.0068	<0.0070	<0.0099	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	<0.0099
EX-28	6/8/15	8-9	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
BH-21	6/17/15	10-12.5	<0.0768	<0.0687	<0.0797	<0.0533	<0.0549	<0.0768	<0.0585	<0.0850	<0.0710	<0.0564	<0.0768	<0.0768	<0.0584	1.440	<0.0768	<0.0768
BH-22	9/8/15	7.5-10	<0.0098	<0.0088	<0.0101	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0091	<0.0072	<0.0098	<0.0098	<0.0074	0.0674	<0.0098	<0.0098
BH-22	9/8/15	25.5-27	<0.0095	<0.0085	<0.0098	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	<0.0095	<0.0095
BH-23	9/8/15	25-26.5	<0.0099	<0.0089	<0.0103	<0.0069	<0.0071	<0.0099	<0.0075	<0.0109	<0.0091	<0.0073	<0.0099	<0.0099	<0.0075	0.0156 J	<0.0099	<0.0099
BH-23	9/8/15	28.5-30	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
BH-24	9/8/15	4-6	<0.0101	<0.0090	<0.0104	<0.0070	<0.0072	<0.0101	<0.0077	<0.0112	<0.0093	<0.0074	<0.0101	<0.0101	<0.0077	0.153	<0.0101	<0.0101
BH-24	9/8/15	13.5-15	<0.0101	<0.0090	<0.0105	<0.0070	<0.0072	<0.0101	<0.0077	<0.0112	<0.0093	<0.0074	<0.0101	<0.0101	<0.0077	<0.0101	<0.0101	<0.0101
BH-22A	9/14/16	2.5-5	<0.0046	<0.0039	<0.0068	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0062	<0.0049	<0.0026	<0.010	<0.0138	<0.0053
BH-22A	9/14/16	10-12.5	<0.0045	<0.0038	<0.0066	0.0048 J	0.0052 J	0.0076 J	0.0041 J	0.0064 J	0.0132	<0.0026	0.0152 J	<0.0048	0.0034 J	<0.0097	0.0172 J	0.0111 J
BH-22A	9/14/16	15-17.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	0.0034 J	0.0041 J	<0.0030	0.0084 J	<0.0027	<0.0062	<0.0050	<0.0026	0.0937	0.0146 J	<0.0054
BH-22A	9/14/16	20-23	<0.0046	<0.0039	<0.0068	<0.0037	0.0034 J	0.0058 J	0.0039 J	<0.0030	0.0131 J	<0.0026	0.0076 J	<0.0049	<0.0026	0.165	<0.0138	0.0075 J
BH-23A	9/14/16	2.5-5	<0.0055	<0.0047	<0.0081	<0.0045	<0.0035	<0.0040	<0.0029	<0.0035	<0.0048	<0.0032	<0.0074	<0.0058	<0.0031	<0.0119	<0.0165	<0.0064
BH-23A	9/14/16	5-7.5	<0.0048	<0.0041	<0.0071	<0.0039	<0.0031	<0.0035	<0.0025	<0.0031	<0.0042	<0.0028	<0.0064	<0.0051	<0.0027	<0.0104	<0.0144	<0.0056
BH-23A	9/14/16	10-12.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0070 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-23A	9/14/16	15-17.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0050 J	<0.0026	0.0075 J	<0.0049	<0.0026	<0.0099	<0.0137	0.0056 J
BH-23A	9/14/16	21.5-22.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-23A	9/14/16	31-32.5	<0.0045	<0.0038	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0061	<0.0048	<0.0026	<0.0098	<0.0136	<0.0053
BH-23A	9/14/16	32.5-35	<0.0050	<0.0042	<0.0073	0.0068 J	0.0115	0.0221	0.0157	0.0149	0.0201	0.0035 J	0.0187 J	<0.0053	0.0116	<0.0108	<0.0149	0.0134 J
BH-26	9/14/16	1-2.5	<0.0048	0.0310	0.0281	0.0771	0.0974	0.0896	0.0565	0.109	0.0974	0.0217	0.125	<0.0051	0.0544	<0.0104	0.0349 J	0.109
BH-26	9/14/16	7.5-10	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0040 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-26	9/14/16	10-12.5	<0.0047	<0.0040	<0.0069	<0.0038	<0.0030	<0.0034	<0.0025	<0.0030	0.0047 J	<0.0027	<0.0063	<0.0050	<0.0027	<0.0102	<0.0141	<0.0055
BH-26	9/14/16	17.5-20	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0038 J	<0.0029	0.0049 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0141 J	<0.0052
BH-26	9/14/16	20-22.5	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0032	0.0027 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-26	9/14/16	27.5-29.25	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	0.0035 J	<0.0030	<0.0040	<0.0027	<0.0062	<0.00049	<0.0026	<0.0100	<0.0138	<0.0054
BH-27	9/14/16	2.5-5	<0.0049	<0.0042	<0.0073	<0.0040	<0.0032	<0.0036	<0.0026	<0.00032	<0.0043	<0.0028	<0.0066	<0.0053	<0.0028	<0.0107	<0.0148	<0.0057
BH-27	9/14/16	7.5-10	<0.0045	0.0051 J	0.0130 J	0.0238	0.0269	0.0272	0.0184	0.0256	0.0329	0.0064 J	0.0462	<0.0048	0.0168	0.0166 J	0.0371 J	0.0385
BH-27	9/14/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0023	<0.0029	0.0083 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0143 J	<0.0052
BH-27	9/14/16	17.5-20	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	0.0041 J	0.0088	<0.0029	0.0108 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0097	0.0304 J	0.0063 J
BH-27	9/14/16	22.5-25	<0.0045	<0.0038	<0.0066	0.0042 J	0.0046 J	0.0058 J	0.0060 J	0.0044 J	0.0121 J	<0.0026	0.0119 J	<0.0048	<0.00025	<0.0097	<0.0135	0.0116 J
BH-27	9/14/16	27.5-30	<0.0043	<0.0036	<0.0063	<0.0035	<0.0028	<0.0031	0.0044 J	<0.0028	0.0089 J	<0.0025	<0.0057	<0.0046	<0.0024	<0.0093	<0.0128	<0.0050
BH-27	9/14/16	30-32.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0029	<0.0032	0.0039 J	<0.0028	0.0084 J	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	<0.0132	<0.0051
BH-21A	9/15/16	0.5-2.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054
BH-21A	9/15/16	7.5-10	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	0.0138 J	<0.0133	<0.0051
BH-21A	9/15/16	15-17.5	<0.0180	<0.0153	<0.0265	<0.0147	<0.0117	<0.0131	<0.0094	<0.0116	<0.0157	<0.0104	<0.0242	<0.0192	<0.0102	1.750	<0.0541	<0.0209
BH-21A	9/15/16	20-22.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	0.0040 J	<0.0026	<0.0061	<0.0049	<0.0026	0.303	<0.0137	<0.0053
BH-21A	9/15/16	25-27.5	<0.0045	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-21A	9/15/16	30-32.5	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	<0.0133	<0.0051
BH-25	9/15/16	2.5-5	<0.0045	<0.0038	<0.0066	0.0068 J	0.0043 J	0.0050 J	0.0029 J	0.0048 J	0.0095 J	<0.0026	0.0289	<0.0048	<0.0025	<0.0097	0.0227 J	0.0189

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-25	9/15/16	7.5-10	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	0.0035 J	0.0024 J	<0.0029	0.0098 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-25	9/15/16	10-12.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	0.0045 J	<0.0024	<0.0029	0.0122 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0160 J	<0.0052
BH-25	9/15/16	17.5-20	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-25	9/15/16	20-22.5	<0.0045	<0.0038	<0.0066	0.0039 J	<0.0029	<0.0033	0.0030 J	<0.0029	0.0051 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-25	9/15/16	25-26.5	<0.0046	<0.0039	<0.0067	0.0040 J	<0.0030	<0.0033	0.0033 J	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-25	9/15/16	30-32.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	2.5-5	<0.0045	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-28	9/15/16	5-7.5	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	12.5-15	<0.0045	<0.0038	<0.0066	0.0039 J	<0.0029	<0.0033	<0.0024	<0.0029	0.0045 J	<0.0026	<0.0060	<0.0048	<0.0026	0.262	<0.0135	<0.0052
BH-28	9/15/16	15-17.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0028	<0.0032	<0.0023	<0.0028	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	0.137	<0.0132	<0.0051
BH-28	9/15/16	20-22.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	0.309	<0.0139	<0.0054
BH-28	9/15/16	25-27.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0024 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-29	9/15/16	2.5-5	<0.0049	<0.0042	<0.0072	0.0050 J	0.0034 J	0.0062 J	0.0032 J	<0.0032	0.0053 J	<0.0028	0.0108 J	<0.0052	<0.0028	<0.0106	<0.0147	0.0078 J
BH-29	9/15/16	7.5-10	<0.0045	<0.0038	<0.0066	0.0037 J	<0.0029	0.0033 J	<0.0024	<0.0029	0.0043 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-29A	9/15/16	10-12.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-29A	9/15/16	15-20	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-29A	9/15/16	22.5-25	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0026	<0.0098	<0.0135	<0.0052
BH-29A	9/15/16	27.5-30	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-29A	9/15/16	32.5-35	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0061	<0.0048	<0.0026	<0.0098	<0.0136	<0.0052
BH-30	9/26/16	2.5-5	<0.0044	<0.0038	<0.0065	0.0185	0.0222	0.0305	0.0187	0.0147	0.0254	0.0033 J	0.0397	<0.0047	0.0150	<0.0096	0.0191 J	0.0307
BH-30	9/26/16	7.5-10	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0139	<0.0054
BH-30	9/26/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	0.0033 J	0.0058 J	<0.0029	0.0075 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	0.0071 J

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>6)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	
Inhalation - Industrial/Commercial			---	---	---	---	---	---	---	---	---	---	---	---	270	---	---	
Inhalation - Construction Worker			---	---	---	---	---	---	---	---	---	---	---	---	<b>1.8</b>	---	---	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-30	9/26/16	15-17.5	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	0.0033 J	0.0062 J	<0.0029	0.0085 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0097	<0.0134	0.0082 J
BH-30A	9/26/16	22.5-25	<0.0043	<0.0037	<0.0064	<0.0035	<0.0028	<0.0032	<0.0023	<0.0028	<0.0038	<0.0025	<0.0058	<0.0046	<0.0025	<0.0094	<0.0130	<0.0050
BH-30A	9/26/16	27.5-30	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0028 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	0.0128 J	<0.0134	<0.0052
BH-31	9/26/16	2.5-5	0.0222	0.0142	0.139	0.593	0.725	0.708	0.367	0.406	0.828	0.112	1.160	0.0317	0.377	0.0107 J	0.747	0.890
BH-31	9/26/16	5-7.5	<0.0052	<0.0044	<0.0076	<0.0042	<0.0034	<0.0038	<0.0027	<0.0033	<0.0045	<0.0030	<0.0069	<0.0055	<0.0029	<0.0112	<0.0155	<0.0060
BH-31	9/26/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0042 J	<0.0029	0.0074 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0135	0.0078 J
BH-31	9/26/16	15-17.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0029	0.0038 J	0.0118	<0.0029	0.0109 J	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	0.0345 J	0.0061 J
BH-31	9/26/16	22.5-25	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0033	0.0037 J	<0.0030	<0.0040	<0.0026	<0.0062	<0.0049	<0.0026	<0.010	<0.0138	<0.0053
BH-31	9/26/16	25-27.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053

Notes:

- 1) **Bold** = detected concentration or method detection limit exceeds a SRO listed in 35 IAC Part 742 or in the Non-TACO Objectives tables
- 2) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
- 3) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- 4) --- = no toxicity criteria available for the route of exposure
- 5) Shaded cells = not applicable or sample located was excavated
- 6) Pursuant to 35 IAC Section 742, Appendix B, Table A, the SRO listed in 35 IAC Section 742, Appendix A, Table H was utilized

Table 3

Soil Characterization Results

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Sample Location	BH-1	SCB-1	BH-6A	BH-7A	BH-8A	BH-18	Waste Disposal	Waste Disposal	Waste Disposal-1
Sample Depth (feet bls)	5-7	20-22.5	5	4	3	10-11			
Sample Date	9/18/03	8/10/04	8/2/05	8/2/05	8/2/05	8/25/05	3/18/15	3/25/15	7/7/17
Analysis	Units	Results							
Visual Classification		Silty Clay, some fine to coarse sand, trace fine gravel - Brown (CL)	Silty CLAY (CL) with sand				Fat CLAY - CH (Glacial Till)		
Permeability	cm/sec		3x10 <sup>-6</sup>				5.06x10 <sup>-8</sup>		
Dry Unit Weight	pcf	117.7	115.5				99.4		
Moisture Content	%	15.9	13.7				23.2	29.3	20.0
Grain-Size Analysis	%	35% Clay 38.4% Silt 21.3% Sand 5.3% Gravel					50.1% Clay 35.6% Silt 14.3% Sand		
Hydraulic Conductivity	cm/sec	5.76x10 <sup>-8</sup>							
Fractional Organic Carbon	%			0.82	1.84	0.82			
pH							7.2		7.92
TCLP Lead	mg/L						<0.0030		<0.0043
Flashpoint	°F						>210		>210
Paint Filter Liquid Test							Pass		Pass
Reactive Cyanide	mg/kg							<25.0	
Reactive Sulfide	mg/kg							<50.0	

Notes:

1) Shaded cells = not applicable or not analyzed

# Electronic Filing: Received, Clerk's Office 03/23/2021

Table 4

**Groundwater Elevations and Analytical Results**

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes						Indicator Contaminants and Tier 1 GROs				
						Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater						0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater						0.025	2.5	1	10	0.07
Sample Location	Sample Date	Ground Elevation (feet)	TOC Elevation (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	Analytical Results				
MW-1	7/19/17	99.44	99.04	13.09	85.95	<b>1.300</b>	0.476	<b>1.540</b>	4.600	<0.0035
MW-2	7/19/17	99.30	98.84	12.98	85.86	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017
MW-3	7/19/17	100.53	100.16	14.21	85.95	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017
MW-4	7/19/17	100.72	100.34	13.33	87.01	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017
MW-5	7/19/17	100.01	99.44	12.68	86.76	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017

**Notes:**

- 1) **Bold** = detected concentration exceeds a Tier 1 GRO listed in 35 IAC Part 742
- 2) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
- 3) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- 4) Groundwater elevations are relative to a site-specific benchmark of 100 feet.



**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

217-524-3300

CERTIFIED MAIL

7018 1830 0000 5282 7165

MAY 18 2020

BOI, LLC  
Attention: Steve Broadus  
201 Danny's Drive  
Suite 5  
Streator, Illinois 61364

Re: 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
Leaking UST Incidents 942117 & 20141348  
Leaking UST Technical File

Dear Mr. Broadus:

The Illinois Environmental Protection Agency (Illinois EPA) has reviewed the October 25, 2019 Stage 3 Site Investigation Budget and Site Investigation Completion Report, as well as the October 25, 2019 Corrective Action Plan and Budget. This information was prepared by TriCore Environmental, LLC. Citations in this letter are from the Environmental Protection Act (415 ILCS 5) (Act) and Title 35 of the Illinois Administrative Code (35 Illinois Administrative Code).

A summary of the site information is presented in Attachment 1 of this letter. A summary of the Stage 3 Site Investigation Budget and Site Investigation Completion Report is presented in Attachment 2 of this letter. A summary of the Corrective Action Plan and Budget is presented in Attachment 3 of this letter. Figures and tables are presented in Attachment 4 of this letter.

The Stage 3 Site Investigation Budget is approved for the amounts listed in Attachment 5 of this letter (Sections 57.7(a)(2) and 57.7(c) of the Act and 35 Illinois Administrative Code 734.505(b) and 734.510(b)). Please note that the costs must be incurred in accordance with the approved Site Investigation Plan. Be aware that the amount of payment from the Underground Storage Tank Fund may be limited by Sections 57.7(c), 57.8(d), 57.8(e), and 57.8(g) of the Act, as well as 35 Illinois Administrative Code 734.630 and 734.655.

The Site Investigation Completion Report is rejected for the reasons explained in Attachment 6 of this letter (Sections 57.7(a)(5) and 57.7(c)(4) of the Act and 35 Illinois Administrative Code 734.505(b) and 734.510(a)).

The Corrective Action Plan is rejected for the reasons explained in Attachment 7 of this letter (Sections 57.7(b)(2) and 57.7(c) of the Act and 35 Illinois Administrative Code 734.505(b) and 734.510(a)).

4302 N. Main Street, Rockford, IL 61103 (815) 987-7760  
595 S. State Street, Elgin, IL 60123 (847) 608-3131  
2125 S. First Street, Champaign, IL 61820 (217) 278-5800  
2009 Mall Street Collinsville, IL 62234 (618) 346-5120

9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000  
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022  
2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200  
100 W. Randolph Street, Suite 4-500, Chicago, IL 60601 A.R. 001475

The Corrective Action Budget is rejected for the reasons explained in Attachment 8 of this letter (Sections 57.7(b)(3) and 57.7(c) of the Act and 35 Illinois Administrative Code 734.505(b) and 734.510(b)).

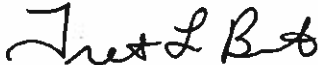
In accordance with Sections 57.7(a)(5) and 57.12(c) and (d) of the Act and 35 Illinois Administrative Code 734.100, 734.125, and 734.305, the Illinois EPA requires the submittal of a Stage 3 Site Investigation Plan and Budget within 120 days of the date of this letter to

Illinois Environmental Protection Agency  
Bureau of Land - #24  
Leaking Underground Storage Tank Program  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

An underground storage tank system owner or operator may appeal this final decision to the Illinois Pollution Control Board. Appeal rights are explained in Attachment 9 of this letter.

Any questions with regard to this letter should be directed to Michael Piggush via telephone (217-782-3101) or electronic mail ([michael.piggush@illinois.gov](mailto:michael.piggush@illinois.gov)).

Sincerely,



Trent L. Benanti, P.E.  
Unit Manager  
Leaking Underground Storage Tank Program  
Remedial Project Management Section  
Bureau of Land

Attachments (9):

1. Summary of the Site Information
2. Summary of the Stage 3 Site Investigation Budget and Site Investigation Completion Report
3. Summary of the Corrective Action Plan and Budget
4. Figures and Tables
5. Stage 3 Site Investigation Budget Approval
6. Site Investigation Completion Report Rejection Reasons
7. Corrective Action Plan Rejection Reasons
8. Corrective Action Budget Rejection Reasons
9. Appeal Rights

Electronic Copies (3):

1. Marcos Czako (TriCore Environmental, LLC), [marcos.czako@tricoreweb.com](mailto:marcos.czako@tricoreweb.com)
2. Kim Miller (TriCore Environmental, LLC), [kim.miller@tricoreweb.com](mailto:kim.miller@tricoreweb.com)
3. Shawn Rodeck (TriCore Environmental, LLC), [shawn.rodeck@tricoreweb.com](mailto:shawn.rodeck@tricoreweb.com)



Attachment 1

Summary of the Site Information

Re: 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
Leaking UST Incidents 942117 & 20141348  
Leaking UST Technical File

The basic site information is summarized as follows:

1. The site property is currently a vacant lot.
  - a. The site property was formerly a gas station.
2. Releases have occurred from the following underground storage tank systems:
  - a. One 6,000-gallon gasoline underground storage tank system.
  - b. One 3,000-gallon gasoline underground storage tank system.
  - c. One 3,000-gallon gasoline / diesel fuel underground storage tank system.
3. The indicator contaminants are BETX, MTBE, and PNAs.
4. The underground storage tank systems were removed on November 25 and 26, 2014.
5. A total of 8,913 cubic yards of contaminated soil were excavated and disposed of between April 20, 2015 and June 8, 2015.

Attachment 2

Summary of the Stage 3 Site Investigation Budget and Site Investigation Completion Report

Re: 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
Leaking UST Incidents 942117 & 20141348  
Leaking UST Technical File

The Stage 3 Site Investigation Budget and Site Investigation Completion Report are summarized as follows:

1. The total budget is \$11,523.28.
2. The Stage 3 Site Investigation Budget includes
  - a. Costs associated with PNA analyses of 62 soil samples.
  - b. Costs associated with the preparation of the Stage 3 Site Investigation Budget.
  - c. Costs associated with the preparation of the Site Investigation Completion Report.
  - d. Costs associated with the preparation of a reimbursement package.
3. The Site Investigation Completion Report states that the extent of contamination has been defined.

Attachment 3

Summary of the Corrective Action Plan and Budget

Re: 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
Leaking UST Incidents 942117 & 20141348  
Leaking UST Technical File

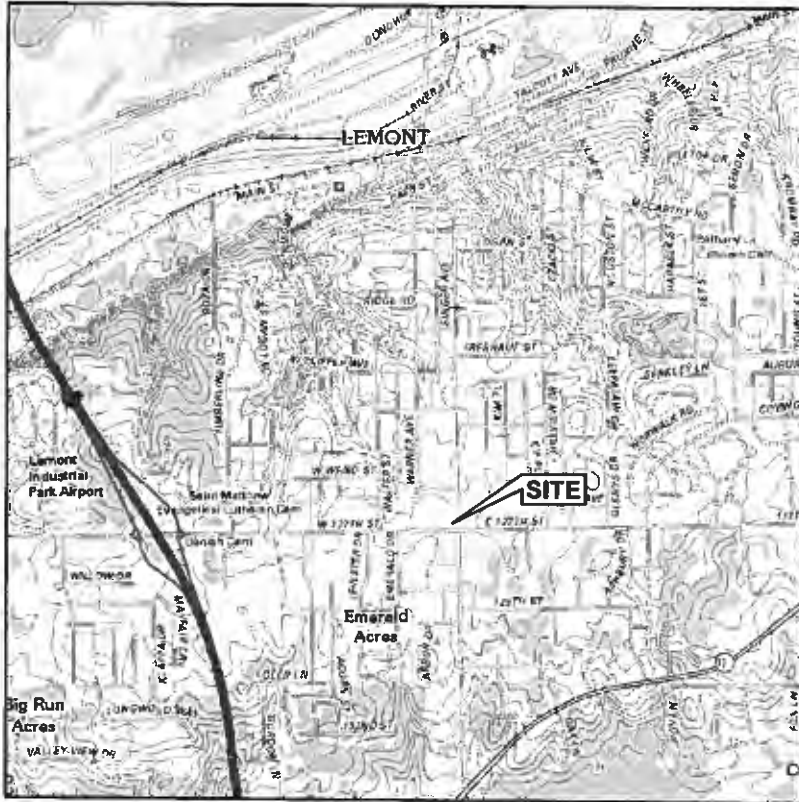
The Corrective Action Plan and Budget are summarized as follows:

1. The Corrective Action Plan states that groundwater is not present beneath the site to a depth of 25 to 30 feet below ground surface and that the groundwater beneath the TCK (Walgreens) property is discontinuous.
2. The Corrective Action Plan states that an industrial / commercial land use restriction will apply to the site property.
3. The Corrective Action Plan states that a Cook County Highway Authority Agreement dated May 16, 2018 will be utilized for a portion of 127<sup>th</sup> Street.
4. The Corrective Action Plan states that a Village of Lemont Highway Authority Agreement dated June 11, 2018 will be utilized for a portion of State Street.
5. The Corrective Action Plan states that SSL equations were used to develop Tier 2 remediation objectives for the soil component of the groundwater ingestion exposure pathway. The on-site concentrations were compared to these Tier 2 remediation objectives and do not exceed these Tier 2 remediation objectives.
6. The Corrective Action Plan states that RBCA equations were used to perform soil leaching evaluations for the off-site concentrations that exceed the Tier 1 remediation objectives for the soil component of the groundwater ingestion exposure pathway.
7. The Corrective Action Plan states that RBCA equations were used to evaluate the off-site concentrations that exceed the Tier 1 remediation objectives for the groundwater component of the groundwater ingestion exposure pathway.
8. The Corrective Action Plan states that a Tier 3 evaluation is being proposed for sample locations at the TCK (Walgreens) property that exceed the Tier 1 remediation objectives for the outdoor inhalation and soil component of the groundwater ingestion exposure pathways.
9. Given the age of the release, the geology, and the lack of continuous groundwater, the Corrective Action Plan states that a Tier 3 evaluation to utilize measured concentrations in lieu of modeled concentrations is being proposed for off-site sample locations that exceed the remediation objectives for the soil and groundwater components of the groundwater ingestion exposure pathway.

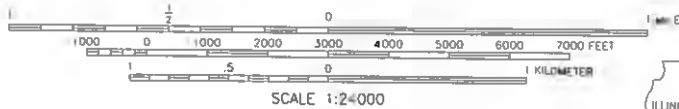
10. The Corrective Action Plan states that a Tier 3 impractical remediation evaluation is being proposed for sample locations within the rights-of-way of 127<sup>th</sup> Street and State Street that exceed the Tier 1 soil saturation limits.
11. The Corrective Action Plan states that best efforts have been made to address the TCK (Walgreens) property.
12. The Corrective Action Plan states that evaluation of the indoor inhalation exposure pathway is not required.
13. The total budget is \$42,157.32.
14. The Corrective Action Budget includes
  - a. Costs associated with the abandonment of five groundwater monitoring wells MW-1 - MW-5).
  - b. Costs associated with the preparation of the Highway Authority Agreements.
  - c. Costs associated with the negotiations for the TCK (Walgreens) property.
  - d. Costs associated with the preparation of the Corrective Action Plan and Budget.
  - e. Costs associated with the preparation of a Corrective Action Completion Report.
  - f. Costs associated with the recording of the No Further Remediation Letter.
  - g. Costs associated with the preparation of two reimbursement packages.

**Attachment 4**

**Figures and Tables**



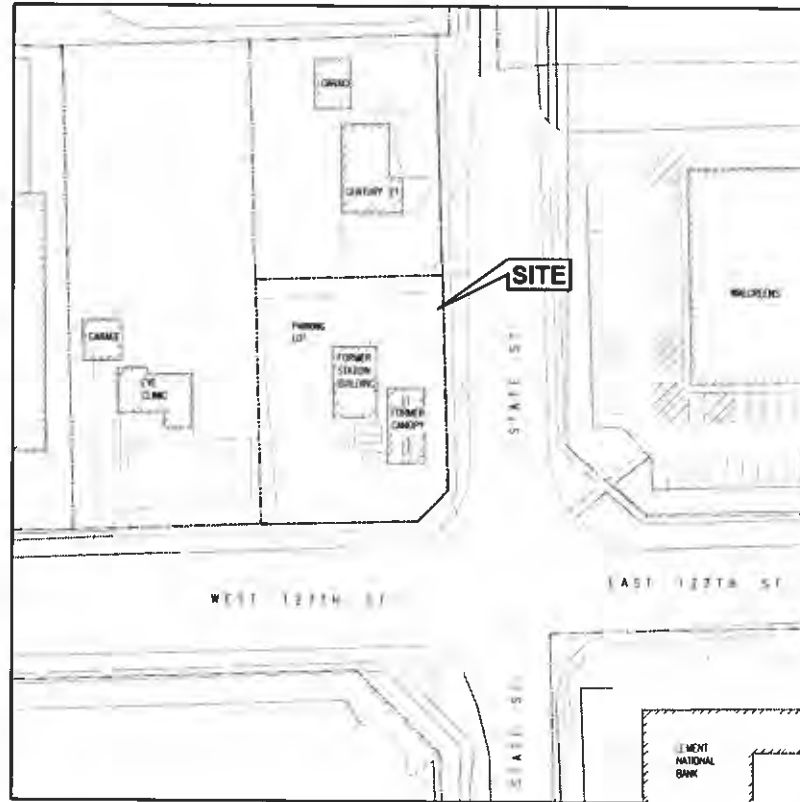
U.S.G.S. TOPOGRAPHIC MAP



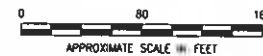
ROMEVILLE AND SAG BRIDGE QUADRANGLES  
COOK COUNTY ILLINOIS  
7.5 MINUTE SERIES (TOPOGRAPHIC)




QUADRANGLE LOCATION

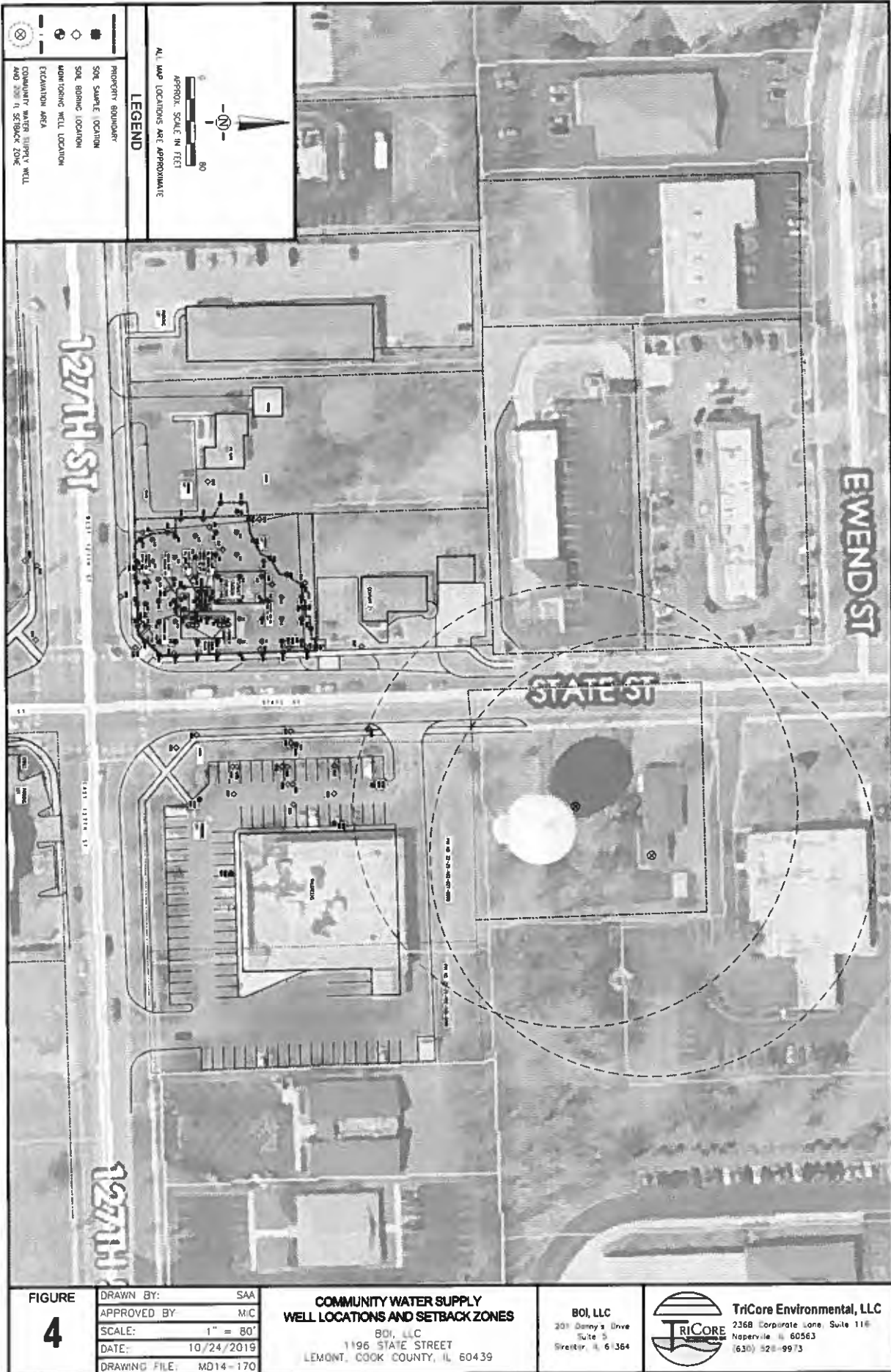


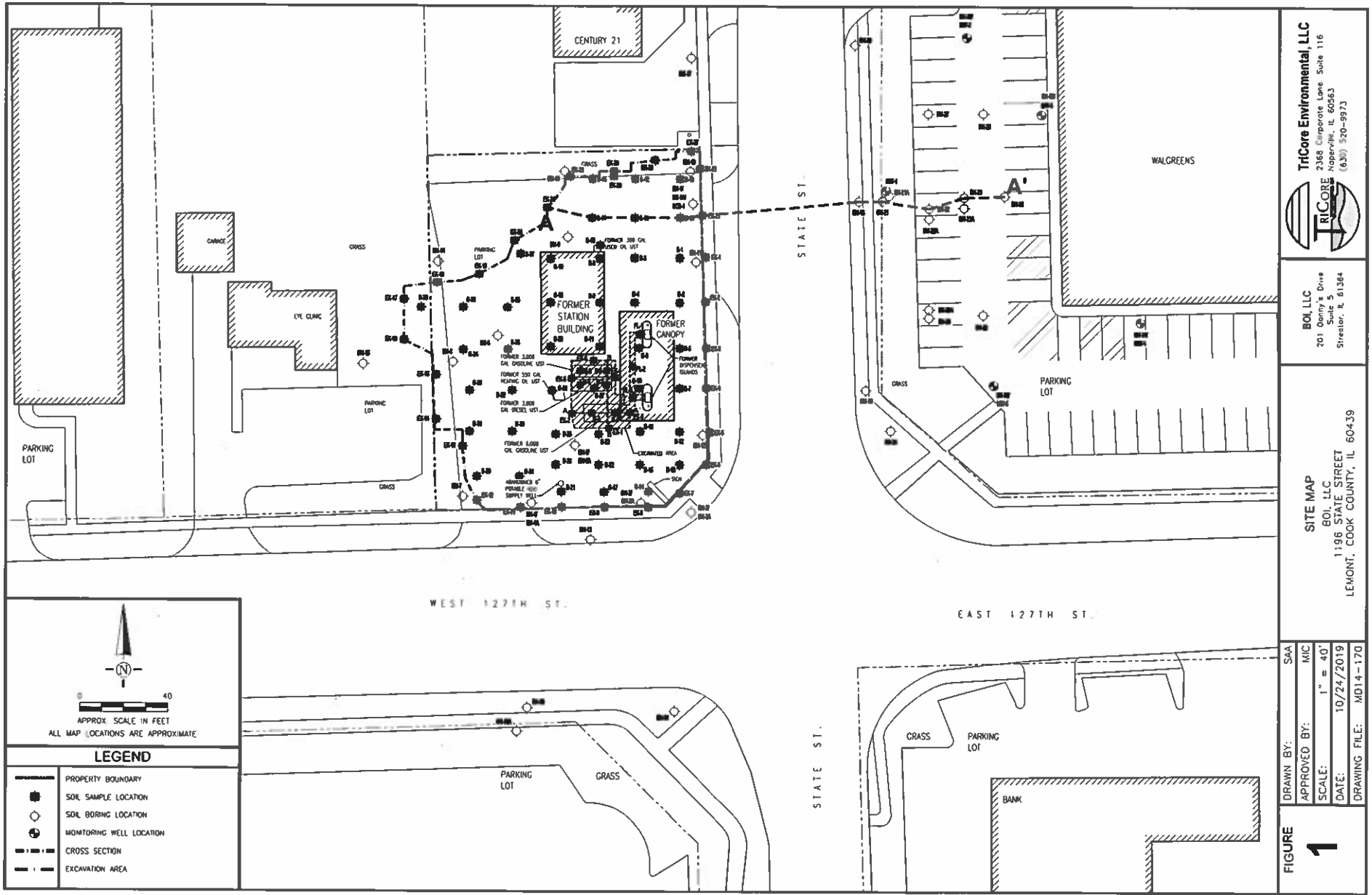
SCHEMATIC OF SURROUNDING AREA



APPROXIMATE SCALE IN FEET

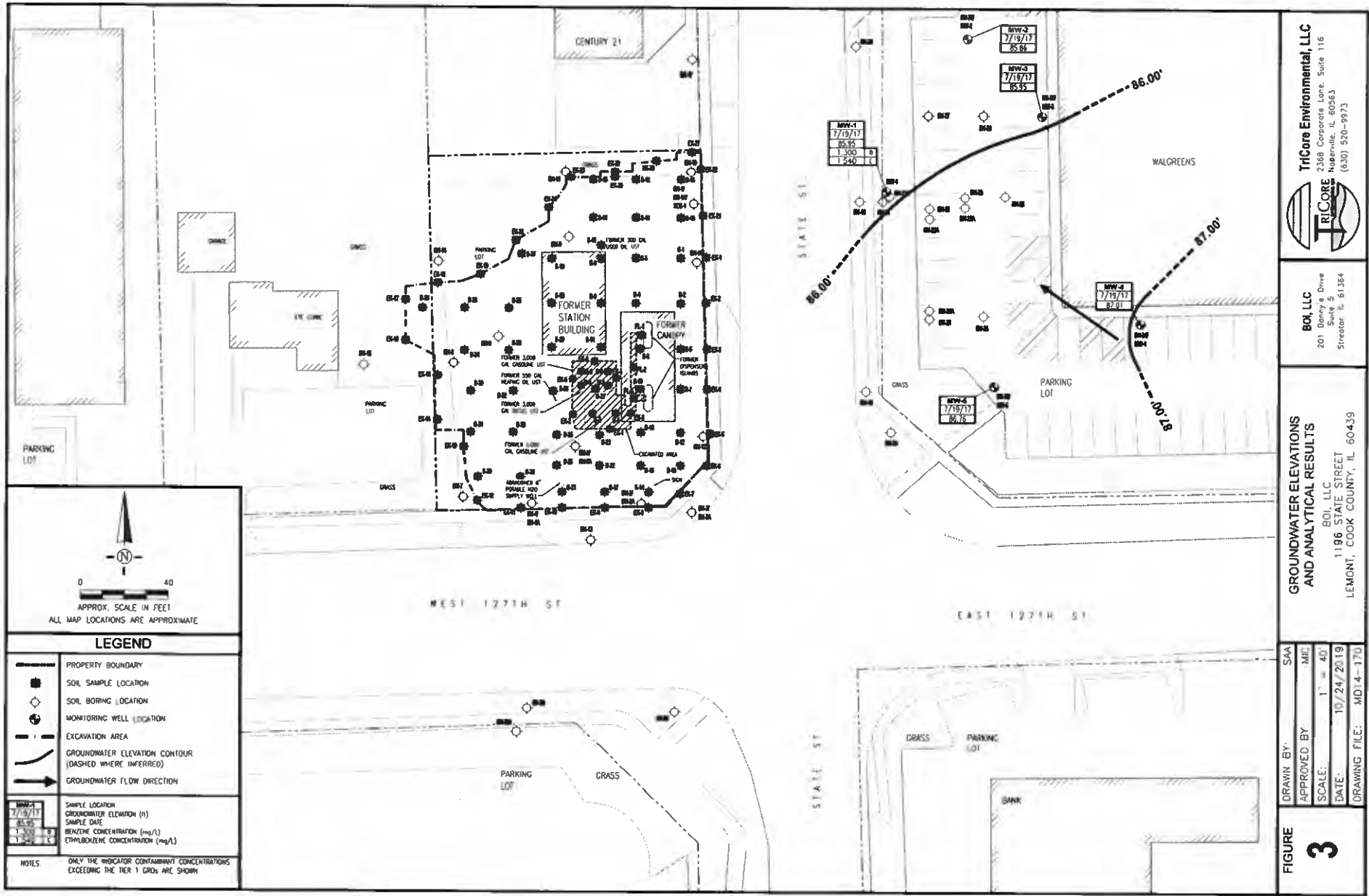
 <p><b>TriCore Environmental, LLC</b> 2388 Cassville Lane, Suite 118 Naperville, IL 60563 (630) 530-8973</p>	
<p><b>BOI, LLC</b> 301 DePaul Drive Suite 5 Springer, IL 61364</p>	
<p><b>SITE LOCATION MAP</b> BOI, LLC 1198 STATE STREET LEMONT, COOK COUNTY, IL 60439</p>	
<p>DRAWN BY: SMA</p>	<p>APPROVED BY: M/C</p>
<p>SCALE: AS NOTED</p>	<p>DATE: 10/25/2019</p>
<p>DRAWING FILE: MD14-170</p>	<p>3</p>

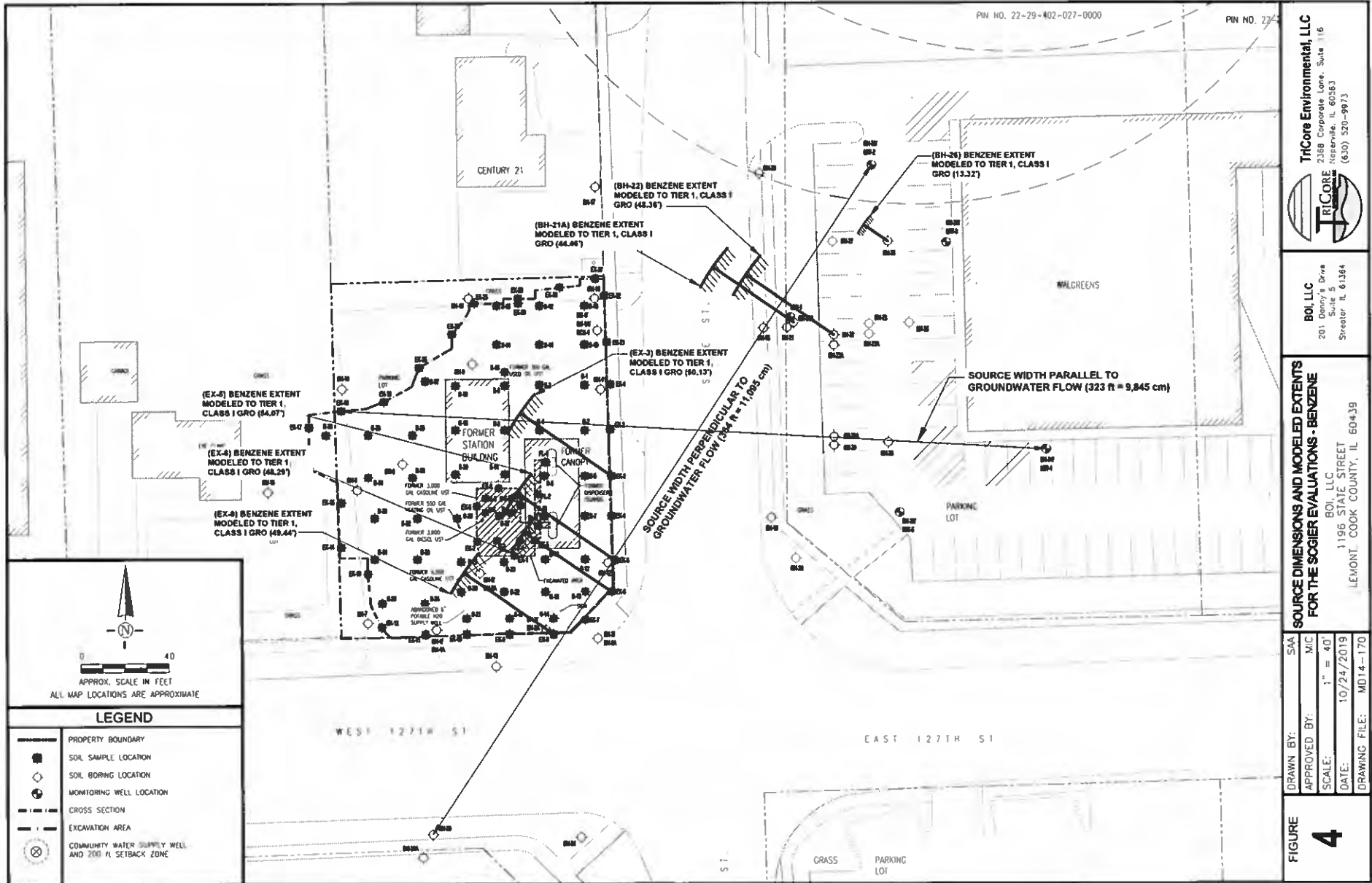












TriCore Environmental, LLC  
 2368 Corporate Lane, Suite 116  
 Naperville, IL 60563  
 (630) 520-9973



BOI, LLC  
 201 Danny's Drive  
 Suite 5  
 Streeter IL 61364

**SOURCE DIMENSIONS AND MODELED EXTENTS FOR THE SOGIER EVALUATIONS - BENZENE**  
 BOI, LLC  
 1196 STATE STREET  
 LEMONT, COOK COUNTY, IL 60439

DRAWN BY: SAA  
 APPROVED BY: M/C  
 SCALE: 1" = 40'  
 DATE: 10/24/2019  
 DRAWING FILE: MD14-170

**FIGURE 4**

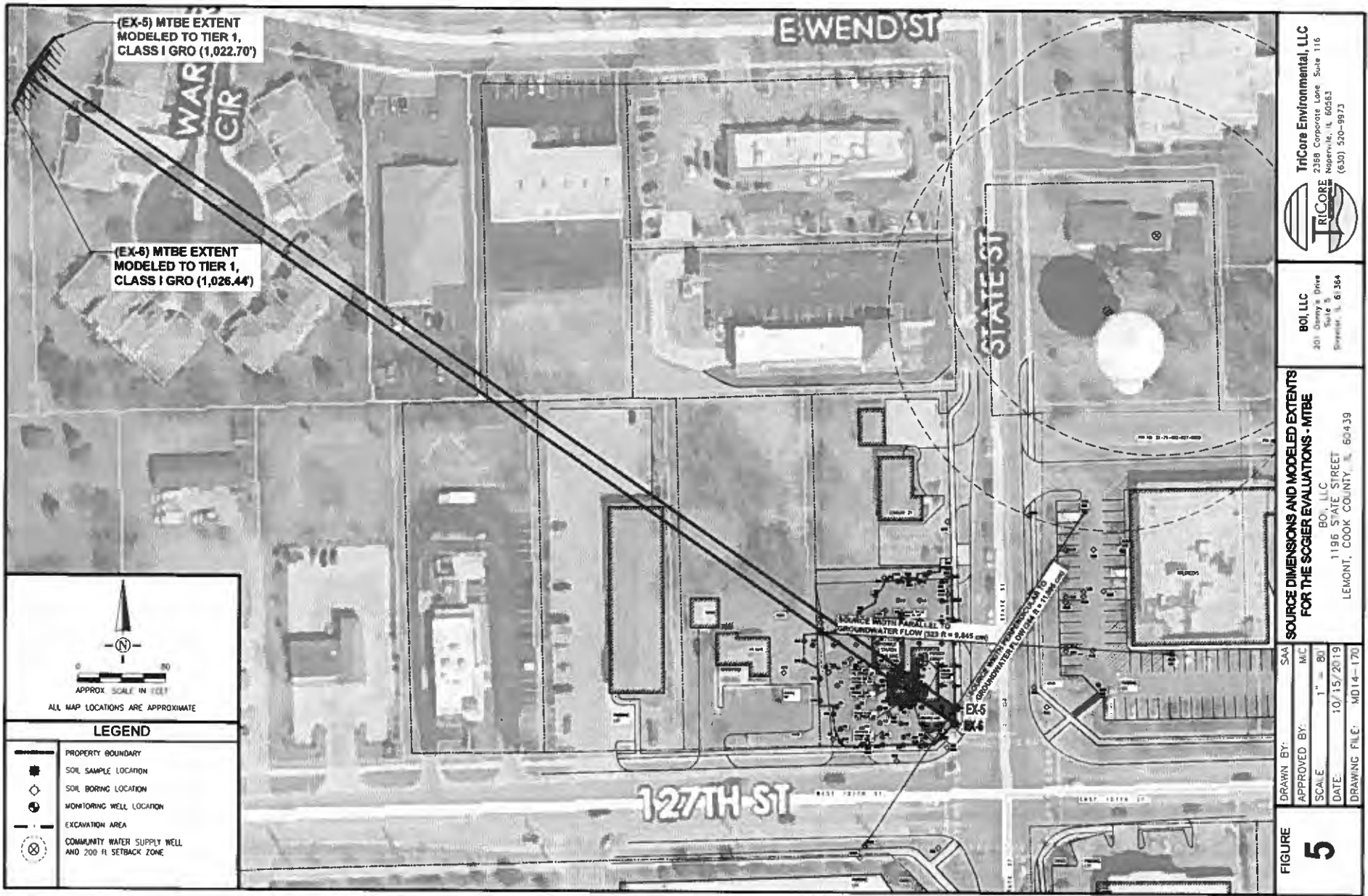








Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-1-A	9/18/03	7.5-8	0.316	0.430	6.31	13.2	
BH-1-B	9/18/03	14-14.5	<0.0289	<0.289	<0.289	<0.289	
BH-1-C	8/10/04	18	<0.002	<0.005	<0.005	<0.005	
BH-2-A	9/18/03	4.5-5	3.6000	0.293	5.730	4.030	
BH-2-B	8/10/04	13	0.0879	<0.005	<0.005	<0.005	
BH-2-C	8/10/04	23	<0.002	<0.005	<0.005	<0.005	
BH-3-A	9/18/03	6.5-7	<0.0286	<0.286	0.904	0.596	
BH-3-B	8/10/04	13	0.0293	<0.005	<0.005	<0.005	
BH-3-C	8/10/04	18	<0.002	<0.005	<0.005	<0.005	
BH-4-A	9/18/03	4.5-5	0.184	<0.309	0.309	<0.309	
BH-4-B	8/10/04	13	<0.002	<0.005	<0.005	<0.005	
BH-5-A	9/18/03	4.5-5	2.710	4.86	4.78	10.3	
BH-5-B	8/10/04	13	1.070	1.11	<0.005	0.522	
BH-5-C	8/10/04	24	<0.002	<0.005	<0.005	<0.005	
BH-6-A	8/2/05	5	0.0719	<0.005	<0.005	0.0054	
BH-6-B	8/2/05	9	1.060	1.090	1.91	8.1	
BH-6-C	8/2/05	15	<0.002	<0.005	<0.005	<0.005	
BH-6-D	8/2/05	18	0.0064	<0.005	<0.005	<0.005	
BH-7-A	8/2/05	4	<0.002	<0.005	<0.005	<0.005	
BH-7-B	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-7-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-7-D	8/2/05	18	<0.002	<0.005	<0.005	<0.005	
BH-8-A	8/2/05	3	<0.002	<0.005	<0.005	<0.005	
BH-8-B	8/2/05	9	0.459	<0.005	0.438	0.419	
BH-8-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-9-A	8/2/05	4	<0.002	<0.005	<0.005	<0.005	
BH-9-B	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-9-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-10-A	8/2/05	4	<0.030	0.0882	1.98	4.920	
BH-10-B	8/2/05	9	2.660	0.348	1.79	3.820	
BH-10-C	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-10-D	8/2/05	18-20	<0.002	<0.005	<0.005	<0.005	



Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-11-A	8/2/05	4	24.5	65.8	52.7	207.0	
BH-11-B	8/2/05	9	5.730	0.4	4.030	8.0	
BH-11-C	8/2/05	14	0.0045	0.0056	<0.005	0.0093	
BH-12-A	8/2/05	4	10.2	39.5	12.0	59.0	
BH-12-B	8/2/05	9	14.3	0.897	10.4	9.140	
BH-12-C	8/2/05	14	0.0126	0.0261	<0.005	0.0115	
BH-12-D	8/2/05	19	<0.002	<0.005	<0.005	<0.005	
BH-13-A	8/2/05	9	<0.002	<0.005	<0.005	<0.005	
BH-13-B	8/2/05	14	<0.002	<0.005	<0.005	<0.005	
BH-14-A	9/26/05	4-5	<0.002	<0.005	<0.005	<0.005	
BH-14-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-14-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-15-A	9/26/05	4.5	<0.002	<0.005	<0.005	<0.005	
BH-15-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-15-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-16-A	9/26/05	4.5	<0.002	<0.005	<0.005	<0.005	
BH-16-B	9/26/05	8	<0.002	<0.005	<0.005	<0.005	
BH-16-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-17-A	9/26/05	5	<0.002	<0.005	<0.005	<0.005	
BH-17-B	9/26/05	9	<0.002	<0.005	<0.005	<0.005	
BH-17-C	9/26/05	14	<0.002	<0.005	<0.005	<0.005	
BH-18-A	9/27/05	5.5	0.979	0.997	9.19	29.6	
BH-18-B	9/27/05	14.5	5.58	0.681	9.84	24.6	
BH-18-C	9/27/05	19	5.68	6.890	9.11	35.0	
BH-19-A	9/27/05	8	0.0057	<0.005	<0.005	0.0057	
BH-19-B	9/27/05	14	0.0159	0.0097	0.0397	0.0752	
BH-19-C	9/27/05	19	<0.002	<0.005	<0.005	<0.005	
BH-20-A	11/12/05	4	<0.002	<0.005	<0.005	<0.005	
BH-20-B	11/12/05	8	<0.002	<0.005	<0.005	<0.005	
BH-20-C	11/12/05	14	<0.002	<0.005	<0.005	<0.005	
EX-1	11/25/14	7-8	1.240	0.264	7.810	2.910	0.103 J
EX-2	11/25/14	7-8	6.330	3.200	35.900	54.500	0.655 J

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
EX-3	11/25/14	7-8	1.890	3.360	32.600	158.000	0.972 J
B-1	11/25/14	12-13	1.860	0.164	0.373	1.630	<0.0301
B-2	11/25/14	12-13	5.200	<0.244	1.460	2.790	<0.244
B-3	11/25/14	7-8	1.340	0.129	0.143	0.345	<0.0293
B-4	11/25/14	7-8	2.070	0.156	0.193	0.398	<0.0295
Backfill #1	11/25/14		5.750	1.400	24.600	7.880	0.450 J
PL-1	11/26/14	2.5-3	3.850	3.340	51.200	112.000	2.060
PL-2	11/26/14	2.5-3	14.100	4.180	96.000	269.000	1.640 J
PL-3	11/26/14	2.5-3	13.700	13.800	103.000	356.000	3.700
B-5	11/26/14	7-8	3.070	0.115	0.351	0.533	<0.0293
B-6	11/26/14	7-8	0.0481	<0.0293	0.0589	0.258	<0.0293
EX-4	11/26/14	4-5	1.460	0.724	13.800	25.700	0.157 J
EX-5	11/26/14	4-5	36.500	6.100	106.000	644.000	5.110 J
EX-6	11/26/14	4-5	9.330	4.990	90.200	159.000	1.790 J
Backfill #2	11/26/14		8.690	37.100	74.100	327.000	3.870
EX-1	4/22/15	7-8	5.010	0.995	7.800	18.400	<0.0294
EX-2	4/22/15	7-8	7.510	0.394	6.910	7.330	<0.0147
B-1	4/22/15	15.5	<0.0105	<0.0128	<0.0142	<0.0553	0.0234 J
B-2	4/22/15	16	<0.0111	<0.0135	<0.0150	<0.0585	0.123
B-3	4/22/15	16	<0.0106	<0.0129	<0.0143	<0.0558	0.0227 J
B-4	4/23/15	16.5	<0.0107	<0.0130	0.0172 J	<0.0560	0.122
B-5	4/23/15	15	0.0308	<0.0129	<0.0143	<0.0558	0.444
EX-3	4/23/15	7-8	9.380	0.462	11.000	20.300	0.0944 J
EX-4	4/23/15	7-8	7.700	0.815	11.900	9.910	0.186
B-6	4/24/15	19	<0.0115	<0.0288	<0.0288	<0.0864	0.388
B-7	4/24/15	19	<0.0113	<0.0283	<0.0283	<0.0849	0.0915
B-8	4/27/15	16	<0.0119	<0.0298	<0.0298	<0.0895	<0.0298
B-9	4/27/15	15	<0.0116	<0.0289	<0.0289	<0.0868	0.148
B-10	4/28/15	15.5	<0.0115	<0.0287	<0.0287	<0.0861	0.468
B-11	4/28/15	17	<0.0116	<0.0290	<0.0290	<0.0869	0.476
B-12	4/29/15	18	<0.0113	<0.0282	<0.0282	<0.0845	0.128
EX-5	4/29/15	4-5	14.500	105.000	44.800	221.000	0.885 J

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
EX-6	4/29/15	4-5	7.600	54.500	32.700	149.000	0.891 J
B-13	4/29/15	15.5	<0.0116	<0.0290	<0.0290	<0.0870	1.240
EX-7	4/30/15	4-5	3.120	0.808 J	36.800	76.200	<0.313
B-14	4/30/15	15.5	<0.0107	<0.0130	<0.0144	<0.0563	0.0337 J
EX-8	4/30/15	4-5	8.660	1.070	21.300	7.610	0.158J
B-15	5/1/15	15.5	<0.0107	<0.0130	<0.0144	<0.0560	0.0259 J
B-16	5/1/15	17.5	<0.0104	<0.0126	<0.0140	<0.0544	<0.0142
B-17	5/1/15	15.5	<0.0106	<0.0129	<0.0143	<0.0558	0.0561 J
EX-9	5/4/15	4-5	0.263	0.0508 J	4.790	0.619	<0.0328
B-18	5/4/15	15.5	<0.0108	<0.0131	<0.0146	<0.0567	0.137
B-19	5/4/15	15.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
B-20	5/4/15	14	0.187	<0.129	<0.0143	<0.0556	0.328
EX-10	5/6/15	8-9	2.310	0.130	1.400	0.636	<0.0290
B-21	5/6/15	15.5	<0.0111	<0.0135	0.0175 J	<0.0582	<0.0152
B-22	5/7/15	15.5	<0.0109	<0.0132	0.0175 J	<0.0570	<0.0149
B-23	5/7/15	15.5	<0.0109	<0.0133	<0.0147	<0.0573	0.318
B-24	5/8/15	9	<0.0104	<0.0127	<0.0140	<0.0546	0.0430 J
B-25	5/8/15	15.5	<0.0107	<0.0130	<0.0144	<0.0560	0.208
B-26	5/8/15	15	<0.0108	<0.0131	<0.0145	<0.0566	<0.0148
EX-11	5/8/15	3-4	0.305	<0.0144	<0.0159	<0.0620	<0.0162
EX-12	5/8/15	3-4	<0.0118	<0.0144	<0.0160	<0.0622	<0.0162
EX-13	5/13/15	4-5	<0.0114	<0.0139	<0.0154	<0.0599	<0.0157
B-27	5/13/15	14	<0.0108	<0.0131	<0.0145	<0.0566	0.395
B-29	5/13/15	9	<0.0108	<0.0131	<0.0146	<0.0567	0.0318 J
EX-14	5/14/15	4-5	<0.0118	<0.0143	<0.0158	<0.0617	<0.0161
B-28	5/14/15	13	<0.0106	<0.0129	<0.0143	<0.0559	0.206
B-30	5/14/15	11	<0.0106	<0.0129	<0.0143	<0.0559	0.0565 J
B-31	5/14/15	11	<0.0106	<0.0159	<0.0143	<0.0559	0.0226 J
EX-15	5/15/15	8-9	<0.0107	<0.0131	0.0207 J	0.0589 J	0.0392 J
B-32	5/15/15	11	<0.0107	<0.0130	<0.0144	<0.0562	0.302
B-33	5/15/15	11	<0.0107	<0.0130	<0.0144	<0.0561	0.241
B-34	5/15/15	11	<0.0109	<0.0133	<0.0147	<0.0573	0.0466 J

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
Overburden 1	5/15/15		<0.0112	<0.0137	<0.0151	<0.0590	<0.0154
B-35	5/18/15	12	<0.0107	<0.0130	0.0192 J	0.0576 J	0.570
EX-16	5/18/15	9-10	<0.0110	<0.0134	<0.0149	<0.0579	<0.0151
EX-17	5/18/15	9-10	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
B-36	5/18/15	12	<0.0108	<0.0131	<0.0145	<0.0565	0.0306 J
Overburden-2	5/18/15		<0.0109	<0.0132	<0.0146	<0.0571	<0.0149
B-37	5/19/15	14	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
B-38	5/19/15	14	<0.0107	<0.0131	<0.0145	<0.0565	0.411
B-39	5/19/15	12	<0.0103	<0.0125	<0.0139	<0.0541	0.0511 J
EX-18	5/19/15	3-4	<0.0120	<0.0146	<0.0162	<0.0632	<0.0165
EX-19	5/19/15	3-4	<0.0115	<0.0140	<0.0155	<0.0605	<0.0158
B-40	5/22/15	13	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
B-41	5/27/15	15	<0.0105	<0.0128	<0.0142	<0.0553	<0.0144
EX-20	5/27/15	3-4	<0.0127	<0.0154	<0.0171	<0.0666	<0.0174
EX-21	5/27/15	3-4	0.464	0.627	11.600	12.700	<0.0664
EX-22	5/27/15	4-5	<0.0310	<0.0378	2.140	2.410	<0.0426
B-42	5/27/15	12.5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
B-43	5/27/15	12.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
B-44	5/27/15	15	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
B-45	5/28/15	12.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
EX-23	5/28/15	8.5-9.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
EX-24	5/28/15	3-4	<0.0118	<0.0143	<0.0159	<0.0618	<0.0162
B-46	6/5/15	14.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0146
EX-25	6/5/15	10-11	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
EX-26	6/5/15	3.5-5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
EX-27	6/5/15	8.5-9.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0146
EX-28	6/8/15	3-4	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
EX-28	6/8/15	8-9	<0.0106	<0.0130	<0.0144	<0.0559	<0.0146
BH-21	6/17/15	10-12.5	1.200	0.362	12.700	15.200	<0.0729
BH-22	9/8/15	7.5-10	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-22	9/8/15	25.5-27	7.650	1.260	0.0313 J	<0.110	<0.0288
BH-23	9/8/15	25-26.5	0.0428 J	0.547	2.900	17.000	<0.0376

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-23	9/8/15	28.5-30	0.0483	<0.0130	<0.0144	<0.0562	<0.0147
BH-24	9/8/15	4-6	<0.0279	<0.0339	0.0593 J	<0.146	<0.0383
BH-24	9/8/15	13.5-15	<0.0112	<0.0136	<0.0151	<0.0587	<0.0153
BH-22A	9/14/16	2.5-5	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
BH-22A	9/14/16	10-12.5	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-22A	9/14/16	15-17.5	<0.0110	<0.0134	<0.0149	<0.0580	<0.0151
BH-22A	9/14/16	20-23	<0.109	1.990	27.800	70.600	<0.150
BH-23A	9/14/16	2.5-5	<0.0130	<0.0158	<0.0176	<0.0684	<0.0179
BH-23A	9/14/16	5-7.5	<0.0114	<0.0139	<0.0154	<0.0600	<0.0157
BH-23A	9/14/16	10-12.5	<0.0107	0.0153 J	<0.0144	<0.0561	<0.0147
BH-23A	9/14/16	15-17.5	<0.0108	<0.0132	<0.0146	<0.0568	<0.0148
BH-23A	9/14/16	21.5-22.5	<0.0110	<0.0133	<0.0148	<0.0576	<0.0150
BH-23A	9/14/16	31-32.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-23A	9/14/16	32.5-35	<0.0118	<0.0144	<0.0159	<0.0621	<0.0162
BH-26	9/14/16	1-2.5	<0.0113	<0.0138	<0.0153	<0.0596	<0.0156
BH-26	9/14/16	7.5-10	<0.0107	0.0135 J	<0.0144	<0.0561	<0.0147
BH-26	9/14/16	10-12.5	<0.0111	<0.0136	<0.0150	<0.0585	<0.0153
BH-26	9/14/16	17.5-20	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-26	9/14/16	20-22.5	<0.0106	<0.0129	<0.0143	<0.0557	<0.0146
BH-26	9/14/16	27.5-29.25	0.0756	<0.0133	<0.0148	<0.0575	<0.0150
BH-27	9/14/16	2.5-5	<0.0117	0.0168 J	<0.0158	<0.0616	<0.0161
BH-27	9/14/16	7.5-10	<0.0107	<0.0130	<0.0144	<0.00563	<0.0147
BH-27	9/14/16	12.5-15	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-27	9/14/16	17.5-20	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
BH-27	9/14/16	22.5-25	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147

Table 1

## Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-27	9/14/16	27.5-30	<0.0101	<0.0123	<0.0137	<0.0533	<0.0139
BH-27	9/14/16	30-32.5	<0.0105	<0.0127	<0.0141	<0.0127	<0.0144
BH-21A	9/15/16	0.5-2.5	<0.0110	<0.0133	<0.0148	<0.0575	<0.0150
BH-21A	9/15/16	7.5-10	0.0398	<0.0128	0.0505 J	0.0807 J	<0.0144
BH-21A	9/15/16	15-17.5	4.100	8.830	9.310	35.500	<0.0367
BH-21A	9/15/16	20-22.5	1.080	0.147	0.918	0.685	<0.0149
BH-21A	9/15/16	25-27.5	4.890	0.0134 J	<0.0146	<0.0568	<0.0148
BH-21A	9/15/16	30-32.5	0.0109 J	<0.0128	<0.0142	<0.0552	<0.014
BH-25	9/15/16	2.5-5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-25	9/15/16	7.5-10	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-25	9/15/16	10-12.5	<0.0107	0.0220 J	<0.0144	<0.0560	<0.0146
BH-25	9/15/16	17.5-20	<0.0108	<0.0132	<0.0146	<0.0568	<0.0149
BH-25	9/15/16	20-22.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-25	9/15/16	25-26.5	0.0266	<0.0132	<0.0147	<0.0571	<0.0149
BH-25	9/15/16	30-32.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-28	9/15/16	2.5-5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-28	9/15/16	5-7.5	<0.0106	<0.0129	<0.0143	<0.0556	<0.0145
BH-28	9/15/16	12.5-15	0.0541	0.263	3.300	3.600	<0.0147
BH-28	9/15/16	15-17.5	0.0345	0.106	2.000	0.860	<0.0143
BH-28	9/15/16	20-22.5	0.0928	0.200	3.070	3.050	<0.0151
BH-28	9/15/16	25-27.5	<0.0106	<0.0129	<0.0143	<0.0559	<0.0146
BH-29	9/15/16	2.5-5	<0.0116	<0.0142	<0.0157	<0.0612	<0.0160
BH-29	9/15/16	7.5-10	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-29A	9/15/16	10-12.5	<0.0108	<0.0132	<0.0146	<0.0570	<0.0149
BH-29A	9/15/16	15-20	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-29A	9/15/16	22.5-25	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
BH-29A	9/15/16	27.5-30	<0.0105	<0.0128	<0.0142	<0.0554	<0.0145
BH-29A	9/15/16	32.5-35	<0.0107	<0.0131	<0.0145	<0.0563	<0.0147
BH-30	9/26/16	2.5-5	<0.0105	<0.0128	<0.0142	<0.0553	<0.0145
BH-30	9/26/16	7.5-10	<0.0110	<0.0133	<0.0148	<0.0576	<0.0151
BH-30	9/26/16	12.5-15	<0.0106	<0.0129	<0.0143	<0.0557	<0.0146
BH-30	9/26/16	15-17.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC

1196 State Street

Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-30A	9/26/16	22.5-25	<0.0103	<0.0125	<0.0139	<0.0541	<0.0141
BH-30A	9/26/16	27.5-30	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-31	9/26/16	2.5-5	<0.0114	<0.0139	<0.0154	<0.0600	<0.0157
BH-31	9/26/16	5-7.5	<0.0123	<0.0150	0.121	5.680	<0.0169
BH-31	9/26/16	12.5-15	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
BH-31	9/26/16	15-17.5	<0.0105	<0.0127	<0.0141	<0.0550	<0.0144
BH-31	9/26/16	22.5-25	<0.0109	<0.0133	<0.0147	<0.0573	<0.0150
BH-31	9/26/16	25-27.5	<0.0109	<0.0132	<0.0147	<0.0571	<0.0149
BH-32	7/5/17	2.5-5	<0.0116	<0.0141	<0.0156	<0.0610	<0.0159
BH-32	7/5/17	5-7.5	<0.0113	<0.0137	<0.0152	<0.0591	<0.0154
BH-32	7/5/17	12.5-15	<0.0109	<0.0132	<0.0147	<0.0571	<0.0149
BH-32	7/5/17	15-17.5	<0.0107	<0.0130	<0.0144	<0.0561	<0.0147
BH-32	7/5/17	20-22.5	<0.0107	<0.0130	<0.0144	<0.0560	<0.0146
BH-32	7/5/17	27.5-30	<0.0105	<0.0128	0.0154 J	<0.0553	<0.0144
BH-32	7/5/17	30-30.5	<0.0111	<0.0136	<0.0150	<0.0585	<0.0153
BH-33	7/5/17	2.5-5	<0.0112	<0.0137	<0.0151	<0.0590	<0.0154
BH-33	7/5/17	7.5-10	<0.0114	<0.0139	<0.0154	<0.0601	<0.0157
BH-33	7/5/17	12.5-15	<0.0111	<0.0135	<0.0149	<0.0581	<0.0152
BH-33	7/5/17	15-17.5	<0.0110	<0.0134	<0.0149	<0.0579	<0.0151
BH-33	7/5/17	22.5-25	<0.0107	<0.0131	<0.0145	<0.0563	<0.0147
BH-33	7/5/17	25-27.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-34	7/6/17	0.75-2.5	<0.0108	<0.0131	<0.0145	<0.0565	<0.0148
BH-34	7/6/17	7.5-10	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-34	7/6/17	10-12.5	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-34	7/6/17	17.5-20	<0.0108	<0.0131	<0.0145	<0.0567	<0.0148
BH-34	7/6/17	20-22.5	<0.0106	<0.0129	<0.0143	<0.0558	<0.0146
BH-34	7/6/17	25-27.5	<0.0107	<0.0130	<0.0144	<0.0562	<0.0147
BH-34	7/6/17	30-32.5	<0.0105	<0.0128	<0.0141	<0.0551	<0.0144
BH-35	7/6/17	0.5-2.5	<0.0128	<0.0156	<0.0173	<0.0675	<0.0176
BH-35	7/6/17	7.5-10	<0.0109	<0.0132	<0.0147	<0.0572	<0.0149
BH-35	7/6/17	12.5-15	<0.0108	<0.0132	<0.0146	<0.0569	<0.0149
BH-35	7/6/17	15-17.5	<0.0110	<0.0134	<0.0148	<0.0578	<0.0151

Table 1

Soil Analytical Results - BTEX and MTBE

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs				
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
Soil Ingestion - Residential			12	16,000	7,800	16,000	780
Soil Ingestion - Industrial/Commercial			100	410,000	200,000	410,000	20,000
Soil Ingestion - Construction Worker			2,300	410,000	20,000	41,000	2,000
Inhalation - Residential			0.8	650	400	320	8,800
Inhalation - Industrial/Commercial			1.6	650	400	320	8,800
Inhalation - Construction Worker			2.2	42	58	5.6	140
SCGIER - Class I Groundwater			0.03	12	13	150	0.32
SCGIER - Class II Groundwater			0.17	29	19	150	0.32
Soil Saturation Limit - Outdoor Inhalation			800	580	350	280	8,400
Soil Saturation Limit - SCGIER			580	290	150	110	11,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results				
BH-35	7/6/17	20-22.5	<0.0107	<0.0131	<0.0145	<0.0564	<0.0147
BH-35	7/6/17	25-27.5	<0.0106	<0.0129	<0.0142	<0.0555	<0.0145
BH-35	7/6/17	30-35	<0.0104	<0.0127	<0.0141	<0.0548	<0.0143

Notes:

- 1) **12** = detected concentration exceeds a Tier 1 SRO listed in 35 IAC Part 742
- 2) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
- 3) Shaded cells = not applicable, not analyzed, or sample location was excavated
- 4) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit



Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes	Indicator Contaminants and Tier 1 SROs																	
	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)		
Soil Ingestion - Residential	4,700	2,300	23,000	1.6 <sup>(1)</sup>	2.1 <sup>(1)</sup>	2.1 <sup>(1)</sup>	2,300	9	88	0.42 <sup>(1)</sup>	3,100	3,100	1.6 <sup>(1)</sup>	1,600	2,300	2,300		
Soil Ingestion - Industrial/Commercial	120,000	61,000	610,000	8	2.1 <sup>(1)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000		
Soil Ingestion - Construction Worker	120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000		
Inhalation - Residential	--	--	--	--	--	--	--	--	--	--	--	--	--	170	--	--		
Inhalation - Industrial/Commercial	--	--	--	--	--	--	--	--	--	--	--	--	--	270	--	--		
Inhalation - Construction Worker	--	--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--		
SCGIER - Class I Groundwater	570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200		
SCGIER - Class II Groundwater	2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000		
Sample Location	Sample Date	Sample Depth (feet bts)	Analytical Results															
EX-1	11/25/14	7-8	<0.0992	<0.0887	<0.103	<0.0687	<0.0709	<0.0992	<0.0755	<0.110	<0.0917	<0.0727	<0.0992	<0.0992	<0.0754	3.330	<0.0992	<0.0992
EX-2	11/25/14	7-8	<0.213	<0.190	<0.221	<0.147	<0.152	<0.213	<0.162	<0.235	<0.197	<0.156	<0.213	<0.213	<0.162	5.470	<0.213	<0.213
EX-3	11/25/14	7-8	<0.504	<0.451	<0.523	<0.350	<0.361	<0.504	<0.384	<0.558	<0.466	<0.370	<0.504	<0.383	14.500	<0.504	<0.504	
B-1	11/25/14	12-13	<0.0500	<0.0447	<0.0518	<0.0346	<0.0357	<0.0500	<0.0381	<0.0553	<0.0462	<0.0367	<0.0500	<0.0500	<0.0380	1.750	<0.0500	<0.0500
B-2	11/25/14	12-13	<0.0504	<0.0451	<0.0522	<0.0349	<0.0360	<0.0504	<0.0384	<0.0557	<0.0466	<0.0369	<0.0504	<0.0504	<0.0383	1.180	<0.0504	<0.0504
B-3	11/25/14	7-8	<0.0489	<0.0437	<0.0507	<0.0339	<0.0350	<0.0489	<0.0372	<0.0541	<0.0452	<0.0359	<0.0489	<0.0489	<0.0371	1.070	<0.0489	<0.0489
B-4	11/25/14	7-8	<0.0492	<0.0440	<0.0510	<0.0341	<0.0352	<0.0492	<0.0374	<0.0544	<0.0455	<0.0361	<0.0492	<0.0492	<0.0374	0.875	<0.0492	<0.0492
Backfill #1	11/25/14		<0.108	<0.0963	<0.112	<0.0746	<0.0770	<0.108	<0.0820	<0.119	<0.0995	<0.0789	<0.108	<0.108	<0.0818	3.420	<0.108	<0.108
PL-1	11/26/14	2.5-3	<0.435	<0.389	<0.451	<0.301	<0.311	<0.435	<0.331	<0.481	<0.402	<0.319	<0.435	<0.435	<0.330	8.440	<0.435	<0.435
PL-2	11/26/14	2.5-3	<0.432	<0.386	<0.448	<0.299	<0.309	<0.432	<0.329	<0.478	<0.399	<0.317	<0.432	<0.432	<0.328	15.000	<0.432	<0.432
PL-3	11/26/14	2.5-3	<0.140	<0.125	<0.145	<0.0972	<0.100	<0.140	<0.107	<0.155	<0.130	<0.103	<0.140	<0.140	<0.107	6.710	<0.140	<0.140
B-5	11/26/14	7-8	<0.0782	<0.0700	<0.0811	<0.0542	<0.0559	<0.0782	<0.0596	<0.0866	<0.0723	<0.0574	<0.0782	<0.0782	<0.0594	2.160	<0.0782	<0.0782
B-6	11/26/14	7-8	<0.010	<0.0089	<0.0103	<0.0069	<0.0071	<0.010	<0.0076	<0.0110	<0.0092	<0.0073	<0.010	<0.010	<0.0076	0.296	<0.010	<0.010
EX-4	11/26/14	4-5	<0.127	<0.114	<0.132	<0.0880	<0.0908	<0.127	<0.0967	<0.140	<0.117	<0.0931	<0.127	<0.127	<0.0965	8.600	<0.127	<0.127
EX-5	11/26/14	4-5	<0.427	<0.382	<0.443	<0.296	<0.306	<0.427	<0.325	<0.473	<0.395	<0.313	<0.427	<0.427	<0.325	20.700	<0.427	<0.427
EX-6	11/26/14	4-5	<0.431	<0.386	<0.447	<0.299	<0.309	<0.431	<0.329	<0.478	<0.399	<0.317	<0.431	<0.431	<0.328	20.900	<0.431	<0.431
Backfill #2	11/26/14		<0.0497	<0.0445	<0.0515	<0.0344	<0.0355	<0.0497	<0.0378	<0.0550	<0.0459	<0.0364	<0.0497	<0.0497	<0.0377	0.962	<0.0497	<0.0497
EX-1	4/22/15	7-8	<0.0483	<0.0432	<0.0501	<0.0335	<0.0346	<0.0483	<0.0368	<0.0535	<0.0447	<0.0355	<0.0483	<0.0483	<0.0367	1.240	<0.0483	<0.0483
EX-2	4/22/15	7-8	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	0.777	<0.0097	<0.0097
B-1	4/22/15	15.5	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	<0.0095	<0.0095
B-2	4/22/15	16	<0.0101	<0.0090	<0.0104	<0.0070	<0.0072	<0.0101	<0.0077	<0.0111	<0.0093	<0.0074	0.0107 J	<0.0101	<0.0076	<0.0101	0.0137 J	<0.0101
B-3	4/22/15	16	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0119 J	<0.0096

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.8 <sup>(1)</sup>	2.1 <sup>(1)</sup>	2.1 <sup>(1)</sup>	2,300	9	88	0.42 <sup>(1)</sup>	3,100	3,100	1.6 <sup>(1)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>(6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			--	--	--	--	--	--	--	--	--	--	--	--	170	--	--	
Inhalation - Industrial/Commercial			--	--	--	--	--	--	--	--	--	--	--	--	270	--	--	
Inhalation - Construction Worker			--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bis)	Analytical Results															
B-4	4/23/15	16.5	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0102 J	<0.0096
B-5	4/23/15	15	<0.0096	<0.0086	<0.0099	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0102 J	<0.0096
EX-3	4/23/15	7-8	<0.0956	<0.0855	<0.0991	<0.0663	<0.0684	<0.0956	<0.0728	<0.106	<0.0884	<0.0701	<0.0956	<0.0956	<0.0726	<b>3.890</b>	<0.0956	<0.0956
EX-4	4/23/15	7-8	<0.0482	<0.0431	<0.0500	<0.0334	<0.0345	<0.0482	<0.0367	<0.0533	<0.0446	<0.0353	<0.0482	<0.0482	<0.0366	<b>2.100</b>	<0.0482	<0.0482
B-6	4/24/15	19	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-7	4/24/15	19	<0.0094	<0.0084	<0.0098	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0072	<0.0094	<0.0094	<0.0094
B-8	4/27/15	16	<0.0099	<0.0089	<0.0103	<0.0069	<0.0071	<0.0099	<0.0076	<0.0110	<0.0092	<0.0073	<0.0099	<0.0099	<0.0076	<0.0099	<0.0099	<0.0099
B-9	4/27/15	15	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	0.0118 J	<0.0096
B-10	4/28/15	15.5	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0088	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0132 J	<0.0096
B-11	4/28/15	17	<0.0097	<0.0086	<0.0100	0.0110 J	0.0090 J	0.0110 J	0.0088 J	<0.0107	0.0191 J	<0.0071	0.0252	<0.0097	<0.0073	0.0308	0.0182 J	0.0236
B-12	4/29/15	18	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0072	<0.0094	<0.0094	<0.0094
EX-5	4/29/15	4-5	<0.391	<0.350	<0.405	<0.271	<0.279	<0.391	<0.298	<0.432	<0.361	<0.287	<0.391	<0.391	<0.297	<b>9.120</b>	<0.391	<0.391
EX-6	4/29/15	4-5	<0.391	<0.350	<0.405	<0.271	<0.280	<0.391	<0.298	<0.433	<0.362	<0.287	<0.391	<0.391	<0.297	<b>10.900</b>	<0.391	<0.391
B-13	4/29/15	15.5	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	0.0129 J	<0.0097
EX-7	4/30/15	4-5	<0.103	<0.0923	<0.107	<0.0715	<0.0737	<0.103	<0.0785	<0.114	<0.0954	<0.0756	<0.103	<0.103	<0.0783	<b>3.290</b>	<0.103	<0.103
B-14	4/30/15	15.5	<0.0097	<0.0087	<0.010	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-8	4/30/15	4-5	<0.197	<0.176	<0.204	<0.136	<0.141	<0.197	<0.150	<0.218	<0.182	<0.144	<0.197	<0.197	<0.149	<b>3.750</b>	<0.197	<0.197
B-15	5/1/15	15.5	<0.0193	<0.0172	<0.0200	<0.0134	<0.0138	<0.0193	<0.0147	<0.0213	<0.0178	<0.0141	<0.0193	<0.0193	<0.0146	0.0230 J	<0.0193	<0.0193
B-16	5/1/15	17.5	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0071	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	<0.0094
B-17	5/1/15	15.5	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	0.0099 J	<0.0096
EX-9	5/4/15	4-5	<0.0865	<0.0774	<0.0897	<0.0600	<0.0619	0.108 J	<0.0659	<0.0957	<0.0800	<0.0635	<0.0865	<0.0865	<0.0657	<b>1.970</b>	<0.0865	<0.0865
B-18	5/4/15	15.5	<0.0098	<0.0087	<0.0101	<0.0068	<0.0070	<0.0098	<0.0074	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	<0.0098

Table 2  
Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes	Indicator Contaminants and Tier 1 SROs																	
	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene		
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		
Soil Ingestion - Residential	4,700	2,300	23,000	1.8 <sup>(b)</sup>	2.1 <sup>(b)</sup>	2.1 <sup>(b)</sup>	2,300	9	88	0.42 <sup>(b)</sup>	3,100	3,100	1.6 <sup>(b)</sup>	1,600	2,300	2,300		
Soil Ingestion - Industrial/Commercial	120,000	61,000	610,000	8	2.1 <sup>(b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000		
Soil Ingestion - Construction Worker	120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000		
Inhalation - Residential	---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---		
Inhalation - Industrial/Commercial	---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---		
Inhalation - Construction Worker	---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---		
SCGIER - Class I Groundwater	570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200		
SCGIER - Class II Groundwater	2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000		
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-19	5/4/15	15.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	
B-20	5/4/15	14	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0089	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	
EX-10	5/6/15	8-9	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	0.0169 J	<0.0073	<0.0106	<0.0088	<0.0070	0.0104 J	<0.0095	<0.0073	<0.0753	<0.0095	
B-21	5/6/15	15.5	<0.0100	<0.0090	<0.0104	<0.0069	<0.0072	0.0130 J	<0.0076	<0.00111	<0.0093	<0.0073	<0.0100	<0.0100	<0.0076	<0.00100	<0.00100	
B-22	5/7/15	15.5	<0.0098	<0.0088	<0.0102	<0.068	<0.0070	<0.0128 J	0.0075	<0.0109	<0.0091	<0.0072	<0.0098	<0.0098	<0.0075	<0.0098	<0.0098	
B-23	5/7/15	15.5	<0.0099	<0.0088	<0.0102	<0.068	<0.0071	0.0128 J	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	
B-24	5/8/15	9	<0.0094	<0.0084	<0.0097	<0.0065	<0.0067	<0.0094	<0.0072	<0.0104	<0.0087	<0.0069	<0.0094	<0.0094	<0.0071	<0.0094	<0.0094	
B-25	5/8/15	15.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	0.0165 J	
B-26	5/8/15	15	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	
EX-11	5/8/15	3-4	<0.0107	<0.0096	<0.0111	0.0094 J	0.0115 J	0.0141 J	0.0100 J	<0.0118	0.0178 J	<0.0078	0.0246	<0.0107	0.0084 J	<0.0107	<0.0107	
EX-12	5/8/15	3-4	<0.0107	<0.0096	<0.0111	<0.0074	<0.0076	<0.0107	<0.0081	<0.0118	<0.0099	<0.0078	<0.0107	<0.0107	<0.0081	<0.0107	<0.0107	
EX-13	5/13/15	4-5	<0.0103	<0.0092	<0.0107	<0.0072	<0.0074	<0.0103	<0.0079	<0.0114	<0.0095	<0.0076	<0.0103	<0.0103	<0.0078	<0.0103	<0.0103	
B-27	5/13/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	0.0097	
B-29	5/13/15	9	<0.0098	<0.0087	<0.0101	<0.0068	<0.0070	<0.0098	<0.0074	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	
EX-14	5/14/15	4-5	<0.0106	<0.0095	<0.0110	0.0101 J	0.0157 J	0.0175 J	0.0168 J	0.0159 J	0.0201 J	<0.0078	0.0384	<0.0106	0.0137 J	<0.0106	0.0183 J	
B-28	5/14/15	13	<0.0096	<0.0086	<0.0110	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	
B-30	5/14/15	11	<0.0096	<0.0086	<0.0110	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	
B-31	5/14/15	11	<0.0096	<0.0086	<0.0110	<0.0067	<0.0069	<0.0096	<0.0073	<0.0106	<0.0089	<0.0071	0.0135 J	<0.0096	<0.0073	<0.0096	<0.0096	
EX-15	5/15/15	8-9	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.007	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	
B-32	5/15/15	11	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	
B-33	5/15/15	11	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	
B-34	5/15/15	11	<0.0099	<0.0088	<0.0102	<0.0068	<0.0071	<0.0099	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes	Indicator Contaminants and Tier 1 SROs																	
	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (e) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)		
Soil Ingestion - Residential	4,700	2,300	23,000	1.8 <sup>(5)</sup>	2.1 <sup>(5)</sup>	2.1 <sup>(5)</sup>	2,300	9	88	0.42 <sup>(5)</sup>	3,100	3,100	1.6 <sup>(5)</sup>	1,600	2,300	2,300		
Soil Ingestion - Industrial/Commercial	120,000	61,000	610,000	8	2.1 <sup>(6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000		
Soil Ingestion - Construction Worker	120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000		
Inhalation - Residential	--	--	--	--	--	--	--	--	--	--	--	--	--	170	--	--		
Inhalation - Industrial/Commercial	--	--	--	--	--	--	--	--	--	--	--	--	--	270	--	--		
Inhalation - Construction Worker	--	--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--		
SCGIER - Class I Groundwater	570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200		
SCGIER - Class II Groundwater	2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000		
Sample Location	Sample Date	Sample Depth (feet bis)	Analytical Results															
Overburden 1	5/15/15		<0.0203	<0.0182	<0.0211	0.0410	0.0476	0.0432	0.0410	0.0470	0.0505	<0.0149	0.0948	<0.0203	0.0360 J	0.691	0.0417	0.0748
B-35	5/18/15	12	<0.0097	<0.0087	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-16	5/18/15	9-10	<0.010	<0.0089	<0.0103	<0.0069	<0.0071	<0.010	<0.0076	<0.0110	<0.0092	<0.0073	<0.010	<0.010	<0.0076	<0.010	<0.010	<0.010
EX-17	5/18/15	9-10	<0.0097	<0.0087	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	<0.0097
B-36	5/18/15	12	<0.0097	<0.0087	<0.0100	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	0.0729	<0.0097	<0.0097
Overburden-2	5/18/15		<0.0098	<0.0088	0.0113 J	0.0478	0.0659	0.0726	0.0609	0.0690	0.0759	0.0154 J	0.135	<0.0098	0.0495	0.0208	0.0582	0.110
B-37	5/19/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-38	5/19/15	14	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-39	5/19/15	12	<0.0093	<0.0083	<0.0097	<0.0065	<0.0067	<0.0093	<0.0071	<0.0103	<0.0086	<0.0068	<0.0093	<0.0093	<0.0071	<0.0093	<0.0093	<0.0093
EX-18	5/19/15	3-4	<0.0109	<0.0097	<0.0113	0.0250	0.0282	0.0300	0.0226	0.0274	0.0345	<0.0080	0.0825	<0.0109	0.0200 J	<0.0109	0.0379	0.0564
EX-19	5/19/15	3-4	<0.0104	<0.0093	<0.0108	<0.0072	<0.0074	<0.0104	<0.0079	<0.0115	<0.0096	<0.0076	<0.0104	<0.0104	<0.0079	<0.0104	<0.0104	<0.0104
B-40	5/22/15	13	<0.0096	<0.0086	<0.010	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	<0.0096
B-41	5/27/15	15	<0.0095	<0.0085	<0.0099	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	0.0118 J	<0.0095
EX-20	5/27/15	3-4	<0.0015	<0.0103	0.0433	0.296	0.365	0.471	0.295	0.339	0.429	0.0951	0.567	<0.0115	0.257	0.0398	0.126	0.494
EX-21	5/27/15	3-4	<0.0700	<0.0626	<0.0726	<0.0485	<0.0500	<0.0700	<0.0533	<0.0774	<0.0647	<0.0513	<0.0700	<0.0700	<0.0532	1.210	<0.0700	<0.0700
EX-22	5/27/15	4-5	<0.0112	<0.0100	<0.0116	<0.0078	<0.0080	<0.0112	<0.0085	<0.0124	<0.0104	<0.0082	<0.0112	<0.0112	<0.0085	0.367	<0.0112	<0.0112
B-42	5/27/15	12.5	<0.0098	<0.0088	<0.0102	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0091	<0.0072	<0.0098	<0.0098	<0.0074	0.0322	<0.0098	<0.0098
B-43	5/27/15	12.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
B-44	5/27/15	15	<0.0097	<0.0087	<0.0100	0.0083 J	0.0113 J	0.0130 J	0.0086 J	<0.0107	0.0136 J	<0.0071	0.0124 J	<0.0097	<0.0074	<0.0097	<0.0097	0.0116 J
B-45	5/28/15	12.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0070	<0.0097	<0.0074	<0.0108	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-23	5/28/15	8.5-9.5	<0.0097	<0.0087	<0.0101	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0090	<0.0071	<0.0097	<0.0097	<0.0074	<0.0097	<0.0097	<0.0097
EX-24	5/28/15	3-4	<0.0106	<0.0095	<0.0110	0.0286	0.0374	0.0401	0.0361	0.0394	0.0432	0.0100 J	0.0795	<0.0106	0.0307	0.0506	0.0190 J	0.0721

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes	Indicator Contaminants and Tier 1 SROs																	
	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)		
Soil Ingestion - Residential	4,700	2,300	23,000	1.8 <sup>(b)</sup>	2.1 <sup>(b)</sup>	2.1 <sup>(b)</sup>	2,300	9	88	0.42 <sup>(b)</sup>	3,100	3,100	1.6 <sup>(b)</sup>	1,600	2,300	2,300		
Soil Ingestion - Industrial/Commercial	120,000	61,000	610,000	8	2.1 <sup>(b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000		
Soil Ingestion - Construction Worker	120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000		
Inhalation - Residential	---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---		
Inhalation - Industrial/Commercial	---	---	---	---	---	---	---	---	---	---	---	---	---	270	---	---		
Inhalation - Construction Worker	---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---		
SCGIER - Class I Groundwater	570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200		
SCGIER - Class II Groundwater	2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000		
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
B-46	6/5/15	14.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	
EX-25	6/5/15	10-11	<0.0096	<0.0086	<0.0099	<0.0066	<0.0068	<0.0096	<0.0073	<0.0106	<0.0088	<0.0070	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	
EX-26	6/5/15	3.5-5	<0.0098	<0.0088	<0.0101	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0090	<0.0072	<0.0098	<0.0098	<0.0074	<0.0098	<0.0098	
EX-27	6/5/15	8.5-9.5	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	
EX-28	6/8/15	3-4	<0.0099	<0.0088	<0.0102	<0.0068	<0.0070	<0.0099	<0.0075	<0.0109	<0.0091	<0.0072	<0.0099	<0.0099	<0.0075	<0.0099	<0.0099	
EX-28	6/8/15	8-9	<0.0096	<0.0086	<0.0100	<0.0067	<0.0069	<0.0096	<0.0073	<0.0107	<0.0089	<0.0071	<0.0096	<0.0096	<0.0073	<0.0096	<0.0096	
BH-21	6/17/15	10-12.5	<0.0768	<0.0687	<0.0797	<0.0533	<0.0549	<0.0768	<0.0585	<0.0850	<0.0710	<0.0564	<0.0768	<0.0768	<0.0584	1.440	<0.0768	
BH-22	9/8/15	7.5-10	<0.0098	<0.0088	<0.0101	<0.0068	<0.0070	<0.0098	<0.0075	<0.0108	<0.0091	<0.0072	<0.0098	<0.0098	<0.0074	0.0674	<0.0098	
BH-22	9/8/15	25.5-27	<0.0095	<0.0085	<0.0098	<0.0066	<0.0068	<0.0095	<0.0072	<0.0105	<0.0088	<0.0070	<0.0095	<0.0095	<0.0072	<0.0095	<0.0095	
BH-23	9/8/15	25-26.5	<0.0099	<0.0089	<0.0103	<0.0069	<0.0071	<0.0099	<0.0075	<0.0109	<0.0091	<0.0073	<0.0099	<0.0099	<0.0075	0.0156 J	<0.0099	
BH-23	9/8/15	28.5-30	<0.0097	<0.0086	<0.0100	<0.0067	<0.0069	<0.0097	<0.0074	<0.0107	<0.0089	<0.0071	<0.0097	<0.0097	<0.0073	<0.0097	<0.0097	
BH-24	9/8/15	4-6	<0.0101	<0.0090	<0.0104	<0.0070	<0.0072	<0.0101	<0.0077	<0.0112	<0.0093	<0.0074	<0.0101	<0.0101	<0.0077	0.153	<0.0101	
BH-24	9/8/15	13.5-15	<0.0101	<0.0090	<0.0105	<0.0070	<0.0072	<0.0101	<0.0077	<0.0112	<0.0093	<0.0074	<0.0101	<0.0101	<0.0077	<0.0101	<0.0101	
BH-22A	9/14/16	2.5-5	<0.0046	<0.0039	<0.0068	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0062	<0.0049	<0.0026	<0.010	<0.0138	
BH-22A	9/14/16	10-12.5	<0.0045	<0.0038	<0.0066	0.0048 J	0.0052 J	0.0076 J	0.0041 J	0.0064 J	0.0132	<0.0026	0.0152 J	<0.0048	0.0034 J	<0.0097	0.0172 J	
BH-22A	9/14/16	15-17.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	0.0034 J	0.0041 J	<0.0030	0.0084 J	<0.0027	<0.0062	<0.0050	<0.0026	0.0937	0.0146 J	
BH-22A	9/14/16	20-23	<0.0046	<0.0039	<0.0068	<0.0037	0.0034 J	0.0058 J	0.0039 J	<0.0030	0.0131 J	<0.0026	0.0076 J	<0.0049	<0.0026	0.165	<0.0138	
BH-23A	9/14/16	2.5-5	<0.0055	<0.0047	<0.0081	<0.0045	<0.0035	<0.0040	<0.0029	<0.0035	<0.0048	<0.0032	<0.0074	<0.0058	<0.0031	<0.0119	<0.0165	
BH-23A	9/14/16	5-7.5	<0.0048	<0.0041	<0.0071	<0.0039	<0.0031	<0.0035	<0.0025	<0.0031	<0.0042	<0.0028	<0.0064	<0.0051	<0.0027	<0.0104	<0.0144	
BH-23A	9/14/16	10-12.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0070 J	<0.0026	<0.0060	<0.0025	<0.0098	<0.0135	<0.0052	
BH-23A	9/14/16	15-17.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0050 J	<0.0026	0.0075 J	<0.0049	<0.0026	<0.0099	<0.0137	
BH-23A	9/14/16	21.5-22.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	

Table 2

Soil Analytical Results - PAHs

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes			Indicator Contaminants and Tier 1 SROs															
			Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
Soil Ingestion - Residential			4,700	2,300	23,000	1.6 <sup>(b)</sup>	2.1 <sup>(b)</sup>	2.1 <sup>(b)</sup>	2,300	9	88	0.42 <sup>(b)</sup>	3,100	3,100	1.6 <sup>(b)</sup>	1,600	2,300	2,300
Soil Ingestion - Industrial/Commercial			120,000	61,000	610,000	8	2.1 <sup>(b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000
Soil Ingestion - Construction Worker			120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000
Inhalation - Residential			--	--	--	--	--	--	--	--	--	--	--	--	170	--	--	
Inhalation - Industrial/Commercial			--	--	--	--	--	--	--	--	--	--	--	--	270	--	--	
Inhalation - Construction Worker			--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--	
SCGIER - Class I Groundwater			570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200
SCGIER - Class II Groundwater			2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-23A	9/14/16	31-32.5	<0.0045	<0.0038	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0061	<0.0048	<0.0026	<0.0098	<0.0136	<0.0053
BH-23A	9/14/16	32.5-35	<0.0050	<0.0042	<0.0073	0.0068 J	0.0115	0.0221	0.0157	0.0149	0.0201	0.0035 J	0.0187 J	<0.0053	0.0116	<0.0108	<0.0149	0.0134 J
BH-26	9/14/16	1-2.5	<0.0048	0.0310	0.0281	0.0771	0.0974	0.0896	0.0565	0.109	0.0974	0.0217	0.125	<0.0051	0.0544	<0.0104	0.0349 J	0.109
BH-26	9/14/16	7.5-10	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	0.0040 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-26	9/14/16	10-12.5	<0.0047	<0.0040	<0.0069	<0.0038	<0.0030	<0.0034	<0.0025	<0.0030	0.0047 J	<0.0027	<0.0063	<0.0050	<0.0027	<0.0102	<0.0141	<0.0055
BH-26	9/14/16	17.5-20	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0038 J	<0.0029	0.0049 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0141 J	<0.0052
BH-26	9/14/16	20-22.5	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0032	0.0027 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-26	9/14/16	27.5-29.25	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	0.0035 J	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054
BH-27	9/14/16	2.5-5	<0.0049	<0.0042	<0.0073	<0.0040	<0.0032	<0.0036	<0.0026	<0.00032	<0.0043	<0.0028	<0.0066	<0.0053	<0.0028	<0.0107	<0.0148	<0.0057
BH-27	9/14/16	7.5-10	<0.0045	0.0051 J	0.0130 J	0.0238	0.0269	0.0272	0.0184	0.0256	0.0329	0.0064 J	0.0462	<0.0048	0.0168	0.0166 J	0.0371 J	0.0385
BH-27	9/14/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0023	<0.0029	0.0083 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0143 J	<0.0052
BH-27	9/14/16	17.5-20	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0033	0.0088	<0.0029	0.0041 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0097	0.0304 J	0.0063 J
BH-27	9/14/16	22.5-25	<0.0045	<0.0038	<0.0066	0.0042 J	0.0046 J	0.0058 J	0.0060 J	0.0044 J	0.0121 J	<0.0026	0.0119 J	<0.0048	<0.00025	<0.0097	<0.0135	0.0116 J
BH-27	9/14/16	27.5-30	<0.0043	<0.0036	<0.0063	<0.0035	<0.0028	<0.0031	0.0044 J	<0.0028	0.0089 J	<0.0025	<0.0057	<0.0046	<0.0024	<0.0093	<0.0128	<0.0050
BH-27	9/14/16	30-32.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0029	<0.0032	0.0039 J	<0.0028	0.0084 J	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	<0.0132	<0.0051
BH-21A	9/15/16	0.5-2.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0138	<0.0054
BH-21A	9/15/16	7.5-10	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	0.0138 J	<0.0133	<0.0051
BH-21A	9/15/16	15-17.5	<0.0180	<0.0153	<0.0265	<0.0147	<0.0117	<0.0131	<0.0094	<0.0116	<0.0157	<0.0104	<0.0242	<0.0192	<0.0102	1.750	<0.0541	<0.0209
BH-21A	9/15/16	20-22.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	0.0040 J	<0.0026	<0.0061	<0.0049	<0.0026	0.303	<0.0137	<0.0053
BH-21A	9/15/16	25-27.5	<0.0045	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-21A	9/15/16	30-32.5	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	<0.0133	<0.0051
BH-25	9/15/16	2.5-5	<0.0045	<0.0038	<0.0066	0.0068 J	0.0043 J	0.0050 J	0.0029 J	0.0048 J	0.0095 J	<0.0026	0.0289	<0.0048	<0.0025	<0.0097	0.0227 J	0.0189

Table 2  
Soil Analytical Results - PAHs  
BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes	Indicator Contaminants and Tier 1 SROs																	
	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene		
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		
Soil Ingestion - Residential	4,700	2,300	23,000	1.8 <sup>(b)</sup>	2.1 <sup>(b)</sup>	2.1 <sup>(b)</sup>	2,300	9	88	0.42 <sup>(b)</sup>	3,100	3,100	1.6 <sup>(b)</sup>	1,600	2,300	2,300		
Soil Ingestion - Industrial/Commercial	120,000	61,000	610,000	8	2.1 <sup>(b)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000		
Soil Ingestion - Construction Worker	120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000		
Inhalation - Residential	--	--	--	--	--	--	--	--	--	--	--	--	--	170	--	--		
Inhalation - Industrial/Commercial	--	--	--	--	--	--	--	--	--	--	--	--	--	270	--	--		
Inhalation - Construction Worker	--	--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--		
SCGIER - Class I Groundwater	570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200		
SCGIER - Class II Groundwater	2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000		
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-25	9/15/16	7.5-10	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	0.0035 J	0.0024 J	<0.0029	0.0098 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-25	9/15/16	10-12.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	0.0045 J	<0.0024	<0.0029	0.0122 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	0.0160 J	<0.0052
BH-25	9/15/16	17.5-20	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-25	9/15/16	20-22.5	<0.0045	<0.0038	<0.0066	0.0039 J	<0.0029	<0.0033	0.0030 J	<0.0029	0.0051 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-25	9/15/16	25-26.5	<0.0046	<0.0039	<0.0067	0.0040 J	<0.0030	<0.0033	0.0033 J	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-25	9/15/16	30-32.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	2.5-5	<0.0045	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-28	9/15/16	5-7.5	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-28	9/15/16	12.5-15	<0.0045	<0.0038	<0.0066	0.0039 J	<0.0029	<0.0033	<0.0024	<0.0029	0.0045 J	<0.0026	<0.0060	<0.0048	<0.0026	0.262	<0.0135	<0.0052
BH-28	9/15/16	15-17.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0028	<0.0032	<0.0023	<0.0028	<0.0038	<0.0025	<0.0059	<0.0047	<0.0025	0.137	<0.0132	<0.0051
BH-28	9/15/16	20-22.5	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	0.309	<0.0139	<0.0054
BH-28	9/15/16	25-27.5	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0024 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	<0.0052
BH-29	9/15/16	2.5-5	<0.0049	<0.0042	<0.0072	0.0050 J	0.0034 J	0.0062 J	0.0032 J	<0.0032	0.0053 J	<0.0028	0.0108 J	<0.0052	<0.0028	<0.0106	<0.0147	0.0078 J
BH-29	9/15/16	7.5-10	<0.0045	<0.0038	<0.0066	0.0037 J	<0.0029	0.0033 J	<0.0024	<0.0029	0.0043 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0098	<0.0135	<0.0052
BH-29A	9/15/16	10-12.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-29A	9/15/16	15-20	<0.0046	<0.0039	<0.0067	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053
BH-29A	9/15/16	22.5-25	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0026	<0.0098	<0.0135	<0.0052
BH-29A	9/15/16	27.5-30	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	<0.0032	<0.0023	<0.0029	<0.0039	<0.0026	<0.0060	<0.0047	<0.0025	<0.0096	<0.0133	<0.0052
BH-29A	9/15/16	32.5-35	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	<0.0024	<0.0029	<0.0039	<0.0026	<0.0061	<0.0048	<0.0026	<0.0098	<0.0136	<0.0052
BH-30	9/26/16	2.5-5	<0.0044	<0.0038	<0.0065	0.0185	0.0222	0.0305	0.0187	0.0147	0.0254	0.0033 J	0.0397	<0.0047	0.0150	<0.0096	0.0191 J	0.0307
BH-30	9/26/16	7.5-10	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0034	<0.0024	<0.0030	<0.0040	<0.0027	<0.0062	<0.0049	<0.0026	<0.0100	<0.0139	<0.0054
BH-30	9/26/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0036	<0.0029	0.0033 J	0.0058 J	<0.0029	0.0075 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0134	0.0071 J

Table 2  
Soil Analytical Results - PAHs  
BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes	Indicator Contaminants and Tier 1 SROs																	
	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (g,h,i) perylene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)		
Soil Ingestion - Residential	4,700	2,300	23,000	1.8 <sup>5)</sup>	2.1 <sup>6)</sup>	2.1 <sup>6)</sup>	2,300	9	88	0.42 <sup>6)</sup>	3,100	3,100	1.6 <sup>6)</sup>	1,600	2,300	2,300		
Soil Ingestion - Industrial/Commercial	120,000	61,000	610,000	8	2.1 <sup>6)</sup>	8	61,000	78	780	0.8	82,000	82,000	8	41,000	61,000	61,000		
Soil Ingestion - Construction Worker	120,000	61,000	610,000	170	17	170	61,000	1,700	17,000	17	82,000	82,000	170	4,100	61,000	61,000		
Inhalation - Residential	--	--	--	--	--	--	--	--	--	--	--	--	--	170	--	--		
Inhalation - Industrial/Commercial	--	--	--	--	--	--	--	--	--	--	--	--	--	270	--	--		
Inhalation - Construction Worker	--	--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--		
SCGIER - Class I Groundwater	570	85	12,000	2	8	5	27,000	49	160	2	4,300	560	14	12	210	4,200		
SCGIER - Class II Groundwater	2,900	420	59,000	8	82	25	130,000	250	800	7.6	21,000	2,800	69	18	1,100	21,000		
Sample Location	Sample Date	Sample Depth (feet bls)	Analytical Results															
BH-30	9/26/16	15-17.5	<0.0044	<0.0038	<0.0065	<0.0036	<0.0029	0.0033 J	0.0062 J	<0.0029	0.0085 J	<0.0026	<0.0060	<0.0047	<0.0025	<0.0097	<0.0134	0.0082 J
BH-30A	9/26/16	22.5-25	<0.0043	<0.0037	<0.0064	<0.0035	<0.0028	<0.0032	<0.0023	<0.0028	<0.0038	<0.0025	<0.0058	<0.0046	<0.0025	<0.0094	<0.0130	<0.0050
BH-30A	9/26/16	27.5-30	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0028 J	<0.0029	<0.0039	<0.0026	<0.0060	<0.0048	<0.0025	0.0128 J	<0.0134	<0.0052
BH-31	9/26/16	2.5-5	0.0222	0.0142	0.139	0.593	0.725	0.708	0.367	0.406	0.828	0.112	1.160	0.0317	0.377	0.0107 J	0.747	0.890
BH-31	9/26/16	5-7.5	<0.0052	<0.0044	<0.0076	<0.0042	<0.0034	<0.0038	<0.0027	<0.0033	<0.0045	<0.0030	<0.0069	<0.0055	<0.0029	<0.0112	<0.0155	<0.0060
BH-31	9/26/16	12.5-15	<0.0045	<0.0038	<0.0066	<0.0037	<0.0029	<0.0033	0.0042 J	<0.0029	0.0074 J	<0.0026	<0.0060	<0.0048	<0.0025	<0.0097	<0.0135	0.0078 J
BH-31	9/26/16	15-17.5	<0.0044	<0.0037	<0.0065	<0.0036	<0.0029	0.0038 J	0.0118	<0.0029	0.0109 J	<0.0025	<0.0059	<0.0047	<0.0025	<0.0096	0.0345 J	0.0061 J
BH-31	9/26/16	22.5-25	<0.0046	<0.0039	<0.0068	<0.0038	<0.0030	<0.0033	0.0037 J	<0.0030	<0.0040	<0.0026	<0.0062	<0.0049	<0.0026	<0.010	<0.0138	<0.0053
BH-31	9/26/16	25-27.5	<0.0046	<0.0039	<0.0067	<0.0037	<0.0030	<0.0033	<0.0024	<0.0030	<0.0040	<0.0026	<0.0061	<0.0049	<0.0026	<0.0099	<0.0137	<0.0053

- Notes:
- 1) Bold = detected concentration or method detection limit exceeds a SRO listed in 35 IAC Part 742 or in the Non-TACO Objectives tables
  - 2) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
  - 3) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
  - 4) -- = no toxicity criteria available for the route of exposure
  - 5) Shaded cells = not applicable or sample located was excavated
  - 6) Pursuant to 35 IAC Section 742, Appendix B, Table A, the SRO listed in 35 IAC Section 742, Appendix A, Table H was utilized



Table 3  
Soil Characterization Results

BOI, LLC  
1196 State Street  
Lemont, Cook County, Illinois 60439

Sample Location	BH-1	SCB-1	BH-6A	BH-7A	BH-8A	BH-1B	Waste Disposal	Waste Disposal	Waste Disposal-1
Sample Depth (feet bls)	5-7	20-22.5	5	4	3	10-11			
Sample Date	9/18/03	8/10/04	8/2/05	8/2/05	8/2/05	8/25/05	3/18/15	3/25/15	7/7/17
Analysis	Units	Results							
Visual Classification		Silty Clay, some fine to coarse sand, trace fine gravel - Brown (CL)	Silty CLAY (CL) with sand				Fat CLAY - CH (Glacial Till)		
Permeability	cm/sec		3x10 <sup>-5</sup>				5.06x10 <sup>-8</sup>		
Dry Unit Weight	pcf	117.7	115.5				99.4		
Moisture Content	%	15.9	13.7				23.2	29.3	20.0
Grain-Size Analysis	%	35% Clay 38.4% Silt 21.3% Sand 5.3% Gravel					50.1% Clay 35.6% Silt 14.3% Sand		
Hydraulic Conductivity	cm/sec	5.76x10 <sup>-8</sup>							
Fractional Organic Carbon	%			0.82	1.84	0.82			
pH							7.2		7.92
TCLP Lead	mg/L						<0.0030		<0.0043
Flashpoint	°F						>210		>210
Paint Filter Liquid Test							Pass		Pass
Reactive Cyanide	mg/kg							<25.0	
Reactive Sulfide	mg/kg							<50.0	

Notes:

1) Shaded cells = not applicable or not analyzed

Table 4

Groundwater Elevations and Analytical Results

BOI, LLC  
 1196 State Street  
 Lemont, Cook County, Illinois 60439

Tier 1 Exposure Routes						Indicator Contaminants and Tier 1 GROs				
						Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater						0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater						0.025	2.5	1	10	0.07
Sample Location	Sample Date	Ground Elevation (feet)	TOC Elevation (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	Analytical Results				
MW-1	7/19/17	99.44	99.04	13.09	85.95	1.300	0.476	1.540	4.600	<0.0035
MW-2	7/19/17	99.30	98.84	12.98	85.86	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017
MW-3	7/19/17	100.53	100.16	14.21	85.95	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017
MW-4	7/19/17	100.72	100.34	13.33	87.01	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017
MW-5	7/19/17	100.01	99.44	12.68	85.76	<0.00050	<0.00050	<0.00050	<0.0015	<0.00017

Notes:

- 1) **Bold** = detected concentration exceeds a Tier 1 GRO listed in 35 IAC Part 742
- 2) <0.0122 = concentration less than the laboratory reporting limit or method detection limit
- 3) J = estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- 4) Groundwater elevations are relative to a site-specific benchmark of 100 feet.

Attachment 5

Stage 3 Site Investigation Budget Approval

Re: 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
Leaking UST Incidents 942117 & 20141348  
Leaking UST Technical File

The Stage 3 Site Investigation Budget is approved for the following amounts:

Category	Amount
Drilling and Monitoring Well Costs	\$0.00
Analytical Costs	\$4,650.00
Remediation and Disposal Costs	\$0.00
UST Removal and Abandonment Costs	\$0.00
Paving, Demolition, and Well Abandonment Costs	\$0.00
Consulting Personnel Costs	\$6,849.28
Consultant's Materials Costs	\$24.00

Attachment 6

Site Investigation Completion Report Rejection Reasons

Re: 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
Leaking UST Incidents 942117 & 20141348  
Leaking UST Technical File

The Site Investigation Completion Report is rejected for the following reasons:

1. In accordance with 35 Illinois Administrative Code 734.310, the extent of the soil and groundwater contamination must be defined.
  - a. The extent of the soil contamination has not been defined to the south or east of soil boring BH-31.
  - b. The extent of the groundwater contamination has not been defined to the west of groundwater monitoring well MW-1.

Attachment 7

Corrective Action Plan Rejection Reasons

Re: 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
Leaking UST Incidents 942117 & 20141348  
Leaking UST Technical File

The Corrective Action Plan is rejected for the following reasons:

1. The Corrective Action Plan does not include a Tier 3 impractical remediation evaluation for the TCK (Walgreens) property as discussed with the Illinois EPA. If the owner or operator hopes to demonstrate that best efforts have been made to address the TCK (Walgreens) property, the owner or operator will need to demonstrate that an Environmental Land Use Control cannot be negotiated, it is impractical to remediate the TCK (Walgreens) property, and a Tier 3 impractical remediation evaluation is appropriate given the proximity of the two community water supply wells.
2. The Corrective Action Plan does not include a Tier 3 evaluation for sample locations at the TCK (Walgreens) property that exceed the Tier 1 remediation objectives for the outdoor inhalation exposure pathway as stated in the plan.
3. The Tier 3 evaluation to utilize measured concentrations in lieu of modeled concentrations does not include the information required at 35 Illinois Administrative Code 742.925(a) through (d).

It should be noted that the Corrective Action Plan does not propose institutional controls for sample locations at the TCK (Walgreens) property that exceed the Tier 1 remediation objectives for the soil and groundwater components of the groundwater ingestion exposure pathway. Even if the owner or operator is unable to negotiate an Environmental Land Use Control for the TCK (Walgreens) property, the Corrective Action Plan should identify the necessary institutional controls.

4. The Tier 3 impractical remediation evaluation being proposed for sample locations within the rights-of-way of 127<sup>th</sup> Street and State Street that exceed the Tier 1 soil saturation limits does not include the information required at 35 Illinois Administrative Code 742.920(a) through (g).

It should be noted that, since Highway Authority Agreements will be utilized for portions of 127<sup>th</sup> Street and State Street, SSL equations may be used to develop Tier 2 soil saturation limits for sample locations within the rights-of-way of 127<sup>th</sup> Street and State Street that exceed the Tier 1 soil saturation limits.

5. With regard to the contaminant modeling, which was performed using Equation R26, the figures illustrate the modeled plumes of contamination in groundwater as being a series of line segments. This is not appropriate. The modeled plumes of contamination in groundwater are a physical area, not a series of line segments.

Attachment 8

Corrective Action Budget Disapproval Reasons

Re: 0314625010 - Cook County  
Lemont - Lemont Kar Gas  
1196 State Street  
Leaking UST Incidents 942117 & 20141348  
Leaking UST Technical File

The Corrective Action Budget is rejected for the following reasons:

1. The Illinois EPA cannot approve a Corrective Action Budget without an approved Corrective Action Plan.

The Corrective Action Plan is rejected for the reasons explained in Attachment 7 of this letter.

Attachment 9

Appeal Rights

An underground storage tank system owner or operator may appeal this final decision to the Illinois Pollution Control Board pursuant to Sections 40 and 57.7(c)(4) of the Act by filing a petition for a hearing within 35 days after the date of issuance of the final decision. However, the 35-day period may be extended for a period of time not to exceed 90 days by written notice from the owner or operator and the Illinois EPA within the initial 35-day appeal period. If the owner or operator wishes to receive a 90-day extension, a written request that includes a statement of the date the final decision was received, along with a copy of this decision, must be sent to the Illinois EPA as soon as possible.

For information regarding the filing of an appeal, please contact

Clerk  
Illinois Pollution Control Board  
James R. Thompson Center  
100 West Randolph Street  
Suite 11-500  
Chicago, Illinois 60601-3233  
312-814-3620

For information regarding the filing of an extension, please contact

Illinois Environmental Protection Agency  
Division of Legal Counsel  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276  
217-782-5544