# AE Order Number Banner

**Report Description**

**This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.**

**App Number:** pGRL1005033685

1RP - 2428

XTO ENERGY, INC

*7/26/2016*

2428

## Leking, Geoffrey R, EMNRD

**From:** Leking, Geoffrey R, EMNRD
**Sent:** Monday, December 21, 2009 9:55 AM
**To:** 'Shelly_Tucker@nps.gov'
**Subject:** FW: XTO EMSU B #923
**Attachments:** FW: EMSU #923 (XTO-09-004)

**From:** Sergio [mailto:scontreras@sesi-nm.com]
**Sent:** Thursday, December 17, 2009 8:00 AM
**To:** Leking, Geoffrey R, EMNRD
**Subject:** RE: XTO EMSU B #923

Good morning Geoffrey thank you for the comments below regarding the XTO EMSU-B #923. Regarding the chloride levels Isaac Kincaid with SESI retrieved a bottom hole composite sample of the excavation and transported the sample to Cardinal Labs. Attached you will find the chloride information of the bottom hole, we are still in the process of delineating the excavation and no staining will be left on the side walls.

Thanks

Sergio

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**From:** Leking, Geoffrey R, EMNRD [mailto:GeoffreyR.Leking@state.nm.us]
**Sent:** Tuesday, December 08, 2009 10:47 AM
**To:** Sergio
**Subject:** RE: XTO EMSU B #923

Sergio

A few comments on the EMSU-B #923 Work Plan:

1) There is no side wall data. Of special concern is the discolored and odorous layer of soil at approximately 4 feet below ground surface. It is approximately 2 to 3 feet thick. FURTHER SIDE WALL TO BE COMPLETED NO STAIN ON WALLS TO BE LEFT

2) There is no chloride data. – COMPOSITE FROM BOTTOM DISPLAYS <16.0 @ 8.0' AS WELL AS A BH SAMPLE @ 22'

3) At least one monitoring well should be installed. It could be drilled in the bottom of the excavation at the hottest spot using telescoping methods in order to not spread contamination vertically. The ground water should then be sampled for benzene, BTEX, TPH and chlorides. Three monitoring wells outside the excavation could be installed in order to define the direction of ground water flow and to test for the above referenced parameters, also. NO RESPONSE ALTHOUGH LARRY HAS STARTED A CLAY LAYER EXISTS WHICH SHOULD HAVE STOPPED INFILTRATION BELOW IT

4) On 11/18/09, NMOCD inspected the excavation and found staining on the floor and "puddled" water. The work plan should address their presence and how they will be addressed. DID NOT RESPOND EXCEPT FURTHER DELINEATION TO TAKE PLACE. AGAIN L. JOHNSON STARTED CLAY LAYER.

5) The work plan should describe the path forward once the depth of ground water and the concentrations of the above referenced parameters are defined. PATH FORWARD PER DEPTH TO GW COMBINED W/ CONCENTRATIONS FROM BH SAMPLES, NO RESPONSE

I look forward to your response to the above comments. Thank you.

WATER @ 35' IN 1953 19·20S·37E
EMSU-B #923 - 24·20S·36E NMOCD MAP AGREES - <50 ESP. 37'

## Leking, Geoffrey R, EMNRD

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**Attachments:** FW: EMSU #923 (XTO-09-004)

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1) There is no side wall data. Of special concern is the discolored and odorous layer of soil at approximately 4 feet below ground surface. It is approximately 2 to 3 feet thick.

2) There is no chloride data.

3) At least one monitoring well should be installed. It could be drilled in the bottom of the excavation at the hottest spot using telescoping methods in order to not spread contamination vertically. The ground water should then be sampled for benzene, BTEX, TPH and chlorides. Three monitoring wells outside the excavation could be installed in order to define the direction of ground water flow and to test for the above referenced parameters, also.

4) On 11/18/09, NMOCD inspected the excavation and found staining on the floor and "puddled" water. The work plan should address their presence and how they will be addressed.

5) The work plan should describe the path forward once the depth of ground water and the concentrations of the above referenced parameters are defined.

I look forward to your response to the above comments. Thank you.

Geoffrey Leking
Environmental Engineer
NMOCD-Hobbs

**From:** Sergio [mailto:scontreras@sesi-nm.com]
**Sent:** Friday, October 30, 2009 11:41 AM
**To:** Leking, Geoffrey R, EMNRD
**Subject:** FW: XTO EMSU B #923

Geoffrey

Here is the information from the EMSU B #923, when you open the site maps you might have to go to view and then print layout to get a better view. If you have any questions or concerns please contact me.

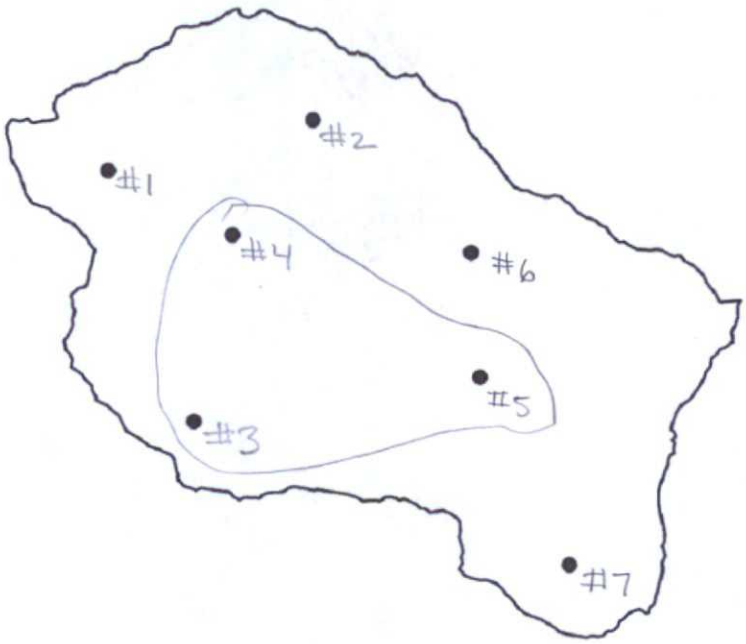
Sergio Contreras
Operations Manager
575-631-7444

XTO-09-004
Cardinal Laboratories Results
October 13, 2009

| Sample Point | GRO mg/kg | DRO mg/kg | Benzene mg/kg | Toluene mg/kg | Ethyl Benzene mg/kg | Total Xylenes mg/kg |
|---|---|---|---|---|---|---|
| TT#1 8' | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.300 |
| TT #2 9' | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.300 |
| TT #3 10' | 11.6 | 440 | <0.050 | <0.050 | <0.050 | 0.368 |
| TT #3 14' | 11.6 | 545 | 0.060 | 0.145 | 0.283 | 0.946 |
| TT #3 18' | 459 | 1,890 | <0.050 | 0.249 | <0.050 | 2.94 |
| TT #4 11' | 1,120 | 2,620 | 0.763 | 0.878 | 1.94 | 6.21 |
| TT #4 15' | 971 | 1,690 | 0.439 | 0.876 | 1.61 | 4.95 |
| TT #5 10' | 30.0 | 720 | <0.050 | 0.137 | <0.050 | 1.39 |
| TT #5 15' | 109 | 2,200 | <0.050 | <0.050 | <0.050 | 0.936 |
| TT #5 18' | 41.8 | 1,160 | <0.050 | <0.050 | <0.050 | 0.491 |
| TT #6 10' | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.300 |
| TT #6 12' | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.300 |
| TT #7 9' | <10.0 | 25.8 | <0.050 | <0.050 | <0.050 | <0.300 |
| TT #7 12' | 77.4 | 1,260 | <0.050 | <0.050 | <0.050 | 1.02 |
| TT #7 15' | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.300 |

EPA method:
TPH GRO & DRO (EPA SW-846 8015)
BTEX (EPA SW-846 8021B)

TPH 100 PPM
B 10
BTEX 50
Cl 250



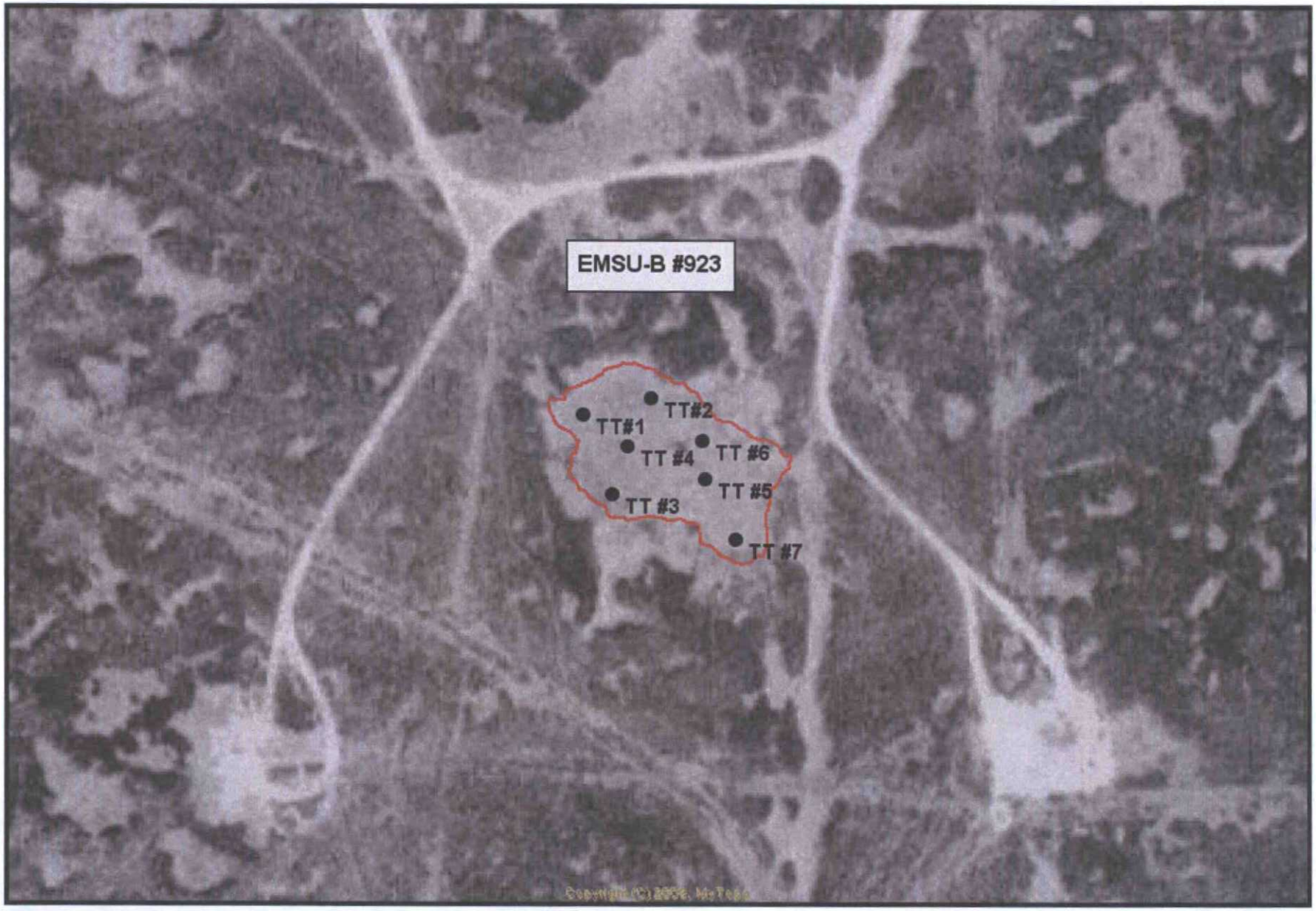

# EMSU-B 923

Lat/Long
WGS 1984

N

Scale 1:1,000
0 0.020
Miles

site map.cor
10/19/2009
GPS Pathfinder® Office
Trimble.


EMSU-B #923
TT#1
TT#2
TT #4
TT #6
TT #5
TT #3
TT #7

CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

October 13, 2009

Bob Allen
Safety & Environmental Solutions, Inc.
703 East Clinton, #102
Hobbs, NM 88240

Re: XTO Energy (XTO-09-004)

Enclosed are the results of analyses for sample number H18446, received by the laboratory on 10/08/09 at 3:50 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

| | |
|---|---|
| Method SW-846 8021 | Benzene, Toluene, Ethyl Benzene, and Total Xylenes |
| Method SW-846 8260 | Benzene, Toluene, Ethyl Benzene, and Total Xylenes |
| Method TX 1005 | Total Petroleum Hydrocarbons |

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited though the State of Colorado Department of Public Health and Environment for:

| | |
|---|---|
| Method EPA 552.2 | Haloacetic Acids (HAA-5) |
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.2 | Regulated VOCs (V2, V3) |

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 4 (includes Chain of Custody)

Sincerely,

Celey D. Keene

Celey D. Keene
Laboratory Director

This report conforms with NELAP requirements.

CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 E. CLINTON, #102
HOBBS, NM 88240
FAX TO: (575) 393-4388

Receiving Date: 10/08/09
Reporting Date: 10/13/09
Project Owner: XTO ENERGY (XTO-09-004)
Project Name: EMSU - B 923
Project Location: MONUMENT, NM

Sampling Date: 10/08/09
Sample Type: SOIL
Sample Condition: COOL & INTACT @ 4.5°C
Sample Received By: CK
Analyzed By: AB/ZL

| LAB NO. | SAMPLE ID | GRO ($C_6$-$C_{10}$) (mg/kg) | DRO (>$C_{10}$-$C_{28}$) (mg/kg) | BENZENE (mg/kg) | TOLUENE (mg/kg) | ETHYL BENZENE (mg/kg) | TOTAL XYLENES (mg/kg) |
|---|---|---|---|---|---|---|---|
| ANALYSIS DATE: | | 10/13/09 | 10/13/09 | 10/12/09 | 10/12/09 | 10/12/09 | 10/12/09 |
| H18446-1 | TT#1 8' | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.300 |
| H18446-2 | TT#2 9' | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.300 |
| H18446-3 | TT#3 10' | 11.6 | 440 | <0.050 | <0.050 | <0.050 | 0.368 |
| H18446-4 | TT#3 14' | 11.6 | 545 | 0.060 | 0.145 | 0.283 | 0.946 |
| H18446-5 | TT#3 18' | 459 | 1,890 | <0.050 | 0.249 | <0.050 | 2.94 |
| H18446-6 | TT#4 11' | 1,120 | 2,620 | 0.763 | 0.878 | 1.94 | 6.21 |
| H18446-7 | TT#4 15' | 971 | 1,690 | 0.439 | 0.876 | 1.61 | 4.95 |
| H18446-8 | TT#5 10' | 30.0 | 720 | <0.050 | 0.137 | <0.050 | 1.39 |
| H18446-9 | TT#5 15' | 109 | 2,200 | <0.050 | <0.050 | <0.050 | 0.936 |
| H18446-10 | TT#5 18' | 41.8 | 1,160 | <0.050 | <0.050 | <0.050 | 0.491 |
| H18446-11 | TT#6 10' | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.300 |
| H18446-12 | TT#6 12' | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.300 |
| H18446-13 | TT#7 9' | <10.0 | 25.8 | <0.050 | <0.050 | <0.050 | <0.300 |
| H18446-14 | TT#7 12' | 77.4 | 1,260 | <0.050 | <0.050 | <0.050 | 1.02 |
| H18446-15 | TT#7 15' | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.300 |
| | | | | | | | |
| Quality Control | | 440 | 512 | 0.049 | 0.047 | 0.048 | 0.141 |
| True Value QC | | 500 | 500 | 0.050 | 0.050 | 0.050 | 0.150 |
| % Recovery | | 88.0 | 102 | 98.0 | 94.0 | 96.0 | 94.0 |
| Relative Percent Difference | | 2.9 | 0.6 | 13.3 | 13.5 | 7.7 | 14.8 |

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8021B.
TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE, AND TOTAL XYLENES. Reported on wet weight. Not accredited for GRO/DRO.

Lab Director

10/13/09
Date

H18446 TPHBTEX SESI

# CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(575) 393-2326 Fax (575) 393-2476



| | |
|---|---|
| Company Name: | SESI |
| Project Manager: | Bob Allen |
| Address: | 703 E Clinton |
| City: | Hobbs State: NM Zip: 88240 |
| Phone #: | 575-397-0510 Fax #: |
| Project #: | XTO-05-004 Project Owner: XTO |
| Project Name: | XTO EMSU-B, S23 |
| Project Location: | Monument, NM |
| Sampler Name: | Isaac Kincaid |

**BILL TO**

| | |
|---|---|
| P.O. #: | |
| Company: | |
| Attn: | |
| Address: | Same |
| City: | |
| State: | Zip: |
| Phone #: | |
| Fax #: | |

**ANALYSIS REQUEST**

| FOR LAB USE ONLY Lab I.D. | Sample I.D. | (G)RAB OR (C)OMP. | # CONTAINERS | MATRIX: GROUNDWATER | WASTEWATER | SOIL | OIL | SLUDGE | OTHER: | PRESERV.: ACID/BASE | ICE / COOL | OTHER: | SAMPLING: DATE | TIME | TPH 80.15 | BTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H18446- 1 | TT#1 5' | G | 1 | | | ✓ | | | | | ✓ | | 10/8/09 | 0810 | ✓ | ✓ |
| 2 | TT#2 5' | | | | | | | | | | | | | 0820 | | |
| 3 | TT#3 10' | | | | | | | | | | | | | 0823 | | |
| 4 | TT#3 14' | | | | | | | | | | | | | 0834 | | |
| 5 | TT#3 18' | | | | | | | | | | | | | 0900 | | |
| 6 | TT#4 11' | | | | | | | | | | | | | 0826 | | |
| 7 | TT#4 15' | | | | | | | | | | | | | 0833 | | |
| 8 | TT#5 10' | | | | | | | | | | | | | 0920 | | |
| 9 | TT#5 15' | | | | | | | | | | | | | 0925 | | |
| 10 | TT#5 18' | | | | | | | | | | | | | 0930 | ✓ | ✓ |



| | | | |
|---|---|---|---|
| Sampler Relinquished: | Date: 10/8/09 | Received By: | |
| | Time: 1550 | | |
| Relinquished By: | Date: | Received By: | |
| | Time: | | |
| Delivered By: (Circle One) | Temp. | Sample Condition: Cool (Yes / No) Intact (Yes / No) | CHECKED BY: (Initials) |
| Sampler - UPS - Bus - Other: | 4.5 °C | Yes / Yes | CK |

Phone Result: ☐ No Add'l Phone #:
Fax Result: ☐ No Add'l Fax #:
REMARKS:

ikincaid@sesi-nm-com
office2@sesi-nm.com

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

# CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(575) 393-2326 Fax (575) 393-2476



| | |
|---|---|
| Company Name: | SESI |
| Project Manager: | Bob Allen |
| Address: | 703 E Clinton |
| City: | Hobbs State: NM Zip: 88240 |
| Phone #: | 575-397-0510 Fax #: |
| Project #: | XTO-05-004 Project Owner: XTO |
| Project Name: | Emsu-923 |
| Project Location: | Monument, NM |
| Sampler Name: | Isaac Encard |

**BILL TO**

| | |
|---|---|
| P.O. #: | |
| Company: | |
| Attn: | |
| Address: | Same |
| City: | |
| State: | Zip: |
| Phone #: | |
| Fax #: | |

**ANALYSIS REQUEST**

| FOR LAB USE ONLY Lab I.D. | Sample I.D. | (G)RAB OR (C)OMP. | # CONTAINERS | MATRIX: GROUNDWATER | WASTEWATER | SOIL | OIL | SLUDGE | OTHER: | PRESERV.: ACID/BASE: | ICE / COOL | OTHER: | SAMPLING: DATE | TIME | TPH 80.15 | BTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H18446- | | | | | | | | | | | | | | | | |
| 11 | TT #6 10' | G | 1 | | | ✓ | | | | | ✓ | | 10/8/09 | 0935 | ✓ | ✓ |
| 12 | TT #6 12' | | | | | | | | | | | | | 0952 | | |
| 13 | TT #7 9' | | | | | | | | | | | | | 1000 | | |
| 14 | TT #7 12' | | | | | | | | | | | | | 1015 | | |
| 15 | TT #7 15' | | | | | | | | | | | | | 1020 | | |

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

| | | | |
|---|---|---|---|
| Sampler Relinquished: | Date: 10/8/09 Time: 1550 | Received By: | |
| Relinquished By: | Date: Time: | Received By: | |
| Delivered By: (Circle One) Sampler - UPS - Bus - Other: | Temp. 4.5°C | Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No | CHECKED BY: (Initials) |

Phone Result: ☐ No Add'l Phone #:
Fax Result: ☐ No Add'l Fax #:
REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.