

**LEAKING UST TECHNICAL REVIEW NOTES**

Reviewed by: Brad Dilbaitis  
Date Reviewed: 4/11/2007

File Heading: LPC #1010155024 -- Lawrence County  
Lawrenceville/ Croslow's Shell  
1421 Lexington Avenue  
Leaking UST Incident No. 20050374  
LUST Technical File

**Documents Reviewed:**

2/23/2007 Stages 2 and 3 Site Investigation Plan and Stage 1 Costs—received 2/27/2007  
Division File

**General Site Information:**

Site subject to: 734

IEMA dates: 3/17/2005	Reimbursement (Y/N/unknown): yes
UST System removed (Y/N): yes-removed 5/5/05	OSFM Fac. ID #: 7-009254
Encountered Groundwater (Y/N/unknown): yes	SWAP mapping and evaluation completion date: 4/12/2007
Free Product (Y/N/unknown): no	Site placement correct in SWAP (Y/N): yes
Current/Past Land Use: Automotive repair facility	MTBE > 40 ppb in groundwater (Y/N/unknown): yes--monitoring wells MW-3, MW-4 and MW-5 also had MTBE contamination at 0.21 mg/l, 0.26 mg/l and 0.16 mg/l, respectively
Size & Product of Tanks: (3) 6,000-gallon gasoline and (1) 1,000-gallon diesel USTs	

**Summary of Stage 1 Site Investigation notes:**

- Ten soil borings were completed to a depth of twenty feet, or refusal in bedrock
- Five borings (B-1 through B-1) were completed as monitoring wells
- Soil samples collected every five foot interval and analyzed for BTEX and MTBE
- Borings B-1 through B-4 were advanced at the property lines and completed as monitoring wells
- Benzene soil contamination discovered in borings:
  - B-1 (0.16 mg/kg at 13 ft bls),
  - B-3 (0.8mg/kg at 7.5 ft and 0.13 mg/kg at 12.5 ft)
  - B-4 (4.7 mg/kg at 7.5 ft and 0.82 mg/kg at 12.5 ft)
- Soil impaction defined to the north by B-2
- B-4 is located directly to the south and downgradient from the tank pit
- B-5 was drilled along the supply lines and was completed as a monitoring well to determine the maximum concentration level at the site for accurate Tier II modeling
- B-6 was advanced to the west side of the tank pit
- B-7 was drilled to the east side of the tank pit

**RELEASABLE**

**APR 20 2007**

**REVIEWER MD**



- B-8 was advanced on the north side of the tank pit
- B-9 and B-10 were advanced for characterization of the remaining line area and dispensers
- Monitoring well MW-1 had benzene contamination at 0.038 mg/l
- Monitoring well MW-3 had benzene contamination at 0.24 mg/l
- Monitoring well MW-4 had benzene contamination at 0.065 mg/l
- Monitoring well MW-5 had benzene contamination (1.0 mg/l) and ethylbenzene contamination (3.1 mg/l)
- Monitoring wells MW-3, MW-4 and MW-5 also had MTBE contamination at 0.21 mg/kg, 0.26 mg/l and 0.16 mg/l, respectively
- Results of Stage I indicate soil and groundwater contamination extends off site to the east, south and west

**Stage 1 Summary of Costs:**

Drilling and Monitoring Well Costs	\$4,944.00
Analytical Costs	\$2,870.00
Remediation and Disposal Costs	\$800.00
UST Removal and Abandonment Costs	\$0.00
Paving, Demolition, and Well Abandonment Costs	\$1,000.00
Consulting Fees	\$8,450.75
<b>Total Stage 1 Costs</b>	<b>\$18,067.75</b>

- All costs in accordance with Subpart H
- Included costs for abandonment of the five monitoring wells—costs associated with monitoring well abandonment must be included in the CAP budget {734.310(b)}
- Will cut the \$1,000.00 for well abandonment for the 5 monitoring wells

**Site Specific TACO parameters:**

Hydraulic conductivity (k)	7.67 x 10 <sup>-5</sup> cm/sec (collected from MW-1)
Soil bulk density ( $\rho_b$ )	2.09 g/cm <sup>3</sup> (Collected from B-2 at 6' bls)
Soil particle density ( $\rho_s$ )	2.66 g/cm <sup>3</sup> (Collected from B-2 at 6' bls)
Moisture content (w)	0.25 g <sub>water</sub> /g <sub>soil</sub> (Collected from B-2 at 6' bls)
Organic carbon content ( $f_{oc}$ )	0.003 g/g (Collected from B-2 at 7.5' bls)

**Stage 3 sampling plan:**

- One on site boring is proposed for further delineation—approximately 20 feet to the west of the northwest corner of the onsite building
- Impacted soil and groundwater extend off site west, south and east of the site
- Off site permission to the west has already been obtained—site utilized as a bank branch, and the owner requested that the boring be completed in the grass
- Location of boring proposed may have to be moved 10 or 20 feet based on field conditions
- Off site permission to the south has already been obtained—however, only a piezometer (not a dedicated well) that was to be immediately plugged following sampling—owner requested that sampling be done in a grass area and the parking lot not be disturbed (asphalt parking lot and Pizza Hut restaurant)

- Permission to set a dedicated well will be requested—assuming permission is granted the well will be installed .
- Consultant requesting an indication in the response that the piezometer is acceptable in the event the owner does not allow the well
- Property owner to the east has not been contacted (asphalt drive and car wash)

**Illinois EPA Recommendation/Comments:**

- Proposed on site boring to the west of the building is needed for further delineation—completing another on site boring to the east of the on site building should be done to further delineate on site contamination on the northeastern quarter of the property, which is downgradient(ish) from the contamination
- Boring will be completed with the same respect to the building as proposed boring B-11 (i.e. roughly 20 feet to the east of the northeast corner of the onsite building) and will be completed as a monitoring well
- No proposed budget for Stages 2 and 3—will modify Stage 1 costs

BJD\Stage2&3SIPBUDnotes.doc



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/782-6762

CERTIFIED MAIL

7004 2510 0001 8621 9914

APR 17 2007

Dersch Energies, Inc.
Mr. Tom Dersch
P.O. Box 217
Mt. Carmel, Illinois 62863

Re: LPC #1010155024 -- Lawrence County
Lawrenceville/ Croslow's Shell
1421 Lexington Avenue
Leaking UST Incident No. 20050374
Leaking UST Technical File

RELEASABLE

MAY 18 2007

REVIEWER MD

Dear Mr. Dersch:

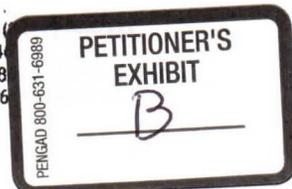
The Illinois Environmental Protection Agency (Illinois EPA) has reviewed the Stage 2 and 3 Site Investigation Plan (plan) submitted for the above-referenced incident. This plan, dated February 23, 2007, was received by the Illinois EPA on February 27, 2007. Citations in this letter are from the Environmental Protection Act (Act), as amended by Public Act 92-0554 on June 24, 2002, and 35 Illinois Administrative Code (35 Ill. Adm. Code).

The Illinois EPA requires modification of the plan; therefore, the plan is conditionally approved with the Illinois EPA's modifications. The Illinois EPA has determined that the modification listed below is necessary to demonstrate compliance with Title XVI of the Act and 35 Ill. Adm. Code 734 (Sections 57.7(a)(1) and 57.7(c) of the Act and 35 Ill. Adm. Code 734.505(b) and 734.510(a)).

In order to further delineate onsite contamination on the northeastern quarter of the property, a soil boring will be completed approximately 20 feet to the east of the northeast corner of the onsite building. The boring will be completed as a monitoring well. Soil and groundwater analysis will be conducted and the results of that analysis will be included in the next submittal.

The actual costs for Stage 1 are modified pursuant to Sections 57.7(a)(2) 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. Be aware that the amount of payment from the Fund may be limited by Sections 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.

NOTE: The plan proposes activities that are technically acceptable as modified in this letter. However, this letter does not constitute Illinois EPA approval of any costs incurred during the completion of such activities. Owners and operators are advised that they may not be entitled to full payment for this reason.



Page 2

The Illinois EPA will review your complete request for partial or final payment from the Underground Storage Tank Fund after it is submitted to the Illinois EPA.

Pursuant to Sections 57.7(a)(5) and 57.12(c) and (d) of the Act and 35 Ill. Adm. Code 734.100 and 734.125, the Illinois EPA requires submittal of a Site Investigation Completion Report within 30 days after completing the site investigation 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.

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 Brad Dilbaitis at (217) 785-8378.

Sincerely,



Hernando A. Albarracin  
Unit Manager  
Leaking Underground Storage Tank Section  
Division of Remediation Management  
Bureau of Land

HAA:BJD\2&3SIPmodCOST1modNOBUD.doc

Attachment: Appeal Rights  
Attachment A

c: Applied Environmental Technologies, Inc.  
BOL File

Attachment A

Re: LPC # 1010155024 -- Lawrence County  
Lawrenceville/ Croslow's Shell  
1421 Lexington Avenue  
Leaking UST Incident No. 20050374  
Leaking UST Technical File

**SECTION 1**

**STAGE 1 Actual Costs**

As a result of the Illinois EPA's modifications in Section 2 of this Attachment a, the following amounts are approved:

\$4,944.00	Drilling and Monitoring Well Costs
\$2,870.00	Analytical Costs
\$800.00	Remediation and Disposal Costs
\$0.00	UST Removal and Abandonment Costs
\$0.00	Paving, Demolition, and Well Abandonment Costs
\$8,235.00	Consulting Personnel Costs
\$215.75	Consultant's Materials Costs

Handling charges will be determined at the time a billing package is reviewed by the Illinois EPA. The amount of allowable handling charges will be determined in accordance with Section 57.8(f) of the Environmental Protection Act (Act) and 35 Illinois Administrative Code (35 Ill. Adm. Code) 734.635.

**SECTION 2**

**STAGE 1 Modifications**

\$1,000.00 for costs for the abandonment of five groundwater monitoring wells. In accordance with 35 Ill. Adm. Code 734.310(b), costs associated with monitoring well abandonment must be included in the corrective action budget.

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## 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

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SPRINGFIELD

Dersch Energies, Inc.  
 Attn: Mr. Tom Dersch  
 Post Office Box 217  
 Mt. Carmel, IL 62863

PS Form 3800, June 2002. See Reverse for Instructions

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Dersch Energies, Inc.  
 Attn: Mr. Tom Dersch  
 Post Office Box 217  
 Mt. Carmel, IL 62863

20050374 4AA/B0

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  Addressee  
 X Dorothy Dersch

B. Received by (Printed Name) Dorothy Dersch

C. Date of Delivery

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below:

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

2. Article Number (Transfer from service label) 7004 2510 0001 8621 9914

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

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Illinois Environmental Protection Agency

P.O. Box 19276 Mail Code #

Springfield, IL 62794-9276



8030



# CW<sup>3</sup>M Company

Environmental Consulting Services

701 W. South Grand Avenue  
Springfield, IL 62704

Phone: (217) 522-8001  
Fax: (217) 522-8009

June 11, 2013

ILPA-DIVISION OF RECORDS MANAGEMENT  
OFFICE

AUG 01 2013

REVIEWER JKS

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JUN 11 2013

IEPA/BOL

**Mr. Brad Dilbaitis, Project Manager**  
LUST Section, Bureau of Land  
Illinois Environmental Protection Agency  
1021 North Grand Avenue East  
Springfield, IL 62794-9276

**RE: LPC #1010155024—Lawrence County**  
**Croslow's Shell / Dersch Energies, Inc.**  
**1421 Lexington Avenue, Lawrenceville, Illinois 62439**  
**Incident Number: 2005-0374**  
**LUST Technical Reports — Budget for Stage 2/3 Site Investigation Activities**

Dear Mr. Brad Dilbaitis:

On behalf of Mr. Tom Dersch, Vice President of Dersch Energies, Inc. which owns the USTs at the above referenced site, we are submitting the attached budget for the Stage 3 Site Investigation Plan (SIP). The Stage 3 SIP was submitted to the Agency by Applied Environmental Technologies, Inc. on February 27, 2007 but did not include a budget. The Agency approved the plan on April 17, 2007.

CW<sup>3</sup>M Company works in a similar structure as the Agency. Numerous personnel are involved with various components, i.e. phase review and approval of plans, budgets, reimbursements, and correspondence. In our opinion, this is a highly efficient work plan that limits mistakes, keeps costs down, and ensures quality work. Please note multiple personnel are listed for the completion of certain tasks. Some reviewers have mistakenly interpreted this as an error or duplication; it is not. The method for calculating personnel time in the proposed budget has been approved by the Agency in other incidents, such as, incident numbers 2007-1408, 2008-1202, 2008-1657, 2008-1543, 2009-1270, 2009-0929, 2011-0837, and 2011-0822. These hours have been found reasonable and justified as an estimate for the work proposal. These hours should be deemed reasonable as more than one person is required to develop plans and budgets and to check for accuracy of the plan, budget, bore logs, reimbursement claims, and analytical, which is needed to finalize the plan and budget. This is no different than the Agency's review process, which includes project managers, unit managers, fiscal reviewers, etc. Multiple personnel touch each letter or plan with different individual tasks on assignments. Many plans and budgets are even taken to committees.

In addition, we have had recent conversations with Tom Henninger and Hernando Albarracin about personnel in the budgets and reimbursements. Some Agency

701 W. South Grand Avenue  
Springfield, IL 62704  
(217) 522-8001

400 West Jackson, Suite C  
Marion, IL 62959  
(618) 997-2238

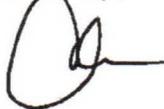
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PETITIONER'S  
EXHIBIT  


reviewers have been cutting budget and reimbursement line items for technical personnel. Similar to the Agency, technical personnel are required to prepare and review reimbursement claims. Some plans span over several years, include multiple drilling events, and have multiple personnel involved. With such complexity, technical personnel familiar with the project are required to work with the accounting technicians to develop reimbursement claims. As your technical personnel should be well familiar, there are many technical components to the reimbursement side of the equation. It is not all just accounting. Currently, the Agency has technical staff involved with the review of claims; their billing rates/pay scales do not change. The merit of their technical input is valuable as is the technical input into the development of the claims.

Finally, please note that the number of copies budgeted for reports and claims are not just the number of pages submitted to the Agency. The number of copies also includes drafts, client copies, and our own copies of reports, budgets, and claims. We trust that you'll give serious weight to our requests and consider the necessity of a reimbursement budget that mirrors the way we work in actuality as does the Agency.

If you have any questions or require additional information, please contact Mr. Rob Stanley at (618) 997-2238, or me, at (217) 522-8001.

Sincerely,



Carol L. Rowe, P.G.  
Senior Environmental Geologist

cx: Mr. Tom Dersch, *Dersch Energies, Inc.*  
Mr. William T. Sinnott, *CW<sup>3</sup>M Company, Inc.*

# 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 20050374. I further certify that the costs set forth in this budget are for necessary activities and are reasonable and accurate to the best of my knowledge and belief. I also certify that the costs included in this budget are not for corrective action in excess of the minimum requirements of 415 ILCS 5/57, no costs are included in this budget that are not described in the corrective action plan, and no costs exceed Subpart H: Maximum Payment Amounts, Appendix D Sample Handling and Analysis amounts, and Appendix E Personnel Titles and Rates of 35 Ill. Adm. Code 732 or 734. I further certify that costs ineligible for payment from the Fund pursuant to 35 Ill. Adm. Code 732.606 or 734.630 are not included in the budget proposal or amendment. Such ineligible costs include but are not limited to:

- Costs associated with ineligible tanks.
- Costs associated with site restoration (e.g., pump islands, canopies).
- Costs associated with utility replacement (e.g., sewers, electrical, telephone, etc.).
- Costs incurred prior to IEMA notification.
- Costs associated with planned tank pulls.
- Legal fees or costs.
- Costs incurred prior to July 28, 1989.
- Costs associated with installation of new USTs or the repair of existing USTs.

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Owner/Operator: Dersch Energies, Inc.

Authorized Representative: Tom Dersch

Title: owner vice pres

Signature: [Signature]

Date: June 5, 2013

Subscribed and sworn to before me the 5<sup>th</sup> day of June, 2013

[Signature]

(Notary Public)

Seal:

OFFICIAL SEAL  
DOROTHY DERSCH  
NOTARY PUBLIC - STATE OF ILLINOIS  
MY COMMISSION EXPIRES SEPT. 30, 2014

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

L.P.E./L.P.G.: Vince E. Smith, P.E.

L.P.E./L.P.G. Seal:

L.P.E./L.P.G. Signature: [Signature]

Date: 6/11/13

Subscribed and sworn to before me the 11<sup>th</sup> day of June, 2013

(Notary Public)

OFFICIAL SEAL  
CAROL L. ROWE  
NOTARY PUBLIC, STATE OF ILLINOIS  
MY COMMISSION EXPIRES 3-18-2017



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.



# Illinois Environmental Protection Agency

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

## General Information for the Budget and Billing Forms

LPC #: 1010155024 County: Lawrence

City: Lawrenceville Site Name: Croslow's Shell

Site Address: 1421 Lexington Avenue

IEMA Incident No.: 20050374

IEMA Notification Date: 3/17/2005

Date this form was prepared: Aug 20, 2012

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JUN 11 2013

**IEPA/BOL**

**This form is being submitted as a (check one, if applicable):**

- Budget Proposal
- Budget Amendment (Budget amendments must include only the costs over the previous budget.)
- Billing Package

Please provide the name(s) and date(s) of report(s) documenting the costs requested:

Name(s): \_\_\_\_\_

Date(s): \_\_\_\_\_

**This package is being submitted for the site activities indicated below:**

**35 III. Adm. Code 734:**

- Early Action
- Free Product Removal after Early Action
- Site Investigation . . . . . Stage 1:  Stage 2:  Stage 3:
- Corrective Action Actual Costs Proposed Proposed

**35 III. Adm. Code 732:**

- Early Action
- Free Product Removal after Early Action
- Site Classification
- Low Priority Corrective Action
- High Priority Corrective Action

**35 III. Adm. Code 731:**

- Site Investigation
- Corrective Action

## 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.

Pay to the order of: Dersch Energies, Inc. / Croslow's Shell

Send in care of: CWM Company, Inc.

Address: P.O. Box 571

City: Carlinville

State: IL

Zip: 62626

The payee is the: Owner  Operator  (Check one or both.)

Signature of the owner or operator of the UST(s) (required)

W-9 must be submitted.

[Click here](#) to print off a W-9 Form.

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:

Number of USTs at the site: 4 (Number of USTs includes USTs presently at the site and USTs that have been removed.)

Number of incidents reported to IEMA for this site: 2

Incident Numbers assigned to the site due to releases from USTs: 20050374 2005-0374

Please list all tanks that have ever been located at the site and tanks that are presently located at the site.

Product Stored in UST	Size (gallons)	Did UST have a release?	Incident No.	Type of Release Tank Leak / Overfill / Piping Leak
Gasoline	6,000	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	20050374	Tank Leak
Gasoline	6,000	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	20050374	Tank Leak
Gasoline	6,000	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	20050374	Tank Leak
Diesel Fuel	1,000	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Used Oil	560	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	2005-0374	Tank Leak
		Yes <input type="checkbox"/> No <input type="checkbox"/>		
		Yes <input type="checkbox"/> No <input type="checkbox"/>		
		Yes <input type="checkbox"/> No <input type="checkbox"/>		
		Yes <input type="checkbox"/> No <input type="checkbox"/>		

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## 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	\$	\$	\$	\$ 4,013.50	\$
Analytical Costs Form	\$	\$	\$	\$ 2,163.33	\$
Remediation and Disposal Costs Form	\$	\$	\$	\$	\$
UST Removal and Abandonment Costs Form	\$	\$	\$	\$	\$
Paving, Demolition, and Well Abandonment Costs Form	\$	\$	\$	\$	\$
Consulting Personnel Costs Form	\$	\$	\$	\$ 30,733.02	\$
Consultant's Materials Costs Form	\$	\$	\$	\$ 1,334.60	\$
Handling Charges Form	Handling charges will be determined at the time a billing package is submitted to the Illinois EPA. The amount of allowable handling charges will be determined in accordance with the Handling Charges Form.				
<b>Total</b>	\$	\$	\$	\$ 38,244.45	\$

# 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	15.00	15.00	On-site Soil Plume Delineation
1	HSA	20.00	20.00	On-site Soil and Groundwater Plume Delineation
3	HSA	20.00	60.00	Off-site Soil and Groundwater Plume Delineation

Subpart H minimum payment amount applies.

	Total Feet	Rate per Foot (\$)	Total Cost (\$)
Total Feet via HSA:	80.00	26.91	2,152.80
Total Feet via PUSH:	15.00	21.06	315.90
Total Feet for Injection via PUSH:		17.55	
Total Drilling Costs:			2,468.70

## 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 (\$)
4	HSA	2.00	20.00	80.00

Well Installation	Total Feet	Rate per Foot (\$)	Total Cost (\$)
Total Feet via HSA:	80.00	19.31	1,544.80
Total Feet via PUSH:		14.62	
Total Feet of 4" or 6" Recovery:		29.25	
Total Feet of 8" or Greater Recovery:		47.97	
Total Well Costs:			1,544.80

<b>Total Drilling and Monitoring Well Costs:</b>	<b>\$4,013.50</b>
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# Analytical Costs Form

Laboratory Analysis	Number of Samples		Cost (\$) per Analysis		Total per Parameter
<b>Chemical Analysis</b>					
BETX Soil with MTBE EPA 8260	15	X	99.45	=	\$1,491.75
BETX Water with MTBE EPA 8260	4	X	94.77	=	\$379.08
COD (Chemical Oxygen Demand)		X		=	
Corrosivity		X		=	
Flash Point or Ignitability Analysis EPA 1010		X		=	
Fraction Organic Carbon Content (f <sub>OC</sub> ) ASTM-D 2974-00		X		=	
Fat, Oil, & Grease (FOG)		X		=	
LUST Pollutants Soil - analysis must include volatile, base/neutral, polynuclear aromatics and metals list in Section 732. Appendix B and 734. Appendix B		X		=	
Dissolved Oxygen (DO)		X		=	
Paint Filter (Free Liquids)		X		=	
PCB / Pesticides (combination)		X		=	
PCBs		X		=	
Pesticides		X		=	
pH		X		=	
Phenol		X		=	
Polynuclear Aromatics PNA, or PAH SOIL EPA 8270		X		=	
Polynuclear Aromatics PNA, or PAH WATER EPA 8270		X		=	
Reactivity		X		=	
SVOC - Soil (Semi-Volatile Organic Compounds)		X		=	
SVOC - Water (Semi-Volatile Organic Compounds)		X		=	
TKN (Total Kjeldahl) "nitrogen"		X		=	
TPH (Total Petroleum Hydrocarbons)		X		=	
VOC (Volatile Organic Compounds) - Soil (Non-Aqueous)		X		=	
VOC (Volatile Organic Compounds) - Water		X		=	
		X		=	
		X		=	
		X		=	
		X		=	
		X		=	
<b>Geo-Technical Analysis</b>					
Soil Bulk Density (p <sub>b</sub> ) ASTM D2937-94		X		=	
Ex-situ Hydraulic Conductivity / Permeability		X		=	
Moisture Content (w) ASTM D2216-92 / D4643-93		X		=	
Porosity		X		=	
Rock Hydraulic Conductivity Ex-situ		X		=	
Sieve / Particle Size Analysis ASTM D422-63 / D1140-54		X		=	
Soil Classification ASTM D2488-90 / D2487-90		X		=	
Soil Particle Density (p <sub>s</sub> ) ASTM D854-92		X		=	
		X		=	
		X		=	
		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		=	
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		=	
<b>Other</b>					
EnCore® Sampler, purge-and-trap sampler, or equivalent sampling device	15	X	11.70	=	\$175.50
Sample Shipping per sampling event <sup>1</sup>	2	X	58.50	=	\$117.00

<sup>1</sup>A sampling event, at a minimum, is all samples (soil and groundwater) collected in a calendar day.

**Total Analytical Costs: \$ 2,163.33**

# Consulting Personnel Costs Form

Employee Name	Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category	Task			

	Senior Project Manager	2.00	117.00	\$234.00
Stage 3-Plan	Stage 3 Plan Review for Technical Compliance			

	Senior Prof. Engineer	2.00	152.10	\$304.20
Stage 3-Plan	Stage 3 Plan Oversight & Coordination			

	Professional Geologist	4.00	107.63	\$430.52
Stage 3-Plan	Stage 3 Plan Review for Design & Requisite			









Employee Name	Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category	Task			
	Senior Project Manager	6.00	117.00	\$702.00
Stage 3-Field	Coordination / Technical Compliance / Scheduling			
	Senior Admin. Assistant	2.00	52.65	\$105.30
Stage 3-Field	Office Prep., Scheduling, Arrangements for investigation			
	Professional Geologist	14.00	107.63	\$1,506.82
Stage 3-Field	Off-site Drilling			
	Engineer III	14.00	117.00	\$1,638.00
Stage 3-Field	Off-site Drilling Oversight			
	Professional Geologist	12.00	107.63	\$1,291.56
Stage 3-Field	MW Surveying and Sampling			
	Engineer I	12.00	87.74	\$1,052.88
Stage 3-Field	MW Surveying and Sampling			
	Senior Project Manager	4.00	117.00	\$468.00
Stage 3-Field	Analytical Review			
	Draftperson/CAD III	6.00	58.50	\$351.00
Stage 3-Field	Drafting Locations/Elevation and Contamination Levels/Drilling Prep.			
	Engineer I	6.00	87.74	\$526.44
Stage 3-Field	BL and WCR Data Entry			



Employee Name		Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category	Task				
		Senior Prof. Engineer	3.00	152.10	\$456.30
SICR	SICR Certification				
		Senior Project Manager	6.00	117.00	\$702.00
SICR	SICR oversight / Technical Compliance				
		Professional Geologist	45.00	107.63	\$4,843.35
SICR	SICR				
		Engineer I	6.00	87.74	\$526.44
SICR	SICR/Inputs				
		Senior Draftperson/CAD	16.00	70.19	\$1,123.04
SICR	Drafting/Update and Complete Maps				
		Senior Admin. Assistant	4.00	52.65	\$210.60
SICR	SICR Assembly/Distribution				

Employee Name	Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category	Task			
	Senior Prof. Engineer	4.00	152.10	\$608.40
Stage 3-Pay	Stage 3 Reimbursement Certification			
	Senior Project Manager	16.00	117.00	\$1,872.00
Stage 3-Pay	Stage 3 Reimbursement Oversight/Technical Compliance			
	Senior Acct. Technician	24.00	64.34	\$1,544.16
Stage 3-Pay	Stage 3 Reimbursement Preparation			
	Senior Admin. Assistant	8.00	52.65	\$421.20
Stage 3-Pay	Stage 3 Reimbursement Compilation, Assembly and Distribution			

\*Refer to the applicable Maximum Payment Amounts document.

<b>Total of Consulting Personnel Costs</b>	<b>\$30,733.02</b>
--	--------------------

## Consultant's Materials Costs Form

Materials, Equipment, or Field Purchase	Time or Amount Used	Rate (\$)	Unit	Total Cost
Remediation Category	Description/Justification			
PID Rental	1.00	129.00	/day	\$129.00
Stage 3-Field	To detect VOC levels in soil samples			
Survey Equipment Rental	1.00	75.00	/day	\$75.00
Stage 3-Field	Survey monitor well elevations for groundwater flow calculations			
Water Level Indicator	2.00	21.00	/day	\$42.00
Stage 3-Field	Test for groundwater during drilling activities/Measure static groundwater elevations			
Measuring Wheel	1.00	18.00	/day	\$18.00
Stage 3-Field	Mapping sampling locations			
Mileage	620.00	.58	/mile	\$359.60
Stage 3-Field	Two round trips from Springfield Office (1-Drilling, 1-Groundwater Sampling)			
Disposable Gloves	2.00	13.00	/box	\$26.00
Stage 3-Field	Disposable gloves for soil and groundwater sampling			
Bailers	4.00	13.00	/each	\$52.00
Stage 3-Field	Disposable bailers for monitoring well development and sampling			
Bailing Twine	1.00	5.00	/roll	\$5.00
Stage 3-Field	String for Bailers			
Copies	200.00	.10	/each	\$20.00
Stage 3-Field	Field/Plan/Maps/Borelogs/Analytical/Off-site			

Materials, Equipment, or Field Purchase		Time or Amount Used	Rate (\$)	Unit	Total Cost
Remediation Category	Description/Justification				
Per diem		2.00	39.00	/each	\$78.00
Stage 3-Field	Per diem for drilling /sampling activities				
Hotel		2.00	80.00	/each	\$160.00
Stage 3-Field	Hotel stay for drilling /sampling activities				
Copies		250.00	.10	/each	\$25.00
Stage 3-Budget	Copies of Budget / Draft / Final / Attachments / Forms				
Postage		2.00	5.00	/each	\$10.00
Stage 3-Budget	Budget / Forms Distribution				
Copies		800.00	.10	/each	\$80.00
Stage 3-Pay	Copies of Reimbursement Claim				
Postage		3.00	5.00	/each	\$15.00
Stage 3-Pay	Distribution of Reimbursement Claim & Client correspondence forms				
Copies		1,000.00	.10	/each	\$100.00
SICR	Copies of Report / Draft / Final / Attachments / Forms				
Postage		2.00	5.00	/each	\$10.00
SICR	Report / Forms Distribution				
Copies		300.00	.10	/each	\$30.00
Stage 3-Field	Off-site access requests / correspondences / reports				

Materials, Equipment, or Field Purchase		Time or Amount Used	Rate (\$)	Unit	Total Cost
Remediation Category	Description/Justification				
Postage		20.00	5.00	/each	\$100.00
Stage 3-Field	Off-site access requests / correspondences / reports / results / status				

<b>Total of Consultant Materials Costs</b>	<b>\$1,334.60</b>
--	-------------------



# ILLINOIS ENVIRONMENTAL PROTECTION 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

CERTIFIED MAIL

7011 1150 0001 0862 5149

JUL 30 2013

Dersch Energies, Inc.  
Mr. Tom Dersch  
P.O. Box 217  
Mt. Carmel, Illinois 62863

Re: LPC #1010155024—Lawrence County  
Lawrenceville/ Croslow's Shell  
1421 Lexington Avenue  
Leaking UST Incident No. 20050374  
Leaking UST Technical File

EPA-DIVISION OF RECORDS MANAGEMENT  
REC-100-001

2013

REVIEWER JKS

Dear Mr. Dersch:

The Illinois Environmental Protection Agency (Illinois EPA) has reviewed the Stage 2 and 3 Site Investigation Plan Budget (budget) submitted for the above-referenced incident. This budget, dated June 11, 2013, was received by the Illinois EPA on June 11, 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).

The proposed budget for Stage(s) 2 & 3 is approved for amounts determined in accordance with Subpart H, Appendix D, and Appendix E of 35 Ill. Adm. Code 734 (35 Ill. Adm. Code 734.310(b)). Costs must be incurred in accordance with the approved plan. Please be advised that costs associated with materials, activities, and services must be reasonable, must be consistent with the associated technical plan, must be incurred in the performance of corrective action activities, must not be used for corrective action activities in excess of those necessary to meet the minimum requirements of the Act and regulations, and must not exceed the maximum payment amounts set forth in Subpart H, Appendix D, and Appendix E of Part 734 (Section 57.7(c) of the Act and 35 Ill. Adm. Code 734.510(b)).

NOTE: Pursuant to Section 57.8(a)(5) of the Act, if payment from the Fund will be sought for any additional costs that may be incurred as a result of the Illinois EPA's modifications, an amended budget must be submitted. Amended plans and/or budgets must be submitted and approved prior to the issuance of a No Further Remediation (NFR) Letter. Costs associated with a plan or budget that have not been approved prior to the issuance of an NFR Letter will not be paid from the Fund.

Further, pursuant to 35 Ill. Adm. Code 734.145, it is required that the Illinois EPA be notified of field activities prior to the date the field activities take place. This notice must include a description of the field activities to be conducted; the name of the person conducting the activities; and the date, time, and place the activities will be conducted. *Include additional required information, if any.* This notification of field activities may be done by telephone, facsimile, or electronic mail—and must be provided at least three (3)

4302 N. Main St., Rockford, IL 61103 (815) 987-7760  
595 S. State, Elgin, IL 60123 (847) 608-3131  
2125 S. First St., Champaign, IL 61820 (217) 278-5800  
2009 Mall St., Collinsville, IL 62234 (618) 346-5120

9511 Harrison St., Des Plaines, IL 60016 (847) 5407 N. University St., Arbor 113, Peoria, IL 2309 W. Main St., Suite 116, Marion, IL 629  
100 W. Randolph, Suite 10-300, Chicago, IL

PLEASE PRINT ON RECYCLED PAPER

PETITIONER'S  
EXHIBIT

D

PENGAD 800-631-6989

working days prior to the scheduled field activities. In addition to providing at least three days' notice to Leaking UST Section staff in Springfield, notification must be provided to Rob Mileur either by telephone at (618) 993-7223 or by e-mail at Robert.Mileur@illinois.gov.

**Please be advised that Senate Bill 20/Public Act 98-109, which became effective July 25, 2013, requires that certain corrective action activities include a Project Labor Agreement (PLA) if payment of costs is requested from the UST Fund. Visit the Leaking UST Program Web page at [www.epa.state.il.us/land/lust](http://www.epa.state.il.us/land/lust) for information about Senate Bill 20, the fact sheet, and the PLA Certification. For corrective action activities that require a PLA, a complete application for payment from the UST Fund must contain a PLA Certification in order for payment from the UST Fund to be approved.**

Pursuant to Sections 57.7(a)(5) and 57.12(c) and (d) of the Act and 35 Ill. Adm. Code 734.100 and 734.125, the Illinois EPA requires submittal of a Site Investigation Completion Report within 30 days after completing the site investigation 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.

If you have any questions or need further assistance, please contact Brad Dilbaitis at (217) 785-8378 or at Bradley.Dilbaitis@illinois.gov.

Sincerely,



Thomas A. Henninger  
Unit Manager  
Leaking Underground Storage Tank Section  
Division of Remediation Management  
Bureau of Land

TAH:BD\BUD2&3app.docx

c: CWM Company  
BOL File

# CW<sup>3</sup>M Company

Environmental Consulting Services

701 W. South Grand Avenue  
Springfield, IL 62704

Phone: (217) 522-8001  
Fax: (217) 522-8009

1010155024—Lawrence County  
Dersch Croslow's Shell  
Incident # 20050374  
Leaking UST Technical File

May 18, 2015

**Mr. Brad Dilbaitis, Project Manager**  
LUST Section, Bureau of Land  
Illinois Environmental Protection Agency  
1021 North Grand Avenue East  
Springfield, Illinois 62794-9276

EPA-DIVISION OF RECORDS MANAGEMENT  
RELEASABLE

**RE: LPC # 1010155024—Lawrence County**  
**Dersch Croslow's / Lawrenceville**  
**1421 Lexington Avenue**  
**Incident Number: 2005-0374**  
**LUST Technical Reports—Site Investigation Completion Report**

JUN 16 2015

REVIEWER: JKS

Dear Mr. Dilbaitis:

On behalf of Mr. Tom Dersch, Vice President of Dersch Energies, Inc., which owns the USTs at the above referenced site, we are submitting the attached Site Investigation Completion Report (SICR). This includes the results of Stage 3 as well as a summary of costs. The proposed budget includes the work performed by both consultants who contributed efforts to the Stage 2/3 Investigation; Applied Environmental Technologies and CW<sup>3</sup>M Company.

CW<sup>3</sup>M Company works in a similar structure as the Agency. Numerous personnel are involved with various components, i.e. phase review and approval of plans, budgets, reimbursements, and correspondence. In our opinion, this is a highly efficient work plan that limits mistakes, keeps costs down, and ensures quality work. Please note multiple personnel are listed for the completion of certain tasks. Some reviewers have mistakenly interpreted this as an error or duplication; it is not. The method for calculating personnel time in the proposed budget has been approved by the Agency in other incidents, such as, incident numbers 2007-1408, 2008-1202, 2008-1657, 2008-1543, 2009-1270, 2009-0929, 2011-0837, 2011-0822, 2012-1125, and 2013-0876. These hours have been found reasonable and justified as an estimate for the work proposal. These hours should be deemed reasonable as more than one person is required to develop plans and budgets and to check for accuracy of the plan, budget, bore logs, reimbursement claims, and analytical, which is needed to finalize the plan and budget. This is no different than the Agency's review process, which includes project managers, unit managers, fiscal reviewers, etc. Multiple personnel touch each letter or plan with different individual tasks on assignments. Many plans and budgets are even taken to committees.

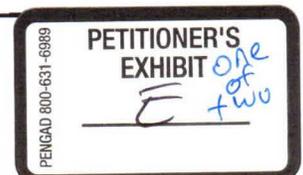
RECEIVED

MAY 22 2015

IEPA/BOL

701 W. South Grand Avenue  
Springfield, IL 62704  
(217) 522-8001

400 West Jackson, Suite C  
Marion, IL 62959  
(618) 997-2238

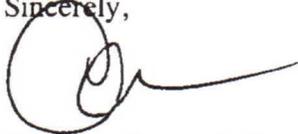


Past conversations with managers have taken place to clarify and satisfy personnel in the budgets and reimbursements. Some Agency reviewers have been cutting budget and reimbursement line items for technical personnel. Similar to the Agency, technical personnel are required to prepare and review reimbursement claims. Some plans span over several years, include multiple drilling events, and have multiple personnel involved. With such complexity, technical personnel familiar with the project are required to work with the accounting technicians to develop reimbursement claims. As your technical personnel should be well familiar, there are many technical components to the reimbursement side of the equation. It is not all just accounting. Currently, the Agency has technical staff involved with the review of claims; their billing rates/pay scales do not change. The merit of their technical input is valuable as is the technical input into the development of the claims.

Finally, please note that the number of copies budgeted for reports and claims are not just the number of pages submitted to the Agency. The number of copies also includes drafts, client copies, and our own copies of reports, budgets, and claims. We trust that you'll give serious weight to our requests and consider the necessity of a reimbursement budget that mirrors the way we work in actuality as does the Agency.

If you have any questions or require additional information, please contact Mr. Rob Stanley at (618) 997-2238, or me at (217) 522-8001.

Sincerely,

A handwritten signature in black ink, appearing to read 'Carol L. Rowe', with a long horizontal flourish extending to the right.

Carol L. Rowe, P.G.  
Senior Environmental Geologist

xc: Mr. Tom Dersch, Dersch Energies, Inc.  
Mr. William T. Sinnott, CW<sup>3</sup>M Company, Inc.

# **SITE INVESTIGATION COMPLETION REPORT**

## **DERSCH CROSLOW'S**

**Lawrenceville, Illinois  
LPC #1010155024 — Lawrence County  
Incident Number 2005-0374**

**RECEIVED**

**MAY 22 2015**

**IEPA/BOL**

*Submitted to:*

**Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Section, Bureau of Land  
1021 North Grand Avenue East  
Springfield, Illinois**

*Prepared By:*

**CW<sup>3</sup>M COMPANY, INC.**

701 West South Grand Ave.  
Springfield, Illinois  
(217) 522-8001

400 West Jackson St., Suite C  
Marion, Illinois  
(618) 997-2238

**MAY 2015**

## CONTENTS

APPENDICES .....	ii
TABLES .....	ii
ACRONYMS AND ABBREVIATIONS .....	iii
1. SITE HISTORY/EXECUTIVE SUMMARY .....	1
1.1 GENERAL.....	1
1.2 SITE LOCATION .....	1
1.3 UNDERGROUND STORAGE TANK INFORMATION.....	2
1.4 EARLY ACTION SUMMARY.....	2
2. SITE CHARACTERIZATION .....	3
2.1 NATURE AND QUANTITY OF RELEASE.....	3
2.2 CURRENT AND PROJECTED POST-REMEDATION USES .....	3
2.3 WATER QUALITY.....	3
2.4 WELL DATA .....	3
2.5 PHYSICAL SETTING .....	4
3. SITE INVESTIGATION.....	5
3.1 DRILLING METHOD .....	5
3.2 SOIL SAMPLING PROTOCOL.....	5
3.3 MONITORING WELL INSTALLATION PROTOCOL.....	5
3.4 GROUNDWATER SAMPLING PROTOCOL.....	6
3.5 DESCRIPTION OF ACTIVITIES COMPLETED .....	7
3.5.1 First Round of Sampling.....	7
3.5.2 Second Round of Sampling.....	7
3.5.3 Hydraulic Conductivity Testing .....	8
4. DEVELOPMENT OF REMEDIATION OBJECTIVES .....	9
4.1 GROUNDWATER REMEDIATION OBJECTIVES .....	9
4.2 SOIL REMEDIATION OBJECTIVES .....	10
5. ANALYTICAL OBJECTIVES AND RESULTS .....	11
5.1 SOIL ANALYTICAL RESULTS .....	11
5.2 GROUNDWATER ANALYTICAL RESULTS .....	11
5.3 GROUNDWATER FLOW DIRECTION .....	11
6. SITE MAPS.....	11
7. CONCLUSIONS AND RECOMMENDATIONS.....	12
7.1 CONCLUSIONS.....	12
7.2 RECOMMENDATIONS.....	12
8. REFERENCES .....	13

## APPENDICES

APPENDIX A	Site Investigation Completion Report Form
APPENDIX B	Site Maps and Illustrations
APPENDIX C	Illinois Office of the State Fire Marshal Eligibility Determination
APPENDIX D	Boring Logs and Well Completion Reports
APPENDIX E	Analytical Results
APPENDIX F	Stage 3 Actual Costs
APPENDIX G	Hydraulic Conductivity Determination

## TABLES

Table 1-1. Underground Storage Tank Summary .....	2
Table 2-1 Water Supply Well Information.....	4
Table 4-1. Groundwater Remediation Objectives.....	9
Table 4-2. Soil Remediation Objectives .....	10

## ACRONYMS AND ABBREVIATIONS

AET	Applied Environmental Technologies, Inc.
BETX	benzene, ethylbenzene, toluene and total xylenes
CAP	Corrective Action Plan
CUOs	Clean-up Objectives
CW <sup>3</sup> M	CW <sup>3</sup> M Company, Inc
Ill. Adm. Code	Illinois Administrative Code
IEMA	Illinois Emergency Management Agency
IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
ISWS	Illinois State Water Survey
L	Liter
LUST	Leaking Underground Storage Tank
mg/kg	Milligrams per kilogram (parts per million)
mg/L	Milligrams per liter
mL	Milliliters
MTBE	Methyl tert-butyl ether
MW	Monitoring Well
PID	Photoionization detector
PNAAs	Polynuclear Aromatics
PVC	Polyvinyl Chloride
OSFM	Office of the State Fire Marshal
SIP	Site Investigation Plan
SICR	Site Investigation Completion Report
TACO	Tiered Approach to Corrective Action Objectives
USTs	Underground Storage Tanks
WCRs	Well Completion Reports

## **1. SITE HISTORY/EXECUTIVE SUMMARY**

### **1.1 GENERAL**

Mr. Tom Dersch, Vice President of Dersch Energies, Inc. which owns the underground storage tanks (USTs) at the Dersch Croslow's facility, reported a release to the Illinois Emergency Management Agency (IEMA) following an environmental assessment. Incident Number 2005-0374 was assigned on March 17, 2005. During the site investigation phase of the incident, Mr. Dersch has retained CW<sup>3</sup>M Company, Inc. (CW<sup>3</sup>M) to proceed with the reporting in accordance with 35 Illinois Administrative Code (Ill. Adm. Code) § 734.

A 20-Day Certification was submitted to the Illinois Environmental Protection Agency (IEPA) on March 31, 2005 by Applied Environmental Technologies, Inc. (AET) (AET, 2005a). A 45-Day Report was submitted to the IEPA on April 28, 2005 (AET, 2005b). A Stage 1 Site Investigation Plan (SIP) was submitted on February 27, 2007 (AET, 2007a) and was approved with modifications to the budget on April 17, 2007 (IEPA, 2007a). The Stage 2/3 SIP was also submitted on February 27, 2007 (AET, 2007b) and was approved on April 17, 2007 by the IEPA (IEPA, 2007b). However, a budget for the Stage 2/3 site investigation was never submitted for review. When CW<sup>3</sup>M began working on the project, a Stage 2/3 Budget was submitted to the IEPA on June 11, 2013 (CW<sup>3</sup>M, 2013) and was approved on July 30, 2013 (IEPA, 2013).

This Site Investigation Completion Report (SICR) has been prepared by CW<sup>3</sup>M in accordance with the requirements of 35 Ill. Adm. Code § 734. The Site Investigation Completion Report form, which has been prescribed and provided by the IEPA, has been included herein as Appendix A. The Stage 3 actual costs and certification are included herein as Appendix F. This report is certified by an Illinois Licensed Professional Engineer. The geological investigation and site investigation was performed under the direction of an Illinois Licensed Professional Geologist and completed in accordance with the Professional Geologist Licensing Act and its Rules for Administration.

### **1.2 SITE LOCATION**

The site, known as Dersch Croslow's is located at 1421 Lexington Avenue, Lawrenceville, Lawrence County, Illinois. The site is located in the SE ¼ of the NE ¼ of the NE ¼ of Section 1, Township 3 North of the Centralia Baseline and Range 12 West of the Second Principal Meridian.

### 1.3 UNDERGROUND STORAGE TANK INFORMATION

Dersch Energies, Inc. personnel and AET representatives were at the site on May 5, 2005 to remove the USTs at the Dersch Croslow's site. A permit for the removal of the USTs and product piping was approved by the Illinois Office of the State Fire Marshal (OSFM) on April 4, 2005 (OSFM, 2005). Under the supervision of an OSFM Tank Specialist, the tanks were removed.

Table 1-1. Underground Storage Tank Summary

Tank Number	Tank Volume (gallons)	Tank Contents	Incident Number	Release Information	Current Status
1	6,000	Gasoline	05-0374	Leak	Removed 5/5/2005
2	6,000	Gasoline	05-0374	Leak	Removed 5/5/2005
3	6,000	Gasoline	05-0374	Leak	Removed 5/5/2005
4	1,000	Diesel	05-0374	Leak	Removed 5/5/2005
5	560	Used Oil	98-1496	Leak	Removed 6/22/98

### 1.4 EARLY ACTION SUMMARY

Four underground storage tanks were removed on May 5, 2005. Approximately 443 tons of hydrocarbon impacted backfill were excavated and properly disposed of in conjunction with the removal of the USTs. Dersch Enterprises, Inc. requested that AET proceed with reporting requirements in accordance with 35 Ill Adm. Code § 734. AET personnel, following IEPA guidelines, appropriately collected soil samples from the excavation walls, floors, and below pump dispensers in order to fully determine the extent of impacted soils from the release of product associated with this incident. All samples were collected and analyzed for benzene, ethyl-benzene, toluene, and total xylenes (BETX), methyl tert-butyl ether (MTBE), and poly-nuclear aromatics (PNAs). A summary of analytical results can be found in Appendix E. The excavation was backfilled with clean soil and no free product was encountered during early action. Hydrocarbon impacted soils were properly disposed of in the Lawrence County Regional Landfill and a groundwater hydrocarbon impact investigation was deemed

necessary as hydrocarbon impact was believed to have been in contact with the groundwater table.

## **2. SITE CHARACTERIZATION**

### **2.1 NATURE AND QUANTITY OF RELEASE**

On May 5, 2005, an OSFM Tank Specialist was at the site to oversee the tank removal activities conducted and coordinated by AET. Removal of the tanks at the site confirmed the release and the factors that contributed to the release. The quantity of the release is unknown. Early action excavation samples were collected and confirmed that hydrocarbon impact had migrated beyond the backfill materials into the surrounding native soil.

### **2.2 CURRENT AND PROJECTED POST-REMEDATION USES**

The site is surrounded by commercial and residential properties. The site existed as a former Shell Service and Fueling station but since has existed as an active automotive repair facility.

### **2.3 WATER QUALITY**

According to the Illinois Pollution Control Board, three Class III Groundwater contributing areas exist; however, they are located in McHenry, Monroe, and St. Clair Counties in northern and western Illinois. Therefore, CW<sup>3</sup>M will consider the groundwater at this site to be Class I unless demonstrated otherwise pursuant to 35 Ill. Adm. Code § 620.210.

### **2.4 WELL DATA**

A survey of water supply wells for the purpose of identifying and locating all community water supply wells within 2,500 feet of the UST systems and all potable water supply wells within 200 feet of the UST systems has been completed. The Illinois State Water Survey (ISWS), the Illinois State Geological Survey (ISGS) and the IEPA Division of Public Water Supplies were contacted via Source Water Assessment Program online.

The ISGS, ISWS, and IEPA Division of Public Water Supplies were accessed online on April 25, 2014 (EPA.STATE.IL.US, 2014). The response indicated that seven wells were located within 2,500 feet of the site and no wells are within the designated set back zone. Also, the response stated that there are no community water supply wells located within 2,500 feet of the site. A groundwater ordinance exists within the city of Lawrenceville but the Dersch Croslow's site does not fall within the boundary of the ordinance. The table below provides information on all wells within 2,500' of the Dersch Croslow's site.

**Table 2-1. Water Supply Well Information**

Well ID	Type	Depth of Well (feet)	Distance From USTs (feet)	Setback Zone (feet)
28262	ISGS	30	1,848	200
30108	ISGS	140	1,795	200
06905	ISGS	180	2,218	200
07275	ISGS	49	2,270	200
30995	ISGS	49	2,270	200
30996	ISGS	44	2,270	200
31542	ISGS	220	2,429	200

## 2.5 PHYSICAL SETTING

The physical setting including environmental, geologic, hydrogeologic, hydrologic, geographic, and topographic conditions has been described in the 45-Day Report (AET, 2005b). Additionally, this information is supplemented by the boring logs from the Stage 2 and Stage 3 investigations which are included in Appendix D of this report.

### **3. SITE INVESTIGATION**

#### **3.1 DRILLING METHOD**

Five-foot continuous samplers were used to advance and characterize each boring. This method was selected to minimize the likelihood of gaps in the sample column. Augers were decontaminated with a pressure steam wash between borings to prevent cross-hydrocarbon impact. Soil boring logs were prepared for all soil borings.

#### **3.2 SOIL SAMPLING PROTOCOL**

All samples were collected utilizing proper sampling protocol. Samplers wore new, disposable, latex gloves for each sampling event. Samples were collected at the center of each 5-foot sample core, unless conditions within the soil units warranted otherwise by odor or visual hydrocarbon impact. Each of the samples from the continuous sampler was screened using a photoionization detector (PID) and was placed in the appropriate laboratory-provided sampling container for laboratory analysis of BETX, MTBE, and PNAs. Proper sampling, decontamination and chain-of-custody procedures were employed. The sample containers were filled, labeled, and kept cool (to 6° C or below) until shipment to the laboratory. Sample descriptions were recorded on the boring log prepared for each boring. The soil hydrocarbon impact plume for PNA contaminants was defined at the conclusion of early action sampling. All floor and wall samples collected from the UST excavation pit confirmed no hydrocarbon impact existed above the most stringent Tier 1 CUOs for all PNA constituents. Appendix E includes a summary of all analytical results during the course of the site investigation and shows no PNA hydrocarbon impact above the most stringent Tier 1 Clean-up Objectives (CUOs).

All soil samples were analyzed by an accredited laboratory using test methods identified under 35 Ill. Adm. Code 186.180. As required by the leaking underground storage tank (LUST) Section, a Laboratory Certification for Chemical accompanies each of the sample results that have been reported.

#### **3.3 MONITORING WELL INSTALLATION PROTOCOL**

Two-inch diameter wells consist of a 10-foot polyvinyl chloride (PVC) screen and PVC riser above the well screen. Annular space around the wells is filled with coarse-grained, 20/20 sand. Each well was completed at the surface with a flush-mount manway and a locking protective cover. The manways were slightly elevated and the concrete sloped away from each well to prevent surface water run-in. The elevations of

the manways were surveyed to the nearest 0.01 foot. Well screens were set to the center depth of groundwater encountered during drilling to accommodate seasonal fluctuation of the water table.

Monitoring wells (MWs) were cleared of foreign sediment by standard well-development procedures in order to restore the natural hydraulic conductivity of the formation and to reduce the turbidity of the groundwater samples. All wells were developed by surging the bailer back and forth for several minutes and then withdrawing groundwater. The development process continued until clear water flowed into each well. The purpose of the surging was to remove the undersize sediment from the well and filter pack. All wells were developed the day of installation.

### **3.4 GROUNDWATER SAMPLING PROTOCOL**

All samples were collected utilizing proper sampling protocol. Samplers wore clean, disposable latex gloves, which were changed between each sample. The water level in each newly installed well was measured prior to sampling to determine the direction of the flow of groundwater. Prior to sampling, the water above the well screen is extracted from each well utilizing clean, disposable bailers to purge the well of its contents and collect a fresh sample of groundwater as it flows into the well.

Groundwater samples were gently poured into 40 milliliter (mL) glass vials for BETX and MTBE then placed in a cooler with ice for transport. The samples are placed in coolers with ice for delivery or shipment to the laboratory. Proper chain-of-custody procedures were followed. Each sample was labeled immediately upon collection and logged onto the chain-of-custody form. The chain-of-custody form was transported with the samples and then relinquished to the laboratory. The data collected was used to determine the groundwater flow directions and whether the applicable groundwater quality standards are exceeded. Note, the groundwater hydrocarbon impact plume for PNA contaminants was defined at the conclusion of Stage 1 groundwater sampling. Appendix E includes a summary of all analytical results during the course of the site investigation and shows PNA hydrocarbon impact above the most stringent Tier 1 CUOs for monitoring well MW-5. Due to the location of MW-5 at the center of the site however, the hydrocarbon impact plume relative to PNA hydrocarbon impact was defined by the monitoring wells located on the property boundaries. The Stage 2/3 Site Investigation Plan was approved without any sampling of PNA constituents in the proposed groundwater investigation (AET, 2007b).

### **3.5 DESCRIPTION OF ACTIVITIES COMPLETED**

#### **3.5.1 First Round of Sampling**

On October 17, 2006 Stage 1 Site Investigation activities were initiated by AET personnel. Ten borings were completed in an attempt to define the hydrocarbon impact plume on site and five of the boring locations were completed as monitoring wells in an attempt to define the groundwater hydrocarbon impact plume. Soil samples were continuously collected from every five foot interval from the borings and analyzed for BETX and MTBE constituents as PNA hydrocarbon impact was defined at the conclusion of early action activities. However, groundwater was impacted by the release of petroleum products so groundwater samples were collected and analyzed for BETX, MTBE, and PNA constituents during stage 1 investigation activities. Analytical results confirmed hydrocarbon impact for both soil and groundwater above the most stringent Tier 1 CUO's. Soil boring logs and well completion reports (WCRs) are included in Appendix D. A summary of the analytical results is included in Appendix E.

AET personnel returned to the site on October 24, 2006 to conduct a slug test to determine the site-specific hydraulic conductivity for the soil on site. The hydraulic conductivity determined by AET analysis of the Bower-Rice Method yielded results of  $7.6718 \times 10^{-5}$  cm/sec (AET, 2007b).

#### **3.5.2 Second Round of Sampling**

Following AET's Stage 2/3 Drill Plan, CW<sup>3</sup>M personnel were on site March 27, 2014 to initiate off-site drilling activities. A total of five soil borings were advanced in an attempt to define the soil hydrocarbon impact plume off-site. Soil samples were collected and analyzed for BETX and MTBE. Four of the soil borings were advanced as monitoring wells in an attempt to define the groundwater hydrocarbon impact plume. The analytical results indicate that the soil plume has been defined on and off site. Soil boring logs and WCRs are included in Appendix D. A summary of the analytical results is included in Appendix E. In an effort to clarify any potential misunderstanding, it is important to note that the approved Stage 2/3 Plan was slightly altered due to conditions in the field observed by CW<sup>3</sup>M personnel. Although the approved Stage 2/3 Plan (AET, 2007b) and the subsequent Stage 2/3 Budget (CW<sup>3</sup>M, 2013) were approved, monitoring well installation to a depth of 20 feet and soil sample collection to the 15-foot interval, CW<sup>3</sup>M ceased well installation at a depth of 15 feet. The groundwater table was encountered at a depth between 9-11' and installation of monitoring wells to a depth of 20' seemed excessive while also placing the 10' screening portion of the well below a depth that would intercept the top portion of the

groundwater table. However, a sample was collected from the middle portion of the 10-15' soil depth in an effort to fully define the soil hydrocarbon impact plume in the vertical direction and remain consistent with the correspondence of the IEPA project manager (IEPA, 2007b) (IEPA, 2013). Although it is understood that a sample collected below the groundwater table is atypical unless approved by the Agency as in this plan, both the Stage 2/3 Plan and Budget were approved to sample at this depth so CW<sup>3</sup>M personnel collected a sample at the 12.5' depth to remain consistent with prior investigations conducted by AET. Also, AET recorded groundwater at a depth of 9' in previous drilling events, collected soil samples at a depth of 12.5' to define the vertical extent of the hydrocarbon impact plume which is below the groundwater table, and set a well at a depth of 20'. Again, while atypical, AET and Agency had their reasons for vertical extent definition, the work already conducted and proposed was approved in like manners; thus, CW<sup>3</sup>M attempted to follow the approved plan and sampling intervals to the best of our ability while installing the wells at appropriate depth groundwater was encountered in the field.

### 3.5.3 Hydraulic Conductivity Testing

In accordance with 35 Ill. Adm. Code 734, remediation objectives were determined in accordance with 35 Ill. Adm. Code 742. The site specific physical parameters have been determined, and are calculated below.

*Hydraulic Conductivity (K),*  $7.6718 \times 10^{-5}$  cm/sec  
*Soil bulk density ( $\rho_b$ ),* 2.089 g/cm<sup>3</sup>  
*Soil particle density ( $\rho_s$ ),* 2.66 g/cm<sup>3</sup>  
*Moisture content (w),* 0.25  
*Organic carbon content ( $f_{oc}$ ),* 0.003 g/g

A hydraulic conductivity test was performed on the 6' depth sample at B-2 collected during stage 1 site investigation activities. The results of the slug test were included in Stage 2/3 SIP (AET, 2007b), and the hydraulic conductivity presented above is the field determined value. Velocity was calculated using the hydraulic conductivity results determined at the site, as well as the hydraulic gradient. The hydraulic gradient of 0.034 was found by calculating the change in gradient between the most up-gradient well (MW-8, 98.27 feet) and the most down-gradient well in the direction of flow (MW-1, 91.73 feet), then dividing this answer by the distance in feet between the two wells (192.2 feet). Formula R24, ( $U_{gw} = K \cdot i$ ) of 35 Ill. Adm. Code § 742 Appendix C, Table C. The resulting velocity is  $2.611 \times 10^{-7}$  cm/sec.

## 4. DEVELOPMENT OF REMEDIATION OBJECTIVES

### 4.1 GROUNDWATER REMEDIATION OBJECTIVES

CW<sup>3</sup>M will consider the groundwater at this site to be Class I unless demonstrated otherwise pursuant to 35 Ill. Adm. Code § 620.210. According to the Illinois Pollution Control Board, three Class III Groundwater contributing areas exist; however, they are located in McHenry, Monroe and St. Clair Counties in northern and western Illinois.

Groundwater investigation sample results would be compared to the Tiered Approach to Corrective Objectives (TACO) Residential Tier 1 Clean-up Objectives in milligrams per liter (mg/L). PNA parameters have been listed for comparison of Stage 1 groundwater samples which were collected and analyzed for PNA contaminants.

Table 4-1. Groundwater Remediation Objectives

Parameter	TACO Residential Tier 1 Clean-up Objective (mg/L)
Benzene	0.005
Ethylbenzene	0.7
Toluene	1.0
Total Xylenes	10.0
MTBE	0.07
Acenaphthene	570.0
Acenaphthylene	15.0
Anthracene	12,000.0
Benzo(a)anthracene	0.9
Benzo(a)pyrene	0.09
Benzo(b)fluoranthene	0.9
Benzo(g,h,i)perylene	2,300.0
Benzo(k)fluoranthene	9.0
Chrysene	88.0
Dibenz(a,h)anthracene	0.09
Fluoranthene	4,300.0
Fluorene	560.0
Indeno(1,2,3-cd)pyrene	0.9
Naphthalene	1.8
Phenanthrene	140.0
Pyrene	2,300.0

#### 4.2 SOIL REMEDIATION OBJECTIVES

Soil analytical results were compared to the TACO Residential Tier 1 Clean-up Objectives in milligrams per kilogram (parts per million) (mg/kg). PNA parameters have been listed for comparison of Early Action samples which were collected and analyzed for PNA contaminants.

**Table 4-2. Soil Remediation Objectives**

<b>Parameter</b>	<b>TACO Residential Tier 1 Clean-up Objective (mg/kg)</b>
<b>Benzene</b>	<b>0.03</b>
<b>Ethylbenzene</b>	<b>13.0</b>
<b>Toluene</b>	<b>12.0</b>
<b>Total Xylenes</b>	<b>5.6</b>
<b>MTBE</b>	<b>0.32</b>
<b>Acenaphthene</b>	<b>570.0</b>
<b>Acenaphthylene</b>	<b>15.0</b>
<b>Anthracene</b>	<b>12000.0</b>
<b>Benzo(a)anthracene</b>	<b>0.9</b>
<b>Benzo(a)pyrene</b>	<b>0.09</b>
<b>Benzo(b)fluoranthene</b>	<b>0.09</b>
<b>Benzo(g,h,i)perylene</b>	<b>2300.0</b>
<b>Benzo(k)fluoranthene</b>	<b>9.0</b>
<b>Chrysene</b>	<b>88.0</b>
<b>Dibenz(a,h)anthracene</b>	<b>0.09</b>
<b>Fluoranthene</b>	<b>4300.0</b>
<b>Fluorene</b>	<b>560.0</b>
<b>Indeno(1,2,3-cd)pyrene</b>	<b>0.9</b>
<b>Naphthalene</b>	<b>1.8</b>
<b>Phenanthrene</b>	<b>140.0</b>
<b>Pyrene</b>	<b>2300.0</b>

## **5. ANALYTICAL OBJECTIVES AND RESULTS**

### **5.1 SOIL ANALYTICAL RESULTS**

Tables comparing the site investigation analytical results to the most stringent Tier 1 Remediation Objectives are included with the analytical results in Appendix E. The soil plume is defined horizontally and vertically on and off site.

### **5.2 GROUNDWATER ANALYTICAL RESULTS**

Tables comparing the site investigation analytical results to the most stringent Tier 1 Remediation Objectives are included with the analytical results in Appendix E. The groundwater plume is defined on and off-site.

### **5.3 GROUNDWATER FLOW DIRECTION**

Based upon measurements taken during a visit to the site on April 4, 2014, the groundwater flow direction is generally toward the east. Although generally from west to east, groundwater elevation readings show low points at MW-3 and MW-1. A map of the groundwater elevations can be found in Appendix B.

## **6. SITE MAPS**

Site maps identifying the UST systems, excavations and sample locations, product and dispenser lines, pumps and pump islands, underground utilities, nearby structures, property boundaries, and any surrounding areas that might have been adversely affected by the release of petroleum from the UST systems are included in Appendix B. All maps are to scale, oriented north and are prepared in accordance with 35 Ill. Adm. Code 734.440.

## **7. CONCLUSIONS AND RECOMMENDATIONS**

### **7.1 CONCLUSIONS**

Soil analytical results indicate that the Clean-Up Objectives for the site have been exceeded and are not contained within the property boundaries. Hydrocarbon impact is located in the southern portion of the site near the pump island. Indicator contaminants have exceeded the objectives of all BETX contaminants. Based on site investigations, the soil plume has been defined.

Groundwater analytical results indicate that the Clean-Up Objectives for the site have been exceeded and are not contained within the property boundary. Hydrocarbon impact is located on the northern property line and the eastern property line. Both locations along the property line were investigated during Stage 3 activities and defined off site. Indicator contaminants have exceeded the objectives for Toluene. Based on the site investigations, the groundwater plume has been defined.

### **7.2 RECOMMENDATIONS**

The results of the site investigation confirm that the extent of hydrocarbon impact has been defined. On behalf of Mr. Tom Dersch, owner of USTs at the site, CW<sup>3</sup>M will develop a Corrective Action Plan (CAP) and Budget for submittal to the IEPA based upon the hydrocarbon impact plumes that have been defined in this report.

The CAP will address recently adopted rules on Vapor Intrusion; screening parameters will be evaluated for the potential presence and impact of vapor. If necessary, a Vapor Intrusion Investigation will be proposed.

## 8. REFERENCES

AET, 2005a. Applied Environmental Technologies, Inc., *20-Day Certification*, Dersch Croslow's, Lawrenceville, Illinois, March 31, 2005.

AET, 2005b. Applied Environmental Technologies, Inc., *45-Day Report*, Dersch Croslow's, Lawrenceville, Illinois, April 28, 2005.

AET, 2007a. Applied Environmental Technologies, Inc., *Stage 1 Site Investigation Plan and Budget*, Dersch Croslow's, Lawrenceville, Illinois, February 27, 2007.

AET, 2007b. Applied Environmental Technologies, Inc., *Stage 2/3 Site Investigation Plan*, Dersch Croslow's, Lawrenceville, Illinois, February 27, 2007.

CW<sup>3</sup>M, 2013. CW<sup>3</sup>M Company, Inc., *Stage 2/3 Site Investigation Budget*, Dersch Croslow's, Lawrenceville, Illinois, June 11, 2013.

IEPA, 2007a. Illinois Environmental Protection Agency, *Stage 1 Site Investigation Plan and Budget Correspondence*, Dersch Croslow's, Lawrenceville, Illinois, April 17, 2007.

IEPA, 2007b. Illinois Environmental Protection Agency, *Stage 2/3 Site Investigation Plan Correspondence*, Dersch Croslow's, Lawrenceville, Illinois, April 17, 2007.

IEPA, 2013. Illinois Environmental Protection Agency, *Stage 2/3 Site Investigation Budget Correspondence*, Dersch Croslow's, Lawrenceville, Illinois, July 30, 2013.

EPA.STATE.IL.US, 2014. Source Water Assessment Program, *Water Well Survey Map* [www.maps.epa.state.il.us](http://www.maps.epa.state.il.us), accessed April 25, 2014.

OSFM, 2005. Dersch Energies, Inc., *Permit for Removal*, Dersch Croslow's, Lawrenceville, Illinois, April 4, 2005.

# **APPENDIX A**

## **SITE INVESTIGATION COMPLETION REPORT FORM**

**SITE INVESTIGATION  
COMPLETION REPORT  
DERSCH CROSLAWS  
LAWRENCEVILLE, ILLINOIS**



# Illinois Environmental Protection Agency

Bureau of Air • 1021 North Grand Avenue East • 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 6/4, 6/57 - 57.17). Failure to disclose this information may result in a civil penalty of not to exceed \$60,000.00 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 Site Investigation Completion Report

### A. Site Identification

IEMA Incident # (6- or 8-digit): 20050374 IEPA LPC # (10-digit): 1010155024  
Site Name: Dersch Croslow's Shell  
Site Address (not a P.O. Box): 1421 Lexington Avenue  
City: Lawrenceville County: Lawrence Zip Code: 62439

### B. Site Information

1. Will the owner or operator seek payment from the Underground Storage?  Yes  No  
2. Has a Site Investigation Plan been approved?  Yes  No  
Date(s) of approval letter(s): Apr 17, 2007

### C. Site Investigation Results

Provide the following:

1. Site history with respect to the release;
2. Site description:
  - a. Area surrounding the site;
  - b. Local geology, hydrogeology, and hydrology;
  - c. Local geography and topography;
  - d. Existing and potential migration pathways and exposure routes; and
  - e. Current and projected post-remediation land use;
3. Site investigation results:
  - a. Map(s) showing locations of all borings and groundwater monitoring wells completed as part of site investigation and the groundwater flow direction;
  - b. Map(s) showing the horizontal extent of soil and groundwater contamination exceeding the most stringent Tier 1 remediation objectives (ROs);
  - c. Map cross-section(s) showing the horizontal and vertical extents of soil and groundwater contamination exceeding the most stringent Tier 1 ROs;
  - d. Soil boring logs and monitoring well construction diagrams for all borings drilled and groundwater monitoring wells installed as part of site investigation;
  - e. Analytical results, chain of custody forms, and laboratory certifications;
  - f. Table comparing analytical results to the most stringent Tier 1 ROs (include sample depth, date collected, and detection limits); and
  - g. Potable water supply well survey;

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4. Conclusion that includes an assessment of the sufficiency of the data;
5. Site map(s) meeting the requirements of 35 Ill. Adm. Code 734.440; and
6. Budget forms of actual costs (documenting actual work performed during the previous stage).

**D. Signatures**

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

**UST Owner or Operator**

Name: Dersch Energies, Inc.  
 Contact: Tom Dersch  
 Address: P.O. Box 217  
 City: Mt. Carmel  
 State: Illinois  
 Zip Code: 62863  
 Phone: (618) 262-5181  
 Signature: *Tom Dersch*  
 Date: 5-11-2015

**Consultant**

Company: CWM Company, Inc.  
 Contact: Carol Rowe  
 Address: 701 South Grand Avenue West  
 City: Springfield  
 State: Illinois  
 Zip Code: 62704  
 Phone: (217) 522-8001  
 E-mail: CWM@cwmcompany.com  
 Signature: *Carol Rowe*  
 Date: 5/18/2015

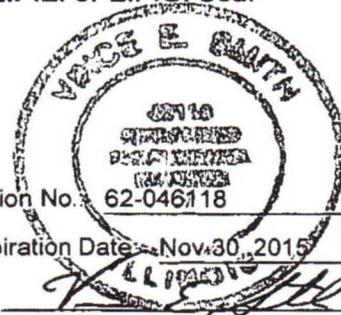
I certify under penalty of law that all activities that are the subject of this report were conducted under my supervision or were conducted under the supervision of another Licensed Professional Engineer or Licensed Professional Geologist and reviewed by me; that this report and all attachments were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

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 MAY 22 2015

**Licensed Professional Engineer or Geologist**

Name: Vince Smith  
 Company: CWM Company, Inc.  
 Address: 701 South Grand Avenue West  
 City: Springfield  
 State: Illinois  
 Zip Code: 62704  
 Phone: (217) 522-8001

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



Ill. Registration No. 62-046118  
 License Expiration Date: Nov. 30, 2015  
 Signature: *Vince E. Smith*  
 Date: 5/18/15

**IEPA/BOL**

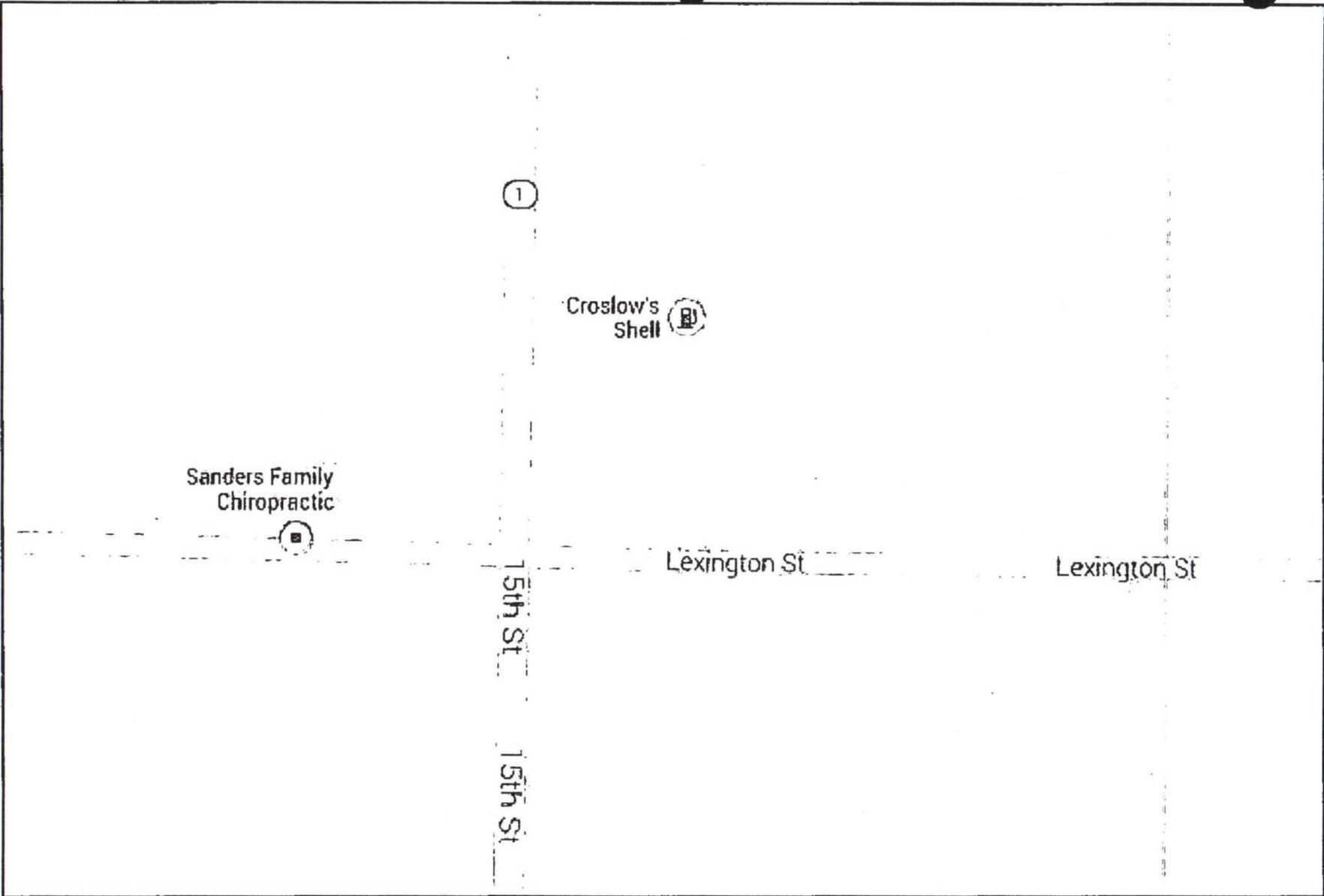
# **APPENDIX B**

## **SITE MAPS AND ILLUSTRATIONS**

**SITE INVESTIGATION  
COMPLETION REPORT  
DERSCH CROSLAWS  
LAWRENCEVILLE, ILLINOIS**

## INDEX OF DRAWINGS

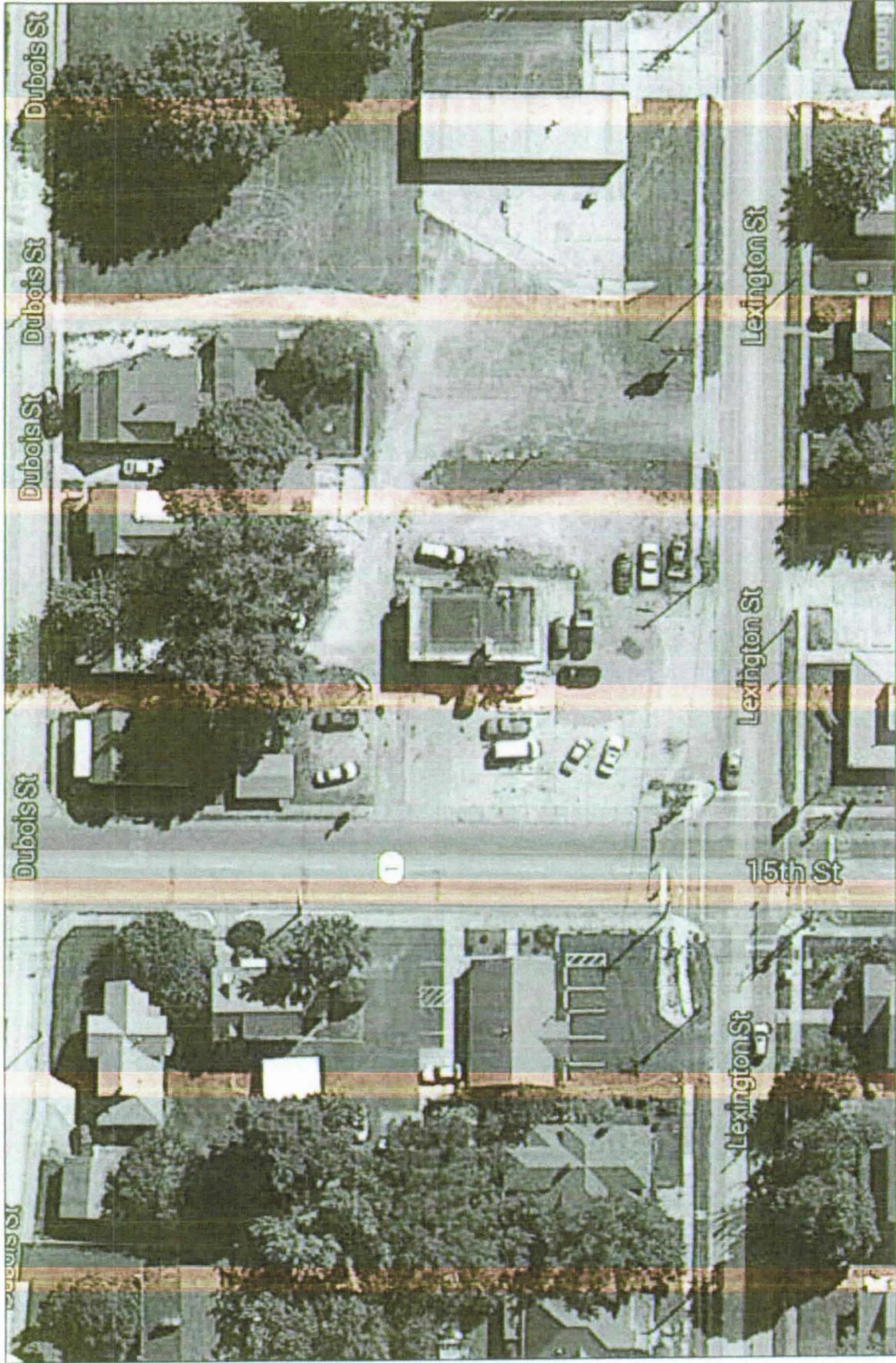
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0001A	Site Location Map	SiteMap.doc
0001B	Surrounding Populations Map	SP.doc
A-2	General Site Map	AET.dwg
A-3	Soil Analytical Results (Stage 1)	AET.dwg
A-4	Groundwater Analytical Results Map (Stage 1)	AET.dwg
A-5	GW Flow Direction (10/24/06)	AET.dwg
A-6	Geological Cross-Section	AET.dwg
A-7	Geological Cross-Section	AET.dwg
0002	Site Map	Site.dwg
0003	Soil Boring Location Map	SBLOC.dwg
0004	Monitoring Well Location Map	MWLOC.dwg
0005	Monitoring Well Elevation Map	MWELEV.dwg
0006	Groundwater Elevation Map (April 2014)	GWelev.dwg
0007	Groundwater Contamination Map	GWcont.dwg
0008	Stage 2/3 Soil Contamination Map	SBCONT.dwg



CW<sup>3</sup>M Company, Inc.  
701 South Grand Avenue West  
Springfield, IL 62704  
(217)-522-8001

**Site Location Map**  
1421 Lexington Avenue  
Lawrenceville, Illinois

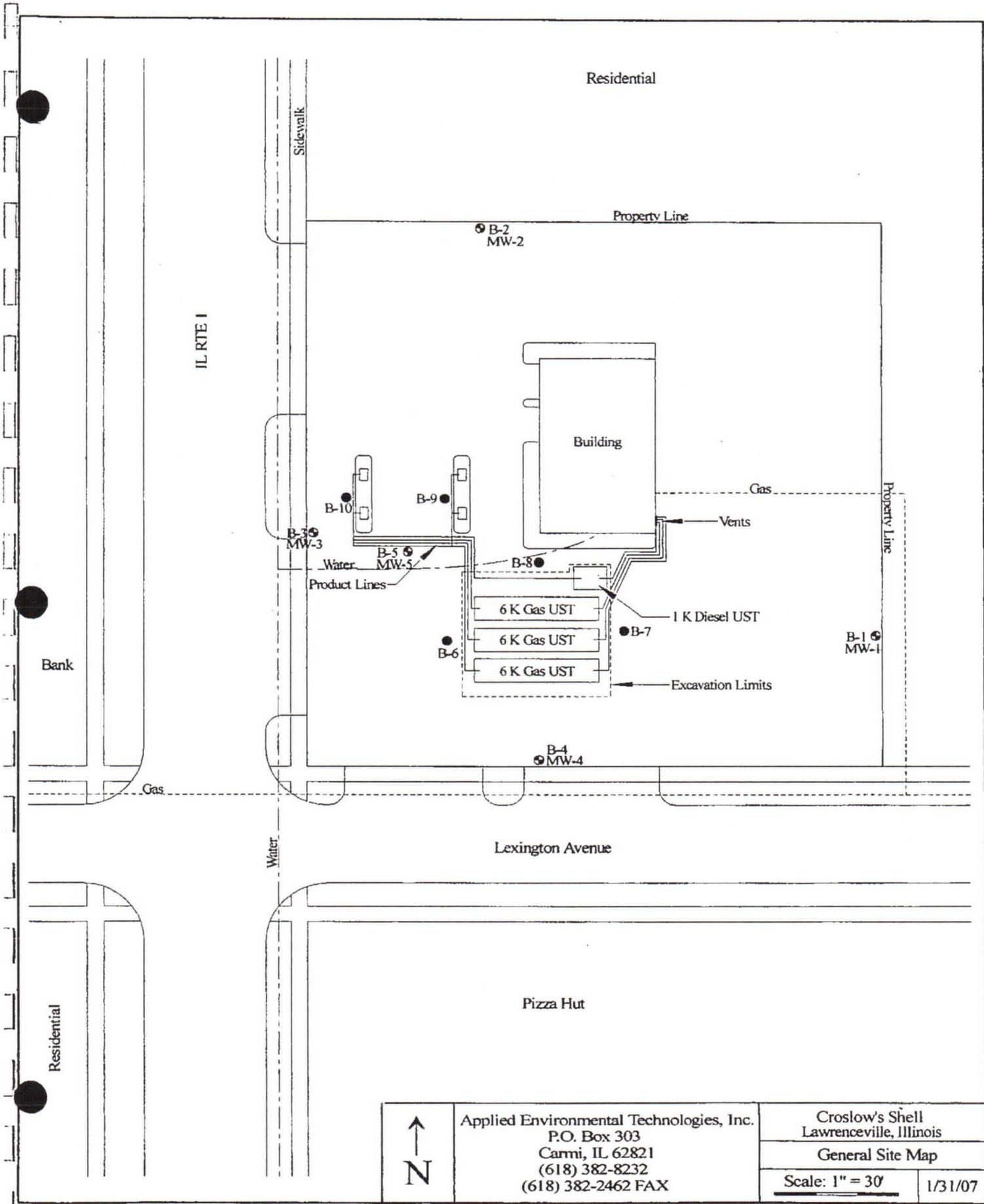
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Reviewed By: CLR  
Drawing 0001A  
SiteMap.doc



Drawn By: BMW  
Reviewed By: CLR  
Drawing 0001B  
SP.doc

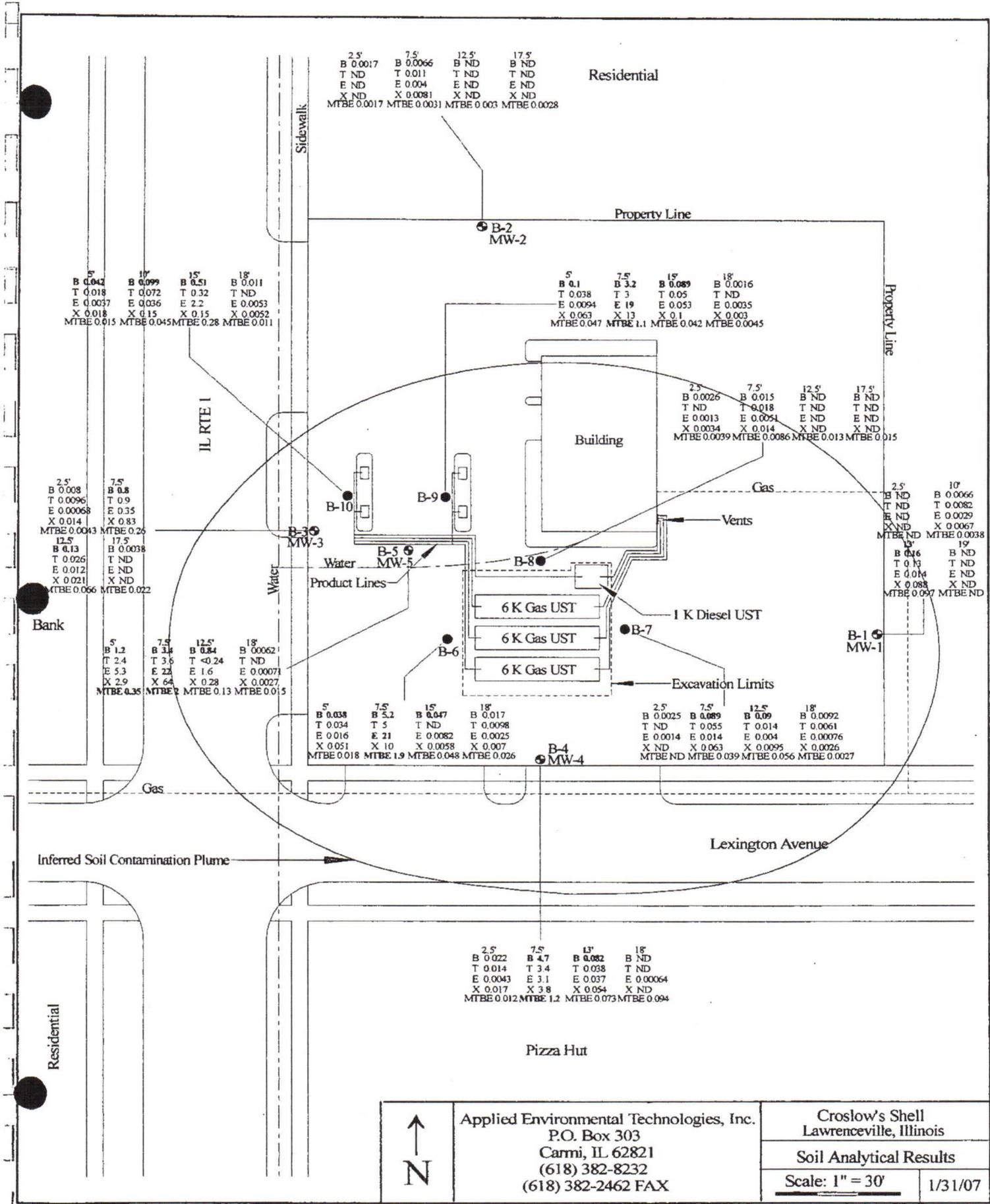
**Surrounding Populations Map**  
1421 Lexington Avenue  
Lawrenceville, Illinois

CW/M Company, Inc.  
701 South Grand Avenue West  
Springfield, IL 62704  
(217) 522-8001



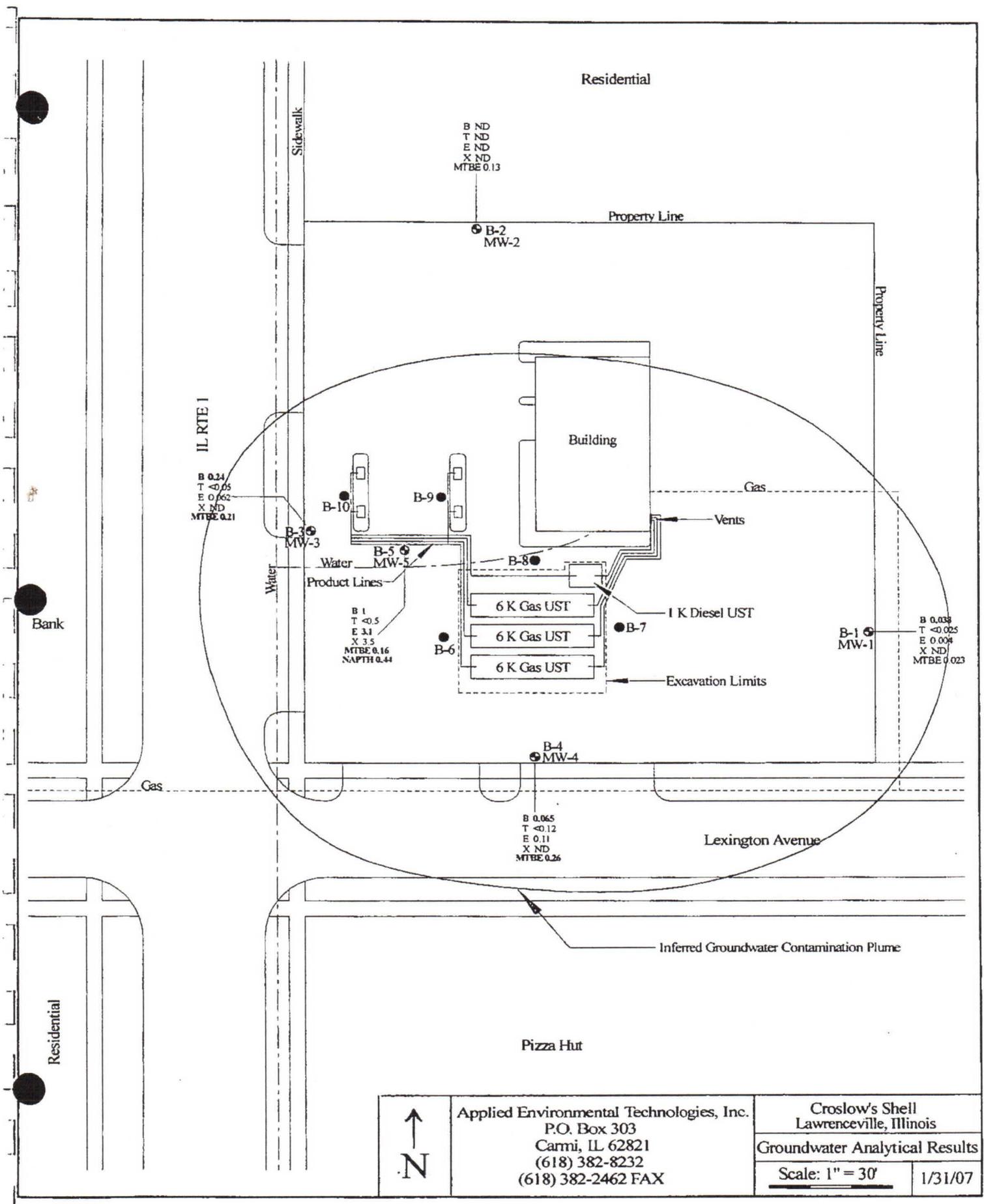
Applied Environmental Technologies, Inc.  
 P.O. Box 303  
 Carmi, IL 62821  
 (618) 382-8232  
 (618) 382-2462 FAX

Croslow's Shell Lawrenceville, Illinois	
General Site Map	
Scale: 1" = 30'	1/31/07



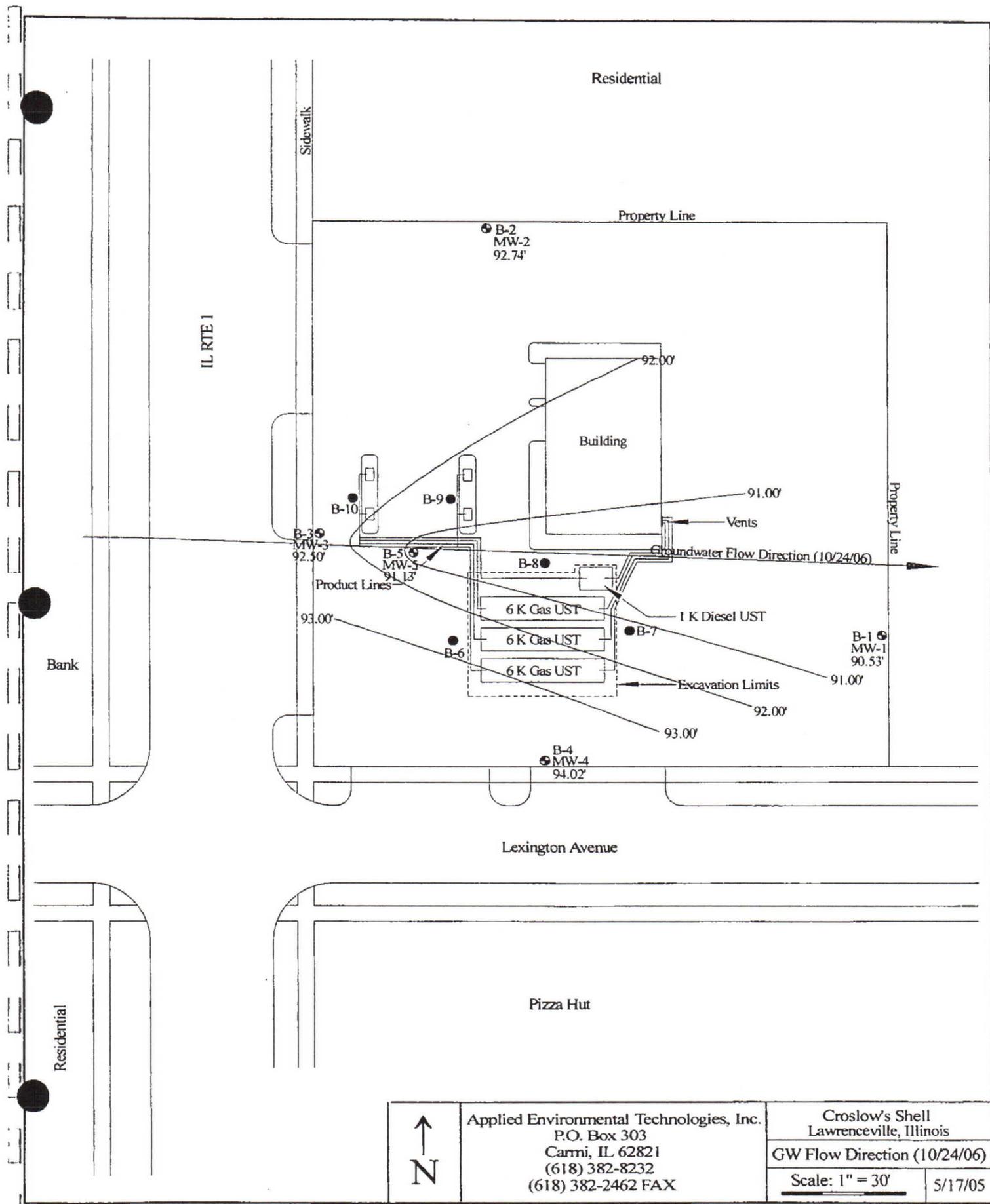
Applied Environmental Technologies, Inc.  
 P.O. Box 303  
 Carmi, IL 62821  
 (618) 382-8232  
 (618) 382-2462 FAX

Croslow's Shell  
 Lawrenceville, Illinois  
 Soil Analytical Results  
 Scale: 1" = 30'  
 1/31/07

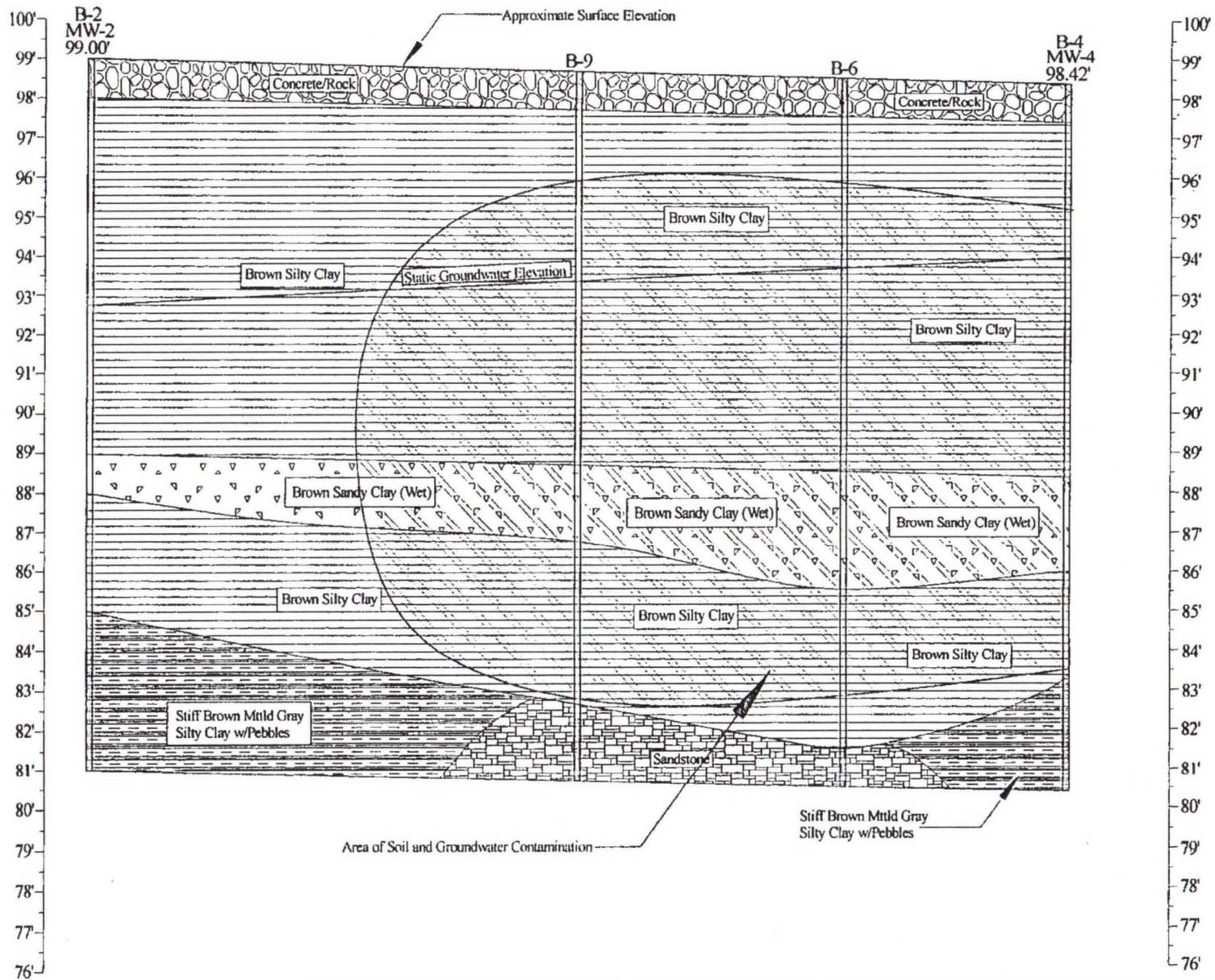


Applied Environmental Technologies, Inc.  
 P.O. Box 303  
 Carmi, IL 62821  
 (618) 382-8232  
 (618) 382-2462 FAX

Croslow's Shell  
 Lawrenceville, Illinois  
**Groundwater Analytical Results**  
 Scale: 1" = 30'  
 1/31/07



A-6



Horizontal Scale: 1" = 20'  
Vertical Scale on Drawing

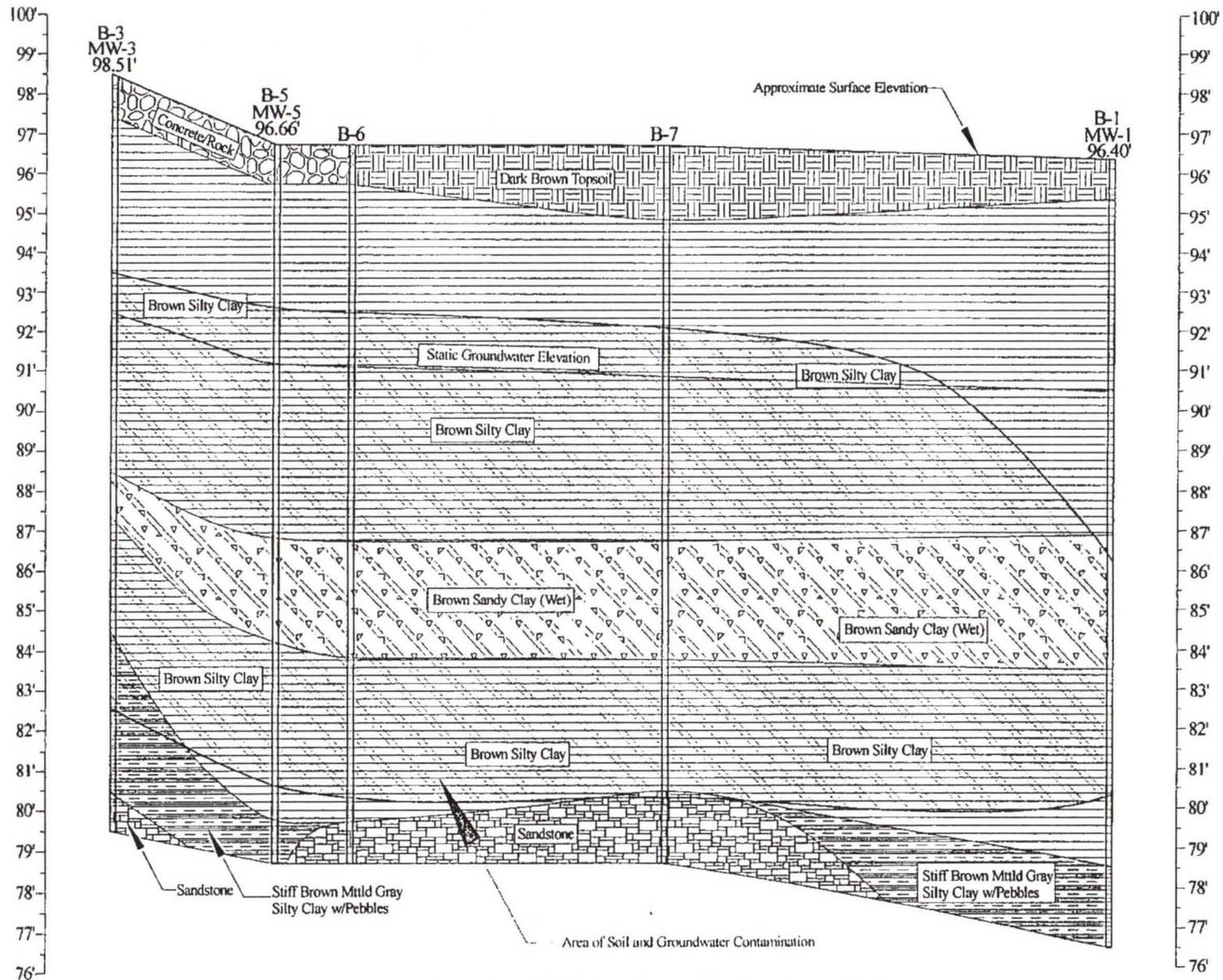
Applied Environmental Technologies, Inc.  
P.O. Box 303  
Carmi, IL 62821  
(618) 382-8232  
(618) 382-2462 FAX

Croslow's Shell  
Lawrenceville, Illinois

Geological Cross-Section

North to South (B-2 to B-4) 1/29/07

A-7



Horizontal Scale: 1" = 20'  
Vertical Scale on Drawing

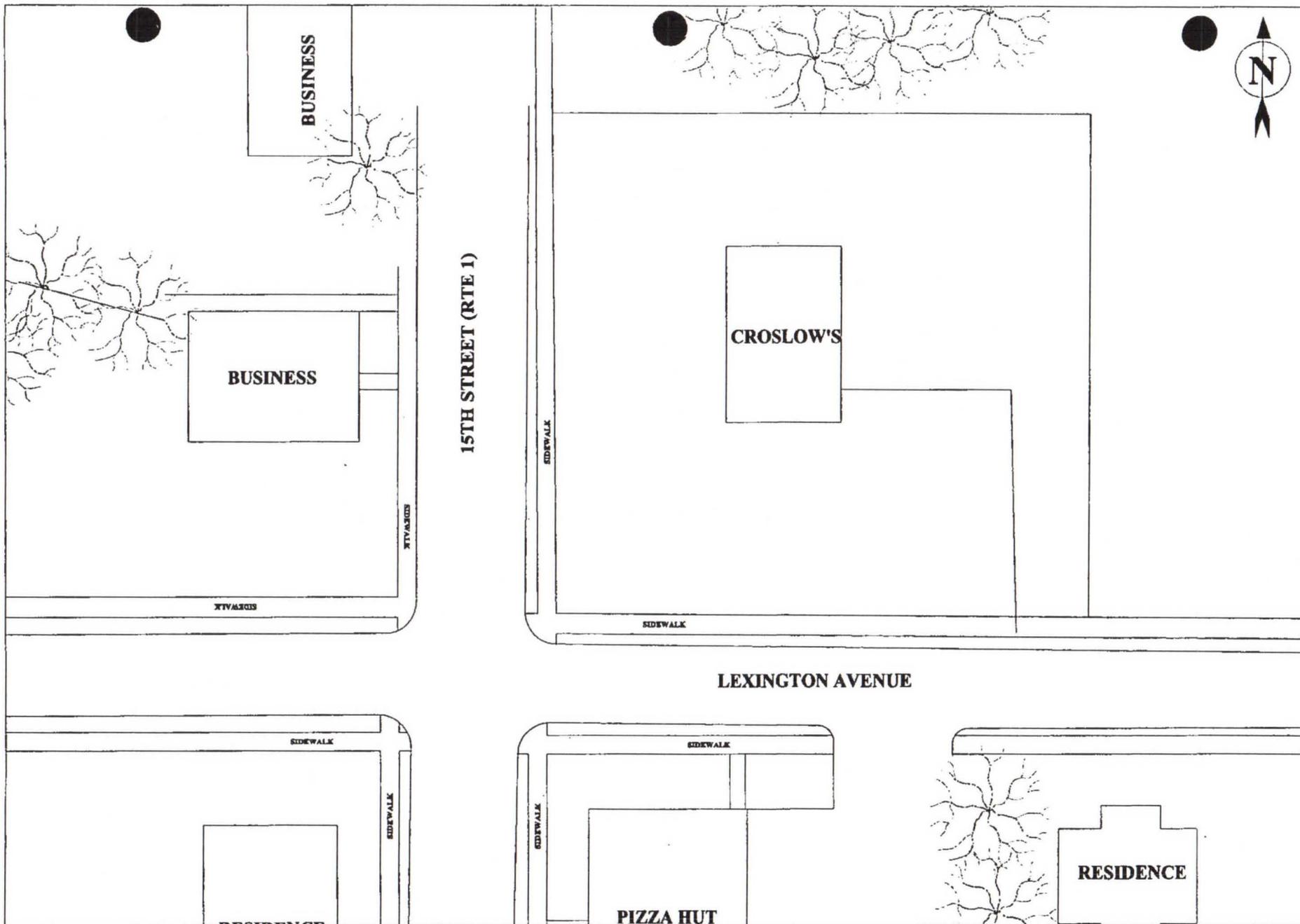
Applied Environmental Technologies, Inc.  
P.O. Box 303  
Carmi, IL 62821  
(618) 382-8232  
(618) 382-2462 FAX

Croslow's Shell  
Lawrenceville, Illinois

Geological Cross-Section

West to East (B-3 to B-1)

1/29/07



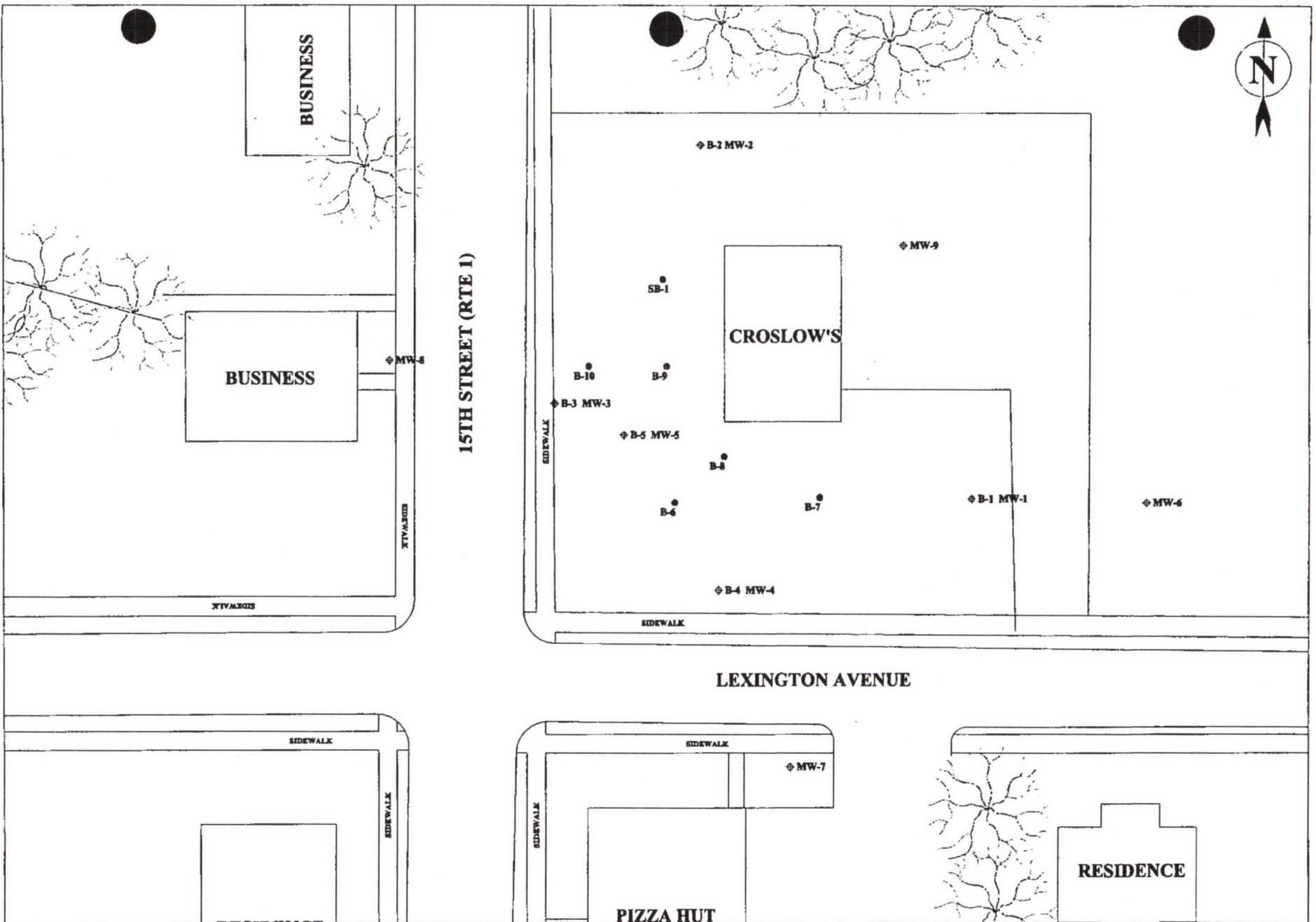
**CW<sup>®</sup>M COMPANY, INC.**  
**701 W. SOUTH GRAND**  
**SPRINGFIELD, IL. 62704**  
**(217) 522-8001**

**DERSCH LAWRENCEVILLE**  
**LAWRENCEVILLE, ILLINOIS**  
**INCIDENT #2005-0374**  
**LAWRENCE COUNTY**

**SITE MAP**

**SCALE: 1"=40'**  
**DATE: 4/28/14**  
**REVISED DATE:**  
**DRAWING: 0002**

**DRAWN BY: BMW**  
**REVISED BY:**  
**REVIEWED BY: CLR**  
**Site.dwg**



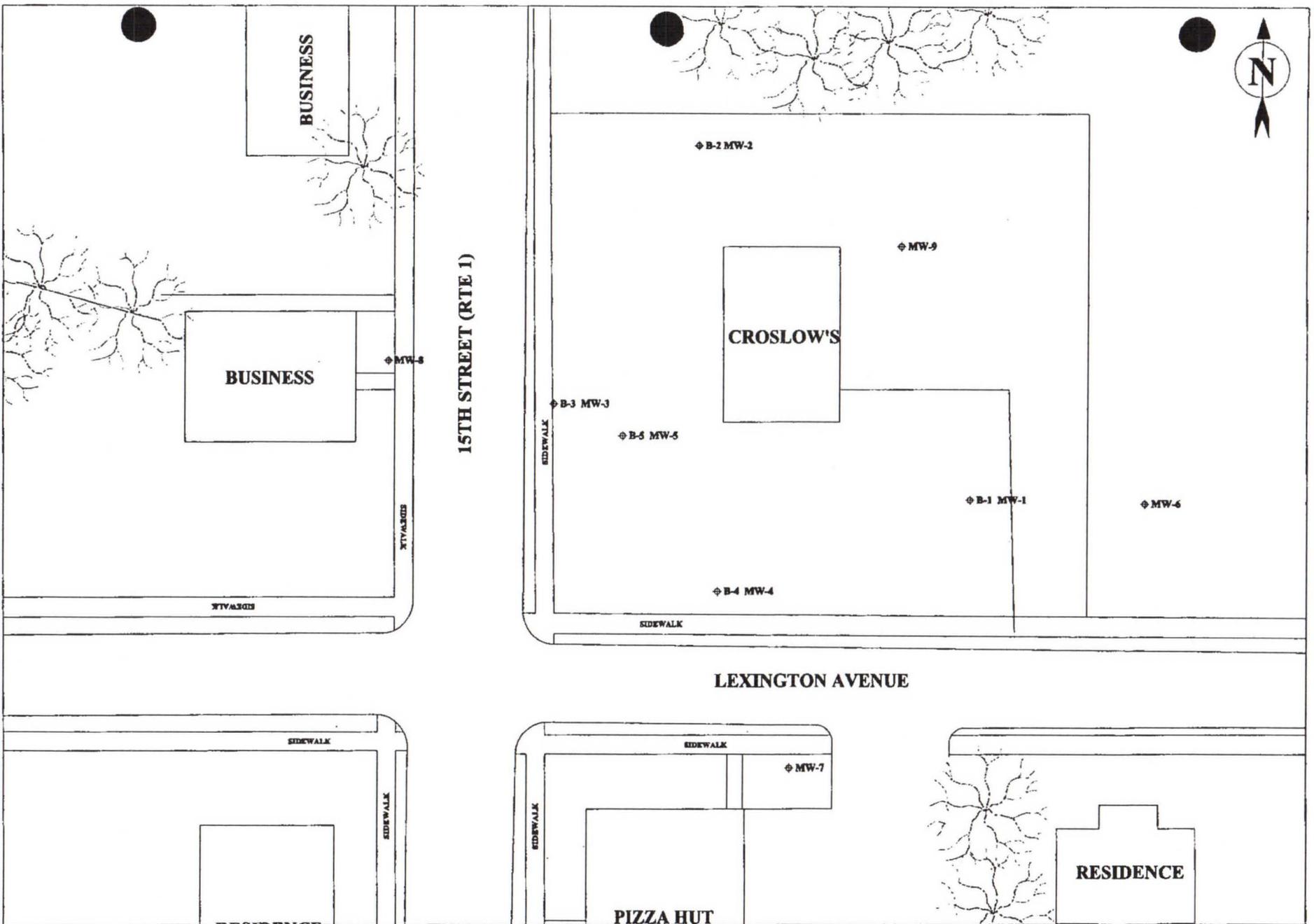
**CWM COMPANY, INC.**  
 701 W. SOUTH GRAND  
 SPRINGFIELD, IL. 62704  
 (217) 522-8001

**DERSCH LAWRENCEVILLE**  
 LAWRENCEVILLE, ILLINOIS  
 INCIDENT #2005-0374  
 LAWRENCE COUNTY

**SOIL BORING LOCATION  
 MAP**

**SCALE: 1"=40'**  
**DATE: 4/28/14**  
**REVISED DATE:**  
**DRAWING: 0003**

**DRAWN BY: BMW**  
**REVISED BY:**  
**REVIEWED BY: CLR**  
**SBLOC.dwg**



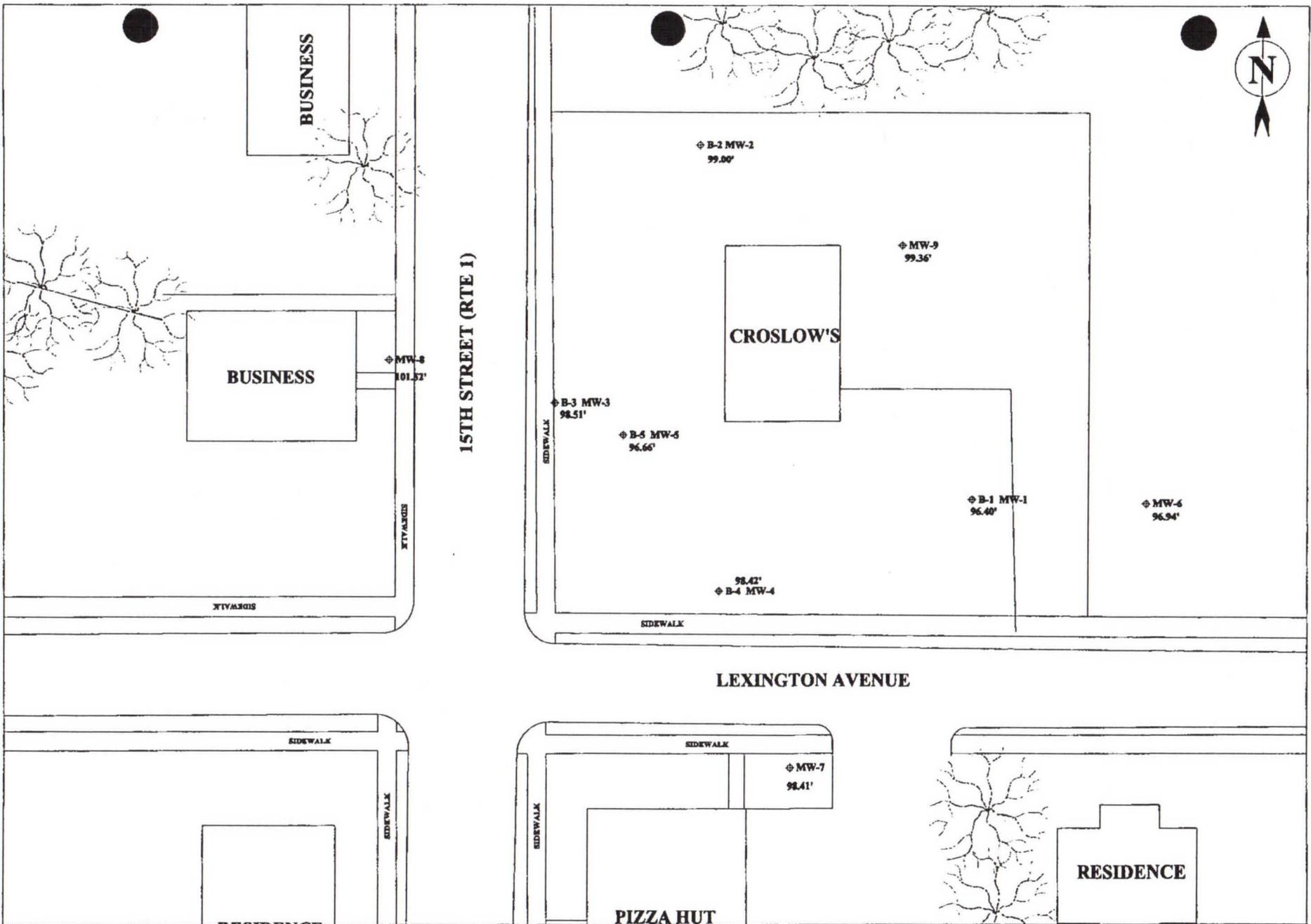
**CWM COMPANY, INC.**  
 701 W. SOUTH GRAND  
 SPRINGFIELD, IL. 62704  
 (217) 522-8001

**DERSCH LAWRENCEVILLE**  
 LAWRENCEVILLE, ILLINOIS  
 INCIDENT #2005-0374  
 LAWRENCE COUNTY

**MONITORING WELL**  
**LOCATION MAP**

**SCALE: 1"=40'**  
**DATE: 4/28/14**  
**REVISED DATE:**  
**DRAWING: 0004**

**DRAWN BY: BMW**  
**REVISED BY:**  
**REVIEWED BY: CLR**  
**MWLOC.dwg**



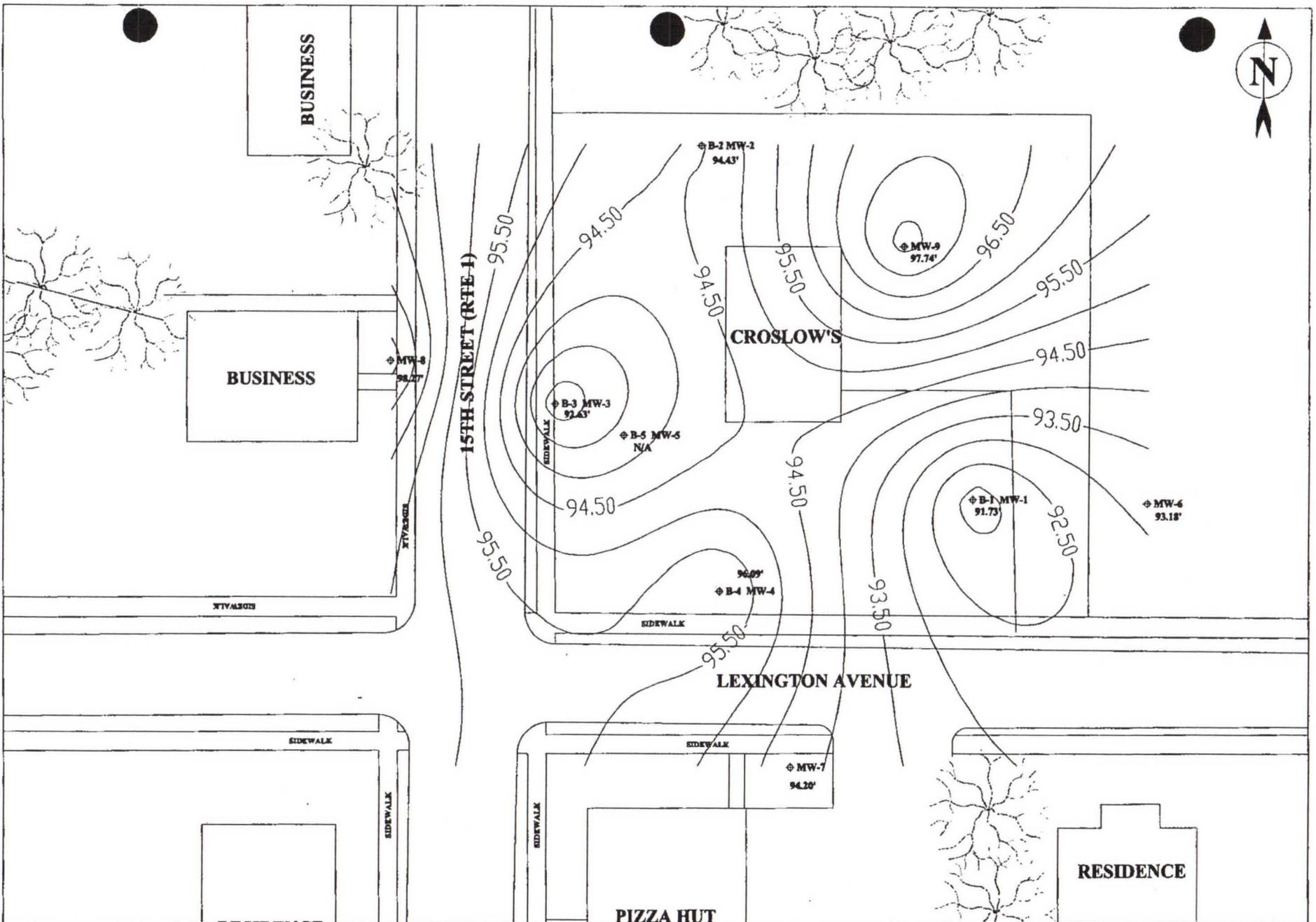
CWM COMPANY, INC.  
 701 W. SOUTH GRAND  
 SPRINGFIELD, IL. 62704  
 (217) 522-8001

DERSCH LAWRENCEVILLE  
 LAWRENCEVILLE, ILLINOIS  
 INCIDENT #2005-0374  
 LAWRENCE COUNTY

MONITORING WELL  
 ELEVATION MAP

SCALE: 1"=40'  
 DATE: 4/28/14  
 REVISED DATE:  
 DRAWING: 0005

DRAWN BY: BMW  
 REVISED BY:  
 REVIEWED BY: CLR  
 MWELEV.dwg



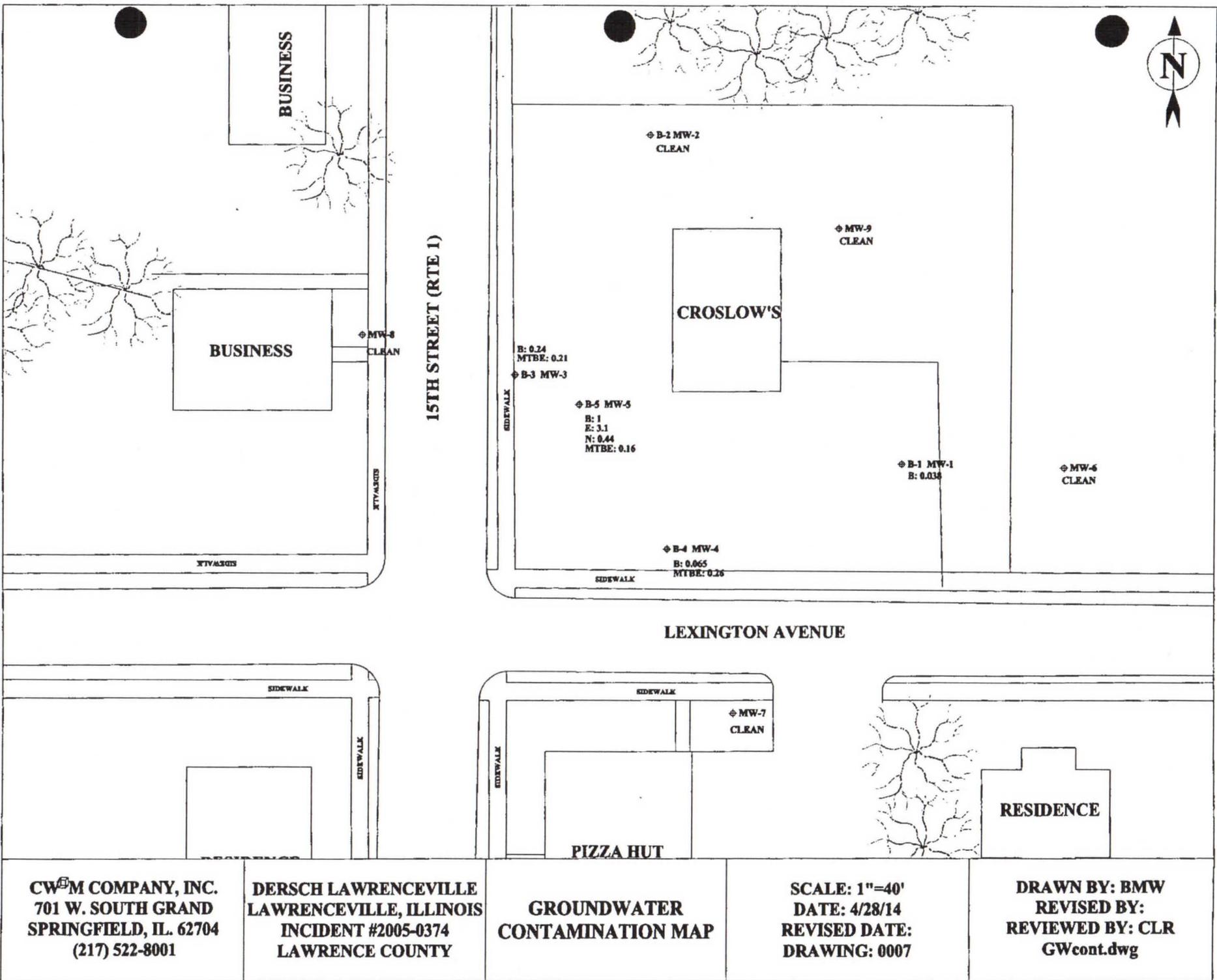
**CWM COMPANY, INC.**  
 701 W. SOUTH GRAND  
 SPRINGFIELD, IL. 62704  
 (217) 522-8001

**DERSCH LAWRENCEVILLE**  
 LAWRENCEVILLE, ILLINOIS  
 INCIDENT #2005-0374  
 LAWRENCE COUNTY

**GROUNDWATER**  
**ELEVATION MAP**  
 (APRIL 2014)

**SCALE: 1"=40'**  
**DATE: 4/28/14**  
**REVISED DATE:**  
**DRAWING: 0006**

**DRAWN BY: BMW**  
**REVISED BY:**  
**REVIEWED BY: CLR**  
**GWELEV.dwg**



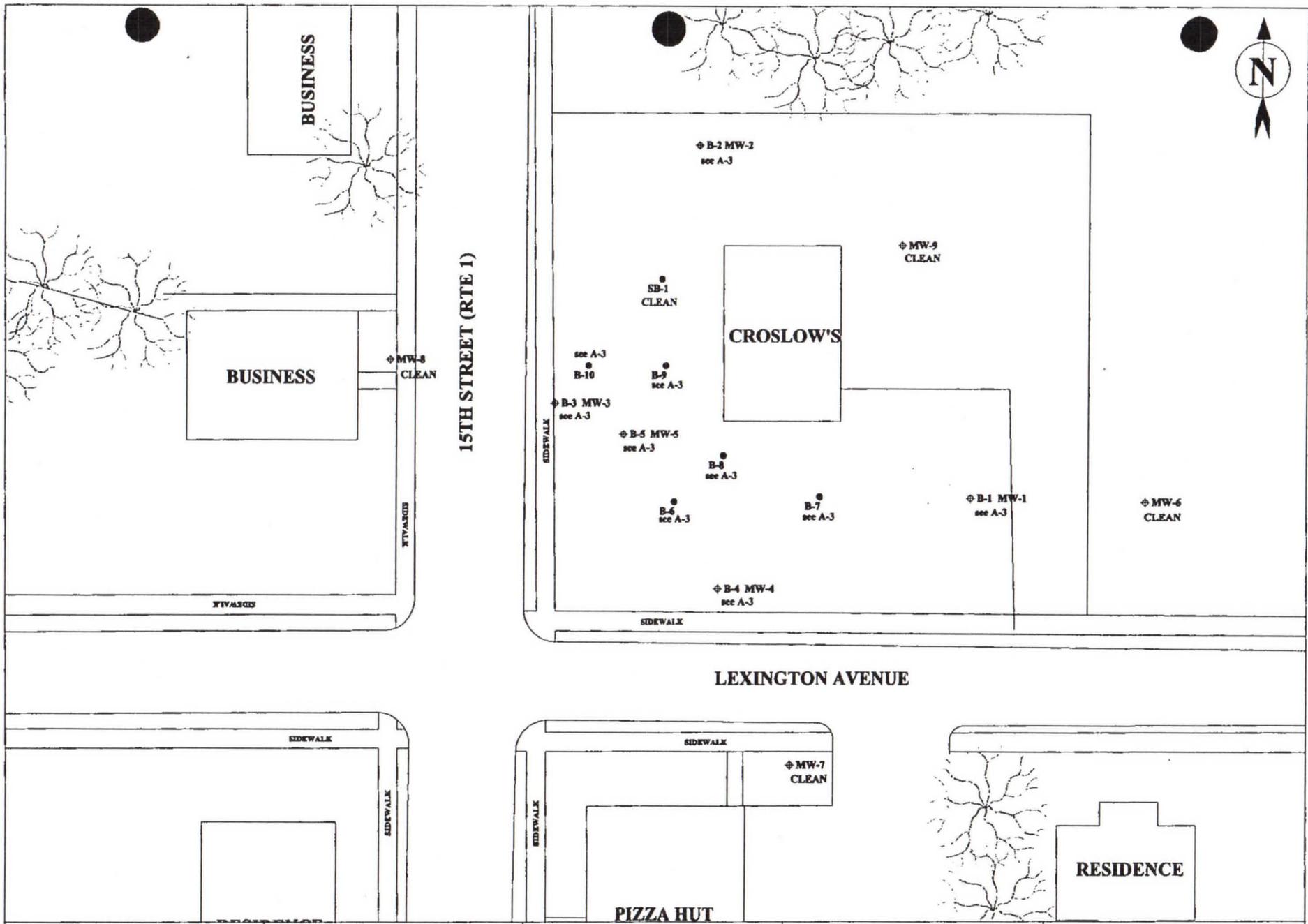
**CWM COMPANY, INC.**  
701 W. SOUTH GRAND  
SPRINGFIELD, IL. 62704  
(217) 522-8001

**DERSCH LAWRENCEVILLE**  
LAWRENCEVILLE, ILLINOIS  
INCIDENT #2005-0374  
LAWRENCE COUNTY

**GROUNDWATER**  
**CONTAMINATION MAP**

**SCALE: 1"=40'**  
**DATE: 4/28/14**  
**REVISED DATE:**  
**DRAWING: 0007**

**DRAWN BY: BMW**  
**REVISED BY:**  
**REVIEWED BY: CLR**  
**GWcont.dwg**



**CWM COMPANY, INC.**  
 701 W. SOUTH GRAND  
 SPRINGFIELD, IL. 62704  
 (217) 522-8001

**DERSCH LAWRENCEVILLE**  
 LAWRENCEVILLE, ILLINOIS  
 INCIDENT #2005-0374  
 LAWRENCE COUNTY

**STAGE 2/3 SOIL  
 CONTAMINATION MAP**

**SCALE: 1"=40'**  
**DATE: 4/28/14**  
**REVISED DATE:**  
**DRAWING: 0008**

**DRAWN BY: BMW**  
**REVISED BY:**  
**REVIEWED BY: CLR**  
**SBCONT.dwg**

# **APPENDIX C**

## **ILLINOIS OFFICE OF THE STATE FIRE MARSHAL ELIGIBILITY DETERMINATION**

**SITE INVESTIGATION  
COMPLETION REPORT  
DERSCH CROSLAWS  
LAWRENCEVILLE, ILLINOIS**



Office of the Illinois  
**State Fire Marshal**

General Office

217-785-0969

FAX

217-782-1062

Divisions

ARSON INVESTIGATION

217-782-9116

BOILER and PRESSURE

VESSEL SAFETY

217-782-2696

FIRE PREVENTION

217-785-4714

MANAGEMENT SERVICES

217-782-9889

INFIRS

217-785-5826

HUMAN RESOURCES

217-785-1028

PERSONNEL STANDARDS

and EDUCATION

217-782-4542

PETROLEUM and

CHEMICAL SAFETY

217-785-5878

PUBLIC INFORMATION

217-785-1021

WEB SITE

[www.state.il.us/osfm](http://www.state.il.us/osfm)

CERTIFIED MAIL - RECEIPT REQUESTED #7003 3110 0004 1273 6538

May 5, 2005

Dersch Energies, Inc.  
620 Oak Street  
P.O. Box 217  
Mount Carmel, IL 62863

In Re:

Facility No. 7-009254  
IEMA Incident No. 05-0374  
Croslow's Shell  
1421 Lexington  
Lawrenceville, Lawrence Co., IL

Dear Applicant:

The Reimbursement Eligibility and Deductible Application received on March 31, 2005 for the above referenced occurrence has been reviewed. The following determinations have been made based upon this review.

It has been determined that you are eligible to seek payment of costs in excess of \$10,000. The costs must be in response to the occurrence referenced above and associated with the following tanks:

Eligible Tanks

Tank 1 6,000 gallon Gasoline  
Tank 2 6,000 gallon Gasoline  
Tank 3 6,000 gallon Gasoline  
Tank 4 1,000 gallon Diesel

You must contact the Illinois Environmental Protection Agency to receive a packet of Agency billing forms for submitting your request for payment.

An owner or operator is eligible to access the Underground Storage Tank Fund if the eligibility requirements are satisfied:

1. Neither the owner nor the operator is the United States Government,
2. The tank does not contain fuel which is exempt from the Motor Fuel Tax Law,
3. The costs were incurred as a result of a confirmed release of any of the following substances:

"Fuel", as defined in Section 1.19 of the Motor Fuel Tax Law

Aviation fuel

Heating oil

Kerosene

Used oil, which has been refined from crude oil used in a motor vehicle, as defined in Section 1.3 of the Motor Fuel Tax Law.

4. The owner or operator registered the tank and paid all fees in accordance with the statutory and regulatory requirements of the Gasoline Storage Act.
5. The owner or operator notified the Illinois Emergency Management Agency of a confirmed release, the costs were incurred after the notification and the costs were a result of a release of a substance listed in this Section. Costs of corrective action or indemnification incurred before providing that notification shall not be eligible for payment.
6. The costs have not already been paid to the owner or operator under a private insurance policy, other written agreement, or court order.
7. The costs were associated with "corrective action".

This constitutes the final decision as it relates to your eligibility and deductibility. We reserve the right to change the deductible determination should additional information that would change the determination become available. An underground storage tank owner or operator may appeal the decision to the Illinois Pollution Control Board (Board), pursuant to Section 57.9 (c) (2). An owner or operator who seeks to appeal the decision shall file a petition for a hearing before the Board within 35 days of the date of mailing of the final decision, (35 Illinois Administrative Code 105.102(a) (2)).

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, Illinois 60601  
(312) 814-3620

The following tanks are also listed for this site:

Tank 5 560 gallon Used Oil

Your application indicates that there has not been a release from these tanks under this incident number. You may be eligible to seek payment of corrective action costs associated with these tanks if it is determined that there has been a release from one or more of these tanks. Once it is determined that there has been a release from one or more of these tanks you may submit a separate application for an eligibility determination to seek corrective action costs associated with this/these tanks.

If you have any questions, please contact our Office at (217) 785-1020 or (217) 785-5878.

Sincerely,



Deanne Lock  
Administrative Assistant  
Division of Petroleum and Chemical Safety

cc: IEPA  
Facility File

# **APPENDIX D**

## **BORING LOGS AND WELL COMPLETION REPORTS**

**SITE INVESTIGATION  
COMPLETION REPORT  
DERSCH CROSLAWS  
LAWRENCEVILLE, ILLINOIS**

PROJECT: Croslow's Shell - Dersch Energies, Inc. BORING NO.: B-1  
 LOCATION: Lawrenceville, IL MW-1  
 DATE DRILLED: 10/17/06  
 DEPTH OF BORING: 20'  
 WATER INDICATION: 9.5'  
 WATER SAMPLE: PRODUCT LAYER: \_\_\_\_\_  
 METHODS: DRILLING: Geoprobe SAMPLING: 2" Continuous  
 DRILLING CO.: Advanced Environmental Drilling, Inc.  
 OBSERVATIONS BY: Bryan Williams Page 1 of 1

DEPTH	SAMPLE	FID	DESCRIPTION	DEPTH	FT. RECOVERY
0			Dark Brown Topsoil	0	
2	■	ND	Brown Silty Clay	2	
4		ND		4	
6		ND		6	
8		ND	Brown Sandy Clay (Wet)	8	
10	■	35		10	
12		149	Brown Silty Clay	12	
14		ND		14	
16		ND		16	
18		ND	Stiff Brown Mottled Gray Silty Clay with Till Pebbles	18	
20	■	ND		20	
22			Bottom of Boring: 20' Groundwater Encountered: 9.5'	22	
24				24	
26				26	

■ Soils Sampled for BTEX and MTBE

PROJECT: Croslow's Shell - Dersch Energies, Inc. BORING NO.: B-2  
 LOCATION: Lawrenceville, IL MW-2  
 DATE DRILLED: 10/17/06  
 DEPTH OF BORING: 18'  
 WATER INDICATION: 10'  
 WATER SAMPLE: PRODUCT LAYER: \_\_\_\_\_  
 METHODS: DRILLING: Geoprobe SAMPLING: 2" Continuous  
 DRILLING CO.: Advanced Environmental Drilling, Inc.  
 OBSERVATIONS BY: Bryan Williams Page 1 of 1

DEPTH	SAMPLE	FID	DESCRIPTION	DEPTH	FT. RECOVERY
0			Asphalt/Rock	0	
2	■	ND	Brown Silty Clay	2	
4		ND		4	
6		ND	Brown Silty Clay	6	
8	■	ND		8	
10		ND	Brown Sandy Clay (Wet)	10	
12	■	ND	Brown Silty Clay	12	
14		ND		14	
16		ND	Stiff Brown Mottled Gray Silty Clay with Till Pebbles	16	
18	■	ND		18	
20			Boring Refusal: 18' Groundwater Encountered: 10'	20	
22				22	
24				24	
26				26	

■ Soils Sampled for BTEX and MTBE

PROJECT: Croslow's Shell - Dersch Energies, Inc.

BORING NO.: B-3  
MW-3

LOCATION: Lawrenceville, IL

DATE DRILLED: 10/17/06

DEPTH OF BORING: 19'

WATER INDICATION: 10'

WATER SAMPLE: PRODUCT LAYER: \_\_\_\_\_

METHODS: DRILLING: Geoprobe SAMPLING: 2" Continuous

DRILLING CO.: Advanced Environmental Drilling, Inc.

OBSERVATIONS BY: Bryan Williams

Page 1 of 1

DEPTH	SAMPLE	FID	DESCRIPTION	DEPTH	FT. RECOVERY
0			Concrete/Rock	0	
2	■	ND	Brown Silty Clay (discolored with very strong odor)	2	
4		ND		4	
6				6	
8	■	1123		8	
10		892	Brown Sandy Clay (Wet - Odor)	10	
12	■	248	Brown Silty Clay (Odor)	12	
14		14	Stiff Brown Mottled Gray Silty Clay with Till Pebbles	14	
16				16	
18	■	2.5		18	
20		ND	Sandstone	20	
22			Boring Refusal: 19' Groundwater Encountered: 10'	22	
24				24	
26				26	

■ Soils Sampled for BTEX and MTBE

BORING LOG

Applied Environmental Technologies, Inc.

PROJECT: Croslow's Shell - Dersch Energies, Inc. BORING NO.: B-4  
 LOCATION: Lawrenceville, IL MW-4  
 DATE DRILLED: 10/17/06  
 DEPTH OF BORING: 18'  
 WATER INDICATION: 10'  
 WATER SAMPLE: PRODUCT LAYER: \_\_\_\_\_  
 METHODS: DRILLING: Geoprobe SAMPLING: 2" Continuous  
 DRILLING CO.: Advanced Environmental Drilling, Inc.  
 OBSERVATIONS BY: Bryan Williams Page 1 of 1

DEPTH	SAMPLE	FID	DESCRIPTION	DEPTH	FT. RECOVERY
0			Concrete/Rock	0	
2	■	67	Brown Silty Clay (discolored with very strong odor)	2	
4		1123		4	
6		1123		6	
8	■	1123	Brown Sandy Clay (Wet - Odor)	8	
10		1123		10	
12	■	314	Brown Silty Clay (Odor)	12	
14		24		14	
16			Stiff Brown Mottled Gray Silty Clay with Till Pebbles	16	
18	■	ND		18	
20			Boring Refusal: 18' Groundwater Encountered: 10'	20	
22				22	
24				24	
26				26	

■ Soils Sampled for BTEX and MTBE

PROJECT: Croslow's Shell - Dersch Energies, Inc.

BORING NO.: B-5  
MW-5

LOCATION: Lawrenceville, IL

DATE DRILLED: 10/17/06

DEPTH OF BORING: 18'

WATER INDICATION: 10'

WATER SAMPLE: PRODUCT LAYER: \_\_\_\_\_

METHODS: DRILLING: Geoprobe SAMPLING: 2" Continuous

DRILLING CO.: Advanced Environmental Drilling, Inc.

OBSERVATIONS BY: Bryan Williams

Page 1 of 1

DEPTH	SAMPLE	FID	DESCRIPTION	DEPTH	FT. RECOVERY
0				0	
			Concrete/Rock		
2		342		2	
4				4	
6	■	1123	Brown Silty Clay (discolored with very strong odor)	6	
8	■	1123		8	
10		1123		10	
12	■	1123	Brown Sandy Clay (Wet - Odor)	12	
14				14	
16		21	Brown Silty Clay	16	
18	■	25	Stiff Brown Mottled Gray Silty Clay with Till Pebbles	18	
20			Boring Refusal: 18' Groundwater Encountered: 10'	20	
22				22	
24				24	
26				26	

■ Soils Sampled for BTEX and MTBE

BORING LOG

Applied Environmental Technologies, Inc.

PROJECT: Croslow's Shell - Dersch Energies, Inc. BORING NO.: B-6  
 LOCATION: Lawrenceville, IL  
 DATE DRILLED: 10/17/06  
 DEPTH OF BORING: 18'  
 WATER INDICATION: 10'  
 WATER SAMPLE: PRODUCT LAYER: \_\_\_\_\_  
 METHODS: DRILLING: Geoprobe SAMPLING: 2" Continuous  
 DRILLING CO.: Advanced Environmental Drilling, Inc.  
 OBSERVATIONS BY: Bryan Williams Page 1 of 1

DEPTH	SAMPLE	FID	DESCRIPTION	DEPTH	FT. RECOVERY
0			Concrete/Rock	0	
2		ND	Brown Silty Clay (discolored with very strong odor)	2	
4		64		4	
6		1123		6	
8		1123		8	
10		1123	Brown Sandy Clay (Wet - Odor)	10	
12		1123		12	
14		147	Brown Silty Clay	14	
16			Sandstone	16	
18		ND		18	
20			Boring Refusal: 18' Groundwater Encountered: 10'	20	
22				22	
24				24	
26				26	

■ Soils Sampled for BTEX and MTBE

PROJECT: Croslow's Shell - Dersch Energies, Inc. BORING NO.: B-7  
 LOCATION: Lawrenceville, IL  
 DATE DRILLED: 10/17/06  
 DEPTH OF BORING: 18'  
 WATER INDICATION: 10'  
 WATER SAMPLE: PRODUCT LAYER: \_\_\_\_\_  
 METHODS: DRILLING: Geoprobe SAMPLING: 2" Continuous  
 DRILLING CO.: Advanced Environmental Drilling, Inc.  
 OBSERVATIONS BY: Bryan Williams Page 1 of 1

DEPTH	SAMPLE	FID	DESCRIPTION	DEPTH	FT. RECOVERY
0				0	
2	■	ND	Dark Brown Topsoil	2	
4		ND		4	
6			Brown Silty Clay (discolored with odor)	6	
8	■	239		8	
10		126		10	
12	■	20	Brown Sandy Clay (Wet - Odor)	12	
14		7	Brown Silty Clay	14	
16			Sandstone	16	
18	■	ND		18	
20			Boring Refusal: 18' Groundwater Encountered: 10'	20	
22				22	
24				24	
26				26	

■ Soils Sampled for BTEX and MTBE

PROJECT: Croslow's Shell - Dersch Energies, Inc. BORING NO.: B-8  
 LOCATION: Lawrenceville, IL  
 DATE DRILLED: 10/17/06  
 DEPTH OF BORING: 18'  
 WATER INDICATION: 10'  
 WATER SAMPLE: PRODUCT LAYER: \_\_\_\_\_  
 METHODS: DRILLING: Geoprobe SAMPLING: 2" Continuous  
 DRILLING CO.: Advanced Environmental Drilling, Inc.  
 OBSERVATIONS BY: Bryan Williams Page 1 of 1

DEPTH	SAMPLE	FID	DESCRIPTION	DEPTH	FT. RECOVERY
0			Gravel	0	
2	■	ND	Brown Silty Clay	2	
4		ND		4	
6		ND		6	
8	■	4.5	Brown Silty Clay	8	
10		126		10	
12	■	ND	Brown Sandy Clay (Wet)	12	
14		ND	Brown Silty Clay	14	
16		ND		16	
18	■	ND	Sandstone	18	
20			Boring Refusal: 18' Groundwater Encountered: 10'	20	
22				22	
24				24	
26				26	

■ Soils Sampled for BTEX and MTBE

PROJECT: Croslow's Shell - Dersch Energies, Inc. BORING NO.: B-9  
 LOCATION: Lawrenceville, IL  
 DATE DRILLED: 10/17/06  
 DEPTH OF BORING: 18'  
 WATER INDICATION: 10'  
 WATER SAMPLE: PRODUCT LAYER: \_\_\_\_\_  
 METHODS: DRILLING: Geoprobe SAMPLING: 2" Continuous  
 DRILLING CO.: Advanced Environmental Drilling, Inc.  
 OBSERVATIONS BY: Bryan Williams Page 1 of 1

DEPTH	SAMPLE	FID	DESCRIPTION	DEPTH	FT. RECOVERY
0			Concrete/Rock	0	
2		89	Brown Silty Clay (Strong Odor)	2	
4		682		4	
6	■	1123		6	
8	■	1123		8	
10		1123	Brown Sandy Clay (Wet)	10	
12		462	Brown Silty Clay	12	
14		587		14	
16	■	587		16	
18	■	61	Sandstone	18	
20			Boring Refusal: 18' Groundwater Encountered: 10'	20	
22				22	
24				24	
26				26	

■ Soils Sampled for BTEX and MTBE

PROJECT: Croslow's Shell - Dersch Energies, Inc. BORING NO.: B-10  
 LOCATION: Lawrenceville, IL  
 DATE DRILLED: 10/17/06  
 DEPTH OF BORING: 18'  
 WATER INDICATION: 10'  
 WATER SAMPLE: PRODUCT LAYER: \_\_\_\_\_  
 METHODS: DRILLING: Geoprobe SAMPLING: 2" Continuous  
 DRILLING CO.: Advanced Environmental Drilling, Inc.  
 OBSERVATIONS BY: Bryan Williams Page 1 of 1

DEPTH	SAMPLE	FID	DESCRIPTION	DEPTH	FT. RECOVERY
0			Concrete/Rock	0	
2		42	Brown Silty Clay (Strong Odor)	2	
4		325		4	
6	■	1123		6	
8	■	1123	Brown Sandy Clay (Wet) (Strong Odor)	8	
10		1123		10	
12		1123	Brown Silty Clay (Strong Odor)	12	
14		1123		14	
16	■	1123	Sandstone	16	
18	■	12		18	
20			Boring Refusal: 18' Groundwater Encountered: 10'	20	
22				22	
24				24	
26				26	

■ Soils Sampled for BTEX and MTBE



LUST INCIDENT #: 2005-0374		BOREHOLE NUMBER: MW-6	
SITE NAME: Dersch Croslow Shell Lawrenceville		BORING LOCATION: 25'S & 98'E of SE corner of Croslovs (50'E of MW-1)	
SITE ADDRESS: 1421 Lexington Avenue Lawrenceville, Illinois 62439		RIG TYPE: Truck mounted drill rig	
DATE/TIME STARTED: 3/27/14 12:00		DRILLING/SAMPLE METHOD: continuous sampling/hollow stem auger	
DATE/TIME FINISHED: 3/27/14 12:50		BACKFILL: Installed Monitoring Well	

DEPTH (FEET)	SOIL AND ROCK DESCRIPTION	USCS CLASS	Sample Recovery	PID (ppm)	Sample Type	SAMPLE NUMBER	REMARKS: (Odor, Color, Moisture, Penetrometer, etc.)
0	Asphalt						
1	Gravel Subbase						No Odor or Discoloration Throughout
2	Brown Silty Clay with Fine Grain to Medium Grain Sand	CL	95%	0	Grab	MW6-2.5	BETX, MTBE
3							
4							
5							
6	Brown Mottled Grey Silty Clay	CL					
7							
8			85%	0	Grab	MW6-7.5	BETX, MTBE
9							
10							
11							
12	Brown Mottled Grey Silty Clay with Fine Grained Sand	CL	100%	0	Grab	MW6-12.5	BETX, MTBE
13							
14							
15	End of Boring 15'						

Stratification lines are approximate, in-situ transition between soil types may be gradual.

NOTES: Sampled at 2.5, 7.5, and 12.5 per regulations

Manway / Surface Elevation:	96.94		
Groundwater Depth While Drilling:	~ 9-11	Auger Depth: 15'	Driller: AEDC
Groundwater Depth After Drilling:	93.18	Rotary Depth:	Geologist: RJS/BMW



LUST INCIDENT #: 2005-0374		BOREHOLE NUMBER: MW-7	
SITE NAME: Dersch Croslow Shell Lawrenceville		BORING LOCATION: 105'S & 21'W of SE Corner of Croslovs	
SITE ADDRESS: 1421 Lexington Avenue Lawrenceville, Illinois 62439		RIG TYPE: Truck mounted drill rig	
DATE/TIME STARTED: 3/27/14 12:50		DRILLING/SAMPLE METHOD: continuous sampling/hollow stem auger	
DATE/TIME FINISHED: 3/27/14 1:40		BACKFILL: Installed Monitoring Well	

DEPTH (FEET)	SOIL AND ROCK DESCRIPTION	USCS CLASS	Sample Recovery	PID (ppm)	Sample Type	SAMPLE NUMBER	REMARKS: (Odor, Color, Moisture, Penetrometer, etc.)
0	Decorative Gravel						
	Gravel/Soil subbase						
1	Brown Silty Clay with Fine Grain to Medium Grain Sand	CL	95%	0	Grab	MW7-2.5	BETX, MTBE
2							
3							
4							
5							
6	Brown Mottled Grey Silty Clay	CL	90%	0	Grab	MW7-7.5	BETX, MTBE
7							
8							
9							
10							
11							
12	Grey Mottled Brown Silty Clay with Fine Grain Sand	CL	90%	226	Grab	MW7-12.5	BETX, MTBE Odor and Discoloration 12.5'
13							
14							
15	End of Boring 15'						

Stratification lines are approximate, in-situ transition between soil types may be gradual.

NOTES: Sampled at 2.5, 7.5, and 12.5 per regulations

Manway / Surface Elevation:	98.41	Auger Depth:	15'	Driller:	AEDC
Groundwater Depth While Drilling:	~ 9-11	Rotary Depth:		Geologist:	RJS/BMW
Groundwater Depth After Drilling:	94.2				



Illinois Environmental Protection Agency

CW<sup>1</sup> M COMPANY, INC.  
DRILLING BOREHOLE LOG

Page 1 of 2

LUST INCIDENT #: 2005-0374		BOREHOLE NUMBER: MW-8	
SITE NAME: Dersch Croslow Shell Lawrenceville		BORING LOCATION: 35'S & 108'W of NW Corner of Croslovs	
SITE ADDRESS: 1421 Lexington Avenue Lawrenceville, Illinois 62439		RIG TYPE: Truck mounted drill rig	
DATE/TIME STARTED: 3/27/14 1:40		DRILLING/SAMPLE METHOD: continuous sampling/hollow stem auger	
DATE/TIME FINISHED: 3/27/14 2:30		BACKFILL: Installed Monitoring Well	

DEPTH (FEET)	SOIL AND ROCK DESCRIPTION	USCS CLASS	Sample Recovery	PID (ppm)	Sample Type	SAMPLE NUMBER	REMARKS: (Odor, Color, Moisture, Penetrometer, etc.)
0	Grass						
1	Silt Loam top soil						Slight Odor Throughout
2	Brown Silty Clay with Fine Grain to Medium Grain Sand	CL	90%	16.3	Grab	MW8-2.5	BETX, MTBE
6	Brown Mottled Grey Silty Clay	CL					very soft
8			90%	0	Grab	MW8-7.5	BETX, MTBE
13			90%	0	Grab	MW8-12.5	BETX, MTBE
15	End of Boring 15'						

Stratification lines are approximate. in-situ transition between soil types may be gradual.

NOTES: Sampled at 2.5, 7.5, and 12.5 per regulations

Manway / Surface Elevation:	101.52		
Groundwater Depth While Drilling:	~ 9-11	Auger Depth: 15'	Driller: AEDC
Groundwater Depth After Drilling:	98.27	Rotary Depth:	Geologist: RJS /BMW



LUST INCIDENT #: 2005-0374		BOREHOLE NUMBER: MW-9	
SITE NAME: Dersch Croslow Shell Lawrenceville		BORING LOCATION: 20'E of NE Corner of Croslovs	
SITE ADDRESS: 1421 Lexington Avenue Lawrenceville, Illinois 62439		RIG TYPE: Truck mounted drill rig	
DATE/TIME STARTED: 3/27/14 2:30		DRILLING/SAMPLE METHOD: continuous sampling/hollow stem auger	
DATE/TIME FINISHED: 3/27/14 3:20		BACKFILL: Installed Monitoring Well	

DEPTH (FEET)	SOIL AND ROCK DESCRIPTION	USCS CLASS	Sample Recovery	PID (ppm)	Sample Type	SAMPLE NUMBER	REMARKS: (Odor, Color, Moisture, Penetrometer, etc.)
0	Gravel						
	Subbase						No Odor & Discoloration
1							
2	Brown Mottled Grey Silty Clay with Fine Grain to Medium Grain Sand	CL	90%	0	Grab	MW9-2.5	BETX, MTBE
3							
4							
5							
6							
7	Brown Mottled Grey Silty Clay	CL					very soft
8			90%	0	Grab	MW9-7.5	BETX, MTBE
9							
10							
11							
12							
13			95%	0	Grab	MW9-12.5	BETX, MTBE
14	Brown Mottled Grey Silty Clay with trace sand	CL					
15	End of Boring 15'						

Stratification lines are approximate, in-situ transition between soil types may be gradual.

NOTES: Sampled at 2.5, 7.5, and 12.5 per regulations

Manway / Surface Elevation:	99.36			
Groundwater Depth While Drilling:	~ 9-11	Auger Depth:	15'	Driller: AEDC
Groundwater Depth After Drilling:	97.74	Rotary Depth:		Geologist: RJS / BMW



Illinois Environmental Protection Agency

CW<sup>1</sup> M COMPANY, INC.  
DRILLING BOREHOLE LOG

Page 1 of 2

LUST INCIDENT #: 2005-0374		BOREHOLE NUMBER: SB-1	
SITE NAME: Dersch Croslow Shell Lawrenceville		BORING LOCATION: 10'S & 20'W of NW Corner of Croslovs	
SITE ADDRESS: 1421 Lexington Avenue Lawrenceville, Illinois 62439		RIG TYPE: Truck mounted drill rig	
DATE/TIME STARTED: 3/27/14 3:20		DRILLING/SAMPLE METHOD: continuous sampling/hollow stem auger	
DATE/TIME FINISHED: 3/27/14 3:50		BACKFILL: Installed Monitoring Well	

DEPTH (FEET)	SOIL AND ROCK DESCRIPTION	USCS CLASS	Sample Recovery	PID (ppm)	Sample Type	SAMPLE NUMBER	REMARKS: (Odor, Color, Moisture, Penetrometer, etc.)
0	Concrete						
	with Gravel Subbase						Slight Odor & Discoloration Throughout
1	Brown Silty Clay with Fine Grain to Medium Grain Sand	CL	75%	2.1	Grab	SB1-2.5	BETX, MTBE
2							
3							
4							
5							
6	Brown Silty Clay	CL					
7							
8			90%	0	Grab	SB1-7.5	BETX, MTBE
9							
10							
11							
12							
13			95%	0	Grab	SB1-12.5	BETX, MTBE
14	Brown Mottled Grey Silty Clay with Fine Grain Sand	CL					
15	End of Boring 15'						

Stratification lines are approximate, in-situ transition between soil types may be gradual.

NOTES: Sampled at 2.5, 7.5, and 12.5 per regulations

Manway / Surface Elevation:

▼ Groundwater Depth While Drilling:	~ 9-11	Auger Depth:	15'	Driller:	AEDC
▽ Groundwater Depth After Drilling:		Rotary Depth:		Geologist:	RJS / BMW

# Applied Environmental Technologies

# Well Completion Report

Incident No.: H-20050374  
 Site Name: Croslow's Shell - Dersch Energies, Inc.  
 Drilling Contractor: Advanced Environmental Drilling  
 Driller: Greg Courson  
 Drilling Method: Hollow Stem Augers

Well No.: MW - 1  
 Date Drilled Start: 10/17/06  
 Date Completed: 10/17/06  
 Geologist: Bryan Williams  
 Drilling Fluids (type): N/A

## Annular Space Details

Type of Surface Seal: Concrete  
 Type of Annular Sealant: Bentonite  
 Type of Bentonite Seal (Granular, Pellet): Granular  
 Type of Sand Pack: Silica Sand

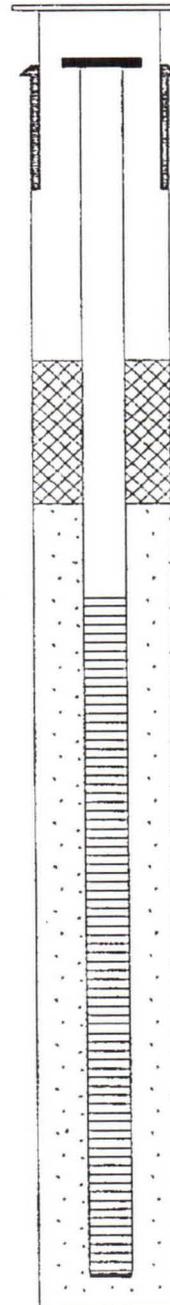
## Well Construction Materials

	Stainless Steel Specify Type	PVC Specify Type	Other Specify Type
Riser Coupling Joint		Screw	
Riser Pipe Above w.t.		Sched 40 - 2"	
Riser Pipe Below w.t.		Sched 40 - 2"	
Screen		Sched 40 - 2"	
Coupling Joint Screen to Riser		Screw	
Protective Casing			Steel

## Measurements

Riser Pipe Length	9.60'
Screen Length	10'
Screen Slot Size	0.010"
Protective Casing Length	1'
Depth to Water	5.47'
Elevation of Water	90.53'
Free Product Thickness	N/A
Gallons Removed (develop)	N/A
Gallons Removed (purge)	8 Gallons
Other	

Elevations - .01 ft.



96.40' Top of Protective Casing

96.00' Top of Riser Pipe

96.40' Ground Surface

95.40' Top of Annular Sealant

N/A Casing Stickup

95.40' Top of Seal

5' Total Seal Interval

90.40' Top of Sand

86.40' Top of Screen

10' Total Screen Interval

76.40' Bottom of Screen

76.40' Bottom of Borehole

Completed By: Jay Emery

# Applied Environmental Technologies

# Well Completion Report

Incident No.: H-20050374  
 Site Name: Croslow's Shell - Dersch Energies, Inc.  
 Drilling Contractor: Advanced Environmental Drilling  
 Driller: Greg Courson  
 Drilling Method: Hollow Stem Augers

Well No.: MW - 2  
 Date Drilled Start: 10/17/06  
 Date Completed: 10/17/06  
 Geologist: Bryan Williams  
 Drilling Fluids (type): N/A

## Annular Space Details

Type of Surface Seal: Concrete  
 Type of Annular Sealant: Bentonite  
 Type of Bentonite Seal (Granular, Pellet): Granular  
 Type of Sand Pack: Silica Sand

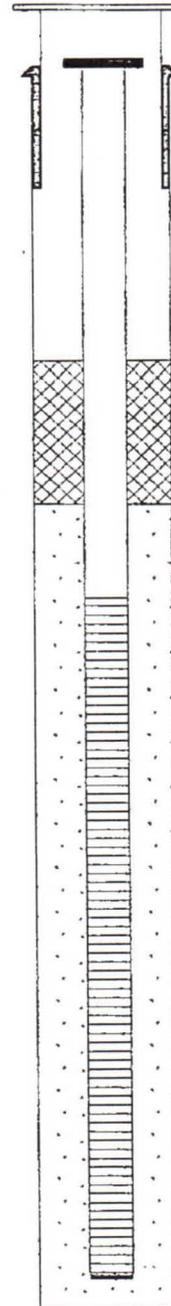
## Well Construction Materials

	Stainless Steel Specify Type	PVC Specify Type	Other Specify Type
Riser Coupling Joint		Screw	
Riser Pipe Above w.t.		Sched 40 - 2"	
Riser Pipe Below w.t.		Sched 40 - 2"	
Screen		Sched 40 - 2"	
Coupling Joint Screen to Riser		Screw	
Protective Casing			Steel

## Measurements

Riser Pipe Length	9.70'
Screen Length	10'
Screen Slot Size	0.010"
Protective Casing Length	1'
Depth to Water	5.96'
Elevation of Water	92.74'
Free Product Thickness	N/A
Gallons Removed (develop)	N/A
Gallons Removed (purge)	8 Gallons
Other	

## Elevations - .01 ft.



99.00' Top of Protective Casing

98.70' Top of Riser Pipe

99.00' Ground Surface

98.00' Top of Annular Sealant

N/A Casing Stickup

98.00' Top of Seal

5' Total Seal Interval

93.00' Top of Sand

89.00' Top of Screen

10' Total Screen Interval

79.00' Bottom of Screen

79.00' Bottom of Borehole

Completed By: Jay Emery

# Applied Environmental Technologies

# Well Completion Report

Incident No.: H-20050374  
 Site Name: Croslow's Shell - Dersch Energies, Inc.  
 Drilling Contractor: Advanced Environmental Drilling  
 Driller: Greg Courson  
 Drilling Method: Hollow Stem Augers

Well No.: MW - 3  
 Date Drilled Start: 10/17/06  
 Date Completed: 10/17/06  
 Geologist: Bryan Williams  
 Drilling Fluids (type): N/A

## Annular Space Details

Type of Surface Seal: Concrete  
 Type of Annular Sealant: Bentonite  
 Type of Bentonite Seal (Granular, Pellet): Granular  
 Type of Sand Pack: Silica Sand

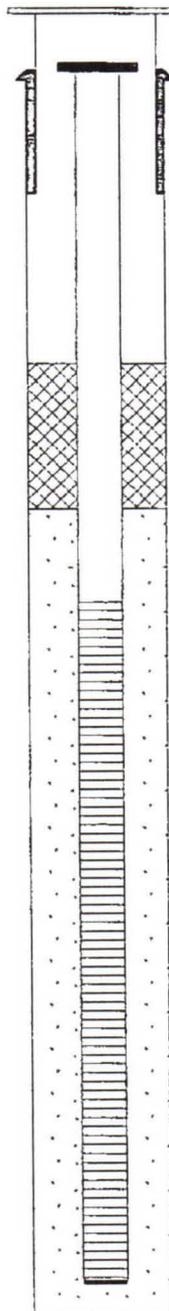
## Well Construction Materials

	Stainless Steel Specify Type	PVC Specify Type	Other Specify Type
Riser Coupling Joint		Screw	
Riser Pipe Above w.t.		Sched 40 - 2"	
Riser Pipe Below w.t.		Sched 40 - 2"	
Screen		Sched 40 - 2"	
Coupling Joint Screen to Riser		Screw	
Protective Casing			Steel

## Measurements

Riser Pipe Length	9.67'
Screen Length	10'
Screen Slot Size	0.010"
Protective Casing Length	1'
Depth to Water	5.68'
Elevation of Water	92.50'
Free Product Thickness	N/A
Gallons Removed (develop)	N/A
Gallons Removed (purge)	8 Gallons
Other	

Elevations - .01 ft.



98.51' Top of Protective Casing  
 98.18' Top of Riser Pipe  
 98.51' Ground Surface  
 97.51' Top of Annular Sealant  
 N/A Casing Stickup  
 97.51' Top of Seal  
 5' Total Seal Interval  
 92.51' Top of Sand  
 88.51' Top of Screen  
 10' Total Screen Interval  
 78.51' Bottom of Screen  
 78.51' Bottom of Borehole

Completed By: Jay Emery

# Applied Environmental Technologies

# Well Completion Report

Incident No.: H-20050374  
 Site Name: Croslow's Shell - Dersch Energies, Inc.  
 Drilling Contractor: Advanced Environmental Drilling  
 Driller: Greg Courson  
 Drilling Method: Hollow Stem Augers

Well No.: MW - 4  
 Date Drilled Start: 10/17/06  
 Date Completed: 10/17/06  
 Geologist: Bryan Williams  
 Drilling Fluids (type): N/A

## Annular Space Details

Type of Surface Seal: Concrete  
 Type of Annular Sealant: Bentonite  
 Type of Bentonite Seal (Granular, Pellet): Granular  
 Type of Sand Pack: Silica Sand

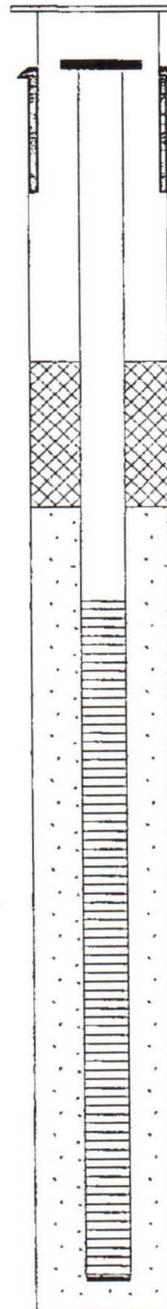
## Well Construction Materials

	Stainless Steel Specify Type	PVC Specify Type	Other Specify Type
Riser Coupling Joint		Screw	
Riser Pipe Above w.t.		Sched 40 - 2"	
Riser Pipe Below w.t.		Sched 40 - 2"	
Screen		Sched 40 - 2"	
Coupling Joint Screen to Riser		Screw	
Protective Casing			Steel

## Measurements

Riser Pipe Length	9.62'
Screen Length	10'
Screen Slot Size	0.010"
Protective Casing Length	1'
Depth to Water	4.02'
Elevation of Water	94.02'
Free Product Thickness	N/A
Gallons Removed (develop)	N/A
Gallons Removed (purge)	8 Gallons
Other	

Elevations - .01 ft.



98.42' Top of Protective Casing

98.04' Top of Riser Pipe

98.42' Ground Surface

97.42' Top of Annular Sealant

N/A Casing Stickup

97.42' Top of Seal

5' Total Seal Interval

92.42' Top of Sand

88.42' Top of Screen

10' Total Screen Interval

78.42' Bottom of Screen

78.42' Bottom of Borehole

Completed By: Jay Emery

# Applied Environmental Technologies

# Well Completion Report

Incident No.: H-20050374  
 Site Name: Croslow's Shell - Dersch Energies, Inc.  
 Drilling Contractor: Advanced Environmental Drilling  
 Driller: Greg Courson  
 Drilling Method: Hollow Stem Augers

Well No.: MW - 5  
 Date Drilled Start: 10/17/06  
 Date Completed: 10/17/06  
 Geologist: Bryan Williams  
 Drilling Fluids (type): N/A

## Annular Space Details

Type of Surface Seal: Concrete  
 Type of Annular Sealant: Bentonite  
 Type of Bentonite Seal (Granular, Pellet): Granular  
 Type of Sand Pack: Silica Sand

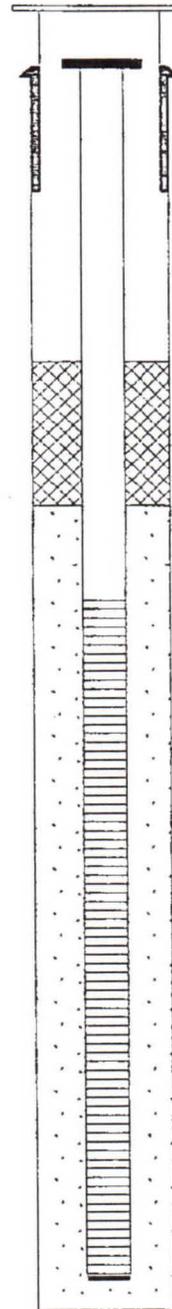
## Well Construction Materials

	Stainless Steel Specify Type	PVC Specify Type	Other Specify Type
Riser Coupling Joint		Screw	
Riser Pipe Above w.t.		Sched 40 - 2"	
Riser Pipe Below w.t.		Sched 40 - 2"	
Screen		Sched 40 - 2"	
Coupling Joint Screen to Riser		Screw	
Protective Casing			Steel

## Measurements

Riser Pipe Length	9.60'
Screen Length	10'
Screen Slot Size	0.010"
Protective Casing Length	1'
Depth to Water	5.13'
Elevation of Water	91.13'
Free Product Thickness	N/A
Gallons Removed (develop)	N/A
Gallons Removed (purge)	8 Gallons
Other	

Elevations - .01 ft.



96.66' Top of Protective Casing

96.26' Top of Riser Pipe

96.66' Ground Surface

95.66' Top of Annular Sealant

N/A Casing Stickup

95.66' Top of Seal

5' Total Seal Interval

90.66' Top of Sand

86.66' Top of Screen

10' Total Screen Interval

76.66' Bottom of Screen

76.66' Bottom of Borehole

Completed By: Jay Emery

Illinois Environmental Protection Agency

LUST Well Completion Report

Incident No. 2005-0374  
 Site Name Dersch Lawrenceville  
 Drilling Contractor CW<sup>3</sup>M  
 Driller CW<sup>3</sup>M  
 Drilling Method Hollow Stem Auger

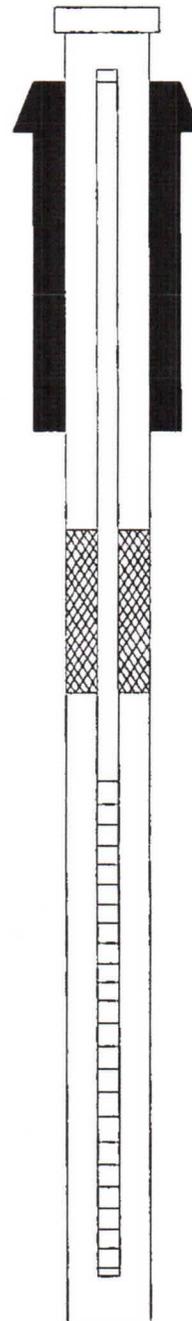
Well No. MW-6  
 Date Drilled 3/27/2014  
 Date Completed 3/27/2014  
 Geologist RJS/BMW  
 Drilling Fluids N/A

**Annular Space Details**

Type of Surface Seal Concrete  
 Type of Annular Sealant Bentonite  
 Type of Bentonite High-Yield  
 Type of Sand Pack Coarse 20-20

**Well Construction Materials**

	Stainless Steel Type	PVC Specify Type	Other Specify Type
Riser Coupling Joint			
Riser Pipe Above w.t.		Sched.-40	
Riser Pipe Below w.t.			
Screen		Sched.-40	
Coupling Joint			
Screen to Riser		Sched.-40	
Protective Casing			Steel



Top of Protective Casing 96.94 ft.  
 Top of riser pipe 96.69 ft.  
 Ground surface 96.94 ft.  
 Top of Annular Sealant 96.44 ft.  
 Casing Stickup N/A

Top of Seal 96.44 ft.  
 Total Seal interval 3.00 ft.  
 Top of Sand 93.44 ft.  
 Top of Screen 92.44 ft.

Total Screen Interval 10.0 ft.

Bottom of Screen 82.44 ft.  
 Bottom of Borehole 81.94 ft.

**Measurements**

Riser Pipe Length	4.25 ft.
Screen Length	10.0 ft.
Screen Slot Size	10-slot
Protective Casing Length	N/A
Depth to Water	~9-11 ft. while drilling
Depth to Water	93.18 ft. static
Free Product Thickness	N/A
Gallons removed (develop)	Approximately 3 gallons
Gallons removed (purge)	Approximately 3 gallons
Other	

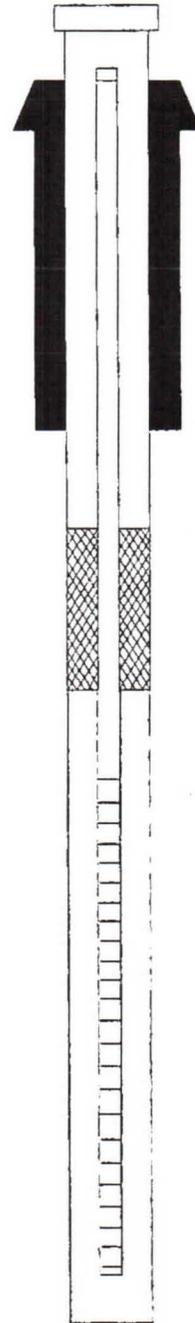
Completed by: BMW

Incident No. 2005-0374  
 Site Name Dersch Lawrenceville  
 Drilling Contractor CW<sup>3</sup>M  
 Driller CW<sup>3</sup>M  
 Drilling Method Hollow Stem Auger

Well No. MW-7  
 Date Drilled 3/27/2014  
 Date Completed 3/27/2014  
 Geologist RJS/BMW  
 Drilling Fluids N/A

**Annular Space Details**

Type of Surface Seal Concrete  
 Type of Annular Sealant Bentonite  
 Type of Bentonite High-Yield  
 Type of Sand Pack Coarse 20-20



Top of Protective Casing 98.41 ft.  
 Top of riser pipe 98.16 ft.  
 Ground surface 98.41 ft.  
 Top of Annular Sealant 97.91 ft.  
 Casing Stickup N/A

**Well Construction Materials**

	Stainless Steel Type	PVC Specify Type	Other Specify Type
Riser Coupling Joint			
Riser Pipe Above w.t.		Sched.-40	
Riser Pipe Below w.t.			
Screen		Sched.-40	
Coupling Joint Screen to Riser		Sched.-40	
Protective Casing			Steel

Top of Seal 97.91 ft.  
 Total Seal interval 3.00 ft.  
 Top of Sand 94.91 ft.  
 Top of Screen 93.91 ft.

**Measurements**

Riser Pipe Length	4.25 ft.
Screen Length	10.0 ft.
Screen Slot Size	10-slot
Protective Casing Length	N/A
Depth to Water	~9-11 ft. while drilling
Depth to Water	94.20 ft. static
Free Product Thickness	N/A
Gallons removed (develop)	Approximately 3 gallons
Gallons removed (purge)	Approximately 3 gallons
Other	

Total Screen Interval 10.0 ft.

Completed by: BMW

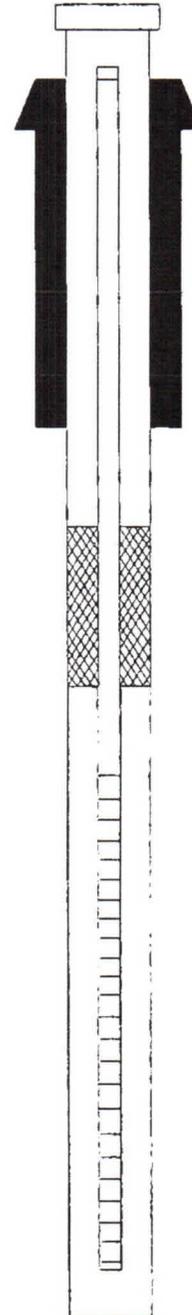
Bottom of Screen 83.91 ft.  
 Bottom of Borehole 83.41 ft.

Incident No. 2005-0374  
 Site Name Dersch Lawrenceville  
 Drilling Contractor CW<sup>3</sup>M  
 Driller CW<sup>3</sup>M  
 Drilling Method Hollow Stem Auger

Well No. MW-8  
 Date Drilled 3/27/2014  
 Date Completed 3/27/2014  
 Geologist RJS/BMW  
 Drilling Fluids N/A

**Annular Space Details**

Type of Surface Seal Concrete  
 Type of Annular Sealant Bentonite  
 Type of Bentonite High-Yield  
 Type of Sand Pack Coarse 20-20



101.52 ft. Top of Protective Casing  
101.27 ft. Top of riser pipe  
101.52 ft. Ground surface  
 Top of Annular Sealant  
101.02 ft. Sealant  
N/A Casing Stickup

**Well Construction Materials**

	Stainless Steel Type	PVC Specify Type	Other Specify Type
Riser Coupling Joint			
Riser Pipe Above w.t.		Sched.-40	
Riser Pipe Below w.t.			
Screen		Sched.-40	
Coupling Joint			
Screen to Riser		Sched.-40	
Protective Casing			Steel

101.02 ft. Top of Seal  
3.00 ft. Total Seal interval  
98.02 ft. Top of Sand  
97.02 ft. Top of Screen

**Measurements**

Riser Pipe Length	4.25 ft.
Screen Length	10.0 ft.
Screen Slot Size	10-slot
Protective Casing Length	N/A
Depth to Water	~9-11 ft. while drilling
Depth to Water	98.27 ft. static
Free Product Thickness	N/A
Gallons removed (develop)	Approximately 3 gallons
Gallons removed (purge)	Approximately 3 gallons
Other	

10.0 ft. Total Screen Interval

Completed by: BMW

87.02 ft. Bottom of Screen  
86.52 ft. Bottom of Borehole

Incident No. 2005-0374  
 Site Name Dersch Lawrenceville  
 Drilling Contractor CW<sup>3</sup>M  
 Driller CW<sup>3</sup>M  
 Drilling Method Hollow Stem Auger

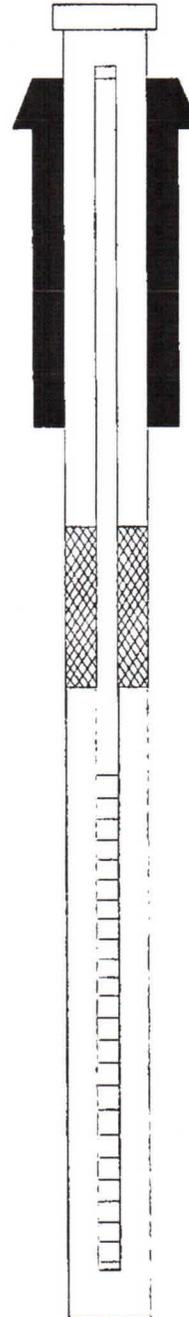
Well No. MW-9  
 Date Drilled 3/27/2014  
 Date Completed 3/27/2014  
 Geologist RJS/BMW  
 Drilling Fluids N/A

**Annular Space Details**

Type of Surface Seal Concrete  
 Type of Annular Sealant Bentonite  
 Type of Bentonite High-Yield  
 Type of Sand Pack Coarse 20-20

**Well Construction Materials**

	Stainless Steel Type	PVC Specify Type	Other Specify Type
Riser Coupling Joint			
Riser Pipe Above w.t.		Sched.-40	
Riser Pipe Below w.t.			
Screen		Sched.-40	
Coupling Joint			
Screen to Riser		Sched.-40	
Protective Casing			Steel



99.36 ft. Top of Protective Casing  
 99.11 ft. Top of riser pipe  
 99.36 ft. Ground surface  
 Top of Annular Sealant  
 98.86 ft. Sealant  
 N/A Casing Stickup

98.86 ft. Top of Seal  
 3.00 ft. Total Seal interval  
 95.86 ft. Top of Sand  
 94.86 ft. Top of Screen

**Measurements**

Riser Pipe Length	4.25 ft.
Screen Length	10.0 ft.
Screen Slot Size	10-slot
Protective Casing Length	N/A
Depth to Water	~9-11 ft. while drilling
Depth to Water	97.74 ft. static
Free Product Thickness	N/A
Gallons removed (develop)	Approximately 3 gallons
Gallons removed (purge)	Approximately 3 gallons
Other	

10.0 ft. Total Screen Interval

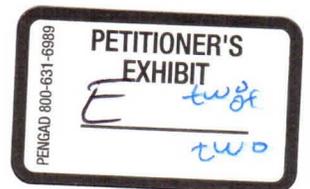
84.86 ft. Bottom of Screen  
 Bottom of Borehole  
 84.36 ft.

Completed by: BMW

# APPENDIX E

## ANALYTICAL RESULTS

SITE INVESTIGATION  
COMPLETION REPORT  
DERSCH CROSLAWS  
LAWRENCEVILLE, ILLINOIS



Croslow's Shell  
UST Removal Samples  
Collected May 5, 2005

Analyte	Cleanup objectives	No. 1 W Wall S 8ft	No. 2 W Wall N 8ft	No. 3 N Wall W 7ft	No. 4 N Wall E 7ft	No. 5 E Wall N 8ft	No. 6 E Wall S 8ft	No. 7 S Wall E 6ft	No. 8 S Wall W 8ft	No. 9 SW Floor 12ft	No. 10 NW Floor 11ft
<b>Date Sampled</b>		5/5/2005	5/5/2005	5/5/2005	5/5/2005	5/5/2005	5/5/2005	5/5/2005	5/5/2005	5/5/2005	5/5/2005
<b>BTEX</b>											
Benzene	0.03	0.012	0.0087	0.0056	0.0028	0.013	<b>0.15</b>	<b>0.1</b>	<b>0.031</b>	<b>0.08</b>	<b>0.48</b>
Toluene	12	0.0078	0.011	0.019	0.007	<0.0063	0.62	<0.51	<0.24	<0.0062	<1.2
Ethylbenzene	13	0.002	0.0031	0.0078	0.0028	0.0022	0.7	<0.051	<0.024	0.0044	3.2
Total Xylene	150	0.019	0.012	0.04	0.0055	0.0098	3	0.44	0.09	0.012	7.9
<b>MTBE</b>	0.32	0.039	0.035	0.017	0.0013	0.005	<0.10	<0.10	0.079	0.075	<0.24
<b>PNA's</b>											
Anthracene	12,000	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.040
Acenaphthene	570	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.040
Acenaphthylene	30	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.040
Benzo (a) anthracene	2	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.040
Benzo (a) pyrene	0.8	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.040
Benzo (b) fluoranthene	5	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.040
Benzo (g,h,i) perylene	2,300	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.040
Benzo (k) fluoranthene	49	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.040
Chrysene	160	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.040
Dibenzo (a,h) anthracene	0.8	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.040
Fluoranthene	4,300	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.040
Fluorene	560	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.040
Indeno (1,2,3,-cd) pyrene	8	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.040
Napthalene	12	<0.041	<0.041	<0.041	<0.041	<0.041	0.35	0.044	<0.041	<0.041	1.1
Phenanthrene		<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.040
Pyrene	4,200	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.040

Tier I Soil Remediation Objectives for Commercial/Industrial Property  
All results given in mg/kg. Bold entries exceed cleanup objectives.

Croslow's Shell  
UST Removal Samples  
Collected May 5, 2005

Analyte	Cleanup objectives	No. 11 SE Floor 11.5ft	No. 12 NE Floor 11.5ft	No. 13 Diesel Fill 11ft	No. 14 Dispenser 1 2ft	No. 15 Dispenser 2 2ft	No. 16 Dispenser 3 2ft	No. 17 Dispenser 4 2ft			
<b>Date Sampled</b>		5/5/2005	5/5/2005	5/5/2005	5/5/2005	5/5/2005	5/5/2005	5/5/2005			
<b>BTEX</b>											
Benzene	0.03	0.12	0.16	1.5	0.065	0.024	0.073	0.062			
Toluene	12	<0.24	<0.26	<2.4	<0.56	<0.0063	<0.29	0.021			
Ethylbenzene	13	0.058	0.062	<0.24	<0.056	0.0024	<0.029	0.0014			
Total Xylene	150	0.15	0.16	<0.72	<0.17	<0.0019	<0.088	0.0065			
<b>MTBE</b>	0.32	0.068	<0.052	<0.48	<0.11	0.014	<0.058	0.015			
<b>PNA's</b>											
Anthracene	12,000	<0.042	<0.042	<0.041		<0.042					
Acenaphthene	570	<0.042	<0.042	<0.041		<0.042					
Acenaphthylene	30	<0.042	<0.042	<0.041		<0.042					
Benzo (a) anthracene	2	<0.042	<0.042	<0.041		<0.042					
Benzo (a) pyrene	0.8	<0.042	<0.042	<0.041		<0.042					
Benzo (b) fluoranthene	5	<0.042	<0.042	<0.041		<0.042					
Benzo (g,h,i) perylene	2,300	<0.042	<0.042	<0.041		<0.042					
Benzo (k) fluoranthene	49	<0.042	<0.042	<0.041		<0.042					
Chrysene	160	<0.042	<0.042	<0.041		<0.042					
Dibenzo (a,h) anthracene	0.8	<0.042	<0.042	<0.041		<0.042					
Fluoranthene	4,300	<0.042	<0.042	<0.041		<0.042					
Fluorene	560	<0.042	<0.042	<0.041		<0.042					
Indeno (1,2,3,-cd) pyrene	8	<0.042	<0.042	<0.041		<0.042					
Napthalene	12	<0.042	0.076	<0.041		<0.042					
Phenanthrene		<0.042	<0.042	<0.041		<0.042					
Pyrene	4,200	<0.042	<0.042	<0.041		<0.042					

Tier I Soil Remediation Objectives for Commerical/Industrial Property  
All results given in mg/kg. Bold entries exceed cleanup objectives.

Analytical Summary  
 Croslow's Shell  
 Dersch Energies, Inc.  
 Lawrenceville, IL

Results of Soil Sample Analyses for BTEX and MTBE

Analyte	Ingestion Objective	Inhalation Objective	Migration to GW Objective	B-1 2.5 Feet	B-1 10 Feet	B-1 13 Feet	B-1 19 Feet
Date Sampled				10/17/06	10/17/06	10/17/06	10/17/06
<b>BTEX</b>							
Benzene	<b>12</b>	<b>0.8</b>	<b>0.03</b>	<0.00063	0.0066	<b>0.16</b>	<0.00058
Toluene	<b>16000</b>	<b>650</b>	<b>12</b>	<0.0063	0.0082	0.13	<0.0058
Ethylbenzene	<b>7800</b>	<b>400</b>	<b>13</b>	<0.00063	0.0029	0.014	<0.00058
Xylenes (total)	<b>160000</b>	<b>320</b>	<b>150</b>	<0.0019	0.0067	0.088	<0.0017
<b>MTBE</b>	<b>20000</b>	<b>8.8</b>	<b>0.32</b>	<0.0012	0.0038	0.097	<0.0012

All concentrations given in mg/kg. Bold entries exceed IEPA TACO Tier 1 Residential Cleanup Objectives

Results of Soil Sample Analyses for BTEX and MTBE

Analyte	Ingestion Objective	Inhalation Objective	Migration to GW Objective	B-2 2.5 Feet	B-2 7.5 Feet	B-2 12.5 Feet	B-2 17.5 Feet
Date Sampled				10/17/06	10/17/06	10/17/06	10/17/06
<b>BTEX</b>							
Benzene	<b>12</b>	<b>0.8</b>	<b>0.03</b>	0.0017	0.0066	<0.00061	<0.006
Toluene	<b>16000</b>	<b>650</b>	<b>12</b>	<0.0061	0.011	<0.0061	<0.006
Ethylbenzene	<b>7800</b>	<b>400</b>	<b>13</b>	<0.00061	0.004	<0.00061	<0.0006
Xylenes (total)	<b>160000</b>	<b>320</b>	<b>150</b>	<0.0018	0.0081	<0.0018	<0.0018
<b>MTBE</b>	<b>20000</b>	<b>8.8</b>	<b>0.32</b>	0.0017	0.0031	0.003	0.0028

All concentrations given in mg/kg. Bold entries exceed IEPA TACO Tier 1 Residential Cleanup Objectives

Results of Soil Sample Analyses for BTEX and MTBE

Analyte	Ingestion Objective	Inhalation Objective	Migration to GW Objective	B-3 2.5 Feet	B-3 7.5 Feet	B-3 12.5 Feet	B-3 17.5 Feet
Date Sampled				10/17/06	10/17/06	10/17/06	10/17/06
<b>BTEX</b>							
Benzene	<b>12</b>	<b>0.8</b>	<b>0.03</b>	0.008	<b>0.8</b>	<b>0.13</b>	0.0038
Toluene	<b>16000</b>	<b>650</b>	<b>12</b>	0.0096	0.9	0.026	<0.0062
Ethylbenzene	<b>7800</b>	<b>400</b>	<b>13</b>	0.00068	0.35	0.012	<0.00062
Xylenes (total)	<b>160000</b>	<b>320</b>	<b>150</b>	0.014	0.83	0.021	<0.0019
<b>MTBE</b>	<b>20000</b>	<b>8.8</b>	<b>0.32</b>	0.0043	0.26	0.066	0.022

All concentrations given in mg/kg. Bold entries exceed IEPA TACO Tier 1 Residential Cleanup Objectives

Analytical Summary  
 Croslow's Shell  
 Dersch Energies, Inc.  
 Lawrenceville, IL

Results of Soil Sample Analyses for BTEX and MTBE

Analyte	Ingestion Objective	Inhalation Objective	Migration to GW Objective	B-4 2.5 Feet	B-4 7.5 Feet	B-4 13 Feet	B-4 18 Feet
Date Sampled				10/17/06	10/17/06	10/17/06	10/17/06
<b>BTEX</b>							
Benzene	<b>12</b>	<b>0.8</b>	<b>0.03</b>	0.022	<b>4.7</b>	<b>0.082</b>	<0.00058
Toluene	<b>16000</b>	<b>650</b>	<b>12</b>	0.014	3.4	0.038	<0.0058
Ethylbenzene	<b>7800</b>	<b>400</b>	<b>13</b>	0.0043	3.1	0.037	0.00064
Xylenes (total)	<b>160000</b>	<b>320</b>	<b>150</b>	0.017	3.8	0.054	<0.0018
<b>MTBE</b>	<b>20000</b>	<b>8.8</b>	<b>0.32</b>	0.012	<b>1.2</b>	0.073	0.094

All concentrations given in mg/kg. Bold entries exceed IEPA TACO Tier 1 Residential Cleanup Objectives

Results of Soil Sample Analyses for BTEX and MTBE

Analyte	Ingestion Objective	Inhalation Objective	Migration to GW Objective	B-5 5 Feet	B-5 7.5 Feet	B-5 12.5 Feet	B-5 18 Feet
Date Sampled				10/17/06	10/17/06	10/17/06	10/17/06
<b>BTEX</b>							
Benzene	<b>12</b>	<b>0.8</b>	<b>0.03</b>	<b>1.2</b>	<b>3.4</b>	<b>0.84</b>	0.00062
Toluene	<b>16000</b>	<b>650</b>	<b>12</b>	2.4	3.6	<0.24	<0.0062
Ethylbenzene	<b>7800</b>	<b>400</b>	<b>13</b>	5.3	<b>22</b>	1.6	0.00071
Xylenes (total)	<b>160000</b>	<b>320</b>	<b>150</b>	2.9	64	0.28	0.0027
<b>MTBE</b>	<b>20000</b>	<b>8.8</b>	<b>0.32</b>	<b>0.35</b>	<b>2</b>	0.13	0.015

All concentrations given in mg/kg. Bold entries exceed IEPA TACO Tier 1 Residential Cleanup Objectives

Results of Soil Sample Analyses for BTEX and MTBE

Analyte	Ingestion Objective	Inhalation Objective	Migration to GW Objective	B-6 5 Feet	B-6 7.5 Feet	B-6 15 Feet	B-6 18 Feet
Date Sampled				10/17/06	10/17/06	10/17/06	10/17/06
<b>BTEX</b>							
Benzene	<b>12</b>	<b>0.8</b>	<b>0.03</b>	<b>0.038</b>	<b>5.2</b>	<b>0.047</b>	0.017
Toluene	<b>16000</b>	<b>650</b>	<b>12</b>	0.034	5	<0.0062	0.0098
Ethylbenzene	<b>7800</b>	<b>400</b>	<b>13</b>	0.016	<b>21</b>	0.0082	0.0025
Xylenes (total)	<b>160000</b>	<b>320</b>	<b>150</b>	0.051	10	0.0058	0.007
<b>MTBE</b>	<b>20000</b>	<b>8.8</b>	<b>0.32</b>	0.018	<b>1.9</b>	0.048	0.026
<b>TOC</b>							

All concentrations given in mg/kg. Bold entries exceed IEPA TACO Tier 1 Residential Cleanup Objectives

Analytical Summary  
 Croslow's Shell  
 Dersch Energies, Inc.  
 Lawrenceville, IL

Results of Soil Sample Analyses for BTEX and MTBE

Analyte	Ingestion Objective	Inhalation Objective	Migration to GW Objective	B-10 5 Feet	B-10 10 Feet	B-10 15 Feet	B-10 18 Feet
Date Sampled				10/17/06	10/17/06	10/17/06	10/17/06
<b>BTEX</b>							
Benzene	<b>12</b>	<b>0.8</b>	<b>0.03</b>	<b>0.042</b>	<b>0.099</b>	<b>0.51</b>	0.011
Toluene	<b>16000</b>	<b>650</b>	<b>12</b>	0.018	0.072	0.32	<0.0058
Ethylbenzene	<b>7800</b>	<b>400</b>	<b>13</b>	0.0037	0.036	2.2	0.0053
Xylenes (total)	<b>160000</b>	<b>320</b>	<b>150</b>	0.018	0.15	0.15	0.0052
<b>MTBE</b>	<b>20000</b>	<b>8.8</b>	<b>0.32</b>	0.015	0.045	0.28	0.011

All concentrations given in mg/kg. Bold entries exceed IEPA TACO Tier 1 Residential Cleanup Objectives

Analytical Summary Table  
 Dersch Energies, Inc.  
 Croslow Shell  
 Lawrenceville, IL

Analyte	Class 1 GW Objectives	MW-1	MW-2	MW-3	MW-4	MW-5
<b>Date Sampled</b>		10/24/2006	10/24/2006	10/24/2006	10/24/2006	10/24/2006
<b>BTEX</b>						
Benzene	0.005	<b>0.038</b>	<0.0005	<b>0.24</b>	<b>0.065</b>	<b>1</b>
Toluene	1.0	<0.025	<0.005	<0.05	<0.12	<0.5
Ethylbenzene	0.7	0.004	<0.0005	0.062	0.11	3.1
Total Xylene	10.0	<0.0075	<0.0015	<0.015	<0.038	3.5
<b>MTBE</b>	0.07	0.023	0.013	<b>0.21</b>	<b>0.26</b>	<b>0.16</b>
<b>PNA's</b>						
Anthracene	2.1	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Acenaphthene	0.42	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Acenaphthylene		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo (a) anthracene	0.00013	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo (a) pyrene	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo (b) fluoranthene	0.00018	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo (g,h,i) perylene		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo (k) fluoranthene	0.00017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chrysene	0.0015	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Dibenzo (a,h) anthracene	0.0003	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Fluoranthene	0.28	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Fluorene	0.28	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Indeno (1,2,3,-cd) pyrene	0.00043	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1-Methylnaphthalene		0.017	<0.0001	0.076	0.076	0.23
2-Methylnaphthalene		0.014	<0.0001	0.12	0.072	0.29
Naphthalene	0.14	0.0055	<0.0001	0.046	0.078	<b>0.44</b>
Phenanthrene		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Pyrene	0.21	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

Petroleum Cleanup Objectives for Groundwater (TACO Tier 1 Class 1).  
 All results given in mg/l. Bold entries exceed cleanup objectives.



Dersch Energies, Inc.  
Lawrenceville, Illinois  
Corrective Action Data

CWM GW 4-4-14

	Location	MW6	MW7	MW8	MW9	
	Date	4/4/2014	4/4/2014	4/4/2014	4/4/2014	
Parameter	Class I CUO					
Benzene	0.005	<0.002	<0.002	<0.002	<0.002	
Ethylbenzene	0.7	<0.002	<0.002	<0.002	0.002	
Toluene	1.0	0.003	0.011	0.003	0.018	
Total Xylenes	10.0	0.007	0.022	0.01	0.032	
MTBE	0.07	<0.005	<0.005	<0.005	<0.005	

**SUBURBAN LABORATORIES, Inc.**



**INVOICE**

FEIN # 36-2695636

1950 S. Batavia Ave., Suite 150 Geneva, Illinois 60134  
 Tel. (708) 544-3260 · Toll Free (800) 783-LABS  
 Fax (708) 544-8587  
 www.suburbanlabs.com

Remit To: Suburban Laboratories, Inc.  
 1950 S. Batavia Ave., Suite 150  
 Geneva, IL 60134  
 Phone: 708-544-3260 Fax: 708-544-8587

Invoice#: 111239  
 Invoice Date: 4/8/2014  
 Terms: NET90  
 Invoice Due: 7/7/2014

Carol Rowe  
 ACCOUNTS PAYABLE  
 CWM Company, Inc  
 701 West South Grand  
 Springfield, IL 62704

Priority: Rush  
 PO:  
 Report To: Carol Rowe  
 Fax: (217) 522-8009

Work Order: 1404010

Date Received: 4/1/2014

Project: Dersch - Crostows - Lawrenceville

Item Description	Matrix	Remarks	Qty	Unit Price	% Disc.	Net Price	Total
BTEX + MTBE Solid	Soil	July 2012 - June 2013	15	\$99.45			\$1,491.75

Item	Unit	Qty	Total
Shipping & Handling	\$58.50	1	\$58.50
5035 Sampling Kit	\$11.70	15	\$175.50

Sub Total: \$1,491.75  
 Misc. Charges: \$234.00  
 Surcharge: 0.00%  
**INVOICE Total: \$1,725.75**  
 Pre-Paid Amount: \$0.00  
**Total Payable Amount: \$1,725.75**

Comments: Terms per signed agreement

**RECEIVED**  
 APR - 8 2014  
 BY: CR



# SUBURBAN LABORATORIES, Inc.



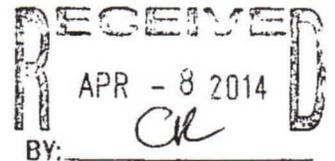
1950 S. Batavia Ave., Suite 150 Geneva, Illinois 60134  
Tel. (708) 544-3260 • Toll Free (800) 783-LABS  
Fax (708) 544-8587  
[www.suburbanlabs.com](http://www.suburbanlabs.com)

April 08, 2014

Carol Rowe  
CWM Company, Inc  
701 West South Grand  
Springfield, IL 62704

**Workorder: 1404010**

TEL: (217) 522-8001  
FAX: (217) 522-8009  
RE: Dersch - Crostows - Lawrenceville



Dear Carol Rowe:

Suburban Laboratories, Inc. received 15 sample(s) on 4/1/2014 for the analyses presented in the following report.

All data for the associated quality control (QC) met EPA, method, or internal laboratory specifications except where noted in the case narrative. If you are comparing these results to external QC specifications or compliance limits and have any questions, please contact us.

This final report of laboratory analysis consists of this cover letter, case narrative, analytical report, dates report, and any accompanying documentation on, but not limited to, chain of custody records, raw data, and letters of explanation or reliance. This report may not be reproduced, except in full, without the prior written approval of Suburban Laboratories, Inc.

If you have any questions regarding these test results, please call me at (708) 544-3260.

Sincerely,

Kelly Culhane  
Project Manager  
708-544-3260 ext 212  
[kelly@suburbanlabs.com](mailto:kelly@suburbanlabs.com)





**Suburban Laboratories, Inc.**  
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

**Case Narrative**

**Client:** CWM Company, Inc  
**Project:** Dersch - Crostows - Lawrenceville  
**WorkOrder:** 1404010  
**Temperature of samples upon receipt at SLI:** 2 C

**Date:** April 08, 2014  
**PO #:**  
**QC Level:**  
**Chain of Custody #:** 111248, 111249

**General Comments:**

- All results reported in wet weight unless otherwise indicated. (dry = Dry Weight)
- Sample results relate only to the analytes of interest tested and to sample as received by the laboratory.
- Environmental compliance sample results meet the requirements of 35 IAC Part 186 unless otherwise indicated.
- Waste water analysis follows the rules set forth in 40 CFR part 136 except where otherwise noted.
- Accreditation by the State of Illinois is not an endorsement or a guarantee of the validity of data generated.
- For more information about the laboratories' scope of accreditation, please contact us at (708) 544-3260 or the Agency at (217) 782-6455.

**Abbreviations:**

- Reporting Limit: The concentration at which an analyte can be routinely detected on a day to day basis, and which also meets regulatory and client needs.
- Quantitation Limit: The lowest concentration at which results can be accurately quantitated.
- J: The analyte was positively identified above our Method Detection Limit and is considered detectable and usable; however, the associated numerical value is the approximate concentration of the analyte in the sample.
- ATC: Automatic Temperature Correction. - TNTC: Too Numerous To Count
- In Laboratory: EPA recommends this analyte be analyzed "immediately" (e.g., tests that should be performed in the field within 15 minutes of collection). Analytes with "immediate" hold times are analyzed as soon as possible upon receipt by the laboratory.
- TIC: Tentatively Identified Compound (GCMS library search identification, concentration estimated to nearest internal standard).
- SS (Surrogate Standard): Quality control compound added to the sample by the lab.

**Method References:**

For a complete list of method references please contact us.

- E: USEPA Reference methods
- SW: USEPA, Test Methods for Evaluating Solid Waste (SW-846)
- M: Standard Methods for the Examination of Water and Wastewater
- USP: Latest version of United States Pharmacopeia

RECEIVED  
APR - 8 2014  
BY: CR

**Workorder Specific Comments:**



# Suburban Laboratories, Inc.

1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

## Laboratory Results

Client ID: CWM Company, Inc

Report Date: April 08, 2014

Project Name: Dersch - Crostows - Lawrenceville

Workorder: 1404010

Client Sample ID: MW6 (2.5)

Matrix: SOIL

Lab ID: 1404010-001

Date Received: 04/01/2014 9:20 AM

Collection Date: 03/27/2014 12:05 PM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-8260B-Rev 2, Dec-96		Analyst: ls	
Benzene	ND	0.0123		mg/Kg-dry	39.38	04/03/2014 3:12 PM	R45539
Ethylbenzene	ND	0.0494		mg/Kg-dry	39.38	04/03/2014 3:12 PM	R45539
m,p-Xylene	ND	0.0987		mg/Kg-dry	39.38	04/03/2014 3:12 PM	R45539
Methyl tert-butyl ether	ND	0.0494		mg/Kg-dry	39.38	04/03/2014 3:12 PM	R45539
o-Xylene	ND	0.0494		mg/Kg-dry	39.38	04/03/2014 3:12 PM	R45539
Total Xylenes	ND	0.0987		mg/Kg-dry	39.38	04/03/2014 3:12 PM	R45539
Toluene	ND	0.0494		mg/Kg-dry	39.38	04/03/2014 3:12 PM	R45539
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	98.1	85.9-111		%REC	39.38	04/03/2014 3:12 PM	R45539
SS: Dibromofluoromethane	103	87.5-113		%REC	39.38	04/03/2014 3:12 PM	R45539
SS: Toluene-d8	103	83.3-121		%REC	39.38	04/03/2014 3:12 PM	R45539

<b>PERCENT MOISTURE</b>							
				Method: ASTM-D2216-Rev 2005		Analyst: mkl	
Percent Moisture	20	1.0		wt%	1	04/02/2014 3:00 PM	R45481

Client Sample ID: MW6 (7.5)

Matrix: SOIL

Lab ID: 1404010-002

Date Received: 04/01/2014 9:20 AM

Collection Date: 03/27/2014 12:15 PM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-8260B-Rev 2, Dec-96		Analyst: ls	
Benzene	ND	0.0141		mg/Kg-dry	43.68	04/03/2014 3:47 PM	R45539
Ethylbenzene	ND	0.0565		mg/Kg-dry	43.68	04/03/2014 3:47 PM	R45539
m,p-Xylene	ND	0.113		mg/Kg-dry	43.68	04/03/2014 3:47 PM	R45539
Methyl tert-butyl ether	ND	0.0565		mg/Kg-dry	43.68	04/03/2014 3:47 PM	R45539
o-Xylene	ND	0.0565		mg/Kg-dry	43.68	04/03/2014 3:47 PM	R45539
Total Xylenes	ND	0.113		mg/Kg-dry	43.68	04/03/2014 3:47 PM	R45539
Toluene	ND	0.0565		mg/Kg-dry	43.68	04/03/2014 3:47 PM	R45539
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	95.9	85.9-111		%REC	43.68	04/03/2014 3:47 PM	R45539
SS: Dibromofluoromethane	104	87.5-113		%REC	43.68	04/03/2014 3:47 PM	R45539
SS: Toluene-d8	102	83.3-121		%REC	43.68	04/03/2014 3:47 PM	R45539

<b>PERCENT MOISTURE</b>							
				Method: ASTM-D2216-Rev 2005		Analyst: mkl	
Percent Moisture	23	1.0		wt%	1	04/02/2014 3:00 PM	R45481

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## Laboratory Results

Client ID: CWM Company, Inc

Report Date: April 08, 2014

Project Name: Dersch - Crostows - Lawrenceville

Workorder: 1404010

Client Sample ID: MW6 (12.5)

Matrix: SOIL

Lab ID: 1404010-003

Date Received: 04/01/2014 9:20 AM

Collection Date: 03/27/2014 12:25 PM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-8260B-Rev 2, Dec-96		Analyst: ks	
Benzene	ND	0.0125		mg/Kg-dry	41.18	04/03/2014 2:42 AM	R45510
Ethylbenzene	ND	0.0502		mg/Kg-dry	41.18	04/03/2014 2:42 AM	R45510
m,p-Xylene	ND	0.100		mg/Kg-dry	41.18	04/03/2014 2:42 AM	R45510
Methyl tert-butyl ether	ND	0.0502		mg/Kg-dry	41.18	04/03/2014 2:42 AM	R45510
o-Xylene	ND	0.0502		mg/Kg-dry	41.18	04/03/2014 2:42 AM	R45510
Total Xylenes	ND	0.100		mg/Kg-dry	41.18	04/03/2014 2:42 AM	R45510
Toluene	ND	0.0502		mg/Kg-dry	41.18	04/03/2014 2:42 AM	R45510
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	103	85.9-111		%REC	41.18	04/03/2014 2:42 AM	R45510
SS: Dibromofluoromethane	87.6	87.5-113		%REC	41.18	04/03/2014 2:42 AM	R45510
SS: Toluene-d8	98.8	83.3-121		%REC	41.18	04/03/2014 2:42 AM	R45510

<b>PERCENT MOISTURE</b>							
				Method: ASTM-D2216-Rev 2005		Analyst: mkl	
Percent Moisture	18	1.0		wt%	1	04/02/2014 3:00 PM	R45481

Client Sample ID: MW7 (2.5)

Matrix: SOIL

Lab ID: 1404010-004

Date Received: 04/01/2014 9:20 AM

Collection Date: 03/27/2014 12:55 PM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-8260B-Rev 2, Dec-96		Analyst: ls	
Benzene	ND	0.0125		mg/Kg-dry	39.76	04/03/2014 4:22 PM	R45539
Ethylbenzene	ND	0.0500		mg/Kg-dry	39.76	04/03/2014 4:22 PM	R45539
m,p-Xylene	ND	0.100		mg/Kg-dry	39.76	04/03/2014 4:22 PM	R45539
Methyl tert-butyl ether	ND	0.0500		mg/Kg-dry	39.76	04/03/2014 4:22 PM	R45539
o-Xylene	ND	0.0500		mg/Kg-dry	39.76	04/03/2014 4:22 PM	R45539
Total Xylenes	ND	0.100		mg/Kg-dry	39.76	04/03/2014 4:22 PM	R45539
Toluene	ND	0.0500		mg/Kg-dry	39.76	04/03/2014 4:22 PM	R45539
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	98.8	85.9-111		%REC	39.76	04/03/2014 4:22 PM	R45539
SS: Dibromofluoromethane	105	87.5-113		%REC	39.76	04/03/2014 4:22 PM	R45539
SS: Toluene-d8	102	83.3-121		%REC	39.76	04/03/2014 4:22 PM	R45539

<b>PERCENT MOISTURE</b>							
				Method: ASTM-D2216-Rev 2005		Analyst: mkl	
Percent Moisture	21	1.0		wt%	1	04/02/2014 3:00 PM	R45481

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## Laboratory Results

Client ID: CWM Company, Inc

Report Date: April 08, 2014

Project Name: Dersch - Crostows - Lawrenceville

Workorder: 1404010

Client Sample ID: MW7 (7.5)

Matrix: SOIL

Lab ID: 1404010-005

Date Received: 04/01/2014 9:20 AM

Collection Date: 03/27/2014 1:05 PM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-8260B-Rev 2, Dec-96		Analyst: Is	
Benzene	ND	0.0131		mg/Kg-dry	41.21	04/03/2014 4:56 PM	R45539
Ethylbenzene	ND	0.0523		mg/Kg-dry	41.21	04/03/2014 4:56 PM	R45539
m,p-Xylene	ND	0.105		mg/Kg-dry	41.21	04/03/2014 4:56 PM	R45539
Methyl tert-butyl ether	ND	0.0523		mg/Kg-dry	41.21	04/03/2014 4:56 PM	R45539
o-Xylene	ND	0.0523		mg/Kg-dry	41.21	04/03/2014 4:56 PM	R45539
Total Xylenes	ND	0.157		mg/Kg-dry	41.21	04/03/2014 4:56 PM	R45539
Toluene	ND	0.0523		mg/Kg-dry	41.21	04/03/2014 4:56 PM	R45539
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	93.7	85.9-111		%REC	41.21	04/03/2014 4:56 PM	R45539
SS: Dibromofluoromethane	103	87.5-113		%REC	41.21	04/03/2014 4:56 PM	R45539
SS: Toluene-d8	101	83.3-121		%REC	41.21	04/03/2014 4:56 PM	R45539
<b>PERCENT MOISTURE</b>							
				Method: ASTM-D2216-Rev 2005		Analyst: mkl	
Percent Moisture	21	1.0		wt%	1	04/02/2014 3:00 PM	R45481

Client Sample ID: MW7 (12.5)

Matrix: SOIL

Lab ID: 1404010-006

Date Received: 04/01/2014 9:20 AM

Collection Date: 03/27/2014 1:15 PM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-8260B-Rev 2, Dec-96		Analyst: Is	
Benzene	ND	0.0133		mg/Kg-dry	42.14	04/04/2014 12:33 PM	R45590
Ethylbenzene	ND	0.0533		mg/Kg-dry	42.14	04/04/2014 12:33 PM	R45590
m,p-Xylene	ND	0.107		mg/Kg-dry	42.14	04/04/2014 12:33 PM	R45590
Methyl tert-butyl ether	ND	0.0533		mg/Kg-dry	42.14	04/04/2014 12:33 PM	R45590
o-Xylene	ND	0.0533		mg/Kg-dry	42.14	04/04/2014 12:33 PM	R45590
Total Xylenes	ND	0.107		mg/Kg-dry	42.14	04/04/2014 12:33 PM	R45590
Toluene	ND	0.0533		mg/Kg-dry	42.14	04/04/2014 12:33 PM	R45590
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	97.7	85.9-111		%REC	42.14	04/04/2014 12:33 PM	R45590
SS: Dibromofluoromethane	104	87.5-113		%REC	42.14	04/04/2014 12:33 PM	R45590
SS: Toluene-d8	97.3	83.3-121		%REC	42.14	04/04/2014 12:33 PM	R45590
<b>PERCENT MOISTURE</b>							
				Method: ASTM-D2216-Rev 2005		Analyst: mkl	
Percent Moisture	21	1.0		wt%	1	04/02/2014 3:00 PM	R45481

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## Laboratory Results

Client ID: CWM Company, Inc

Report Date: April 08, 2014

Project Name: Dersch - Crostows - Lawrenceville

Workorder: 1404010

Client Sample ID: MW8 (2.5)

Matrix: SOIL

Lab ID: 1404010-007

Date Received: 04/01/2014 9:20 AM

Collection Date: 03/27/2014 1:45 PM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-8260B-Rev 2, Dec-96		Analyst: ls	
Benzene	ND	0.0130		mg/Kg-dry	41.18	04/03/2014 5:33 PM	R45539
Ethylbenzene	ND	0.0519		mg/Kg-dry	41.18	04/03/2014 5:33 PM	R45539
m,p-Xylene	ND	0.104		mg/Kg-dry	41.18	04/03/2014 5:33 PM	R45539
Methyl tert-butyl ether	ND	0.0519		mg/Kg-dry	41.18	04/03/2014 5:33 PM	R45539
o-Xylene	ND	0.0519		mg/Kg-dry	41.18	04/03/2014 5:33 PM	R45539
Total Xylenes	ND	0.104		mg/Kg-dry	41.18	04/03/2014 5:33 PM	R45539
Toluene	ND	0.0519		mg/Kg-dry	41.18	04/03/2014 5:33 PM	R45539
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	97.5	85.9-111		%REC	41.18	04/03/2014 5:33 PM	R45539
SS: Dibromofluoromethane	104	87.5-113		%REC	41.18	04/03/2014 5:33 PM	R45539
SS: Toluene-d8	99.6	83.3-121		%REC	41.18	04/03/2014 5:33 PM	R45539
<b>PERCENT MOISTURE</b>							
				Method: ASTM-D2216-Rev 2005		Analyst: mkl	
Percent Moisture	21	1.0		wt%	1	04/02/2014 3:00 PM	R45481

Client Sample ID: MW8 (7.5)

Matrix: SOIL

Lab ID: 1404010-008

Date Received: 04/01/2014 9:20 AM

Collection Date: 03/27/2014 1:55 PM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-8260B-Rev 2, Dec-96		Analyst: ls	
Benzene	ND	0.0137		mg/Kg-dry	42.49	04/03/2014 6:10 PM	R45539
Ethylbenzene	ND	0.0550		mg/Kg-dry	42.49	04/03/2014 6:10 PM	R45539
m,p-Xylene	ND	0.110		mg/Kg-dry	42.49	04/03/2014 6:10 PM	R45539
Methyl tert-butyl ether	ND	0.0550		mg/Kg-dry	42.49	04/03/2014 6:10 PM	R45539
o-Xylene	ND	0.0550		mg/Kg-dry	42.49	04/03/2014 6:10 PM	R45539
Total Xylenes	ND	0.110		mg/Kg-dry	42.49	04/03/2014 6:10 PM	R45539
Toluene	ND	0.0550		mg/Kg-dry	42.49	04/03/2014 6:10 PM	R45539
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	97.0	85.9-111		%REC	42.49	04/03/2014 6:10 PM	R45539
SS: Dibromofluoromethane	103	87.5-113		%REC	42.49	04/03/2014 6:10 PM	R45539
SS: Toluene-d8	97.1	83.3-121		%REC	42.49	04/03/2014 6:10 PM	R45539
<b>PERCENT MOISTURE</b>							
				Method: ASTM-D2216-Rev 2005		Analyst: mkl	
Percent Moisture	23	1.0		wt%	1	04/02/2014 3:00 PM	R45481

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## Laboratory Results

Client ID: CWM Company, Inc  
Project Name: Dersch - Crostows - Lawrenceville

Report Date: April 08, 2014  
Workorder: 1404010

Client Sample ID: MW8 (12.5)  
Lab ID: 1404010-009

Date Received: 04/01/2014 9:20 AM

Matrix: SOIL  
Collection Date: 03/27/2014 2:05 PM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-8260B-Rev 2, Dec-96		Analyst: ls	
Benzene	ND	0.0129		mg/Kg-dry	42.64	04/04/2014 1:41 PM	R45590
Ethylbenzene	ND	0.0515		mg/Kg-dry	42.64	04/04/2014 1:41 PM	R45590
m,p-Xylene	ND	0.103		mg/Kg-dry	42.64	04/04/2014 1:41 PM	R45590
Methyl tert-butyl ether	ND	0.0515		mg/Kg-dry	42.64	04/04/2014 1:41 PM	R45590
o-Xylene	ND	0.0515		mg/Kg-dry	42.64	04/04/2014 1:41 PM	R45590
Total Xylenes	ND	0.103		mg/Kg-dry	42.64	04/04/2014 1:41 PM	R45590
Toluene	ND	0.0515		mg/Kg-dry	42.64	04/04/2014 1:41 PM	R45590
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	99.3	85.9-111		%REC	42.64	04/04/2014 1:41 PM	R45590
SS: Dibromofluoromethane	105	87.5-113		%REC	42.64	04/04/2014 1:41 PM	R45590
SS: Toluene-d8	98.6	83.3-121		%REC	42.64	04/04/2014 1:41 PM	R45590

<b>PERCENT MOISTURE</b>							
				Method: ASTM-D2216-Rev 2005		Analyst: mkl	
Percent Moisture	17	1.0		wt%	1	04/02/2014 3:00 PM	R45481

Client Sample ID: MW9 (2.5)  
Lab ID: 1404010-010

Date Received: 04/01/2014 9:20 AM

Matrix: SOIL  
Collection Date: 03/27/2014 2:35 PM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-8260B-Rev 2, Dec-96		Analyst: ls	
Benzene	ND	0.0113		mg/Kg-dry	35.69	04/04/2014 1:07 PM	R45590
Ethylbenzene	ND	0.0453		mg/Kg-dry	35.69	04/04/2014 1:07 PM	R45590
m,p-Xylene	ND	0.0906		mg/Kg-dry	35.69	04/04/2014 1:07 PM	R45590
Methyl tert-butyl ether	ND	0.0453		mg/Kg-dry	35.69	04/04/2014 1:07 PM	R45590
o-Xylene	ND	0.0453		mg/Kg-dry	35.69	04/04/2014 1:07 PM	R45590
Total Xylenes	ND	0.0906		mg/Kg-dry	35.69	04/04/2014 1:07 PM	R45590
Toluene	ND	0.0453		mg/Kg-dry	35.69	04/04/2014 1:07 PM	R45590
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	97.9	85.9-111		%REC	35.69	04/04/2014 1:07 PM	R45590
SS: Dibromofluoromethane	105	87.5-113		%REC	35.69	04/04/2014 1:07 PM	R45590
SS: Toluene-d8	100	83.3-121		%REC	35.69	04/04/2014 1:07 PM	R45590

<b>PERCENT MOISTURE</b>							
				Method: ASTM-D2216-Rev 2005		Analyst: mkl	
Percent Moisture	21	1.0		wt%	1	04/02/2014 3:00 PM	R45481

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**Laboratory Results**

Client ID: CWM Company, Inc

Report Date: April 08, 2014

Project Name: Dersch - Crostows - Lawrenceville

Workorder: 1404010

Client Sample ID: MW9 (7.5)

Matrix: SOIL

Lab ID: 1404010-011

Date Received: 04/01/2014 9:20 AM

Collection Date: 03/27/2014 2:45 PM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-8260B-Rev 2, Dec-96		Analyst: Is	
Benzene	ND	0.0128		mg/Kg-dry	39.47	04/04/2014 2:15 PM	R45590
Ethylbenzene	ND	0.0513		mg/Kg-dry	39.47	04/04/2014 2:15 PM	R45590
m,p-Xylene	ND	0.103		mg/Kg-dry	39.47	04/04/2014 2:15 PM	R45590
Methyl tert-butyl ether	ND	0.0513		mg/Kg-dry	39.47	04/04/2014 2:15 PM	R45590
o-Xylene	ND	0.0513		mg/Kg-dry	39.47	04/04/2014 2:15 PM	R45590
Total Xylenes	ND	0.103		mg/Kg-dry	39.47	04/04/2014 2:15 PM	R45590
Toluene	ND	0.0513		mg/Kg-dry	39.47	04/04/2014 2:15 PM	R45590
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	100	85.9-111		%REC	39.47	04/04/2014 2:15 PM	R45590
SS: Dibromofluoromethane	105	87.5-113		%REC	39.47	04/04/2014 2:15 PM	R45590
SS: Toluene-d8	102	83.3-121		%REC	39.47	04/04/2014 2:15 PM	R45590
<b>PERCENT MOISTURE</b>							
				Method: ASTM-D2216-Rev 2005		Analyst: mkl	
Percent Moisture	23	1.0		wt%	1	04/02/2014 3:00 PM	R45481

Client Sample ID: MW9 (12.5)

Matrix: SOIL

Lab ID: 1404010-012

Date Received: 04/01/2014 9:20 AM

Collection Date: 03/27/2014 2:55 PM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-8260B-Rev 2, Dec-96		Analyst: Is	
Benzene	ND	0.0129		mg/Kg-dry	42.88	04/04/2014 2:59 PM	R45590
Ethylbenzene	ND	0.0518		mg/Kg-dry	42.88	04/04/2014 2:59 PM	R45590
m,p-Xylene	ND	0.104		mg/Kg-dry	42.88	04/04/2014 2:59 PM	R45590
Methyl tert-butyl ether	ND	0.0518		mg/Kg-dry	42.88	04/04/2014 2:59 PM	R45590
o-Xylene	ND	0.0518		mg/Kg-dry	42.88	04/04/2014 2:59 PM	R45590
Total Xylenes	ND	0.104		mg/Kg-dry	42.88	04/04/2014 2:59 PM	R45590
Toluene	ND	0.0518		mg/Kg-dry	42.88	04/04/2014 2:59 PM	R45590
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	95.7	85.9-111		%REC	42.88	04/04/2014 2:59 PM	R45590
SS: Dibromofluoromethane	105	87.5-113		%REC	42.88	04/04/2014 2:59 PM	R45590
SS: Toluene-d8	103	83.3-121		%REC	42.88	04/04/2014 2:59 PM	R45590
<b>PERCENT MOISTURE</b>							
				Method: ASTM-D2216-Rev 2005		Analyst: mkl	
Percent Moisture	17	1.0		wt%	1	04/02/2014 3:00 PM	R45481

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**Laboratory Results**

**Client ID:** CWM Company, Inc  
**Project Name:** Dersch - Crostows - Lawrenceville

**Report Date:** April 08, 2014  
**Workorder:** 1404010

**Client Sample ID:** SB1 2.5  
**Lab ID:** 1404010-013  
**Date Received:** 04/01/2014 9:20 AM  
**Matrix:** SOIL  
**Collection Date:** 03/27/2014 3:25 PM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-8260B-Rev 2, Dec-96		Analyst: Is	
Benzene	ND	0.0124		mg/Kg-dry	39.24	04/04/2014 3:33 PM	R45590
Ethylbenzene	ND	0.0495		mg/Kg-dry	39.24	04/04/2014 3:33 PM	R45590
m,p-Xylene	ND	0.0991		mg/Kg-dry	39.24	04/04/2014 3:33 PM	R45590
Methyl tert-butyl ether	ND	0.0495		mg/Kg-dry	39.24	04/04/2014 3:33 PM	R45590
o-Xylene	ND	0.0495		mg/Kg-dry	39.24	04/04/2014 3:33 PM	R45590
Total Xylenes	ND	0.0991		mg/Kg-dry	39.24	04/04/2014 3:33 PM	R45590
Toluene	ND	0.0495		mg/Kg-dry	39.24	04/04/2014 3:33 PM	R45590
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	97.5	85.9-111		%REC	39.24	04/04/2014 3:33 PM	R45590
SS: Dibromofluoromethane	105	87.5-113		%REC	39.24	04/04/2014 3:33 PM	R45590
SS: Toluene-d8	97.8	83.3-121		%REC	39.24	04/04/2014 3:33 PM	R45590
<b>PERCENT MOISTURE</b>							
				Method: ASTM-D2216-Rev 2005		Analyst: mkl	
Percent Moisture	21	1.0		wt%	1	04/02/2014 3:00 PM	R45481

**Client Sample ID:** SB1 7.5  
**Lab ID:** 1404010-014  
**Date Received:** 04/01/2014 9:20 AM  
**Matrix:** SOIL  
**Collection Date:** 03/27/2014 3:35 PM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-8260B-Rev 2, Dec-96		Analyst: Is	
Benzene	ND	0.0123		mg/Kg-dry	40.37	04/04/2014 4:06 PM	R45590
Ethylbenzene	ND	0.0494		mg/Kg-dry	40.37	04/04/2014 4:06 PM	R45590
m,p-Xylene	ND	0.0987		mg/Kg-dry	40.37	04/04/2014 4:06 PM	R45590
Methyl tert-butyl ether	ND	0.0494		mg/Kg-dry	40.37	04/04/2014 4:06 PM	R45590
o-Xylene	ND	0.0494		mg/Kg-dry	40.37	04/04/2014 4:06 PM	R45590
Total Xylenes	ND	0.0987		mg/Kg-dry	40.37	04/04/2014 4:06 PM	R45590
Toluene	ND	0.0494		mg/Kg-dry	40.37	04/04/2014 4:06 PM	R45590
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	96.4	85.9-111		%REC	40.37	04/04/2014 4:06 PM	R45590
SS: Dibromofluoromethane	107	87.5-113		%REC	40.37	04/04/2014 4:06 PM	R45590
SS: Toluene-d8	98.7	83.3-121		%REC	40.37	04/04/2014 4:06 PM	R45590
<b>PERCENT MOISTURE</b>							
				Method: ASTM-D2216-Rev 2005		Analyst: mkl	
Percent Moisture	18	1.0		wt%	1	04/02/2014 3:00 PM	R45481

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# Suburban Laboratories, Inc.

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## Laboratory Results

Client ID: CWM Company, Inc

Report Date: April 08, 2014

Project Name: Dersch - Crostows - Lawrenceville

Workorder: 1404010

Client Sample ID: SBI 12.5

Matrix: SOIL

Lab ID: 1404010-015

Date Received: 04/01/2014 9:20 AM

Collection Date: 03/27/2014 3:45 PM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>		Method: EPA-8260B-Rev 2, Dec-96			Analyst: ls		
Benzene	ND	0.0118		mg/Kg-dry	38.45	04/04/2014 4:40 PM	R45590
Ethylbenzene	ND	0.0473		mg/Kg-dry	38.45	04/04/2014 4:40 PM	R45590
m,p-Xylene	ND	0.0947		mg/Kg-dry	38.45	04/04/2014 4:40 PM	R45590
Methyl tert-butyl ether	ND	0.0473		mg/Kg-dry	38.45	04/04/2014 4:40 PM	R45590
o-Xylene	ND	0.0473		mg/Kg-dry	38.45	04/04/2014 4:40 PM	R45590
Total Xylenes	ND	0.0947		mg/Kg-dry	38.45	04/04/2014 4:40 PM	R45590
Toluene	ND	0.0473		mg/Kg-dry	38.45	04/04/2014 4:40 PM	R45590
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	98.5	85.9-111		%REC	38.45	04/04/2014 4:40 PM	R45590
SS: Dibromofluoromethane	106	87.5-113		%REC	38.45	04/04/2014 4:40 PM	R45590
SS: Toluene-d8	96.2	83.3-121		%REC	38.45	04/04/2014 4:40 PM	R45590
<b>PERCENT MOISTURE</b>		Method: ASTM-D2216-Rev 2005			Analyst: mkj		
Percent Moisture	19	1.0		wt%	1	04/02/2014 3:00 PM	R45481

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**Suburban Laboratories, Inc.**  
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

**PREP DATES REPORT**

**Client:** CWM Company, Inc  
**Project:** Dersch - Crostows - Lawrenceville

**Report Date:** April 08, 2014  
**Lab Order:** 1404010

Sample ID	Collection Date	Batch ID	Prep Method	Prep Test Name	TCLP Date	Prep Date
1404010-001A	3/27/2014 12:05:00 P	21048	5035PR	CLOSED SYSTEM P&T VOC Prep		4/1/2014
1404010-002A	3/27/2014 12:15:00 P	21048	5035PR	CLOSED SYSTEM P&T VOC Prep		4/1/2014
1404010-003A	3/27/2014 12:25:00 P	21048	5035PR	CLOSED SYSTEM P&T VOC Prep		4/1/2014
1404010-004A	3/27/2014 12:55:00 P	21048	5035PR	CLOSED SYSTEM P&T VOC Prep		4/1/2014
1404010-005A	3/27/2014 1:05:00 P	21048	5035PR	CLOSED SYSTEM P&T VOC Prep		4/1/2014
1404010-006A	3/27/2014 1:15:00 P	21048	5035PR	CLOSED SYSTEM P&T VOC Prep		4/1/2014
1404010-007A	3/27/2014 1:45:00 P	21048	5035PR	CLOSED SYSTEM P&T VOC Prep		4/1/2014
1404010-008A	3/27/2014 1:55:00 P	21048	5035PR	CLOSED SYSTEM P&T VOC Prep		4/1/2014
1404010-009A	3/27/2014 2:05:00 P	21048	5035PR	CLOSED SYSTEM P&T VOC Prep		4/1/2014
1404010-010A	3/27/2014 2:35:00 P	21048	5035PR	CLOSED SYSTEM P&T VOC Prep		4/1/2014
1404010-011A	3/27/2014 2:45:00 P	21048	5035PR	CLOSED SYSTEM P&T VOC Prep		4/1/2014
1404010-012A	3/27/2014 2:55:00 P	21048	5035PR	CLOSED SYSTEM P&T VOC Prep		4/1/2014
1404010-013A	3/27/2014 3:25:00 P	21048	5035PR	CLOSED SYSTEM P&T VOC Prep		4/1/2014
1404010-014A	3/27/2014 3:35:00 P	21048	5035PR	CLOSED SYSTEM P&T VOC Prep		4/1/2014
1404010-015A	3/27/2014 3:45:00 P	21048	5035PR	CLOSED SYSTEM P&T VOC Prep		4/1/2014

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## Suburban Laboratories, Inc.

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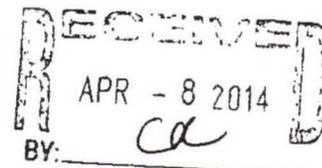
## Qualifier Definitions

WO#: 1404010

Date: 4/8/2014

### Qualifiers:

- \*/X Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- c Analyte not in SLI scope of accreditation
- E Estimated, detected above quantitation range
- G Refer to case narrative page for specific comments
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limit (QL)
- N Tentatively identified compounds
- ND Not Detected at the Reporting Limit
- P Present
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits









# Illinois Environmental Protection Agency

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

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

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### A. Site Identification

IEMA Incident # (6- or 8-digit): 2005-0374 IEPA LPC# (10-digit): 1010155024  
Site Name: DEBSCH - LAWRENCEVILLE CROSLOW  
Site Address (Not a P.O. Box): 1421 LEXINGTON AVENUE  
City: LAWRENCEVILLE County: LAWRENCE ZIP Code: 62439  
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.

BW  
(Initial)  
BW  
(Initial)  
BW  
(Initial)  
BW  
(Initial)

### C. Laboratory Representative

I certify that:

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

RA  
(Initial)  
RA  
(Initial)  
RA  
(Initial)  
RA  
(Initial)  
RA  
(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).

KB  
(Initial)

KB  
(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 BRAD WAWER

Title ENGINEER

Company CWM Company, Inc.

Address 701 W. South Grand Avenue

City Springfield

State Illinois

Zip Code 62704

Phone (217) 522-8001

Signature *Brad Wawer*

Date 3/27/14

**Laboratory Representative**

Name Kelly Aulhane

Title Project Manager

Company Suburban Laboratories, Inc.

Address 1950 S. Batavia Ave Ste 150

City Geneva

State Illinois

Zip Code 60134

Phone 708-544-3260

Signature *K Aulhane*

Date 4-8-14

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**SUBURBAN LABORATORIES, Inc.**



**INVOICE**  
FEIN # 36-2695636

1950 S. Batavia Ave., Suite 150 Geneva, Illinois 60134  
Tel. (708) 544-3260 • Toll Free (800) 783-LABS  
Fax (708) 544-8587  
[www.suburbanlabs.com](http://www.suburbanlabs.com)

Remit To: Suburban Laboratories, Inc.  
1950 S. Batavia Ave., Suite 150  
Geneva, IL 60134  
Phone: 708-544-3260 Fax: 708-544-8587

Invoice#: 111318  
Invoice Date: 4/10/2014  
  
Terms: NET90  
Invoice Due: 7/9/2014

Carol Rowe  
ACCOUNTS PAYABLE  
CWM Company, Inc  
701 West South Grand  
Springfield, IL 62704

Priority: Rush  
PO:  
Report To: Carol Rowe  
Fax: (217) 522-8009

Work Order: 1404373

Date Received: 4/8/2014

Project: Croslovs Shell - Lawrenceville, IL

Item Description	Matrix	Remarks	Qty	Unit Price	% Disc.	Net Price	Total
BTEX + MTBE Water	Groundwater	July 2012 - June 2013	4	\$94.77			\$379.08

Item	Unit	Qty	Total
Shipping & Handling	\$58.50	1	\$58.50
5035 Sampling Kit	\$11.70	0	\$0.00

Sub Total: \$379.08  
Misc. Charges: \$58.50  
Surcharge: 0.00%  
**INVOICE Total: \$437.58**  
Pre-Paid Amount: \$0.00  
**Total Payable Amount: \$437.58**

Comments: Terms per signed agreement

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BY: CR

Illinois Department of Public Health Accredited #17585



Illinois Environmental Protection Agency Accredited #100225

# SUBURBAN LABORATORIES, Inc.



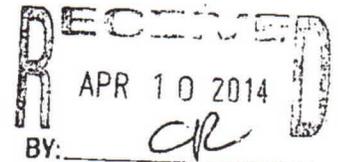
1950 S. Batavia Ave., Suite 150 Geneva, Illinois 60134  
Tel. (708) 544-3260 • Toll Free (800) 783-LABS  
Fax (708) 544-8587  
[www.suburbanlabs.com](http://www.suburbanlabs.com)

April 10, 2014

Carol Rowe  
CWM Company, Inc  
701 West South Grand  
Springfield, IL 62704

Workorder: 1404373

TEL: (217) 522-8001  
FAX: (217) 522-8009  
RE: Croslovs Shell - Lawrenceville, IL



Dear Carol Rowe:

Suburban Laboratories, Inc. received 4 sample(s) on 4/8/2014 for the analyses presented in the following report.

All data for the associated quality control (QC) met EPA, method, or internal laboratory specifications except where noted in the case narrative. If you are comparing these results to external QC specifications or compliance limits and have any questions, please contact us.

This final report of laboratory analysis consists of this cover letter, case narrative, analytical report, dates report, and any accompanying documentation on, but not limited to, chain of custody records, raw data, and letters of explanation or reliance. This report may not be reproduced, except in full, without the prior written approval of Suburban Laboratories, Inc.

If you have any questions regarding these test results, please call me at (708) 544-3260.

Sincerely,

Kelly Culhane  
Project Manager  
708-544-3260 ext 212  
[kelly@suburbanlabs.com](mailto:kelly@suburbanlabs.com)





**Client:** CWM Company, Inc  
**Project:** Croslovs Shell - Lawrenceville, IL  
**WorkOrder:** 1404373  
**Temperature of samples upon receipt at SLI:** 4 C

**Date:** April 10, 2014  
**PO #:**  
**QC Level:**  
**Chain of Custody #:** 113251

**General Comments:**

- All results reported in wet weight unless otherwise indicated. (dry = Dry Weight)
- Sample results relate only to the analytes of interest tested and to sample as received by the laboratory.
- Environmental compliance sample results meet the requirements of 35 IAC Part 186 unless otherwise indicated.
- Waste water analysis follows the rules set forth in 40 CFR part 136 except where otherwise noted.
- Accreditation by the State of Illinois is not an endorsement or a guarantee of the validity of data generated.
- For more information about the laboratories' scope of accreditation, please contact us at (708) 544-3260 or the Agency at (217) 782-6455.

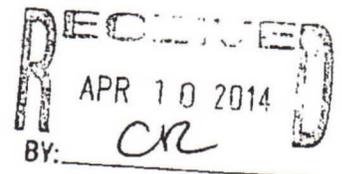
**Abbreviations:**

- Reporting Limit: The concentration at which an analyte can be routinely detected on a day to day basis, and which also meets regulatory and client needs.
- Quantitation Limit: The lowest concentration at which results can be accurately quantitated.
- J: The analyte was positively identified above our Method Detection Limit and is considered detectable and usable; however, the associated numerical value is the approximate concentration of the analyte in the sample.
- ATC: Automatic Temperature Correction. - TNTC: Too Numerous To Count
- In Laboratory: EPA recommends this analyte be analyzed "immediately" (e.g., tests that should be performed in the field within 15 minutes of collection). Analytes with "immediate" hold times are analyzed as soon as possible upon receipt by the laboratory.
- TIC: Tentatively Identified Compound (GCMS library search identification, concentration estimated to nearest internal standard).
- SS (Surrogate Standard): Quality control compound added to the sample by the lab.

**Method References:**

For a complete list of method references please contact us.

- E: USEPA Reference methods
- SW: USEPA, Test Methods for Evaluating Solid Waste (SW-846)
- M: Standard Methods for the Examination of Water and Wastewater
- USP: Latest version of United States Pharmacopeia



**Workorder Specific Comments:**



# Suburban Laboratories, Inc.

1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

## Laboratory Results

Client ID: CWM Company, Inc

Report Date: April 10, 2014

Project Name: Croslovs Shell - Lawrenceville, IL

Workorder: 1404373

Client Sample ID: MW6

Matrix: GROUNDWATER

Lab ID: 1404373-001

Date Received: 04/08/2014 9:26 AM

Collection Date: 04/04/2014 10:00 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-SW8260B-Rev 2, Dec-96		Analyst: JJ	
Benzene	ND	0.00100		mg/L	1	04/09/2014 5:06 PM	R45696
Ethylbenzene	ND	0.00100		mg/L	1	04/09/2014 5:06 PM	R45696
m,p-Xylene	ND	0.00200		mg/L	1	04/09/2014 5:06 PM	R45696
Methyl tert-butyl ether	ND	0.00100		mg/L	1	04/09/2014 5:06 PM	R45696
o-Xylene	0.00674	0.00100		mg/L	1	04/09/2014 5:06 PM	R45696
Total Xylenes	0.00674	0.00200		mg/L	1	04/09/2014 5:06 PM	R45696
Toluene	0.00309	0.00100		mg/L	1	04/09/2014 5:06 PM	R45696
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	97.6	67.9-119		%REC	1	04/09/2014 5:06 PM	R45696
SS: Dibromofluoromethane	104	62.3-122		%REC	1	04/09/2014 5:06 PM	R45696
SS: Toluene-d8	103	68.2-119		%REC	1	04/09/2014 5:06 PM	R45696

Client Sample ID: MW7

Matrix: GROUNDWATER

Lab ID: 1404373-002

Date Received: 04/08/2014 9:26 AM

Collection Date: 04/04/2014 10:20 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-SW8260B-Rev 2, Dec-96		Analyst: JJ	
Benzene	ND	0.00100		mg/L	1	04/09/2014 5:41 PM	R45696
Ethylbenzene	ND	0.00100		mg/L	1	04/09/2014 5:41 PM	R45696
m,p-Xylene	ND	0.00200		mg/L	1	04/09/2014 5:41 PM	R45696
Methyl tert-butyl ether	ND	0.00100		mg/L	1	04/09/2014 5:41 PM	R45696
o-Xylene	0.0224	0.00100		mg/L	1	04/09/2014 5:41 PM	R45696
Total Xylenes	0.0224	0.00200		mg/L	1	04/09/2014 5:41 PM	R45696
Toluene	0.0109	0.00100		mg/L	1	04/09/2014 5:41 PM	R45696
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	102	67.9-119		%REC	1	04/09/2014 5:41 PM	R45696
SS: Dibromofluoromethane	105	62.3-122		%REC	1	04/09/2014 5:41 PM	R45696
SS: Toluene-d8	98.6	68.2-119		%REC	1	04/09/2014 5:41 PM	R45696

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# Suburban Laboratories, Inc.

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## Laboratory Results

Client ID: CWM Company, Inc

Report Date: April 10, 2014

Project Name: Croslovs Shell - Lawrenceville, IL

Workorder: 1404373

Client Sample ID: MW8

Matrix: GROUNDWATER

Lab ID: 1404373-003

Date Received: 04/08/2014 9:26 AM

Collection Date: 04/04/2014 10:40 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-SW8260B-Rev 2, Dec-96		Analyst: JJ	
Benzene	ND	0.00100		mg/L	1	04/09/2014 6:16 PM	R45696
Ethylbenzene	ND	0.00100		mg/L	1	04/09/2014 6:16 PM	R45696
m,p-Xylene	0.00253	0.00200		mg/L	1	04/09/2014 6:16 PM	R45696
Methyl tert-butyl ether	ND	0.00100		mg/L	1	04/09/2014 6:16 PM	R45696
o-Xylene	0.00700	0.00100		mg/L	1	04/09/2014 6:16 PM	R45696
Total Xylenes	0.00953	0.00200		mg/L	1	04/09/2014 6:16 PM	R45696
Toluene	0.00256	0.00100		mg/L	1	04/09/2014 6:16 PM	R45696
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	101	67.9-119		%REC	1	04/09/2014 6:16 PM	R45696
SS: Dibromofluoromethane	105	62.3-122		%REC	1	04/09/2014 6:16 PM	R45696
SS: Toluene-d8	99.6	68.2-119		%REC	1	04/09/2014 6:16 PM	R45696

Client Sample ID: MW9

Matrix: GROUNDWATER

Lab ID: 1404373-004

Date Received: 04/08/2014 9:26 AM

Collection Date: 04/04/2014 11:00 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
<b>VOLATILE ORGANIC COMPOUNDS</b>							
				Method: EPA-SW8260B-Rev 2, Dec-96		Analyst: JJ	
Benzene	ND	0.00100		mg/L	1	04/09/2014 6:51 PM	R45696
Ethylbenzene	0.00171	0.00100		mg/L	1	04/09/2014 6:51 PM	R45696
m,p-Xylene	0.0113	0.00200		mg/L	1	04/09/2014 6:51 PM	R45696
Methyl tert-butyl ether	ND	0.00100		mg/L	1	04/09/2014 6:51 PM	R45696
o-Xylene	0.0203	0.00100		mg/L	1	04/09/2014 6:51 PM	R45696
Total Xylenes	0.0316	0.00200		mg/L	1	04/09/2014 6:51 PM	R45696
Toluene	0.0180	0.00100		mg/L	1	04/09/2014 6:51 PM	R45696
<u>Internal Quality Control Compounds</u>							
SS: 4-Bromofluorobenzene	97.7	67.9-119		%REC	1	04/09/2014 6:51 PM	R45696
SS: Dibromofluoromethane	106	62.3-122		%REC	1	04/09/2014 6:51 PM	R45696
SS: Toluene-d8	99.9	68.2-119		%REC	1	04/09/2014 6:51 PM	R45696

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**Qualifiers:**

- \*x Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- c Analyte not in SLI scope of accreditation
- E Estimated, detected above quantitation range
- G Refer to case narrative page for specific comments
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limit (QL)
- N Tentatively identified compounds
- ND Not Detected at the Reporting Limit
- P Present
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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# Illinois Environmental Protection Agency

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

### A. Site Identification

IEMA Incident # (6- or 8-digit): 05-0374                      IEPA LPC# (10-digit): 1010155024  
 Site Name: Crosloves Shell  
 Site Address (Not a P.O. Box): 1421 Lexington Ave  
 City: Lawrenceville                      County: \_\_\_\_\_                      ZIP Code: 62439  
 Leaking UST Technical File \_\_\_\_\_

### B. Sample Collector

I certify that:

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

### C. Laboratory Representative

I certify that:

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

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 APR 21 2014  
 BY: Rt

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

PH  
(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).

PH  
(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 Matt Dhabal  
Title Technician  
Company CWM Company, Inc.  
Address 701 South Grand Ave. West  
City Springfield  
State IL  
Zip Code 62704  
Phone 217-522-8001  
Signature *Matt Dhabal*  
Date 4-4-14

**Laboratory Representative**

Name Kelly Culhane  
Title Project Manager  
Company Suburban Laboratories, Inc.  
Address ~~414 Hill Drive~~ 1950 S. Batavia Ave. Ste 15  
City ~~Hillside~~ Geneva  
State IL  
Zip Code ~~62704~~ 60134  
Phone 708-544-3260  
Signature *K Culhane*  
Date 4-10-14

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# **APPENDIX F**

## **STAGE 3 ACTUAL COSTS**

**SITE INVESTIGATION  
COMPLETION REPORT  
DERSCH CROSLAWS  
LAWRENCEVILLE, ILLINOIS**

## 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 20050374. I further certify that the costs set forth in this budget are for necessary activities and are reasonable and accurate to the best of my knowledge and belief. I also certify that the costs included in this budget are not for corrective action in excess of the minimum requirements of 415 ILCS 5/57, no costs are included in this budget that are not described in the corrective action plan, and no costs exceed Subpart H: Maximum Payment Amounts, Appendix D Sample Handling and Analysis amounts, and Appendix E Personnel Titles and Rates of 35 Ill. Adm. Code 732 or 734. I further certify that costs ineligible for payment from the Fund pursuant to 35 Ill. Adm. Code 732.606 or 734.630 are not included in the budget proposal or amendment. Such ineligible costs include but are not limited to:

- Costs associated with ineligible tanks.
- Costs associated with site restoration (e.g., pump islands, canopies).
- Costs associated with utility replacement (e.g., sewers, electrical, telephone, etc.).
- Costs incurred prior to IEMA notification.
- Costs associated with planned tank pulls.
- Legal fees or costs.
- Costs incurred prior to July 28, 1989.
- Costs associated with installation of new USTs or the repair of existing USTs.

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MAY 22 2015

Owner/Operator: Dersch Energies, Inc.

Authorized Representative: Tom Dersch

Title: Owner

**IEPA/BOL**

Signature: *Tom Dersch, President*

Date: 5-11-2015

Subscribed and sworn to before me the 11 day of May, 2015

*Dorothy Dersch*

(Notary Public)

Seal:



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

L.P.E./L.P.G.: Vince E. Smith, P.E.

L.P.E./L.P.G. Seal:

L.P.E./L.P.G. Signature: *V. E. Smith*

Date: 5/11/15

Subscribed and sworn to before me the 15th day of May, 2015

(Notary Public)



The Illinois EPA is authorized to require this information under 415 ILCS 5/1. Disclosure of this information is required. Failure to do so may result in the delay or denial of any budget or payment requested hereunder.



# Illinois Environmental Protection Agency

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

## General Information for the Budget and Billing Forms

LPC #: 1010155024 County: Lawrence

City: Lawrenceville Site Name: Croslow's Shell

Site Address: 1421 Lexington Avenue

IEMA Incident No.: 20050374

IEMA Notification Date: 3/17/2005

Date this form was prepared: Jun 10, 2014

This form is being submitted as a (check one, if applicable):

- Budget Proposal
- Budget Amendment (Budget amendments must include only the costs over the previous budget.)
- Billing Package

Please provide the name(s) and date(s) of report(s) documenting the costs requested:

Name(s): \_\_\_\_\_

Date(s): \_\_\_\_\_

This package is being submitted for the site activities indicated below:

### 35 III. Adm. Code 734:

- Early Action
- Free Product Removal after Early Action
- Site Investigation . . . . . Stage 1:  Stage 2:  Stage 3:
- Corrective Action Actual Costs Actual

### 35 III. Adm. Code 732:

- Early Action
- Free Product Removal after Early Action
- Site Classification
- Low Priority Corrective Action
- High Priority Corrective Action

### 35 III. Adm. Code 731:

- Site Investigation
- Corrective Action

**RECEIVED**  
MAY 22 2015  
**IEPA/BOL**

## 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.

Pay to the order of: Dersch Energies, Inc. / Croslow's Shell

Send in care of: CWM Company, Inc.

Address: P.O. Box 571

City: Carlinville

State: IL

Zip: 62626

The payee is the: Owner  Operator  (Check one or both.)



Signature of the owner or operator of the UST(s) (required)

W-9 must be submitted.  
[Click here to print off a W-9 Form.](#)

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:

Number of USTs at the site: 4 (Number of USTs includes USTs presently at the site and USTs that have been removed.)

Number of incidents reported to IEMA for this site: 2

Incident Numbers assigned to the site due to releases from USTs: 20050374

Please list all tanks that have ever been located at the site and tanks that are presently located at the site.

Product Stored in UST	Size (gallons)	Did UST have a release?		Incident No.	Type of Release Tank Leak / Overfill / Piping Leak
Gasoline	6,000	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	20050374	Tank Leak
Gasoline	6,000	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	20050374	Tank Leak
Gasoline	6,000	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	20050374	Tank Leak
Diesel Fuel	1,000	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		
Used Oil	560	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	2005-0374	Tank Leak
		Yes <input type="checkbox"/>	No <input type="checkbox"/>		
		Yes <input type="checkbox"/>	No <input type="checkbox"/>		
		Yes <input type="checkbox"/>	No <input type="checkbox"/>		
		Yes <input type="checkbox"/>	No <input type="checkbox"/>		

Add More Rows

Undo Last Add

## 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
				Actual	
Drilling and Monitoring Well Costs Form	\$	\$	\$	\$ 3,089.10	\$
Analytical Costs Form	\$	\$	\$	\$ 2,163.33	\$
Remediation and Disposal Costs Form	\$	\$	\$	\$ 1,170.00	\$
UST Removal and Abandonment Costs Form	\$	\$	\$	\$	\$
Paving, Demolition, and Well Abandonment Costs Form	\$	\$	\$	\$	\$
Consulting Personnel Costs Form	\$	\$	\$	\$ 36,377.59	\$
Consultant's Materials Costs Form	\$	\$	\$	\$ 1,436.60	\$
Handling Charges Form	Handling charges will be determined at the time a billing package is submitted to the Illinois EPA. The amount of allowable handling charges will be determined in accordance with the Handling Charges Form.				
<b>Total</b>	\$	\$	\$	\$ 44,236.62	\$

# 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	15.00	15.00	On-site Soil Plume Delineation
1	HSA	15.00	15.00	On-site Soil and Groundwater Plume Delineation
3	HSA	15.00	45.00	Off-site Soil and Groundwater Plume Delineation

Subpart H minimum payment amount applies.

	Total Feet	Rate per Foot (\$)	Total Cost (\$)
Total Feet via HSA:	60.00	26.91	1,614.60
Total Feet via PUSH:	15.00	21.06	315.90
Total Feet for Injection via PUSH:		17.55	
<b>Total Drilling Costs:</b>			<b>1,930.50</b>

## 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 (\$)
4	HSA	2.00	15.00	60.00

Well Installation	Total Feet	Rate per Foot (\$)	Total Cost (\$)
Total Feet via HSA:	60.00	19.31	1,158.60
Total Feet via PUSH:		14.62	
Total Feet of 4" or 6" Recovery:		29.25	
Total Feet of 8" or Greater Recovery:		47.97	
<b>Total Well Costs:</b>			<b>1,158.60</b>

<b>Total Drilling and Monitoring Well Costs:</b>	<b>\$3,089.10</b>
--	-------------------

# Analytical Costs Form

Laboratory Analysis	Number of Samples		Cost (\$) per Analysis		Total per Parameter
<b>Chemical Analysis</b>					
BETX Soil with MTBE EPA 8260	15	X	99.45	=	\$1,491.75
BETX Water with MTBE EPA 8260	4	X	94.77	=	\$379.08
COD (Chemical Oxygen Demand)		X		=	
Corrosivity		X		=	
Flash Point or Ignitability Analysis EPA 1010		X		=	
Fraction Organic Carbon Content (f <sub>oc</sub> ) ASTM-D 2974-00		X		=	
Fat, Oil, & Grease (FOG)		X		=	
LUST Pollutants Soil - analysis must include volatile, base/neutral, polynuclear aromatics and metals list in Section 732. Appendix B and 734. Appendix B		X		=	
Dissolved Oxygen (DO)		X		=	
Paint Filter (Free Liquids)		X		=	
PCB / Pesticides (combination)		X		=	
PCBs		X		=	
Pesticides		X		=	
pH		X		=	
Phenol		X		=	
Polynuclear Aromatics PNA, or PAH SOIL EPA 8270		X		=	
Polynuclear Aromatics PNA, or PAH WATER EPA 8270		X		=	
Reactivity		X		=	
SVOC - Soil (Semi-Volatile Organic Compounds)		X		=	
SVOC - Water (Semi-Volatile Organic Compounds)		X		=	
TKN (Total Kjeldahl) "nitrogen"		X		=	
TPH (Total Petroleum Hydrocarbons)		X		=	
VOC (Volatile Organic Compounds) - Soil (Non-Aqueous)		X		=	
VOC (Volatile Organic Compounds) - Water		X		=	
		X		=	
		X		=	
		X		=	
		X		=	
		X		=	
<b>Geo-Technical Analysis</b>					
Soil Bulk Density (p <sub>b</sub> ) ASTM D2937-94		X		=	
Ex-situ Hydraulic Conductivity / Permeability		X		=	
Moisture Content (w) ASTM D2216-92 / D4643-93		X		=	
Porosity		X		=	
Rock Hydraulic Conductivity Ex-situ		X		=	
Sieve / Particle Size Analysis ASTM D422-63 / D1140-54		X		=	
Soil Classification ASTM D2488-90 / D2487-90		X		=	
Soil Particle Density (p <sub>s</sub> ) ASTM D854-92		X		=	
		X		=	
		X		=	
		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		=	
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		=	
		X		=	
<b>Other</b>					
EnCore® Sampler, purge-and-trap sampler, or equivalent sampling device	15	X	11.70	=	\$175.50
Sample Shipping per sampling event <sup>1</sup>	2	X	58.50	=	\$117.00

<sup>1</sup>A sampling event, at a minimum, is all samples (soil and groundwater) collected in a calendar day.

**Total Analytical Costs: \$ 2,163.33**

# Remediation and Disposal Costs Form

## A. Conventional Technology

**Excavation, Transportation, and Disposal of contaminated soil and/or the 4-foot backfill material removal during early action activities:**

Number of Cubic Yards	Cost per Cubic Yard (\$)	Total Cost

**Backfilling the Excavation:**

Number of Cubic Yards	Cost per Cubic Yard (\$)	Total Cost

**Overburden Removal and Return:**

Number of Cubic Yards	Cost per Cubic Yard (\$)	Total Cost

## B. Alternative Technology

Alternative Technology Selected:	
Number of Cubic Yards of Soil to Be Remediated	
Total Non-Consulting Personnel Costs Summary Sheet (\$)	
Total Remediation Materials Costs Summary Sheet (\$)	
Total Cost of the System	

# Remediation and Disposal Costs Form

## C. Groundwater Remediation and/or Free Product Removal System

Total Non-Consulting Personnel Costs Summary Sheet (\$)	
Total Remediation Materials Costs Summary Sheet (\$)	
Total Cost of the System	

## D. Groundwater and/or Free Product Removal and Disposal

Subpart H minimum payment amount applies.

Number of Gallons	Cost per Gallon (\$)	Total Cost (\$)

## E. Drum Disposal

Subpart H minimum payment amount applies.

Number of Drums of Solid Waste	Cost per Drum (\$)	Total Cost (\$)
4	292.50	1,170.00
Number of Drums of Liquid Waste	Cost per Drum (\$)	Total Cost (\$)
Total Drum Disposal Costs		1,170.00

<b>Total Remediation and Disposal Costs:</b>	<b>\$1,170.00</b>
--	-------------------

### Consulting Personnel Costs Form

Employee Name	Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category	Task			
	Senior Project Manager	2.00	117.00	\$234.00
Stage 3-Plan	Stage 3 Plan Review for Technical Compliance			
	Senior Prof. Engineer	3.00	152.10	\$456.30
Stage 3-Plan	Stage 3 Plan Oversight & Coordination			
	Professional Geologist	4.00	107.63	\$430.52
Stage 3-Plan	Stage 3 Plan Review for Design & Requisite			
	Senior Draftperson/CAD	6.00	70.19	\$421.14
Stage 3-Plan	Stage 3 Plan Drawings / Proposed / St 1 Maps			
Christy Churchill (AET)	Administrative Assistant IV	6.00	40.00	\$240.00
Stage 3-Plan	Copy, bind, and mail Site Investigation Stage 2/3 Plan and Budget			
Brian Williams (AET)	Professional Geologist	3.00	75.00	\$225.00
Stage 3-Plan	Stage 3 Plan Review / Certification			
Brian Williams (AET)	Professional Geologist	40.00	75.00	\$3,000.00
Stage 3-Plan	Prepare Site Investigation Phase 2/3 Work Plan and Budget			

Employee Name		Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category	Task				
		Senior Prof. Engineer	4.00	152.10	\$608.40
Stage 3-Budget	Stage 3 Budget Certification				
		Senior Project Manager	16.00	117.00	\$1,872.00
Stage 3-Budget	Stage 3 Budget / Oversight / Coordination / Technical Compliance				
		Professional Geologist	32.00	107.63	\$3,444.16
Stage 3-Budget	Budget Calculations / Development				
		Senior Admin. Assistant	4.00	52.65	\$210.60
Stage 3-Budget	Stage 3 Budget compilation, assembly and distribution				

Employee Name	Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category	Task			
	Senior Project Manager	6.00	117.00	\$702.00
Stage 3-Field	Coordination / Technical Compliance / Scheduling			
	Senior Admin. Assistant	2.00	52.65	\$105.30
Stage 3-Field	Office Prep., Scheduling. Arrangements for investigation			
	Professional Geologist	14.00	107.63	\$1,506.82
Stage 3-Field	Off-site Drilling			
	Engineer III	14.00	117.00	\$1,638.00
Stage 3-Field	Off-site Drilling Oversight			
	Project Manager	10.00	105.30	\$1,053.00
Stage 3-Field	MW Surveying and Sampling			
	Technician IV	10.00	70.19	\$701.90
Stage 3-Field	MW Surveying and Sampling			
	Senior Project Manager	8.00	117.00	\$936.00
Stage 3-Field	Analytical Review/Field Reports/SI Doc/BL/WCR/Review			
	Senior Draftperson/CAD	6.00	70.19	\$421.14
Stage 3-Field	Drafting Locations/Elevation and Contamination Levels/Drilling Prep.			
	Engineer I	6.00	87.74	\$526.44
Stage 3-Field	BL and WCR Data Entry			



Employee Name		Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category	Task				
		Senior Prof. Engineer	3.00	152.10	\$456.30
SICR	SICR Certification				
		Senior Project Manager	6.00	117.00	\$702.00
SICR	SICR oversight / Technical Compliance				
		Professional Geologist	45.00	107.63	\$4,843.35
SICR	SICR				
		Engineer I	6.00	87.74	\$526.44
SICR	SICR/Inputs				
		Senior Draftperson/CAD	16.00	70.19	\$1,123.04
SICR	Drafting/Update and Complete Maps				
		Senior Admin. Assistant	4.00	52.65	\$210.60
SICR	SICR Assembly/Distribution				

Employee Name		Personnel Title	Hours	Rate* (\$)	Total Cost
Remediation Category	Task				
		Senior Prof. Engineer	4.00	152.10	\$608.40
Stage 3-Pay	Stage 3 Reimbursement Certification				
		Senior Project Manager	16.00	117.00	\$1,872.00
Stage 3-Pay	Stage 3 Reimbursement Oversight/Technical Compliance				
		Senior Acct. Technician	24.00	64.34	\$1,544.16
Stage 3-Pay	Stage 3 Reimbursement Preparation				
		Senior Admin. Assistant	8.00	52.65	\$421.20
Stage 3-Pay	Stage 3 Reimbursement Compilation, Assembly and Distribution				

\*Refer to the applicable Maximum Payment Amounts document.

<b>Total of Consulting Personnel Costs</b>	<b>\$36,377.59</b>
--	--------------------

## Consultant's Materials Costs Form

Materials, Equipment, or Field Purchase		Time or Amount Used	Rate (\$)	Unit	Total Cost
Remediation Category	Description/Justification				
PID Rental		1.00	129.00	/day	\$129.00
Stage 3-Field	To detect VOC levels in soil samples				
Survey Equipment Rental		1.00	75.00	/day	\$75.00
Stage 3-Field	Survey monitor well elevations for groundwater flow calculations				
Water Level Indicator		2.00	21.00	/day	\$42.00
Stage 3-Field	Test for groundwater during drilling activities/Measure static groundwater elevations				
Measuring Wheel		1.00	18.00	/day	\$18.00
Stage 3-Field	Mapping sampling locations				
Mileage		620.00	.58	/mile	\$359.60
Stage 3-Field	Two round trips from Springfield Office (1-Drilling, 1-Groundwater Sampling)				
Disposable Gloves		2.00	13.00	/box	\$26.00
Stage 3-Field	Disposable gloves for soil and groundwater sampling				
Bailers		4.00	13.00	/each	\$52.00
Stage 3-Field	Disposable bailers for monitoring well development and sampling				
Bailing Twine		1.00	5.00	/roll	\$5.00
Stage 3-Field	String for Bailers				
Copies		200.00	.10	/each	\$20.00
Stage 3-Field	Field/Plan/Maps/Borelogs/Analytical/Off-site				

Materials, Equipment, or Field Purchase		Time or Amount Used	Rate (\$)	Unit	Total Cost
Remediation Category	Description/Justification				
Per diem		2.00	39.00	/each	\$78.00
Stage 3-Field	Per diem for drilling /sampling activities				
Hotel		2.00	80.00	/each	\$160.00
Stage 3-Field	Hotel stay for drilling /sampling activities				
Copies		250.00	.10	/each	\$25.00
Stage 3-Budget	Copies of Budget / Draft / Final / Attachments / Forms				
Postage		2.00	5.00	/each	\$10.00
Stage 3-Budget	Budget / Forms Distribution				
Copies		800.00	.10	/each	\$80.00
Stage 3-Pay	Copies of Reimbursement Claim				
Postage		3.00	5.00	/each	\$15.00
Stage 3-Pay	Distribution of Reimbursement Claim / forms				
Copies		1,000.00	.10	/each	\$100.00
SICR	Copies of Report / Draft / Final / Attachments / Forms				
Postage		2.00	5.00	/each	\$10.00
SICR	Report / Forms Distribution				
Copies		300.00	.10	/each	\$30.00
Stage 3-Field	Off-site access requests / correspondences / reports				



# **APPENDIX G**

## **HYDRAULIC CONDUCTIVITY DETERMINATION**

**SITE INVESTIGATION  
COMPLETION REPORT  
DERSCH CROSLAWS  
LAWRENCEVILLE, ILLINOIS**

**Hydraulic Conductivity from Slug Test Data  
using Bouwer and Rice Method**

Project: Croslow's Shell - MW-1 Date: 10/24/2006  
 Calc. By: JME Chk'd by: \_\_\_\_\_

Well Column Diameter (2rc):	2.0 inches	Depth to water tbl(ft):	5.47
Sand Pack Diameter (2rw):	8.0 inches	Depth of well bot (ft):	20.00
Screened Length (Le):	10.0 feet	Ref Depth: top of riser	96
Aquifer Thickness (H):	18.00 feet	Depth/Xducer:	Depth
Water ht above screen bot (Lw):	14.13 feet		
Lw/rw:	42.4		
Le/rw:	30.0	ln(Le/rw):	3.40
Bouwer-Rice Factors:	A: 2.37	4th Order Polynomial	
	B: 2.21	approximations to curves in	
	C: 1.81	1989 paper	
ln(Re/rw):	H=Lw:		
	H>Lw:	1.808	
Hydr. Cond. (cm/s)	H=Lw:		best fit slope: 0.00401
	H>Lw:	7.6718E-05	

TIME(sec)	D sub n	h sub n	ln(h sub n)	ln(hn/hn-1)	ln(h/h-1)/t	Estimated Slope
1	0	0	5.47	1.70		
2	5	0.7	4.77	1.56	-0.136932	-0.0273865
3	10	1.2	4.27	1.45	-0.110732	-0.0247665
4	15	1.7	3.77	1.33	-0.124539	-0.0245469
5	20	2.14	3.33	1.20	-0.124103	-0.0245577
6	25	2.62	2.85	1.05	-0.155653	-0.0254998
7	30	2.86	2.61	0.96	-0.087969	-0.0249892
8	35	3.08	2.39	0.87	-0.088057	-0.0241616
9	40	3.32	2.15	0.77	-0.105826	-0.0235756
10	45	3.58	1.89	0.64	-0.128891	-0.0233974
11	50	3.7	1.77	0.57	-0.065597	-0.0228331
12	55	3.86	1.61	0.48	-0.094745	-0.0223581
13	60	3.98	1.49	0.40	-0.077458	-0.0218447
14	70	4.18	1.29	0.25	-0.144134	-0.0210398
15	80	4.33	1.14	0.13	-0.123614	-0.0200722
16	90	4.48	0.99	-0.01	-0.141079	-0.0192155
17	100	4.59	0.88	-0.13	-0.117783	-0.0184054
18	110	4.64	0.83	-0.19	-0.058496	-0.0174821
19	120	4.71	0.76	-0.27	-0.088107	-0.0166487
20	130	4.76	0.71	-0.34	-0.068053	-0.0068053
21	140	4.8	0.67	-0.40	-0.057987	-0.005799
22	150	4.83	0.64	-0.45	-0.04581	-0.0057354
23	160	4.84	0.63	-0.46	-0.015748	-0.001575
24	170	4.85	0.62	-0.48	-0.016	-0.0016
25	180	4.87	0.60	-0.51	-0.03279	-0.003279
26	190	4.89	0.58	-0.54	-0.033902	-0.00339
27	200	4.91	0.56	-0.58	-0.035091	-0.003509
28	210	4.92	0.55	-0.60	-0.018019	-0.001802
29	220	4.93	0.54	-0.62	-0.018349	-0.001835

30	230	4.94	0.53	-0.63	-0.018692	-0.001869	-0.0030623
31	240	4.94	0.53	-0.63	0	0	-0.0028815
32	250	4.95	0.52	-0.65	-0.019048	-0.001905	-0.00274
33	260	4.96	0.51	-0.67	-0.019418	-0.001942	-0.002628
34	270	4.97	0.50	-0.69	-0.019803	-0.00198	-0.0025388
35	280	4.98	0.49	-0.71	-0.020203	-0.00202	-0.0024674
36	290	4.99	0.48	-0.73	-0.020619	-0.002062	-0.0024102
37	300	5	0.47	-0.76	-0.021053	-0.002105	-0.0023644
38	320	5.02	0.45	-0.80	-0.043485	-0.002174	-0.002323
39	340	5.03	0.44	-0.82	-0.022473	-0.001124	-0.0022583
40	360	5.05	0.42	-0.87	-0.04652	-0.002326	-0.0022137
41	380	5.06	0.41	-0.89	-0.024098	-0.001205	-0.0021584
42	400	5.08	0.39	-0.94	-0.05001	-0.002501	-0.0021266
43	420	5.09	0.38	-0.97	-0.025975	-0.001299	-0.0020884
44	440	5.01	0.46	-0.78	0.191055	0.009553	-0.0018624
45	460						
46	480						
47	500						
48	520						
49	540						
50	560						
51	580						
52	600						
53	660						
54	720						
55	780						
56	840						
57	900						
58	960						
59	1020						



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-2829

BRUCE RAUNER, GOVERNOR

LISA BONNETT, DIRECTOR

217/524-3300

CERTIFIED MAIL

JUN 05 2015

7013 2630 0001 4708 7874

Dersch Energies, Inc.  
Mr. Tom Dersch  
P.O. Box 217  
Mt. Carmel, Illinois 62863

EPA-DIVISION OF RECORDS MANAGEMENT  
RELEASABLE

Re: LPC #1010155024—Lawrence County  
Lawrenceville/ Dersch Croslow's Shell  
1421 Lexington Avenue  
Leaking UST Incident No. 20050374  
Leaking UST Technical File

JUN 16 2015

REVIEWER: JKS

Dear Mr. Dersch:

The Illinois Environmental Protection Agency (Illinois EPA) has reviewed the Site Investigation Completion Report (report) submitted for the above-referenced incident. This report, dated May 18, 2015, was received by the Illinois EPA on May 22, 2015. 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 Illinois EPA has determined that the requirements of Title XVI of the Act have been satisfied (Sections 57.7(a)(5) and 57.7(c) of the Act and 35 Ill. Adm. Code 734.505(b) and 734.510(a)). Therefore, the report is approved.

In addition, the actual costs budget for Stage 2 and 3 is approved for the amounts listed in Section 1 of Attachment A (Sections 57.7(a)(2) and 57.7(c) of the Act and 35 Ill. Adm. Code 734.505(b) and 734.510(b)). Be aware that the amount of payment from the Fund may be limited by Sections 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.

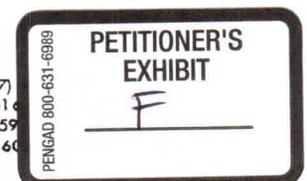
Pursuant to Sections 57.7(b)(2) and (3) and 57.12(c) and (d) of the Act and 35 Ill. Adm. Code 734.100, 734.125, and 734.335(a), the Illinois EPA requires submittal of a Corrective Action Plan and budget within 30 days from the date of this letter to:

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 note that the Illinois EPA does not require the submission of a budget if the owner or operator does not intend to seek payment from the Underground Storage Tank Fund.

4302 N. Main St., Rockford, IL 61103 (815) 987-7760  
595 S. State, Elgin, IL 60123 (847) 608-3131  
2125 S. First St., Champaign, IL 61820 (217) 278-5800  
2009 Mall St., Collinsville, IL 62234 (618) 346-5120

9511 Harrison St., Des Plaines, IL 60016 (847)  
412 SW Washington St., Suite D, Peoria, IL 616  
2309 W. Main St., Suite 116, Marion, IL 62959  
100 W. Randolph, Suite 10-300, Chicago, IL 606



Page 2

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

If you have any questions or need further assistance, please contact Brad Dilbaitis at (217) 785-8378 or Bradley.Dilbaitis@illinois.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'T.A.H.', with a long horizontal flourish extending to the right.

Thomas A. Henninger  
Unit Manager  
Leaking Underground Storage Tank Section  
Division of Remediation Management  
Bureau of Land

TAH:BD\SICRappAC2&3app.docx

Attachment: Attachment A

c: CWM Company  
BOL File

Attachment A

Re: LPC #1010155024—Lawrence County  
Lawrenceville/ Dersch Croslow's Shell  
1421 Lexington Avenue  
Leaking UST Incident No. 20050374  
Leaking UST Technical File

STAGE 2 and 3 Actual Costs

The following amounts are approved:

\$3,089.10	Drilling and Monitoring Well Costs
\$2,163.33	Analytical Costs
\$1,170.00	Remediation and Disposal Costs
\$0.00	UST Removal and Abandonment Costs
\$0.00	Paving, Demolition, and Well Abandonment Costs
\$36,377.59	Consulting Personnel Costs
\$1,436.60	Consultant's Materials Costs

Handling charges will be determined at the time a billing package 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 (Act) and 35 Illinois Administrative Code (35 Ill. Adm. Code) 734.635.

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## Instructions for the Budget and Billing Forms

The Illinois Environmental Protection Agency (Illinois EPA) has revised the *Budget and Billing Forms* for payment from the Underground Storage Tank Fund (Fund). The Illinois EPA's new forms shall be used for all budgets and applications for payment for all sites subject to 35 Illinois Administrative Code (35 Ill. Adm. Code) 734, 732, or 731, except as noted below. The *Budget and Billing Forms* reflect the amendments to 35 Ill. Adm. Code 732 and the adoption of 35 Ill. Adm. Code 734. When using these forms, please follow the instructions for each particular form that pertains to your site.

### Maximum Payment Amounts

The Illinois EPA will only approve payment from the Fund for corrective action costs actually incurred up to the maximum amounts listed in Subpart H, Appendix D, and Appendix E of 35 Ill. Adm. Code 732 or 734—unless bidding is used or the unusual or extraordinary circumstance provisions are followed. The Subpart H, Appendix D, and Appendix E maximum payment amounts will be adjusted for inflation each year on the first day of July of that year. The first adjustment was made on July 1, 2006. The maximum amounts that are applicable for costs submitted in a budget are the amounts in effect on the date the Illinois EPA receives the budget. Please note that, once the Illinois EPA approves a cost, the applicable maximum payment amount for that cost may not be increased by proposing the cost in a subsequent budget (35 Ill. Adm. Code 732.870(d) or 734.870(d)). The maximum amounts that are applicable for costs not approved in a budget by the Illinois EPA, such as early action costs, are the amounts in effect on the date the costs were incurred.

### Signature Requirements

For owners and operators other than individuals, a duly authorized representative must sign the forms on behalf of the owner or operator. For the following entities, the duly authorized representative must be one of the following persons:

1. For a corporation, a principal executive officer of at least the level of vice president, or a person authorized by a resolution of the board of directors to sign the applicable document if a copy of the resolution, certified as a true copy by the secretary of the corporation, is submitted with the document.
2. For a sole proprietorship, the sole proprietor.
3. For a partnership, a general partner.
4. For a municipality, state, federal, or other public agency, the head of the agency or a ranking elected official.
5. For a limited liability company, a member for a member-managed company and either a manager or a member for a manager-managed company.
6. For a land trust, a beneficiary of the land trust who meets the definition of "owner" or "operator" under 35 Ill. Adm. Code 731, 732, or 734.

### Budgets

Title XVI of the Environmental Protection Act requires owners or operators to submit a budget prior to seeking payment from the Fund, except in the case of costs asso



with early action activities. Owners or operators of sites subject to 35 Ill. Adm. Code 731 are not required to submit budgets.

For owners or operators conducting site investigation pursuant to 35 Ill. Adm. Code 734, the certification that the costs of the Stage 1 investigation will not exceed the amounts set forth in Subpart H, Appendix D, and Appendix E serves as the budget for the Stage 1 site investigation. The actual costs for conducting the Stage 1 site investigation must be submitted on budget forms concurrently with the results of the Stage 1 site investigation and the next *Site Investigation Plan* and budget (submitted on its own budget forms) or with the *Site Investigation Completion Report* if the site investigation is complete. Likewise, the actual costs for conducting the Stages 2 and/or 3 site investigation must be submitted on budget forms concurrently with the results of the previous site investigation and the next *Site Investigation Plan* and budget (submitted on its own budget forms) or with the *Site Investigation Completion Report* if the site investigation is complete. When preparing budget forms, complete and submit only the pages that apply. If multiple budgets are included in one submittal, only one budget certification form is required.

Budget amendments to an approved budget must be submitted on the same forms as the original budget was submitted. Any new budgets for new activities shall be submitted on the Illinois EPA's new *Budget and Billing Forms*. These new forms should not be combined with other versions of *Budget and Billing Forms* and vice versa.

An original and one copy of the complete **budget** for sites subject to 35 Ill. Adm. Code 734 or 732 must be submitted with an associated plan. The forms may be copied; however, one form must include original signatures. The original and one copy should be mailed to:

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

### **Applications for Payment**

If an owner or operator has received approval of a budget on old forms, the corresponding application for payment must be submitted on the old forms. Any new budgets for new activities and corresponding applications for payment shall be submitted on the Illinois EPA's new *Budget and Billing Forms*. These new forms should not be combined with other versions of *Budget and Billing Forms* and vice versa.

When submitting an application for payment, an accounting of all costs must be provided (i.e., invoices and receipts). Invoices and receipts must contain enough documentation to support the amount requested for payment from the Fund. Any costs not substantiated by invoices or receipts will not be paid. Invoices and receipts must include the date the work was performed and a breakdown of all costs with documentation of activities conducted and materials purchased. For example, an invoice from the accredited laboratory noting the date of sample collection, number of samples analyzed, amount charged, etc. is required for payment of analytical costs. If

the invoices and receipts do not contain detailed information, additional documentation must be submitted providing the required information. Invoices and receipts must also provide adequate documentation that the work approved in the applicable plan and budget was conducted.

Proof of payment of subcontractor costs can be shown in one of three ways:

1. Cancelled checks – photocopy of fronts and backs of cancelled checks.
  - a. One payment per site to one payee for the entire amount of one invoice with a note indicating the date of the invoice and the invoice number being paid.
  - b. One payment per site to one payee for the entire amount of several invoices with a note indicating the dates of the invoices, invoice numbers, and the amounts being paid on said invoices.
  - c. Payment to one payee for multiple sites for the entire amount of several invoices with a note indicating the sites involved, including incident numbers, dates of the invoices, invoice numbers, and the amounts being paid on said invoices.
2. Lien waivers with the name of the company, invoice(s) being paid, date payment took place, and the amount(s) paid on said invoice(s) along with necessary signatures.
3. Affidavits with the name of the company, invoice(s) being paid, date payment took place, and the amount(s) paid on said invoice(s) along with necessary signatures.

Please note that an application for payment for site classification pursuant to 35 Ill. Adm. Code 732 cannot be submitted until a *Site Classification Completion Report* has been approved or approved with modifications by the Illinois EPA. Likewise, an application for payment for the previous stage of site investigation pursuant to 35 Ill. Adm. Code 734 cannot be submitted until either a *Site Investigation Plan* and budget for the next stage of investigation or a *Site Investigation Completion Report* (if further investigation is not required) has been approved or approved with modifications by the Illinois EPA.

The complete **application for payment** with original signatures for sites subject to 35 Ill. Adm. Code 734, 732, or 731 should be mailed to:

Illinois Environmental Protection Agency  
Bureau of Land - #24  
Leaking UST Claims Unit  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

Pursuant to:	732 734	732 734	732 734	732 734	731 732 734	732	732	732 734	731 732 734
A complete budget or application for payment must include all of the forms listed below, as applicable:	Early Action Bill Package	Free Product Removal Budget	Free Product Removal Bill Package	Site Investigation or Classification Budget	Site Investigation or Classification Bill Package	Low Priority Budget	Low Priority Bill Package	Corrective Action (High Priority) Budget	Corrective Action (High Priority) Bill Package
General Information for the Budget and Billing Forms	P	B	P	B	P	B	P	B	P
Budget Summary		B		B		B		B	
Billing Summary	P		P		P		P		P
Drilling and Monitoring Well Costs Form	P	B	P	B	P			B	P
Analytical Costs Form	P	B	P	B	P	B	P	B	P
Remediation and Disposal Costs Form	P	B	P	B	P	B	P	B	P
Non-Consulting Personnel Costs Summary Sheet	P	B	P					B	P
Remediation Materials Costs Summary Sheet	P	B	P					B	P
UST Removal and Abandonment Costs Form	P		P					B	P
Paving, Demolition, and Well Abandonment Costs Form	P		P					B	P
Consulting Personnel Costs Form	P	B	P	B	P	B	P	B	P
Consultant's Materials Costs Form	P	B	P	B	P	B	P	B	P
Bid Summary and Contractor Certification Forms	P	B		B		B		B	
Handling Charges Form	P		P		P		P		P
Owner/Operator and Professional Engineer/Geologist Budget Certification Form		B		B		B		B	
Eligibility and Deductibility Determination	P	B	P	B	P	B	P	B	P
Payment Certification Form	P		P		P		P		P
Owner/Operator and Professional Engineer/Geologist Billing Certification Form	P		P		P		P		P
Private Insurance Coverage Questionnaire	P		P		P		P		P
Private Insurance Affidavit	P		P		P		P		P
W-9 Form	P		P		P		P		P
Women and Minority Business Enterprises Form	P		P		P		P		P
Copies of all bills and receipts for which payment is sought	P		P		P		P		P

P = Application for Payment only  
B = Budget only

## General Information for the Budget and Billing Forms

Complete the form with the requested information.

On the first page of the form, there is an area to designate the applicable regulations and the site activities for which the package is being submitted. If the site activities involved are those of a Stage 1 site investigation pursuant to 35 Ill. Adm. Code 734, the only submittal is that of actual costs. If the site activities involved are those of a Stage 2 and/or 3 site investigation pursuant to 35 Ill. Adm. Code 734, you must select from the drop-down box whether the submittal is that of actual costs (for work done during the previous stage of investigation) or a proposed budget.

On the second page of the form, include information pertaining to payment from the Fund (if eligible), such as where payment checks should be sent. Please note that only owners or operators of USTs are eligible for payment from the Fund. Therefore, payment can only be made to an owner or operator of the USTs. The Illinois EPA is not required to and will not recognize an assignment or other delegation of payment as justification for issuing payment to anyone other than the owner or operator. The address, as completed on this form, will be used as the mailing address for payment checks and any final determination letters regarding payment from the Fund.

When submitting an application for payment, you must always include a completed and signed W-9 form. In an effort to speed up review of your claim, it is suggested that the W-9 form always be submitted with every application for payment. As noted on the form, your name should be entered as shown on your income tax return.

Lastly, at the end of page 2 is a table to be completed by listing tanks that have ever been or are presently located at the site. Please note that there is only enough space for entry of one incident number. Therefore, if more than one incident number was assigned to a particular tank, multiple lines of the table must be used to list the additional incident numbers (as well as to indicate whether there was a release and, if so, the type of release associated with that incident number). For a tank with multiple incident numbers, it should somehow be indicated that the information pertains to the same tank. An example follows:

Product Stored in UST	Size (gallons)	Did UST have a release?	Incident No.	Type of Release Tank Leak / Overfill / Piping Leak
unleaded gasoline	10,000	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	888888	overfill
(same UST as above)		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	999999	piping leak
(same UST as above)		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	20000000	tank leak
diesel fuel	500	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	20000000	tank leak

Click, as instructed, if additional rows of the table are needed.

## Budget Summary

Select the regulations (either Part 734 or Part 732) that apply to the owner or operator of the USTs for which the release was reported. The corresponding column headings will appear.

PART 734:

If Part 734 is selected, in each column, as appropriate, select from the drop-down box one of the following:

- “Proposed” if the budget is a proposed budget,
- “Actual” if the budget is a summary of actual costs incurred during the previous stage of site investigation, or
- “N/A” (not applicable) if the budget doesn’t apply to that particular column heading.

Enter budget summary information in only the columns that apply to the budget at-hand. For example, if the proposed budget pertains to Stage 2 Site Investigation costs and accompanying it are actual costs of the Stage 1 Site Investigation, then “N/A” should be selected for columns labeled “Free Product,” “Stage 3 Site Investigation,” and “Corrective Action.” Then, under the column labeled “Stage 1 Site Investigation,” “Actual” should be selected from the drop-down box, and actual costs of the Stage 1 site investigation should be entered on the appropriate lines. Under the column labeled “Stage 2 Site Investigation,” “Proposed” should be selected from the drop-down box, and proposed costs for Stage 2 of the site investigation should be entered on the appropriate lines. Following is an example, in part:

Choose the applicable regulation:       734     732

<b>734</b>	Free Product	Stage 1 Site Investigation	Stage 2 Site Investigation	Stage 3 Site Investigation	Corrective Action
	N/A	Actual	Proposed	N/A	N/A
Drilling and Monitoring Well Costs Form	\$	\$ 2,000.00	\$ 2,000.00	\$	\$
Analytical Costs Form	\$	\$ 1,000.00	\$ 1,000.00	\$	\$

Stage 1 site investigation budgets must always be submitted as actual costs incurred. The actual costs must be submitted with a proposed Stage 2 Site Investigation Plan, a Stages 2 and/or 3 Site Investigation Plan, or a Site Investigation Completion Report (if no additional site investigation is required after Stage 1).

The actual costs of Stage 2 (if Stage 2 was needed) must be submitted with the proposed Stage 3 Site Investigation Plan or Site Investigation Completion Report (if no additional work is required after Stage 2). The actual costs of Stage 3 (if Stage 3 was needed) must be submitted with a Site Investigation Completion Report. Please note that, if contingency work is proposed (to either complete a stage or carry out the next stage), costs of the contingency work must be submitted as proposed costs. See the Site Investigation Process [flowchart](#) and accompanying [explanation](#) for information about the various combinations of stages that may be encountered.

List the total dollar amount from each of the forms listed, as applicable. The "Total" will be automatically calculated.

#### PART 732:

If Part 732 is selected, budget summary information should be entered in only the column that applies to the budget at-hand. List the total dollar amount from each of the forms listed, as applicable. The "Total" will be automatically calculated.

### Billing Summary

The total amounts from each individual form should be entered in the appropriate box. Please note that early action activities or corrective action conducted pursuant to 35 Ill. Adm. Code 731 neither requires nor allows for pre-approval of costs in a budget. Therefore, the first column of this form "\$ Amount Approved in the Budget" will not be completed for Part 731 or early action applications for payment.

### Drilling and Monitoring Well Costs Form

#### Section 1 – Drilling

Include in the "Rate per Foot (\$)" drilling charge for advancement of a boring or the installation of a well all costs associated with advancing the boring including but not limited to all drilling labor (including driller, driller assistant or laborer, etc.), drill rig time, drill rig and operator travel time and per diem, driller mileage, mobilization, decontamination, Shelby tubes, soil boring abandonment, all remediation compound injection costs (including slurry preparation and mixing equipment), bentonite, boring surface patches, and concrete saw.

An indication must be made as to why each boring is being advanced (i.e., defining the extent of contamination, classification boring, installation of monitoring wells, investigation of migration pathways, injection of a remediation compound) and the drilling type (either hollow-stem auger/conventional [HSA], push-driven technologies [PUSH], or Injection).

If the Subpart H minimum payment amount applies, then the box should be checked indicating such. Upon doing so, the field for "Total Drilling Costs" zeroes out so that the total drilling costs can be entered manually. In addition, an asterisk appears, indicating that the total drilling costs have been adjusted to reflect one or more Subpart H minimum payment amounts. (More than one might apply if the proposed budget or actual costs budget includes more than one round of drilling.)

When the Subpart H minimum payment amount box is not checked, the "Total Drilling Costs" are automatically calculated.

#### Section 2 – Monitoring/Recovery Wells

Include in the "Rate per Foot (\$)" charge all costs associated with the installation of a monitoring or recovery well (excluding drilling) including but not limited to costs associated with labor to install wells, all well materials (such as well casings, risers, screens, caps and plugs, filter packs, annular seals, surface seals, sand, gravel,

bentonite, concrete, well covers, and locks), and labor and equipment (including groundwater pump) for well development done by the driller.

## Analytical Costs Form

Include in the “Cost (\$) per Analysis” charge all costs associated with sample handling and analysis of each sample including but not limited to laboratory personnel, sample handling, sample preparation, all aspects of the laboratory analysis, sample jars and other sampling containers, sample kits, sample disposal fees, and reporting of sampling results. Include the number of samples for each parameter and the actual cost per analysis (up to the maximum total amount per sample listed in Appendix D of 35 Ill. Adm. Code 732 or 734).

For laboratory analyses not included in Appendix D, the Illinois EPA will determine reasonable maximum payment amounts on a site-specific basis.

Include in the soil sampling equipment charge all costs associated with sampling equipment including but not limited to EnCore sampler, purge-and-trap sampler, or equivalent sampling device.

Include in the sample shipping charge all costs associated with sample shipping including but not limited to transportation and/or delivery of samples to the laboratory (e.g., FedEx, UPS, or any other courier service), ice, coolers, and bubble wrap. The maximum total amount per sample listed in Appendix D is the maximum total amount for shipping all samples (soil and groundwater) collected in a calendar day.

## Remediation and Disposal Costs Form

### Section A – Conventional Technology

#### **Excavation, Transportation, and Disposal of contaminated soil and/or the 4-foot backfill material removal during early action activities:**

Include in the “Cost per Cubic Yard (\$)” all costs associated with the excavation, transportation, and disposal of contaminated soil and/or backfill material exceeding the applicable remediation objectives including but not limited to all non-consulting personnel (subcontractors); trucker/equipment operator labor; trucker/equipment operator travel and per diems; truck charges; visqueen truck liner; backhoe charges; equipment (including concrete breaker); equipment mobilization; skid steer; concrete/asphalt excavation, transportation, and disposal; landfill charges; decontamination; barriers; cones; tape; permit fees; traffic control; and other materials and related expenses.

The volume of soil removed and disposed must be determined by the following equation using the dimensions of the resulting excavation:

Soil [(Excavation Length in feet x Excavation Width in feet x Excavation Depth in feet of contaminated soil) ÷ 27] x 1.05 bulking factor

A conversion factor of 1.5 tons/cubic yard will be used to convert tons to cubic yards.

The volume of soil removed from within four feet of the outside dimensions of the UST and disposed pursuant to early action provisions must be determined in accordance with Appendix C of 35 Ill. Adm. Code 732 or 734.

### **Backfilling the Excavation:**

Include in the "Cost per Cubic Yard (\$)" all costs associated with the purchase, transportation, and placement of clean material used to backfill the excavation resulting from the removal and disposal of soil, including but not limited to all non-consulting personnel (subcontractors), trucker/equipment operator labor, trucker/equipment operator travel and per diems, truck charges, visqueen truck liner, backhoe charges, equipment, equipment mobilization, backfill material (clay, sand, gravel), barriers, cones, tape, permit fees, traffic control, and other materials and related expenses.

The volume of backfill material must be determined by the following equation using the dimensions of the backfilled excavation:

Soil [(Excavation Length in feet x Excavation Width in feet x Excavation Depth in feet of contaminated soil) ÷ 27] x 1.05 bulking factor

A conversion factor of 1.5 tons/cubic yard will be used to convert tons to cubic yards.

The volume of backfill material used to replace soil removed from within four feet of the outside dimensions of the UST and disposed pursuant to early action provisions must be determined in accordance with Appendix C of 35 Ill. Adm. Code 732 or 734.

### **Overburden Removal and Return:**

Include in the "Cost per Cubic Yard (\$)" all costs associated with the removal and subsequent return of soil that does not exceed the applicable remediation objectives but whose removal is required in order to conduct corrective action, including but not limited to all non-consulting personnel (subcontractors), trucker/equipment operator labor, trucker/equipment operator travel and per diems, truck charges, visqueen truck liner, backhoe charges, equipment, equipment mobilization, barriers, visqueen, cones, tape, permit fees, traffic control, and other materials and related expenses.

The volume of soil removed and returned must be determined by the following equation using the dimensions of the excavation resulting from the removal of soil:

Overburden Soil [(Excavation Length in feet x Excavation Width in feet x Excavation Depth in feet of non-contaminated soil) ÷ 27]

A conversion factor of 1.5 tons/cubic yard will be used to convert tons to cubic yards.

### **Section B – Alternative Technology**

This section must be used for any remediation technology other than conventional technology. Alternative technology includes but is not limited to soil vapor extraction, land-farming, bio-piles, low-temperature thermal desorption, air sparging, bio-sparging, in-situ bioremediation, chemical oxidation, or dual-phase extraction. Other alternative technologies may be proposed.

Include a time and materials breakdown of all costs. Include in the “Total Cost of the System” all costs including but not limited to all non-consulting personnel (subcontractors), equipment, materials, construction, installation, operation and maintenance, system shutdown and closure, and other expenses of the proposed remediation system. Maximum payment amounts for costs associated with alternative technology will be determined by the Illinois EPA on a site-specific basis.

Also include the information listed in the *Remediation System Information* document.

The volume of soil to be treated in-situ must be determined by the following equation:

Soil [(Length in feet x Width in feet x Depth in feet of contaminated soil) ÷ 27]

A conversion factor of 1.5 tons/cubic yard will be used to convert tons to cubic yards.

All materials, equipment, field purchases, and subcontractor costs must be listed on the *Remediation Materials Costs Summary Sheet* and *Non-Consulting Personnel Costs Summary Sheet*, and the totals from those forms should be placed on the “Total Cost of the System” line in Section B. All professional consultant time (design time, oversight time, etc.) must be listed on the *Consulting Personnel Costs Form*.

### **Section C – Groundwater Remediation and/or Free Product Removal System**

This section must be used if a groundwater remediation and/or free product removal system (such as pump-and-treat or dual-phase vapor extraction) is proposed in a plan.

Include a time and materials breakdown of all costs. Include in the “Total Cost of the System” all costs including but not limited to all non-consulting personnel (subcontractors), equipment, materials, construction, installation, operation and maintenance, system shutdown and closure, and other expenses of the proposed removal system. Maximum payment amounts for costs associated with the proposed removal system will be determined by the Illinois EPA on a site-specific basis.

Also include the information listed in the *Remediation System Information* document.

All materials, equipment, field purchases, and subcontractor costs must be listed on the *Remediation Materials Costs Summary Sheet* and *Non-Consulting Personnel Costs Summary Sheet*, and the totals from those forms should be placed on the “Total Cost of the System” line in Section C. All professional consultant time (design time, oversight time, etc.) must be listed on the *Consulting Personnel Costs Form*.

### **Section D – Groundwater and/or Free Product Removal and Disposal**

This section must be used if groundwater or free product is removed via vacuum truck or other similar method from a groundwater monitoring well, recovery well, or container (such as a drum).

Include in the “Cost per Gallon (\$)” all costs associated with the removal, transportation, and disposal of free product or contaminated groundwater including but not limited to all

non-consulting personnel (subcontractors), truck driver labor, mobilization, vac truck, mileage, equipment, materials, disposal fees, and other related expenses.

If the Subpart H minimum payment amount applies, then the box should be checked indicating such. Upon doing so, the field for "Total Cost" zeroes out so that the total groundwater and/or free product removal and disposal cost can be entered manually. In addition, an asterisk appears, indicating that the total groundwater and/or free product removal and disposal cost has been adjusted to reflect the Subpart H minimum payment amount. (More than one might apply if the proposed budget or actual costs budget includes more than one round of groundwater and/or free product removal and disposal.)

When the Subpart H minimum payment amount box is not checked, the "Total Cost" is automatically calculated.

### **Section E – Drum Disposal**

This section must be used whenever a solid or liquid waste generated as a result of corrective action (e.g., soil borings, water bailed for well development or sampling, or hand-bailed free product) is disposed in a 55-gallon drum.

Include in the "Cost per Drum (\$)" all costs associated with drum disposal including but not limited to drum purchase, drum dolly, transportation, truck charge and mobilization, truck driver labor, and disposal fees.

If the Subpart H minimum payment amount applies, then the box should be checked indicating such. Upon doing so, the field for "Total Drum Disposal Costs" zeroes out so that the total drum disposal costs can be entered manually. In addition, an asterisk appears, indicating that the total drum disposal costs have been adjusted to reflect the Subpart H minimum payment amount. (More than one might apply if the proposed budget or actual costs budget includes more than one round of drum disposal.)

When the Subpart H minimum payment amount box is not checked, the "Total Drum Disposal Costs" are automatically calculated.

### **Non-Consulting Personnel Costs Form**

(Note: For this form to function properly, Adobe Reader 8.0 is required.)

This form should only be used to list personnel costs that are not associated with professional consulting services. Professional consulting services (that is, services performed by the primary consulting firm) must be listed separately on the Consulting Personnel Costs Form. Do not include costs that are part of maximum payment amounts listed in the *Maximum Payment Amounts* sheets.

- a. **Employee Name** – List the name of the employee (required for application for payment only).
- b. **Personnel Title** – List the title of the employee. Personnel titles must be comparable to the task being performed.

- c. **Hours** – List the number of hours worked or proposed to be worked for that particular task.
- d. **Rate (\$)** – List the hourly rate of the employee. Personnel costs must be based upon the work being performed, regardless of the title of the person performing the work.
- e. **Total Cost** – Enter the total dollar amount requested for each task (Hours X Rate).
- f. **Task** – Complete an individual line item for each task conducted. The following are some examples of tasks: remediation system installation, operation and maintenance, or alternative technology remediation construction. Provide additional details to supplement this information; for example, the details may include the number of trips for operation and maintenance, number of hours for each trip, and how often trips are proposed.
- g. **Cumulative Total of Non-Consulting Personnel Costs Summary Sheet(s)** – Enter the total non-consulting personnel costs (the sum of all tasks).

## Remediation Materials Costs Summary Sheet

(Note: For this form to function properly, Adobe Reader 8.0 is required.)

Include all costs for materials, equipment, and field purchases associated with a groundwater remediation and/or free product removal system and/or alternative technology. Such costs include but are not limited to remediation compounds, nutrients for in-situ bioremediation, and soil vapor extraction equipment.

- a. **Materials, Equipment, or Field Purchase** – List all the materials, equipment, and field purchases used or proposed to be used that are not part of maximum payment amounts listed in the *Maximum Payment Amounts* sheets.
- b. **Time or Amount Used** – List, if applicable, the amount of time or the number of individual items used.
- c. **Rate (\$)** – List the rate at which an item is charged.
- d. **Unit** – List the unit of the rate charged, which may be hourly, daily, weekly, monthly, yearly, etc. or may be based upon an activity such as per foot, cubic yard, square foot, gallon, etc.
- e. **Total Cost/Item** – List the total cost of the material, equipment, or field purchase.
- f. **Subcontractor** – If a service is provided by a subcontractor, list the name of the subcontractor.
- g. **Cumulative Total of Remediation Materials Costs Summary Sheet(s)** – Enter the total cost of all materials, equipment, and field purchases.

## UST Removal and Abandonment Costs Form

This section applies to UST removal, abandonment, and disposal activities.

Include in the "Cost (\$)" all costs associated with the excavation, removal, disposal, and/or abandonment of UST systems including but not limited to all non-consulting personnel (subcontractors), mobilization, equipment, materials, decontamination, barriers, cones, tape, PID, slurry, disposal fees, permit fees, and other related expenses.

Please list all tanks that have been removed from or abandoned at the site for which payment from the Fund is requested. The maximum total amount payable per UST is based on the UST volume, as prescribed in the regulations.

## **Paving, Demolition, and Well Abandonment Costs Form**

### **Section A – Concrete and Asphalt Placement/Replacement**

This section must be used for costs associated with concrete, asphalt, and paving installed as an engineered barrier, as well as for costs associated with the replacement of concrete, asphalt, and paving.

Include in the "Cost (\$)" per Square Foot" all costs associated with concrete, asphalt, and paving placement or replacement, including but not limited to all non-consulting personnel (subcontractors), placement or replacement labor, per diems, equipment, materials and delivery, base preparation/compaction/leveling, surface preparation and equipment, forms, and other related expenses. In addition, include in the accompanying plan or report documentation of the material (either asphalt, paving, or concrete), the depth of material, and the square footage of the asphalt, paving, or concrete being placed or replaced.

### **Section B – Building Destruction or Dismantling and Canopy Removal**

This section must be used for costs associated with the destruction or the dismantling and reassembly of above grade structures.

Include in the "Unit Cost (\$)" all costs including but not limited to all personnel (primary consultant and subcontractors), per diems, equipment, mobilization, truck charges, backhoe charges, materials, asbestos abatement, barriers, cones, tape, permit fees, and other related expenses. Payment will be determined on a time and materials basis.

The total cost for the destruction or the dismantling and reassembly of above grade structures must not exceed \$10,000 per site. A time and materials breakdown of all costs must be submitted with the application for payment.

### **Section C – Well Abandonment**

This section must be used for the abandonment of monitoring or recovery wells that are abandoned pursuant to regulations promulgated by the Illinois Department of Public Health at 77 Ill. Adm. Code 920.120. Please note that each monitoring well must be listed individually.

Include in the "Cost (\$) per Foot" all costs including but not limited to all personnel (primary consultant and subcontractors), labor, per diems, transportation, equipment (including jackhammer), mobilization, bentonite, concrete, and other related expenses.

## Consulting Personnel Costs Form

(Note: For this form to function properly, Adobe Reader 8.0 is required.)

Include all costs associated with professional consulting services (that is, services provided by the primary consulting firm). Personnel not directly part of the primary consulting firm must be listed on the *Non-Consulting Personnel Costs Form*.

In the "Personnel Title" fields, use the titles listed at Appendix E of 35 Ill. Adm. Code 732 or 734. The highest maximum hourly rate for each personnel title listed in Appendix E may be proposed in the budget, but the amount billed in the application for payment must be based upon the degree, licensing, and experience requirements identified in Appendix E.

Include in the "Rate (\$)" the costs associated with professional consulting services provided by the primary consulting firm including but not limited to plan, budget, and report preparation, application-for-payment preparation, certifications, project oversight, and field activities.

A separate line should be used for each employee performing tasks in each remediation category.

- a. **Employee Name** – List the name of the employee (required for application for payment only).
- b. **Personnel Title** – Select the title of the employee using the personnel titles listed in Appendix E of 35 Ill. Adm. Code 732 or 734 (also listed in the *Maximum Payment Amounts/Personnel Titles and Requirements* document). Personnel titles must be comparable to the task being performed.
- c. **Hours** – List the number of hours worked or proposed to be worked for that particular task.
- d. **Rate (\$)** – List the hourly rate of the employee. The rate may not exceed the maximum hourly rate listed in the applicable *Maximum Payment Amounts/Personnel Titles and Requirements* document. Personnel costs must be based upon the work being performed, regardless of the title of the person performing the work.
- e. **Total Cost** – Enter the total dollar amount requested for each task (Hours X Rate).
- f. **Remediation Category** – Select the appropriate remediation category abbreviation from the *Remediation Categories List* document that is applicable to each phase of corrective action that has been or is proposed to be performed.
- g. **Task** – Complete an individual line item for each task conducted. The following are some examples of tasks: preparation of CAP and budget, site investigation fieldwork, operation and maintenance, alternative technology oversight, or

alternative technology remediation design. Provide additional details to supplement this information; for example, the details may include the number of trips for operation and maintenance, number of hours for each trip, and how often trips are proposed.

- h. **Cumulative Total of Consulting Personnel Costs Form(s)** – Enter the total consulting personnel costs (the sum of all tasks).

Multiple pages of the form must be used if additional space is needed.

## Consultant's Materials Costs Form

(Note: For this form to function properly, Adobe Reader 8.0 is required.)

Include on the form the costs associated with materials provided by the professional consulting service (that is, the primary consulting firm) including but not limited to lodging and per diems, mileage (or vehicle), private utility locator, permit fees, well survey fees, NFR Letter recording fees, manifests, copies, and other equipment and supplies (such as PID, FID, explosimeter, DO/ORP/pH meters, hand augers, cameras/photo development, gloves, plastic bags, decon kit [for consultant's nondisposable field equipment], equipment to survey wells, peristaltic pump, purge pump, rope, bailers, measure wheel, transducer, data logger, water level indicator/interface probe, plastic tubing, metal detector, and barricades).

- a. **Materials, Equipment, or Field Purchase** – List all the materials, equipment, and field purchases used or proposed to be used that are not part of maximum payment amounts listed in the *Maximum Payment Amounts* sheets.
- b. **Time or Amount Used** – List, if applicable, the amount of time or the number of individual items used.
- c. **Rate (\$)** – List the rate at which an item is charged.
- d. **Unit** - List the unit of the rate at which an item is charged, if applicable. The unit may be hourly, daily, weekly, monthly, yearly, etc. The unit and unit rate may also be based on an activity such as per foot, cubic yard, square foot, gallon, etc.
- e. **Total Cost** – List the total cost of materials, equipment, or field purchase.
- f. **Remediation Category** – Enter the appropriate remediation category abbreviation from the *Remediation Categories List* document that is applicable to each phase of corrective action that has been or is proposed to be performed.
- g. **Description/Justification** – Enter a description of the materials, equipment, or field purchase and/or justification for its use.
- h. **Cumulative Total of Consultant's Materials Costs Form(s)** – Enter the total costs of all materials, equipment, and field purchases.

Multiple pages of the form must be used if additional space is needed.

## Bid Summary Form

As an alternative to the maximum payment amounts set forth in Subpart H, Appendix D, and Appendix E of 35 Ill. Adm. Code 734 or 732, one or more payment amounts may be determined via bidding in accordance with 35 Ill. Adm. Code 734.855 or 732.855. Each bid must cover all costs included in the maximum payment amount that the bid is replacing.

The following items must be provided to the Illinois EPA with the associated budget:

1. A copy of the scope of work provided to the subcontractors requesting bids;
2. Copies of **all** bids received (a minimum of three bids is required unless unusual or extraordinary circumstances apply), accompanied by completed and signed *Contractor Certification Forms* and bid details; and
3. A completed and signed copy of the *Bid Summary Form*.

## Contractor Certification Form

Whenever a job is bid, completed and signed *Contractor Certification Forms* must accompany the *Bid Summary Form*. Bid details should be attached.

## Handling Charges Form

Handling charges for field purchases and subcontractor billings must be calculated based on the table below. **Handling charges do not need to be submitted in a budget.** Submit copies of invoices and/or receipts of the subcontractor charges and/or field purchase with an application for payment. Include a breakdown of the date the work was conducted, as well as documentation of all activities and materials purchases, with invoices and/or receipts. If the invoices and receipts do not contain this information, submit additional documentation providing this information.

<b>Subcontract and Field Purchase Cost</b>	<b>Eligible Handling Charges as a Percentage of Cost</b>
\$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

## Miscellaneous Forms

The following forms should be completed, signed, and submitted, as applicable:

- [Owner/Operator and Licensed Professional Engineer/Geologist Budget Certification Form](#)
- [Owner/Operator and Licensed Professional Engineer/Geologist Billing Certification Form](#)
- [Payment Certification Form](#)
- [Private Insurance Coverage Questionnaire and Private Insurance Affidavit](#)

- Federal Taxpayer Identification Number and Legal Status Disclosure Certification Requirements
- Women and Minority Business Enterprises Form
- Personnel Weekly Work Sheet
- Materials Weekly Work Sheet

## **Reference Documents**

The following reference documents should be used, as applicable, when completing budgets and/or applications for payment:

- Personnel Title Descriptions and Duties Summary
- Remediation Categories List
- Remediation System Information
- Maximum Payment Amounts (March 1, 2006 through June 30, 2006)
- Maximum Payment Amounts (July 1, 2006 through June 30, 2007)
- Maximum Payment Amounts (July 1, 2007 through June 30, 2008)



## CPI Inflation Calculator

### CPI Inflation Calculator

\$ 142.00

in January ▼ 1991 ▼

has the same buying power as

in January ▼ 2016 ▼

[Mobile Browser? View full screen.](#)

#### About the CPI Inflation Calculator

The CPI inflation calculator uses the [Consumer Price Index](#) for All Urban Consumers (CPI-U) U.S. city average series for all items, not seasonally adjusted. [This data](#) represents changes in the prices of all goods and services purchased for consumption by urban households.

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