Electronic Filing: Received, Clerk's Office 09/20/2024 BEFORE THE POLLUTION CONTROL BOARD OF THE STATE OF ILLINOIS

WEST CHICAGO PARK DISTRICT,)	
Petitioner,)	
v. ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, Respondent.))))	PCB 2024-064 (LUST Appeal)
	NOTICE	

Don Brown, Clerk Illinois Pollution Control Board 60 E. Van Buren Street Suite 630 Chicago, IL 60605 don.brown@illinois.gov Bradley P. Halloran, Hearing Officer Illinois Pollution Control Board 60 E. Van Buren Street, Ste. 630 Chicago, IL 60605 brad.halloran@illinois.gov

Adam B. Simon Ancel Glink, P.C. 175 E. Hawthorn Parkway, Ste. 145 Vernon Hills, IL 60061 <u>asimon@ancelglink.com</u> Vevgeniy Bolotnikov Ancel Glink, P.C. 175 E. Hawthorn Parkway, Ste. 145 Vernon Hills, IL 60601 <u>ebolotnikov@ancelglink.com</u>

PLEASE TAKE NOTICE that I have today filed with the office of the Clerk of the Pollution Control Board 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

Rich Kim Assistant Counsel - Division of Legal Counsel Special Assistant Attorney General 1021 North Grand Avenue, East P.O. Box 19276 Springfield, Illinois 62794-9276 217/782-5544 866/273-5488 (TDD) Dated: September 20, 2024 Electronic Filing: Received, Clerk's Office 09/20/2024

BEFORE THE POLLUTION CONTROL BOARD OF THE STATE OF ILLINOIS

Petitioner,

v.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, PCB 2024-064 (LUST Appeal)

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:

PAGES

DOCUMENT(S)

AR000001-AR000002 AR000003-AR000193 AR000194 AR000195-AR000203 AR000204-AR000225 AR000226 - AR000277 AR000278-AR000302 AR000303-AR000383 AR000384-AR000388 AR000389-AR000439 AR000440-AR000451 AR000452-AR000454 AR000455-AR000458 AR000459 AR000460-AR000516 AR000517-AR000520 AR000521 AR000522-AR000523 AR000523-AR000529

OSFM Eligibility/Deductible letter Corrective Action Completion Report RCI PE/PG Certifications IEPA CACR rejection letter **RCI Technical Summary RCI Response to 2013 IEPA rejection RCI CACR Addendum** CACR/Budget Amendment IEPA CACR/Budget rejection letter RCI CACR/Budget response Emails between IEPA/RCI IEPA Technical Review Notes **RCI Budget Certification forms RCI** extension request **RCI response/updated Budget** Emails between IEPA/RCI **RCI extension request** Emails between IEPA/RCI IEPA Budget decision letter

DATE

December 10, 1998 June 21, 2013 September 11, 2013 September 17, 2013 June 14, 2019 July 15, 2020 April 6, 2021 November 15, 2022 April 14, 2023 June 16, 2023 Sept. 18-Oct. 25, 2023 September 19, 2023 October 6, 2023 October 16, 2023 November 22, 2023 December 8-15, 2023 December 15, 2023 February 12-14, 2024 February 16, 2024

I, Eric Kuhlman, 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: _ Eric Ker

Eric Kuhlman Leaking Underground Storage Tank Section Illinois Environmental Protection Agency

Date: 9/17/2024

CERTIFICATE OF SERVICE

I, the undersigned attorney at law, hereby certify that on September 20, 2024, I

served true and correct copies of the ADMINISTRATIVE RECORD, and a CERTIFICATE OF

RECORD ON APPEAL, via the Board's COOL system and email, upon the following named

persons:

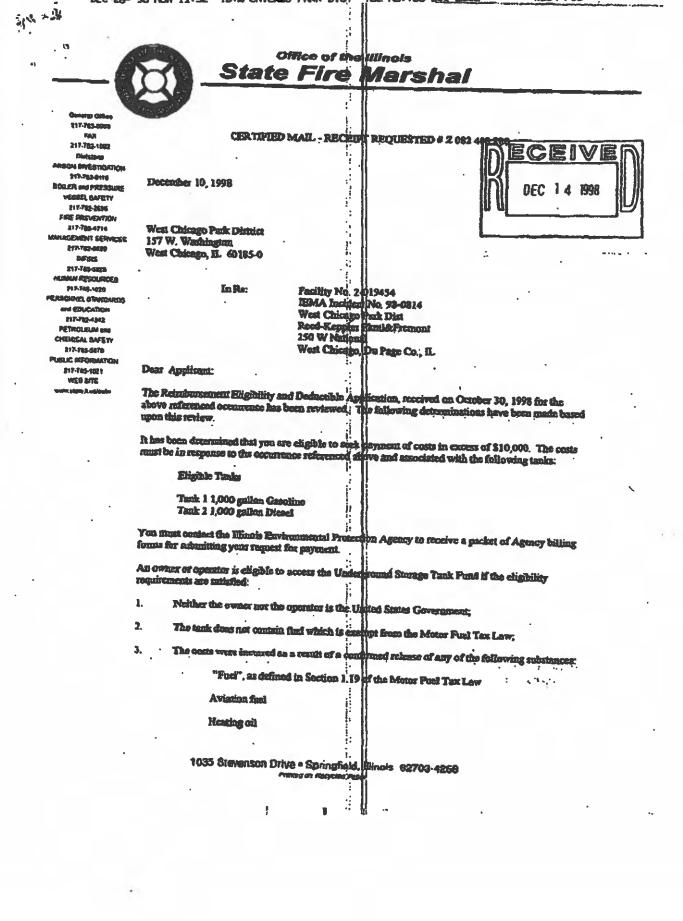
Don Brown, Clerk Illinois Pollution Control Board 60 E. Van Buren Street Suite 630 Chicago, IL 60601 don.brown@illinois.gov

Adam B. Simon Ancel Glink, P.C. 175 E. Hawthorn Parkway, Ste. 145 Vernon Hills, IL 60061 <u>asimon@ancelglink.com</u> Bradley P. Halloran, Hearing Officer Illinois Pollution Control Board 60 E. Van Buren Street, Ste. 630 Chicago, IL 60605 <u>brad.halloran@illinois.gov</u>

Vevgeniy Bolotnikov Ancel Glink, P.C. 175 E. Hawthorn Parkway, Ste. 145 Vernon Hills, IL 60601 <u>ebolotnikov@ancelglink.com</u>

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, Respondent

Rich Kim Assistant Counsel - Division of Legal Counsel Special Assistant Attorney General 1021 North Grand Avenue, East P.O. Box 19276 Springfield, Illinois 62794-9276 217/782-5544 866/273-5488 (TDD) richard.kim@illinois.gov DEC-20-190 Electronic Filing: Received, Clerk's Office 09/20/2024



Electronic Filing: Received, Clerk's Office 09/20/2024

ų

2

2

Kerosene

Used all, which has been refined from crude all used in a motor vehicle, as defined in Section 1.3 of the Motor Part Jaw.

4. The owner or operator registered the band and paid all fees in accordance with the statutory and regulatory requirements of the Gasatine Storage Act.

5. The owner or operator motified the Illinoir Emergency Management Agency of a confirmed release, the costs were incurred after the motification and the costs were a result of a release of a substance listed to this Societa. Case of corrective astion or indemnification incurred before providing that potification and no be eligible for payment.

6. The costs have not already been paid to the owner or operator order a private insurance policy, other written agreement, or coart other.

7. The costs were associated with "convertive action".

This constitutes the final decision as it achieve to your eligibility and deductibility. We reserve the right to change the deductible determination should additional information that would change the demandination become available. An underground starage tank owner or operator may appeal the decision to the Illinois Pollation Control Board (Board), pursuant to Section 57.9 (c) (2). An owner or operator who seeks to appeal the decision data fills potnion for a hearing before the Board within 35 days of the date of nonling of the final decision (3) Illinois Administrative Code 105.102(s) (2)).

For information regarding the filing of an appeal, glease contact;

Darathy Gran, Clerk Ellinois Pollution Control Board State of Ellinois Center 100 West Randolph, Suite 11-500 Chicago, Ellinois 60601 (312)814-3620

If you have any questions regarding the eligibility of deductivility determinations, please contact our Office at (217)785-1020 or (217)785-5878 between 5:00 - 4:00 p.m.

÷

ł

8

Ē

1

i.

÷

Sincerely.

it w

Malin X & I

Melvin H. Smith Division Director Division of Petroleum and Chemical Safety

MHS:

CC.

IEPA Facility File

000003

Resource Consulting, Inc.

115 Ford Street P.O. Box 123

June 21, 2013

Ms. Carol Hawbaker Illinois Environmental Protection Agency Bureau of Land – No. 24 Leaking Underground Storage Tank Section 1021 North Grand Avenue East Post Office Box 19276 Springfield, Illinois 62794-9276

0430905825 - DuPage Co. West Chicago Park District Incident # 980814 Leaking UST Tech File

IEPA - DIVISION OF RECORDS MANAGEMENT RELEASABLE SEP **20** 2013

REVIEWER EAV

RE: LPC No. 043905825 – DuPage County West Chicago/West Chicago Park District 250 West National Street LUST Incident No. 980814 LUST Technical File

Free Product Removal Report/Corrective Action Completion Report RECEIVED

JUL 2 3 2013

Dear Ms. Hawbaker:

On behalf of the West Chicago Park District, Resource Consulting, Inc. is submitting the Corrective Action Completion Report (CACR) to the Illinois Environmental Protection Agency (EPA) for the above-referenced leaking underground storage tank (LUST) incident. The activities were completed according to the Corrective Action Plan (CAP) amendment and associated budget dated March 6, 2009, and approved by the Illinois EPA in correspondence dated July 16, 2009.

Soil and free product remediation activities have been completed in accordance with the approved CAP amendment. The remaining soil and groundwater contamination is addressed through a comprehensive Exposure Route Evaluation that results in the exclusion of the remaining exposure pathways from concern. This report serves as the technical supporting documentation for a reimbursement claim presently being prepared for submission to the Illinois UST Fund for the approved corrective action costs. A budget amendment is also included with this CACR.

The corrective actions were successful in addressing the free product and extreme petroleum contamination present below the property to ensure that human health and safety and the environment are protected. The USTs have been removed, the backfill material and the aquifer smear zone containing

IEPA/BOL

Geneva, Illinois 60134 Phone: (630) 232-9820

2-9820 Fax: (630) 232-9824

significant levels of contamination were removed, and free product removal efforts were successful. Furthermore, the assessment of the current Site conditions using the Tiered Approach to Corrective Action Objectives (TACO) indicates that the Illinois EPA could issue a No Further Remediation (NFR) letter upon the enactment of the City's well prohibition ordinance. Once completed, the recording of environmental land use controls (ELUCs) on the subject property with the NFR letter will prohibit the use of the impacted aquifer as a source of potable water.

The West Chicago Park District requests that the Illinois EPA review the contents of this comprehensive Corrective Action Completion Report to determine the technical adequacy of its findings and conclusions.

Please contact our office with any questions or comments regarding this submission, or if we can be of assistance in any other way.

Sincerely,

Daniel J. Horvath Hydrogeologist/Senior Project Manager

Enclosure: Corrective Action Completion Report

cc: Mr. Jesse Felix, West Chicago Park District

FREE PRODUCT REMOVAL REPORT CORRECTIVE ACTION COMPLETION REPORT

West Chicago Park District Reed-Keppler Park Maintenance Garage 250 West National Street West Chicago, Illinois

> LUST Incident No. 980814 LPC No. 0430905825

FREE PRODUCT REMOVAL REPORT CORRECTIVE ACTION COMPLETION REPORT

West Chicago Park District Reed-Keppler Park Maintenance Garage 250 West National Street West Chicago, Illinois

> LUST Incident No. 980814 LPC No. 0430905825

> > **Prepared for:**

West Chicago Park District 157 West Washington Street West Chicago, Illinois 60185

Prepared by:

Daniel J. Horvath, PG Hydrogeologist/Project Manager

> Resource Consulting, Inc. 115 Ford Street P.O. Box 123 Geneva, Illinois 60134 (630)232-9820

> > June 21, 2013

TABLE OF CONTENTS

A.	Sit	e Id	entification1
B.	Sit	e In	formation1
C.	Re	med	ial (Corrective) Action2
	1.	tec	executive summary that identifies the overall objectives of the corrective action and the hnical approach utilized to meet those objectives. The summary shall contain the following ormation:
		a.	A brief description of the site, including but not limited to a description of the release, the applicable indicator contaminants, the contaminated media, and the extents of soil and groundwater contamination that exceeded the most stringent Tier 1 remediation objectives
		b.	The major components (e.g., treatment, containment, removal) of the corrective action2
		c.	The scope of the problems corrected or mitigated by the corrective action2
		d.	The anticipated post-corrective action uses of the site and areas immediately adjacent to the site
	2.	Ac	description of the corrective action activities conducted including:
		a.	A narrative description of the field activities conducted as part of corrective action
		b.	A narrative description of the remedial actions implemented at the site and the performance of each remedial technology utilized
		c.	Documentation of sampling activities
			ii. Sample preservation and shipment information;
			iii. Analytical procedure information;
			iv. Analytical results, chain of custody and control, and laboratory certification;
			v. Field and lab blanks; and
			vi. Table(s) comparing analytical results to remediation objectives approved for the site (include sample depths, date collected, and detection limits);
		d.	Soil boring logs and monitoring well construction diagrams
	3.		narrative description of any special conditions relied upon as part of corrective action luding:
		a.	Engineered barriers utilized
			i. Type of barrier(s); and
			ii. Map showing location(s) and dimension(s) of barrier(s);

TABLE OF CONTENTS cont.

	b.	Institutional controls utilized15
		i. Copy of fully executed institutional control(s); and
		ii. Map showing location(s) of controls;
	c.	Other conditions, if any, necessary for protection of human health and safety and the environment that are related to the issuance of a No Further Remediation Letter
	d.	Any information required regarding off-site access16
4.		analysis of the effectiveness of the corrective action that compares the confirmation npling results to the remediation objectives approved for the site
5.		conclusion that identifies the success in meeting the remediation objectives approved for site
6.	Ар	pendices containing references and data sources17
7.	Th	e 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;
	b.	Map(s) showing regulated recharge areas and wellhead protection areas;
	c.	Map(s) showing the current extent of groundwater contamination exceeding the most stringent Tier 1 remediation objectives;
	d.	Map(s) showing the modeled extent of groundwater contamination exceeding the most stringent Tier 1 remediation objectives;
	e.	Table(s) listing the setback zones for each community water supply well and other potable water supply wells;
	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
	g.	A certification from a Licensed Professional Engineer or Licensed Professional Geologist that the survey was conducted in accordance with the requirements and that the documentation submitted includes the information obtained as a result of the survey
		(certification of this report satisfies this requirement)
8.	Sit	e map(s) meeting the requirements of 35 Ill. Adm. Code 732.110(a) or 734.440
9.	De	velopment of Tier 2 or 3 remediation objectives, if applicable:
	a.	Equations used;
	b.	Discussion of how input variables were determined;
	c.	Map(s) depicting distances used in equation; and
	d.	Calculations
10.	Pro	operty Owner Summary form

Electronic Filing: Received, Clerk's Office 09/20/2024 RESOURCE CONSULTING, INC.

TABLE OF CONTENTS cont.

TABLES

I.	Analytical Summary-BTEX and PNAs in Soil	8
II.	Analytical Summary-BTEX and PNAs in Groundwater	9
III.	Analytical Summary-BTEX and PNAs in Groundwater	10
IV.	Analytical Summary—BTEX and PNAs in Groundwater	13
V.	Analytical Summary-BTEX and PNAs in Groundwater	. 14

APPENDICES

A Figur	res
---------	-----

- B Waste Manifests
- C Photographs
- D Budget Amendment
- E Laboratory Reports-Soil Quality
- F Soil Boring Logs/Monitoring Well Completion Reports
- G Exposure Route Evaluation
- H Laboratory Reports-Groundwater Quality
- 1 Hydraulic Properties of Aquifer
- J Illinois EPA Forms

Illinois Environmental Protection Agency Leaking Underground Storage Tank Program Free Product Removal Report Corrective Action Completion Report

A. Site Identification

IEMA Incident #	# (6- or 8-digit): 980	814	Illinois EPA LPC#	: 04309	905825
Site Name:	West Chicago Park L	District			
Site Address (No	ot a P.O. Box): 250 W	Vest National	Street		
City: West Chic	ago County:	DuPage	ZI	P Code:	60185
Leaking UST Te	chnical File				

B. Site Information

1.	Has a Corrective Action Plan been approved?	Yes
	Date of approval letter:	July 16, 2009

2. This completion report is being submitted pursuant to:

- a. 35 Ill. Adm. Code 731.166
- b. 35 Ill. Adm. Code 732.300(b)
- c. 35 Ill. Adm. Code 732.404 X
- d. 35 Ill. Adm. Code 734.345

3. Method of remediation chosen:

- a. Soil Excavation and disposal of contaminated soil
- b. Groundwater Physical removal of free product; Pathway Exclusion
- 4. Quantity of contaminated media remediated and/or recovered:
 - a. Soil 215 yds^3 (321.52 tons)
 - b. Groundwater 4,000 gals
 - c. Free Product unknown gals (remaining product removed with soil)

C. Remedial (Corrective) Action

1. Executive Summary

a. A brief description of the Site:

The West Chicago Park District reported incident no. 980814 in April 1998 for releases from 2 underground storage tanks (USTs) located at the Park District's maintenance garage at Reed-Keppler Park. The layout of the park and the location of the garage are shown on Figure 1 in Appendix A. The incident was reported following the identification of petroleum contamination in the soil and groundwater below the Site during the installation of soil borings in the vicinity of the USTs in April 1998. Upon the removal and inspection of the USTs in October 1998, it was determined that the incident was caused by one or more overfills of the UST systems during their period of use. The USTs had contained unleaded gasoline and diesel fuel so the indicator contaminants for the incident are benzene, toluene, ethylbenzene, and total xylenes (BTEX) and polynuclear aromatic hydrocarbons (PNAs).

Resource Consulting conducted a series of Site Investigations between 1999 and 2008 to delineate the extent of soil contamination, groundwater contamination, and free product resulting from the release. Figures 1 and 2 in Appendix A display the inferred extents of soil contamination and groundwater contamination, respectively, based on the results of the investigations. Since the completion of the perimeter monitoring wells in 2002, no significant migration of the contamination has been observed.

b. The major components of the corrective action:

Since 1998 the corrective actions entailed the removal of the USTs present, the excavation and disposal of contaminated soil and backfill material, the removal of all free product from the subsurface, and the evaluation of the remaining site conditions using the methods outlined in 35 III. Adm. Code Part 742: Tiered Approach to Corrective Action Objectives (TACO).

c. The scope of the problems corrected or mitigated by the corrective action:

The corrective actions addressed all of the remaining project concerns—soil contamination, groundwater contamination, and the presence of free product. Once all of the necessary institutional controls are in place, the Illinois Environmental Protection Agency (EPA) can issue the No Further Remediation (NFR)

letter for the incident.

d. The anticipated post-corrective action uses of the Site and areas immediately adjacent to the Site:

Reed-Keppler Park is a public facility operated by the West Chicago Park District and owned by the City of West Chicago, Illinois. The park is currently and will continue to be the site of various playing fields, a public pool, a picnic area, and other amenities. The adjacent property to the south is owned by the Exelon Corporation and will remain a public bicycle trail for the foreseeable future.

2. Description of Corrective Action Activities

a. Narrative description of field activities:

Prior corrective actions at the Site consisted of the 1998 removal of the USTs, the excavation and disposal of contaminated backfill material, and periodic manual free product removal. These actions were documented in previous reporting to the Illinois EPA. A narrative description of the most recent Site activities in 2009 follows.

Soil Remediation and Free Product Removal

In 1998 during the initial phases of the project, a representative of Resource Consulting collected a soil sample to undergo waste characterization analyses. The soil was placed in a 16-ounce clear glass jar fitted with a Teflon[®]-lined lid, placed on ice, and transported to First Environmental Laboratories, Inc. of Naperville, Illinois. The sample underwent the following analyses: open cup flash point, paint filter, the presence of phenol substances, and the presence of lead using the toxicity characteristic leaching procedure (TCLP). These analytical results were deemed acceptable for use with the new landfill disposal application completed for Republic Waste in September 2009 for the most recent corrective actions.

From November 4 through November 6, 2009, the approved corrective action activities were performed at the Site. Personnel from Resource Consulting and Accurate Tank Construction, Inc. of North Aurora, Illinois, were present to complete the activities. On November 4, 2009, the asphalt, concrete, and clean overburden covering the remediation area were removed. The asphalt was handled as waste and transported to a recycling facility for proper reuse. The concrete and the clean overburden were stockpiled on-site for later return to the final excavation.

The excavation and transport of the contaminated material was conducted on November 5, 2009. The material was transported to the landfill operated by Republic Services, Inc. in Morris, Illinois. Approximately 215 cubic yards of contaminated soil (321.52 tons) containing the remaining free product and elevated levels of petroleum contamination were removed from the Site. During the operation, approximately 4,000 gallons of contaminated water were removed by North Branch Environmental of Roselle, Illinois. Copies of the waste manifests for both the soil and water are included in Appendix B of this report.

Clean backfill material was transported to the Site at the completion of the excavation and transport of the contaminated soil. The stockpiled overburden was returned to the excavation first followed by the imported backfill material. Although the stockpiling of overburden was conducted in accordance with the approved Corrective Action Plan (CAP), i.e., the soil from grade to a depth of 5 feet was set aside for reuse as shown in the photographs in Appendix C, a total of 389 tons of clean backfill were imported to the Site to complete the filling of the excavation. This quantity exceeded the total quantity of soil removed from the Site, 321.5 tons, by 67.5 tons. Approximately 20 tons of this difference may be attributed to replacing the volume of the asphalt that was removed from the Site. It is suspected that the remaining 47.5 tons was necessary for the following reasons:

- The stockpiled overburden was mostly dry sand so the gravel backfill mixed with the native sand. In essence, where the 2 materials mixed, the sand filled the matrix of the gravel so that volume was lost during the filling operation.
- During the corrective actions, approximately 4,000 gallons of water were pumped out to ensure that all of the free product and the product-laden soil were removed. This volume was partially replaced by backfill material since the water table did not reach equilibrium during the 3 days of work at the Site.

The budget amendment in Appendix D reflects the increase in backfill needed to complete the project. Also reflected in the amendment is the increase in water removed from the excavation required to effectively complete the corrective actions to meet the minimum requirements of the Illinois Leaking UST Program.

Soil Sampling & Laboratory Analyses

Soil samples were collected from the sidewalls of the final remedial excavation on November 5, 2009, in accordance with the approved CAP and the requirements of the Illinois Leaking UST Program. The

locations of the sampling points are shown on Figure 3 in Appendix A. At each sampling location, the bucket of the backhoe retrieved a large portion of the soil representing the sampling area. A portion of this large sample that did not contact the backhoe bucket was collected using a clean trowel. All of the samples were placed on ice following collection until reaching the laboratory.

Three (3) representative samples of the stockpiled material were also collected to confirm its condition. These samples were collected manually using vinyl sampling gloves; random grab samples of the stockpiled soil were placed into appropriate containers and placed on ice for transport to the laboratory.

In conjunction with the installation of 2 replacement monitoring wells described below, a discrete soil sample was collected from each soil boring to aid in defining the remaining Site conditions following the corrective actions. At each location, a sample of the soil was retrieved from a stainless steel split-spoon sampler, placed into appropriate sampling containers, and placed on ice.

The soil samples were submitted with chain-of-custody documentation to First Environmental Laboratories, Inc. to undergo analysis for the presence of BTEX using SW-846 analytical methodology 8260B and PNAs using method 8270C. A copy of the laboratory report for these samples that includes a copy of the chain-of-custody information is included with this report as Appendix E. The results of the laboratory analyses for all of the samples are presented later in this document.

Installation of Replacement Monitoring Wells

On November 25, 2009, in accordance with the approved CAP, a monitoring well designated RW-16a was installed in the center of the final excavation for the purpose of determining the ramifications of the soil and free product removal since 3 monitoring wells used to determine the degree of groundwater contamination near the source were removed during corrective actions.

In conjunction with this event, monitoring well MW-4 was replaced by installing a new well approximately 3 feet to the west of its original location. During one of the Site visits in the past 2 years, a Resource Consulting representative determined that the original MW-4 had its bolt-down cover broken by a snowplow which resulted in the well filling with silt and mud from the surface. The old well has been properly sealed, and the new well, designated MW-4A, was constructed as described below.

The wells were constructed of PVC well screen coupled to flush-threaded PVC riser. The screened portion of each well (0.010 factory slot) was set in a manner suitable to detect the presence of free

product. The annular space around each screen was filled with a granular filter pack to a level approximately 1 foot above the well screen followed by a two-foot bentonite seal. The rest of the open boring was backfilled with bentonite grout to a depth of 2 feet. The wells were set in flush-mount well covers and fitted with locking caps upon their completion. Soil boring logs and monitoring well completion reports for the new wells are included in Appendix F.

Groundwater Sampling and Collection of Elevation Data

On December 14, 2009, Resource Consulting personnel collected groundwater samples from 12 of the monitoring wells present at the Site. The locations of the wells, the layout of the Site, and various project data are included on Figure 2 in Attachment A. The monitoring wells were developed using either a stainless steel bailer fitted with a Teflon[®] bottom-entry check valve or dedicated PVC bailers. Development and purging of the wells entailed the removal of at least 10 gallons of groundwater, equivalent to approximately 5 casing volumes, from each well. Contaminated conditions are known to persist in this region, thus preventing further contamination of the surface or subsurface. The bailers were decontaminated between sampling points following purging and sampling in a manner consistent with Illinois EPA and USEPA protocols.

No free product was observed in any of these wells, thus confirming the efficacy of the free product removal effort completed in conjunction with the soil removal operation.

In conjunction with the sampling of the monitoring wells, the direction of groundwater flow and the hydraulic gradient were determined from additional data gathered from the wells. Specifically, the tops of the monitoring wells were surveyed to a common elevation datum at the Site, and the depth to the water table was measured in each of the wells. These data were used to evaluate the flow conditions below the Site; the evaluation is presented later in this report.

Exposure Route Evaluation

Since groundwater contamination remains below the Site that exceeds certain Tier 1 remediation objectives for the groundwater ingestion exposure route, a TACO evaluation of these conditions has been performed to determine if the requirements of 35 III. Adm. Code Part 742 are sufficiently met for the issuance of an NFR letter. The evaluation of the current aquifer conditions to allow the exclusion of the groundwater ingestion exposure route is included as Appendix G.

b. A narrative description of the remedial actions implemented at the site:

The contaminated soil that contained the remaining free product as well as concentrations of BTEX and PNAs that likely exceeded a number of the Illinois EPA's Tier 1 remediation objectives was excavated and disposed of at a properly licensed Illinois waste disposal facility. Through the removal of this contamination the persisting free product on the water table in the smear zone was addressed, and the threat to potential exposed populations was eliminated.

The exposure route evaluation indicates that the remaining contamination may migrate onto neighboring private property to the south but can be excluded from further concern as an exposure route. This matter is fully addressed in a subsequent section of this report.

c. Documentation of sampling activities:

Soil Quality

Soil sample collection procedures followed Illinois EPA protocol regarding locations and frequency of sampling. The field scientist used SW-846 method 5035 for the collection of the soil samples that underwent analyses for the presence of BTEX. Sample analyses also included those for the presence of PNAs due to the storage of diesel fuel in one of the USTs.

Extreme care was used when preparing samples for laboratory analysis to maintain the integrity of each sample. All sampling equipment used during the field activities was thoroughly cleaned between sampling events to prevent cross-contamination of the respective samples. All of the field activities followed USEPA protocol for environmental sampling.

Tables I and II below summarize the analytical results for the soil samples collected from the perimeter of the UST excavation and the stockpiled backfill material and compares the results to the Tier 1 remediation objectives (ROs) of the Illinois EPA.

				BTEX Sidewalls	Table I ytical Suma and PNAs of Final Ex lues in mg/l	in Soil cavations					
Sample ID	NW-2	Illinois EPA Tier 1 Objectives									
Sampling Date				November	5, 2009				Ingestion	Inhalation	Groundwater Ingestion
Benzene	0.297	0.0279	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.050	12	0.8	0.03
Toluene	<5.000	<0.500	<0.0050	<0.0050	0.0066	<0.0050	0.0079	<0.050	16,000	650	12
Ethylbenzene	77.600	3.690	0.0234	<0.0050	0.0199	0.0697 [·]	0.0258	0.0277	7,800	400	13
Xylenes, Total	333.000*	13.000	0.0903	<0.0050	0.0758	0.269	0.0835	<0.050	160,000	320	150
Acenaphthene	0.540	0.145	<0.050	<0.050	<0.015	<0.015	<0.050	<0.050	4,700	NA	570
Acenaphthylene	0.191	0.059	<0.050	<0.050	<0.011	<0.011	<0.050	<0.050	NA	NA	NA
Anthracene	<0.050	<0.050	<0,050	<0.050	<0.011	<0.011	<0.050	<0.050	23,000	NA	12,000
Benzo(a)anthracene	0.0337	<0.0087	<0.0087	<0.0087	<0.050	<0.050	<0.0087	<0.0087	0.9	NA	2
Benzo(a)pyrene	<0.150	<0.015	<0.015	<0.015	<0.050	<0.050	<0.015	<0.015	0.09	NA	8
Benzo(b)fluoranthene	<0.110	<0.011	<0.011	<0.011	<0.020	<0.020	<0.011	<0.011	0.9	NA	5
Benzo(k)fluoranthene	<0.110	<0.011	<0.011	<0.011	<0.050	<0.050	<0.011	<0.011	9	NA	49
Benzo(ghi)perylene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NA	NA	NA
Chrysene	<0.050	<0.050	<0.050	<0.050	<0.029	<0.029	<0.050	<0.050	88	NA	160
Dibenzo(a,h)anthracene	<0.200	<0.020	<0.020	<0.020	<0.025	<0.025	<0.020	<0.020	0.09	NA	2
Fluoranthene	<0.060	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	3,100	NA	4,300
Fluorene	0.435	0.126	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	3,100	NA	560
Indeno(1,2,3-cd)pyrene	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	0.9	NA	14
Naphthalene	160.000	2.710	<0.025	<0.025	<0.025	0.048	<0.025	0.091	1,600	170	12
Phenanthrene	0.551	0.180	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NA	NA	, NA
Pyrene	0.120	<0.050	<0.05*0	<0.050	<0.050	<0.050	<0.050	<0.050	2,300	NA	4,200
+	This region	of excavation	re-sampled;	see next sect	ion of report						
*	Concentratio	on exceeds soi	il saturation l	imit; see nex	t section of r	eport.					
TEXT	Concentratio	on exceeds Illi	inois EPA rei	mediation ob	jective.						
TEXT	Remediation	objective exc	ceeded by co	ntaminant co	ncentration.	<u>.</u>					

	S	BT tockpiled Backfi	Table II nalytical Sum EX and PNAs II Material an (values in mg/	in Soil d Base of Excavati	ion		
		Backfill		Base		is EPA Tier 1 O	hinninga
Sample ID	BF-1	BF-2	BF-3	RW-16A 8-9'	mno	IS EFA TREFT O	ojectives
Sampling Date	N	ovember 5, 2009	,,,,,,,,	Nov 25, 2009	Ingestion	Inhalation	Groundwater Ingestion
Benzene	<0.0050	<0.0050	<0.0050	<0.0050	12	0.8	0.03
Toluene	<0.0050	<0.0050	<0.0050	<0.0050	16,000	650	12
Ethylbenzene	0.0075	0.0504	0.0381	<0.0050	7,800	400	13
Xylenes, Total	0.0271	0.190	0.127	<0.0050	160,000	320	150
Acenaphthene	<0.050	<0.050	<0.050	<0.050	4,700	NA	570
Acenaphthylene	<0.050	<0.050	<0.050	<0.050	NA	NA	NA
Anthracene	<0.050	<0.050	<0.050	<0.050	23,000	NA	12,000
Benzo(a)anthracene	<0.0087	0.0096	0.0127	0.0603	0.9	NA	2
Benzo(a)рутепе	<0.015	<0.015	0.018	0.056	0.09	NA	8
Benzo(b)fluoranthene	0.016	0.022	0.029	0.068	0.9	NA	5
Benzo(k)fluoranthene	0.018	0.026	0.032	0.040	9	NA	49
Benzo(ghi)perylene	<0.050	<0.050	<0.050	<0.050	NA	NA	NA
Chrysene	<0.050	<0.050	<0.050	0.056	88	NA	160
Dibenzo(a,h)anthracene	<0.020	<0.020	<0.020	<0.020	0.09	NA	2
Fluoranthene	<0.050	<0.050	<0.050	0.092	3,100	NA	4,300
Fluorene	<0.050	<0.050	<0.050	<0.050	3,100	NA	560
Indeno(1,2,3-cd)pyrene	<0.029	<0.029	<0.029	0.032	0.9	NA	14
Naphthalene	0.068	0.051	0.042	<0.025	1,600	170	12
Phenanthrene	<0.050	<0.050	<0.050	<0.050	NA	NA	NA
Pyrene	<0.050	<0.050	<0.050	0.070	2,300	NA	4,200

Contamination Detected in East Sidewall

In response to the detection of elevated levels of benzene, ethylbenzene, total xylenes, and naphthalene in the final excavation sample from the east sidewall (sample EW-1), additional samples were collected from the region east and south of the eastern extent of the remedial excavation. The samples were collected from the soil boring installed to replace a monitoring well as well as from hand auger borings installed when it was realized that the total xylenes concentration in sample EW-1 exceeded the chemical's soil saturation limit. These conditions were discussed with the Illinois EPA project manager in electronic correspondence in December 2011 and January 2012.

The data are presented in the following table. The sampling locations are displayed on Figure 3 in Appendix A.

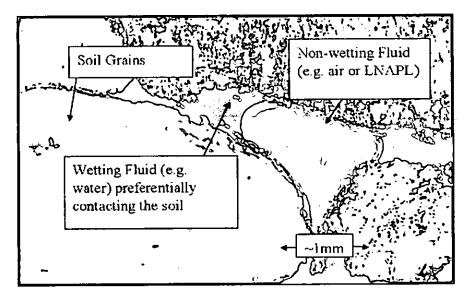
	Additional S	Table III Analytical Summary BTEX in Soil Sampling of Southeastern Re (values in mg/kg)	gion of Excavation		
Sample ID	EW-1 4-5*	RW-4A 4-6'	WCPD-1 4-5'	EW-1A 4-5'	Remediation
Sampling Date	November 5, 2009	November 25, 2009	February 21, 2012	March 7, 2012	Objective
Benzene	0.297	0.49	<0.005	<0.005	0.03
Toluene	<5.000	<0.500	<0.005	<0.005	12
Ethylbenzene	77.600	3.070	<0.005	<0.005	13
Xylenes, Total	333.000	9.24	<0.005	<0.005	5.6
Notes	Additional data from this area indicates this sample is not representative of area	Additional data indicates this sample represents impact from groundwater	These data represer sample l		
TEXT	Concentration exceeds Illinois	EPA remediation objective.			

In conjunction with its presentation graphically on Figure 3 in Appendix A, the data in Table III above demonstrate 3 points:

- 1) The soil contamination below the Site has been fully characterized through the collection of the additional soil samples.
- 2) The data collected in February and March 2012 indicates that the detection of benzene in the soil sample from RW-4A in November 2009 was likely representative of the conditions resulting from the presence of groundwater contamination at that location. This well is also the only remaining location of groundwater contamination below the Site, and the soil contamination is not connected laterally to the original source area. Significant changes in water table elevations seasonally and during recent drought and flood periods have created a significant smear zone at this depth where groundwater contamination is present.
- 3) The data from sample EW-1 does not represent the conditions in this region of the excavation. Although the free product has persisted in the subsurface for over 15 years including the entire time that the Site characterization efforts were performed, there has never been a detection of any fuel component that exceeded the chemical's soil saturation limit. The additional sampling conducted in response to the analytical results (samples WCPD-1 and EW-1A) could not duplicate the data; in fact, the samples from near the original EW-1 location contain no BTEX

contamination at all which correlates with the other excavation data better than with the EW-1 and RW-4A data. Therefore, the exceedance of the soil saturation limit for total xylenes is not a concern for the project.

Current research on the topic of free product persistence in the soils and groundwater suggests that soil sample EW-1 contained entrained gasoline in the pore spaces of the soil sample. This entrainment of residual gasoline results from the physical attraction of droplets of fuel and water to the soil grains and the inability of the residual fuel to flow anywhere in the presence of the air and water surrounding it. This is shown in the following photograph:



It is suspected that the soil sample contained an amount of this entrained fuel that was not representative of the region of the subsurface. This conclusion is supported by the following:

- There has never been a detection of total xylenes of this magnitude anywhere at the project site in 15 years;
- 2) Attempts to verify that this level of xylenes is representative of the region failed; and
- 3) The soil saturation limit is a measure of the potential for free product to be present in the subsurface, but no free product is observed in any monitoring wells since the completion of the corrective actions.

The region where this sample was collected is where the groundwater contamination migrated

during the course of the project. Although the direction was calculated many times to be toward the south/southeast, dissolved contamination migrated toward the east/southeast. This is attributed to disparities in soil types toward the east that facilitated migration in this direction and/or the pumping of groundwater during the past thorium remediation efforts that occurred east of the project area between 1997 and 2002.

In conclusion, the free product has been removed, the soil contamination causing ongoing groundwater contamination has been remediated to an extent that precludes the need for further evaluation using TACO methods, and no further soil remediation or free product removal is warranted.

Groundwater Quality

Prior to development and purging, the monitoring wells were inspected for the presence of free-phase gasoline. No free product was encountered in any of the monitoring wells during the sampling effort.

Discrete samples from the 12 monitoring wells were collected in two 40-ml vials containing hydrochloric acid preservative and fitted with Teflon[®]-lined caps. In addition, a sample was collected in a 1-liter amber jar from the wells at the perimeter of the former UST location. All of the samples were placed on ice and transported with chain-of-custody documentation to First Environmental Laboratories, Inc. The samples underwent analysis for the presence of BTEX and PNAs using SW-846 methods 8260B and 8270C, respectively.

The following tables summarize the groundwater quality data collected following the completion of soil corrective actions. The laboratory reports containing the groundwater quality data are found in Appendix H of this report; the hydraulic properties of the aquifer are discussed in detail in Appendix I.

Sampling Date: December 14, 2009 Units in mg/L														
		-											Illinois El Obje	
Sample ID	RW-1	RW-2	RW-4A	RW-5	RW-6	RW-7	RW-8	RW-11	RW-13	RW-14	RW-15	RW-16A	Class I	Class II
	<0.005	<0.005	1.570	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	0.025
Benzene	<0.005	< 0.005	0.0139	< 0.005	<0.005	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0165	1.0	2.5
Toluene	<0.005	<0.005	1.110	<0.005	<0.0545	< 0.005	<0.005	< 0.005	< 0.0064	0.133	0.018	0.319	0.7	1.0
Ethylbenzene	<0.005	<0.005	1.420	<0.005	0.183	<0.005	<0.005	< 0.005	0.0167	0.374	0.0569	0.947	10.0	10.0
Xylenes, Total	~0.005	-0.005		-0.005		-0.005	-0.000							
Acenaphthene	NTF	NTF	NTF	NTF	NTF	NTF	NTF	<0.010	<0.010	<0.010	<0.010	<0.010	0.42	2.1
Acenaphthylene	NTF	NTF	NTF	NTF	NTF	NTF	NTF	<0.010	<0.010	<0.010	<0.010	<0.010		
Anthracene	NTF	NTF	NTF	NTF	NTF	NTF	NTF	<0.005	<0.005	<0.005	<0.005	<0.005	2.1	10.5
Benzo(a)anthracene	NTF	NTF	NTF	NTF	NTF	NTF	NTF	<0.00013	<0.00013	<0.00013	< 0.00013	<0.00013	0.00013	0.0006:
Benzo(a)pyrene	NTF	NTF	NTF	NTF	NTF	NTF	NTF	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	0.002
Benzo(b)fluoranthene	NTF	NTF	NTF	NTF	NTF	NTF	NTF	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	0.00018	0.0009
Benzo(k)fluoranthene	NTF	NTF	NTF	NTF	NTF	NTF	NTF	<0.00017	<0.00017	<0.00017	< 0.00017	<0.00017	0.00017	0.0008
Benzo(ghi)perylene	NTF	NTF	NTF	NTF	NTF	NTF	NTF	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004		
Chrysene	NTF	NTF	NTF	NTF	NTF	NTF	NTF	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	0.0015	0.0075
Dibenzo(a,h)anthracene	NTF	NTF	NTF	NTF	NTF	NTF	NTF	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.0003	0.0015
Fluoranthene	NTF	NTF	NTF	NTF	NTF	NTF	NTF	<0.002	<0.002	<0.002	<0.002	<0.002	0.28	1.4
Fluorene	NTF	NTF	NTF	NTF	NTF	NTF	NTF	<0.002	<0.002	<0.002	<0.002	<0.002	0.28	1.4
Indeno(1,2,3-cd)pyrene	NTF	NTF	NTF	NTF	NTF	NTF	NTF	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00043	0.0021
Naphthalene	NTF	NTF	NTF	NTF	NTF	NTF	NTF	<0.010	<0.010	0.033	<0.010	0.046	0.14	0.22
Phenanthrene	NTF	NTF	NTF	NTF	NTF	NTF	NTF	<0.005	<0.005	<0.005	<0.005	<0.005		
Рутепе	NTF	NTF	NTF	NTF	NTF	NTF	NTF	<0.002	<0.002	<0.002	<0.002	<0.002	0.21	1.05
NTF	Not tested	for.												
TEXT	Concentra	tion exceed	s remediation	n objectives.										
TEXT	Remediati	on objective	e exceeded b	v contamina	nt concentrat	ion.								

The above data indicate that only one monitoring well, RW-4A, contains concentrations of benzene and ethylbenzene that exceed the applicable remediation objectives. The data, although collected from a recently installed well that replaced a damaged well, correlate with the historical data from this region of the Site. As mentioned previously, the occurrence of significant benzene contamination in this region of the property is likely the result of preferential groundwater flow to the east-southeast potentially through a buried sand channel. It is also possible that the dewatering operations conducted during the thorium remediation project east of the LUST area during the 1990s and early 2000s may have drawn contamination in an easterly direction.

To assist in determining if the remedial actions had a beneficial effect on the aquifer conditions over time, another sample was collected from this well on August 20, 2010. These analytical results are presented below.

Table V Analytical Summary BTEX and PNAs in Groundwater Sampling Date: August 20, 2010 Units in mg/L			
		Illinois EPA Tier 1 Objectives	
Sample 1D	RW-4A	Class 1	Class II
Benzene	1.23	0.005	0.025
Toluene	0.0099	0.7	1.0
Ethylbenzene	1.22	1.0	2.5
Xylenes, Total	2.41	10.0	10.0
TEXT	Concentration exceeds remediation objectives.		
ТЕХТ	Remediation objective exceeded by contaminant concentration.		

The groundwater quality data collected 9 months after the completion of the corrective actions suggests that the benzene concentrations remaining in the shallow groundwater are decreasing; during this same interval the toluene concentration slightly increased. Since the vast majority of source material has been removed from the subsurface by the recent corrective actions, it is likely that the contaminant concentrations will continue to decrease over time.

For the purposes of the Exposure Route Evaluation of the current Site conditions, the higher benzene concentration was used in the calculations.

d. Soil boring logs and monitoring well construction diagrams.

Soil boring logs and monitoring well completion reports for the new monitoring wells are included in Appendix F.

3. A narrative description of any special conditions relied upon as part of corrective action including:

a. Engineered barriers utilized:

One of the soil samples collected from the final perimeter of the excavation contained a concentration of total xylenes that exceeded the Tier 1 RO for the inhalation exposure route, but it has been demonstrated that this analytical result is not representative of the conditions remaining in this area of the excavation. Therefore, no engineered barriers are required for this incident.

b. Institutional controls utilized:

- i. Copy of fully executed institutional control(s); and
- ii. Map showing location(s) of controls.

In order for the NFR letter to be issued for this LUST incident, an institutional control consisting of a city-wide well prohibition ordinance will be placed on the property. In accordance with 35 III. Adm. Code Section 742.1005, the NFR letter citing these conditions will then act as the institutional control for these project requirements.

The Exposure Route Evaluation presented later in this document demonstrates that groundwater ingestion can be excluded as a potential exposure route. As of the publication of this report, the West Chicago Park District is working with the City of West Chicago to enact an ordinance that will, at a minimum, prohibit the installation and use of water supply wells within the modeled extent of the groundwater contamination. Resource Consulting will submit the ordinance upon its enactment by the City.

c. Other conditions, if any, necessary for protection of human health and safety and the environment that are related to the issuance of a No Further Remediation Letter:

No other conditions would apply to a request for the incident's NFR letter once the groundwater ingestion exposure route is addressed.

d. Any information required regarding off-site access.

No information is required regarding off-site access at this time. Following the enactment of the ordinance, the Exclon Corporation will be notified of the presence of the contamination whose modeled extent reaches its property to the south in accordance with the TACO regulations. All other parcels within the modeled extent of the groundwater contamination are owned by the City of West Chicago.

4. An analysis of the effectiveness of the corrective action that compares the confirmation sampling results to the remediation objectives approved for the site:

Status of Soil Contamination

A total of 8 confirmation soil samples were collected from the final perimeter of the corrective action excavation. Seven (7) of these samples contained no contamination in excess of the Tier 1 ROs for this incident. The final sample, from the eastern sidewall of the excavation, contained elevated levels of benzene, ethylbenzene, total xylenes, and naphthalene. As discussed previously, these analytical results are not representative of this region of the excavation. Therefore, all soil contamination has been addressed for the incident, and no Tier 2 remediation objectives are necessary.

It is also noted that, should the Illinois EPA be concerned about the soil quality data from samples EW-1 and MW-4A, the Exposure Route Evaluation presented to address the groundwater contamination effectively demonstrates that all contamination remaining at the Site will not cause any exposure concerns once the institutional controls are in place.

Status of Groundwater Contamination

The exceedances of the Tier 1 groundwater ROs presented earlier in this report are addressed through the enactment of a municipal groundwater ordinance, the evaluation of the current groundwater conditions,

and the exclusion of the groundwater ingestion exposure route from consideration based on the ordinance and evaluation. This evaluation is presented in Appendix G.

An ordinance is being prepared by the City of West Chicago that prohibits the installation and use of water supply wells in the City. It will encompass the modeled extent of potential groundwater contamination emanating from this contaminated area, thus effectively preventing exposure to the current and future potential areas of groundwater contamination. The completed ordinance will be submitted to the Illinois EPA for review and approval when it is enacted.

5. A conclusion that identifies the success in meeting the remediation objectives approved for the site:

The resulting data collected after the corrective actions in late 2009 have been evaluated using the methodologies outlined in 35 III. Adm. Code Part 742 as presented in this CACR. Upon the enactment of an ordinance by the City of West Chicago prohibiting the use of potable groundwater supply wells coupled with the results of the groundwater ingestion exposure route evaluation, it has been demonstrated that the requirements of the Illinois Leaking UST Program will be met for the issuance of the Site's NFR letter.

6. Appendices containing references and data sources:

Appendices containing references and data sources are included with this report. A list of the appendices and their contents is included in the table of contents at the start of this report.

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

17

- c. Map(s) showing the current extent of groundwater contamination exceeding the most stringent Tier 1 remediation objectives;
- d. Map(s) showing the modeled extent of groundwater contamination exceeding the most stringent Tier 1 remediation objectives;
- e. Table(s) listing the setback zones for each community water supply well and other potable water supply wells;
- 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
- g. A certification from a Licensed Professional Engineer or Licensed Professional Geologist that the survey was conducted in accordance with the requirements and that the documentation submitted includes the information obtained as a result of the survey (certification of this report satisfies this requirement):

In electronic correspondence on January 19, 2011, the Illinois EPA project manager for the incident, Ms. Carol Hawbaker, confirmed that the well survey conducted previously for this project was sufficient to meet the reporting requirements of this section. No additional research or evaluation was conducted.

8. Site map(s) meeting the requirements of 35 Ill. Adm. Code 732.110(a) or 734.440:

All of the required site maps for this report are included in Appendix A.

9. Development of Tier 2 or 3 remediation objectives, if applicable:

Rather than developing Tier 2 or 3 ROs, Resource Consulting has prepared the following Exposure Route Evaluation to exclude the groundwater ingestion route from further concern.

Please note that, since the ordinance will encompass the entire City of West Chicago and the groundwater contamination level is greater than the smear zone contamination detected in the soil sample from monitoring well MW-4A, the evaluation sufficiently addresses both the soil and groundwater components of the groundwater ingestion exposure route.

a. Equations used:

Groundwater Contamination

The groundwater contamination was evaluated using Equation R26 and its related equations in accordance with 35 III. Adm. Code Part 742 Subpart C: Exposure Route Evaluations. Contamination in the form of benzene and ethylbenzene is present in the groundwater that requires this evaluation. Further details are presented in the following sections, and the calculations are provided in Appendix G.

b. Discussion of how input variables were determined:

The input variables used in the Exposure Route Evaluation were determined in accordance with the guidance that the Illinois EPA has provided over the years on similar projects. The sources of the values meet the requirements of 35 Ill. Adm. Code Part 734 and the LUST Section's requirements to maintain reimbursement eligibility for TACO evaluations. Default values of the variables were used when experience has shown the values are acceptable to the Illinois EPA. Site-specific variable values are used where necessary to ensure that the most accurate results are obtained from the evaluation.

Discussion of the values for variables related to past field activities, e.g., *in situ* hydraulic conductivity and the soil's organic carbon content (f_{oc}), was included in previous reporting to the Illinois EPA. Specifically, the hydraulic conductivity evaluation was included in the May 2003 CACR, and the other site-specific data were presented in the August 2006 CAP amendment. It is also noted that the Illinois EPA requested clarification of some of the soil property data; Resource Consulting addressed the Illinois EPA's concerns in the 2009 CAP amendment approved for the Site activities summarized in this CACR.

c. Map(s) depicting distances used in equations:

All of the maps required by the Illinois EPA for this CACR are presented in Appendix A. Specifically, Figures 4 and 5 in Appendix A depict the distances used in the equations.

d. Calculations:

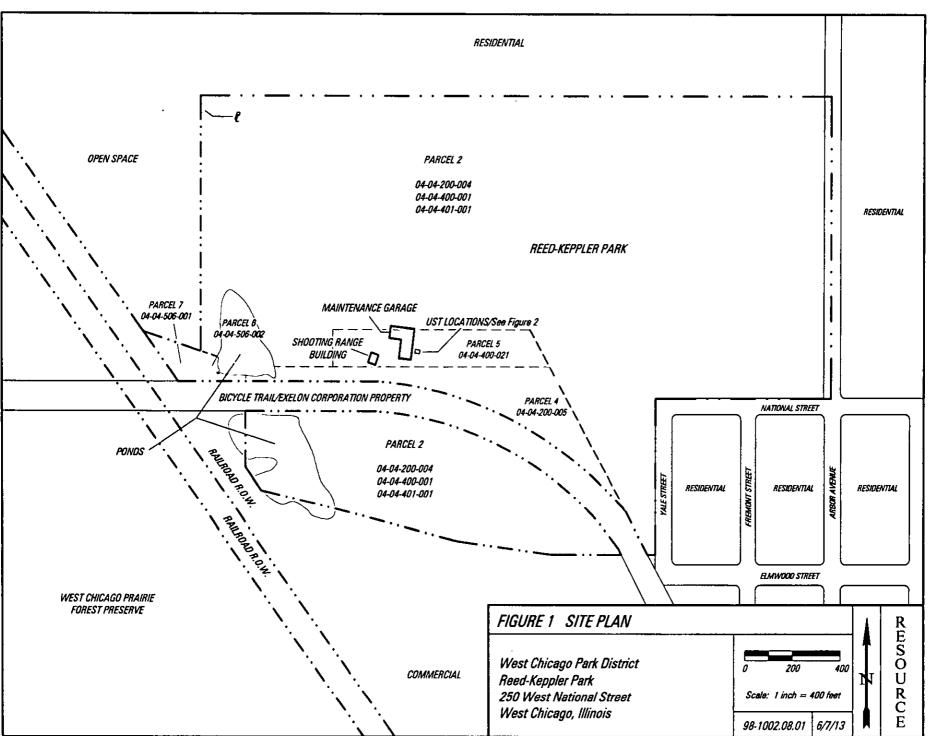
The proposal for the exclusion of the groundwater ingestion exposure route is presented in Appendix G. The documentation includes tables summarizing the input data, the calculations in spreadsheet format, and a discussion of the methods.

10. Property Owner Summary form:

The Property Owner Summary form is included with all of the Illinois EPA's required forms related to the submission of a Corrective Action Completion Report in Appendix J.

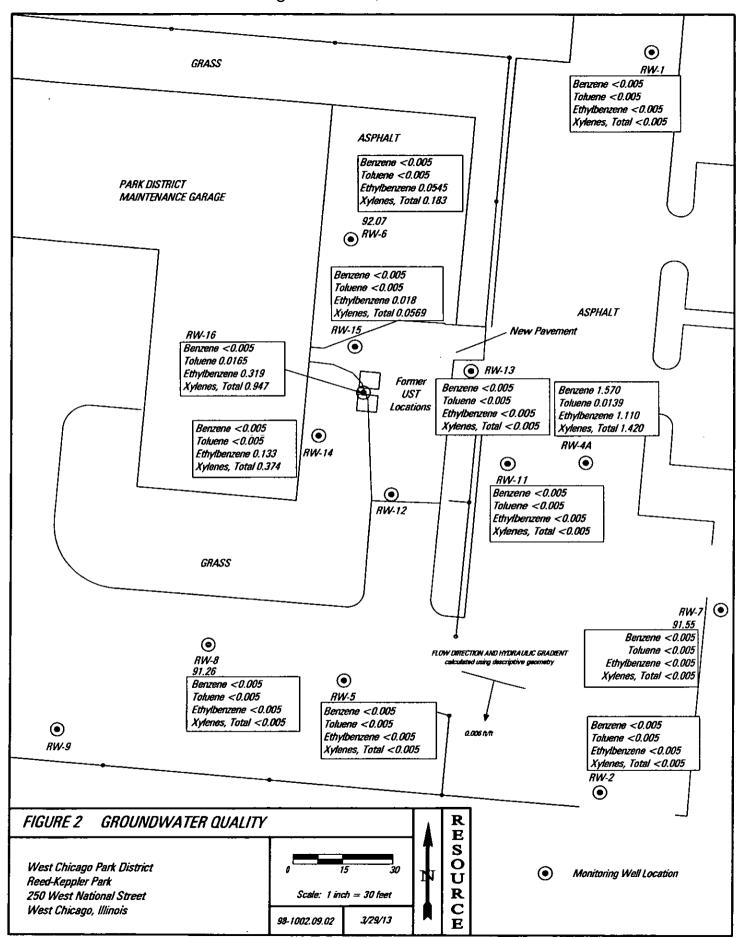
APPENDIX A

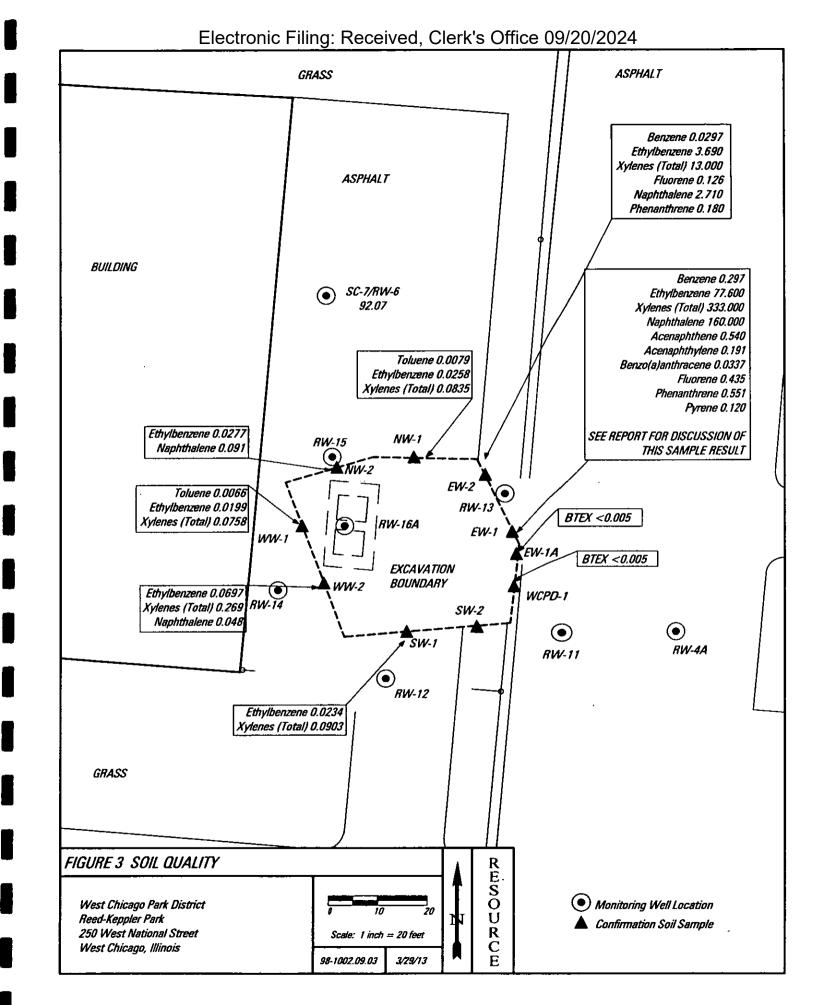
Figures



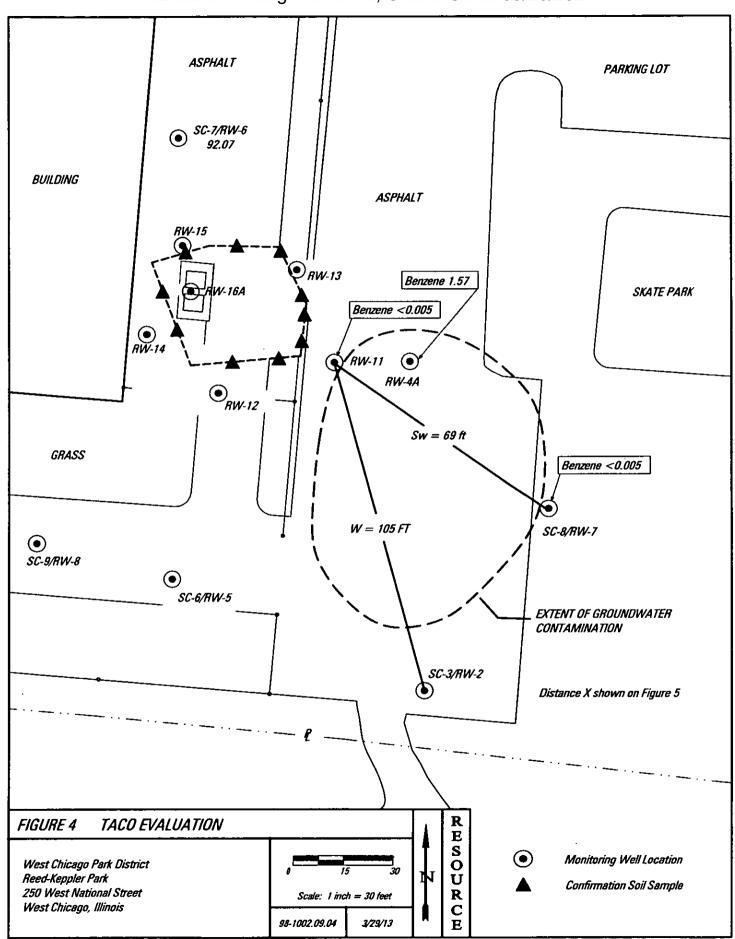
Electronic Filing: Received, Clerk's Office 09/20/2024

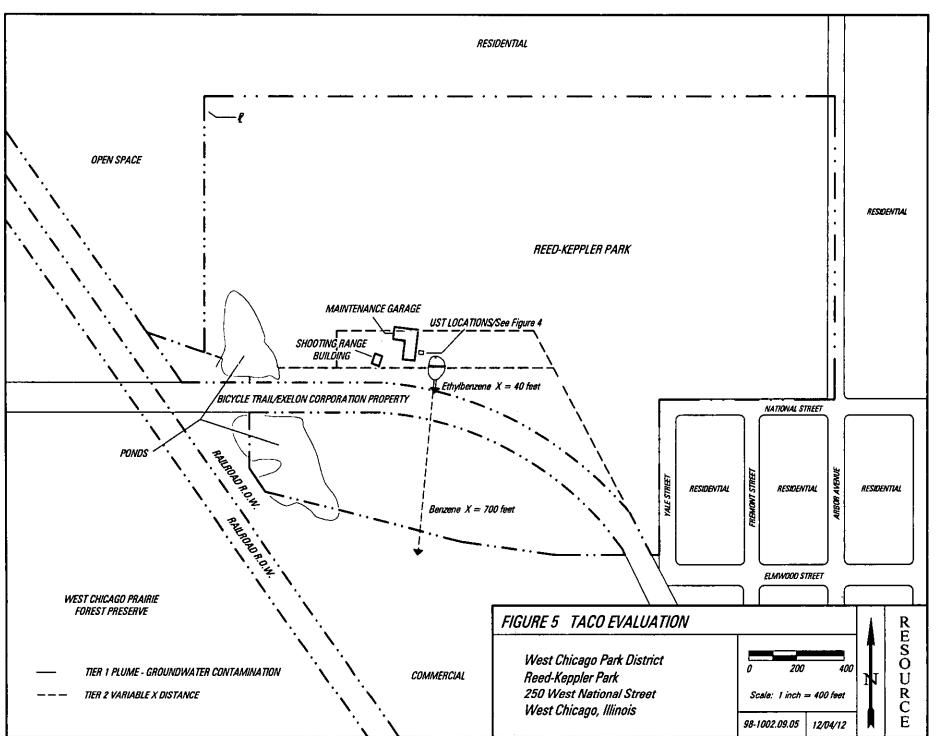
Electronic Filing: Received, Clerk's Office 09/20/2024





Electronic Filing: Received, Clerk's Office 09/20/2024





Electronic Filing: Received, Clerk's Office 09/20/2024

APPENDIX B

Waste Manifests

Dec. 16. 2009 Electronic Filing: Received, Clerk's Office 09/20/2024381 P. 2

Vulcan Construction	CIN ompany livision	PING LOCATION: 22700 W. 1110 NAPERVILLE, 1 (630) 904-111 51972-09	L 60564
	Read importa	WARNING nt health information on p	evere.
		RECAUCIÓN importante para la salud	l en el reverso.
CARRIER	K	RECEIVED BY	
DATE TIME	PLANT		TICKET NO. 271182
11/05/09 14:25 LIMITED WARRANTY AND WAR only that the material sold hereuw set forth in Seller's quotation. SEL FOR ANY PURPOSE, AND AL HEREUNDER, OTHER THAN TH set forth in the specifications de absorption, whether the material to with any plans, other specification sold material as used by custom CONSE QUENTIAL DAMAGE CA ANY DEFECTS IN THE MATERIU	ter existentially complies with i LER MEREBY EXCLUDES AL LL OTHER WARRANTES, IE EXPRESS WARRANTY SY solibed above, Seller makes a finocusus, non-detelevious, s, regulations, ordinances, sta- nar. SELLER SHALL IN NO I USED BY NON-COMPLIANCI	warrands for a period of one (1 Seller's specifications for seid m L WARRANTIES OF MERCHA EXPRESS OR UMPLIED, OF AYED ABOVE. In addition, or no warranty whataoaver with no warranty whataoaver with) year from date of delivery aterial or the specifications NTABILITY AND FITNESS THE MATERIAL SOLD to the extent otherwise respect to specific gravity, mutarial is in contraction
ALL SALEB AND DELIVERIËS M AS EVIDENCED BY SIGNATURI CARRIER IS SOLELY RESPONS GROES WERGHT. CARRIER SH HAS BEEN OVERLOADED SO A TO THE MAXIMUM EXTENT ALL OVERLOADING.	E, OR DEPARTURE FROM & BILE FOR THE ACCURACY O ALL BE RESPONSIBLE FOR S TO RENDER IF OUT OF C GWED BY LAW, CARRIER SH	ELLER'S FACILITY, CARRIER FTHIS VEHICLE'S TARE WEIG NOTIFYING GELLER WHEN OMPLIANCE WITH ANY APPL OMPLIANCE WITH ANY APPL INDEMNIPY BELLER FOR	AOKNOWLEDGEB THAT SHT, AXLE WEIGHTS AND NNY TRUCK OR TRAILER ICABLE WEIGHT LIMITE, R ANY LOSS CAUSED BY
TRUCK YARE AND GROSS WER CUSTOMER 0039606 HERITAGE LOGISTI	HERI -		4457 7
SHIP TO: W CHGO PARK DIST J#ATIOO1 250 W NATIONAL WEST CHICAGO J#ATIOO1 250 W NATIONAL WEST CHICAGO			· · ·
HAULER		TRUCK NO.	
904 ROMAN TRANS	PORT, INC		PICKED UP
CUSTOMER P.O. PRODUCT	<u> </u>	WEIGHER CAR	OL
547 GRADE B GROSS LBs (Sc) Tare Lbs(Sal 1) Net Lbs		s Today
72,920 20 Gross ka Tera ka	6,220 46;700 Net Kg	Net Ma	105.86 Tons Today
33,076 1: Comments	1,893 21,183	21.1828 Loads	96.0346 Today-5
	CASH SALE ONLY		
Per Tan			
A-00221			

612-KN REV 8-05

Materials Co Midwest D Vulcan Constructio	ivision	BARTLETT, Ť (847) 695–Ø 5Ø312–9Ø	
	Read impo	WARNING rtant health informati	on on tevoise.
	Léase la informaci	PRECAUCIÓ	N a salud en el reverso.
CARRIER		RECEIVED BY	· · · · · · · · · · · · · · · · · · ·
91-06/09 TIME 6:	3Ø ^{PL} 993	BARTLETT	TICKET NO 13Ø36
MERCHANIABILITY AND FIL	NESS FUR ANY PURPOSI SIGNADOR AYUGA 7044	E, AND ALL OTHEN WARR	Mone (1) year from date of deliver factions for said material or in IDES ALL WARRANTIES Of ANTIES, EXPRESS OR IMPLIED ITY STATED ABOVE. In addition istes an warrany whatsoever with us, or non-resultre, or wholen in wes, slatutes, or other standard IN ND EVENT BE RESPONSIBLE IANCE OF THE MATERIAL WITH
POR ANY INCIDENTAL OR CO SPECIFICATIONS, OR FOR M	io faid material of used by INSEQUENTIAL DAMAGE VY DEFECTS IN THE MAT	Caused by Non-Compl Erial Bold Hereunder	IN NO EVENT BE RESPONSIBLE IANCE OF THE MATERIAL WITH
CARAIER IS SOLELY RESPON AND GROSS WEIGHT. CARI TRAILER HAS BEEN OVERLO	RE, OR DEPARTURE FRC NSIBLE FOR THE ACCUR RIER SHALL BE RESPON ADED SO AS TO RENDER	M SELLER'S FACILITY, CA ACY OF THIS VEHICLE'S ISIBLE FOR NOTIFYING &	ND Conditions, Whier Acknowledges that Tare Weight, Axle Weight Beller When any Truck of With any Applicable Weight Minify Seller for any loss
TRUCK TARE AND GROSS W		D WITH THE DRIVER ON Sales Order; 764	THE VEHICLE.
	ISTIC5		
ATTON 250 NATION WEST CHICAG		CURATE TANK	
	MA		
497 BP& SON'S		Truck No.: BP91	Detivery PICKED UP
Sustemer P.O. JB# AT	1001	Wingher M	erilyn
547 GRADE 8			·
Stores Los (1) Tare Los 71,060 31	.66Ø 39,4Ø		10ns Today 43.19
11219 NG 11219 NG	,361 Net Kg 7.87		Helto Tona Today 39.1813 Oudu Today - 2
PRODUCT	PAUL		YOTAL
it Top		· ·	

Materials Compar Midwest Divisio Vulcari Construction Ma	Ny Iterials, LP Read import	WARNING	1L 6Ø1Ø3 1337
	Read Import	WARNING	
A Lée		•••••••••••••••••••••••••••••••••••••••	
Léa		ant health informat	ion on reverse.
		PRECAUCIÓ)N la salud en el raverso.
CARRIER		RECEIVED BY	
11/06/09 TIME 7:51	PLANT 393 B	ARTLETT	TICKET NO. 130392
LIMITED WARRANTY AND WARRAM only that the orstand out heround specifications set forth in Setter MERCHARTABILITY AND FITNESS F OF THE MATERIAL SOLD HERELMI except to the extent otherwise set forth respect to spocific gravity, absorption, v material is in conformance with any applicable to customer's bib or to taid FOR ANY INCIDENTAL DR CONSECU SPECIFICATIONS, OR FOR ANY DEF	er substantially com a quotation. SEL OR ANY PURPOSE, SP. OTVER THAN	plies with Scherb spec Ler Hereby Excl And All other ward	Incallons for and malared of the UDES ALL WARRANTIES OF RANTIES, EXPRESS OR IMPLIED
ALL BALES AND DELIVERIES MADE	SUBJECT TO SELLE	R'S GENERAL TERMS A	ND CONDITIONS.
AS EVIDENCED BY SIGNATURE, OR CARRIER IS SOLELY RESPONSIBLE AND GROSS WEIGHT. CARRIER S TRAILER HAS BEEN OVERLOADED & LIMITS. TO THE MAXIMUM EXTENT CAUSED BY OVERLOADING.	Defarture from For the accura Hall be respons ID as to render it Allowed by Law	I SELLER'S FACILITY, C CY OF THIS VEHICLE'S IBLE FOR NOTIFYING I OUT OF COMPLIANCE CARRIER SHALL INDE	ARRIER ACKNOWLEDGES THAT TARE WEIGHT, AXLE WEIGHTS SELLER WHEN ANY TRUCK OR WITH ANY APPLICABLE WEIGHT IMNIFY SELLER FOR ANY LOSS
TRUCK TARE AND GROSS WEIGHTE		WITH THE DRIVER ON Salas Order: 764	The vehicle. 1457
HERITAGE LUGIST			
250 NATIONAL VEST CHICAGO	D PK7 ACC	URATE TANK	
///V			· · · · · · · · · · · · · · · · · · ·
HAST BP& SON'S		Truck No. BP91	Delivery PICKED UP
Gustomer P.O. JB# ATIØØ	1	Weigher	larilyn
547 GRADE 8			<u> </u>
Gross Lizz (1) Tare Lizz (1) 72,580 31.66			Tors Today 87.48
Gross Kg 32.922 14,361	Net Kg 18.561	Nel Mg 18.5610	Metric Tons Today 79.36Ø5
Comments:			Loada Today - 4
Par Yan	CASH BAL		TOTAL
Amouni			
PT 1-8111NG PT 2-0RIVER PT. 3-CUSTOMER (COPY 1 PT 4-CUSTOMER (VMC-1850-40 (D7-2005)	20 <i>FY</i> 2		130392

Materials Construction	отрапу	50312-90	L 6Ø1Ø3
	Read import	WARNING ant health information	on on reverse.
		PRECAUCIÓ n Importante pare la	N salud en el reverso.
CARRIER		RECEIVED BY	
DATE 11/06/09 TIME 9:	05 393 E	ARTLETT	T:CKET NO 130415
LIMITED WARRANTY AND Y only that the material sold specifications set (ath) in MERCHANTABILITY AND FT OF THE MATERIAL BOLD H	YARRANTY DISCLAIMER: 3 hereunder substantiatly com Salter's quotation. SEI TNESS FOR ANY PURPOSE IEREUNDER, OTHER THAN	Der Wemants für e period o ples with Setera epecie LER HEREBY EXCLU AND ALL OTHER WARR THE CUPRESS WARRAN	f one (1) your from date of delivery cations for tabl material or the DES ALL WARRANTIES OF ANTIES, EXPRESS OR HAPLIED, TY STATED ABOVE In edition, also no warranty whatsoever with us, or non-reactive, or whether the own stables or right above for
analicable to customer's lob or	r to said material as used by co CONSEQUENTIAL DAMAGE (ISIDITION GELLER SHALL	N NO EVENT BE RESPONSIBLE IANCE OF THE MATERIAL WITH
AND GROSS WEIGHT. CAP	URE, OR DEPARTURE FROM DNEIBLE FOR THE ACOURA RRIER SHALL BE RESPONS CADED BOAS TO RENDER I EXTENT ALLOWED BY LAW	I SELLER'S FACILITY, C/ CY OF THIS VEHICLE'S IBLE FOR NOTIFYING A FOUT OF COMPLIANCE	RRIER ACKNOWLEDGES THAT TARE WENGHT, AXLE WEIGHTS ELLER WHEN ANY TRUCK OR WITH ANY APPLICABLE WEIGHT
	•	•	
TRUCK TARE AND GROSS V Customer DDS960 HERITAGE LOG	REIGHTS ARE DETERMINED	WITH THE DRIVER ON Seles Order, 764	THE VEHICLE
TRUCK TARE AND GROSS V CUSTARIAN DOSS V HERITAGE LOG	REED PK/ ACC	Selos Order: 764	THE VEHICLE
TRUCK TARE AND GROSS V CUSTOMIN 000960 HERITAGE LOG Ship To: JB# ATI001 250 NATION	REED PK/ ACC	Selos Order: 764	THE VEHICLE
TRUCK TARE AND GROSS V CUSTANIA, 003960 HERITAGE LOG Ship To: JB# ATI001 250 NATION WEST CHICA Hauter 497 BP& SON'S	REED PK/ ACC	Selos Order: 764	THE VEHICLE
TRUCK TARE AND GROSS V Customer 005960 HERITAGE LOG Ship To: JB# ATI001 250 NATION WEST CHICA Hauter 497 BP& SON'S Customer P.O. JB# A	REED PK/ ACC	Seles Order: 764 URATE TANK	rne vehicle 457
TRUCK TARE AND GROSS V Customer 005960 HERITAGE LOG Ship To: JB# ATI001 250 NATION WEST CHICA 497 BP& SON'S Customer P.O. JB# A Product 547 GRADE 8	REED PK/ ACC	Selies Groer, 764 URATE TANK Iffuct No. BP91 Weigher M	Delivery Type PICKED UP arilyn
TRUCK TARE AND GROSS V Customer 005960 HERITAGE LOG Ship Tic JB# ATI001 250 NATION WEST CHICA 497 BP& SON'S Customer P.O. JB# A Product 547 CRADE 8 Gross Lbs (17) Thre Lbe 72,880 3	REED PK/ ACC AL GO TIØØ1	Selies Order: 764 URATE TANK Iffuct No. BP91 Weigher M Net Torus 20.61	Delivery 1920 PICKED UP arilyn Tana Tudday 131.68
TRUCK TARE AND GROSS V Customer 003960 HERITAGE LOG Ship To: JB# ATI001 250 NATION WEST CHICA 497 BP& SON'S Customer P.O. JB# A Product 547 GRADE 8 Gross Los (1) Thre Los 72,880 3 Gross Kg Tare Kg	AREIGHTS ARE DETERMINED SISTICS REED PK/ ACC AL GO 1.660 4,361 18.692	Selies Order: 764 URATE TANK Inuck Mo. BP91 Weigher Met Toms 20.61 Nat Mg 18.6971	Image: Second state Image: Second state Image: Second state Image: Second state Image: Tana Tooday
TRUCK TARE AND GROSS V Customer 005960 HERITAGE LOG Ship To: JB# ATI001 250 NATION WEST CHICA 497 BP& SON'S Customer P.O. JB# A Product 547 GRADE 8 Gross Lbs (1) Thre Lbe 72,880 3 Gross Kg 33.058 1	REED PK/ ACC AL GO TIØØ1 (1) Nel (60 41,221 Nel Kg	Selies Order: 764 URATE TANK Inuck Mo. BP91 Weigher Met Toms 20.61 Nat Mg 18.6971	The vehicle 457 Dolivery 1900 PICKED UP arilyn Tans Tuddy 131.68 Metris Tone Today 119.4581

Vuic Materials C		BARTLETT, I (847) 695-Ø	l 6ø1ø3
Midwest D Vulcan Constructi		50312-90	
	Read Import	WARNING ant health information	on on reverse.
		PRECAUCIÓ n importante para la	N satud en el reverso.
CARRIER		RECEIVED BY	
ŶĨ [€] /Ø6/Ø9 [™] ĨØ:	24 P\$\$ B	ARTLETT	TICKET NO 130444
LIMITED WARRANTY AND W only that the matarial sold specifications set forth in MERCHANTABILITY AND FT	VARPANTY DISCLAIMER: Sa herounder substantially comp Sefer's quotation. SEL INESS FOR ANY PURPOSE, THESS FOR ANY PURPOSE,	Uer warranis for a period o Mass with Seller's specia LER HEREBY EXCLU AND ALL OTHER WARRA WE EVERESS WARRAW	fons (1) visar from date of dailwary cations for said material or the DES ALL WARRANTIES OF ANTIES, EXCREDS OR IMPLIED, TY STATED ABOVE. In addition, alkos no warranty whatsoever with us, or son-cascine, or whather the cas, statutes, or other standards NO EVENT BE RESPONSIBLE INDE OF THE MATERIAL WITH
except to the extent of analysis respect to specific gravity, eas material is in conformance w	set forth in the specifications (orplion, whether the maledial b (th any plans, other specifical	lescribed above, Seller m Impouvus, non-deleterto- lons, regulations, ordinan	akos no warraniy whatsoever with us, or non-coacive, or whether the osa, siakdas, or other siandards
applicable to culturnat's job on FOR ANY INCIDENTAL OR C SPECIFICATIONS, OR FOR A	no soid material as used by ou ONSEQUENTIAL DAMAGE C INY DEPECTS IN THE MATER	stonier. SELLER SHALL AUSED BY NON-COMPL NAL SOLD HEREUNDER	n no event be responsible Ance of the Material with
AS EVIDENCED BY SIGNATI CARRIER IS BOLELY RESPO AND GROSS WEIGHT. CAP TRALER HAS BEEN OVERL	DN8/BLE FOR THE ACCURAC RRIER SHALL BE RESPONS DADED 30 AS TO RENDER IT EXTENT ALLOWED BY LAW,	SELLER'S FACILITY, CA CY OF THIS VEHICLE'S BLE FOR NOTIFYING S OUT OF COMPLIANCE Y	RRIER ACKNOWLEDGES THAT TARE WERGHT, AXLE WERGHTS ELLER WHEN ANY TRUCK OR WTHANY APPLICABLE WEIGHT MIFY SELLER FOR ANY LOSS
	NEIGHTS ARE DETERMINED	WITH THE DRIVER ON 1 Sales Order; 764	rhe vehicle. 457
	ISTICS		
Ship To JBY ATION 250 NATION VEST CHICA	REED PK7 ACCU	JRATE TANK	
· · ·	1 M		
	<u> </u>	Truck No. BP91	PICKED UP
HTT BP& SON'S	I		
Customer P.O. JB# A	T1ØØ1		arilyn
Gustomar P.O. JB# A' Product 547 QRADE 8		Welgher Ma	
Freduce 547 CRADE 8 Gross (bs. (1) Tare Lbs 73,Ø6Ø 31	(1) NetLbe 1.660 41,400	Net Tons 20.70	^{Tars Today} 175.50
Clustomer P.O. JB# A Product 547 CRADE 8 547 CRADE 8 3 Gross Ubs 1 Hars Lbs 73,060 3 3 Gross Kg 33.139 Tare Kg		Weigher Ma Net Tons 20.70 Net Mg 18.7787	Nors Foday
Gustomer P.O. JB# A' Product S47 GRADE 8 S47 GRADE 8 Tare Lbs 73,060 Tare Lbs 31 Gross Kg 31.139 Tare Kg 33.139 Tare Kg 14	(1) NetLbs 1.660 41,400	Weigher Ma Net Tons 20.70 Net Mg .7767	Tars Today 175.50 Metric Torns Today 159.2109
Gustomer P.O. JB# A Product S47 GRADE 8 Gross Ubs (1) Tare Lbs 73,060 31 Gross Kg 33.139 Tare Kg 33.139 14	(1) 1.660 41,400 1.361 18.779	Weigher Ma Net Tons 20.70 Net Mg .7767	Tors Today 175.50 Metric Tons Today 159.2109 Oads Today - 8

•

TICKET NO. 130474 TICKET NO. 100774 TICKET NO. 10
TICKET NO. 130474 TICKET NO. 130474 Defied of one (1) year from date of delivery specifications for seld material or the specifications for seld material or the EXCLUDES ALL WARRANTIES OF WARRANTES ALL WARRANTES IN COMPLANCE OF THE MATERIAL WITH INDER, RMS AND CONDITIONS. ITY, CARRIER ACKNOWLEDGES THAT OLES TARE WEIGHT, AXLE WEIGHTS MAGE WITHANY APPLICABLE WEIGHT INDEMNIFY SELLER FOR ANY LOSS R ON THE VEHICLE: 76445
And a constraints and a set of delivery specifications for seld material or the EXCLUDES ALL WARRANTIES OF WARRANTIES, EXPRESS OR IMPLIED, IRRANTY STATED ABOVE. In stdiling, teller makes no warranty whetboover with abstrivus, or non-reactive, or whether the ordinances, statudes, or other standards SHALL IN NO EVENT BE RESPONSIBLE COMPLIANCE OF THE ANATERIAL WITH ROBER, RMS AND CONDITIONS. ITY, CARRIER ACKNOWLEDGES THAT CLES TARE WEIGHT, AXLE WEIGHTS ANCE WITH ANY APPLICABLE WEIGHT ANCE WITH ANY APPLICABLE WEIGHT UNDEMNIFY SELLER FOR ANY LOSS R ON THE VEHICLE: 764457
And a constraints and a set of delivery specifications for seld material or the EXCLUDES ALL WARRANTIES OF WARRANTIES, EXPRESS OR IMPLIED, IRRANTY STATED ABOVE. In stdiling, teller makes no warranty whetboover with abstrivus, or non-reactive, or whether the ordinances, statudes, or other standards SHALL IN NO EVENT BE RESPONSIBLE COMPLIANCE OF THE ANATERIAL WITH ROBER, RMS AND CONDITIONS. ITY, CARRIER ACKNOWLEDGES THAT CLES TARE WEIGHT, AXLE WEIGHTS ANCE WITH ANY APPLICABLE WEIGHT ANCE WITH ANY APPLICABLE WEIGHT UNDEMNIFY SELLER FOR ANY LOSS R ON THE VEHICLE: 764457
WARAIN TIES, EAPHEDS ON BAPLIED, IRRAINTY STATED ABOVE. In addition, teller makes no warranty whetboover with teller makes no warranty whetboover with teller makes, or other than tells SHALL IN NO EVENT HE RESPONSIBLE COMPLANCE OF THE WATERIAL WITH ROBER, RMS AND CONDITIONS. ITY, CARRIER ACKNOWLEDGES THAT CLES TARE WEIGHT, AKLE WEIGHTS ANCE WITH ANY APPLICABLE WEIGHT ANCE WITH ANY APPLICABLE WEIGHT INDEMNIFY SELLER FOR ANY LOSS R ON THE VEHICLE: 764457
RMS AND CONDITIONS. ITY, CARRIER ACKNOWLEDGES THAT CLES TARE WEIGHT, AXLE WEIGHTS ANG SELLER WHEN ANY TRUCK OR ANCE WITHANY APPLICABLE WEIGHT . INDEMNIFY SELLER FOR ANY LOSS R ON THE VEHICLE: 7644457
ITY, CARRIER ACKNOWLEDGES THAT CLE'S TARE WEIGHT, AXLE WEIGHTS ING SELLER WATEN ANY TRUCK OR ANCE WITH ANY APPLICABLE WEIGHT . IRDEMNIFY SELLER FOR ANY LOSS R ON THE VEHICLE:
R ON THE VEHICLE:
76445?
R
•
(
Delivery POCKED UP
Marilyn
Marilyn
Marilyn

×.		۰.			·· · · ·	1
ប់អង់ព		Electror	NO BURNER	aceived, Cle	erk's Office	09/20/2024
日日期日	VUH		BARTLETT.	IL 60103 4		
المشرع ا	Materials C Midwest I	ompany Division	(847) 695	-0337		
	Vulcan Construct		50312-98	<u>η</u>		
				114	001	
- 7 A -		Read im	WARNIN portant health inform			•
÷~.		TAX VISED		Light on reverse		
<u>`</u> ``			PRECAUCI	IÓN		
		: Léase la inform	ación importante par	a la salud en el revi	erso.	
	CARRIER		RECEIVED BY			
•	DATE LONG	<u> </u>				
\sim		:36 PLANT		TICKET NO.	130385 🚕	
1 1 1 1 1 	LIMITED WARRANTY AND	WARRANTY DISCLAL	R: Seller warrants for a per	riod of one (1) year from dz	the of delivery	
0,920	LINGTED WARRANTY AND only that, the material sold specifications set forth 1 MERCHANTABILITY AND F OF THE MATERIAL SOLD except to the extent otherwis respect to specific gravity, a material is in contormity, ab material is in contormation applicable to customer's lab FOR ANY INCIDENTAL OR SPECIFICATIONS, OR FOR	n Seller's quotation.	SELLER HEREBY EN	CLUDES ALL WARR	ANTIES OF ANTI-	
\sim	OF THE MATERIAL SOLD except to the extent otherwise	HEREUNDER, OTHER T	HAN THE EXPRESS WAR	RANTY STATED ABOVE	in addition,	
	respect to specific gravity, at material is in conformance	with any plans, other sp	erial is innocuous, non-date ecifications, regulations, on	derious, or non-reactive, o dinances, statutes, or oth	whether the	
	FOR ANY INCIDENTAL OR	CONSEQUENTIAL DAMA	D Dy Customer. SELLER SH AGE CAUSED BY NON-CO	IALL IN NO EVENT BE RE IMPLIANCE OF THE MAT	SPONSIBLE ERIAL WITH	
r Ni Sirger S	VIT OVICO VND DETIAEKI	ES MADE SUBJECT TO S	SELLER'S GENERAL TERM	MS AND CONDITIONS		
	AS EVIDENCED BY SIGNA CARRIER IS SOLELY RESI AND GROSS WEIGHT: CA TRALER HAS BEEN OVER LIMITS. TO THE MAXIMUM CAUSED BY OVERLOADIN	TURE, OR DEPARTURE	FROM SELLER'S FACILIT	Y CARRIER ACKNOWLE	DGES THAT	
\sim	AND GROSS WEIGHT: CA TRAILER HAS BEEN OVER	VRRIER SHALL BE RES	PONSIBLE FOR NOTIFYI	NG SELLER WHEN ANY		
				1.	RANYLOSS 24	
	TRUCK TARE AND GROSS				<u></u>	
<u>.</u> () .	HERITAGE LO	GISTICS	Sales Order.			
		1 REED PK/	ACCURATE TAN	K	<u> </u>	
	258 NATIO WEST CHIC	NAL			東間道	
<u> </u>	-		·· (`	U2500	2 0	
			······································			
0	Ň	Lat 2	the second second		\sim	
, ·	1	Ŭ.	-		-	
~	Hauler		InuckNot	Delivery Type		
	Customer PO	UCKING SER	Truck Work BWT21	Delivery Type	ED UP	
	JB#	ATIØØ1		Marilyn		
Ô	547 GRADE 8	7		· · · · · ·	Jan 1	
樹粉	Gross Lbs (1) Tare Lb 73,240	25.580 Hat Lbs	660 Net Tons 23.8	Tons Today	.02	
रुम्म म स्ट्रि	Gross Kg Tare Kg	Net Kg	Net Mg	Metric Tons Today		
· _ ·	33.221	11,603 21.	618 21.616		<u>.7995</u>	
	PNODUCT	T HAUL CA	OF SALE ONLY	Loads Tod	<u> </u>	
Õ	Per Ton Amount		* * ***			
				· · · · · · · · · · · · · · · · · · ·	$ \sim $	
	PT 1-BILLING PT 2-DRIVER			130	542 195 - 44	
·	PT. 3-CLISTUMER COPY 1 PT 4- VMC-1850-40 (07-2005)	DUSTOMER COPY 2		טפע	Ö	
<u></u>			新的。就算是这个		· ·	•

	s Company It Division		-#337		
Vulcan Constru	ction Materials; LP	58312-98	04250	04	
	Read imp	WARNIN portant health inform	G nation on reverse		
	Léase la informa	PRECAUC clon Importante pa		everso.	O ⊖
CÁRRIER	W	RECEIVED BY			
	9:45 PLANT		TICKET	130427	
LIGHTED WARRANTY A only that the material: specifications set fort MERCHANTABLITY AN OP.THE MATERIAL SO except to the extent other	WD WARRANTY DISCLAINER Rid I hereunder substantiaan In Selfers, glotestion. DI FITNESS FOR ANY PURPC ID HEREUNDER, OTHER TH INAS Set forth in the specificat A absorption, whether the matter a with any plans, other specificat	R: Seller wantants for a po complies: with Seller's a SELLER HEREBY E DOSE, AND ALL OTHER WAI ONSE, AND ALL OTHER WAI IAN THE EXPRESS WAI dona described above, Se	riod of one (1) year from specifications for said XCLUDES ALL WA KARRANTIES, EXPRE RRANTY STATED ABC Ther makes ho warranty	n date of delivery material: or the RRANTIES OF SS OR IMPLIED, JVE. In addition, whatsoever with	Ŭ.
SPECIFICATIONS, OR P	7, accorption, whether the matter los with any plans, other spec- lob or to said material as used DR CONSEQUENTIAL DAMAG ORANY DEFECTS IN THE M ERIES MADE SUBJECT TO SI	by customer: SELLER SI GE CAUSED BY NON-CO VATERIAL SOLD HEREU	HALL IN NO EVENT BE DMPLIANCE OF THE NDER.	RESPONSIBLE	
AS EVIDENCED BY SIG CARRIER IS SOLELY R AND GROSS WEIGHT. TRALER HAS BEEN OV LIMITS. TO THE MAXI	NATURE, OR DEPARTURE F ESPONSIBLE FOR THE ACC CARRIER SHALL BE RESP ERLOADED SO AS TO REND WUM EXTENT ALLOWED BY	ROM SELLER'S FACILI	TY, CARRIER ACKNON	ALEDGES THAT	
	SS WEIGHTS ARE DETERM		ON THE PERCLE.		
	101 REED PK/ A	CCURATE TAN	<u>к</u>		
250 NAT WEST CH	CACO				Ö
11.330	X S S S S S S S S S S S S S S S S S S S	1		A	8
Hauter	Nur	Designing .	<u>.</u>	· · · · · · · · · · · · · · · · · · ·	
Customer BO	RUCKING SER	BWT2 Weigher	<u> </u>	CKED UP	Ō
Product 547 GRADE	* Atiøø1 8		Marilyn		Q
Gross Lbs (1) Tare 71,829	25.580 46,	240 Net Tons 23	Tons Today	54.80	
Gross Kg Tare	Kg Net Kg		Metric/Tons To	19.4322	
	HAUL		TOTAL		$\frac{2}{2}$
Per Ton Amount	2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -				

With No. Op/20/20/20/20/20/20/20/20/20/20/20/20/20/			
		Materials Company (842) 695-6337	office 09/20/2024
MARCINES WARNING PRECAUCION PRECAUCION <th>قىر يە</th> <th></th> <th>Э.</th>	قىر يە		Э.
PRECAUCION PRECAUCION Leters la información Importanto para la salud en el reverso. TITAGO (89) TITAGO (80) TITAGO (80) TITAGO (80)	• •	Vuican Construction Materials, LP 508312-98	
PRECAUCION PRECAUCION Leters la información Importanto para la salud en el reverso. TITAGO (89) TITAGO (80) TITAGO (80) TITAGO (80)	, <u>mar</u>	ALIUUT	
PRECAUCION PRECAUCION Leters la información Importanto para la salud en el reverso. TITAGO (89) TITAGO (80) TITAGO (80) TITAGO (80)	in the	WADNING	3 0
PRECAUCION Definition of the problem			- 4
Lignes is información importante para la salud en el reverso. CARRIER INTER / 86:28 P3933 BARTLETT TODET NO. COLSPANE" AND PARETAL STORE THAT THE DECEMBER of an International Paratalization of the Paratalization of	\sim	and the second sec	
Lignes is información importante para la salud en el reverso. CARRIER INTER / 86:28 P3933 BARTLETT TODET NO. COLSPANE" AND PARETAL STORE THAT THE DECEMBER of an International Paratalization of the Paratalization of		PRECALICIÓN	D .
		Léase la información importante para la solution ol recordo	,
The second matrix second control of the second of	~	A statut in internation intervaline para la salud en el reverso.	
11/06/09 76:28 733:0 BARTLETT Index No. 139364 Lawren wannammer wind Wannammer State And ALL Officer Schwermicht im ein period of one (1) yest from das Officer Schwermicht im eine seine sein	وہ آج	CARRIER RECEIVED BY	. Q
11/06/09 76:28 733:0 BARTLETT Index No. 139364 Lawren wannammer wind Wannammer State And ALL Officer Schwermicht im ein period of one (1) yest from das Officer Schwermicht im eine seine sein		DATE	
LMTED WARRANTY AND WARRANTY DISCLAMER: Salar vertication of a pointed of configuration of the second of the sec	\sim	11/06/09 06:28 393 BARTLETT	· ·
AS EVDENCED BY SIGNATURE OR DEPARTURE FROM SECTION SCIENT SALE WORkings AND GROSS WEIGHT CARRER SHALL BE RESPONSIBLE FOR NOTFINGS TALEMEDTED AND WEIGHT BALE WEIGHT THER HAS BEEN OVER CARDED SOAS TO REPORT NOT THE STATEMENT AND APPLICABLE WEIGHT THER HAS BEEN OVER CARDED SOAS TO REPORT OUT OF COMPLIANCE WITH ANY APPLICABLE WEIGHT THER HAS BEEN OFFICIAL STATE OFFICIAL STATEMENT AND APPLICABLE WEIGHT THER I TACE LOCI STICS SHE OFFICIAL STATEMENT ALLOWED BY LAW CARRER SHALL INDEMNEY SELLER FOR ANY LOSS OTHER I TACE LOCI STICS SHE OFFICIAL STICKS SHE OFFICIAL STICKS		LIMITED WARRANTY AND WARRANTY DISCLAIMER: Soller warrants for a period of one (1) war from date of date	
AS EVDENCED BY SIGNATURE OR DEPARTURE FROM SECTION SCIENT SALE WORkings AND GROSS WEIGHT CARRER SHALL BE RESPONSIBLE FOR NOTFINGS TALEMEDTED AND WEIGHT BALE WEIGHT THER HAS BEEN OVER CARDED SOAS TO REPORT NOT THE STATEMENT AND APPLICABLE WEIGHT THER HAS BEEN OVER CARDED SOAS TO REPORT OUT OF COMPLIANCE WITH ANY APPLICABLE WEIGHT THER HAS BEEN OFFICIAL STATE OFFICIAL STATEMENT AND APPLICABLE WEIGHT THER I TACE LOCI STICS SHE OFFICIAL STATEMENT ALLOWED BY LAW CARRER SHALL INDEMNEY SELLER FOR ANY LOSS OTHER I TACE LOCI STICS SHE OFFICIAL STICKS SHE OFFICIAL STICKS		only that the material bold hereunder appointably compiles with Seller's specifications for and material or the specifications set, forth in Seller's quotation, SELLER HEREBY FXCI LIDES ALL WARPANTES OF	
AS EVDENCED BY SIGNATURE OR DEPARTURE FROM SECTION SCIENT SALE WORkings AND GROSS WEIGHT CARRER SHALL BE RESPONSIBLE FOR NOTFINGS TALEMEDTED AND WEIGHT BALE WEIGHT THER HAS BEEN OVER CARDED SOAS TO REPORT NOT THE STATEMENT AND APPLICABLE WEIGHT THER HAS BEEN OVER CARDED SOAS TO REPORT OUT OF COMPLIANCE WITH ANY APPLICABLE WEIGHT THER HAS BEEN OFFICIAL STATE OFFICIAL STATEMENT AND APPLICABLE WEIGHT THER I TACE LOCI STICS SHE OFFICIAL STATEMENT ALLOWED BY LAW CARRER SHALL INDEMNEY SELLER FOR ANY LOSS OTHER I TACE LOCI STICS SHE OFFICIAL STICKS SHE OFFICIAL STICKS	<u></u>	MERCHANTABILITY AND FITNESS FOR ANY PURPOSE, AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, OF THE MATERIAL SOLD HEREUNDER, OTHER THAN THE EXPRESS WARRANTY STATED ABOVE to settle	14 (17 18)
AS EVDENCED BY SIGNATURE OR DEPARTURE FROM SECTION SCIENT SALE WORkings AND GROSS WEIGHT CARRER SHALL BE RESPONSIBLE FOR NOTFINGS TALEMEDTED AND WEIGHT BALE WEIGHT THER HAS BEEN OVER CARDED SOAS TO REPORT NOT THE STATEMENT AND APPLICABLE WEIGHT THER HAS BEEN OVER CARDED SOAS TO REPORT OUT OF COMPLIANCE WITH ANY APPLICABLE WEIGHT THER HAS BEEN OFFICIAL STATE OFFICIAL STATEMENT AND APPLICABLE WEIGHT THER I TACE LOCI STICS SHE OFFICIAL STATEMENT ALLOWED BY LAW CARRER SHALL INDEMNEY SELLER FOR ANY LOSS OTHER I TACE LOCI STICS SHE OFFICIAL STICKS SHE OFFICIAL STICKS	بالمبيعة	except to the extent otherwise set forth in the specifications described above. Seller makes no warranty whatsoever with respect to specific gravity, absorption, whether the material is innocuous, non-desterious, or non-residue or whether the	40
AS EVDENCED BY SIGNATURE OR DEPARTURE FROM SECTION SCIENT SALE WORkings AND GROSS WEIGHT CARRER SHALL BE RESPONSIBLE FOR NOTFINGS TALEMEDTED AND WEIGHT BALE WEIGHT THER HAS BEEN OVER CARDED SOAS TO REPORT NOT THE STATEMENT AND APPLICABLE WEIGHT THER HAS BEEN OVER CARDED SOAS TO REPORT OUT OF COMPLIANCE WITH ANY APPLICABLE WEIGHT THER HAS BEEN OFFICIAL STATE OFFICIAL STATEMENT AND APPLICABLE WEIGHT THER I TACE LOCI STICS SHE OFFICIAL STATEMENT ALLOWED BY LAW CARRER SHALL INDEMNEY SELLER FOR ANY LOSS OTHER I TACE LOCI STICS SHE OFFICIAL STICKS SHE OFFICIAL STICKS	10 M	material is in conformance with any plans, other specifications, regulations, ordinances, statutes, or other standards applicable to customer's job or to said material as used by customer. SELLER SHALL IN NO EVENT BE DESCOVERY of	, 1
AS EVDENCED BY SIGNATURE OR DEPARTURE FROM SECTION SCIENT SALE WORkings AND GROSS WEIGHT CARRER SHALL BE RESPONSIBLE FOR NOTFINGS TALEMEDTED AND WEIGHT BALE WEIGHT THER HAS BEEN OVER CARDED SOAS TO REPORT NOT THE STATEMENT AND APPLICABLE WEIGHT THER HAS BEEN OVER CARDED SOAS TO REPORT OUT OF COMPLIANCE WITH ANY APPLICABLE WEIGHT THER HAS BEEN OFFICIAL STATE OFFICIAL STATEMENT AND APPLICABLE WEIGHT THER I TACE LOCI STICS SHE OFFICIAL STATEMENT ALLOWED BY LAW CARRER SHALL INDEMNEY SELLER FOR ANY LOSS OTHER I TACE LOCI STICS SHE OFFICIAL STICKS SHE OFFICIAL STICKS		FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE CAUSED BY NON-COMPLIANCE OF THE MATERIAL WITH SPECIFICATIONS, OR FOR ANY DEFECTS IN THE MATERIAL SOLD HEREUNDER.	
AS EVALENCED BY SIGNATURE OR DEPARTURE FROM SELLER'S FACLIFY CARRIER ACCOMPLETEDES THAT CARRIER IS SOLDY REPORTS ALL DE RESPONSELE FOR INSURVING SELLER WIRKING ANY TRUCK OR TRUER HAS REPORT ALL OR FOR THE ALL OF THE ALL			
Indicest and choices weights are determined with the priver on the rencie. Compare Media Courts 1 Are Determined with the priver on the rencie. Selec Court are 1 Are Determined with the priver on the rencie. Selec Court are 1 Are Determined with the priver on the rencie. Selec Court are 1 Are Determined with the priver on the rencie. Selec Court are 1 Are Determined with the priver on the rencie. Selec Court are 1 Are Determined with the priver on the rencie. The Art 1000 Are Determined with the priver of the the one of the rencie. The Art 1000 Are Determined with the priver of the the of the the of the the of the rencie. The Art 1000 Are Determined with the priver of the the o	•	AS EVIDENCED BY SIGNATURE, OR DEPARTURE FROM SELLER'S FACILITY, CARRIER ACKNOWLEDGES THAT	n in Section All sectors
Indicest and choices weights are determined with the priver on the rencie. Compare Media Courts 1 Are Determined with the priver on the rencie. Selec Court are 1 Are Determined with the priver on the rencie. Selec Court are 1 Are Determined with the priver on the rencie. Selec Court are 1 Are Determined with the priver on the rencie. Selec Court are 1 Are Determined with the priver on the rencie. Selec Court are 1 Are Determined with the priver on the rencie. The Art 1000 Are Determined with the priver of the the one of the rencie. The Art 1000 Are Determined with the priver of the the of the the of the the of the rencie. The Art 1000 Are Determined with the priver of the the o	\sim	AND GROSS WEIGHT. CARRIER SHALL BE RESPONSIBLE FOR NOTIFYING SELLER WHEN ANY TRUCK OR TRAILER HAS BEEN OVERLOADED SO AS TO PENDER IT OUT OF CONTINUES SELLER WHEN ANY TRUCK OR	
Indicest and choices weights are determined with the priver on the rencie. Compare Media Courts 1 Are Determined with the priver on the rencie. Selec Court are 1 Are Determined with the priver on the rencie. Selec Court are 1 Are Determined with the priver on the rencie. Selec Court are 1 Are Determined with the priver on the rencie. Selec Court are 1 Are Determined with the priver on the rencie. Selec Court are 1 Are Determined with the priver on the rencie. The Art 1000 Are Determined with the priver of the the one of the rencie. The Art 1000 Are Determined with the priver of the the of the the of the the of the rencie. The Art 1000 Are Determined with the priver of the the o	، ب <i>خر</i>	LIMITS. TO THE MAXIMUM EXTENT ALLOWED BY LAW, CARRIER SHALL INDEMNIFY SELLER FOR ANY LOSS CAUSED BY OVERLOADING.	0
Construction Salar Diagram 764497 Ship Tic JB# ATL601 REED PK/ ACCURATE TANK JB# ATL601 REED PK/ ACCURATE TANK VEST CHICAGO O425005 "337 B & W TRUCKING SER DECREMENT PICKED UP Customer P.O. JB# ATL601 Weigher Product JB# ATL601 Grow Lbs. (1) Tere Lba 11:603 Commercia 23.49 Weigher Marilyn Method Tons Colar 23.49 Consulta 11:603 21.318 21.318 Method Tons Colar 21.30998 Consulta Consulta Product Consulta Transformer Consulta Transformer Consulta Transformer Consulta State Consulta Consulta Transformer Consulta Transformer Consulta Transformer Consulta Transformer Consulta Transformer Consulta Per Ton Restormer consulta Arround Consulta Per Ton Restormer consulta Arround Consulta Per Ton Restormer consulta Arround Consulta State Consulta Consulta			
Ship To: JB# ATI801 REED PK/ ACCURATE TANK 258 HATIONAL VEST CHICAGO 0425005 WEST CHICAGO 0425005 West 1337 B & W TRUCKING SER 1347 DB# ATI801 1397 Customer PO. JB# ATI801 Vestore 132.951 DB# ATI801 Vestore 132.952 DB# ATI801 Vestore 132.953 DB# ATI801 Vestore 132.951 DB# ATI801 130364	5		
ABAD Ship is JB# ATIG#1 REED PK/ ACCURATE TANK VEST CHICAGO VEST CHICAGO </td <td>บปันิม</td> <td></td> <td></td>	บปันิม		
WEST CHI CAGO 0425005 ************************************		Ship to JB# ATIGBI REED PK/ ACCURATE TANK	-11111
Image: Point Pick Image: Pick Im	5	250 BATIONAL	「見無智」
PST B & W INUCATING SER BWT21 PICKED UP Customer PO. JB# ATI001 Weigher Narilyn Product S47 ORADE 8 Narilyn Narilyn Grose Lbs (1) Tare Lbs (1) Net Lbs 10 ms Today 23.49 10 ms Today Grose Kg 32.913 11.6693 21.319 Net Kg 21.3098 Metric Torts Today 21.3098 Grose Kg 32.913 11.6693 21.319 21.3098 Metric Torts Today 21.3098 Comments: Comments: Control of the second of	. <u> </u>	ALL26006	τŪ
PST B & W INUCATING SER BWT21 PICKED UP Customer PO. JB# ATI001 Weigher Narilyn Product S47 ORADE 8 Narilyn Narilyn Grose Lbs (1) Tare Lbs (1) Net Lbs 10 ms Today 23.49 10 ms Today Grose Kg 32.913 11.6693 21.319 Net Kg 21.3098 Metric Torts Today 21.3098 Grose Kg 32.913 11.6693 21.319 21.3098 Metric Torts Today 21.3098 Comments: Comments: Control of the second of	· · · · · · · · · · · · · · · · · · ·		where y
PST B & W INUCATING SER BWT21 PICKED UP Customer PO. JB# ATI001 Weigher Narilyn Product S47 ORADE 8 Narilyn Narilyn Grose Lbs (1) Tare Lbs (1) Net Lbs 10 ms Today 23.49 10 ms Today Grose Kg 32.913 11.6693 21.319 Net Kg 21.3098 Metric Torts Today 21.3098 Grose Kg 32.913 11.6693 21.319 21.3098 Metric Torts Today 21.3098 Comments: Comments: Control of the second of		DEDRAGHE STATES AND	
PST B & W INUCATING SER BWT21 PICKED UP Customer PO. JB# ATI001 Weigher Narilyn Product S47 ORADE 8 Narilyn Narilyn Grose Lbs (1) Tare Lbs (1) Net Lbs 10 ms Today 23.49 10 ms Today Grose Kg 32.913 11.6693 21.319 Net Kg 21.3098 Metric Torts Today 21.3098 Grose Kg 32.913 11.6693 21.319 21.3098 Metric Torts Today 21.3098 Comments: Comments: Control of the second of	·	1 to the	
PST B & W INUCATING SER BWT21 PICKED UP Customer PO. JB# ATI001 Weigher Narilyn Product S47 ORADE 8 Narilyn Narilyn Grose Lbs (1) Tare Lbs (1) Net Lbs 10 ms Today 23.49 10 ms Today Grose Kg 32.913 11.6693 21.319 Net Kg 21.3098 Metric Torts Today 21.3098 Grose Kg 32.913 11.6693 21.319 21.3098 Metric Torts Today 21.3098 Comments: Comments: Control of the second of			
Customer PO. JB# ATI001 Weigher Narilyn Product 547 ORADE 8 Image: State of the state of th	\sim		
JB# AT1001 Narilyn Product 547 ORADE 8 Gross Lbs (1) Tere Lbs (1) 72,569 25,580 46,989 23,49 Tores Today Gross Kg 32,913 11,6693 21.319 Met Kg 21.3098 21.3098 21.3098 Comments: Comments: Loadts Today - 1 1 Codats Today - 1 1 Per Ton Not Kg Anount Anount 1 1 1 Privation of the code of th	_ \	PICKED UP	\cdot
S47 GRADE 8 Gross Lbs (1) 72,569 25:589 464,988 23.49 Gross Kg 11:693 21.319 21.3998 Comments: 23.49 Per Ton 11:693 Amount 24:3098 PT 16ULING PT 20RYER	:	JB# ATI001 Narilyn	y series National States
Gross Lbs (1) Tare Lbs (1) Net Lbs Net Lbs 23.49 23.49 Gross Kg Jare Kg Jare Kg Net Kg 21.319 21.3098 Metric Torts Today 23.49 Metric Torts Today Gross Kg Jare Kg Jare Kg Net Kg 21.319 Metric Torts Today 21.3098 Comments: Comments: Loadts Today 1 Gross Kg Jare Kg Metric Torts Today 1 Per Ton Propuert Have Comments: Loadts Today 1 Per Ton Provert Have Comments: Tortal Jage A Prisuition of the core of th	\sim		
Image: State of the state	8 à A A	Gross Lbs (1) Hare the 11 Mart I be	Q
Gross Rg 32.913 11.6#3 21.31# Net Ko Metric Ton's Today Commental: 21.31# 21.31# 21.3898 21.3898 Per Ton Propuert Paul Paul Amount Pri telling rf 20000r Pri 4 clistomer copy 1 Pri 1 selling rf 20000r Pri 4 clistomer copy 2 VMC-185049 (07-2005) 14 clistomer copy 2	A R R R A	72,560 25,580 46,989 23,49	
Comments: Per Ton Amount PT 1-BILLING. PT 2-ORIVER PT 1-BILLING. PT 2-O	\sim	Gross tog Net Kg Net Kg Net Kg Net Mg Metric Toris Today	
Per Ton Amount PT 1-BILLING, PT 2-DRIVER PT 1	م ي ر	Commentin	the second s
PT 1-6ILLING. PT 2-ORIVER PT 1-6ILLING. PT 2-ORIVER PT. 3-CUSTOMER COPY 1 PT 4-CUSTOMER COPY 2 VMC-1850-49 (07-2005)		PRODUCT I HATH CARH BALK ORLY LINAWILL	
T 1-BILLING FT 2-ORWER PT 1-BILLING FT 2-ORWER T 3-CUSTOMER COPY 1 PT 4-CUSTOMER COPY 2 VMC-1850-49 (07-2005) 130364	<u> </u>	Per Ton	
PT. 3-CUSTOMER COPY 1 PT 4-CUSTOMER COPY 2	,)~~?	Amount	$\{Q_i\}$
PT. 3-CUSTOMER COPY 1 PT 4-CUSTOMER COPY 2	e		5.4 cr.
VMC-1850-40 (07-2005)	\sim	PT. SCUSTOMER COPY 1 PT 4-CUSTOMER COPY 2	- Handreich - Charles - Ch
and the second		VWIC-1850-40 (07-2005)	16 d

· •	Electronic Electronic Clerk's Office 09/2	0/2
l VU	ELERTLETT. II. 69143	0/2
Materia	La Company (847) 695-6337	
Midwe Vuican Constra	st Division	
vuican consul	Terroli Marenars, The and the second se	
	WARNING	
	Read important health information on reverse	
	PRECAUCIÓN	
	Léase la información Importante para la satud en el reverso.	
CARRIER.	RECEIVED BY	
DATE		
11/06/09	08:43 393 BARTLETT	
UNITED WARRANTY A only that the material	AND WARRANTY DISCLAIMER: Selier warrants for a period of one (1) year from date of delivery sold henaurder substantially complies with Selier's specifications for said material, de the fth in Selier's quotation, SELLER HEREBY EXCLUDES ALL WARRANTIES OF AUD FINESS FOR ANY PURPOSE, AND ALL OTHER WARRANTIES EXPRESS OR IMPLIED; DLD HEREUNDER, OTHER THAN THE EXPRESS WARRANTY STATED ABOVE. In addition, by absorption, whether the material is innocuous, non-deletrolus, or non-reactive, or whether the, new with any plans, other specifications, regulations, ordinances, statutes, or other standards by or to said material as used by customer. SELLER SHALL IN NO EVENT BE RESPONSIBLE CR CONSECUENTIAL DAMAGE CAUSED BY NON-COMPLIANCE OF THE MATERIAL WITH FOR ANY DEFECTS IN THE MATERIAL SOLD HEREUNDER.	
Specifications set for MERCHANTABILITY AL	The Soller's quotation. SELLER HEREBY EXCLUDES ALL WARRANTIES OF	
except to the extent oth	ALU TICKEVINDER, OTHER THAN THE EXPRESS WARRANTY STATED ABOVE. In addition, elvise set tinth in the specifications described above, Seller makes no warranty whetsoever with	
material is in conformat applicable to customer's	in accordance, where the meaning is impollous, non-detections, or non-reactive, or whether the nos with any plans, other specifications, regulations, or improved, statutes, or other standards is so to not a statute as used by carbonary SET LED OULL IN NO STATUTE or other standards	
FOR ANY INCIDENTAL SPECIFICATIONS, OR-	OR CONSECUENTIAL DAMAGE CAUSED BY NON-COMPLIANCE OF THE RESPONSIBLE	
AS EVIDENCED BY SIC CARRIER IS SOLELY I	GNATURE, OR DEPARTURE FROM SELLER'S FACILITY, CARRIER ACKNOWLEDGES THAT, RESPONSIBLE FOR THE ACCURACY OF THIS VEHICLE'S TARE WEIGHT, AXLE WEIGHTS CARRIER SHALL BE RESPONSIBLE FOR NOTIFYING SELLER WHEN ANY TRUCK OR VERLOADED SO AS TO RENDER IT OUT OF COMPLIANCE WITH ANY APPLICABLE WEIGHT IMUM EXTENT ALLOWED BY LAW, CARRIER SHALL INDEMNIFY SELLER FOR ANY LOSS	
TRAILER HAS BEEN OF	VERLOADED SO AS TO RENDER IT OUT OF COMPLIANCE WITH ANY APPLICABLE WEIGHT	
,		
Customer 19390	OSS WEIGHTS ARE DETERMINED WITH THE DRIVER ON THE VEHICLE	
HERITAGE	LOGISTICS Sales Order: 784451	
Ship To: JB# ATI	901 REED PK/ ACCURATE TANK	
250 NAT Vest ch	IONAL HANNI	-
webi Ch		
	- MORE OF COLOR	
06830	March 194	•
	V2	
Haulen (Chinese States)	TRANSFER AND A STATE OF A STATE O	
937 B & W Customer P.O:	TRUCKING SER BUT21 PICKED UP	
JB;	# ATIGG1 Weigher Harilyn	
547 GRADE		
Gross Lbs	Te Lbs (1) Net Lbs Net Tons Today	
72,769 Gross Kg Ten	25.580 47,189 23.59 111.07	
33.003	11,603 21.400 21.4005 100.7610	
Comments;	Loads Today = 5	
Per Ton	HAUL TALL TALL	
Amount		
PT 1-BILLING PT 2-DRIVER PT. 3-CUSTOMER COPY 1 (VMC-1850-40 (07-2005)	PT + CUSTOMER COPY 2 27	
VML:1050-40 007-20055		

*

. . .

		BARTLETT		erk's Office	
Mid	west Division 🚽 🍹	(847) 695-	0337		
Vuicari Con	struction Materials, L	P 50312-90	ALLOOD		•
			<u>04700</u>	0 +	
		WARNING			
		mportant health informa	tion on reverse		
	Prof. 19. Project	PRECAUCIÓ	ĎN 👘		
	Léase la inform	nación importante para	la salud en el rev	erso.	
CARRIER		RECEIVED BY		_	
DATE 11/06/09	TIME 10:40 739	<u>L</u>	TICKET NO		
LINUTED WARRAN	TY AND WADDANTY THE PLAN	BARTLETT		130448	-
pecifications set	TY AND WARRANTY DISCLAIM India old hereunder substantiat farth in Selier's guotation. Y AND FITNESS FOR ANY PUR SOLD HEREUNDER, OTHER 1 otherwise set forth in the specific ravity, absorption, whether the ma meance with any plans, other sp er's lob or to said matchal as use fail OR CONSEQUENTIAL DAM DR FOR ANY DEFECTS IN THE LIVERIES MADE SUBJECT TO	Y complies with Selier's see	t of one (1) year from d	ntertal or the	
DE THE MATERIAL	SOLD HEREUNDER, OTHER 1 Otherwise set forth in the specific	POSE, AND ALL OTHER WAR IMAN THE EXPRESS WARR/	RANTIES, EXPRESS	DR IMPLIED	
especi to specific gr naterial is in confor ipplicable to custom	avity, absorption, whether the ma mance with any plans, other sp er's job or in said metadel	terial is innocuous, non-deleter pecifications, regulations, ordin	makes ho warranty wh lous, or non-reactive, o ances, statutes for oth	etsoever with of whether the	
OR ANY INCIDENT	AL OR CONSEQUENTIAL DAM OR FOR ANY DEFECTS IN THE	AGE CAUSED BY NON-COMT MATERIAL SOLD HERFLINDE	LIN NO EVENT BE RE	SPONSIBLE ERIAL WITH	:
S EVIDENCED BY	LIVERIES MADE SUBJECT TO	SELLER'S GENERAL TERMS	AND CONDITIONS.		
ARRIER IS SOLEL ND GROSS WEIG RAILER HAS BEEN	Y RESPONSIBLE FOR THE AC	CURACY OF THIS VEHICLE	CARRIER ACKNOWLE		
IMM'S TO THE M AUSED BY OVERI	SIGNATURE, OR DEPARTURE Y RESPONSIBLE FOR THE AC MT. CARRIER SHALL BE RES I OVERLOADED SO AS TO REN AVIMUM EXTENT ALLOWED BY OADING.	DER IT OUT OF COMPLIANCE Y LAW, CARRIER SHALL IND	WITH ANY APPLICAE	LE WEIGHT	
NOCK IMAG AND	GROSS WEIGHTS ARE DETERI	WINED WITH THE DRIVER OF	THEVEHICLE.		
HERITAGE	Logistics	Seles Order: 10	4457	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
hip To: JB# AT	1001 REED PK/	ACCURATE TANK	· · · · · · · · · · · · · · · · · · ·	AND A MILLI	
250 NA West C	HICAGO				-
				\odot	
OVICE	TRACK WILL THE	SI		·	
	pere	200		j O	
197 - B. 11 - 17	TORUTIO Com		(Dollars -	<u> </u>	
stomer P.O.	TRUCKING SER	BWT21	Defivery Type PICKE	D UP	
duct	B# ATI001	1	larilyn .	<u> </u>	
47 GRADE	IO Breilbs (I) Net Lbs	Net Tons		-	
	are Lbs (1) Net Lbs 25,580 46; no Kg	780 23.39	Tons Today 198	.89 1111	
93 AAA /	11,603 21.	219 21.2191	Metric Tone Today 189.	1300 ×	
76.022		· · · · · · · · · · · · · · · · · · ·	Loads Toda	- 9 🔀	
92.922	CT HALE CASE	R SALE ONLY			
72.022 Iments: Ton	CT HAUL CAL		TOTAL		
Ton					
			1014		

ij

. .

Witching Electrosign Witching Electrosign Materials Company 22700 W. 111th Midwest Division NAPERVILLE, IL 60564 Vulcan Construction Materials, LP 51972-09)/20/2024
WARNING Read important health information on reverse.	
PRECAUCIÓN Léase la información importante para la salud en el reverso.	
CARRIER RECEIVED BY	
DATE TIME PLANT TICKET NO.	
11/05/09 13:51 361 BOLINGBROOK 271171	
LIMITED WARRANTY AND WARRANTY DISCLAMER: Selier warrants for a period of one (1) year from date of delivery only that the material sold herounder substantially complies with Selier's specifications for said material of the specifications set both in Selier's quotation. Selier MAREBY EXCLUDES ALL WARRANTIES OF MERCHAWTABUTY AND FITNESS FOR ANY PURPOSE, AND ALL OTHER WARRANTES, EXPRESS OR IMPLIED, OF THE MATERIAL SOLD MEREDUNDER, OTHER THAN THE EXPRESS WARRANTY STATED ABOVE. In addition, except to the extent otherwise set both in the specifications described above, Selier maters no warranty wintscovery with respect to specific gravity, theorption, whether the material is innocuous, non-deleterous, or whether the material is in conformance with any plans, other specifications, regulations, condeleterous, or whitther the material is in conformance with any plans, other specifications, regulations, or other standards applicative to customer is lob or to said material as used by customer. SELLER SHALL IN NO EVENT BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSECUENTIAL DAMAGE CAUSED BY NON-COMPLIANCE OF THE MATERIAL WITH SPECIFICATIONS, OR FOR ANY DEFECTS IN THE MATERIAL SOLD HERELINDER. ALL SALES AND DELIVERIES MADE SUBJECT TO SELLER'S GENERAL TERMS AND CONDITIONS. AS EVIDENCED BY SIGNATURE, OR DEPARTURE FROM SELLER'S FACILITY, CARRER ACKNOWLEDGES THAT CARRIER IS BOLELY RESPONSIBLE FOR THE ACCURACY OF THIS VEHICLES TARE WEIGHT, AXLE WEIGHT BAND GROSS WEIGHT. CARRIER SHALL BE RESPONSIBLE FOR NOTIFYING SELLER WHEN ANY TRUCK OR TRALER HAS BEEN OVERLOADED SO AS TO RENDER IT OUT OF COMPLIANCE WITH ANY APPLICABLE WEIGHT LAXE WEIGHT LAW THATS, TO THE MAXIMUM EXTENT ALL DEWED BY LAW, CARRIER SHALL INDEMNIFY SELLER FOR ANY LOSS CAUSED BY OVERLOADENG. TRUCK TARE AND GROSS WEIGHTS ARE DETERMINED WITH THE DRIVER ON THE VEHICLE. CUSTOMER 0039606 HERTI SARE DETERMINED WITH THE DRIVER ON THE VEHICLE. SALES ORDER: 764457 7 HERITAGE LOGISTICS.	
W CHGO PARK DIST J#ATI001 250 W NATIONAL WEST CHICAGO	
J#ATIOOI 250 W NATIONAL WEST CHICAGO Utck	
HAULER 523 R.S. TRUCKING RS5 PICKED UP	
CUSTOMER P.O. WEIGHER CAROL	
PRODUCT 547 GRADE 8	
GROSS LBs (Sc1 Tare Lbs(Sc1 1) Not Lbs NET TONS Tons Today	
Gross kg Tara kg Net Kg Net Han Bender Tara Tara	
32,296 14,070 18,225 18.2253 18.2253 COMMENTS Loads Today - 1	
CASH SALE ONLY	
Per Ten TOTAL	·
Amount	

612-KN REV 8-05

· • •		
Materials Company Midwest Division Vulcan Construction Materials, LP	Clerk's 22700 W. 111th STREET NAPERVILLE, IL 60564 (630) 904-1110 51972-09 (142500)	Office 09/20/2024
Read impor	WARNING tant health information on reverse.]
	PRECAUCIÓN ón importante para la salud en el reverso.	
CARRIER	RECEIVED BY	
DATE TIME PLANT 11/05/09 14:48 361 BOLINGB		
LIMITED WARRANTY AND WARRANTY DISCLAIMER: Se only that the material sold hearsunder substantially complete wi set forth in Solder's quoteston. Sell.ER HEREBY EXCLUDES FOR ANY PURPOSE, AND ALL OTHER WARRANTES FOR ANY PURPOSE, AND ALL OTHER WARRANTES there in the specifications described above. Seller make absorption, whother the material is innocuous, non-deterted absorption, whother the material is innocuous, non-deterted with any plans, other specifications, regulations, ordinarozo, seld material as used by customer. Seller R Skall in N CONSEQUENTIAL DAMAGE CAUSED BY NON-COMPLAN ANY DEECTS IN TUBE MATERIA SOL DEFORMED	ALL WARRANTIES OF IN SECTIONS of the specification ALL WARRANTIES OF MERCHANTABILITY AND FITM 5, EXPRESS OR IMPLIED, OF THE INATERIAL SI STATED ABOVE, in addition, except to the extent other as no warranty, whetboows with respect to specific pre-	ions ESS OLD - wiso L vyty,
ANY DEFECTS IN THE MATERIAL SOLD HEREUNDER. ALL SALES AND DELIVERIES MADE SUBJECT TO SELLED		-OR
AS EVIDENCED BY SIGNATURE, OR DEPARTURE FROM CARRIER IS SOLELY RESPONSIBLE FOR THE ACCURACY GROSS WEIGHT: CARRIER SHALL BE RESPONSIBLE FO HAS BEEN OVER CARRIER SHALL BE RESPONSIBLE FO TO THE MAXIMUM EXTENT ALLOWED BY LAW, CARRIER OVER LOADING. TRUCK TARE AND GROSS WEIGHTS ARE DETERMINED	A SELLER'S FACILITY, CARRIER ACKNOWLEDGES T YOF THIS VEHICLE'S TARE WEIGHT, AXLE WEIGHTS, R NOTIFYING SELLER WHEN ANY TRUCK OR TRAI COMPLIANCE WITH ANY APPLICABLE WEIGHT LIN SHALL INDEMNIFY SELLER FOR ANY LOSS CAUSE WITH THE DRIVER ON THE VEHICLE.	HAT AND LER JBY JBY
CUSTOMER 0039606 HERI HERITAGE LOGISTICS	SALES ORDER: 764457 7	
SHIP TO: W CHGO PARK DIST J#ATIO01 250 W NATIONAL WEST CHICAGO	. K	
J#ATI001 250 W NATIONAL WEST CHICAGO	· · ·	
HAULER 523 R.S. TRUCKING	DELIVERY TYPE	eres to a
	RS91 PICKED UP	<u> </u>
PRODUCT	WEIGHER CAROL	
547 GRADE 8 GROSS LBs (Sc1 Tare Lbs(Sc1 1) Net Lbs	NET TONS Tons Today	
72,900 31,540 41,360 Gross kg Tare kg Net Kg 33,067 14,306 18,76		
Gross kg 33,067 Tare kg 33,067 14,306 Net Kg 18,76		
CASH SALE ON	Loads Today - 7	
Per Tos		
Amount		
812-KN REV 8-05		

Using E lectroision Materials Company Midwest Division Vulcan Construction Materials, LP	Rilingin Received, Clerk's Office 09/20/2024 22700 W. 111th STREET NAPERVILLE, IL 60564 (630) 904-1110 51972-09 0425010	
	WARNING Inthealth information on reverse.	
	RECAUCIÓN importante para la salud en el reverso.	
CARRIER	RECEIVED BY	
DATE TIME PLANT 11/05/09 14:46 361 BOLINGBRO	TICKET NÖ. DOK 271186	
LINITED WARRANTY AND WARRANTY DISCLAMER: Seler w only that the material sold hereunder substantially compiles with Se set forth in Seller's quotation. SELLER HEREBY EXCLIDES ALL FOR ANY PURPOSE, AND ALL OTHER WARRANTIES, EJ HEREUNDER, OTHER THAN THE EXPRESS WARRANTY STA set forth in the specificatione described above, Seller makes no absorption, whether the material is innocuous, non-detaterious, or with any plans, other specifications, regulations, ordinances, statu said material as used by customer. SELLER SHALL IN NO EV CONSEQUENTIAL DAMAGE CAUSED BY NON-COMPLIANCE CONSECUTION THE MATERIAL SUPPORT	and the second state with the post of sporting gravity,	
ANY DEFECTS IN THE MATERIAL SOLD HEREUNDER. ALL SALES AND DELIVERIES MADE SUBJECT TO SELLER'S C		
AS EVIDENCED BY SIGNATURE, OR DEPARTURE FROM SEI CARRIER IS BOLELY RESPONSIBLE FOR THE ACCURACY OF GROSS WEIGHT, CARRIER SHALL BE RESPONSIBLE FOR N HAS BEEN OVERLOADED SO AS TO RENDER IT OUT OF CO. TO THE MAXIMUM EXTENT ALLOWED BY LAW, CARRIER SHA OVERLOADING.	ELLER'S FACILITY, CARRIER ACKNOWLEDGES THAT F THIS VEHICLE'S TARE WEIGHT, AXLE WEIGHTS AND NOTIFYING SELLER WHEN ANY TRUCK OR TRAILER OMFLIANCE WITH ANY APPLICABLE WEIGHT LIMITS. FALL INDEMNIFY SELLER FOR ANY LOSS CAUSED BY	
TRUCK TARE AND GROSS WEIGHTS ARE DETERMINED WIT CUSTOMER 0039606 HERI	- SALES ORDER: 764457 7	
HERITAGE LOGISTICS		
SHIP TO: W CHGO PARK DIST J#ATI001 250 W NATIONAL WEST CHICAGO	2 (12)) 	
J#ATICO1 250 W NATIONAL WEST CHICAGO		
HAULER 523 R.S. TRUCKING	RST PICKED UP	
CUSTOMER P.O.	WEIGHER CAROL	
547 GRADE 8		
72,740 28,080 44,660	NET TONS Tons Today 22.33 128.19	
Grose kg 32,994 12,737 20,257 COMMENTS	Net Mg Metric Tons Today 20.2574 116.2920 Loads Today - 6	
PRODUCT HANN CASH SALE ONLY		:
Per Tou HAID LAX		
612-KN REV 6-05		

Electropic Eiling: Descined Clarkie Office 00/00/2004	
Electronic Filing Received, Clerk's Office 09/20/2024	
Materials Company NAPERVILLE, IL 60564	
Midwest Division (630) 904-1110 Vulcan Construction Materials, LP	
51972-09 8425011	
WARNING Read Important health Information on reverse.	
PRECAUCIÓN Léase la información importante para la salud en el reverso.	
CARRIER RECEIVED BY	
DATE TIME PLANT TICKET NO.	
11/05/09 14:54 361 BOLINGBROOK - 271188	
LIBITED WARRANTY AND WARRANTY DISCLAIMER: Solar ON: LIBITED WARRANTY AND WARRANTY DISCLAIMER: Solar on a period of one (1) year from date of dedivery only that the material solar hereander substantially complete with Solar's specifications for said material of the specifications set forth in Seler's quotention. SELLER HEREBY EXCLUDES ALL WARRANTIES OF MERCHANTABELITY AND FITNESS FOR ANY PURPOSE, AND ALL OTHER WARRANTY STATED ABOVE. In addition, except to the extent otherwise set forth in the specifications described above, Seler's material so warranty with aspect to the extent differences set forth in the specifications, routed above, Seler's no warranty with aspect to the extent differences assorption, whether the material is innocuous, non-deletenous; or non-relative, or whether the material is in conformances set anti-the specifications, contactions, or deletenous; or non-relatives, or other standards andicate to specific or a bottomer's job or to set afforth. Law specifications, settings, or deletenous; or non-relative, or whether the material is in conformances and material as used by customer. SELLER SHALL IN NO EVENT BE RESPONSIBLE FOR ANY INCIDENTIAL OR CONSECUENTIAL DAMAGE CAUSED BY NON-COMPLIANCE OF THE MATERIAL, WITH SPECIFICATIONS, OR FOR ANY DEFECTS IN THE MATERIAL SOLD HEREUNDER.	
ALL SALES AND DELIVERIES MADE SUBJECT TO SELLER'S GENERAL TERMS AND CONDITIONS.	
AS EVIDENCED BY SIGNATURE, OR DEPARTURE FROM SELLER'S FACILITY, CARRIER ACNOWLEDGES THAT CARRIER IS SOLELY RESPONSIBLE FOR THE ACCURACY OF THIS VEHICLE'S TARE WEIGHT, AXLE WEIGHTS AND GROSS WEIGHT, CARRIER SHALL BE RESPONSIBLE FOR NOTIFYING BELLER WHEN ANY TRUCK OR TRAILER HAS BEEN OVERLOADED SO AS TO RENDER IT OUT OF COMPLIANCE WITH ANY APPLICABLE WEIGHT LIMITS. TO THE MAXIMUM EXTENT ALLOWED BY LAW, CARRIER SHALL INDEMNIFY SELLER FOR ANY LOSS CAUSED BY OVERLOADING:	
TRUCK TARE AND GROSS WEIGHTS ARE DETERMINED WITH THE DRIVER ON THE VEHICLE CUSTOMER: 0039606 HERI SALES ORDER: 764457 7 HERITAGE LOGISTICS	
SHIP TO: W CHGO PARK DIST J#ATI001 250 W NATIONAL	
WEST CHICAGO	
J#ATI001 250 W NATIONAL WEST CHICAGO	
HAULER 523 R.S. TRUCKING RS45 DELVERY TYPE PICKED UP	
CUSTOMER P.O. WEIGHER CAROL	
547 GRADE 8	
GROSS LBs (Sc1 Tare Lbs(Sc1 1) Net Lbs NET TONS Tone Today 72,740 31,560 41,180 20.59 169,46	
Gross kg 32,994 Tare kg Net Kg Net Mg Hetric Tons Today 153.7315	
COMMENTS Loads Today - 8	
Per Ten TOTAL	
Amount	

612-KN REV 6-05

	· ·
Wulcan Construction Materials, LP	Indiagnate Clerk's Office 09/20/2024 22700 W. 111th STREET NAPERVILLE, IL 60564 (630) 904-1110 51972-09
	UTZOUZ
Read importa	WARNING nt health information on reverse.
	RECAUCIÓN Importante para la salud en el reverso.
CARRIER	RECEIVED BY
DATE TIME PLANT	TICKET NO.
11/05/09 13:53 361 BOLINGBR	00K 271174 X
LINITED WARRANTY AND WARRANTY DISCLAIMER: Sele only that the matartel sold horeunder substantially complies with set forth in Seler's quotation. SELLER HEREBY EXCLUDES AN FOR ANY PURPOSE, AND ALL OTHER WARRANTIES, HEREUNDER, OTHER THAN THE EXPRESS WARRANTY SI set forth in the specifications described above. Seler matase absorption, whether the matertal is innocuous, non-deleterious, with say plans, other apocifications, regulations, ordinances, sta satio material as used by customer. SellER SHALL IN NO CONSEQUENTIAL DAMAGE CAUSED BY NON-COMPLIANC ANY DEFECTS IN THE MATERIAL SOLD HEREUNDER.	LIWARRANTIES OF MERCHANTABILITY AND FITNESS EXPRESS OR IMPLIED, OF THE MATERIAL SOLD TATED ABOVE. In addition, except to the extent otherwise no waterdry windsoever with respect to gravity.
ALL SALES AND DELIVERIES MADE SUBJECT TO SELLERS	S GENERAL TERMS AND CONDITIONS
AS EVIDENCED BY SKINATURE, OR DEPARTURE FROM & CARRIER IS SOLELY RESPONSIBLE FOR THE ACCURACY O GROSS WEIGHT, CARRIER SHALL BE RESPONSIBLE FOR HAS BEEN OVERLOADED SO AS TO RENDER IT OUT OF C TO THE MAXIMUM EXTENT ALLOWED BY LAW, CARRIER ST OVERLOADING.	SELLER'S FACILITY, CARRIER ACKNOWLEDGES THAT
TRUCK TARE AND GROSS WEIGHTS ARE DETERMINED W	ITH THE DRIVER ON THE VEHICLE.
CUSTOMER 0039606 HERI HERITAGE LOGISTICS	SALE3 ORDER: 764457 7
SHIP TO: W CHGO PARK DIST J#ATI001 250 W NATIONAL	
WEST CHICAGO	
WEST CHICAGO	SA
HAULER 523 R.S. TRUCKING	RS4 DELIVERY TYPE
CUSTOMER P.O.	WEIGHER CAROL
PRODUCT 547 GRADE 8	
GROSSLBs (Sc1 /are Lbs(Sc1 1) Net Lbs 70,560 30,640 39,920	NET TONS Tons Today
Gross kg 32,005 Tare kg Net Kg 13,898 18,107	
COMMENTS	Loads Today - 2
PRODUCT HAU	
Per Too	

812-KN REV 6-05

Wuiccinn Materials Company Midwest Division Vulcan Construction Materials, LP	Ber Riding Received, Clerk's Office 09/20/2024 22700 W. 111th STREET NAPERVILLE, IL 60564 (630) 904-1110 51972-09 0425013 WARNING reant health information on reverse.
· · · · · · · · · · · · · · · · · · ·	PRECAUCIÓN ón Importante para la salud en el reverso.
CARRIER	RECEIVED BY
DATE TIME PLANT	TICKET NO.
11/05/09 13:55 361 BOLINGE	3ROOK 271175
LIMITED WARRANTY AND WARRANTY DISCLAIMER: So only that the material sold hereunder substantially complies we set forth in Seler's quotation. SELLER HEREBY EXCLUDES FOR ANY PURPOSE, AND ALL OTHER WARRANTY HEREUNDER, OTHER THAN THE EXPRESS WARRANTY set forth in the specifications described tobow, Solfer mak abcorption, whether the material is innouxins, non-deleterion with any plans, other specifications, regulations, ordinances, said material as used by customer. SELLER SHALL IN CONSEQUENTIAL DAMAGE CAUSED BY NON-COMPLIA ANY DEPECTS IN THE MATERIAL SOLD HEREUNDER. ALL SALES AND DELIVERIES MADE SUBJECT TO SELLE	abor warrants for a period of one (1) year from date of dolivery this Selfor's specifications for sold material or the specifications ALL WARRANTIES OF MERCHANTABILITY AND FITNESS 3, EDPRESS OR IMPLIED, OF THE MATERIAL SOLD STATED ABOVE. In addition, except to the extant otherwise as no warranty whatsoower with respect to specific gravity, is, or non-residue, or whether the material is in conformance statutes, or other standards applicately to the extant otherwise of EVENT BE RESPONSIBLE FOR ANY INCIDENTAL OR NCE OF THE MATERIAL WITH SPECIFICATIONS, OR FOR WSELLER'S FACILITY, CARRIER ACKNOWLEDGES THAT YOF THIS VEHICLE'S TARE WEIGHT, ALLE WEIGHTS AND OR NOTIFYING SELLER WHEN ANY TRUCK OR TRALER SHALL INDEMNIFY SELLER FOR ANY LOSS CAUSED BY
HAULER	IREGRINGE DELIVERY TYPE
523 R.S. TRUCKING	RS10 PICKED UP
CUSTOMER P.O	WEIGHER CAROL
547 GRADE 8	
GROSS LBs (Sc1 Tare Lbs(Sc1 1) Net Lbs 69,640 26,520 43,120	NET TONS Tons Today 21.56 61.61
Gross kg 31,588 Tare kg 12,029 19,55	
COMMENTS	9 19.5589 55.8916 Loads Today - 3
PRODUKT HALL CASH SALE ON	
Per Joa	
Amoaut	

812-KN REV 6-05

- .--

	Electropia	Tilina: Doo	aived Clark's C	office 00/20/2	024		
Under			eived, Clerk's C	mce 09/20/2	024		
Naterials Compa			111th STREET			· ·	
Midwest Divis		(630) 904	B, IL 60564		•	· · .	
Vulcan Construction M	ateriais, LP				•		•
	<u>_</u>	51972-09	0H250H	~			
	· ·	WARNING			•		- •
	Read importar	t health informatio	on on reverse.				
· .							۰.
		RECAUCIÓ		•			
		ariboarenite bereite	salud en el reverso.				-
CARRIER	· · · · ·	RECEIVED BY	· · ·				•
DATE TIME PLA	NT		TICKET NO.				
11/05/09 14:19 36	1 BOLINGBRO	DOK	271181				
LIMITED WARRANTY AND WARRAN only that the mutarial sold hereunder au set forth in Selen's guotation. SELLER FOR ANY PURPOSE AND ALL O	TY DISCLAIMER: Seller Instantially compiles with 1	warrants for a period o Seller's specifications fo	f one (1) year from date of delivor or said material or the specification	y .			
HERELINDER OTHER THAN THE EY	DOECO WADDAARTY CT	CAPRESS ON ULPLI	EU, OF THE MATERIAL SOL	D			
alternation whether the metadet is in a	o coove, peake manes	IN MUTINE ALTERATION	er wird teabers to specific dravit	V. 1			
with any plans, other specifications, reg said material as used by oustomer. E CONSEQUENTIAL DAMAGE CAUSEL ANY DEFECTS IN THE MATERIAL SO	ELLER SHALL IN NO I	VENT BE RESPONS	s applicable to customer's job or i IBLE FOR ANY INCIDENTAL O				
ANY DEFECTS IN THE MATERIAL SO	LD HEREUNDER	OF THE MATERIAL V	WITH SPECIFICATIONS, OR FO	R .			
ALL SALLES AND DELIVERIES MADE	SUBJECT TO SFILLER'S	GENERAL TERMS AN					
CARRIER IS SOLELY RESPONSIBLE GROSS WEIGHT. CARRIER SHALL E	FOR THE ACCURACY O	P THIS VEHICLE'S TAP	RRIER ACKNOWLEDGES THA REWEIGHT, AXLEWEIGHTS AN WHEN ANY TRUCK OR TRAILE				
AS EVIDENCED BY SIGNATURE, OR CARRIER IS SOLELY RESPONSIBLE GROSS WEIGHT: CARRIER SHALL E HAS BEEN OVERLOADED SO AS TO TO THE MACMAIN EXTENT ALLOWE OVERLOADING.	RENDER IT OUT OF C	DMPLIANCE WITH AN	Y APPLICABLE WEIGHT LINET	5 Y			
TRUCK TARE AND GROSS WEIGHTS	*		• • • • • • • • •				
CUSTOMER 0039606 HE	RI	SALES ORDER:					
HERITAGE LOGISTICS							
W CHGO PARK DIST J#ATI001	1	_ //					
250 W NATIONAL	NICK	¥	· · · ·				
WEST CHICAGO J#ATIQ01		<u> </u>					
250 W NATIONAL							
WEST CHICAGO			• •				
HAULER							
523 R.S. TRUCKING		RS48	DELIVERY TYPE PICKED UP				
CUSTOMER P.O.		WEIGHER	CAROL				
PRODUCT 547 GRADE 8				7			
GROSS LBs (Sc1) Tare Lbs(Sc1 72,980 31,1	1) Net Lbs .80 41,800	NET TONS	Tons Today	I ·			
Gross kg 33, 103 14, 1 COMMENTS	Net Kg	20,9 Not Mg					
Gross kg 33,103 Tare kg 14,1 COMMENTS	.43 Net Kg 18,960	18.960					
	CASH SALE ONLY		Loads Today - 4	_			
Per Ten			(01/A	3			
Amount		 1.					
612401 REV 6-05							

Dec. 16. 2009, Electronic Filing: Received, Clerk's Office 09/20/2024 NON-HAZARDOUS SPECIAL WASTE & ASBESTUS MAINIFES (

If waste is astestos waste, complete Sections I, II, III and N If waste is \underline{MOT} estestos waste, complete Sections I, II and III

	b.	Manifest Docur			¢ Pege	aj of 🕠	•
d. Generator's Name and Location: West Chicago Park Distint 250 west National St West Chicago II 60185 J. Phone:630 231 9474	d		e, Ganerator's Malling / West Chicago Park Dis 157 West Washington 1 West Chicago, IL 6018: d. Phone:	trict Street	<u> </u>		
If owner of the generaling facility differs (from the generator, pro	vide:	J. I HOND.	· · · · ·		*****	
h. Owner's Name:			L Owner's Phone No.:			- 	_
. Waste Profile #	k. Exp. Date		ping Name and	rn, Con	·	n. Total	o. Un
869Y915234	03/31/10	Description	sted with peroleum	No.	Type DT	Quantity	Tas
· · · · · · · · · · · · · · · · · · ·		products			ы с	20.23	rua
						· .	
ENERATOR'S CERTIFICATION: I here ate law, has been property described, d. atlo is a treatment residue of a previous sen treated in accordance with the requir	lassified and packaged, by restricted hazardous	. and is in prope wasie subject t	r condition for transportati o the Land Discourd Rest	on according	to application of the second s	able regulations;	AND H
sse Fellx	l ()	Jesse 7	5Vin		11-05-09	11-5-09	•
Géherator Authorized Agent Name (Prin TRANSPORTER (Gene	nti) g/ Glgr	ature			r. Date		
0 Chatam Ln selle II 60172 Phone: Wer Name (Print) DESTINATION (Concrete	d. Signature			e. Date	¥/b	<u>15/w</u>	
DESTINATION (Generate					· /	<u> </u>	
Disposal Faolilly and Sila Address: Irontech Landfill 10 Ashley Rd ns II 60450 Ihone: 615 942 1800	06	US EPA Numbe 38140002		·			
rby certily that the above named materia	al has been accepted a	nd to the best o	f my knowledge the foreg	ning is true a	nd accura	sie.	
an Alimeno	()	Flin	- -	11/5	65		
ame of Authorized Agent (Print)	Signature			g. Date			
ASBESTOS (Generator o	ompletes IVa-f and	Operator co	mplete (Va-i)			·····	
perator's Name and Address:			Responsible Agency Nam	e and Addre	\$6.		
none: necial Handling Thstructions and Addition	nal Information:	<u>a</u>	Phone:	<u> </u>		a	
Friable D Non-Friable D Both RATOR'S CERTIFICATION: I hereby de are classified, packed, marked and label	% Friatutes	of this constant	Non-Frizble nent are fully and accurat utilion for transport by hig	ely described Iway accord	l above b ing to app	y proper shipping Sicable internatio) name nal and
nal governmental regulations.							
na: government# regulations.							
arator's Name and Titla (Print)	h. Signature			Date			_

l

Dec. 16. 20091 Electronic Filing: Received, Clerk's Office 09/20/2024 NON-HAZARDOUS SPECIAL WASTE & ASBEST 10. 0381 (11FIP. 9 South VICES, INC.

If waste is asbestos waste, complete Sections I, II, III and IV If waste is \underline{NOT} asbestos waste, complete Sections I, II and III

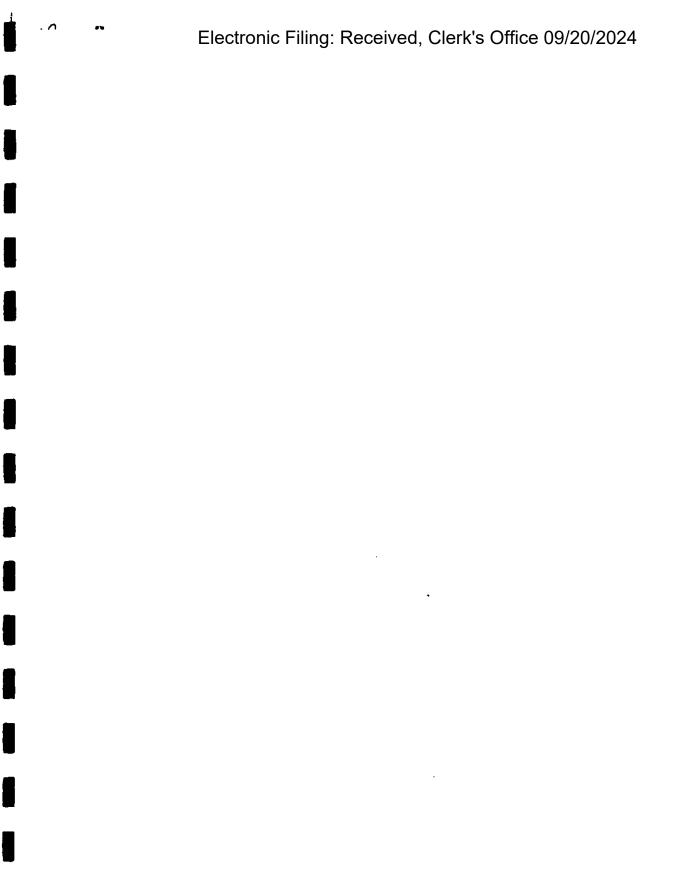
glo

a, Generalor's US EPA ID Number	•	p	Manifest Doour	nent Number		. C. P22	a 1 of	
d. Generator's Name and Location: West Chicago Park District 250 west National St West Chicago II 60165 f. Phone:650 231 9474 If owner of the generating facility differ	919		white	e. Generator's Malling / West Chicago Park Dis 157 Wast Washington & West Chicago, IL 6018 g. Phone:	trict Street	·		
		generaur, pr	MUD:					
h, Owner's Name: i. Waste Profile #		p. Date	I Masta Shin	I. Owner's Phone No.: ping Name and		ntainere	n. Total	o. Un
		P. Dalo	Description	he & sense and	Na,	Туре	Quantity	WW
369Y915Z34	03/31	Mo	soit contamin: products	ated with porolaum	001	DT	22:35	Tns
								_
				•			-	
tate law, has been properly described, vaste is a treatment residue of a pravio teen treated in accordance with the req lesse Felix	usiv restric	cted hazardou of 40 CFR 26	s waste subject t Brand is no longe	o the Land Disposal Rest	dotions, to	entify and v	warrant that the s	wasle has
Generator Authorized Agent Name (F TRANSPORTER (Ger			nature-			r. Date		
19 Trucking 50 Chatam Ln					•			
IS Trucking 50 Chatam Ln osefle II 60172 Phone:		d Shushing				<u> </u>	5 109	
IS Trucking 50 Chatam Ln bosefie II 60172 Phone: Driver Neme (Print)	tor com	d. Signature		on Site completes II	e. Date	11/0	5 /09	·
S Trucking to Chatam Ln osefle II 60172 Phone: Driver Name (Print) DESTINATION (General Disposel Facility and Sile Address: virontech Landful 00 Ashfey Rd onte II 60450 Phone: 815 942 1800		plete Illa-c o	and Destinati US EPA Numb 638140002	er d. Discrepency India	d-g) ation Space		<u>5 /09</u>	· · ·
S Trucking 10 Chatam Ln osefle II 60172 Phone: Driver Name (Print) DESTINATION (General Disposel Facility and Sila Address: wirontech Landfill 00 Ashiey Rd onte II 60450 Phone; 815 942 1800 entry certify that the above named make	yiai haa b	plete Illa-c c o een accepted	and Destinati US EPA Number 638140002 and to the best o	er d. Discrepency India	d-g) ation Space	and eccur	-	
S Trucking 10 Chatam Ln seele II 60172 Phone: Driver Name (Print) DESTINATION (General Disposel Facility and Sile Address: virontech Landfill 00 Ashiey Rd mfs II 60450 Phone: 815 942 1800 and certify that the gbove named mate Val Illeration	yiai haa b	een accepted	and Destinati US EPA Numbe 638140002 and to the best o	er d. Discrepency India	d-g) ation Space		-	
S Trucking S Chatam Ln osefle II 60172 Phone: Driver Name (Print) DESTINATION (General Disposel Facility and Sile Address: wrontech Landfill 00 Ashley Rd onte II 60450 Phone: 815 942 1800 entry certify that the above named mate Val Allonia Name of Authorized Agent (Print)	rial has b	een accepted	and Destinati US EPA Number 638140002 and to the best of JULM	er d. Discrepency India	d-g) ation Space	and eccur	-	
IS Trucking 50 Chatam Ln basefie II 60172 Phone: Driver Neme (Print) I. DESTINATION (General Disposel Facility and Site Address: rivirontech Landfill 800 Ashley Rd onte II 60450 Phone: 815 942 1300 Interference of Authorized Agent (Print) ASBESTOS (Generator	rial has b	een accepted	and Destinati US EPA Number 638140002 and to the best of ILLS and Operator of	er d. Discrepency India	d-g) ation Space oing is true g. Date	and accur 5/0	-	
S Trucking 10 Chatam Ln osefle II 60172 Phone: Driver Name (Print) DESTINATION (General Disposel Facility and Sila Address: wirortech Landfill 00 Ashiey Rd onte II 60450 Phone; 815 942 1800 erby certify that the above named mate Manual of Authorized Agent (Print) ASBESTOS (Generator Diperator's Name and Address:	rial has b	een accepted	and Destinations US EPA Number 638140002 and to the best of June d Operator of a	er d. Discrepency India of my knowledge The forego complete TVg-I) Responsible Agency Nar	d-g) ation Space oing is true g. Date	and accur 5/0	-	
S Trucking 50 Chatam Ln osefle II 60172 Phone: Driver Neme (Print) DESTINATION (General Dispose Facility and Site Address: wrontech Landfill 00 Ashiey Rd 00 Ashi	comple	een accepted	and Destinations US EPA Number 638140002 and to the best of June d Operator of a	or d. Discrepency India	d-g) ation Space oing is true g. Date	and accur 5/0	-	
S Trucking 50 Chatam Ln ossife II 60172 Phone: Driver Name (Print) DESTINATION (General Disposel Facility and Sila Address: wirontech Landfill 00 Ashiey Rd onte II 60450 Phone: 815 942 1800 erby certify that the above named mate ASBESTOS (Generator Derator's Name and Address: Phone: Special Handling Instructions and Addle Friable I Non-Friable I Both ERATOR'S CERTIFICATION: I hereby are classified, packed, marked and lab	comple	een accepted	and Destinations US EPA Number G38140002 and to the best of Control of Control of Operator of d. d. d. d. g d. g d. g d. g d. g d. g	er d. Discrepency India of my knowledge The foreg my knowledge The foreg Mon-Fritable ment are fully and accura	d-g) ation Space oing is true .g. Date ne and Add	and eccur 5/0 resa:	by proper shippi	ng name
I. DESTINATION (General Disposel Facility and Site Address: nvirontech Landfill 200 Ashley Rd onte II 60450 Phone: 815 942 1800 herby certify (hat the gbove named make Name of Authorized Agent (Print) ASBESTOS (Generator Operator's Name and Address: Phone: Special Handling Instructions and Adds	comple	een accepted	and Destinations US EPA Number G38140002 and to the best of Control of Control of Operator of d. d. d. d. g d. g d. g d. g d. g d. g	er d. Discrepency India of my knowledge The foreg my knowledge The foreg Mon-Fritable ment are fully and accura	d-g) ation Space oing is true .g. Date ne and Add	and eccur 5/0 resa:	by proper shippi	ng name lonal and
IS Trucking 50 Chatam Ln osselle II 60172 Phone: Driver Neme (Print) Desposel Facility and Sita Address: wirontech Landfill 100 Ashiey Rd onte II 60450 Phone: 815 942 1800 erby certify that the above named mate ASBESTOS (Generator Operator's Name and Address: Phone: Special Handling Instructions and Addl I Fritable I Non-Fritable I Both ERATOR'S CERTIFICATION: I hereby are classified, packed, marked and lab	comple	een accepted	and Destinations US EPA Number G38140002 and to the best of Control of Control of Operator of d. d. d. d. g d. g d. g d. g d. g d. g	er d. Discrepency India of my knowledge The foreg ompfete IVg-i) Responsible Agency Nat Phone: Non-Frizble ment are fully and accura ndillion for transport by h	d-g) ation Space oing is true .g. Date ne and Add	and eccur 5/0 resa:	by proper shippi	ng name

2490	If waste	is asbestos	waste, complete	a Sections I, II, III and IV	-	~	Mcke-	+#
	If waste	is' <u>NOT</u> asb	estos waste, con	nplete Sections I, II and III	R	R	1080	øЗ
GENERATOR (G Generator's US EPA ID Numb	enerator comp					- 		
		D.	Manifest Docun	nent Number		c. Page	1 of	
d. Generator's Name and Locatio	on:		• • • • •	e. Generator's Mailing A	ddress.	-		
West Chicago Park District				West Chicago Park Dist	rict			•
250 west National St West Chicago II 60185				157 West Washington S West Chicago, IL 60185	treet		Aura	
f. Phone:630 231 9474				g. Phone:		()4252	23
If owner of the generating facility	differs from the ger	nerator, prov	vide:	· · · · · · · · · · · · · · · · · · ·			<u> </u>	
h. Owner's Name:				I. Owner's Phone No.:				
. Waste Profile #	k. Exp. D)ate		ping Name and	m. Co	ntainers	n. Total	l o. Uni
69Y915234	03/31/10		Description	·····	No.	Туре	Quantity	WINO
			products	ated with peroleum	001	DT	1687	Tns
				· · ·	-			
· · · · · · · · · · · · · · · · · · ·		<u> </u>	· ·	· ·				· ·
ENERATOR'S CERTIFICATION	I: I hereby certify ti	hat the abov	e named mater	ial is not a hazardous was	to an define	1 d by 40 C	EP 261 or only on	-
are idw, lips peoul property desc	illeo. Classinen ani	d backaged	- 900 19 10 00000	r coodilion for iranenadali		a fa analia		A & FTS 17.4
aste is a treatment residue of a p sen treated in accordance with th			i waste sumert i	in the Land Disposal Post	dotione la	بامححاظه	an man of these the sur-	aste has
	io roquincincina or			er a nazardous waste as o	lettined by 4	U CFR 261	<u> </u>	
esse Felix		<u> </u>	belsn 1	ely		11-05-0	11-5-0	79
Generator Authorized Agent Na	me (Print)	q. 50	nature	······		r. Date		
	/^							
	(Generator con	npietes lia	a-b and Tran	sporter completes llo	-е)			
Transporter's Name and Addres	(Generator con s:		a-b and Tran	sporter completes lic	-e)			<u>_</u>
Transporter's Name and Addres S Trucking 10 Chatam Ln	is:		a-b and Tran	sporter completes llo	-e)			
Transporter's Name and Addres 5 Trucking 0 Chatam Ln pselle II 60172	<u>(Generator con</u> ss: RS1		a-b and Tran	sporter completes ilc	÷e)			
Transporter's Name and Addres S Trucking O Chatam Ln sselle II 60172 Phone:	RSI		a-b and Tran	sporter completes ilc	<u>, ~e)</u>	- /-		
Transporter's Name and Addres S Trucking O Chatam Ln Iselle II 60172 Phone: MAREK KRU	RSI	10	a-b and Tran	sporter completes ilc	;-e)	1 10	5/09	
Transporter's Name and Addres S Trucking O Chatam Ln Isselle II 60172 Phone: MAREK KRU Driver Name (Print)	RS I	. Signature	H	1	e. Data	1 /0	5/09	
Transporter's Name and Address S Trucking 20 Chatam Ln 20	RS 1 UK a	. Signature	and Destinat	ion Site completes III	e. Data	1 /0	5/09	
Transporter's Name and Addres S Trucking 00 Chatam Ln oselle II 60172 Phone: <u>MAREK</u> <u>Driver Name (Print)</u> <u>DESTINATION</u> (Ge Disposal Facility and Site Addres	RS 1 UK a	Signature	and Destinat	ion Site completes III	e. Data	1 /0	5/09	
Transporter's Name and Address S Trucking O Chatam Ln oselle II 60172 Phone: <u>MAREK KRU</u> Driver Name (Print) DESTINATION (Ge Disposal Facility and Site Address virontech Landfill	RS 1 UK a	Signature	and Destinat	ion Site completes III	e. Data	1 /0	5 09	
Transporter's Name and Addres S Trucking 0 Chatam Ln pselle II 60172 Phone: MAREK KRU Driver Name (Print) DESTINATION (Ge Disposal Facility and Site Addres virontech Landfill 20 Ashley Rd rris II 60450	RS 1 UK a	Signature	and Destinat	ion Site completes III	e. Data	1 /0	5 09	
Transporter's Name and Address S Trucking O Chatam Ln pselle II 60172 Phone: MAREK KRU Driver Name (Print) DESTINATION (Ge Disposal Facility and Site Address virontech Landfill 20 Ashley Rd rrts II 60450 Phone: 815 942 1800	RS <u>UK</u> denerator completions:	Signature ete IIIa-c t	and Destinat US EPA Numb 538140002	ion Site completes III er d. Discrepancy Indic	e. Date d-g) ation Space		5 09	
Transporter's Name and Address S Trucking O Chatam Ln selle II 60172 Phone: MAREK KRU Driver Name (Print) DESTINATION (Ge Disposal Facility and Site Address virontech Landfill O Ashley Rd rris II 60450 Phone: 815 942 1800	RS <u>UK</u> denerator completions:	Signature ete IIIa-c t	and Destinat US EPA Numb 538140002	ion Site completes III er d. Discrepancy Indic	e. Date d-g) ation Space		5 / 09 rate.	
Transporter's Name and Address S Trucking O Chatam Ln eselle II 60172 Phone: MAREK KRU Driver Name (Print) DESTINATION (Ge Disposal Facility and Site Address virontech Landfill OO Ashley Rd mis II 60450 Phone: 815 942 1800 wby certify that the above named	ss: RSI UK denerator comptents: 1 material has been	Signature ete IIIa-c t	and Destinat US EPA Numb 538140002	ion Site completes III er d. Discrepancy Indic	e. Date d-g) ation Space		5 / 09 rata.	
Transporter's Name and Address S Trucking O Chatam Ln oselle II 60172 Phone: MAREK KRU Driver Name (Print) DESTINATION (Ge Disposal Facility and Site Address virontech Landfill OO Ashley Rd rrts II 60450 Phone: 815 942 1800 wdx certify that the above named Name of Authorized Agent (Print)	ss: RS MK denerator completions: d material has been K	Signature ete IIIa-c a c c c c c c c c c c c c c c c c c c	and Destinat US EPA Numb 538140002	ion Site completes III er d. Discrepancy Indic of my knowledge the foreg	e. Date d-g) ation Space		5 / 09 rate. 7	
Transporter's Name and Address S Trucking 0 Chatam Ln pselle II 60172 Phone: MAREK KRU Driver Name (Print) DESTINATION (Ge Disposal Facility and Site Address virontech Landfill 00 Ashley Rd rris II 60450 Phone: 815 942 1800 why certify that the above named Name of Authorized Agent (Print) ASBESTOS (Gene	ss: RS MK denerator completions: d material has been K	Signature ete IIIa-c a c c c c c c c c c c c c c c c c c c	and Destinat US EPA Numb 538140002	ion Site completes III er d. Discrepancy Indic of my knowledge the foreg	e. Data d-g) action Space poing is true g. Date		5 09 rata. 9	
Transporter's Name and Address S Trucking io Chatam Ln oselle II 60172 Phone: MAREK KRU Driver Name (Print) DESTINATION (Ge Disposal Facility and Site Address virontech Landfill 00 Ashley Rd mis II 60450 Phone: 815 942 1800 Phone: 815 942 1800 Phone: 615 942 1800 Phone: 815 945 945 945 945 945 945 945 945 945 94	ss: RS MK denerator completions: d material has been K	Signature ete IIIa-c a c c c c c c c c c c c c c c c c c c	and Destinat US EPA Numb 538140002	ion Site completes III er d. Discrepancy Indic of my knowledge the foreg	e. Data d-g) action Space poing is true g. Date		5 / 09 rata. 7	
Transporter's Name and Address S Trucking O Chatam Ln Deselle II 60172 Phone: MAREK KRU Driver Name (Print) DESTINATION (Ge Disposal Facility and Site Address virontech Landfill DO Ashley Rd rris II 60450 Phone: 815 942 1800 Driver certify that the above named Name of Authorized Agent (Print) ASBESTOS (Gene	ss: RS MK denerator completions: d material has been K	Signature ete IIIa-c a c c c c c c c c c c c c c c c c c c	and Destinat US EPA Numb 538140002	ion Site completes III er d. Discrepancy Indic of my knowledge the foreg	e. Data d-g) action Space poing is true g. Date		5 / 09 rate. 7	
Transporter's Name and Address S Trucking O Chatam Ln Seelle II 60172 Phone: MAREK KRU Driver Name (Print) DESTINATION (Ge Disposal Facility and Site Address virontech Landfill DO Ashley Rd rris II 60450 Phone: 815 942 1800 Maty certify that the gbove named Maty certify that the gbove named Name of Authorized Agent (Print) ASBESTOS (General Operator's Name and Address:	ss: RS MK denerator completions: d material has been K	Signature ete IIIa-c a c c c c c c c c c c c c c c c c c c	and Destinat US EPA Numb 538140002	ion Site completes III er d. Discrepancy Indic of my knowledge the foreg omplete IVg-i) . Responsible Agency Nar	e. Data d-g) action Space poing is true g. Date		5 / 09 rate. 9	
Transporter's Name and Address S Trucking O Chatam Ln pselle II 60172 Phone: MAREK KRU Driver Name (Print) DESTINATION (Ge Disposal Facility and Site Address virontech Landfill O Ashley Rd ris II 60450 Phone: 815 942 1800 wdy certify that the above named Name of Authorized Agent (Print) ASBESTOS (Geneal Operator's Name and Address: thone:	ss: RSI UK denerator completes d material has been a material has been frator completes	Signature te IIIa-c a c of n accepted a Signature s IVa-f an	and Destinat US EPA Numb 538140002	ion Site completes III er d. Discrepancy Indic of my knowledge the foreg	e. Data d-g) action Space poing is true g. Date		5 / 09 rata. 7	
Transporter's Name and Address S Trucking 60 Chatam Ln bselle II 60172 Phone: MAREK KRU Driver Name (Print) DESTINATION (Ge Disposal Facility and Site Address virontech Landfill 00 Ashley Rd mis II 60450 Phone: 815 942 1800 arby certify that the above named Name of Authorized Agent (Print) ASBESTOS (Geneal Disporator's Name and Address: Thome:	ss: RSI UK denerator completes d material has been a material has been frator completes	Signature te IIIa-c a c of n accepted a Signature s IVa-f an	and Destinat US EPA Numb 538140002	ion Site completes III er d. Discrepancy Indic of my knowledge the foreg omplete IVg-i) . Responsible Agency Nar	e. Data d-g) action Space poing is true g. Date		5 / 09 rate.	
Transporter's Name and Address S Trucking O Chatam Ln oselle II 60172 Phone: <u>MAREK KRU</u> Driver Name (Print) DESTINATION (Ge Disposal Facility and Site Address virontech Landfill 00 Ashley Rd mis II 60450 Phone: 815 942 1800 Phone: 815 942 1800 Phone: 815 942 1800 Phone: 815 942 1800 Phone: BIS 942 1800 Phone: BIS 942 1800 Phone: Authorized Agent (Print) ASBESTOS (Gene) Operator's Name and Address: Phone: pecial Handling Instructions and	Additional Informa	Signature ete IIIa-c a c of n accepted a Signature s IVa-f an	and Destinat US EPA Numb 538140002	ion Site completes III er d. Discrepancy Indic of my knowledge the foreg omplete IVg-i) . Responsible Agency Nar	e. Data d-g) action Space poing is true g. Date		5 / 09 rata. 7	
Transporter's Name and Address S Trucking WAREK KRU Phone: MAREK KRU Driver Name (Print) DESTINATION (Ge Disposal Facility and Site Address virontech Landfill DO Ashley Rd mis II 60450 Phone: 815 942 1800 May certify that the gbove named Market of Authorized Agent (Print) ASBESTOS (Genel Operator's Name and Address: thone: pecial Handling Instructions and Fritable Non-Friable	SS: RS M Additional Information	Signature ete IIIa-C i of n accepted i Signature s IVa-f and tion:	and Destinat US EPA Numb 538140002 and to the best of Jum d Operator c	ion Site completes III er d. Discrepancy Indic of my knowledge the foreg omplete IVg-i) . Responsible Agency Nat . Phone:	e. Data Id-g) ation Space	apd accur	9	
Transporter's Name and Address S Trucking 50 Chatam Ln poselle II 60172 Phone: <u>MAREK KRU</u> Driver Name (Print) DESTINATION (Ge Disposal Facility and Site Address virontech Landfill 00 Ashley Rd ornis II 60450 Phone: 815 942 1800 arby certify that the above named Address (Gene) Name of Authorized Agent (Print) ASBESTOS (Gene) Operator's Name and Address: Phone: ipecial Handling Instructions and	Additional Informa	Signature ete IIIa-c a c c c c c c c c c c c c c c c c c c	and Destinat US EPA Numb 538140002 and to the best of Jume d Operator c d operator c	ion Site completes III er d. Discrepancy Indic of my knowledge the foreg omplete IVg-i) . Responsible Agency Nat . Phone:	e. Data Id-g) action Space	apd accur	2	g name onal and
Transporter's Name and Address 5 Trucking 0 Chatam Ln sselle II 60172 Phone: <u>MAREK KRU</u> Driver Name (Print) <u>DESTINATION</u> (Ge Disposal Facility and Site Address virontech Landfill 10 Ashley Rd rris II 60450 Phone: 815 942 1800 wby certify that the above named March Constructions and ASBESTOS (General Disporator's Name and Address: hone: peclal Handling Instructions and <u>Friable</u> Non-Friable	Additional Informa	Signature ete IIIa-c a c c c c c c c c c c c c c c c c c c	and Destinat US EPA Numb 538140002 and to the best of Jume d Operator c d operator c	ion Site completes III er d. Discrepancy Indic of my knowledge the foreg omplete IVg-i) . Responsible Agency Nat . Phone:	e. Data Id-g) action Space	apd accur	2	g name onal and
Transporter's Name and Address S Trucking O Chatam Ln pselle II 60172 Phone: MAREK KRU Driver Name (Print) DESTINATION (Ge Disposal Facility and Site Address virontech Landfill DO Ashley Rd wirontech Landfill Ro Ro Ro Ro Ro Ro Ro Ro Ro Ro	Additional Informa	Signature	and Destinat US EPA Numb 538140002 and to the best of flume d Operator c d d g s of this consign acts in proper co	ion Site completes III er d. Discrepancy Indic of my knowledge the foreg omplete IVg-i) . Responsible Agency Nar . Phone: . Non-Frtable ument are fully and accurs ondition for transport by his	e. Date	apd accur 20 Iress: ress: red above rding to ap	2 by proper shippin oplicable internation	onal and

.

REPUBLIC	NON-HAZAI	RDOUS SP	ECIAL WASTE &	ASBE	STOS I	MANIFEST	•
Elec	tronic Filing:	Received	, Clerk's Office	09/20/	2024	\cap	cet+#
	II WASLE IS 85085103	s Wreste, comidiene	Sections I, II, III and IV nplete Sections I, II and III	/	$\cap \mathcal{I}$		
					V	- 00	605
I. GENERATOR (Genera a. Generator's US EPA ID Number) Manifest Docun	ent Number		c. Page	1 of	
	•			_	L rayo	100	
d. Generator's Name and Location: West Chicago Park District 250 west National St West Chicago II 60185	qia		e. Generator's Mailing A West Chicago Park Distr 157 West Washington St West Chicago, IL 60185	ict		N 105 0	
f. Phone:630 231 9474 If owner of the generating facility differs	from the generator, pro	ovide:	g. Phone:			J423?	524
h. Owner's Name:	•		i. Owner's Phone No.:			•	
j. Waste Profile #	k. Exp. Date		ping Name and	m. Co	ntainers	n. Total	o. Unit
369Y915234	93/31/10	Description soil contamin	ated with peroleum	No.	Type DT	Quantity	Wt/Vol
		products				19.13	Tns
					• • •		
· · · · · · · · · · · · · · · · · · ·				+			
GENERATOR'S CERTIFICATION: I here state law, has been properly described, of waste is a treatment residue of a previou been treated in accordance with the requ	assined and package siv restricted hazardou	d, and is in prope is waste subject i	r condition for transportation the t and Disposed Restrict	M accordin	g to applic	able regulations; /	A & 100 10 10 14
Jesse Felix	(Lau ?	Folia				05
p. Generator Authorized Agent Name (Pr	int) q.A	gnature	<u>~~</u>	••	11-05-09 r. Date	11-3-0	<i></i>
II. TRANSPORTER (Gen a. Transporter's Name and Address;	erator completés l	la-b and Tran	sporter completes lic-	-e)			
RS Trucking 350 Chatam Ln Roselle II 60172 b. Phone:	RL	44				·	
STANISLAW LEWAND	sarsul Hamid	in des	andazli	1	- 0	5.04	
III. DESTINATION (General	tor complete Illa-c	and Destinat	ion Site completes III	e. Date	· •••··	<u>·</u>	
a. Disposal Facility and Site Address:		. US EPA Numb);		
Environtech Landfill 1800 Ashley Rd Morris II 60450		0638140002		·			
b. Phone: 815 942 1800			_l				
therapy certify that the above named mate		and to the best of	or my knowledge the foreg	oing is true	and accur		
e. Name of Authorized Agent (Print)	(has	Ales	neng		15/0	07	
IV. ASBESTOS (Generator) //Signature completes IVa-f a		omplete Ma-i)	g. Date	•	·····	
a. Operator's Name and Address:	<u> </u>		Responsible Agency Nan	ne and Add	iesș:	<u> </u>	
b. Phone:		1.	~				
e. Special Handling Instructions and Additi	onal Information:	[d	. Phone:				
-							
f. Friable Non-Friable Both	% Friable	9	6 Non-Friable	······		·····	
OPERATOR'S CERTIFICATION: I hereby and are classified, packed, marked and lat national governmental regulations.	declare that the conten beled and are in all res	nts of this consign pects in proper co	nment are fully and accuration of transport by high	tely descrit phway acco	ed above ording to a	by proper shippin oplicable Internati	g name onal and
g. Operator's Name and Title (Print)	h. Signature		······	i. Date			
*Operator refers to the company which owr renovation operation or both	18, leases, operatos, c	ontrois, or superv	ises the facility being dem	olished or a	enovated,	or the demolition	or



¢

REPUBLIC CTONON-HAZARDOUS SPECIALE WASHE & OSBESTOS MANIFEST

If waste is asbestos waste, complete Sections I, II, III and IV If waste is \underline{NQT} asbestos waste, complete Sections I, II and III

77 cket # 08621e

I. GENERATOR (Generator col	mpletes la-r))			V		
a. Generator's US EPA ID Number		Manifest Docum	ent Number		C. Page 1	lof	
d. Generator's Name and Location: West Chicago Park District 250 west National St West Chicago II 60185 f. Phone:630 231 9474			e. Generator's Mailing Ar West Chicago Park Distr 157 West Washington Sl West Chicago, IL 60185 g. Phone:	ict	 Or	12532	25
If owner of the generating facility differs from the	generator, pro	vide:	•			······	
h. Owner's Name:			i. Owner's Phone No.:				
	p. Date	Description	ping Name and	m. Cor No.	Type	n. Total Quantity	o. Unit Wt/Vol
369Y915234 03/3	1/10	soil contamin; products	ated with peroleum	001	DT	21.06	Tris
			······································				
	•						
GENERATOR'S CERTIFICATION: I hereby cert state law, has been properly described, classifier waste is a treatment residue of a previously restr been treated in accordance with the requirement	i and packaged icted hazardous	i, and is in prope s waste subject (r condition for transportation the Land Disposal Restrict	on according	g to applica	his moulations:	AND IF this
Jesse Feltx	\Box	pisse -	tilif		11-05-09	11-5-0	9
p. Generator Authorized Agent Name (Print)		inature			r. Date		•
II. TRANSPORTER (Generator) a. Transporter's Name and Address:	completes II	a-b and I ran	sporter completes lic	<u>-e)</u>			
RS Trucking 350 Chatam Ln Rosefle II 60172 b. Phone:	RGU	5	2		· · · ·		
<u>Shanch KiQiqiOU</u> c. Driver Name (Print)	d. Signature	Rfler 1	pm.	e. Date	lot fl	24	<u></u>
III. DESTINATION (Generator cor	npiete Illa-c	and Destinat	ion Site completes III			<u>. </u>	
a. Disposal Facility and Site Address: Environtech Landfill 1800 Ashley Rd Morris II 60450 b. Phone: 815 942 1800		: US EPA Numb 0638140002			:		
Hedry certify that the above named material has	been-accepted	and to the best	of my knowledge the foreg	olna is true	and accura	ite	
Jac Fliment	Cari	1. 10,	new	11	170	9	
e. Name of Authorized Agent (Print)	Signature		$\underline{-}$	g. Date	5/7	<u>/</u>	14
IV. ASBESTOS (Generator compl	etes IVa-f ar	nd Operator o	omplete IVg-i)				
a. Operator's Name and Address:		C	Responsible Agency Nar	me and Add	ress:	<u> </u>	
b. Phone: e. Special Handling Instructions and Additional Inf	omation:	d	. Phone:		. <u> </u>		
. Friable D Non-Friable D Both	% Frlable	9	6 Non-Frlable				
DPERATOR'S CERTIFICATION: I hereby declare and are classified, packed, marked and labeled an ational governmental regulations.	that the conten d are in all resp	nts of this consig pects in proper c	nment are fully and accura ondition for transport by his	itely describ ghway acco	ed above b rding to ap	y proper shippli plicable internat	ng name ional and
. Operator's Name and Title (Print) Operator refers to the company which owns, lease	h. Signature	ntmle ocennes	tees the facility hains do	i. Date	nominal	w the demention	
enovation operation or both			naca uro racinty being dem				

	It waste is <u>NOT</u> a	asbestos waste, co	te Sections I, II, III and IV Implete Sections I, II and I		e+⊭ 07	R	-
GENERATOR (General	ator completes la	н)				p.	
. Generator's US EPA ID Number		b. Manifest Docu	ment Number		c. Page	1 of	
. Generator's Name and Location:			e. Generator's Mailing	Addroses	<u> </u>		
Vest Chicago Park District 50 west National St			West Chicago Park Di	sirict			÷
Vest Chicago II 60185			157 West Washington West Chicago, IL 6018		A	10-0-	
Phone:630 231 9474			g. Phone:	0	U-	+2532	10
owner of the generating facility differs	from the generator, (provide:					
Owner's Name:			i. Owner's Phone No.:	•			
Waste Profile #	k. Exp. Date		oping Name and		ntainers	n. Total	o. Un
59Y915234	03/31/10	Description soil contamin	ated with peroleum	<u>No.</u>	DT	Quantity	Wt/Ve
		products				17.10	1115
<u></u>		-				 .	
sse Felix Generator Authorized Agent Name (Pr	(<u>int)</u>	Less 1	er a hazardous waste as		11-05-0	11-5-6	99
Generator Authorized Agent Name (Pr TRANSPORTER (Gene Transporter's Name and Address: Trucking Ochatam Ln selle II 60172	int) q, erator completes	Signature	eli			9 <i>11-5-</i> 0	
Generator Authorized Agent Name (Pr TRANSPORTER (Gene Transporter's Name and Address: Trucking Chatam Ln selle II 60172 Phone:	erator completes	Ila-b and Tran	eli	с-е)	11-05-0		
Generator Authonized Agent Name (Pr TRANSPORTER (Gene Transporter's Name and Address: Trucking Ochatam Ln selle II 60172 Phone: Weyee river Name (Phint)	erator completes	Ila-b and Tran	Isporter completes II	c-e)	11-05-09		
Generator Authorized Agent Name (Pr TRANSPORTER (Gene Transporter's Name and Address: Trucking Ochatam Ln selle II 60172 Phone: Comparison Comparison DESTINATION (Generative Isposal Facility and Site Address: irontech Landfill O Ashley Rd ris II 60450	erator completes	Ila-b and Tran	Isporter completes II	c-e)	11-05-05 r. Date		
Generator Authorized Agent Name (Pr TRANSPORTER (Gene Transporter's Name and Address: Trucking Chatam Ln selle II 60172 Phone: Destination (Print) DESTINATION (Generation Isposal Facility and Site Address: irontech Landfill O Ashley Rd 8 II 60450 hone: 815 942 1800	arator completes	C and Destinat c. US EPA Numb 0638140002	Isporter completes II Isporter completes II Iton Site completes I per d. Discrepancy Ind	c-e)	11-05-09 r. Date 5 - 0	9	
Generator Authorized Agent Name (Pr TRANSPORTER (Gene Transporter's Name and Address: Trucking Ochatam Ln selle II 60172 Phone: Comparison Comparison DESTINATION (Generative Isposal Facility and Site Address: irontech Landfill O Ashley Rd ris II 60450	arator completes	c and Destinat 0638140002	Isporter completes II Isporter completes II Iton Site completes I Iton Site completes I Itor d. Discrepancy Ind Itor my knowledge the fore	c-e)	11-05-09 r. Date 50	9 	
Generator Authorized Agent Name (Pr TRANSPORTER (Gene Transporter's Name and Address: Trucking Chatam Ln aetie II 60172 Phone: DESTINATION (Generative Isposal Facility and Site Address: irontech Landfill D Ashley Rd ris II 60450 hone: 815 942 1800 by certify that the above named mater Amed Florese	tor complete NIa-	Ila-b and Tran	Isporter completes II Isporter completes II Iton Site completes I Iton Site completes I Itor d. Discrepancy Ind Itor my knowledge the fore	c-e)	11-05-09 r. Date 5 - 0	9 	
Generator Authorized Agent Name (Pr TRANSPORTER (Gene Transporter's Name and Address: Trucking Chatam Ln selle II 60172 Phone: DESTINATION (Generative Isposal Facility and Site Address: irontech Landfill D Ashley Rd is II 60450 hone: 815 942 1800 by certify that the above named mater Amen Chattorized Agent (Print)	arator completes	Ila-b and Tran	Isporter completes II Isporter completes II Iton Site completes I ber d. Discrepancy Ind of my knowledge the fore	c-e)	11-05-09 r. Date 50	9 	
Generator Authorized Agent Name (Pr TRANSPORTER (Gene Transporter's Name and Address: Trucking Chatam Ln aetie II 60172 Phone: DESTINATION (Generative Isposal Facility and Site Address: irontech Landfill D Ashley Rd ris II 60450 hone: 815 942 1800 by certify that the above named mater Amed Florese	arator completes	and Operator of	Isporter completes II Isporter completes II Iton Site completes I Iton Site completes I Itor d. Discrepancy Ind Itor my knowledge the fore Itor State (Vg-i)	c-e) e. Date lld-g) ication Space	11-05-05 r. Date 5-0 e: and accur	9 	
Generator Authorized Agent Name (Print) TRANSPORTER (Generation Transporter's Name and Address: Trucking Chatam Ln selle II 60172 Phone: Weyee Inver Name (Phnt) DESTINATION (Generation isposal Facility and Site Address: irontech Landfill OAshley Rd is II 60450 hone: 815 942 1800 ty certify that the above named mater ASBESTOS (Generator of Authorized Agent (Print)	arator completes	and Operator of	Isporter completes II Isporter completes II Iton Site completes I ber d. Discrepancy Ind of my knowledge the fore	c-e) e. Date lld-g) ication Space	11-05-05 r. Date 5-0 e: and accur	9 	
Generator Authorized Agent Name (Pr TRANSPORTER (Generation of the series of	arator completes	and Operator of	Isporter completes II Isporter completes II Iton Site completes I Iton Site completes I Itor d. Discrepancy Ind Itor my knowledge the fore Itor State (Vg-i)	c-e) e. Date lld-g) ication Space	11-05-05 r. Date 5-0 e: and accur	9 	
Generator Authorized Agent Name (Pr TRANSPORTER (Generation Trucking Chatam Ln celle II 60172 Phone: DESTINATION (Generation isposal Facility and Site Address: irontech Landfill DAshley Rd is II 60450 hone: 815 942 1800 by certify that the above named mater ASBESTOS (Generator of berator's Name and Address: International Contents International Cont	arator completes	Ila-b and Tran	Isporter completes II Isporter completes II Iton Site completes I Iton Site completes I Itor d. Discrepancy Ind Itor my knowledge the fore Itor State (Vg-i)	c-e) e. Date lld-g) ication Space	11-05-05 r. Date 5-0 e: and accur	9 	
Generator Authorized Agent Name (Pr TRANSPORTER (Generation of the series of	arator completes	Ila-b and Tran	Isporter completes II Isporter completes II Iton Site completes I Der d. Discrepancy Ind of my knowledge the fore complete IVg-i) 2. Responsible Agency Na	c-e) e. Date lld-g) ication Space	11-05-05 r. Date 5-0 e: and accur	9 	
Generator Authorized Agent Name (Pr TRANSPORTER (Gene Transporter's Name and Address: Trucking Chatam Ln welle II 60172 Prone: Weyee Inver Name (Pint) DESTINATION (Generation Isposal Facility and Site Address: Irontech Landfill O Ashley Rd Is II 60450 hone: 815 942 1800 by certify that the above named mater ASBESTOS (Generator Corrator's Name and Address: one: ecial Handling Instructions and Additic	rator completes	Ila-b and Tran	Isporter completes II Isporter completes II Iton Site completes I ber d. Discrepancy Ind of my knowledge the fore complete IVg-i) complete IVg-i) complete IVg-i) complete IVg-i)	c-e) e. Date lld-g) ication Space	11-05-05 r. Date 5-0 e: and accur	9 	
Generator Authorized Agent Name (Pr TRANSPORTER (Generation Trucking Chatam Ln celle II 60172 Phone: DESTINATION (Generation isposal Facility and Site Address: irontech Landfill DAshley Rd is II 60450 hone: 815 942 1800 by certify that the above named mater ASBESTOS (Generator of berator's Name and Address: International Contents International Cont	rator completes	and Operator of this constrained of this const	Isporter completes II Isporter completes II Isporter completes II Iton Site completes I Der d. Discrepancy Ind of my knowledge the fore complete IVg-i) 2. Responsible Agency Na I. Phone:	c-e)	11-05-09 r. Date 50 s: and accur 5 0 k:	9 19 19 19 19 19 19 19 19 19 19 19 19 19	
Generator Authorized Agent Name (Print) TRANSPORTER (Generation Trucking Chatam Ln selle II 60172 Prone: Prone: DESTINATION (Generation Isposal Facility and Site Address: irrontech Landfill O Ashley Rd Is II 60450 hone: Destination Ashley Rd Is II 60450 hone: 315 942 1800 by certify that the above named mater ASBESTOS (Generator of a structure and Address: Asset I and Instructions and Address: cone: ectal Handling Instructions and Addition Friable Non-Friable Introl Both AATOR'S CERTIFICATION: I hereby or re classified, packed, marked and labor	rator completes	and Operator of this constrained of this const	Isporter completes II Isporter completes II Isporter completes II Iton Site completes I Der d. Discrepancy Ind of my knowledge the fore complete IVg-i) 2. Responsible Agency Na I. Phone:	c-e)	11-05-09 r. Date 50 s: and accur 5 0 k:	9 19 19 19 19 19 19 19 19 19 19 19 19 19	

SERVICES, INC.	onion-Hazar	Roodiy Sp	eclark's Office	09/20/ ASBE	2024 STOS (MANIFE	ST
	If waste is asbestos waste, complete Sections I, II, III and IV If waste is <u>NOT</u> asbestos waste, complete Sections I, II and III						
I. GENERATOR (General	tor completes la-r)						
a. Generator's US EPA ID Number b. Manifest Document Number						e 1 of	
d. Generator's Name and Location; West Chicago Park District 250 west National St West Chicago II 60185 f. Phone:630 231 9474		e. Generator's Malling A West Chkago Park Dist 157 West Washington S West Chicago, IL 60185 g. Phone:	rict treet	Ċ	H25	327	
If owner of the generating facility different			¥				
h. Owner's Name:	· ·		i. Owner's Phone No.:				
j. Waste Profile #	k. Exp. Date	I. Waste Ship Description	ping Name and	m. Co No.	ntainers Type	n. Total Quantity	o. Unit Wt/Vol
369Y915234	03/31/10	soil contaminated with peroleum 001 products		001	DT	17.2	8 Tris
· · · · · · · · · · · · · · · · · · ·							···
GENERATOR'S CERTIFICATION: I here state law, has been properly described, d waste is a treatment residue of a previous been treated in accordance with the requi	assified and packaged	l, and is in prope s waste subject i	r condition for transportation the Land Disposal Rest	on accordir ictions i o	ng to applic	cable regulat	long AND if the
Jesse Feibx p. Generator Authorized Agent Name (Pri	(.)	All F	elij		11-05-0		-09
II. TRANSPORTER (Gene		a-b and Tran	sporter completes lic	-e)	1 11 0410		
a. Transporter's Name and Address: RS Trucking 350 Chatam Ln Roselle II 60172 b. Phone:	25'	1	<u></u>				

a. transporter's Name and Address: RS Trucking 350 Chatam Ln Roseffe II 60172 b. Phone:	257	
ZALISIAN	Dat	11:05-09
c. Driver Name (Print)	d. Signature	e. Date

DESTINATION	(Generator complete Illa-c and Destination	Site completes (IId-a)	5
		, and domploted ind gl	

		e. Date						
III. DESTINATION (Generator or	omplete Illa-c and Destination	Site completes I	lid-g)					
a. Disposal Facility and Site Address: Environtech Landfill 1800 Ashley Rd Monts II 60450 b. Phone: 815 942 1800	c. US EPA Number 0638140002							
Lherby certify that the above named material ha	s been accepted and to the best of m	y knowledge the form	going is true and accurate.					
law fleming	Jan Ilen		11/5/09					
e Aame of Authorized Agent (Print)	Gignature	<u> </u>	g. Date	<u> </u>				
IV. ASBESTOS (Generator com	pletes iVa-f and Operator corr	nplete IVg-i)						

a. Operator's Name and Address:		c. Responsible Agency Name and Address:				
b. Phone: e. Special Handling Instructions and Additiona		d. Phone:				
 Special Hamming manufactors and Additional 						
·						
f. Friable Non-Friable Both	% Friable	% Non-Friable				
OPERATOR'S CERTIFICATION: I hereby dec and are classified, packed, marked and labele national governmental regulations.	d and are in all respects in p	consignment are fully and accurately described above by proper shipping name proper condition for transport by highway according to applicable international and				
g. Operator's Name and Title (Print)	h. Signature	i. Date				
*Operator refers to the company which owns, I renovation operation or both	leases, operates, controls, or	r supervises the facility being demolished or renovated, or the demolition or				

REPUBLIC CTONIGN-HAZAROOUS SPECIAL WASTE & OS/20/2024 MANIFEST

6

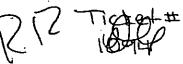
i

TICKet# 08625

	•					\cap	ickey
	If waste is asbesto: If waste is <u>NOT</u> asi	s waste, complei bestos waste, co	te Sections I, II, III and IV mplete Sections I, II and I	[[]	(714	0860
I. GENERATOR (General	itor completes lar	4				5	
a. Generator's US EPA ID Number) . Manifest Docu	ment Number		c. Page	1 of	
d. Generator's Name and Location: West Chicago Park District 250 west National St			e. Generator's Mailing West Chicago Park Di 157 West Washington	strict Street	L		
West Chicago II 60185 f. Phone:630 231 9474			West Chicago, IL 6018	35	(JH252	598
If owner of the generating facility differs	from the generator, pro	ovide:	g. Phone:			1200	<u>· _ 0 </u>
h. Owner's Name:			i. Owner's Phone No.;				
j. Waste Profile #	k. Exp. Date		pping Name and		ntainers	n. Total	o. Unit
369Y915234	03/31/10	Description soil conternit	nated with peroleum	<u>No.</u>	Type DT	Quantity	Wt/Vol
		products				17.85	Tns
					-		
GENERATOR'S CERTIFICATION: I her state law, has been property described, o waste is a treatment residue of a previou been treated in accordance with the requ	assified and package siv restricted hazardor	d, and is in prop us waste subject	er condition for transportation for transportation for the Land Disposal Re-	ation accordin strictions 1 or	g to applic artify and a	sable regulations	a AND if this
Jesse Felix		Leve	Fili		11-05-0	9 11-5-	09
p. Generator Authorized Agent Name (Pr	înt) q. Şi	chature	1		r. Date		
II. TRANSPORTER (Gen	erator completes	la-b and Trai	nsporter completes I	lc-e)		<u> </u>	
a. Transporter's Name and Address: RS Trucking 350 Chatam Ln Roselle II 60172 b. Phone:	2ª	5					
· · · · · · · · · · · · · · · · · · ·	and S	$\mathcal{V}^{}$	la	1 (1-0	5-04	<u></u>
c. Driver Name (Print)	d. Signatur		9	e. Date	· · · · · · · · · · · · · · · · · · ·		
III. DESTINATION (Genera							
a. Disposal Facility and Site Address: Environtech Landfill 1800 Ashley Rd Morris II 60450 b. Phone: 815 942 1800		c. US EPA Num 0638140002	ber d. Discrepancy Inc	lication Space	9.		
I herby certify that the above named mate	rial has been accepter	d and to the bes	t of my knowledge the for	ecoina is true	and accu	rate.	<u></u>
Jan Flemer	e Day	Flen	uro	11-	-5-	09	
e. Narie of Authorized Agent (Print)	A Signature		O	g. Date	·		
IV. / ASBESTOS (Generator a. Operator's Name and Address:	completes IVa-r a						
a. Operator 5 Marine and Address.			c. Responsible Agency N	name and Add	liess:		
b. Phone: e. Special Handling Instructions and Addit			d. Phone:	· .			
a around the set of th							
Friable Non-Friable Both	% Frlabk	•	% Non-Frtable				
DPERATOR'S CERTIFICATION: I hereby and are classified, packed, marked and lat national governmental regulations.	declare that the conte	ints of this consi	onment are fully and acc	urately descril highway acco	bed above ording to a	by proper ship applicable Intern	ping name ational and
						<i></i>	<u> </u>
g. Operator's Name and Title (Print) Operator refers to the company which own	h. Signature		rvises the facility hains d	i. Date	monumber	or the dome	
renovation operation or both		and on supe	TAPPOS NE INCITA DELUG O				OH OF
				*		- 000	063

REPUBLIC CTONON-HAZAROOD'S SPECIAL WASTER 00/20/2020 MANIFEST

If waste is asbestos waste, complete Sections I, II, III and IV If waste is <u>NOT</u> asbestos waste, complete Sections I, II and III



"

I. GENERATOR (Generato	r completes	s la-r)			<u> </u>			-	
a. Generator's US EPA ID Number			Manifest Docum	nent Number	<u></u>	c. Page 1 of			
d. Generator's Name and Location: West Chicago Park District 250 west National St West Chicago II 60185	<u> </u>	1		e. Generator's Mailing / West Chicago Park Dis 157 West Washington / West Chicago, IL 6018:	trict Street	<u>,</u>	<u> </u>		
f. Phone:630 231 9474 If owner of the generating facility differs fro	m the generat	or, prov	ide:	g. Phone:					
h. Owner's Name:				I. Owner's Phone No.:					
j. Waste Profile #	k. Exp. Date		I. Waste Ship	ping Name and	m, Cor	tainers	n. Total	o. Unit	
369Y915234	03/31/10		Description	ated with peroleum	No.	Туре	Quantity	Wt/Vol	
5551515254	03/31/10		products	uco wu perokum	001	DT	21.39	Tns	
							· ·		
GENERATOR'S CERTIFICATION: I heret state law, has been properly described, cla waste is a treatment residue of a previously been treated in accordance with the require	ssified and pa restricted has	ckaged, zardous	, and is in prope waste subject	er condition for transporter to the Land Disposal Res	tion according	g to appli	cable regulations;	AND If this	
Jesse Felix		\square	Lossi -	Fali		11-05-0	9 11-5-0	29*	
p. Generator Authorized Agent Name (Print) q. Stgnature II. TRANSPORTER (Generator completes /Ia-b and						r. Date			
II. TRANSPORTER (Gener a. Transporter's Name and Address:	ator comple	105/118	a-b and Iran	sporter completes II	с-е)		<u> </u>		
RS Trucking 350 Chatam Ln Roselle II 60172 b. Phone:									
Andriv		10	11	<u> </u>	11	11-05-09			
c. Driver Name (Print)		nature			e. Date		, <u></u>		
III. DESTINATION (Generato	r complete	illa-c	and Destinat	tion Site completes I	lld-g)				
a. Disposal Facility and Site Address: Environtech Landfill 1800 Ashley Rd Morris II 60450 b. Phone: 815 942 1800 I herby cartify that the above named materia		0	US EPA Numb 638140002		·				
Therby county that big addie that he filles		cepted	10			and acci			
- and Rover	- 00	<u>u</u>	ILLOS	ning		14/0	4 7		
e. Marrie of Authorized Agent (Print)		nature /o.f.or	d Operator a		g. Date				
a. Operator's Name and Address;	Simpletes IV	a-ran		C. Responsible Agency N	amo and Ade	Imee:			
·									
b. Phone: e. Special Handling Instructions and Addition	al Information	r		J. Phone:	<u>_</u>	- <u>-</u>			
· · ·									
f. Friable Non-Friable Both OPERATOR'S CERTIFICATION: I hereby d and are classified, packed, marked and labe	eclare that the	Friable conten	ts of this consid	% Non-Friable mment are fully and accurate for the second by the second	nately descrit	bed above	by proper shippli	ng name	
national governmental regulations.									
g. Operator's Name and Title (Print) "Operator refers to the company which owns	h. Sig	nature	atinte as ourse	viese the facility hains de	i. Date		or the dame		
renovation operation or both	, icasos, uperi			Arees and rectantly next 8 of					



REPUBLE Ctronon-Hinzardour Strechark Warties (258853025 MANIFEST SERVICES, INC.

If waste is asbestos waste, complete Sections I, II, III and IV If waste is <u>NOT</u> asbestos waste, complete Sections I, II and III -

I. GENERATOR (Genera	ator com	pletes la	<u>э</u> -г)			•		
a. Generator's US EPA ID Number			b. Manifest Do	cument Number		c. Page	1 of the state	±
d. Generator's Name and Location: West Chicago Park District 250 west National St West Chicago II 60185 f. Phone:630 231 9474 If owner of the generating facility differs	from the g	generator,	provide:	e. Generator's M West Chicago Pa 157 West Washi West Chicago, IL g. Phone:	ark District ngton Street	- I		
h. Owner's Name:				i. Owner's Phone	No.:			
j. Waste Profile #	k. Exp	Date	I. Waste S Description	hipping Name and		Type	n. Total Quantity	o. Unit Wi/Vol
369Y915234	03/31/	10		minated with peroleum		DT	26.02	Tns
		· · ·	,					:
state iaw, has been property described, o waste is a treatment residue of a previou been treated in accordance with the required Jesse Felix p. Generator Authorized Agent Name (P II. TRANSPORTER (Gen	sly restric iroments rint)	ted hazard of 40 CFR	269 and is no i	ect to the Land Dispos onger a hazardous was Felly	al Restrictions. I c ste as defined by 4	entity and y	warrant that the w 1.	vasta has
a. Transporter's Name and Address: RS Trucking 350 Chatam Ln Roselle II 60172 5. Phone:			\wedge			-		
ANDRIY		d. Signal	n H		//-05 e. Date	-20	09	
II. DESTINATION (General	tor com			nation Site comple				
a. Disposal Facility and Site Address: Environtech Landfill 1800 Ashley Rd Monts IJ 60450 9. Phone: 815 942 1800			c. US EPA N 0638140002		cy Indication Spac			
herby certify that the above named mate	inai nas p	een accep		est of my knowledge ti	ne toregoung is trui		18te. 7. 0	
Netrie of Authorized Agent (Print)	$\frac{1}{2}$	A.Signati	<u>17-1-1</u>	mag	g. Date	1/3/	107	
ASBESTOS (Generator	· · · · · · · · · · · · · · · · · · ·			or complete IVg-i)				
. Operator's Name and Address:	· · ·			c. Responsible Age	ncy Name and Ad	dress:		
Phone: Special Handling Instructions and Addit	ional Inf-	matica		d. Phone:				<u> </u>
. Gooden nangung madudadits and Addi				-				
Fitable Non-Fitable Both PERATOR'S CERTIFICATION: I hereby nd are classified, packed, marked and la ational governmental regulations.	declare (i beled and	% Fria hat the cor are in all (tents of this co	% Non-Friable nsignment are fully and er condition for transpo	d accurately descr ort by highway acc	ibed above onling to a	by proper shippl pplicable Interna	ng name tional and
			:					· —
Operator's Name and Title (Print) Operator refers to the company which ow		h. Signatu , operates		pervises the facility be	I. Date Ing demolished or	renovated	, or the demolitio	n or
novation operation or both	<u> </u>		<u> </u>	<u> </u>	······································	<u> </u>		

REPUBLIC Ctroinon Hagardouses Pedrak's Waster 20 ASDES 205 MANIFEST SERVICES, INC.

If waste is asbestos waste, complete Sections I, II, III and IV
 If waste is <u>NOT</u> asbestos waste, complete Sections I, II and III

I. GENERATOR (Generate	or completes Is							
a. Generator's US EPA ID Number		b. Manifest Occur	nent Number		c. Page	1 of		
d. Generator's Name and Location: West Chicago Park District 250 west National St West Chicago II 60185 f. Phone:630 231 9474	·	L	e. Generator's Mailing Address: West Chicago Park District 157 West Washington Street West Chicago, IL 60185 g. Phone:					
If owner of the generating facility differs fro	om the generator,	provide:		•		<u>_</u>	· · · · · · · · · · · · · · · · · · ·	
h. Owner's Name:			i. Owner's Phone No.:					
J. Waste Profile #	k. Exp. Date	I. Waste Ship Description	ping Name and	m. Cor No.	tainers Type	n. Total Quantity	o. Unit Wt/Vol	
369Y915234	03/31/10	soil contamin	ated with peroleum	001	DT	Quantity	, Tns	
		products	produces		4	20.34		
-								
GENERATOR'S CERTIFICATION: I here state law, has been properly described, cla waste is a treatment residue of a previous been treated in accordance with the requin	ssified and packa restricted hazar	ged, and is in prope dous waste subject	ar condition for transportation to the Land Disposal Res	tion according	g to applic rtify and y	able regulations	AND. If this	
Jesse Felix		Charle +	oli;		11-05-0		79	
	p. Generator Authorized Agent Name (Print) q. Signature				r. Date			
II. TRANSPORTER (Gener a. Transporter's Name and Address:	ator complete	Sila-b and Tran	sporter completes II	с-е)				
RS Trucking 350 Chatam Ln Roselle II 60172 b_Rhone:		<u> </u>						
Komon Sell		hal	<u> </u>		-0	5-04)	
c. Driver Name (Print) III. DESTINATION (Generator	d. Signs		ion Site completes I	e. Date				
a. Disposal Facility and Site Address:	or complete ma	C US EPA Num				· ·· <u>·····</u> ······		
Environtech Landfill 1800 Ashley Rd		0638140002			-			
Morris II 60450								
b. Phone: 815 942 1800 Lherby certify that the above named materia	al has hean accer	ted and to the heet	of my knowlodge the fem		and coord			
			or my knowledge the lote		and ages	1.0		
e. Name of Authorized Agent (Print)	/Signati		nig	g. Date	<u> </u>	10 /		
IV ASBESTOS (Generator c			omplete (Va-i)	1 8.0000				
a. Operator's Name and Address:			Responsible Agency N	ame and Ádd	ress:			
b. Phone:		c	i, Phone:		=			
e. Special Handling Instructions and Addition	nal Information:							
f. Friable Non-Friable Both	% Fria		6 Non-Frizble	•				
OPERATOR'S CERTIFICATION: I hereby d and are classified, packed, marked and labe national governmental regulations.	eclare that the co led and are in all	ntents of this consig respects in proper c	riment are fully and accur ondition for transport by I	rately describ highway acco	ed above rding to a	by proper shipp pplicable interna	ang name ational and	
				1				
g. Operator's Name and Title (Print)	h. Signat			1. Date				
Operator refers to the company which owns enovation operation or both	, leases, operates	s, controls, or super	vises the facility being de	molished or r	enovated	, or the demolitie	on or	
			,					

If waste is asbestos waste, complete Sections I, II, III and IV If waste is \underline{NOT} asbestos waste, complete Sections I, II and III

.

I. GENERATOR (Generat	or completes	la-r)					
a. Generator's US EPA ID Number b. Manifest Document Number c. Page 1 of							•
d. Generator's Name and Location: West Chicago Park District 250 west National St West Chicago II 60185 f. Phone:630 231 9474		•.	e. Generator's Mailing Address: West Chicago Park District 157 West Washington Street West Chicago, IL 60185 g. Phone:				
If owner of the generating facility differs fr	om the generato	r, provide:					-
h. Owner's Name:			i. Owner's Phone No.:				
J. Waste Profile #	k. Exp. Date		ping Name and		tainers	n. Total	o. Unit
		Description		No.	Туре	Quantity	Wt/Val
369Y915234	03/31/10	products	ated with peroleum	001	OT .	18.51	Tna
GENERATOR'S CERTIFICATION: I here state law, has been properly described, cl waste is a treatment residue of a previous been treated in accordance with the requi	assified and pac ly restricted haz	kaged, and is in prope ardous waste subject	er condition for transportati to the Land Disposal Rest	ion accordin rictions. I ce	g to applic entify and v	able regulations; varrant that the w	AND, if this
		1 1 11 7	-11.			1	•
Jesse Felix		John 1	<u>m</u>		11-05-0	<u> 11-5-07</u>	
p. Generator Authorized Agent Name (Prin		g./Signature	· · ·		r. Date		
II. TRANSPORTER (Gene	rator comple	es lia-b and I ran	sporter completes lic	<u>≻е)</u>	···		
a. Transporter's Name and Address: RS Trucking 350 Chatem Ln Roselle II 60172 b. Phone:			/				
20232644	· ·	12J	• • • • • • • • • • • • • • • • • • •	1	11.0	5.09	
c. Driver Name (Print)		nature		e. Date			
III. DESTINATION (Generat	or complete l			ld-g)			
a. Disposal Facility and Site Address: Environtech Landfill 1800 Ashley Rd Morris II 60450 b. Phone: 815 942 1800		c. US EPA Numi 0838140002		• •			
Lherby certify that the above named mater	<u>nas been acc</u>	epted and to the best	of my knowledge the fore		and accu		
_soutlemes		anthe-	ne -		1/8	109	
e. Marne of Authorized Agent (Print)	1. Son	lature	7	g. Date	11		
IV. ASBESTOS (Generator			complete IVa-i)				
a. Operator's Name and Address:			c. Responsible Agency Na	ame and Ada	dress:	· <u> </u>	
				·			
b. Phone:			d. Phone:				
e. Special Handling Instructions and Addition	onal Information	:					ļ
f. Friable Non-Friable Both	9 <u>4</u> E	riable	% Non-Friable	·	-		
OPERATOR'S CERTIFICATION: I hereby and are classified, packed, marked and lab national governmental regulations.	declare that the	contents of this consi	mment are fully and accur	rately descri nighway acc	bed above ording to a	by proper shippi applicable internation	ng name tional and
national governmental regulations.	<u> </u>			1			
·							
g. Operator's Name and Title (Print) "Operator refers to the company which own removation operation or both	h. Sign Is, feases, opera	iature ites, controts, or supe	vises the facility being de	i. Date molished or	renovated	l, or the demolitic	n or



REPUBLIC CTONIC FILLER ROOD'S SPECIAL WASHER ASSESSES MANIFEST

If waste is asbestos waste, complete Sections I, II, III and IV If waste is <u>NOT</u> asbestos waste, complete Sections I, II and III

.

I. GENERATOR (Generato	or completes la	<u>}</u>			Deer	1 of		
a. Generator's US EPA ID Number		b. Manifest Docum	nent Number	c. Page 1 of				
			e. Generator's Mailing Address:					
d. Generator's Name and Location:			e. Generator's Maling West Chicago Park Di					
West Chicago Park District 250 west National St			157 West Washington Street West Chicago, IL 60185 g. Phone: I. Owner's Phone No.:					
West Chicago II 60185				85				
f Phone:630 231 9474			g. Phone:	_		<u> </u>		
If owner of the generating facility differs fro	om the generator,	provide:						
h. Oursede Newton			I. Owner's Phone No.:					
h. Owner's Name:	k. Exp. Date	I. Waste Ship	ping Name and		ntainers	n. Total		
J. Waste Prome P	л. С. ф. 6416	Description		No.	Туре	Quantity	Wt/Vol	
369Y915234	63/31/10		ated with percleum	001	DT		Tris	
		products				20.50		
						ac	ŀ I	
				1			· ·	
	• • • • • • • • •					•		
			•	·			1 1	
	<u> </u>				┿╼╼─────	· · · · · · · · · · · · · · · · · · ·	╞━━━━━┍╴┨	
		1			1			
					1	1		
·	•				L		[]	
GENERATOR'S CERTIFICATION: I here	by certify that the	above named mate	rial is not a hazardous y	vaste as defin	ed by 40 C	FR 261 or any app		
			OT COMPLEXANT TO TRADETAL					
state law, has been properly described, an waste is a treatment residue of a previous been treated in accordance with the regula	ly metricted hozai	ntous waste subject	to the land disdosal Ki	succons. I c	ອເພງຍແບ່			
been treated in accordance with the requil	ements of 40 CF	1206 200 13 10 101	ger a nazaroous waste a	S UGIRIGU DY				
Jesse Felix		(hasse	vilie		11-05-0	11-5-09	,	
p. Generator Authorized Agent Name (Pri	nt) q	. Signature	ing		r. Date			
II. TRANSPORTER (Gene	rator complete	sala-b and Tra	nsporter completes	llc-e)				
a. Transporter's Name and Address:								
RS Trucking							•	
350 Chatam Ln								
Roselle II 60172	\sim							
b. Phone:	/- <u> </u> /-				1 ~			
HOD MOYOR	11/25	, Mun	~		1-5	-07		
c. Driver Name (Print)	N26g	ature		e. Date				
III. DESTINATION (Generat	or complete II	la-c and Destina	ation Site completes	s (IId-g)				
a. Disposal Facility and Site Address:		c. US EPA Num	ber d. Discrepancy li	ndication Spa	:			
a. Disposal Facility and Site Autoress. Environtech Landfill		0638140002						
1800 Ashley Rd								
Morris II 60450								
b. Phone: 815 942 1800			الم مع المع الم المع المع المع المع الم	maning in the	o and arm	inate.		
Likensy certify that the above named mater	Tal has been acce		st or my knowledge the n			1.0		
day Ilamento	(1)	W Fle	mix	1/	151	07		
e. Marne of Authorized Agent (Print)	f. Signs	ature	$- \circ$	g. Date	1.1	·		
			complete (Va-i)					
			c. Responsible Agency	Name and A	ddress:			
a. Operator's Name and Address:								
		1						
b. Phone:			d. Phone:					
e. Special Handling Instructions and Additi	onal Information:							
				-				
I The state of the State of Date	QL E1	riable	% Non-Friable			·		
f. Friable Non-Friable Both OPERATOR'S CERTIFICATION: I hereby	de alars that the	contacts of this cons	alonment are fully and a	curately desc	ribed abov	e by proper shipp	ing name	
operator's centification: i nareby and are classified, packed, marked and lat	beled and are in a	Il respects in prope	r condition for transport	by highway at	cording to	applicable interna	tional and	
national governmental regulations.		······································	· · · ·	- ·		<u></u>		
time the factor in the factor								
· · · · · · · · · · · · · · · · · · ·								
g. Operator's Name and Title (Print)	h. Sign	ature	andone the facility hains	i. Date	Y monwate	d, or the demolitic	n or	
Operator's Name and The (Pinit) Operator refers to the company which ow	ns, leases, opera	ues, controts, or sup	ervises me recitty debig	1001110101001			:	
renovation operation or both		· · · · ·						
•					•	00006	8	

REPUBLIC Ctronion Hiaza Rood's Special Wasties as Bestods Manifest Services, Inc.

If waste is asbestos waste, complete Sections I, II, III and IV If waste is <u>NOT</u> asbestos waste, complete Sections I, II and III

۰.

its



I. GENERATOR (Generated	or completes	la-r)								
a. Generator's US EPA ID Number	-	b. Manifest Docum	ent Number		c. Page 1 of					
d. Generator's Name and Location: West Chicago Park District 250 west National St West Chicago II 60185 f. Phone:630 231 9474	· · ·	····	e. Generator's Mailing Address: West Chicago Park District 157 West Washington Street West Chicago, IL 60185 g. Phone:							
If owner of the generating facility differs fr	om the generato	or, provide:		•						
h. Owner's Name:			i. Owner's Phone No.:							
j. Waste Profile #	k. Exp. Date	I. Waste Ship Description	ping Name and	No.	ntainers Type	n. Total Quantity	o. Unit Wt/Vol			
369Y915Z34	03/31/10		ated with peroleum	001	DT	22.35	Tns			
							-			
GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR 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, if this waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR 265 and is no longer a hazardous waste as defined by 40 CFR 261.										
	Ţ	Lesse 7	ol:		11-05-0		~			
Jesse Felix p. Generator Authorized Agent Name (Prin	nt)	q. Signature	un	<u></u>	r. Date	<u> </u>				
II. TRANSPORTER (Gene			sporter completes II	c-e)	•					
a. Transporter's Name and Address: RS Trucking 350 Chatam Ln Roselle II 60172 b. Phone:						<u></u>				
Stavillaw Ra	gau		2	11/05	109					
c. Driver Name (Print)	d. Sig	nature 1/		e. Date			· · ·			
III. DESTINATION (Generate	or complete									
a. Disposal Facility and Site Address: Environtech Landfill 1800 Ashley Rd Morris II 60450 b. Phone: 815 942 1800		c. US EPA Num 0638140002				rento				
I herby certify that the above named mater			or my knowledge the los							
par tlement		an All	ming		<u>/s/c</u>	<u>کم ا</u>				
e. Name of Authorized Agent (Print)	f. Styf			g. Date						
IV. ASBESTOS (Generator of a. Operator's Name and Address:	completes IV		c. Responsible Agency N	lame and Ad	dress:		•			
b. Phone:		¥.L.	d. Phone:	·			·			
e. Special Handling Instructions and Addition	onal Information									
f. Friable Non-Friable D Both			% Non-Friable				<u> </u>			
OPERATOR'S CERTIFICATION: I hereby and are classified, packed, marked and lab national governmental regulations.	declare that the eled and are in	contents of this const all respects in proper	inment are fully and accident to the second stransport by	highway ac	ibed above cording to	e by proper shipp applicable interna	ing name Itional and			
						<u></u>				
g. Operator's Name and Title (Print) "Operator refers to the company which own renovation operation or both	h. Sigi is, leases, open	nature ates, controls, or supe	rvises the facility being d	i. Date emolished o	renovate	d, or the demolitic	on or			

REPUBLICECTING FILZAR DOUS SPECIAL WASHE'S AS BESTOS MANIFEST

. . .

If waste is asbestos waste, complete Sections I, II, III and IV If waste is <u>NOT</u> asbestos waste, complete Sections I, II and III

I. GENERATOR (Generation	or completes la	a-r)					
a. Generator's US EPA ID Number	· · · ·	b. Manifest Docun	nent Number		c. Page	1 of	
d. Generator's Name and Location: West Chicago Park District 250 west National St West Chicago II 60185 f. Phone:630 231 9474		<u></u>	e. Generator's Mailing / West Chicago Park Dis 157 West Washington : West Chicago, IL 6018 g. Phone:	trict Street i	· *_ · _ · · ·		
If owner of the generating facility differs fr	om the generator,	provide:			ļ ·	· · · · · · · · · · · · · · · · · · ·	
h. Owner's Name:			i. Owner's Phone No.:)		
j. Waste Profile #	k. Exp. Date	L Waste Ship	ping Name and		ntainers	n. Total	o. Unit
369Y915234	02/21/10	Description	ada al codeb as a salar - an	<u>No.</u>		Quantity	Wi/Vol
	03/31/10	soil contamin products	ated with peroleum	001	DT	22:21	Tns
GENERATOR'S CERTIFICATION: I here state law, has been property described, cl waste is a treatment residue of a previous been treated in accordance with the regul	assified and pack ity restricted haza	aged, and is in prop rdous waste subject	er condition for transports to the Land Disposal Re	ation accordiations. I o	ng to appli pertify and	cable regulations warrant that the v	AND, If this
in the File						19 11-5-	09
p. Generator Anthonized Agent Name (Pri		I. Signature	FRY	• • • • • •	11-05-0	9 1737	07
II. TRANSPORTER (Gene					j r. Date		
a. Transporter's Name and Address:			isporter completes i	ю-е)			
RS Trucking 350 Chatam Ln Roselle II 60172 # 44 X	Ś	-			- ,		
STANISLAN LEWANDQ		ish q	fewan itas the		11-	or - 5	7
	d. Sign		V	e. Date	<u> </u>		_{
III. DESTINATION (General	tor complete II						
a. Disposal Facility and Site Address: Environtech Landfill 1800 Ashley Rd Morris II 60450 b. Phone: 815 942 1800		c. US EPA Nurr 0638140002	iber d. Discrepancy In	dication Spa	Ce:	· .	
I herby certify that the above named mate	rial has been acc	ented and to the bes	st of my knowledge the fo	naoino is in	e and acc	urate.	
10 -		10			. 11	19	·
for tlemose	/ No.	D Illa	ng -	//	<u>/s/</u>	0/	
e. Name of Authorized Agent (Print)	. Sign		<u> </u>	g. Daté		·	
IV. ASBESTOS (Generator	completes IVa	a-f and Operator	complete IVg-i)				
a. Operator's Name and Address:			c. Responsible Agency	Name and A	ddress:		
b. Phone: e. Special Handling Instructions and Addit	Hanal Information	J	d. Phone:				
e, special manoung instructions and Addr							
f. Friable Non-Friable Bott		riable	% Non-Frlable	<u> </u>			
OPERATOR'S CERTIFICATION: I hereby and are classified, packed, marked and la national governmental regulations.							
	· ·						
g. Operator's Name and Title (Print)	h ch-			i. Date	- -		
*Operator refers to the company which ov	h. Sign vns, leases, opera		ervises the facility being		or renovati	ed, or the demoin	tion or
renovation operation or both							
		·				000	070 [.]



REPUBEIC CTONION HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

If waste is asbestos waste, complete Sections I, II, III and IV If waste is <u>NOT</u> asbestos waste, complete Sections I, II and III

I. GENERATOR (Generat	or comple	etes la-	r) -					
a. Generator's US EPA ID Number			b. Manifest Docu	ment Number		C. Page	1 of	<u> </u>
d. Generator's Name and Location:				e. Generator's Matting	Addinase			
West Chicago Park District				West Chicago Park Di				
250 west National St				157 West Washington				
West Chicago II 60185				West Chicago, IL 601				
f. Phone:630 231 9474				g. Phone:				
If owner of the generating facility differs fr	om the gen	erstor, p	ovide:				·····	
h Ouranda Namar								•
h. Owner's Name: i. Waste Profile #				i. Owner's Phone No.:				<u> </u>
J. **8509 PTOIDB #	k. Exp. D	ΞCĐ		ping Name and		ntainers	n. Total	o. Unit
369Y915234	03/31/10	· · · · · · · · · · · · · · · · · · ·	Description		No.	Туре	Quantity	Wt/Vol
0001010204	03/31/10			lated with peroleum	001	DT		Tns
	ł		products		ľ.		1057	
							18.27	
	· ·					1	1	
······································						+		
			•					
							Į ·	
			_ 1					
		•	·			· · · · ·		
					- I i			
CENERATOR'S CERTEICATION AND			<u></u>			<u> </u>		_ <u>_</u>
GENERATOR'S CERTIFICATION: I here	by cerury th	nai the at	ove named mate	rial is not a hazardous w	este as defin	ed by 40 C	FR 261 or any a	pplicable
state law, has been property described, cl	assined and	i packagi	ed, and is in prop	er condition for transport	ation according	ng to appti	cable regulations	, AND, if this
waste is a treatment residue of a previous been treated in accordance with the regult	in resurces	An CER 2	kus waste subject Second in no jon	to the Land Disposal Re	sunctions. It	entry and	warrant (nat the)	waste has
	CHIGHES OF			er a nazaruous waste a	s cenned by 4	T CFR 20	1	
Jesse Feix		(LOAN. Q	-olic		11.05.0	9 . 11-5-	09
p. Generator Authorized Agent Name (Prin	nt)	a. 2	Ignature	<u> </u>		r. Date	5 // 6	
II. TRANSPORTER (Gene	rator con	nletae	la-b and Tra	aportos completes		17.040	······	
a. Transporter's Name and Address:		ipicupa		isponer completes				
RS Trucking								
350 Chatam Ln				10				
Rosella II 60172			<u> </u>			· -		
b. Phone:				//		1	1	
MAREK KRUK	· · · · · · · · · · · · · · · · · · ·			//		1	-100	· · · · · · · · · · · · · · · · · · ·
			any			1//09	5109	
c. Driver Name (Print)	d	. Signatu	re		e. Date	1		···
III. DESTINATION (Generat	or comple	ete Ilia-	c and Desfina	tion Site completes	IIId_a)	//	<u> </u>	
a. Disposal Facility and Site Address:			c. US EPA Num					
Environtech Landfill			0638140002	ber d. Discrepancy In	ocation Spac	e:		
1800 Ashley Rd			0000140002					
Morris 60450 -								
b. Phone: 815 942 1800								
Lherby certify that the above named mater	ial has bee	n accept	ed and to the bes	t of my knowledge the fo	regolna is tru	e and acc	irrate.	
Ach Illa		1	1 10.			121	0	
Ale Ilmine		ton	<u>) I X L</u>	mix	1/	/5/	07	
e. Name of Authorized Agent (Print)		Signatu	e	0	g. Date			
IV. ASBESTOS (Generator	complete	s IVa-f	and Operator	complete IVa-i)				
a. Operator's Name and Address:				c. Responsible Agency	Name and A	1		
				C. Responsible Agency	Marriel and Ad	Koness:		
			ļ					
b. Phone:			1	d. Phone:				•
e. Special Handling Instructions and Additi	onal Inform	ation:						
				•			•	
	·				·			
f. Friable Non-Friable Both		% Friab	łe	% Non-Frlable				
OPERATOR'S CERTIFICATION: I hereby	declare that	t the con	tents of this cons	ignment are fully and acc	curately desc	ribed abov	e by proper ship	ping name
and are classified, packed, marked and lab	oeled and a	ne in all n	aspects in proper	condition for transport by	y highway ec	cording to	applicable intern	ational and
national governmental regulations.								
			• -					
a Concentrate Name and Tot- miles		~						
g. Operator's Name and Title (Print)	<u> h</u>	Signatu	re		i. Date			
*Operator refers to the company which owr renovation operation or both	13, 108383, 1	operates,	, controls, or supe	ervises the facility being (temolished o	r renovate	d, or the demolit	on or
							·	
					-	-	0000	71

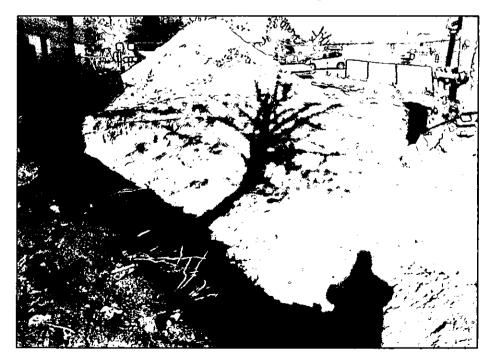
APPENDIX C

Photographs



Photo #1: View of subject property, facing north, during asphalt removal.

Photo #2: View of north wall of excavation, facing north.



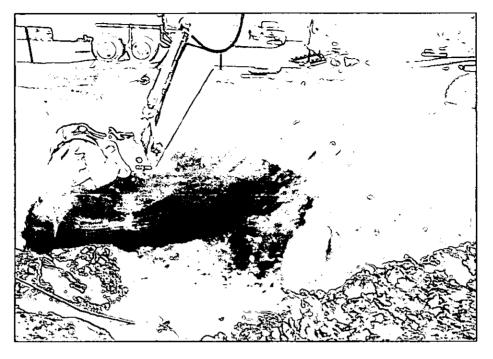


Photo #3: View of excavation, facing east.

Photo #4: View of backfill pile.





Photo #5: Close-up view of excavation wall.

Photo #6: View of drainage hose on the north wall of excavation.



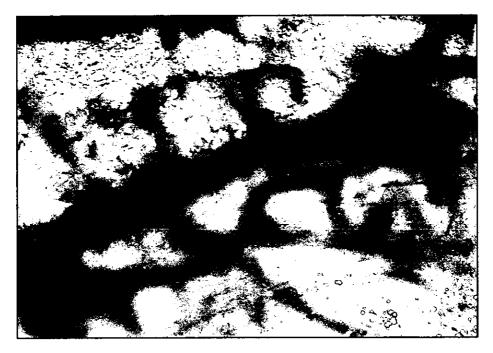
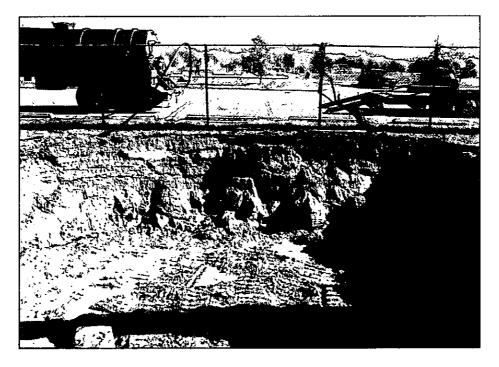


Photo #7: Close-up view of excavation wall.

Photo #8: View of east wall of excavation, facing east.



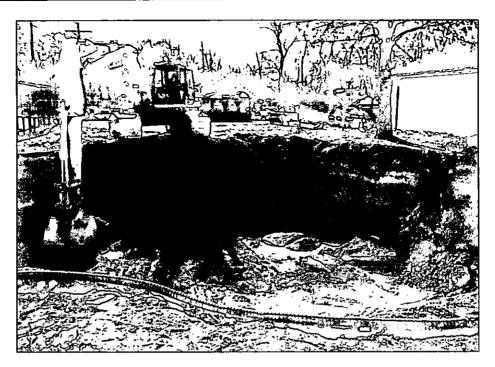
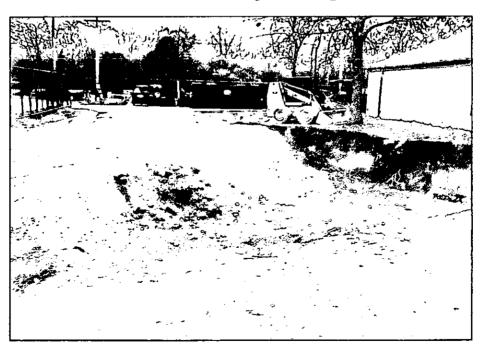


Photo #9: View of south and west walls of excavation, facing south.

Photo #10: View of excavation being filled, facing south.



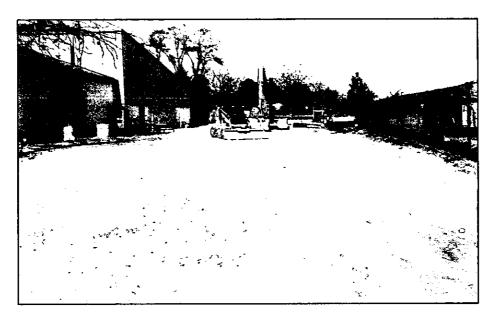


Photo #11: View of filled excavation, facing north.

APPENDIX D

Budget Amendment

BUDGET AND BILLING FORM FOR LEAKING UNDERGROUND STORAGE TANK SITES

A. SITE INFORMATION

Site Name: <u>West Chicago Park District</u>
Site Address: 250 West National Street City: West Chicago
Zip: <u>60185</u>
County: DuPage IEPA Generator No.: 043090582
IEMA Incident No.: 980814
IEMA Notification Date: 04/13/98
Date this Form was Prepared:07/02/13
This form is being submitted as a: (check one)
Budget Proposal
Budget Amendment (Budget Amendments must include only the costs over the previous budget.)
Amendment Number: 1
Billing Package for costs incurred pursuant to 35 Illinois Administrative Code (IAC), Part 732 ("new program").
Name(s) of report(s) documenting the costs requested: Free Product Removal Report/Corrective Action
Completion Report Date(s): 07/12/13
This form is being submitted for the Site Activities indicated below (check one):
Early Action Site Classification
Low Priority Corrective Action High Priority Corrective Action
Other (indicate activities)

DO NOT SUBMIT "NEW PROGRAM" COSTS AND "OLD PROGRAM" COSTS AT THE SAME TIME, ON THE SAME FORMS.

A-1

This form must be submitted in duplicate.

IL 532-2263 494 Rev. March 2000 The Agency is authorized to require this information under 415 ILCS 5/1. Disclosure of this LPC information is required. Failure to do so may result in the delay or denial of any budget or payment requested hereunder. This form has been approved by the Forms Management Center.

IEMA No. 980814

of USTs may be eligible fo				
Pay to the order of:West	t Chicago Park Dist	rict		
Send in care of: <u>Mr. Jess</u>	se Felix			· · =
ddress: 157 West Was	shington Street			· · · · · · · · · · · · · · · · · · ·
City: West Chicago		State: Illinois	Zip:	60185
Number of Petroleum US or joint stock company of company of the owner or	f the owner or opera	tly owned or operated by th tor; and any company owne	e owner or operator d by any parent, su	r; any subsidiary, pa bsidiary or joint stoo
Fewer than 101:	101	or more:		
Number of USTs at the site removed.)	e: <u>2</u> (Number	of USTs includes USTs prese	ntly at the site and U	STs that have been
Number of incidents repor	ted to IEMA: 1			
Vulleet Marchana and		ases from USTs: 980814		
ncident Numbers assigned	d to the site due to rele	ases from USTS: <u>boot in</u>		
incident Numbers assigned	d to the site due to rele	ases <u>troni 0315</u>		
			located at the site.	
Please list all tanks which	have ever been locate Size	d at the site and are presently Did UST		Type of
Please list all tanks which Product Stored	have ever been locate Size (gallons)	d at the site and are presently Did UST have a release?	Incident No.	Release
Please list all tanks which Product Stored	have ever been locate Size	d at the site and are presently Did UST		
Please list all tanks which Product Stored unleaded gasoline	have ever been locate Size (gallons)	d at the site and are presently Did UST have a release?	Incident No.	Release
Please list all tanks which Product Stored unleaded gasoline	have ever been locate Size (gallons) 2,000	d at the site and are presently Did UST have a release?	Incident No. 980814	Release overfill
Please list all tanks which Product Stored unleaded gasoline	have ever been locate Size (gallons) 2,000	d at the site and are presently Did UST have a release? Ves No	Incident No. 980814	Release overfill
Please list all tanks which Product Stored unleaded gasoline	have ever been locate Size (gallons) 2,000	d at the site and are presently Did UST have a release? Ves No Yes No Yes No	Incident No. 980814	Release overfill
Please list all tanks which Product Stored unleaded gasoline	have ever been locate Size (gallons) 2,000	d at the site and are presently Did UST have a release? Ves No Ves No Ves No Yes No	Incident No. 980814	Release overfill
Please list all tanks which	have ever been locate Size (gallons) 2,000	d at the site and are presently Did UST have a release? Ves No Ves No Ves No Ves No Ves No Ves No	Incident No. 980814	Release overfill
Please list all tanks which Product Stored unleaded gasoline	have ever been locate Size (gallons) 2,000	d at the site and are presently Did UST have a release? Yes No Yes No Yes No Yes No Yes No Yes No Yes No No Yes No	Incident No. 980814	Release overfill
Please list all tanks which Product Stored unleaded gasoline	have ever been locate Size (gallons) 2,000	d at the site and are presently Did UST have a release? Yes No Yes No Yes No Yes No Yes No Yes No Yes No Yes No No Yes No	Incident No. 980814	Release overfill

A-2

IEMA No. 980814

B. PROPOSED BUDGET SUMMARY AND BUDGET TOTAL (fields filled in automatically)

I. Investigation Costs: \$_	1,399,40		
-----------------------------	----------	--	--

2. Analysis Costs: \$ 3,210.00

3. Personnel Costs: \$ 37,135.50

4. Equipment Costs: \$_____

5. Field Purchases and Other Costs: \$ 6,825.00

6. Handling Charges: \$_____

TOTAL PROPOSED BUDGET = \$_48,569.90

.

IEMA No. 980814

C. AF	PRO	VED BUDGET SUMMARY AND BILLING SUMMARY
1.	Am	nount approved in the Budget
	١.	Investigation Costs: \$
	2.	Analysis Costs: \$
	3.	Personnel Costs: \$
	4.	Equipment Costs: \$
	5.	Field Purchases and Other Costs: \$
	6.	Handling Charges: \$
		TOTAL APPROVED IN THE BUDGET = S
2.	Am	nount Requested for Reimbursement
	1.	Investigation Costs: \$
	2.	Analysis Costs: \$
	3.	Personnel Costs: \$
	4.	Equipment Costs: \$
	5.	Field Purchases and Other Costs: \$
	6.	Handling Charges: \$
	AM	IOUNT REQUESTED FOR REIMBURSEMENT = \$
A	budget	for the bills included in this billing package was approved by the Agency on
Th	is billi	ng package includes bills which were included in the Budget Amendment dated
an	d appro	oved by the Agency on
Ne	either a	budget nor a budget amendment was approved by the Agency for the bills included in this packa
		C-1

D.	PAYMENT CERTIFICATION - This certification must be included with every request for
	payment.

I further certify that if the costs included in this claim for reimbursement are approved for payment, the following limitations will not be exceeded:

- 1. Payment of this claim will not result in the owner or operator receiving reimbursement of corrective action costs or indemnification costs from the Fund for more than \$1,000,000 per occurrence.
- 2. Payment of this claim will not result in the owner or operator receiving reimbursement of corrective action costs or indemnification costs from the Fund incurred during a calendar year in excess of the following amounts:

\$1,000,000, if fewer than 101 tanks are owned or operated in Illinois. \$2,000,000, if 101 or more tanks are owned or operated in Illinois.

Owner/Operator:	Title:	· · · · · · · · · · · · · · · · · · ·
Signature:	Date:	
Subscribed and swom to before me the		,20,
(Notary Public)	Seal:	

D-1 `

This form must be submitted in duplicate.

Electronic Filing: Received, Clerk's Office 09/20/2024 IEMA No. 980814 **INVESTIGATION COSTS** E. Method III Not Applicable Method II Method I Drilling Costs - This includes the costs for drilling labor, drill rig usage, and other drilling equipment. 1. Borings which are to be completed as monitoring wells should be listed here. Costs associated with disposal of cuttings should not be included here. An indication must be made as to why each boring is being conducted (i.e., classification, monitoring wells, migration pathways). 1 borings to 15.0 feet = 15.0 feet to be bored for monitoring well ____ borings to ______ feet = ______ feet to be bored for ______ borings to ______ feet = ______ feet to be bored for ______ borings to ______ feet = ______ feet to be bored for ______ borings to _____ feet = _____ feet to be bored for _____ Total Feet to be Bored: 15.00 Borings: <u>15.00</u> feet x <u>\$ 16.96</u> per foot = <u>\$ 254.40</u> (or) Hours ______ x \$_____ per hour = \$_____ _ borings through ______ ft of bedrock = _____ Ft bedrock to be bored borings through ______ ft of bedrock = _____ Ft bedrock to be bored Total Feet bedrock to be Bored: Borings: _____ Ft bedrock x \$_____ per ft bedrock = \$_____ (or) _____ Hours x \$_____ per Hour = \$_____ # of Mobilizations @ \$_____ per mobilization = \$_____ Number of Units Unit Cost Total Cost Other Costs

- 2. Professional Services (e.g., P.E., geologist) These costs must be listed in Section I, the Personnel section of the forms.
- 3. Monitoring Well Installation Materials Costs listed here must be costs associated with well casing, well screens, filter pack, annular seal, surface seal, well covers, etc. List the items below in a time and materials format.

Material	Number of Units	Unit Cost	Total Cost
Well screen	1	\$200.00	\$200.00
Sand	3	\$10.00	\$30.00
Bentonite	2	\$15.00	\$30.00
Well cover	1	\$75.00	\$75.00
Concrete	1	\$10.00	\$10.00
Bentonite (for well sealing)	30	\$15.00	\$450.00
Concrete (for well sealing)	10	\$10.00	\$100.00

4. Disposal Costs - This includes the costs for disposing of boring cuttings and any water generated while performing borings or installing wells.

Disposal of Cuttings: _____ drums x \$ 250.00 ____ per drum = \$ 250.00

Disposal of Water: _____ gallons x \$_____ per gallon = \$_____

Transportation Costs: \$_____

Describe how the water/soil will be disposed: ______

Total Investigation Costs: \$ 1,399.40

F. ANALYSIS COSTS

<u>4</u> N	Aoisture Content sample	es x \$ <u>13.00</u> per sample = \$ <u>52.00</u>)
s	oil Classification sampl	les x \$ per sample = \$	
	Indicate method to	be performed:	
s	oil Particle Size sample	es x \$ per sample = \$	
E	Ex-situ Hydraulic Condu	activity/Permeability samples	
		x \$ per sample = \$	
	Indicate the metho	d to be performed:	
F	Rock Hydraulic Conduct	tivity/Permeability samples	
		x \$ per sample = \$	
ז <u>2</u>	Natural Organic Carbon	Fraction (foc) samples	
		x \$_40.00 per sample = \$_80.00	
	Indicate the ASTM	1 or SW-846 method to be performed:	
4	ТРН	samples x \$ 125.00 per sample = \$ 500.0	0
4	COD	samples x \$ 30.00 per sample = \$ 120.0	0
4	RCRA	samples x \$_200.00 per sample = \$_800.0	00
4	Lead in soil	samples x \$_24.00 per sample = \$_96.00)
4	Iron in soil	samples x \$_24.00 per sample = \$_96.00)
		the fee laboratory and using the	
	•	t be for laboratory <i>analysis</i> only.	
E	BTEX samples x \$	per sample = \$	
F	NA samples x S	per sample = \$	

IEMA No. 980814

	_ Paint Filter samples x \$	per sample = \$	
	_TCLP Lead samples x \$	per sample = \$	
	_ Flash Point samples x \$	per sample = \$	
	_ Lab and/or Field Bank sam	ples x \$ per	sample = \$
4	Soil bulk density	samples x \$_22.00	per sample = \$ <u>88.00</u>
4	Soil particle density	samples x \$_22.00	per sample = \$ <u>_88.00</u>
4	Plate count	samples x \$145.00	per sample = \$ <u>580.00</u>
		samples x \$	per sample = \$
		samples x \$	per sample = \$
	_ BTEX samples x \$ <u>60.00</u> _ PNA samples x \$ <u>150.00</u>		
1		per sample = \$_ <u>150.00</u>	
. 1	_ PNA samples x \$ <u>150,00</u>	per sample = \$ <u>_150.00</u> < \$ per sampl	e = \$
. 1	PNA samples x \$ <u>150.00</u> LUST Pollutants samples x pH Samples x \$	per sample = \$_ <u>150.00</u> < \$ per sampl per sample = \$	e = \$
. 1	PNA samples x \$ <u>150.00</u> LUST Pollutants samples x pH Samples x \$	per sample = \$_ <u>150.00</u> < \$ per sampl per sample = \$ nples x \$ per	e = \$ sample = \$
. 1	_ PNA samples x \$ <u>150.00</u> _ LUST Pollutants samples x _ pH Samples x \$ _ Lab and/or Field Blank san	per sample = \$150.00 x \$per sample per sample = \$ nples x \$per per sample = \$	e = \$ sample = \$
4	PNA samples x \$ <u>150.00</u> LUST Pollutants samples x pH Samples x \$ Lab and/or Field Blank san Flash Point samples x \$ TPH	per sample = \$50.00 x \$per sample per sample = \$ nples x \$per per sample = \$ samples x \$25.00	e = \$ sample = \$
4	PNA samples x \$ <u>150.00</u> LUST Pollutants samples x pH Samples x \$ Lab and/or Field Blank san Flash Point samples x \$ <u>TPH</u>	per sample = \$_ <u>150.00</u> x \$per sample per sample = \$ mples x \$per per sample = \$ samples x \$_ <u>125.00</u> samples x \$	e = \$ sample = \$ Per sample = \$_500.00
	PNA samples x \$ <u>150.00</u> LUST Pollutants samples x pH Samples x \$ Lab and/or Field Blank san Flash Point samples x \$ TPH	per sample = \$per sample per sample = \$per mples x \$per sample = \$per per sample = \$ samples x \$samples x \$	e = \$ sample = \$ Per sample = \$_500.00 Per sample = \$
4	PNA samples x \$_150.00 LUST Pollutants samples x pH Samples x \$ Lab and/or Field Blank sam Flash Point samples x \$ TPH	per sample = \$per sample per sample = \$per per sample = \$per per sample = \$ samples x \$samples x \$ samples x \$	e = \$ sample = \$ Per sample = \$_500.00 Per sample = \$ Per sample = \$

TOTAL ANALYSIS COSTS = \$_3,210.00

G. PERSONNEL

All personnel costs that are not included elsewhere in the budget/billing form must be listed here. Costs must be listed per task, not personnel type. The following are some examples of tasks: Drafting, data collection, plan, report, or budget preparation for _____ (i.e., site classification work plan, 45 day report, or high priority corrective action budget), sampling, field oversite for ______ (i.e., drilling/well installation, corrective action, or early action), of maintenance of _____. The above list is not inclusive of all possible tasks. Professional Geologist : 8.00 hours x \$ 100.33 per hour = \$ 802.64 (Title) Task to be performed for the above hours: Landfill permit management (using previous data -- no data/field work) Professional Geologist : 12.00 hours x \$ 100.33 per hour = \$ 1,203.96 (Title) Task to be performed for the above hours: Startup of corrective actions-ph calls, review with contractors, staff 10.00 hours x \$ 100.33 per hour = \$ 1,003.30 Professional Geologist (Title) Task to be performed for the above hours: backfill issues-loss of volume and extra materials needed-see text Professional Geologist : 30.00 hours x \$ 100.33 per hour = \$ 3,009.90 (Title) Task to be performed for the above hours: TACO analysis, data review, Csat issue with xylenes detection : <u>12.00</u> hours x \$ 70.88 per hour = \$ 850.56 Scientist II (Title) Task to be performed for the above hours: TACO analysis: setup of data/eqns, variable selection, proofing : 90.00 hours x 92.69 per hour = 8.342.10Geologist III (Title) Task to be performed for the above hours: CACR, TACO results, Csat issue, backfull issues, etc. Senior Professional Geologist __: 20.00 hours x \$_119.95 per hour = \$_2,399.00 (Title) Task to be performed for the above hours: Client management, TACO review, Csat and backfill issues, planning ± 44.00 hours x \$ 92.69 per hour = \$ 4,078.36 Geologist III (Title) Task to be performed for the above hours: Preparation of 2007 response to IEPA request for more data

IEMA No. 980814

Scientist IV	: <u>10.00</u> _	hours x \$ <u>_81.79</u>	per hour = \$ <u>817.90</u>
(Title)			
Task to be performed for the	above ho <u>urs; fie</u>	ld work for installation o	fextra soil boring/monitoring we
Geologist III	:	hours x \$ <u>95.96</u>	per hour == \$ <u>2.686.88</u>
(Title)			
Task to be performed for the	above ho <u>urs:</u> Pr	eparation of budget amo	endment
Scientist II	: 30.00	hours x \$68	per hour = $\frac{2.126.40}{2.126.40}$
(Title)			
Task to be performed for the	above ho <u>urs; se</u>	aling of monitoring wells	upon receipt of NFR letter
Geologist III		hours x \$_ <u>95,96</u>	per hour = \$ <u>3.838.40</u>
(Title)			
Task to be performed for the	above ho <u>urs: Fr</u>	ee product reporting, an	opeal of 12/07 IEPA data reques
Professional Geologist	; 40.00	hours x \$ 100.33	per hour = \$ 4.013.20
(Title)			
Task to be performed for the			
Task to be performed for the Administrative Assistant IV (Title)		hours x \$ <u>_43.62</u>	prting/2007 free prod. disc with li per hour = \$ <u>1.962.90</u> pursement, publishing, etc for ab
Task to be performed for the Administrative Assistant IV (Title) Task to be performed for the	:	hours x \$ <u>43.62</u>	per hour = \$ <u>1.962.90</u>
Task to be performed for the Administrative Assistant IV (Title) Task to be performed for the	:	hours x \$ <u>43.62</u>	per hour = \$ <u>1.962.90</u>
Task to be performed for the Administrative Assistant IV (Title) Task to be performed for the	: <u>45.00</u> above ho <u>urs: ao</u> :	hours x \$ <u>43.62</u>	per hour = \$ <u>1.962.90</u> oursement, publishing, etc for ab per hour = \$
Task to be performed for the <u>Administrative Assistant IV</u> (Title) Task to be performed for the (Title) Task to be performed for the	: <u>45.00</u> above ho <u>urs: ac</u> : above ho <u>urs:</u>	hours x \$ <u>43.62</u>	per hour = \$ <u>1.962.90</u> oursement, publishing, etc for ab per hour = \$
Task to be performed for the <u>Administrative Assistant IV</u> (Title) Task to be performed for the (Title) Task to be performed for the	: <u>45.00</u> above ho <u>urs: ac</u> : above ho <u>urs:</u>	hours x \$ <u>43.62</u>	per hour = \$ <u>1.962.90</u> oursement, publishing, etc for ab per hour = \$
Task to be performed for the <u>Administrative Assistant IV</u> (Title) Task to be performed for the (Title) Task to be performed for the	: <u>45.00</u> above ho <u>urs; ao</u> : above ho <u>urs;</u>	hours x \$ <u>43.62</u>	per hour = \$ <u>1.962.90</u> oursement, publishing, etc for ab per hour = \$
Task to be performed for the <u>Administrative Assistant IV</u> (Title) Task to be performed for the (Title) Task to be performed for the (Title)	: <u>45.00</u> above ho <u>urs: ao</u> : above ho <u>urs:</u> above ho <u>urs:</u>	hours x \$ <u>43.62</u> Imin management,reimt hours x \$ hours x \$	per hour = \$ <u>1.962.90</u>
Task to be performed for the <u>Administrative Assistant IV</u> (Title) Task to be performed for the (Title) Task to be performed for the (Title)	: <u>45.00</u> above ho <u>urs: ao</u> : above ho <u>urs:</u> above ho <u>urs:</u>	hours x \$ <u>43.62</u> Imin management,reimt hours x \$ hours x \$	per hour = \$ <u>1.962.90</u> oursement, publishing, etc for ab per hour = \$
Task to be performed for the <u>Administrative Assistant IV</u> (Title) Task to be performed for the (Title) Task to be performed for the (Title) Task to be performed for the	:45.00 above ho <u>urs: ad</u> : above ho <u>urs:</u> above ho <u>urs:</u>	hours x \$ <u>43.62</u> Imin management,reimt hours x \$ hours x \$ hours x \$	per hour = \$ <u>1.962.90</u>
Task to be performed for the <u>Administrative Assistant IV</u> (Title) Task to be performed for the (Title) Task to be performed for the (Title) Task to be performed for the (Title) Task to be performed for the	:45.00 above ho <u>urs: ad</u> : above ho <u>urs:</u> above ho <u>urs:</u> above ho <u>urs:</u>	hours x \$ <u>43.62</u>	per hour = \$ <u>1.962.90</u>

This form must be submitted in duplicate.

· ·

H. EQUIPMENT COSTS

J

All equipment used must be listed below in a time and materials format. Handling charges should not be added here; use Section J.

Equipment	Own or Rent?	Time U	Jsed	Unit Rate	Total Cost/Item
					·
				.,	
· · · · · · · · · · · · · · · · · · ·	-				
				······	
				<u>.</u>	
·					
	[
					-
				<u></u>	·
L	<u>i</u>	L	Subto	tal Page H-1_	

IEMA No. 980814

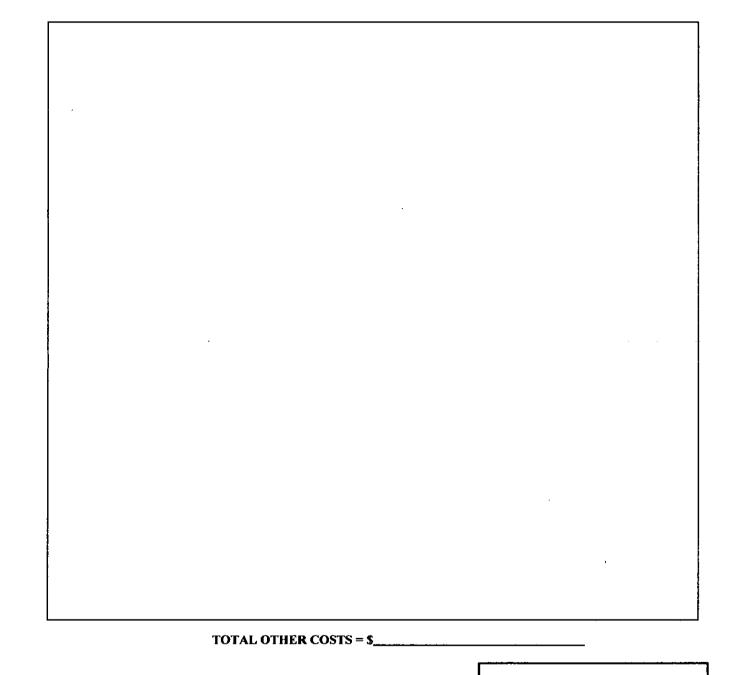
	0				Tatal
Equipment	Own or Rent?	Ti	me Used	Unit Rate	Total Cost/Item
					· · · · · -
· · · · · · · · · · · · · · · · · · ·]				
·····					
		 			
		.			
· · · · ·	<u>†</u>				
		\vdash			
· ····		-			<u> </u>
L	L				
			Subtotal F	Page H-2	
			Total (Pag	ges H-1 and H-2	2)

I. FIELD PURCHASES AND OTHER COSTS

All field purchases must be listed below in a time and materials format. Handling charges must not be added here; use Section J, Handling Charges, to calculate the handling charges.

Field Purchases	Quantity	Price/Item	Total Cost	Do Handling Charges Apply?
Disposal of contaminated soil	35.00	\$60.00	\$2,100.00	
Backfill material	150.00	\$31.50	\$4,725.00	
· · · · · · · · · · · · · · · · · · ·				
		. 		
······································				
		Subtotal Pa	age I-1	\$6,825.00

Other Costs - A listing and description of all other costs which will be/were incurred and are not specifically listed on this form should be attached. The listing should include a cost breakdown in a time and materials format.



Subtotal Page I-2____

Total (Pages I-1 and I-2) \$6,825.00

J. HANDLING CHARGES

Handling charges are eligible for payment on subcontractor billings and/or field purchases only if they are equal to or less than the amounts determined by the following table:

Subcontractor or Field	Eligible Handling Charges as a
Purchase Cost	Percentage of Cost
\$1 - \$5,000	12%
\$5,001 - \$15,000	\$600 + 10% of amt. Over \$5,000
\$15,001 - \$50,000	\$1,600 + 8% of amt. Over \$15,000
\$50,001 - \$100,000	\$4,400 + 5% of amt. Over \$50,000
\$100,001 - \$1,000,000	\$6,900 + 2% of amt. Over \$100,000

A. Subcontractor Charges

Subcontractor	Section in these Forms where Cost is Listed	Subcontract Amount
· · · ·	-	
· · · · · · · · · · · · · · · · · · ·		
· · · · · · · · · · · · · · · · · · ·		
· · · · · · · · · · · · · · · · · · ·	Subtotal Page J	-1:

Subtotal Pag			
Subtotal Pag			
Subtotal Pag	· · · · · · · · · · · · · · · · · · ·		
	Subtotal Page J-2		
E	(Pages J-1 and J-2):		

Handling Charge*:_

*Use chart at top of Page J-1 to calculate the allowable handling charge.

Copies of invoices for subcontractor costs and receipts for field purchases are required for billing submissions.

IEMA No. 980814

K. LOW PRIORITY CORRECTIVE ACTION

Corrective Action at Low Priority Sites consists of groundwater monitoring for three years.

- A. Preparation of the Corrective Action Plan. Attach the appropriate sections of the budget/billing forms to support the summary of costs.
 - 1. Investigation Costs: \$_____
 - 2. Analysis Costs: \$_____
 - 3. Personnel Costs: \$_____
 - 4. Equipment Costs: \$_____
 - 5. Field Purchases and Other Costs: \$_____
 - 6. Handling Charges: \$_____
- B. 1st Year Sampling and Analytical Costs (Quarterly Monitoring) Provide a summary of the 1st year costs below. Attach the appropriate sections of the budget/billing forms to support the summary of costs.
 - 1. Analysis Costs: \$_____
 - 2. Personnel Costs: \$_____
 - 3. Equipment Costs: \$_____

4. Field Purchases and Other Costs: \$_____

5. Handling Charges: \$_____

C. 2nd Year Sampling and Analytical Costs (Semiannual Monitoring) - Provide a summary of the 2nd year costs below. Attach the appropriate sections of the budget/billing forms to support the summary of costs.

 1. Analysis Costs: \$_____

 2. Personnel Costs: \$______

3. Equipment Costs: \$_____

- 4. Field Purchases and Other Costs: \$_____
- 5. Handling Charges: \$_____

D.	3rd 1 belov	Year Sampling and Analytical Costs (Annual Monitoring) - Provide a summary of the 3rd year costs w. Attach the appropriate sections of the budget/billing forms to support the summary of costs.
	1.	Analysis Costs: \$
	2.	Personnel Costs: \$
	3.	Equipment Costs: \$
	4.	Field Purchases and Other Costs: \$
	5.	Handling Charges: \$
TOTAL L	OW P	RIORITY CORRECTIVE ACTION COSTS: S

ĺ

HIGH PRIORITY CORRECTIVE ACTION L.

Corrective Action at High Priority Sites may involved both soil and groundwater remediation. Provide below a summary of costs for the remediation type(s) chosen and attach the appropriate sections of the budget/billing forms to support the summary of costs.

Preparation of the Correction Action Plan A.

- 1. Investigation Costs: \$_____
- Analysis Costs: \$_____ 2.
- Personnel Costs: \$_____ 3. Equipment Costs: \$_____
- Field Purchases and Other Costs: \$_____ 5.
- Handling Charges: \$_____ 6.

В. **Groundwater Remediation**

4.

- Analysis Costs: \$_____ 1
- Personnel Costs: \$ 2
- 3 Equipment Costs: \$
- Field Purchases and Other Costs: \$_____ 4
- Handling Charges: \$_____ 5

Of the above costs, please provide a breakdown of the costs associated with operation and maintenance (O&M), if applicable, as requested below:

_____ Months of O&M x \$_____ per month = \$_____

Excavation and Disposal С.

1 Analysis Costs: \$_____

2 Personnel Costs: \$_____

- 3 Equipment Costs: \$_____
- Field Purchases and Other Costs: \$_____ 4
- 5 Handling Charges: \$_____

Of the above costs, please provide a breakdown of the costs associated with excavation, transportation, and disposal as requested below:

Excavation:	_yards ³ x \$	_per yards ³ = \$
Transportation:	_yards³ x \$	_per yards ³ = \$
Disposal:	_yards ³ x \$	_per yards ³ = \$

IEMA No. 980814

71160	ernate Technology, Type
I.	Investigation Costs: \$
2.	Analysis Costs: \$
3.	Personnel Costs: \$
4.	Equipment Costs: \$
5.	Field Purchases and Other Costs: \$
6.	Handling Charges: \$
	Of the above costs, please provide a breakdown of the following costs, if applicable, as requested below:
	Excavation:yards ³ x $per yards3 = $
	Transportation:yards ³ x \$per yards ³ = \$
	Treatment:yards ³ x \$per yards ³ = \$
	Operation and Maintenance (O&M):
	Months of O&M x \$ per month = \$
Baci	kfill Costs
1.	Personnel Costs: \$
2.	Equipment Costs: \$
3.	Field Purchases and Other Costs: \$
4.	Handling Charges: \$
	Of the above costs, please provide a breakdown of the following costs, if applicable, as requested below:
	Type of Backfill:
	yards ³ x \$per yards ³ = \$
	Type of Backfill:
	yards ³ x \$per yards ³ = \$
	 1. 2. 3. 4. 5. 6. Bac 1. 2. 3.

IEMA No. 980814

M. JUSTIFICATION FOR BUDGET AMENDMENTS

If this form is being submitted for an amendment, you must submit a narrative justifying the need for the amendment. If the amendment includes a revision in a corrective action proposal, a new proposal must be submitted.

.

APPENDIX E

Laboratory Reports-Soil Quality



Environmental Laboratories. Inc.

First

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

November 13, 2009

Mr. Daniel Horvath RESOURCE CONSULTING, INC. P.O. Box 123 Geneva, IL 60134

Project ID: West Chicago Park District First Environmental File ID: 9-4725 Date Received: November 06, 2009

Dear Mr. Daniel Horvath:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 002205: effective 02/06/09 through 02/28/10.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200 or stan@firstenv.com.

Sincerely,

Stan Zaworski Project Manager

Page 1 of 13



Environmental

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

RESOURCE CONSULTING, INC.

Project ID: West Chicago Park District

First Environmental File ID: 9-4725

Date Received: November 06, 2009

Fläg	Description	Flag	Description as a statistic of
<	Analyte not detected at or above the reporting limit.	L+	LCS recovery outside control limits; high bias.
B	Analyte detected in associated method blank.	L	LCS recovery outside control limits; low bias.
С	Identification confirmed by GC/MS.	М	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.	M+	MS recovery outside control limits high bias; LCS acceptable.
E	Estimated result; concentration exceeds calibration range.	М-	MS recovery outside control limits low bias; LCS acceptable.
F	Field measurement.	N	Analyte is not part of our NELAC accreditation.
		ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.
G	Surrogate recovery outside control limits; matrix effect.	P	Chemical preservation pH adjusted in lab.
Н	Analysis or extraction holding time exceeded.	Q	The analyte was determined by a GC/MS database search.
J	Estimated result; concentration is less than calib range.	S	Analyte was sub-contracted to another laboratory for analysis.
ĸ	RPD outside control limits.	Т	Sample temperature upon receipt exceeded 0-6°C
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	w	Reporting limit elevated due to sample matrix.

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

Sample Batch Comments:

Sample acceptance criteria were met.

Method Comn	ients	
Lab Number	Sample ID	Comments:
9-4725-001	EW-1	Polynuclear Aromatic Hydrocarbons The reporting limits are elevated due to matrix interference.
9-4725-001	EW-1	BTEX Organic Compounds The reporting limits are elevated due to matrix interference.
9-4725-002	EW-2	BTEX Organic Compounds The reporting limits are elevated due to matrix interference.



First Environmental

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

		Analytical R	epo	ort			
Client:	RESOURCE CONSULTIN	NG, INC.			Date C	Collected:	11/05/09
Project ID:	West Chicago Park Distric	t			Time (14:40	
•	EW-1				Date R	leceived:	11 /06/09
	9-4725-001				Date R	leported:	11/13/09
-	rted on a dry weight basis.						
Analyte]	Result	R.L.	Units	Flags
Solids, Total Analysis Date:	11/09/09	Method: 2540B					
Total Solids				88.70		%	
BTEX Organic Analysis Date:		Method: 5035A/	826	ов			
Benzene				297	5.0	ug/kg	
Ethylbenzene				77,600	5.0	ug/kg	
Toluene			<	5,000	5.0	ug/kg	
Xylene, Total				333,000	5.0	ug/kg	
Polynuclear Ar Analysis Date:	omatic Hydrocarbons 11/11/09	Method: 8270C			Preparation Preparation I	Method 3 Date: 11/09/	540C '09
Acenaphthene				540	50	ug/kg	
Acenaphthylene	1			191	50	ug/kg	
Anthracene			<	50	50	ug/kg	
Benzo(a)anthrac	ene			33.7	8.7	ug/kg	
Benzo(a)pyrene			<	150	15	ug/kg	
Benzo(b)fluorar			<	110	11	ug/kg	
Benzo(k)fluorar	nthene		<	110	11	ug/kg	
Benzo(ghi)peryl	lene		<	50	50	ug/kg	
Chrysene				50	50	ug/kg	
Dibenzo(a,h)ant	hracene		<	200	20	ug/kg	
Fluoranthene				60	50	ug/kg	
Fluorene				435	50	ug/kg	
Indeno(1,2,3-cd)pyrene		<	29	29	ug/kg	
Naphthalene				160,000	25	ug/kg	
Phenanthrene				551	50	ug/kg	
Pyrene				120	50	ug/kg	

.



Environmental Laboratories, Inc.

First

IL ELAP / NELAC Accreditation # 100292

		Analytical R	epor	t			
Client:	RESOURCE CONSULTIN	IG, INC.			Date (Collected:	11/05/09
Project ID:	West Chicago Park District				Time	Collected:	14:43
Sample ID:	EW-2				Date]	Received:	11/06/09
Sample No:	9-4725-002				Date]	Reported:	11/13/09
	orted on a dry weight basis.						
Analyte		<u></u>	Re	sult	R.L.	Units	Flags
Solids, Total Analysis Date:	11/09/09	Method: 2540B					
Total Solids			90	.28	_	%	
BTEX Organi Analysis Date:	c Compounds 11/09/09	Method: 5035A	/8260E	3			
Benzene				.9	5.0	ug/kg	
Ethylbenzene				69 0	5.0	ug/kg	
Toluene			< 50		5.0	ug/kg	
Xylene, Total			13	,000	5.0	ug/kg	
Polynuclear A Analysis Date:	romatic Hydrocarbons 11/11/09	Method: 8270C			Preparation Preparation	n Method 3 Date: 11/09/	540C 09
Acenaphthene			14	15	50	ug/kg	
Acenaphthylen	e		59)	50	ug/kg	
Anthracene			< 50)	50	ug/kg	
Benzo(a)anthra	acene		< 8.	7	8.7	ug/kg	
Benzo(a)pyren	e		< 15		15	ug/kg	
Benzo(b)fluora	inthene		< 11	-	11	ug/kg	
Benzo(k)fluora	inthene		< 11	-	11	ug/kg	
Benzo(ghi)per	ylene		< 50	-	50	ug/kg	
Chrysene			< 50		50	ug/kg	
Dibenzo(a,h)ar	nthracene		< 20	-	20	ug/kg	
Fluoranthene			< 50	-	50	ug/kg	
Fluorene				26	50	ug/kg	
Indeno(1,2,3-c	d)pyrene		< 29	-	29	ug/kg	
Naphthalene				710	25	ug/kg	
Phenanthrene				80	50	ug/kg	
Pyrene			< 50)	50	ug/kg	



Environmental Laboratories, Inc.

First

IL ELAP / NELAC Accreditation # 100292

		Analytical R	eport			
Client: F	ESOURCE CONSULTIN	IG, INC.		Date (Collected:	11/05/09
Project ID: V	Vest Chicago Park District	t		Time	Collected:	14:50
•	W-1			Date I	Received:	11/06/09
-	-4725-003			Date I	Reported:	11/13/09
-	ted on a dry weight basis.					
Analyte		<u> </u>	Result	R.L.	Units	Flags
Solids, Total Analysis Date: 1	1/09/09	Method: 2540B				
Total Solids			94.46		%	
BTEX Organic Analysis Date: 1		Method: 5035A/	8260B			
Benzene			< 5.0	5.0	ug/kg	
Ethylbenzene			23.4	5.0	ug/kg	
Toluene			< 5.0	5.0	ug/kg	
Xylene, Total			90.3	5.0	ug/kg	
Polynuclear Arc Analysis Date: 1	omatic Hydrocarbons 1/11/09	Method: 8270C		Preparation Preparation		
Acenaphthene			< 50	50	ug/kg	
Acenaphthylene			< 50	50	ug/kg	
Anthracene			. < 50	50	ug/kg	
Benzo(a)anthrace	ene		< 8.7	8.7	ug/kg	
Benzo(a)pyrene			< 15	15	ug/kg	
Benzo(b)fluorant	hene		< 11	11	ug/kg	
Benzo(k)fluorant	hene		< 11	11	ug/kg	
Benzo(ghi)peryle	ene		< 50	50	ug/kg	
Chrysene			< 50	50	ug/kg	
Dibenzo(a,h)anth	racene		< 20	20	ug/kg	
Fluoranthene			< 50	50	ug/kg	
Fluorene			< 50	50	ug/kg	
Indeno(1,2,3-cd)	oyrene		< 29	29	ug/kg	
Naphthalene			< 25	25	ug/kg	
Phenanthrene			< 50	50	ug/kg	
Pyrene			< 50	50	ug/kg	



Environmental

First

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

		Analytical R	eport			
Client: R	ESOURCE CONSULTIN	IG, INC.		Date C	Collected:	1/05/09
Project ID: V	Vest Chicago Park District	;		Time	Collected:	14:55
-	W-2			Date F	leceived:	1 1/06/09
-	-4725-004			Date F	Reported:	11/13/09
•	ted on a dry weight basis.					
Analyte			Result	R.L.	Units	Flags
Solids, Total Analysis Date: 1	1/09/09	Method: 2540B				
Total Solids			93.46		%	
BTEX Organic Analysis Date: 1		Method: 5035A/	8260B			
Benzene			< 5.0	5.0	ug/kg	
Ethylbenzene			< 5.0	5.0	ug/kg	
Toluene			< 5.0	5.0	ug/kg	
Xylene, Total			< 5.0	5.0	ug/kg	
Polynuclear Arc Analysis Date: 1	omatic Hydrocarbons 1/10/09	Method: 8270C		Preparation Preparation I		
Acenaphthene			< 50	50	ug/kg	
Acenaphthylene			< 50	50	ug/kg	
Anthracene			< 50	50	ug/kg	
Benzo(a)anthrace	ene		< 8.7	8.7	ug/kg	
Benzo(a)pyrene			< 15	15	ug/kg	
Benzo(b)fluorant	hene		< 11	11	ug/kg	
Benzo(k)fluorant	hene		< 11	11	ug/kg	
Benzo(ghi)peryle	ene		< 50	50	ug/kg	
Chrysene			< 50	50	ug/kg	
Dibenzo(a,h)anth	racene		< 20	20	ug/kg	
Fluoranthene			< 50	50	ug/kg	
Fluorene			< 50	50	ug/kg	
Indeno(1,2,3-cd)	pyrene		< 29	29	ug/kg	
Naphthalene			< 25	25	ug/kg	
Phenanthrene			< 50	50	ug/kg	
Pyrene			< 50	50	ug/kg	



Environmental

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

		Analytical R	eport			
Client:	RESOURCE CONSULTI	NG, INC.		Date (Collected:	11/05/0 9
Project ID:	West Chicago Park Distri	ct		Time	Collected:	14:59
Sample ID:	WW-1			Date H	Received:	11/06/09
Sample No:	9-4725-005			Date I	Reported:	11/13/09
•	orted on a dry weight basis					
Analyte			Result	R.L.	Units	Flags
Solids, Total Analysis Date:	11/09/09	Method: 2540B				
Total Solids			94.71		%	
BTEX Organi Analysis Date:		Method: 5035A	/8260B			
Benzene			< 5.0	. 5.0	ug/kg	
Ethylbenzene			19.9	5.0	ug/kg	
Toluene			6.6	5.0	ug/kg	
Xylene, Total			75.8	5.0	ug/kg	···· · · · · · · · · · · · · · · · · ·
Polynuclear A Analysis Date:	romatic Hydrocarbons 11/11/09	Method: 8270C		Preparation Preparation 1		
Acenaphthene			< 50	50	ug/kg	
Acenaphthylen	e		< 50	50	ug/kg	
Anthracene			< 50	50	ug/kg	
Benzo(a)anthra	cene		< 8.7	8.7	ug/kg	
Benzo(a)pyrend	•		< 15	15	ug/kg	
Benzo(b)fluora	nthene		< 11	11	ug/kg	
Benzo(k)fluora	nthene		< 11	11	ug/kg	
Benzo(ghi)pery	lene		< 50	50	ug/kg	
Chrysene			< 50	50	ug/kg	
Dibenzo(a,h)an	thracene		< 20	20	ug/kg	
Fluoranthene			< 50	50	ug/kg	
Fluorene			< 50	50	ug/kg	
Indeno(1,2,3-co	l)pyrene		< 29	29	ug/kg	
Naphthalene			< 25	25	ug/kg	
Phenanthrene			< 50	50	ug/kg	
Pyrene			< 50	50	ug/kg	



Environmental

First

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

		Analytical Re	por	t			
Client: R	ESOURCE CONSULTIN	IG, INC.			Date C	Collected:	11/05/09
Project ID: W	est Chicago Park District	:			Time	Collected:	15:02
-	/W-2				Date F	Received:	11/06/09
-	4725-006				Date H	Reported:	11/13/09
	ed on a dry weight basis.						
Analyte			Re	esult	R.L.	Units	Flags
Solids, Total Analysis Date: 1	1/09/09	Method: 2540B					
Total Solids			9/	4.47		%	
BTEX Organic (Analysis Date: 1		Method: 5035A/8	2601	B			
Benzene			< 5.		5.0	ug/kg	
Ethylbenzene				9.7	5.0	ug/kg	
Toluene			< 5.		5.0	ug/kg	
Xylene, Total			2	69	5.0	ug/kg	
Polynuclear Aro Analysis Date: 1	matic Hydrocarbons 1/10/09	Method: 8270C			Preparation Preparation 1		
Acenaphthene			< 5	0	50	ug/kg	
Acenaphthylene			< 5	0	50	ug/kg	
Anthracene			< 5	0	50	ug/kg	
Benzo(a)anthrace	ne		< 8	.7	8.7	ug/kg	
Benzo(a)pyrene			< 1	5	15	ug/kg	
Benzo(b)fluorant	nene		< 1	1	11	ug/kg	
Benzo(k)fluorantl	nene		< i	1	11	ug/kg	
Benzo(ghi)peryle	ne		< 5	-	50	ug/kg	
Chrysene			< 5		50	ug/kg	
Dibenzo(a,h)anth	racene		< 2	+	20	ug/kg	
Fluoranthene			< 5		50	ug/kg	
Fluorene			< 5	-	50	ug/kg	
Indeno(1,2,3-cd)p	yrene		< 2	-	29	ug/kg	
Naphthalene				8	25	ug/kg	
Phenanthrene			< 5		50	ug/kg	
Pyrene			< 5	0	50	ug/kg	



Environmental

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

		Analytical R	leport			
Client: RES	OURCE CONSULTI	NG, INC.		Date	Collected:	11/05/09
Project ID: Wes	t Chicago Park Distric	x		Time	Collected:	15:15
Sample ID: NW-	-1			Date]	Received:	11/06/09
-	25-007			Date 1	11/13/09	
Results are reported	on a dry weight basis.					
Analyte			Result	R.L.	Units	Flags
Solids, Total Analysis Date: 11/0	9/09	Method: 2540B				
Total Solids			83.05		%	
BTEX Organic Con Analysis Date: 11/0		Method: 5035A	/8260B			
Benzene			< 5.0	5.0	ug/kg	
Ethylbenzene			25.8	5.0	ug/kg	
Toluene			7.9	5.0	ug/kg	
Xylene, Total			83.5	5.0	ug/kg	
Polynuclear Aroma Analysis Date: 11/1		Method: 8270C		Preparation Preparation	n Method 35 Date: 11/09/0	140C 19
Acenaphthene			< 50	50	ug/kg	
Acenaphthylene			< 50	50	ug/kg	
Anthracene			< 50	50	ug/kg	
Benzo(a)anthracene			< 8.7	8.7	ug/kg	
Benzo(a)pyrene			< 15	15	ug/kg	
Benzo(b)fluoranthen	e		< 11	. 11	ug/kg	
Benzo(k)fluoranthen	e		< 11	11	ug/kg	
Benzo(ghi)perylene			< 50	50	ug/kg	
Chrysene			< 50	50	ug/kg	
Dibenzo(a,h)anthrac	ene		< 20	. 20	ug/kg	
Fluoranthene			< 50	50	ug/kg	
Fluorene			< 50	50	ug/kg	
Indeno(1,2,3-cd)pyre	ene		< 29	29	ug/kg	
Naphthalene			< 25	25	ug/kg	
Phenanthrene			< 50	50	ug/kg	
Pyrene			< 50	50	ug/kg	



Environmental

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

		Analytical R	eport					
Client: RI	SOURCE CONSULTI	NG, INC.		Date Collected: 11/05/09				
Project ID: W	est Chicago Park Distri	ct		Time	Collected:	5:20		
•	₩-2			Date H	Received:	1/06/09		
-	4725-008			Date I	Reported:	1/13/09		
•	d on a dry weight basis	•			-	<u> </u>		
Analyte			Result	R.L.	Units	Flags		
Solids, Total Analysis Date: 11	/09/09	Method: 2540B						
Total Solids			85.76		%			
BTEX Organic C Analysis Date: 11	ompounds /09/09	Method: 5035A/	8260B					
Benzene			< 5.0	5.0	ug/kg			
Ethylbenzene			27.7	5.0	ug/kg			
Toluene			< 5.0	5.0	ug/kg			
Xylene, Totał			< 5.0	5.0	ug/kg			
Polynuclear Aron Analysis Date: 11	natic Hydrocarbons /10/09	Method: 8270C		Preparation Preparation 1				
Acenaphthene			< 50	50	ug/kg			
Acenaphthylene			< 50	50	ug/kg			
Anthracene			< 50	50	ug/kg			
Benzo(a)anthracen	e		< 8.7	8.7	ug/kg			
Benzo(a)pyrene			< 15	15	ug/kg			
Benzo(b)fluoranth	ene		< 11	11	ug/kg			
Benzo(k)fluoranth	ene		< 11	11	ug/kg			
Benzo(ghi)perylen	e		< 50	50	ug/kg			
Chrysene			< 50	50	ug/kg			
Dibenzo(a,h)anthr	acene		< 20	20	ug/kg			
Fluoranthene			< 50	50	ug/kg			
Fluorene			< 50	50	ug/kg			
Indeno(1,2,3-cd)py	/rene		< 29	29	ug/kg			
Naphthalene			9 1	25	ug/kg			
Phenanthrene			< 50	50	ug/kg			
Pyrene			< 50	50	ug/kg			



Environmental

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

		Analytical R	eport			
Client:	RESOURCE CONSULTI	NG, INC.		Date	Collected:	11/05/09
Project ID:	West Chicago Park Distric	:t		Time	Collected:	14:30
Sample ID:	BF-I			Date	Received:	11/06/09
Sample No:	9-4725-009			Date]	Reported:	11/13/09
-	orted on a dry weight basis.					
Analyte			Result	R.L.	Units	Flags
Solids, Total Analysis Date:	11/09/09	Method: 2540B				
Total Solids			92.13		%	
BTEX Organi Analysis Date:	ic Compounds 11/09/09	Method: 5035A	'8260B			
Benzene			< 5.0	5.0	ug/kg	
Ethylbenzene			7.5	5.0	ug/kg	
Toluene			< 5.0	5.0	ug/kg	
Xylene, Total	· · · · · · · · · · · · · · · · · · ·		27.1	5.0	ug/kg	
Polynuclear A Analysis Date:	romatic Hydrocarbons 11/11/09	Method: 8270C		Preparation Preparation		
Acenaphthene			< 50	50	ug/kg	
Acenaphthylen	ie		< 50	50	ug/kg	
Anthracene			< 50	50	ug/kg	
Benzo(a)anthra	acene		< 8.7	8.7	ug/kg	
Benzo(a)pyren	e		< 15	15	ug/kg	
Benzo(b)fluora			16	11	ug/kg	
Benzo(k)fluora	anthene		18	11	ug/kg	
Benzo(ghi)per	ylene		< 50	50	ug/kg	
Chrysene			< 50	50	ug/kg	
Dibenzo(a,h)ai	nthracene		< 20	20	ug/kg	
Fluoranthene			< 50	50	ug/kg	
Fluorene			< 50	50	ug/kg	
Indeno(1,2,3-c	d)pyrene		< 29	29	ug/kg	
Naphthalene			68	25	ug/kg	
Phenanthrene			< 50	50	ug/kg	
Pyrene			< 50	50	ug/kg	



Environmental

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

		Analytical R	eport			
Client:	RESOURCE CONSULT	NG, INC.		Date	Collected:	11/05/09
Project ID:	West Chicago Park Distri	ct		Time	Collected:	14:30
Sample ID:	BF-2			Date]	Received:	11/06/09
Sample No:	9-4725-010			Date	Reported:	11/13/09
-	orted on a dry weight basis					
Analyte			Result	R.L.	Units	Flags
Solids, Total Analysis Date:	11/09/09	Method: 2540B				
Total Solids			90.87		%	
BTEX Organi Analysis Date:	ic Compounds 11/09/09	Method: 5035A	/8260B			
Benzene			< 5.0	5.0	ug/kg	
Ethylbenzene			50.4	5.0	ug/kg	
Toluene			< 5.0	5.0	ug/kg	
Xylene, Total		· · · · · · · · · · · · · · · · · · ·	190	5.0	ug/kg	. <u> </u>
Polynuclear A Analysis Date:	romatic Hydrocarbons	Method: 8270C	-	Preparation Preparation		
Acenaphthene			< 50	50	ug/kg	
Acenaphthyler	ne		< 50	50	ug/kg	
Anthracene			< 50	50	ug/kg	
Benzo(a)anthr	acene		9.6	8.7	ug/kg	
Benzo(a)pyren	e		< 15	15	ug/kg	
Benzo(b)fluora	anthene		22	11	ug/kg	
Benzo(k)fluor	anthene		26	11	ug/kg	
Benzo(ghi)per	ylene		< 50	50	ug/kg	
Chrysene			< 50	50	ug/kg	
Dibenzo(a,h)a	nthracene		< 20	20	ug/kg	
Fluoranthene			< 50	50	ug/kg	
Fluorene			< 50	50	ug/kg	
Indeno(1,2,3-c	d)pyrene		< 29	29	ug/kg	
Naphthalene			51	25	ug/kg	
Phenanthrene			< 50	50	ug/kg	
Pyrene			< 50	50	ug/kg	



Environmental

First

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

		Analytical R	eport			
Client: R	ESOURCE CONSULTIN	IG, INC.		Date C	Collected:	11/05/09
Project ID: W	est Chicago Park District	t		Time	Collected:	14:30
•	F-3			Date I	Received:	11/06/0 9
•	4725-011			Date H	Reported:	11/13/09
-	ed on a dry weight basis.					
Analyte			Result	R.L.	Units	Flags
Solids, Total Analysis Date: 11	/09/09	Method: 2540B				
Total Solids			91.77		%	
BTEX Organic C Analysis Date: 11		Method: 5035A/	8260B			
Benzene			< 5.0	5.0	ug/kg	
Ethylbenzene			38.1	5.0	ug/kg	
Toluene			< 5.0	5.0	ug/kg	
Xylene, Total			127	5.0	ug/kg	
Polynuclear Aron Analysis Date: 11	matic Hydrocarbons	Method: 8270C		Preparation Preparation		
Acenaphthene			< 50	50	ug/kg	
Acenaphthylene			< 50	50	ug/kg	
Anthracene			< 50	50	ug/kg	
Benzo(a)anthrace	ne		12.7	8.7	ug/kg	
Benzo(a)pyrene			18	15	ug/kg	
Benzo(b)fluoranth	iene		29	· 11	ug/kg	
Benzo(k)fluoranth	ene		32	11	ug/kg	
Benzo(ghi)peryler	ne		< 50	50	ug/kg	
Chrysene			< 50	50	ug/kg	
Dibenzo(a,h)anthr	racene		< 20	20	ug/kg	
Fluoranthene			< 50	50	ug/kg	
Fluorene			< 50	50	ug/kg	
Indeno(1,2,3-cd)p	yrene		< 29	29	ug/kg	
Naphthalene			42·	25	ug/kg	
Phenanthrene			< 50	50	ug/kg	
Pyrene			< 50	50	ug/kg	

-						COI		. /			-Page	of <u>/</u>
	Con	<u>ipany N</u>	ame:	HC	orn	2 (ons	WH.	is Inc	4		
	Stre	et Addre	<u>:55: </u>	<u>:0. j</u>	BOX	12	3	-i	0			
	Citv	· Cs	nai	10						Same //	7: 60/3	2/1
	The st		A 2	22.9	Q76 .		20 7	27 0	0711 .	State. 76		7
	Send	i Report	- <u>La</u>	<u>> </u>	Han		<u>p Li</u>	201	Via E	¢-mail:		
	Sam	pled By	B	and	Ta	laca	0[[0/]	DUI			e-mail K j	<u> </u>
		,				U					<u> </u>	
<u></u>		<u> </u>	7	7	7	7		<u>a</u>	77		· · · · · · · · · · · · · · · · · · ·	
		1	/ ,			/ /	/ /				,	
		$\int_{-\infty}^{\infty}$	/		[.]		/		/ /			
		ίÐλ	N	' /	· /	· /	· /	' /	. /			
	R	<u>5</u> /6	y.									
Matrix		1		(((((· · · · · · · · · · · · · · · · · · ·		
5	$\overline{\nabla}$		<u> </u>	+	 			<u> </u>		mments		
5											1-4.125-	
5	$\overline{\mathbf{v}}$	-L 10		1				<u> </u>	L			05
5	X	Y		<u> </u>	<u> </u>							0 6
3	X	X			1			· · ··				0 0
5	X	X										
5	X	X										(
5	X	X										(
5	<u>¥</u>											
5	X	-	L									
<u> </u>	X		L									
	20 20 20 20 20 20 20 20 20 20 20 20 20 2	$\begin{array}{c} Phor \\ \underline{Send} \\ \underline{Sam} \\ \\ \end{array}$ $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	Phone: 63 Send Report Sampled By: Matrix $5 \times V$ $5 \times V$ $5 \times X$ $5 \times X$	Phone: $630 2$ Send Report To: Sampled By: B_{4} Matrix $5 \times V$ $5 \times V$ $5 \times X$ $5 \times X$ 5	Phone: $630 232-9$ Send Report To: Dan Sampled By: Branda Matrix 5×10^{-10} 5×10^{-10}	Phone: $630 232 - 9820$ F Send Report To: Dan Horn Sampled By: Brandi Ta Matrix $5 \times V$ $5 \times X$ $5 \times X$	Phone: 630 232-9820 Fax: 6 Send Report To: Dan Hornah / S Sampled By: Brandi Talaga Matrix $5 \times X$ $5 \times X$	Phone: 630 232-9820 Fax: 630 2 Send Report To: Dan Horman / Brian Sampled By: Brandi Talaga Analyze Matrix $5 \times V$ $5 \times X$ $5 \times X$	Phone: $630 232 - 9820$ Fax: $630 232 - 9820$ Send Report To: Dan Horwah Beian Blet Sampled By: Brandi Talaga Analyses Matrix S X X S X X X S X X X S X X X X	Phone: $630 232 - 9820$ Fax: $630 232 - 9824$ Send Report To: Dan Horizath, Brian Bretz, Via: Fa Sampled By: Brandi, Talaga Analyses Matrix S X X S X X S S S S	Phone: $G20 232 - 9820$ Fax: $G30 232 - 9824$ e-mail: Send Report To: Dan Horund: /Brian Beetz Via: Fax Sampled By: Brandi Talaga Analyses Matrix S X Y S X Y S X X S X	Phone: $630 232 - 9820$ Fax: $630 232 - 9824$ e-mail: Send Report To: Dan Horizath / Brian Ble tz Via: Fax comments e-mail (2) Sampled By: 6 and 7 alage Analyses Matrix Comments Lab LD. 5 X W 9 9 9 9 9 9 7 7 5 - 5 X X 9 9 9 9 9 9 7 7 5 - 5 X X 9 9 9 9 9 9 9 7 7 5 - 5 X X 9 9 9 9 9 9 7 7 5 - 5 X X 9 9 9 9 9 9 9 7 7 5 - 5 X X 9 9 9 9 9 9 9 7 7 5 - 5 X X 9 9 9 9 9 9 9 7 7 5 - 5 X X 9 9 9 9 9 9 9 9 7 7 5 - 5 X X 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9

000116



Environmental

First

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

December 11, 2009

Mr. Brian Beetz RESOURCE CONSULTING, INC. P.O. Box 123 Geneva, IL 60134

Project ID: WCPD First Environmental File ID: 9-5143 Date Received: December 04, 2009

Dear Mr. Brian Beetz:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 002205: effective 02/06/09 through 02/28/10.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200 or stan@firstenv.com.

Sincerely,

Stan Zaworski Project Manager



Environmental

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

RESOURCE CONSULTING, INC.

Project ID: WCPD

First Environmental File ID: 9-5143

Date Received: December 04, 2009

Flag	The second s	Flag	Description
<	Analyte not detected at or above the reporting limit.	L+	LCS recovery outside control limits; high bias.
B	Analyte detected in associated method blank.	L-	LCS recovery outside control limits; low bias.
С	Identification confirmed by GC/MS.	М	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.		MS recovery outside control limits high bias; LCS acceptable.
E	Estimated result; concentration exceeds calibration range.	М-	MS recovery outside control limits low bias; LCS acceptable.
	Field measurement.	N	Analyte is not part of our NELAC accreditation.
		ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.
G	Surrogate recovery outside control limits; matrix effect.	P	Chemical preservation pH adjusted in lab.
н	Analysis or extraction holding time exceeded.	Q	The analyte was determined by a GC/MS database search.
	Estimated result; concentration is less than calib range.	S	Analyte was sub-contracted to another laboratory for analysis.
ĸ	RPD outside control limits.	T	Sample temperature upon receipt exceeded 0-6°C
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	W	Reporting limit elevated due to sample matrix.

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

Sample Batch Comments:

Sample acceptance criteria were met.

Method Comments

Lab Number	Sample ID	Comments:
9-5143-001	RW-4A (4'-6')	BTEX Organic Compounds The reporting limits are elevated due to matrix interference.



Environmental

First

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Analytical Report Date Collected: 11/25/09 **RESOURCE CONSULTING, INC. Client:** Time Collected: 10:00 WCPD Project ID: 12/04/09 Date Received: RW-4A (4'-6') Sample ID: 12/11/09 Date Reported: 9-5143-001 Sample No: Results are reported on a dry weight basis. R.L. Units Flags Result Analyte Method: 2540B Solids, Total Analysis Date: 12/07/09 % 89.31 Total Solids Method: 5035A/8260B **BTEX Organic Compounds** Analysis Date: 12/08/09 ug/kg 490 5.0 Benzene 3.070 5.0 ug/kg Ethylbenzene ug/kg < 500 5.0 Toluene 5.0 ug/kg 9,240 Xylene, Total **Preparation Method 3540C Polynuclear Aromatic Hydrocarbons** Method: 8270C Preparation Date: 12/07/09 Analysis Date: 12/09/09 < 50 50 ug/kg Acenaphthene < 50 50 ug/kg Acenaphthylene < 50 50 ug/kg Anthracene 8.7 ug/kg 48.5 Benzo(a)anthracene 58 15 ug/kg Benzo(a)pyrene ug/kg 65 11 Benzo(b)fluoranthene 11 ug/kg 44 Benzo(k)fluoranthene 50 ug/kg < 50 Benzo(ghi)perylene 50 ug/kg 52 Chrysene 20 ug/kg < 20 Dibenzo(a,h)anthracene ug/kg 91 50 Fluoranthene ug/kg 50 < 50 Fluorene 29 ug/kg 39 Indeno(1,2,3-cd)pyrene 25 ug/kg 87 Naphthalene 50 ug/kg < 50 Phenanthrene 50 ug/kg 79 Pyrene



Environmental

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

		Analytical R	eport			
Client: R	ESOURCE CONSULTI	NG, INC.		Date C	Collected:	11/25/09
Project ID: W	/CPD			Time	Collected:	11:15
•	W-16 (8'-9')			Date F	Received :	12/04/09
· · ·	-5143-002			Date F	Reported:	12/11/09
-	ed on a dry weight basis.					
Analyte			Result	R.L.	Units	Flags
Solids, Total Analysis Date: 12	2/07/09	Method: 2540B				
Total Solids			84.71		%	
BTEX Organic (Analysis Date: 12	Compounds 2/07/09	Method: 5035A/	8260B			
Benzene			< 5.0	5.0	ug/kg	
Ethylbenzene			< 5.0	5.0	ug/kg	
Toluene			< 5.0	5.0	ug/kg	
Xylene, Total			< 5.0	5.0	ug/kg	
Polynuclear Aro Analysis Date: 1	matic Hydrocarbons 2/09/09	Method: 8270C		Preparation Preparation	Method 3: Date: 12/07/	540C 09
Acenaphthene			< 50	50	ug/kg	
Acenaphthylene			< 50	50	ug/kg	
Anthracene			< 50	50	ug/kg	
Benzo(a)anthrace	ne		60.3	8.7	ug/kg	
Benzo(a)pyrene			56	15	ug/kg	
Benzo(b)fluorant	hene		68	11	ug/kg	
Benzo(k)fluorant			40	11	ug/kg	
Benzo(ghi)peryle			< 50	50	ug/kg	
Chrysene			56	50	ug/kg	
Dibenzo(a,h)anth	racene		< 20	20	ug/kg	
Fluoranthene			92	50	ug/kg	
Fluorene			< 50	50	ug/kg	
Indeno(1,2,3-cd)p	yrene		32	29	ug/kg	
Naphthalene			< 25	25	ug/kg	
Phenanthrene			< 50	50	ug/kg	
Pyrene			70	50	ug/kg	



CHAIN OF CUSTODY RECORD

Page____ of ____ pgs

000121 .

	onmental ratories, Inc.		Com	pany Na	ame:	R	کور ک	v ce	Con	<u>s - / </u>	<u>. M.g.</u>	Inc.		<u>.</u>	
irst Environment	al Laboratories		Stree	t Addre	<u>\$\$:</u>	P.0	. Bor	+ (23		J .				•
600 Shore Road, Suite			City:		Gen	ena						State:	I-	Zip: 60	0174
aperville, Illinois 6056					36-2							e-mail:			
hone: (630) 778-1200 • -mail: firstinfo@firster				Report						- 70		Fax	e-	mail	
PA Certification #100				oled By		Bri	a 4	Bet	42	•				_	
									Analyse						
Project I.D.:	WCPD	- <u></u>			7	7	7	7	7	7	7	<u> </u>			
		·		/	/ /	/ /	/ /	/ /	/ /	/ /	/ /				
r.o. #												/ .			
				/it					/	/	/ /	/			
				ζ)))				· /	' /					
Matrix Codes: S =	Soil W = Water O = Other		/	УV	∇		/			<i>[</i> .					-
Date/Time Taken	Sample Description	Matrix	ĺ	([Í	ſ	ĺ	ĺ	ſ	(Comments		Lab l	D.
	RW-4A (4'-6')	5.	Q	q					1		1		9	-5143	30 <
2507 11:15Am	FW-10 (B'-9')	ک	Y	Ŷ											00
				<u> </u>											1
											<u> </u>				
	·			ļ	ļ		•	<u> </u>	 		ļ				•
			- <u></u>		ļ			ļ		<u> </u>	· · ·				•
	<u></u>								·	<u> </u>					
··· -·· · · · · · · · · · · · · · · · ·				 				 							
					<u> </u>			<u> </u>		+					
				╆───-	<u></u>	··· ·					<u> </u>			· · · ·	
	,			<u> </u>							<u> </u>				
DR LAB USE ONLY:		I	I	.			·	1		I	I				!
oler Temperature: 0.1	6°C Yes_No°C	Sample Refrig Refrigerator Te	erated:	Yes	No °C	Co	ntainer	s Recei	lved Pre	served	Yes				:
eceived within 6 hrs. of Present: Yes No_	-	5035 Vials Fro	zen: Ye	es No	<u></u>	Ne	ed to n	neet:	IL. TAC	o 🗌	IN. RISC				
otes and Special Ins		Freezer Tempe	erature:		÷C										:
otes and Special Ins				·								· · · ·	~ ~		
·															
		<u></u>		-+-	435	<u></u>				.					
<pre>clinquished By:</pre>	Sun Class	Date/Time_12/	209	12		eived B	v:	Σ_{l}	ha				121	41.0	<u>دا</u>
clinquished By:		Date/Time/				eived B				****		Date/Time		`\\$+	



March 01, 2012

Mr. Daniel Horvath **RESOURCE CONSULTING, INC.** P.O. Box 123 Geneva, IL 60134

Project ID: 98-1002 WCPD First Environmental File ID: 12-0858 Date Received: February 23, 2012

Dear Mr. Daniel Horvath:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 002687: effective 03/01/2011 through 02/28/2012.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

brie Frank

Lorrie Franklin Project Manager

Page 1 of 3



Environmental

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

RESOURCE CONSULTING, INC.

Project ID: 98-1002 WCPD

First Environmental File ID: 12-0858

Date Received: February 23, 2012

Flag	Description, Sec. A.	Fig	Description
<	Analyte not detected at or above the reporting limit.	L+	LCS recovery outside control limits; high bias.
B	Analyte detected in associated method blank.	L	LCS recovery outside control limits; low bias.
С	Identification confirmed by GC/MS.	М	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.	M+	MS recovery outside control limits high bias; LCS acceptable.
E	Estimated result; concentration exceeds calibration range.	M-	MS recovery outside control limits low bias; LCS acceptable.
F	Field measurement.	N	Analyte is not part of our NELAC accreditation.
		ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.
G	Surrogate recovery outside control limits; matrix effect.	P	Chemical preservation pH adjusted in lab.
H	Analysis or extraction holding time exceeded.	Q	The analyte was determined by a GC/MS database search.
J	Estimated result; concentration is less than calib range.	S	Analyte was sub-contracted to another laboratory for analysis.
K	RPD outside control limits.	T	Sample temperature upon receipt exceeded 0-6°C
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	w	Reporting limit elevated due to sample matrix.

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

Sample Batch Comments:

Time of sample collection was not provided.

.



Environmental

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

		Analytical	Report			
Client:	RESOURCE CONSU	ILTING, INC.		Date	Collected:	02/21/12
Project ID:	98-1002 WCPD			Time	Collected:	
Sample ID:	WCPD-1			Date]	Received:	02/23/12
Sample No:	12-0858-001			Date 1	Reported:	03/01/12
Results are rep	ported on a dry weight b	asis.				
Analyte			Result	R.L.	Units	Flags
Solids, Total Analysis Date	: 02/24/12	Method: 2540)B			-
Total Solids			77.35		%	
BTEX Organ Analysis Date	ic Compounds : 02/29/12	Method: 503	5A/8260B			
Benzene			< 5.0	5.0	ug/kg	
Ethylbenzene			< 5.0	5.0	ug/kg	
Toluene			< 5.0	5.0	ug/kg	
Xylene, Total			< 5.0	5.0	ug/kg	

Page 3 of 3

	ronmental pratories, Inc.	CH		-	CUST					• .		re of pg
First Environmen	tal Laboratories		Con Stree	ipany N et Addr	lame: ess: //	Res 5 Fo	ovrc rd S	<u>t Co</u> +	nsul	bry!	nc、	
1600 Shore Road, Suite Naperville, Illinois 605			City	: Gen	never	,					State: 1 Zip:	20134
Phone: (630) 778-1200			Pho	ne: (0)	30 2	32	982	0			Fax: 630 232 9124	
24 Hr. Pager (708) 569-	7507		<u>Senc</u>	Repor	1 To:	Jan	<u> 1</u>	Hor	ath	<u> </u>	·····	<u></u>
E-mail: info@firstenv.c	-		Sam	pled By	t 10: r: Bca	and	Tal	no.				
IEPA Certification# 10									Analyse	8		
P.O. #.:	-1002 WERN		/	SE SE			 					
Matrix Codes: S = Date/Time Taken	Soil W = Water O = Other Sample Description	Matrix	$\langle \rangle$	$\left(\right)$	$\langle \rangle$	($\left(\right)$	$\left(\right)$	$\langle \rangle$	$\langle \rangle$	Comments	Lab I.D.
2/21/12 pm		Madix	X	+			+				12-0858	001
your pm	wub L		-	1	+	· · ·	+	+			/&====0.32	
	•			 	╂	<u> · · · - ·</u>	†				· · · · · · · · · · · · · · · · · · ·	
				1								
						· · · ·	<u> </u>	+	 			
	· · · · · · · · · · · · · · · · · · ·			1			1	\wedge				
	· · · · · · · · · · · · · · · · · · ·			1	1			<u> </u>	<u>†</u> .		· · · · · · · · · · · · · · · · · · ·	1
					1				1			
				1			1		1			
					1	<u> </u>	1	1				
				1	1							
				1	1	[1			
	L		L	<u> </u>	4	L	_I	<u> </u>	· · · · ·		· · · · · · · · · · · · · · · · · · ·	
FOR LAB USE ONLY: Cooler Temperature: 0. Received within 6 hrs. of ce Present: Yest No Notes and Special In	of collection:	Sample Refrig Refrigerator Te 5035 Vials Fro Freezer Tempe	impera zen: Ye	ture: 9sNo	°C °C	C P	ontaine reserve	rs Recei d in Lab	ived Pre	oserved:		
	f f Gotaly. Date	/Time_2/2	es/i	2.16:	IGARCO	cived I cived I		797	4	-		1040
Relinquished By:	Date Date					eived H	3y:	17)	4			

I

ï

:

;

:

1

000125 ..

•••••

ï

Electronic Filing: Received, Clerk's Office 09/20/2024

. .

• 3

.•

;

;

٠.

Electronic Filing: Received, Clerk's Office 09/20/2024 First Environmental Laboratories, Inc. IL ELAP / NELAC Accreditation # 100292 1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

March 13, 2012

Mr. Brian Beetz **RESOURCE CONSULTING, INC.** P.O. Box 123 Geneva, IL 60134

Project ID: WCPD First Environmental File ID: 12-1035 Date Received: March 07, 2012

Dear Mr. Brian Beetz:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 002687: effective 03/01/2011 through 02/28/2012.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Stan Zaworski Project Manager

ŧ.

ŀ



Environmental

First

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

ł

ŀ

.

۰.

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

RESOURCE CONSULTING, INC.

Project ID: WCPD

First Environmental File ID: 12-1035

Date Received: March 07, 2012

HING	Description	Flag	Description.
<	Analyte not detected at or above the reporting limit.	L+	LCS recovery outside control limits; high bias.
B	Analyte detected in associated method blank.	Ŀ	LCS recovery outside control limits; low bias.
С	Identification confirmed by GC/MS.	М	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.	M+	MS recovery outside control limits high bias; LCS acceptable.
Е	Estimated result; concentration exceeds calibration range.	M-	MS recovery outside control limits low bias; LCS acceptable.
F	Field measurement.	N	Analyte is not part of our NELAC accreditation.
		ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.
G	Surrogate recovery outside control limits; matrix effect.	P	Chemical preservation pH adjusted in lab.
H	Analysis or extraction holding time exceeded.	Q	The analyte was determined by a GC/MS database search.
J	Estimated result; concentration is less than calib range.	S	Analyte was sub-contracted to another laboratory for analysis.
K	RPD outside control limits.	T	Sample temperature upon receipt exceeded 0-6°C
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	w	Reporting limit elevated due to sample matrix.

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

Sample Batch Comments:

Sample acceptance criteria were met.



Environmental

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

		Analytical Report			
Client:	RESOURCE CONS	ULTING, INC.	Date (Collected:	03/07/12
Project ID:	WCPD		Time	Collected:	13:00
Sample ID:	EW-1A		Date 1	Received:	03/07/12
Sample No:	12-1035-001		Date]	Reported:	03/13/12
Results are rep	orted on a dry weight	basis.			
Analyte		Result	R.L.	Units	Flags
Solids, Total Analysis Date:	: 03/07/12	Method: 2540B			<u>. </u>
Total Solids		80.98		%	
BTEX Organ Analysis Date:	ic Compounds : 03/12/12	Method: 5035A/8260B			
Benzene		< 5.0	5.0	ug/kg	
Ethylbenzene		< 5.0	5.0	ug/kg	
Toluene		< 5.0	5.0	ug/kg	
Xylene, Total		< 5.0	5.0	ug/kg	

1

First	ronmental	СН	AIN	OF C	UST	ODY	RE	COR	D				Page of pgs
	pratories, Inc.		Com	pany Na	me:		Rese	y i rce	e C	مم	Iting Inc.		
First Environmen				t Addres	s:	e.	O. B	6X	123		Iting , Inc.		
1600 Shore Road, Suit			City:	6	DAPS	(a.					State: 824 e-mail:	IC	Zip: 60134
Naperville, Illinois 605	63		Phon		an_ 1	22 -	79 V.	v. 10	22-7	82-9	824 e-mail:		
Phone: (630) 778-1200				Report	To: t	>an	Bri	a^			Via: Fax		e-mail
E-mail: firstinfo@first IEPA Certification #10				oled By:									
								. A	naiyse	8			_
				JÈ S	\mathbf{y}								
Matrix Codes: S = Date/Time Taken	= Soil W = Water O = Other Sample Description	Matrix	$\left\{ \right.$	()	<u> </u>	´ 1	ſ	/		$\left(\right)$	Comments	<u> </u>	Lab I.D.
3/7/02 1:00 PM		5	5							†			12-10.35-001
			1										
			ļ								, 		
·										<u> </u>			
		·		· · · · ·			<u></u>	_					
										<u> </u>			
										<u> </u>	· · · · ·		
										1			
			T										
							1			L			
										<u> </u>	<u></u>		
FOR LAB USE ONLY: Cooler Temperature: 0 Received within 6 hps: Ice Present: YesN Notes and Special Is Relinquished By:	of collection: R bo_ 50 bo_ 50 nstructions: F	ample Refrig efrigerator To 035 Viais Fro reezer Temp Time <u>3</u> /	empera zen: Y erature	ture: es No	°C))C 	Ne	ed to m				Yes No IN. RISC D	ne	3/7/12 1:29
Relinquished By:		Time	1			eived B					Date/Tin		
Rev. 9/08													

000129

₿

APPENDIX F

Soil Boring Logs/Monitoring Well Completion Reports

Res	SOUR	RCE (CONS		ig,Inc.	Boring Number: RW-4A		Page	»: 1a	of 1	
	Site Name: West Chicago Park District/ Address: Reed-Keppler Park 250 West National Street West Chicago, Illinois				Street	Boring Location: 6' West of RW-4		Start Date: 11/25/09 Finish Date: 11/25/09			
Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed	1 Soil Descriptions	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks	
				0	Asphalt and gravel					······································	
1	GP	49"		2					0.0		
,	0,	+3	sc	4		rown, appears disturbed to 4', and petroleum odors 4'-6'			0.0	BTEX/PNAs 8-9	
				6	 . _				298 315	,, , , , , , , , , , , , , , , , ,	
2	GP	55*	SM	8	Silty sand; light bro	wn, saturated			180		
				10					-		
	• •		а	- 12	Silty clay; gray, very low plasticity, mode				-		
3	GP	54"		14— 		of Boring			_		
				16 — 	Liid	or bonng		<u> </u>			
				18 							
				20-							
No	ote: Stu	ratifica	tion lin	- nes are ap	proximate; in-situ	transition between soil types ma	y be grad	ual.			
Gro	undwa	ater D	epth V	While D	rilling: 6.5' A	uger Depth: 15' Driller/Co. Drilling Unlimited	Dril	ling Ri ged By			

RES	SOUF	CE (CONS	SULTIN	ig,Inc.	Boring Number: RW-10	54	Page	: 1	of 1			
	ite Name: West Chicago Park District/ Address: Reed-Keppler Park 250 West National Street West Chicago, Illinois				/ Street	Boring Location: <i>Center of Excavation</i>	-						
Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detaile	xd Soil Descriptions	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks			
1	GP	51"	NA	0 2 4 6	Gravel fill				0.0 0.0				
2	GP	53*	SM	8 10 	Silty sand; brown / t	tan, saturated		-	2.9 5.1	BTEX/PNAs 8-9			
3	GP	48"	CL	12	Silty clay; gray, ver low to medium plas				0.0				
				18						· · ·			
						transition between soil types manual types	Ţ	ual.	Q: Con	nbo			
					-	Driller/Co. Drilling Unlimited		ged By					



Illinois Environmental Protection Agency

LUST Well Completion Report

Incident No.: 980814	Well No.: <u>RW-16A</u>
Site Name: West Chicago Park District	Date Drilled Start: 11/25/09
Drilling Contractor: Drilling Unlimited	Date Completed: <u>11/25/09</u>
Driller:	Geologist: BCB
Drilling Method: Auger	Drilling Fluids (Type): water

Annular Space Details

Type of Surface Seal: <u>Concrete</u> Type of Annular Sealant: <u>Bentonite & concrete</u> Type of Bentonite Seal (Granular, Pellet): <u>chips</u>

Type of Sand Pack: <u>10/20 sieve analysis</u>

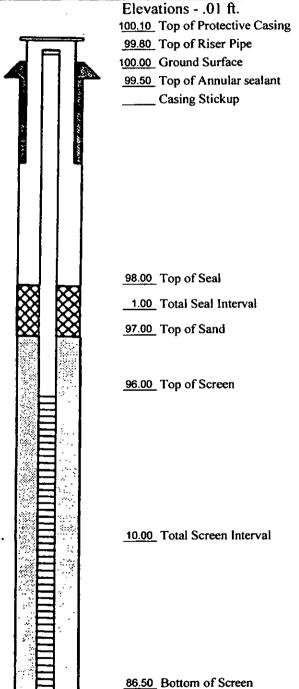
Well Construction Materials

	Stainless Steel Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint			NA
Riser pipe above w.t.		sch. 40	
Riser Pipe below w.t.		-	NA
Screen		sch. 40	
Coupling joint screen to riser			threads
Protective casing			gal. steel

Measurements

to .01 ft (where applicable)

Riser Pipe Length	5.00
Screen Length	10.00
Screen Slot Size	10.00
Protective casing length	
Depth to water	6.50
Elevation of water	93.50
Free Product thickness	
Gallons removed (develop)	5.00
Gallons removed (purge)	5.00
Other	



Completed by: BJT

86.00 Bottom of Borehole



I Incident No.: <u>980814</u>				Well No.: <u>RW-</u>	4A
Site Name: West Chicago Park District				Date Drilled Sta	
Drilling Contractor: Dri				Date Completed	l: <u>11/25/09</u>
Driller:				Geologist: BCE	
Drilling Method: <u>Auger</u>				Drilling Fluids (Type): water	
Annular Space Details					Elevations01 ft. 100.10 Top of Protective Casir
Type of Surface Seal: <u>Co</u>	ncrete			Ter	<u>99.80</u> Top of Riser Pipe
Type of Annular Sealant:	Bentonite	& concre	te		100.00 Ground Surface
Type of Bentonite Seal (G	ranular, l	Peilet): <u>c</u>	hips		<u>99.50</u> Top of Annular sealant <u></u> Casing Stickup
Type of Sand Pack: <u>10/20</u>	sieve ana	alysis		tin star varia	
Well Construction Materia	als				
	Steel Steel	PVC Specify Type	Other Specify Type		
	Stainless Stee Specify Type	/C ecify	her ecify		<u>98.00</u> Top of Seal
	Sta Sp	P. Sp	S G		<u>1.00</u> Total Seal Interval
Riser coupling joint			NA		<u>97.00</u> Top of Sand
Riser pipe above w.t.		sch. 40			
Riser Pipe below w.t.		-	NA		
Screen		sch. 40			95.00 Top of Screen
Coupling joint screen to riser			threads		
Protective casing			gal. steel		
Measurements	to .01 ft	(where ap	plicable)		
Riser Pipe Length	5.00				
Screen Length	10.00			10.00 Total Screen Interval	
Screen Slot Size		10.00	0		
Protective casing length					
Depth to water		6.50			
Elevation of water		93.50	0		
Free Product thickness					
Gallons removed (develop)		5.00			
Gallons removed (purge)		5.00	0		
Other					85.50 Bottom of Screen

Electronic Filing: Received, Clerk's Office 09/20/2024 RESOURCE CONSULTING, INC.

APPENDIX G

Exposure Route Evaluation

A. Discussion of Regulatory Requirements

As allowed under 35 III. Adm. Code Section 742.800(a), the following information is provided to evaluate the current aquifer conditions in accordance with 35 III. Adm. Code Part 742 Subpart C that will allow no further remediation to be necessary as related to the groundwater ingestion exposure route. The requirements of Subpart C are as follows:

Section 742.300: Exclusion of Exposure Route

The following evaluation demonstrates the applicable requirements for excluding the groundwater ingestion exposure route are met, the exposure route can be excluded from consideration, and no remediation objective(s) need be developed for that exposure route. The full characterization of the extent and concentrations of contaminants of concern at the Site has been performed in accordance with the requirements of 35 III. Adm. Code Part 734.

Section 742.305: Contaminant Source and Free Product Determination

No exposure route shall be excluded from consideration relative to a contaminant of concern unless the following requirements are met:

- a) The sum of the concentrations of all organic contaminants of concern shall not exceed the attenuation capacity of the soil as determined under Section 742.215;
- b) The concentrations of any organic contaminants of concern remaining in the soil shall not exceed the soil saturation limit as determined under Section 742.220;
- c) Any soil which contains contaminants of concern shall not exhibit any of the characteristics of reactivity for hazardous waste as determined under 35 Ill. Adm. Code 721.123;
- d) Any soil which contains contaminants of concern shall not exhibit a pH less than or equal to 2.0 or greater than or equal to 12.5, as determined by SW-846 Method 9040B: pH Electrometric for soils with 20% or greater aqueous (moisture) content or by SW-846 Method 9045C: Soil pH for soils with less than 20% aqueous (moisture) content as incorporated by reference in Section 742.210; and
- e) Any soil which contains contaminants of concern in the following list of inorganic chemicals or their salts shall not exhibit any of the characteristics of toxicity for hazardous waste as determined by 35 III. Adm. Code 721.124: arsenic, barium, cadmium, chromium, lead, mercury, selenium or silver.

Each of the requirements above is discussed in the following sections.

a) <u>Soil Attenuation Capacity</u>

The sum of all organic contaminants of concern cannot exceed the attenuation capacity of the soil as determined under 35 III. Adm. Code Section 742.215; i.e., the total concentration of organic contamination in a soil sample must be less than the natural organic carbon fraction of the soil. The default values for the natural organic carbon fraction are 6,000 mg/kg for soils within 1 meter of the surface and 2,000 mg/kg for soils at greater depths. The greatest total organic concentration measured in a soil sample that was collected from an area of the Site that did not undergo remediation is 13.30 mg/kg in the sample collected from the soil boring installed for the installation of monitoring well RW-4A in November 2009. Therefore, the requirements of this section have been satisfied.

b) Soil Saturation Limit

The concentrations of any organic contaminants of concern remaining in the soil shall not exceed the soil saturation limit as determined under 35 III. Adm. Code 742.220. The contaminants of concern evaluated for this requirement are listed below with their greatest concentrations remaining at the Site and the soil saturation limit listed in 35 III. Adm. Code 742 Appendix A, Table A.

Table I Laboratory Analytical Results vs. Soil Saturation Limits (values in mg/kg)				
Contaminant	Measured Concentration	Soil Saturation Limit		
Benzene	0.49	870		
Ethylbenzene	3.07	400		
Toluene	<0.005	650		
Total Xylenes	9.24	320		

The data in the above table demonstrate that the soil saturation limits have not been exceeded for the organic contaminants of concern present below the Site that are listed in 35 III. Adm. Code 742 Appendix A, Table A.

c) <u>Characteristics of Reactivity</u>

The soil below the Site containing contaminants of concern does *not* exhibit any of the following properties as listed in 35 III. Adm. Code 721.123, and therefore does *not* exhibit the characteristics of reactivity:

- It is normally unstable and readily undergoes violent change without detonating;
- It reacts violently with water;
- It forms potentially explosive mixtures with water;
- When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment;
- It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment;
- It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement;
- It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure; and
- It is a forbidden explosive as defined in 49 CFR 173.51, or a Class A explosive as defined in 49 CFR 173.53 or a Class B explosive as defined in 49 CFR 173.88, incorporated by reference in 35 III. Adm. Code 720.111.

d) <u>Soil pH</u>

The soil below the Site cannot exhibit a pH of less than or equal to 2.0 or greater than or equal to 12.5, which are representative of highly acidic and highly alkaline environments, respectively. Based on all of the project information gathered since 2001, it is improbable that the pH of the soil has been affected by the release of petroleum. The typical pH of glacial soil is between 7 and 9, so this property of the soil is not a concern for this project.

e) <u>Characteristic of Toxicity</u>

According to 35 III. Adm. Code Section 721.124, a solid waste exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure (TCLP), the extract from a representative sample of the waste, in this case the contaminated soil below the property, contains any of the contaminants listed in a table in 35 III. Adm. Code Section 721.124 in

concentrations equal to or greater than the respective value given in the table. Since this project involves the release of gasoline and diesel fuel, the contaminants are limited to the metals listed in 35 Ill. Adm. Code Section 742.305(e).

These metals are not considered contaminants of concern for this project, and the naturally occurring levels of these metals in the soils of the region are not sufficient to result in a TCLP extract that would have significant quantities of the metals detected via laboratory analysis. Therefore, the soil would not exhibit the characteristic of toxicity.

Section 742.320: Groundwater Ingestion Exposure Route

The groundwater ingestion exposure route may be excluded from consideration if:

- a) The requirements of Sections 742.300 and 742.305 are met;
- b) The corrective action measures have been completed to remove any free product to the maximum extent practicable;
- c) The source of the release is not located within the minimum or designated maximum setback zone or within a regulated recharge area of a potable water supply well;
- d) As demonstrated in accordance with Section 742.1015, for any area within the measured and modeled extent of groundwater contamination above what would otherwise be the applicable Tier 1 groundwater remediation objectives, an ordinance adopted by a unit of local government is in place that effectively prohibits the installation of potable water supply wells (and the use of such wells);
- e) As demonstrated using Equation R26, in Appendix C, Table C, in accordance with Section 742.810, the concentration of any contaminant of concern in groundwater within the minimum or designated maximum setback zone of an existing potable water supply well will meet the applicable Tier 1 groundwater remediation objective; and
- f) As demonstrated using Equation R26, in Appendix C, Table C, in accordance with Section 742.810, the concentration of any contaminant of concern in groundwater discharging into a surface water will meet the applicable surface water quality standard under 35 Ill. Adm. Code 302.

Each of the above requirements is then further explained and supported in subsequent sections.

 a) <u>Sections 742.300 and 742.305</u> The previous sections of this appendix demonstrate that the requirements of 35 III. Adm. Code Sections 742.300 and 742.305 have been met.

b) <u>Removal of Free Product</u>

The information provided in Section C of this report demonstrates that the corrective actions completed in 2009 removed all free product from the subsurface.

c) Setback Zones

The water supply well survey previously completed for this project indicated that 7 water supply wells are located within 2,500 feet of the facility; one of these wells is a community water supply well located approximately 2,000 feet southeast of the Site. These water supply wells would have setback zones of 200, 400, or 1,000 feet, so the source of the release is not located within these setback zones.

As of this writing, there is no regulated recharge area in northeastern Illinois. Therefore, the source of the release is not located within the minimum or designated maximum setback zone or within a regulated recharge area of an existing potable water supply well.

d) Groundwater Ordinance

The City of West Chicago has not yet enacted the ordinance required under this section. Upon its approval by the city government, an official copy of the ordinance will be submitted to the Illinois EPA for review and approval in accordance with 35 Ill. Adm. Code Section 742.1015.

e) Modeled Groundwater Contamination within Setback Zone

Section B of this Appendix contains the data and calculations that demonstrate that the results of the predictive modeling meet the requirements of 35 Ill. Adm. Code Section 742.320(e).

f) Modeled Groundwater Contamination and Surface Water

The surface water body nearest the Site are unnamed ponds located approximately 600 feet west of the source of the release; the location of the pond is shown on Figure 5 in Appendix A. The calculations in Section B of this Appendix are sufficient to determine that the surface water quality standards of 35 III. Adm. Code 302 are met.

B. Data and Calculations

The following section summarizes the information and calculations used in the groundwater evaluation for the benzene and ethylbenzene contamination that remains at the Site. The following tables summarize the input parameters used in the calculations and the reasoning behind the values used.

Table I Contaminant-Related Variables

			Values		
Variable	Variable Description	Source of Value	Benzene in groundwater	Ethylbenzene in groundwater	Comments
Ceource	The greatest potential concentration of the contaminant in groundwater at the source of contamination, mg/L	Groundwater quality data from RW-4A	1.57	1.22	Values represent the highest remaining concentration in the groundwater since the completion of the corrective actions.
S.	Source width, cm	Field measurement of distance between non-impacted groundwater samples	2,103.1 (69 ft)	2,103.1 (69 ft)	Value represents the distance between wells RW-7 and RW-11 as shown on Figure 4.
S₄	Source depth, cm	Field measurement of thickness of soil	91.4 (3 ft)	91.4 (3 ft)	Value represents the thickness of the smear zone based on historical soil quality data, water table variations, and PID readings.
w	Width of Source Area Parallel to Direction to Wind or Groundwater Movement, cm	Field measurement of distance between non-impacted groundwater samples	3,200 (105 ft)	3,200 (105 ft)	Value represents the distance between RW-2 and RW-11 as shown on Figure 4.
x	Distance along the centerline of the groundwater plume, cm	Site-Specific based on meeting ROs within ordinance area	22,860 (750 ft)	1,219 (40 ft)	The calculated impact of benzene crosses the Exelon property as shown on Figure 5.
λ	First order degradation constant, d ⁻¹	35 III. Adm. Code Part 742, App. C, Table E	0.0009	0.003	Default values from 35 Ill. Adm. Code Part 742,

7

Input for Solutions to Equation R26

)24		
0/20	Parameter	1
9/20	i	ŀ
ce 0	К	ŀ
Offic	f _{oc}	(
k's	θ _{as}	`
ler	θ _{ws}	١
, C	θτ	1
/eq	w	/
ceiv	ጮ	5
RESOURCE CONSULTING, INC.		

	Table II Contaminant-Independent Variables											
Input for Solutions to Equation R26												
Parameter	Variable Description	Source	Value	Comments								
i	Hydraulic gradient, cm/cm	Field data	0.006	Historical values have ranged from 0.005 to 0.008. This value was calculated using most recent water level data.								
К	Hydraulic conductivity, cm/s	Field data	6.4 x 10 ⁻²	This is the value determined for the Site in accordance with previous Illinois EPA directives.								
f _{oc}	Organic carbon content of soil, g/g	Field data	0.0032	This value represents the average of carbon content data collected previously for the project.								
θas	Volumetric Air Content of soil, cm ³ /cm ³	Default value for clay	0.13									
θ _{ws}	Volumetric Water Content of soil, cm3/cm3	Default value for clay	0.3	Default values from 35 III. Adm. Code Part 742.								
θτ	Total Soil Porosity, cm ³ /cm ³	Default value for clay	0.43	Default values from 55 fr. Aufr. Code Falt 742.								
w	Average soil moisture content, g/g	Default value for subsurface soil	0.2									
Ръ	Soil bulk density, g/cm ³	Field data	1.64	This value represents the average of bulk density values collected previously at the Site.								

Table II
Contaminant-Independent Variables

The calculations determine if there will be any impacts to the nearest setback zones and surface water bodies. Spreadsheets displaying the calculations are included in this Appendix. Table III below summarizes the results of the calculations. The model results indicate that the benzene and ethylbenzene contamination in the groundwater may migrate under the Exelon property that crosses the Site, but the plume will not extend to the southernmost property boundary, the pond to the east, or into any setback zone. Figure 5 in Appendix A display the hypothetical extents of the benzene and ethylbenzene contamination plumes based upon the model.

Table III Results of TACO Evaluation (values in mg/L)								
Contaminant	Measured Concentration	X, distance to compliance point	C _x , concentration at compliance point					
Benzene	1.57	750	0.005					
Ethylbenzene	1.22	40	0.634					

These results coupled with the establishment of a citywide ordinance prohibiting the installation and use of private water supply wells demonstrate that the current Site conditions meet the requirements for the issuance of a No Further Remediation letter for this LUST incident.

Z

Values for Varia	bles in Relevant Equation	N75		Project Name:	West Chicag	o Park District	<u> </u>
]
SOIL MIGRATIO	N/GROUNDWATER EXP	OSURE ROUTE	BENZENE	LPC number	0430905825		
Variable	Source	Value	Description	and units		PAGE 1	_ ,
GWsource	R13	1.232	Groundwate	r concentration at the source, mg/L			
LFsw	R14			tor, mg/L/mg/kg			
GWcomp	R25			r objective at the compliance point, mg/l			
Cx/Csource	R15	4.06E-03	Steady-state	attenuation along the centerline of a dis	solved plume	e, mg/L/mg/L	
k,	R20	0.18848	Soil-water so	orption coefficient, cm^3/g			
Koc	Appendix C table E	58.9	Organic carb	on partition coefficient, cm^3/g			
foc	surface 0.005	0.0032	Organic carb	on content of soil, g/g			
	subsurface 0.002		-				
θ.,,,	R22 or	0.3	Volumetric v	vater content of vadose zone soils, cm^3,	/cm^3		
*1	surface 0.15						
	subsurface 0.30						
	gravel 0.20						
	sand 0.18						
	silt 0.16						
	clay 0.17						
θ	R21 or	0.13	Volumetric a	ir content of vadose zone soils, cm^3/cm	n^3		
-	surface 0.28						
	subsurface 0.13						
	gravel 0.05						
	sand 0.14						
	silt 0.16						
	clay 0.17						
θ _τ	R23 or	0.43	Total soil po	rosity, cm^3/cm^3			
	0.43			- ·		-	
	gravel 0.25						
	sand 0.32						
	silt 0.40						
	clay 0.36						
н'	Appendix C table E	0.228	Henry's law	constant, cm^3 air/cm^3 water			
w	surface 0.1	0.2	Average soil	moisture content, g/g			
	subsurface 0.2						
ρ	gravet 2.0	1.64	Soil bulk der	isity, g/cm^3			
	sand 1.8						
	silt 1.6						
	clay 1.7						
ρ _w		1	Water densi	ty, g/cm^3			
			Distance alo	ng the centerline of the ground water			
x	site	21336		ating from the source, cm		700 Distance, ft	
ax	R16	and the second se	1	dispersivity, cm (Equation R16)		700_Distance, it	
	R17		-	lispersivity, cm (Equation R17)			
ay az	R18			ersivity, cm (Equation R18)			
U1	110		i '				
_				h perpendicular to ground water flow dire	ection in		
Sw	site	2103.12	horizontal pl	ane, cm		69 Sw, ft	
		•	Source widtl	h perpendicular to ground water flow dire	ection in		
Sd	site	91.44	vertical plan	e, cm		3 Sd, ft	
ĸ	site	5.53E+03	Aquifer hydr	aulic conductivity, cm/day		6.40E-02 K, cm/sec	
i	site	0.006	Hydraulic gra	adient, cm/cm			
U	R19	77.1572093	Specific disc	harge, cm/day (Equation R19)			
Ugw	R24	1.21E+04	Groundwate	r Darcy velocity, cm/yr			
d		200	Groundwate	r mixing zone thickness, cm			
1		30	Infiltration r	ate, cm/yr			
			Width of cov	irce area parallel to direction of wind or p	roundwater		
w	site	2700 4	movement,			105 W, ft	
λ	Appendix C table E			egradation constant, day^-1			
-	R26			on of contaminant in groundwater at the	distance ¥ fre	om the steady source mg/l	
C _w		· · · · · · · · · · · · · · · · · · ·		-		• • •	ation mat
Csource	site	1.23	I us Breatest	potential concentration of the contamin	ant in ground	water at the source of containin	auon, mg/L

INHALATION & I	IGESTION EXPOSURE R	OUTES			
AT,		· · · · · · · · · · · · · · · · · · ·	Averaging time for carcinogens, yr		
AT,	R = 30		Averaging time for noncarcinogens, yr		
•	1 = 25				
	W= 0.115				
BW		70	Adult body weight, kg		
ED	R= 30	30	Exposure duration, yr		
	l= 25				
	W= 1				
EF	R= 350	350	Exposure Frequency, d/yr		
	I= 250				
	C= 30				DO NOT P
Rair		ļ	Daily outdoor inhalation rate, m^3/d		
R _{sol}	R= 100	100	Soil ingestion rate, mg/d		
	1= 50				•
	C= 480				}
R _w	R = 2	2	Daily water ingestion rate, L/d		{
	l= 1				i
l, Mi		100	Depth to subsurface soil sources, cm		
			Soil to skin adherence factor		
Pe			Particulate emission rate, g/cm^2-s		
RAFa		0.5	Dermal relative absorption factor		
RAF _d (PNAs)			Dermal relative absorption factor		
RAF _d (inorganics)			Dermal relative absorption factor		
RAF		1	Oral relative absorption factor		
гно		1	Target hazard quotient		
TR at the point o	f R= 10 ⁻⁶	0.000001	Target cancer risk		
human exposure	l= 10 ⁻⁶				
	W= 10 ⁻⁶				
U _{ar}	L	225	Average wind speed above ground surface in ambient mixing zone	e, cm/s	
δ _{ab}		200	Ambient air mixing zone heights, cm		
		3.1416			
π r		**************************************	Averaging time for vapor flux, s		
- k, (non-ionizing			Soil water sorption coefficient, cm^3 water / g soil		
organics)		1			
- Barries)	R20	1			
VF,	R5	4.91F-12	Volatilization factor for surficial soils regarding particulates, kg/m	^3	
VF _{samb}	R11		Volatilization factor (subsurface soils to ambient air, (mg/m^3 air		
			Volatilization factor for surficial soils, kg/m^3	A contract of the source of	
VF _{ss}	R3 and R4		- · · · · · · · · · · · · · · · · · · ·		
d - Pr	site		Lower depth of surficial soil zone (not to exceed 100), cm		
D ^{eir}	Appendix C table E		Diffusion coefficient in air, cm^2/s		
D ^{wstar}	Appendix C Table E		Diffusion coefficient in water, cm^2/s		
D, "	R6	0.001	Effective diffusion coefficient in soil based on vapor-phase concer	tration, cm^2/s	
RBSL,,	R9	0.315	Carcinogenic risk-based screening level for air, ug/m^3		
RBSLair	R10	31.39	Non-carcinogenic risk-based screening level for air, ug/m^3		
RfD,	IEPA		Inhalation reference dose, mg/(kg-d)	benzene	
RfD	IEPA		Oral reference dose, mg/(kg-d)	benzene	
SA	IEPA		Skin surface area, cm^2/d	CONTRACTOR OF CONT	
SF,	IEPA		Inhalation cancer slope factor, (mg/kg-d)^-1	benzene	
SF.	JEPA	3.505-02	Oral slope factor, (mg/kg-d)^-1	benzene	1

						ing. itee		, OlCI	N S		
SOIL MIGI	TATION / GI	ROUNDWATER	EXPOSI	JRE ROU	JTE						
Eqn. R12:	RO =	1.23192563									
		0.09790134									
	=	12 583	ma/ka	Tior 2 R	emediati	on Objective					
	-	12.909	116/ 16	1161 2 11	emeasou	Sil Objective					
Egn. R13:	GWsource	0.005									
		0.00405869									
	=	1.232E+00									
Egn. R14:	LFsw =				1.64						
		0.3	0.1885	1.64	0.228	0.13 1+	12110	200			
							30	3200.4			
	=	0.098									
Eqn. R15:	C(x) =	exp	21336	1 -	1+	0.0036 2133	.6 erf	2103.1	e	erf	91.44
	Csource		4267.2			77.157		15582			3017.4
	=	0.004									
Eqn. R16:	ax ≖	0.1	21336								
	=	2133.600									
Eqn. R17:	ay =	2133.6									
	=	711.200									
Eqn. R18:	az =	2133.6									
	_	20									
	=	106.680									
Eqn. R19:	U =	5529.6	0.006								
		0.43									
	=	77.157									
Egn. R20:	ks =	58.9	0.0032								
•	=	0.188									
Egn. R21:	qws =	0.2	1.64								
	-	0.328	1								
Eqn. R22:	qas =	0.43	0.2	1.64	<u> </u>						
	-	0.141	1								
Egn. R23:		0.469									
Eqn. R24:		5529.6	0.006								
	=	1.21E+04									
Eqn. R25:		0.000001	70	70	365						
		0.055	2	350							
	=	0.002									
Eqn. R26:	C(x) =	1.23	21336	1 -	1+	0.0036 2133.	6 erf	2103.1	F	rf	91.44
	. 7		4267.2		-	77.157		15582			3017.4
	2	0.005									

د در

Values for Var	iables in Relevant Equation	nts		Project Name:	West Chicago Park Dis	trict
				(-	
SOIL MIGRATI	ON/GROUNDWATER EXP	DSURE ROUTE	ETHYLBENZENE	LPC number	0430905825	
Variable	Source	Value	Description and u	inits		PAGE 1
GWsource	R13	1.343	Groundwater con	centration at the source, mg/L		
LFsw	R14		Leaching factor, n			
GWcomp	R25			ective at the compliance point, mg/L		
Cx/Csource	R15	0.521	Steady-state atte	nuation along the centerline of a dissolve	ed plume, mg/L/mg/L	
k,	R20	1.089	Soil-water sorptic	n coefficient, cm^3/g		
Koc	Appendix C table E	363	Organic carbon pa	artition coefficient, cm^3/g		
f _{or}	surface 0.005	0.003	Organic carbon co	ontent of soil, g/g		
·oc	subsurface 0.002					
θ	R22 or	0.3	Volumetric water	content of vadose zone soils, cm^3/cm^	N3	
wws.	surface 0.15				-	
	subsurface 0.13					
	gravel 0.05					
	sand 0.18					
	silt 0.16					
	clay 0.17					
θ _{es}	R21 or	0.13	Volumetric air co	ntent of vadose zone soils, cm^3/cm^3		
~#5	surface 0.28					
	subsurface 0.13					
	gravel 0.05					
	sand 0.18	,				
	silt 0.16	ļ				
	clay 0.17					
θτ	R23 or	0.43	Total soil porosity	/. cm^3/cm^3		
•1	0.43		-	· ···· · ·		
	gravel 0.25					
	sand 0.32					
	silt 0.40]				
	clay 0.36					
н'	Appendix C table E	0.323	Henry's law const	ant, cm^3 air/cm^3 water	•	
w	surface 0.1	0.2	Average soil mois	ture content, g/g		
	subsurface 0.2					
Pb	gravel 2.0	1.64	Soil bulk density,	g/cm^3		
	sand 1.8					
	silt 1.6					
	clay 1.7					
ρ _w		1	Water density, g/	cm^3		
				e centerline of the ground water plume		
X	site		emanating from t			40 Distance, ft
ax	R16			ersivity, cm (Equation R16)		
ay	R17			sivity, cm (Equation R17) ity, cm (Equation R18)		
a2	R18	0.090	1 .			
•				pendicular to ground water flow directio	nin	
Sw	site	2103.12	horizontal plane,	cm		69 Sw, ft
			Source width per	pendicular to ground water flow directio	n in vertical	
Sd	site	91.44	plane, cm			3 Sd, ft
ĸ	site			conductivity, cm/day	6.44	DE-02 K, cm/sec
i	site		Hydraulic gradien		L	
, U	R19			, cm/day (Equation R19)		
Ugw	R24			cy velocity, cm/yr		
d d				ing zone thickness, cm		
1			Infiltration rate, o			
				rea parallel to direction of wind or group	nowater	
w	site		movement, cm			_105 W, ft
λ	Appendix C table E		-	lation constant, day*-1		. 4
C _(x)	R26			contaminant in groundwater at the dista		=
Capatro	site	1.22	The greatest pote	ntial concentration of the contaminant i	in groundwater at the :	source of contamination, r

INHALATION & IN AT _c	IGESTION EXPOSURE R			
	R = 30		Averaging time for carcinogens, yr Averaging time for noncarcinogens, yr	
λT _n		30	Averaging time for honcarcinogens, ya	
	1 = 25			
	W= 0.115	70	Adult books weight to	
3W ED	R= 30		Adult body weight, kg Exposure duration, yr	
	l= 30	50		
	W= 1			
EF	R= 350	350	Exposure Frequency, d/yr	
L.	1= 250	5.00		
	C= 30			
Raw		20	Daily outdoor inhalation rate, m^3/d	
	R= 100		Soil ingestion rate, mg/d	
IR _{sol}	k= 100 i= 50	100	Source Restron Late, Ingra	
	i= 50 C≈ 480			
10	R = 2	;	Daily water ingestion rate, 1/d	
ir. ^w	l= 1	-	Dany water ingestion rate, U b	
	<u> -1</u>	100	Depth to subsurface soll sources, cm	
4 • 4				
M			Soil to skin adherence factor	
Pe			Particulate emission rate, g/cm^2-s	
RAFd		U.S	Dermal relative absorption factor	
RAF _d (PNAs)			Dermal relative absorption factor	
RAF _d (inorganics)			Dermal relative absorption factor	
RAF.		1	Oral relative absorption factor	
тно		1	Target hazard quotient	
TR at the point of	R= 10 ⁻⁶	0.000001	Target cancer risk	
human exposure	l= 10 ⁻⁶			
	W= 10 ⁻⁶			
	W= 10			
Uatr	•	225	Average wind speed above ground surface in ambient mixing zone, cm/s	
δ _{atr}			Ambient air mixing zone heights, cm	
		3.1416		
			Averaging time for vapor flux, s	
k, (non-ionizing			Soil water sorption coefficient, cm^3 water / g soil	
		0.105	Son water sorption coencienc, city 5 water 7 g son	
prganics)	R20			
		4 015 13	Valatilization forter for surficial softeneous disc particulator, to (mA3	
VF	R5		Volatilization factor for surficial soils regarding particulates, kg/m^3	h= /
VFsemb	R11		Volatilization factor (subsurface soils to ambient air, (mg/m^3 air / mg/m^3 soil) or	Kg/m^3
VF _{ss}	R3 and R4	6.16E-06	Volatilization factor for surficial soils, kg/m^3	
đ	site		Lower depth of surficial soil zone (not to exceed 100), cm	
D**	Appendix C table E	0.088	Diffusion coefficient in air, cm^2/s	
D ^{water}	Appendix C Table E	9.80E-06	Diffusion coefficient in water, cm^2/s	
D,***	R6	0.001	Effective diffusion coefficient in soil based on vapor-phase concentration, cm^2/s	
RBSL _{air}			Carcinogenic risk-based screening level for air, ug/m^3	
	R9		· · · -	
RBSL	R10		Non-carcinogenic risk-based screening level for air, ug/m^3	
RfD _i	IEPA		Inhalation reference dose, mg/(kg-d)	ethylbenzene
RfD。	IEPA	1.00E-01	Oral reference dose, mg/(kg-d)	ethylbenzene
SA	ΙΕΡΑ	3,160	Skin surface area, cm^2/d	
SFi	IEPA		Inhalation cancer slope factor, (mg/kg-d)^-1	ethylbenzene
SF.	IEPA		Oral slope factor, (mg/kg-d)^-1	ethylbenzene

qn. R12:	RO =	1.343282132										
		0.720874203										
	=	1.863E+00	mg/kg	Tier 2	Remedia	ation C	bjectiv	e				
qn. R13:	GWsource	0.7										
•		0.521111673										
	=	1.343E+00										
qn. R14:	LFsw =				1.0	64						
		. 0.3	, 1.089	1.6	4 0.3	23	0.13 1	+	33.17	8 200 0 3200.4		
	=	0.721							-	0 3200.4		
qn. R15:	(M) =	exp	1219.2	1-	1+	c).012	121 92	erf	2103.1	erf	91.44
цп. ктэ.	Csource	слр .	243.84	-	1,		7.157	161.96		890.38		172.42
	=	5.21E-01										
qn. R16:	ax =	0.1	1219.2									
	=	121.920										·
ign. R17:	ay =	121.92										
	=	3 40.640										
	-	-0.0-0										
iqn. R18:	az =	121.92										
	=	6.096										
gn. R19:	U =	5529.6	0.006									
•		0.43		-								
	=	77.157										
iqn. R20:		363	0.003									
	=	1.089										
qn. R21:	qws =	0.2	1.64	-								
	=	0.328	1									
qn. R22:	nas =	0.43	0.2	1.6	4							
	4		1		_							
qn. R23:	= «T -	0.141 0.469										
.yn. n23.	ų, -	0.403										
iqn. R24:	Ugw = =	5529.6 33.178	0.006									
	-											
iqn. R25:		0.000001	70			65 30						
	=	#DIV/0!	2	55								
	-	#1019701										
qn. R26:	C(x) =	1.22	1219.2	1-	1+		0.012	121.92	erf	2103.1	erf	91.44

0.636

Ξ

l

APPENDIX H

Laboratory Reports-Groundwater Quality



Environmental Laboratories, Inc.

First

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

December 22, 2009

Mr. Daniel Horvath RESOURCE CONSULTING, INC. P.O. Box 123 Geneva, IL 60134

Project ID: 98-1002 WCPD First Environmental File ID: 9-5293 Date Received: December 16, 2009

Dear Mr. Daniel Horvath:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 002205: effective 02/06/09 through 02/28/10.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Lorrie Franklin Project Manager



Environmental

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

RESOURCE CONSULTING, INC.

Project ID: 98-1002 WCPD

First Environmental File ID: 9-5293

Date Received: December 16, 2009

(Lag	Contract of the second s	Riag	Descriptions
<	Analyte not detected at or above the reporting limit.	L+	LCS recovery outside control limits; high bias.
B	Analyte detected in associated method blank.	ト	LCS recovery outside control limits; low bias.
С	Identification confirmed by GC/MS.	М	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.	M+	MS recovery outside control limits high bias; LCS acceptable.
E	Estimated result; concentration exceeds calibration range.	M-	MS recovery outside control limits low bias; LCS acceptable.
F	Field measurement.	N	Analyte is not part of our NELAC accreditation.
		ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.
G	Surrogate recovery outside control limits; matrix effect.	P	Chemical preservation pH adjusted in lab.
Н	Analysis or extraction holding time exceeded.	Q	The analyte was determined by a GC/MS database search.
J	Estimated result; concentration is less than calib range.	S	Analyte was sub-contracted to another laboratory for analysis.
ĸ	RPD outside control limits.	Т	Sample temperature upon receipt exceeded 0-6°C
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	w	Reporting limit elevated due to sample matrix.

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

Sample Batch Comments:

Sample acceptance criteria were met.



Environmental

First

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Client:	RESOURCE CONSULTING, INC.	Date Collected: 12/1	4/09
Project ID:	98-1002 WCPD	Time Collected:	
Sample ID:	RW-1	Date Received: 12/1	6/09
Sample No:	9-5293-001	Date Reported: 12/2	!2/09

Analyte	Result	R.L.	Units	Flags
BTEX Organic Compounds Analysis Date: 12/17/09	Method: 5030B/8260B			
Benzene	< 5.0	5.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	



Environmental

First

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Client:	RESOURCE CONSULTING, INC.	Date Collected:	12/14/09
Project ID:	98-1002 WCPD	Time Collected:	
Sample ID:	RW-2	Date Received:	12/16/09
Sample No:	9-5293-002	Date Reported:	12/22/09

Analyte	Result	R.L.	Units	Flags
BTEX Organic Compounds Analysis Date: 12/17/09	Method: 5030B/8260B			
Benzene	< 5.0	5.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	_



Environmental

First

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Client: R	ESOURCE CONSULTING, INC.	Date Collected:	12/14/09
Project ID: 9	8-1002 WCPD	Time Collected:	
Sample ID: R	KW-4a	Date Received:	12/16/09
Sample No: 9	-5293-003	Date Reported:	12/22/09

Analyte	Result	R.L.	Units	Flags
BTEX Organic Compounds Analysis Date: 12/18/09	Method: 5030B/8260B			
Benzene	1,570	5.0	ug/L	
Ethylbenzene	1,110	5.0	ug/L	
Toluene	13.9	5.0	ug/L	
Xylene, Total	1,420	5.0	ug/L	



Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Client: RESOURCE CONSULTING, INC	Date Collected: 12/14/09
Project ID: 98-1002 WCPD	Time Collected:
Sample ID: RW-5	Date Received: 12/16/09
Sample No: 9-5293-004	Date Reported: 12/22/09

Analyte	Result	R.L.	Units	Flags
BTEX Organic Compounds Analysis Date: 12/17/09	Method: 5030B/8260B			
Benzene	< 5.0	5.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	



Environmental Laboratories, Inc.

First

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Client:	RESOURCE CONSULTING, INC.	Date Collected:	12/14/09
Project ID:	98-1002 WCPD	Time Collected:	
Sample ID:	RW-6	Date Received:	12/16/09
Sample No:	9-5293-005	Date Reported:	12/22/09

Analyte	Result	R.L.	Units	Flags
BTEX Organic Compounds Analysis Date: 12/17/09	Method: 5030B/8260B			
Benzene	< 5.0	5.0	ug/L	
Ethylbenzene	54.5	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
Xylene, Total	183	5.0	ug/L	



Environmental

First

Laboratories, Inc.

.....

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Client:	RESOURCE CONSULTING, INC.	Date Collected: 12/14/09
Project ID:	98-1002 WCPD	Time Collected:
Sample ID:	RW-7	Date Received: 12/16/09
Sample No:	9-5293-006	Date Reported: 12/22/09
-		

Analyte	Result	R.L.	Units	Flags
BTEX Organic Compounds Analysis Date: 12/17/09	Method: 5030B/8260B	<u></u>		
Benzene	< 5.0	5.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	



Environmental Laboratories, Inc.

First

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Analytical Report

Client:	RESOURCE CONSULTING, INC.	Date Collected: 12/14/09	
Project ID:	98-1002 WCPD	Time Collected:	
Sample ID:	RW-8	Date Received: 12/16/09	
Sample No:	9-5293-007	Date Reported: 12/22/09	

Analyte	Result	R.L.	Units	Flags
BTEX Organic Compounds Analysis Date: 12/17/09	Method: 5030B/8260B		<u></u>	
Benzene	< 5.0	5.0	ug/L	,
Ethylbenzene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

í



Environmental

First

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Client:	RESOURCE CONSULTING, INC.	Date Collected:	12/14/09
Project ID:	98-1002 WCPD	Time Collected:	
Sample ID:	RW-11	Date Received:	12/16/09
Sample No:	9-5293-008	Date Reported:	12/22/09

Analyte		Result	R.L.	Units	Flags
BTEX Organic Compounds Analysis Date: 12/17/09	Method: 5030B/	3260B			
Benzene		< 5.0	5.0	ug/L	
Ethylbenzene		< 5.0	5.0	ug/L	
Toluene		< 5.0	5.0	ug/L	
Xylene, Total		< 5.0	5.0	ug/L	
Polynuclear Aromatic Hydrocarbons Analysis Date: 12/18/09	Method: 8270C		Preparation Preparation	Method 351 Date: 12/18/09	
Acenaphthene		< 10	10	ug/L	
Acenaphthylene		< 10	10	ug/L	
Anthracene		< 5	5	ug/L	
Benzo(a)anthracene		< 0.13	0.13	ug/L	
Benzo(a)pyrene		< 0.2	0.2	ug/L	
Benzo(b)fluoranthene		< 0.18	0.18	ug/L	
Benzo(k)fluoranthene		< 0.17	0.17	ug/L	
Benzo(ghi)perylene		< 0.4	0.4	ug/L	
Chrysene		< 1.5	1.5	ug/L	
Dibenzo(a,h)anthracene		< 0.3	0.3	ug/L	
Fluoranthene		< 2	2	ug/L	
Fluorene		< 2	2	ug/L	
Indeno(1,2,3-cd)pyrene		< 0.3	0.3	ug/L	
Naphthalene		< 10	10	ug/L	
Phenanthrene		< 5	5	ug/L	
Pyrene		< 2	2	ug/L	



Environmental

First

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Client:	RESOURCE CONSULTING, INC.	Date Collected:	12/14/09
Project ID:	98-1002 WCPD	Time Collected:	
Sample ID:	RW-13	Date Received:	
Sample No:	9-5293-009	Date Reported:	12/22/09

Analyte		Result	R.L.	Units	Flags
BTEX Organic Compounds Analysis Date: 12/17/09	Method: 5030B/82	60B			
Benzene	<	5.0	5.0	ug/L	
Ethylbenzene		6.4	5.0	ug/L	
Toluene	<	\$.0	5.0	ug/L	
Xylene, Total		1 6 .7	5.0	ug/L	
Polynuclear Aromatic Hydrocarbons Analysis Date: 12/18/09	Method: 8270C		Preparation Preparation I		
Acenaphthene	•	< 10	10	ug/L	
Acenaphthylene	•	< 10	10	ug/L	
Anthracene	•	< 5	5	ug/L	
Benzo(a)anthracene	•	< 0.13	0.13	ug/L	
Benzo(a)pyrene	•	< 0.2	0.2	ug/L	
Benzo(b)fluoranthene	•	< 0.18	0.18	ug/L	
Benzo(k)fluoranthene	•	< 0.17	0.17	ug/L	
Benzo(ghi)perylene	•	< 0.4	0.4	ug/L	
Chrysene	•	< 1.5	1.5	ug/L	
Dibenzo(a,h)anthracene	•	< 0.3	0.3	ug/L	
Fluoranthene	•	< 2	2	ug/L	
Fluorene		< 2	2	ug/L	
Indeno(1,2,3-cd)pyrene		< 0.3	0.3	ug/L	
Naphthalene		< 10	10	ug/L	
Phenanthrene		< 5	5	ug/L	
Pyrene		< 2	2	ug/L	



Environmental

First

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Client:	RESOURCE CONSULTING, INC.	Date Collected:	12/14/09
Project ID:	98-1002 WCPD	Time Collected:	
Sample ID:	RW-14	Date Received:	12/16/09
Sample No:	9-5293-010	Date Reported:	12/22/09

Analyte		Result	R.L.	Units	Flags
BTEX Organic Compounds Analysis Date: 12/17/09	Method: 5030B/8	260B			
Benzene		< 5.0	5.0	ug/L	
Ethylbenzene		133	5.0	ug/L	
Toluene		< 5.0	5.0	ug/L	
Xylene, Total		374	5.0	ug/L	
Polynuclear Aromatic Hydrocarbons Analysis Date: 12/18/09	Method: 8270C		Preparation Preparation 1	Method 351 Date: 12/18/09	
Acenaphthene		< 10	10	ug/L	
Acenaphthylene		< 10	10	ug/L	
Anthracene		< 5	5	ug/L	
Benzo(a)anthracene		< 0.13	0.13	ug/L	
Benzo(a)pyrene		< 0.2	0.2	ug/L	
Benzo(b)fluoranthene		< 0.18	0.18	ug/L	
Benzo(k)fluoranthene		< 0.17	0.17	ug/L	
Benzo(ghi)perylene		< 0.4	0.4	ug/L	
Chrysene		< 1.5	1.5	ug/L	
Dibenzo(a,h)anthracene		< 0.3	0.3	ug/L	
Fluoranthene		< 2	2	ug/L	
Fluorene		< 2	2	ug/L	
Indeno(1,2,3-cd)pyrene		< 0.3	0.3	ug/L	
Naphthalene		33	10	ug/L	
Phenanthrene		< 5	5	ug/L	
Pyrene		< 2	2	ug/L	



Environmental

First

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Analytical Report

Client:	RESOURCE CONSULTING, INC.	Date Collected:	12/14/09
Project ID:	98-1002 WCPD	Time Collected:	
Sample ID:	RW-15	Date Received:	12/16/09
Sample No:	9-5293-011	Date Reported:	12/22/09

Analyte	R	esult	R.L.	Units	Flags
BTEX Organic Compounds Analysis Date: 12/17/09	Method: 5030B/8260	B			
Benzene	< 5	5.0	5.0	ug/L	
Ethylbenzene	1	8.0	5.0	ug/L	
Toluene	< 5	5.0	5.0	ug/L	
Xylene, Total	4	56.9	5.0	ug/L	
Polynuclear Aromatic Hydrocarbons Analysis Date: 12/18/09	Method: 8270C		Preparation Preparation I	Method 351 Date: 12/18/09	10C)
Acenaphthene	< 1	10	10	ug/L	
Acenaphthylene	< 1	10	10	ug/L	
Anthracene	< :	5	5	ug/L	
Benzo(a)anthracene	· < ().13	0.13	ug/L	
Benzo(a)pyrene	< ().2	0.2	ug/L	
Benzo(b)fluoranthene	< ().18	0.18	ug/L	
Benzo(k)fluoranthene	< ().17	0.17	ug/L	
Benzo(ghi)perylene	< ().4	0.4	ug/L	
Chrysene	<	1.5	1.5	ug/L	
Dibenzo(a,h)anthracene	< ().3	0.3	ug/L	
Fluoranthene	< 2	2	2	ug/L	
Fluorene	< 2	2	2	ug/L	
Indeno(1,2,3-cd)pyrene	< (0.3	0.3	ug/L	
Naphthalene	<	10	10	ug/L	
Phenanthrene	< :	5	5	ug/L	
Pyrene	< 2	2	2	ug/L	

.



Environmental

First

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Client:	RESOURCE CONSULTING, INC.	Date Collected:	12/14/09
Project ID:	98-1002 WCPD	Time Collected:	
Sample ID:	RW-16a	Date Received:	12/16/09
Sample No:	9-5293-012	Date Reported:	12/22/09

Analyte	-	Result	R.L.	Units	Flags
BTEX Organic Compounds Analysis Date: 12/17/09	Method: 5030B/8	260B			
Benzene		< 5.0	5.0	ug/L	
Ethylbenzene		319 ·	5.0	ug/L	
Toluene		16.5	5.0	ug/L	
Xylene, Total		947	5.0	ug/L	
Polynuclear Aromatic Hydrocarbons Analysis Date: 12/18/09	Method: 8270C		Preparation Preparation 1		
Acenaphthene		< 10	· 10	ug/L	
Acenaphthylene		< 10	10	ug/L	
Anthracene		< 5	5	ug/L	
Benzo(a)anthracene		< 0.13	0.13	ug/L	
Benzo(a)pyrene		< 0.2	0.2	ug/L	
Benzo(b)fluoranthene		< 0.18	0.18	ug/L	
Benzo(k)fluoranthene		< 0.17	0.17	ug/L	
Benzo(ghi)perylene		< 0.4	0.4	ug/L	
Chrysene		< 1.5	1.5	ug/L	
Dibenzo(a,h)anthracene		< 0.3	0.3	ug/L	
Fluoranthene		< 2	2	ug/L	
Fluorene		< 2	2	ug/L	
Indeno(1,2,3-cd)pyrene		< 0.3	0.3	ug/L	
Naphthalene		46	10	ug/L	
Phenanthrene		< 5	5	ug/L	
Pyrene		< 2	2	ug/L	

SPA Certification# 100292 Analyses Project I.D.: <u>98-1002 WCP.3</u>	
Matrix Codes: S = Soil W = Water O = Other	
Comments Viewle Developments	Lab I.D. 7- 5293.061
12-14-09 pm RW-1 W D 9	- 1075.001 062
° RW-2	003
RW-4a	004
Pw-5	001
RW-6	Jac
Rw7	007
RW-8	01
Rw-II	000
Rw-13 X	010
Rw-14	01
1 RW15 X X	011
Rw-16a XX	
OR LAB USE ONLY: 2C Sample Refrigerated: Yes No Containers Received Preserved: cooler Temperature: 0.1-6°C Yess No Refrigerator Temperature:°C Preserved in Lab: teceived within 6 hys. of collection: Source Present: Yes No Preserved in Lab: teceived No Freezer Temperature:°C Preserved in Lab: totes and Special Instructions: Preserved in Lab: Preserved in Lab:	
ce Present: Yes // No 5035 Viais Frozen: Yes No Freezer Temperature:°C	
	<u> </u>

· · · ·

000165

... .

. •

.



Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

August 25, 2010

Mr. Daniel Horvath **RESOURCE CONSULTING, INC.** P.O. Box 123 Geneva, IL 60134

Project ID: WCPD First Environmental File ID: 10-3362 Date Received: August 20, 2010

Dear Mr. Daniel Horvath:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 002468: effective 02/23/2010 through 02/28/2011.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200 or stan@firstenv.com.

Sincerely,

Stan Zaworski Project Manager



Environmental

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

RESOURCE CONSULTING, INC.

Project ID: WCPD

First Environmental File ID: 10-3362

Date Received: August 20, 2010

Fläg	Description	Flag	Description
<	Analyte not detected at or above the reporting limit.	L+	LCS recovery outside control limits; high bias.
B	Analyte detected in associated method blank.	Ŀ	LCS recovery outside control limits; low bias.
C i	Identification confirmed by GC/MS.	М	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.	M+	MS recovery outside control limits high bias; LCS acceptable.
E	Estimated result; concentration exceeds calibration range.	M-	MS recovery outside control limits low bias; LCS acceptable.
F	Field measurement.	N	Analyte is not part of our NELAC accreditation.
		ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.
G	Surrogate recovery outside control limits; matrix effect.	Р	Chemical preservation pH adjusted in lab.
H	Analysis or extraction holding time exceeded.	; Q	The analyte was determined by a GC/MS database search.
J	Estimated result; concentration is less than calib range.	S	Analyte was sub-contracted to another laboratory for analysis.
к	RPD outside control limits.	Ť	Sample temperature upon receipt exceeded 0-6°C
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	w	Reporting limit elevated due to sample matrix.

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

Sample Batch Comments:

Sample acceptance criteria were met.



Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Client:	RESOURCE CONSULTING, INC.	Date Collected:	08/20/10
Project ID:	WCPD	Time Collected:	13:10
Sample ID:	MW-4A	Date Received:	08/20/10
- Sample No:	10-3362-001	Date Reported:	08/25/10

Analyte	Result	R.L.	Units	Flags
BTEX Organic Compounds Analysis Date: 08/24/10	Method: 5030B/8260B			
Benzene	1,230	5.0	ug/L	
Ethylbenzene	1,220	5.0	ug/L	
Toluene	9.9	5.0	ug/L	
Xylene, Total	2,410	5.0	ug/L	

First	t	С	HAIN	OF C	UST	ODY	RECC	ORD			Page of ;	
Envi	ironmental oratories, Inc.		Con	ipany Na	me:	Resu	<u>re C</u>	MSU	1tim			
First Environmental Laboratories			Stre	t Addres	s; _//.	5 For	<u>d St</u>		<u> </u>			
ioo Shore Road, Sui					-					State: 12	Zip: 60134	
aperville, Illinois 60	563									e-mail:		
ione: (630) 778-1204	0 • Fax: (630) 778-1233		Sen	i Report	To:	nn I	Fax:	1h_		Via: Fax	e-mail	
PA Certification #1	stenv.com 100292 //5 // /		Sam	pled By:	817	٢		<u></u>				
								Analyse	3	· · · · - · · · · · · · · · · · · · · ·		
Project I.D.:/	VCPD				Γ,	/ /	r /					
PO # ·									' /			
1.0								' /				
			,	$\langle \cdot \cdot \cdot \rangle$	/ /				/ /			
•				<u>~</u>				/ /				
	S = Soil W = Water O =	Other		Ý	$\langle \rangle$	/ {	' /	\langle	\langle	Comments	Lab I.D.	
Date/Time Taken									╂───	Comments	10-3362-00 1	
\$20/10 1:10p	an MW.4A	h	1 2						+		10 1302-00 1	
· · · · · · · · · · · · · · · · · · ·									╉╼╌╌			
<u></u>				-				-				
							-					
<u> </u>												
					· ·					· · · · · · · · · · · · · · · · · · ·		
									<u> </u>			
				<u> </u>					· · ·		<u> </u>	
				<u> </u>					-		· · · ·	
···				+			-+-				<u> </u>	
		<u>, </u>			I						· · · · · · · · · · · · · · · · · · ·	
	: 0,1~6ºC YesNo	⁰C Sample R	lefrigerated	t Yes	No	Cor	itainers Re	eceived Pr	reserved			
Received within 6 hp	s. of collection:	Refrigerat	tor Temper	ature:	°C							
ce Present: Yes*	No		s Frozen: emperatur			Nee	d to meet	: IL. TAC				
Notes and Special	Instructions:		·					<u></u>				
	;											
	'Ro	Date/Time	Anlin	1.11	2 -	cived By	1	21		Date/Time	8/20/10 134	
				1. 7								
Relinquished By: Relinquished By:		Date/Time	<u>e-ji-</u>			eived By		1		Date/Time		

Electronic Filing: Received, Clerk's Office 09/20/2024

APPENDIX I

Hydraulic Properties of Aquifer

In conjunction with the sampling of the monitoring wells during the course of the project, the direction of groundwater flow and the hydraulic gradient were determined from additional data gathered from the wells. Specifically, the tops of the monitoring wells were surveyed to a common elevation datum at the Site, and the depth to the water table was measured using a water level meter in each of the wells.

The following table summarizes the water table elevation data collected from the monitoring wells since the inception of the project.

WATER TABLE ELEVATION DATA

PROJECT NAME:	West Chicago Park District
INCIDENT NO .:	980814

SURVEYED POINTS: tops of well casings

WELL ID	ROD ELEVATION ft	RELATIVE POINT ELEVATION, ft.	DEPTH TO WATER, ft.	WATER TABLE ELEVATION, ft. rel. point - depth to water
DATE:				
12/14/2009				
RW-1	2.05	101.87	9.89	91.98
RW-2	5.23	98.69	7.36	91.33
RW-4A	4.54	99.38	7.81	91.57
RW-5	6.48	97.44	6.14	91.30
RW-6	5.62	98.30	6.23	92.07
RW-7	3.85	100.07	8.52	91.55
RW-8	6.23	97.69	6.43	91.26
RW-H	5.36	98.56	6.96	91.60
RW-12	5.93	97.99	6.51	91.48
RW-13	6.16	97.76	5.90	91.86
RW-14	4.92	99.00	7.39	91.61
RW-15	5.45	98.47	6.46	92.01
RW-16	5.87	98.05	6.37	91.68

The following page displays the calculation of the flow direction using descriptive geometry. The calculations show that the flow direction remains to the south/southeast with a hydraulic gradient of approximately 0.002 ft/ft. The results of the calculations are displayed on Figure 2 in Appendix A.

(Excel 3-point problem)

Solution of Three Point Problem for Flow Direction and Hydraulic Gradient Using Descriptive Geometry

Project Name:West Chicago Park DistrictIncident No.:980814

Date:		12/14/2009		Well ID	
	NOTE: see Figure X for geometry of Site				
	Lowest Elevation, X, at A:		91.26	RW-8	
	Intermediate Elevation, Y, at B:		91.55	RW-7	
	Highest Elevation, Z, at C:		92.07	RW-6	
	Distance between A and C, ft:		AC =	134.80)
	Distance from A to point of Intersection D, ft:		AD =	AC x	Y - X Z - X
			=	48.26	ò
	Distance from A to E (point of right angle with A	and B):	AĘ=	48.60)
	Hydraulic Gradient:		Y - X AE	=	0.29 48.60
				=	0.00597

APPENDIX J

_

Illinois EPA Forms



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 Property Owner Summary

A. Site Identification

IEMA Incident # (6- or 8-digit): 980814		IEPA LPC# (10-digit): 0430905			
Site Name: West Chicago Par	k Dist.				
Site Address (not a P.O. Box):	250 West National Street		<u></u>		
City: West Chicago	County: DuPage	Zip Code: 6	0185		

Leaking UST Technical File

Engineered barriers, institutional controls, and other use restrictions, if any, proposed for this site may not be implemented without approval by the title holder(s) of record for the above-named property or the agent(s) of such person(s). These controls and restrictions will be identified in the No Further Remediation (NFR) Letter, which must be recorded in the chain of title for the property. Failure to maintain these controls is grounds for voidance of the NFR Letter.

B. Preventive, Engineering, and Institutional Controls and Land Use Limitations

The following controls and restrictions are proposed for the above-named site:

- Industrial/commercial land use limitation;
- On-site groundwater restriction prohibiting the use of groundwater beneath the site as a potable water supply;

	An engineered barrier: Building, asphalt/concrete, or Other (description)
<	Groundwater ordinance: 📝 With a MOU, 📋 Without a MOU;
7	Construction worker caution notification;
	Other:
	None (There are no proposed institutional controls other than the NFR Letter.)

RECEIVED

JUL 2 3 2013

IEPA/BOL

C. Property Ownership Declaration

I hereby affirm that I have r Corrective Action Completi	reviewed the attached report entitled	Free Product Removal Report/ and dated April 2013
and that I accept the terms property I own. I further affi	and conditions set forth therein, inclu	ding any land use limitations, that apply to ording of a No Further Remediation Letter
Name of Property Owner:	West Chicago Park Dist.	
Name of Officer or Agent:	Jesse Felix	
Mailing Address: 157 We	st Washington St.	· · · · · · · · · · · · · · · · · · ·
City West Chicago		
State IIIlinois	······································	
Zip Code 60185	<u> </u>	
Signature Lasse I	, lic	
Date +128/13	2	

Real Estate Tax/Parcel Index Number:

Legal Description of Site (must be provided on a separate sheet)

ι



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 Free Product Removal

A. Site Identification

В.

IEMA Incident # (6- or 8-digit): 980814	IEPA LPC# (10-digit): 0430905825	
Site Name: West Chicago Park Dist.		
Site Address (Not a P.O. Box): 250 West National Street		
City: West Chicago County: DuPage	ZIP Code: 60185	
Leaking UST Technical File		
Information Provided		
1. Free Product Removal Plan	RECEIVED	
2. Free Product Removal Budget	JUL 23 20139w	
3. Free Product Removal Report 🛛 🔀	IEPA/BOL	

C. Free Product Removal

Provide the following:

- 1. The name(s) of the person(s) responsible for implementing the free product removal measures;
- 2. The estimated quantity, type, and thickness of free product observed or measured in boreholes, wells, excavation, etc.;
- 3. The type of free product recovery system used and technical justification for the method of recovery chosen;
- 4. Whether any discharge will take place on- or off-site during the recovery operation and where this discharge (point) will be located;
- 5. The type of treatment applied to, and the effluent quality expected from, any discharge;
- 6. The disposition of the recovered free product;
- 7. The steps that have been taken or that are being taken to obtain necessary permits for any discharge;
- 8. The steps taken to identify the source and extent of free product; and
- 9. A schedule of future activities necessary to complete the recovery of free product still exceeding one-eighth of an inch in depth.

Electronic Filing: Received, Clerk's Office 09/20/2024 D. Supporting Documentation

Provide the following:

- 1. Site map meeting the requirements of 35 III. Adm. Code of 732.110(a) or 734.440 and showing:
 - a. Locations where free product was encountered including its estimated thickness;
 - b. Location of recovery points;
 - c. Location of the treatment unit; and
 - d. Location of discharge points;
- 2. A table showing the dates that free product recovery was conducted and the amount of free product recovered on each date; and
- 3. Copies of waste manifests.

E. Submission of a Free Product Removal Plan

In accordance with 35 III. Adm. Code 732.203 or 734.215, if free product removal activities will be conducted more than 45 days after confirmation of the presence of free product, the owner or operator must submit to the Illinois EPA for review a free product removal plan and budget, if applicable. The plan must include the information requested under Sections C and D of this form, as applicable.

F. 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 West Chicago Park Dist.		
Contact Jesse Felix		
Address 157 West Washington St.		
City West Chicago		
State Illinois		
Zip Code 60185		
Phone 630-231-9474		
Signature Corpus teli		
Date		

Consultant

Company Resource Consulting
Contact Dan Horvath
Address PO Box 123
City Geneva
State Illinois
Zip Code 60134
Phone 630-232-9820
Signature AMA

Continue on to next page.



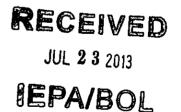
Free Product Removal

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 this plan, budget, or report 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





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 . I further certify that the costs set forth in activities for Leaking UST incident 980814 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 III. Adm. Code 732 or 734. I further certify that costs ineligible for payment from the Fund pursuant to 35 III. 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. RECEIVED 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. **IEPA/BOL** Costs incurred prior to July 28, 1989. Costs associated with installation of new USTs or the repair of existing USTs.

Owner/Operator: West Chicago Park Dist.

Daisy Ferrandon (Notary Public)	Seal:	OFFICIAL BEAL DRISV FERMINDEZ Notary Public - Etate of Minois My Commission Emmas New 5, 2017
Subscribed and sworn to before me the 38 day of	April	2.013
Signature: Leve Felix	Dat	e: <u>4/28/(3</u>
Authorized Representative: Jesse Felix	Title	e: Superintendent of Parks

In addition, I certify under penalty of law that all activities that are the subject of misenant way 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.: Dan Horvath	L.P.E./L.P.G. Seal:
L.P.E./L.P.G. Signature:	Date: G [13 13
Subscribed and sworn to before me the 13th day of	JUNE OFFICIAL SEAL
	Seal: KOTARY PUBLIC, STATE OF ILLINOIS
(Notary Public)	MY COMMISSION EXPIRES 3-26-2014

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.

JUL 2 3 2013



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 fetony. 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 Corrective Action Plan

A. Site Identification

В.

C.

IEMA Incident # (6- or 8-digit): 980814		IEPA LPC# (10-digit): 0430905825		
Site Name: West Chicago Park Dist.				
Site Address (Not a P.O. Box): 250 W	lest National St.		· · · · · · · · · · · · · · · · · · ·	
City: West Chicago	County: DuPage	ZIP Cod	e: <u>60185</u>	
Site Information				
1. Will the owner or operator seek rei	mbursement from the Under	ground Storage Tank Fu	nd? 🔽 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:	unleaded gasoline, diesel fu	ıel	· · · · · · · · · · · · · · · · ·	
5. This Corrective Action Plan is sub	mitted pursuant to:		RECEIVED	
a. 35 III. Adm. Code 731.166		· ·	JUL 2 3 2013	
The material released was	÷			
-petroleum			IEPA/BOL	
-hazardous substand Protection Act So	ce (see Environmental ection 3.215)			
b. 35 III. Adm. Code 732.404		\checkmark		
c. 35 III. Adm. Code 734.335				
Proposed Methods of Remedia	ition			
1. Soil Excavation and disposal				
2 Groundwater TACO evaluation				

D. Soil and Groundwater Investigation Results

(for incidents subject to 35 III. Adm. Code 731 only or 732 that were classified using Method One or Two, if not previously provided)

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;

IL 532 2287 LPC 513 Rev. July 2007

- Boring logs;
- 5. Monitoring well logs; and
- 6. Site maps meeting the requirements of 35 III. 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;
 - b. The scope of the problems to be addressed by the proposed corrective action; and
 - c. A schedule for implementation and completion of the plan;
- 2. Identification of the remediation objectives proposed for the site;
- 3. A description of the remedial technologies selected:
 - a. The feasibility of implementing the remedial technologies;
 - b. Whether the remedial technologies will perform satisfactorily and reliably until the remediation objectives are achieved; and
 - c. A schedule of when the technologies are expected to achieve the applicable remediation objectives;
- 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;
- 5. A description of the current and projected future uses of the site;
- 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;
 - b. operating and maintenance plans; and
 - c. maps showing area covered by barriers and institutional controls;
- 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;
 - b. Map(s) showing regulated recharge areas and wellhead protection areas;
 - c. Map(s) showing the current extent of groundwater contamination exceeding the most stringent Tier 1 remediation objectives;
 - d. Map(s) showing the modeled extent of groundwater contamination exceeding the most stringent Tier 1 remediation objectives;
 - e. Tables listing the setback zone for each community water supply well and other potable water supply wells;
 - 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
 - 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);

- 8. Appendices:
 - a. References and data sources report that are organized; and
 - b. Field logs, well logs, and reports of laboratory analyses;
- 9. Site map(s) meeting the requirements of 35 Ill. Adm. Code 732.110(a) or 734.440;
- 10. Engineering design specifications, diagrams, schematics, calculations, manufacturer's specifications, etc.;
- 11. A description of bench/pilot studies;
- 12. Cost comparison between proposed method of remediation and other methods of remediation;
- 13. For the proposed Tier 2 or 3 remediation objectives, provide the following:
 - a. The equations used;
 - b. A discussion of how input variables were determined;
 - c. Map(s) depicting distances used in equations; and
 - d. Calculations; and
- 14. Provide documentation to demonstrate the following for alternative technologies:
 - 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;
 - b. Soil saturation limit will not be exceeded for any of the organic contaminants;
 - c. Contaminated soils do not exhibit any of the reactivity characteristics of hazardous waste per 35 III. Adm. Code 721.123;
 - d. Contaminated soils do not exhibit a pH \leq 2.0 or \geq 12.5; and
 - 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 III. Adm. Code 721.124.
- 2. A discussion of how any exposure pathways are to be excluded.

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.

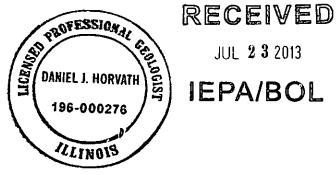
UST Owner or Operator	Consultant
Name West Chicago Park Dist.	Company Resource Consulting
Contact Jesse Felix	Contact Dan Horvath
Address 157 West Washington St.	Address PO Box 123
City West Chicago	City Geneva
State Illinois	State Illinois
Zip Code 60185	Zip Code <u>60134</u>
Phone 630-231-9474	Phone 630-232-9820
Signature bosse Filip	Signature
Date //4/28/13	Date 613/61

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 III. 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

Name Dan Horvath		
Company Resource Consulting		
Address PO Box 123		
City Geneva		
State Illinois		
Zip Code 60134		
Phone 630-232-9820		
III. Registration No. 196-000276		
License Expiration Date 3/31/15		
Signature		
Date (013/13()		

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





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 Corrective Action Completion Report

A. Site Identification

IEMA Incident # (6- or 8-digit): 980814		IEPA LPC# (10-digit): 0430905825		
Site Name: West Chicago Pa	nrk Dist.			
Site Address (Not a P.O. Box)	: 250 West National Street			
City: West Chicago	County: DuPage	ZIP Code: 60185		
B. Site Information				
1. Has a Corrective Action F	Plan been approved? Ves	🔲 No		
Date of approval letter: J	uly 16, 2009			
2. This completion report is I	peing submitted pursuant to:	· · · · · ·		
a. 35 III. Adm. Code 731.	166			
b. 35 III. Adm. Code 732.		RECEIVED		
c. 35 Ill. Adm. Code 732.4	404 🗹			
d. 35 ill. Adm. Code 734.3	345	JUL 2 3 2013		
3. Method of remediation cho	osen:	IEPA/BOL		
a. Soil Excavation and	I disposal			
b. Groundwater TACO	evaluation			
4. Quantity of contaminated r	media remediated and/or recovere	ed		
a. Soil	215 yds. ³			
b. Groundwater	 4,000 gals.			

c. Free Product 10 gals.

C. Remedial (Corrective) Action

- 1. An executive summary that identifies the overall objectives of the corrective action and the technical approach utilized to meet those objectives. The summary shall contain the following information:
 - a. A brief description of the site, including but not limited to a description of the release, the applicable indicator contaminants, the contaminated media, and the extents of soil and groundwater contamination that exceeded the most stringent Tier 1 remediation objectives;

Corrective Action Completion Report Page 1 of 3

Electronic Filing: Received, Clerk's Office 09/20/2024 The major components (e.g., treatment, containment, removal) of the corrective action;

- b.
- The scope of the problems corrected or mitigated by the corrective action; and С.
- The anticipated post-corrective action uses of the site and areas immediately adjacent to the site; d.
- 2. A description of the corrective action activities conducted including:
 - a. A narrative description of the field activities conducted as part of corrective action;
 - A narrative description of the remedial actions implemented at the site and the performance of each remedial b. technology utilized:
 - Documentation of sampling activities: C.
 - Sample collection information; i.
 - Sample preservation and shipment information; ii.
 - iii. Analytical procedure information;
 - Analytical results, chain of custody and control, and laboratory certification;
 - Field and lab blanks; and v
 - vi. Table(s) comparing analytical results to remediation objectives approved for the site (include sample depths, date collected, and detection limits);
 - Soil boring logs and monitoring well construction diagrams. d.
- A narrative description of any special conditions relied upon as part of corrective action including: 3.
 - Engineered barriers utilized: а.
 - i. Type of barrier(s); and
 - Map showing location(s) and dimension(s) of barrier(s); ii.
 - Institutional controls utilized: h
 - Copy of fully executed institutional control(s); and i.
 - ii. Map showing location(s) of controls:
 - Other conditions, if any, necessary for protection of human health and safety and the environment that are С. related to the issuance of a No Further Remediation Letter; and
 - d. Any information required regarding off-site access;
- 4. An analysis of the effectiveness of the corrective action that compares the confirmation sampling results to the remediation objectives approved for the site;
- 5. A conclusion that identifies the success in meeting the remediation objectives approved for the site;
- Appendices containing references and data sources;
- 7. The water supply well survey:
 - Map(s) showing locations of community water supply wells and other potable wells and the setback zone for a. each well;
 - Map(s) showing regulated recharge areas and wellhead protection areas; b.
 - Map(s) showing the current extent of groundwater contamination exceeding the most stringent Tier 1 C. remediation objectives;
 - Map(s) showing the modeled extent of groundwater contamination exceeding the most stringent Tier 1 **d**. remediation objectives:
 - e. Table(s) listing the setback zones for each community water supply well and other potable water supply wells;
 - A narrative identifying each entity contacted to identify potable water supply wells, the name and title of each f. person contacted, and any field observations associated with any wells identified; and
 - A certification from a Licensed Professional Engineer or Licensed Professional Geologist that the survey was g. conducted in accordance with the requirements and that the documentation submitted includes the information obtained as a result of the survey (certification of this report satisfies this requirement);

Electronic Filing: Received, Clerk's Office 09/20/2024 8. Site map(s) meeting the requirements of 35 III. Adm. Code 732.110(a) or 734.440.

- 9. Development of Tier 2 or 3 remediation objectives, if applicable:
 - Equations used; a.
 - Discussion of how input variables were determined; b.
 - Map(s) depicting distances used in equation; and С.
 - Calculations: and d.
- 10. Property Owner Summary form.

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	Consultant	
Name West Chicago Park Dist.	Company Resource Consulting	
Contact Jesse Felix	Contact Dan Horvath	
Address 157 West Washington St.	Address PO Box 123	
City West Chicago	City Geneva	
State Illinois	State Illinois	
Zip Code <u>60185</u>	Zip Code 60134	RECEIVE
Phone 630-231-9474	Phone 630-232-9820	
Signature	Signature	JUL <u>23</u> 2013
Date	Date 6	IEPA/BOL

E. Certification

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 this plan, budget, or report has been completed in accordance with the Environmental Protection Act [415 ILCS 5], 35 III. 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].

L.P.E. Seal
9 062-044088 E
S. S
PROFESSIONAL T
ENGINEER OF
LIMOIS .
Signature
Date 6/13/13

Corrective Action Completion Report Page 3 of 3

000188



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

Β.

IEMA Incident # (6- or 8-digit): 980814		IEPA LPC# (10-digit): 0430905825		
Site	e Name: West Chicago Parl	District		
Site	e Address (Not a P.O. Box):	250 West National Street		
Cit	y: West Chicago	County: DuPage	ZIP Code: 60185	
Lea	king UST Technical File			
Sa	mple Collector			
l ce	ertify that:			
1. Appropriate sampling equipment/methods were utilized to obtain representative samples.			otain representative samples.	
				(Initial)
2.	Chain-of-custody procedures were followed in the field.			(Initial)
~	Completing attention was maint	ained by proper preservation.		(
3.	Sample integrity was maine	ameu by proper preservation.		(Initial)
4.	All samples were properly I	abeled.		
				(Initial)

C. Laboratory Representative

I certify that:

1.	Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms	<u> </u>
2.	Sample integrity was maintained by proper preservation.	(Initial) <u> </u>
3.	All samples were properly labeled.	(Initial)
4.	Quality assurance/quality control procedures were established and carried out.	SSV (Initial)
5.	Sample holding times were not exceeded.	99 (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).

50 (Initial) 9:~ (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 Brandi Talaga
Title Environmental Technician
Company Resource Consulting, Inc.
Address P.O. Box 123
City Geneva
State Illinois
Zip Code 60134
Phone (630)232-9820
Signature Brack Men
Date 7/19/13
/ / /

Laboratory Representative

Name Stan Zaworski
Title Project Manager
Company First Environmental Labs, Inc.
Address 1600 Shore Road
City Naperville
State Illinois
Zip Code 60540
Phone (630778-1200
Signature
Date 8/10/10



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

В.

IEMA Incident # (6- or 8-digit): 980814		IEPA LPC# (10-digit): 0430905825		
Site	e Name: West Chicago Parl	< District		
Site	e Address (Not a P.O. Box):	250 West National Street		· · · · · · · · · · · · · · · · ·
Cit	y: West Chicago	County: DuPage	ZIP Code: 60185	
Lea	king UST Technical File			
Sa	mple Collector			
l ce	ertify that:			
1. Appropriate sampling equipment/methods were utilized to obtain representative samples.				
				(Initial)
2.	Chain-of-custody procedures were followed in the field.		(Initial)	
				(muai)
3.	Sample integrity was maint	ained by proper preservation.		(Initial)
4.	All samples were properly	abeled.		(Initial)

C. Laboratory Representative

I certify that:

1.	Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms	555
		(Initial) デSィン
2.	Sample integrity was maintained by proper preservation.	
3.	All samples were properly labeled.	<u> </u>
4.	Quality assurance/quality control procedures were established and carried out.	SSU (Initial)
5.	Sample holding times were not exceeded.	S (Initial)

Laboratory Certification for Chemical Analysis Page 1 of 2

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

54-
(Initial)
9V
(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 Brandi Talaga				
Title Environmental Technician				
Company Resource Consulting, Inc.				
Address P.O. Box 123				
City Geneva				
State Illinois				
Zip Code 60134				
Phone (630)232-9820				
Signature _ Blan Cillan				
Date 7/19/13				

Laboratory Representative

Name Stan Zaworski
Title Project Manager
Company First Environmental Labs, Inc.
Address 1600 Shore Road
City Naperville
State Illinois
Zip Code 60540
Phone (630778-1200
Signature
Date 8/16/10



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

Β.

IEMA Incident # (6- or 8-digit): 980814		IEPA LPC# (10-digit):	0430905825	
Site	e Name: West Chicago Parl	District		
Site	e Address (Not a P.O. Box):	250 West National Street		
City	y: West Chicago	County: DuPage	ZIP Code	: 60185
Lea	king UST Technical File			
Sa	mple Collector			
l'ce	ertify that:			
1. Appropriate sampling equipment/methods were utilized to obtain representative samples.				
				(Initial)
2.	Chain-of-custody procedures were followed in the field.		(Initial)	
2	3. Sample integrity was maintained by proper preservation.			
3.	Sample integrity was maint	ameu by proper preservation.		(Initial)
4.	Ail samples were properly I	abeled.		
				(Initial)

C. Laboratory Representative

I certify that:

1.	Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms	<u> </u>
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.	۶ (Initial)
5.	Sample holding times were not exceeded.	(Initial)

 Certification Form
 Leaking UST recrimical

 I hereby certify that I intend to seek payment from the UST Fund for costs incurred while
 I further certify that the costs set forth in

 activities for Leaking UST incident <u>980814</u>
 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 III. Adm. Code 732 or 734. I further certify that costs ineligible for

 payment from the Fund pursuant to 35 III. 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.

RECEIVED

SEP 11 2013

Daring Ferranding	Seal:	OFFICIAL MEAL DAUGY / POINNINGEZ Matary Public - Salar of Allocia My Commission Fundam Mar & Salar	
Subscribed and sworn to before me the 38 day of _	April	2013	
Signature: Serve Felip	Date:	4/28/03	
Authorized Representative: Jesse Felix	Title:	Superintendent of Parks	
Owner/Operator: West Chicago Park Dist.		IEPA/B	0
Owner/Operator: West Chicago Park Dist.			0

In addition, I certify under penalty of law that all activities that are the subject of this plan, State support 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 III. 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. Seal: L.P.E./L.P.G.: Dan Horvath L.P.E./L.P.G. Signature: Date: **REVIEWER JZ** Subscribed and sworn to before method day of OFFICIAI ELIZABETH O NOTARY PUBLIC, STATE OF Seal: MY COMMISSION EXPIRES 3-28-201

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.

Eleptronico is Enror Mental Protoco AGENCY



1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217)782-2829Pat Quinn, GovernorLisa Bonnett, Director

217/524-3300

CERTIFIED MAIL

SEP 1 7 2013

7012 0470 0001 2974 2873

West Chicago Park District Attention: Jesse Felix 157 West Washington Street West Chicago, Illinois 60185

IEPA-DIVISION OF RECORDS MANAGEMENT Releasable

OCT 0 8 2013

REVIEWER JKS

Re: LPC # 0430905825 – Du Page County West Chicago / West Chicago Park District 250 West National Street Leaking UST Incident No. 980814 Leaking UST Technical File

Dear Mr. Felix:

The Illinois Environmental Protection Agency (Illinois EPA) has reviewed the Corrective Action Completion Report (report) submitted for the above-referenced incident. This report was dated June 21, 2013 and was received by the Illinois EPA on July 23, 2013. Citations in this letter are from the Environmental Protection Act (Act), as amended by Public Act 92-0554 on June 24, 2002, and Public Act 96-0908 on June 8, 2010, and 35 Illinois Administrative Code (35 Ill. Adm. Code).

Pursuant to 57.7(c) of the Act and 35 Ill. Adm. Code 734.505(b) and 734.510(a), the report is rejected for the reason(s) listed below:

 On May 16, 2013, the Illinois Pollution Control Board added the indoor inhalation exposure route to its tiered approach to corrective action objectives regulations at 35 Ill. Adm. Code 742. These amendments were effective on July 15, 2013. For information on the exposure route, please see the fact sheets at <u>www.epa.state.il.us/land/taco/indoorinhalation-amendments.html</u>, especially the one entitled *Petroleum Vapor Intrusion Assessment for Leaking UST Program Sites*.

Results of investigation of the release and the site characterization for the abovereferenced incident indicate there is not an interval of at least five feet of uncontaminated soil between contaminated groundwater and the lowest point of an overlying receptor (or ground surface if there is no overlying receptor). Therefore, an evaluation of the indoor inhalation exposure route in accordance with 35 Ill. Adm. Code 742 is required. In an effort to address the pathway, collection and analysis of a soil gas sample is requested as part of site investigation. The soil gas sample should be collected from native soil at a depth of three feet below ground surface and above the saturated zone in the area representative of the most soil contamination. The soil gas sample should be collected in Page 1

the following location: the location of RW-4a. The soil gas sample should be analyzed for benzene, ethylbenzene, total xylenes and naphthalene.

The soil gas sampling requirements are at 35 Ill. Adm. Code 742.227. See the Soil Gas Sampling Protocol fact sheet at the above Web address for guidance on soil gas sampling. It is suggested that contact be made with the laboratory to ensure that the laboratory "Addetection limits are equal to or less than the indoor air remediation objectives calculated using Equation J&E1 or J&E2. (See the Petroleum Vapor Intrusion Assessment for

- *Leaking UST Program Sites* fact sheet for the link to the indoor air remediation objectives.) The use of indoor air remediation objectives as soil gas remediation
- density objectives carries with it no institutional controls.
 - The Corrective Action Completion Report form states the report is being submitted pursuant to 35 Ill. Adm. Code 732.404. The Illinois EPA wishes to clarify that in accordance with 35 Ill. Adm. Code 734.100(b), Part 734 applies to all releases subject to Title XVI of the Act for which a No Further Remediation letter is issued on or after June 8, 2010. Therefore, the applicable requirement for which the report is being submitted is 35 Ill. Adm. Code 734.345.
 - 3. In accordance with 35 Ill. Adm. Code 742.1015(b), a request for approval of a local ordinance as an institutional control shall provide the following:
 - A copy of the ordinance restricting groundwater use certified by an official of the unit of local government in which the site is located that it is a true and accurate copy of the ordinance, unless the Agency and the unit of local government have entered an agreement under subsection (i) of this Section, in which case the request may alternatively reference the MOU. The ordinance must demonstrate that potable use of groundwater from potable water supply wells is prohibited;
 - 2) A scaled map(s) delineating the area and extent of groundwater contamination modeled above the applicable remediation objectives including any measured data showing concentrations of contaminants of concern in which the applicable remediation objectives are exceeded;
 - 3) A scaled map delineating the boundaries of all properties under which groundwater is located which exceeds the applicable groundwater remediation objectives;
 - 4) Information identifying the current owner(s) of each property identified in subsection (b)(3) of this Section; and
 - 5) A copy of the proposed written notification to the unit of local government that adopted the ordinance and to the current owners identified in subsection (b)(4) of this Section that includes the following information:

Page 2

- A) The name and address of the unit of local government that adopted the ordinance;
- B) The ordinance's citation;
- C) A description of the property being sent notice by adequate legal description, reference to a plat showing the boundaries of the property, or accurate street address;
- D) Identification of the party requesting to use the groundwater ordinance as an institutional control, and a statement that the party has requested approval from the Agency to use the ordinance as an institutional control;
- E) A statement that use of the ordinance as an institutional control allows contamination above groundwater ingestion remediation objectives to remain in groundwater beneath the affected properties, and that the ordinance strictly prohibits human and domestic consumption of the groundwater;
- F) A statement as to the nature of the release and response action with the site name, site address, and Agency site number or Illinois inventory identification number; and
- G) A statement that more information about the remediation site may be obtained by contacting the party requesting the use of the groundwater ordinance as an institutional control or by submitting a FOIA request to the Agency.

This information is not submitted in accordance with 35 Ill. Adm. Code 742.1015(b). In order to review the adequacy of the proposed groundwater ordinance for use as an institutional control, the Illinois EPA requests the documentation required in 35 Ill. Adm. Code 742.1015(b)(1) through (5) be submitted for review.

- 4. The Illinois EPA notes the following discrepancies in the owner's Tier 2 model conducted in accordance with 35 Ill. Adm. Code 742.715(c) and 742.810:
 - a) The owner is utilizing a value of 91.4 cm for the source width perpendicular to groundwater flow direction in vertical plane (s_d value). The report states the value is derived as the field measurement of thickness of soil. The Illinois EPA wishes to clarify the S_d value is derived from the vertical source width of impacted groundwater in the groundwater table, not soil. As this value is not easily measured for leaking underground storage tank indicator contaminants, the Illinois EPA requires a default value of 200 cm be used.
 - b) The owner is utilizing a value of 6.40E-02 cm/sec for the in-situ hydraulic conductivity (K value). The Illinois EPA wishes to clarify that approval for the use of the average in-situ hydraulic conductivity value of 3.30E-02 cm/sec was given in response to the request to use the average in the Corrective Action Completion

Page 3

Report received by the Illinois EPA on June 6, 2003. Therefore, the appropriate K value for use in the model is the average value of 3.30E-02 cm/sec.

- c) The owner is utilizing a site-specific soil bulk density (ρ_s value) determined from a method not accepted in accordance with 35 Ill. Adm. Code 742, Appendix C, Table F. The most favorable default value in accordance with 35 Ill. Adm. Code 742, Appendix, C, Table D is 1.5 g/cm³.
- d) The owner is utilizing a value of 58.9 cm³/g for the benzene organic carbon partition coefficient (K_{oc} value), and a value of 0.228 for the benzene Henry's constant (H' value). The Illinois EPA wishes to clarify the chemical and physical parameters table found in 35 Ill. Adm. Code 742, Appendix C, Table G was updated in the 742 amendments effective July 15, 2013. The updated values required for the model are 50.0 cm³/g for the K_{oc} value and 0.230 for the H' value.
- e) The owner is utilizing a value of 363 cm³/g for the ethylbenzene organic carbon partition coefficient (K_{oc} value), and a value of 0.323 for the ethylbenzene Henry's constant (H` value). The Illinois EPA wishes to clarify the chemical and physical parameters table found in 35 Ill. Adm. Code 742, Appendix C, Table G was updated in the 742 amendments effective July 15, 2013. The updated values required for the model are 320 cm³/g for the K_{oc} value and 0.324 for the H` value.
- f) The owner calculated an R24 groundwater Darcy velocity for ethylbenzene using a unit of cm/day for in-situ hydraulic conductivity. The appropriate in-situ hydraulic conductivity unit for calculating a groundwater Darcy velocity using R24 is cm/year, not cm/day. The Illinois EPA notes the owner utilized the correct unit when developing the Darcy velocity for benzene.

When the corrected values are utilized in the models, the contaminant fate and transport evaluation demonstrates the following:

- Using R26, a benzene groundwater concentration of 1.23 mg/l migrates 850 feet from the source before meeting compliance with the Tier 1 remediation objective of 0.005 mg/l.
- Using R26, an ethylbenzene groundwater concentration of 1.2 mg/l migrates 65 feet from the source before meeting compliance with the Tier 1 remediation objective of 0.7 mg/l.
- Using R12, a benzene soil concentration of 0.49 mg/kg will leach and migrate 290 feet from the source before meeting compliance with the Tier 1 remediation objective of 0.005 mg/l.
- Using R12, a naphthalene soil concentration of 160 mg/kg will leach and migrate 360 feet from the source before meeting compliance with the Tier 1 remediation

Page 4

objective of 0.14 mg/l. The Illinois EPA notes this contaminant was not evaluated for fate and transport of soil component of groundwater ingestion exposure route. As the re-sample analyses for the EW-1 location did not include PNA contaminants, the naphthalene exceedence of 160 mg/kg must be evaluated.

In addition, the report states dissolved contamination migrated towards the east, although the gradient indicates a groundwater flow direction towards the south/southeast. As evidence supports the migration of dissolved contamination towards the east, the Illinois EPA requires the groundwater ingestion exposure route to be excluded to the east in addition to the south. Therefore, the groundwater ingestion exposure route must be excluded for a minimum distance of 850 feet from the source in both the south and east directions.

- 5. In accordance with 35 Ill. Adm. Code 734.135(e), reports documenting the completion of corrective action at a site must contain a form addressing site ownership. At a minimum, the form must identify the land use limitations proposed for the site, if land use limitations are proposed; the site's common address, legal description, and real estate tax/parcel index number; and the names and addresses of all title holders of record of the site or any portion of the site. The form addressing site ownership, the Property Owner Summary form, does not include the legal description and real estate tax/parcel index number for the site. The Illinois EPA requests this information be submitted to meet the requirements of this Part.
- 6. The Laboratory Certification for Chemical Analysis forms do not include the Sample Collector's initials certifying that the proper sample collecting procedures were followed. The Illinois EPA requires this certification be properly initialed by the Sample Collector.

Pursuant to Section 57.12(c) and (d) of the Act and 35 Ill. Adm. Code 734.100 and 734.125, the Illinois EPA requires that an amended Corrective Action Completion Report or Corrective Action Plan be submitted within 90 days to:

Illinois Environmental Protection Agency Bureau of Land - #24 Leaking Underground Storage Tank Section 1021 North Grand Avenue East Post Office Box 19276 Springfield, IL 62794-9276

Please submit all correspondence in duplicate and include the Re: block at the beginning of this letter.

Page 5

An underground storage tank system owner or operator may appeal this decision to the Illinois Pollution Control Board. Appeal rights are attached.

If you have any questions or need further assistance, please contact Carol Hawbaker at 217/782-5713.

Sincerely,

Harry A. Chappel, P.E. Unit Manager Leaking Underground Storage Tank Section Division of Remediation Management Bureau of Land

HAC: CLH

c: Resource Consulting, Inc. BOL File

Appeal Rights

An underground storage tank 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:

Dorothy Gunn, Clerk Illinois Pollution Control Board State of Illinois Center 100 West Randolph, Suite 11-500 Chicago, IL 60601 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, IL 62794-9276 217/782-5544 Elettehnorign Envirentaufferonteozdion AGENCY



1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217)782-2829 PAT QUINN, GOVERNOR LISA BONNETT, DIRECTOR

217/524-3300

SEP 1 7 2013

CERTIFIED MAIL

2012 0470 0001 2974 2873

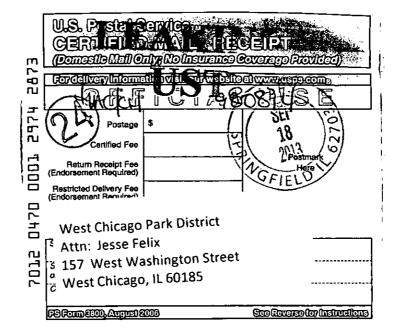
West Chicago Park District Attention: Jesse Felix 157 West Washington Street West Chicago, Illinois 60185

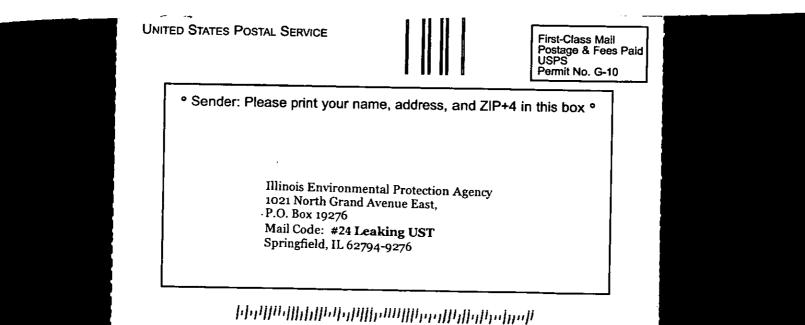
Re: LPC # 0430905825 – Du Page County West Chicago / West Chicago Park District 250 West National Street Leaking UST Incident No. 980814 Leaking UST Technical File

Dear Mr. Felix:

The Illinois Environmental Protection Agency (Illinois EPA) has reviewed the Corrective Action Completion Report (report) submitted for the above-referenced incident. This report was dated June 21, 2013 and was received by the Illinois EPA on July 23, 2013. Citations in this letter are from the Environmental Protection Act (Act), as amended by Public Act 92-0554 on June 24, 2002, and Public Act 9000 and a public Act 9000 and 90000 and 90000 and 9000 a

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
 Complete items 1, 2, and 3. Also complete item 4 if Sestricted Latversis based. Print vou trans additional and the course on the course so that we can return the card to you. Attach this card to the second the course of the mailplece or on the front is space provide. Article Addressed to: 	A Signature Agent X 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
West Chicago Park District Attn: Jesse Felix	980874 HACKH
157 West Washington Street West Chicago, IL 60185	Septice type Certified Mail Decress Mail Registered Return Receipt for Merchandise insured Mail C.O.D.
	4. Restricted Delivery? (Extra Fee)
2. Article Number (Transfer from service label) 70/209	170 0001 2414 2813
PS Form 3811, February 2004 Domestic	Return Receipt 102595-02-M-1540





0430905825 - DuPage County Electronic Filing: Received, Clerk's Office 39/20826924 District Incident # 980814 Leaking UST Technical File T15 Campbell Street/Suite 108 • P.O. Box 123 • Geneva, Illinois 60134 • (630)232-9820 June 14, 2019

Ms. Carol Hawbaker Illinois Environmental Protection Agency Bureau of Land – No. 24 Leaking Underground Storage Tank Section 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276

- 37-27-

• ;-

IEPA - DIVISION OF RECORDS MANAGEMENT RELEASABLE

AUG 1 4 2019

REVIEWER: RDH

RECEIVED

JUN 1 8 2019

IEPA/BOL

RE: LPC No. 0430905825 –DuPage County West Chicago/West Chicago Park District 250 West National Street LUST Incident No. 980814

Technical Summary/CAP Amendment

Dear Ms. Hawbaker:

On behalf of the West Chicago Park District, Resource Consulting, Inc. is submitting this summary of recent field activities and the scope of work to complete the Corrective Action Completion (CACR) for the above-referenced project. A budget amendment will be submitted with the final documentation.

A CACR was submitted to the Illinois Environmental Protection Agency (EPA) in July 2013. The CACR was rejected in correspondence dated September 17, 2013. During this time, the Illinois Pollution Control Board added the indoor inhalation exposure route to its Tiered Approach to Corrective Action Objectives (TACO) regulations in 35 Ill. Adm. Code 742, resulting in an evaluation of the indoor inhalation exposure route being required for the Site.

A soil gas sample was collected on August 26, 2014, from the area of RW-4A according to the requirements described in 35 Ill. Adm. Code. 742.227. A copy of the laboratory analysis report is included in Attachment A. The results of the soil gas analysis are shown in the following table.

Resource Consulting, Inc.

~ **~**

Table I Laboratory Analytical Summary BTEX in Soil Gas Sample (values in mg/m³)				
Sampling Date	August 26, 2014	35IL742 App. B Table H Indoor Inhalation		
Sample ID	RW-4B	Residential	Industrial/ Commercial	
Benzene	1.1	0.37	2.8	
Toluene	0.068	6,200	40,000	
Ethylbenzene	0.120	1.3	9.3	
Total Xylenes	5.8	140	840	
Methyl tert-butyl ether (MTBE)	0.039	3,700	24,000	
TEXT	Concentration exceeds Illinois EPA remediation objective.			
TEXT	Remediation objective exceeded by soil concentration.			

The sample collected from RW-4B exceeds the Tier 1 Indoor Inhalation remediation objective (RO) for benzene under a residential land use scenario.

During the preparation of a response to the CACR rejection letter, Resource Consulting received information from the Illinois EPA that the Site was required to the meet the indoor inhalation ROs for residential properties due to the Site being a park. In electronic correspondence dated June 7, 2017, the Illinois EPA project manager, Carol Hawbaker, gave Resource Consulting permission to resample monitoring well RW-4A to see if the current groundwater quality data would meet the residential indoor inhalation RO. A copy of the correspondence from Ms. Hawbaker regarding the resampling of RW-4A is included in Attachment B.

Resource Consulting, Inc. went to the Site on July 24, 2017, to resample monitoring well RW-4A. The well was developed using a dedicated PVC bailer with bottom-entry check valve. Development and purging of the well entailed the removal of at least 5 gallons of groundwater, equivalent to approximately 5 casing volumes, from the well.

A discrete sample was collected from the monitoring well in two 40-ml vials preserved with hydrochloric acid and an amber liter jar, all fitted with Teflon[®]-lined lids. The samples were placed on ice and submitted with chain-of-custody documentation to First Environmental Laboratories, Inc. of Naperville, Illinois. The samples underwent analysis for the presence of benzene, toluene, ethylbenzene, and total xylenes (BTEX) and polynuclear aromatic hydrocarbons (PNAs). Copies of the laboratory results and chain-of-custody information have been included in Attachment A.

The table below displays the analytical results from the sampling event and compares them to the Tier 1 ROs found 35 III. Adm. Code Part 742.

and the second se

Electronic Filing: Received, Clerk's Office 09/20/2024

Resource Consulting, Inc.

Table II Laboratory Analytical Summary BTEX and PNAs in Groundwater Sample (values in mg/kg)					
Sampling Date	July 24, 2017 Illinois EPA Remediation Object				
		Groundwater			
Sample ID	RW-4A	Residential	Industrial/ Commercial		
Benzene	0.241	0.11	0.41		
Toluene	< 0.005	530	530		
Ethylbenzene	0.0202	0.37	1.4		
Total Xylenes	0.0217	30	93		
Acenaphthene	< 0.01	NA	NA		
Acenaphthylene	< 0.01	NA	NA		
Anthracene	< 0.05	NA	NA		
Benzo(a)anthracene	< 0.0013	NA	NA		
Benzo(a)pyrene	< 0.0002	NA	NA		
Benzo(b)fluoranthene	< 0.00018	NA	NA		
Benzo(k)fluoranthene	< 0.00018	NA	NA		
Benzo(ghi)perylene	< 0.0004	NA	NA		
Chrysene	< 0.0015	NA	NA		
Dibenzo(a,h)anthracene	< 0.0003	NA	NA		
Fluoranthene	< 0.002	NA	NA		
Fluorene	< 0.002	NA	NA		
Indeno(1,2,3-cd)pyrene	< 0.0003	NA	NA		
Naphthalene	< 0.01	0.075	0.32		
Рһепапthrеле	< 0.005	NA	NA		
Pyrene	< 0.002	NA	NA		
TEXT	Concentration exceeds Illinois EPA remediation objective.				
TEXT	TEXT Remediation objective exceeded by soil concentration.				

The data in the above table show that benzene is still present in monitoring well RW-4A exceeding the indoor inhalation RO for residential properties.

Almost 2 years have passed since the above field work was performed. Resource Consulting is proposing to resample monitoring well RW-4A again to assess the current groundwater conditions.

Monitoring well RW-4A will be resampled using the methods described above. The groundwater sample will be analyzed for BTEX and PNAs to determine the concentrations present to assess if additional actions are necessary to address indoor inhalation. Specifically, if benzene still exceeds the groundwater residential RO for the indoor inhalation exposure route, Resource Consulting proposes that soil samples will be

RESOURCE CONSULTING, INC.

collected to determine dry bulk density and moisture content to calculate a site-specific RO for the Tier 2 exposure route.

Field work would commence upon your approval of the scope of work. The final budget including fees related to the work described in this document will be included in the final CACR.

Please contact our office at 630-232-9820 with any questions or comments regarding the contents of this correspondence.

Sincerely,

.

Daniel J. Horvath Hydrogeologist/Project Manager

Attachments: A – Laboratory Data B – Electronic Correspondence

CC: Mr. Michael Gasparini - West Chicago Park District



Resource Consulting, Inc.

ATTACHMENT A

Laboratory Data



Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

October 09, 2014

÷

Mr. Brian Beetz **RESOURCE CONSULTING, INC.** P.O. Box 123 Geneva, IL 60134

Project ID: WCPD First Environmental File ID: 14-5486 Date Received: September 16, 2014

Dear Mr. Brian Beetz:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 003469: effective 09/25/2014 through 02/28/2015.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Stan Zaworski Project Manager



Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

RESOURCE CONSULTING, INC.

Lab File ID: 14-5486

Date Received: September 16, 2014

Project ID: WCPD

÷ ÷: All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time Collected	
14-5486-001	RW-4B	08/26/14	
14-5486-002	GP-1 (2'-3')	08/26/14	
14-5486-003	GP-1 (5'-6')	08/26/14	

Sample Batch Comments:

Sample acceptance criteria were met.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
<	Analyte not detected at or above the reporting limit.	Ľ	LCS recovery outside control limits.
C	Sample received in an improper container for this test.	м	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.	N	Analyte is not part of our NELAC accreditation.
E	Estimated result; concentration exceeds calibration range.	P .	Chemical preservation pH adjusted in lab.
G	Surrogate recovery outside control limits.	Q	Result was determined by a GC/MS database search.
H	Analysis or extraction holding time exceeded.	S	Analysis was subcontracted to another laboratory.
J	Estimated result; concentration is less than routine RL but greater than MDL.	W	Reporting limit elevated due to sample matrix.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.

First Environmental

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

Arrest Arrive

Ц

100000000

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

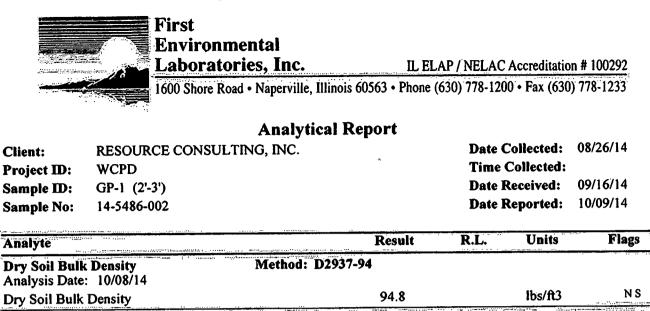
Analytical Report RESOURCE CONSULTING, INC. Date Collected: 08/26/14 **Client: Time Collected:** WCPD Project ID: 09/16/14 Date Received: Sample ID: RW-4B Date Reported: 10/09/14 14-5486-001 **Sample No:**

Analyte	na ya manga kumun un sun ta 1999 ya ya na sa	Result	R.L.	Units	Flags
Volatile Organic Compounds Analysis Date: 09/19/14					
Benzene		1.1	0.005	mg/m³	S
Methyl tert-butyl ether		0.039	0.005	mg/m³	S
Ethylbenzene		0.120	0.005	mg/m ³	S
Toluene		0.068	0.005	mg/m³	S
Xylenes, Total		5.8	0.020	mg/m ³	S

Page 3 of 5

3

-



•

× • ₹

. 4

5.0 S.

•:

...

and a lot of the state of the second state of

adis dala karaterata manyaha linika dalah ene

autoria and a state of the second

14-5486-003

Sample No:

1997 - C. C. Store

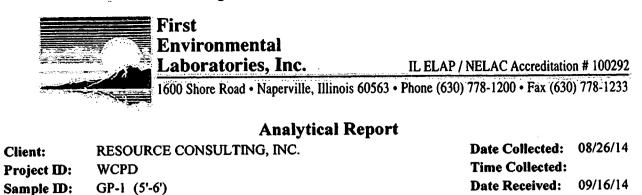
1000 Colored

ŧ

• : ::

Sec. 5

Electronic Filing: Received, Clerk's Office 09/20/2024



Analyte	Result	R.L.	Units	Flags
	lethod: D2937-94			
Dry Soil Bulk Density	94.3	staneticas and styles at a state	lbs/ft3	N S

Date Reported:

10/09/14

Page 5 of 5

and static of the set of a second second that a second set the second

First	CH	AIN					COF	D			Page of pg
Environmental		····· , ·									
Laboratories, Inc.		Com	pany Na	me:		KSU J	<u>ne</u>	Cons	<u>u l frug</u>	. Juc.	n de les anti- en a partir de la compañía de la com
st Environmental Laboratories		Stree	t Addre	ss:	<u> </u>	0- 80	*	123	 	· · · · · · · · · · · · · · · · · · ·	
9 Shore Road. Suite D		City:	e	sene	19					State: Th	- Zip: 60134
perville, Illinois 60563 me: (630) 778-1280 • Fax: (630) 778-1233	•	Phon	e:631	2-2	52-90	io f				324 e-mail:	
ne: (630) //8-1200 * FRI: (630) //8-1233 nii: firstinfo@firstenv.com		Send	Report	To:	Day	16	Brean			Via: Fax	e-mail 💽
A Certification #100292	•	Sam	oled By:	6	r:an	<u> </u>	eetz				۴۹ مربع بر این میرونی میرونی از این میرونی این این این این این این این این این ا
		-	•					nalyse	3	· · · · ·	··· •
Project I.D.:	• •		•••	/ .	/、	1	/	1	1		······
:0. # ::				۶.	Ś	0 /					
······································	•		/	s)	Y.						
			, the	N Bal	1				1		
in the second	····:.	/	\$7	Ý							
Matrix Codes: S = Soil W = Water O = Other Date/Time Taken Sample Description	Matrix	{	1	/	{	{	1	1	1	Comments	Lab I.D.
82614 pm RW-4B	av	γ		<u> </u>						Comments	14-5486-00
8/20/14 17 BP-1 (23.)	<i>a.</i> v	15	tv							<u>i i net i tet i i te et tegen i i ne ne</u>	002
3/20/14 PM GP-1 (5'-0')	5		1 X				1	1		· · · · · · · · · · · · · · · · · · ·	005
			1								
								I			
	·		internet and								and and a second se
										ann an	
							+				
	<u></u>	Serverares Serverares Serverares	i i en						•• •••••	er an en andere an en andere an andere an andere an andere andere andere andere andere andere andere andere an An andere and	All State Control of the Control of the State Co
and a state of the second s						1			1		
											· ·
R LAB USE ONLY:				••••	•••••	o en los queste			an a		
Noter Temperature: 0.1-6°C Yes_No C Sam	ole Refric	arated:	Yes	No	F	reserva	ation Re	auireme	ants Met:		
ceived within 6 hrs. of collection: Refr	igerator T	empera	iture:	9	C						
e Present: Yes No 5035 Free	5 Vials Fro zer Temp	ozen: Y erature	es N	ଜ ୩୦		0 7 D99 1	meet	IL: TA(ш		
otes and Special Instructions:	X										
· · · · · · · · · · · · · · · · · · ·	: •.		· · ·								
an and a second seco	A			•.						·	
and the second	al	In lin	i. 11	:401	Y		D	P	~		alutive nan
clinquished By: Date/Tin	ne/_	<u>14/14</u>	نې د د د د د د د الله د د د د د د د د د د د د د د د د د د	R	ceived	By:	4	<u>_</u>	<u> </u>	Date/Time	<u>1011 /2-10</u>
clinguished By: Date/Tin				· _	ceived					Date/Time	- 147 - 1874 - Contra C

:

÷

: 6

.

000214



Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

August 01, 2017

Mr. Daniel Horvath **RESOURCE CONSULTING, INC.** P.O. Box 123 Geneva, IL 60134

Project ID: 98-1002 WCPD First Environmental File ID: 17-3893 Date Received: July 24, 2017

Dear Mr. Daniel Horvath:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 004108: effective 03/24/2017 through 02/28/2018.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Bill Mottashed Project Manager

Page 1 of 4



Laboratories, Inc. IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

RESOURCE CONSULTING, INC.

Lab File ID: 17-3893

andanan di bahang Tige di bebahan da bera da berangkan da bahan da baha sebuah kemangkan di bahan di di berang

Date Received: July 24, 2017

÷ :

Project ID: 98-1002 WCPD

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time C	1
17-3893-001	RW-41A	7/24/2017	12:00

Sample Batch Comments:

Sample acceptance criteria were met.



Case Narrative

RESOURCE CONSULTING, INC.

Lab File ID: 17-3893

Project ID: 98-1002 WCPD

Date Received: July 24, 2017

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
A	Method holding time is 15 minutes from collection. Lab an	alysis	was performed as soon as possible.
В	B Analyte was found in the method blank.		LCS recovery outside control limits.
<	Analyte not detected at or above the reporting limit.	М	MS recovery outside control limits; LCS acceptable.
С	Sample received in an improper container for this test.	Р	Chemical preservation pH adjusted in lab.
D	Surrogates diluted out; recovery not available.	Q	Result was determined by a GC/MS database search.
Ė	Estimated result; concentration exceeds calibration range.	S	Analysis was subcontracted to another laboratory.
G	Surrogate recovery outside control limits.	Т	Result is loss than three times the MDL value.
Н	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
1	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.



Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Analytical ReportClient:RESOURCE CONSULTING, INC.Date Collected:07/24/17Project ID:98-1002 WCPDTime Collected:12:00Sample ID:RW-41ADate Received:07/24/17Sample No:17-3893-001Date Reported:08/01/17

Analyte	annen an Branca Branca (1999) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (19	Result	R.L.	Units	Flags
BTEX Organic Compounds Analysis Date: 07/31/17	Method: 5030B/82	60B	<u> </u>	·······	
Benzene		241	5.0	ug/L	
Ethylbenzene		20.2	5.0	ug/L	
Toluene		< 5.0	5.0	ug/L	
Xylene, Total		21.7	5.0	ug/L	
Polynuclear Aromatic Hydrocar Analysis Date: 07/31/17	bons Method: 8270C		Preparation Preparation I		
Acenaphthene		< 10	10	ug/L	
Acenaphthylene		< 10	10	ug/L	
Anthracene		< 5	5	ug/L	
Benzo(a)anthracene		< 0.13	0.13	ug/L	
Benzo(a)pyrene		< 0.2	0.2	ug/L	
Benzo(b)fluoranthene		0.18	0.18	ug/L	
Benzo(k)fluoranthene		0.18	0.17	ug/L	
Benzo(ghi)perylene		< 0.4	0.4	ug/L	
Chrysene		< 1.5	1.5	ug/L	
Dibenzo(a,h)anthracene		< 0.3	0.3	ug/L	
Fluoranthene		< 2	2	ug/L	
Fluorene		< 2	2	ug/L	
Indeno(1,2,3-cd)pyrene		< 0.3	0.3	ug/L	
Naphthalene		< 10	10	ug/L	
Phenanthrene		< 5	5	ug/L	
Pyrene		< 2	2	ug/L	

CHAIN OF CUSTODY RECORD

\$

First			ain uf										of <u> </u>
Envir Labo	ronmental ratories, Inc		Company	Name: 12	(CSM)	SAL CONTRACT	e C	MASI	111	na mb.	and the second		
ct Environment	tal Laboratories	·文···································	Street Add	Iress: P.(0. BC	X V	13	. 19, 19, 19, 19 1		n des anna an anna an an an an an an an an an	eartair 1878a. Guirt anna an	in one typere necession of the	
) Shore Road. Suite			City: ftf	INÊNIC	r canán	99-402 *	ale e	תeq i şaş		State:	<u>≭</u>	Zip: 1001	34
	3 Fax: (630) 778-1233									5 mill		() · · · · · · · · · · · · · · · ·	
ne: (630) 778-1200 • ail: firstinfo@firste	• Fax: (630) 778-1233	ender of the second second Second second	-Send Repo	ort To: \mathbb{N}	<u>. 1070</u>	LI AN	200	44	<u>uo-arn</u>	<u> <u>Caro</u>a co</u>			
A Certification #100											· · · · · · · · · · · · · · · · · · ·		
· •.	e e construction de la construction	om v stådettersonst			<u>_LA TY S</u>	UN		nalyses		A			
<u> </u>			a service a service a	1	1	1	Terre	1	[]	1.	At a second		
roject I.D. QB	1002 NCPD	ala antanta a statistica a <u>na antan</u> ta a secondo		/ /	l' info	÷.f	. ses f		J	100 States	Na ∰∰ - 12* 	eni i stratili Statest	
					fisto Karito d		1			201		na en el compañía Securita de Argen	an i wa
.0.#:	The second second the	an Longelsko. Serverski S erves	18	4/2	//	s. /	1. 1	/	[]	\$ \$ 10 m	lar gradini	** :: * * *	lasts{st
	and the second	anta 115 milità Am					/	- <u> </u>		120	And Wight Gr	计均相关 化磷化磷酸	in a suit ann an t-
latrix Codes: S =	Soil W = Water O = Othe		19	97		hijenser	1.000	/	[~]	and the second second second second			
ate/Time Taken	Sample Description	Matrix			() () ()	- 19 () - 19	(** **** *)2			Comme	nts	Lab I.D.	
24/17 12pm	RW-4A	N ·	KX	<u>.)</u>				1		,	_	7-3893	-00
						<u></u>					3	y y saide staater en Staater en se	
		1								in the second se	<u></u>	<u>a de constructions</u> Les angles a de la construction de la	<u>.</u>
	and a start with the start of the	ing and the second s	રે <u>કે કુલ્લા</u> કરવા (- આર્ટ કેલી લાગદા	480 <u>.</u> 							ana ang ang anan ang ang		
		9	i s for out source						1		•	<u> </u>	<u></u>
	n an an the second s Second second	e televisione de la companya de la c	d ar each ann an Arainn Al Dealachtachtachtachtachtachtachtachtachtacht	r 196 Garage				<u>,</u>					
n a shekarara a sa na	<u>a ana ing tanàna amin'ny tanàna amin'ny tanàna dia kaominina dia kaominina dia kaominina dia kaominina dia kao Manjara</u>	national and an and	i secessia men in secessia agus					1					
		Marke Karl							_		• ···		
		and the second s			1	a ng h		1 24 12 - 12				electronie-	2
		Les of the second second	Na Are Lines										
	and the second se				1		r getaans T						••••••••••••••••••••••••••••••••••••••
I LAB USE ONLY:		ili de la compañía d A compañía de la compa		sels 	·		• ••.	£			t the Albert to a		
oler Temperature: 0.	1-8°C Yes No	C Sample Refri	cerated: Yes	No	···· Pro	gram:	ः 🗔 🎜	\ÇO _{}⇔} [NPDES 🔂 💽 🛛	LUSTexas de		· · · ·
and the second second	Alasha	Refrigerator 1	Temperature:	<u></u> P(an ang tanan pretsiya an			••• •••
Present: Yes		Freezer Tem	ozen. res		-					and an and an and an			
tes and Special In	structions:		Las (series on H							<u></u>			<u> </u>
_				<u> </u>		<u>.</u>							
an a	and an and the second secon Second second		ipenaioti	4897)						-			
Λ ir	Ne A States	an an gantin gyai	ny yan i du				2	λ	\sim	angras as in the second		1.	ררו
linquished By:	MC HANK	_ Date/Time H2	4/17 185				<u></u> F		<u> </u>	Date/Tim		The second second second	<u></u>
linquished By:		_ Date/Time	*	Re	ceived By	/:				Date/Tim	ie	energies in the second	

8 000219

4

Electronic Filing: Received, Clerk's Office 09/20/2024

Resource Consulting, Inc.

.

ATTACHMENT B

Electronic Correspondence

From: Daniel Horvath dhorvath@resourceillinois.com Subject: Fwd: [External] Leaking UST #980814 West Chicago Park District Date: May 29, 2019 at 4:30 PM



To: Courtney McGinnis cmcginnis@resourceillinois.com

Daniel J. Horvath Resource Consulting, Inc.

(o) (630)232-9820 (c) (630)292-9820 (f) (630)232-9824 www.resourceillinois.com

CONFIDENTIALITY NOTICE:

This e-mail is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation.

Begin forwarded message:

From: Daniel Horvath <<u>dhorvath@resourceillinois.com</u>> Subject: Re: [External] Leaking UST #980814 West Chicago Park District Date: August 8, 2017 at 1:07:47 PM CDT To: Carol Hawbaker <<u>Carol.Hawbaker@Illinois.gov</u>>

I will talk about this with my client. I know the Park District wants this done and over, but all we've been wait for (for literally years) is the Property Summary Form from the city. (The District has a perpetual lease.) The response to your last correspondence has been sitting here waiting for that final piece of the puzzle since the fall of 2015.

I'd like to send that in with a detailed budget amendment that includes the final work for the project including the work that went into the final response and this stuff. The last budget approved was in September 2013 so it may not have included the final ordinance/TACO/etc work. We'll check before we send it.

Thanks,

Daniel J. Horvath Resource Consulting, Inc.

(o) (630)232-9820 (c) (630)292-9820 (f) (630)232-9824 www.resourceillinois.com

CONFIDENTIALITY NOTICE:

This e-mail is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal message express views solely of the sender, which are not to be attributed to Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation.

On Aug 8, 2017, at 12:47 PM, Hawbaker, Carol < Carol. Hawbaker@Illinois.gov> wrote:

Collect a sample for dry bulk density and moisture content from the soil at depth somewhere above the GW and 10cm bgs. We can calculate a site-specific RO. Moisture content can affect the RO's, maybe enough for 0.24 mg/L to meet it.

Carol

Carol Hawbaker Leaking Underground Storage Tank Section Division of Remediation Management Bureau of Land Illinois Environmental Protection Agency (217) 782-5713

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).

From: Daniel Horvath [mailto:dhorvath@resourceillinois.com] Sent: Tuesday, August 08, 2017 12:43 PM To: Hawbaker, Carol <<u>Carol.Hawbaker@Illinois.gov</u>> Subject: Re: [External] Leaking UST #980814 West Chicago Park District

Carol:

The results are in: 0.24 mg/L benzene. Not the 0.11 mg/L but much closer than what was present in the prior data.

As a firm we have not become very familiar with the J&E evaluation for indoor inhalation. I'm sure my client would rather not install a BCT in the new building. Any thoughts?

Thanks,

Daniel J. Horvath Resource Consulting, Inc.

(o) (630)232-9820
(c) (630)292-9820
(f) (630)232-9824
www.resourceillinois.com

CONFIDENTIALITY NOTICE:

This e-mail is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender.

Thank you for your cooperation.

On Jun 7, 2017, at 4:03 PM, Hawbaker, Carol <<u>Carol.Hawbaker@Illinois.gov</u>> wrote:

Yes, if you re-sample the exceeding well and it's below residential RO's, you can exclude the route. Note, that you will still need a full concrete foundation requirement on the NFR (it's required when you compare with Table H RO's).

Carol

Carol Hawbaker Leaking Underground Storage Tank Section Division of Remediation Management Bureau of Land Illinois Environmental Protection Agency (217) 782-5713

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).

From: Daniel Horvath [mailto:dhorvath@resourceillinois.com] Sent: Wednesday, June 07, 2017 3:57 PM To: Hawbaker, Carol <<u>Carol.Hawbaker@Illinois.gov</u>> Subject: [External] Re: Leaking UST #980814 West Chicago Park District

I'll cover this with my client. It seems far too restrictive—no one is in this area of the park, inside or outside the future building, in amounts of time rivaling a commercial building.

If the well (MW-4A) is sampled and meets the indoor inhalation RO, would that meet the requirement?

Thanks,

Daniel J. Horvath Resource Consulting, Inc.

(o) (630)232-9820
(c) (630)292-9820
(f) (630)232-9824
www.resourceillinois.com

CONFIDENTIALITY NOTICE:

This e-mail is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation.

On Jun 7, 2017, at 9:52 AM, Hawbaker, Carol <<u>Carol.Hawbaker@Illinois.gov</u>> wrote:

Spoke to the mangers about whether the release could close with an I/C land use limitation, and the response was that it must be residential due it being a park.

Carol

Carol Hawbaker Leaking Underground Storage Tank Section Division of Remediation Management Bureau of Land Illinois Environmental Protection Agency (217) 782-5713

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).

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.

.

.

Resource Consulting, Inc.

115 Campbell Street/Suite 108

P.O. Box 123

July 15, 2020

Mr. Eric Kuhlman Illinois Environmental Protection Agency Bureau of Land – No. 24 Leaking Underground Storage Tank Section 1021 North Grand Avenue East Post Office Box 19276 Springfield, Illinois 62794-9276 Geneva, Illinois 60134

0430905825 – DuPage County West Chicago Park District Incident # 980814

Leaking UST Technical File

IEPA - DIVISION OF RECORDS MANAGEMENT RELEASABLE

Phone: (630)232-9820

DEC 07 2020

REVIEWER: RDH

RE: LPC No. 0430905825 – DuPage County West Chicago/West Chicago Park District 250 West National Street LUST Incident No. 980814 LUST Technical File

JUL 2 2 2020

Dear Mr. Kuhlman:

On behalf of the West Chicago Park District, Resource Consulting, Inc. has prepared this response to the letter from the Illinois Environmental Protection Agency (EPA) dated September, 17, 2013, for the above-referenced leaking underground storage tank (UST) incident.

Previous corrective actions were successful in addressing the free product and extreme petroleum contamination present below the property to ensure that human health and safety and the environment are protected. The USTs have been removed, the backfill material and the aquifer smear zone containing significant levels of contamination were removed, and free product removal efforts were successful.

Responses to specific Illinois EPA comments from the September 2013 correspondence are in regular text below.

1. On May 16, 2013, the Illinois Pollution Control Board added the indoor inhalation exposure route to its tiered approach to corrective action objectives regulations at 35 Ill. Adm. Code 742. These amendments were effective on July 15, 2013. For information on the exposure route, please see the fact sheets at <u>www.epa.state.il.us/land/taco/indoorinhalationamendments.html</u>, especially the one entitled Petroleum Vapor Intrusion Assessment for Leaking UST Program Sites.

Resource Consulting, Inc.

Results of investigation of the release and the site characterization for the above-referenced incident indicate there is not an interval of at least five feet of uncontaminated soil between contaminated groundwater and the lowest point of an overlying receptor (or ground surface if there is no overlying receptor). Therefore, an evaluation of the indoor inhalation exposure route in accordance with 35 Ill. Adm. Code 742 is required. In an effort to address the pathway, collection and analysis of a soil gas sample is requested as part of site investigation. The soil gas sample should be collected from native soil at a depth of three feet below ground surface and above the saturated zone in the-area representative of the most soil contamination. The soil gas sample is required to be collected in the location of RW-4a. The soil gas sample should be analyzed for benzene, ethylbenzene, total xylenes and naphthalene.

The soil gas sampling requirements are at 35 Ill. Adm. Code 742.227. See the Soil Gas Sampling Protocol fact sheet at the above Web address for guidance on soil gas sampling. It is suggested that contact be made with the laboratory to ensure that the laboratory detection limits are equal to or less than the indoor air remediation objectives calculated using Equation J&E l or J&E 2. (See the Petroleum Vapor Intrusion Assessment for Leaking UST Program Sites fact sheet for the link to the indoor air remediation objectives.) The use of indoor air remediation objectives as soil gas remediation objectives carries with it no institutional controls.

A soil gas sample was collected on August 26, 2014, from the area of RW-4A according to the requirements described in 35 III. Adm. Code 742.227. A copy of the laboratory analysis report is included in Attachment A. The results of the soil gas analysis are shown in the following table.

	Table I pratory Analytical S TEX in Soil Gas Sa (values in mg/	ample ³)					
Sampling Date	August 26, Indoor Inhalation 2014 Remediation Objectives						
Sample ID	RW-4B	Residential	Industrial/ Commercial				
Benzene	1.1	0.37	2.8				
Toluene	0.068	6,200	40,000				
Ethylbenzene	0.120	1.3	9.3				
Total Xylenes	5.8	140	840				
Methyl tert-butyl ether (MTBE)	0.039	3,700	24,000				
TEXT	Concentration exc objective.	Concentration exceeds Illinois EPA remediation objective.					

The soil gas sample collected from RW-4B exceeds the Tier 1 Residential Indoor Inhalation remediation objective (RO) for benzene. During the preparation of the response to the CACR rejection letter, Resource Consulting received information from the Illinois EPA that the Site was required to the meet the indoor inhalation ROs for residential properties due to the Site being a park. In electronic correspondence dated June 7, 2017, the Illinois EPA project manager, Ms. Carol Hawbaker, gave Resource Consulting permission to resample monitoring well RW-4A to see if the current groundwater quality data would meet the residential indoor inhalation RO. All of this work will be reflected in the budget amendment to be submitted to the Illinois EPA in the near future.

Resource Consulting, Inc. returned to the Site on July 24, 2017, to resample monitoring well RW-4A. The well was developed using a dedicated PVC bailer with a bottom-entry check valve. Development and purging of the well entailed the removal of at least 5 gallons of groundwater, equivalent to approximately 5 casing volumes, from the well.

A discrete sample was collected from the monitoring well in two 40-ml vials preserved with hydrochloric acid and an amber liter jar, all fitted with Teflon[®]-lined lids. The samples were placed on ice and submitted with chain-of-custody documentation to First Environmental Laboratories, Inc. of Naperville, Illinois. The samples underwent analysis for the presence of benzene, toluene, ethylbenzene, and total xylenes (BTEX) and polynuclear aromatic hydrocarbons (PNAs). Copies of the laboratory results and chain-of-custody information have been included in Attachment A.

The table below displays the analytical results from the 2017 sampling event and compares them to the Tier 1 ROs found 35 III. Adm. Code Part 742.

L BTEX	Table aboratory Analyt and PNAs in Gro (values in t	ical Summary Sundwater Sample	•					
Sampling Date	July 24, 2017	4, 2017 Illinois EPA Remediation Objectives						
		Indoor Inhalat	ion / Groundwater					
Sample ID	RW-4A	Residential	Industrial/ Commercial					
Benzene	0.241	0.11	0.41					
Toluene	< 0.005	530	530					
Ethylbenzene	0.0202	0.37	1.4					
Total Xylenes	0.0217	30	93					
Acenaphthene	< 0.01	NA	NA					
Acenaphthylene	< 0.01	NA	NA					
Anthracene	< 0.05	NA	NA					
Benzo(a)anthracene	< 0.0013	NA	NA					
Benzo(a)pyrene	< 0.0002	NA	NA					
Benzo(b)fluoranthene	< 0.00018	NA	NA					
Benzo(k)fluoranthene	< 0.00018	NA	NA					
Benzo(ghi)perylene	< 0.0004	NA	NA					
Chrysene	< 0.0015	NA	NA					
Dibenzo(a,h)anthracene	< 0.0003	NA	NA					
Fluoranthene	< 0.002	NA	NA					
Fluorene	< 0.002	NA	NA					
Indeno(1,2,3-cd)pyrene	< 0.0003	NA	NA					
Naphthalene	< 0.01	0.075	0.32					
Phenanthrene	< 0.005	NA	NA					
Pyrene	< 0.002	NA	NA					
TEXT	objective.	xceeds Illinois EPA						
TEXT	Remediation obj concentration.	ective exceeded by	groundwater					

The data in the above table show that benzene is still present in monitoring well RW-4A exceeding the indoor inhalation RO for residential properties. Tier 2 calculations to evaluate the indoor inhalation exposure route will be included in the next submission to the Illinois EPA.

2. The Corrective Action Completion Report form states the report is being submitted pursuant to 35 Ill. Adm. Code 732.404. The Illinois EPA wishes to clarify that in accordance with 35 Ill. Adm. Code 734.100(b), Part 734 applies to all releases subject to Title XVI of the Act for which a No Further Remediation letter is issued on or after June 8, 2010. Therefore, the applicable requirement for which the report is being submitted is 35 Ill. Adm. Code 734.345.

A revised and updated Corrective Action Completion Report form citing 35 Ill. Adm. Code 734.345 will be included in the next submission to the Illinois EPA.

3. In accordance with 35 Ill. Adm. Code 742.1015(b), a request for approval of a local ordinance as an institutional control shall provide the following:

1) A copy of the ordinance restricting groundwater use certified by an official of the unit of local government in which the site is located that it is a true and accurate copy of the ordinance, unless the Agency and the unit of local government have entered an agreement under subsection (i) of this Section, in which case the request may alternatively reference the MOU. The ordinance must demonstrate that potable use of groundwater from potable water supply wells is prohibited;

2) A scaled map(s) delineating the area and extent of groundwater contamination modeled above the applicable remediation objectives including any measured data showing concentrations of contaminants of concern in which the applicable remediation objectives are exceeded;

3) A scaled map delineating the boundaries of all properties under which groundwater is located which exceeds the applicable groundwater remediation objectives;

4) Information identifying the current owner(s) of each property identified in subsection (b)(3) of this Section; and

5) A copy of the proposed written notification to the unit of local government that adopted the ordinance and to the current owners identified in subsection (b)(4) of this Section that includes the following information:

Resource Consulting, Inc.

RECEIVED

JUL 2 2 2020

A) The name and address of the unit of local government that adopted the ordinance PA/BOL

B) The ordinance's citation;

C) A description of the property being sent notice by adequate legal description, reference to a plat showing the boundaries of the property, or accurate street address;

D) Identification of the party requesting to use the groundwater ordinance as an institutional control, and a statement that the party has requested approval from the Agency to use the ordinance as an institutional control;

E) A statement that use of the ordinance as an institutional control allows contamination above groundwater ingestion remediation objectives to remain in groundwater beneath the affected properties, and that the ordinance strictly prohibits human and domestic consumption of the groundwater;

F) A statement as to the nature of the release and response action with the site name, site address, and Agency site number or Illinois inventory identification number; and

G) A statement that more information about the remediation site may be obtained by contacting the party requesting the use of the groundwater ordinance as an institutional control or by submitting a FOIA request to the Agency.

This information is not submitted in accordance with 35 Ill. Adm. Code 742.1015(b). In order to review the adequacy of the proposed groundwater ordinance for use as an institutional control, the Illinois EPA requests the documentation required in 35 Ill. Adm. Code 742.1015(b)(1) through (5) be submitted for review.

A copy of the groundwater ordinance with supporting information is included as Attachment B.

4. The Illinois EPA notes the following discrepancies in the owner's Tier 2 model conducted in accordance with 35 Ill. Adm. Code 742.715(c) and 742.810:

a) The owner is utilizing a value of 91.4 cm for the source width perpendicular to groundwater flow direction in vertical plane (S_d value). The report states the value is derived as the field measurement of thickness of soil. The Illinois EPA wishes to clarify the S_d value is derived from the vertical source width of impacted groundwater in the groundwater table, not soil. As this value is not easily measured for leaking underground storage tank indicator contaminants, the Illinois EPA requires a default value of 200 cm be used.

Tier 2 calculations have been modified to reflect the Illinois EPA requirements and are included as Attachment C.

b) The owner is utilizing a value of 6.40E-02 cm/sec for the in-situ hydraulic conductivity (K value). The Illinois EPA wishes to clarify that approval for the use of the average in-situ hydraulic conductivity value of 3.30E-02 cm/sec was given in response to the request to use the average in the Corrective Action Completion Report received by the Illinois EPA on June 6, 2003. Therefore, the appropriate K value for use in the model is the average value of 3.30E-02 cm/sec.

Tier 2 calculations have been modified to reflect the Illinois EPA requirements and are included as Attachment C.

c) The owner is utilizing a site-specific soil bulk density (ρ_s value) determined from a method not accepted in accordance with 35 Ill. Adm. Code 742, Appendix C, Table F. The most favorable default value in accordance with 35 Ill. Adm. Code 742, Appendix, C, Table D is 1.5 g/cm³.

Tier 2 calculations have been modified to reflect the Illinois EPA requirements and are included as Attachment C.

Resource Consulting, Inc.

d) The owner is utilizing a value of 58.9 cm³/g for the benzene organic carbon partition coefficient (K_{oc} value), and a value of 0.228 for the benzene Henry's constant (H' value). The Illinois EPA wishes to clarify the chemical and physical parameters table found in 35 Ill. Adm. Code 742, Appendix C, Table G was updated in the 742 amendments effective July 15, 2013. The updated values required for the model are 50 cm³/g for the K_{oc} value and 0.230 for the H' value.

Tier 2 calculations have been modified to reflect the Illinois EPA requirements and are included as Attachment C.

e) The owner is utilizing a value of 363 cm³/g for the ethylbenzene organic carbon partition coefficient (K_{oc} value), and a value of 0.323 for the ethylbenzene Henry's constant (H' value). The Illinois EPA wishes to clarify the chemical and physical parameters table found in 35 Ill. Adm. Code 742, Appendix C, Table G was updated in the 742 amendments effective July 15, 2013. The updated values required for the model are 320 cm³/g for the K_{oc} value and 0.324 for the H' value.

Tier 2 calculations have been modified to reflect the Illinois EPA requirements and are included as Attachment C.

f) The owner calculated an R24 groundwater Darcy velocity for ethylbenzene using a unit of cm/day for in-situ hydraulic conductivity. The appropriate in-situ hydraulic conductivity unit for calculating a groundwater Darcy velocity using R24 is cm/year, not cm/day. The Illinois EPA notes the owner utilized the correct unit when developing the Darcy velocity for benzene.

Tier 2 calculations have been modified to reflect the Illinois EPA requirements and are included as Attachment C.

When the corrected values are utilized in the models, the contaminant fate and transport evaluation demonstrates the following:

• Using R26, a benzene groundwater concentration of 1.23 mg/l migrates 850 feet from the source before meeting compliance with the Tier 1 remediation objective of 0.005 mg/l.

- Using R26, an ethylbenzene groundwater concentration of 1.2 mg/l migrates 65 feet from the source before meeting compliance with the Tier 1 remediation objective of 0.7 mg/l.
- Using R12, a benzene soil concentration of 0.49 mg/kg will leach and migrate 290 feet from the source before meeting compliance with the Tier 1 remediation objective of 0.005 mg/l.
- Using R12, a naphthalene soil concentration of 160 mg/kg will leach and migrate 360 feet from the source before meeting compliance with the Tier 1 remediation objective of 0.14 mg/l. The Illinois EPA notes this contaminant was not evaluated for fate and transport of soil component of groundwater ingestion exposure route. As the re-sample analyses for the EW-1 location did not include PNA contaminants, the naphthalene exceedence of 160 mg/kg must be evaluated.

The evaluation of the naphthalene exceedence is included in Attachment C. The evaluation is based on recent naphthalene data collected from groundwater sampling on August 2, 2019, as described in the text below.

In addition, the report states dissolved contamination migrated towards the east, although the gradient indicates a groundwater flow direction towards the south/southeast. As evidence supports the migration of dissolved contamination towards the east, the Illinois EPA requires the groundwater ingestion exposure route to be excluded to the east in addition to the south. Therefore, the groundwater ingestion exposure route must be excluded for a minimum distance of 850 feet from the source in both the south and east directions.

After revising the Tier 2 analysis in accordance with the Illinois EPA requirements, the groundwater ordinance area was created using the distance of 850 feet to the east and south. A map of the area is included in Attachment D.

5. In accordance with 35 Ill. Adm. Code 734.135(e), reports documenting the completion of corrective action at a site must contain a form addressing site ownership. At a minimum, the form must identify the land use limitations proposed for the site, if land use limitations are proposed; the site's common address, legal description, and real estate tax/parcel index number; and the names and addresses of all title holders of record of the site or any portion of the site. The form

addressing site ownership, the Property Owner Summary form, does not include the legal description and real estate tax/parcel index number for the Site. The Illinois EPA requests this information be submitted to meet the requirements of this Part.

A Property Owner Summary form with the legal description and real estate parcel index numbers is under review by the City of West Chicago and will be submitted with the forthcoming Corrective Action Completion Report.

6. The Laboratory Certification for Chemical Analysis forms do not include the Sample Collector's initials certifying that the proper sample collecting procedures were followed. The Illinois EPA requires this certification be properly initialed by the Sample Collector.

Laboratory Certification forms with the Sample Collector's initials are included in Attachment E.

In conclusion, the West Chicago Park District requests that the Illinois EPA review the contents of this response to the rejection of the Corrective Action Completion Report submitted June 21, 2013, to determine the technical adequacy of its findings and conclusions. A Property Owner Summary form with the legal description and real estate parcel index numbers will be submitted with the forthcoming Corrective Action Completion Report, the final amendment, budget, and the evaluation of the indoor inhalation exposure route. Please contact our office with any questions.

Sincerely,

Daniel J. Horvath Hydrogeologist/Senior Project Manager

cc: Mr. Michael Gasparini West Chicago Park District

Attachments:

ents: A - Laboratory Reports – Soil Gas and Groundwater Analysis

- B Groundwater Ordinance
- C Tier 2 Evaluations
- D Figure
- E Illinois EPA Forms

ATTACHMENT A

Laboratory Reports - Soil Gas and Groundwater Analysis



Environmental Laboratories, Inc.

First

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

October 09, 2014

Mr. Brian Beetz **RESOURCE CONSULTING, INC.** P.O. Box 123 Geneva, IL 60134

Project ID: WCPD First Environmental File ID: 14-5486 Date Received: September 16, 2014

Dear Mr. Brian Beetz:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 003469: effective 09/25/2014 through 02/28/2015.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Stan Zaworski Project Manager

Page 1 of 5

First Environmental

Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

RESOURCE CONSULTING, INC.

Lab File ID: 14-5486

Project ID: WCPD

Date Received: September 16, 2014

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time Collected
14-5486-001	RW-4B	08/26/14
14-5486-002	GP-1 (2'-3')	08/26/14
14-5486-003	GP-1 (5'-6')	08/26/14

Sample Batch Comments:

Sample acceptance criteria were met.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description				
<	Analyte not detected at or above the reporting limit.	L	LCS recovery outside control limits.				
С	Sample received in an improper container for this test.	М	MS recovery outside control limits; LCS acceptable.				
D Surrogates diluted out; recovery not available.		N	Analyte is not part of our NELAC accreditation.				
E	Estimated result; concentration exceeds calibration range.	P	Chemical preservation pH adjusted in lab.				
G	Surrogate recovery outside control limits.	Q	Result was determined by a GC/MS database search.				
н	Analysis or extraction holding time exceeded.	S	Analysis was subcontracted to another laboratory.				
J	 J Estimated result; concentration is less than routine RL but greater than MDL. Routine Reporting Limit (Lowest amount that can be 		Reporting limit elevated due to sample matrix.				
RL			Analyte was not detected using a library search routine; No calibration standard was analyzed.				



Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Analytical Report

Client:	RESOURCE CONSULTING, INC.	Date Collected: 08/26/14
Project ID:	WCPD	Time Collected:
Sample ID:	RW-4B	Date Received: 09/16/14
Sample No:	14-5486-001	Date Reported: 10/09/14

Analyte	· · · · ·	Result	R.L.	Units	Flags
Volatile Organic Compounds Analysis Date: 09/19/14	Method: TO-15				
Benzene		1.1	0.005	mg/m³	S
Methyl tert-butyl ether		0.039	0.005	mg/m ³	S
Ethylbenzene		0.120	0.005	mg/m³	S
Toluene		0.068	0.005	mg/m³	S
Xylenes, Total		5.8	0.020	mg/m ³	S

Page 3 of 5

First Envir Labo

Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Analytical Report

Client:	RESOURCE CONSULTING, INC.	Date Collected:	08/26/14
Project ID:	WCPD	Time Collected:	
Sample ID:	GP-1 (2'-3')	Date Received:	09/16/14
Sample No:	14-5486-002	Date Reported:	10/09/14

Analyte	Result	R.L.	Units	<u>Flags</u>
Dry Soil Bulk Density Analysis Date: 10/08/14	Method: D2937-94			
Dry Soil Bulk Density	94.8		lbs/ft3	NS

Page 4 of 5

GP-1 (5'-6') 14-5486-003			Received: Reported:	09/16/14 10/09/14
GP-1 (5'-6')				
WCPD		Time (Collected:	
RESOURCE CONSULTING, INC.		Date C	Collected:	08/26/14
Analytical Rep	ort			
1600 Shore Road • Naperville, Illinois 60	563 • Phone (63	0) 778-120	0 • Fax (630)) 778-1233
Laboratories, Inc.	IL ELAF	P/NELAC	Accreditatio	on # 100292
	s Office (09/20/2	2024	
	Electronic Filing: Received, Clerk First Environmental	First	First	

Method: D2937-94

94.3

Dry Soil Bulk Density Analysis Date: 10/08/14

Dry Soil Bulk Density

Page 5 of 5

N S

lbs/ft3

First Envir	onmental	CH			USTOI							nee of pe
Labo	ratories, Inc.		Comp	any Nan	ne:	fl.su.	u	Cons	u I fra	s. Inc.		
irst Environment	al Laboratories		Street .	Address	: 7	20. 80	4	123				
600 Shore Road, Suite			City:	6	eneug					State:	The Zip:	60134
aperville, Illinois 6056 hone: (630) 778-1290 •			Phone:	630	-232-4	1920 F	ax: 0	30-2	32.9	324 e-mail:		
-mail: firstinfo@firste			Send F	Report T	o: Da	<u> </u>	Buega			Via: Fax	e-mail	Ç2
EPA Certification #100	292		Sample	ed By:	Brea	<u> </u>	etz					
								nalyse	\$			
	JCPD	·		/	ALAN DAY	X,			/ /			
				/\\	N V	' /						
			/	ji)	. Y		Γ,	/ /	/ /			
			/ Q	γ	¥ /	/ /						
	Soil W = Water O = Other		$\langle \langle \rangle$	/ /	/ /	(/	/	/		<u>_</u>	
Date/Time Taken	Sample Description	Matrix						 	ļ	Comments		Lab I.D.
8/26/14 pm	15P-1 (2'-3')	a.V 5	1 S	x		+-		<u> </u>				<u>5486-00</u> 002
8/20/14 PM	GP-1 (5'-6')	5	$\left \cdot \right $	X								002
de fic pe							1	<u> </u>	<u> </u>		<u> </u>	
				_								
	•		 			_	ļ	ļ	ļ			
			<u> </u>			_	 	ļ				
						_	} -		· ·			<u>.</u>
			┝──┤				┼──		<u> </u>			·····
	· · · · · · · · · · · · · · · · · · ·		<u>├</u> ──┤				╆──	<u> </u>	<u> </u>			
OR LAD USE ONLY:			•			_		_		.	_	
Cooler Temperature: 0.1	1-0°C Yes_No 23, 4 =0	Sample Refrig	erated: \	Yes N	lo	Preserva	tion Red	uireme	nte Met:			
Received within 6 hrs. c ice Present: Yee No	CONNECTION: 472	Refrigerator Te	emperatu	re:	°C							
	· ·	5035 Vials Fro Freezer Tempo	erature:_	s №0_ %			neec	IL. IAC		IN. RISC 🗌		
Notes and Special In	structions:								· · · · · · · · · · · · · · · · · · ·			
	· · · · · · · · · · · · · · · · · · ·							····		<u> </u>		
alization of Due	Kin Ike	Devetter al	(1.10	123	() /'Y _ Received	- D	P.	Ca			· 9/16/14	1240
Relinquished By:(Relinquished By:	the way	Date/Time	- 71 		_ Received		4	<u></u>		Date/Tim		
			_			- DV:	•				T C	
Centryusheo by: Rev. 4/12		· · · · · · · · · · · · · · · · · · ·		-							~ <u></u>	

000243



August 01, 2017

Mr. Daniel Horvath **RESOURCE CONSULTING, INC.** P.O. Box 123 Geneva, IL 60134

Project ID: 98-1002 WCPD First Environmental File ID: 17-3893 Date Received: July 24, 2017

Dear Mr. Daniel Horvath:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 004108: effective 03/24/2017 through 02/28/2018.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

n. Mosechia

Bill Mottashed Project Manager

Page 1 of 4



IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

RESOURCE CONSULTING, INC.

Lab File ID: 17-3893

Project ID: 98-1002 WCPD

Date Received: July 24, 2017

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time Collected					
17-3893-001	RW-41A	7/24/2017	12:00				

Sample Batch Comments:

Sample acceptance criteria were met.



IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

RESOURCE CONSULTING, INC.

Project ID: 98-1002 WCPD

Lab File ID: 17-3893

Date Received: July 24, 2017

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The following is a definition of flags that may be used in this report:

Environmental Laboratories, Inc.

Flag	Description	Flag	Description
A	Method holding time is 15 minutes from collection. Lab an	alysis	was performed as soon as possible.
В	Analyte was found in the method blank.	L	LCS recovery outside control limits.
<	Analyte not detected at or above the reporting limit.	M	MS recovery outside control limits; LCS acceptable.
С	Sample received in an improper container for this test.	P	Chemical preservation pH adjusted in lab.
D	Surrogates diluted out; recovery not available.	Q	Result was determined by a GC/MS database search.
E	Estimated result; concentration exceeds calibration range.	S	Analysis was subcontracted to another laboratory.
G	Surrogate recovery outside control limits.	Т	Result is loss than three times the MDL value.
н	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
1	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.



IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Analytical Report

Client:	RESOURCE CONSULTING, INC.	Date Collected:	07/24/17
Project ID:	98-1002 WCPD	Time Collected:	12:00
Sample ID:	RW-41A	Date Received:	07/24/17
Sample No:	17-3893-001	Date Reported:	08/01/17

Analyte	<u></u>	Result	R.L.	Units	Flags
BTEX Organic Compounds Analysis Date: 07/31/17	Method: 5030B/82	60B			····
Benzene		241	5.0	ug/L	
Ethylbenzene		20.2	5.0	ug/L	
Toluene		< 5.0	5.0	ug/L	
Xylene, Total		21.7	5.0	ug/L	
Polynuclear Aromatic Hydrocard Analysis Date: 07/31/17		Preparation Preparation I	Method 351 Date: 07/31/17	1 0C 7	
Acenaphthene		< 10	10	ug/L	
Acenaphthylene		< 10	10	ug/L	
Anthracene		< 5	5	ug/L	
Benzo(a)anthracene		< 0.13	0.13	ug/L	
Benzo(a)pyrene		< 0.2	0.2	ug/L	
Benzo(b)fluoranthene		0.18	0.18	ug/L	
Benzo(k)fluoranthene		0.18	0.17	ug/L	
Benzo(ghi)perylene		< 0.4	0.4	ug/L	
Chrysene		< 1.5	1.5	ug/L	
Dibenzo(a,h)anthracene		< 0.3	0.3	ug/L	
Fluoranthene		< 2	2	ug/L	
Fluorene		< 2	2	ug/L	
Indeno(1,2,3-cd)pyrene		< 0.3	0.3	ug/L	
Naphthalene		< 10	10	ug/L	
Phenanthrene		< 5	5	ug/L	
Pyrene		< 2	2	ug/L	

Page 4 of 4

First	onmental		CH	AIN	OF C	CUST	ÖDY	(RE	COR	Ð				Page of p
Labor	atories, Inc.			Com	pany Na	ume: 12	ësoi	\mathcal{M}	<u>e. (</u>	OVE	ut	tina	χ , inc.	
irst Environment			Stree	t Addre:	<u>ss: P.C</u>	Dr B	OX 1	123						
500 Shore Road, Suite I				City:	Gen	eva								Zip: 60134
aperville, Illinois 60563 hone: (630) 778-1200 •		Phone: 630-232-9520 e-mail: HOV VO +10 @VPSOCUNCE.11/14											linois.com	
mail: firstinfo@firsten	v.com		,	Send	Report	To: []	202	HC	or VI	246				· · · · · · · · · · · · · · · · · · ·
CPA Certification #1002	:92			Samj	oled By:	COL	NAK	Uų	M	<u>Ri W</u> nalyse	un	<u>&</u>	······································	
Project I.D <u>46(</u> P.O. #:	• • • •					-Mas							No. 10 March	
Matrix Codes: S =				_	y v	7		[.		/	($\langle \ \rangle$	<u> </u>	Lab I.D.
Date/Time Taken 1/24/17 12pm	Sample Des	scription	Matrix W	tx	K								Comments	17-3893-00
ACALLE ICHAN	EN- MA								╀╍──					17.50.5
														:
		······································		 	 				 			<u> </u>		
				╂					╂					
		· · · · · · · · · · · · · · · · · · ·		,					+					
-													:	
					ļ						ļ			
					ļ	<u> </u>			+			 	<u>_</u>	
			-	<u> </u>	-				+					
OR LAB USE ONLY:				J	<u> </u>	L	L	L		<u> </u>	1	<u>4</u>		
cooler Temperature: 0.1 leceived within 6 hvs. of pe Present: Yes No lotes and Special Ins	-	50	ample Refrig efrigerator T 135 Vials Fr eezer Temp	'empera ozen: Y	ture: 'es N	°C 	Pr	ogram:	: []T	ACO			NPDES LUS	ST
									<u></u>	. <u>.</u> .			<u></u>	
Λ in /	NC 11 ¹			.l.m		·····			Da	Ľ	$\overline{\boldsymbol{\varsigma}}$	/		colution in
kelinquished By:	12 hours	Date/1		μ <u>τ</u>	1:35								Date/Time _ Date/Time	-1011 13J
Relinquished By:		Date/1	Ime			кес	eived B	y:					Date/ Time _	
Rev. 8/15														

Resource Consulting, Inc.

ATTACHMENT B

Groundwater Ordinance

CITY OF WEST CHICAGO

ORDINANCE NO. 15-0-0004

AN ORDINANCE PROHIBITING THE USE OF GROUNDWATER AS A POTABLE WATER SUPPLY BY THE INSTALLATION OR USE OF POTABLE WATER SUPPLY WELLS OR BY ANY OTHER METHOD AT OR WITHIN THE SPECIFIED AREA OF REED-KEPPLER PARK – 250 W. NATIONAL STREET

ADOPTED BY THE CITY COUNCIL OF THE CITY OF WEST CHICAGO March 16, 2015

Published in pamphlet form by the authority of the City Council of the City of West Chicago, DuPage County, Illinois, on the 17th day of March 2015.

ORDINANCE NO. 15-0-0004

AN ORDINANCE PROHIBITING THE USE OF GROUNDWATER AS A POTABLE WATER SUPPLY BY THE INSTALLATION OR USE OF POTABLE WATER SUPPLY WELLS OR BY ANY OTHER METHOD AT OR WITHIN THE SPECIFIED AREA OF REED-KEPPLER PARK – 250 W. NATIONAL STREET

WHEREAS, the City of West Chicago (hereinafter referred to as the "City") is a duly organized and existing municipality pursuant to the Illinois Municipal Code, 65 ILCS 5/1-1-1 et seq.; and,

WHEREAS, the City is also a home-rule municipality pursuant to Article VII, Section 6, of the Constitution of the State of Illinois, and authorized to exercise powers pursuant to that section; and,

WHEREAS, certain properties, including the property commonly known as Reed-Keppler Park located at 250 W. National Street, in the City of West Chicago, DuPage County, Illinois have been used over a period of time for commercial/industrial purposes; and,

WHEREAS, because of said use, concentrations of certain chemical constituents in the groundwater beneath the City may exceed Class 1 groundwater quality standards for potable resource groundwater as set forth in 35 Illinois Administrative Code 620 or Tier 1 remediation objectives as set forth in 35 Illinois Administrative Code 742; and,

WHEREAS, the City desires to limit potential threats to human health from groundwater contamination while facilitating the redevelopment and productive use of property commonly known as Reed-Keppler Park located at 250 W. National Street, that is the source of said chemical constituents and the surrounding properties, which are within the area depicted in Exhibit A and legally described in exhibit B which are attached hereto and incorporated herein; and,

WHEREAS, the City finds it is in the best interest of its residents to approve and enact a limited groundwater ordinance affecting properties located within a close proximity of the property commonly known as Reed-Keppler Park, 250 W. National in the City.

NOW, THEREFORE, BE IT ORDAINED, by the City Council of the City of West Chicago, DuPage County, Illinois, as follows:

Ordinance No. 15-O-0004 Page 1 of 3 <u>SECTION 1:</u> The recitals set forth above are incorporated herein and made a part hereof.

SECTION 2: The City regulates the use of groundwater as potable water supply as follows:

Use of groundwater as a potable water supply prohibited. The use or attempt to
use of groundwater as a potable water supply by the installation or drilling of
wells or by any other method, including at points of withdrawal by the City of
West Chicago, is hereby prohibited within a rectangle whose corners are
described by the following Illinois State Plane East Zone Metric Coordinates
based on North American Datum of 1983 (NAD 83) and depicted on Exhibit A,
which is attached hereto and incorporated herein by reference.

Corner	Northing	Easting
A (NW)	580346.521	310096.392
B (NE)	580346.521	310480.267
C (SE)	579989.559	310480.267
D (SŴ)	579989.559	310096.392

2. <u>Penalties.</u> Any person violating the provisions of this ordinance shall be subject to a fine of up to Seven Hundred Fifty 00/100 Dollars (\$750.00) for each violation.

3. Definitions.

"Person" is any individual, partnership, co-partnership, firm, company, limited liability company, corporation, association, joint stock company, trust, estate, political subdivision, or any other legal entity, or their legal representatives, agents or assigns.

"Potable Water" is any water used for human or domestic consumption, including, but not limited to, water used for drinking, bathing, swimming, washing dishes, or preparing foods.

4. <u>Severability.</u> If any provision of this ordinance or its application to any person or under any circumstances is adjudged invalid, such adjudication shall not affect the validity of the ordinance as a whole or of any portion not adjudged invalid.

<u>SECTION 3</u>: That all ordinances and resolutions, or parts thereof, in conflict with the provisions of this ordinance are, to the extent of such conflict, hereby repealed.

Ordinance No. 15-O-0004 Page 2 of 3

SECTION4: That the City Clerk of the City of West Chicago be and is directed hereby to publish this Ordinance in pamphlet form, pursuant to the statutes of the State of Illinois.

SECTION 5: That the City Clerk of the City of West Chicago be and is directed herby to Certify Mail a copy of this Ordinance to the commonly known address of parcels identified in Exhibit C.

SECTION6: That this Ordinance shall be in full force and effect from and after its passage, approval and publication in pamphlet form as provided by law.

PASSED this 16th day of March 2015.

Alderman L. Chassee	ay	Alderman J. Beifuss	aye
Alderman A. Hallett	aye	Alderman J. Banas	aye
Alderman M. Birch	aye	Alderman S. Dimas	Cise
Alderman K. Meissner	Ausint	Alderman R. Stout	aye
Alderman L. Grodoski	anc	Alderman D. F. Earley	Cup
Alderman M. Fuesting	ane	Alderman M. Edwalds	age
Alderman J. Smith	alisent	Alderman J. C. Smith, Jr.	aye
APPROVED as to form:	Julit	they -	U
	City-Attorney	/	

APPROVED this 16th day of March 2015.

Ruben Pineda, Mayor

ATTEST:

Nancy M. Smith, City Clerk

PUBLISHED: 3/17/15

Ordinance No. 15-O-0004 Page 3 of 3

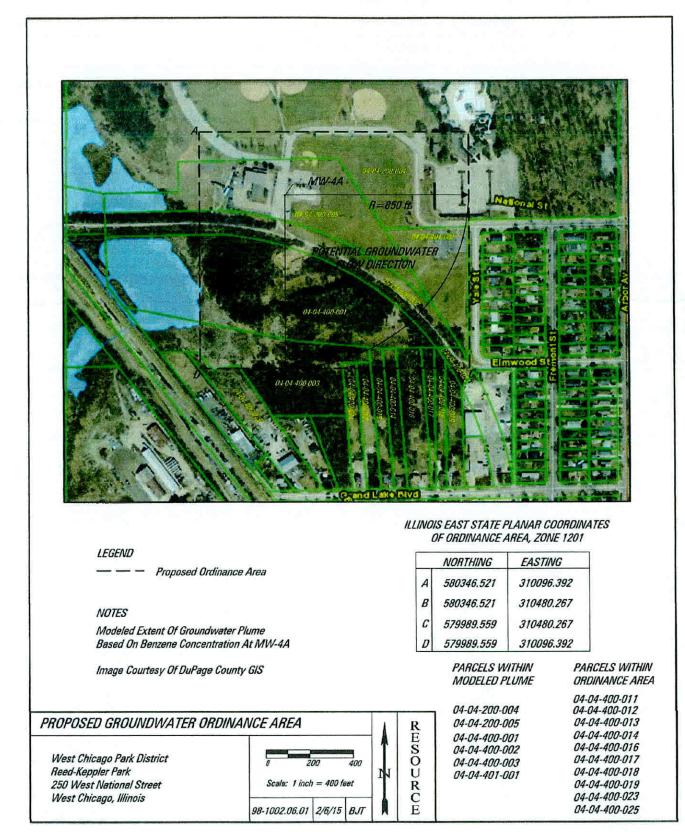


Exhibit B - Ordinance No. 15-O-0004

Legal Descriptions of Properties Within the Modeled Plume

in the Proposed Ordinance Area

The Property commonly known as Reed-Keppler Park, 250 W. National Ave., West Chicago. IL 60185.

PINs 04-040-200-004, 04-04-400-001, 04-04-401-001

That part of the North Half of the Southeast Quarter and part of the Northeast Quarter of Section 4. Township 39 North, Range 9 East of the Third Principal Meridian, described 'as beginning at a stone at the Southeast comer of the North Half of said Southeast Quarter of Section; thence North on Section line 39.27 chains (2591.82 feet) to John Spoden's line; thence West on said line 40 chains (2640 feet) to the Half section line; thence South on said line 15.68 chains (1034.88 feet) to the Northwest comer of lands of Elgin, Joliet and Eastern Railroad company; thence South 78° East 2.73 chains (180.10 feet) to the Northeast comer of lands of said railroad; thence South along the East line of said railroad lands to the Easterly line of Elgin, Joliet and Eastern Railroad Company's right of way; thence South 40° 2.43 chains (160.38 feet); thence 76 1/2° East 12.85 chains (848.10 feet) to a cotton wood tree; thence South 82 112°East 6.05 chains (399.30 feet); thence East parallel with division line, 5.596 chains (369.34 feet); thence South 45° East 10.93 chains (721.38 feet) to division line; thence East on division line, 11.484 chains (757.94 feet) to the place of the beginning, (except that part conveyed to the Chicago, Wheaton and Western Railroad Company, by deed recorded as Document 96756 and except that part conveyed to A.S. Neumer by deed recorded as Document 97713 and except that part known as Bloch Real Estate Company's First Addition to West Chicago, according to the plat recorded as document 210866) in DuPage County, Illinois.

Also partially described as:

PINs 04-040-200-004, 04-040-200-005, 04-04-400-001, 04-04-400-002

That part of the northeast quarter and the southeast quarter of Section 4. Township 39 North. Range 9 East of the Third Principal Meridian in DuPage County, Illinois, described as follows; beginning at the intersection of the north right of way line of National Street and the west right of way line of Yale Street; Thence southerly along said west right of way line of Yale Street, a distance of 636 feet, more or less, to a point on the north line extended easterly of Ward's Plat of Survey according to the plat recorded as document no. 654706 in DuPage County, Illinois; Thence westerly along said northerly line extended easterly, a distance of 406 feet, more or less, to the northwest corner of Lot 2 in said Ward's Plat of Survey; Thence northwesterly along a line at an angle of 173° 59', more or less, as measured counterclockwise from the previously described course, a distance of 226 feet; Thence northerly along a line parallel with said west right of way line of Yale Street, a distance of 615 feet, more or less, to a point on a line 33 feet north of, as measured at right angles to, the east-west quarter section line of said Section 4; Thence easterly along said parallel line, a distance of 631 feet, more or less, to the place of beginning.

Page 1 of 2

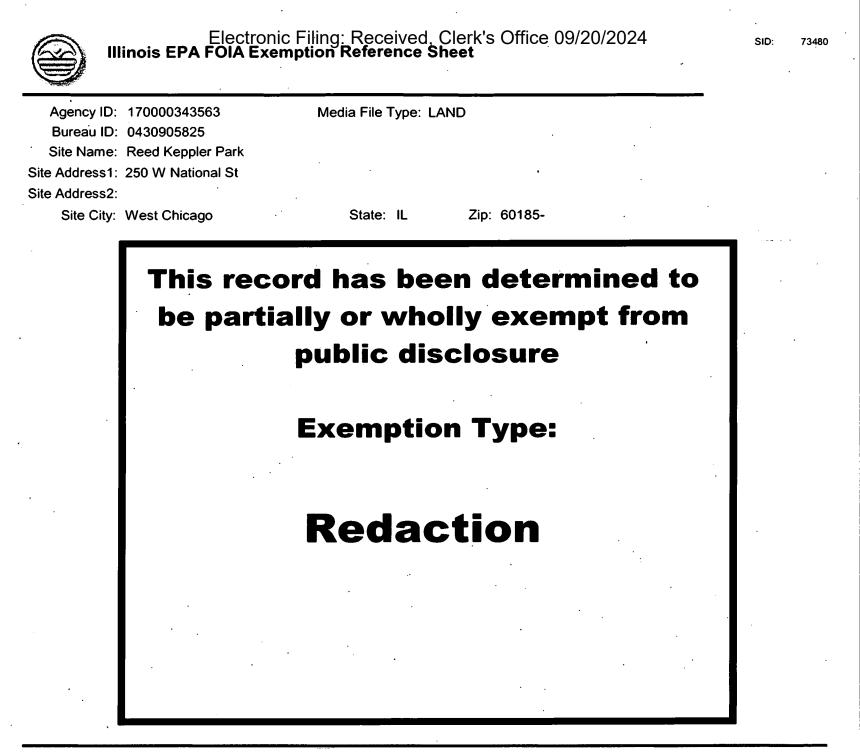
Exhibit B - Ordinance No. 15-O-0004

Including land owned by the DuPage County Forest Preserve described as:

PINs 04-040-400-003 and 04-040-400-010

THAT PART OF THE NORTH HALF OF THE SOUTHEAST OUARTER OF' SECTION 4, TOWNSHIP 39 NORTH, RANGE 9. EAST OF THE THIRD PRINCIPAL MERIDIAN. DESCRIBED BY COMMENCING ON THE DIVISION LINE. 1156.3 FEET WEST OF THE SOUTHEAST CORNER OF SAID NORTH HALF OF THE SOUTHEAST OUARTER OF SECTION 4 AND RUNNING THENCE NORTH 02 DEGREES 35 MINUTES 00 SECONDS WEST 16.5 FEET FOR A POINT OF BEGINNING: THENCE WEST 16.5 FEET NORTH 0F AND PARALLEL WITH THE DIVISION LINE 258.2 FEET: THENCE NORTH 31 DEGREES 54 MINUTES 00 SECONDS WEST 749.6 FEET: THENCE SOUTH 82 DEGREES 15 MINUTES 00 SECONDS WEST. 127.2 FEET: THENCE NORTH 15 DEGREES 31 MINUTES 00 SECONDS WEST. 127.2 FEET: THENCE NORTH 15 DEGREES 36 MINUTES 00 SECONDS WEST. 137.2 FEET: THENCE NORTH 15 DEGREES 36 MINUTES 00 SECONDS WEST. 137.2 FEET: THENCE NORTH 15 DEGREES 36 MINUTES 00 SECONDS WEST. 137.2 FEET: THENCE NORTH 15 DEGREES 36 MINUTES 00 SECONDS WEST. 137.2 FEET: THENCE NORTH 15 DEGREES 36 MINUTES 00 SECONDS WEST. 137.2 FEET: THENCE NORTH 15 DEGREES 36 MINUTES 00 SECONDS WEST. 137.2 FEET: THENCE NORTH 15 DEGREES 05 MINUTES 00 SECONDS WEST. 180.2 FEET TO THE BASE LINE OF THE ELGIN, JOLIET AND EASTERN RAILROAD : THENCE NORTH 35 DEGREES 00 MINUTES 00 SECONDS WEST ALONG SAID EAST LINE OF THE ELGIN. JOLIET AND EASTERN RAILROAD. 284 FEET; THENCE SOUTH 76 DEGREES 09 MINUTES 00 SECONDS EAST. 334.5 FEET: THENCE SOUTH 83 DEGREES 35 MINUTES 00 SECONDS EAST. 334.5 FEET: THENCE SOUTH 80 PODS OF THAT PIECE OF LAND CONVEYED BY DEED DATED MAY27. 1914 RECORDED AS DOCUMENT 117184 AND EXCEPT THAT PART CONVEYED BY DOCUMENT 217255 (CORRECTED ANDRECORDED AS DOCUMENT 394560) DESCRIBED AS FOLLOWS: COMMENCING AT A POINT 1288.3 FEET WEST OF THE SOUTHEAST CORNER OF SAID NORTH HALF OF THE SOUTHEAST OUARTER OF SAID SECTION 4: THENCE NORTH 02 DEGREES 35 MINUTES 00 SECONDS WEST. 33 FEET: THENCE NORTH 89 DEGREES 51 MINUTES 00 SECONDS WEST. 33 FEET: THENCE NORTH 89 DEGREES 51 MINUTES 00 SECONDS WEST ALONG THE NORTH LINE OF GAAND LAKE BOULEVARD (SAID NORTH LINE BEING 33 FEET NORTH LINE OF SAID GRAND LAKE BOULEVARD. 67

> PIN 04-04-400-003 AND PIN 04-04-400-010



Exempt Doc #: 1

Document Date: 7 /22/2020

Staff: RDH

Document Description: 07/15/2020 WCPD RESPONSE TO IEPA 09/17/2013 LETTER RE UST INCIDENT (ATTACHMENT B - EXHIBIUT C) PARCELS IN PROPOSED ORDINANCE AREA

 Category ID:
 31A
 Category Description:
 SITE REMEDIATION - TECHNICAL
 Exempt Type:
 Redaction

 Permit ID:
 980814
 Date of Determination:
 12/7 /2020

Exhibit C - Ordinance No. 15-O-0004

PIN	Address	Street	Owner	Mailing Address				
04-04-200-004	250 W	National Ave.	City of West Chicago	City of West Chicago	475 Main Street	West Chicago	IL	60185
04-04-200-005	250 W	National Ave.	City of West Chicago	City of West Chicago	475 Main Street	West Chicago	IL	60185
04-04-400-001			City of West Chicago	City of West Chicago	475 Main Street	West Chicago	IL.	60185
04-04-400-002			Commonwealth Edison	Exelon Corporation	P.O Box 805398	Chicago	IL	60680
04-04-400-003			Forest Preserve District	Forest Preserve District	3S580 Naperville Rd.	Wheaton	IL	60189
04-04-400-011	187 W	Grand Lake Blvd.	Cavish Family Tr.	Clark Cavish	187 W. Grandlake Blvd.	West Chicago	IL	60185
04-04-400-012	181 W	Grand Lake Blvd.	Tribble, Michael & Day	Michael Tribble	181 W. Grand Lake Blvd.	West Chicago	ĨL.	60185
04-04-400-013	173 W.	Grand Lake Blvd.	ST BK OF IL TR 1-1196	State Bank of Illinois	600 E. Washington	West Chicago	IL.	60185
04-04-400-014			-	ATT.	27W030 Hickory Lanc	West Chicago	π	60185
)4-04-400-016	E	Francis - English		·		·/	÷رال	60108
04-04-400-017				I Commercian me		J.		
04-04-400-018					Kaa			
04-04-400-019	IE I	wd.	K				میں۔ محمد	 پر . شا. شمانط
04-04-400-023			Commonwcalth Edison	Exelon Corporation	P.O Box 805398		2	م
4-04-400-025	215 W	Grand Lake Blvd.	Wallace, Anthony J.	Anthony J. Wallace	3N145 Sycamore	West Chicago	ĨL	60185
0404-401-001	250 W	National St.	City of West Chicago	City of West Chicago	475 Main Street	West Chicago	π	60185

STATE OF ILLINOIS) COUNTY OF DU PAGE).

CERTIFICATE

I, Nancy Smith, Certify that I am the duly elected and acting City Clerk of the City of West Chicago, DuPage County, Illinois.

I further certify that on March 16, 2015 the Corporate Authorities of such municipality passed and approved Ordinance No. 15-O-0004 entitled:

AN ORDINANCE PROHIBITING THE USE OF GROUNDWATER AS A POTABLE WATER SUPPLY BY THE INSTALLATION OR USE OF POTABLE WATER SUPPLY WELLS OR BY ANY OTHER METHOD AT OR WITHIN THE SPECIFIED AREA OF **REED-KEPPLER PARK - 250 W. NATIONAL STREET**

Which provided by its terms that it should be published in pamphlet form.

The pamphlet form of Ordinance No. 15-O-0004 including the ordinance and a cover sheet hereof was prepared, and a copy of such ordinance posted in the municipal building, commencing on March 17, 2015 continuing for at least ten days thereafter. Copies of such ordinance were also available for public inspection upon request in the Office of the City Clerk.

Dated at West Chicago, Illinois, this 16th of March 2015.



Marcy Smith City Clerk

RESOURCE CONSULTING, INC.

ATTACHMENT C

Tier 2 Evaluations

DIL MIGRATI	ON/GROUNDWATER EXPOS	URE ROUTE	BENZENE LPC number 0430905825
ariable	Source	Value	Description and units PAGE 1
Vsource	R13	1.133	3 Groundwater concentration at the source, mg/L
sw	R14		8 Leaching factor, mg/L/mg/kg
Vcomp	R25		5 Groundwater objective at the compliance point, mg/L
/Csource	R15		3 Steady-state attenuation along the centerline of a dissolved plume, mg/L/mg/L
	R20	0.16	6 Soil-water sorption coefficient, cm^3/g
	Appendix C table E	50	Organic carbon partition coefficient, cm^3/g
	surface 0.005	0.0032	2 Organic carbon content of soil, g/g
	subsurface 0.002		
5	R22 or	0.3	3 Volumetric water content of vadose zone soils, cm^3/cm^3
	surface 0.15	X420-	
	subsurface 0.30		
	gravel 0.20		
	sand 0.18		
	silt 0.16		
	clay 0.17		
	R21 or	0.13	3 Volumetric air content of vadose zone soils, cm^3/cm^3
	surface 0.28		
	subsurface 0.13		
	gravel 0.05		
	sand 0.14		
	silt 0.16		
	clay 0.17		
	R23 or	0.43	3 Total soil porosity, cm^3/cm^3
	0.43	0.45	s rotarson porosity, chi sy chi s
	gravel 0.25		
	sand 0.32		
	silt 0.40		
	clay 0.36		
	Appendix C table E	0.22	3 Henrγ's law constant, cm^3 air/cm^3 water
	surface 0.1		2 Average soil moisture content, g/g
	subsurface 0.2	0.2	z Average son moisture content, g/g
	gravel 2.0	1.0	Call bull deaths a/an 62
		1,5	5 Soil bulk density, g/cm^3
	sand 1.8		
	silt 1.6		
	clay 1.7		
		1	1 Water density, g/cm^3
			Distance along the centerline of the ground water
	site	25908	8 plume emanating from the source, cm 850 Distance, ft
	R16		8 Longitudinal dispersivity, cm (Equation R16)
	R17		6 Transverse dispersivity, cm (Equation R17)
	R18		4 Vertical dispersivity, cm (Equation R18)
	0(000400)		
		124 100 100	Source width perpendicular to ground water flow direction in
	site	2103.12	2 horizontal plane, cm 69 Sw, ft
			Source width perpendicular to ground water flow direction in
	site	200	
	site		3 Aguifer hydraulic conductivity, cm/day 3.30E-02 K, cm/sec
	site		6 Hydraulic gradient, cm/cm
	R19		5 Specific discharge, cm/day (Equation R19)
v	R24		3 Groundwater Darcy velocity, cm/yr
	-		D Groundwater mixing zone thickness, cm
	-		D Infiltration rate, cm/yr
	-	50	
			Width of source area parallel to direction of wind or groundwater
	site		4 movement, cm 105 W, ft
	Appendix C table E	0.0009	9 First order degradation constant, day^-1
	R26	0.005	5 Concentration of contaminant in groundwater at the distance X from the steady source, mg/L
	site	1.22	3 The greatest potential concentration of the contaminant in groundwater at the source of contaminatio

Tier 2 Risk-Based Corrective Action Equations Solutions to Equations

Eqn. R1:		350	0.000001 30	70 0.055	70 1E-06	365 100	1	3,160	0.5	0.5	0.027	20	6E-06	5E-12	
			3.28	mg/kg	Tier 2 Re	mediatio	n Object	ive							
Egn R2:			1	70	30	365									
Lyn nz.		-	350	30		100	1 0.004	3,160	0.5	0.5		20	6E-06 0.0086	5E-12	
	=		309.830												
Eqn. R3:	VF _{ss} =	1	2	3200.4 225	1.5	1000		sqrt	0.0005	0.23	0.16	1.5	0.23	0.13	94600000
	=		5.76E-05	LLJ	200				5.1110	0.5	0.10	1.2	0.25	0.15	51000000
Eqn. R4:	VF _{ss} =		3200.4 225	1.5 200	50 9E+08	1000									
	=		5.63848E-06												
Eqn. 5:	VFp =		6.9E-14	3200.4 225											
	=		4.90728E-12												
Eqn. R6:	D _s ^{eff} =	2	0.088	0.0011	1E-05 0.23	0.0181									
	Ξ		0.001												
Eqn. R7:			0.315432099	0.001	9										
	Ŧ		1.45	mg/kg	Tier 2 Re	mediatio	n Object	ive							
Eqn R8:		2	31.39 0.0002182	0.001	0										
	=		143.859												
Eqn R9:	RBSLair	=	0.000001	70 20		365 30	1000								
	=		0.315	20	350	30									
Eqn R10:	RBSLair	= _	- 1.94T	0.0086	0.535.20	30	365	1000							
	÷.		20 31.390	350	30										
				0200-											
Eqn. R11:	VF _{samb}	-	0.23	1.5 0.183	1000 1.5	0.23	0.13	1+	225	200	100				
	=		0.000							0.0005	3200.4				

SOIL MIG Eqn. R12:		ROUNDWATER 1.133473891 0.1879093	EXPOSU	RE ROU	TE							
	=1	6.032	mg/kg	Tier 2 R	lemedia	tion Object	tive					
Eqn. R13:	GWsource	0.005										
	÷	1.133E+00										
Eqn. R14:	LFsw =					.5						
		0.3	0.16	1.5	5 0.2	0.13	1+	6244.1 30	200 3200.4			
	=	0.188										
Eqn. R15:	C(x) = Csource	ехр	25908 5181.6	1-	1+	0.0036	2590.8	erf	2103.1 18921	e	rf	200 3663.9
	=	0.004										
Eqn. R16:	ax = =	0.1 2590.800	25908									
Eqn. R17:	ay =	2590.8										
	Ŧ	3 863.600										
Eqn. R18:	az =	2590.8										
	(#)	20 129.540										
Eqn. R19:	U =	2851.2	0.006									
	=	39.784										
Eqn. R20:	ks = =	50 0.160	0.0032									
Eqn. R21:	qws =	0.2	1.5									
	=	0.300	1									
Eqn. R22:	qas =	0.43	0.2	1.5	5							
Eqn. R23:	= qT =	0.129 0.429	1									
Eqn. R24:	Ugw = =	2851.2 6.24E+03	0.006									
Eqn. R25:		0.000001	70 2	70 350		55 30						
	=	0.002										
Eqn. R26:	C(x) =	1.23	25908 5181.6	1-	1+	0.0036	2590.8	erf .	2103.1 18921	e	rf	200 3663.9
	=	0.005										

Values for Vari	ables in Relevant Equation	ons	Project Name: West Chicago Park District						
SOIL MIGRATIC	N/GROUNDWATER EXP	OSURE ROUTE	ETHYLBENZENE LPC number 0430905825						
Variable	Source	Value	Description and units PAGE 1						
GWsource	R13		Groundwater concentration at the source, mg/L						
LFsw	R14	and the second sec	Leaching factor, mg/L/mg/kg						
GWcomp	R25	0.7							
Cx/Csource	R15	0.570	Steady-state attenuation along the centerline of a dissolved plume, mg/L/mg/L						
k,	R20	0.96	Soil-water sorption coefficient, cm^3/g						
Koc	Appendix C table E	320	Organic carbon partition coefficient, cm^3/g						
f _{oc}	surface 0.005 subsurface 0.002	0.003	Organic carbon content of soil, g/g						
θ _{ws}	R22 or	03	Volumetric water content of vadose zone soils, cm^3/cm^3						
O'WS	surface 0.15	0.5	volumente water content of valore zone sons, em si em s						
	subsurface 0.13								
	gravel 0.05								
	sand 0.18								
	silt 0.16								
	clay 0.17								
0	R21 or	0.12	Volumetric air content of vadose zone soils, cm^3/cm^3						
θ_{as}		0.15	volumentical content of vadose zone sons, cm 5/cm 5						
	surface 0.28								
	subsurface 0.13								
	gravel 0.05								
	sand 0.18								
	silt 0.16								
	clay 0.17								
θη	R23 or	0.43	Total soil porosity, cm^3/cm^3						
	0.43								
	gravel 0.25								
	sand 0.32								
	silt 0.40								
	clay 0.36								
H'	Appendix C table E		Henry's law constant, cm^3 air/cm^3 water						
w	surface 0.1	0.2	Average soil moisture content, g/g						
	subsurface 0.2		No be from an and one of the factor we						
ρ _b	gravel 2.0	1.5	Soil bulk density, g/cm^3						
	sand 1.8								
	silt 1.6								
	clay 1.7								
ρ _w		1	Water density, g/cm^3						
			Distance along the centerline of the ground water plume						
х	site	1981.2	emanating from the source, cm 65 Distance, ft						
ax	R16		Longitudinal dispersivity, cm (Equation R16)						
ay	R17								
az	R18		Vertical dispersivity, cm (Equation R18)						
		an costra							
Sin	cito	3103.13	Source width perpendicular to ground water flow direction in horizontal plane, cm 69 Sw, ft						
Sw	site	2103.12	horizontal plane, cm 69 Sw, ft						
			Source width perpendicular to ground water flow direction in vertical						
Sd	site	200	plane, cm Sd, ft						
к	site	2851.2	Aquifer hydraulic conductivity, cm/day 3.30E-02 K, cm/sec						
i	site	0.006	Hydraulic gradient, cm/cm						
U	R19	39.78418605	Specific discharge, cm/day (Equation R19)						
Ugw	R24	6244.128	Groundwater Darcy velocity, cm/yr						
d		200	Groundwater mixing zone thickness, cm						
1		30	Infiltration rate, cm/yr						
	50 1 4025		Width of source area parallel to direction of wind or groundwater						
w	site		movement, cm105 W, ft						
λ	Appendix C table E		First order degradation constant, day ^A 1						
C _(x)	R26		Concentration of contaminant in groundwater at the distance X from the steady source, mg/L						
Csource	site	1.22	The greatest potential concentration of the contaminant in groundwater at the source of contamination, r						

Tier 2 Risk-Based Corrective Action Equations Solutions to Equations

Eqn. R1:		0.000001	70		365									
	350	0 30	0	1E-06	100	1	3,160	0.5	0.5	0	20	6E-06	5E-12	
		#DIV/0!	mg/kg	Tier 2 Re	mediation	n Objecti	ive							
Eqn R2:		1	70	30	365									
		350	30	1E-06	100	1 0.1	3,160	0.5	0.5		20	6E-06 0.29	5E-12	
	=	7858.875												
Egn. R3:	VF _{ss} =	2	3200.4 225		1000	1000	sqrt	0.0005	0.324	0.96	1.5	0.324	0.13	946000000
	.=	3.86E-05	225	200				512 120	0.0	0.20		0.021	0.10	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		5.802-05												
Eqn. R4:	VF _{ss} =	3200.4 225		50 9E+08	1000									
	=	5.63848E-06												
Eqn. 5:	VF _p ≠	6.9E-14	3200.4 225											
	=	4.90728E-12												
Eqn. R6:	$D_s^{eff} =$	0.088	0.0011	1E-05 0.324	0.0181									
	=	0.001												
Eqn. R7:		#DIV/0!	0.001	2										
)=	#DIV/0!	mg/kg	Tier 2 Re	mediation	n Objecti	ive							
Eqn R8:		1058.5	0.001	2										
	=)	3521.216												
Eqn R9:	RBSL _{air} =	0.000001			365 30	1000								
	=	#DIV/0!												
Eqn R10:	RBSL _{air} =	20	0.29 350		30	365	1000							
	(=	1058.500												
Eqn. R11:	VF _{samb} =	0.324	1.5		0.224	0.12	1.	225	200	100				
)=	0.3	0.183	1.5	0.324	0.13	1+	225_	200 0.0005	100 3200.4				
	33-	0.000												

000265

SOIL MIG Eqn. R12:		ROUNDWATER 1.229030655 0.060091077		ROUTE						
	×	2.045E+01	mg/kg Tie	r 2 Remedia	tion Objective					
Egn. R13:	GWsource	0.7								
	-	1.229E+00								
Eqn. R14:	LFsw =			1	.5					
		0.3	0.96	1.5 0.32	4 0.13 1 +		.1 200 30 3200.4			
	-	0.060								
Eqn. R15:	C(x) = Csource	exp	<u>1981.2</u> 1 - 396.24	1+	0.012 19 39.784	98.12 erf	2103.1 1446.9	erf	200	
	=	5.70E-01								
Egn. R16:	ax =	0.1	1981.2							
	=	198.120								
Eqn. R17:	ay =	198.12								
	=	3 66.040								
Eqn. R18:	az =	198.12								
	=	9.906								
Eqn. R19:	U =	2851.2	0.006							
	-	0.43 39.784								
Eqn. R20:		320	0.003							
	=	0.960								
Eqn. R21:	qws =	0.2	1.5							
	=	0.300								
Eqn. R22:	ģas =	0.43	0.2	1.5						
	=	0.129	-							
Eqn. R23:	q1 =	0.429								
Eqn. R24:	Ugw = =	2851.2 6244.128	0.006							
Eqn. R25:		0.000001	70	70 36						
		0	2	350 3	0					
	=	#DIV/0!								
Eqn. R26:	C(x) =	1.22	<u>1981.2</u> 1 - 396.24	1+	0.012 39.784	98.12 erf	2103.1 1446.9	erf	200 280.18	
	-	0.695								

/alues for Vari	iables in Relevant Equation	ns	Project Name: V	/est Chicago Park District	
OIL MICRATI	ON/GROUNDWATER EXPO		NAPHTHALENE LPC number 04	120005825	
ariable	Source	Value	Description and units	430903823 PAGE 1	
Wsource	R13	Ni este trasse	Groundwater concentration at the source, mg/L	THUE I	
Fsw	R14		Leaching factor, mg/L/mg/kg		
Wcomp	R25		Groundwater objective at the compliance point, mg/L		
x/Csource	R15		Steady-state attenuation along the centerline of a disso	lved plume, mg/L/mg/L	
	R20		Soil-water sorption coefficient, cm^3/g		
oc	Appendix C table E	5.00E+02	Organic carbon partition coefficient, cm^3/g		
oc.	surface 0.005	0.0032	Organic carbon content of soil, g/g		
	subsurface 0.002				
ws	R22 or	0.3	Volumetric water content of vadose zone soils, cm^3/cr	m^3	
	surface 0.15				
	subsurface 0.30				
	gravel 0.20				
	sand 0.18	l I			
	silt 0.16				
	clay 0.17				
25	R21 or	0.13	Volumetric air content of vadose zone soils, cm^3/cm^3	3	
	surface 0.28				
	subsurface 0.13	í l			
	gravel 0.05				
	sand 0.14				
	silt 0.16				
	clay 0.17	0.42	Total soil porosity, cm^3/cm^3		
г	R23 or 0.43	0.43	Total son porosity, cm ⁻ 3/cm ⁻ 3		
	gravel 0.25				
	sand 0.32		_		
	silt 0.40				
	clay 0.36				
r.	Appendix C table E	1.97E-02	Henry's law constant, cm^3 air/cm^3 water		
v	surface 0.1	0.2	Average soil moisture content, g/g		
	subsurface 0.2				
5	gravel 2.0	1.5	Soil bulk density, g/cm^3		
	sand 1.8				
	silt 1.6				
	clay 1.7				
w		1	Water density, g/cm^3		
			Distance along the centerline of the ground water		
	site	10972.8	plume emanating from the source, cm	360 Distance, ft	
x	R16	1097.28	Longitudinal dispersivity, cm (Equation R16)	· · · · · · · · · · · · · · · · · · ·	
Y	R17	365.76	Transverse dispersivity, cm (Equation R17)		
z	R18	54.864	Vertical dispersivity, cm (Equation R18)	· · · · · · · · · · · · · · · · · · ·	
			Source width perpendicular to ground water flow direct	tion in	
w	site	2103.12	horizontal plane, cm	69 Sw, ft	
274	96MCH		ny nagrapieve na zna na se se se ser nase na ser nase na		
d		200	Source width perpendicular to ground water flow direct	3 Sd, ft	
	site site		vertical plane, cm Aquifer hydraulic conductivity, cm/day	3.30E-02 K, cm/sec	
	site		Hydraulic gradient, cm/cm	5.302-02 K, CHI/SEC	
i.	R19		Specific discharge, cm/day (Equation R19)		
lgw	R24		Groundwater Darcy velocity, cm/yr		
5			Groundwater mixing zone thickness, cm		
			Infiltration rate, cm/yr		
		50			
			Width of source area parallel to direction of wind or gro		
v	site		movement, cm	105 W, ft	
22	Appendix C table E	in the second seco	First order degradation constant, day^-1	stones V from the story !	
-(x)	R26	a factor and a	Concentration of contaminant in groundwater at the di		
source	site	160	The greatest potential concentration of the contaminar	nt in groundwater at the source of contamination	ation, mg/l

Tier 2 Risk-Based Corrective Action Equations Solutions to Equations

Eqn. R1:		0.000001	70		365		2 4 6 2	0.5	0.5	-	20	65.00	FE 12	
	350	30	0	1E-06	100	1	3,160	0.5	0.5	0	20	6E-06	5E-12	
		#DIV/01	mg/kg	Tier 2 Re	mediation	Objectiv	e							
Egn R2:		1	70	30	365									
		350	30		100	1 0.02	3,160	0.5	0.5		20	6E-06 0.0009	5E-12	
	=:	415.652												
Eqn. R3:	VF _{ss} =	2	3200.4	1.5	1000		sqrt	0.0006	0.0197					
			225	200				3.1416	0.3	1.6	1.5	0.0197	0.13	94600000
		8.06E-06												
Eqn. R4:	VF _{ss} =	3200.4 225		50 9E+08	1000									
	=	5.63848E-06	200	52100										
Egn. 5:	VF _p =	6.9E-14	3200.4 225											
	÷.	4.90728E-12												
Eqn. R6:	$D_s^{eff} =$	0.088	0.0011	1E-05	0.0181									
				0.0197	0.1849									
	=	0.001												
Eqn. R7:		#DIV/0! 2.12006E-05	0.001	1										
	×	#DIV/0!	mg/kg	Tier 2 Re	mediation	Objectiv	e							
Eqn R8:		3.139 2.12006E-05	0.001	<u>.</u>										
	=	148.062												
Eqn R9:	RBSL _{air} =	0.000001	70	70	365	1000								
		0	20	350	30									
	=	#DIV/0!												
Eqn R10:	RBSL _{air} =		0.0009		30	365	1000							
		20	350	30										
	=	3.139												
Eqn. R11:	VF _{samb} =	0.0197	1.5	1000										
		0.3	0.183	1.5	0.0197	0.13	1+	225	the second s	100				
	=	0.000							0.0006	3200.4				

				_	_							
SOIL MIGI Eqn. R12:	RO =	6.708312928 0.039625196	EXPOSUR	E ROUTE								
		169.294	mg/kg	Tier 2 Rei	mediatio	on Objectiv	e					
Eqn. R13:	GWsource	0.14										
	i.	6.708E+00										
Eqn. R14:	LFsw =				1.5	11						
		0.3	1.6	1.5	0.0197	0.13	1+	6244.1 30	200 3200.4			
	=	0.040										
Egn. R15:	C(x) = Csource		10973 2194.6		1+	0.0108 39.7842		erf	2103.1 8013.4	erf	<u>200</u> 1551.8	
	=	0.021										
Eqn. R16:	ax = =	0.1 1097.280	10973									
Eqn. R17:	ay =	1097.28										
	=	3 365.760										
Egn. R18:	az =	1097.28										
	=	20 54.864										
Eqn. R19:	U =	2851.2	0.006									
	=	0.43 39.784										
Eqn. R20:	ks = =	500 1.600	0.0032									
Eqn. R21:	qws =	0.2										
		0.300	1									
Eqn. R22:	qas =	0.43	0.2	1.5								
	=	0.129	1									
Eqn. R23:	qT =	0.429										
Eqn. R24:	Ugw = =	2851.2 6.24E+03	0.006									
Eqn. R25:		0.000001	70	70	365							
		0	2	350	30							
	-	#DIV/0!										
Egn. R26:	C(x) =	160	10973 2194.6	l- 1	1+	0.0108 39.7842	1097.3	erf	2103.1 8013.4	erf	200 1551.8	
	=	3.339										
Eqn. \$18	Cw =	20	0.14									
	=	2.8										
Eqn. S19	Kd =	500	0.0032									
	=	1.6										
Eqn. 517	R.O. =	2.8	1.6	0.3	0.13	1.97E-02						
640 - 1					1.5							

5.044780533

.

.

. .

1 10

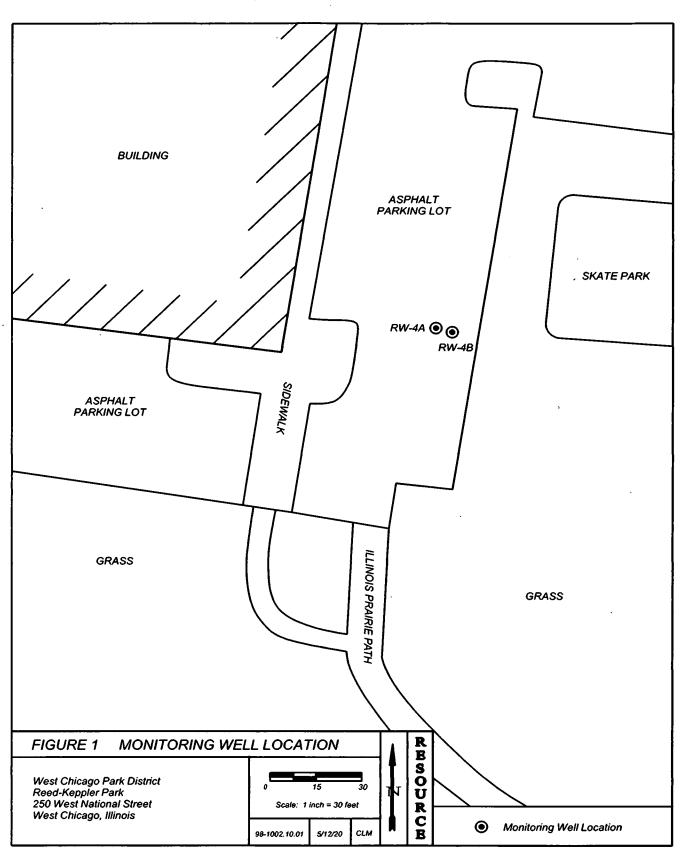
.

• •

RESOURCE CONSULTING, INC.

ATTACHMENT D

Figure



.

RESOURCE CONSULTING, INC.

ATTACHMENT E

Illinois EPA Forms



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): 980814		IEPA LPC# (10-digit): 0430905825	
Site Name: West Chicago Park	District		
Site Address (Not a P.O. Box):	250 West National Street		
City: West Chicago	County: DuPage	ZIP Code: 60185	

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.

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.

L 532 2283	
LPC 509 Rev.	March 2006

Laboratory Certification for Chemical Analysis Page 1 of 2

Iniba

MG
(Initial)
_M6
(Initial)
No.
(Initial)
Mь
(Initial)
146
(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

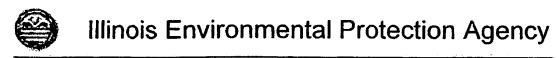
I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Laboratory Representative

Sample Collector

Name Brandi Talaga	Name Ryun Gernick Title Rujer Munger
Title Environmental Technician	Title - Priler Munder
Company Resource Consulting, Inc.	Company First Environmental Labs, Inc.
Address P.O. Box 123	Address 1600 Shore Road
City Geneva	City Naperville
State Illinois	State Illinois
Zip Code 60134	Zip Code 60540
Phone <u>630-232-9820</u>	Phone 630-778-1200
Signature Burgi CT. TalaDa	Signature D-G
Date Jul 15, 2020	Date 7-16-20

Laboratory Certification for Chemical Analysis Page 2 of 2



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): 980814		IEPA LPC# (10-digit): 0430905825		
Site Name: West Chicago Park	District			
Site Address (Not a P.O. Box):	250 West National Street			
City: West Chicago	County: DuPage	ZIP Code	: 60185	
	· · · · ·	•		

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.

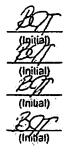
C. Laboratory Representative

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.

IL 532 2283 LPC 509 Rev. March 2006

Laboratory Certification for Chemical Analysis Page 1 of 2



256
(Initial)
<u>M</u>
(Initial)
MG
(Initial)
MG
(Initial)
MO
(Initial)

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

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.

Laboratory Representative

Sample Collector

Name Brandi Talaga	Name Ryun Gernick Title 1-3jert Manger	
Title Environmental Technician	Title 1-2)ect Amongo	
Company Resource Consulting, Inc.	Company First Environmental Labs, Inc.	
Address P.O. Box 123	Address 1600 Shore Road	
City Geneva	City Naperville	
State Illinois	State Illinois	
Zip Code 60134	Zip Code 60540	
Phone 630-232-9820	Phone 630-778-1200	
Signature Bungl CF. Talada	Signature Dana	
Date Jul 15, 2020	Date 7-16-20	

Laboratory Certification for Chemical Analysis Page 2 of 2 Electronic Filing: Received, Clerk's Office 09430929 – DuPage County West Chicago Park District Incident # 980814 Leaking UST Technical File

RESOURCE CONSULTING, INC.

115 Campbell Street/Suite 108

• •

P.O. Box 123

Geneva, Illinois 60134

Phone: (630)232-9820

April 6, 2021

Mr. Eric Kuhlman Illinois Environmental Protection Agency Bureau of Land – No. 24 Leaking Underground Storage Tank Section 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276

RE: LPC No. 0430905825 -DuPage County West Chicago/West Chicago Park District 250 West National Street LUST Incident No. 980814

Addendum to CACR

APR 1 2 2021

Dear Mr. Kuhlman:

On behalf of the West Chicago Park District, Resource Consulting, Inc. is submitting this addendum to the Corrective Action Completion Report (CACR) for the above-referenced project.

The project documentation for the Illinois EPA will be completed following its review and evaluation of this submission. The final documentation will include but not be limited to a budget amendment and the Property Owner Summary form.

Background

The project's CACR was submitted to the Illinois Environmental Protection Agency (EPA) in July 2013. The CACR was rejected in correspondence dated September 17, 2013. Around this time, the Illinois Pollution Control Board added the indoor inhalation exposure route to the Illinois EPA's Tiered Approach to Corrective Action Objectives (TACO) regulations in 35 Ill. Adm. Code 742, resulting in an evaluation of the indoor inhalation exposure route being required for the Site.

IEPA-DIVISION OF RECORDS MANAGEMENT RELEASABLE

> SEP 03 2021 REVIEWER: SAB

> > 000278

RESOURCE CONSULTING, INC.

0430905825 – DuPage County West Chicago Park District Incident # 980814 Leaking UST Technical File

Resource Consulting prepared and submitted a Technical Summary to the Illinois EPA in June of 2019. This document summarized project activities that occurred between the submission of the 2013 CACR and the resumption of project activities at the time of the submission. These activities included the 2014 soil gas sampling, related review and evaluation with the client and the Illinois EPA, and the subsequent 2017 groundwater sampling.

In July 2020, Resource Consulting addressed the deficiencies in the 2013 CACR that were outlined in the Illinois EPA's CACR rejection correspondence dated September 13, 2013, but did not address indoor inhalation. This exposure route is evaluated in this correspondence.

Indoor Inhalation Assessment

Field Activities

Resource Consulting, Inc. returned to the Site on July 3, 2019, to resample monitoring well RW-4A. The parking lot had been paved, and the monitoring well was no longer accessible. Resource Consulting returned to the Site on August 2, 2019, to install temporary monitoring well MW-4B by Johnson Probing, Inc. of Batavia, Illinois.

The well was developed using a peristaltic pump and dedicated PVC tubing. Development and purging of the well entailed the removal of approximately 2 gallons of groundwater, equivalent to approximately 5 casing volumes, from the well.

A discrete groundwater sample was collected from the monitoring well in two 40-ml vials preserved with hydrochloric acid and an amber liter jar, all fitted with Teflon[®]-lined lids. A soil sample was also collected during the well installation process from the stratum just above where saturated conditions were encountered. The samples were placed on ice and submitted with chain-of-custody documentation to First Environmental Laboratories, Inc. of Naperville, Illinois.

The soil sample underwent analysis to determine its bulk density and moisture content. The groundwater samples underwent analysis for the presence of benzene, toluene, ethylbenzene, and total xylenes (BTEX) and polynuclear aromatic hydrocarbons (PNAs). Copies of the laboratory results and chain-of-custody information have been included in Attachment B.

Groundwater Quality

The table below displays the analytical results from the sampling event and compares them to the Tier 1 Indoor Inhalation remediation objectives (ROs) found 35 Ill. Adm. Code Part 742.

Resource Consulting, Inc.

.

Table I Laboratory Analytical Summary BTEX and PNAs in Groundwater Sample (values in mg/L)			
Sampling Date	August 2, 2019	Illinois EPA R	emediation Objectives
		Indoor Inhalation / Groundwater	
Sample ID	RW-4B	Residential	industrial/ Commercial
Benzene	0.386	0.11	0.41
Toluene	< 0.050	530	530
Ethylbenzene	3.160	0.37	1.4
Total Xylenes	Xylenes 6.540 30 93		93
Acenaphthene	< 0.01	NA	NA
Acenaphthylene	< 0.01	NA	NA
Anthracene	< 0.05	NA	NA
Benzo(a)anthracene	0.00267	NA	NA
Benzo(a)pyrene	0.0016	NA	NA
Benzo(b)fluoranthene	0.00170	NA	NA
Benzo(k)fluoranthene	0.00157	NA	NA
Benzo(ghi)perylene	< 0.010	NA	NA
Chrysene	0.0023	NA	NA
Dibenzo(a,h)anthracene	< 0.0003	NA	NA
Fluoranthene	< 0.010 NA NA		NA
Fluorene	< 0.010	NA	NA .
Indeno(1,2,3-cd)pyrene	0.0008	NA	NA
Naphthalene	1.380	0.075	0.32
Phenanthrene	< 0.010	NA	NA
Pyrene	< 0.010	NA	NA
TEXT	Concentration exce	eeds Illinois EPA re	mediation objective.
TEXT	Remediation object	tive exceeded by g	roundwater concentration.

The data in the above table show that benzene, ethylbenzene, and naphthalene are present in monitoring well RW-4B exceeding the Tier 1 indoor inhalation ROs for residential properties. A map of the project area is included in Attachment B.

Tier 2 Assessment of Indoor Inhalation Exposure Route

In response to the exceedances, indoor air inhalation (II) ROs have been calculated using the Johnson and Ettinger (J&E) model modified as described in the Illinois EPA's Vapor Intrusion guidance for TACO. The model's input parameters, equations, and results are presented in Attachment C.

3

RESOURCE CONSULTING, INC.

The modeling uses a Q_{soil} of 0 cm³/sec since all soil and groundwater contamination is located more than 5 feet, vertically and horizontally, from the existing or potential building or made pathway.

The following table compares the detected concentrations of benzene, ethylbenzene, and naphthalene to the calculated Tier 2 ROs for these chemicals.

Table I Laboratory Analytical Summary BTEX and PNAs in Groundwater Sample (values in mg/L)			
RW-4B	Detected Concentration	Tier 2 Remediation Objectiv	
Benzene	0.386	4.22	
Ethylbenzene	3.16	4.95	
Naphthalene	1.38	6.29	

The information in the above table demonstrates that none of the detections in the August 2019 groundwater sample were in exceedance of the modeled remediation objectives. All of the J&E model calculations for this analysis are included in Attachment C.

Groundwater Ingestion Exposure Route

Upon further review of the August 2019 groundwater quality data, it was noted that certain PNAs in the latest dataset exceed the Tier 1 RO for groundwater ingestion for the first time. A discussion follows. The table below displays the analytical results from the sampling event and compares them to the Tier 1 Groundwater ROs found 35 Ill. Adm. Code Part 742.

Resource Consulting, Inc.

Table II Laboratory Analytical Summary BTEX and PNAs in Groundwater Sample (values in mg/L)		
Sampling Date	August 2, 2019	Illinois EPA Remediation Objectives
Sample ID	RW-4B	Class I Groundwater
Benzene	0.386	0.005
Toluene	< 0.050	1.0
Ethylbenzene	3.160	0.7
Total Xylenes	6.540	10.0
Acenaphthene < 0.010 0.42		
Acenaphthylene	< 0.010	-
Anthracene	< 0.010	2.1
Benzo(a)anthracene	0.00267	0.00013
Benzo(a)pyrene	0.0016	0.0002
Benzo(b)fluoranthene	0.00170	0.00018
Benzo(k)fluoranthene	0.00157	0.00017
Benzo(ghi)perylene	< 0.010	-
Chrysene	0.0023	0.0015
Dibenzo(a,h)anthracene	< 0.0003	0.0003
Fluoranthene	< 0.010	0.28
Fluorene	< 0.010	0.28
Indeno(1,2,3-cd)pyrene	0.0008	0.00043
Naphthalene	1.380	0.14
Phenanthrene	< 0.010	_
Pyrene	< 0.010	0.21
TEXT	Concentration exceeds Illinois EPA remediation objective.	
TEXT	Remediation objective	exceeded by soil concentration.

The data in the above table show that benzene, ethylbenzene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(k)fluoranthene, chrysene, and naphthalene are present in monitoring well RW-4B exceeding the groundwater ROs for Class I groundwater.

Over the course of this project, the PNAs detected in the most recent groundwater sample were not present in previous analytical results. The detections, while exceeding the Tier 1 ROs for these substances, do not appear to be of sufficient magnitude to migrate a distance greater than the current ordinance dimensions of 850 feet to the east and south and should not require further evaluation. The ordinance was provided to the Illinois EPA in project correspondence dated July 15, 2020.

Resource Consulting, Inc.

This conclusion is based on the following:

- The benzene concentrations in the soil and groundwater and the naphthalene concentration in the soil modeled for the project in previous project documentation and approved by the Illinois EPA significantly exceed the recent detections of PNAs in groundwater.
- Due to its physical and chemical properties, benzene has the greatest potential for migration of the contaminants of concern for gasoline and diesel fuel releases other than methyl tertiary-butyl ether (MTBE).
- Prior groundwater monitoring efforts during the course of this project demonstrated that, although the modeling indicates that benzene could migrate up to 850 feet from the source area, it had not traveled more than 100 feet in over 10 years. Since that time, the source area has been remediated through the removal of contaminated soil and free product.

On behalf of the West Chicago Park District, Resource Consulting requests comment and recommendations from the Illinois EPA regarding the conclusion that no further characterization or remediation is necessary. Should the Illinois EPA concur, the Property Owner Summary Form and final budget including fees related to the work described in this document will be included in the final CACR documentation.

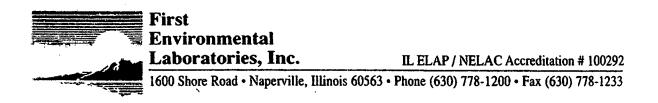
Please contact our office with any questions or comments regarding this submission, or if we can be of assistance in any other way.

Sincerely.

Daniel J. Horvath Hydrogeologist/Senior Project Manager

cc: Mr. Michael Gasparini, West Chicago Park District

Attachments: A – Laboratory Report/Soil and Groundwater Analysis B – J&E Model Calculations



August 09, 2019

Ms. Courtney McGinnis **RESOURCE CONSULTING, INC.** P.O. Box 123 Geneva, IL 60134

Project ID: 98-1002 WCPD First Environmental File ID: 19-4658 Date Received: August 02, 2019

Dear Ms. Courtney McGinnis:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 004598: effective 04/23/2019 through 02/28/2020.

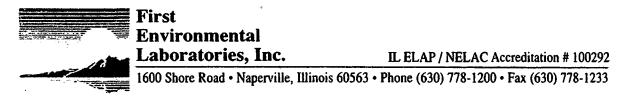
I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

1 Oleente

Bill Mottashed Project Manager

Page 1 of 4



Case Narrative

RESOURCE CONSULTING, INC.

Lab File ID: 19-4658

Project ID: 98-1002 WCPD

Date Received: August 02, 2019

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time	Collected
19-4658-001	RW-4B	8/2/2019	9:15

Sample Batch Comments:

Sample acceptance criteria were met.

Method Comments

Lab Number	Sample ID	Comments:
19-4658-001	RW-4B	BTEX Organic Compounds The reporting limits are elevated due to matrix interference.



Case Narrative

RESOURCE CONSULTING, INC.

Lab File ID: 19-4658

Project ID: 98-1002 WCPD

Date Received: August 02, 2019

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
Α	Method holding time is 15 minutes from collection. Lab an	alysis	was performed as soon as possible.
В	Analyte was found in the method blank.	L	LCS recovery outside control limits.
<	Analyte not detected at or above the reporting limit.	Μ	MS recovery outside control limits; LCS acceptable.
С	Sample received in an improper container for this test.	Р	Chemical preservation pH adjusted in lab.
D	Surrogates diluted out; recovery not available.	Q	Result was determined by a GC/MS database search.
E	Estimated result; concentration exceeds calibration range.	S	Analysis was subcontracted to another laboratory.
G	Surrogate recovery outside control limits.	, T	Result is less than three times the MDL value.
Н	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
J	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine No calibration standard was analyzed.



Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

		Analytical	Report			
Client:	RESOURCE CONS	ULTING, INC.		Date C	Collected:	08/02/19
Project ID:	98-1002 WCPD			Time	Collected:	9:15
Sample ID:	RW-4B			Date R	Received:	08/02/19
Sample No:	19-4658-001			Date R	Reported:	08/09/19
Analyte	· · · · · · · · · · · · · · · · · · ·		Result	R.L.	Units	Flags
	ic Compounds : 08/06/19	Method: 5030B/	8260B		<u>.</u>	
Benzene			386	5.0	ug/L	
Ethylbenzene			3,160	5.0	ug/L	
Toluene			< 50.0	5.0	ug/L	
Xylene, Total			6,540	5.0	ug/L	
Polynuclear Analysis Date	Aromatic Hydrocarb : 08/09/19	ons Method: 8270C		Preparation Preparation I		
Acenaphthene			< 10	10	ug/L	
Acenaphthyle			< 10	10	ug/L	
Anthracene			< 10	10	ug/L	
Benzo(a)anthr	acene		2.67	0.13	ug/L	
Benzo(a)pyrei			1.6	0.2	ug/L	
Benzo(b)fluor			1.70	0.18	ug/L	
Benzo(k)fluor			1.57	0.17	ug/L	
Benzo(ghi)per			< 10.0	10	ug/L	
Chrysene	•		2.3	1.5	ug/L	
Dibenzo(a,h)a	nthracene		< 0.3	0.3	ug/L	
Fluoranthene			< 10	10	ug/L	
Fluorene			< 10	10	ug/L	
Indeno(1,2,3-0	cd)pyrene		0.8	0.3	ug/L	
Naphthalene			1,380	10	ug/L	
Phenanthrene			< 10	10	ug/L	
Pyrene			< 10	10	ug/L	



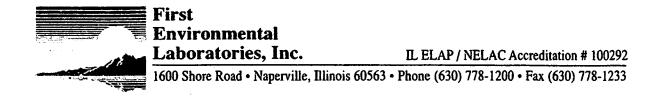
CHAIN OF CUSTODY RECORD

Page____ of ____ pgs

Laborat	tories, Inc.			Com	pany N:	ume: R	esc	ur.	<u>Cl</u>	Con	sul	tir	or, inc.	
First Environmental	Laboratories				t Addre								. 7 .	
1600 Shore Road, Suite D					Grer								State: 1L	Zip: (00134
Naperville, Illinois 60563 Phone: (630) 778-1200 • Fax	er (630) 779, 1733							0 e	-mail:	• C1	mca	nn	9 Perpsourr	illinois.com
E-mail: Arstinfo@firstenv.c				Send	Report	To: C C	SUR	ner	A M	CGIIN	119	ID	HAN HOMVALL	<u></u>
IEPA Certification #100292				Samp	oled By:	COU	nth	u.	m	ain	ms		nn Horvath	
								U,	A	nalyse	3			
Project I.D.: <u>98 -</u> P.O. #:					X			\$					TOP	
	il $W = Water O = Oth$	ier						, T		/				
Date/Time Taken	Sample Description	1	Matrix										Comments	Lab I.D.
8/2/19 0700 RI	N-HB		S	X	X					ļ		X		
8/2/19_0915 RI	N-48		M			X	X			 			, 	19.4658-001
	<u></u>			+									······································	
		····		1										
	······································	·		 	ļ					 				
			ļ	 	 								·····	
				+										
	<u></u>				1									· · · · · · · · · · · · · · · · · · ·
FOR LAB USE ONLY: Cooler Temperature: 0.1-6 ^{PI} Received within 6 hrs. of co Ice Present: Yes No Notes and Special Instru			ple Refriq gerator T i Vials Fr zer Temp	empera ozen: Y	ture: es N	°C 0	Pr	ogram:	U TV	ACO/SR	iP []	CCDD		JST SDWA
		·												
Palinquiched Bur M	Reprin-	Date/Tim	, el 1	19 11	200	Dar	cived B	v .	AD	5			Date/Time	119 1005
Relinquished By:	C ftr S	Date/Tin	•	<u> </u>	<u></u>		eived B		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				Date/Time	7
Rev. 5/17			••					, ·						

٠

Notes



August 28, 2019

Ms. Courtney McGinnis RESOURCE CONSULTING, INC. P.O. Box 123 Geneva, IL 60134

Project ID: 98-1002 WCPD First Environmental File ID: 19-5004 Date Received: August 02, 2019

Dear Ms. Courtney McGinnis:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

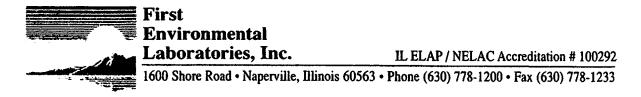
All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 004598: effective 04/23/2019 through 02/28/2020.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely, Λ

Stan Zaworski Project Manager

Page 1 of 4



Case Narrative

RESOURCE CONSULTING, INC.

Lab File ID: 19-5004

Project ID: 98-1002 WCPD

Date Received: August 02, 2019

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time	Collected
19-5004-001	RW-4B	08/02/19	9:00

Sample Batch Comments:

Sample acceptance criteria were met.

The following analyses have been subcontracted to the indicated laboratory:AnalysisSubcontractor:

Dry Soil Bulk Density

WHITNEY & ASSOCIATES Peoria, IL

	First	
	Environmental	
internet and	Laboratories, Inc.	IL ELAP / NELAC Accreditation # 100292
	1600 Shore Road • Naperville, Illinois 60563 •	Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

RESOURCE CONSULTING, INC.

Lab File ID: 19-5004

Project ID: 98-1002 WCPD

Date Received: August 02, 2019

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
A	Method holding time is 15 minutes from collection. Lab an	alysis	was performed as soon as possible.
B	Analyte was found in the method blank.	L	LCS recovery outside control limits.
<	Analyte not detected at or above the reporting limit.	М	MS recovery outside control limits; LCS acceptable.
С	Sample received in an improper container for this test.	P	Chemical preservation pH adjusted in lab.
D	Surrogates diluted out; recovery not available.	Q	Result was determined by a GC/MS database search.
E	Estimated result; concentration exceeds calibration range.	S	Analysis was subcontracted to another laboratory.
G	Surrogate recovery outside control limits.	T	Result is less than three times the MDL value.
н	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
J	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.

First	
Environmental	
Laboratories, Inc.	IL ELAP / NELAC Accreditation # 100292
1600 Shore Road • Naperville, Illinois	s 60563 • Phone (630) 778-1200 • Fax (630) 778-1233
Analytical D	

		Analytical Re	port			
Client:	RESOURCE CONS	SULTING, INC.		Date (Collected:	08/02/19
Project ID:	98-1002 WCPD			Time	Collected:	9:00
Sample ID:	RW-4B			Date I	08/02/19 08/28/19	
Sample No:	19-5004-001			Date Reported:		
Results are rep	ported on an "as receiv	ved" basis.				
Analyte		· · ·	Result	R.L.	Units	Flags
Dry Soil Bulk Analysis Date		Method: D2937-94	· · · · · · · · · · · · · · · · · · ·			
Dry Soil Bulk	Density		94.3		lbs/ft3	N S
Moisture Analysis Date	: 08/22/19	Method: 160.3				
Moisture			9.52	0.01	%	н

Page 4 of 4



CHAIN OF CUSTODY RECORD

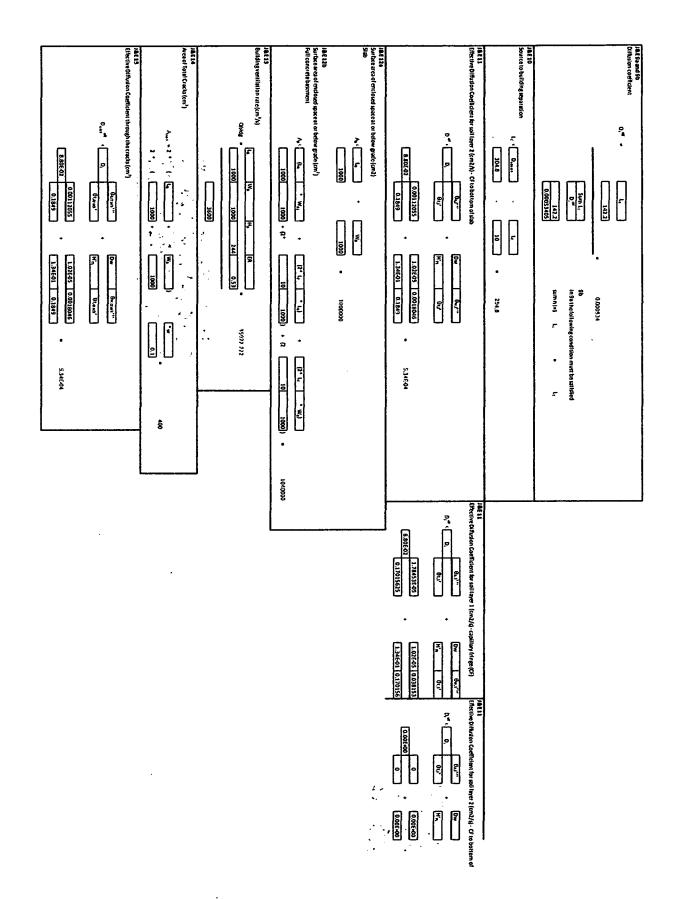
Envi	ronmental		•										rage_1 or pgs
	oratories, Inc.		Com	pany N	ame: f	esc	ur	<u>Cl</u>	Cor	isu	itir	101,1nc.	
First Environmen	Ital Laboratories		Stree	et Addre	ss: P	OB	XC	123				.7.	
1600 Shore Road, Suite				Ger								State: 1L	Zip: (00134
Naperville, Illinois 605			Phone: 130-732-9820 e-mail: CMCGINA										
Phone: (630) 778-1200 E-mail: firstinfo@first	• Fax: (050) 776-1255 env.com • www.firstenv.com		Send	Report	To: (`.(nue	Hn 1s		CGu	A 4741 4	IN	HUN HAMININ	
IEPA Certification #10	0292		Sam	pled By	Cou	With		J m	Gin	NIC		nn Horvatt	-J
				-	<u></u>	<u>~ 11</u>	\overline{D}^{∞}		Analys	22 03 <u>7</u>	·····		· · · · · · · · · · · · · · · · · · ·
P.O. #:	<u>2 - 1002 NCPD</u> = Soil W = Water O = Other	Matrix	UN CONTRACT	A Burn and and	Dirther Level			 				Down with the second second	
Date/Time Taken	Sample Description	Matrix	ſĽ	f s	7	(Ϋ́	ſ	($\left(\right)$		Comments	Lab I.D.
8/2/19 0700	RINI-4B	S	X	X		<u> </u>			+		- M	19-5004	
8/11/19 0915	RW-4B	W			X.	X							+9-4058-00T
								<u> </u>					•
			 		<u> </u>		 	 	<u> </u>				
			 		 			 	 				
					┝				<u> </u>				
			 	+				<u> </u>					
				+	┟•			<u> </u>	╉───				
									+				
				+	<u> </u>		┣		<u> </u>	+			
					<u> </u>			<u> </u>	+				
FOR LAB USE ONLY:			1		L	<u> </u>	1	<u> </u>				·····	L
	of collection: Au o 50 Instructions:	ample Refrig efrigerator Te 035 Vials Fro reezer Temp	empera ezen: Y erature	lure: 'es N	°°C				ACO/S	RP [JCCDD		UST []SDWA
Relinquished By:	Date/	•		·		cived B		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	1			Date/Time	1
Rev. 5/17					Act		· · · · · · · · ·						-, ,*, ·, ·, ·, ·, ·, ·, ·, ·, · · · · ·

SYMBOL		VALUE	UNITS	SOURCE	VI or Calculated
A.	Surface area of enclosed space	1.00€+06	cm2	J&E 12a OR 12b, App C, Table L	Res=1.0E+06, Ind/Comm=4.0E+05
Aunch	Area of total cracks		cm2	J&E14, App CTable1	Calculated Value
	Averaging time for carcinogens		year	SSL, May 1996	
AT _c	Averaging time for noncarcinogens	30	year	AT _{re} =ED	Res=30, Ind/Comm=25
- ut	Soil vapor saturation limit		mg/m3-air	J&ES, App C Table L	Chemical specific or Calculated
~ ~	Effective diffusion coeff. through cracks	5.34E-04		J&E 15, App C Table L	Calculated Value
Cont .					Chemical Specific
D,	Diffusivity in air	8.80E-02		App C Table E	Calculated Value
D,"	Effective diffusion coeff. for each soil layer	5.34E-04	cm2/s	J&E11, App CTable L	· · · · · · · · · · · · · · · · · · ·
			1		Soil Gas Contamination=152.4, Groundwater
D	Distance from ground surface to top of contamination	304.8		Field Measurement	Contamination=304.8
D,""	Total effective diffusion coefficient	5.34E-04		J&E9, App C Table L	Calculated Value
0 .	Diffusivity in water	1.02E-05	cm2/s	App C Table E	Chemical Specific
ED	Exposure duration	30	Aca.	SSL	Res=30, Ind/Comm=25
EF	Exposure frequency	350	day/year	SSL	Res=350, ind/Comm=250
ER	Air exchange rate		exch/hr	IL EPA	Res=0.53, Ind/Comm=0.93
f	Fraction organic carbon content	0.002		SSL OR Field Measurement, App C Table F	0.002 or site-specific
·et			38		SOG Res=244, Ind/Comm=305 OR Site sp T3
u.	Height of building	244	-	IL EPA	Basement Res=127, Ind/Comm=188
п <u>е</u> Н' ₁₅	Dimensionless Henry's Law constant	1.346-01		App C Table E	Chemical specific
	Length of building	1000			Res=1000, Ind/Comm-2000 or Site sp T3
					Res-1000, m0/comm-2000 01 3/te sp 13
Lonen	Stab thickness		cm	USEPA Users Guide 2004	
4	Distance from ground surface to bottom of slab		cm	USEPA Users Guide 2004	SOG=10, Basement=200 Site sp 152.4 (S ft)/for capillary fringe, 37.5cm
<u>Li</u>	Thickness of soil layer i	152.4		Field Measurement, USEPA 2004	
L _T	Distance from bottom of slab to top of contamination	142.2	¢m	Field Measurement OR J&E 10, App C Table L	142.2 or Sitesp (4 FT 8 IN)
<u>MW</u>	Molecular weight	78.11		IL EPA	Chemical Specific
n	Total number of layers	1	unitless (layers)	Field Measurement	
P	Vapor pressure	9.50E+01	atm	App C Table E	Chemical Specific
Query	Building ventilation rate	3.59 5+ 04	cm3/s	J&E 13, App C Table L	50G Res=3.59*10*4, Ind/Comm=3.15*10*5 C Sile sp T3 Basement Res 6.28*10*4, Ind/Comm=5.04*10*5 or SST3
Q	Volumetric flow rate of soil gas into the enclosed space	0	cm3/s	USEPA Users Guide 2004	IfLT<152cm=83.33 IfLT>=152cm=0
R	Ideal gas constant	0.08206	atm-L/mole-K	USEPA Users Guide 2004	0.08
RfC	Reference concentration	3.00E+01	ug/m3	IL EPA TACO Toxicity Values spread sheet	Toxicological-Specific
RO _m	Groundwater remediation objective	0.005	mg/L	App B Table E OR J&E 6, App C Table L	Chemical specific or Calculated
RO	Indoor air remediation objective	0.000311966	mg/m3	J&E1 and 2, App C Table L	Calculated Value
ROpplan	Cott and a state of the sector				
	Soll gas remediation objective	565.0783175	mg/m3	J&E4, App C Table L	Calculated Value
5					
<u>s</u>	Solubility in water	1.805+03	mer	App C Table E	Chemical Specific
s T	Solubility in water Temperature		me/L *K	App C Table E USEPA Users Guide 2004	
S T THQ	Solubility in water	1.805+03	mer	App C Table E	Chemical Specific 286 (converted from 13 C)
	Solubility in water Temperature Target hazard quotient	1.80€+03 286 1	mg/L *K unitless	App C Table E USEPA Users Guide 2004 SSL	Chemical Specific 286 (converted from 13 C) Res=10~6 ind/Comm=10~6 at point of huma
TR.	Solubility in water Temperature Target hazard quotient Target risk	1.80€+03 286 1 0.000001	mg/L *K unitless unitless	App C Table E USEPA Users Guide 2004 SSL SSL	Chemical Specific 286 (converted from 13 C) Res=10^6 ind/Comm=10^6 at point of huma exposure
TR	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor	1.80€+03 286 1 0.000001 7.80€-06	mgA *K unitless (ug/m ³) ¹	App C Table E USEPA Users Guide 2004 SSL SSL IL EPA TACO Toxicity Values spreadsheet	Chemical Specific 286 (converted from 13 C) Res=10~6 ind/Comm=10~6 at point of huma exposure Toxicological-Specific
TR URF W	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Roor-wall seam gap	1.80E+03 286 1 0.000001 7.80E-06 0.1	mgA *K unitless unitless (ug/m ³) ¹ cm	App C Table E USEPA Users Guide 2004 SSI. SSI. II. EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004	Chemical Specific 286 (converted from 13 C) Res=10~6 ind/Comm=10~6 at point of huma exposure Toxicological-Specific
TR URF W	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Moisture content	1.805+03 286 1 0.000001 7.805-06 0.1 9.52	mgA "K unitless (ug/m ³) ¹ cm g water/g soil	App C Table E USEPA Users Guide 2004 SSI. SSI. IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F	Chemical Specific 286 (converted from 13 C) Res=10~6 ind/Comm=10~6 at point of huma exposure Toxicological-Specific (Site specific
TR URF W W	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Molsture content Width of building	1.80E+03 286 1 0.000001 7.80E-06 0.1 9.52 1000	mg/L *K unitless (ug/m ³) ¹ cm g water/g soil cm	App C Table E USEPA Users Guide 2004 SSL SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA	Chemical Specific 286 (converted from 13 C) Res=10^6 ind/Comm=10^6 at point of huma exposure Toxicological-Specific (Site specific Res=1000, Ind/Comm-2000 or Site sp T3
TR URF W W	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Molsture content Width of building Attenuation factor	1.805+03 286 1 0.000001 7.805-06 0.1 9.52 1000 5.520755-07	mgA "K unitless (ug/m ¹) ¹ cm g wzter/g soil cm unitless	App C Table E USEPA Users Guide 2004 SSL SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA J&E 7 OR 8, App C Table L	Chemical Specific 286 (converted from 13 C) Resr10~6 ind/Comm=10~6 at point of huma exposure Toxicological-Specific Site specific Res=1000, ind/Comm-2000 or Site sp T3 Site specific
TR URF W W 2 2 8.	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Molisture content Width of building Attenuation factor Air-filled soil porosity	1.805+03 286 1 0.000001 7.806-06 0.1 9.52 1000 5.520755-07 0.28	mgA "K unitless (ug/m ²) ¹ cm g water/g soil cm unitless cm3/cm3	App C Table E USEPA Users Guide 2004 SSL SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA IL EPA SSL OR J& E 18, App C Table L SSL OR J& E 18, App C Table L	Chemical Specific 286 (converted from 13 C) Res=10~6 ind/Comm=10~6 at point of huma exposure Toxicological-Specific Site specific Res=1000, Ind/Comm-2000 or Site sp T3 Site specific 0.28 OR Calculated value
TR URF W W S 2 3.	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Molsture content Width of building Attenuation factor	1.805+03 286 1 0.000001 7.806-06 0.1 9.52 1000 5.520755-07 0.28	mgA "K unitless (ug/m ¹) ¹ cm g wzter/g soil cm unitless	App C Table E USEPA Users Guide 2004 SSL SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA J&E 7 OR 8, App C Table L	Chemical Specific 286 (converted from 13 C) Res=10~6 ind/Comm=10~6 at point of hum: exposure Toxicological-Specific Site specific Res=1000, Ind/Comm-2000 or Site sp T3 Site specific 0.28 OR Calculated value
S T TPQ TR URF W W S S S B J Comt	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Molisture content Width of building Attenuation factor Air-filled soil porosity	1.805+03 286 1 0.000001 7.806-06 0.1 9.52 1000 5.520755-07 0.28	mgA "K unitless (ug/m ²) ¹ cm g water/g soil cm unitless cm3/cm3	App C Table E USEPA Users Guide 2004 SSL SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA IL EPA SSL OR J& E 18, App C Table L SSL OR J& E 18, App C Table L	Chemical Specific 286 (converted from 13 C) Repr10~6 ind/Comm=10~6 at point of huma exposure Toxicological Specific Site specific Site specific Site specific
TR URF W W 8 α 9. 9. 9. 9. 0. 0.	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Molisture content Width of building Attenuation factor Air-filled soil porosity	1.805+03 286 1 0.000001 7.805-06 0.1 9.52 1000 5.520755-07 0.28 0.13	mgA "K unitless (ug/m ²) ¹ cm g water/g soil cm unitless cm3/cm3	App C Table E USEPA Users Guide 2004 SSL SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA IL EPA SSL OR J& E 18, App C Table L SSL OR J& E 18, App C Table L	Chemical Specific 286 (converted from 13 C) Res=10~6 ind/Comm=10~6 at point of huma exposure Toxicological-Specific Site specific Res=1000, ind/Comm-2000 or Site sp T3 Site specific 0.28 OR Calculated value 0.
TR URF W W ₈ α 9. 9. 9. 9. 9. 9. 9. 9.	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Moisture content Width of building Attenuation factor Air-filled soil parosity Air-filled porosity for soil in cracks Air-filled porosity of soil layer 1	1.80€+03 286 1 0.000001 7.80€-06 0.1 9.52 1000 5.52075€-07 0.28 0.13 0.13	mgA "K unitless (ug/m ¹) ¹ cm g water/g soil cm unitless cm3/cm3 cm3/cm3	App C Table E USEPA Users Guide 2004 SSL SSL LILEPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IILEPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 18, App C Table L	Chemical Specific 286 (converted from 13 C) Res=10~6 ind/Comm=10~6 at point of huma exposure Toxicological-Specific (Site specific Res=1000, ind/Comm-2000 or Site sp T3 Site specific 0.28 OR Calculated value 0. 0.13 OR Calculated value for capillary fringe
IR URF W W 2 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 1	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Molsture content Width of building Attenuation factor Air-filled soil porosity Air-filled porosity for soil in cracks Air-filled porosity of soil layer 1 Total porosity of soil in cracks	1.80€+03 286 1 0.000001 7.80€-06 0.1 9.52 1000 5.52075€-07 0.28 0.13 0.13 0.43	mgA "K unitless (ug/m ¹) ¹ cm g water/g soil cm unitless cm3/cm3 cm3/cm3 cm3/cm3	App C Table E USEPA Users Guide 2004 SSL SSL II. EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F II. EPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L	Chemical Specific 286 (converted from 13 C) Res=30~6 ind/Comm=10~6 at point of huma exposure Toxicological-Specific Converted from 2000 or Site sp T3 Site specific 0.28 OR Calculated value 0.13 OR Calculated value for capillary fringe 0.40 OL 00 0.10 000
IR JRF N	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Moisture content Wright of building Attenuation factor Air-filled soil porosity Air-filled porosity for soil in cracks Air-filled porosity of soil layer 1 Total porosity of soil in cracks Total porosity of soil layer 1	1.805403 286 1 0.0000001 7.805406 0.13 9.52 1000 5.520755607 0.28 0.13 0.13 0.43 0.43	mgA "K unitless (ug/m ¹) ¹ cm g water/g soil cm g water/g soil cm cm cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3	App C Table E USEPA Users Guide 2004 SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 16, App C Table L	Chemical Specific 286 (converted from 13 C) Res=10~6 ind/Comm=10~6 at point of hum: exposure Toxicological-Specific Site specific Res=1000, ind/Comm-2000 or Site sp T3 Site specific 0.28 OR Calculated value 0.30 OR Calculated value 0.31 OR Calculated value 0.43 or calculated value
IR URF W N 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Roor wall seam gap Moisture content Width of building Attenuation factor Air-filled porosity for soil in cracks Air-filled porosity of soil layer 1 Total porosity of soil layer 1 Total porosity of soil layer 1 Wate-filled soil porosity Wate-filled soil porosity	1.80€+03 286 1 0.000001 7.80€+06 0.1 9.52 1000 5.52075€+07 0.28 0.13 0.13 0.43 0.43	mg/L 'K unitless unitless (ug/m ³) ¹ cm g water/g soil cm g water/g soil cm cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3	App C Table E USEPA Users Guide 2004 SSL SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA ISE OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 16, App C Table L SSL OR J&E 17, App C Table L	Chemical Specific 286 (converted from 13 C) Res=10~6 ind/Comm=10~6 at point of huma exposure Toxicological-Specific (Site specific Res=1000, ind/Comm-2000 or Site sp T3 Site specific 0.28 OR Calculated value 0.13 OR Calculated value 0.43 or calculated value 0.5 or calculated value
IR URF W N 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Moisture content Wright of building Attenuation factor Air-filled soil porosity Air-filled porosity for soil in cracks Air-filled porosity of soil layer 1 Total porosity of soil in cracks Total porosity of soil layer 1	1.80€+03 286 1 0.000001 7.80€+06 0.1 9.52 1000 5.52075€+07 0.28 0.13 0.13 0.43 0.43	mgA "K unitless (ug/m ¹) ¹ cm g water/g soil cm g water/g soil cm cm cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3	App C Table E USEPA Users Guide 2004 SSL SSL II. EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F II. EPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 16, App C Table L SSL OR J&E 16, App C Table L SSL OR J&E 16, App C Table L SSL OR J&E 17, App C Table L SSL OR J&E 17, App C Table L	Chemical Specific 286 (converted from 13 C) Res=10^6 ind/Comm=10^6 at point of hum: exposure Toxicological-Specific Site specific Res=1000, ind/Comm-2000 or Site sp T3 Site specific 0.28 OR Calculated value 0.30 R Calculated value 0.31 OR Calculated value for capillary fringe 0.43 or calculated value 0.15 or calculated value 0.15 or calculated value 0.
IR URF W N 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Moisture content Width of building Attenuation factor Air-filled porosity for soil in cracks Air-filled porosity for soil in cracks Total porosity of soil layer 1. Total porosity of soil in cracks Total porosity of soil in cracks Water-filled soil porosity Water-filled porosity for soil in cracks	1.805+03 286 1 0.0000001 7.805+06 0.01 9.52 1000 5.520755-07 0.28 0.13 0.43 0.43 0.43 0.15 0.15	mg/L "K unitless (ug/m ²) ¹ em g water/g soil em g water/g soil em cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3	App C Table E USEPA Users Guide 2004 SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA J&E T OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 17, App C Table L	Chemical Specific 286 (converted from 13 C) Res=10~6 ind/Comm=10~6 at point of hum: exposure Toxicological-Specific Site specific 0.28 OR Calculated value 0.13 OR Calculated value 0.30 R Calculated value for capillary fringe 0.43 or calculated value 0.15 or calculated value 0.0.15 or calculated value 0.15 or calculated value 0.15 or calculated value 0.15 or calculated value 0.15 or calculated value, for cap fringe=0.375
IR URF W N 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Roor-wall seam gap Moisture content Width of building Attenuation factor Air-filled soil porosity Air-filled porosity for soil in cracks Air-filled porosity of soil layer 1 Total porosity of soil layer 1 Total porosity of soil layer 1 Water-filled porosity for soil in cracks Water-filled porosity for soil in cracks Water-filled porosity for soil in cracks Water-filled porosity for soil in cracks	1.805403 286 286 0.1 7.805406 0.1 9.52 10000 5.520755407 0.28 0.13 0.43 0.43 0.43 0.15 0.15	mg/L 'K unitless unitless (ug/m ³) ¹ cm g water/g soil cm g water/g soil cm cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3	App C Table E USEPA Users Guide 2004 SSL SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA ISE OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 16, App C Table L SSL OR J&E 17, App C Table L SSL O	Chemical Specific 286 (converted from 13 C) Res=10~6 ind/Comm=10~6 at point of hum; exposure Toxicological-Specific Site specific Res=1000, ind/Comm-2000 or Site sp T3 Site specific 0.28 OR Calculated value 0.33 OR Calculated value 0.43 or calculated value for capillary fringe 0,43 or calculated value 0.43 or calculated value 0.5 or calculated value 0.15 or calculated value 0.15 or calculated value, for cap fringe=0.375 OR 0.9 Θ,
IR URF W N 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Moisture content Width of building Attenuation factor Air-filled soil porosity for soil in cracks Air-filled porosity of soil layer 1 Total porosity of soil layer 1 Total porosity of soil layer 1 Water-filled porosity for soil in cracks Total porosity for soil in cracks Water-filled porosity for soil in cracks Water-filled porosity for soil in cracks Water-filled porosity for soil in cracks	1.80€+03 286 1 0.000001 7.80€-06 0.1 9.52 1000 5.52075€-07 0.28 0.13 0.13 0.43 0.43 0.43 0.45 0.15 0.15	mg/L "K unitless (ug/m ²) ¹¹ cm g water/g soil cm unitless cm3/cm3/cm3 cm3/cm3/cm3 cm3/cm3/cm3 cm3/cm3/cm3 cm3/cm3/cm3 cm3/cm3/cm3/cm3 cm3/cm3/cm3/cm3 cm3/cm3/cm3/cm3/cm3/cm3/cm3/cm3/cm3/cm3/	App C Table E USEPA Users Guide 2004 SSL SSL USEPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 16, App C Table L SSL OR J&E 16, App C Table L SSL OR J&E 17, App C Table L	Chemical Specific 286 (converted from 13 C) Res=10^6 ind/Comm=10^6 at point of hum. exposure Toxicological-Specific Site specific Res=1000, ind/Comm=2000 or Site sp T3 Site specific 0.28 OR Calculated value 0 0.33 OR Calculated value for capillary fringe 0.43 or calculated value 0.15 or calculated value 0 0.15 or calculated value, for cap fringe=0.375 0R 0.9 9, 1.5 or Calculated value
IR JRF N N 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Moisture content Width of building Attenuation factor Air-filled soil parosity Air-filled porosity for soil in cracks Air-filled porosity of soil layer 1 Total porosity of soil in cracks Total porosity for soil in cracks Water-filled porosity for soil in cracks Soil particle density Soil particle density	1.805+03 286 1 0.000001 7.805+05 0.13 9.52 1000 5.520755-07 0.28 0.13 0.13 0.43 0.43 0.43 0.43 0.45 0.15 0.15 0.15	mgA "K unitless (ug/m ¹) ¹ em g water/g soil em g water/g soil em cm cm3/cm3 em3/cm3 em3/cm3 em3/cm3 em3/cm3 em3/cm3 g/cm3 g/cm3 g/cm3	App C Table E USEPA Users Guide 2004 SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 17, App C Table L SSL OR J&E 10, App C Table L SSL OR J	Chemical Specific 286 (converted from 13 C) Ress10~6 ind/Comm=10~6 at point of hum exposure Toxicological-Specific Site specific Res=1000, ind/Comm=2000 or Site sp T3 Site specific 0.28 OR Calculated value 0 0.30 RC Calculated value for capillary fringe 0,43 or calculated value 0.43 or calculated value 0.31 GR calculated value 0.43 or calculated value 0.43 or calculated value 0.15 or calculated value 0 0.15 or calculated value, for cap fringe=0.375 0.75 or calculated value, for cap fringe=0.375
IR URF W N 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Moisture content Width of building Attenuation factor Air-filled soil porosity for soil in cracks Air-filled porosity of soil layer 1 Total porosity of soil layer 1 Total porosity of soil layer 1 Water-filled porosity for soil in cracks Total porosity for soil in cracks Water-filled porosity for soil in cracks Water-filled porosity for soil in cracks Water-filled porosity for soil in cracks	1.805+03 286 1 0.000001 7.805+05 0.13 9.52 1000 5.520755-07 0.28 0.13 0.13 0.43 0.43 0.43 0.43 0.45 0.15 0.15 0.15	mg/L "K unitless (ug/m ²) ¹¹ cm g water/g soil cm unitless cm3/cm3/cm3 cm3/cm3/cm3 cm3/cm3/cm3 cm3/cm3/cm3 cm3/cm3/cm3 cm3/cm3/cm3/cm3 cm3/cm3/cm3/cm3 cm3/cm3/cm3/cm3/cm3/cm3/cm3/cm3/cm3/cm3/	App C Table E USEPA Users Guide 2004 SSL SSL USEPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 16, App C Table L SSL OR J&E 16, App C Table L SSL OR J&E 17, App C Table L	Chemical Specific 286 (converted from 13 C) Res=10~6 ind/Comm=10~6 at point of hum exposure Toxicological-Specific Site specific Res=1000, ind/Comm=2000 or Site sp T3 Site specific 0.28 OR Calculated value 0 0.33 OR Calculated value for capillary fringe 0.43 or calculated value 0 0.35 or calculated value 0 0.15 or calculated value, for cap fringe=0.375 0R 0.9 9, 1.5 or Calculated value
TR URF W W 2 2 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Moisture content Width of building Attenuation factor Air-filled soil parosity Air-filled porosity for soil in cracks Air-filled porosity of soil layer 1 Total porosity of soil in cracks Total porosity for soil in cracks Water-filled porosity for soil in cracks Soil particle density Soil particle density	1.805+03 286 1 0.000001 7.805+05 0.13 9.52 1000 5.520755-07 0.28 0.13 0.13 0.43 0.43 0.43 0.43 0.45 0.15 0.15 0.15	mgA "K unitless (ug/m ¹) ¹ em g water/g soil em g water/g soil em cm cm3/cm3 em3/cm3 em3/cm3 em3/cm3 em3/cm3 em3/cm3 g/cm3 g/cm3 g/cm3	App C Table E USEPA Users Guide 2004 SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 17, App C Table L SSL OR J&E 10, App C Table L SSL OR J	Chemical Specific 286 (converted from 13 C) Res=10^6 ind/Comm=10^6 at point of hum: exposure Toxicological-Specific Site specific Res=1000, ind/Comm-2000 or Site sp T3 Site specific 0.28 OR Calculated value 0.33 OR Calculated value 0.43 OR Calculated value for capillary fringe 0,43 or calculated value 0.43 or calculated value 0.15 or calculated value 0.15 or calculated value 1.5 or calculated value 2.65 or calculated value
TR URF W W 2 2 8.	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Moisture content Width of building Attenuation factor Air-filled soil parosity Air-filled porosity for soil in cracks Air-filled porosity of soil layer 1 Total porosity of soil in cracks Total porosity for soil in cracks Water-filled porosity for soil in cracks Soil particle density Soil particle density	1.80€+03 286 1 0.000001 7.80€-06 0.1 9.52 1000 5.52075€-07 0.28 0.13 0.13 0.43 0.43 0.43 0.43 0.45 0.15 0.15 1.5 2.45 1	mg/L "K unitless (ug/m ²) ¹ cm g water/g soil cm unitless cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 g/cm3 g/cm3 g/cm3	App C Table E USEPA Users Guide 2004 SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 17, App C Table L SSL OR J&E 10, App C Table L SSL OR J	Chemical Specific 286 (converted from 13 C) Res=10^6 ind/Comm=10^6 at point of huma exposure Toxicological-Specific (c) Site specific Res=1000, ind/Comm=2000 or Site sp T3 Site specific 0.28 OR Calculated value 0.13 OR Calculated value for capillary fringe θ ₁₁ =0.1 θ ₁₂ 0.43 or calculated value 0.15 or calculated value, for cap fringe=0.375 OR 0.9 θ ₂ 1.5 or calculated value
IR URF W N 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Moisture content Width of building Attenuation factor Air-filled soil parosity Air-filled porosity for soil in cracks Air-filled porosity of soil layer 1 Total porosity of soil in cracks Total porosity for soil in cracks Water-filled porosity for soil in cracks Soil particle density Soil particle density	1.80€+03 286 1 0.000001 7.80€-06 0.1 9.52 1000 5.52075€-07 0.28 0.13 0.13 0.43 0.43 0.43 0.43 0.45 0.15 0.15 1.5 2.45 1	mgA "K unitless (ug/m ¹) ¹ em g water/g soil em g water/g soil em cm cm3/cm3 em3/cm3 em3/cm3 em3/cm3 em3/cm3 em3/cm3 g/cm3 g/cm3 g/cm3	App C Table E USEPA Users Guide 2004 SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA J&E T OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 17, App C Table L SSL OR Field Measurement, App C Table F IL EPA	Chemical Specific 286 (converted from 13 C) Res=10~6 ind/Comm=10~6 at point of hum: exposure Toxicological-Specific Site specific Res=1000, ind/Comm-2000 or Site sp T3 Site specific 0.28 OR Calculated value 0.33 OR Calculated value 0.13 OR Calculated value for capillary fringe 0.43 or calculated value 0.15 or calculated value 0.15 or calculated value 0.5 or calculated value 2.65 or calculated value 0.13 OR Calculated value 0.15 or calculated value 0.5 or calculated value 0.15 or calculated value 0.15 or calculated value 0.15 or calculated value 0.15 or calculated value 0.13 OR Calculated value 0.13 OR Calculated value
IR URF W N 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Roor wall seam gap Moisture content Width of building Attenuation factor Air-filled soil porosity for soil in cracks Air-filled porosity of soil layer 1 Total porosity of soil layer 1 Total porosity of soil layer 1 Water-filled soil porosity Water-filled porosity for soil in cracks Total porosity for soil in cracks Water-filled porosity for soil layer 1 Dry soil bulk density Soil particle density Density of water	1.80€+03 286 1 0.000001 7.80€-06 0.1 9.52 1000 5.52075€-07 0.28 0.13 0.13 0.43 0.43 0.43 0.43 0.45 0.15 0.15 1.5 2.45 1	mg/L "K unitless (ug/m ²) ¹ cm g water/g soil cm unitless cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 g/cm3 g/cm3 g/cm3	App C Table E USEPA Users Guide 2004 SSL SSL USEPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 16, App C Table L SSL OR J&E 17, App C Table L SSL OR Field Measurement, App C Table F IL EPA	Chemical Specific 286 (converted from 13 C) Res=10^6 ind/Comm=10^6 at point of huma exposure Toxicological-Specific (c) Site specific Res=1000, ind/Comm=2000 or Site sp T3 Site specific 0.28 OR Calculated value 0.33 OR Calculated value for capillary fringe 0.15 or calculated value 0.15 or calculated value 0.15 or calculated value, for cap fringe=0.375 OR 0.9 9, 1.5 or calculated value 0.55 or calculated value 0.15 or calculated value 0.28 Or calculated value, for cap fringe=0.375 OR 0.9 9, 1.5 or calculated value 0.50 or calculated value 0.15 or calculated value 0.30 R Calculated value 0.33 OR Calculated value
IR URF W N 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	Solubility in water Temperature Target hazard quotient Target risk Unit risk factor Roor wall seam gap Moisture content Width of building Attenuation factor Air-filled soil porosity for soil in cracks Air-filled porosity of soil layer 1 Total porosity of soil layer 1 Total porosity of soil layer 1 Water-filled soil porosity Water-filled porosity for soil in cracks Total porosity for soil in cracks Water-filled porosity for soil layer 1 Dry soil bulk density Soil particle density Density of water	1.805403 286 286 0.1 9.52 1000 5.52075540 0.13 0.13 0.13 0.13 0.15 0.15 1.5 2.45 1 1 0.0375	mg/L "K unitless (ug/m ²) ¹ cm g water/g soil cm unitless cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 g/cm3 g/cm3 g/cm3	App C Table E USEPA Users Guide 2004 SSL SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA J&E T OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 17, App C Table L SSL OR Field Measurement, App C Table F IL EPA	Chemical Specific 286 (converted from 13 C) Res=10^6 ind/Comm=10^6 at point of hum- exposure Toxicological-Specific Site specific Res=1000, ind/Comm-2000 or Site sp T3 Site specific 0.28 OR Calculated value 0.13 OR Calculated value 0.13 OR Calculated value for capillary fringe 0.43 or calculated value 0.15 or calculated value 0.15 or calculated value 0.15 or calculated value 2.65 or calculated value 0.13 OR Calculated value 0.15 or calculated value 0.15 or calculated value 0.15 or calculated value 0.15 or calculated value 0.13 OR Calculated value 0.13 OR Calculated value 0.13 OR Calculated value 0.13 OR Calculated value

•

•

							.
J&E1 IndoorairRO-carcinogenic	. ТВ	AT,	365				ł
	0.000001	70	365				
RO _{stater} *		Ø	URF	1000	•	0.009312	
	60		0.0000078	1000	Į		
1	·						1
JAE2	NA						
Jaz z Indoor air RD-non-carcinogenic	m						
JÆEB	field C	0.241 mg/m3					
J&E4		I	·				
Soil gas RO		•					
	• •			1			
RO _{jengs} =	RO	1 ¹ ' ' '					
	0.000312						
		1	5.65E+02				
	5.526-07	· .					
JAES							
Soli Vapor Saturation Limit		MW					
	9.502+01	78.11					
۲. ۲.	8 1	т	10000000	•	3 1626+09		
		<u>'</u> 1	1				
			1				
	0.08206	286					
1426	0.08206	286	·			Į –	
Groundwater RD	RO						
Circuit water no	565.07832						
AO _e =	105.01052						
	н'n	1000	•	4.22	mg/L	l i	
	1.34E-01	1000				L	
J&E7						•	
Attenuation Factor	0.*	<u> </u>	* esp	<u>0</u>	<u>L</u>		
mode of transport is diffusion and adve	ectjo _{nen} t	գ		D	Acas	I	
a.							
	0.000534	1.000 +06	•œ [0	10		
	3.595+04	142.2		5.34E-04	400		-
	lo 1	. 1				1	1
		Anan I	•	C. Curry	<u>Դ</u> ել	•	
	10, -	1000	, i	- Hereit		I	
	ि ०	10	i + F	0.000534	1.002+06	1 •	
			Ì			1	1
	0.000534	400		3.598+04	142.2		
18E8							
Attenuation Factor	0,	<u> </u>	r				
mode of transport is diffusion ordy	0.000534	1.008+06					
a •				·	·	· · · · ·	•
3	-					_	
	1+	0.00053405	1.008+06	• •	0.000534	1.00E+05	
	Ĺ	3.59E+04	152.4	l	142.2	0.000534	J
	. Ia			1	D,**		
	1+ 10	<u> </u>	<u> </u>	•	D ₁ .	<u> </u>	_
		a /	ч		L	ರಿ _{ಹು} ್	
	1-			l.	-	*ab	
							_



.

SYMBOL		VALUE	UNITS	SOURCE	Gray text - default values T1 or Calculated
~	Surface area of enclosed space	1.008+06		J&E 12a OR 12b, App C, Table L	Res=1.0E+06, Ind/Comm=4.0E+06
<u></u>	Area of total cracks		cm2	J&E14, App C TableL	Calculated Value
	Averaging time for carcinogens		year	SSL, May 1996	
AT _e	Averaging time for noncarcinogens		year	AT _{er} =ED	Res=30, Ind/Comm=25
	Soil vapor saturation limit		mg/m3-air	J&E S, App C Table L	Chemical specific or Calculated
D _{cert}	Effective diffusion coeff, through cracks	4.55E-04		J&E 15, App C Table L	Calculated Value
D,	Diffusivity in air	7.50E-02		App C Table E	Chemical Specific
0,	Effective diffusion coeff. for each soil layer	4.55E-04	cm2/s	J&E11, App C Table L	Calculated Value
					Soil Gas Contamination=152.4, Groundwater
Distance	Distance from ground surface to top of contamination	304.8	cm	Field Measurement	Contamination=304.8
D1 [#]	Total effective diffusion coefficient	4.55E-04		I&E 9, App C Table L	Calculated Value
D.,	Diffusivity in water	7.80E-06	cm2/s	App C Table E	Chemical Specific
ED	Exposure duration	30	YEAR	SSL	Res=30, Ind/Comm=25
EF	Exposure frequency	350	day/year	SSL	Res=350, Ind/Comm=250
ER	Air exchange rate		exch/hr	IL EPA	Res=0.53, Ind/Comm=0.93
	Fraction organic carbon content	0 002		SSL OR Field Measurement, App C Table F	0.002 or site-specific
<u> </u>			19-8		SOG Res=244, Ind/Comm=305 OR Site sp T3
4.	Height of building	244	-	IL EPA	Bisement Res=427, Ind/Comm=488
·····	Dimensionless Henry's Law constant	1.345-01		App C Table E	Chemical specific
i'a	Length of building	1000		IL EPA	Res=1000, Ind/Comm-2000 or Site so T3
•					nes-2000, maycorani-2000 or sitesp 13
enkå	Stab thickness		cm	USEPA Users Guide 2004	
<u>.</u>	Distance from ground surface to bottom of slab		دm	USEPA Users Guide 2004	SOG=10, Basement=200
	Thickness of soil layer i	152.4		Field Measurement, USEPA 2004	Site sp 152.4 (5 ft)/for capillary fringe, 37.5cm
.,	Distance from bottom of slab to top of contamination	142.2	cm	Field Measurement OR J&E 10, App C Table L	142.2 or Site sp (4 FT 8 IN)
www.	Molecular weight	106.17	g/mole	IL EPA	Chemical Specific
)	Total number of layers	1	unitless (layers)	Field Measurement	
, , , , , , , , , , , , , , , , , , ,	Vapor pressure	9.60E+00	atm	App C Table E	Chemical Specific
.	Building ventilation rate	3.59E+04	cm3/s	, J&E 13, App C Table L	SOG Res=3.59*10^4, Ind/Comm=3.15*10^5 (Site sp T3 Basement Res 6.28*10^4, Ind/Comm=5.04*10^5 or SST3
ā	Volumetric flow rate of soil gas into the enclosed space	0	cm3/5	USEPA Users Guide 2004	IfLT<152cm=83.33 IfLT>=152cm=0
	Idital gas constant	0.08206		USEPA Users Guide 2004	0.08
RfC		1.002+00		IL EPA TACO Toxicity Values spreadsheet	Toxicological-Specific
RO _p	Reference concentration Groundwater remediation objective	7.002-01		App B Table E OR J&E 6, App C Table L	Chemical specific or Calculated
	Indoor air remediation objective	0.000311966		J&E1 and 2, App C Table L	Calculated Value
RO _{meter}	Soli gas remediation objective	663.1199511		J&E 4, App CTable L	Calculated Value
5	Solubility In water			App C Table E	
		1.70E+02			Chemical Specific
<u> </u>	Temperature	286	٠κ	USEPA Users Guide 2004	Chemical Specific 286 (converted from 13 C)
n Ing			۰κ		286 (converted from 13 C)
	Temperature Target hazard quotient	286	°K unitless	USEPA Users Guide 2004 SSL	286 (converted from 13 C) Res=10^6 Ind/Comm=10^6 at point of huma
R	Temperature Tenget hazard quotient Tanget risk	286 1 0.000001	*K unitless unitless	USEPA Users Guide 2004 SSL SSL	286 (converted from 13 C) Res=10^6 Ind/Comm=10^6 at point of hum: exposure
R	Temperature Target hazard quotient Target risk Unit risk factor	286 1 0.000001 7.80E-06	*K unitless unitless (ug/m ³) ¹	USEPA Users Guide 2004 SSI. SSI. II. EPA TACO Taxicity Values spreadsheet	286 (converted from 13 C) Res=10~6 ind/Comm=10~6 at point of hum exposure Toxicological-Specific
R	Temperature Tenget hazard quotient Tanget risk	286 1 0.000001 7.80E-06	*K unitless unitless	USEPA Users Guide 2004 SSL SSL	286 (converted from 13 C) Res=10^6 Ind/Comm=10^6 at point of hum: exposure
IR JRF V	Temperature Target hazard quotient Target risk Unit risk factor	286 1 0.000001 7.80E-06	*K unitless unitless (ug/m ³) ¹ Cm	USEPA Users Guide 2004 SSI. SSI. II. EPA TACO Taxicity Values spreadsheet	286 (converted from 13 C) Res=10~6 ind/Comm=10~6 at point of hum exposure Toxicological-Specific
IR JRF N	Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap	286 1 0.000001 7.80€-06 0.1 9.52 1000	"K unitless (ug/m ³) ⁻¹ cm gwater/g soil cm	USEPA Users Guide 2004 SSL IL EPA TACO Taujcity Values spreadsheet USEPA Users Guide 2004 Field Massurement, App C Table F IL EPA	286 (converted from 13 C) Res=10~6 Ind/Comm=10~6 at point of hum: exposure Toxicological-Specific
TR JRF N N	Temperature Tenget hazard quotient Target risk Unit risk factor Floor wall seam gap Molsture content	286 1 0.000001 7.80E-06 0.1 9.52	"K unitless (ug/m ³) ⁻¹ cm gwater/g soil cm	USEPA Users Guide 2004 SSL SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Messaurement, App C Table F	286 (converted from 13 C) Ress10~6 Ind/Comms10~6 at point of hum. exposure Toxicological-Specific Site specific
R JRF W N _b	Temperature Terget hazard quotient Target risk Unit risk factor Floor-wall scan gap Molsture content Width of building	286 1 0.000001 7.80€-06 0.1 9.52 1000	"K unitless (ug/m ³) ⁻¹ cm gwater/gsoil cm unitless	USEPA Users Guide 2004 SSL IL EPA TACO Taujcity Values spreadsheet USEPA Users Guide 2004 Field Massurement, App C Table F IL EPA	286 (converted from 13 C) Ress10~6 Ind/Comm=10~6 at point of hum: exposure ToxicologicsI-Specific Site specific Ress1000, Ind/Comm-2000 or Site sp T3
IR JRF W W a a	Temperature Tenget hazad quotient Target risk Unit risk factor Floor-wall seam gap Molsture content Width of building Attenuation factor Attenuation factor	286 1 0.000001 7.80E-06 0.1 9.52 1000 4.70452E-07 0.28	'K unitless lug/m ¹ J ¹ cm gwater/g soil cm unitless cm3/cm3	USEPA Users Guide 2004 SSL SSL IL EPA Totaicity Values spreadsheet USEPA Users Guide 2004 Reld Measurement, App C Table F IL EPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L	286 (converted from 13 C) Ress10~6 Ind/Comms10~6 at point of hum: exposure Toxicological-Specific Site specific Ress1000, Ind/Comm-2000 or Site sp T3 Site specific 0.28 GR Calculated value
R JRF V V V 2 3,	Temperature Terget hazard quotient Target risk Unit risk factor Floor wall seam gap Melsure content Width of building Attenuation factor	286 1 0.000001 7.80E-06 0.1 9.52 1000 4.70452E-07 0 28 0.13	"K unitless unitless (ug/m ³) ⁻¹ Cm gwater/g soil cm unitless	USEPA Users Guide 2004 SSL SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Reld Measurement, App C Table F IL EPA J& E7 OR 8, App C Table L	286 (converted from 13 C) Ress10~6 Ind/Comms10~6 at point of hum. exposure Toxicological-Specific Site specific Ress1000, Ind/Comm-2000 or Site sp T3 Site specific 0.28 0R Calculated value
IR JRF W W a a	Temperature Target hazard quotient Target risk Unit risk factor Floor-wall scan gap Molsture content Width of building Attenuation factor Ar-filled soil porosity Air-filled porosity of soil in cracks	286 1 0.000001 7.80E-06 0.1 9.52 1000 4.70452E07 0 28 0.13 0.13	"K unitidess lug/m ¹ 7 ⁻¹ cm <u>E</u> water/ <u>E</u> soil cm <u>Unitidess</u> cm ³ /cm ³ cm ³ /cm ³	USEPA Users Guide 2004 SSL SSL IL EPA TACO Taxicity Values spreadsheet USEPA Users Guide 2004 Field Messaurement, App C Table F File DA I&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 18, App C Table L	286 (converted from 13 C) Res=10~6 Ind/Comm=10~6 at point of hum: exposure Toxicological-Specific Site specific Res=1000, Ind/Comm=2000 or Site sp T3 Site specific 0.28 0R Calculated value 0.13 0R Calculated value for capillary fringe θ _u =0.1 θ ₁₂
R IRF W W No 2 3. 3. 	Temperature Target hazard quotient Target risk Unit risk factor Floor-wall scam gap Molsture content Width of building Attenuation factor Air-filled soil porosity Air-filled porosity for soil in cracks Air-filled porosity of soil layer 1 Total porosity for soil in cracks	286 1 0.000001 7.80E-06 0.1 9_52 1000 4.70452E07 0 28 0.13 0.13 0.13	'K unitiess (ug/m ³) ¹ cm gwater/gsoil cm cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3	USEPA Users Guide 2004 SSL SSL LL EPA TAGES Guide 2004 Reld Measurement, App C Table F IL EPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L	286 (converted from 13 C) Ress10~6 ind/Comms10~6 at point of hum: exposure Toxicological-Specific Site specific Ress1000, ind/Comm-2000 or Site sp T3 Site specific 0.28 GR Calculated value 0.13 OR Calculated value for capillary fringe θ_{sl} =0.1 θ_{tr} 0.0
R IRF V V V 1 J, J, J, Conch La La La La La La La La La La	Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Molsture content Wildth of building Air-filled soil porosity Air-filled porosity for soil in cracks Air-filled porosity for soil in cracks Total porosity for soil in cracks Total porosity for soil layer 1 Total porosity for soil layer 1	286 1 0.000001 7.806-06 0.1 9.52 1000 4.70452E07 0.13 0.13 0.43 0.43 0.43 0.43	"K unitless (ug/m ³) ¹ cm gwater/g soil cm unitless cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3	USEPA Users Guide 2004 SSL SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA J&E 7 OR 8, App C Table L SSL OR I&E 18, App C Table L SSL OR I&E 16, App C Table L SSL OR I&E 16, App C Table L	286 (converted from 13 C) Ress10~6 ind/Comms10~6 at point of hum: exposure Toxicological-Specific Site specific Site specific 0.28 OR Calculated value 0.13 OR Calculated value 0.43 or calculated value 0.43 or calculated value
R IRF V V I I I I I I I I I I I I I	Temperature Target hazard quotient Target risk Unit risk factor Floor-wall scan gap Molsture content Width of building Atr-filled soil porosity Air-filled porosity for soil in cracks Air-filled porosity of soil layer 1 Total porosity of soil in cracks Total porosity of soil soil spre 1 Water filled soil porosity	286 1 0.000001 7.805-06 0.1 9.52 1000 4.704525-07 0.28 0.13 0.13 0.43 0.43 0.43 0.43	"K unitless (ug/m ³) ¹¹ cm gwate/g soil cm unitless cm ³ /cm ³ cm ³ /cm ³ /cm ³ /cm ³ cm ³ /cm ³	USEPA Users Guide 2004 SSL SSL IL EPA TACO Taxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F FIL EPA J&E T OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 16, App C Table L SSL OR J&E 17, App C Table L SSL OR J&E 17, App C Table L	286 (converted from 13 C) Ress10~6 ind/Comm=10~6 at point of hum exposure Toxicological-Specific Site specific Site specific Site specific 0.28 OR Calculated value 0.13 OR Calculated value for capillary fringe θ ₃ =0.1 θ ₁ , 0.43 or calculated value 0.15 or calculated value
R IRF V V I I I I I I I I I I I I I	Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Molsture content Wildth of building Air-filled soil porosity Air-filled porosity for soil in cracks Air-filled porosity for soil in cracks Yotal porosity for soil in cracks	286 1 0.000001 7.806-06 0.1 9.52 1000 4.70452E07 078 0.13 0.43 0.43 0.43 0.43 0.15	<pre>'K unitless unitless (ug/m³)¹ cm gwater/g soil cm unitless cm3/cm³ cm³/cm³ cm³/cm³ cm³/cm³ cm³/cm³ cm³/cm³</pre>	USEPA Users Guide 2004 SSL SSL IL EPA TACO Taxicity Values spreadsheet USEPA Users Guide 2004 Field Measurement, App C Table F IL EPA I& E7 OR 8, App C Table L SSL OR I& E 18, App C Table L SSL OR I& E 16, App C Table L SSL OR I& E 17, App C Table L	286 (converted from 13 C) Ress10~6 ind/Comms10~6 at point of hum exposure Toxicological-Specific Site specific Site specific 0.28 000 ind/Comm-2000 or Site sp 13 Site pecific 0.13 0R Calculated value 0 0.30 R Calculated value for capillary fringe 0.30 r calculated value 0 0.13 or calculated value 0.13 or calculated value 0.13 or calculated value 0.15 or calculated value 0 0.15 or calculated value 0 0.15 or calculated value
R IRF V V I I I I I I I I I I I I I	Temperature Target hazard quotient Target risk Unit risk factor Floor-wall seam gap Molsture content Width of building Attenuation factor Air-filled soil porosity Air-filled porosity for soil in cracks Total porosity for soil in cracks Total porosity for soil in cracks Total porosity for soil in cracks Water-filled soirs porosity Water-filled porosity for soil in cracks Water-filled porosity for soil in cracks	286 1 0.000001 7.805-06 0.1 9.52 1000 4.70452E07 0.28 0.13 0.13 0.13 0.43 0.15 0.15 0.15 0.15	"K unitiess lug/m ¹ 7 ⁻¹ cm g water/g soil cm unitiess cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3	USEPA Users Guide 2004 SSL SSL LEPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Reld Measurement, App C Table F IL EPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 17, App C Table L	286 (converted from 13 C) Ress10~6 ind/Comma10~6 at point of hum exposure Toxicological-Specific Site specific Site specific 0.28 OR Calculated value 0.13 OR Calculated value 0.13 OR Calculated value 0.13 OR Calculated value 0.13 OR Calculated value 0.15 or calculate
R IRF V V V 1 J, J, J, Conch La La La La La La La La La La	Temperature Target hazard quotient Target risk Unit risk factor Floor-wall scam gap Moisture content Width of building Attenuation factor Air-filled porosity for soil in cracks Air-filled porosity for soil in cracks Vater filled soil porosity Water filled soil porosity for soil in cracks Water filled porosity for soil in cracks	286 1 0.000001 7.80506 0.0 9.52 1000 4.70452607 0.28 0.13 0.43 0.43 0.43 0.15 0.15 0.15 1.5 0.15	'K unitiess (ug/m ³) ¹ cm (water/g soil cm (unitiess cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm g/cm3 cm g/cm3 cm g/cm3 cm g/c	USEPA Users Guide 2004 SSL SSL LL EPA TACO Toxicity Vahues spreadsheet USEPA Users Guide 2004 Reld Measurement, App C Table F LL EPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 16, App C Table L SSL OR J&E 16, App C Table L SSL OR J&E 17, App	286 (converted from 13 C) Ress10~6 ind/Comms10~6 at point of hum exposure Toxicological-Specific Site specific Ress1000, ind/Comm-2000 or Site sp T3 Site specific 0.28 OR Calculated value 0.13 OR Calculated value 0.13 OR Calculated value 0.43 or calculated value 0.15 or calculated value 0.15 or calculated value 0.15 or calculated value 0.15 or calculated value 1.5 or Calculated value 0.15 or calculated value 1.5 or Calculated value 0.15 or calculated value
R IRF V V V 1 J, J, J, Conch La La La La La La La La La La	Temperature Target hazard quotient Target risk Unit risk factor Floor-wall seam gap Molsture content Width of building Attenuation factor Air-filled soil porosity Air-filled porosity for soil in cracks Total porosity for soil in cracks Total porosity for soil in cracks Total porosity for soil in cracks Water-filled soirs porosity Water-filled porosity for soil in cracks Water-filled porosity for soil in cracks	286 1 0.000001 7.805-06 0.1 9.52 1000 4.70452E07 0.28 0.13 0.13 0.13 0.43 0.15 0.15 0.15 0.15	'K unitiess (ug/m ³) ¹ cm (water/g soil cm (unitiess cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm g/cm3 cm g/cm3 cm g/cm3 cm g/c	USEPA Users Guide 2004 SSL SSL IL EPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Field Mesaurement, App C Table F IL EPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 16, App C Table L SSL OR J&E 17, App C Table L SSL OR Field Messurement, App C Table F SSL OR Field Messurement, App C Table F	286 (converted from 13 C) Ress10~6 ind/Comma10~6 at point of hum exposure Toxicological-Specific Site specific Site specific 0.28 OR Calculated value 0.13 OR Calculated value 0.13 OR Calculated value 0.13 OR Calculated value 0.13 OR Calculated value 0.15 or calculate
R IRF V V V 1 J, J, J, Conch La La La La La La La La La La	Temperature Target hazard quotient Target risk Unit risk factor Floor-wall scam gap Moisture content Width of building Attenuation factor Air-filled porosity for soil in cracks Air-filled porosity for soil in cracks Vater filled soil porosity Water filled soil porosity for soil in cracks Water filled porosity for soil in cracks	286 1 0.000001 7.807-00 9.52 1000 4.70452E07 028 0.13 0.13 0.43 0.13 0.43 0.15 0.1	'K unitiess (ug/m ³) ¹ cm (water/g soil cm (unitiess cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm g/cm3 cm g/cm3 cm g/cm3 cm g/c	USEPA Users Guide 2004 SSL SSL LL EPA TACO Toxicity Vahues spreadsheet USEPA Users Guide 2004 Reld Measurement, App C Table F LL EPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 16, App C Table L SSL OR J&E 16, App C Table L SSL OR J&E 17, App	286 (converted from 13 C) Ress10~6 ind/Comms10~6 at point of hum exposure Toxicological-Specific Site specific Ress1000, ind/Comm-2000 or Site sp T3 Site specific 0.28 OR Calculated value 0.13 OR Calculated value 0.13 OR Calculated value 0.43 or calculated value 0.15 or calculated value 0.15 or calculated value 0.15 or calculated value 0.15 or calculated value 1.5 or Calculated value 0.15 or calculated value 1.5 or Calculated value 0.15 or calculated value
IR URF W W 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0	Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Molsture content Width of building Attenuation factor Air-filled porosity for soil in cracks Air-filled porosity for soil in cracks Total porosity for soil in cracks Soil particle density for soil and the part of the cracks Day soil built density Soil particle density Density of water	286 1 0.000001 7.80E-06 0.00 9.52 1000 4.70452E-07 0.28 0.13 0.43 0.43 0.43 0.43 0.15 0.15 0.15 1.5 2.65 1	'K unitiess (ug/m ³) ¹³ cm cm gwater/g soil cm cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 g/cm3 g/cm3 g/cm3 g/cm3	USEPA Users Guide 2004 SSL SSL IL EPA TACO Toxicity Vahues spreadsheet USEPA USEPS Guide 2004 Field Measurement, App C Table F IL EPA I&E 70 R 8, App C Table L SSL OR I&E 18, App C Table L SSL OR I&E 18, App C Table L SSL OR I&E 16, App C Table L SSL OR I&E 16, App C Table L SSL OR I&E 16, App C Table L SSL OR I&E 17, App	286 (converted from 13 C) Ress10~6 ind/Comms10~6 at point of hum exposure Toxicological-Specific Site specific Ress1000, ind/Comm-2000 or Site sp T3 Site specific 0.28 OR Calculated value 0.13 OR Calculated value 0.43 or calculated value 0.43 or calculated value 0.55 or calculated value 0.55 or calculated value 2.65 or calculated value 0.13 OR Calculated value 0.13 OR Calculated value 2.65 or calculated value 0.13 OR Calculated value
R JRF W W J J J J J J J J J J J J J J J J J	Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Molsture content Width of building Attenuation factor Air-filled porosity for soil in cracks Air-filled porosity for soil in cracks Total porosity of soil layer 1 Total porosity of soil layer 1 Water-filled porosity for soil in cracks Water-filled porosity for soil or cracks Water-filled porosity for soil and porosity Soil particle density	286 1 0.000001 7.80E-06 0.00 9.52 1000 4.70452E-07 0.28 0.13 0.43 0.43 0.43 0.43 0.15 0.15 0.15 1.5 2.65 1	'K unitiess (ug/m ³) ¹³ cm gwater/g soll cm gwater/g soll cm cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 g/cm3 g/cm3	USEPA Users Guide 2004 SSL SSL LEPA TACO Toxicity Values spreadsheet USEPA Users Guide 2004 Reld Measurement, App C Table F IL EPA J&E 7 OR 8, App C Table L SSL OR J&E 18, App C Table L SSL OR J&E 17, App C Table L SSL OR Field Measurement, App C Table F SSL OR Field Measurement, App C Table F SSL OR Field Measurement, App C Table F SSL OR J&E 18, App C Table L	286 (converted from 13 C) Ress10~6 ind/Comma10~6 at point of hum: exposure Toxicological-Specific Site specific Site specific 0.28 OR Calculated value 0.13 OR Calculated value for capillary fringe 0.28 or calculated value 0.13 OR Calculated value 0.15 or Calculated value 0.13 OR Calculated value
R JRF W W J J J J J J J J J J J J J J J J J	Temperature Target hazard quotient Target risk Unit risk factor Floor wall seam gap Molsture content Width of building Attenuation factor Air-filled porosity for soil in cracks Air-filled porosity for soil in cracks Total porosity for soil in cracks Soil particle density for soil and the part of the cracks Day soil built density Soil particle density Density of water	286 1 0.000001 7.80E06 0.0 9.52 1000 4.70452E07 0 28 0.13 0.43 0.43 0.43 0.43 0.43 0.43 0.43 0.5 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.0375	'K unitiess (ug/m ³) ¹³ cm cm gwater/g soil cm cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 cm3/cm3 g/cm3 g/cm3 g/cm3 g/cm3	USEPA Users Guide 2004 SSL SSL IL EPA TACO Toxicity Vahues spreadsheet USEPA USEPS Guide 2004 Field Measurement, App C Table F IL EPA I& E7 OR 8, App C Table L SSL OR I&E 18, App C Table L SSL OR I&E 18, App C Table L SSL OR I&E 16, App C Table L SSL OR I&E 16, App C Table L SSL OR I&E 16, App C Table L SSL OR I&E 17, App	286 (converted from 13 C) Ress10~6 ind/Comma10~6 at point of hum: exposure Toxicological-Specific Site specific Site specific 0.28 OR Calculated value 0.13 OR Calculated value for capillary fringe 0.28 or calculated value 0.13 OR Calculated value 0.15 or Calculated value 0.13 OR Calculated value

.

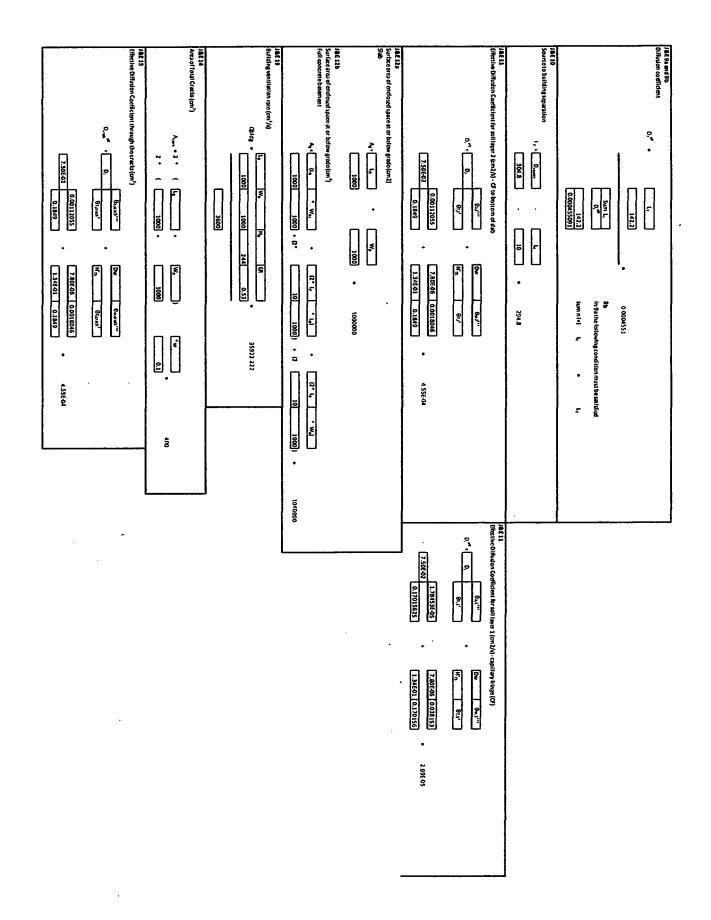
.

•

.

I&E 1 Indoor al f RO - carcinogenic fiO _{n tener} =	TR AT, 355 0.000001 70 365 0.000312 CD EF UKF 1000 30 350 0.000078 1000	
J&E 2 Undoor air RO - non-carolnogenic J&E 3	NA	
JAR4 Soilgas RO RO _{rriges} e	R0 (0.000712) 	
J&E S Soil Vapor Saturation Limit درت ه	#.70E407 #.0000000 9.50E+00 10000000 0 4.70E407	
LASG Groundwater RD RO _{ge} =	0.08206 286	5.49E+00
I&E7 Attenuation Factor mode of transport is d'ibution and advect a +		
	0.0004551 1.000+06 *exp 0 10 3.355-001 102.2 4555-001 6000 0_0	<u> </u>
Jäze Attenuation Factor Mode of transport is diffusion only O +	0.0004551 400 3.59E-04 142.2 0 142.2 0.000455 400	I
_	$1 + \begin{bmatrix} 0.000455091 & 1.001 + 06 \\ 3.551 + 001 & 152.4 \end{bmatrix} + \begin{bmatrix} 0.0004551 & 1.001 + 06 \\ 147.2 & 0.0004551 & 400 \end{bmatrix}$ $1 + \begin{bmatrix} D_1^{st} & A_{0} \\ Q_{uug} & U_{1} \end{bmatrix} + \begin{bmatrix} D_1^{st} & A_{0} \\ U_{1} & U_{1} & U_{2} \end{bmatrix} + \begin{bmatrix} D_{1}^{st} & A_{0} \\ U_{1} & U_{2} & U_{2} \end{bmatrix}$	

ŧ



	on Parameters			at RW-4/diffusion only	Gray text - used default values
MICL		VALUE	UNITS	SOURCE	T1 or Calculated
	Surface area of enclosed space	1.006+06		J&E 12a OR 12b, App C, Table L	Res=1.0E+06, Ind/Comm=4.0E+06
n	Area of total cracks		cm2	I&E14, App C TableL	Calculated Value
·	Averaging time for carcinogens	70	१९ ४	SSL, May 1996	
	Averaging time for noncarcinogens		year	AT _{re} ≖ED	Res=30, Ind/Comm=25
	Soll vapor saturation limit		mg/m3-air	J&E 5, App C Table L	Chemical specific or Calculated
d) c)	Effective diffusion coeff. through cracks	3.58E-04	cm2/s	J&E 15, App C Table L	Calculated Value
	Diffusivity in air	5.90E-02	cm2/s	App C Table E	Chemical Specific
	Effective diffusion coeff. for each soil layer	3.58E-04	cm2/s	I&E11, App C Table L	Calculated Value
	Distance from ground surface to top of contamination	304.8	-	field Measurement	Soil Gas Contamination=152.4, Groundwate Contamination=304.8
ete i	Total effective diffusion coefficient	3.585-04		J&E9, App CTableL	Calculated Value
	Diffusivity in water	7.508-06		App CTable E	Chemical Specific
					Res=30, Ind/Comm=25
	Exposure duration		year	ssi	
	Exposure frequency		day/year	SSL	Res=350, Ind/Comm=250
	Air exchange rate		exch/hr	IL EPA	Res=0.53, Ind/Comm=0.93
	Fraction organic carbon content	0.002	6/6	SSL OR Field Measurement, App C Table F	0.002 or site-specific
	Height of building		cm	IL EPA	SOG Res=244, Ind/Comm=305 OR Site sp T3 Basement Res=427, Ind/Comm=488
	Dimensionless Henry's Law constant	1.346-01		App C Table E	Chemical specific
	Length of building	1.54000		IL EPA	Res=1000, Ind/Comm-2000 or Site sp T3
	Size thickness		cm	USEPA Users Guide 2004	
a			cm cn	USEPA USEPS Guide 2004	SOG=10, Basement=200
	Distance from ground surface to bottom of slab				
	Thickness of soil layer i	152.4		Field Measurement, USEPA 2004	Site sp 152.4 (5 ft)/for capillary tringe, 37.50
	Distance from bottom of slab to top of contamination	142.2	icm .	Field Massurement OR J&E 10, App C Table L	142.2 or Site sp (4 FT 8 IN)
N 9 9 9	Molecular weight	128.1705	g/mole	ILEPA	Chemical Specific
	Total number of layers	.1	unitless (layers)	Field Measurement	
	Vapor pressure	8.50E-02	atm .	App C Table E	Chemical Specific
	Building ventilation rate	3.59E+04	em 3 Å	J&E 13, App C Table L	SOG Res=3.59°10^4, Ind/Comm=3.15°10^5 Site sp T3 Basement Res 6.28°10^4, Ind/Comm=5.04°10*5 or SST3
					IfLT<152cm=83.33 IfLT>=152cm=0
м	Volumetric flow rate of soil gas into the enclosed space		cm3/s	USEPA Users Guide 2004	ITE1<5200063.3317(1907520040
	Ideal gas constant		atm-L/mole-K	USEPA Users Guide 2004	
	Reference concentration	3.005-03	ug/m3	IL EPA TACO Toxicity Values spreadsheet	Toxicological-Specific
.	Groundwater remediation objective	0.14	անչը	App 8 Table E OR 18 E 6, App C Table L	Chemical specific or Calculated
	Indoor air remediation objective	0.000311966	mg/m3	J&E1 and 2, App C TableL	Calculated Value
مواد	Soil gas remediation objective	842.7151499	mg/m3	J&E 4, App C Table L	Calculated Value
	Solubility in water	3.105+01	me/L	App C Table E	Chemical Specific
	Temperature	286		USEPA Users Guide 2004	286 (converted from 13 C)
Q	Target hazard quotient		unitiess	SSL	
u		0.000001		551	Res=10~6 Ind/Comm=10~6 at point of hut
F	Target risk			IL EPATACO Taxicity Values spreadsheet	Taxicological-Specific
F	Unit risk factor		(ug/m³)"		Iducological-specific
	Floor-wall seam gap		cm	USEPA Users Guide 2004	
	Moisture content		g water/g soil	Field Measurement, App C Table F	Site specific
	Width of building	1000	cm.	IL EPA	Res=1000, Ind/Comm-2000 or Site sp T3
	Attenuation factor	3.70191E-07	unitless	J&E7 OR 8, App CTable L	Site specific
	Air-filled soil porosity	0.28	cm3/cm3	SSL OR J&E 18, App C Table L	0.28 OR Calculated value
-	Air-filled porosity for soil in cracks		cm3/cm3	SSL OR J&E 18, App C Table L	
					0.13 OR Calculated value for capillary fringe
	Air-filled porosity of soil layer 1		cm3/cm3	SSL OR J&E 18, App C Table L	θ ₄ =0.1 θ _U
·	Total porosity for soil in cracks		cm3/cm3	SSL OR J&E 16, App C Table L	
	Total porosity of soil layer 1		cm3/cm3	SSLOR J&E 16, App C TableL	0.43 or calculated value
	Water-filled soil porosity		cm3/cm3	SSL OR /&E 17, App C Table L	0.15 or calculated value
•	Water-filled porosity for soil in cracks	0 15	cm3/cm3	SSL OR J&E 17, App C Table L	
	Water-filled porosity for soil layer 1	0.15	cm3/cm3	SSL OR J&E 17, App C Table L For cap fringe USEPA Users Guide 2004	0.15 or calculated value, for cap fringe=0.37 OR 0.9 0-
	Dry soil bulk density	1.5	e/cm3	SSL OR Field Measurement, App C Table F	1.5 or Calculated value
	Soll particle density		e/cm3	SSL OR Field Measurement, App C Table F	2.65 or calculated value
			g/cm3	IL EPA	
	Density of water	ł	IVero	1597	
	1				0.13 OR Calculated value for capillary fringe
	Air-filled porosity of soil layer 1 ⇒ CAP FRINGE	0.0375	cm3/cm3	SSL OR J&E 18, App C Table L	θ ₄ ,=0.1 θ _τ ,
				SSL OR J&E 17, App C Table L For cap fringe USEPA Users Guide	
				2004	
<u>. </u>	Water-filled porosity for soll layer 1 => CAP FRINGE		cm3/cm3 cm3/cm3	2004 SSL OR J&E 16, App C Table L	OR 0.9 8,

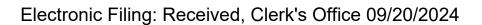
•

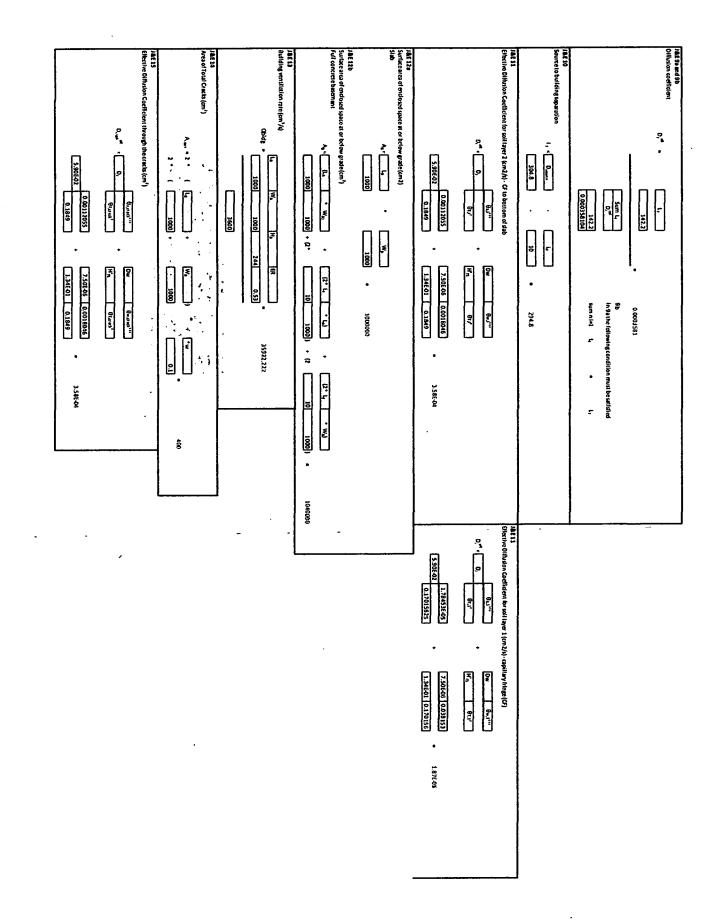
.

I&E 1 Indoor al r RO - carcinogenic PO _{stamp} =	0.000001 70 EF	365 385 - ₽ 0.000312 URF 1000 100078 1000	
J&E2 Indoor air RO-non-carcinogenic	NA	······································	
18E3	Field 0.241 mg/m3		
JAE4 Soil gas RO RO _{nder} =	a	.432+02	
JAE S	3.705-07		
Soli Vapor Saturation Limit Cu ¹⁸ #	P MW 8.50E-02 128.1705 8 T 10	000000D = 4542046.2	
	0.03206 286		6.985+00
J&E6 Groundwater RO RO _{pr} =	RO	■ 6.29 mg/L	1
18.E7 Attenuation Factor mode of transport is diffusion and adve rz -	0 <mark>,‴ A₀ </mark> * 0 Q ₁₄₁₃ Lr	720 Q _{md} L _{rms} D ₀₀₀ A _{ma}	
	0.0003581 1.00E+06 3.59E+04 142.2	erp 0 10 3.58E-04 400	= #DIV/01
-	Quant Least D, ar Acast	• [D ₁ ^{ef} A ₀] • [D ₁ ^{ef} A ₀] • cop[Q ₁₀₀ L _{cox}] -1 [Q ₁₀₀ L ₁] [D ₁ ^{eff} A ₀₀] -1	
	0 10	• 0.0003581 1.00E+06 + 0.0003581 1.00E+06 * exp 0 10 -1 3.59E+04 142.2 0 142.2 0 142.2 0.000358 400	
JAE 6 Attenuation Factor mode of transport is diffusion only g =		ÖHBRÉ, MISSING DEVOMINATOR JULATION IN 949 FIXEO, EQN NEEDS TO REFLECT CORRECTION = 3.706-07	
	1+ 0.000358104 1 3.59E+04	.00€+05 + 0.0003551 1.00€+06 10 152.4 142.2 0.0003561 400	
	1+ Dr ^{at} A ₀	+ D,* A Lunc	

-

• .





c Filing: F	Received, C	Clerk's Office 09/20/2024 0430905825 - DuPage County
<i>i</i>		West Chicago Park District

Resource Consulting, Inc.

Electroni

115 Campbell Street/Suite 108

P.O. Box 123

Geneva, Illinois 60134

Incident # 980814

Leaking UST Technical File

Phone: (630)232-9820

RECEIVED

DEC 1 5 2022

IEPA/BOL

November 15, 2022

Mr. Eric Kuhlman Illinois Environmental Protection Agency Bureau of Land – No. 24 Leaking Underground Storage Tank Section 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276

RE: LPC No. 0430905825 – DuPage County West Chicago/West Chicago Park District – Reed Keppler Park 250 West National Street Leaking UST Incident No. 980814

Corrective Action Completion Report

Dear Mr. Kuhlman:

On behalf of the West Chicago Park District, Resource Consulting, Inc. has prepared this comprehensive Corrective Action Completion Report (CACR) for the Illinois Environmental Protection Agency (EPA) for the above-referenced incident. At the request of the Illinois EPA, the report summarizes all of the project work that occurred between the corrective actions completed in 2013 and the present.

Included are the results of the assessment of the indoor inhalation exposure route. The exclusion of the groundwater ingestion exposure route was completed with the assistance of the Illinois EPA project manager previously assigned to this incident.

The West Chicago Park District requests that the Illinois EPA review the contents of this Corrective Action Completion Report to determine the technical adequacy of its findings and conclusions. The municipal ordinance enacted by the City of West Chicago also appears to require review by the Illinois EPA; it is not listed as approved on the Illinois EPA website. All of the information supports the issuance of the incident's No Further Remediation (NFR) letter.

1

PPA-DIVISION OF RECORDS MANAGEMEN

JUL 13 2023 REVIEWER: ENNI

Please contact our office with any questions or comments regarding this submission, or if we can be of assistance in any other way.

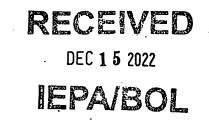
2

Sincerely,

Daniel J. Horvath Hydrogeologist/Senior Project Manager

Enclosure:

Corrective Action Completion Report



RESOURCE CONSULTING, INC.

0430905825 – DuPage County West Chicago Park District Incident # 980814 Leaking UST Technical File

CORRECTIVE ACTION COMPLETION REPORT

West Chicago Park District Reed-Keppler Park Maintenance Garage 250 West National Street West Chicago, Illinois

Leaking UST Incident No. 980814 LPC No. 0430905825

RECEIVED DEC 1 5 2022

IEPA/BOL

IEPA-DIVISION OF RECORDS MANAGEMENT RFLEASABLE

> JUL 1 3 2023 REVIEWER: EMI

000305

Resource Consulting, Inc.

CORRECTIVE ACTION COMPLETION REPORT

West Chicago Park District Reed-Keppler Park Maintenance Garage 250 West National Street West Chicago, Illinois

Leaking UST Incident No. 980814 LPC No. 0430905825

Prepared for:

West Chicago Park District 201 West National Street West Chicago, Illinois 60185

Prepared by:

Daniel J. Horvath, PG Hydrogeologist/Project Manager

Resource Consulting, Inc. 115 Campbell Street, Suite 108 P.O. Box 123 Geneva, Illinois 60134 (630)232-9820 RECEIVED DEC 1 5 2022

November 15, 2022

IEPA-DIVISION OF RECORDS MANAGEMENT RELEASABLE

> JUL 1 3 2023 REVIEWER: EM1⁰³⁰⁶

Resource Consulting, Inc.

TABLE OF CONTENTS

A .	Sit	e Identification1
B.	Sit	e Information
C.	Re	medial (Corrective) Action
	1.	An executive summary that identifies the overall objectives of the corrective action and the technical approach utilized to meet those objectives. The summary shall contain the following information:
		a. A brief description of the site, including but not limited to a description of the release, the applicable indicator contaminants, the contaminated media, and the extents of soil and groundwater contamination that exceeded the most stringent Tier 1 remediation objectives
		b. The major components (e.g., treatment, containment, removal) of the corrective action
		c. The scope of the problems corrected or mitigated by the corrective action
		d. The anticipated post-corrective action uses of the site and areas immediately adjacent to the site
	2.	A description of the corrective action activities conducted including:
	•	a. Project narrative and documentation of field activities
		b. Soil boring logs and monitoring well construction diagrams 10
	3.	A narrative description of any special conditions relied upon as part of corrective action including.
		a. Engineered barriers utilized
	•	i. Type of barrier(s); and
		ii. Map showing location(s) and dimension(s) of barrier(s);
		b. Institutional controls utilized
		 i. Copy of fully executed institutional control(s); and ii. Map showing location(s) of controls;
	•	
		c. Other conditions, if any, necessary for protection of human health and safety and the environment that are related to the issuance of a No Further Remediation Letter
		d. Any information required regarding off-site access
	4.	An analysis of the effectiveness of the corrective action that compares the confirmation sampling results to the remediation objectives approved for the site
	5 .	A conclusion that identifies the success in meeting the remediation objectives approved for the site
÷	6.	Appendices containing references and data sources

RESOURCE CONSULTING, INC.

TABLE OF CONTENTS cont.

7.	Th	e water supply well survey	12
8.	Sit	e map(s) meeting the requirements of 35 Ill. Adm. Code 732.110(a) or 734.440	13
9.	De	velopment of Tier 2 or 3 remediation objectives, if applicable:	
	a.	Equations used	13
	b.	Discussion of how input variables were determined	13
	C.	Map(s) depicting distances used in equation	14
	d.	Calculations	14
10.	Pro	operty Owner Summary form	14

TABLES

I.	Analytical Summary – BTEX and MTBE in Soil Gas Sample	. 4
П.	Analytical Summary – BTEX and PNAs in Groundwater Sample	. 6
Ш.	Analytical Summary - BTEX and PNAs in Groundwater Sample	. 7
IV.	Analytical Summary – BTEX and PNAs in Groundwater Sample	. 9
V.	Remediation Objectives Summary	14

APPENDICES

- A Figures
- B Budget Amendment
- C Laboratory Reports
- D Indoor Inhalation Evaluation
- E Groundwater Ordinance
- F Illinois EPA Forms

RESOURCE CONSULTING, INC.

Illinois Environmental Protection Agency Leaking Underground Storage Tank Program Corrective Action Completion Report

A. Site Identification

IEMA Incident # (6- or 8-digit):980814Illinois EPA LPC#:0430905825Site Name:West Chicago Park District/Reed Keppler ParkSite Address (Not a P.O. Box):250 West National StreetCity:West ChicagoCounty:DuPageZIP Code:60185Leaking UST Technical FileSite AddressSite AddressSite AddressSite Address

X.

B. Site Information

- 1. Has a Corrective Action Plan been approved?
 No

 Date of approval letter:
 N/A
- 2. This completion report is being submitted pursuant to:

a. 35 Ill. Adm. Code 731.166

b. 35 Ill. Adm. Code 732.300(b)

c. 35 Ill. Adm. Code 732.404

d. 35 Ill. Adm. Code 734.345

3. Method of remediation chosen:

- a. Soil Excavation and disposal of contaminated soil
- b. Groundwater Physical removal of free product; Pathway Exclusion

4. . Quantity of contaminated media remediated and/or recovered:

- a. Soil 215 yds³ (321.52 tons)
- b. Groundwater 4,000 gals
- c. Free Product unknown (remaining product removed with soil)

1

Resource Consulting, Inc.

C. Remedial (Corrective) Action

1. Executive Summary

The project's Corrective Action Completion Report (CACR) was originally submitted to the Illinois Environmental Protection Agency (EPA) in July 2013. The CACR was rejected in correspondence dated September 17, 2013, in which the Illinois EPA directed the Park District to assess the then recently adopted indoor inhalation exposure route, to revise the provided Tiered Approach to Corrective Action Objectives (TACO) calculations for the groundwater ingestion exposure route, and for the appropriate forms to be submitted.

Resource Consulting prepared and submitted a Technical Summary to the Illinois EPA in June of 2019. This document summarized project activities that occurred between the submission of the 2013 CACR and the resumption of project activities at the time of the submission. These activities included the 2014 soil gas sampling in response to the CACR rejection, related review and evaluation of these results with the client and the Illinois EPA, and the subsequent 2017 groundwater sampling.

In July 2020, additional project documentation was submitted that officially addressed the Agency's concerns with the 2013 CACR with the exception of the assessment of the indoor inhalation exposure route. The evaluation of this exposure route was presented to the Illinois EPA in the 2021 submission and is further evaluated in this report.

All of these activities were approved by the Illinois EPA for technical adequacy and are eligible for reimbursement.

a. A brief description of the Site:

The West Chicago Park District reported incident no. 980814 in April 1998 for releases from 2 underground storage tanks (USTs) located at the Park District's maintenance garage at Reed-Keppler Park. The layout of the park and the location of the garage at the time are shown on Figure 1 in Appendix A. The current layout of Reed Keppler Park in the region of the UST release is shown on Figure 2. The maintenance garage and shooting range areas have been replaced by new construction. Figure 3 displays the former layout including the locations of select project features. Figure 4 shows the locations of sampling points RW-4A and RW-4B.

The incident was reported following the identification of petroleum contamination in the soil and groundwater below the Site during the installation of soil borings in the vicinity of the USTs in April 1998. Upon the removal and inspection of the USTs in October 1998, it was determined that the incident was caused by one or more overfills of the UST systems during their period of use. The USTs had

2

<u>Resource Consulting, Inc.</u>

contained unleaded gasoline and diesel fuel so the indicator contaminants for the incident are benzene, toluene, ethylbenzene, and total xylenes (BTEX) and polynuclear aromatic hydrocarbons (PNAs).

Resource Consulting collected a significant number of soil and groundwater samples for the project between 1999 and 2019 to aid in determining the degree and extent of soil contamination, groundwater contamination, and free product resulting from the release. Figure 3 in Appendix A displays the inferred extent of free product, soil contamination, groundwater contamination, and the extent of the 2013 corrective actions. Since the completion of the perimeter monitoring wells in 2002, no significant migration of the contamination has been observed.

b. The major components of the corrective action:

The corrective actions have entailed the removal of the USTs present, the excavation and disposal of contaminated soil and backfill material, the removal of all free product from the subsurface, and the evaluation of the remaining site conditions using the methods referred to as TACO outlined in 35 III. Adm. Code Part 742.

c. The scope of the problems corrected or mitigated by the corrective action:

The corrective actions addressed all of the remaining project concerns—soil contamination, groundwater contamination, and the presence of free product. The contents of this CACR demonstrate that the Illinois EPA can issue the No Further Remediation (NFR) letter for the incident.

d. The anticipated post-corrective action uses of the Site and areas immediately adjacent to the Site:

Reed-Keppler Park is a public facility operated by the West Chicago Park District and owned by the City of West Chicago, Illinois. The park is currently and will continue to be the site of various playing fields, a public pool, a picnic area, and other amenities.

2. Description of Corrective Action Activities

Field activities performed following the rejection of the 2013 CACR are detailed below including a narrative of the field activities and summaries of the analytical data.

a. Project narrative and documentation of field activities:

Prior corrective actions at the Site consisted of the removal of the USTs, the excavation and disposal of contaminated backfill material, periodic manual free product removal, and free product and

contaminated soil removal through excavation and disposal. These actions were documented in previous reporting to the Illinois EPA.

In 2013, the contaminated soil that contained the remaining free product as well as concentrations of BTEX and PNAs that exceeded a number of the Illinois EPA's Tier 1 remediation objectives (ROs) was excavated and disposed of at a properly licensed Illinois waste disposal facility. Through the removal of this contamination, the persisting free product on the water table in the smear zone was addressed, and the threat to potential exposed populations was eliminated.

Summaries of project activities since the 2013 corrective actions are presented below. Soil, soil gas, and groundwater quality data collected during these activities are included in the relevant sections. Details of the sample collection information, preservation and laboratory procedures were presented in previous reporting for the project.

i. Project Activities 2014 - 2017

As described in the September 2013 Illinois EPA correspondence rejecting the CACR dated June 2013, the indoor inhalation exposure route required evaluation. The Illinois EPA project manager at the time, Carol Hawbaker, agreed that the work described in the following section meets the needs of the exposure route evaluation.

A soil gas sample was collected on August 26, 2014, from the area of RW-4A according to the requirements described in 35 III. Adm. Code 742.227. A copy of the laboratory analysis report is included in Appendix A. The results of the soil gas analysis are shown in the following table.

	Table I Laboratory Analytical Su BTEX & MTBE in Soil Gas (values in mg/m ³)	Sample	
Sampling Date	August 26, 2014	Indoor Inha Remediation O	
Sample ID	RW-4B	Residential	Industrial/ Commercia
Benzene	1.1	0.37	2.8
Toluene	0.068	6,200	40,000
Ethylbenzene	0.120	1.3	9.3
Total Xylenes	5.8	140	840
Methyl tert-butyl ether (MTBE)	0.039	3,700	24,000
TEXT	Concentration exceeds Illin	ois EPA remediation objec	tive.
TEXT	Remediation objective exce	eeded in sample.	

The analytical results indicated that the concentration of benzene exceeded its Tier 1 Residential Indoor Inhalation RO.

While the response to these results was evaluated, significant work continued on designing and enacting the project's potable well prohibition ordinance. This work included discussions with Park District and City officials, determining the scope of the ordinance region with the Illinois EPA, and the development of a map of the ordinance area using State Planar Coordinates as required. These costs are included in the project's budget presented in Appendix B. The ordinance was enacted by the City of West Chicago in March 2015 and submitted to the Illinois EPA for review, comment and approval in July 2020; its current status is unknown.

The project was re-evaluated in early 2017 by the Park District with the assistance of Resource Consulting. In electronic correspondence dated June 7, 2017, Ms. Hawbaker gave Resource Consulting permission to resample monitoring well RW-4A to determine if updated groundwater quality data would meet the residential indoor inhalation RO.

Resource Consulting, Inc. visited the Site on July 24, 2017, to resample monitoring well RW-4A. Development and purging of the well entailed the removal of at least 5 gallons of groundwater, equivalent to approximately 5 casing volumes, from the well. Additional sampling details can be found in the previously submitted documents.

A discrete sample was collected from the monitoring well, placed on ice, and submitted with chainof-custody documentation to First Environmental Laboratories, Inc. of Naperville, Illinois. The samples underwent analysis for the presence of BTEX and PNAs. Copies of the laboratory results and chain-of-custody information have been included in Appendix C.

The table below displays the analytical results from the 2017 sampling event and compares them to the Tier 1 ROs found 35 III. Adm. Code Part 742.

Table II Laboratory Analytical Summary BTEX and PNAs in Groundwater Sample (values in mg/kg)					
Sampling Date	July 24, 2017	Illinois EPA Remediation Objectives			
		Indoor Inhala	tion/Groundwater		
Sample ID	RW-4A	Residential	Industrial/ Commercial		
Benzene	0.241	0.11	0.41		
Toluene	< 0.005	530	530		
Ethylbenzene	0.0202	0.37	1.4		
Total Xylenes	0.0217	30	93		
Acenaphthene	< 0.01	NA	NA		
Acenaphthylene	< 0.01	NA	NA		
Anthracene	< 0.05	NA	NA		
Benzo(a)anthracene	< 0.0013	NA	NA		
Benzo(a)pyrene	< 0.0002	NA	NA		
Benzo(b)fluoranthene	< 0.00018	NA	NA		
Benzo(k)fluoranthene	< 0.00018	NA	NA		
Benzo(ghi)perylene	< 0.0004	NA	NA		
Chrysene	< 0.0015	NA	NA		
Dibenzo(ghi)anthracene	< 0.0003	NA	NA		
Fluoranthene	< 0.002	NA	NA		
Fluorene	< 0.002	NA	NA		
Indeno (1,2,3-cd)pyrene	< 0.0003	NA	NA		
Naphthalene	< 0.01	0.075	0.32		
Phenanthrene	< 0.005	NA	NA		
Pyrene	< 0.002	NA	NA		
Text	Concentration exce	eds Illinois EPA rem	ediation objective.		
Text	Remediation object	tive exceeded by grou	undwater concentra		

The data in the above table show that benzene was still present in monitoring well RW-4A in July 2017, exceeding the indoor inhalation RO for residential properties.

ii. Project Activities 2019

With the approval of the recently assigned Illinois EPA project manager, Eric Kuhlman, Resource Consulting, Inc. returned to the Site on July 3, 2019, to resample monitoring well RW-4A. The parking lot had been paved, and the monitoring well was no longer accessible. Resource Consulting returned to the Site on August 2, 2019, to install and sample a temporary monitoring well, designated MW-4B. The well was installed and sampled by Johnson Probing, Inc. of Batavia, Illinois in accordance with standard industry protocols.

A discrete groundwater sample and a soil sample were collected during the well installation process. The soil sample was collected from the stratum just above where saturated conditions were encountered. The samples were placed on ice and submitted with chain-of-custody documentation to First Environmental Laboratories, Inc. The soil sample underwent analysis to determine its bulk density and moisture content. The groundwater samples underwent analysis for the presence of BTEX and PNAs. Copies of the laboratory results and chain-of-custody information have been included in Appendix C.

Groundwater Quality/Indoor Ingestion

The table below displays the analytical results from the sampling event and compares them to the Tier 1 Indoor Inhalation RO found 35 III. Adm. Code Part 742.

В	Table Laboratory Analy TEX and PNAs in Gr (values ir	tical Summary oundwater Sample		
Sampling Date	August 2, 2019	Illinois EPA Remediation Objectives		
		Indoor Inhalation / Groundwater		
Sample ID	RW-4B	Residential	Industrial/ Commercial	
Benzene	0.386	0.11	0.41	
Toluene	< 0.050	530	530	
Ethylbenzene	3.160	0.37	1.4	
Total Xylenes	6.540	30	93	
Acenaphthene	< 0.01	NA	NA	
Acenaphthylene	< 0.01	NA	NA	
Anthracene	< 0.05	NA	NA	
Benzo(a)anthracene	0.00267	NA	NA	
Benzo(a)pyrene	0.0016	NA	NA	
Benzo(b)fluoranthene	0.00170	NA	NA	
Benzo(k)fluoranthene	0.00157	NA	NA	
Benzo(ghi)perylene	< 0.010	NA	NA	
Chrysene	0.0023	NA	NA	
Dibenzo(a,h)anthracene	< 0.0003	NA	NA	
Fluoranthene	< 0.010	NA	NA	
Fluorene	< 0.010	NA	NA	
Indeno(1,2,3-cd)pyrene	0.0008	NA	NA	
Naphthalene	1.380	0.075	0.32	
Phenanthrene	< 0.010	NA	NA	
Pyrene	< 0.010	NA	NA	
TEXT	Concentration exceeds Illinois EPA remediation objective.			
TEXT	Remediation object	ive exceeded by gro	undwater concentration	

The data in the above table show that benzene, ethylbenzene, and naphthalene are present in monitoring well RW-4B exceeding the Tier 1 indoor inhalation ROs for residential properties. A map of the project area is included in Appendix A.

In response to the exceedances, indoor air inhalation ROs have been calculated using the Johnson and Ettinger (J&E) modeling approach presented in 35 III. Adm. Code 742. The model's input parameters, equations, and results are presented in Appendix D. Further discussion of the evaluation is presented in a subsequent section of this report.

Groundwater Quality/Groundwater Ingestion

Upon further review of the August 2019 groundwater quality data, it was noted that certain PNAs in the latest dataset exceed the Tier 1 RO for groundwater ingestion for the first time. The TACO evaluation demonstrating that the groundwater exposure route has been excluded for BTEX was included in previous reporting including the July 2020 technical update. A discussion of the recently detected PNA concentrations follows.

The table below displays the analytical results from the sampling event and compares them to the Tier 1 Groundwater ROs found 35 Ill. Adm. Code Part 742.

	Table IV boratory Analytical Sum and PNAs in Groundwate (values in mg/L)		
Sampling Date	August 2, 2019	Illinois EPA Remediation Objectives	
Sample ID	RW-4B	Class I Groundwater	
Benzene	0.386	0.005	
Toluene	< 0.050	1.0	
Ethylbenzene	3.160	0.7	
Total Xylenes	6.540	10.0	
Acenaphthene	< 0.010	0.42	
Acenaphthylene	< 0.010		
Anthracene	< 0.010	2.1	
Benzo(a)anthracene	0.00267	0.00013	
Benzo(a)pyrene	0.0016	0.0002	
Benzo(b)fluoranthene	0.00170	0.00018	
Benzo(k)fluoranthene	0.00157	0.00017	
Benzo(ghi)perylene	< 0.010		
Chrysene	0.0023	0.0015	
Dibenzo(a,h)anthracene	< 0.0003	0.0003	
Fluoranthene	< 0.010	0.28	
Fluorene	< 0.010	0.28	
Indeno(1,2,3-cd)pyrene	0.0008	0.00043	
Naphthalene	1.380	0.14	
Phenanthrene	< 0.010		
Pyrene	< 0.010	0.21	
TEXT	Concentration exceeds Illinois EPA remediation objective.		
TEXT	Remediation objective exceeded by soil concentration.		

The data in the above table show that benzene, ethylbenzene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(k)fluoranthene, chrysene, and naphthalene are present in monitoring well RW-4B exceeding the groundwater ROs for Class I groundwater.

Over the course of this project, the PNAs detected in the most recent groundwater sample were not present. The detections, while exceeding the Tier 1 ROs for these substances, do not appear to be of sufficient magnitude to migrate a distance greater than the current ordinance dimensions of 850 feet to the east and south. The ordinance was provided to the Illinois EPA in project correspondence dated July 15, 2020. A copy of this ordinance can be found in Appendix E.

The conclusion that the ordinance dimensions are sufficient to exclude the groundwater ingestion exposure route for PNAs is based on the following:

• The benzene concentrations in the soil and groundwater and the naphthalene concentration in the soil modeled for the project in previous project documentation and approved by the Illinois EPA significantly exceed the recent detections of PNAs in groundwater.

 Due to its physical and chemical properties, benzene has the greatest potential for migration of the contaminants of concern for gasoline and diesel fuel releases other than methyl tertiary-butyl ether (MTBE). Therefore, the results of the benzene modeling used for the ordinance design addresses the potential migration of the PNAs.

- Prior groundwater monitoring during the course of this project demonstrated that, although the modeling indicates that benzene could migrate up to 850 feet from the source area, it had not traveled more than 100 feet from 1998 to 2009. Since that time, the source area has been remediated through the removal of contaminated soil and free product.
- b. Soil boring logs and monitoring well construction diagrams:

All of the project's soil boring logs and well construction diagrams were provided in prior reporting.

- 3. A narrative description of any special conditions relied upon as part of corrective action including:
- a. Engineered barriers utilized:

No engineered barriers are required for this incident.

- b. Institutional controls utilized:
 - i. Copy of fully executed institutional control(s); and
 - ii. Map showing location(s) of controls.

In order for the NFR letter to be issued for this leaking UST incident, a well prohibition ordinance has been enacted for the project with the input and approval of the Leaking UST Program. In accordance with 35 Ill. Adm. Code Section 742.1005, the NFR letter citing these conditions will then act as the institutional control for these project requirements.

Resource Consulting, Inc.

C.

The exposure route evaluation presented in the 2013 CACR demonstrated that groundwater ingestion can be excluded as a potential exposure route. The groundwater ordinance, originally submitted in the 2020 CACR, is again provided in Appendix E of this report.

Other conditions, if any, necessary for protection of human health and safety and the environment that are related to the issuance of a No Further Remediation Letter:

No other conditions would apply to a request for the incident's NFR letter once the groundwater ingestion and indoor inhalation exposure routes are addressed.

d. Any information required regarding off-site access.

No information is required regarding off-site access at this time. Following the approval of this report, the Commonwealth Edison Company and the Forest Preserve District of DuPage County will be notified of the potential presence of petroleum contamination below their parcels based on the modeling results in accordance with the TACO regulations. All other parcels within the modeled extent of the groundwater contamination are owned by the City of West Chicago.

4. An analysis of the effectiveness of the corrective action that compares the confirmation sampling results to the remediation objectives approved for the site:

Status of Groundwater Contamination

The exceedances of the Tier 1 groundwater ROs presented earlier in this report are addressed through the enactment of a municipal ordinance prohibiting the installation and use of potable water supply wells in a relevant portion of the City, exposure route evaluations of the current Site conditions, and the exclusion of the groundwater ingestion and indoor inhalation exposure routes.

An ordinance has been enacted by the City of West Chicago that prohibits the installation and use of water supply wells in a portion of the City. It encompasses the modeled extent of potential groundwater contamination emanating from this contaminated area, thus effectively preventing exposure to the current and future potential areas of groundwater contamination. The completed ordinance is provided in Appendix E for review and approval by the Illinois EPA.

11

5. A conclusion that identifies the success in meeting the remediation objectives approved for the site:

The evaluation of the project's soil, groundwater, and soil gas data demonstrates that the requirements of the Illinois Leaking UST Program have been met. Upon the acceptance by the Illinois EPA of the ordinance enacted by the City of West Chicago prohibiting the use of potable groundwater supply wells in a limited region of the City, the Site's NFR letter can be issued.

6. Appendices containing references and data sources:

Appendices containing references and data sources are included with this report. A list of the appendices and their contents is included in the Table of Contents at the start of this report.

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;
- b. Map(s) showing regulated recharge areas and wellhead protection areas;
- c. Map(s) showing the current extent of groundwater contamination exceeding the most stringent Tier 1 remediation objectives;
- d. Map(s) showing the modeled extent of groundwater contamination exceeding the most stringent Tier 1 remediation objectives;
- e. Table(s) listing the setback zones for each community water supply well and other potable water supply wells;
- 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
- g. A certification from a Licensed Professional Engineer or Licensed Professional Geologist that the survey was conducted in accordance with the requirements and that the documentation submitted includes the information obtained as a result of the survey (certification of this report satisfies this requirement):

In electronic correspondence on January 19, 2011, the Illinois EPA project manager for the incident, Ms. Carol Hawbaker, confirmed that the well survey conducted previously for this project was sufficient to meet the reporting requirements of this section. No additional research or evaluation was conducted.

Resource Consulting, Inc.

8. Site map(s) meeting the requirements of 35 Ill. Adm. Code 732.110(a) or 734.440:

All of the required site maps for this report are included in Appendix A.

9. Development of Tier 2 or 3 remediation objectives, if applicable:

Resource Consulting has prepared Exposure Route Evaluations for the groundwater ingestion and indoor inhalation exposure routes.

a. Equations used:

Groundwater Contamination

The groundwater contamination was evaluated using Equation R26 and its related equations in accordance with 35 Ill. Adm. Code Part 742 Subpart C: Exposure Route Evaluations. Contamination in the form of benzene and ethylbenzene is present in the groundwater that requires this evaluation. These calculations were presented in the project's 2020 submission that included the variable corrections made by the Illinois EPA in prior rejections.

The indoor inhalation route was evaluated using the relevant J&E equations in accordance with 35 III. Adm. Code Part 742 Subpart C: Exposure Route Evaluations. These calculations are presented in Appendix D.

b. Discussion of how input variables were determined:

The input variables used in the exposure route evaluations were determined in accordance with the guidance that the Illinois EPA has provided over the years on similar projects. The sources of the values meet the requirements of 35 Ill. Adm. Code Part 734 and the Leaking UST Section's requirements to maintain reimbursement eligibility for TACO evaluations. Default values of the variables were used when experience has shown the values are acceptable to the Illinois EPA. Site-specific variable values are used where necessary to ensure that the most accurate results are obtained from the evaluation.

Discussion of the values for variables related to past field activities, e.g., *in situ* hydraulic conductivity and the soil's organic carbon content (f_{oc}), was included in previous reporting to the Illinois EPA. Specifically, the hydraulic conductivity evaluation was included in the May 2003 CACR, and the other site-specific data were presented in the August 2006 CAP amendment. It is also noted that the Illinois EPA requested clarification of some of the soil property data; Resource Consulting addressed the Illinois EPA's concerns in the 2009 CAP amendment approved for the Site activities summarized in this CACR.

13

Resource Consulting, Inc.

c. Map(s) depicting distances used in equations:

Maps depicting distances on the Property are not relevant to the Indoor Inhalation exposure route. The project's 2020 submission includes this information for the groundwater ingestion route.

I. Calculations:

The J&E calculations for the exclusion of the Indoor Inhalation exposure route is presented in Appendix D. The documentation includes tables summarizing the input data and the equations completed with the input data.

While the majority of the water level data indicates that groundwater is greater than 5 feet below the surface, some of the measurements were less than 5 feet in depth during the course of the project. Therefore, the evaluation includes both advection and diffusion transport mechanisms.

The following table summarizes the substances whose detections exceed the Tier 1 ROs for the indoor inhalation exposure route and their respective Tier 2 ROs.

•	Remediation BTEX and PNAs in Soil	Table V Objectives Summary I Gas & Groundwater Sampl Ies in mg/L)	es
Chemical	Data of Concern	Detected Concentration	Tier 2 Remediation Objective
e 755111	Soil gas	1.1 mg/m ³	14.04 mg/m ³
Bênzênê	Groundwater	0.386 mg/L	0.104 mg/L
Ethylbenzene	Groundwater	3.16 mg/L	396.34 mg/L
Naphthalene	Groundwater	1:38 mg/L	2.86 mg/L

The information in the above table demonstrates that the concentrations of benzene, ethylbenzene and naphthalene detected are below their respective calculated remediation objectives. All of the J&E model calculations for this analysis are included in Appendix D.

10. Property Owner Summary form:

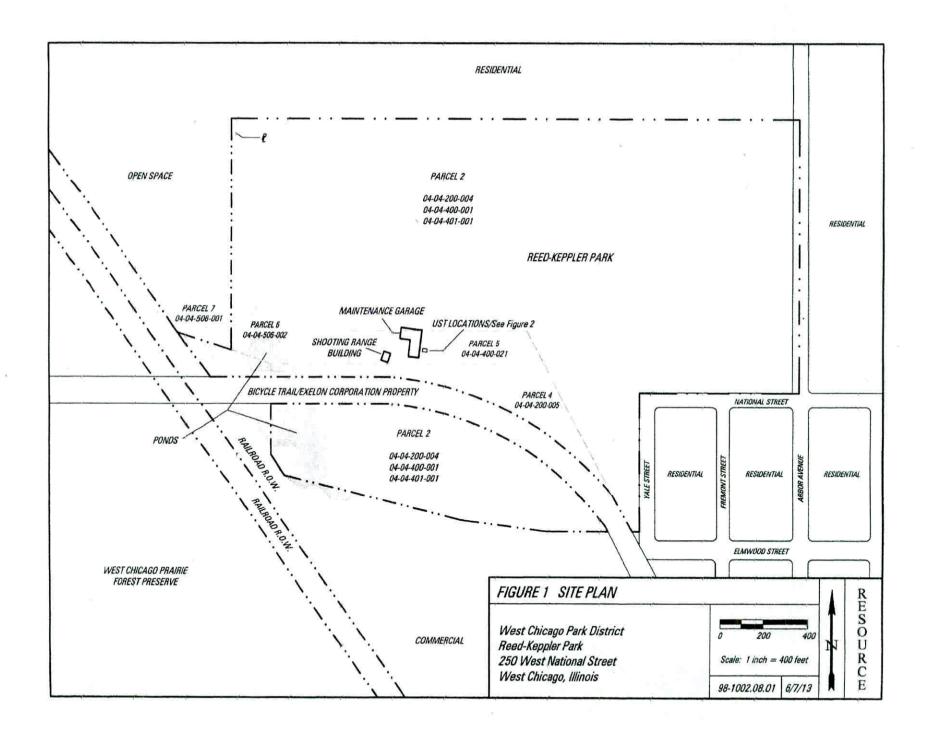
The Property Owner Summary form is included with all of the Illinois EPA's required forms related to the submission of a Corrective Action Completion Report in Appendix F.

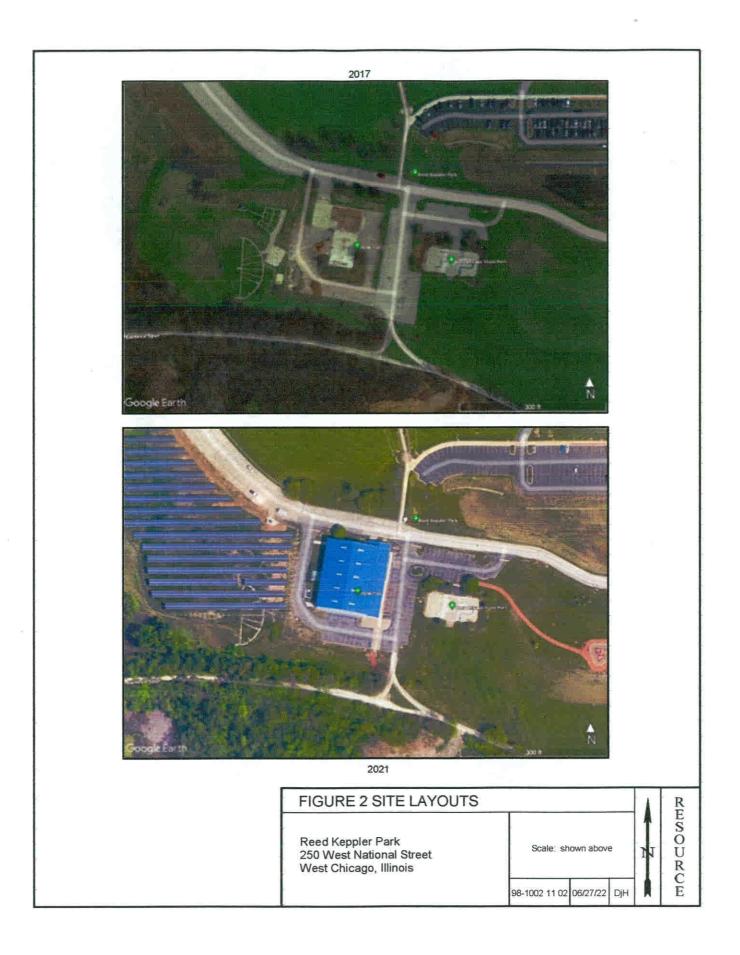
RESOURCE CONSULTING, INC.

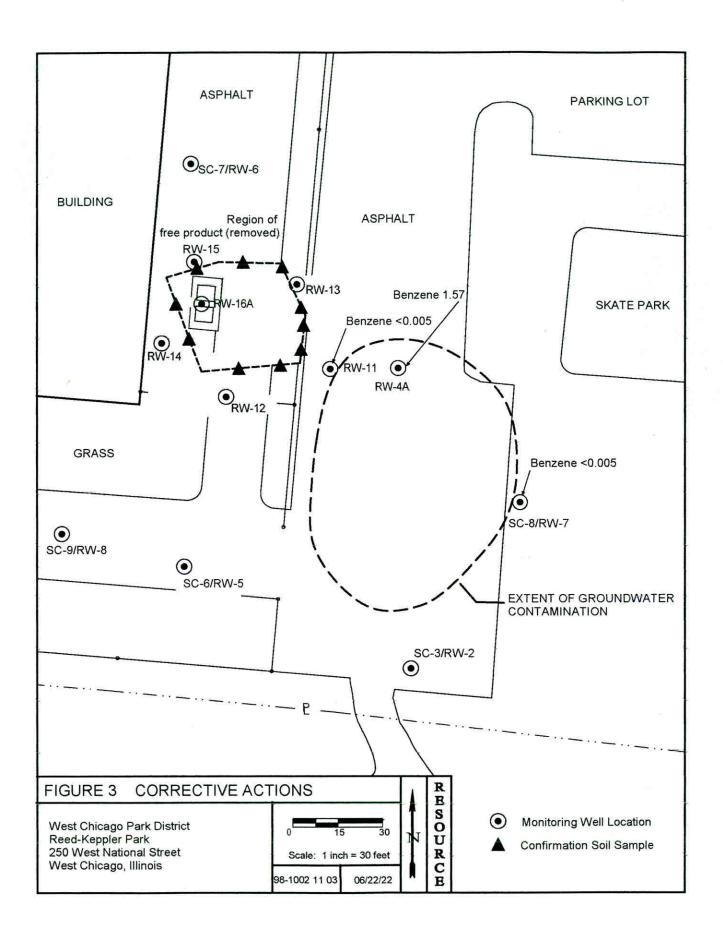
APPENDIX A

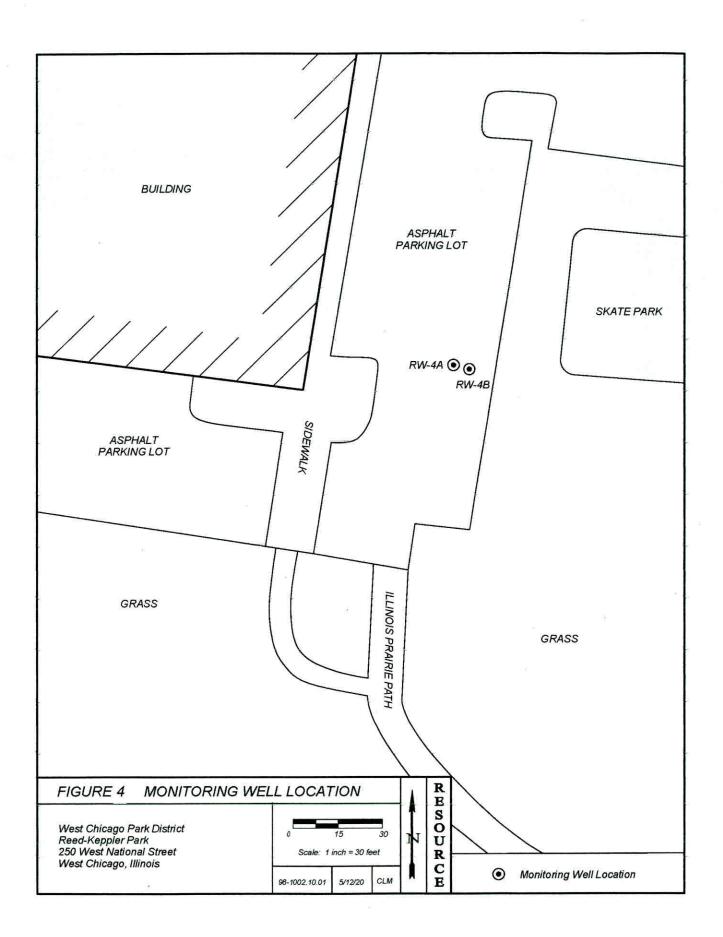
Figures

000323









Resource Consulting, Inc.

APPENDIX B

Budget Amendment

Budget Summary

Choose the applicable regulation: (
734 (
732

734	Free Product	Stage 1 Site Investigation	Stage 2 Site Investigation	Stage 3 Site Investigation	Corrective Action
	•				
Drilling and Monitoring Well Costs Form	s	\$	s	s <mark> </mark>	\$ 3,035.95
Analytical Costs Form	\$	\$	\$	s	\$ 978.00
Remediation and Disposal Costs Form	\$	s	\$	\$	\$
UST Removal and Abandonment Costs Form	\$	\$	\$	\$	\$ 1,535.81
Paving, Demolition, and Well Abandonment Costs Form	\$	\$	\$	\$	\$
Consulting Personnel Costs Form	s	\$	s	\$	\$ 45,852.47
Consultant's Materials Costs Form	s	\$	\$	s	\$ 147.52
Handling Charges Form	the Illinois EPA.		lowable handling	billing package is charges will be d	
Total	s	s	s	s	\$ 51,549.75

Drilling and Monitoring Well Costs Form

For this form to function properly. Adobe Reader 9.0 is required.

1. Drilling

0	Number of Borings to Be Drilled		Type HSA/PUSH/ Injection	Depth (fee of Each Boring		Reason for Drilling
		1	PUSH -	10.00	10.00	Soil boring for soil gas sample (2014).
ALC: N						
				•		

		Total Feet	Rate per Foot (\$)	Total Cost (\$)
🛛 Subpart H	Total Feet via HSA:	.00		.00
minimum payment amount applies.	Total Feet via PUSH:	10.00	21.87	218.70
unoun appres.	Total Feet for Injection via PUSH:	.00		.00
	A		Total Drilling Costs:	1,457.81

2. Monitoring / Recovery Wells

Number of Wells	Type of Well HSA / PUSH / 4" or 6" Recovery / 8" Recovery	Diameter of Well (inches)	Depth of Well (feet)	Total Feet of Wells to Be Installed
	-			
	•			
	•	-		

Well Installation	Total Feet	Rate per Foot (\$)	Total Cost (\$)
Total Feet via HSA:	.00		.00
Total Feet via PUSH:	.00		.00
Total Feet of 4" or 6" Recovery:	.00		.00
Total Feet of 8" or Greater Recovery:	.00		.00
		Total Well Costs:	.00

Total Drilling and Monitoring Well Costs:	\$1,457.81
---	------------

Drilling and Monitoring Well Costs Form

For this form to function properly, Adobe Reader 9.0 is required.

1. Drilling

Number of Borings to Be Drilled	Type HSA/PUSH/ Injection	Depth (feet) of Each Boring	Total Feet Drilled	Reason for Drilling
1	PUSH 👻	10.00	10.00	Soil boring/temporary monitoring well installation (2019).
		الأجراجية ا		
	-			
	•			
	•			

		Total Feet	Rate per Foot (\$)	Total Cost (\$)
🛛 Subpart H	Total Feet via HSA:	.00		.00
minimum payment amount applies.	Total Feet via PUSH:	10.00	23.67	236.70
anoun appico.	Total Feet for Injection via PUSH:	.00		.00
	·		Total Drilling Costs:	1,578.14

2. Monitoring / Recovery Wells

Number of Wells	Type of Well HSA / PUSH / 4" or 6" Recovery / 8" Recovery	Diameter of Well (inches)	Depth of Well (feet)	Total Feet of Wells to Be Installed
	-			
	•			
	•			•
	×			

Well Installation	Total Feet	Rate per Foot (\$)	Total Cost (\$)
Total Feet via HSA:	.00		.00
Total Feet via PUSH:	.00		.00
Total Feet of 4" or 6" Recovery:	.00		.00
Total Feet of 8" or Greater Recovery:	.00		.00
		Total Well Costs:	.00

Total Drilling and Monitoring Well Costs:	\$1,578.14
---	------------

Analytical Costs Form

Laboratory Analysis	Number of Samples		Cost (\$) per Analysis		Total per Parameter
Chemical Analysis					
BETX Soil with MTBE EPA 8260		x		=	
BETX Water with MTBE EPA 8260		X		=	
COD (Chemical Oxygen Demand)		X	1 1	=	
Corrosivity		X		=	
Flash Point or Ignitability Analysis EPA 1010		x	1	=	
Fraction Organic Carbon Content (foc) ASTM-D 2974-00		X		=	
Fat, Oil, & Grease (FOG)		X	1	=	
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		х		=	
pH		X		=	
Phenol		х		=	
Polynuclear Aromatics PNA, or PAH SOIL EPA 8270		X		=	
Polynuclear Aromatics PNA, or PAH WATER EPA 8270		Х		=	
Reactivity		X		=	
SVOC - Soil (Semi-Volatile Organic Compounds)		х		=	
SVOC - Water (Semi-Volatile Organic Compounds)		X		=	
TKN (Total Kjeldahl) "nitrogen"		X		=	
TPH (Total Petroleum Hydrocarbons)		х		=	
VOC (Volatile Organic Compounds) - Soil (Non-Aqueous)		X		=	
VOC (Volatile Organic Compounds) - Water		X		=	
2 Bulk density and 1 BTEX/MTBE Soil Gas sample (2014)		X	460.00	=	\$460.00
BTEX Water with MTBE EPA 8620 (2017)	1	х	60.00	=	\$60.00
PNA Water EPA 8270 (2017)	1	X	150.00	=	\$150.00
BTEX Water with MTBE EPA 8620 (2019)	1	X	60.00	=	\$60.00
PNA Water EPA 8270 (2019) Geo-Technical Analysis		X	150.00	=	\$150.00
		X		=	
Soil Bulk Density (pb) ASTM D2937-94		x		=	
Ex-situ Hydraulic Conductivity / Permeability		x		-	
Moisture Content (w) ASTM D2216-92 / D4643-93 Porosity		x	1	=	
Rock Hydraulic Conductivity Ex-situ		X		-	
Sieve / Particle Size Analysis ASTM D422-63 / D1140-54		x		=	
Silve / Particle Size Analysis ASTM D422-03 / D1140-54 Soil Classification ASTM D2488-90 / D2487-90		x	1	=	
Soil Classification ASTM D2406-907 D2407-90 Soil Particle Density (ps) ASTM D854-92		x	1	-	
	1	x	80.00	=	\$80.00
Soil Bulk Density (2019)		x	18.00	-	\$18.00
Moisture Content (2019)		x	10.00	-	#10.0U

Analytical Costs Form

Metals Analysis			
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		10.11
Metals TCLP Soil (a combination of all metals) RCRA	X		
Metals Total Soil (a combination of all metals) RCRA	x		
Metals Voter (a combination of all metals) RCRA	x		
	x		
	x		
	x		
	x		
Other			-
EnCore® Sampler, purge-and-trap sampler, or equivalent sampling device	X	=	
Sample Shipping per sampling event ¹	x	=	

¹A sampling event, at a minimum, is all samples (soil and groundwater) collected in a calendar day.

Total Analytical Costs: \$ 978.00

Paving, Demolition, and Well Abandonment Costs Form

Number of Square Feet	Asphalt or Concrete	Thickness (inches)	Cost (\$) per Square Foot	Replacement or Placement for an Engineered Barrier	Total Cost
	-			-	
				•	
	-			-	
	-				
	-				
	-				
	t i selati 👻			• <u>• • • • •</u> • • • •	
	-				
	•				
	•			•	

A. Concrete and Asphalt Placement/Replacement

Total Concrete and Asphalt Placement/Replacement Costs:

B. Building Destruction or Dismantling and Canopy Removal

Item to Be Destroyed, Dismantled, or Removed	d Unit Cost (\$)	Total Cost (\$)

Total Building Destruction or Dismantling and Canopy Removal Costs:

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
RW-1	HSA •	14.00	14.09	\$197.26
RW-2	HSA 🖣	17.00	14.09	\$239.53
RW-4	HSA 🖣	14.00	14.09	\$197.26
RW-5	HSA 🗨	12.00	14.09	\$169.08
RW-6	HSA 🖣	13.00	14.09	\$183.17
RW-7	HSA 🗣	13.00	14.09	\$183.17
RW-8	HSA 🗖	13.00	14.09	\$183.17
RW-9	HSA 🖣	13.00	14.09	\$183.17
		•		
		•		
		-		
		-		
		•		

Total Monitoring Well Abandonment Costs:	\$1,53
--	--------

35.81

\$1,535.81

Total Paving, Demolition, and Well Abandonment Costs:

000335

Consulting Personnel Costs Form

For this form to function properly, Adobe Reader 8.0 or higher is required

Employee Name		Personnel Title	Rate* (\$) Total Cos			
Remediation Category		Task				
			1	1		
		Senior Project Manager 🔹	10.00	140.80	\$1,408.00	
	Evaluation of CA	ACR rejection from IEPA; Planning	for additional red	quirements.	215	
		Senior Project Manager 🔹	10.00	140.80	\$1,408.00	
-	Correspondence	e with staff and IEPA re: regulatory	evaluation and i	ndoor inhalation	exposure route.	
	1997 - 19	Project Manager 🔹	10.00	126.81	\$1,268.10	
-	Project manager	ment with staff and IEPA re: CACR	rejection, TACC), data, budget re	evisions.	
		Project Manager 🔹	3.00	126.81	\$380.43	
	Review/editing c	of TACO calculations; corresponder	nce with PM re: i	ndoor inhalation	requirement.	
		Project Manager 🗸 🗸	6.00	126.81	\$760.86	
	Field work plann	ing for soil vapor and bulk density	sampling (2014,	2017 and 2019)		
		Geologist III 🔹	5.00	123.99	\$619.95	
•	On-site for soil s	ampling.		•		
		Project Manager 🔹	6.00	126.81	\$760.86	
-	Analysis/evaluat	ion of soil gas data, correspondenc	e with lab and l	EPA re: data ana	ilysis.	
		Senior Project Manager 🔹 🔻	20.00	140.90	\$2,818.00	
•	Preparation of o	rdinance: research, planning, corre	spondence with	City.		
		Geologist III 🗸 🗸	20.00	123.99	\$2,479.80	
	Preparation of d	raft ordinance document for submit	ssion to Public V	Vorks Departmer	ıt.	

Employee Name		Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category		Task			
		Geologist III	5.00	123.99	\$619.95
•	Preparation of r	maps and supporting documents fo	or draft ordinance	using IEPA requi	irements.
		Project Manager	10.00	00.	¢ 00
][1	·]	\$.00
	Ordinance desi	gn and preparation of documents v	with staff and city	*	
		Project Manager	6.00	126.81	\$760.86
•	TACO modeling	g calculations for ordinance.			
	A Conservation of the second	1			
	* \	Project Manager 🗸	10.00	126.81	\$1,268.10
-	Review of ordin	ance and supporting documents fo	or final enactmen	t by City.	
		Project Manager			
			10.00	126.81	\$1,268.10
	Project manage	ement with City personnel re: prope	erty owner summ	ary and approval	of ordinance.
		Senior Project Manager 🔹	3.00	140.90	\$422.70
	Project manage	ement with Illinois EPA re: indoor in	halation and Site	a land use classifi	cation.
	12-33-			1	
		Senior Scientist	20.00	119.77	\$2,395.40
	Preparation of (CACR response documentation inc	cluding TACO mo	odeling, ordinance	work.
	Tr	Project Manager	5.00	126.81	\$634.05
	Review of data	and project needs for contaminate	d groundwater a	nd soil gas; plann	ing for field work.
		Geologist III	6.00	123.99	\$743.94
			-1	125.99	\$140.54
	On-site for mon	itoring well sampling and sample n	nanagement.		

Employee Name	Personnel Title	Hours	Rate* (\$)	Total Cost			
Remediation Category	Task	Task					
	Project Manager 🗸	5.00	126.81	\$634.05			
Re	view of groundwater quality data and planning re	sponse for inde	oor inhalationrout	e evaluation.			
	Project Manager	5.00	126.81	\$634.05			
Re	view of project needs and budgeting for next pha	se of project (2	019).				
	Senior Project Manager	5.00	140.90	\$704.50			
▼ Pre	ject management with IEPA and client re; re-sam	npling monitori	ng well for J&E ec	quation (2014).			
	Geologist III 🗸	20.00	123.99	\$2,479.80			
	paration of technical summary/CAP amendment	text and mapp	ing (2019).				
	Senior Admin. Assistant 🔹	3.00	63.41	\$190.23			
Fo	ms management - preparation, editing, publishin	g, corresponde	ence.				
	Senior Project Manager	3.00	140.90	\$422.70			
Re	view of technical summary/CAP amendment.						
	Senior Admin. Assistant 👻	2.00	63.41	\$126.82			
Ed	t and publish technical summary/CAP amendment	nt.					
	Senior Project Manager	2.00	140.90	\$281.80			
Pro	ject management - soil and groundwater samplin	ng with new IEI	PA project manag	er (2019).			
	Project Manager 👻	2.00	126.81	\$253.62			
▼ Fie	ld work planning with staff, review of scope of wo	rk and project	needs.				

Employee Name	Personnel Title		Hours	Rate* (\$)	Total Cost
Remediation Category	Та	sk	(111-1-1-1)-1-6-6-6-6-6-6-6-6-6-6-6-6-6-6		
	1	<u> </u>	()	I	
	Project Manager	•	3.00	126.81	\$380.43
	Project management and correspondence w/ n	new IE	PA project ma	nager.	
				1	
	Geologist III	•	2.00	123.99	\$247.98
	Preparation for field work and scheduling inclue	ding c	orrespondence	with WCPD and	i staff.
	Geologist III	•	5.00	123.99	\$619.95
	On-site for soil boring/monitoring well installation	on.			
			(
	Geologist III		20.00	123.99	\$2,479.80
	Review of lab data, preparation of data table, for	orms,	mapping, sb lo	ogs, CAP amendr	ment text (2022).
	Senior Admin. Assistant	•			
			6.00	63.41	\$380.46
	Edit and publish CAP amendments (3).				
	Project Manager	•	2.00	126.81	\$253.62
	Data analysis and historical data review.				
	Geologist III	•	15.00	123.99	\$1,859.85
	Preparation of J&E calculations.				
	Project Manager			2	
			8.00	126.81	\$1,014.48
	Review and evaluation of indoor inhalation mo	deling	, data, and IEF	A requirements.	
	Senior Admin. Assistant	•	20.00	63.41	\$1,268.20
	Clerical work, invoicing, budgeting documentat	tion.			

Employee Name		Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category		Task			
	[Geologist III 🗸 🗸	20.00	123.99	\$2,479.80
· · · · · · · · · · · · · · · · · · ·	Preparation of C	ACR budget amendment.			
		Senior Admin. Assistant 🗸	15.00	63.41	\$951.1
	Preparation of b	illing package.			
		Geologist III 🗸 🗸	50.00	123.99	\$6,199.56
-	Preparation of c	omprehensive CACR at request of	1	123.39	φ0, 133.5t
			1		ř.
		Geologist III 🗸 🔻	10.00	123.99	\$1,239.90
	Review and prep	paration of J&E equation for final de	ocumentation.		
		Senior Prof. Engineer 🗸	4.00	183.17	\$732.6
	Review and cert	ification of CACR.			
		•			
		1			
-]	·[]	
			South Contractor		

*Refer to the applicable Maximum Payment Amounts document.

Add Another Page

Delete Last Page

Total of Consulting Personnel Costs

\$45,852.47

Consultant's Materials Costs Form

For this form to function properly, Adobe Reader 8.0 or higher is required

Materials, Equipment, or Field P	urchase An	Time or nount Used	Rate (\$)	Unit	Total Cost
Remediation Category		Description/	lustification		
Mileage (2014)		14.00	.56		\$7.84
CACR -			т, Ву		
Helium detector for soil gas sampling.		1.00	124.00		\$124.00
CACR -		N. Server			
Mileage (2017)		14.00	.54		\$7.56
Mileage (2019)		14.00	.58		\$8.12
· · · · · · · · · · · · · · · · · · ·					
▼			1		
					
][
	· ۲			1	
Add Another Page Delete Last Page	Tota	l of Consultan	t Materials Cos	its	\$147.52

Resource Consulting, Inc.

APPENDIX C

Laboratory Reports

000342



Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

August 01, 2017

Mr. Daniel Horvath RESOURCE CONSULTING, INC. P.O. Box 123 Geneva, IL 60134

Project ID: 98-1002 WCPD First Environmental File ID: 17-3893 Date Received: July 24, 2017

Dear Mr. Daniel Horvath:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 004108: effective 03/24/2017 through 02/28/2018.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Moller

Bill Mottashed Project Manager

Page 1 of 4



Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

RESOURCE CONSULTING, INC.

Lab File ID: 17-3893

Project ID: 98-1002 WCPD

following analytical report.

Date Received: July 24, 2017

All quality control criteria, as outlined in the methods, have been met except as noted below or on the

The results in this report apply to the samples in the following table:

Laboratory **Client Sample Identifier Date/Time Collected** Sample ID 12:00 **RW-41A** 7/24/2017 17-3893-001

Sample Batch Comments:

Sample acceptance criteria were met.



IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

RESOURCE CONSULTING, INC.

Lab File ID: 17-3893

Project ID: 98-1002 WCPD

Date Received: July 24, 2017

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
A	Method holding time is 15 minutes from collection. Lab an	alysis	was performed as soon as possible.
В	Analyte was found in the method blank.	L	LCS recovery outside control limits.
<	Analyte not detected at or above the reporting limit.	М	MS recovery outside control limits; LCS acceptable.
С	Sample received in an improper container for this test.	P	Chemical preservation pH adjusted in lab.
D	Surrogates diluted out; recovery not available.	Q	Result was determined by a GC/MS database search.
E	Estimated result; concentration exceeds calibration range.	S	Analysis was subcontracted to another laboratory.
G	Surrogate recovery outside control limits.	T	Rosult is less than three times the MDL value.
Н	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
J	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ŇD	Analyte was not detected using a library search routine; No calibration standard was analyzed.



Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

		Analytical	Report				
Client:	RESOURCE CON	SULTING, INC.	-	Date C	Collected:	07/24/17	•
Project ID:	98-1002 WCPD	·		Time	Collected:	12:00	
Sample ID:	RW-41A			Date R	teceived:	07/24/17	
Sample No:	17-3893-001			Date R	Reported:	08/01/17	
Analyte	A	<u></u>	Result	R.L.	Units	Flags	,
BTEX Organ Analysis Date	nic Compounds : 07/31/17	Method: 5030B/8	260B	<u></u>	•		
Benzene		· ·	241	5.0	ug/L		
Ethylbenzene			20.2	5.0	ug/L		
Toluene			< 5.0	5.0	ug/L		
Xylene, Total			. 21.7	5.0	ug/L		
	Polynuclear Aromatic Hydrocarbons Method: 8270C Analysis Date: 07/31/17		•	Preparation Preparation I			
Acenaphthene)	•	< 10	10	ug/L		
Acenaphthyle			< 10	10	ug/L		
Anthracene	*		< 5	5	ug/L		•
Benzo(a)anthu	racene	• •	< 0.13	0.13	ug/L		
Benzo(a)pyre	ne		< 0.2	0.2	ug/L		
Benzo(b)fluor	ranthene		0.18	0.18	ug/L		
Benzo(k)fluor	ranthene		0.18	0.17	ug/L		
Benzo(ghi)per	rylene	•	< 0.4	· 0.4	ug/L	•	•
Chrysene .			< 1.5	1.5	ug/L	•	-
Dibenzo(a,h)a	unthracene		< 0.3	0.3	ug/L		
Fluoranthene			< 2	2	ug/L		
Fluorene	*		< 2	2	ug/L		
Indeno(1,2,3-	cd)pyrene		< 0.3	0.3	ug/L		
Naphthalene			< 10	10	ug/L		
Phenanthrene			< 5	· 5	ug/L		
Pyrene	•		< 2	2	ug/L		

Page 4 of 4

First		CE	IAIN	OF (CUSTO	DY RE	COR	Ð				Page of p
Envi	ronmental pratories, Inc.		Com	oanv N	ame: RFS		ro. ('DIAS	1.Lt	1100	t. inc.	
	······································		Stree	t Addre	ss: P.O.	BOX	123	<u></u>		, , ,	J ,	
First Environmen 600 Shore Road, Suite					<u>nevia</u>						State:	Zip: 60134
aperville, Illinois 605	63 -		Phor	- 	-121 -0	80M (e-mail: /	Jane	wn.+0	n Row		nois.com
hone: (630) 778-1200 -mail: firstinfo@firste	• Fax: (630) 778-1233 env.com											<u>, , , , , , , , , , , , , , , , , , , </u>
EPA Certification #10			Sam	pled By	· COUR	the w		LA W	<u>uu</u>	2		
						(3 A	nalyse	5	· .		
Project I.D. <u>98</u>	1002 WCPD						[]				Non- Non- Non- Non- Non- Non- Non- Non-	
P.O. #;				/ <u>.</u>	/ 5/	· /.			/ · ,		100 Sala	
			/	S			' /	· /	· /		30	
Matrix Codes: S =	= Soil W = Water O = Other		<u> </u>	ý v	\$]		<i>.</i>	/	/ .	/*	/	
Date/Time Taken	Sample Description	Matri									Comments	Lab I.D.
7/24/17 12.pm	RW-4A	W	K	K.	┟───┼─	_ <u>_</u>						17-3893-00
				+	╉╍╍╍╂═╸							<u>∱</u>
					+							
]	ļ			·	
	<u> </u>			·	╡──┤─		+	<u> </u>			· · · · · · · · · · · · · · · · · · ·	
·	· · · · · · · · · · · · · · · · · · ·		·		<u>+</u> +		+	<u> </u>				
	······	· · · · · · · · · · · · · · · · · · ·							· · · ·		· · · · · · · · · · · · · · · · · · ·	
	· · · · · · · · · · · · · · · · · · ·		_		+		ļ.	ļ				
· · · · · · · · · · · · · · · · · · ·	·			+	+		+				· · · · · ·	1
OR LAB USE ONLY:		l	<u></u>	_ _	<u> </u>		<u> </u>	L	أحبيها	L	<u> </u>	
Cooler Temperature: 0 Received within 6 hrs. Ice Present: Yes N	of collection:	Sample Ref Refrigerator 5035 Vials F Freezer Ten	Tempera rozen: `	nture: /es N	°C \o	Program	: - 🗋 т.	AĆO	ССР		NPDES LUST	
Notes and Special In	nstructions:			······		······	•					
<u></u>	<u></u>											
<u> </u>	<u> </u>					·	17.	1	,			
Relinquished By:	Mynn	Date/Time 1/2	uli 1	1:35	F .	-	107		<u>~</u>		Date/Time	LET CITERT
Relinquished By:		Date/Time			Receiv	ed By:			<u></u>		Date/Time	
Rev. 8/15												

.

.

.

• •

.

•

• -

•

•



Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

August 09, 2019

Ms. Courtney McGinnis RESOURCE CONSULTING, INC. P.O. Box 123 Geneva, IL 60134

Project ID: 98-1002 WCPD First Environmental File ID: 19-4658 Date Received: August 02, 2019

Dear Ms. Courtney McGinnis:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 004598: effective 04/23/2019 through 02/28/2020.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Volgente

Bill Mottashed Project Manager

Page 1 of 4

First	· · · · ·
Environmental	
Laboratories, Inc.	IL ELAP / NELAC Accreditation # 100292
1600 Shore Road • Naperville, Illinois 60563	• Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

RESOURCE CONSULTING, INC.

Lab File ID: 19-4658

Project ID: 98-1002 WCPD

Date Received: August 02, 2019

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time	Collected
19-4658-001	RW-4B	8/2/2019	9:15

Sample Batch Comments:

Sample acceptance criteria were met.

Method Comments

Lab Number Sample ID 19-4658-001 RW-4B **Comments:** BTEX Organic Compounds The reporting limits are elevated due to matrix interference.

First	
Environmental	
Laboratories, Inc.	IL ELAP / NELAC Accreditation # 100292
1600 Shore Road • Naperville, Illinois 60563	• Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

RESOURCE CONSULTING, INC.

Lab File ID: 19-4658

Project ID: 98-1002 WCPD

Date Received: August 02, 2019

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
A	Method holding time is 15 minutes from collection. Lab an	alysis	was performed as soon as possible.
B	Analyte was found in the method blank.	L	LCS recovery outside control limits.
`<	Analyte not detected at or above the reporting limit.	·M	MS recovery outside control limits; LCS acceptable.
С	Sample received in an improper container for this test.	P	Chemical preservation pH adjusted in lab.
D	Surrogates diluted out; recovery not available.	Q	Result was determined by a GC/MS database search.
E	Estimated result; concentration exceeds calibration range.	S	Analysis was subcontracted to another laboratory.
G	Surrogate recovery outside control limits.	Т	Result is less than three times the MDL value.
H	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
1	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.

Laboratories, Inc.

First Environmental

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

•	•					
•		Analytica	l Report			•
Client:	RESOURCE CON	SULTING, INC.	. –	Date	Collected:	08/02/19
Project ID:	98-1002 WCPD	•	·	Time	Collected:	9:15
Sample ID:	RW-4B			Date	Received:	08/02/19
Sample No:	19-4658-001		.'	Date	Reported:	08/09/19
-						
Analyte	° 	. ,	Resul	t R.L.	Units	Flags
BTEX Organi Analysis Date:	ic Compounds 08/06/19	Method: 5030B	/8260B		•	•
Benzene			386	5.0	ug/L	•
Ethylbenzene			3,160) 5.0	ug/L	
Toluene			< 50.0	5.0	ug/L	
Xylene, Total		•	6,540	5.0	ug/L	
Polynuclear A Analysis Date:		ons Method: 8270C		Preparation Preparation	n Method 3 Date: 08/08	510C /19
Acenaphthene			< 10	10	ug/L	
Acenaphthyler	ne		< 10	10	ug/L	
Anthracene			< 10	10	ug/L	
Benzo(a)anthra	acene		2.67	0.13	ug/L	
Benzo(a)pyren	e		1.6	0.2	ug/L	•
Benzo(b)fluora	anthene	•	1.70	0.18	ug/L	
Benzo(k)fluora	anthene		1.57	. 0.17	ug/L	
Benzo(ghi)per	ylene	i -	< 10.0	10	ug/L	
Chrysene			2.3	1.5	ug/L	•
Dibenzo(a,h)a	nthracene		< 0.3	0.3	ug/L	
Fluoranthene			< 10	10	ug/L	
Fluorene		:	< 10	10	ug/L	
Indeno(1,2,3-c	d)pyrene		0.8	0.3	ug/L	
Naphthalene			1,380	10	ug/L	
Phenanthrene			< 10	10	ug/L	
Pyrene	• • •		< 10	10	ug/L	

Page 4 of 4

First	.4.3	C	HA	IN (UF C	CUST	[OD]	(RE	COF	Ð		•		Page of
Envi	ronmental pratories, Inc.			Com	anv N:	ime: D	620		02	Con	SUL	tr	not, inc.	
	tal Laboratories			Street	Addre	ss: P	DB	JX 1	23			•C.b.,l.,l.,l.,	-J-1	
rst Environmen 00 Shore Road, Suite						Nevie							State: 11	Zip: (0C)134
perville, Illinois 605	63							n e	-mail:	· ^ ·	0000	1 10 10 1		zillinois.com
hone: (630) 778-1200 • Fax: (630) 778-1233 -mail: firstinfo@firstenv.com • www.firstenv.com EPA Certification #100292				Send	Report	To: ((TI LICI	Hn fi	1 m	CGu		10	AN HOWAR	<u>р</u>
				Samp	led By:	\mathbf{C}			ັທໂ	Hann.	nig			
	• •							D.	A	nalyse	S			
Project I.D.: 45	r-1002 INCPD				. /.	Level 1		\$ ·				/ : 	No Policia Pol	
P.O. #:		,						l Z		[No.	
	= Soil W = Water O = Othe Sample Description	Mat		19	¥ {	Ž .		Y	/	{	{	(Comments	Lab I.D.
Date/Time Taken				Y	X	<u></u>				ŀ		X	·	LaD I.J.
12/19 0915				<u> </u>	<u> </u>	X	X			<u> </u>	<u>†</u>		· · · · · · · · · · · · · · · · · · ·	19.4658-001
														-
			-+				<u></u>	·			<u> </u>		•	
	· · · · · · · · · · · · · · · · · · ·						. <u> </u>	 		<u> </u>		<u> </u>		÷
<u></u>			÷		÷	<u></u>				<u> </u>	t			+
<u></u>							1					· ·		
						[·							
	<u>· · · · · · · · · · · · · · · · · · · </u>					 	 							
							<u> </u>			<u> </u>	+	<u> </u>		
R LAB USE ONLY:	<u> </u>				L	ł	<u> </u>	L	L	1	<u> </u>	.L		
	of collection:	C Sample Re Refrigerate 5035 Vials Freezer Te	Froze	iperat en: Ye	ure: es N	°C	Pi ;	ogram:	. П . Т.	AÇO/SF	1 Р []]ccdd		.ust 🗍 sdwa
otes and Special Ir	nstructions:									······			• •	
linquished By:	Meping	.Date/Time8	2/10	7_10	205	Re	ceived E	ly:	AL	7			Date/Time&/	2/19 1005
		Date/Time					ceived B						Date/Time	

.

000352

.

RESOURCE CONSULTING, INC.

.

APPENDIX D

Indoor Inhalation Evaluation

J&E Equation	Equati	on with inputs	Result
J&E 1 RO _{indoor air} Carc.	$\frac{TR \times AT_c \times 365 \frac{days}{yr}}{ED \times EF \times URF \times 1000 \frac{\mu g}{mg}}$	$\frac{1 \times 10^{-6} \times 70 \times 365}{30 \times 350 \times 7.8 \times 10^{-6} \times 1000}$	3.12x10 ⁻⁴ mg/m ³
J&E 2 ROindoor air Non-carc.		NA .	NA
J&E 3 ppmv to mg/m ³	<u></u>	NA	NA
J&E 4 RO _{soll gas}	RO indoor air Q	3.12e-4 2.23e-5	13.99 mg/m ³
J&E 5 Cv ^{sat}	$\frac{P \times MW}{R \times T} \times 10^6$	$\frac{\frac{1.25}{10} \times 78.11}{0.08206 \times 286} \times 10^6$	4.16x10 ⁵ mg/m ³ - air
J&E 6 RO _{gw}	$\frac{RO_{soli gas}}{H_{TS}' \times 1000 \frac{L}{m^3}}$	<u>13.99</u> (1.34e-1)(1000)	0.104 mg/L
J&E 7 cc advection & diffusion	$\begin{bmatrix} \left(\frac{D_r^{\mathcal{G}} \times A_s}{Q_{adg} \times L_r} \right) \times \exp \left(\frac{Q_{col} \times L_{rrat}}{D_{crat}^{\mathcal{G}} \times A_{crat}} \right) \end{bmatrix} \\ \begin{bmatrix} \exp \left(\frac{Q_{col} \times L_{rrat}}{D_{crat}^{\mathcal{G}} \times A_{crat}} \right) + \left(\frac{D_r^{\mathcal{G}} \times A_s}{Q_{adg} \times L_r} \right) + \left(\frac{D_r^{\mathcal{G}} \times A_s}{Q_{ord} \times L_r} \right) \begin{bmatrix} \exp \left(\frac{Q_{col} \times L_{rrat}}{D_{crat}^{\mathcal{G}} \times A_{crat}} \right) \\ \end{bmatrix} \end{bmatrix} \end{bmatrix}$	$\frac{\left(\frac{((1.23e-4)(1000000)}{(3.59e4)(152.4)}\right)exp\left(\frac{(83.33)10}{(5.34e-4)400}\right)}{exp\left(\frac{83.33(10)}{5.34e-4(400)}\right)+\left(\frac{(1.23e-4)(1e6)}{3.59e4(152.4)}\right)+\left(\frac{1.23e-4(1e6)}{83.33(152.4)}\right)\left(exp\left(\frac{83.33(10)}{5.34e-4(400)}\right)^{-1}\right)$	2.23x10 ⁻⁵
J&E 8 œ · Diffusion only		NA	NA
J&E 9a Dr ^{eff.}	$\frac{L_{T}}{\sum_{i=1}^{n}L_{i}/D_{i}^{ef}}$	$\frac{152.4}{\left(\frac{114.9}{6.86e-3}\right)^{+}\left(\frac{37.5}{3.08e-5}\right)^{+}}$	1.23x10 ⁻⁴ cm ² /s

Johnson & Ettinger Model Calculations - Benzene

J&E 9b		$L_1 + L_2 = L_T$	Satisfied
J&E 10 LT	$D_{\text{statice}} - L_F$	162.4 - 10	152.4 cm
J&E11 D1 ^{eff}	$D_{i}\left(\frac{\boldsymbol{\theta}_{u,i}^{3,33}}{\boldsymbol{\theta}_{r,i}^{2}}\right) + \left(\frac{D_{w}}{H_{rs}}\right)\left(\frac{\boldsymbol{\theta}_{w,i}^{3,33}}{\boldsymbol{\theta}_{r,i}^{2}}\right)$	$(8.8e-2)\left(\frac{((0.28)^{3.33})}{((0.43)^2)}\right) + \left(\frac{1.02e-5}{1.34e-1}\right)\left(\frac{((0.15)^{3.33})}{((0.43)^2)}\right)$	6.86x10 ⁻³ cm ² /s
J&E11 D2 ^{eff} Cap fringe	$D_{i}\left(\frac{\theta_{\sigma j}^{3,33}}{\theta_{T,j}^{2}}\right) + \left(\frac{D_{w}}{H_{TS}}\right)\left(\frac{\theta_{w j}^{3,33}}{\theta_{Tj}^{2}}\right)$	$(8.8e-2)\left(\frac{((0.043)^{3.33})}{((0.43)^2)}\right) + \left(\frac{1.02e-5}{1.34e-1}\right)\left(\frac{((0.387)^{3.33})}{((0.43)^2)}\right)$	3.08x10 ⁻⁵ cm ² /s
J&E 12a A _B	$(L_{s} imes W_{s})$	1000×1000	1x10 ⁶ cm ²
J&E 12b		NA	NA
J&E 13 Q _{bidg}	$\left(\frac{L_B \times W_B \times H_B \times ER}{3600 \frac{SEC}{hr}}\right)$	$\frac{1000 \times 1000 \times 244 \times 0.53}{3600}$	3.59x10 ⁴ cm ³ /e
J&E 14 A _{crack}	$2 \times (L_B + W_B) \times w$	- 2(1000 + 1000)×0.1	400 cm ²
J&E 15 D _{crack} eff	$D_{i}\left(\frac{\theta_{u,roat}^{3.33}}{\theta_{r,coat}^{2}}\right) + \left(\frac{D_{w}}{H_{rS}}\right)\left(\frac{\theta_{w,roat}^{3.33}}{\theta_{r,coat}^{2}}\right)$	$(8.8e-2)\left(\frac{((0.13)^{3.33})}{((0.43)^2)}\right) + \left(\frac{1.02e-5}{1.34e-1}\right)\left(\frac{((0.15)^{3.33})}{((0.43)^2)}\right)$	5.34x10 ⁻⁴ cm ² /s
J&E 16 Өті	· · ·	NA	ŇA
J&E 17 8w	· · · · · · · · · · · · · · · · · · ·	NA .	NA
J&E 18 🛛 🕹	······································	NA	NA

;

•

000355

2

	and the second	
J&E Equation	Equation with inputs	Results
J&E 1 ROindoor air (carcinogenic)	NA	NA
J&E 2 ROindoor air (non-carcinogenic)	$\frac{THQ \times AT_{nc} \times 365 \frac{days}{yr} \times RfC}{ED \times EF} \qquad \qquad$	1.04 mg/m ³
J&E 3 ppmv to mg/m ³	NA	NA .
J&E 4 RO _{soil gas}	$\frac{RO_{indoor air}}{\alpha} \frac{1.04}{1.60e-5}$	65,000 mg/m ³
J&E 5 Cv ^{sat}	$\frac{P \times MW}{R \times T} \times 10^{\circ}$	DEFAULT
J&E 6 RO _{gw} t	$\frac{RO_{soll gas}}{H'_{rs} \times 1000 \frac{L}{m^3}} \frac{65000}{(1.64e-1)(1000)}$	396.34 mg/L
J&E 7 α advection & diffusion	$\frac{\left[\left(\frac{D_{d}^{d} \times A_{s}}{Q_{ub} \times L_{T}}\right) \times \exp\left(\frac{Q_{ud} \times L_{unt}}{D_{uus}^{d} \times A_{uut}}\right)\right]}{\left[\exp\left(\frac{Q_{ud} \times L_{t}}{D_{uus}^{d} \times A_{uut}}\right) + \left(\frac{D_{d}^{d} \times A_{s}}{Q_{ub} \times L_{T}}\right) + \left(\frac{D_{d}^{d} \times A_{s}}{Q_{ud} \times L_{T}}\right) + \left(\frac{D_{d}^{d} \times A_{uut}}{D_{uus}^{d} \times A_{uut}}\right) - 1\right]\right]} - \frac{\left[\left(\frac{(8.96e-5)(1000000)}{(3.59e4)(152.4)}\right) \exp\left(\frac{(8.333)10}{(5.85e-3)(400)}\right)\right]}{\exp\left(\frac{(8.96e-5)(1e6)}{(3.59e4(152.4)}\right) + \left(\frac{(8.96e-5)(1e6)}{(8.333(152.8)}\right)\right]} + \frac{\left(\frac{(8.96e-5)(1e6)}{(5.83e-3)(400)}\right) + \frac{(8.96e-5)(1e6)}{(5.83e-3)(400)}\right]}{\exp\left(\frac{(8.96e-5)(1e6)}{(5.83e-3)(400)}\right) + \frac{(8.96e-5)(1e6)}{(5.83e-3)(400)}\right]}$	1.60x10 ⁻⁵
J&E 8 α Diffusion only	NA	NA
J&E 9a D _T ^{eff}	$\frac{L_{T}}{\sum_{i=1}^{n}L_{i}/D_{i}^{cf}} \frac{152.4}{\left(\frac{114.9}{5.85e\cdot3}\right) + \left(\frac{37.5}{2.23e\cdot5}\right)}$	8.96x10 ⁻⁵ cm ² /s

J&E Model Calculations – Ethylbenzene

J&E 9b	$L_1 + L_2 = L_T$		Satisfied
J&E 10	$D_{source} - L_F$	162.4-10	152.8 cm
J&E11	$D_{i}\left(\frac{\theta_{wj}^{3,33}}{\theta_{T,j}^{2}}\right) + \left(\frac{D_{w}}{H_{TS}}\right)\left(\frac{\theta_{wj}^{3,33}}{\theta_{T,j}^{2}}\right)$	$(7.50e-2)\left(\frac{((0.28)^{3.33})}{((0.43)^2)}\right) + \left(\frac{7.80e-6}{1.64e-1}\right)\left(\frac{((0.15)^{3.33})}{((0.43)^2)}\right)$	5.85x10 ⁻³ cm²/
D1 ^{eff}			
J&E11		$(((0.043)^{3.33})) (7.800.6)(((0.387)^{3.33}))$	
D ₂ eff	$D_{i}\left(\frac{\boldsymbol{\theta}_{oj}^{3,33}}{\boldsymbol{\theta}_{rj}^{2}}\right) + \left(\frac{D_{w}}{H_{TS}}\right)\left(\frac{\boldsymbol{\theta}_{wj}^{3,33}}{\boldsymbol{\theta}_{rj}^{2}}\right)$	$(7.50e-2)\left(\frac{((0.043)^{3.33})}{((0.43)^2)}\right) + \left(\frac{7.80e-6}{1.64e-1}\right)\left(\frac{((0.387)^{3.33})}{((0.43)^2)}\right)$	2.23x10 ⁻⁵ cm ² /
Cap fringe			
J&E 12a A _B	$(L_{\beta} \times W_{\beta})$	1000×1000	1x10 ⁶ cm ²
J&E 12b		NA	NA
J&E 13	$(L_{R} \times W_{R} \times H_{R} \times ER)$	1000×1000×244×0.53	···· ···
Qbidg	$\left(\frac{L_B \times W_B \times H_B \times ER}{3600 \frac{sec}{hr}}\right)$	3600	3.59x10 ⁴ cm ³
.J&E 14	$2 \times (L_{\beta} + W_{\beta}) \times w$	2 (1000 + 1000) × 0.1	400 cm ²
Acrack			
J&E 15	$D_{i}\left(\frac{\theta_{u,cnsk}^{3.33}}{\theta_{T,cnsk}^{2}}\right) + \left(\frac{D_{w}}{H_{TS}}\right)\left(\frac{\theta_{w,cnsk}^{3.33}}{\theta_{T,cnsk}^{2}}\right)$	$(7.50e-2)\left(\frac{((0.28)^{3.33})}{((0.43)^2)}\right) + \left(\frac{7.80e-6}{1.64e-1}\right)\left(\frac{((0.15)^{3.33})}{((0.43)^2)}\right)$	5.85x10 ⁻³ cm²/
Dcrack ^{eff}			
J&E 16			
Θτι	-	NA	NA
J&E 17	•••••••••••••••••••••••••••••••••••••••	NA	NA
⊖ w		NA	
.J&E 18		NA	NA ·
Ba	•		

4

Electronic Filing: Received, Clerk's Office 09/20/2024

.

000357

• •

J&E Model Cal	ulations – Na	phthalene
---------------	---------------	-----------

1.5

J&E Equation	Equation with inputs	Result
J&E 1 RO _{indoor} air (carcinogenic)	NA	NA
J&E 2 RO _{indoor air} (non-carcinogenic)	$\frac{THQ \times AT_{nc} \times 365 \frac{days}{yr} \times RfC}{ED \times EF} \qquad \qquad \frac{(1)(30)(365)(3e-3)}{(30)(350)}$	3.13x10 ⁻³ mg/m ³
J&E 3 ppmv to mg/m ³	NA	NA
J&E 4 RO _{soll gas}	<u>RO_{indoor air}</u> <u>3.13e-3</u> α <u>1.32e-4</u>	23.71 mg/m ³
J&E 5 Cv ^{sat}	$\frac{P \times MW}{R \times T} \times 10^6$	DEFAULT
J&E 6 RO _{gw}	$\frac{RO_{sollgas}}{H'_{TS} \times 1000 \frac{L}{m^3}} = \frac{23.71}{(8.29e-3)(1000)}$	2.86 mg/L
J&E 7 α advection & diffusion	$\frac{\left[\left(\frac{D_{c}^{ef} \times A_{e}}{Q_{abo} \times L_{r}}\right) \times \exp\left(\frac{Q_{eas} \times L_{1}}{D_{cas}^{ef} \times A_{cas}}\right)\right]}{\left[\exp\left(\frac{Q_{eas} \times L_{1}}{D_{cas}^{ef} \times A_{cas}}\right) + \left(\frac{D_{c}^{ef} \times A_{e}}{Q_{aab} \times L_{r}}\right) + \left(\frac{D_{c}^{ef} \times A_{e}}{Q_{aab} \times L_{r}}\right) + \left(\frac{D_{c}^{ef} \times A_{e}}{Q_{aab} \times L_{r}}\right) + \left(\frac{D_{c}^{ef} \times A_{e}}{D_{cas}^{ef} \times A_{cas}}\right) + \left(\frac{D_{c}^{ef} \times A_{e}}{D_{cas}^{ef} \times A_{cas}}\right) - 1\right]\right] \qquad \qquad$	1.32x10 ⁻⁴
.J&E 8 α Diffusion only	NA	NA

5

•

J&E 9a DT ^{eff:}	$\frac{L_{\tau}}{\sum\limits_{i=1}^{n}L_{i}/D_{i}^{eff}}$	$\frac{152.4}{\left(\frac{114.9}{4.61e\cdot3}\right)+\left(\frac{37.5}{2.16e\cdot4}\right)}$	7.68x10 ⁻⁴ cm ² /s
J&E 9b	· · · · · · · · · · · · · · · · · · ·	$L_1 + L_2 = L_T$	Satisfied ·
J&E 10 L _T	D _{source} - L _F	162.4-10	152.4 cm
J&E11 D1 ^{eff}	$D_{i}\left(\frac{\boldsymbol{\theta}_{a,i}^{3.33}}{\boldsymbol{\theta}_{T,i}^{2}}\right) + \left(\frac{D_{w}}{H_{TS}}\right)\left(\frac{\boldsymbol{\theta}_{w,i}^{3.33}}{\boldsymbol{\theta}_{T,i}^{2}}\right)$	$(5.90e-2)\left(\frac{((0.28)^{2.33})}{((0.43)^2)}\right) + \left(\frac{7.50e-6}{8.29e-3}\right)\left(\frac{((0.15)^{2.32})}{((0.43)^2)}\right)$	4.61x10 ⁻³ cm ² /
J&E11 D2 ^{eff} Cap fringe	$D_{i}\left(\frac{\boldsymbol{\theta}_{a,i}^{3.33}}{\boldsymbol{\theta}_{T,i}^{2}}\right) + \left(\frac{D_{w}}{H_{TS}}\right)\left(\frac{\boldsymbol{\theta}_{w,i}^{3.33}}{\boldsymbol{\theta}_{T,i}^{2}}\right)$	$(5.90e-2)\left(\frac{((0.043)^{3.33})}{((0.43)^2)}\right) + \left(\frac{7.50e-6}{8.29e-3}\right)\left(\frac{((0.387)^{3.33})}{((0.43)^2)}\right)$	2.16x10 ⁻⁴ cm ² /
J&E 12a A _B	$(L_{B} \times W_{B})$	1000×1000	1x10 ⁶ cm ²
J&E 12b		NA	NA
J&E 13 Q _{bldg} ,	$\left(\frac{L_B \times W_B \times H_B \times ER}{3600 \frac{sec}{hr}}\right)$	$\frac{1000 \times 1000 \times 244 \times 0.53}{3600}$	3.59x10 ⁴ cm ³ /
J&E 14 A _{crack}	$2 \times (L_B + W_B) \times w$	2 (1000 + 1000) × 0.1	400 cm ²
J&E 15 D _{crack} eff	$D_{i}\left(\frac{\theta_{u,cnak}^{3,33}}{\theta_{T,cnak}^{2}}\right) + \left(\frac{D_{w}}{H_{TS}}\right)\left(\frac{\theta_{w,cnak}^{3,33}}{\theta_{T,cnak}^{2}}\right)$	$(5.90e-2)\left(\frac{((0.28)^{3.33})}{((0.43)^2)}\right) + \left(\frac{7.50e-6}{8.29e-3}\right)\left(\frac{((0.15)^{3.23})}{((0.43)^2)}\right)$	4.61x10 ⁻³ cm ² /
J&E 16 Өп		NA	NA
J&E 17 0 w		NA	NA

-

.

.

.

٠

J&E 18

N

NA

000360

7

i /

RESOURCE CONSULTING, INC.

APPENDIX E

Groundwater Ordinance

•

CITY OF WEST CHICAGO

ORDINANCE NO. 15-O-0004

AN ORDINANCE PROHIBITING THE USE OF GROUNDWATER AS A POTABLE WATER SUPPLY BY THE INSTALLATION OR USE OF POTABLE WATER SUPPLY WELLS OR BY ANY OTHER METHOD AT OR WITHIN THE SPECIFIED AREA OF REED-KEPPLER PARK – 250 W. NATIONAL STREET

ADOPTED BY THE CITY COUNCIL OF THE CITY OF WEST CHICAGO March 16, 2015

⁽Published in pamphlet form by the authority of the City Council of the City of West Chicago, DuPage County, Illinois, on the 17th day of March 2015.

ORDINANCE NO. 15-0-0004

AN ORDINANCE PROHIBITING THE USE OF GROUNDWATER AS A POTABLE WATER SUPPLY BY THE INSTALLATION OR USE OF POTABLE WATER SUPPLY WELLS OR BY ANY OTHER METHOD AT OR WITHIN THE SPECIFIED AREA OF REED-KEPPLER PARK – 250 W. NATIONAL STREET

WHEREAS, the City of West Chicago (hereinafter referred to as the "City") is a duly organized and existing municipality pursuant to the Illinois Municipal Code, 65 ILCS 5/1-1-1 et seq.; and,

WHEREAS, the City is also a home-rule municipality pursuant to Article VII, Section 6, of the Constitution of the State of Illinois, and authorized to exercise powers pursuant to that section; and,

WHEREAS, certain properties, including the property commonly known as Reed-Keppler Park located at 250 W. National Street, in the City of West Chicago, DuPage County, Illinois have been used over a period of time for commercial/industrial purposes; and,

WHEREAS, because of said use, concentrations of certain chemical constituents in the groundwater beneath the City may exceed Class 1 groundwater quality standards for potable resource groundwater as set forth in 35 Illinois Administrative Code 620 or Tier 1 remediation objectives as set forth in 35 Illinois Administrative Code 742; and,

WHEREAS, the City desires to limit potential threats to human health from groundwater contamination while facilitating the redevelopment and productive use of property commonly known as Reed-Keppler Park located at 250 W. National Street, that is the source of said chemical constituents and the surrounding properties, which are within the area depicted in Exhibit A and legally described in exhibit B which are attached hereto and incorporated herein; and,

WHEREAS, the City finds it is in the best interest of its residents to approve and enact a limited groundwater ordinance affecting properties located within a close proximity of the property commonly known as Reed-Keppler Park, 250 W. National in the City.

NOW, THEREFORE, BE IT ORDAINED, by the City Council of the City of West Chicago, DuPage County, Illinois, as follows:

Ordinance No. 15-O-0004 Page 1 of 3

<u>SECTION 1:</u> The recitals set forth above are incorporated herein and made a part hereof.

<u>SECTION 2:</u> The City regulates the use of groundwater as potable water supply as follows:

1. Use of groundwater as a potable water supply prohibited. The use or attempt to use of groundwater as a potable water supply by the installation or drilling of wells or by any other method, including at points of withdrawal by the City of West Chicago, is hereby prohibited within a rectangle whose corners are described by the following Illinois State Plane East Zone Metric Coordinates based on North American Datum of 1983 (NAD 83) and depicted on Exhibit A, which is attached hereto and incorporated herein by reference.

Corner	Northing	Easting
A (NW)	580346.521	310096.392
B (NE)	580346.521	310480.267
C (SE)	57 <u>9</u> 989.559	310480.267
D (SW)	579989.559	310096.392

2. <u>Penalties.</u> Any person violating the provisions of this ordinance shall be subject to a fine of up to Seven Hundred Fifty 00/100 Dollars (\$750.00) for each violation.

3. Definitions.

"Person" is any individual, partnership, co-partnership, firm, company, limited liability company, corporation, association, joint stock company, trust, estate, political subdivision, or any other legal entity, or their legal representatives, agents or assigns.

"Potable Water" is any water used for human or domestic consumption, including, but not limited to, water used for drinking, bathing, swimming, washing dishes, or preparing foods.

4. <u>Severability.</u> If any provision of this ordinance or its application to any person or under any circumstances is adjudged invalid, such adjudication shall not affect the validity of the ordinance as a whole or of any portion not adjudged invalid.

<u>SECTION 3</u>: That all ordinances and resolutions, or parts thereof, in conflict with the provisions of this ordinance are, to the extent of such conflict, hereby repealed.

Ordinance No. 15-O-0004 Page 2 of 3

SECTION4: That the City Clerk of the City of West Chicago be and is directed hereby to publish this Ordinance in pamphlet form, pursuant to the statutes of the State of Illinois.

SECTION 5: That the City Clerk of the City of West Chicago be and is directed herby to Certify Mail a copy of this Ordinance to the commonly known address of parcels identified in Exhibit C.

SECTION6: That this Ordinance shall be in full force and effect from and after its passage, approval and publication in pamphlet form as provided by law.

PASSED this 16th day of March 2015.

Alderman L. Chassee Alderman A. Hallett Alderman M. Birch Alderman K. Meissner Alderman L. Grodoski Alderman M. Fuesting Alderman J. Smith

APPROVED as to form:

Aye Aye Aye Averit aye aye Misint

Alderman J. Beifuss Alderman J. Banas Alderman S. Dimas Alderman R. Stout Alderman D. F. Earley Alderman M. Edwalds

Aye Aye Aye Aye Aye Aye

Alderman J. C. Smith, Jr.

ity Attorney

APPROVED this 16th day of March 2015.

Ruben Pineda, Mayor

ATTEST: VN/A

Nancy M. Smith, City Clerk

PUBLISHED: 3/17/15

Ordinance No. 15-O-0004 Page 3 of 3

Exhibit A - Ordinance No. 15-O-0004

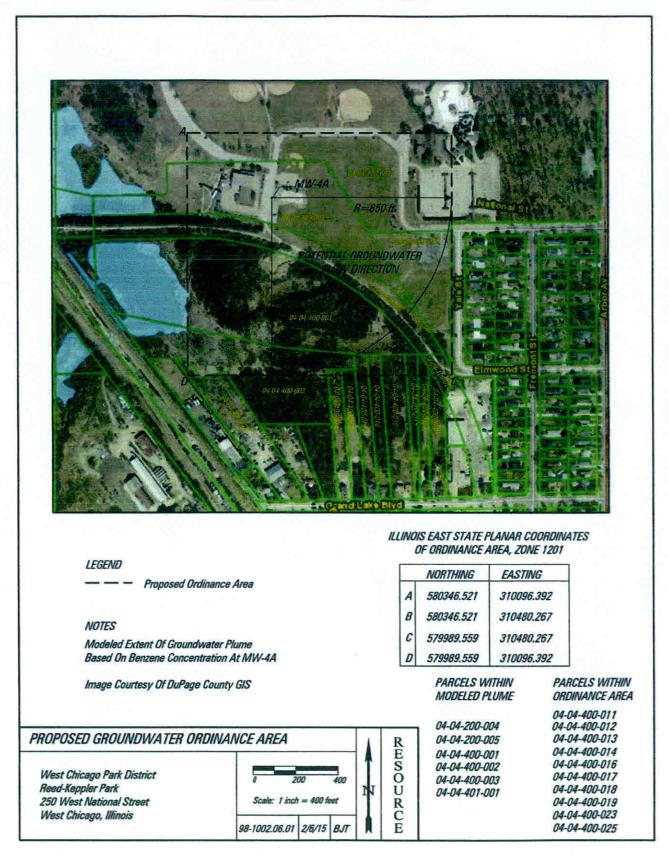


Exhibit B - Ordinance No. 15-O-0004

Legal Descriptions of Properties Within the Modeled Plume

in the Proposed Ordinance Area

The Property commonly known as Reed-Keppler Park, 250 W. National Ave., West Chicago. IL 60185.

PINs 04-040-200-004, 04-04-400-001, 04-04-401-001

That part of the North Half of the Southeast Quarter and part of the Northeast Quarter of Section 4, Township 39 North, Range 9 East of the Third Principal Meridian, described 'as beginning at a stone at the Southeast comer of the North Half of said Southeast Quarter of Section; thence North on Section line 39.27 chains (2591.82 feet) to John Spoden's line; thence West on said line 40 chains (2640 feet) to the Half section line; thence South on said line 15.68 chains (1034.88 feet) to the Northwest comer of lands of Elgin, Joliet and Eastern Railroad company; thence South 78° East 2.73 chains (180.10 feet) to the Northeast comer of lands of said railroad; thence South along the East line of said railroad lands to the Easterly line of Elgin, Joliet and Eastern Railroad Company's right of way; thence South 40° 2.43 chains (160.38 feet); thence 76 1/2° East 12.85 chains (848.10 feet) to a cotton wood tree; thence South 82 112°East 6.05 chains (399.30 feet); thence East parallel with division line. 5.596 chains (369.34 feet); thence South 45° East 10.93 chains (721.38 feet) to division line; thence East on division line, 11.484 chains (757.94 feet) to the place of the beginning, (except that part conveyed to the Chicago, Wheaton and Western Railroad Company, by deed recorded as Document 96756 and except that part conveyed to A.S. Neumer by deed recorded as Document 97713 and except that part known as Bloch Real Estate Company's First Addition to West Chicago, according to the plat recorded as document 210866) in DuPage County, Illinois.

Also partially described as:

PINs 04-040-200-004, 04-040-200-005, 04-04-400-001, 04-04-400-002

That part of the northeast quarter and the southeast quarter of Section 4, Township 39 North, Range 9 East of the Third Principal Meridian in DuPage County, Illinois, described as follows; beginning at the intersection of the north right of way line of National Street and the west right of way line of Yale Street; Thence southerly along said west right of way line of Yale Street, a distance of 636 feet, more or less, to a point on the north line extended easterly of Ward's Plat of Survey according to the plat recorded as document no. 654706 in DuPage County, Illinois; Thence westerly along said northerly line extended easterly, a distance of 406 feet, more or less, to the northwest corner of Lot 2 in said Ward's Plat of Survey; Thence northwesterly along a line at an angle of 173° 59', more or less, as measured counterclockwise from the previously described course, a distance of 226 feet; Thence northerly along a line parallel with said west right of way line of Yale Street, a distance of 615 feet, more or less, to a point on a line 33 feet north of, as measured at right angles to, the east-west quarter section line of said Section 4; Thence easterly along said parallel line, a distance of 631 feet, more or less, to the place of beginning. Exhibit B - Ordinance No. 15-O-0004

Including land owned by the DuPage County Forest Preserve described as:

PINs 04-040-400-003 and 04-040-400-010

THAT PART OF THE NORTH HALF OF THE SOUTHEAST OUAR TER OF' SECTION 4, TOWNSHIP 39 NORTH RANGE 9. EAST OF THE THIRD PRINCIPAL MERIDIAN. DESCRIBED BY COMMENCING ON THE DIVISION LINE. 1156.3 FEET WEST OF THE SOUTHEAST CORNER OF SAID NORTH HALF OF THE SOUTHEAST OUARTER OF SECTION 4 AND RUNNING THENCE NORTH 02 DEGREES 35 MINUTES 00 SECONDS WEST 16. 5 FEET FOR A POINT OF BEGINNING: THENCE WEST 16.5 FEET NORTH OF AND PARALLEL WITH THE DIVISION LINE 258.2 FEET: THENCE NORTH 31 DEGREES 54 MINUTES 00 SECONDS WEST. 127.2 FEET: THENCE SOUTH 82 DEGREES 15 MINUTES 00 SECONDS WEST. 113 FEET: THENCE NORTH 15 DEGREES 31 MINUTES 00 SECONDS WEST. 113 FEET: THENCE NORTH 15 DEGREES 56 MINUTES 00 SECONDS WEST. 113 FEET: THENCE NORTH 15 DEGREES 56 MINUTES 00 SECONDS WEST. 180.2 FEET TO THE BASE LINE OF THE ELGIN. JOLIET AND EASTERN RAILROAD : THENCE NORTH 35 DEGREES 00 MINUTES 00 SECONDS WEST ALONG SAID EAST LINE OF THE ELGIN. JOLIET AND EASTERN RAILROAD. 284 FEET; THENCE SOUTH 76 DEGREES 09 MINUTES 00 SECONDS EAST ALONG FENCE LINE, 446 FEET: THENCE SOUTH 714.5 FEET TO THE POINT OF BEGINNING. EXCEPT THE EAST 8 RODS OF THE SOUTH 40 RODS OF THAT PIECE OF LAND CONVEYED BY DEED DATED MAY27. 1914 RECORDED AS DOCUMENT 117184 AND EXCEPT THAT PART CONVEYED BY DOCUMENT 217255 (CORRECTED AND RECORDED AS DOCUMENT 394560) DESCRIBED AS FOLLOWS: COMMENCING AT A POINT 1288.3 FEET WEST OF THE SOUTHEAST CORNER OF SAID NORTH HALF OF THE SOUTHEAST OUARTER OF SAID SECTION 4; THENCE NORTH 02 DEGREES 35 MINUTES 00 SECONDS WEST. ALONG THE NORTH LINE OF GRAND LAKE BOULEVARD (SAID NORTH LINE BEING 33 FEET NORTH LINE OF GRAND LAKE BOULEVARD (SAID NORTH LINE BEING 33 FEET NORTH LINE OF GRAND LAKE BOULEVARD (SAID NORTH LINE BEING 33 FEET NORTH LINE OF GRAND LAKE BOULEVARD (SAID NORTH LINE BEING 33 FEET NORTH LINE OF GRAND LAKE BOULEVARD, 67.95 FEET: TO A POINT OF BEGINNING: THENCE NORTH 89 DEGREES 51 MINUTES 00 SECONDS WEST ALONG THE NORTH LINE OF SAID GRAND LAKE BOULEVARD, 67.95 FEET: THENCE NORTH 31 DEGREES 54 MINUTES 00 SECONDS WEST, 423.9 FEET; THENCE SOUTH

> PIN 04-04-400-003 AND PIN 04-04-400-010



Illinois EPAEtecta dixientiplitog: Referenced, Solvertk's Office 09/20/2024

SID: 73480

	•	· · ·	<u> </u>		
Agency ID:	170000343563	Media File Type: L	AND	•	•
Bureau ID:	0430905825			J	·
Site Name:	Reed Keppler Park	r	,		
	250 W National St	· ·			
e Address2:		•			
Site City:	West Chicago	State: IL	Zip: 60185-	•	
•					
	This rec	ord has be	en determ	nined to	
•	ho narti	ally or who	lly exem	ot from	
• •		🗄 public dis	closure		
		-		•	
			·	. ,	
•		Exemption	on Type:		
a					•
,			· ·		
:	,	<u> </u>			
		Redad	ction		•
					•
1		•	•		
		1		•	•
			•	• •	
•	· · ·	•	· -	• •	
				•	

Exempt Doc #: 2

Document Date: 12/15/2022

Staff: EMI

ι

Document Description: CACR -- PROPERTY OWNERS' NOTIFICATION LIST

 Category ID: 21A
 Category Description:
 LEAKING UST TECHNICAL
 Exempt Type:
 Redaction

 Permit ID:
 Date of Determination:
 7 /17/2023

Exhibit C - Ordinance No. 15-O-0004

PIN	Address	Street	Owner	Mailing Address		· · · ·		
04-04-200-004	250 W	National Ave.	City of West Chicago	City of West Chicago	475 Main Street	West Chicago	I.	60185
04-04-200-005	250 W	National Ave.	City of West Chicago	City of West Chicago	475 Main Street	West Chicago		60185
4-04-400-001			City of West Chicago	City of West Chicago	475 Main Street	West Chicago	<u>IL</u>	60185
4-04-400-002			Commonwealth Edison	Exclon Corporation	P.O Box 805398	Chicago		60680
04-04-400-003			Forest Preserve District	Forest Preserve District	3S580 Naperville Rd.	Wheaton		60189
4-04-400-011								
4-04-400-012								
4-04-400-013	173 W	Grand Lake Blvd.	ST BK OF IL TR 1-1196	State Bank of Illinois	600 E. Washington	West Chicago	L	60185
4-04-400-014								
4-04-400-016	-							
4-04-400-017								
4-04-400-018								
4-04-400-019								
4-04-400-023			Commonwealth Edican	Evelop Composition	P O Box 805398	IChicago.	LTT.	160680
4-04-400-025								
404-401-001	250 W	National St.	City of West Chicago	City of West Chicago	475 Main Street	West Chicago) JIL	60185

000370

FE WINDER OF RECORDS ANALASEMENT REVIEWER. 2023

STATE OF ILLINOIS COUNTY OF DU PAGE

CERTIFICATE

I, Nancy Smith, Certify that I am the duly elected and acting City Clerk of the City of West Chicago, DuPage County, Illinois.

I further certify that on March 16, 2015 the Corporate Authorities of such municipality passed and approved Ordinance No. 15-O-0004 entitled:

AN ORDINANCE PROHIBITING THE USE OF GROUNDWATER AS A POTABLE WATER SUPPLY BY THE INSTALLATION OR USE OF POTABLE WATER SUPPLY WELLS OR BY ANY OTHER METHOD AT OR WITHIN THE SPECIFIED AREA OF REED-KEPPLER PARK – 250 W. NATIONAL STREET

Which provided by its terms that it should be published in pamphlet form.

The pamphlet form of Ordinance No. 15-O-0004 including the ordinance and a cover sheet hereof was prepared, and a copy of such ordinance posted in the municipal building, commencing on March 17, 2015 continuing for at least ten days thereafter. Copies of such ordinance were also available for public inspection upon request in the Office of the City Clerk.

Dated at West Chicago, Illinois, this 16th of March 2015.

SEAL

Nancy Smith City Clerk

RESOURCE CONSULTING, INC.

APPENDIX F

Illinois EPA Forms

RECEIVED

IEPA/BOL

DEC 1 5 2022



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 Corrective Action Completion Report

A. Site Identification

	MA Incident # (6- or 8-digit): 9808 e Name: West Chicago Park Dist.	14	·	IEPA LPC# (10	-digit): 0430905825	
	e Address (Not a P.O. Box): 201	W National St.				
	y: West Chicago	County: Du	Page	ZI	P Code: <u>60185</u>	·
B. Site	Information			÷		
1.	Has a Corrective Action Plan be	en approved?	🖌 Yes	No 📜		
	Date of approval letter: July 16	2009			·	
2.	This completion report is being	submitted pursua	ant to:		•.	
	a. 35 lil. Adm. Code 731.166		`	\$		
	b. 35 III. Adm. Code 732.300(b)					
	c. 35 III. Adm. Code 732.404				•	•
	d. 35 III. Adm. Code 734.345					· Fan I. · · · · · · · · · ·
3.	Method of remediation chosen:	•			KE()EIVED
	a. Soil Excavation and dispo	sal	•		DE	<u>C 1 5 2022</u>
	b. Groundwater TACO evalu					
4.	Quantity of contaminated media	remediated and	or recovere	di se poste en entre di secondo di secondo di secondo de la constante de	EP	A/BOL
	a. Soil	215yds. ³				
•	b. Groundwater	4,000 gals.		•		
	a Erro Broduct	10 nais		•	•	

C. Remedial (Corrective) Action

- 1. An executive summary that identifies the overall objectives of the corrective action and the technical approach utilized to meet those objectives. The summary shall contain the following information:
 - a. A brief description of the site, including but not limited to a description of the release, the applicable indicator contaminants, the contaminated media, and the extents of soil and groundwater contamination that exceeded the most stringent Tier 1 remediation objectives;

IL 532 2288 LPC 514 Rev. March 2006 Corrective Action Completion Report Page 1 of 3

- b. The major components (e.g., treatment, containment, removal) of the corrective action;
- c. The scope of the problems corrected or mitigated by the corrective action; and
- d. The anticipated post-corrective action uses of the site and areas immediately adjacent to the site;
- 2. A description of the corrective action activities conducted including:
 - a. A narrative description of the field activities conducted as part of corrective action;
 - b. A narrative description of the remedial actions implemented at the site and the performance of each remedial technology utilized;
 - c. Documentation of sampling activities:
 - i. Sample collection information;
 - ii. Sample preservation and shipment information;
 - iii. Analytical procedure information;
 - iv. Analytical results, chain of custody and control, and laboratory certification;
 - v. Field and lab blanks; and
 - vi. Table(s) comparing analytical results to remediation objectives approved for the site (include sample depths, date collected, and detection limits);
 - d. Soil boring logs and monitoring well construction diagrams.
- 3. A narrative description of any special conditions relied upon as part of corrective action including:
 - a. Engineered barriers utilized:
 - i. Type of barrier(s); and
 - ii. Map showing location(s) and dimension(s) of barrier(s);
 - b. Institutional controls utilized:
 - i. Copy of fully executed institutional control(s); and
 - ii. Map showing location(s) of controls;
 - c. Other conditions, if any, necessary for protection of human health and safety and the environment that are related to the issuance of a No Further Remediation Letter; and
 - d. Any information required regarding off-site access;
- An analysis of the effectiveness of the corrective action that compares the confirmation sampling results to the remediation objectives approved for the site;
- A conclusion that identifies the success in meeting the remediation objectives approved for the site;
- 6. Appendices containing references and data sources;
- 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;
 - b. Map(s) showing regulated recharge areas and wellhead protection areas;
 - c. Map(s) showing the current extent of groundwater contamination exceeding the most stringent Tier 1 remediation objectives;
 - Map(s) showing the modeled extent of groundwater contamination exceeding the most stringent Tier 1 remediation objectives;
 - e. Table(s) listing the setback zones for each community water supply well and other potable water supply wells;
 - 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
 - g. A certification from a Licensed Professional Engineer or Licensed Professional Geologist that the survey was conducted in accordance with the requirements and that the documentation submitted includes the information obtained as a result of the survey (certification of this report satisfies this requirement);

Corrective Action Completion Report Page 2 of 3

- 8. Site map(s) meeting the requirements of 35 III. Adm. Code 732.110(a) or 734.440.
- 9. Development of Tier 2 or 3 remediation objectives, if applicable:
 - a. Equations used;
 - b. Discussion of how input variables were determined;
 - c. Map(s) depicting distances used in equation; and
 - d. Calculations; and

10. Property Owner Summary form.

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	Consultant
Name West Chicago Park Dist.	Company Resource Consulting
Contact Michael Gasparini	Contact Dan Horvath
Address 201 W National St.	Address PO Box 123
City West Chicago	City Geneva
State Illinois	State Illinois
Zip Code 60185	Zip Code 60134
Phone 630-231-9474	Phone 630-232-9820
Signature Michaelt	Signature <u>MC</u>
Date 12-1-2022	Date 12-5 2022

E. Certification

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 this plan, budget, or report has been completed in accordance with the Environmental Protection Act [415 ILCS 5], 35 III. 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		L.P.E. Seal View View View Lef
Name Bernard A. Bono		DEC 1 5 2022
Company Bono Consulting Civil Engineers		
Address 1018 Busse Highway	•	IEPA/BOL
City Park Ridge		
State Illinois	<u></u>	
Zip Code 60068		•
Phone 847-823-3300		÷
III. Registration No. 062-044068	Signature	
License Expiration Date 11/30/2023	Date	

DECEN/EN

000375

Corrective Action Completion Report Page 3 of 3



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 Licensed Professional Engineer Certification

A. Site Identification

IEMA Incident # (6- or 8-digit): 98	0814	· IEPA LPC# (10-digit): 0430905825
Site Name: West Chicago Park D	list.	
Site Address (Not a P.O. Box): 2	50 National Street	
City: West Chicago	County: DuPage	ZIP Code: 60185

Leaking UST Technical File

B. Certification

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 this plan, budget, or report 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
Name Bernard A. Bono
Company Bono Consulting Civil Engineers
Address 1018 Busse Highway
City Park Ridge
State Illinois
Zip Code 60068
Phone 847-823-3300
III. Registration No. 062-044068
License Expiration Date Nov 30, 2023
Signature 13-

12/8/22



L.P.E. Seal DEC 1 5 2022

Date



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 #: 0430905825	County:	DuPage
City: West Chicago	Site Name:	West Chicago Park District
Site Address: 250 West National Stree	<u>t</u> .	
Date this form was prepared: 11/22/20	22	
List all IEMA Incident numbers associa	ated with this nackage:	
······		
980814		
List all other incidents associated with	this site that are not associated w	
		<u> </u>
This form is being submitted as a (che	ck one, if applicable):	
O Billing Package		
· · · ·	· · · · · · · · · ·	
Ø Budget Amendment (Budget amen	idments must include only the costs o	over the previous budget.)
O Budget Proposal		
-	· ,	
Please provide the name(s) and da	ate(s) of report(s) documenting the co	osts requested:
	• • • • • • • • •	•
Name(s): FPRR/CACR	Tech Summary/CAP Ante	
Name(s): FPRR/CACR Date(s): Jul 12, 2013	Jun 14, 2019	
Date(s): Jul 12, 2013	Jun 14, 2019	
	Jun 14, 2019	RECEIVEI
Date(s): <u>Jul 12, 2013</u> This package is being submitted for th	Jun 14, 2019	— — — —
Date(s): <u>Jul 12, 2013</u> This package is being submitted for th 35 III. Adm. Code 734: Early Action Free Product Removal after Early	Jun 14, 2019 ne site activities indicated below: Action	DEC 1 5 2022
Date(s): <u>Jul 12, 2013</u> This package is being submitted for th 35 III. Adm. Code 734: Early Action Free Product Removal after Early	Jun 14, 2019 ne site activities indicated below: Action	DEC 1 5 2022
Date(s): <u>Jul 12, 2013</u> This package is being submitted for th 35 III. Adm. Code 734: Early Action Free Product Removal after Early	Jun 14, 2019 ne site activities indicated below: Action	DEC 1 5 2022
Date(s): Jul 12, 2013 This package is being submitted for th 35 III. Adm. Code 734: Early Action Free Product Removal after Early Action Site Investigation	Jun 14, 2019 ne site activities indicated below: Action	DEC 1 5 2022
Date(s): Jul 12, 2013 This package is being submitted for th 35 III. Adm. Code 734: Early Action Free Product Removal after Early A Site Investigation Corrective Action 35 III. Adm. Code 732:	Jun 14, 2019 ne site activities indicated below: Action	DEC 1 5 2022
Date(s): Jul 12, 2013 This package is being submitted for th 35 III. Adm. Code 734: Early Action Free Product Removal after Early Action Site Investigation Corrective Action 35 III. Adm. Code 732: Early Action	Jun 14, 2019 The site activities indicated below: Action Stage 1: Stage 2: -	DEC 1 5 2022
Date(s): Jul 12, 2013 This package is being submitted for the 35 III. Adm. Code 734: Early Action Free Product Removal after Early Action Site Investigation Corrective Action 35 III. Adm. Code 732: Early Action Free Product Removal after Early Action	Jun 14, 2019 The site activities indicated below: Action Stage 1: Stage 2: -	DEC 1 5 2022
Date(s): Jul 12, 2013 This package is being submitted for th 35 III. Adm. Code 734: Early Action Free Product Removal after Early Action Site Investigation Corrective Action 35 III. Adm. Code 732: Early Action	Jun 14, 2019 The site activities indicated below: Action Stage 1: Stage 2: -	DEC 1 5 2022
Date(s): Jul 12, 2013 This package is being submitted for th 35 III. Adm. Code 734: Early Action Free Product Removal after Early Action Site Investigation Corrective Action 35 III. Adm. Code 732: Early Action Free Product Removal after Early Action Site Classification	Jun 14, 2019 The site activities indicated below: Action Stage 1: Stage 2: -	DEC 1 5 2022
Date(s): Jul 12, 2013 This package is being submitted for the 35 III. Adm. Code 734: Early Action Free Product Removal after Early Action Site Investigation Corrective Action 35 III. Adm. Code 732: Early Action Free Product Removal after Early Action Site Classification Low Priority Corrective Action High Priority Corrective Action	Jun 14, 2019 The site activities indicated below: Action Stage 1: Stage 2: -	DEC 1 5 2022
Date(s): Jul 12, 2013 This package is being submitted for th 35 III. Adm. Code 734: Early Action Free Product Removal after Early A Site Investigation Corrective Action 35 III. Adm. Code 732: Early Action Free Product Removal after Early A Site Classification Low Priority Corrective Action High Priority Corrective Action 35 III. Adm. Code 731:	Jun 14, 2019 The site activities indicated below: Action Stage 1: Stage 2: -	DEC 1 5 2022
Date(s): Jul 12, 2013 This package is being submitted for the 35 III. Adm. Code 734: Early Action Free Product Removal after Early Action Site Investigation Corrective Action 35 III. Adm. Code 732: Early Action Free Product Removal after Early Action Site Classification Low Priority Corrective Action High Priority Corrective Action	Jun 14, 2019 The site activities indicated below: Action Stage 1: Stage 2: -	_ _ _ _ _ _ _ _ _

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:	West Chicago Pa	rk District	<u></u>		·
Send in care of:	Michael Gasparir	ni			·
Address:	201 W National S	St.		,	
City:	West Chicago			State: IL	Zip: 60185
The payee is the	the owner or open	Operator 7 ator of the UST(s)	(Check one or	12/0	01/2022
West Chicago Park	District c/o Micha		(c) (required)		ust be submitted. ere to print off a W-9 Form.
	@we-goparks.org		(o) (redailed)		· ·

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: ()

Product Stored in UST	Size (gallons)	Did US [.] a rele		Incident No.	Type of Release Tank Leak / Overfill / Piping Leak
Gasoline	1,000 Yes ② No 〇	980814	Tank Leak		
Diesel Fuel	1,000	Yes ()	No 🕢	980814	Tank Leak
		Yes ()	NoO		
		Yes ()	No ()	· ·	
· · · · · · · · · · · · · · · · · · ·		Yes ()	No ()		
ಕ್ಷಣೆಯ ಕ್ಷೇತ್ರ ಸಂಕಾರಣ ಸ್ಥಾನಕ್ಕೆ ಕೊಡಿಸಲಾಗಿದ್ದರೆ ಸುಕ್ತಿದ್ದರೆ. ಕ್ಷಣೆಗಳು		Yes ()	NoO		
		Yes ()	No ()		
		· Yes ()	No ()		

Please list all tanks that have ever been located at the site and tanks that are presently located at the site.



Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

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, ficilitous, 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 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.

Leaking Underground Storage Tank Program Property Owner Summary

A. Site Identification

•	-IEMA Incident # (6- or 8-digit): -	-980814	IEPA LPC# (10-digit): <u>0430905825</u>		
	Site Name: West Chicago Par	k District/Reed Keppler Park	· · · · · · · · · · · · · · · · · · ·		
	Site Address (not a P.O. Box):	250 National Street	· · · · · · · · · · · · · · · · · · ·		
	City: West Chicago	County: DuPage	Zip Code: 60185		
	Leaking UST Technical File		•		
	Engineered barriers, institutiona	al controls, and other use restrict	tions, if any, proposed for this site may not		

Engineered barriers, institutional controls, and other use restrictions, if any, proposed for this site may not be implemented without approval by the title holder(s) of record for the above-named property or the agent(s) of such person(s). These controls and restrictions will be identified in the No Further Remediation (NFR) Letter, which must be recorded in the chain of title for the property. Failure to maintain these controls is grounds for voidance of the NFR Letter.

B. Preventive, Engineering, and Institutional Controls and Land Use Limitations

The following controls and restrictions are proposed for the above-named site:

- Industrial/commercial land use limitation;
- On-site groundwater restriction prohibiting the use of groundwater beneath the site as a potable water supply;

An engineered barrier: Building, asphalt/concrete, or Other:
(description)
Concrete Base with no Sumps;
Building Control Technology: 🔲 Existing 🔛 Future
Groundwater ordinance: 📝 With a MOU; 📋 Without a MOU;
Construction worker caution notification;
Maintain a clean soil barrier (indoor inhalation):
Other:
None (There are no proposed institutional controls other than the NFR Letter.).

Property Owner Summary

Ν.

C. Property Ownership Declaration

Report Title: Corrective Action Completion Report

Report Date: November 15, 2022

I hereby affirm that I have reviewed the attached report entitled Corrective Action Completion Report and dated November 15, 2022, and that I accept the terms and conditions set forth therein, including any land use limitations, that apply to property I own. I further affirm that I have no objection to the recording of a No Further Remediation Letter containing the terms and conditions identified in the report upon the property I own.

Name of Property Owner. City of West Chicago	
Name of Officer or Agent: <u>Michael Guttman</u>	
Mailing Address: 475 Main Street	·
City: West Chicago	
State:_Illinois	
Zip Code: 60185	
E-mail: Maytman @ westchicago.org	
Signature:	
Date: 11/22/22	
Site Description	

Ð.

Real Estate Tax/Parcel Index Number:

04-04-200-003, 04-04-200-004, 04-04-200-005, 04-04-400-001, 04-04-401-001

Legal Description of Site (must be provided on a separate sheet):

Legal Descriptions of Properties Within the Modeled Plume

in the Proposed Ordinance Area

The Property commonly known as Reed-Keppler Park, 250 W. National Ave., West Chicago. IL 60185.

PINs 04-040-200-004, 04-04-400-001, 04-04-401-001

That part of the North Half of the Southeast Quarter and part of the Northeast Quarter of Section 4, Township 39 North, Range 9 East of the Third Principal Meridian, described 'as beginning at a stone at the Southeast comer of the North Half of said Southeast Quarter of Section; thence North on Section line 39.27 chains (2591.82 feet) to John Spoden's line; thence West on said line 40 chains (2640 feet) to the Half section line; thence South on said line 15.68 chains (1034.88 feet) to the Northwest comer of lands of Elgin, Joliet and Eastern Railroad company; thence South 78° East 2.73 chains (180.10 feet) to the Northeast comer of lands of said railroad; thence South along the East line of said railroad lands to the Easterly line of Elgin, Joliet and Eastern Railroad Company's right of way; thence South 40° 2.43 chains (160.38 feet); thence 76 1/2° East 12.85 chains (848.10 feet) to a cotton wood tree; thence South 82 112°East 6.05 chains (399.30 feet); thence East parallel with division line, 5.596 chains (369.34 feet); thence South 45° East 10.93 chains (721.38 feet) to division line; thence East on division line, 11.484 chains (757.94 feet) to the place of the beginning, (except that part conveyed to the Chicago, Wheaton and Western Railroad Company, by deed recorded as Document 96756 and except that part conveyed to A.S. Neumer by deed recorded as Document 97713 and except that part known as Bloch Real Estate Company's First Addition to West Chicago, according to the plat recorded as document 210866) in DuPage County, Illinois.

Also partially described as:

PINs 04-040-200-004, 04-040-200-005, 04-04-400-001, 04-04-400-002

That part of the northeast quarter and the southeast quarter of Section 4, Township 39 North, Range 9 East of the Third Principal Meridian in DuPage County, Illinois, described as follows; beginning at the intersection of the north right of way line of National Street and the west right of way line of Yale Street; Thence southerly along said west right of way line of Yale Street, a distance of 636 feet, more or less, to a point on the north line extended easterly of Ward's Plat of Survey according to the plat recorded as document no. 654706 in DuPage County, Illinois; Thence westerly along said northerly line extended easterly, a distance of 406 feet, more or less, to the northwest corner of Lot 2 in said Ward's Plat of Survey; Thence northwesterly along a line at an angle of 173° 59', more or less, as measured counterclockwise from the previously described course, a distance of 226 feet; Thence northerly along a line parallel with said west right of way line of Yale Street, a distance of 615 feet, more or less, to a point on a line 33 feet north of, as measured at right angles to, the east-west quarter section line of said Section 4; Thence easterly along said parallel line, a distance of 631 feet, more or less, to the place of beginning. Exhibit B - Ordinance No. 15-O-0004

Including land owned by the DuPage County Forest Preserve described as:

PINs 04-040-400-003 and 04-040-400-010

THAT PART OF THE NORTH HALF OF THE SOUTHEAST OUAR TER OF' SECTION 4. TOWNSHIP 39 NORTH. RANGE 9. EAST OF THE THIRD PRINCIPAL MERIDIAN. DESCRIBED BY COMMENCING ON THE DIVISION LINE, 1156.3 FEET WEST OF THE SOUTHEAST CORNER OF SAID NORTH HALF OF THE SOUTHEAST OUARTER OF SECTION 4 AND RUNNING THENCE NORTH 02 DEGREES 35 MINUTES 00 SECONDS WEST 16. 5 FEET FOR A POINT OF BEGINNING: THENCE WEST 16.5 FEET NORTH OF AND PARALLEL WITH THE DIVISION LINE 258.2 FEET: THENCE NORTH 31 DEGREES 54 MINUTES 00 SECONDS WEST 749.6 FEET: THENCE SOUTH 82 DEGREES 15 MINUTES 00 SECONDS WEST, 127.2 FEET: THENCE NORTH 15 DEGREES 31 MINUTES 00 SECONDS WEST. 113 FEET: THENCE NORTH 89 DEGREES 56 MINUTES 00 SECONDS WEST. 180.2 FEET TO THE BASE LINE OF THE ELGIN. JOLIET AND EASTERN RAILROAD : THENCE NORTH 35 DEGREES 00 MINUTES 00 SECONDS WEST ALONG SAID EAST LINE OF THE ELGIN. JOLIET AND EASTERN RAILROAD. 284 FEET; THENCE SOUTH 76 DEGREES 09 MINUTES 00 SECONDS EAST ALONG FENCE LINE, 846 FEET: THENCE SOUTH 83 DEGREES 35 MINUTES 00 SECONDS EAST. 334.5 FEET: THENCE SOUTH 714.5 FEET TO THE POINT OF BEGINNING. EXCEPT THE EAST 8 RODS OF THE SOUTH 40 RODS OF THAT PIECE OF LAND CONVEYED BY. DEED DATED MAY 27. 1914 RECORDED AS DOCUMENT 117184 AND EXCEPT THAT PART CONVEYED BY DOCUMENT 217255 (CORRECTED AND RECORDED AS DOCUMENT 394560) DESCRIBED AS FOLLOWS: COMMENCING AT A POINT 1288.3 FEET WEST OF THE SOUTHEAST CORNER OF SAID NORTH HALF OF THE SOUTHEAST OUARTER OF SAID SECTION 4: THENCE NORTH 02 DEGREES 35 MINUTES 00 SECONDS WEST. 33 FEET: THENCE NORTH 89 DEGREES 51 MINUTES 00 SECONDS WEST ALONG THE NORTH LINE OF GRAND LAKE BOULEVARD (SAID NORTH LINE BEING 33 FEET NORTH OF AND PARALLEL WITH THE DIVISION LINE). 67. 95 FEET TO A POINT OF BEGINNING: THENCE NORTH 89 DEGREES 51 MINUTES 00 SECONDS WEST ALONG THE NORTH LINE OF SAID GRAND LAKE BOULEVARD. 67.95 FEET: THENCE NORTH 31 DEGREES 54 MINUTES 00 SECONDS WEST. 423.9 FEET: THENCE SOUTH 89 DEGREES 51 MINUTES 00 SECONDS EAST. 171.1 FEET: THENCE SOUTH 18 DEGREES 18 MINUTES 00 SECONDS EAST. 380.9 FEET TO THE POINT OF BEGINNING. IN DUPAGE COUNTY, ILLINOIS.

> PIN 04-04-400-003 AND PIN 04-04-400-010

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 <u>980814</u>. 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.	RECEIVED
Costs associated with planned tank pulls. Legal fees or costs.	DEC 1 5 2022
Costs incurred prior to July 28, 1989. Costs associated with installation of new USTs or the repair of existing USTs.	IEPA/BOL
Owner/Operator: West Chicago Park District	
Authorized Representative: Michael Gasparini Title: Superintenden	t of Parks
Signature: Date: Date:	027
(Notary Public)	2022 H A CAFE L SEAL State of Illingis sion Expires 3, 2026

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].

P.E./L.P.G. Seal: L.P.E./L.P.G .: Daniel Horvath 12/05/2022 Date: L.P.E./L.P.G. Signature: day of Subscribed and sworn to before me the ELIZABETH A CAPE OFFICIAL SEAL Seal: Notary Public - State of Illinois (Notary Public) My Commission Expires June 23, 2026

The Illinois EPA is authorized to require this information under 415 ILCS by: Disclosure of this information is required. Failure to do so may result in the delay or denial of any budget or payment requested hereunder.



Electronic Filing: Received, Clerk's Office 09/20/2024 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

7022 2410 0001 5388 1981

APR 14 2023

Michael Gasparini West Chicago Park District 201 West National Street West Chicago, IL 60185

Re: 0430905825 -- DuPage County West Chicago / West Chicago Park District 250 West National Street Leaking UST Incident 980814 Leaking UST Technical File

IEPA-DIVISION OF RECORES MANAGEMENT RELEADAGLE

JUN 1 2 2023

Dear Mr. Gasparini:

REVIEWER: SAB

The Illinois Environmental Protection Agency (Illinois EPA) has reviewed the Corrective Action Completion Report (report) submitted for the above-referenced incident. This report was dated November 15, 2022 and was received by the Illinois EPA on December 15, 2022. Citations in this letter are from the Environmental Protection Act (415 ILCS 5) (Act) and Title 35 of the Illinois Administrative Code (35 Ill. Adm. Code).

Pursuant to Section 57.7(c) of the Act and 35 Ill. Adm. Code 734.505(b) and 734.510(a), the report is rejected for the reasons listed below:

1. Ordinance No. 15-O-0004 is approved contingent upon the Illinois EPA's receipt of the original Certification of the Ordinance signed by a City official meeting the requirements of 35 Ill. Adm. Code 742.1015(b)(1).

However, please be advised Exhibit B simply relates to one of the recitals providing a description of certain surrounding properties. The groundwater ordinance area is described in Section 2 of the Ordinance using coordinates for all four corners of said restricted area and also depicted on Exhibit A, which provides the PINs of the parcels that comprise the groundwater ordinance area. The parcels within the "Ordinance Area" in Exhibit A necessarily include those listed under the "Parcels Within Modeled Plume" since the Plume is located within the Ordinance Area. The description and depiction of the groundwater ordinance area in Exhibit A provides an easily identifiable and clearly defined area meeting the requirements of Section 742.1015(a)(3), and the Ordinance prohibits the installation and use of potable water supply wells (including points of withdrawal by the City) meeting the requirements of Section 742.1015(a).

Therefore, upon receipt of the original Certification of the Ordinance signed by a City official meeting the requirements of 35 Ill. Adm. Code 742.1015(b)(1), the Ordinance is

2125 S. First Street, Champaign, IL 61820 (217) 278-5800 1101 Eastport Plaza Dr., Suite 100, Collinsville, IL 62234 (618) 346-5120 9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000 595 S. State Street, Elgin, IL 60123 (847) 608-3131 2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200 412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022 4302 N. Main Street, Rockford, IL 61103 (815) 987-7760

Page 2

approved for use as an institutional control for the limited restricted area described and depicted on Exhibit A and also described in Section 2 of the Ordinance, subject to these qualifications (i.e., The review is limited to the adequacy of the Ordinance in prohibiting the installation and use of potable water supply wells, and it is assumed that the other requirements of Section 742.1015 have been or will be timely met. It is also assumed that the Coordinates set forth in Section 2 and Exhibit A and the PINs set forth in Exhibit A are correct). The Certificate previously submitted certifies compliance of publication in pamphlet form. The original Certificate to be submitted must meet the requirements of Section 742.1015(b)(1) (i.e., that the copy of the attached Ordinance submitted is a true and accurate (or words to that effect) copy of the original Ordinance No. 15-O-0004 passed by the City's corporate authorities).

Note, the adequacy of the limited restricted area and the coordinates must be verified prior to re-submittal of the final approved Ordinance No. 15-O-0004.

- 2. The R26 calculations were not submitted for the chemicals that exceed the Tier I remediation objectives of Class I groundwater as shown in Table IV on page 9 of this report. These calculations should be submitted in the next report.
- 3. The Illinois EPA could not duplicate the Tier 2 remediation objectives for the indoor inhalation exposure route for the chemicals listed in Table V on page 14 of this report Additional documentation must be submitted identifying the input parameters used to calculate the Tier 2 remediation objectives for the indoor inhalation exposure route.

4. The Laboratory Certification for Chemical Analysis forms were not submitted in this report for the groundwater samples collected in 2017 and 2019. These forms should be submitted in the next report.

In addition, the budget is rejected for the reasons listed in Attachment A (Sections 57.7(b)(3) and 57.7(c)(4) of the Act and 35 Ill. Adm. Code 734.505(b) and 734.510(b)).

Pursuant to Section 57.12(c) and (d) of the Act and 35 Ill. Adm. Code 734.100 and 734.125, the Illinois EPA requires that a revised Corrective Action Completion Report be submitted to:

Illinois Environmental Protection Agency Bureau of Land - #24 Leaking Underground Storage Tank Section 1021 North Grand Avenue East PO Box 19276 Springfield, IL 62794-9276

Please submit all correspondence in duplicate and include the Re: block at the beginning of this letter.

Page 3

An underground storage tank system owner or operator may appeal this decision to the Illinois Pollution Control Board. Appeal rights are attached.

If you have any questions or need further assistance, please contact the undersigned at (217) 785-5715 or at eric.kuhlman@illinois.gov.

000386

Sincerely,

Eric Kuhlman Project Manager Leaking Underground Storage Tank Section Bureau of Land

SP:TB

C:

Attachments: Attachment A Appeal Rights

Dan Horvath, Resource Consulting, Inc. (electronic copy) BOL File

Appeal Rights

An underground storage tank 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 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 of the Board Illinois Pollution Control Board James R. Thompson Center 100 West Randolph, Suite 11-500 Chicago, IL 60601 (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 PO Box 19276 Springfield, IL 62794-9276 (217) 782-5544

Attachment A

Re: 0430905825 -- DuPage County West Chicago / West Chicago Park District 250 West National Street Leaking UST Incident 980814 Leaking UST Technical File

1.

2.

Citations in this attachment are from the Environmental Protection Act (415 ILCS 5) (Act) and Title 35 of the Illinois Administrative Code (35 Ill. Adm. Code).

A budget must include a copy of the eligibility and deductibility decision made for the above-referenced occurrence for accessing the Fund pursuant to Section 57.8 of the Act and 35 Ill. Adm. Code 734.135(a), 734.605(b)(3), and 734.630(s).

Please submit this form with your next budget.

The budget includes costs that lack supporting documentation. Such costs are ineligible for payment from the Fund pursuant to 35 Ill. Adm. Code 734.630(cc). Since there is no supporting documentation of costs, the Illinois EPA cannot determine that costs will not be used for activities in excess of those necessary to meet the minimum requirements of Title XVI of the Act. Therefore, such costs are not approved pursuant to Section 57.7(c)(3) of the Act and 35 Ill. Adm. Code 734.630(o) because they may be used for site investigation or corrective action activities in excess of those required to meet the minimum requirements of Title XVI of the Act.

Please note, the Illinois EPA cannot determine which Subpart H rates to apply to each task since most line items do not include a date performed. As such, these costs cannot be approved, as submitted.

P.O. Box 123

115 Campbell Street/Suite 108

.

June 16, 2023

•_•

Mr. Eric Kuhlman 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 Geneva, Illinois 60134 • (630)232-9820

0430905825 -DuPage County West Chicago Park District Incident # 980814 LUST Tech File

> iepa-division of Records Makagement Releasable

> > MAR 2 9 2024

REVIEWER: SAB

RE: LPC # 0430905825 -- DuPage County West Chicago/West Chicago Park District 250 West National Street Leaking UST Incident No. 980814 Leaking UST Technical File

RECEIVED JUN 2 3 2023 IEPA/BOL

Dear Mr. Kuhlman:

On behalf of the West Chicago Park District, Resource Consulting, Inc. is submitting the information requested by the Illinois Environmental Protection Agency (EPA) in correspondence dated April 14, 2023.

The information is presented below following each of the items taken directly from the April 2023 Illinois EPA correspondence.

1. Ordinance No. 15-O-0004 is approved contingent upon the Illinois EPA's receipt of the original Certification of the Ordinance signed by a City official meeting the requirements of 35 Ill. Adm. Code 742.1015(b)(1).

However, please be advised Exhibit B simply relates to one of the recitals providing a description of certain surrounding properties. The groundwater ordinance area is described in Section 2 of the Ordinance using coordinates for all four corners of said restricted area and also depicted on Exhibit A, which provides the PINs of the parcels that comprise the groundwater ordinance area. The parcels within the "Ordinance Area" in Exhibit A necessarily include those listed under the "Parcels Within Modeled Plume" since the Plume is located within the Ordinance Area. The description and depiction of the groundwater ordinance area in Exhibit A provides an easily identifiable and clearly defined area meeting the requirements of Section 742.1015(a)(3), and the Ordinance prohibits the installation and use of potable water supply wells (including points of withdrawal by the City) meeting the requirements of Section 742.1015(a).

Therefore, upon receipt of the original Certification of the Ordinance signed by a City official meeting the requirements of 35 III. Adm. Code 742.1015(b)(1), the Ordinance is approved for use as an institutional control for the limited restricted area described and depicted on Exhibit A and also described in Section 2 of the Ordinance, subject to these qualifications (i.e., the review is limited to the adequacy of the Ordinance in prohibiting the installation and use of potable water supply wells, and it is assumed that the other requirements of Section 742.1015 have been or will be timely met. It is also assumed that the Coordinates set forth in Section 2 and Exhibit A and the PINs set forth in Exhibit A are correct). The Certificate previously submitted certifies compliance of publication in pamphlet form. The original Certificate to be submitted must meet the requirements of Section 742.1015(b)(1) (i.e., that the copy of the attached Ordinance submitted is a true and accurate (or words to that effect) copy of the original Ordinance No. 15-O-0004 passed by the City's corporate authorities).

Note, the adequacy of the limited restricted area and the coordinates must be verified prior to resubmittal of the final approved Ordinance 15-O-0004.

A new original certification of the Ordinance No. 15-O-0004 is included in Attachment A. The City of West Chicago has discontinued the City Clerk position, so the ordinance has been certified by Valeria Perez, former Deputy City Clerk, now Executive Office Manager.

2. The R26 calculations were not submitted for the chemicals that exceed the Tier 1 remediation objectives of Class I groundwater as shown Table IV on page 9 of this report. These calculations should be submitted in the next report.

R26 calculations for benzene, ethylbenzene, and naphthalene were submitted in correspondence dated July 15, 2020, on file with the Illinois EPA, using the values and distances provided by the Illinois EPA in correspondence dated September 17, 2013. R26 calculations for the polynuclear aromatic hydrocarbons (PNAs) are included in Attachment B.

3. The Illinois EPA could not duplicate the Tier 2 remediation objectives for the indoor inhalation exposure route for the chemicals listed in Table V on page 14 of this report. Additional documentation must be submitted identifying the input parameters used to calculate the Tier 2 remediation objectives for the indoor inhalation exposure route.

A table identifying the input parameters used to calculate the Tier 2 ROs for the indoor inhalation exposure route is included in Attachment C.

4. The Laboratory Certification for Chemical Analysis forms were not submitted in this report for the groundwater samples collected in 2017 and 2019. These forms should be submitted in the next report.

The laboratory certification for the groundwater sample collected in 2017 was included in the correspondence dated July 15, 2020, on file with the Illinois EPA. A copy is being resubmitted in Attachment D. A laboratory certification for the groundwater sample collected in 2019 is included in Attachment D.

Electronic Correspondence

1.5

Additional information was requested by the Illinois EPA in electronic correspondence dated December 28, 2022, and March 17, 2023. Copies of these correspondences are included in Attachment E. The information is presented below.

- Upon initial review of the CACR and BUD received by the IEPA on 12/15/2022 and dated . 11/15/2022, I've noticed the following items missing:
 - 1) a new certified copy of Ordinance No. 15-O-0004,

As discussed previously, a new original certification of the Ordinance No. 15-O-0004 is included in Attachment A.

2) completed and signed copies of the Laboratory Certification for Chemical Analysis form for each set of samples shipped to a laboratory, and

As discussed above, the signed laboratory certification is included in Attachment D.

3) OSFM's eligibility and deductibility statement.

A copy of the OSFM eligibility and deductibility statement is included in Attachment F.

• After review of the attached BUD in Appendix B of the CACR, I noticed that there are numerous budget entries without dates. Please note, you cannot get today's costs for tasks that were performed in the past. You can only be reimbursed for those costs that are eligible on the day they were performed.

Electronic Filing: Received, Clerk's Office 09/20/2024 **RESOURCE CONSULTING, INC.**

For example, on page 28 of the attached CACR, the budget proposed drilling costs for a soil boring to collect a soil gas sample back in 2014. However, this budget entry used the rate in 2022 which is unreasonable and not acceptable.

A new updated budget is included in Attachment G. Dates and correct budget rates have been added to the Consulting Personnel Costs Form. All other budget forms used the correct dates and budget rates when submitted with the CACR dated November 15, 2022. The drilling costs for the soil boring to collect a soil gas sample in August 2014 used the correct 2014 drilling rate of \$21.87 per foot and Subpart H minimum payment amount of \$1,457.81. The current 2022 drilling rate is \$25.36 per foot and the Subpart H minimum payment amount is \$1,690.83.

• Upon reviewing the LUST Technical File for this incident, I couldn't find any soil boring logs for these soil samples, WCPD-1 and EW-1A collected on 2/21/2012 and 3/7/2012, respectively.

There are no soil borings logs for soil samples WCPD-1 and EW-1A. Former Illinois EPA project manager, Carol Hawbaker and Resource Consulting discussed options for addressing the exceedances in sample EW-1 from the soil excavation and disposal actions. These soil samples were resamples of EW-1, collected by manual hand auger, to ensure there were no lingering issues with the results.

Please contact our office at any time with questions or comments regarding the contents of this correspondence.

Regards,

Couvery J. Ms Jims

Courtney L. McGinnis Geologist

Attachments: A

- ts: A Ordinance No. 15-O-0004 Original Certification
 - B TACO Calculations
 - C J&E Input Parameters
 - D Laboratory Certification
 - E Illinois EPA Electronic Correspondence
 - F OSFM Eligibility and Deductibility Statement
 - G CACR Budget

cc: Michael Gasparini – West Chicago Park District

.

Attachment A Ordinance No. 15-O-0004 Original Certification

٠.

Attachment B TACO Calculations

Values for Veriables in Relevant Equations			Benzo(a)anthracene Proje	ect Name: West Chicago Park District	
SOIL MIGRATION	GROUNDWATER EXPOSU	IRE ROUTE			
Variable	Source	Value	Description and units		
GWsource	R13	0.003	Groundwater concentration at the source, ma	g/L	
LFsw	R14	0.000	Leaching factor, mg/L/mg/kg	-	
GWcomp	R25		Groundwater objective at the compliance poin	nt, mg/L	
Cx/Csource	R15		Steady-state attenuation along the centerline		
ks .	R20		Soil-water sorption coefficient, cm^3/g		
Koc	Appendix C table E		Organic carbon partition coefficient, cm^3/g		
	surface 0.005	· · · · · · · · · · · · · · · · · · ·			
f _{oc}		0.005	Organic carbon content of soil, g/g		
	subsurface 0.002			AD / AD	
θ _{ws}	R22 or	E-0	Volumetric water content of vadose zone soil	is, cm··s/cm··s	
	surface 0.15				
	subsurface 0.30				
	gravel 0.20				
	sand 0.18				
	silt 0.16				
•	clay 0.17	0.12	Malumenta di contrat of vadere sono solle s		
θas	R21 or	0.15	Volumetric air content of vadose zone soils, c	an syan s	
	surface 0.28				
	subsurface 0.13				
	gravel 0.05 Isand 0.14				
	silt 0.16				
	clay 0.17				
•	R23 or	0.43	Total soil porosity, cm^3/cm^3		
θ _τ	0.43	0.45	iodaison porosidy, em syem s		
	gravel 0.25				
	sand 0.32				
	silt 0.40				
	clay 0.36				
н'	Appendix C table E	1.39E-04	Henry's law constant, cm^3 air/cm^3 water		
w	surface 0.1		Average soil moisture content, g/g		
	subsurface 0.2		-		
ρs	gravel 2.0	15	Soil bulk density, g/cm^3		
• •	sand 1.8				
	silt 1.6				
	clay 1.7				
ρ _w		1	Water density, g/cm^3		
-			Distance along the centerline of the ground w	untrar	
		0540.24	-	313 Distance, ft	
x	site R16		plume emanating from the source, cm Longitudinal dispersivity, cm (Equation R16)		
ax	R16 R17		Transverse dispersivity, cm (Equation R17)		
ay az	R18		Vertical dispersivity, cm (Equation R18)		
36		47.7912		Revueling the second second	
			Source width perpendicular to ground water f		
Sw	site	2103.12	horizontal plane, cm	<u>69</u> Sw, ft	
		,	Source width perpendicular to ground water f	flow direction in vertical	
Sd	site	200	plane, cm	Sd, ft	
К	site	2.85E+03	Aquifer hydraulic conductivity, cm/year	3.30E-02 K, cm/sec	
i	site		Hydraulic gradient, cm/cm		
U	R19		Specific discharge, cm/day (Equation R19)		
Ugw	R24		Groundwater Darcy velocity, cm/yr		
d			Groundwater mixing zone thickness, cm		
I		30	Infiltration rate, cm/yr		
		1	Width of source area parallel to direction of w		
w	site	3200.4	movement, cm	105 W, ft	
λ	Appendix C table E		First order degradation constant, day~1		
C(x)	R26		-	er at the distance X from the steady source, mg/L	
Csource		0.00276	•	ontaminant in groundwater at the source of contamina	tion.mg/L
-source	site	L			

13

.....

.....

-

.

alues for Varia	ables in Relevant Equations	•	Benzo(a)pyrene P	roject Name: West Chicago Park District	
OIL MIGRATIO	N/GROUNDWATER EXPOSI				
ariable	Source	Value	Description and units		
Wsource	R13		Groundwater concentration at the source,	mg/L	
Fsw	R14	0.000	Leaching factor, mg/L/mg/kg	•	
Wcomp	R25	0.0002	Groundwater objective at the compliance j	point, mg/L	
k/Csource	R15	1.55E-01	Steady-state attenuation along the centerli	ne of a dissolved plume, mg/L/mg/L	
5	R20	2370	Soil-water sorption coefficient, cm^3/g		
- 0C	Appendix C table E		Organic carbon partition coefficient, cm^3	la la	
				16	
x.	surface 0.005	0.003	Organic carbon content of soil, g/g		
	subsurface 0.002				
#/S	R22 or	0.3	Volumetric water content of vadose zone :	soils, cm^3/cm^3	
	surface 0.15			•	
	subsurface 0.30				
	gravel 0.20				
	sand 0.18	[
	silt 0.16	1			
	clay 0.17				
15	R21 or	0.12	Volumetric air content of vadose zone soil	s. cm^3/cm^3	
15	surface 0.28	0.13			
		1			
	subsurface 0.13				
	gravel 0.05				
	sand 0.14	· ·	(
	siit 0.16				
	clay 0.17				
	R23 or	0.43	Total soil porosity, cm^3/cm^3		
	0.43				
	gravel 0.25				
	sand 0.32				
	silt 0.40				
	clay 0.36				
•	Appendix C table E	4 505-05	Henry's law constant, cm^3 air/cm^3 water		
	surface 0.1		Average soil moisture content, g/g		
		0.2	Average son moisture content, B/B		
	subsurface 0.2				
5	gravel 2.0	15	Soil bulk density, g/cm^3		
	sand 1.8	,			
	silt 1.6				
	clay 1.7				
59		1	Water density, g/cm^3		
			D		
			Distance along the centerline of the ground		
	site		plume emanating from the source, cm	171 Distan	ce, ft
C C	R16		Longitudinal dispersivity, cm (Equation R1	-	
1	R17		Transverse dispersivity, cm (Equation R17)		
2	R18	26.0604	Vertical dispersivity, cm (Equation R18)	<u> </u>	
			Source width perpendicular to ground wat	er flow direction in	
	site			69 Sw, ft	
N	site	2103.12	horizontal plane, cm	05 SW, IL	
			Source width perpendicular to ground wat	er flow direction in vertical	
ł	site	200	plane, cm	Sd, ft	
	site		Aquifer hydraulic conductivity, cm/year	3.30E-02 K, cm/	sec
	site		Hydraulic gradient, cm/cm		
	R19		Specific discharge, cm/day (Equation R19)		
BM	R24		Groundwater Darcy velocity, cm/yr		
B**	(167		Groundwater mixing zone thickness, cm		
			–		
		30	Infiltration rate, cm/yr		
			Width of source area parallel to direction o	f wind or groundwater	
1	site	3200 4	movement, cm	105 W, ft	
	Appendix C table E		First order degradation constant, day~1		
	white in the capie c	0.300-04	-		
		0.00-1		when a take a language of fanges at a standard a server at a	
(x)	R26	0.0002	Concentration of contaminant in groundw	ater at the distance X from the steady source, mgA	

•

•

Values for Variab	les in Relevant Equations		Senzo(b)fluoranthene	Project Name: West Chicago Park District	
SOIL MIGRATION	GROUNDWATER EXPOSI	IRE ROUTE			
Variable	Source	Value	Description and units		
GWsource	R13	0.002	Groundwater concentration at the	source mell	
LFsw	R14		Leaching factor, mg/L/mg/kg		
GWcomp	R25		Groundwater objective at the com	aliance point, me/l	
Cx/Csource	R15			centerline of a dissolved plume, mg/L/mg/L	
k _s	R20		Soil-water sorption coefficient, cm		
Koc	Appendix C table E		Organic carbon partition coefficier		
fec	surface 0.005	0.003	Organic carbon content of soil, g/g		
	subsurface 0.002			•	
0 _{ws}	R22 or	0.3	Volumetric water content of vados	e zone soils, cm^3/cm^3	
	surface 0.15				
	subsurface 0.30				
	gravel 0.20				
	sand 0.18				
	slit 0.16]			
	clay 0.17				
θas	R21 or	0.13	Volumetric air content of vadose z	one solis, cm^3/cm^3	
	surface 0.28		·		
	subsurface 0.13				
	gravel 0.05		1		
	sand 0.14				
	silt 0.16				
	clay 0.17				
8 ₇	R23 or	0.43	Total soil porosity, cm^3/cm^3		
	0.43				
	gravel 0.25				
	sand 0.32				
	silt 0.40				
L 1	clay 0.36 Appendix C table E	4 555.02	Henry's law constant, cm^3 air/cm	N2 water	
H'	surface 0.1		Average soil moisture content, g/g	-2 Walci	
w	subsurface 0.2	0.2			
•	gravel 2.0	15	Soil bulk density, g/cm^3		
ρs	sand 1.8		Son buik density, grain 5		
	silt 1.6				
	clay 1.7				
	CIGA T''	1	Water density, g/cm^3		
Pw			water density, grain 5		
			Distance along the centerline of th	-	
x	site	6339.84	plume emanating from the source,	cm 208 Distance, ft	
ах	R16		Longitudinal dispersivity, cm (Equa	-	
ay	R17		Transverse dispersivity, cm (Equati		
az	R18	31.6992	Vertical dispersivity, cm (Equation	R18}	
			Source width perpendicular to gro	und water flow direction in	
Sw	site	2103.12	horizontal plane, cm	69 Sw, ft	
C .1				and water flow direction in vertical Sd, ft	
Sd	site		plane, cm Aquifar hydraulic conductivity, cm		
K	site		Aquifer hydraulic conductivity, cm Hydraulic gradient, cm/cm		
i U	site R19		Specific discharge, cm/day (Equation	n R19)	
	R19 R24		Groundwater Darcy velocity, cm/y		
Ugw d	n24		Groundwater Darcy velocity, cm/yr		
			Infiltration rate, cm/yr	-,	
•					
		1	Width of source area parallel to dir		
W	site		movement, cm	105 W, ft	
λ	Appendix C table E		First order degradation constant, o		
C(x)	R26	0.00018	Concentration of contaminant in a	roundwater at the distance X from the steady source, mg/L	
Csurce	site	0.0017	The greatest potential concentration	n of the contaminant in groundwater at the source of contamina	ation, mg/L
		· · · · · · · · · · · · · · · · · · ·			

Mark	ha la Dalamat Famat'a		Page (Million mathematica)	Project Name: West Chicago Park District	<u>r</u>
Values for Variab	les in Relevant Equations	i	Benzo(k)fluoranthene	roject Name: West Chicago Park District	1
•	GROUNDWATER EXPOSI				
Variable	Source	Value	Description and units		
GWsource	R13		Groundwater concentration at the source	e, mg/L	
LFsw	R14		Leaching factor, mg/L/mg/kg		
GWcomp	R25		Groundwater objective at the compliance		
Cx/Csource	R15		Steady-state attenuation along the center	she or a dissolved pidme, mg/r/mg/r	
ks	R20		Soil-water sorption coefficient, cm^3/g	.,	
Koc	Appendix C table E		Organic carbon partition coefficient, cm^	s/g	
f _{oc}	surface 0.005	0.003	Organic carbon content of soil, g/g		
	subsurface 0.002				
θws	R22 or	0.3	Volumetric water content of vadose zone	soils, cm^3/cm^3	
	surface 0.15	1			
	subsurface 0.30				
	gravel 0.20				
	sand 0.18				
	silt 0.16 clay 0.17				
٥	R21 or	0.13	Volumetric air content of vadose zone so	ite emaz lemaz	
0 _{as}	surface 0.28	0.13	Volumetric all content of valuese 20fie 50	nayanı ayallı a	
	subsurface 0.13				
	gravel 0.05				
	sand 0.14				
	silt 0.16				
	ciay 0.17				
θī	R23 or	0.43	Total soil porosity, cm^3/cm^3		
	0.43				
	gravel 0.25				
	sand 0.32				
	silt 0.40				
	clay 0.36	· · ·			
н'	Appendix C table E		Henry's law constant, cm^3 air/cm^3 wat	21	
w	surface 0.1	0.2	Average soil moisture content, g/g		
_	subsurface 0.2	1.5	Soil bulk density, g/cm^3		
ρs	gravel 2.0	15	Soli bulk density, gramis		
	sand 1.8 silt 1.6				
	clay 1.7				
•	Cidy 1.7	1	Water density, g/cm^3		
ρω				[]	
			Distance along the centerline of the grour	3 1	
x	site		plume emanating from the source, cm	213 Distance, ft	
ax	R16		Longitudinal dispersivity, cm (Equation R:		
ay	R17 R18		Transverse dispersivity, cm (Equation R17 Vertical dispersivity, cm (Equation R18)	1	
az.	010	32.4012			
			Source width perpendicular to ground wa		
Sw	site	2103.12	horizontal plane, cm	<u></u>	
			Source width perpendicular to ground wa	ter flow direction in vertical	
Sd	site	200	plane, cm	Sd, ft	
ĸ	site		Aquifer hydraulic conductivity, cm/year	3.30E-02 K, cm/sec	
i	site		Hydraulic gradient, cm/cm		
U	R19		Specific discharge, cm/day (Equation R19))	
Ugw	R24		Groundwater Darcy velocity, cm/yr		
d			Groundwater mixing zone thickness, cm		
I .		30	Infiltration rate, cm/yr		
			Width of source area parallel to direction	-	
w	site		movement, cm	105 W, ft	
λ	Appendix C table E		First order degradation constant, day~1		
C(x)	R26	0.00017	Concentration of contaminant in ground	water at the distance X from the steady source, mg/L	
Csource	site	0.00157	The greatest potential concentration of th	e contaminant in ground water at the source of contaminat	ion, mg/L
			-	-	-

.

Values for Vari	ables in Relevant Equation:	6	Chrysene Project Name: West Chica	go Park District
SOIL MIGRATIO	N/GROUNDWATER EXPOS	JRE ROUTE		
Variable	Source	Value	Description and units	
GWsource	R13	0.002	Groundwater concentration at the source, mg/L	
.Fsw	R14		Leaching factor, mg/L/mg/kg	
SWcomp	R25		Groundwater objective at the compliance point, mg/L	
x/Csource	R15		Steady-state attenuation along the centerline of a dissolved plume, n	ng/L/mg/L
is	R20		Soil-water sorption coefficient, cm^3/g	
-				
(_{oc}	Appendix C table E	4.00E+05	Organic carbon partition coefficient, cm^3/g	
oc	surface 0.005	0.003	Organic carbon content of soil, g/g	
	subsurface 0.002	I		
ws	R22 or	0.3	Volumetric water content of vadose zone soils, cm^3/cm^3	
	surface 0.15			
	subsurface 0.30			
	gravel 0.20	•		
	sand 0.18			
	silt 0.16			
	clay 0.17			
		0.13	Volumetric air content of vadore zono colic. cm/2/cm/2	
as	R21 or	0.13	Volumetric air content of vadose zone soils, cm^3/cm^3	
	surface 0.28			
	subsurface 0.13			
	gravel 0.05			
	sand 0.14			
	silt 0.16			
	clay 0.17			
hr.	R23 or	0.43	Total soil porosity, cm^3/cm^3	
•	0.43			
	gravel 0.25			
	sand 0.32			
	silt 0.40			
	clay 0.36	2 005 03	Henry's law constant, cm^3 air/cm^3 water	
4'	Appendix C table E			
N	surface 0.1	0.2	Average soil moisture content, g/g	
	subsurface 0.2			
D _S	gravel 2.0	1.5	Soil bulk density, g/cm^3	
	sand 1.8			
	silt 1.6			
	clay 1.7			
)w		1	Water density, g/cm^3	
-				
			Distance along the centerline of the ground water	
C	site		plume emanating from the source, cm	63 Distance, ft
x	R16	192.024	Longitudinal dispersivity, cm (Equation R16)	
y	R17	64.008	Transverse dispersivity, cm (Equation R17)	
z	R18	9.6012	Vertical dispersivity, cm (Equation R18)	
			Source width perpendicular to ground water flow direction in	
				co.c
św	site	2103.12	horizontal plane, cm	69 Sw, ft
			Source width perpendicular to ground water flow direction in vertica	1 1
id -	site	200	plane, cm	Sd, ft
	site		Aquifer hydraulic conductivity, cm/year	3.30E-02 K, cm/sec
•	site		Hydraulic gradient, cm/cm	
1	R19		Specific discharge, cm/day (Equation R19)	
	R24		Groundwater Darcy velocity, cm/yr	
)gw	R24		Groundwater Darcy velocity, cm/yr Groundwater mixing zone thickness, cm	
1				
		30	Infiltration rate, cm/yr	[]
			Width of source area parallel to direction of wind or groundwater	
N	site	3200.4	movement, cm	105 W, ft
	Appendix C table E		First order degradation constant, day^1	
L	white in the particular of the		First order degradation constant, day ~1 Concentration of contaminant in groundwater at the distance X from	
નેત્ર	R26	0.0015	The greatest potential concentration of the contaminant in groundw	

(

,

Values for Varia	bies in Relevant Equations	i	Napthalone	Project Name: West Chicag	o Park District
SOIL MIGRATION	N/GROUNDWATER EXPOS	JRE ROUTE			
Variable	Source	Value	Description and units		
GWsource	R13	1.347	Groundwater concentratio	n at the source, mg/L	
LFsw	R14	0.042	Leaching factor, mg/L/mg/	د	t
GWcomp	R25	0.14	Groundwater objective at t	he compliance point, mg/L	
Cx/Csource	R15	1.04E-01	Steady-state attenuation a	ong the centerline of a dissolved plume, m	g/L/mg/L
ks .	R20	15	Soil-water sorption coeffic	ient, cm^3/g	
Kec	Appendix C table E		Organic carbon partition c		
	surface 0.005				
f _{oc}		0.003	Organic carbon content of	son, Big	
	subsurface 0.002				-
θ _{ws}	R22 or	L 0.3	volumetric water content o	of vadose zone soils, cm^3/cm^3	
	surface 0.15				
	subsurface 0.30				
	gravel 0.20				
	sand 0.18				
	silt 0.16				
	clay 0.17	.			
θas	R21 or	0.13	Volumetric air content of v	adose zone soils, cm^3/cm^3	
	surface 0.28				
	subsurface 0.13				
	gravel 0.05				
	sand 0.14				
	silt 0.16				
	clay 0.17				
θ _T	R23 or	0.43	Total soil porosity, cm^3/c	m^3	
	0.43			•	
	gravel 0.25				
	sand 0.32				
	silt 0.40				
	clay 0.36	· .			
Н'	Appendix C table E	1.97E-02	Henry's law constant, cm^	3 air/cm^3 water	•
w	surface 0.1	0.2	Average soil moisture cont	ent, g/g	
	subsurface 0.2				
ρ _s	gravel 2.0	1.5	Soil bulk density, g/cm^3		
	sand 1.8				
	silt 1.6				
	clay 1.7			•	
Ρω		1	Water density, g/cm^3		
-					
			Distance along the centerli	-	
x	site		plume emanating from the		183 Distance, ft
ax	R16		Longitudinal dispersivity, c		•
ay	R17		Transverse dispersivity, cm		
az	R18	27.8892	Vertical dispersivity, cm (Ec	uation R18)	
			Source width perpendicula	r to ground water flow direction in	1
Sw	site	2103.12	horizontal plane, cm	-	69 Sw, ft
	_			r to ground water flow direction in vertical	
Sd	site		plane, cm		Sd, ft
ĸ	site		Aquifer hydraulic conducti	vity, cm/year	3.30E-02 K, cm/sec
i	site		Hydraulic gradient, cm/cm		
U	R19		Specific discharge, cm/day		
Ugw	R24		Groundwater Darcy velocit		
d			Groundwater mixing zone	thickness, cm	
I .			Infiltration rate, cm/yr		(
			Width of source area paral	el to direction of wind or groundwater	
w	_	1 2200 4	movement. cm		105 W, ft
	site				
	site Annendix C table F			stant. dav^1	
λ	Appendix C table E	2.70E-03	First order degradation cor		
		2.70E-03 0.14	First order degradation cor Concentration of contamir	nstant, day^1 nant in groundwater at the distance X from centration of the contaminant in groundwai	the steady source, mg/L

.

Attachment C J&E Input Parameters

J&E Equation	Equat	ion with inputs	Result
J&E 1	TP v AT v 245 days	1×10 ⁻⁶ ×70×365	2 42-404
RO _{indoor air}	$\frac{TR \times AT_c \times 365 \frac{days}{y\tau}}{ED \times EF \times URF \times 1000 \frac{\mu g}{mg}}$	$30 \times 350 \times 7.8 \times 10^{-6} \times 1000$	3.12x10 ⁻⁴ mg/m ³
Carc.		50×350×7.5×10 × 1000	· · · · · · · · · · · · · · · · · · ·
J&E 2			
ROindoor air		NA	NA
Non-carc.			
J&E 3		· · · · · · · · · · · · · · · · · · ·	
ppmv to mg/m ³		NA	NA
J&E 4 RO _{soll gas}	RO _{indoor air} Q	3.12e-4 2.23e-5	13.99 mg/m ³
J&E 5 Cv ^{sat}	$\frac{P \times MW}{R \times T} \times 10^6$	$\frac{\frac{1.25}{10} \times 78.11}{0.08206 \times 286} \times 10^6$	4.16x10 ⁵ mg/m ³ - air
J&E 6 RO _{gw}	$\frac{RO_{soli gas}}{H_{rs}' \times 1000 \frac{L}{m^3}}$	13.99 (1.34e-1)(1000)	0.104 mg/L
J&E 7 α advection & diffusion	$\int \frac{\left[\left(\frac{D_{ef}^{ef} \times A_{\theta}}{Q_{obsp} \times L_{\gamma}}\right) \times \exp\left(\frac{Q_{eff} \times L_{read}}{D_{read}^{eff} \times A_{read}}\right)\right]}{\left[\exp\left(\frac{Q_{eff} \times L_{read}}{D_{read}^{eff} \times A_{read}}\right) + \left(\frac{D_{f}^{eff} \times A_{\theta}}{Q_{obsp} \times L_{\gamma}}\right) + \left(\frac{D_{eff}^{eff} \times A_{\theta}}{Q_{obsp} \times L_{\gamma}}\right) \left[\exp\left(\frac{Q_{eff} \times L_{read}}{D_{read}^{eff} \times A_{read}}\right) - 1\right]\right]}$	$\frac{\left(\frac{(1.23e-4)(1000000)}{(3.59e4)(152.4)}\right)exp\left(\frac{(83,33)10}{(5.34e-4)400}\right)}{exp\left(\frac{83.33(10)}{5.34e-4(400)}\right)+\left(\frac{(1.23e-4)(1e6)}{3.59e4(152.4)}\right)+\left(\frac{1.23e-4(1e6)}{83.33(152.4)}\right)\left(exp\left(\frac{83.33(10)}{5.34e-4(400)}\right)-1\right)$	2.23x10⁵
J&E 8 α Diffusion only		NA	NA
J&E 9a D⊺ ^{eff}	$\frac{L_{\tau}}{\sum_{i=1}^{n}L_{i}/D_{i}^{cg}}$	$\frac{152.4}{\left(\frac{114.9}{6.86e-3}\right) + \left(\frac{37.5}{3.08e-5}\right)}$	1.23x10 ⁻⁴ cm²/s

Johnson & Ettinger Model Calculations – Benzene

.

Electronic Filing: Received, Clerk's Office 09/20/2024

J&E 9b	$L_1 + L_2 = L_T$	Satisfied
J&E 10 L _T	$D_{source} - L_F$ 16	52.4 - 10 152.4 cm
J&E11 D1 ^{eff}	$D_{l}\left(\frac{\theta_{d,l}^{333}}{\theta_{f,l}^{3}}\right) + \left(\frac{D_{u}}{H_{fs}}\right)\left(\frac{\theta_{u,l}^{333}}{\theta_{f,l}^{2}}\right) \qquad (8.8e-2)\left(\frac{\left((0.28)^{3.33}\right)}{\left((0.43)^{2}\right)}\right) + $	$\left(\frac{1.02e-5}{1.34e-1}\right)\left(\frac{((0.15)^{3.33})}{((0.43)^2)}\right) \qquad 6.86x10^{-3} \text{ cm}^{2}$
J&E11 D ₂ ^{eff} Cap fringe	$D_{t}\left(\frac{\theta_{s,t}^{3,33}}{\theta_{r,t}^{2}}\right) + \left(\frac{D_{u}}{H_{rs}}\left(\frac{\theta_{w,t}^{3,33}}{\theta_{r,t}^{2}}\right)\right) \qquad (8.8e-2)\left(\frac{\left(\left(0.043\right)^{3,33}\right)}{\left(\left(0.43\right)^{2}\right)}\right) + \left(\frac{1}{2}\right)\left(\frac{1}{2$	$\left(\frac{1.02e-5}{1.34e-1}\right)\left(\frac{((0.387)^{3.33})}{((0.43)^2)}\right)$ 3.08x10 ⁻⁵ cm ² /
J&E 12a A _B	$(L_a \times W_B)$ 100	0×1000 1x10 ⁶ cm ²
J&E 12b	NA	NA
J&E 13 Q _{bldg}	$\left(\frac{L_{\theta} \times W_{\theta} \times H_{\theta} \times ER}{3600 \frac{\sec}{hr}}\right) \qquad \qquad \underbrace{1000 \times 10}_{}$	$\frac{000 \times 244 \times 0.53}{3600}$ 3.59x10 ⁴ cm ³ /
J&E 14 A _{crack}	$2 \times (L_B + W_B) \times w \qquad \qquad$	$00 + 1000) \times 0.1$ 400 cm ²
J&E 15 D _{crack} eff	$D_{i}\left(\frac{\theta_{u,cons}^{3,33}}{\theta_{T,consk}^{2}}\right) + \left(\frac{D_{u}}{H_{TS}}\right)\left(\frac{\theta_{u,consk}^{3,33}}{\theta_{T,consk}^{2}}\right) $ (8.8e-2) $\left(\frac{\left((0.13)^{3,33}\right)}{\left((0.43)^{2}\right)}\right) + \left(\frac{1}{10000000000000000000000000000000000$	$\left(\frac{1.02\text{e-5}}{1.34\text{e-1}}\right) \left(\frac{((0.15)^{3.33})}{((0.43)^2)}\right) 5.34\text{x}10^{-4} \text{ cm}^{2}$
Ј&Е 16 Өті	NA	NA
J&E 17 Øw	NA	NA
J&E 18 O a	NA	NA

•

Asta .

•

J&E Eq	uation Parameters	Benzene					
SYMBOL		VALUE	UNITS	SOURCE	T1 or Calculated		
A _B	Surface area of enclosed space	1.00E+06	cm2	J&E 12a OR 12b, App C, Table L	Res=1.0E+06, Ind/Comm=4.0E+06		
Acrack	Area of total cracks	400	cm2	J&E 14, App C Table L	Calculated Value		
AT _c	Averaging time for carcinogens	70	year	SSL, May 1996	70		
C√ ^{sat}	Soil vapor saturation limit	4.16E+05	mg/m3-air	J&E 5, App C Table L	Chemical-specific or Calculated		
D _{crack} eff	Effective diffusion coeff. through cracks	5.34E-04	cm2/s	J&E 15, App C Table L	Calculated Value		
Di	Diffusivity in air	8.80E-02	cm2/s	App C Table E	Chemical-specific		
D1 ^{eff}	Effective diffusion coefficient of soil layer 1	6.86E-03	cm2/s	J&E 11, App C Table L	Calculated Value		
D2 ^{eff}	Effective diffusion coefficient of soil layer 2	3.08E-05	cm2/s	J&E 11, App C Table L			
	Distance from ground surface to top of				Soil Gas Contamination=152.4, Groundwater		
D _{source}	contamination	162.4	cm	SITE-SPECIFIC Field Measurement	Contamination=304.8 OR SITE-SPECIFIC		
D _T ^{eff}	Total effective diffusion coefficient	1.23E-04	cm2/s	J&E 9, App C Table L	Calculated Value		
Dw	Diffusivity in water	1.02E-05	cm2/s	App C Table E	Chemical-specific		
ED	Exposure duration	30	year	SSL	Res=30, Ind/Comm=25		
EF	Exposure frequency	350	day/year	SSL	Res=350, Ind/Comm=250		
ER	Air exchange rate	0.53	exch/hr	IL EPA	Res=0.53, Ind/Comm=0.93		
					SOG Res=244, Ind/Comm=305 OR Site sp T3		
H _B	2.4	244	cm	ILEPA	Basement Res=427, Ind/Comm=488		
H' _{TS}	Dimensionless Henry's Law constant	1.34E-01	unitless	App C Table E	Chemical-specific		
L _B	Length of building	1000	cm	IL EPA	Res=1000, Ind/Comm-2000 or Site sp T3		
Lcrack	Slab thickness	10	cm	USEPA Users Guide 2004	10		
L _F	Distance from ground surface to bottom of slab	10	cm	USEPA Users Guide 2004	SOG=10, Basement=200		
L ₁	Thickness of soil layer 1	114.9	cm	Field Measurement, USEPA 2004	Site-specific/for capillary fringe, 37.5cm		
L ₂	Thickness of soil layer 2 capillary fringe)	37.5	cm	Field Measurement, USEPA 2004	Site sp 152.4 (5 ft)/for capillary fringe, 37.5cm		
	Distance from bottom of slab to top of						
L _T	contamination	152.4	cm	Field Measurement OR J&E 10, App C Table L	Site-specific		
MW	Molecular weight	78.11	g/mole	IL EPA	Chemical-specific		
Р	Vapor pressure	0.125	atm	App C Table E	Chemical-specific		

					SOG Res=3.59*10^4, Ind/Comm=3.15*10^5 OR Site
					sp T3 Basement Res 6.28*10^4,
Q _{bldg}	Building ventilation rate	3.59E+04	cm3/s	J&E 13, App C Table L	Ind/Comm=5.04*10^5 or SST3
	Volumetric flow rate of soil gas into the enclosed				
Q _{soil}	space	83.33	cm3/s	USEPA Users Guide 2004	If LT<152cm = 83.33; if LT>= 152cm = 0
R	Ideal gas constant	0.08206	atm-L/mole-K	USEPA Users Guide 2004	DEFAULT
ROgw	Groundwater remediation objective	0.104	mg/L	App B Table E OR J&E 6, App C Table L	Chemical-specific or Calculated
ROindoorair	Indoor air remediation objective	3.12E-04	mg/m3	J&E 1 and 2, App C Table L	Calculated Value
RO _{soilgas}	Soil gas remediation objective	13.99	mg/m3	J&E 4, App C Table L	Calculated Value
Т	Temperature	286	°К	USEPA Users Guide 2004	286 (converted from 13 C)
					Res=10^-6 Ind/Comm=10^-6 at point of human
TR	Target risk	1.00E-06	unitless	SSL	exposure
URF	Unit risk factor	7.80E-06	(ug/m ³) ⁻¹	IL EPA TACO Toxicity Values spreadsheet	Toxicological-Specific
w	Floor-wall seam gap	0.1		USEPA Users Guide 2004	0.1
W _B	Width of building	1000	cm	ILEPA	Res=1000, Ind/Comm-2000 or Site sp T3
α	Attenuation factor	2.23E-05	unitless	J&E 7 OR8, App C Table L	Site-specific
θ _{a,1}	Air-filled porosity of soil layer 1	0.28	cm3/cm3	SSL OR J&E 18, App CTable L	0.28 OR Calculated value
θ _{a,crack}	Air-filled porosity of soil in cracks	0.13	cm3/cm3	SSLOR J&E 18, App C Table L	0.13
					0.13 OR Calculated value for capillary fringe $\theta_{a,i}$ =0.1
θ _{a,2}	Air-filled porosity of layer 2 (capillary fringe)	0.043	cm3/cm3	SSLOR J&E 18, App C Table L	θ _{r,i}
θ _{T,crack}	Total porosity of soil in cracks	0.43	cm3/cm3	SSLOR J&E 16, App C Table L	0.43
θτ	Total porosity of layers 1 and 2	0.43	cm3/cm3	SSLOR J&E 16, App C Table L	0.43 or calculated value
θ _{w,1}	Water-filled soil porosity of layer 1	0.15	cm3/cm3	SSLOR J&E 17, App CTable L	0.15 or calculated value
				SSLOR J&E 17, App C Table L For cap fringe	0.15 or calculated value, for cap fringe=0.375 OR 0.9
θ _{w,2}	Water-filled porosity of layer 2 (capillary fringe)	0.387	cm3/cm3	USEPA Users Guide 2004	θ _{τ,i}
θ _{w,crack}	Water-filled porosity of soil in cracks	0.15	cm3/cm3	SSLOR J&E 17, App CTable L	0.15

J&E Model Calculations – Ethylbenzene

J&E Equation	E	Equation with inputs	Results
J&E 1 RO _{indoor air} (carcinogenic)		NA	NA
J&E 2 RO _{indoor air} (non-carcinogenic)	$\frac{THQ \times AT_{nc} \times 365 \frac{days}{yr} \times RfC}{ED \times EF}$	$\frac{(1)(30)(365)(1e0)}{(30)(350)}$	1.04 mg/m ³
J&E 3 ppmv to mg/m ³		NA	NA
J&E 4 RO _{soil gas}	$\frac{RO_{indoor air}}{\alpha}$	1.04 1.64e-5	63,415 mg/m ³
J&E 5 Cv ^{sat}	$\frac{P \times MW}{R \times T} \times 10^6$		DEFAULT
J&E 6 RO _{gw}	$\frac{RO_{soil gas}}{H_{TS}^{\prime} \times 1000 \frac{L}{m^3}}$	<u>63415</u> (1.64e-1)(1000)	386.7 mg/L
J&E 7 α advection & diffusion	$ \begin{bmatrix} \left(\frac{D_{T}^{\text{eff}} \times A_{g}}{Q_{\text{slig}} \times L_{T}} \right) \times \exp \left(\frac{Q_{\text{out}} \times L_{\text{cont}}}{D_{\text{rest}}^{\text{off}} \times A_{\text{cont}}} \right) \end{bmatrix} \\ \hline \left[\exp \left(\frac{Q_{\text{out}} \times L_{\text{rest}}}{D_{\text{rest}}^{\text{off}} \times A_{\text{sol}}} \right) + \left(\frac{D_{T}^{\text{off}} \times A_{g}}{Q_{\text{out}} \times L_{T}} \right) + \left(\frac{D_{T}^{\text{off}} \times A_{g}}{Q_{\text{out}} \times L_{T}} \right) \left[\exp \left(\frac{Q_{\text{ext}} \times L_{\text{rest}}}{D_{\text{rest}}^{\text{off}} \times A_{\text{out}}} \right) - 1 \right] \right] $	$\frac{\left[\frac{((8.96e-5)(1000000))}{((3.59e4)(152.4))}\right]exp\left[\frac{((83.33)(10))}{(4.55e-4)(400)}\right]}{exp\left[\frac{((83.33)(10))}{(4.55e-4)(400)}\right] + \left[\frac{((8.96e-5)(1000000))}{(83.33)(152.4)}\right] + \frac{((8.96e-5)(1000000))}{((83.33)(152.4))}exp\left[\frac{((83.33)(10))}{(4.55e-3)(400)} \cdot 1\right]}$	1.64x10 ⁻⁵
J&E 8 α Diffusion only		NA	NA
J&E 9a D⊤ ^{eff}	$\frac{L_T}{\sum\limits_{i=1}^n L_i / D_i^{eff}}$	$\frac{152.4}{\left(\frac{114.9}{5.85e-3}\right) + \left(\frac{37.5}{2.23e-5}\right)}$	8.96x10 ⁻⁵ cm²/s

J&E 9b		$L_1 + L_2 = L_T$	Satisfied
J&E 10 L _T	$D_{searce} - L_F$	162.4-10	152.4 cm
J&E11 D1 ^{eff}	$D_{i}\left(\frac{\boldsymbol{\theta}_{a,i}^{3,33}}{\boldsymbol{\theta}_{T,i}^{2}}\right) + \left(\frac{D_{w}}{H_{75}^{*}}\right)\left(\frac{\boldsymbol{\theta}_{w,i}^{3,33}}{\boldsymbol{\theta}_{T,i}^{2}}\right)$	$(7.50e-2)\left(\frac{((0.28)^{3.33})}{((0.43)^2)}\right) + \left(\frac{7.80e-6}{1.64e-1}\right)\left(\frac{((0.15)^{3.33})}{((0.43)^2)}\right)$	5.85x10 ⁻³ cm²/s
J&E11 D₂ ^{eff} Cap fringe	$D_i\left(\frac{\boldsymbol{\theta}_{a,i}^{3,33}}{\boldsymbol{\theta}_{T,i}^2}\right) + \left(\frac{D_w}{H_{TS}}\right)\left(\frac{\boldsymbol{\theta}_{w,i}^{3,33}}{\boldsymbol{\theta}_{T,i}^2}\right)$	$(7.50e-2)\left(\frac{((0.043)^{3.33})}{((0.43)^2)}\right) + \left(\frac{7.80e-6}{1.64e-1}\right)\left(\frac{((0.387)^{3.33})}{((0.43)^2)}\right)$	2.23x10 ⁻⁵ cm²/s
J&E 12a A _B	$(L_{\scriptscriptstyle B} imes W_{\scriptscriptstyle B})$	1000 imes 1000	1x10 ⁶ cm ²
J&E 12b		NA	NA
J&E 13 Q _{bldg}	$\left(\frac{L_B \times W_B \times H_B \times ER}{3600 \frac{sec}{hr}}\right)$	$\frac{1000\times1000\times244\times0.53}{3600}$	3.59x10 ⁴ cm ³ /s
J&E 14 A _{crack}	$2 \times (L_{B} + W_{B}) \times w$	2 (1000 + 1000) × 0.1	400 cm ²
J&E 15 D _{crack} eff	$D_{i}\left(\frac{\boldsymbol{\theta}_{w,cnuck}^{3,33}}{\boldsymbol{\theta}_{T,cruck}^{2}}\right) + \left(\frac{\boldsymbol{D}_{w}}{\boldsymbol{H}_{TS}^{*}}\right) \left(\frac{\boldsymbol{\theta}_{w,cnuck}^{3,33}}{\boldsymbol{\theta}_{T,cruck}^{2}}\right)$	$((7.50e-2)) \left(\frac{((0.13)^{3.33})}{((0.43)^2)} \right) + \left(\frac{(7.80e-6)}{(1.64e-1)} \right) \left(\frac{((0.15)^{3.33})}{(0.43)^2} \right) \right $	4.55x10 ⁻⁴ cm²/s
Ј&Е 16 Θті		NA	NA
J&E 17 ❷w		NA	NA
J&E 18 Øa		NA	NA

J&E Eq	uation Parameters	Ethylbenzene			
SYMBOL		VALUE	UNITS	SOURCE	T1 or Calculated
A _B	Surface area of enclosed space	1.00E+06	cm2	J&E 12a OR 12b, App C, Table L	Res=1.0E+06, Ind/Comm=4.0E+06
Acrack	Area of total cracks	400	cm2	J&E 14, App C Table L	Calculated Value
AT _{nc}	Averaging time for noncarcinogens	30	year	AT _{nc} =ED	Res=30, Ind/Comm=25
D _{crack} eff	Effective diffusion coeff. through cracks	4.55E-04	cm2/s	J&E 15, App C Table L	Calculated Value
D:	Diffusivity in air	7.50E-02	cm2/s	App C Table E	Chemical-specific
D ₁ ^{eff}	Effective diffusion coeff. of soil layer 1	5.85E-03	cm2/s	J&E 11, App C Table L	Calculated Value
D2 ^{eff}	Effective diffusion coeff. of soil layer 2	2.23E-05			
	Distance from ground surface to top of				Soil Gas Contamination=152.4, Groundwater
D _{source}	contamination	162.4	cm	Field Measurement	Contamination=304.8
DTeff	Total effective diffusion coefficient	8.96E-05	cm2/s	J&E 9, App C Table L	Calculated Value
Dw	Diffusivity in water	7.80E-06	cm2/s	App C Table E	Chemical Specific
ED	Exposure duration	30	year	SSL	Res=30, Ind/Comm=25
EF	Exposure frequency	350	day/year	SSL	Res=350, Ind/Comm=250
ER	Air exchange rate	0.53	exch/hr	IL EPA	Res=0.53, Ind/Comm=0.93
					SOG Res=244, Ind/Comm=305 OR Site sp T3
Н _в	Height of building	244	cm	IL EPA	Basement Res=427, Ind/Comm=488
H' _{TS}	Dimensionless Henry's Law constant	1.64E-01	unitless	App C Table E	Chemical-specific
L _B	Length of building	1000	cm	IL EPA	Res=1000, Ind/Comm-2000 or Site sp T3
L _{crack}	Slabthickness	10	cm	USEPA Users Guide 2004	10
L _F	Distance from ground surface to bottom of slab	10	r cm	USEPA Users Guide 2004	SOG=10, Basement=200
L ₁	Thickness of soil layer 1	114.9	cm	Field Measurement, USEPA 2004	Site sp 152.4 (5 ft)/for capillary fringe, 37.5cm
L ₂	Thickness of soil layer 2 capillary fringe)	37.5	cm	Field Measurement, USEPA 2004	Site sp 152.4 (5 ft)/for capillary fringe, 37.5cm
	Distance from bottom of slab to top of				
LT	contamination	152.4	cm	Field Measurement OR J&E 10, App C Table L	142.2 or Site sp (4 FT 8 IN)
					SOG Res=3.59*10^4, Ind/Comm=3.15*10^5 OR Site
					sp T3 Basement Res 6.28*10^4,
Q _{bldg}	Building ventilation rate	3.59E+04	cm3/s	J&E 13, App C Table L	Ind/Comm=5.04*10^5 or SST3
1	Volumetric flow rate of soil gas into the enclosed				
Q _{soil}	space	83.33	cm3/s	USEPA Users Guide 2004	If LT<152cm=83.33 If LT>=152cm=0
RfC	Reference concentration	1.00E+00	ug/m3	IL EPA TACO Toxicity Values spreadsheet	Toxicological-Specific

ROgw	Groundwater remediation objective	386.7	mg/L	App B Table E OR J&E 6, App C Table L	Chemical specific or Calculated
ROindoorair	Indoor air remediation objective	1.04	mg/m3	J&E 1 and 2, App C Table L	Calculated Value
RO _{soilgas}	Soil gas remediation objective	63,415	mg/m3	J&E 4, App C Table L	Calculated Value
THQ	Target hazard quotient	1	unitless	SSL	1
w	Floor-wall seam gap	0.1	cm	USEPA Users Guide 2004	0.1
W _B	Width of building	1000	cm	IL EPA	Res=1000, Ind/Comm-2000 or Site sp T3
α	Attenuation factor	1.64E-05	unitless	J&E 7 OR 8, App C Table L	Site specific
θ _{a,1}	Air-filled soil porosity of layer 1	0.28	cm3/cm3	SSLORJ&E 18, App C Table L	0.28 OR Calculated value
$\theta_{a, crack}$	Air-filled porosity of soil in cracks	0.13	cm3/cm3	SSL OR J&E 18, App C Table L	0.13
θ _{a,2}	Air-filled porosity of soil layer 2 (capillary fringe)	0.043	cm3/cm3	SSL OR J&E 18, App C Table L	θη,
θ _{T,crack}	Total porosity for soil in cracks	0.43	cm3/cm3	SSLORJ&E 16, App CTable L	0.43
θτ	Total porosity of layers 1 and 2	0.43	cm3/cm3	SSL OR J&E 16, App C Table L	0.43 or calculated value
θ _{w,1}	Water-filled porosity of layer 1	0.15	cm3/cm3	SSLORJ&E 17, App CTable L	0.15 or calculated value
θ _{w,crack}	Water-filled porosity for soil in cracks	0.15	cm3/cm3	SSL OR J&E 17, App C Table L	0.15
θ _{w,2}	Water-filled porosity of layer 2 (capillary fringe)	0.387	cm3/cm3	SSL OR J&E 17, App C Table L For cap fringe USEPA Users Guide 2004	0.15 or calculated value, for cap fringe=0.375 OR 0.9 $\theta_{T,i}$

J&E Model Calculations – Naphthalene

J&E Equation	E	quation with inputs	Result
J&E 1 RO _{indoor air} (carcinogenic)		NA	NA
J&E 2 RO _{indoor air} (non-carcinogenic)	$\frac{THQ \times AT_{nc} \times 365 \frac{days}{yr} \times RfC}{ED \times EF}$	(1)(30)(365)(3e-3) (30)(350)	3.13x10 ⁻³ mg/m ³
J&E 3 ppmv to mg/m ³		NA	NA
J&E 4 RO _{soil gas}	<u>RO_{indoor air}</u> α	<u>3.13e-3</u> 1.32e-4	23.71 mg/m³
J&E 5 Cv ^{sat}		$\frac{P \times MW}{R \times T} \times 10^6$	
J&E 6 RO _{gw}	$\frac{RO_{soil\ gas}}{H_{TS}' \times 1000 \frac{L}{m^3}}$	23.71 (8.29e-3)(1000)	2.86 mg/L
J&E 7 α advection & diffusion	$ \begin{bmatrix} \left(\frac{D_{I}^{cff} \times A_{e}}{Q_{bady} \times L_{T}} \right) \times \exp \left(\frac{Q_{out} \times L_{max}}{D_{out}^{cff} \times A_{out}} \right) \end{bmatrix} \\ \hline \left[\exp \left(\frac{Q_{out} \times L_{rand}}{D_{out}^{cff} \times A_{out}} \right) + \left(\frac{D_{T}^{cff} \times A_{g}}{Q_{out} \times L_{T}} \right) + \left(\frac{D_{t}^{cff} \times A_{g}}{Q_{out} \times L_{T}} \right) \left[\exp \left(\frac{Q_{out} \times L_{out}}{D_{out}^{cff} \times A_{rand}} \right) - 1 \right] \right] \end{bmatrix} $	$\frac{\left(\left(\frac{7.68e-4(1000000)}{((3.59e4)(152,4))}\right)exp\left(\frac{((83.33)(10))}{(3.67e-4)(400)}\right)\right)}{exp\left(\frac{83.33(10)}{(3.67e-4)(400)}\right) + \left(\frac{((7.68e-4)(100000))}{(3.59e4)(152,4)}\right) + \left(\frac{((7.68e-4)(100))}{(83.33)(152,4)}\right) \left(exp\left(\frac{83.33(10)}{(3.67e-4)(400)}\right) - 1\right)$	1.32x10 ⁻⁴
J&E 8 α Diffusion only		NA	NA
J&E 9a D⊤ ^{eff}	$\frac{L_T}{\sum\limits_{i=1}^n L_i / D_i^{eff}}$	$\frac{152.4}{\left(\frac{114.9}{4.61\text{e-}3}\right) + \left(\frac{37.5}{2.16\text{e-}4}\right)}$	7.68x10 ⁻⁴ cm ² /s

J&E 9b		Satisfied	
J&E 10 L _T	$D_{source} - L_F$	162.4-10	152.4 cm
J&E11			
D1 ^{eff}	$D_{i}\left(\frac{\boldsymbol{\theta}_{a,i}^{3,33}}{\boldsymbol{\theta}_{T,i}^{2}}\right) + \left(\frac{D_{w}}{H_{TS}^{*}}\right)\left(\frac{\boldsymbol{\theta}_{w,i}^{3,33}}{\boldsymbol{\theta}_{T,i}^{2}}\right)$	$(5.90e-2)\left(\frac{((0.28)^{3.33})}{((0.43)^2)}\right) + \left(\frac{7.50e-6}{8.29e-3}\right)\left(\frac{((0.15)^{3.33})}{((0.43)^2)}\right)$	4.61x10 ⁻³ cm ² /s
J&E11			
D₂ ^{eff} Cap fringe	$D_{i}\left(\frac{\boldsymbol{\theta}_{a,i}^{3,33}}{\boldsymbol{\theta}_{T,i}^{2}}\right) + \left(\frac{D_{w}}{H_{TS}^{'}}\right)\left(\frac{\boldsymbol{\theta}_{w,i}^{3,33}}{\boldsymbol{\theta}_{T,i}^{2}}\right)$	$(5.90e-2)\left(\frac{((0.043)^{3.33})}{((0.43)^2)}\right) + \left(\frac{7.50e-6}{8.29e-3}\right)\left(\frac{((0.387)^{3.33})}{((0.43)^2)}\right)$	2.16x10 ⁻⁴ cm ² /s
J&E 12a			1x10 ⁶ cm ²
AB	$(L_{\scriptscriptstyle B}\! imes\!W_{\scriptscriptstyle B})$	1000 imes 1000	
J&E 12b		NA	
J&E 13 Q _{bldg}	$\left(\frac{L_B \times W_B \times H_B \times ER}{3600 \frac{sec}{hr}}\right)$	$\frac{1000\times1000\times244\times0.53}{3600}$	3.59x10 ⁴ cm ³ /s
J&E 14 A _{crack}	$2 \times (L_{B} + W_{B}) \times W$	2 (1000 + 1000) × 0.1	400 cm ²
J&E 15 D _{crack} ^{eff}	$D_{i}\left(\frac{\theta_{a,i70k}^{3,33}}{\theta_{T,i70kk}^{2}}\right) + \left(\frac{D_{w}}{H_{78}^{'}}\right)\left(\frac{\theta_{w,i70kk}^{3,33}}{\theta_{T,i70kk}^{2}}\right)$	$(5.9e-2)\left(\frac{(0.13)^{3.33}}{(0.43)^2}\right) + \left(\frac{7.50e-6}{8.29e-3}\right)\left(\frac{(0.15)^{3.33}}{(0.43)^2}\right)$	3.67x10 ⁻⁴ cm ² /s
Ј&Е 16 Ө _{ті}	n hilden de men en 15 waarden een de en een ander eel de helden een een die de	NA	NA
J&E 17		NA	NA
Θw			NA
J&E 18		NA	NA
Θa			NA NA

and she is not set of the	ation Parameters	Naphthalene	LINUTO	COLIDER	THE POLICY A
SYMBOL	Surface area of enclosed space	VALUE	UNITS	SOURCE	T1 or Calculated
A _B	Area of total cracks	1.00E+06		J&E 12a OR 12b, App C, Table L	Res=1.0E+06, Ind/Comm=4.0E+06
Acrack		400	cm2	J&E 14, App CTable L	Calculated Value
AT _{nc}	Averaging time for noncarcinogens	30	year	AT _{nc} =ED	Res=30, Ind/Comm=25
crack	Effective diffusion coeff. through cracks	3.67E-04	CONTRACTOR CONTRACTOR	J&E 15, App C Table L	Calculated Value
Di	Diffusivity in air		cm2/s	App CTable E	Chemical Specific
D ₁ ^{eff}	Effective diffusion coeff. for each soil layer	4.61E-03	cm2/s	J&E 11, App C Table L	Calculated Value
D ₂ ^{eff}	Effective diffusion coefficient of soil layer 2	2.16E-04	cm2/s	J&E 11, App C Table L	
	Distance from ground surface to top of				Soil Gas Contamination=152.4, Groundwater
D _{source}	contamination	162.4	cm	Field Measurement	Contamination=304.8
D _T ^{eff}	Total effective diffusion coefficient	7.68E-04	cm2/s	J&E 9, App C Table L	Calculated Value
Dw	Diffusivity in water	7.50E-06	cm2/s	App C Table E	Chemical Specific
ED	Exposure duration	30	year	SSL	Res=30, Ind/Comm=25
EF	Exposure frequency	350	day/year	SSL	Res=350, Ind/Comm=250
ER	Air exchange rate	0.53	exch/hr	IL EPA	Res=0.53, Ind/Comm=0.93
					SOG Res=244, Ind/Comm=305 OR Site sp T3
H _B	Height of building	244	cm	IL EPA	Basement Res=427, Ind/Comm=488
H' _{ts}	Dimensionless Henry's Law constant	8.29E-03	unitless	App C Table E	Chemical specific
L _B	Length of building	1000	cm	IL EPA	Res=1000, Ind/Comm-2000 or Site sp T3
L _{crack}	Slab thickness	10	cm	USEPA Users Guide 2004	10
L _F	Distance from ground surface to bottom of slab	10	cm	USEPA Users Guide 2004	SOG=10, Basement=200
L,	Thickness of soil layer i	114.9	cm	Field Measurement, USEPA 2004	Site sp 152.4 (5 ft)/for capillary fringe, 37.5cm
L ₂	Thickness of soil layer 2 capillary fringe)	37.5	cm	Field Measurement, USEPA 2004	Site sp 152.4 (5 ft)/for capillary fringe, 37.5cm
	Distance from bottom of slab to top of				
LT	contamination	152.4	cm	Field Measurement OR J&E 10, App C Table L	142.2 or Site sp (4 FT 8 IN)
					SOG Res=3.59*10^4, Ind/Comm=3.15*10^5 OR
					Site sp T3 Basement Res 6.28*10^4,
Q _{bldg}	Building ventilation rate	3.59E+04	cm3/s	J&E 13, App C Table L	Ind/Comm=5.04*10^5 or SST3
.5106	Volumetric flow rate of soil gas into the enclosed			and the state of t	
Q _{soil}	space	83.33	cm3/s	USEPA Users Guide 2004	If LT<152cm=83.33 If LT>=152cm=0
RfC	Reference concentration	3.00E-03	1	IL EPA TACO Toxicity Values spreadsheet	Toxicological-Specific
ROgw	Groundwater remediation objective	the second s	mg/L	App BTable E OR J&E 6, App CTable L	Chemical specific or Calculated
RO _{indoorair}	Indoor air remediation objective	3.13E-03		J&E 1 and 2, App C Table L	Calculated Value
RO _{soilgas}	Soil gas remediation objective		mg/m3	J&E 4, App C Table L	Calculated Value
THQ	Target hazard quotient		unitless	SSL	1
w	Floor-wall seam gap	0.1	cm	USEPA Users Guide 2004	0.1
W _B	Width of building	1000	and the second se	IL EPA	Res=1000, Ind/Comm-2000 or Site sp T3
α	Attenuation factor	1.32E-04		J&E 7 OR 8, App CTable L	Site specific
α θ _{a,1}	Air-filled soil porosity	of the local division of the local divisiono	cm3/cm3	SSL OR J&E 18, App C Table L	0.28 OR Calculated value
θ _{a,crack}	Air-filled porosity for soil in cracks	the statement of the st	cm3/cm3	SSL OR J&E 18, App C Table L	0.13

θ _{a,2}	Air-filled porosity of soil layer 1	0.043 cm3/cm3	SSL OR J&E 18, App C Table L	0.13 OR Calculated value for capillary fringe $\theta_{a,i}{=}0.1\theta_{T,i}$
θ _{T, crack}	Total porosity for soil in cracks	0.43 cm3/cm3	SSL OR J&E 16, App C Table L	0.43
θ _{τ,1}	Total porosity of soil layer 1	0.43 cm3/cm3	SSL OR J&E 16, App C Table L	0.43 or calculated value
θ _{w,1}	Water-filled soil porosity	0.15 cm3/cm3	SSL OR J&E 17, App C Table L	0.15 or calculated value
θ _{w,crack}	Water-filled porosity for soil in cracks	0.15 cm3/cm3	SSL OR J&E 17, App C Table L	0.15
θ _{w,2}	Water-filled porosity for soil layer 1	0.387 cm3/cm3	SSL OR J&E 17, App C Table L For cap fringe USEPA Users Guide 2004	0.15 or calculated value, for cap fringe=0.375 OR 0.9 $\theta_{T,i}$

Electronic Filing: Received, Clerk's Office 09/20/2024 **RESOURCE CONSULTING, INC.**

Attachment D Laboratory Certification

. .

.

.... ..

. . .



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

fEMA Incident # (6- or 8-digit): 9	80614	IEPA LPC# (10-digit): 04	30905825
Site Name: West Chicago Park	District		
Site Address (Not a P.O. Box):	250 West National Street		
City: West Chicago	County: DuPage	ZIP Code: 6	0185

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.

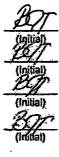
C. Laboratory Representative

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.

IL 53	2 22	83		
LPC	509	Rev.	March	2005

Laboratory Certification for Chemical Analysis Page 1 of 2



26
(Initial)
<u>M</u>
(Initial)
MG
(Initial)
MG
(Initial)
Mo
(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 (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.

Laboratory Representative

Sample Collector

Name Brandi Talaga	Name <u>Ryun Gerilde</u> Tille <u>Instante</u>
Title Environmental Technician	Title 1-3) cut Amongo
Company Resource Consulting, Inc.	Company First Environmental Labs, Inc.
Address P.O. Box 123	Address 1600 Shore Road
City <u>Geneva</u>	City Naperville
State Illinois	State Illinois
Zip Code 60134	Zip Code 60540
Phone 630-232-9820	Phone 630-778-1200
Signature <u>Burgl CF Talaba</u>	Signature Darla
Date Jul 15, 2020	Date 7-16-20

Laboratory Certification for Chemical Analysis Page 2 of 2



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):	980814	IEPA LPC# (10-digit):	0430905825
Site Name: West Chicago Park	c Dist.		······································
Site Address (Not a P.O. Box):	157 West Washington St.		
City: West Chicago	County: DuPage	ZIP Code	: 60185
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.

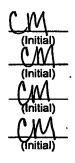
C. Laboratory Representative

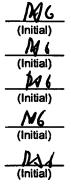
I certify that:

- 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.

Laboratory Certification for Chemical Analysis

Page 1 of 2





- 6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses.
- <u>M 6</u> (Initial) <u>D4 6</u> (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).

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.

Laboratory Representative

Sample Collector

Name Courtney McGinnis	Name Bill Mottashed Irn Gerrich
Title Geologist/Project Manager	Title Project Manager
Company Resource Consulting, Inc.	Company First Environmental Laboratories, Inc.
Address PO Box 123	Address 1600 Shore Road
City Geneva	City Naperville
State Illinois	State Illinois
Zip Code 60134	Zip Code <u>60563</u>
Phone 620-232-9820	Phone 630-778-1200
Signature <u>C.MUMiry</u>	Signature 1 6
Date 02/07/23	Date 2-7-23

Laboratory Certification for Chemical Analysis

Page 2 of 2

Attachment E Illinois EPA Electronic Correspondence

..

-

·····

••

	Eric.Kuhlman@illinois.gov <eric.kuhlman@illi< th=""><th>December 28, 2022 at 2:36 PM</th><th></th></eric.kuhlman@illi<>	December 28, 2022 at 2:36 PM	
	RE: [External] West Chicago Park District/0430905825		
	To: Courtney McGinnis		\$
	Siri found updated contact info Eric Kuhlman (217) 785-5715	upda	te 🛞
	Upon initial review of the CACR and BUD received by IEPA on 12/15/2022 and dated 11/15/2022, I've noticed the	e following items missing:	
	 a new certified copy of Ordinance No. 15-O-0004, completed and signed copies of the Laboratory Certification for Chemical Analysis form for each set of san attached form>, and OSFM's eligibility and deductibility statement. 	•	
	Please submit these items as soon as possible.		
	Thanks,		
	Eric Kuhlman Project Manager Leaking UST Section Illinois EPA Phone: (217) 785-5715		
متكاف ومعادلات ومطورتها والتقدير ومعاصرهم ومعادره والتقارب	Original Message From: Courtney McGinnis < <u>cmcginnis@resourceillinois.com</u> > Sent: Wednesday, December 14, 2022 3:08 PM To: Kuhlman, Eric < <u>Eric.Kuhlman@Illinois.gov</u> > Subject: [External] West Chicago Park District/0430905825		
	Eric: Attached is the CACR for West Chicago Park District/0430905825. It was malled to the Illinois EPA last week. Le questions/comments once you review it.	t me know if you have any	
	See More		
	mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original m computer system. All personal messages express views solely of the sender, which are not to be attributed to Re distributed without this disclaimer. If you have any questions concerning this message, please contact the sende	esource Consulting, Inc. and may	not be
an point a francé de la constant de	State of Illinois - CONFIDENTIALITY NOTICE: The information contained in this communication is confidential, r attorney work product, may constitute inside information or internal deliberative staff communication, and is inter Unauthorized use, disclosure or copying of this communication or any part thereof is strictly prohibited and may is communication in error, please notify the sender immediately by return e-mail and destroy this communication ar attachments. Receipt by an unintended recipient does not waive attorney-client privilege, attorney work product disclosure.	ided only for the use of the addres be unlawful. If you have received the ad all copies thereof, including all	see. his

د

Eric.Kuhlman@illinois.gov <Eric.Kuhlman@Illinois.gov> Ø. March 17, 2023 at 8:33 AM Details FW: [External] West Chicago Park District/0430905825 To: Daniel Horvath. Cc: Courtney McGinnis Siri found updated contact info Eric Kuhlman (217) 785-5715 Siri found updated contact info Eric Kuhlman (217) 785-5715 u update... 🛞

Hey Dan.

After review of the attached BUD in Appendix B of the CACR. I noticed that there are numerous budget entries without dates. Please note, you cannot oet today's costs for tasks that were performed in the past. You can only be reimbursed for those costs that are eligible on the day they were performed.

For example, on page 28 of the attached CACR, the budget proposed drilling costs for a soil boring to collect a soil gas sample back in 2014. However, this budget entry used the rate in 2022 which is unreasonable and not acceptable.

Therefore. I'm giving you an opportunity to add dates to all the entries for past activities. Please let me know if/when the new updated budget will be submitted to me.

FYI. I will be sending an update of DLC's review of the Ordinance No. 15-O-0004.

Respectfully.

Eric Kuhlman Project Manager Leaking UST Section Illinois EPA Phone: (217) 785-5715

-----Original Message-----

From: Courtney McGinnis < cmcginnis@resourceillinois.com> Sent: Wednesday, December 14, 2022 3:08 PM To: Kuhlman, Eric < Eric.Kuhlman@lilinois.gov> Subject: [External] West Chicago Park District/0430905825

Eric:

Attached is the CACR for West Chicago Park District/0430905825. It was mailed to the Illinois EPA last week. Let me know if you have any questions/comments once you review it.

See More

mail in error, please notify the sender immediately by e-mail or by calling 630,232,9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation.

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 09/20/2024

Daniel Horvath

April 10, 2023 at 2:54 PM Details

add... 🛞

Re: West Chicago Park District -- LUST Incident 980814

To: Eric.Kuhiman@illinois.gov <Eric.Kuhiman@illinois.gov>, Cc: Courtney McGinnis

Siri found new contact info Daniel Horvath dhorvath@resourceillinois.com add...

Eric:

There are no soil boring logs for samples WCPD-1 and EW-1A. Carol Hawbaker and I discussed options for addressing the exceedances in sample EW-1 from the soil excavation and disposal actions a few years earlier, and we settled on resampling. 2 were taken to ensure there was no lingering issue with the results.

We are still working on the ordinance. If possible, we will ask for a 30-day extension since the due date is Friday, I believe.

Thank you,

Daniel J. Horvath Resource Consulting, Inc.

(o) (630)232-9820 (c) (630)292-9820 (f) (630)232-9824 www.resourceillinois.com

CONFIDENTIALITY NOTICE:

This e-mall is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mall in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to Resource Consulting, inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation.

On Mar 17, 2023, at 11:06 AM, Kuhlman, Eric < Eric.Kuhlman@Illinois.gov> wrote:

Hey Dan,

Upon reviewing the LUST Technical File for this incident, I couldn't find any soil boring logs for these soil samples, WCPD-1 and EW-1A collected on 2/21/2012 and 3/7/2012, respectively. So, could you send March an electronic copy?

Thanks,

Eric Kuhiman Project Manager Leaking UST Section Illinois EPA Phone: (217) 785-5715

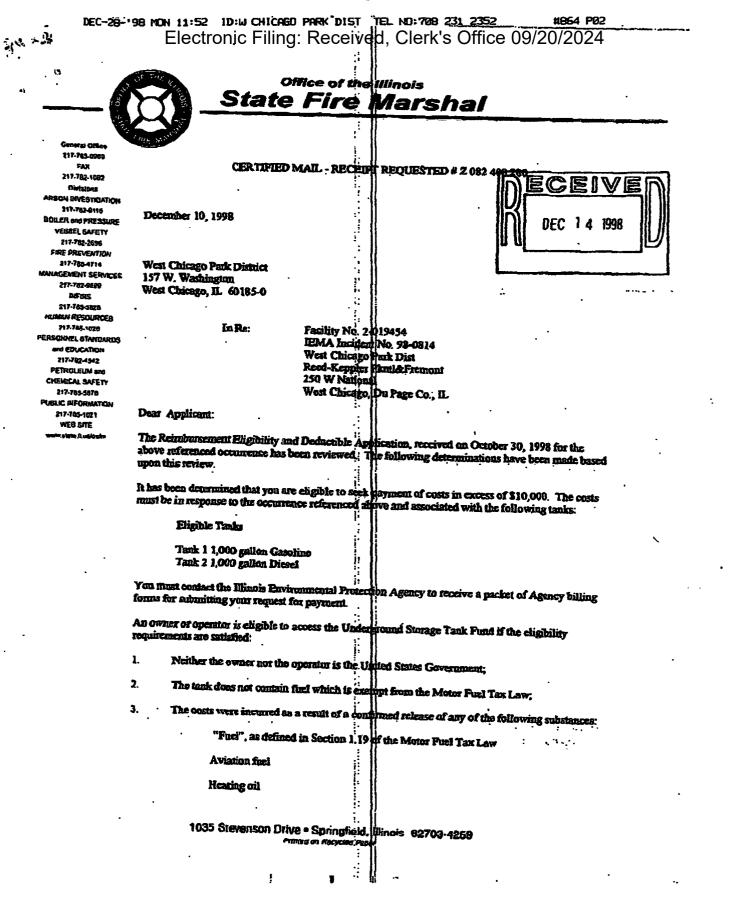
----Original Message----From: Courtney McGinnis <<u>cmcginnls@resourceillinois.com</u>> Sent: Wednesday, December 14, 2022 3:08 PM To: Kuhlman, Eric <<u>Eric.Kuhlman@Illinois.gov</u>> Subject: [External] West Chicago Park District/0430905825

Attachment F OSFM Eligibility and Deductibility Statement

--

Ł

. - :



ų

Kerosene

Used oil, which has been refined from crude oil used in a motor vehicle, as defined in Section 1.3 of the Motor Fine Tax Law.

- 4. The owner or operator registered the band and paid all fees in accordance with the statutory and regulatory requirements of the Gasonine Storage Act.
- 5. The owner or operator notified the Illinoi: Emergency Management Agency of a confirmed release, the costs were incurred after the polification 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 coast priver.
- 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 105.102(a) (2)).

For information regarding the filing of an appeal, please contact:

Dorothy Gum, 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 regarding the eligibility of deductibility determinations, please contact our Office at (217)785-1020 or (217)785-5878 between 3:00 - 4:00 p.m.

1

1

÷

Sincerely,

Melinin H

Melvin H. Smith Division Director Division of Petroleum and Chemical Safety

MHS:

cc: IEPA Facility File Attachment G CACR Budget

.

.

. . ..

. **∢**∖

Budget Summary

Choose the applicable regulation:	() 734	() 732
-----------------------------------	---------------	----------------

734	Free Product	Stage 1 Site Investigation	Stage 2 Site Investigation	Stage 3 Site Investigation	с	orrective Action
Drilling and Monitoring Well Costs Form	\$	\$	\$	\$	\$	3,035.95
Analytical Costs Form	\$	\$	\$	\$	\$	978.00
Remediation and Disposal Costs Form	\$	\$	\$	\$	\$	
UST Removal and Abandonment Costs Form	\$	\$ ·	\$	\$	\$	r .
Paving, Demolition, and Well Abandonment Costs Form	\$	\$	\$	\$	\$	1,535.81
Consulting Personnel Costs Form	\$	\$	\$	\$	\$	43,250.34
Consultant's Materials Costs Form	\$	\$	\$	\$	\$	147.52
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.					
Total	\$	\$	\$	\$	\$	48,947.62

Drilling and Monitoring Well Costs Form

1. Drilling

Number of Borings to Be Drilled	Type HSA/PUSH/ Injection	Depth (feet) of Each Boring	Total Feet Drilled	Reason for Drilling
1	PUSH	10.00	10.00	Soil boring for soil gas sample (Aug. 2014).
•				
				· · · · · · · · · · · · · · · · · · ·
·				

		Total Feet	Rate per Foot (\$)	Total Cost (\$)
🛛 Subpart H	Total Feet via HSA:			
minimum payment amount applies.	Total Feet via PUSH:	10.00	21.87	218.70
	Total Feet for Injection via PUSH:			
			Total Drilling Costs:	1,457.81

2. Monitoring / Recovery Wells

Number of Wells	Type of Well HSA / PUSH / 4" or 6" Recovery / 8" Recovery	Diameter of Well (inches)	Depth of Well (feet)	Total Feet of Wells to Be Installed
			······································	

Well Installation	Total Feet	Rate per Foot (\$)	Total Cost (\$)
Total Feet via HSA:			
Total Feet via PUSH:			
Total Feet of 4" or 6" Recovery:			
Total Feet of 8" or Greater Recovery:			
	<u> </u>	Total Well Costs:	

Total Drilling and Monitoring Well Costs:	\$1,457.81
---	------------

Drilling and Monitoring Well Costs Form

1. Drilling

Number of Borings to Be Drilled	Type HSA/PUSH/ Injection	Depth (feet) of Each Boring	Total Feet Drilled	Reason for Drilling
1	PUSH	10.00	10.00	Soil boring/temporary monitoring well installation
				(Aug. 2019)
	,			·····
				······································

		Total Feet	Rate per Foot (\$)	Total Cost (\$)
🛛 Subpart H	Total Feet via HSA:			
minimum payment amount applies.	Total Feet via PUSH:	10.00	23.67	236.70
amount approof.	Total Feet for Injection via PUSH:			
			Total Drilling Costs:	1,578.14

2. Monitoring / Recovery Wells

Number of Wells	Type of Well HSA / PUSH / 4" or 6" Recovery / 8" Recovery	Diameter of Well (inches)	Depth of Well (feet)	Total Feet of Wells to Be Installed

Well Installation	Total Feet	Rate per Foot (\$)	Total Cost (\$)
Total Feet via HSA:			
Total Feet via PUSH:		•	
Total Feet of 4" or 6" Recovery:			
Total Feet of 8" or Greater Recovery:			
<u> </u>		Total Well Costs:	

J.

Analytical Costs Form

.

Laboratory Analysis	Number of Samples		Cost (\$) per Analysis		Total per Parameter
Chemical Analysis	·•				
BETX Soil with MTBE EPA 8260		x		=	
BETX Water with MTBE EPA 8260		X		Ŧ	
COD (Chemical Oxygen Demand)		X		-	
Corrosivity	1	X		=	
Flash Point or Ignitability Analysis EPA 1010		Х		=	
Fraction Organic Carbon Content (foc) ASTM-D 2974-00		X	<u> </u>	=	
Fat, Oil, & Grease (FOG)		Х		=	
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)	1	X		=	
Paint Filter (Free Liquids)		X			······
PCB / Pesticides (combination)	1	X		=	
PCBs		X		=	
Pesticides		X		=	
pH		X		=	-
Phenol		X		=	
Polynuclear Aromatics PNA, or PAH SOIL EPA 8270		Х		8	
Polynuclear Aromatics PNA, or PAH WATER EPA 8270		X		=	
Reactivity		Х		=	
SVOC - Soil (Semi-Volatile Organic Compounds)		X		=	
SVOC - Water (Semi-Volatile Organic Compounds)		X		=	
TKN (Total Kjeldahl) "nitrogen"		X		2	
TPH (Total Petroleum Hydrocarbons)		X		=	
VOC (Volatile Organic Compounds) - Soil (Non-Aqueous)		X		=	
VOC (Volatile Organic Compounds) - Water		X		=	<u></u>
2 Bulk density and 1 BTEX/MTBE Soit Gas sample (Aug. 2014)	1	X	460.00	=	\$460.00
BTEX Water with MTBE EPA 8620 (July 2017)	. 1	X	60.00	=	\$60.00
PNA Water EPA 8270 (July 2017)	1	X	150.00	8	\$150.00
BTEX Water with MTBE EPA 8620 (Aug. 2019)	1	X	60.00	=	\$60.00
PNA Water EPA 8270 (Aug. 2019)	1	X	150.00	=	\$150.00
Geo-Technical Analysis					
Soil Bulk Density (pb) 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 (ps) ASTM D854-92		X		=	
Soil Bulk Density (Aug. 2019)	1	X	80.00	=	\$80.00
Moisture Content (Aug. 2019)	1	X	18.00	=	\$18.00
		X		=	

Analytical Costs Form

Metals Analysis	· · · · · · · · · · · · · · · · · · ·	······	
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	=	2
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	=	
	X	=	
	X	=	
	X	=	
Other			
EnCore [®] Sampler, purge-and-trap sampler, or equivalent sampling device	X	=	-
Sample Shipping per sampling event ¹	X	=	
		L	

¹A sampling event, at a minimum, is all samples (soil and groundwater) collected in a calendar day.

Total Analytical Costs: \$ 978.00

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
	•				
	,,,				······································
	·····				
		,,, _,, _			

Total Concrete and Asphait Placement/Replacement Costs:

B. Building Destruction or Dismantling and Canopy Removal

	Item to Be Destroyed, Dismantled, or Removed	Unit Cost (\$)	Total Cost (\$)	
	······································		······	
- .				
····				
		· · · · · · · · · · · · · · · · · · ·	· · · ·	
	· · · · · · · · · · · · · · · · · · ·			

Total Building Destruction or Dismantling and Canopy Removal Costs:

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
RW-1	HSA	14.00	14.09	\$197.26
RW-2	HSA	17.00	14.09	\$239.53
RW-4	HSA	14.00	14.09	\$197.26
RW-5	HSA	12.00	14.09	\$169.08
RW-6	HSA	13.00	14.09	\$183.17
RW-7	HSA	13.00	14.09	\$183.17
RW-8	HSA	13.00	14.09	\$183.17
RW-9	HSA	13.00	14.09	\$183.17
*****			· · · · · · · · · · · · · · · · · · ·	
				<u> </u>
,				

	Total Monitoring Well Abandonment Costs:	\$1,535.81
Total Paving	g, Demolition, and Well Abandonment Costs:	\$1,535.81

Consulting Personnel Costs Form

•

Employee Name		Personnel Title	Hours	Rate* (\$)	Total Cost	
Remediation Category		Task				
		Senior Project Manager	10.00	119.11	\$1,191.10	
·	Evaluation of C	ACR rejection from IEPA; Planning t	for additional rec	uirements (Sept	. 2013).	
F		T	·····		· · · · · · · · · · · · · · · · · · ·	
	F	Senior Project Manager	10.00	119.11	\$1,191.10	
	Correspondence	e with staff and IEPA re: regulatory of	evaluation and i	ndoor inhalation	exposure route 🛨	
		Project Manager	10.00	107.20	\$1,072.00	
	Project manage	ment with staff and IEPA re: CACR	rejection, TACC), data, budget re	evisions (2013).	
[T				
· · · · · · · · · · · · · · · · · · ·	1 ·····	Project Manager	3.00	107.20	\$321.60	
	Review/editing of	of TACO calculations; corresponden	ce with PM re: i	ndoor inhalation	requirement.	
		Project Manager	6.00	109.34	\$656.04	
	Field work planr	ing for soil vapor and bulk density s	ampling (Aug. 2	014).		
	·····	Geologist III	5.00	105.01	REDA EE	
a a constant and a segment		1	5.00	106.91	\$534.55	
L	On-site for soil s	ampling (Aug. 2014)				
		Project Manager	6.00	109.34	\$656.04	
	Analysis/evaluation of soil gas data, correspondence with lab and IEPA re: data analysis (2014).					
	r	Senior Project Manager	20.00	121.49	\$2,429.80	
L	Preparation of o	rdinance: research, planning, corres	spondence with	City (2014).		
		Geologist III	20.00	106.91	\$2,138.20	
	Preparation of draft ordinance document for submission to Public Works Department (2014).					

•

Employee Name		Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category		Task	Task		
		p ² ====			
		Geologist III	5.00	106.91	\$534.55
	Preparation of m	naps and supporting documents for	draft ordinance	using IEPA requ	irements 2014).
		Project Manager	10.00	109.34	\$1,093.40
	Ordinance desig	n and preparation of documents wit	h staff and city ((2014).	- <u></u>
		Project Manager	6.00	109.34	\$656.04
	TACO modeling	calculations for ordinance (2014).			
	<u></u>	Project Manager	10.00	109.34	\$1,093.40
	Review of ordina	nce and supporting documents for	final enactment	by City (2014/20	15).
		Project Manager	10.00	109.34	\$1,093.40
	Project manager	nent with City personnel re: propert	y owner summa	ry and approval	of ordinance (2012
		Senior Project Manager	3.00	125.15	\$375.45
	Project manager	nent with Illinois EPA re: indoor inh	alation and Site	land use classifi	cation (June 201+
· · ·		Senior Scientist	20.00	106.38	\$2,127.60
	Preparation of C	ACR response documentation inclu	ding TACO mod	leling, ordinance	work (June 201+
· · · · · · · · · · · · · · · · · · ·		Project Manager	5.00	113.76	\$568.80
	Review of data a	and project needs for contaminated	groundwater an	d soil gas; planni	ng for field wort+
		Geologist III	6.00	111.24	\$667.44
	On-site for monit	oring well sampling and sample ma	nagement (July	2017).	

Employee Name)	Personnel Title	Hours	Rate* (\$)	Total Cost	
Remediation Category		Task				
		· · · · · · · · · · · · · · · · · · ·		ıı	, ,,	
		Project Manager	5.00	113.76	\$568.80	
	Review of grour	idwater quality data and planning re	sponse for indo	or inhalationroute	evaluation (20+	
	<u></u> ,	Senior Project Manager	5.00	126.40	\$632.00	
	Project manage	ment with IEPA and client re: re-san	npling monitorin	g well for J&E eq	uation (2017).	
		Project Manager	5.00	116.04	\$580.20	
	Review of proje	ct needs and budgeting for next pha	se of project (20	019)		
· · · · · · · · · · · · · · · · · · ·		Geologist III	20.00	113.46	\$2,269.20	
	Preparation of t	echnical summary/CAP amendment	text and mappi	ng (2019).		
		Senior Admin. Assistant	3.00	58.02	\$174.06	
	Forms manager	nent - preparation, editing, publishin	g, corresponde	nce (2019).		
······································		e Senior Project Manager	3.00	128.93	\$386.79	
	Review of techn	ical summary/CAP amendment (20	19).	<u>.,</u>		
· · · · · · · · · · · · · · · · · · ·		Senior Admin. Assistant	2.00	58.02	\$116.04	
	Edit and publish	technical summary/CAP amendme	nt (2019)	<u> </u>		
		Senior Project Manager	2.00	131.51	\$263.02	
	Project manage	ment - soil and groundwater samplir	ng with new IEP	A project manage	er (2019).	
		Project Manager	2.00	118.36	\$236.72	
	Field work plan	ning with staff, review of scope of wo	ork and project r	needs (2019).		

Employee Name)	Personnel Title	Hours	Rate* (\$)	Total Cost		
Remediation Category		Task					
		Project Manager	3.00	118.36	\$355.08		
·····	Project manage	ement and correspondence w/ new	IEPA project ma	nager (2019).			
······		Geologist III	2.00	115.73	\$231.46		
	Preparation for	field work and scheduling including	correspondence	e with WCPD and	staff (2019).		
	-	Geologist III	5.00	115.73	\$578.65		
······	On-site for soil	boring/monitoring well installation (Aug. 2019).				
· · · · · · · · · · · · · · · · · · ·		Geologist III	20.00	115.73	\$2,314.60		
	Review of lab d	ata, preparation of data table, form	s, mapping, sb k	ogs, CAP amendr	ment text (2020).		
		Senior Admin. Assistant	6.00	59.18	\$355.08		
	Edit and publist	n CAP amendment (2020).					
		Project Manager	2.00	120.73	\$241.46		
	Data analysis a	nd historical data review (2021).					
	· · · · · · · · · · · · · · · · · · ·	Geologist III	15.00	118.04	\$1,770.60		
	Preparation of J	&E calculations (2021).		<u> </u>			
		Project Manager	8.00	120.73	\$965.84		
	Review and eva	aluation of indoor inhalation modelin	ng, data, and IEP	PA requirements (2021).		
		Senior Admin. Assistant	20.00	60.36	\$1,207.20		
	Clerical work, in	voicing, budgeting documentation	(2021).				

Employee Name		Personnel Title	Hours	Rate* (\$)	Total Cost		
Remediation Category		Task					
			r				
		Geologist III	20.00	123.99	\$2,479.80		
	Propagation of C	ACP hudget emendment (2022)	· · · · · · · · · · · · · · · · · · ·				
Preparation of CACR budget amendment (2022).							
		Senior Admin. Assistant	15.00	63.41	\$951.15		
	Preparation of b	illing package (2022).					
	••••	Geologist III	50.00	123.99	\$6,199.50		
	Preparation of c	omprehensive CACR at request of I	new PM (2022).		· · · · · · · · · · · · · · · · · · ·		
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	Geologist III	10.00	123.99	\$1,239.90		
	Review and pre	paration of J&E equation for final do	cumentation (20)22).			
		Professional Engineer	4.00	183.17	\$732.68		
	Review and cert	ification of CACR (2022).			:		
		T			· · · · · · · · ·		
	 I						
• • ,		r		1			
*	· · ·						
	r						
······································							
	L	······································					

*Refer to the applicable Maximum Payment Amounts document.

-

. . .

Total of Consulting Personnel Costs \$43,250.34

.

Consultant's Materials Costs Form

Materials, Equipment,	or Field Purchase	Time or Amount Used	Rate (\$)	Unit	Total Cost
Remediation Category	Description/Justification				
Mileage (Aug. 2014)	· · · · · · · · · · · · · · · · · · ·	14.00	.56		\$7.84
CACR					
Sampling Equipment (2014)	<u></u>	1.00	124.00		\$124.00
CACR	Helium detector for soil ga	L		L	L
· · · · · · · · · · · · · · · · · · ·					
Mileage (July 2017)	1	14.00	.54		\$7.56
Mileage (Aug. 2019)		14.00	.58		\$8.12
		· · · · ·			
	· · · · · · · · · · · · · · · · · · ·	1 1			
· · · · · · · · · · · · · · · · · · ·					
		[]]			
		<u> </u>	······································		
L	· · · · · · · · · · · · · · · · · · ·	1 1			
				L	
			,		
·	1				
· ·	1	· · · · · · · · · · · · · · · · · · ·			

Total of Consultant Materials Costs	\$147.52
-------------------------------------	----------

Kim, Richard Electronic Filing: Received, Clerk's Office 09/20/2024

From: Sent: To: Subject: Kuhlman, Eric Wednesday, October 25, 2023 12:05 PM 'Daniel Horvath' RE: [External] West Chicago Park District/980814

Thanks, Dan.

ERIC KUHLMAN Project Manager Leaking UST Section Illinois EPA Phone: (217) 785-5715



From: Daniel Horvath <dhorvath@resourceillinois.com>
Sent: Wednesday, October 25, 2023 12:51 PM
To: Kuhlman, Eric <Eric.Kuhlman@Illinois.gov>
Cc: Putrich, Steve <Steve.Putrich@Illinois.gov>; Courtney McGinnis <cmcginnis@resourceillinois.com>
Subject: Re: [External] West Chicago Park District/980814

OK thank you for the clarification. We are working on gathering the requested information and will submit it as soon as it's ready.

Daniel J. Horvath Resource Consulting, Inc.

(o) (630)232-9820 (c) (630)292-9820 (f) (630)232-9824 www.resourceillinois.com

CONFIDENTIALITY NOTICE:

This e-mail is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation.

On Oct 24, 2023, at 9:07 AM, Kuhlman, Eric < Eric.Kuhlman@Illinois.gov> wrote:

Good morning, 色艳ctronic Filing: Received, Clerk's Office 09/20/2024

No, this is not an official review. An official review, as you know, is an IEPA response letter dated and signed by me that has been mailed or sent electronically. There are no other points, or issues at this time, however that is subject to change depending on the information submitted or reviewed.

Case and point, since any plan, budget, and reports submitted to the LUST Section are reviewed by project managers, lead workers, and unit managers. And with each person having different views, one cannot guarantee that there will not be other points.

But these are my points for the CACR and BUD dated June 16, 2023 for the above referenced incident, the CACR is missing the following items:

- The new certification of Ordinance No. 15-O-0004 included in Attachment A does not include the official copies of records belonging to City of West Chicago as stated on the certificate. Therefore, an updated copy will need to be submitted for review since the IEPA does not know what the Executive Office Manager, Valeria Perez was certifying on 4/11/2023.
- 2. The RBCA Input Parameters for Use with Tier 2 Calculations form and input value data were not submitted. Therefore, a completed Input Parameters form and will need to be submitted to the IEPA for technical review, as well as a small narrative regarding the laboratory data behind input values chosen.
- 3. J&E Input Parameters and Calculations for ethylbenzene and naphthalene could not be duplicated. As such, further investigation may be required to address the Indoor Inhalation exposure route. This exposure will need to be addressed, maybe by resampling the groundwater and/or soil gas in that location, or possibly utilizing an industrial/commercial property use restriction for just the maintenance garage.

And the BUD is/was missing the following items: .

- 1. General Information for the Budget and Billing forms,
- 2. Owner/Operator and Licensed-Professional-Engineer/Geologist Budget-Certification form,
- Analytical Costs for chemical analysis of (2) bulk density and (1) BETX/MTBE soil gas sample (August of 2014) needs to be broken out since the IEPA cannot determine whether bulk density analysis rate exceeds \$26.73 per analysis.
- 4. Analytical Costs for chemical analysis of (1) bulk density (August of 2019) exceeds the bulk density analysis rate of \$28.93 per analysis.
- 5. Analytical Costs for chemical analysis of (1) moisture content (August of 2019) exceeds the moisture content analysis rate of \$15.78 per analysis.
- 6. A good number of line items in Consulting Personnel Costs form either do not have month and year, or do not have a month. As such, the proposed rates may be either reduced or deducted due to lack of documentation. (6) line items have a plus (+) and no month and year so these will be deducted.

7. Consultant's Material Costs for mileage will need to be adjusted for 13 miles roundtrip and samplin **Electronic Filing Received**, **Serk S rOfiiibeO9/20/20/20/24** such costs exceed the minimum requirements because isopropyl alcohol can be used instead.

However, with the 60-day extension that you have provided, we should have the time to resolve them.

Respectfully,

ERIC KUHLMAN Project Manager Leaking UST Section Illinois EPA Phone: (217) 785-5715 <image001.png><image002.png><image003.jpg><image004.png>

From: Daniel Horvath <<u>dhorvath@resourceillinois.com</u>> Sent: Monday, October 23, 2023 12:39 PM To: Kuhlman, Eric <<u>Eric.Kuhlman@Illinois.gov</u>> Cc: Putrich, Steve <<u>Steve.Putrich@Illinois.gov</u>> Subject: Re: [External] West Chicago Park District/980814

Is your October 10, 2023, email the official record of the Illinois EPA's review of the recent submission? No other points to cover?

Thank you,

Daniel J. Horvath Resource Consulting, Inc.

(o) (630)232-9820 (c) (630)292-9820 (f) (630)232-9824 www.resourceillinois.com

CONFIDENTIALITY NOTICE:

This e-mail is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation.

On Oct 12, 2023, at 11:33 AM, Kuhlman, Eric < Eric.Kuhlman@Illinois.gov> wrote:

Ine IEPA will need something more official, like a cover letter with your company's letterh 但他的前途早前的学校也曾经曾经自己的意义。

ERIC KUHLMAN Project Manager Leaking UST Section Illinois EPA Phone: (217) 785-5715 <image001.png><image002.png><image003.jpg><image004.png>

From: Daniel Horvath dhorvath@resourceillinois.com Sent: Thursday, October 12, 2023 11:27 AM To: Kuhlman, Eric <<u>Eric.Kuhlman@Illinois.gov</u>> Cc: Putrich, Steve <<u>Steve.Putrich@Illinois.gov</u>> Subject: Re: [External] West Chicago Park District/980814

On behalf of the West Chicago Park District, a 60-day extension of the 120-day review period for the project's CACR is requested.

Thank you,

Daniel J. Horvath Resource Consulting, Inc.

(o) (630)232-9820 (c) (630)292-9820 (f) (630)232-9824 www.resourceillinois.com

CONFIDENTIALITY NOTICE:

This e-mail is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation.

On Oct 12, 2023, at 11:04 AM, Kuhlman, Eric <<u>Eric.Kuhlman@Illinois.gov</u>> wrote:

That's my recommendation. Is that acceptable?

医陀诊斯曼斯曼 年間ing: Received, Clerk's Office 09/20/2024

Project Manager Leaking UST Section Illinois EPA Phone: (217) 785-5715 <image001.png><image002.png><image003.jpg><image004.png>

From: Daniel Horvath <<u>dhorvath@resourceillinois.com</u>> Sent: Thursday, October 12, 2023 11:02 AM To: Kuhlman, Eric <<u>Eric.Kuhlman@Illinois.gov</u>> Cc: Putrich, Steve <<u>Steve.Putrich@Illinois.gov</u>> Subject: Re: [External] West Chicago Park District/980814

OK will an extension be granted? 60-day minimum correct?

Daniel J. Horvath Resource Consulting, Inc.

(o) (630)232-9820 (c) (630)292-9820 (f) (630)232-9824 <u>www.resourceillinois.com</u>

CONFIDENTIALITY NOTICE:

This e-mail is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation.

> On Oct 12, 2023, at 7:43 AM, Kuhlman, Eric <<u>Eric.Kuhlman@Illinois.gov> wrote</u>:

I don't think I can resolve these issues before 10/21/2023. I will need more time since a draft copy of the review letter should have already be submitted to management. I also have other LUST Incidents that need to be reviewed, bu, it you drike the to resolve

Electronic Filing: Received, Clerk's Office 09/20/2024

Otherwise, my draft letter goes on to management.

ERIC KUHLMAN Project Manager Leaking UST Section Illinois EPA Phone: (217) 785-5715 <image001.png><image002.png><image003.jpg><imag e004.png>

From: Daniel Horvath <<u>dhorvath@resourceillinois.com</u>> Sent: Wednesday, October 11, 2023 2:05 PM To: Kuhlman, Eric <<u>Eric.Kuhlman@Illinois.gov</u>> Cc: Putrich, Steve <<u>Steve.Putrich@Illinois.gov</u>> Subject: Re: [External] West Chicago Park District/980814

Please see my comments below. We should be able to reach common ground before 10/21/2023.

Thank you,

Daniel J. Horvath Resource Consulting, Inc.

(o) (630)232-9820 (c) (630)292-9820 (f) (630)232-9824 www.resourceillinois.com

CONFIDENTIALITY NOTICE:

This e-mail is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation.

> On Oct 10, 2023, at 2:40 PM, Kuhlman, Eric
<<u>Eric.Kuhlman@Illinois.gov</u>> wrote:

>

> Good afternoon, Daniel.

>

> After review of the CACR and BUD dated June 16, 2023 for the above referenced incident, I have concluded that the CACR cannot be approved as submitted. The BUD is missing the following items: >

> 1) The new certification of Ordinance No. 15-O-0004 included in Attachment A does not include the official copies of records belonging to City of West Chicago as stated on the certificate. Therefore, an updated copy will need to be submitted for review since the IEPA does not know what the Executive Office Manager, Valeria Perez was certifying on 4/11/2023.

We will provide the certificate again with the 2015 ordinance attached.

>

> 2) The RBCA Input Parameters for Use with Tier 2 Calculations form and input value data were not submitted. Therefore, a completed Input Parameters form and will need to be submitted to the IEPA for technical review, as well as a small narrative regarding the laboratory data behind input values chosen.

I believe you are referring to the indoor inhalation evaluation. All of the input parameters are in tables after each summary of equations. We can complete the forms if needed.

> Note, a slug test may need to be conducted to determine hydraulic conductivity (K).

Slug testing and K value determination were completed and provided in the 2003 CACR.

>

>

> 3) J&E Input Parameters and Calculations for ethylbenzene and naphthalene could not be duplicated. As such, further investigation may be required to address the Indoor Inhalation exposure route. This exposure will need to be addressed, maybe by resampling the groundwater and/or soil gas in that location, or possibly utilizing an industrial/commercial property use restriction for just the maintenance garage.

7

Inhalation evaluation. Maybe the Illinois EPA can share its results so that the evaluation is completed?

We were explicitly told that the park is residential:

<image005.jpg>

Resampling has also been done at least twice.

- > I have concluded that the BUD cannot be approved as submitted.
- > 1) General Information for the Budget and Billing forms,
- >

>

>

> 2) Owner/Operator and Licensed Professional Engineer/Geologist Budget Certification form,

These forms were provided in PDF form and the originals arrived in the Illinois EPA mail room 10/10/2023 at approximately 11am.

>

> 3) Analytical Costs for chemical analysis of (2) bulk density and (1) BETX/MTBE soil gas sample (August of 2014) needs to be broken out since the IEPA cannot determine whether bulk density analysis rate exceeds \$26.73 per analysis.

>

>

> 4) Analytical Costs for chemical analysis of (1) bulk density (August of 2019) exceeds the bulk density analysis rate of \$28.93 per analysis.

> 5) Analytical Costs for chemical analysis of (1) moisture content (August of 2019) exceeds the moisture content analysis rate of \$15.78 per analysis.

Please amend the budget accordingly.

>

> 6) A good number of line items in Consulting Personnel Costs form either do not have month and year, or do not have a month. As such, the proposed rates may be either reduced or deducted due to lack of documentation. (6) line items have a plus (+) and no month and year so these will be deducted.

The Illinois EPA forms do not expand with text addition. The forms can be corrected in a timely manner.

> 7) Consultant's Material Costs for mileage will need to be adjusted for 13 miles roundtrip and sampling equipment (helium detector for soil gas sampling) will be deducted since such costs exceed the minimum requirements because isopropy! alcohol can be used instead.

USEPA guidance (attached) only mentions helium. The Illinois EPA website states: "A tracer gas or other leak apparatus detection system approved by the Illinois EPA must be used during the sampling to confirm there are no leaks around the soil gas sampling train." I cannot find any other guidance at the Illinois EPA website nor has anyone notified my firm of an isopropyl alcohol leak detection alternative.

>

>

> So, I'd like to know if you need more time to correct these issues, or would you like me to proceed with my review letter?

> Respectfully,

>

>

> Eric Kuhlman

> Project Manager

> Leaking UST Section

> Illinois EPA

> Phone: (217) 785-5715

>

>

> ----- Original Message-----

> From: Kuhlman, Eric

> Sent: Tuesday, October 3, 2023 1:14 PM

> To: Daniel Horvath <<u>dhorvath@resourceillinois.com</u>>

> Subject: RE: [External] West Chicago Park District/980814

>

> Do you have the new IEPA budget forms yet? Please note, I will also need an e-copy of the certified copy of the Groundwater Ordinance for DLC for their records.

>

>

> Eric Kuhlman

> Project Manager

> Leaking UST Section

> IIIInois EPA

Electronic Filing? Received, Clerk's Office 09/20/2024

Ś

> ----- Original Message-----

> From: Daniel Horvath

<<u>dhorvath@resourceillinois.com</u>>

> Sent: Monday, September 25, 2023 2:48 PM

> To: Kuhlman, Eric < Eric.Kuhlman@Illinois.gov>

> Subject: Re: [External] West Chicago Park

District/980814

>

> Park District contacts were out of their office last week - the forms will be completed very soon and submitted. Please don't have this delay your review.

>

> Thank you,

>

> Daniel J. Horvath

> Resource Consulting, Inc.

>

> (o) (630)232-9820

> (c) (630)292-9820

> (f) (630)232-9824

> www.resourceillinois.com

>

> CONFIDENTIALITY NOTICE:

> This e-mail is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation.

>

>

>> On Sep 19, 2023, at 1:27 PM, Kuhlman, Eric <<u>Eric.Kuhlman@Illinois.gov</u>> wrote:

>>

>> I'm afraid the regulations are quite clear.

>>

>> In accordance with Section 734.135(a), all plans,

Electronic #11md. Retenved. Clerktsdoffice 09/20/2024 on forms prescribed and provided by the Agency and, if specified by the Agency in writing, in an electronic format. >> >> Therefore, you will need to submit new IEPA forms to the Agency for the new budget submitted. >> >> >> Eric Kuhlman >> Project Manager >> Leaking UST Section >> Illinois EPA >> Phone: (217) 785-5715 >> >> >> -----Original Message----->> From: Daniel Horvath <dhorvath@resourceillinois.com> >> Sent: Tuesday, September 19, 2023 1:01 PM >> To: Kuhlman, Eric < Eric.Kuhlman@Illinois.gov> >> Subject: Re: [External] West Chicago Park District/980814 >> >> These forms are in the forms appendix, not the budget appendix, of the November 2022 submission. >> >> Daniel J. Horvath >> Resource Consulting, Inc. >> >> (o) (630)232-9820 >> (c) (630)292-9820 >> (f) (630)232-9824 >> http://secureweb.cisco.com/1QQvIJswgK4E9VKmfqxtheXVhgxt1wwZ 60dZ7dFoDI2YWKwwFaDfuOnb2MUaWzLyGj88hIQhBM Ev4lgasIQ1QIPPn0ZC8atfawknLrOtiKBzyvLwsfCi uz4Xhk-YZEu60nB2uisTAuDjH6vxtXtTW755kMPL16GKiSj2wDR08vMLngljYXd NcHTal7ijD 83DQmRiZIAJH-RWjhmzjm2BkEyZkdJ3aulOIKFCag-AhvcvNulmjf3xllsZgf9CE96Bh435vOOP0He_P7ui5nKMlxxQTJ7IG55ChNdH38 6OAjZLFMbtgjbjid2UL2GED8O6WVztx3ue91dXaRkPpp8 1PXuMa6FugoM8CK9ZcOqQrMXhGn3jvqJZAgCTINm5V M-xxrHZvosowe0MrCXHfllb1lUKB1dIG7ZsMUBuyo/http%3A%2F %2Fwww.resourceillinois.com >> >> CONFIDENTIALITY NOTICE: >> This e-mail is intended only for the use of the individual or entity to which it is addressed. This

Electronic Filing: Received, Clerk's Office 09/20/2024 reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation. >> >> >>> On Sep 19, 2023, at 8:25 AM, Kuhlman, Eric <Eric.Kuhlman@Illinois.gov> wrote: >>> >>> Well, after initial review the CACR and BUD for this incident is missing the attached IEPA BUD forms. >>> >>> >>> Eric Kuhlman >>> Project Manager >>> Leaking UST Section >>> Illinois EPA >>> Phone: (217) 785-5715 >>> >>> >>> -----Original Message----->>> From: Daniel Horvath <<u>dhorvath@resourceillinois.com></u> >>> Sent: Monday, September 18, 2023 10:22 AM >>> To: Kuhlman, Eric <Eric.Kuhlman@Illinois.gov> >>> Subject: [External] West Chicago Park District/980814 >>> >>> Any news on this Eric? >>> >>> Thank you, >>> >>> Daniel J. Horvath >>> Resource Consulting, Inc. >>> >>> (o) (630)232-9820 >>> (c) (630)292-9820 >>> (f) (630)232-9824 >>> http://secureweb.cisco.com/1QQvIJswgK4E9VKmfqxtheXVhgxt1wwZ

LEAKING UST TECHNICAL REVIEW NOTES

Reviewed by: Eric Kuhlman

Date Reviewed: 9/19/2023

Re: 0430905825 -- DuPage County West Chicago / West Chicago Park District 250 West National Street Leaking UST Incident 980814 Leaking UST Technical File

Document(s) Reviewed:

CACR / BUD

General Site Information:

IEPA-DIVISION OF RECORDS NANAGEMENT TELEASABLE

MAR 2 9 2024

REVIEWER: SAB

	Site subject to: 732 / 734				
IEMA date(s): 10/20/1998	Payment from the Fund? (Y/N/unknown): Y				
UST system removed? (Y/N): Y	OSFM Fac. ID #: 2019454				
Encountered groundwater? (Y/N): Y	SWAP mapping and evaluation completion date: 7/16/2021				
Free product? (Y/N/unknown): Y	Site placement correct in SWAP? (Y/N): U				
Current/past land use: public utility maintenance garage / Reed-Keepler Park	Inspection Required? (Date/Plan): NA				
Size & product of USTs: Tank 1 - 1,000-gallor Tank 2 - 1,000-diese	•				
Is site located in EJ area? Y (red)	Is investigation of indoor inhalation exposure route required? Y				
Has enough sampling been completed to perform a Right-to-Know Evaluation? Y	PLA Checklist Complete? N				

BOL File Information:(optional) (Arranged chronologically):

(See DocuWare)

On 8/26/2014, (1) SB (GP-1) was drilled to 6 feet bgs. Soil samples were collected and analyzed for dry soil bulk density (ρ_b). Analytical results indicated ρ_b of 94.8 lbs/ft³ for GP-1@2-3' and ρ_b of 94.3 lbs/ft³ for GP-1@5-6'.

On 8/26/2014, (1) SG sample [**RW-4B**] was collected from area of RW-4A and analyzed for BETX/MTBE. Analytical results indicated COCs > Tier I SGROs for **Res Ind Inh** in RW-4B(B) in accordance with 35 IAC 74.227 and 742.App.B. Table H: Tier I SG/GROs for Ind Inh Exposure Route – Diffusion and Advection.

On 7/24/2017, water samples were collected from RW-4A and analyzed for BETX and PNAs. Analytical results indicated COCs > Tier I GROs for **GCGI** in RW-4A (B, BkF). Page 2

On 10/25/2018, IEPA conducted record review and determine limited information has been received documenting remediation of this release since 9/17/2013.

On 6/18/2019, RCI submitted **MISC CORR** dated 6/14/2019 that provided laboratory results (SG/GW) and email from previous IEPA PM (Carol Hawbaker) stating *IEPA position that this site is park and cannot have I/C property use restriction since it's residential property.*

On 7/3/2019, RCI returned to site to resample RW-4A. However, parking lot had been paved and MW was no longer accessible.

On 8/2/2019, RCI returned to site to install TMW [**MW-4B**] near RW-4A. Soil samples were collected and analyzed for bulk density (ρ_b), and moisture content (ω). Analytical results indicated ρ_b of 94.3 lbs/ft³ and ω of 9.5%.

On 8/2/2019, water samples were collected from RW-4B and analyzed for BETX and PNAs. Analytical results indicated COCs > Tier I GROs for GCGI in RW-4B(BE, BaA, BaP, BbF, C, IcP, N).

On 7/22/2020, RCI submitted **MISC CORR** dated 7/15/2020 that responded to *IEPA letter* dated 9/17/2013 and provided laboratory results (SG/GW), Ordinance No. 15-O-0004, Tier 2 Evaluations, Site Maps, and IEPA forms.

On 4/12/2021, RCI submitted CACR dated 4/6/2021 that provided laboratory results and J&E Model Calculations (B).

On 12/15/2022, RCI submitted **CACR** dated 11/15/2022 that provided **BUD**, laboratory results, J&E Model Calculations (BEN), Ordinance (15-O-0004, not approved by IEPA), and IEPA forms. *IEPA rejected CACR and BUD on 4/14/2023*.

Corrective Action Completion Report Review Notes:

On 6/23/2023, RCI submitted **CACR** dated 6/16/2023 that responded to *IEPA letter dated* 4/14/2023 and provided Ordinance No. 15-O-0004, RBCA Calculations (PNAs), J&E Calculations (BEN), IEPA forms (LC), IEPA email, OSFM RE&D form, and **BUD**.

On 10/10/2023, RCI submitted MISC CORR dated 10/6/2023 that provided IEPA forms.

On 10/16/2023, RCI submitted **MISC CORR** dated 10/16/2023 that requested IEPA waive right of review of CACR dated 6/16/2023 for a minimum of 60 days.

Page 3

On 12/8/2023, RCI submitted **MISC CORR** dated 11/22/2023 that responded to IEPA in email dated 10/10/2023 that provided Ordinance No. 15-O-0004 (certified), RBCA Input forms, Parcel Map, **BUD**, and USEPA Soil Gas Sampling Guidance.

On 12/15/2023, RCI submitted **MISC CORR** dated 12/15/2023 that requested IEPA waive right of review of CACR dated 6/16/2023 for a minimum of 60 days.

Illinois EPA Decision:

PM recommends CACR be approved, and BUD be modified... [see IEPA letters]

Please note, DLC has approved an e-version of Ordnance No. 15-O-0004, and IEPA we were waiting for certified copy via mail before issuing NFR letter.

Response Due:

10/21/2023, extended to 2/14/2024

CONSULTING. INC.

115 Campbell Street

P.O. Box 123

Geneva, Illinois 60134

Phone: (630)232-9820

Fax: (630)232-9824

October 6, 2023

• ···· ·

0430905825 - DuPage County West Chicago Park District Incident # 980814 LUST Tech File

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



RE: LPC No. 0430905825 - DuPage County West Chicago/West Chicago Park District - Reed Keppler Park **250 West National Street** Leaking UST Incident 980814 Leaking UST Technical File

Dear Mr. Kuhlman:

On behalf of the West Chicago Park District, Resource Consulting, Inc. is submitting the requested Budget Certification and General Information forms for the above-referenced incident. These forms are related to the June 2023 submittal for this project.

Please contact our office at any time with questions or comments.

Regards,

Daniel J Horvath Hydrogeologist/Senior Project Manager

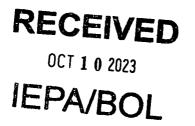
Enclosure: Forms

Ms. Gina Radun, West Chicago Park District cc:

IEPA-DIVISION OF RECORDS MANAGEMENY RELEASABLE

MAR 2 9 2024

REVIEWER: SAB



	Electronic Eiling	a: Received, Clerk's Office Fronmental Pro	09/20/2024 0430905825 - DuPage County West Chicago Park District Incident # 980814
1021 North Grand	d Avenue East • P.O.	Box 19276 • Springfield • Illing	
Ge	eneral Informat	ion for the Budget and	Billing Forms
LPC #: 04309058	25	County:	DuPage
City: <u>West Chi</u>	cago	Site Name:	West Chicago Park District
Site Address: 25	0 West National Stree	et	
Date this form wa	as prepared: Sep 22,	2023	
List all IEMA Inci	dent numbers associa	ated with this package:	
980814		••••	
List all other inci	dents associated with	this site that are not associated	with this package:
This form is bein	a submitted as a (che	ck one, if applicable):	RECEIVE
_	•		COT 10 2023
O Billing Pack	age		IEPA/BOI
D Budget Am	endment (Budget amer	idments must include only the costs	
0.00			
O Budget Pro	posal		
Please prov	vide the name(s) and da	ate(s) of report(s) documenting the	costs requested:
Name(s):	FPRR/CACR	Tech Summary/CAP An	CACR
Date(s):	Jul 12, 2013	Jun 14, 2019	Nov 15, 2022
This package is I	peing submitted for th	e site activities indicated below:	
35 III. Adm. Co	o de 734 :		• • • • •
Early Action	1		
Free Produ	ct Removal after Early	Action	
Site Investig	gation	Stage 1: Stage 2:	Stage 3:
Corrective /	Action		
35 III. Adm. C	ode 732:		
Early Action	า		
Free Produ	ct Removal after Early	Action	
Site Classif	ication		
Low Priority	Corrective Action		
High Priorit	y Corrective Action		
35 lil. Adm. C	ode 731:		
Site Investi			
	-		

r.

.

Becarali Infannation for the Budget and Billing Forzas

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:	West Chicago Pa	rk District			
Send in care of:	Gina Radun				
Address:	201 W. National S	St			
City:	West Chicago		State	: <u>IL</u>	Zip: <u>60185</u>
The payee is the:	Owner 🗸	Operator 🗸	(Check one or both.) <u>9.25</u> Date	23
West Chicago Park	District c/o Gina R		s) (required)		be submitted. to print off a W-9 Form.
Email: gradun@we	-		-,		

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: Ø 101 or more: O

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 US ⁻ a rele		C Incident No.	Type of Release Tank Leak / Overfill / Piping Leak
Gasoline	1,000	Yes 🕢	No 🔿	980814	Tank Leak
Diesel Fuel	1,000	Yes 🔿	No 🖉	980814	Tank Leak
,		Yes 🔿	No 🔿	5	
		Yes	No ()	×	
		Yes 🔿	No ()		
		Yes 🔿	No ()		
······································		Yes 🔿	No 🔿		
		Yes 🔿	No ()		

ŧ

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 <u>980814</u>. 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 III. Adm. Code 732 or 734. I further certify that costs ineligible for payment from the Fund pursuant to 35 III. 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: West Chicago Park District

Authorized Representative, Gina Radun	Title: Executive Director
Signature:	Date: <u>9-25-23</u>
Subscribed and sworn to before me the 25 day o	1 <u>Suptembre</u> , 2023
(Notary(Public)	Seal: OFFICIAL SEAL MELISSA L MEDEIROS
· · ·	NUTARY PUBLIC STATE OF ILLINOIS MY COMMISSION EXPIRES: 9/18/2025

In addition, I certify under penalty of law that all activities that are the subject of this plan, budget, or report solution 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 III. 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.: Daniel Horvath	L.P.E./L.P.G. Seal:
L.P.E./L.P.G. Signature:	Date: 10/2/2-3
Subscribed and sworn to before me the day o	f October , 2023
Asulutto bra	Seal: ELIZABETH A CAPE
(Notary Public)	STATE OF Notary Public - State of Illing

The Illinois EPA is authorized to require this information under 415 ILCS 54. Disclosure of this information is required. Failure to do so may result in the delay or denial of any budget or payment requested hereunder.

000458

Elec	tronic Fil	ing: Received,	Clerk	's Office 09/ 20720282 West Chica	5 – Dul go Parl	Page County k District
Resource Col	NSULT	ring, Inc.	•	Incident # 9 LUST Tech I)
115 Campbell Street Suite 108	٠	P.O. Box 123	•	Geneva, Illinois 60134	•	(630)232-9820

October 16, 2023

Mr. Eric Kuhlman 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. 043905825 - DuPage County West Chicago/West Chicago Park District 250 West National Street LUST Incident No. 980814 LUST Technical File



Dear Mr. Kuhlman:

On behalf of the West Chicago Park District, Resource Consulting, Inc. is submitting this request to extend the Illinois Environmental Protection Agency's (EPA) current October 21, 2023, review deadline an additional 60 days for the project's Corrective Action Completion Report and associated budget. This request is being submitted in accordance with Title 35 of the Illinois Administrative Code Section 734.505(d).

The extension is requested so that any questions or concerns of the Illinois EPA related to the groundwater well prohibition ordinance, the indoor inhalation modeling, or any other topic can be discussed and addressed in the most timely manner possible.

Please contact our office at any time with questions or comments regarding this request.

Regards,

Daniel J. Horvath Hydrogeologist/Senior Project Manager

EPA-ONISION OF RECORDS MANAGEMENT RELEASABLE

cc: Mr. Michael Gasparini, West Chicago Park District

MAR 1 8 2024 REVIEWER: SAB

RESOURCE CONSULTING, INC.

115 Campbell Street/Suite 108

P.O. Box 123 •

November 22, 2023

Mr. Eric Kuhlman 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

0430905825 - DuPage County West Chicago Park District Incident # 980814 LUST Tech File

Geneva, Illinois 60134

RE: LPC No. 043905825 - DuPage County West Chicago/West Chicago Park District 250 West National Street LUST Incident No. 980814 LUST Technical File

IEPA-OIVISION OF RECORDS MANAGEMENT RELEASABLE

(630)232-9820

MAR 2 9 2024 REVIEWER: SAB

Dear Mr. Kuhlman:

On behalf of the West Chicago Park District, Resource Consulting, Inc. is submitting the information requested by the Illinois Environmental Protection Agency (EPA) in the email correspondence dated October 10, 2023, for the above referenced incident.

The information is presented below following each of the items taken directly from the October 2023 Illinois EPA correspondence.

1. The new certification of Ordinance No. 15-O-0004 included in Attachment A does not include the official copies of records belonging to City of West Chicago as stated on the certificate. Therefore, an updated copy will need to be submitted for review since the IEPA does not know what the Executive Office Manager, Valeria Perez was certifying on 4/11/2023.

The certification of Ordinance No. 15-O-0004 with the ordinance is included in Attachment A.

2. The RBCA Input Parameters for Use with Tier 2 Calculations form and input value data were not submitted. Therefore, a completed Input Parameters form and will need to be submitted to the IEPA for technical review, as well as a small narrative regarding the laboratory data behind input values chosen.

Note, a slug test may need to be conducted to determine hydraulic conductivity (K). DEC 08 2023



RESOURCE CONSULTING, INC.

The completed Input Parameters forms are included in Attachment B. The laboratory data and input parameters along with a narrative regarding this information were presented in the Corrective Action Completion Report (CACR) dated May 31, 2003 and the Corrective Action Plan (CAP) dated July 17, 2008, both on file with the Illinois EPA. The input parameters were then modified with Illinois EPA input in the correspondence dated July 15, 2020, on file with the Illinois EPA.

Slug testing and hydraulic conductivity determination were completed and provided in the CACR dated May 31, 2003, and modified with Illinois EPA input in the correspondence dated July 15, 2020.

3. J&E Input Parameters and Calculations for ethylbenzene and naphthalene could not be duplicated. As such, further investigation may be required to address the Indoor Inhalation exposure route. This exposure will need to be addressed, maybe by resampling the groundwater and/or soil gas in that location, or possibly utilizing an industrial/commercial property use restriction for just the maintenance garage.

It is not clear what the Agency is requesting for this item. It appears that the benzene calculations were acceptable, but the ethylbenzene and naphthalene calculations were not. Resource Consulting requested the Illinois EPA's version of these calculations in a recent email correspondence but received no response. We will provide any additional revised calculations or information about the input parameters at the Agency's request.

Since the adoption of indoor inhalation as an exposure route by the Illinois EPA, both soil gas and groundwater have been re-sampled and do not meet the generic remediation objectives (ROs). Also, as shown on the attached parcel map in Attachment C, placing an industrial commercial land-use restriction on the parcels containing the contamination seems unsuitable since the parcels also include significant portions of the park itself. It was made clear by the Illinois EPA at the onset of the need for the evaluation of the indoor inhalation exposure route that the park property must be considered residential land use.

Resource Consulting and the Park District will work with Illinois EPA to address this exposure concern.

I have concluded that the BUD cannot be approved as submitted.

- 1) General Information for the Budget and Billing forms,
- 2) Owner/Operator and Licensed Professional Engineer/Geologist Budget Certification form,

The General Information form and Budget Certification form were provided to the Illinois EPA in PDF form and arrived in the Illinois EPA mail room on October 10, 2023.

€

DESOURCE	CONSULTING, INC.	
RESUURCE	CONSULTING, INC.	

0430905825 - DuPage County West Chicago Park District Incident # 980814 LUST Tech File

- 3) Analytical Costs for chemical analysis of (2) bulk density and (1) BETX/MTBE soil gas sample (August of 2014) needs to be broken out since the IEPA cannot determine whether bulk density analysis rate exceeds \$26.73 per analysis.
- 4) Analytical Costs for chemical analysis of (1) bulk density (August of 2019) exceeds the bulk density analysis rate of \$28.93 per analysis.
- 5) Analytical Costs for chemical analysis of (1) moisture content (August of 2019) exceeds the moisture content analysis rate of \$15.78 per analysis.
- 6) A good number of line items in Consulting Personnel Costs form either do not have month and year, or do not have a month. As such, the proposed rates may be either reduced or deducted due to lack of documentation. (6) line items have a plus (+) and no month and year so these will be deducted.

Updated budget forms have been included in Attachment D.

7) Consultant's Material Costs for mileage will need to be adjusted for 13 miles roundtrip and sampling equipment (helium detector for soil gas sampling) will be deducted since such costs exceed the minimum requirements because isopropyl alcohol can be used instead.

USEPA guidance, included in Attachment E, only mentions helium detection for soil gas sampling. The Illinois EPA website states: "A tracer gas or other leak apparatus detection system approved by the Illinois EPA must be used during the sampling to confirm there are no leaks around the soil gas sampling train." Resource Consulting cannot find any other guidance at the Illinois EPA website, nor have we been notified of an isopropyl alcohol leak detection alternative.

Please contact our office at any time with questions or comments regarding the contents of this correspondence.

Regards,

Couvering Megimms

Courtney L. McGinnis Geologist/Project Manager

Attachments:

- A Ordinance No. 15-O-0004 B – Input Parameters Forms
- C Parcel Map
- D Budget Forms
- E USEPA Soil Gas Sampling Guidance

RECEIVED DEC 08 2023 **IEPA/BOL**

Resource Consulting, Inc.

Attachment A Ordinance No. 15-O-0004

Resource Consulting, Inc.

63

Attachment B Input Parameters Forms



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

The Illinois EPA 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 pensity of not to exceed \$50,000.00 for the violation and an additional civil pensity of not to exceed \$10,000.00 for sech day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false, fictificut, or fraudulent material attainment, orally or in writing, to the Nilnois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony (415 ILCS 5/44(h) and 57.17). This form has been approved by the Ferms Managament Center.

Leaking Underground Storage Tank Program RBCA Input Parameters for Use with Tier 2 Calculations

A. Site Identification

B.

IEMA Incident # (6- or 8-digit): Site Name: West Chicago Parl		EPA LPC # (10-digit):	0430905825
Site Address (not a P.O. Box): City: West Chicago		Zip Code: 6018	5
Leaking UST Technical File Tier 2 Calculation Informati	on		
Equation(s) Used (ex: R12, R14	, R26): <u>R26</u>		
Contact Information for Individua		S:,	
Land Use: Residential Groundwater: 🔀 Class I	Soil Typ	e:	
Mass Limit: 🗔 Yes 🗔 No 🗈	f Yes, then Specify Acreage:	[<u>]</u> 0.5 []1 []2 []	<u>7</u> 15 []10 []30
Result from S17/S28 used in R2	6? 🗍 Yes 🔀 No Spe	ecify C _{source} from S17/S2	28 mg/L

- Mass Limit Acreage other than defaults must always be rounded up.

- Fallure 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.

		Unit	Symbol			Unit
=	70	yr	d	=	200	cm
=	30	yr	Datr	=	0.051	cm²/s
=	70	kg	Dwater	=	9.00E-06	cm²/s
=	0.00276	mg/L.	D _s eff	=	0.007	cm²/s
•	0.00013	mg/L	ED	52 	30	yr
=	4.86E-02	unitless	EF	8	350	d/yr
	=	= 30 = 70 = 0.00276 = 0.00013	= 70 yr = 30 yr = 70 kg = 0.00276 mg/L = 0.00013 mg/L	= 70 yr d = 30 yr Datr = 70 kg Dwater = 0.00276 mg/L D_s ^{eff} = 0.00013 mg/L ED	= 70 yr d = = 30 yr Dair = = 70 kg Dwater = = 0.00276 mg/L D _s eff = = 0.00013 mg/L ED =	$= 70 yr d = 200$ $= 30 yr D^{abr} = 0.051$ $= 70 kg D^{water} = 9.00E-06$ $= 0.00276 mg/L D_s^{eff} = 0.007$ $= 0.00013 mg/L ED = 30$

IL 532-2861 LPC 646 8/07 RBCA Input Parameters 1 of 3

Incident #:	ncident #:980814		Chemical: Benz	Chemical: Benzo(a)anthracene			Residential	
Symbol			Unit	Symbol			Unit	
erf	=		unitiess	RAF _d (PNAs)	=	0.05	unitless	
foc	='	0.003	g/g	RAF _d (inorganics)	=	0	unitless	
GWcomp	=	0.00013	mg/L '	RAFo	H	1.0	unitless	
GW _{source}	-	0.003	mg/L	RBSL _{air} (carcinogenic)	-	0.315	µg/m³	
H,	=	1.39E-04	cm ³ _{water} /cm ³ _{air}	RBSL _{eir} (noncarcinogenic)	=	31.39	µg/m³	
i	-	0.006	cm/cm	RfD _i	=	8.60E-03	mg/kg-id	
: 1	=	30	cm/yr	RfDo	=	4.00E-03	mg/kg-d	
IReir	=	20	m³/d	SA	8	3,160	cm²/d	
IR _{sol}	-	100	mg/d	Sd	=	200	ст	
IR _w	=	2	L/d	Sw	=	2103.12	cm	
к	=	2.85E+03	cm/d for R15, R19, R26; cm/yr for R24	SFi	=	2.70E-02	(mg/kg-d)-1	
Koc	=	4.00E+05	cm³/g or L/kg	SF。	=	5.50E-02	(mg/kg-d)-1	
k _s (non-ionizing organics)	=	1200	cm ³ water/g _{soil}	THQ	=	1	unitless	
ks (ionizing organics)	= i	1200	cm ³ water/gsoil	TR	H	0.000001	unitless	
k _s (inorganics)	=		cm ³ _{water} /g _{soil}	_e u	=	19.7841860 !	cm/d	
La	=	100	cm	U _{air}	=	225	cm/s	
LF _{sw}	н	0.000	(mg/L _{water}) /(mg/kg _{sol})	Ugw	=	6.24E+03	cm/yr	
M		0.5	mg/cm ²	VFp	=	4.91E-06	kg/m³	
Pe	=	6.9 •10 ⁻¹⁴	g/cm²-s	VF _{samb}	=	0.000 (m	g/m³ _{sir})/mg/kg _s or kg/m³	
RAFd	=	0.5	unitiess	VF ₅₅	=	5.64E-06	kg/m ³	

RBCA Input Parameters 2 of 3

Incident #: _9	80814		Chemical: E	Benzo(a)anthracene	La	nd Use: <u>Re</u>	sidential
Symbol			Unit	Symbol			Unit
w =	<u> </u>	3200.4	cm	θαι	=	0.13	cm ³ ai/cm ³ soil
w	=	0.2	gwater/gsoil	θ _{we}	=	0.3	cm ³ water/cm ³ soli
×	=	9540.24	cm	θτ	н	0.43	cm ³ /cm ³ _{soll}
Cl _x	=	954.24	cm	λ	=	5.10E-04	d-1
ay	=	318.008	cm	π	=	3.1416	
az	=	47.7012	cm	ρь	=	1.5	g/cm ³
δ _{air}	=	200	cm	ρ"	-	1	g/cm ³
δ _{gw}	=	200	cm	τ	=	9.46 •10 ⁸	S

Equation		Result	Unit(s) `		
R1	=	3.28	mg/kg		
R2	=	309.830	mg/kg		
R7	=	163.98	mg/kg		
R8	=	16318.009	mg/kg		
R12	E	44.932	mg/kg		
R25	=	0.002	mg/L		

RBCA Input Parameters 3 of 3



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

The IIInois EPA 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 acceed \$50,000.00 for the violation and an additional civil penalty of not to acceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a table, fictitious, or fraudulent material statement, orsDy or in writing, to the Illineis EPA commits a Class 4 felony. A second or subsequent offence after conviction is a Class 3 felony (415 ILCS 5/44(h) and 57.17). This form has been approved by the Forms Management Center.

Leaking Underground Storage Tank Program RBCA Input Parameters for Use with Tier 2 Calculations

A. Site Identification

B.

IEMA Incident # (6- or 8-digit):	980814	IEPA LPC # (10-digit):	0430905825
Site Name: West Chicago Par	rk District		
Site Address (not a P.O. Box):	250 West National Stree	et	
City: West Chicago	County: DuPage	Zip Code: 6018	
Leaking UST Technical File			
Tion 2 Colouistion Informati	lon		
Tier 2 Calculation Informat			
Equation(s) Used (ex: R12, R14	4, R26): <u>R26</u>		
Contact Information for Individu	al Who Performed Calcula	ations:	
Contact Information for Individu	al Who Performed Calcula	ations:	
Land Use: Residential		ations:	
Land Use: Residential	Soi		
	Soi		
Land Use: Residential Groundwater: IX Class I	Soi	I Туре:	
Land Use: Residential	Soi	I Type:	
Land Use: Residential Groundwater: IX Class I	Soi	I Туре:	

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	823		Unit
ATc	-	70	уг	d	E	50	cm
ΑTη	=	30	yr	Deir	=	0.043	cm²/s
BW	=	70	kg	Dwater	=	9.4E-06	cm²/s
Csource	=	0.0016	mg/L	D _s eff	=	0.022	cm²/s
C(x)		0.0002	mg/L	ED		30	yr
C(x)/Csource	#	1.55E-01	unitless	EF	=	350	d/yr

IL 532-2861 LPC 646 8/07 RBCA Input Parameters 1 of 3

Incident #: 980814		814	Chemical:	Senzo(a)pyrene	Lar	nd Use: <u>Re</u>	sidential '	
Symbol		_	Unit	Symbol			Unit	
erf	a		unitless	RAFd (PNAs)	=	0.05	unitless	
fac	=	0.003	g/g	RAF₄ (inorganics)	2	0	unitless	
GWcomp	=	0.0002	mg/L	RAF ₀	=	1.0	unitless	
GW _{source}	=	0.001	mg/L	RBSL _{air} (carcinogenic)	=	0.315	µg/m³	
н	=	4.50E-05	cm ³ _{water} /cm ³ _{air}	RBSL _{air} (noncarcinogenic)	-	31.39	µg/m³	
, i	Ξ	0.006	cm/cm	RfDi		8.60E-03	mg/kg-d	
I	=	30	cm/yr	RfD。	=	4.00E-03	mg/kg-d	
IRair	-	20	m³/d	SA	=	3,160	cm²/d	
(R _{soli}	=	100	mg/d	Sd	=	200	cm	
IR _w	=	2	L/d	Sw		2103.12	cm	
к	=	2.85E+03	cm/d for R15, R19, R26; cm/yr for R24	ar:	-	2.70E-02	(mg/kg-d) ⁻¹	
Kac	=	7.90E+05	cm ³ /g or L/kg	SF₀	=	5.50E-02	(mg/kg-d) ⁻¹	
k _s (non-ionizing organics)	Ē	2370	cm ³ watar/g _{soil}	тно	=	1	unitiess	
k, (ionizing organics)	=	2370	cm ³ water/g _{sol}	TR	=	0.000001	unitless	
k _s (inorganics)	=		cm ³ water/geoil	U	=	39.78	cm/d	
Ls	=	100	cm	Ustr	=	225	cm/s	
LF	=	0.00003	(mg/L _{water}) /(mg/kg _{soil})	Ugw	=	6.24E+03	cm/yr	
м	=	0.5	mg/cm ²	VFp	=	4.91E-12	kg/m ³	
Pe	=	6.9 •10 ⁻¹⁴	g/cm²-s	VFsamb	=	0.000	(mg/m ³ air)/mg/kg _{soil}) or kg/m ³	
RAFd	=	0.5	unitless	VFss	=	5.64E-06	kg/m³	

RBCA Input Parameters 2 of 3

ncident #: 98	cident #:980814		Chemical: Ben	Chemical: Benzo(a)pyrene			esidential	
Symbol			Unit	Symbol			Unit	
W	=	3200.4	cm	θas	=	0.13	cm³ _{air} /cm³ _{sol}	
w	=	0.2	gwster/gaoil	θ _{wa}	=	0.3	cm ³ _{water} /cm ³ _{sol}	
x	=	5212.08	cm	θ _τ	=	0.43	cm³/cm³ _{soll}	
a _x	=	521.208	cm	λ	=	5.10E-04	d-1	
ay	-	173.736	cm	π	=	3.1416		
Qz	8	26.0604	cm	Ρь	=	1.5	g/cm ³	
δ _{air}	=	200	cm	ρ _w	3	1	g/cm ³	
δ _{gw}	=	200	cm	τ	=	9.46 •10 ⁸	S	

Equation	Result		Unit(s)
R1	8	3.28	mg/kg
R2	=	309.830	mg/kg
R7	H	172.31	mg/kg
R8	=	17147.607	mg/kg
R12	=	42.761	mg/kg
R25	Ŧ	0.002	mg/L

RBCA Input Parameters 3 of 3 ١



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

The tillnois EPA is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 5/4, 5/57 - \$7.17). Fellure to disclose this information may result in a civil penalty of not to exceed \$59,000.09 for the violation and an additional civil penalty of not to exceed \$19,000.09 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a false, fictitious, or freudulent material statement, eraily or in writing, to the librois EPA commits a Class 4 felony. A second or subsequent effense after conviction is a Class 3 felony (416 ILCS 5/44(h) and 57.17). This form has been approved by the Fermis Management Center.

Leaking Underground Storage Tank Program RBCA Input Parameters for Use with Tier 2 Calculations

A. Site Identification

B.

IEMA Incident # (6- or 8-digit): Site Name: West Chicago Parl	980814 District	IEPA LPC #	(10-digit):	0430905825
Site Address (not a P.O. Box): City: West Chicago	·		ode: 6018	5
Leaking UST Technical File				
Tier 2 Calculation Informati Equation(s) Used (ex: R12, R14 Contact Information for Individua	, R26): <u>R26</u>	Calculations:		
Land Use: Groundwater: X Class I	Class II	Soll Type:		
Mass Limit: TYes T No I Result from S17/S28 used in R2				
Result from \$17/\$28 used in R2	DY I TES X	NO Specity Geource	1001 317/3	20 IIIg/I

- 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.

		Unit	Symbol			Unit
11	70	уг	đ	=	50	cm
=	30	yr	D ^{eir}	=	0.0223	cm²/s
=	70	kg	Dwater	=	5.56E-06	cm²/s
=	0.0017	mg/L	D _a eff	#	0.0003	cm²/s
=	0.00018	mg/L	ED	=	30	уг
= .	1.08E-01	unitless	EF	=	350	d/yr
	=	= 30 = 70 = 0.0017 = 0.00018	= 70 yr = 30 yr = 70 kg = 0.0017 mg/L = 0.00018 mg/L	= 70 yr d = 30 yr D ^{air} = 70 kg D ^{water} = 0.0017 mg/L D _s ^{eff} = 0.00018 mg/L ED	= 70 yr d = = 30 yr D^{air} = = 70 kg D^{water} = = 0.0017 mg/L D_a^{eff} = = 0.00018 mg/L ED =	= 70 yr d = 50 = 30 yr D^{air} = 0.0223 = 70 kg D^{watar} = 5.56E-06 = 0.0017 mg/L D_a^{eff} = 0.0003 = 0.00018 mg/L ED = 30

IL 532-2861 LPC 646 8/07 RBCA Input Parameters 1 of 3

Incident #:	980	814	Chemical: Benz	o(b)fluoranthene	La	nd Use: Re	sidential
Symbol		1.1	Unit	Symbol			Unit
erf	=		unitless	RAF _d (PNAs)	=	0.05	unitiess
foc	7	0.003	g/g	RAF _d (inorganics)	=	0	unitless
GW _{comp}		0.00018	mg/L	RAF ₀		1.0	unitless
GWsource	=	0.002	mg/L	RBSL _{sir} (carcinogenic)	-	0.315	hð\w ₃
H	2	4.55E-03	cm ³ _{water} /cm ³ _{eir}	RBSL _{air} (noncarcinogenic)	-	31.39	µg/m³
i	-	0.006	cm/cm	RfDi	-	8.60E-03	mg/kg-d
1	=	30	cm/yr	RfD。	=	4.00E-03	mg/kg-d
IRair	=	20	m³/d	SA	=	3,160	cm²/d
IR _{soli}	=	100	mg/d	Sd	H	200	cm
IR _w	æ	2	L/d	Sw	=	2103.12	cm
к	=	2.85E+03	cm/d for R15, R19, R26; cm/yr for R24	SFi	-	2.70E-02	(mg/kg-d) ⁻¹
Koc	=	1.05E+06	cm³/g or L/kg	SF。	Ħ	5.50E-02	(mg/kg-d)-1
k _s (non-ionizing organics)	=	3150	cm ³ water/g _{zoll}	THQ	H.	1	unitless
k. (ionizing organics)		3150	cm³ _{water} /g _{soil}	TR	=	0.000001	unitless
k. (inorganics)	=		cm ³ water/g _{soil}	υ	=	39.78	cm/d
L.	=	100	cm	Uair	H	225	cm/s
LF _{sw}	н	0.00002	(mg/L _{water}) /(mg/kg _{soli})	Ugw	а	6.24E+03	cm/yr
M	=	0.5	mg/cm ²	VFp	=	4.91E-12	kg/m ³
Pe	=	6.9 ·10 ⁻¹⁴	g/cm²-s	VFsamb	=	0.000 (mg/m³ _{air})/mg/kg _{so} or kg/m³
RAFd	=	0.5	unitless	VFss	-	5.64E-06	kg/m ³

Incident #: 98	0814		Chemical: Benz	o(b)fluroanthene	La	nd Use: Re	sidential
Symbol			Unit	Symbol			Unit
W	=	3200.4	cm	θ _{as}	=	0.13	cm ³ _{sh} /cm ³ _{soil}
w	=	0.2	gwater/gsoti	8 _{ws}	-	0.3	cm ³ _{water} /cm ³ soi
x	=	6339.84	cm	θτ	=	0.43	cm ³ /cm ³ _{soil}
Q _x	=	633.984	cm	λ	u	5.10E-04	d-1
ay	=	211.328	cm	п		3.1416	
az	= 55	31.6992	cm	ρь	=	1.5	g/cm ³
δ _{air}	=	200	cm	ρ _w	=	1	g/cm ³
δ _{gw}	=	200	cm	τ	=	9.46 •10 ⁸	S

Equation		Result	Unit(s)
R1	=	3.28	mg/kg
R2	-	309.830	mg/kg
R7	=	50.18	mg/kg
R8	=	4994.047	mg/kg
R12	=	73.221	mg/kg
R25	Ħ	0.002	mg/L

RBCA Input Parameters 3 of 3



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

The illinois EPA 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 acceed \$50,000.00 for the violation and an additional civil penalty of not to acceed \$10,000.00 for each day during which the violation continues (415 ILCS 5/42). Any person who knowingly makes a talse, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense siter conviction is a Class 3 felony (415 ILCS 5/44(h) and 57.17). This form has been approved by the Forms Management Center.

Leaking Underground Storage Tank Program RBCA Input Parameters for Use with Tier 2 Calculations

A .	Site Identification
	IEMA Incident # (6- or 8-digit): 980814 IEPA LPC # (10-digit): 0430905825 Site Name: West Chicago Park District
	Site Address (not a P.O. Box): 250 West National Street City: West Chicago County: DuPage Zip Code: 60185
	Leaking UST Technical File
Β.	Tier 2 Calculation Information Equation(s) Used (ex: R12, R14, R26): R26 Contact Information for Individual Who Performed Calculations:
	Land Use: Soil Type:
	Groundwater: X Class I Class II Mass Limit: Yes No If Yes, then Specify Acreage: 10.5 11 2 15 110 30
	Result from S17/S28 used in R26? T Yes X No Specify C _{source} from S17/S28 mg/

- 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
ATc	=	70 ·	yr	d	=	50	cm
AT _n	=	30	уг	Dair	=	0.0223	cm²/s
BW	=	70	kg	Dwater	E	5.56E-06	cm²/s
Csource	=	0.00157	mg/L	D _s eff	Ŧ	0.029	cm²/s
C(x)	=	0.00017	mg/L	ED	=	30	yr
C(x)/Csource	=	1.11E-01	unitless	EF	-	350	d/yr
			00001 (100010	and the second sec	-	10	

IL 532-2861 LPC 646 8/07 RBCA Input Parameters 1 of 3

Incident #:	980			co(k)fluoranthene	Lai	nd Use: <u>Res</u>	idential
Symbol			Unit	Symbol			Unit
erf	#		unitless	RAF _d (PNAs)	-	0.05	unitless
foc	=	0.003	g/g	RAF _d (inorganics)	=	0	unitless
GW _{comp}	=	0.00017	mg/L	RAFo	=	1.0	unitiess
GWsource	=	0.002	mg/L.	RBSL _{sir} (carcinogenic)	=	0.315	µg/m³
H'	=	3.40E-05	cm ³ _{water} /cm ³ _{air}	RBSL _{air} (noncarcinogenic)	_	31.39	µg/m³
i	=	0.006	cm/cm	RfDi	=	8.60E-03	mg/kg-d
1	=	30	cm/yr	RfD。		4.00E-03	mg/kg-d
IR _{eir}	=	20	m³/d	SA	-	3,160	cm²/d
IR _{soil}	=	100	mg/d	Sd	Ξ	200	cm
IR _w	e e e e e e e e e e e e e e e e e e e	2	L/d	Sw	=	2103.12	cm
к	=	2.85E+03	cm/d for R15, R19, R26; cm/yr for R24	SFi	=	2.70E-02	(mg/kg-d) ⁻¹
Koc	=	1.00E+06	cm³/g or L/kg	SF。	H	5.50E-02	(mg/kg-d) ⁻¹
k _s (non-ionizing organics)	Ξ	3000	cm ³ _{water} /g _{soil}	THQ	=	1	unitless
k _s (ionizing organics)	=	3000	cm ³ _{water} /g _{eoil}	TR	=	0.000001	unitless
k _s (inorganics)	=		CITI ³ water/geoli	U	=	39.78	cm/d
La	=	100	cm	U _{air}	=	225	cm/s
LF	=	0.00002	(mg/L _{wster}) /(mg/kg _{soli})	Ugw	=	6.24E+03	cm/yr
м	=	0.5	mg/cm ²	VFp	=	4.91E-12	kg/m ³
Pe	=	6.9 •10-14	g/cm²-s	VFsamb	=	0.000 (m	g/m ³ _{eir})/mg/kg, or kg/m ³
RAFd	=	0.5	unitless	VFsa	=	5.64E-06	kg/m ³

RBCA input Parameters 2 of 3

Incident #: 98	0814		Chemical:	Benzo(k)fluoranthene	La	nd Use:Re	esidential
Symbol			Unit	Symbol			Unit
w	=	3200.4	cm	θas	=	0.13	cm³ _{air} /cm³ _{sol}
w	=	0.2	gwater/gacil	0 _{we}	=	0.3	cm ³ _{water} /cm ³ sol
x	=	6492.24	cm	θτ	=	0.43	cm ³ /cm ³ soil
۵x		649.224	cm	λ	=	1.60E-04	d-1
ay		216.408	cm	π	Ŧ	3.1416	20
az	=	32.4612	cm	ρ	=	1.5	g/cm ³
δ _{air}	=	200	cm	ρ	-	1	g/cm ³
δ _{gw}	-	200	cm	τ	-	9.46 ·10 ⁸	S

Equation		Result	Unit(s)
R1	=	3.28	mg/kg
R2	=	309.830	mg/kg
R7	=	173.34	mg/kg
[©] R8	33	17250.29 9	mg/kg
R12	=	64.539	mg/kg
R25	=	0.002	mg/L

RBCA Input Parameters 3 of 3



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

The illinois EPA 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 \$10,000.00 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, orally or in writing, to the linois EPA commits a Class 4 faleny. A second or subsequent offence after conviction is a Class 3 felony (415 ILCS 5/44(h) and 57.17). This form has been approved by the Forms Management Center.

Leaking Underground Storage Tank Program RBCA Input Parameters for Use with Tier 2 Calculations

A. Site Identification

B.

IEMA Incident # (6- or 8-digit):	980814		IEPA LPC # (10-	digit):	0430905825
Site Name: West Chicago Par	k District				
Site Address (not a P.O. Box):	250 West	National Street			
City: West Chicago	County:	DuPage	Zip Code:	60185	5
Leaking UST Technical File					
Tier 2 Calculation Informat	lon				
Equation(s) Used (ex: R12, R14	4, R26):	R26			
Contact Information for Individu			ons:		
Land Use:		Soil 1			
Groundwater: X, Class I	Class I	1			
Mass Limit: 🦵 Yes 🗍 No	lf Yes, then	Specify Acreage	e: [0.5 [,1 [ī2 ("	5 🕞 10 🦳
Result from S17/S28 used in Ra	26? [<u> Y</u> e	s 🕅 No S	Specify C _{source} from	S17/S2	.8 mg

- 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
ATc	=	70	уг	d	=	50	cm
AT _n	=	30	yr	Dair	=	0.0244	cm²/s
BW	=	70	kg	Dwater	=	6.21E-06	cm²/s
Csource	=	0.023	mg/L	D _s eff	=	0.001	cm²/s
C _(x)	=	0.0015	mg/L	ED	=	30	yr
C(x)/Csource	=	0.667	unitless	EF	=	350	d/yr

IL 532-2861 LPC 646 8/07 RBCA Input Parameters 1 of 3

Incident #:	980	814	Chemical:	Chrysene	La	nd Use: Res	idential
Symbol			Unit	Symbol			ay Unit a
erf	=		unitiess	RAF _d (PNAs)	-	0.05	unitless
f _{oc}	=	0.003	g/g	RAF _d (inorganics)	-	0	unitless
GWcomp	8	0.0015	mg/L	RAFo	=	1.0	unitless
GW _{source}	=	0.002	mg/L	RBSL _{eir} (carcinogenic)	0	0.315	µg/m³
H'	=	3.90E-03	cm ³ _{water} /cm ³ _{air}	RBSL _{air} (noncarcinogenic)	=	31.39	µg/m³
i	=	0.006	cm/cm	RfDi	=	8.60E-03	mg/kg-d
I	8	30	cm/yr	RfDo	8	4.00E-03	mg/kg-d
IR _{air}	=	20	m³/d	SA	n	3,160	cm²/d
	=	100	mg/d	Sd	-	200	cm
IRw	=	2	L/d	Sw	=	2103.12	cm
к	-	2.85E+03	cm/d for R15, R19, R26; cm/yr for R24	SFi	-	2.70E-02	(mg/kg-d) ⁻¹
Kec	-	4.00E+05	cm ³ /g or L/kg	SF。	=	5.50E-02	(mg/kg-d) ⁻¹
k. (non-ionizing organics)	-	1200	cm ³ _{water} /g _{soil}	THQ		1	unitless
k _e (ionizing organics)	=	1200	cm ³ water/g _{solt}	TR	=	0.000001	unitless
k _s (inorganics)	=		cm ³ water/gsoil	U	=	39.78	cm/d
Ls	=	100	cm	U _{sir}	=	225	cm/s
LFew	=	0.0001	(mg/L _{water}) /(mg/kg _{soll})	Ugw	- #	6.24+03	cm/yr
M		0.5	mg/cm ²	٧F _p	П	4.91E-12	kg/m³
Ре	=	6.9 •10 ⁻¹⁴	g/cm²-s	VF _{eamb}	=	0.000 (m	g/m ³ air)/mg/kg _{soil} or kg/m ³
RAF₀	=	0.5	unitless	VF _{se}	=	5.64E-06	kg/m ³

Incident #:	0814		Chemical: Ch	irysene	Lar	d Use: Re	sidential
Symbol			Unit	Symbol			Unit
w	1	3200.4	cm	θas	=	0.13	cm ³ air/cm ³ soil
w	=	0.2	gwater/gsoil	0 _{ws}	=	0.3	cm ³ water/cm ³ soil
x	=	1920.24	cm	θτ	=	0.43	cm ³ /cm ³ _{eoil}
a _x	Ц	192.024	cm	λ	-	3.50E-04	d-1
ay	æ	64.008	cm	π	-	3.1416	
az	=	9.6012	cm	ρь	=	1.5	g/cm³
δ _{sir}	=	200	cm	ρ _w	=	1	g/cm ³
δ _{gw}	=	200	cm	τ	=	9.46 •10 ⁸	\$

Equation		Result	Unit(s)
R1	=	3.28	mg/kg
R2	=	309.830	mg/kg
R7	=	55.90	mg/kg
R8	н	5562.372	mg/kg
R12	=	37.795	mg/kg
R25	=	0.002	mg/L

RBCA Input Parameters 3 of 3



Site Identification

Δ.

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

The Illinois EPA is authorized to require this information under Section 4 and Title XVI of the Environmental Protection Act (415 ILCS 6/4, 6/57 - 67.17). Failure to disclose this information may result in a civil penalty of not to exceed \$50,800.00 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 6/4, 5/57 - 67.17). Failure to disclose this information ILCS 5/42). Any person who knowingly makes a false, fictificus, or fraudulent material statement, oraby or in writing, to the Illinois EPA commits a Class 4 felomy. A second or subsequent offense after conviction is a Class 3 felony (415 ILCS 5/44(h) and 57.17). This form has been approved by the Forms Management Center.

Leaking Underground Storage Tank Program RBCA Input Parameters for Use with Tier 2 Calculations

	ncident #	(6- or 8-digit):		IÉP/	ALPC#((10-digit): (0430905825
IEMA	I STATE AND IN THE REAL OF						
		st Chicago Park	District				
Site A	tdress (n	ot a P.O. Box):	250 West Nation	al Street			
	West Chi		County: DuP		Zip Co	de: <u>60185</u>	
Leakin	g UST Te	chnical File					
Tier 2	Calculat	tion Informatio	on				
Equati	on(s) Use	d (ex: R12, R14,	R26): R26			1	
-			Who Performed	Calculations:			
Land L	Jse:			Soil Type:			
Groun	dwater:	X Class I	Class II				
							5 10 10
Mass I	_imit: 📋	Yes 🗍 No If	Yes, then Speci	fy Acreage: I.	_]0.5 [_]		5 [] [0]_]
Result	from S17	/S28 used in R20	6? 🗍 Yes D	No Specif	y C _{source} ti	rom S17/S28	m
							m
- Mass	: Limit Ac	reage other that	in defaults mus	t always be ro	unded up		
- Mass - Failu	Limit Ac	reage other tha site-specific pa	in defaults mus trameters where	t always be ro	unded up		
- Mass - Failu the L	Limit Ac	reage other tha site-specific pa und Storage Tar	in defaults mus trameters when hk Fund.	t always be rou allowed coul	unded up d affect p	ayment from	n
- Mass - Failu the L - Maps	Limit Ac re to use Indergrou	reage other tha site-specific pa ind Storage Tar ig source width	in defaults mus irameters when nk Fund. , plume dimens	t always be ro e allowed coul ions, distance	unded up d affect p	ayment from	n
- Mass - Failu the L - Maps	Limit Ac re to use Indergrou	reage other tha site-specific pa ind Storage Tar ig source width	in defaults mus irameters when nk Fund. , plume dimens the designated	t always be rou e allowed coul ions, distance unit.	unded up d affect p	ayment from	n Ibmitted.
- Mass - Failu the L - Maps	Limit Ac re to use Indergrou	reage other tha site-specific pa ind Storage Tar ig source width	in defaults mus irameters when nk Fund. , plume dimens	t always be ro e allowed coul ions, distance	unded up d affect p	ayment from	n
- Mass - Failu the L - Maps - Inpu Symbol	E Limit Ac re to use Indergrou depictin ts must b	reage other tha site-specific pa ind Storage Tar g source width e submitted in t	in defaults mus arameters when hk Fund. , plume dimens the designated Unit	t always be rou e allowed coul ions, distance unit. Symbol	unded up d affect p , etc. mus	ayment from st also be su	n Ibmitted. Unit
- Mass - Failu the L - Maps - Inpu	Limit Ac re to use Indergrou	reage other tha site-specific pa ind Storage Tar ig source width	in defaults mus irameters when nk Fund. , plume dimens the designated	t always be rou e allowed coul ions, distance unit.	unded up d affect p	ayment from	n Ibmitted.
- Mass - Failu the L - Maps - Input Symbol AT _c	E Limit Ac re to use Indergrou depictin ts must b	reage other tha site-specific pa ind Storage Tar g source width e submitted in t	in defaults mus arameters when hk Fund. , plume dimens the designated Unit	t always be rou e allowed coul ions, distance unit. Symbol d	unded up d affect p , etc. mus =	ayment from st also be su	n Ibmitted. Unit
- Mass - Failu the L - Maps - Inpu Symbol	E Limit Ac re to use Indergrou depictin ts must b	reage other tha site-specific pa ind Storage Tar g source width e submitted in t	in defaults mus arameters when hk Fund. , plume dimens the designated Unit	t always be rou e allowed coul ions, distance unit. Symbol	unded up d affect p , etc. mus	ayment from st also be su 50	n Ibmitted. Unit
- Mass - Failu the L - Maps - Input Symbol AT _c	E Limit Ad re to use Indergrou depictin ts must b	reage other tha site-specific pa and Storage Tar g source width e submitted in t 70 30	in defaults mus arameters where nk Fund. , plume dimens the designated Unit 	t always be rou e allowed coul ions, distance unit. Symbol d D ^{air}	unded up d affect p , etc. mus = =	ayment from st also be su 50 0.059	n Ibmitted. Únit cm cm²/s
- Mass - Failu the L - Maps - Input Symbol AT _c	E Limit Ad re to use Indergrou depictin ts must b	reage other tha site-specific pa ind Storage Tar g source width e submitted in t	in defaults mus arameters when hk Fund. , plume dimens the designated Unit	t always be rou e allowed coul ions, distance unit. Symbol d	unded up d affect p , etc. mus =	ayment from st also be su 50	n Ibmitted. Únit cm cm²/s
- Mass - Failu the L - Maps - Input Symbol AT _c AT _n	E Limit Ad re to use Indergrou depictin ts must b = =	reage other tha site-specific pa and Storage Tar g source width e submitted in t 70 30	in defaults mus arameters where nk Fund. , plume dimens the designated Unit 	t always be rou e allowed could ions, distance unit. Symbol d D ^{air} D ^{water}	unded up d affect p , etc. mus = =	50 50 7.50E-06	n Ibmitted. Unit cm²/s cm²/s
- Mass - Failu the L - Maps - Input Symbol AT _c AT _n	E Limit Ad re to use Indergrou depictin ts must b = =	reage other tha site-specific pa and Storage Tar g source width e submitted in t 70 30	in defaults mus arameters where nk Fund. , plume dimens the designated Unit 	t always be rou e allowed coul ions, distance unit. Symbol d D ^{air}	unded up d affect p , etc. mus = =	ayment from st also be su 50 0.059	n Ibmitted. Unit
- Mass - Failu the L - Maps - Input Symbol AT _c AT _n BW	E Limit Ad re to use Indergrou a depictin ts must b = = =	reage other tha site-specific pa ind Storage Tar g source width e submitted in t 70 30 70	in defaults mus arameters when hk Fund. , plume dimens the designated Unit	t always be rou e allowed could ions, distance unit. Symbol d D ^{air} D ^{water}	unded up d affect p , etc. mus = = =	50 50 7.50E-06	n ibmitted. Unit cm²/s cm²/s cm²/s
- Mass - Failu the L - Maps - Input Symbol AT _c AT _n BW	E Limit Ad re to use Indergrou a depictin ts must b = = =	reage other tha site-specific pa ind Storage Tar g source width e submitted in t 70 30 70	in defaults mus arameters when hk Fund. , plume dimens the designated Unit	t always be rou e allowed could ions, distance unit. Symbol d D ^{air} D ^{water}	unded up d affect p , etc. mus = = =	50 50 7.50E-06	n Ibmitted. Unit cm²/s cm²/s
- Mass - Failu the L - Maps - Input Symbol AT _c AT _n BW	E Limit Ad re to use Indergrou a depictin ts must b = = = =	reage other tha site-specific pa ind Storage Tar g source width e submitted in 1 70 30 70 1.38	in defaults mus marameters where hk Fund. , plume dimens the designated Unit yr yr kg mg/L	t always be rou e allowed could ions, distance unit. Symbol d D ^{air} D ^{water} D _s ^{eff}	unded up d affect p , etc. mus = = = =	50 50 7.50E-06	n Ibmitted. Cm²/s cm²/s

IL 532-2861 LPC 646 8/07 RBCA Input Parameters 1 of 3

Incident #:	9808	314	Chemical: Naphthalene			nd Use: Re	sidential
Symbol			Unit	Symbol			Unit
érf	=	8	unitiess	RAF _d (PNAs)	-	0.05	unitless
f _{oc}	=	0.003	g/g	RAF _d (inorganics)	=	0	unitless
GWcomp	=	0.14	mg/L	RAF	=	1.0	unitiess
GWsource	#	1.04E-01	mg/L	RBSL _{mir} (carcinogenic)	11	0.315	µg/m³
H	=	1.97E-02	cm ³ _{water} /cm ³ _{atr}	RBSL _{air} (noncarcinogenic)	-	31.39	µg/m³
i	=	0.006	cm/cm	RfDi	=	8.60E-03	mg/kg-d
I	=	30	cm/yr	RfD₀	=	4.00E-032	mg/kg-d
IRair	=	20	m³/d	SA	æ	3,160	cm²/d
IR _{soli}	=	100	mg/d	Sd	=	200	cm
iR _w	=	2	L/d	Sw	=	2103.12	cm
к	_	2.85E+03	cm/d for R15, R19, R26; cm/yr for R24	SF	=	2.70E-02	(mg/kg-d)-1
Kac	=	5.00E+02	cm ³ /g or L/kg	SF。	=	5.50E-02	(mg/kg-d) ⁻¹
k _s (non-ionizing organics)	=	1.5	cm ³ water/g _{sc0}	THQ	=	1	unitless
k. (ionizing organics)	=	1.5	cm ³ water/geoil	TR	=	0.000001	unitless
k _s (inorganics)	=		cm ³ watar/g _{soil}	U		39.78	cm/d
L.	=	100	cm	U _{air}	ш	225	cm/s
LFsw	=	0.042	(mg/L _{water}) /(mg/kg _{soli})	Ugw	=	6.24E+03	cm/yr
м	=	0.5	mg/cm ²	VFp	=	4.91E-12	kg/m³
Pe	=	6.9 •10-14	g/cm²-s	VFsemb	=	0.000	(mg/m ³ air)/mg/kgaa or kg/m ³
RAF₄	=	0.5	unitless	VF _{ss}	=	5.64E-06	kg/m ³

RBCA Input Parameters 2 of 3

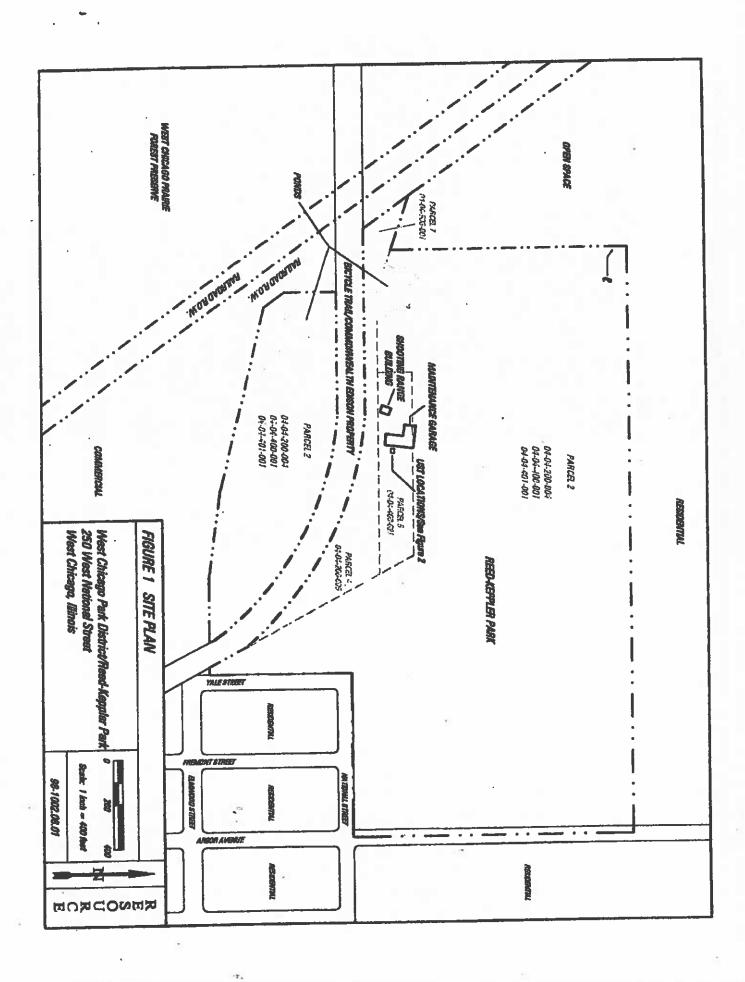
Incident #:	980814		Chemical: _	Naphthalene	Land Use: Re	sidential
Symbol			Unit	Symbol	11 C	Unit
w	=	3200.4	cm	θas	= . 0.13	cm ³ eb/cm ³ soil
w	=	0.2	gwater/geoil	0 _{ws}	= 0.3	cm ³ water/cm ³ soil
×	-	5577.84	cm	θτ	= 0.43	cm³/cm³ _{eoil}
ax	=	557.784	cm	λ	= 2.70E-03	d-1
ay	=	185.928	cm	п	= 3.1416	
Qz	=	27.8892	cm	· Pb	= 1.5	g/cm ³
δ _{sir}	=	200	cm	ρ _w	= 1	g/cm³
δ _{gw}	/ =	200	cm	τ	= 9.46 ·10 ⁸	S

Equation		Result	Unit(s)
R1	_ =	3.28	mg/kg
R2	=	309.830	_mg/kg
R7	=	14.88	mg/kg
R8	=	1480.618	mg/kg
R12	=	32.105	mg/kg
R25	=	0.002	mg/L

RBCA Input Parameters 3 of 3

RESOURCE CONSULTING, INC.

Attachment C Parcel Map



000484

RESOURCE CONSULTING, INC.

Attachment D Budget Forms

Budget Summary

734	Free Product	Stage 1 Site Investigation	Stage 2 Site Investigation	Stage 3 Site Investigation	Corrective Action					
Drilling and Monitoring					\$ 3,035.95					
Well Costs Form	\$.	ð	*L	a[]					
Analytical Costs Form	s	\$	\$	\$	\$ 939.10					
Remediation and Disposal Costs Form	\$	\$	\$	\$	\$					
UST Removal and Abandonment Costs Form	\$	\$	\$	\$	\$					
Paving, Demolition, and Well Abandonment Costs Form	s	\$	\$	\$	\$ 1,535.81					
Consulting Personnel Costs Form	\$	\$	s	\$	\$ 43,137.62					
Consultant's Materials Costs Form	\$	\$	\$	\$	8145.84					
Handling Charges Form	the Illinois EPA.	landling charges will be determined at the time a billing package is submitted to he lilinois EPA. The amount of allowable handling charges will be determined in accordance with the Handling Charges Form.								
Total	\$	\$	\$ ³	\$	\$ 48,794.32					

Choose the applicable regulation: (© 734 () 732

Drilling and Monitoring Well Costs Form

For this form to function property. Adobe Reader 9.0 Is required.

1. Drilling

	Number of Borings to Be Drilled		Borings to Be		Type HSA/PUSH/ Injection		D	apth (feet) of Each Boring	Total Feet Drilled	Reason for Drilling
ĺ		1		PUSH	-		10.00	10.00	Soil boring for soil gas sample (Aug. 2014).	
					-					
						Ц				
								<u> </u>		
[- 3		¥			-		

		Total Feet	Rate per Foot (\$)	Total Cost (\$)
Subpart H	Total Feet via HSA:	.00		.00
minimum payment amount applies.	Total Feet via PUSH:	10.00	.21.87	218.70
anoun appres.	Total Feet for Injection via PUSH:	.00		.00
			Total Drilling Costs:	1,457.81

2. Monitoring / Recovery Wells

Number of Wells	Type of Well HSA / PUSH / 4" or 6" Recovery / 8" Recovery	HSA / PUSH / 4" or 6" (inches)		Total Feet of Wells to Be Installed
	₹,			
	▼ 			
	•			

Well Installation	Total Feet	Rate per Foot (\$)	Total Cost (\$)
Total Feet via HSA:	.00		.00
Total Feet via PUSH:	.00		.00
Total Feet of 4" or 6" Recovery:	.00		.00
Total Feet of 8" or Greater Recovery:	.00		.00
		Total Well Costs:	.00

Total Drilling and Monitoring Well Costs:	\$1,457.81
Total Briting and monitoring tron cools.	1 01/401.01

Drilling and Monitoring Well Costs Form

For this form to function property. Adobe Reader 9.0 is required.

1. Drilling

	Number of Borings to Be Drilled		Borings to Be		Type HSA/PUSH/ Injection		HSA/PUSH/		apth (feet) of Each Boring	Total Feet Drilled	Reason for Orlling
	1		PUSH		10.00	10.00	Soil boring/temporary monitoring well installation				
			-	-			(Aug. 2019)				
				-							
						_					
				-							
E				-							

		Total Feet	Rate per Foot (\$)	Total Cost (\$)	1
Subpart H	Total Feet via HSA:	.00		.00	
minimum payment amount applies.	Total Feet via PUSH:	10.00	23.67	236.70	
anoan appnas.	Total Feet for Injection via PUSH:	.00		.00	
		\ \	Total Drilling Costs:	1,578.14	

2. Monitoring / Recovery Wells

Number of Wells			Depth of Well (feet)	Total Feet of Wells to Be Installed	
	•				
				<u>6</u>	
	-	4			

Well Installation	Total Feet	Rate per Foot (\$)	Total Cost (\$)
Total Feet via HSA:	.00		.00
Total Feet via PUSH:	.00		.00
Total Feet of 4" or 6" Recovery:	.00		.00
Total Feet of 8" or Greater Recovery:	.00		.00
		Total Well Costs:	.00

Total Drilling and Monitoring Well Costs:	\$1,578.14

Analytical Costs Form

Laboratory Analysis	Number of Samples		Cost (\$) per Analysis		Total per Parameter
Chemical Analysis					
BETX Soil with MTBE EPA 8260		X		=	
BETX Water with MTBE EPA 8260		X		П	
COD (Chemical Oxygen Demand)		X		=	
Corrosivity	1.0.00000000000000000000000000000000000	X			
Flash Point or Ignitability Analysis EPA 1010	5250-223	X			
Fraction Organic Carbon Content (foc) 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		8	
PCB / Pesticides (combination)		X		2	
PCBs	A COMPANY OF A COMPANY	X		=	
Pesticides		X		=	
рН		X		E	
Phenol	10.75.75	X	1.5.2552.53	8	
Polynuclear Aromatics PNA, or PAH SOIL EPA 8270		X		Ħ	
Polynuclear Aromatics PNA, or PAH WATER EPA 8270		X		=	
Reactivity		X		2	
SVOC - Soil (Semi-Volatile Organic Compounds)		X		2	
SVOC - Water (Semi-Volatile Organic Compounds)		X		=	
TKN (Total Kjeldahl) "nitrogen"		X		=	
TPH (Total Petroleum Hydrocarbons)		X		Ξ	
VOC (Volatile Organic Compounds) - Soil (Non-Aqueous)	11-14-10-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	X		=	
VOC (Volatile Organic Compounds) - Water		X		=	10
BTEXMTRE Soil Gas sample (Aug. 2014)		X	-240.00	8	\$240.00
BTEX Water with MTBE EPA 8820 (July 2017)		X	102.39	.	\$102.39
PNA Water EPA 8270 (July 2017)		X	192.14	=	\$192.14
BTEX Water with MTBE EPA 8620 (Aug. 2019)		X	108:52		\$106.52
PNA Water EPA 8270 (Aug. 2019)		X		=	\$199.90
Geo-Technical Analysis					
Soil Bulk Density (pb) ASTM D2937-94		X		Ξ	
Ex-situ Hydraulic Conductivity / Permeability		X		8	
Moisture Content (w) ASTM D2216-92 / D4643-93		X		=	
Porosity		X		=	
Rock Hydraulic Conductivity Ex-situ		X		=	
Sieve / Pertice Size Analysis ASTM D422-83 / D1140-54		X		=	
Soil Classification ASTM D2488-90 / D2487-90		X		=	
Soil Particle Density (ps) ASTM D854-92		X		8	
Soil Bulk Density (Aug. 2014)		X	26:72	= =	\$53.44
Soi Bulk Density (Aug. 2019)		X	28,93	2	\$28.93
Moisture Content (Aug. 2019)		X	15:78	=	\$15.78

Analytical Costs Form

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		=	
	7			1	
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 Soll		X		=	
Cadmium Water		X		=	
Chromium TCLP Soil		X		=	
Chromium Total Soll		X		=	
Chromium Water		X	1	=	
Cyanide TCLP Soil		X		=	
Cyanide Total Soil		X		=	
Cyanide Water		X	1		
Iron TCLP Soil				=	
tron Total Soil		X		=	
iron Water		X		=	
Lead TCLP Soit		X		11 =	
Lead Total Soil		X	· · · · · ·	=	
Lead Water		X		=	
Mercury TCLP Soil	5 7 M - 10	X		1 =	
Marcury Total Soil		X		=	
Mercury Water	1	X		=	
Setenium TCLP Soil		X			
Selenium Total Soil	1 44 mm	X		=	
Selenium Water.		X		=	
Silver TCLP Soil		X			
Silver Total Soil					1
Silver Water		X			
Metals TCLP Soil (e combination of all metals) RCRA		X			
Metals Total Soil (a combination of all metals) RCRA	17. A	X			
Metals Water (a combination of all metals) RCRA	1.0	X	· • · · · ·		
	1	X			
	Ì∥	X		╡┼╤╴	
		x		╞┼╦╴	
	††	×		╡┤╶╴	
Other	J-4			┙┛╼	
EnCore® Sampler, purge-and-trap sampler, or equivalent sampling device] ×	·	=	
Sample Shipping per sampling event ¹		TX		1 =	

Total Analytical Costs: \$ 939.10

Paving, Demolition, and Well Abandonment Costs Form

Number of Square Fest	Asphait or Concrete	Thickness (inches)	Cost (\$) per Square Foot	Replacement or Placement for an Engineered Barrier	Total Cost
ALC: N. S. S.	•	REVERSE A			S
D.Saugars L.		DECORPORTS	······································		New Section 1
Designation of the	•	With the of			
	Callenter -	Spender -			
				•	12
Regard Car	S State all +	CONSCIENT !!	S CAREER N		$= n^{-1}$
Strength (i participan il	1223.50	- 10 - 10	
Statistical St.	10. 10. 10. 10.	THE REAL PROPERTY OF	REAL PROPERTY		stand and a stand
The second second	-				
1 和前面		Margare and	NEW CONTRACT		

A. Concrete and Asphalt Placement/Replacement

Total Concrete and Asphalt Placement/Replacement Costs:

B. Building Destruction or Dismantling and Canopy Removal

	item to Be Destroyed, Dismantied, or Removed		Unit Cost (\$)	Total Cost (\$)		
1		ì				
	· · · · · · · · · · · · · · · · · · ·					

Total Building Destruction or Dismantling and Canopy Removal Costs:

Paving, Demolition, and Well Abandonment Costs Form

C. Well Abandonment

Monitoring Well ID #	Type of Well (HSA / PUSH / Recovery)		Depth of Weil (feet)	Cost (\$) per Foot	Total Cost
RW-1	HSA	-	14.00	14.09	\$197.26
RW-2	HSA	-	17.00	14.09	\$239.53
RW-4	HSA	•	14.00	14.09	\$197.26
RW-5	HSA	•	12.00	14.09	\$169.08
RW-6	HSA	•	13.00	14.09	\$183.17
RW-7	HSA	•	13.00	14.09	\$183.17
RW-8	HSA	•	13.00	14.09	\$ <u>183.17</u>
RW-9	HSA	•	13.00	14.09	\$183.17
÷-		•			
		•			
		•			
		-			
		•			
		•			
		•			
		•			
		. •			
		•			
		-			
		-			
		-			1
		•			-
		•			

Total Paving, Demolition, and Well Abandonment Costs:

\$1,535.81

1

Consulting Personnel Costs Form

For this form to function property. Adobe Reader 8.0 or higher is required

Employee Name		Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category		Task		_	
		Senior Project Manager 👻	10.00	119.11	\$1,191.10
-	Evaluation of CA	CR rejection from IEPA; Planning f	or additional req	uirements (Sepi	. 2013).
		Senior Project Manager	10.00	119,11	\$1,191.10
	Corr. w/staff and	IEPA re: regulatory evaluation.indo	oor inhalation ex	posure route (OS	/2013-08/2014)).
		Project Manager 👻	10.00	107.20	\$1,072.00
-	Management w/	staff and IEPA re: CACR rejection,			
		Project Manager 👻	3.00	107.20	\$321.60
-	Preparation ot T	ACO; correspondence with PM re; i	indoor inhalation	requirement (O	8/2013-06/2014)
		Project Manager 👻	6.00	109.34	\$656.04
	Field work plann	ing for soil vapor and bulk density s	sempling (Aug. 2	2014).	
		Geologist III	5.00	106.91	\$534.55
-	On-site for soil s	empling (Aug. 2014)			
		Project Manager 👻	6.00	109.34	\$656.04
	Analysis/evalual	tion of soil gas date, correspondence	e with lab and il	EPA re: date ans	Hysis (Aug. 2014).
		Senior Project Manager 🔹	20.00	121.49	\$2,429.80
•	Preparation of o	rdinance: research, planning, corre	spondence with	City (08/2014-1)	2/2014).
		Geologist III	20.00	106.91	\$2,138.20
-	Preparation of d	reft ordinance document for submis			

Employee Name	- 1	Personnel Title		Hours	Rate* (\$)	Total Cost
Remediation Category		Та	isk			
· · · ·			<u> </u>		[]	
	P====	Geologist III		5.00	106.91	\$534.55
	Prep. of maps a	nd supporting documents for d	traft or	dinance (08/20	14-12/2014).	
					·····	
		Project Manager		10.00	109.34	\$1,093.40
	Ordinance desig	in and preparation of documer	nts witl	h staff and city	(08/2014-12/201	4).
		Project Manager	-			
				6.00	109.34	\$656.04
Y	TACO modeling	celculations for ordinance (08	<u>2014</u>	-12/2014).		
		Project Manager	Ŧ	40.00	109.34	\$1,093.40
				10.00		
	Review of ordin	ance and supporting documen	its for f	final enactment	by City (08/2014	-06/2015).
		Project Manager	-	10.00	109.34	\$1,093.40
-	Project manage	ment with City personnel re; fo	omns &	approval of on	dinance (01/201	5-06/2015).
					· · · · · · · · · · · · · · · · · · ·	
		Senior Project Manager	•	3.00	125.15	\$375.45
•	Project manage	ment w/Illinois EPA re: indoor	inhala	tion and Site le	nd use classifica	tion (June 2017).
		Senior Scientist	•	20.00	106.38	\$2,127.60
-	Prep. of CACR	response documentation inclu	ding T	ACO modeling,	ordinance work	(June 2017).
						· · · · · · · · ·
		Project Manager		5.00	113.76	\$568.80
	Review of data/	project needs for groundwater	and s	oil gas samplin	<u>g; field work plar</u>	ming (July 2017)
		Geologist III	¥	6.00	. 111.24	\$667.44
•	On-site for mon	itoring well sampling and samp	pte ma	nagement (July	2017).	

Employee Name	Personnel Title	Hours	Rate* (\$)	Total Cost			
Remediation Category	Task						
	Project Manager -	5.00	113.76	\$568.0			
	eview of groundwater data & planning response	for indoor inhala	tion route evaluat	ion (Aug. 2017)			
	Senior Project Manager	5.00	126.40	\$632.			
	lanagement with IEPA and client re: re-sampling	monitoring well f	or J&E equation	(Aug. 2017).			
	Project Manager 👻	5.00	116.04	\$560			
Review of project needs and budgeting for next phase of project (01/2019-06/2019).							
	Geologist III	20.00	113.46	\$2,289			
•	reparation of technical summary/CAP amendme	nt text and mapp	ing (01/2019-06/	2019).			
	Senior Admin. Assistant -	3.00	58.02	\$174			
•	orms management - preparation, editing, publish	ing, corresponde	ence (June 2019)				
	Senior Project Manager -	3.00	128.93	\$386			
	aview of technical summary/CAP amendment (J	une 2019).					
	Senior Admin. Assistant	2.00	58.02	\$116			
	dit and publish technical summary/CAP amendm	vent (June 2019)					
	Senior Project Manager	2.00	131.51	\$263			
	roject management - soil and groundwater samp	ting with new IE	PA project manag	ger (July 2019).			
	Project Manager 💌						

Employee Name	Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category	Task			
	Project Manager	3.00	118.36	\$355.08
Projet	ct management and correspondence w/ new		anager (July 2019).
· ·	Geologist III			
	ration for field work and scheduling includin	correspondence	with WCPD and	\$231.46 staff (July 2019).
	Geologist III			
		5.00	115.73	\$578.65
On-si	te for soil boring/monitoring well installation	(Aug. 2019).		
)	Geologist III	20.00	115.73	\$2,314.60
Prepa	aration of data table, forms, mapping, sb log	s, CAP amendm	ent text (01/2020-	06/2 <u>020)</u> .
	Senior Admin. Assistant	6.00	59.18	\$355.08
Ţ Edit a	nd publish CAP amendment (June 2020).			
	Project Manager	2.00	120.73	\$241.4
- Data	analysis and historical data review (January	2021).		
· · · ·	Geologist III	15.00	118.04	\$1,770.6
Prepa	ration of J&E calculations (01/2021-04/202	i).		
	Project Manager	8.00	120.73	\$965.84
Rovis	w/evaluation of indoor inhalation modeling,			
	Senior Admin. Assistant			P4 007 01
	si work, invoicing, budgeting documentation	20.00	<u>60.36</u>	\$1,207.20

Employee Name	Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category	Tasi			
	Geologist III			
		20.00	123.99	\$2,479.8
Prep	aration of CACR budget amendment (07/20)	22-11/2022).		
	Senior Admin. Assistant	15,00	63.41	\$951.1
Prep	eration of billing package (07/2022-11/2022)			
	Geologist III	-		ee 400 6
		50.00	123.99	\$6,199.5
Prep	aration of comprehensive CACR at request	of new PM (07/20)22-11/2022),	
	Geologist III	10.00	123.99	\$1,239.9
Revi	ew and preparation of J&E equation for final	documentation (07/2022-11/2022)	
	Professional Engineer	4.00	154.99	\$619.9
Revi	ew and certification of CACR (Nov. 2022).			3
			-)/	
				
_	······			

Add Another Page | Delete Last Page |

Total of Consulting Personnel Costs \$43,

Consultant's Materials Costs Form

For this form to function properly. Adobe Reader 8.0 or higher is required

Materials, Equipment, o	, or Field Purchase	Time or Amount Used	Rate (\$)	Unit	Total Cost
Remediation Category	Description/Justification				
Mileage (Aug. 2014)		13.00	.56		\$7.28
				_	
		1.00	124.00		\$124.00
CACR -	Helium detector for soil ge	· · · · · · · · · · · · · · · · · · ·	124.00	1	
[]][
Milsage (July 2017)		13.00	.54		\$7.02
Mileage (Aug. 2019)		13.00	.58		\$7.54
•					
		<u>][[]</u>]			
					······
]		
•		····			
		// //	<u></u>	<u> </u>	<u> </u>
)[][•
]
Add Another Page Delete La	st Page	Total of Consultan	t Materials Cos	ts	\$145.84

RESOURCE CONSULTING, INC.

Attachment E USEPA Soil Gas Sampling Guidance

Laboratory Servi	Region 4 mental Protection Agency ces & Applied Science Division Athens, Georgia	
Ope	erating Procedure	
Title: Soil Gas Sampling	ID: LSASDPROC-307-R5	
Issuing Authority: Field Services Bran	nch Supervisor	
Effective Date: April 22, 2023	Review Due Date: February 06, 2024	
Method Reference: N/A	SOP Author: Landon Pruitt	

Purpose

This document describes general and specific procedures, methods and considerations to be used and observed when collecting soil gas samples for field screening or laboratory analysis.

Scope/Application

The procedures contained in this document are to be used by field personnel when collecting and handling soil gas samples in the field. On the occasion that LSASD field personnel determine that any of the procedures described in this section are inappropriate, inadequate or impractical and that another procedure must be used to obtain a soil gas sample, the variant procedure will be documented in the field log book, along with a description of the circumstances requiring its use. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

Soil Gas Sampling Effective Date: April 22, 2023

TABLE OF CONTENTS

	Conservation .	3
1	General Information	2
1.1	Documentation/Verification	3
1.2	General Precautions	3
2.2	Special Precautions for Soil Gas Sampling	4
2.4	Quality Control.	
2.5	Records	5
3	Geoprobe® PRT System Installation	5
3.1	General	6
3.2	PRT System Installation Procedures	6
3.3	Decommissioning PRT Sample Locations	8
4	Geoprobe® Permanent Soil Gas Implant Installation	8
4.1	General	8
5	Sub-Slab Soil Gas Sampling Port Installations	. 11
5.1	General	. 11
5.2	Installation of Temporary Sub-slab Soil Gas Sampling Ports	. 11
5.3	Installation of Permanent Sub-slab Soil Gas Sampling Ports	. 12
6	Helium Leak Testing of PRT Soil Gas Sampling Installations	. 12
6.1	General	. 12
6.2	Helium Leak Testing Procedures for PRT Soil Gas Sampling Installations	. 12
6.3	Helium Leak Testing Procedures for Sub-slab Soil Gas Sample Ports	. 13
7	Sampling Soil Gas Installations.	. 13
8	References	. 15
9	Revision History	. 17

1 General Information

1.1 Documentation/Verification

This procedure was prepared by persons deemed technically competent by LSASD management, based on their knowledge, skills and abilities and has been tested in practice and reviewed in print by a subject matter expert. The official copy of this procedure resides on the LSASD Local Area Network (LAN). The Document Control Coordinator (DCC) is responsible for ensuring the most recent version of the procedure is placed on LAN and for maintaining records of review conducted prior to its issuance.

1.2 General Precautions

1.2.1 Safety

Proper safety precautions must be observed when collecting soil gas samples. Refer to the LSASD Safety, Health and Environmental Management Program (SHEMP) Procedures and Policy Manual and any pertinent site-specific Health and Safety Plans (HASP) for guidelines on safety precautions. These guidelines should be used to complement the judgment of an experienced professional. Address chemicals that pose specific toxicity or safety concerns and follow any other relevant requirements, as appropriate.

1.2.2 Procedural Precautions

The following precautions should be considered when collecting soil gas samples.

- 1.2.2.1 Special care must be taken not to contaminate samples. This includes storing samples in a secure location to preclude conditions which could alter the properties of the sample.
- 1.2.2.2 Samples shall be custody sealed during long-term storage or shipment.
- 1.2.2.3 Custody seals should not be placed on the canisters due to VOCs that may out-gas from the adhesives. Custody seals should be placed on the outside of canister shipping containers.
- 1.2.2.4 Sample identification tags shall be attached to the canister using wire, cable tie, or string. Adhesive labels should be affixed to the tag and not be placed directly on the canister.
- 1.2.2.5 Collected samples are in the custody of the sampler or sample custodian until the samples are relinquished to another party.
- 1.2.2.6 If samples are transported by the sampler, they will remain under his/her custody or be secured until they are relinquished.
- 1.2.2.7 Shipped samples shall conform to all U.S. Department of

Transportation (DOT) and/or International Air Transportation Association (IATA) hazardous materials shipping requirements.

- 1.2.2.8 Documentation of field sampling is done in a bound logbook.
- 1.2.2.9 Chain-of-custody (COC) documents shall be filled out and remain with the samples until custody is relinquished.
- 1.2.2.10 Canister Sample Identification Tags and COC and Field Logbook should list the unique canister serial number and the starting time that the sample was collected.
- 1.2.2.11All shipping documents, such as air bills, bills of lading etc., shall be retained by the project leader and stored in a secure place.

2.0 Special Sampling Considerations

2.1 Special Considerations for Sampling

The tubing used as part of either of the described sampling systems should be Teflon® or stainless steel. As most current soil gas sampling will be conducted to investigate the presence or extent of organic compounds (not including PFAS compounds), Teflon® tubing is required to ensure the integrity of the sample.

Extreme care should be taken to protect all VOC sampling equipment whose surfaces will come in direct contact with the collection of the sample. For instance, a Geoprobe® or other drilling rig should not be used to carry or transport sampling equipment because of diesel and other VOC emissions. In addition, other field support vehicles should not be operated in the proximity of the sampling site shortly before or during sampling.

2.2 Special Precautions for Soil Gas Sampling

- 2.2.1 A clean pair of new, non-powdered, disposable gloves (gloves) will be worn each time a different location is sampled, and the gloves should be donned immediately prior to sampling. The gloves should be changed any time during sample collection when their cleanliness is compromised.
- 2.2.2 If possible, one member of the field sampling team should take all the notes and photographs fill out tags, etc., while the other member(s) collect the samples.
- 2.2.3 Using O-rings on all PRT tooling, adapters, and probe rods will ensure that the entire sampling train is air-tight. This will prevent soil ingress during installation and to maintain sample integrity by ensuring that no ambient air is introduced into the sample during collection.

Page 4 of 17

2.3 Sample Handling Requirements

1

- 2.3.1 Soil gas samples will typically be collected by directly filling an evacuated, 6-liter passivated stainless-steel canister after sample delivery line purging.
- 2.3.2 The canister will be labeled and identified according to LSASD Operating Procedure for Packaging, Marking, Labeling and Shipping of Environmental and Waste Samples (LSASDPROC-209).

2.4 Quality Control

Quality control sampling for soil gas sampling investigations will consist of collection of the following types of samples, as appropriate.

- 2.4.1 Control Sample: If applicable to the study or investigation, a control (or background) sample should be collected from a location not affected by the possible contaminants of concern and submitted with the other samples.
- 2.4.2 Trip Blank: A canister trip blank, prepared prior to the investigation by LSB personnel, should follow alongside the traditional samples and be submitted with the sample set during the investigation.
- 2.4.3 Equipment rinsate blank: Equipment rinsate blanks should be collected if equipment, such as PRT adapters, probe rods, or other sampling equipment is field cleaned and re-used in the sample train to document that low-level contaminants were not introduced into the sample by the decontaminated equipment.
- 2.4.4 Field Split: Field split samples, at a minimum frequency of one for every ten samples should be collected. Split samples are collected from one single sample port or installation by attaching the center leg of a Swagelok® "Tee" to the end of the sample tubing. The remaining legs of the "Tee" are connected to two sample containers (usually two flow controllers with roughly the same calibrated flow) which are opened and filled simultaneously.

2.5 Records

Information generated or obtained by LSASD personnel will be organized and accounted for in accordance with LSASD records management procedures found in the LSASD Operating Procedure for Control of Records (LSASDPROC-002). Field notes, recorded in a bound field logbook, will be generated, as well as chain-of-custody documentation according to the procedures found in LSASD Operating Procedure Logbooks (LSASDPROC-010) and LSASD Operating Procedure for Sample and Evidence Management (LSASDPROC-005).

3 Geoprobe® PRT System Installation

Approved by FSB Supervisor

Page 5 of 17

3.1 General

Single event or grab sampling may be conducted using the Post-Run Tubing System (PRT). Using this system, soil gas samples can be collected quickly and with a high degree of assurance that the samples are representative of the targeted depth.

The downhole components of the PRT system include:

- 3.1.1 Sample delivery tubing
- 3.1.2 Probe rods
- 3.1.3 PRT Adapter
- 3.1.4 Expendable point holder
- 3.1.5 Expendable point

O-ring seals are used on the PRT Adapter and the expendable point holder. O-rings can also be used at all rod joints, preventing soil ingress which can prevent air-tight docking of the PRT adapter.

3.2 PRT System Installation Procedures

The following procedures are used to collect soil gas samples using the Geoprobe® PRT system. The PRT system is available for 1.0-inch, 1.25-inch and 1.5-inch diameter probe rods. In LSASD practice, 1.25-inch rods are used. All parts or accessories used in the PRT system must be selected with the appropriate diameter probe rod in mind to ensure compatibility of all components.

- 3.2.1 Ensure that the sampling location has been cleared using the procedures detailed in the Site Safety Plan. The plan should stipulate that: prior to site arrival the proposed soil gas sampling locations will be cleared using the One Call utility locating service. Upon arrival at the site each individual soil gas sampling location will be cleared using a pipe scanner and metal locater.
- 3.2.2 Cut a 4-foot by 4-foot section of disposable plastic sheeting and place on the ground next to the sampling location.
- 3.2.3 Hand auger a 4-foot deep hole using a clean stainless-steel hand auger emptying the soil cuttings on the plastic sheeting.
- 3.2.4 Don a clean set of gloves. To ensure there is no thread damage to the internal threads of the expendable point holder or the PRT adapter, hand screw the PRT adapter counter-clockwise into the expendable point holder using only your fingertips. The two components should screw together smoothly. If they do not replace them and repeat the test. Note: PRT fittings are left-hand threaded; turn counterclockwise to tighten.
- 3.2.5 Place O-ring on PRT expendable point holder and attach to initial section of probe rod.
- 3.2.6 Place O-ring on expendable point and press into expendable point holder.

Approved by FSB Supervisor

Page 6 of 17

- 3.2.7 Add drive cap to probe rod and push PRT system through the augured hole into ground to the bottom of the sampling interval. Take special care to assure that the rods are in line with the push axis of the probe machine.
- 3.2.8 It is important to leave at least a 2-foot interval of undisturbed native soil between the augured hole and the top of the sampling interval. The native soil layer will be used to support the bentonite/soil layers described in Step 11.
- 3.2.9 At the bottom of the desired sampling depth, attach a point popper to an extension rod and insert extension rod string into rods so that the point popper rests on the expendable point. Using the rod puller and taking special care to maintain probe alignment with the rods, begin pulling the rods while maintaining pressure on the extension rods. The extension rods should drop when the pull is started, indicating that the expendable point has been ejected. The rods can then be pulled to expose the desired open sampling interval.
- 3.2.10 Using a properly decontaminated water level sounder, check, if conditions warrant, to make sure groundwater is not present at the bottom of the rod string. If groundwater is present, the sampling location should be properly abandoned, and an alternate sampling location determined. Soil gas samples should never be collected if there is a high possibility that groundwater may enter the sampling equipment. The groundwater will ruin the sampling and analysis equipment and invalidate the soil gas sample.
- 3.2.11 The drive rods that are contained in the augured hole will be "sealed" by first adding 12 inches of bentonite clay crumbles (not pellets) and hydrating with deionized water. Second, the augured hole will be filled with alternating layers of soil cuttings and hydrated bentonite clay crumbles while being hand packed with a clean stainless-steel auger handle or similar device.
- 3.2.12 Secure the PRT adapter to a length of Teflon® tubing sufficient to reach from the sampling interval to the surface, with several feet of excess tubing extending beyond the top of the probe rod to facilitate sampling. Straighten the first two feet of tubing above the adapter by pulling it between your thumb and forefinger. This will ease the docking of the tubing.
- 3.2.13 Run the tubing and adapter into the probe rod and, using steady downward pressure turn the tubing counter-clockwise to dock the adapter into the top of the expendable point holder. Tug gently on the tubing to ensure that the adapter engaged with the expendable point holder. Continue rotating the tubing until the adapter is firmly seated. Failure to dock could indicate that soil intruded during the push or that the expendable point was lost during the push.
- 3.2.14 At this point, the PRT system has been installed and is ready to be helium leak tested (Section 6) before sampling. If the sample cannot be collected immediately, the end of the tubing should be capped with a stainless-steel Swagelok® cap or crimped by bending over and securing with a cable tie. Sampling is conducted using one of the

Approved by FSB Supervisor

Page 7 of 17

procedures described in Section 7.

3.3 Decommissioning PRT Sample Locations

Because it is impractical to pump grout through the PRT adapter on the lead probe rod, the entire string of rod must be removed before decommissioning can commence. The following methods are available, depending on conditions related to sample depth and post-removal probe hole wall stability:

- 3.3.1 Direct Placement of Pellets or Grout If the sampling depth was relatively shallow, on the order of ten feet or less, or the bore hole did not penetrate a water table, grouting/sealing the open hole can be accomplished by directly placing bentonite pellets, hydrated in lifts or pouring a 30% solids bentonite grout mixture from the surface. The acceptable maximum depth for this option is somewhat dependent on the stability of the hole and these methods may be used at slightly greater depths if the holes do not collapse after removal of the rod.
- 3.3.2 Re-entry Grouting For locations where sampling was conducted at somewhat greater depths, where groundwater was penetrated, or where the surficial formations tend to collapse, the only viable option for grout placement may be to reprobe the entire depth with a new expendable point. After reaching the original sample depth, the expendable point is ejected and the hole is grouted by directly injecting grout through the inside of the rod string, as it is removed. Use of this option is dependent on the relative degree of hole stability.

4 Geoprobe® Permanent Soil Gas Implant Installation

4.1 General

Long-term soil gas sampling may be conducted using permanent soil gas sampling implants installed with the Geoprobe®. Stainless steel implants may be installed at any depth achievable by the Geoprobe® and may be installed using various diameters of probe rod. In LSASD practice, 2.25-inch probe rods are used. The implants may be installed in custom lengths, configured using a wide assortment of available implant lengths and connections. The implant screens are double-woven stainless steel mesh with 0.0057-inch (0.15 mm) pore openings.

Permanent soil gas sampling implants may also be installed using 2.125-inch diameter rods utilizing an advancing thin-walled corer to facilitate placement of the implant (see Geoprobe Systems, Direct Push Installation of Devices for Active Soil Gas Sampling & Monitoring, Technical Bulletin No. MK3098 for details of this application).

4.2 Installation of Permanent Soil Gas Sampling Implants (Typical)

The following procedures are used by LSASD to install a permanent soil gas sampling implant using the Geoprobe®. These are the general procedures which are used with 2.25-inch diameter probe rod.

4.2.1 Ensure that the sampling location has been cleared using the procedures detailed in the Site Safety Plan. The plan should stipulate that: prior to site arrival

Approved by FSB Supervisor

Page 8 of 17

the proposed soil gas sampling locations will be cleared using the One Call utility locating service. Upon arrival at the site each individual soil gas sampling location will be cleared using a pipe scanner and metal locater.

- **4.2.2** Cut a 4-foot by 4-foot section of disposable plastic sheeting and place on the ground next to the sampling location.
- 4.2.3 Hand auger a 4-foot deep hole using a clean stainless-steel hand auger emptying the soil cuttings on the plastic sheeting.
- **4.2.4** Don a clean set of gloves. To ensure there is no thread damage to the internal threads of the expendable implant anchor or the implant, hand screw the implant counter-clockwise into the expendable implant anchor using only your fingertips. The two components should screw together smoothly. If they do not replace them and repeat the test. Note: implant fittings are left-hand threaded; turn counterclockwise to tighten.
- **4.2.5** Place o-ring on PRT expendable implant anchor and attach to initial section of probe rod.
- **4.2.6** Add drive cap to probe rod and push PRT system through the augured hole into ground to the bottom of the sampling interval. Take special care to assure that the rods are in line with the push axis of the probe machine. Do not retract rod or removed expendable point yet.
- 4.2.7 Using a properly decontaminated water level sounder, check, if conditions warrant, to make sure groundwater is not present at the bottom of the rod string. If groundwater is present, the sampling location should be properly abandoned, and an alternate sampling location determined. Soil gas samples should never be collected if there is a high possibility that groundwater may enter the sampling equipment. The groundwater will ruin the sampling and analysis equipment and invalidate the soil gas sample.
- **4.2.8** Install an o-ring on the docking end of the implant. Next, secure the implant to a length of 1/4"Teflon[®] tubing sufficient to reach from the sampling interval to the surface, with several feet of excess tubing extending beyond the top of the probe rod to facilitate sampling. Use electrical tape or a cable tie to temporarily cap the end of the tubing. Straighten the first two feet of tubing above the adapter by pulling it between your thumb and forefinger. This will ease the docking of the tubing.
- 4.2.9 Run the tubing and implant into the probe rod and, using steady downward pressure turn the tubing counter-clockwise to dock the adapter into the top of the expendable point holder. Tug gently on the tubing to ensure that the adapter engaged with the expendable point holder. Continue rotating tubing until the adapter is firmly seated. If docking is difficult, try running the implant and tubing thru an appropriate length of 1/2" PVC tremie pipe to better align the implant with the expendable point to facilitate docking. Remove the tremie pipe once docking is achieved. Failure to dock could indicate that soil intruded during the push or that the expendable point was lost

Approved by FSB Supervisor

Page 9 of 17

during the push. If the implant does not dock, it is possible to salvage the installation by removing the implant and sealing the small hole on the bottom of the implant, if present, with foil or with a small sheet metal screw, then returning the implant to the hole.

- 4.2.10 After the implant has been docked, use a pull cap and pull the probe rod approximately one foot while applying slight downward pressure on the tubing connected to the implant. This should start to expose the implant in the sampling interval. Take care while moving the rod and observe the tubing to make sure that the anchor and implant remained in place and is not being pulled with the rod.
- 4.2.11 If the implant remained in place, slowly pour a measured amount of 60-100 mesh glass beads down the inside of the probe rod. The glass beads are used as a filter pack around the implant. The implant should be covered with beads to approximately six inches above the top of the implant. The volume of beads should be calculated based on the length of implant used, alternatively, a water level sounder can be used to measure the top of the bead layer. While pouring the beads, it is advisable to gently shake the tubing to prevent the beads from bridging inside the probe rod.
- 4.2.12 After placing the beads, the implant is sealed using a flowable mixture of the glass beads and fine-powdered bentonite. To accomplish this, at least 6 inches of rod is pulled, and the mixture is slowly poured into the rod above the bead-packed implant. As with the bead placement, similar care should be taken to avoid bridging of this mixture.
- **4.2.13** After placement of the seal, the rod string is removed, and the resultant annular space is grouted using the following procedures which are dependent on the depth and stability of the open hole.
- **4.2.14** If the resultant open hole is shallow (ten feet or less) and the hole walls are stable, the hole may either be filled with bentonite pellets, hydrated in lifts or grouted using a 30% solids bentonite grout, poured from the surface.
- 4.2.15 If the hole is deeper than ten to fifteen feet, better results may be obtained by using a tremie pipe to place a pumpable grout. One half inch PVC tremie pipe or Geoprobe nylon grout tubing is threaded down the annulus to the top of the bead/bentonite seal. The tremie is pulled off the bottom to prevent jetting out the seal and grout is pumped until the annulus is filled. Procedures are similar to those for well annular seals described in LSASDGUID-101, Section 2.3.5.
- **4.2.16** For permanent or long-term installations, the tubing should be protected by an appropriate surface completion, such as a flush vault or well protective casing, similar to well protective casings, as described in LSASDGUID-101. After the installation of the vault, cut off the end of the tubing with the previously installed electrical tape or cable tie and cap with a stainless-steel capping fitting.
- 4.2.17 After installation is complete the soil gas implant is sampled using one of the methods described in Section 7.

Approved by FSB Supervisor

Page 10 of 17

4.2.18 Helium leak testing is not practical nor required for permanent soil gas installations.

5 Sub-Slab Soil Gas Sampling Port Installations

5.1 General

For soil gas samples that need to be collected under a current structure, sub-slab soil gas ports should be installed. Temporary or long-term installations may be installed depending on the project needs. Stainless steel screens may be installed if loose or unconsolidated soils lie underneath the slab. Extreme care should be taken in the location of the drilled sample ports.

5.2 Installation of Temporary Sub-slab Soil Gas Sampling Ports

The following procedures are used to install a temporary sub-slab soil gas sampling port.

- 5.2.1 Ensure that the sampling location has been cleared using the procedures detailed in the Site Safety Plan. As most if not all of these applications will be inside, a One Call utility locating service might not help. Upon arrival at the site, each individual sub-slab sampling location should be cleared verbally and visually with a site engineer or home owner, whoever is available with the most knowledge on the structure.
- 5.2.2 Don a clean pair of gloves and drill in the desired location with a 1/2" masonry bit. After drilling, make sure the bit is completely through the slab either by running something rigid along the inside of the borehole to feel the slab end or by visually observing soil cuttings on or from the drill bit. Ensure there is no water in the borehole before moving on. Again, soil gas samples should never be collected if there is a high possibility that groundwater may enter the sampling equipment. The groundwater will ruin the sampling and analysis equipment and invalidate the soil gas sample. If so, choose another sample location.
- 5.2.3 Cut a piece of Teflon® tubing to a length of the slab thickness, plus two feet for room to reach sampling equipment. Straighten the end of the tubing and place it down the borehole to a height just above the bottom of the slab. If there is unconsolidated soil present that could potentially clog the sampling inlet, a clean stainless-steel screen can be fastened to the end of the tubing.
- 5.2.4 After brushing away concrete dust, a VOC-free clay or putty like media is then used to secure the tubing and create an air tight seal at the slab interface. After a leak test is conducted according to Section 6.3, the end of the sampling tube is then connected to the sampling device or crimped and secured if sampling is to happen later.

After sample collection according to a method described in Section 7, the holes are immediately abandoned by filling the borehole with cement. A slightly thin mixture of cement will ensure no bridging of the mixture as it pours and makes a more solid patch. A small diameter piece of wire is good for working cement into hole. Check the cement patch for effectiveness before leaving the site.

Approved by FSB Supervisor

Page 11 of 17

5.3 Installation of Permanent Sub-slab Soil Gas Sampling Ports

The following procedures are used to install a permanent sub-slab soil gas sampling port.

- 5.3.1 Each sample location should be cleared to the best of the sampling team's ability following step 1 in Section 5.2 above.
- 5.3.2 Don a clean pair of gloves and drill in the desired location with a 1" masonry bit to a depth needed to just submerge the permanent sample port body into the concrete to have a flush final product. Finish drilling the remainder of the slab thickness with a 1/2" masonry bit. After drilling, make sure the bit is completely through the slab either by running something rigid along the inside of the borehole to feel the slab end or by visually seeing soil cuttings on the drill bit. Ensure there is no water in the borehole before moving on. If so, choose another sample location.
- 5.3.3 The port should be made of stainless steel with an air tight connection to a length of stainless steel 1/4" tubing long enough to reach down to just above the bottom of the slab and have a cap or plug that can make an air tight seal when left between sampling events. Again, a clean stainless-steel screen can be added to the end of the sample tube if needed to prevent soil from penetrating the sample inlet.
- 5.3.4 Place the permanent sample port into the drilled borehole with a piece of malleable VOCfree media to seal the hole where it narrows (to keep the cement off the sample inlet). Seal the sample port in place using anchor cement and allow to set overnight.
- 5.3.5 After port is set, perform a leak test as described in Section 6.3. If the sample port passes the leak test, samples may then be collected by one of the methods described in Section 7. Leak tests should be completed for every sampling event, as torquing the plug can crack the anchor cement over time.

6 Helium Leak Testing of PRT Soil Gas Sampling Installations

6.1 General

Leak testing of soil gas sampling installations should be conducted if the sampling equipment has a connection that if compromised would emit ambient air into the soil gas sample. For sub-slab soil gas sample ports, it is most important to leak test temporary sample ports as the integrity of the seal made by the malleable VOC-free media used can be easily damaged.

6.2 Helium Leak Testing Procedures for PRT Soil Gas Sampling Installations

- 6.2.1 The sampling system will be leak checked by inserting a 1/8" diameter Teflon® tubing into the drive rod next to the 1/4-inch diameter Teflon® sampling tubing, until it bottoms out a few inches above PRT adaptor. The 1/8" diameter tubing will be connected to a 99.999% pure helium source.
- 6.2.2 A second length of 1/4" Teflon® tubing will be inserted into the drive rod to a point

Approved by FSB Supervisor

Page 12 of 17

approximately one foot below the top of the rod. The free end of this tubing will be connected to a helium meter that will monitor the helium content of the drive rod during the leak test.

6.2.3 The top of the drive rod and tubing will be sealed with Parafilm® to retain the helium for the leak test. The drive rod will be filled with helium to a concentration of greater than 90%, while a soil gas sample is collected into a Tedlar® bag through the 1/4" Teflon® sample tube for on-site sample analysis of helium content. When the Tedlar® bag is disconnected from the sample tubing the sample tubing is crimped and held with a rubber band or cable tie, to prevent ambient air from entering the sample tube. The helium concentration in the Tedlar® bag must be less than 10% of the helium concentration in the drive rod to insure integrity of the soil gas sampling well. When the leak test is complete, the Parafilm®, helium supply, and monitoring tubes will be removed, leaving the sample tube.

6.3 Helium Leak Testing Procedures for Sub-slab Soil Gas Sample Ports

- 6.3.1 The sampling system will be leak checked by covering the sample port with a shroud that can be filled from a 99.999% pure helium source. The shroud will allow two other ports where the leak check sample can be pulled and the helium concentration in the shroud can be testing similar to the set-up in Section 5.2 above.
- 6.3.2 The shroud will be filled with helium to a concentration of greater than 90%, while a soil gas sample is collected into a Tedlar® bag through the 1/4" Teflon® sample tube for onsite sample analysis of helium content. When the Tedlar® bag is disconnected from the sample tubing the sample tubing is crimped and held with a rubber band or cable tie, to prevent ambient air from entering the sample tube. The helium concentration in the Tedlar® bag must be less than 10% of the helium concentration in the shroud to insure integrity of the soil gas sampling port. When the leak test is complete, the shroud, helium supply, and monitoring tubes will be removed, leaving the sample tube connected to the port.
- 6.3.3 For temporary sub-slab sample ports, if the leak test fails, the malleable VOC-free media can be reinserted, added to, or shifted and tested again. After the sample port passes, take care in not moving or shifting the seal media before sample collection.

7 Sampling Soil Gas Installations

7.1 Soil gas samples may be collected from PRT and permanent soil gas implant installations using one of several methods, listed below. Canister sampling is the most common method utilized by LSASD.

7.1.1 Canister Sampling for Laboratory Analysis – After installation is complete and immediately prior to sampling, a flow-limiting device, consisting of a Nupro® 7micron sintered stainless steel filter, a critical orifice and gauge is attached to an evacuated canister for sampling. A sampler leak check is conducted by plugging the inlet of the flow control device and opening the canister valve momentarily. After the valve

Approved by FSB Supervisor

Page 13 of 17

Soil Gas Sampling Effective Date: April 22, 2023

has been closed the needle on the gauge should not move (remain at full vacuum) indicating that at the sampler is leak free.

- 7.1.2 Once the PRT installation or the sub-slab sample port has passed the helium leak test as described in Section 5 and the sampler leak check has been completed, the Teflon® sample tube is connected to the flow-limiting device using a Swagelok® or other suitable secure connection. After connection, the rubber band (if used) is cut and the crimp in the Teflon® tubing straightened and the valve on the canister is opened, pulling soil gas from the implant into the canister. Typically, the sample is collected over a one-hour period (depending on soil conditions), at which time the canister valve is closed, and the canister tagged with pertinent sampling information. When using this type of device, it is advisable to check the canister vacuum throughout the sampling period to verify filling. The initial and final gauge pressure/vacuum reading should be recorded in the project logbook.
- 7.1.3 Real-time Field Analytical Methods Real-time analytical measurements may be obtained from PRT, soil gas implant, or sub-slab port installations using appropriate instrumentation. The soil gas to be analyzed may be drawn directly into the instrument by the instrument pump or the instrument may be placed in line and the sample drawn into the instrument using a suitable pump connected to the discharge side of the instrument. Results may be qualitative, such as those obtained with flame ionization or photoionization detectors, or they may be quantitative, for instruments which can be calibrated to specific compounds.

8 References

Geoprobe® Systems Tools and Equipment Catalog, Kejr Engineering, Inc., Salinas, Kansas, 1997.

International Air Transport Authority (IATA). Dangerous Goods Regulations, Most Recent Version

LSASD Operating Procedure for Control of Records, LSASDPROC-002, Most Recent Version

LSASD Operating Procedure for Equipment Inventory and Management, LSASDPROC-104, Most Recent Version

LSASD Operating Procedure for Field Equipment Cleaning and Decontamination, LSASDPROC-205, Most Recent Version

LSASD Operating Procedure for Field Sampling Quality Control, LSASDPROC-011, Most Recent Version

LSASD Operating Procedure for Logbooks, LSASDPROC-010, Most Recent Version

LSASD Operating Procedure for Packaging, Marking, Labeling and Shipping of Environmental and Waste Samples, LSASDPROC-209, Most Recent Version

LSASD Operating Procedure for Sample and Evidence Management, LSASDPROC-005, Most Recent Version

The Yellow Field Book@, Compellation of GeoProbe Equipment, Kejr Engineering, Inc., Salinas, Kansas, 2000.

US EPA. 1999. Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition, Compendium Method TO-15, Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS); Center for Environmental Research Information, Office of Research and Development, Cincinnati, OH; EPA/625/R-96/010b

US EPA. Laboratory Services Branch Laboratory Operations and Quality Assurance Manual. Region 4 LSASD, Athens, GA, Most Recent Version

US EPA. April 13, 1981. Final Regulation Package for Compliance with DOT Regulations in the Shipment of Environmental Laboratory Samples. Memo from David Weitzman, Work Group Chairman, Office of Occupational Health and Safety (PM-273)

US EPA. Safety, Health and Environmental Management Program Procedures and Policy Manual. Region 4 LSASD, Athens, GA, Most Recent Version

Geoprobe Systems, Direct Push Installation of Devices for Active Soil Gas Sampling & Monitoring,

Approved by FSB Supervisor

Page 15 of 17

Technical Bulletin No. MK3098, Prepared May, 2006.

Geoprobe Soil Gas Sampling/ PRT Operation Instructions, October 24, 2017 https://geoprobe.com/literature/soil-gas-samplingprt-operation-instructions

Dielectric Technologies Model MGD-2002 Multi Gas Leak Detector Instruction Manual, IB-417 RevA PartNo. 84671

http://www.enviroequipment.com/sites/default/files/documents/instruments/Dielectric-MGD-2002-Manual.pdf

Approved by FSB Supervisor

Page 16 of 17

9 Revision History

The top row of this table shows the most recent changes to this controlled document. For previous revision history information, archived versions of this document are maintained by the LSASD Quality Assurance Coordinator on the LSASD local area network (LAN).

History					Effective Date
Replaced Chief with Supervisor; General formatting revisions.					April 22, 2023
LSASDPROC-307-R4, LSASDPROC-307-R3	Soil G	as	Sampling,	replaces	February 7, 2020
General: Corrected any typographical, grammatical, and/or editorial errors. Soil gas sampling procedures were updated, and helium leak testing and sub- slab sampling procedures were added to the document. SESD updated to LSASD.					
Cover Page: Changed the Av Enforcement and Investigatic Science and Ecosystem Supp	on Branch to Apport Division to	pplied Labo	Sciences Brand bratory Services	ch. Changed and Applied	
Masters. Revision History: Changes	were made to r	eflect	t the current pra		
Science Division. Quality Masters. Revision History: Changes including the most recent cha LSASDPROC-307-R3, LSASDPROC-307-R2	were made to r inges in the revi	eflect	t the current pra		May 14, 2014
Masters. Revision History: Changes including the most recent cha LSASDPROC-307-R3,	were made to r inges in the revi	eflect ision 1 as	t the current pra history.	ctice of only	May 14, 2014 September 8, 2010
Masters. Revision History: Changes including the most recent cha LSASDPROC-307-R3, LSASDPROC-307-R2 LSASDPROC-307-R2,	were made to r inges in the revi Soil G	eflect ision 1 as	t the current pra history. Sampling,	ctice of only replaces	

Kim, Richard

From:	Kuhlman, Eric
Sent:	Friday, December 15, 2023 10:39 AM
То:	'Daniel Horvath'
Subject:	RE: [External] West Chicago Park District/980814

Thanks, Dan. I really appreciate that but I'll just print off a copy and send it to the File Room.

ERIC KUHLMAN Project Manager Leaking UST Section Illinois EPA Phone: (217) 785-5715



From: Daniel Horvath <dhorvath@resourceillinois.com> Sent: Friday, December 15, 2023 10:29 AM To: Kuhlman, Eric <Eric.Kuhlman@Illinois.gov> Cc: Putrich, Steve <Steve.Putrich@Illinois.gov>; Courtney McGinnis <cmcginnis@resourceillinois.com> Subject: Re: [External] West Chicago Park District/980814 Importance: High

Please let us know if you require a hard copy to be submitted.

Thank you,

Daniel J. Horvath Resource Consulting, Inc.

(o) (630)232-9820 (c) (630)292-9820 (f) (630)232-9824 www.resourceillinois.com

CONFIDENTIALITY NOTICE:

This e-mail is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation.

Attached.

Daniel J. Horvath Resource Consulting, Inc.

(o) (630)232-9820 (c) (630)292-9820 (f) (630)232-9824 www.resourceillinois.com

CONFIDENTIALITY NOTICE:

This e-mail is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation.

<980814 WCPD IEPA Review Ext Rqst 12-15-2023.pdf>

On Dec 15, 2023, at 10:00 AM, Kuhlman, Eric < Eric.Kuhlman@Illinois.gov > wrote:

Good morning, Dan.

So, what's the status of that extension request? Please keep in mind, I leave for vacation today around 3:30 pm.

ERIC KUHLMAN Project Manager Leaking UST Section Illinois EPA Phone: (217) 785-5715 <image001.png><image002.png><image003.jpg><image004.png>

From: Daniel Horvath <<u>dhorvath@resourceillinois.com</u>
Sent: Tuesday, December 12, 2023 2:27 PM
To: Kuhlman, Eric <<u>Eric.Kuhlman@Illinois.gov</u>
Cc: Putrich, Steve <<u>Steve.Putrich@Illinois.gov</u>
; Courtney McGinnis
<<u>crmcginnis@resourceillinois.com</u>
Subject: Re: [External] West Chicago Park District/980814

Eric:

Another extension is not out of the question. It doesn't seem like the amount of information that needs to be reviewed is that much, but it is down to a week or so for

Electronic Filing: Received, Clerk's Office 09/20/2024 the current due date, and, as noted in my 10/22/2023 email, we need information from the Illinois EPA in order to fully address the IEPA's comments.

Please review what was submitted a few weeks ago as soon as you can. We requested more information about the J&E modeling comments you made in your October 10th and 24th emails. Did benzene work, but not ethylbenzene and naphthalene? Can we have a copy of the Agency's version of the calculations? Can I work with Carol Hawbaker or someone else versed in Tier 2 indoor inhalation evaluation methods on revised calculations?

The groundwater and soil gas have been sampled at least twice each (going from memory here – might have done soil gas once and groundwater sampling 2x). I am not confident that this is a solution. The parcel map included in the document shows that placing an I/C restriction on the parcel that includes the building will not work since a not-insignificant part of the park would be included. I don't think that would be acceptable to the Illinois EPA. Also the most recent data may exceed the I/C ROs too.

Another extension request will be prepared and submitted this week.

Daniel J. Horvath Resource Consulting, Inc.

(o) (630)232-9820 (c) (630)292-9820 (f) (630)232-9824 www.resourceillinois.com

CONFIDENTIALITY NOTICE:

This e-mail is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation.

On Dec 8, 2023, at 11:03 AM, Kuhlman, Eric <<u>Eric.Kuhlman@Illinois.gov</u>> wrote:

Well, due to the amount of information that needs to be reviewed, would it out of the question to receive another extension?

ERIC KUHLMAN Project Manager Leaking UST Section

Phone: (217) 785-5715 <image001.png><image002.png><image003.jpg><image004.png>

From: Daniel Horvath <<u>dhorvath@resourceillinois.com</u>> Sent: Friday, December 8, 2023 11:00 AM To: Kuhlman, Eric <<u>Eric.Kuhlman@Illinois.gov</u>> Subject: Re: [External] West Chicago Park District/980814

The information was submitted via email on November 22. Courtney just forwarded it you again around 1015am this morning. The paper copies are being delivered today according to USPS.

Daniel J. Horvath Resource Consulting, Inc.

(o) (630)232-9820 (c) (630)292-9820 (f) (630)232-9824 www.resourceillinois.com

CONFIDENTIALITY NOTICE:

This e-mail is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation.

> On Dec 8, 2023, at 9:37 AM, Kuhlman, Eric <Eric.Kuhlman@Illinois.gov> wrote:

Good morning, Dan.

With the holidays and the extended IEPA response dated of 12/20/2023 fast approaching, what would you like to do with this site? Do you need more time to compile the requested information stated below? Do you want to submit another waiver for the CAP and BUD dated 6/16/2023, or would you want me to issue the IEPA response letter?

RESOURCE CONSULTING, INC. Electronic Filing: Received, Clerk's Office 09/20/2024

P.O. Box 123

٠

• Geneva, Illinois 60134 • (630)232-9820

December 15, 2023

115 Campbell Street Suite 108

Mr. Eric Kuhlman 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. 043905825 - DuPage County West Chicago/West Chicago Park District 250 West National Street LUST Incident No. 980814 LUST Technical File

Dear Mr. Kuhlman:

On behalf of the West Chicago Park District, Resource Consulting, Inc. is submitting this request to extend the Illinois Environmental Protection Agency's (EPA) current December 20, 2023, review deadline an additional 60 days for the project's Corrective Action Completion Report and associated budget. This request is being submitted in accordance with Title 35 of the Illinois Administrative Code Section 734.505(d).

The extension is requested so that any questions or concerns of the Illinois EPA related to the groundwater well prohibition ordinance, the indoor inhalation modeling, or any other topic can be discussed and addressed in the most timely manner possible.

Please contact our office at any time with questions or comments regarding this request.

Regards,

Daniel J. Horvath

Hydrogeologist/Senior Project Manager

Kim, Richard

From: Sent: To: Subject: Kuhlman, Eric Wednesday, February 14, 2024 10:38 AM 'Daniel Horvath' RE: [External] WCPD 980814

Thanks, Daniel.

ERIC KUHLMAN Project Manager Leaking UST Section Illinois EPA Phone: (217) 785-5715



From: Daniel Horvath <dhorvath@resourceillinois.com> Sent: Wednesday, February 14, 2024 10:37 AM To: Kuhlman, Eric <Eric.Kuhlman@Illinois.gov> Subject: Re: [External] WCPD 980814

The original certification is scheduled to arrive by tomorrow at 6pm. It is en route from the Chicago distribution center to Springfield today.

I can confirm delivery with you tomorrow.

If you have any questions or comments and would like to speak with me directly, please call my cell number below.

Thank you,

Daniel J. Horvath Resource Consulting, Inc.

(o) (630)232-9820 (c) (630)292-9820 (f) (630)232-9824 www.resourceillinois.com

CONFIDENTIALITY NOTICE:

This e-mail is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by e-mail or by calling 630.232.9820 and delete the original message and any backups from your computer system. All personal messages express views solely of the sender, which are not to be attributed to

Resource Consulting, Inc. and may not be distributed without this disclaimer. If you have any questions concerning this message, please contact the sender. Thank you for your cooperation.

On Feb 14, 2024, at 9:39 AM, Kuhlman, Eric < Eric.Kuhlman@Illinois.gov> wrote:

Good morning, Daniel.

I forwarded the attached ordinance to DLC and "The language in the e-copy is good. The GWO will be acceptable once you receive the original certification."

So, when should I receive the certified copy of Ordnance 15-O-0004?

ERIC KUHLMAN Project Manager Leaking UST Section Illinois EPA Phone: (217) 785-5715 <image001.png><image002.png><image003.jpg><image004.png>

From: Daniel Horvath <<u>dhorvath@resourceillinois.com</u>> Sent: Monday, February 12, 2024 5:08 PM To: Kuhlman, Eric <<u>Eric.Kuhlman@Illinois.gov</u>> Subject: [External] WCPD 980814

Eric:

I am picking up the original ordinance certification tomorrow morning. I believe the new deadline is 2/18/2024 which is effectively Friday. Is everything besides this matter addressed, ie. should the certification be sent via FedEx to ensure it is in the files ASAP? Or are there other outstanding matters?

If you have any questions or comments and would like to speak with me directly, please call my cell number below.

Thank you,

Daniel J. Horvath Resource Consulting, Inc.

(o) (630)232-9820 (c) (630)292-9820 (f) (630)232-9824 www.resourceillinois.com

CONFIDENTIALITY NOTICE:

This e-mail is intended only for the use of the individual or entity to which it is addressed. This communication including any attachments may contain information that may be privileged, confidential and is exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying is strictly prohibited. If you believe you have received this e-mail in error, please notify the sender immediately by

000523

IELINOIS 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

9589 0710 5270 1328 8588 99

FEB 1 6 2024

Michael Gasparini West Chicago Park District 201 West National Street West Chicago, IL 60185

Re: 0430905825 -- DuPage County West Chicago / West Chicago Park District 201 West National Street Leaking UST Incident 980814 Leaking UST Technical File IEPA Division of Records Management Releasable

MAY 1 4 2024

Reviewer: KAW

Dear Mr. Gasparini:

The Illinois Environmental Protection Agency (Illinois EPA) has reviewed the Corrective Action Completion Report (report) submitted for the above-referenced incident. This report included a Corrective Action Plan Budget (budget). This report was dated June 16, 2023 and was received by the Illinois EPA on June 23, 2023. Citations in this letter are from the Environmental Protection Act (415 ILCS 5) (Act) and Title 35 of the Illinois Administrative Code (35 Ill. Adm. Code).

The budget is modified pursuant to Sections 57.7(b)(3) and 57.7(c) of the Act and 35 Ill. Adm. Code 734.505(b) and 734.510(b). Based on the modifications listed in Section 2 of Attachment A, the amounts listed in Section 1 of Attachment A are approved. Please note that the costs must be incurred in accordance with the approved plan. Be aware that the amount of payment from the 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 Ill. Adm. Code 734.630 and 734.655.

All future correspondence must be submitted to:

Illinois Environmental Protection Agency Bureau of Land - #24 Leaking Underground Storage Tank Section 1021 North Grand Avenue East Post Office Box 19276 Springfield, IL 62794-9276

Please submit all correspondence in duplicate and include the Re: block shown at the beginning of this letter.

2125 S. First Street, Champaign, IL 61820 (217) 278-5800 1101 Eastport Plaza Dr., Suite 100, Collinsville, IL 62234 (618) 346-5120 9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000 595 S. State Street, Elgin, IL 60123 (847) 608-3131 2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200 412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022 4302 N. Main Street, Rockford, IL 61103 (815) 987-7760 Page 2

An underground storage tank system owner or operator may appeal this decision to the Illinois Pollution Control Board. Appeal rights are attached.

If you have any questions or need further assistance, please contact the Illinois EPA project manager, Eric Kuhlman, at 217-785-5715.

Sincerely,

Eric Kuhlman Project Manager Leaking Underground Storage Tank Section Bureau of Land

SP.S

Attachments: Appeal Rights Attachment A

c: Dan Horvath, Resource Consulting, Inc. (e-copy) dhorvath@resourceillinois.com BOL File

Appeal Rights

An underground storage tank 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 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 of the Board Illinois Pollution Control Board 60 East Van Buren Street, Ste. 630 Chicago, IL 60605 (312) 814-3461

For information regarding the filing of an extension, please contact:

Illinois Environmental Protection Agency Division of Legal Counsel 1021 North Grand Avenue East P.O. Box 19276 Springfield, IL 62794-9276 (217) 782-5544

Attachment A

Re: 0430905825 -- DuPage County West Chicago / West Chicago Park District 201 West National Street Leaking UST Incident 980814 Leaking UST Technical File

SECTION 1

Based on the modifications in Section 2 of this Attachment A, the following amounts have been approved:

\$3,035.95	Drilling and Monitoring Well Costs
\$939.10	Analytical Costs
\$0.00	Remediation and Disposal Costs
\$0.00	UST Removal and Abandonment Costs
\$0.00	Paving, Demolition, and Well Abandonment Costs
\$25,859.69	Consulting Personnel Costs
\$145.78	Consultant's Materials Costs

Handling charges will be determined at the time an application for payment is reviewed by the Illinois EPA. The amount of allowable handling charges will be determined in accordance with Section 57.1(a) of the Environmental Protection Act (415 ILCS 5) (Act) and 35 Illinois Administrative Code (35 Ill. Adm. Code) 734.635.

Please note, Resource Consulting, Inc. submitted additional information dated November 22, 2023, and received by the Illinois EPA on December 8, 2023 that included updated budget forms. This information was requested by the Illinois EPA in an email dated October 10, 2023.

SECTION 2

- Note. The Illinois EPA has approved the drilling and monitoring wells costs presented in this budget, even though, Resource Consulting, Inc has not yet submitted the soil boring logs and well completion report for GP-1 and MW-4B, respectively. However, such costs can/will be deducted if the Illinois EPA does not receive this supporting documentation, prior to reviewing the reimbursement claim.
- 1. \$38.90 will be deducted from Analytical Costs in the original budget dated June 16, 2023, which was received on June 23, 2023 since the budget summary totals are different from the updated budget forms.
- 2. \$1,535.81 for well abandonment costs which lack supporting documentation. Such costs are ineligible for payment from the Fund pursuant to 35 Ill. Adm. Code 734.630(cc). Since there is no supporting documentation of costs, the Illinois EPA cannot determine

that costs will not be used for activities and associated materials or services exceeding the minimum requirements necessary to comply with the Act. Therefore, such costs are not approved pursuant to Section 57.7(c)(3) of the Act and 35 Ill. Adm. Code 734.630(o).

Please note, the Illinois EPA was told the parking lot had been paved and the wells no longer accessible, as stated on page 2 of the addendum to the Corrective Action Completion Report dated April 6, 2021, and received by the Illinois EPA on April 22, 2021. As such, the Illinois EPA will need additional supporting documentation to determine whether these costs are eligible for payment from the Fund.

- 3. \$112.72 will be deducted from Consulting Personnel Costs in the original budget dated June 16, 2023, which was received on June 23, 2023 since the budget summary totals are different from the updated budget forms.
- Note: Since there was no correspondence between Resource Consulting, Inc. and the Illinois EPA between August 26, 2014 and June 17, 2019; any consulting personnel costs proposed during this time period will not be approved, except for field activities.
- \$10,453.93 for consulting personnel costs which lack supporting documentation. Such costs are ineligible for payment from the Fund pursuant to 35 Ill. Adm. Code 734.630(cc). Since there is no supporting documentation of costs, the Illinois EPA cannot determine that costs will not be used for activities and associated materials or services exceeding the minimum requirements necessary to comply with the Act. Therefore, such costs are not approved pursuant to Section 57.7(c)(3) of the Act and 35 Ill. Adm. Code 734.630(o).

Costs associated with consulting personnel between August 26, 2014 and June 17, 2019 will not be approved, except for field activities, since no supporting documentation was submitted to the Illinois EPA during this time frame. As such, the Illinois EPA cannot determine whether such costs were used for activities and associated materials or services that exceeded the minimum requirements necessary to comply with the Act.

5. \$618.10 for consulting personnel costs which lack supporting documentation. Such costs are ineligible for payment from the Fund pursuant to 35 Ill. Adm. Code 734.630(cc). Since there is no supporting documentation of costs, the Illinois EPA cannot determine that costs will not be used for activities and associated materials or services exceeding the minimum requirements necessary to comply with the Act. Therefore, such costs are not approved pursuant to Section 57.7(c)(3) of the Act and 35 Ill. Adm. Code 734.630(o).

Costs associated with project management by the Senior Project Manager and Project Manager lacks supporting documentation since this task description is too vague to determine that costs were used for activities and associated materials or services exceeding the minimum requirements necessary to comply with the Act.

6. \$1,207.20 for indirect corrective action costs for personnel, materials, service, or equipment charged as direct costs. Such costs are ineligible for payment from the Fund

pursuant to 35 Ill. Adm. Code 734.630(v). In addition, such costs are not approved pursuant to Section 57.7(c)(3) of the Act because they are not reasonable.

Costs associated with clerical work and invoicing by Senior Administrative Assistant are ineligible for payment from the Fund since such costs are indirect corrective action costs for personnel, materials, service, or equipment charged as direct costs.

7. \$6,199.50 for site investigation or corrective action costs for consulting personnel that are not reasonable as submitted. Such costs are ineligible for payment from the Fund pursuant to Section 57.7(c)(3) of the Act and 35 III. Adm. Code 734.630(dd).

Costs associated with preparation of comprehensive CACR are not reasonable as submitted since these actions already included the preparation of CACR budget amendment and J&E equations, which are also submitted as separate tasks.

8. \$1.68 will be deducted from Consulting Personnel Costs in the original budget dated June 16, 2023, which was received on June 23, 2023 since the budget summary totals are different from the updated budget forms.

9. \$0.07 for vehicle costs that lack supporting documentation. Such costs are ineligible for payment from the Fund pursuant to 35 Ill. Adm. Code 734.630(cc). Since there is no supporting documentation of costs, the Illinois EPA cannot determine that costs will not be used for activities and associated materials or services exceeding the minimum requirements necessary to comply with the Act. Therefore, such costs are not approved pursuant to Section 57.7(c)(3) of the Act and 35 Ill. Adm. Code 734.630(o).

Pursuant to 35 Ill. Adm. Code 734.850(b), costs associated with activities that do not have a maximum payment amount set forth in Subpart H of 35 Ill. Adm. Code 734 must be determined on a site-specific basis, and the owner or operator must demonstrate to the Illinois EPA the amounts sought for reimbursement are reasonable.

In addition, without supporting documentation, the rate requested for vehicle costs are unreasonable as submitted. Such costs are ineligible for payment from the Fund pursuant to Section 57.7(c)(3) of the Act and 35 Ill. Adm. Code 734.630(dd).

The Illinois EPA will reimburse for mileage at a rate of \$0.535 per mile when sufficient documentation has not been submitted for vehicle costs. Based on the round-trip mileage from the consultant's office to the site location of 13 miles per trip and a total of 1 trip, a proposed allowable reimbursement amount is \$6.96. Based on this, \$0.065 is being deducted from the consultant's materials costs portion of the budget.