

1625 Broadway  
Suite 2200.  
Denver, CO 80202

Tel: 303.228.4000  
Fax: 303.228.4286  
www.nobleenergyinc.com



North America Division

June 1, 2012

Mr. John Axelson  
Department of Natural Resources  
Oil & Gas Conservation Commission  
1120 Lincoln Street, Suite 801  
Denver, CO 80201

RE: Site Assessment and Groundwater Monitoring Results  
Eckhardt #1 Tank Battery  
API 05-123-10836  
SESE Sec. 33, T5N, R64W  
Weld County, Colorado

Dear Mr. Axelson:

Please find attached Site Assessment and initial Ground Water Monitoring Report for the Eckhardt #1 tank battery. Noble Energy Inc. would like to claim business confidentiality protection for the information submitted in this letter, the supporting materials attached and all subsequent correspondence related to this matter. Please contact the Noble Energy EHS Department at 303-228-4000 if you have any questions or require additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Ryan Bruner'.

Ryan Bruner  
Environmental and Regulatory Supervisor

Attachment



May 4, 2012

Mr. Todd Cullum  
Base Construction Foreman  
Noble Energy, Inc.  
2115 117<sup>th</sup> Avenue  
Greeley, Colorado 80634

**RE: Environmental Assessment Results  
Eckhardt 1 Tank Battery  
COGCC Tracking # 2223314  
Weld County, Colorado**

Dear Mr. Cullum:

LT Environmental, Inc. (LTE), under the direction of Noble Energy, Inc. (Noble), conducted an environmental assessment at the Eckhardt 1 Tank Battery (Site). The purpose of the environmental assessment was to define the horizontal and vertical extent of hydrocarbon impacted soil and groundwater and to investigate inorganic soil conditions in the source area, following the discovery of a historical evaporation pit.

The legal site description is the southeast quarter of the southeast quarter of Section 33, Township 5 North, and Range 64 West (Figure 1). The Site is located approximately 0.1 miles north of the intersection of County Road 50 and County Road 55 in Weld County, Colorado.

### **Soil Boring Advancement**

LTE advanced a total of 20 soil borings on March 28 and 29, 2012, and April 6, 2012. The soil borings were installed using a direct-push rig operated by High Plains Drilling of Denver, Colorado. Soil borings SB01 through SB20 were set as monitoring wells to allow for groundwater sampling. A site map with soil boring locations is provided as Figure 2.

The soil borings were logged by an LTE scientist, and the soil was characterized through visual inspection. The total depths of the soil borings were approximately 14 feet below ground surface (bgs). Depth to groundwater observed in the soil borings ranged from approximately 10 feet to 11.5 feet bgs. Estimated groundwater flow direction is to the northeast. The soil borings and well completion diagrams are included as Attachment 1.

Soil identified at the Site was predominantly clayey silt ranging from ground surface to approximately 3 feet bgs, silty sand and silty clay to medium clay from approximately 3 feet to 8 feet bgs, and silty clay from 8 feet to 16 feet bgs. Field-identified soil impact was observed in soil borings SB01, SB02, SB04, SB07, SB08, SB12, SB14, SB15, SB17, and SB18.

## **Soil Sampling**

Soil borings were advanced using direct-push methods and sampled using a continuous sampler on March 28 and 29, 2012, and April 6, 2012. Field measurements and soil samples were collected to identify the vertical and horizontal extent of soil impact. Soil samples were submitted for analysis based on the sample interval that exhibited visible soil staining or where the highest photo-ionization detector (PID) reading was observed. If field screening methods indicated minimal petroleum hydrocarbon impact was present, the soil sample was collected directly above the static water level.

Twenty soil samples were submitted to Summit Scientific (Summit) of Golden, Colorado, for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by United States Environmental Protection Agency (EPA) Method 8260B and total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) by EPA Method 8260B and diesel range organics (DRO) by EPA Method 8015.

One composite soil sample was collected from 0.0 feet to 3 feet bgs at the center of the historical evaporation pit (SB01 Composite) and submitted to Summit for analysis of pH by EPA 9045B, electrical conductivity (EC) by SM 2510B, and sodium adsorption ratio (SAR) by EPA 6020.

## **Groundwater Monitoring Well Installation**

Soil borings SB01 through SB20 were completed as temporary groundwater monitoring wells on March 28 and 29, 2012, and April 6, 2012. The monitoring wells were constructed of 1-inch diameter polyvinyl chloride (PVC) casing extending from the surface stickups to depths of approximately 14 feet bgs. The lower section of each well consists of 10 feet of 0.010-inch factory slotted PVC well screen. Silica sand (size 10-20) was placed from the bottom of each well to one foot above the screen to act as a filter pack for the monitoring well. Bentonite chips were placed from the top of the silica sand to the ground surface at each soil boring and hydrated to provide a seal against surface contamination and precipitation infiltration. Well completion diagrams are provided as Attachment 1.

## **Groundwater Sampling**

Groundwater samples from monitoring wells SB01 through SB12 were collected on March 30, 2012, and groundwater samples from monitoring wells SB13 through SB20 were collected on April 9, 2012. Prior to sampling each monitoring well, depth to static groundwater was measured and recorded for calculating well-specific purge volumes. The depth to static groundwater level at the Site ranged from 7.65 feet below top of casing (btoc) in SB15 to 10.10 feet btoc in SB20. Following well development and purging, samples were collected and then submitted to Summit for analysis of BTEX by EPA Method 8260B.

## **Soil Analytical Results**

The Colorado Oil and Gas Conservation Commission (COGCC) standards for BTEX in soil are 0.17 milligrams per kilogram (mg/kg), 85 mg/kg, 100 mg/kg, 175 mg/kg, respectively, and 500 mg/kg for TPH.

Soil analytical results indicate that SB01 exceeded the COGCC standards for benzene at 0.38 mg/kg. Soil boring SB01 and SB08 also exceeded the COGCC standards for TPH at concentrations of 3,240 mg/kg and 660 mg/kg, respectively. All other samples are in compliance with COGCC standards, including the composite soil sample analyzed for inorganics (pH, EC, and SAR). The soil analytical results are presented on Figure 3 and summarized in Table 1 and Table 2. The laboratory analytical reports are included in Attachment 2.

## **Groundwater Analytical Results**

The Colorado Department of Public Health and Environment-Water Quality Control Commission has established Regulation 41-The Basic Standards for Ground Water (WQCC Reg 41) for BTEX at 5 micrograms per liter (µg/L), 560 µg/L, 700 µg/L, and 1,400 µg/L, respectively.

Groundwater analytical results indicate samples from monitoring wells SB01 and SB08 exceeded WQCC Reg 41 for benzene at concentrations of 380 µg/L and 100 µg/L, respectively. Groundwater analytical results are presented on Figure 4 and summarized in Table 3. The laboratory analytical reports are included in Attachment 2.

## **Summary and Conclusions**

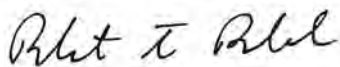
A total of 20 soil borings were advanced and completed as temporary monitoring wells at the Site. Soil analytical results indicate SB01 exceeded the COGCC standard for benzene, and SB01 and SB08 exceeded the COGCC standard for TPH. Groundwater analytical results indicate SB01 and SB08 exceeded WQCC Reg 41 for benzene. Groundwater and soil impacts exceeding standards appear to reside in a 60 foot by 80 foot extent. No free phase hydrocarbons were observed at the Site. SB01 Composite was sampled and analyzed for EC, pH, and SAR and were compliant with COGCC standards.

As there is impact to soil and groundwater at the Site, a Form 27 will be completed and submitted to the COGCC describing the soil and groundwater impact and a proposed remediation plan for the Site.

Please call us at 303-433-9788 if you have any questions or comments regarding this report.

Sincerely,

LT ENVIRONMENTAL, INC.



Rob Rebel, P.E.  
Project Manager



Steve Kahn, P.E.  
Principal

Attachments:

Figure 1	Site Location Map
Figure 2	Site Map
Figure 3	Soil Analytical Results
Figure 4	Groundwater Analytical Results
Table 1	Soil Analytical Results
Table 2	Soil Inorganics Analytical Results
Table 3	Groundwater Analytical Results
Attachment 1	Well Completion Diagrams
Attachment 2	Laboratory Analytical Reports

## FIGURES



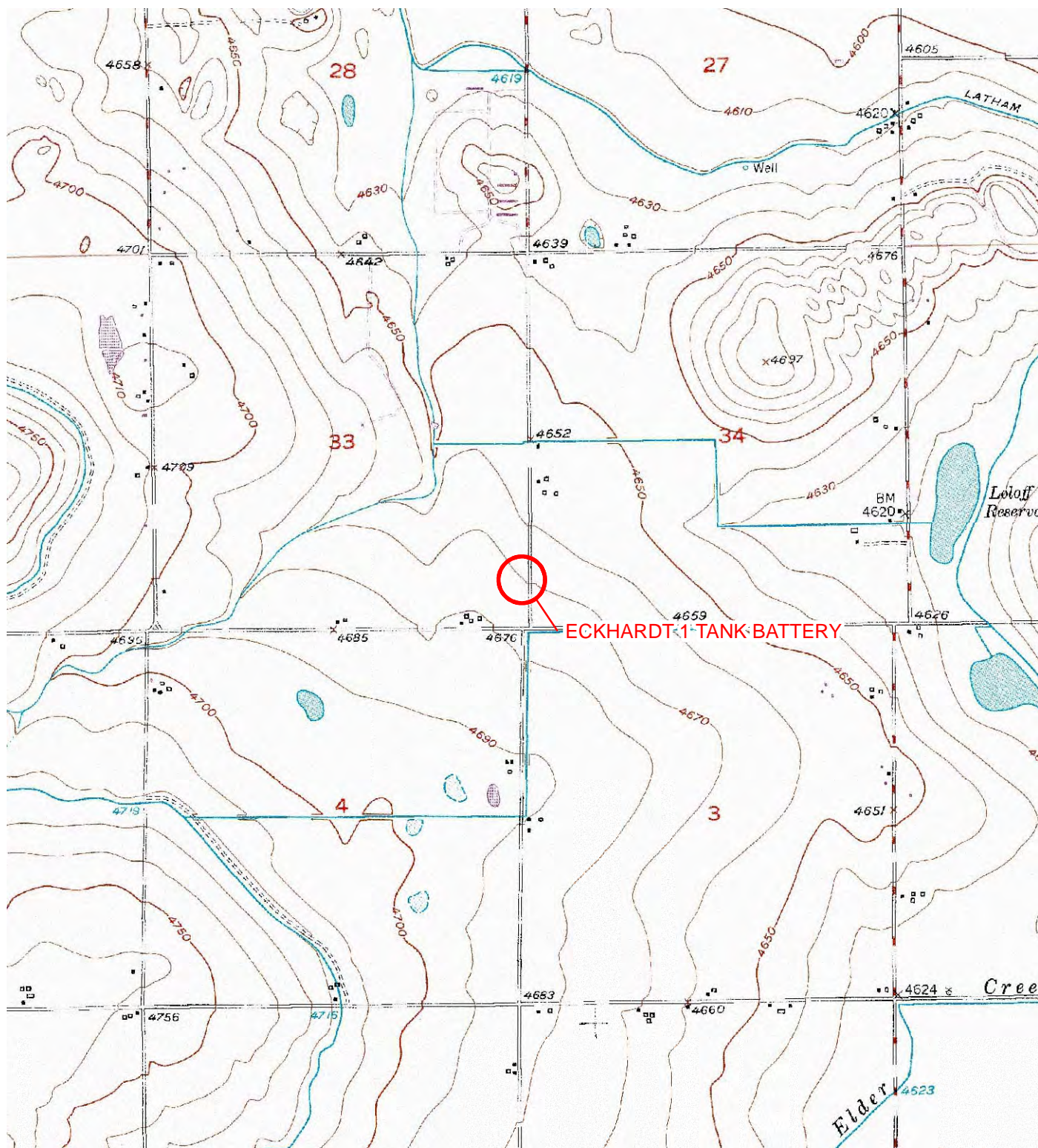


IMAGE COURTESY OF USDA/NRCS, VARIOUS DATES

# LEGEND

○ SITE LOCATION

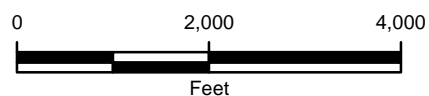


FIGURE 1  
SITE LOCATION MAP  
ECKHARDT 1 TANK BATTERY  
WELD COUNTY, COLORADO

NOBLE ENERGY, INC.







IMAGE COURTESY OF GOOGLE EARTH, 07/07/2011

## LEGEND

- SOIL BORING
- DCP01
- DCP02
- DCP03
- DCP04
- - - - - DUMP LINE
- . - . - FLOW LINE
- ▨ ESTIMATED EXTENT OF HISTORICAL EVAPORATION PIT
- CURRENT INFRASTRUCTURE

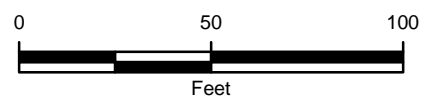


FIGURE 2  
SITE MAP  
ECKHARDT 1 TANK BATTERY  
WELD COUNTY, COLORADO

NOBLE ENERGY, INC.





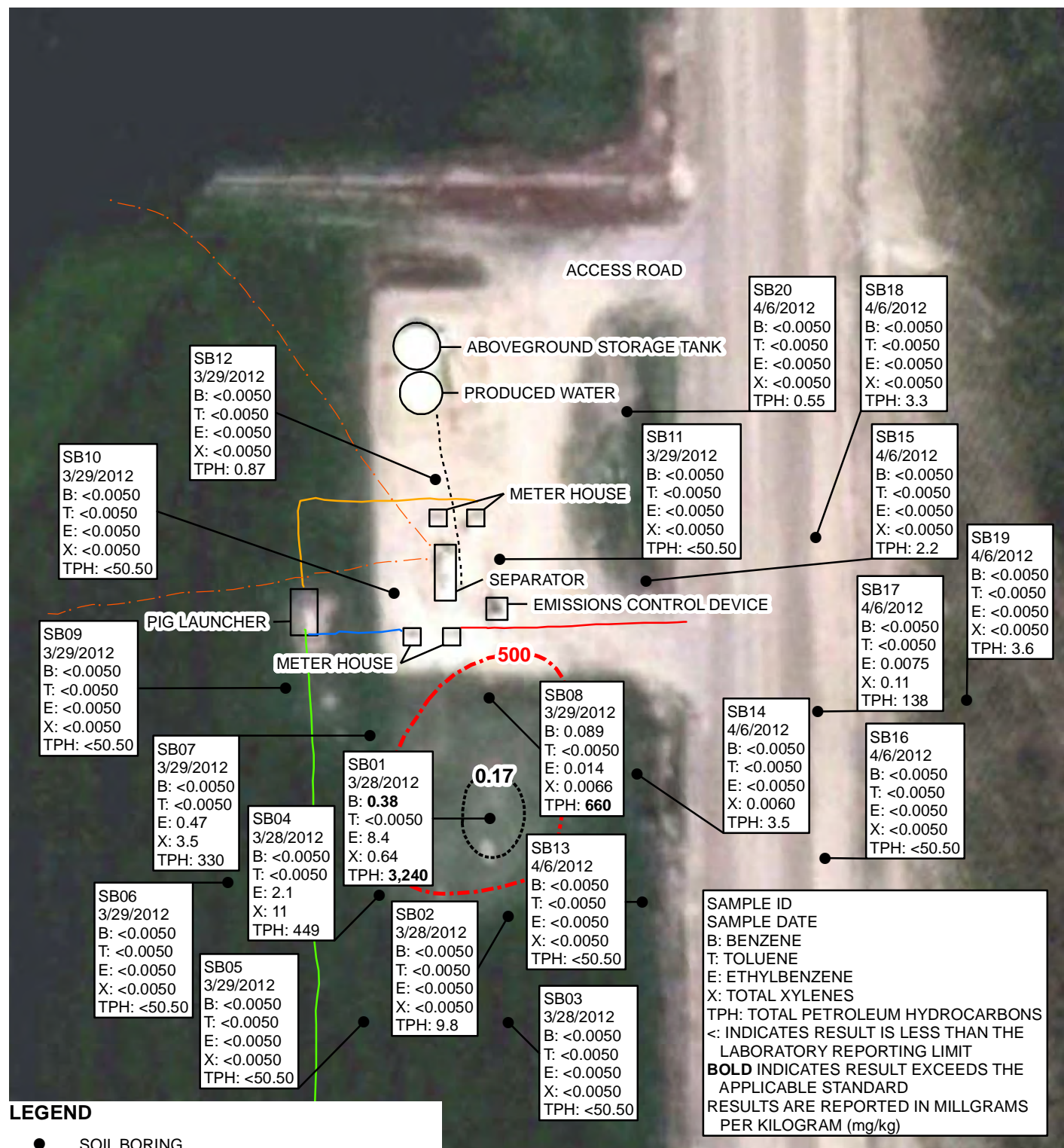
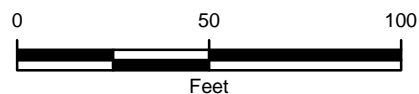


IMAGE COURTESY OF GOOGLE EARTH, 07/07/2011

## LEGEND

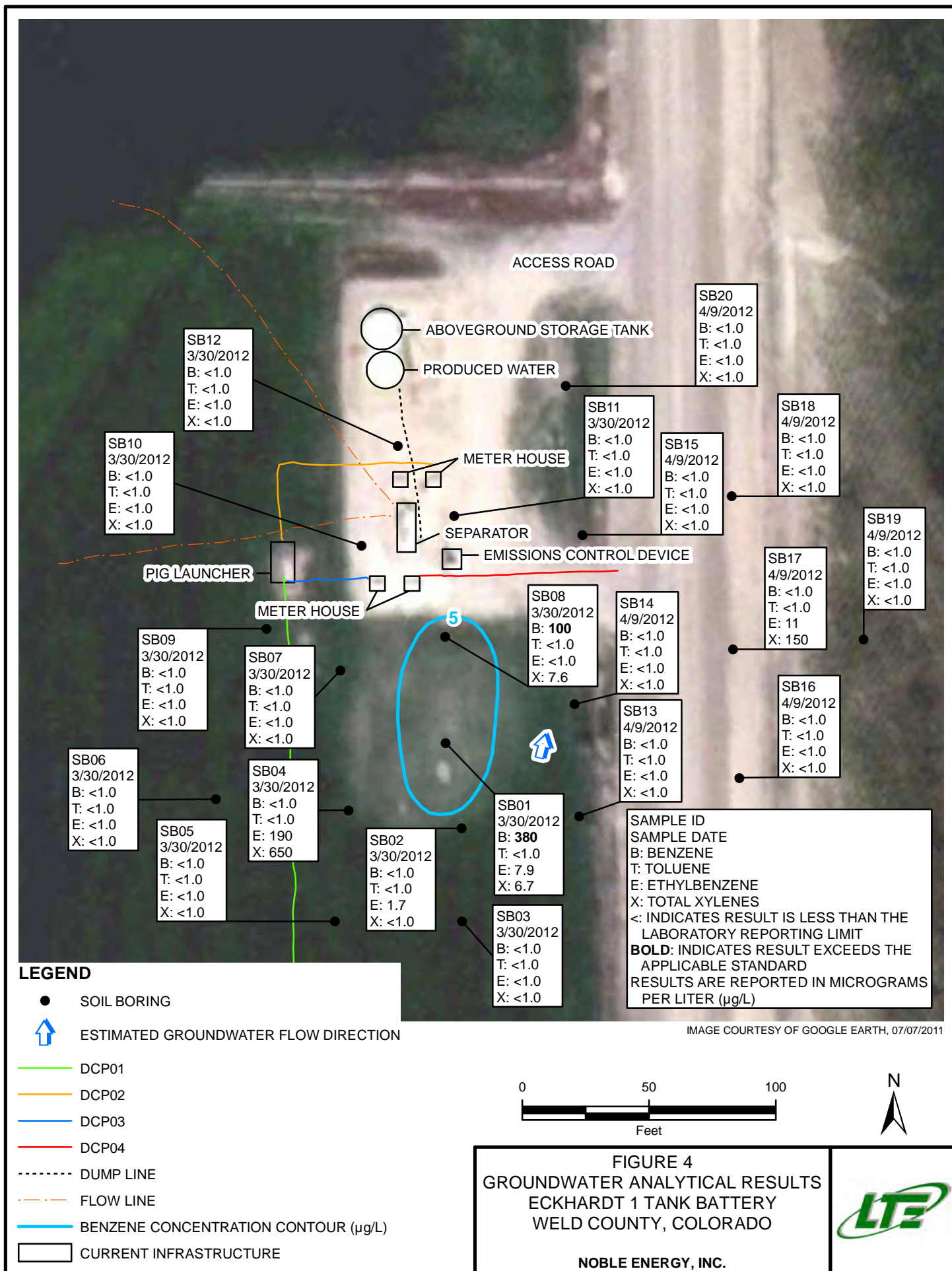
- SOIL BORING
- DCP01
- DCP02
- DCP03
- DCP04
- DUMP LINE
- FLOW LINE
- TPH CONCENTRATION CONTOUR (mg/kg)
- BENZENE CONCENTRATION CONTOUR (mg/kg)
- CURRENT INFRASTRUCTURE



**FIGURE 3**  
**SOIL ANALYTICAL RESULTS**  
**ECKHARDT 1 TANK BATTERY**  
**WELD COUNTY, COLORADO**

**NOBLE ENERGY, INC.**





## **TABLES**

**TABLE 1**

**SOIL ANALYTICAL RESULTS  
ECKHARDT 1 TANK BATTERY  
WELD COUNTY, COLORADO  
NOBLE ENERGY, INC.**

<b>Soil Sample</b>	<b>Date</b>	<b>Benzene (mg/kg)</b>	<b>Toluene (mg/kg)</b>	<b>Ethylbenzene (mg/kg)</b>	<b>Total Xylenes (mg/kg)</b>	<b>GRO (mg/kg)</b>	<b>DRO (mg/kg)</b>	<b>TPH (mg/kg)</b>
SB01	3/28/2012	<b>0.38</b>	<0.0050	8.4	0.64	840	2,400	<b>3,240</b>
SB02	3/28/2012	<0.0050	<0.0050	<0.0050	<0.0050	9.8	<50	9.8
SB03	3/28/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	<50	<50.50
SB04	3/28/2012	<0.0050	<0.0050	2.1	11	360	89	449
SB05	3/29/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	<50	<50.50
SB06	3/29/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	<50	<50.50
SB07	3/29/2012	<0.0050	<0.0050	0.47	3.5	140	190	330
SB08	3/29/2012	0.089	<0.0050	0.014	0.0066	150	510	<b>660</b>
SB09	3/29/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	<50	<50.50
SB10	3/29/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	<50	<50.50
SB11	3/29/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	<50	<50.50
SB12	3/29/2012	<0.0050	<0.0050	<0.0050	<0.0050	0.87	<50	0.87
SB13	4/6/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	<50	<50.50
SB14	4/6/2012	<0.0050	<0.0050	<0.0050	0.0060	3.5	<50	3.5
SB15	4/6/2012	<0.0050	<0.0050	<0.0050	<0.0050	2.2	<50	2.2
SB16	4/6/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	<50	<50.50
SB17	4/6/2012	<0.0050	<0.0050	0.0075	0.11	43	95	138
SB18	4/6/2012	<0.0050	<0.0050	<0.0050	<0.0050	3.3	<50	3.3
SB19	4/6/2012	<0.0050	<0.0050	<0.0050	<0.0050	3.6	<50	3.6
SB20	4/6/2012	<0.0050	<0.0050	<0.0050	<0.0050	0.55	<50	0.55
<b>COGCC Concentration Levels</b>		<b>0.17</b>	<b>85</b>	<b>100</b>	<b>175</b>	<b>--</b>	<b>--</b>	<b>500</b>

**NOTES:**

mg/kg - milligrams per kilogram

GRO - gasoline range organics analyzed by EPA Method 8015B

DRO - diesel range organics analyzed by EPA Method 8015

TPH - total petroleum hydrocarbons

TPH is the sum of GRO and DRO

&lt; - indicates result is less than the stated laboratory reporting limit

COGCC - Colorado Oil and Gas Conservation Commission

Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B

**TABLE 2**

**SOIL INORGANICS ANALYTICAL RESULTS  
ECKHARDT 1 TANK BATTERY  
WELD COUNTY, COLORADO  
NOBLE ENERGY, INC.**

<b>Soil Sample</b>	<b>Date</b>	<b>pH (SU)</b>	<b>SAR</b>	<b>EC (mmhos/cm)</b>
SB01 Composite	3/28/2012	7.0	2.23	0.656
<b>COGCC Concentration Levels</b>		<b>6 to 9</b>	<b>12</b>	<b>4</b>

**NOTES:**

COGCC - Colorado Oil and Gas Conservation Commission

EC - electrical conductivity

mmhos/cm - millimhos per centimeter

SAR - sodium adsorption ratio

SU - standard units



TABLE 3

**GROUNDWATER ANALYTICAL RESULTS  
ECKHARDT 1 TANK BATTERY  
WELD COUNTY, COLORADO  
NOBLE ENERGY, INC.**

Monitoring Well	Date	Depth to Water (feet btoc)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
SB01	3/30/2012	9.70	<b>380</b>	<1.0	7.9	6.7
SB02	3/30/2012	9.34	<1.0	<1.0	1.7	<1.0
SB03	3/30/2012	9.43	<1.0	<1.0	<1.0	<1.0
SB04	3/30/2012	9.55	<1.0	<1.0	190	650
SB05	3/30/2012	9.80	<1.0	<1.0	<1.0	<1.0
SB06	3/30/2012	9.97	<1.0	<1.0	<1.0	<1.0
SB07	3/30/2012	9.52	<1.0	<1.0	<1.0	<1.0
SB08	3/30/2012	9.75	<b>100</b>	<1.0	<1.0	7.6
SB09	3/30/2012	10.02	<1.0	<1.0	<1.0	<1.0
SB10	3/30/2012	8.90	<1.0	<1.0	<1.0	<1.0
SB11	3/30/2012	8.90	<1.0	<1.0	<1.0	<1.0
SB12	3/30/2012	8.85	<1.0	<1.0	<1.0	<1.0
SB13	4/9/2012	9.52	<1.0	<1.0	<1.0	<1.0
SB14	4/9/2012	9.64	<1.0	<1.0	<1.0	<1.0
SB15	4/9/2012	7.65	<1.0	<1.0	<1.0	<1.0
SB16	4/9/2012	9.50	<1.0	<1.0	<1.0	<1.0
SB17	4/9/2012	8.43	<1.0	<1.0	11	150
SB18	4/9/2012	8.63	<1.0	<1.0	<1.0	<1.0
SB19	4/9/2012	9.90	<1.0	<1.0	<1.0	<1.0
SB20	4/9/2012	10.10	<1.0	<1.0	<1.0	<1.0
<b>CDPHE WQCC Reg 41</b>			<b>5</b>	<b>560</b>	<b>700</b>	<b>1,400</b>

**NOTES:**

btoc - below top of casing

µg/L - micrograms per liter

&lt; - indicates result is less than the stated laboratory method reporting limit

**BOLD** - indicates result exceeds the applicable standard

Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B

CDPHE WQCC Reg 41 - Colorado Department of Public Health and Environment-Water Quality Control  
Commission Regulation 41 covering The Basic Standards for Ground Water

**ATTACHMENT 1**  
**WELL COMPLETION DIAGRAMS**

**ATTACHMENT 2**  
**LABORATORY ANALYTICAL REPORTS**

# Summit Scientific

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741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

April 12, 2012

Steve Kahn  
LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003  
RE: NEP - Eckhardt 1, 33-15

Enclosed are the results of analyses for samples received by Summit Scientific on 04/09/12 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', is written over a light gray circular watermark that contains the text 'Summit Scientific'.

Paul Shrewsbury For Ben Shrewsbury  
President / Laboratory Director



LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/12/12 11:45

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB13	R204054-01	Water	04/09/12 11:00	04/09/12 17:00
SB14	R204054-02	Water	04/09/12 11:30	04/09/12 17:00
SB15	R204054-03	Water	04/09/12 12:00	04/09/12 17:00
SB16	R204054-04	Water	04/09/12 12:30	04/09/12 17:00
SB17	R204054-05	Water	04/09/12 13:00	04/09/12 17:00
SB18	R204054-06	Water	04/09/12 13:30	04/09/12 17:00
SB19	R204054-07	Water	04/09/12 14:00	04/09/12 17:00
SB20	R204054-08	Water	04/09/12 14:30	04/09/12 17:00

Summit Scientific

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*





LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

Reported:  
04/12/12 11:45

Summit Scientific

741 Corporate Circle Suite 100 • Golden, Colorado 80401  
303-277-9510 • 303-277-9531 Fax

Client: LT Environmental, Inc.  
Address: 4600 West 60th Avenue  
City/State/Zip: Arvada, CO 80003  
Phone: (303) 433-9788  
Fax: (303) 433-1432  
Sample Name: J Evans  
Project Manager: Steve Kahn  
E-Mail: [skahn@summit-sc.com](mailto:skahn@summit-sc.com)  
Project Name: Eckhardt 1, 33-15  
Project Number: 0083-12012

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:				Special Instructions
				HCl	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	DRO/RO	GBTEX	PH / EC		
S013	4-9-12	1105	3	X				X				X				
S014	4-9-12	1130	3	X				X				X				
S015	4-9-12	1200	3	X				X				X				
S016	4-9-12	1210	3	X				X				X				
S017	4-9-12	1300	3	X				X				X				
S018	4-9-12	1320	3	X				X				X				
S019	4-9-12	1400	3	X				X				X				
S020	4-9-12	1410	3	X				X				X				
Turn Around Time (Check): <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard																
Sample Integrity: Temperature (on Receipt): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																

Requisitioned by: J Evans Date Time: 4-9-12 4:00 pm  
Received by: J Evans Date Time: 4-9-12 17:00  
Requisitioned by: Date Time:  
Received in Lab by: Date Time:

www.summit-sc.com

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/12/12 11:45

**SB13**  
**R204054-01 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **04/09/12 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	2041003	04/10/12	04/11/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/09/12 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		103 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.6 %	80.8-120		"	"	"	"	

Summit Scientific

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/12/12 11:45

**SB14**  
**R204054-02 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **04/09/12 11:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	2041003	04/10/12	04/11/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/09/12 11:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		104 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		104 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %	80.8-120		"	"	"	"	

Summit Scientific

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/12/12 11:45

**SB15**  
**R204054-03 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **04/09/12 12:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	2041003	04/10/12	04/11/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/09/12 12:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		99.4 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		112 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.6 %	80.8-120		"	"	"	"	

Summit Scientific

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/12/12 11:45

**SB16**  
**R204054-04 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **04/09/12 12:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	2041003	04/10/12	04/11/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/09/12 12:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		104 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		103 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.6 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/12/12 11:45

**SB17**  
**R204054-05 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **04/09/12 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	2041003	04/10/12	04/11/12	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>11</b>	1.0		"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>150</b>	1.0		"	"	"	"	"	"	

Date Sampled: **04/09/12 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		103 %		57.9-139		"	"	"	"	
Surrogate: Toluene-d8		110 %		83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.4 %		80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/12/12 11:45

**SB18**  
**R204054-06 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **04/09/12 13:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	2041003	04/10/12	04/11/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/09/12 13:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		104 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		102 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.0 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/12/12 11:45

**SB19**  
**R204054-07 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **04/09/12 14:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	2041003	04/10/12	04/11/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/09/12 14:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		104 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		101 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/12/12 11:45

**SB20**  
**R204054-08 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **04/09/12 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	2041003	04/10/12	04/11/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/09/12 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		103 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		103 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.7 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/12/12 11:45

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

### Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

#### Batch 2041003 - EPA 5030 Water MS

##### Blank (2041003-BLK1)

Prepared: 04/10/12 Analyzed: 04/11/12

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.5		"	13.3	102	57.9-139				
Surrogate: Toluene-d8	13.8		"	13.4	103	83.1-115				
Surrogate: 4-Bromofluorobenzene	12.6		"	13.4	94.0	80.8-120				

##### LCS (2041003-BS1)

Prepared: 04/10/12 Analyzed: 04/11/12

Benzene	93.5	1.0	ug/l	100	93.5	60.1-131				
Toluene	109	1.0	"	100	109	65.9-127				
Ethylbenzene	120	1.0	"	100	120	65.1-129				
m,p-Xylene	228	2.0	"	200	114	66.8-127				
o-Xylene	106	1.0	"	100	106	61.2-120				
Surrogate: 1,2-Dichloroethane-d4	13.8		"	13.3	104	57.9-139				
Surrogate: Toluene-d8	14.2		"	13.4	106	83.1-115				
Surrogate: 4-Bromofluorobenzene	13.0		"	13.4	97.1	80.8-120				

##### LCS Dup (2041003-BSD1)

Prepared: 04/10/12 Analyzed: 04/11/12

Benzene	91.2	1.0	ug/l	100	91.2	60.1-131	2.43	10.9		
Toluene	108	1.0	"	100	108	65.9-127	0.935	11.3		
Ethylbenzene	120	1.0	"	100	120	65.1-129	0.350	20		
m,p-Xylene	227	2.0	"	200	114	66.8-127	0.185	20		
o-Xylene	106	1.0	"	100	106	61.2-120	0.00942	20		
Surrogate: 1,2-Dichloroethane-d4	13.7		"	13.3	103	57.9-139				
Surrogate: Toluene-d8	14.0		"	13.4	105	83.1-115				
Surrogate: 4-Bromofluorobenzene	12.9		"	13.4	96.5	80.8-120				

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/12/12 11:45

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 2041003 - EPA 5030 Water MS**

<b>Matrix Spike (2041003-MS1)</b>		<b>Source: R204058-01</b>			Prepared: 04/10/12		Analyzed: 04/11/12			
Benzene	93.4	1.0	ug/l	100	1.28	92.2	52.7-130			
Toluene	110	1.0	"	100	ND	110	57-127			
Ethylbenzene	121	1.0	"	100	ND	121	59.2-127			
m,p-Xylene	228	2.0	"	200	ND	114	53.2-132			
o-Xylene	106	1.0	"	100	ND	106	56.3-117			
Surrogate: 1,2-Dichloroethane-d4	13.7		"	13.3		103	57.9-139			
Surrogate: Toluene-d8	14.3		"	13.4		107	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.7		"	13.4		95.4	80.8-120			
<b>Matrix Spike Dup (2041003-MSD1)</b>		<b>Source: R204058-01</b>			Prepared: 04/10/12		Analyzed: 04/11/12			
Benzene	93.6	1.0	ug/l	100	1.28	92.3	52.7-130	0.150	19.3	
Toluene	110	1.0	"	100	ND	110	57-127	0.0182	18.7	
Ethylbenzene	121	1.0	"	100	ND	121	59.2-127	0.694	20	
m,p-Xylene	231	2.0	"	200	ND	115	53.2-132	1.10	20	
o-Xylene	108	1.0	"	100	ND	108	56.3-117	1.70	20	
Surrogate: 1,2-Dichloroethane-d4	13.9		"	13.3		105	57.9-139			
Surrogate: Toluene-d8	14.3		"	13.4		107	83.1-115			
Surrogate: 4-Bromofluorobenzene	13.0		"	13.4		97.5	80.8-120			

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/12/12 11:45

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

---

Summit Scientific

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A handwritten signature in black ink, appearing to be 'MSM'.

# Summit Scientific

---

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

April 11, 2012

Steve Kahn  
LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003  
RE: NEP - Eckhardt 1, 33-15

Enclosed are the results of analyses for samples received by Summit Scientific on 04/06/12 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', is written over a light gray circular background.

Paul Shrewsbury For Ben Shrewsbury  
President / Laboratory Director





LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/11/12 17:56

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB13	R204041-01	Soil	04/06/12 10:30	04/06/12 17:00
SB14	R204041-02	Soil	04/06/12 11:00	04/06/12 17:00
SB15	R204041-03	Soil	04/06/12 11:30	04/06/12 17:00
SB16	R204041-04	Soil	04/06/12 12:00	04/06/12 17:00
SB17	R204041-05	Soil	04/06/12 13:00	04/06/12 17:00
SB18	R204041-06	Soil	04/06/12 13:30	04/06/12 17:00
SB19	R204041-07	Soil	04/06/12 14:00	04/06/12 17:00
SB20	R204041-08	Soil	04/06/12 14:30	04/06/12 17:00

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

Reported:  
04/11/12 17:56

Summit Scientific

5.  
741 Corporate Circle Suite 1 • Golden, Colorado 80401  
303-277-9310 • 303-277-9331 Fax

Client: LT Environmental, Inc.  
Address: 4600 West 60th Avenue  
City/State/Zip: Arvada, CO 80003  
Phone: (303) 433-4788  
Sample Name: J (Vols.)  
Project Manager: Steve Kahn  
E-Mail: [redacted]  
Project Name: Eckhardt 1, 33-15  
Project Number: 0083-12012

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:				Special Instructions
				HCl	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	DRO/RO	GBTEX	BTEX	PH / EC	
SB13	4-6-12	1030	1													
SB14	4-6-12	1140	1													
SB15	4-6-12	1150	1													
SB16	4-6-12	1200	1													
SB17	4-6-12	1300	1													
SB18	4-6-12	1350	1													
SB19	4-6-12	1400	1													
SB20	4-6-12	1450	1													
Relinquished by: [Signature] Date/Time: 4-6-12 5:00				Received by: [Signature] Date/Time: 4-6-12 17:32				Turn Around Time (Check): <input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/> Standard				Notes:				
Relinquished by: Date/Time:				Received by: Date/Time:				Sample Integrity: <input checked="" type="checkbox"/> Temperature-Liquor Receipt: 54 <input type="checkbox"/> Inlet: 18								
Relinquished by: Date/Time:				Received in Lab by: Date/Time:												

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/11/12 17:56

**SB13**  
**R204041-01 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/06/12 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2040706	04/07/12	04/10/12	8015 Full Carbon Chain	

Date Sampled: **04/06/12 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		95.6 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **04/06/12 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2040705	04/07/12	04/10/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/06/12 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		113 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		107 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.2 %	78.4-125		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/11/12 17:56

**SB14**  
**R204041-02 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/06/12 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2040706	04/07/12	04/10/12	8015 Full Carbon Chain	

Date Sampled: **04/06/12 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		92.0 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **04/06/12 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2040705	04/07/12	04/10/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.0060</b>	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>3.5</b>	0.50	"	"	"	"	"	"	

Date Sampled: **04/06/12 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.2 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		109 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	78.4-125		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/11/12 17:56

**SB15**  
**R204041-03 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/06/12 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2040706	04/07/12	04/10/12	8015 Full Carbon Chain	

Date Sampled: **04/06/12 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.8 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **04/06/12 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2040705	04/07/12	04/10/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>2.2</b>	0.50	"	"	"	"	"	"	

Date Sampled: **04/06/12 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.7 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		110 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.2 %	78.4-125		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/11/12 17:56

**SB16**  
**R204041-04 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/06/12 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2040706	04/07/12	04/10/12	8015 Full Carbon Chain	

Date Sampled: **04/06/12 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		91.5 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **04/06/12 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2040705	04/07/12	04/10/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/06/12 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		111 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		109 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	78.4-125		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/11/12 17:56

**SB17**  
**R204041-05 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/06/12 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	95	50	mg/kg	1	2040706	04/07/12	04/10/12	8015 Full Carbon Chain	

Date Sampled: **04/06/12 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		92.0 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **04/06/12 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2040705	04/07/12	04/10/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.0075	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.11	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	43	5.0	"	10	"	"	"	"	

Date Sampled: **04/06/12 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.9 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		117 %	77.3-114		"	"	"	"	S-02
Surrogate: 4-Bromofluorobenzene		102 %	78.4-125		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/11/12 17:56

**SB18**  
**R204041-06 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/06/12 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2040706	04/07/12	04/10/12	8015 Full Carbon Chain	

Date Sampled: **04/06/12 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		90.8 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **04/06/12 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2040705	04/07/12	04/10/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>3.3</b>	0.50	"	"	"	"	"	"	

Date Sampled: **04/06/12 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.5 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		109 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %	78.4-125		"	"	"	"	

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/11/12 17:56

**SB19**  
**R204041-07 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/06/12 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2040706	04/07/12	04/10/12	8015 Full Carbon Chain	

Date Sampled: **04/06/12 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		90.0 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **04/06/12 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2040705	04/07/12	04/10/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>3.6</b>	<b>0.50</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	

Date Sampled: **04/06/12 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		110 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	78.4-125		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/11/12 17:56

**SB20**  
**R204041-08 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/06/12 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2040706	04/07/12	04/10/12	8015 Full Carbon Chain	

Date Sampled: **04/06/12 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		89.9 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **04/06/12 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2040705	04/07/12	04/10/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>0.55</b>	0.50	"	"	"	"	"	"	

Date Sampled: **04/06/12 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		108 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		108 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.5 %	78.4-125		"	"	"	"	

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/11/12 17:56

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 2040706 - EPA 3550A**

**Blank (2040706-BLK1)**

Prepared: 04/07/12 Analyzed: 04/10/12

C10-C28 (DRO) ND 50 mg/kg

**LCS (2040706-BS1)**

Prepared: 04/07/12 Analyzed: 04/10/12

C10-C28 (DRO) 544 50 mg/kg 501 109 81.4-129

**LCS Dup (2040706-BSD1)**

Prepared: 04/07/12 Analyzed: 04/10/12

C10-C28 (DRO) 491 50 mg/kg 501 98.0 81.4-129 10.3 9.26

**Matrix Spike (2040706-MS1)**

**Source: R204040-01**

Prepared: 04/07/12 Analyzed: 04/10/12

C10-C28 (DRO) 482 50 mg/kg 501 38.1 88.6 77.8-133

**Matrix Spike Dup (2040706-MSD1)**

**Source: R204040-01**

Prepared: 04/07/12 Analyzed: 04/10/12

C10-C28 (DRO) 514 50 mg/kg 501 38.1 94.9 77.8-133 6.31 8.48

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/11/12 17:56

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 2040705 - EPA 5030 Soil MS**

**Blank (2040705-BLK1)**

Prepared: 04/07/12 Analyzed: 04/10/12

Benzene	ND	0.0050	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0382		"	0.0397	96.3	67.4-143				
Surrogate: Toluene-d8	0.0439		"	0.0400	110	77.3-114				
Surrogate: 4-Bromofluorobenzene	0.0385		"	0.0400	96.2	78.4-125				

**LCS (2040705-BS1)**

Prepared: 04/07/12 Analyzed: 04/10/12

Benzene	0.0854	0.0050	mg/kg	0.100	85.4	61-139				
Toluene	0.0832	0.0050	"	0.100	83.2	64-132				
Ethylbenzene	0.100	0.0050	"	0.100	100	68.7-135				
m,p-Xylene	0.181	0.010	"	0.200	90.4	70.4-129				
o-Xylene	0.0998	0.0050	"	0.100	99.8	66.9-126				
Surrogate: 1,2-Dichloroethane-d4	0.0371		"	0.0397	93.4	67.4-143				
Surrogate: Toluene-d8	0.0429		"	0.0400	107	77.3-114				
Surrogate: 4-Bromofluorobenzene	0.0382		"	0.0400	95.6	78.4-125				

**LCS Dup (2040705-BSD1)**

Prepared: 04/07/12 Analyzed: 04/10/12

Benzene	0.0850	0.0050	mg/kg	0.100	85.0	61-139	0.458	11.1		
Toluene	0.0854	0.0050	"	0.100	85.4	64-132	2.53	10.9		
Ethylbenzene	0.101	0.0050	"	0.100	101	68.7-135	0.834	20		
m,p-Xylene	0.181	0.010	"	0.200	90.6	70.4-129	0.265	20		
o-Xylene	0.100	0.0050	"	0.100	100	66.9-126	0.180	20		
Surrogate: 1,2-Dichloroethane-d4	0.0384		"	0.0397	96.8	67.4-143				
Surrogate: Toluene-d8	0.0428		"	0.0400	107	77.3-114				
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400	96.6	78.4-125				

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/11/12 17:56

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 2040705 - EPA 5030 Soil MS**

**Matrix Spike (2040705-MS1)**

**Source: R204040-01**

Prepared: 04/07/12 Analyzed: 04/10/12

Benzene	0.0853	0.0050	mg/kg	0.100	ND	85.3	42.9-137			
Toluene	0.0851	0.0050	"	0.100	ND	85.1	42.6-130			
Ethylbenzene	0.103	0.0050	"	0.100	ND	103	39-133			
m,p-Xylene	0.184	0.010	"	0.200	ND	92.0	34.7-134			
o-Xylene	0.101	0.0050	"	0.100	ND	101	41.3-126			
Surrogate: 1,2-Dichloroethane-d4	0.0377		"	0.0397		95.1	67.4-143			
Surrogate: Toluene-d8	0.0424		"	0.0400		106	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0378		"	0.0400		94.4	78.4-125			

**Matrix Spike Dup (2040705-MSD1)**

**Source: R204040-01**

Prepared: 04/07/12 Analyzed: 04/10/12

Benzene	0.0853	0.0050	mg/kg	0.100	ND	85.3	42.9-137	0.0352	17.9	
Toluene	0.0844	0.0050	"	0.100	ND	84.4	42.6-130	0.920	11.9	
Ethylbenzene	0.102	0.0050	"	0.100	ND	102	39-133	0.322	20	
m,p-Xylene	0.184	0.010	"	0.200	ND	92.0	34.7-134	0.0163	20	
o-Xylene	0.101	0.0050	"	0.100	ND	101	41.3-126	0.00	20	
Surrogate: 1,2-Dichloroethane-d4	0.0394		"	0.0397		99.2	67.4-143			
Surrogate: Toluene-d8	0.0427		"	0.0400		107	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0380		"	0.0400		94.9	78.4-125			

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/11/12 17:56

### Notes and Definitions

S-02      The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

DET      Analyte DETECTED

ND      Analyte NOT DETECTED at or above the reporting limit

NR      Not Reported

dry      Sample results reported on a dry weight basis

RPD      Relative Percent Difference

---

Summit Scientific

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

A handwritten signature in black ink, appearing to be 'MSM'.

# Summit Scientific

---

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

April 04, 2012

Steve Kahn  
LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003  
RE: NEP - Eckhardt 1, 33-15

Enclosed are the results of analyses for samples received by Summit Scientific on 03/30/12 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', is written over a light gray circular background.

Paul Shrewsbury For Ben Shrewsbury  
President / Laboratory Director



LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 13:26

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB01	R204001-01	Water	03/30/12 10:00	03/30/12 17:00
SB02	R204001-02	Water	03/30/12 10:20	03/30/12 17:00
SB03	R204001-03	Water	03/30/12 10:40	03/30/12 17:00
SB04	R204001-04	Water	03/30/12 11:00	03/30/12 17:00
SB05	R204001-05	Water	03/30/12 11:20	03/30/12 17:00
SB06	R204001-06	Water	03/30/12 11:40	03/30/12 17:00
SB07	R204001-07	Water	03/30/12 12:00	03/30/12 17:00
SB08	R204001-08	Water	03/30/12 12:20	03/30/12 17:00
SB09	R204001-09	Water	03/30/12 12:40	03/30/12 17:00
SB10	R204001-10	Water	03/30/12 13:00	03/30/12 17:00
SB11	R204001-11	Water	03/30/12 13:20	03/30/12 17:00
SB12	R204001-12	Water	03/30/12 13:40	03/30/12 17:00

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

Reported:  
04/04/12 13:26

Summit Scientific

741 Corporate Circle Suite 1 • Golden, Colorado 80401  
303-277-9310 • 303-277-9531 Fax

Client: LT Environmental, Inc.  
Address: 4600 West 60th Avenue  
City/State/Zip: Arvada, CO 80003  
Phone: (303) 433-9788  
Project Manager: ~~Steve Kahn~~ Steve Kahn  
E-Mail: ~~steve.kahn@ltenv.com~~ steve.kahn@ltenv.com  
Fax: (303) 433-4432  
Project Name: Eckhardt 1, 33-15  
Sample Name: 3 Ecos  
Project Number: 0083-12012

Page 1 of 2

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:				Special Instructions
				HCl	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Continer Serial #	Other (Specify)	DRO/ORO	GBTEX	BTEX	PH / EC	
S601	3-30-12	1800	3													
S602		1842	3													
S603		1910	3													
S604		1100	3													
S605		1140	3													
S606		1110	3													
S607		1700	3													
S608		1220	3													
S609		1810	3													
S610		1300	3													
Relinquished by: <i>[Signature]</i> Date/Time: 3-30-12 5A				Received by: <i>[Signature]</i> Date/Time: 3/30/12				Turn Around Time (Check): <input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/> Standard				Notes:				
Relinquished by: <i>[Signature]</i> Date/Time: 3-30-12 5A				Received by: <i>[Signature]</i> Date/Time: 3/30/12				Sample Integrity: <input checked="" type="checkbox"/> Temperature Upon Receipt: <input checked="" type="checkbox"/> Initial: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								
Relinquished by: <i>[Signature]</i> Date/Time: 3-30-12 5A				Received in Lab by: <i>[Signature]</i> Date/Time: 3/30/12				Sample Integrity: <input checked="" type="checkbox"/> Temperature Upon Receipt: <input checked="" type="checkbox"/> Initial: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								

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Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 13:26

**SB01**  
**R204001-01 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/30/12 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Benzene</b>	<b>380</b>	100	ug/l	100	2040202	04/02/12	04/03/12	EPA 8260B	
Toluene	ND	1.0	"	1	"	"	04/03/12	"	
<b>Ethylbenzene</b>	<b>7.9</b>	1.0	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>6.7</b>	1.0	"	"	"	"	"	"	

Date Sampled: **03/30/12 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		90.6 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		111 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		93.6 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 13:26

**SB02**  
**R204001-02 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/30/12 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	2040202	04/02/12	04/03/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>1.7</b>	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/30/12 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		88.7 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		105 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.9 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 13:26

**SB03**  
**R204001-03 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/30/12 10:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	2040202	04/02/12	04/03/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/30/12 10:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		88.4 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		104 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.8 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 13:26

**SB04**  
**R204001-04 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/30/12 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	2040202	04/02/12	04/03/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>190</b>	1.0	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>650</b>	100	"	100	"	"	04/03/12	"	

Date Sampled: **03/30/12 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		84.1 %	57.9-139		"	"	04/03/12	"	
<i>Surrogate: Toluene-d8</i>		114 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.4 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 13:26

**SB05**  
**R204001-05 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/30/12 11:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	2040202	04/02/12	04/04/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/30/12 11:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		92.0 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		108 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.6 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 13:26

**SB06**  
**R204001-06 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/30/12 11:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	2040202	04/02/12	04/04/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/30/12 11:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		87.9 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		98.7 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.6 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 13:26

**SB07**  
**R204001-07 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/30/12 12:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	2040202	04/02/12	04/04/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/30/12 12:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		89.2 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		101 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.3 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 13:26

**SB08**  
**R204001-08 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/30/12 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Benzene</b>	<b>100</b>	1.0	ug/l	1	2040202	04/02/12	04/04/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>7.6</b>	1.0	"	"	"	"	"	"	

Date Sampled: **03/30/12 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		90.3 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		103 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		93.1 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 13:26

**SB09**  
**R204001-09 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/30/12 12:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	2040202	04/02/12	04/04/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/30/12 12:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		88.8 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		103 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.4 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 13:26

**SB10**  
**R204001-10 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/30/12 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	2040202	04/02/12	04/04/12	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **03/30/12 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		88.2 %		57.9-139		"	"	"	"	
Surrogate: Toluene-d8		100 %		83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.0 %		80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 13:26

**SB11**  
**R204001-11 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/30/12 13:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	2040202	04/02/12	04/04/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/30/12 13:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		88.4 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		100 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.8 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 13:26

**SB12**  
**R204001-12 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/30/12 13:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	2040202	04/02/12	04/04/12	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/30/12 13:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		91.0 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		110 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.2 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15  
Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 13:26

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

### Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

#### Batch 2040202 - EPA 5030 Water MS

##### Blank (2040202-BLK1)

Prepared: 04/02/12 Analyzed: 04/03/12

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	11.6		"	13.3		87.6	57.9-139			
Surrogate: Toluene-d8	13.7		"	13.4		103	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.4		"	13.4		93.0	80.8-120			

##### LCS (2040202-BS1)

Prepared: 04/02/12 Analyzed: 04/03/12

Benzene	93.3	1.0	ug/l	100		93.3	60.1-131			
Toluene	111	1.0	"	100		111	65.9-127			
Ethylbenzene	112	1.0	"	100		112	65.1-129			
m,p-Xylene	219	2.0	"	200		110	66.8-127			
o-Xylene	104	1.0	"	100		104	61.2-120			
Surrogate: 1,2-Dichloroethane-d4	11.8		"	13.3		89.2	57.9-139			
Surrogate: Toluene-d8	14.0		"	13.4		104	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.4		"	13.4		92.8	80.8-120			

##### LCS Dup (2040202-BSD1)

Prepared: 04/02/12 Analyzed: 04/03/12

Benzene	95.6	1.0	ug/l	100		95.6	60.1-131	2.39	10.9	
Toluene	114	1.0	"	100		114	65.9-127	1.98	11.3	
Ethylbenzene	115	1.0	"	100		115	65.1-129	2.24	20	
m,p-Xylene	222	2.0	"	200		111	66.8-127	1.32	20	
o-Xylene	106	1.0	"	100		106	61.2-120	1.48	20	
Surrogate: 1,2-Dichloroethane-d4	11.8		"	13.3		89.1	57.9-139			
Surrogate: Toluene-d8	14.0		"	13.4		105	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.5		"	13.4		93.3	80.8-120			

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 13:26

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

---

Summit Scientific

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

A handwritten signature in black ink, appearing to be 'MSM'.



# Summit Scientific

---

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

April 01, 2012

Steve Kahn

LT Environmental, Inc.

4600 West 60th Avenue

Arvada, CO 80003

RE: NEP - Eckhardt 1, 33-15

Enclosed are the results of analyses for samples received by Summit Scientific on 03/29/12 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

Paul Shrewsbury For Ben Shrewsbury  
President / Laboratory Director



LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/01/12 12:03

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB05	R203219-01	Soil	03/29/12 10:00	03/29/12 17:00
SB06	R203219-02	Soil	03/29/12 10:30	03/29/12 17:00
SB07	R203219-03	Soil	03/29/12 11:00	03/29/12 17:00
SB08	R203219-04	Soil	03/29/12 11:30	03/29/12 17:00
SB09	R203219-05	Soil	03/29/12 12:00	03/29/12 17:00
SB10	R203219-06	Soil	03/29/12 12:30	03/29/12 17:00
SB11	R203219-07	Soil	03/29/12 13:00	03/29/12 17:00
SB12	R203219-08	Soil	03/29/12 13:30	03/29/12 17:00

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

Reported:  
04/01/12 12:03

R203219  
Summit Scientific

741 Corporate Circle Suite 1 • Golden, Colorado 80401  
303-277-9510 • 303-277-9531 Fax

Client: LT Environmental, Inc.  
Address: 4600 West 60th Avenue  
City/State/Zip: Arvada, CO 80003  
Phone: (303) 433-9788  
Fax: (303) 433-1432  
Project Name: Eckhardt 1, 33-15  
Project Number: 008312012  
Project Manager: Steve Kahn  
E-Mail: ~~XXXXXXXXXX~~  
Sampler Name: J {vca}

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:				Special Instructions
				HCl	HNO <sub>3</sub>	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	DRD/ORO	GBTEX	BTEX	PH / EC	D&C/6K0	
S605	3-29-12	10:00	1					X								
S606		10:00	1					X								
S607		11:00	1					X								
S608		11:30	1					X								
S609		12:00	1					X								
S610		12:30	1					X								
S611		13:00	1					X								
S612		13:30	1					X								

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check):	Notes:
<i>[Signature]</i>	3-29-12 3pm			<input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/> Standard	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:	
				Temperature Upon Receipt: <i>5.1</i> Initial: <i>Yes</i> No	

www.s2scientific.com

*[Signature]*

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/01/12 12:03

**SB05**  
**R203219-01 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/29/12 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2032905	03/29/12	03/30/12	8015 Full Carbon Chain	

Date Sampled: **03/29/12 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		93.8 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/29/12 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2032904	03/29/12	03/30/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/29/12 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d <sub>4</sub>		111 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d <sub>8</sub>		99.2 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %	78.4-125		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/01/12 12:03

**SB06**  
**R203219-02 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/29/12 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2032905	03/29/12	03/30/12	8015 Full Carbon Chain	

Date Sampled: **03/29/12 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		96.0 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/29/12 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2032904	03/29/12	03/30/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/29/12 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d <sub>4</sub>		112 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d <sub>8</sub>		101 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %	78.4-125		"	"	"	"	

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/01/12 12:03

**SB07**  
**R203219-03 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/29/12 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>190</b>	50	mg/kg	1	2032905	03/29/12	03/30/12	8015 Full Carbon Chain	

Date Sampled: **03/29/12 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		95.6 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/29/12 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2032904	03/29/12	03/30/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.47</b>	0.050	"	10	"	"	"	"	
<b>Xylenes (total)</b>	<b>3.5</b>	0.050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>140</b>	5.0	"	"	"	"	"	"	

Date Sampled: **03/29/12 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		91.4 %	67.4-143		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		124 %	77.3-114		"	"	"	"	S-02
<i>Surrogate: 4-Bromofluorobenzene</i>		88.4 %	78.4-125		"	"	"	"	

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/01/12 12:03

**SB08**  
**R203219-04 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/29/12 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>510</b>	50	mg/kg	1	2032905	03/29/12	03/30/12	8015 Full Carbon Chain	

Date Sampled: **03/29/12 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		93.6 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/29/12 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Benzene</b>	<b>0.089</b>	0.0050	mg/kg	1	2032904	03/29/12	03/30/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.014</b>	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.0066</b>	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>150</b>	5.0	"	10	"	"	"	"	

Date Sampled: **03/29/12 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.1 %	67.4-143		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		123 %	77.3-114		"	"	"	"	S-02
<i>Surrogate: 4-Bromofluorobenzene</i>		82.4 %	78.4-125		"	"	"	"	

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/01/12 12:03

**SB09**  
**R203219-05 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/29/12 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2032905	03/29/12	03/30/12	8015 Full Carbon Chain	

Date Sampled: **03/29/12 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		92.4 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/29/12 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2032904	03/29/12	03/30/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/29/12 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d <sub>4</sub>		112 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d <sub>8</sub>		101 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	78.4-125		"	"	"	"	

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/01/12 12:03

**SB10**  
**R203219-06 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/29/12 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2032905	03/29/12	03/30/12	8015 Full Carbon Chain	

Date Sampled: **03/29/12 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		93.9 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/29/12 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2032904	03/29/12	03/30/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/29/12 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d <sub>4</sub>		111 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d <sub>8</sub>		99.5 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	78.4-125		"	"	"	"	

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/01/12 12:03

**SB11**  
**R203219-07 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/29/12 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2032905	03/29/12	03/30/12	8015 Full Carbon Chain	

Date Sampled: **03/29/12 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		95.0 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/29/12 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2032904	03/29/12	03/30/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/29/12 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d <sub>4</sub>		105 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d <sub>8</sub>		100 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	78.4-125		"	"	"	"	

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/01/12 12:03

**SB12**  
**R203219-08 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/29/12 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2032905	03/29/12	03/30/12	8015 Full Carbon Chain	

Date Sampled: **03/29/12 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		94.8 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/29/12 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2032904	03/29/12	03/30/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>0.87</b>	0.50	"	"	"	"	"	"	

Date Sampled: **03/29/12 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d <sub>4</sub>		98.5 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d <sub>8</sub>		101 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		83.7 %	78.4-125		"	"	"	"	

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15  
Project Number: 0083-12012  
Project Manager: Steve Kahn

Reported:  
04/01/12 12:03

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

Reporting				Spike	Source	%REC		RPD		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 2032905 - EPA 3550A**

<b>Blank (2032905-BLK1)</b>				Prepared & Analyzed: 03/29/12							
C10-C28 (DRO)	ND	50	mg/kg								
<b>Blank (2032905-BLK2)</b>				Prepared & Analyzed: 03/29/12							
C10-C28 (DRO)	ND	50	mg/kg								
<b>LCS (2032905-BS1)</b>				Prepared & Analyzed: 03/29/12							
C10-C28 (DRO)	470	50	mg/kg	501		93.9	81.4-129				
<b>LCS (2032905-BS2)</b>				Prepared & Analyzed: 03/29/12							
C10-C28 (DRO)	491	50	mg/kg	501		98.0	81.4-129				
<b>LCS Dup (2032905-BSD1)</b>				Prepared & Analyzed: 03/29/12							
C10-C28 (DRO)	485	50	mg/kg	501		96.7	81.4-129	2.99	9.26		
<b>LCS Dup (2032905-BSD2)</b>				Prepared & Analyzed: 03/29/12							
C10-C28 (DRO)	475	50	mg/kg	501		94.9	81.4-129	3.21	9.26		
<b>Matrix Spike (2032905-MS1)</b>				<b>Source: R203213-04</b>		Prepared & Analyzed: 03/29/12					
C10-C28 (DRO)	489	50	mg/kg	501	20.1	93.6	77.8-133				
<b>Matrix Spike (2032905-MS2)</b>				<b>Source: R203215-07</b>		Prepared: 03/29/12 Analyzed: 03/30/12					
C10-C28 (DRO)	494	50	mg/kg	501	30.3	92.5	77.8-133				
<b>Matrix Spike Dup (2032905-MSD1)</b>				<b>Source: R203213-04</b>		Prepared & Analyzed: 03/29/12					
C10-C28 (DRO)	484	50	mg/kg	501	20.1	92.5	77.8-133	1.05	8.48		
<b>Matrix Spike Dup (2032905-MSD2)</b>				<b>Source: R203215-07</b>		Prepared: 03/29/12 Analyzed: 03/30/12					
C10-C28 (DRO)	495	50	mg/kg	501	30.3	92.7	77.8-133	0.164	8.48		

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

Reported:  
04/01/12 12:03

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 2032904 - EPA 5030 Soil MS**

**Blank (2032904-BLK1)**

Prepared & Analyzed: 03/29/12

Benzene	ND	0.0050	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0345		"	0.0397	86.8	67.4-143				
Surrogate: Toluene-d8	0.0463		"	0.0400	116	77.3-114				
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0400	95.9	78.4-125				

**Blank (2032904-BLK2)**

Prepared & Analyzed: 03/29/12

Benzene	ND	0.0050	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0335		"	0.0397	84.4	67.4-143				
Surrogate: Toluene-d8	0.0421		"	0.0400	105	77.3-114				
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400	96.4	78.4-125				

**LCS (2032904-BS1)**

Prepared & Analyzed: 03/29/12

Benzene	0.0827	0.0050	mg/kg	0.100	82.7	61-139				
Toluene	0.0958	0.0050	"	0.100	95.8	64-132				
Ethylbenzene	0.0998	0.0050	"	0.100	99.8	68.7-135				
m,p-Xylene	0.186	0.010	"	0.200	93.0	70.4-129				
o-Xylene	0.0931	0.0050	"	0.100	93.1	66.9-126				
Surrogate: 1,2-Dichloroethane-d4	0.0341		"	0.0397	85.8	67.4-143				
Surrogate: Toluene-d8	0.0428		"	0.0400	107	77.3-114				
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400	97.0	78.4-125				

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15  
Project Number: 0083-12012  
Project Manager: Steve Kahn

Reported:  
04/01/12 12:03

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 2032904 - EPA 5030 Soil MS**

**LCS (2032904-BS2)**

Prepared & Analyzed: 03/29/12

Benzene	0.0819	0.0050	mg/kg	0.100		81.9	61-139			
Toluene	0.0953	0.0050	"	0.100		95.3	64-132			
Ethylbenzene	0.101	0.0050	"	0.100		101	68.7-135			
m,p-Xylene	0.188	0.010	"	0.200		94.1	70.4-129			
o-Xylene	0.0939	0.0050	"	0.100		93.9	66.9-126			
Surrogate: 1,2-Dichloroethane-d4	0.0338		"	0.0397		85.1	67.4-143			
Surrogate: Toluene-d8	0.0427		"	0.0400		107	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0385		"	0.0400		96.3	78.4-125			

**LCS Dup (2032904-BSD1)**

Prepared & Analyzed: 03/29/12

Benzene	0.0813	0.0050	mg/kg	0.100		81.3	61-139	1.72	11.1	
Toluene	0.0935	0.0050	"	0.100		93.5	64-132	2.44	10.9	
Ethylbenzene	0.101	0.0050	"	0.100		101	68.7-135	1.49	20	
m,p-Xylene	0.188	0.010	"	0.200		94.2	70.4-129	1.22	20	
o-Xylene	0.0947	0.0050	"	0.100		94.7	66.9-126	1.76	20	
Surrogate: 1,2-Dichloroethane-d4	0.0332		"	0.0397		83.6	67.4-143			
Surrogate: Toluene-d8	0.0417		"	0.0400		104	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	78.4-125			

**LCS Dup (2032904-BSD2)**

Prepared & Analyzed: 03/29/12

Benzene	0.0808	0.0050	mg/kg	0.100		80.8	61-139	1.33	11.1	
Toluene	0.0934	0.0050	"	0.100		93.4	64-132	2.00	10.9	
Ethylbenzene	0.0997	0.0050	"	0.100		99.7	68.7-135	1.34	20	
m,p-Xylene	0.186	0.010	"	0.200		93.2	70.4-129	1.04	20	
o-Xylene	0.0937	0.0050	"	0.100		93.7	66.9-126	0.288	20	
Surrogate: 1,2-Dichloroethane-d4	0.0339		"	0.0397		85.4	67.4-143			
Surrogate: Toluene-d8	0.0426		"	0.0400		106	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	78.4-125			

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Project: NEP - Eckhardt 1, 33-15  
Project Number: 0083-12012  
Project Manager: Steve Kahn

Reported:  
04/01/12 12:03

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 2032904 - EPA 5030 Soil MS**

**Matrix Spike (2032904-MS1)**

Source: R203213-04

Prepared & Analyzed: 03/29/12

Benzene	0.0809	0.0050	mg/kg	0.100	ND	80.9	42.9-137		
Toluene	0.0940	0.0050	"	0.100	ND	94.0	42.6-130		
Ethylbenzene	0.0989	0.0050	"	0.100	ND	98.9	39-133		
m,p-Xylene	0.185	0.010	"	0.200	ND	92.4	34.7-134		
o-Xylene	0.0927	0.0050	"	0.100	ND	92.7	41.3-126		
Surrogate: 1,2-Dichloroethane-d4	0.0369		"	0.0397		92.9	67.4-143		
Surrogate: Toluene-d8	0.0428		"	0.0400		107	77.3-114		
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.6	78.4-125		

**Matrix Spike (2032904-MS2)**

Source: R203215-07

Prepared & Analyzed: 03/29/12

Benzene	0.0828	0.0050	mg/kg	0.100	ND	82.8	42.9-137		
Toluene	0.0958	0.0050	"	0.100	ND	95.8	42.6-130		
Ethylbenzene	0.0993	0.0050	"	0.100	ND	99.3	39-133		
m,p-Xylene	0.185	0.010	"	0.200	ND	92.3	34.7-134		
o-Xylene	0.0942	0.0050	"	0.100	ND	94.2	41.3-126		
Surrogate: 1,2-Dichloroethane-d4	0.0376		"	0.0397		94.8	67.4-143		
Surrogate: Toluene-d8	0.0429		"	0.0400		107	77.3-114		
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.8	78.4-125		

**Matrix Spike Dup (2032904-MSD1)**

Source: R203213-04

Prepared & Analyzed: 03/29/12

Benzene	0.0824	0.0050	mg/kg	0.100	ND	82.4	42.9-137	1.84	17.9
Toluene	0.0960	0.0050	"	0.100	ND	96.0	42.6-130	2.02	11.9
Ethylbenzene	0.0982	0.0050	"	0.100	ND	98.2	39-133	0.670	20
m,p-Xylene	0.183	0.010	"	0.200	ND	91.5	34.7-134	0.978	20
o-Xylene	0.0930	0.0050	"	0.100	ND	93.0	41.3-126	0.291	20
Surrogate: 1,2-Dichloroethane-d4	0.0374		"	0.0397		94.3	67.4-143		
Surrogate: Toluene-d8	0.0426		"	0.0400		107	77.3-114		
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.8	78.4-125		

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/01/12 12:03

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 2032904 - EPA 5030 Soil MS**

Matrix Spike Dup (2032904-MSD2)		Source: R203215-07			Prepared & Analyzed: 03/29/12					
Benzene	0.0814	0.0050	mg/kg	0.100	ND	81.4	42.9-137	1.64	17.9	
Toluene	0.0949	0.0050	"	0.100	ND	94.9	42.6-130	0.912	11.9	
Ethylbenzene	0.0994	0.0050	"	0.100	ND	99.4	39-133	0.121	20	
m,p-Xylene	0.184	0.010	"	0.200	ND	91.9	34.7-134	0.456	20	
o-Xylene	0.0937	0.0050	"	0.100	ND	93.7	41.3-126	0.575	20	
Surrogate: 1,2-Dichloroethane-d4	0.0371		"	0.0397		93.6	67.4-143			
Surrogate: Toluene-d8	0.0427		"	0.0400		107	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.6	78.4-125			

Summit Scientific



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083-12012  
Project Manager: Steve Kahn

**Reported:**  
04/01/12 12:03

### Notes and Definitions

S-02      The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

DET      Analyte DETECTED

ND      Analyte NOT DETECTED at or above the reporting limit

NR      Not Reported

dry      Sample results reported on a dry weight basis

RPD      Relative Percent Difference



# Summit Scientific

---

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

April 04, 2012

Steve Kahn  
LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003  
RE: NEP - Eckhardt 1, 33-15

Enclosed are the results of analyses for samples received by Summit Scientific on 03/28/12 17:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', is written over a light gray circular background.

Paul Shrewsbury For Ben Shrewsbury  
President / Laboratory Director



LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 17:12

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB01 Composite	R203213-01	Soil	03/28/12 13:00	03/28/12 17:10
SB01	R203213-02	Soil	03/28/12 13:20	03/28/12 17:10
SB02	R203213-03	Soil	03/28/12 13:40	03/28/12 17:10
SB03	R203213-04	Soil	03/28/12 14:00	03/28/12 17:10
SB04	R203213-05	Soil	03/28/12 14:20	03/28/12 17:10

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083  
Project Manager: Steve Kahn

Reported:  
04/04/12 17:12

Summit Scientific 203213

741 Corporate Circle Suite 1 • Golden, Colorado 80401  
303-277-9310 • 303-277-9331 Fax

Client: LT Environmental, Inc.  
Address: 4600 West 60th Avenue  
City/State/Zip: Arvada, CO 80003  
Phone: (303) 433-9788  
Fax: (303) 433-4432  
Project Name: Eckhardt 1, 33-15  
Project Number: 0083  
Project Manager: Steve Kahn  
E-Mail: [skahn@summit-sc.com](mailto:skahn@summit-sc.com)  
Sampler Name: J. Quinn

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative	Matrix	Analyze For:	Special Instructions
S801 (6-10-11)	3-28-12	13:00	3	HCl	Soil	PH, EC, SAR, BTEX, DBP/ORO, Other (Specify)	Standard Turn
S802	3-28-12	13:20	1	X	X	X	X
S803	3-28-12	13:50	1	X	X	X	X
S804	3-28-12	14:00	1	X	X	X	X
S805	3-28-12	14:20	1	X	X	X	X
S806	3-28-12	14:40	1	X	X	X	X
S807	3-28-12	15:00	1	X	X	X	X
S808	3-28-12	15:20	1	X	X	X	X
S809	3-28-12	15:40	1	X	X	X	X
S810	3-28-12	16:00	1	X	X	X	X
S811	3-28-12	16:20	1	X	X	X	X
S812	3-28-12	16:40	1	X	X	X	X
S813	3-28-12	17:00	1	X	X	X	X
S814	3-28-12	17:20	1	X	X	X	X
S815	3-28-12	17:40	1	X	X	X	X
S816	3-28-12	18:00	1	X	X	X	X
S817	3-28-12	18:20	1	X	X	X	X
S818	3-28-12	18:40	1	X	X	X	X
S819	3-28-12	19:00	1	X	X	X	X
S820	3-28-12	19:20	1	X	X	X	X
S821	3-28-12	19:40	1	X	X	X	X
S822	3-28-12	20:00	1	X	X	X	X
S823	3-28-12	20:20	1	X	X	X	X
S824	3-28-12	20:40	1	X	X	X	X
S825	3-28-12	21:00	1	X	X	X	X
S826	3-28-12	21:20	1	X	X	X	X
S827	3-28-12	21:40	1	X	X	X	X
S828	3-28-12	22:00	1	X	X	X	X
S829	3-28-12	22:20	1	X	X	X	X
S830	3-28-12	22:40	1	X	X	X	X
S831	3-28-12	23:00	1	X	X	X	X
S832	3-28-12	23:20	1	X	X	X	X
S833	3-28-12	23:40	1	X	X	X	X
S834	3-28-12	24:00	1	X	X	X	X
S835	3-28-12	24:20	1	X	X	X	X
S836	3-28-12	24:40	1	X	X	X	X
S837	3-28-12	25:00	1	X	X	X	X
S838	3-28-12	25:20	1	X	X	X	X
S839	3-28-12	25:40	1	X	X	X	X
S840	3-28-12	26:00	1	X	X	X	X
S841	3-28-12	26:20	1	X	X	X	X
S842	3-28-12	26:40	1	X	X	X	X
S843	3-28-12	27:00	1	X	X	X	X
S844	3-28-12	27:20	1	X	X	X	X
S845	3-28-12	27:40	1	X	X	X	X
S846	3-28-12	28:00	1	X	X	X	X
S847	3-28-12	28:20	1	X	X	X	X
S848	3-28-12	28:40	1	X	X	X	X
S849	3-28-12	29:00	1	X	X	X	X
S850	3-28-12	29:20	1	X	X	X	X
S851	3-28-12	29:40	1	X	X	X	X
S852	3-28-12	30:00	1	X	X	X	X
S853	3-28-12	30:20	1	X	X	X	X
S854	3-28-12	30:40	1	X	X	X	X
S855	3-28-12	31:00	1	X	X	X	X
S856	3-28-12	31:20	1	X	X	X	X
S857	3-28-12	31:40	1	X	X	X	X
S858	3-28-12	32:00	1	X	X	X	X
S859	3-28-12	32:20	1	X	X	X	X
S860	3-28-12	32:40	1	X	X	X	X
S861	3-28-12	33:00	1	X	X	X	X
S862	3-28-12	33:20	1	X	X	X	X
S863	3-28-12	33:40	1	X	X	X	X
S864	3-28-12	34:00	1	X	X	X	X
S865	3-28-12	34:20	1	X	X	X	X
S866	3-28-12	34:40	1	X	X	X	X
S867	3-28-12	35:00	1	X	X	X	X
S868	3-28-12	35:20	1	X	X	X	X
S869	3-28-12	35:40	1	X	X	X	X
S870	3-28-12	36:00	1	X	X	X	X
S871	3-28-12	36:20	1	X	X	X	X
S872	3-28-12	36:40	1	X	X	X	X
S873	3-28-12	37:00	1	X	X	X	X
S874	3-28-12	37:20	1	X	X	X	X
S875	3-28-12	37:40	1	X	X	X	X
S876	3-28-12	38:00	1	X	X	X	X
S877	3-28-12	38:20	1	X	X	X	X
S878	3-28-12	38:40	1	X	X	X	X
S879	3-28-12	39:00	1	X	X	X	X
S880	3-28-12	39:20	1	X	X	X	X
S881	3-28-12	39:40	1	X	X	X	X
S882	3-28-12	40:00	1	X	X	X	X
S883	3-28-12	40:20	1	X	X	X	X
S884	3-28-12	40:40	1	X	X	X	X
S885	3-28-12	41:00	1	X	X	X	X
S886	3-28-12	41:20	1	X	X	X	X
S887	3-28-12	41:40	1	X	X	X	X
S888	3-28-12	42:00	1	X	X	X	X
S889	3-28-12	42:20	1	X	X	X	X
S890	3-28-12	42:40	1	X	X	X	X
S891	3-28-12	43:00	1	X	X	X	X
S892	3-28-12	43:20	1	X	X	X	X
S893	3-28-12	43:40	1	X	X	X	X
S894	3-28-12	44:00	1	X	X	X	X
S895	3-28-12	44:20	1	X	X	X	X
S896	3-28-12	44:40	1	X	X	X	X
S897	3-28-12	45:00	1	X	X	X	X
S898	3-28-12	45:20	1	X	X	X	X
S899	3-28-12	45:40	1	X	X	X	X
S900	3-28-12	46:00	1	X	X	X	X
S901	3-28-12	46:20	1	X	X	X	X
S902	3-28-12	46:40	1	X	X	X	X
S903	3-28-12	47:00	1	X	X	X	X
S904	3-28-12	47:20	1	X	X	X	X
S905	3-28-12	47:40	1	X	X	X	X
S906	3-28-12	48:00	1	X	X	X	X
S907	3-28-12	48:20	1	X	X	X	X
S908	3-28-12	48:40	1	X	X	X	X
S909	3-28-12	49:00	1	X	X	X	X
S910	3-28-12	49:20	1	X	X	X	X
S911	3-28-12	49:40	1	X	X	X	X
S912	3-28-12	50:00	1	X	X	X	X
S913	3-28-12	50:20	1	X	X	X	X
S914	3-28-12	50:40	1	X	X	X	X
S915	3-28-12	51:00	1	X	X	X	X
S916	3-28-12	51:20	1	X	X	X	X
S917	3-28-12	51:40	1	X	X	X	X
S918	3-28-12	52:00	1	X	X	X	X
S919	3-28-12	52:20	1	X	X	X	X
S920	3-28-12	52:40	1	X	X	X	X
S921	3-28-12	53:00	1	X	X	X	X
S922	3-28-12	53:20	1	X	X	X	X
S923	3-28-12	53:40	1	X	X	X	X
S924	3-28-12	54:00	1	X	X	X	X
S925	3-28-12	54:20	1	X	X	X	X
S926	3-28-12	54:40	1	X	X	X	X
S927	3-28-12	55:00	1	X	X	X	X
S928	3-28-12	55:20	1	X	X	X	X
S929	3-28-12	55:40	1	X	X	X	X
S930	3-28-12	56:00	1	X	X	X	X
S931	3-28-12	56:20	1	X	X	X	X
S932	3-28-12	56:40	1	X	X	X	X
S933	3-28-12	57:00	1	X	X	X	X
S934	3-28-12	57:20	1	X	X	X	X
S935	3-28-12	57:40	1	X	X	X	X
S936	3-28-12	58:00	1	X	X	X	X
S937	3-28-12	58:20	1	X	X	X	X
S938	3-28-12	58:40	1	X	X	X	X
S939	3-28-12	59:00	1	X	X	X	X
S940	3-28-12	59:20	1	X	X	X	X
S941	3-28-12	59:40	1	X	X	X	X
S942	3-28-12	60:00	1	X	X	X	X
S943	3-28-12	60:20	1	X	X	X	X
S944	3-28-12	60:40	1	X	X	X	X
S945	3-28-12	61:00	1	X	X	X	X
S946	3-28-12	61:20	1	X	X	X	X
S947	3-28-12	61:40	1	X	X	X	X
S948	3-28-12	62:00	1	X	X	X	X
S949	3-28-12	62:20	1	X	X	X	X
S950	3-28-12	62:40	1	X	X	X	X
S951	3-28-12	63:00	1	X	X	X	X
S952	3-28-12	63:20	1	X	X	X	X
S953	3-28-12	63:40	1	X	X	X	X
S954	3-28-12	64:00	1	X	X	X	X
S955	3-28-12	64:20	1	X	X	X	X
S956	3-28-12	64:40	1	X	X	X	X
S957	3-28-12	65:00	1	X	X	X	X
S958	3-28-12	65:20	1	X	X	X	X
S959	3-28-12	65:40	1	X	X	X	X
S960	3-28-12	66:00	1	X	X	X	X
S961	3-28-12	66:20	1	X	X	X	X
S962	3-28-12	66:40	1	X	X	X	X
S963	3-28-12	67:00	1	X	X	X	X
S964	3-28-12	67:20	1	X	X	X	X
S965	3-28-12	67:40	1	X	X	X	X
S966	3-28-12	68:00	1	X	X	X	X
S967	3-28-12	68:20	1	X	X	X	X
S968	3-28-12	68:40	1	X	X	X	X
S969	3-28-12	69:00	1	X	X	X	X
S970	3-28-12	69:20	1	X	X	X	X
S971	3-28-12	69:40	1	X	X	X	X
S972	3-28-12	70:00	1	X	X	X	X
S973	3-28-12	70:20	1	X	X	X	X
S974	3-28-12	70:40	1	X	X	X	X
S975	3-28-12	71:00	1	X	X	X	X
S976	3-28-12	71:20	1	X	X	X	X
S977	3-28-12	71:40	1	X	X	X	X
S978	3-28-12	72:00	1	X	X	X	X
S979	3-28-12	72:20	1	X	X	X	X
S980	3-28-12	72:40	1	X	X	X	X
S981	3-28-12	73:00	1	X	X	X	X
S982	3-28-12	73:20	1	X	X	X	X
S983	3-28-12	73:40	1	X	X	X	X
S984	3-28-12	74:00	1	X	X	X	X
S985	3-28-12	74:20	1	X	X	X	X
S986	3-28-12	74:40	1	X	X	X	X
S987	3-28-12	75:00	1	X	X	X	X
S988	3-28-12	75:20	1	X	X	X	X
S989	3-28-12	75:40	1	X	X	X	X
S990	3-28-12	76:00	1	X	X	X	X
S991	3-28-12	76:20	1	X	X	X	X
S992	3-28-12	76:40	1	X	X	X	X
S993	3-28-12	77:00	1	X	X	X	X
S994	3-28-12	77:20	1	X	X	X	X
S995	3-28-12	77:40	1	X	X	X	X
S996	3						



LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 17:12

**SB01 Composite**  
**R203213-01 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **03/28/12 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>0.656</b>	0.00100	mmhos/cm	1	2032907	03/29/12	03/29/12	SM 2510B	

Date Sampled: **03/28/12 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>7.0</b>		pH Units	"	2032906	"	03/29/12	EPA 9045B	

**Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis**

Date Sampled: **03/28/12 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>139</b>	2.50	mg/kg	1	2032903	03/29/12	03/30/12	EPA 6020/USDA6 0 6(2, 3A)	
<b>Magnesium</b>	<b>67.4</b>	1.00	"	"	"	"	"	"	
<b>Sodium</b>	<b>128</b>	5.00	"	"	"	"	"	"	

Date Sampled: **03/28/12 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sodium Adsorption Ratio</b>	<b>2.23</b>		units	"	2040205	04/02/12	04/02/12	"	

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 17:12

**SB01**  
**R203213-02 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/28/12 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>2400</b>	50	mg/kg	1	2032905	03/29/12	03/30/12	8015 Full Carbon Chain	

Date Sampled: **03/28/12 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		101 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/28/12 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Benzene</b>	<b>0.38</b>	0.0050	mg/kg	1	2032904	03/29/12	03/29/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>8.4</b>	0.050	"	10	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.64</b>	0.050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>840</b>	50	"	100	"	"	"	"	

Date Sampled: **03/28/12 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %	67.4-143		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		132 %	77.3-114		"	"	"	"	S-02
<i>Surrogate: 4-Bromofluorobenzene</i>		96.3 %	78.4-125		"	"	"	"	

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 17:12

**SB02**  
**R203213-03 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/28/12 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2032905	03/29/12	03/30/12	8015 Full Carbon Chain	

Date Sampled: **03/28/12 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		96.0 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/28/12 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2032904	03/29/12	03/29/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>9.8</b>	0.50	"	"	"	"	"	"	

Date Sampled: **03/28/12 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		116 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		99.7 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.0 %	78.4-125		"	"	"	"	

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4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 17:12

**SB03**  
**R203213-04 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/28/12 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2032905	03/29/12	03/30/12	8015 Full Carbon Chain	

Date Sampled: **03/28/12 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		94.7 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/28/12 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2032904	03/29/12	03/29/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/28/12 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.8 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		106 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.0 %	78.4-125		"	"	"	"	

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Project: NEP - Eckhardt 1, 33-15

Project Number: 0083  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 17:12

**SB04**  
**R203213-05 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/28/12 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>89</b>	50	mg/kg	1	2032905	03/29/12	03/30/12	8015 Full Carbon Chain	

Date Sampled: **03/28/12 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		96.7 %	80-124		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/28/12 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2032904	03/29/12	03/29/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>2.1</b>	0.050	"	10	"	"	"	"	
<b>Xylenes (total)</b>	<b>11</b>	0.050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>360</b>	5.0	"	"	"	"	"	"	

Date Sampled: **03/28/12 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		69.4 %	67.4-143		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		146 %	77.3-114		"	"	"	"	S-02
<i>Surrogate: 4-Bromofluorobenzene</i>		105 %	78.4-125		"	"	"	"	

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4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 17:12

## Extractable Petroleum Hydrocarbons by 8015 - Quality Control

### Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

#### Batch 2032905 - EPA 3550A

<b>Blank (2032905-BLK1)</b>				Prepared & Analyzed: 03/29/12						
C10-C28 (DRO)	ND	50	mg/kg							
<b>Blank (2032905-BLK2)</b>				Prepared & Analyzed: 03/29/12						
C10-C28 (DRO)	ND	50	mg/kg							
<b>LCS (2032905-BS1)</b>				Prepared & Analyzed: 03/29/12						
C10-C28 (DRO)	470	50	mg/kg	501		93.9	81.4-129			
<b>LCS (2032905-BS2)</b>				Prepared & Analyzed: 03/29/12						
C10-C28 (DRO)	491	50	mg/kg	501		98.0	81.4-129			
<b>LCS Dup (2032905-BSD1)</b>				Prepared & Analyzed: 03/29/12						
C10-C28 (DRO)	485	50	mg/kg	501		96.7	81.4-129	2.99	9.26	
<b>LCS Dup (2032905-BSD2)</b>				Prepared & Analyzed: 03/29/12						
C10-C28 (DRO)	475	50	mg/kg	501		94.9	81.4-129	3.21	9.26	
<b>Matrix Spike (2032905-MS1)</b>				<b>Source: R203213-04</b>		Prepared & Analyzed: 03/29/12				
C10-C28 (DRO)	489	50	mg/kg	501	20.1	93.6	77.8-133			
<b>Matrix Spike (2032905-MS2)</b>				<b>Source: R203215-07</b>		Prepared: 03/29/12 Analyzed: 03/30/12				
C10-C28 (DRO)	494	50	mg/kg	501	30.3	92.5	77.8-133			
<b>Matrix Spike Dup (2032905-MSD1)</b>				<b>Source: R203213-04</b>		Prepared & Analyzed: 03/29/12				
C10-C28 (DRO)	484	50	mg/kg	501	20.1	92.5	77.8-133	1.05	8.48	
<b>Matrix Spike Dup (2032905-MSD2)</b>				<b>Source: R203215-07</b>		Prepared: 03/29/12 Analyzed: 03/30/12				
C10-C28 (DRO)	495	50	mg/kg	501	30.3	92.7	77.8-133	0.164	8.48	

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Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 17:12

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 2032904 - EPA 5030 Soil MS**

**Blank (2032904-BLK1)**

Prepared & Analyzed: 03/29/12

Benzene	ND	0.0050	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0345		"	0.0397		86.8	67.4-143			
Surrogate: Toluene-d8	0.0463		"	0.0400		116	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0400		95.9	78.4-125			

**Blank (2032904-BLK2)**

Prepared & Analyzed: 03/29/12

Benzene	ND	0.0050	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0335		"	0.0397		84.4	67.4-143			
Surrogate: Toluene-d8	0.0421		"	0.0400		105	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.4	78.4-125			

**LCS (2032904-BS1)**

Prepared & Analyzed: 03/29/12

Benzene	0.0827	0.0050	mg/kg	0.100		82.7	61-139			
Toluene	0.0958	0.0050	"	0.100		95.8	64-132			
Ethylbenzene	0.0998	0.0050	"	0.100		99.8	68.7-135			
m,p-Xylene	0.186	0.010	"	0.200		93.0	70.4-129			
o-Xylene	0.0931	0.0050	"	0.100		93.1	66.9-126			
Surrogate: 1,2-Dichloroethane-d4	0.0341		"	0.0397		85.8	67.4-143			
Surrogate: Toluene-d8	0.0428		"	0.0400		107	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.0	78.4-125			

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Project: NEP - Eckhardt 1, 33-15

Project Number: 0083  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 17:12

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 2032904 - EPA 5030 Soil MS**

**LCS (2032904-BS2)**

Prepared & Analyzed: 03/29/12

Benzene	0.0819	0.0050	mg/kg	0.100		81.9	61-139			
Toluene	0.0953	0.0050	"	0.100		95.3	64-132			
Ethylbenzene	0.101	0.0050	"	0.100		101	68.7-135			
m,p-Xylene	0.188	0.010	"	0.200		94.1	70.4-129			
o-Xylene	0.0939	0.0050	"	0.100		93.9	66.9-126			
Surrogate: 1,2-Dichloroethane-d4	0.0338		"	0.0397		85.1	67.4-143			
Surrogate: Toluene-d8	0.0427		"	0.0400		107	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0385		"	0.0400		96.3	78.4-125			

**LCS Dup (2032904-BSD1)**

Prepared & Analyzed: 03/29/12

Benzene	0.0813	0.0050	mg/kg	0.100		81.3	61-139	1.72	11.1	
Toluene	0.0935	0.0050	"	0.100		93.5	64-132	2.44	10.9	
Ethylbenzene	0.101	0.0050	"	0.100		101	68.7-135	1.49	20	
m,p-Xylene	0.188	0.010	"	0.200		94.2	70.4-129	1.22	20	
o-Xylene	0.0947	0.0050	"	0.100		94.7	66.9-126	1.76	20	
Surrogate: 1,2-Dichloroethane-d4	0.0332		"	0.0397		83.6	67.4-143			
Surrogate: Toluene-d8	0.0417		"	0.0400		104	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	78.4-125			

**LCS Dup (2032904-BSD2)**

Prepared & Analyzed: 03/29/12

Benzene	0.0808	0.0050	mg/kg	0.100		80.8	61-139	1.33	11.1	
Toluene	0.0934	0.0050	"	0.100		93.4	64-132	2.00	10.9	
Ethylbenzene	0.0997	0.0050	"	0.100		99.7	68.7-135	1.34	20	
m,p-Xylene	0.186	0.010	"	0.200		93.2	70.4-129	1.04	20	
o-Xylene	0.0937	0.0050	"	0.100		93.7	66.9-126	0.288	20	
Surrogate: 1,2-Dichloroethane-d4	0.0339		"	0.0397		85.4	67.4-143			
Surrogate: Toluene-d8	0.0426		"	0.0400		106	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	78.4-125			

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Project: NEP - Eckhardt 1, 33-15

Project Number: 0083  
Project Manager: Steve Kahn

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04/04/12 17:12

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 2032904 - EPA 5030 Soil MS**

**Matrix Spike (2032904-MS1)**

Source: R203213-04

Prepared & Analyzed: 03/29/12

Benzene	0.0809	0.0050	mg/kg	0.100	ND	80.9	42.9-137		
Toluene	0.0940	0.0050	"	0.100	ND	94.0	42.6-130		
Ethylbenzene	0.0989	0.0050	"	0.100	ND	98.9	39-133		
m,p-Xylene	0.185	0.010	"	0.200	ND	92.4	34.7-134		
o-Xylene	0.0927	0.0050	"	0.100	ND	92.7	41.3-126		
Surrogate: 1,2-Dichloroethane-d4	0.0369		"	0.0397		92.9	67.4-143		
Surrogate: Toluene-d8	0.0428		"	0.0400		107	77.3-114		
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.6	78.4-125		

**Matrix Spike (2032904-MS2)**

Source: R203215-07

Prepared & Analyzed: 03/29/12

Benzene	0.0828	0.0050	mg/kg	0.100	ND	82.8	42.9-137		
Toluene	0.0958	0.0050	"	0.100	ND	95.8	42.6-130		
Ethylbenzene	0.0993	0.0050	"	0.100	ND	99.3	39-133		
m,p-Xylene	0.185	0.010	"	0.200	ND	92.3	34.7-134		
o-Xylene	0.0942	0.0050	"	0.100	ND	94.2	41.3-126		
Surrogate: 1,2-Dichloroethane-d4	0.0376		"	0.0397		94.8	67.4-143		
Surrogate: Toluene-d8	0.0429		"	0.0400		107	77.3-114		
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.8	78.4-125		

**Matrix Spike Dup (2032904-MSD1)**

Source: R203213-04

Prepared & Analyzed: 03/29/12

Benzene	0.0824	0.0050	mg/kg	0.100	ND	82.4	42.9-137	1.84	17.9
Toluene	0.0960	0.0050	"	0.100	ND	96.0	42.6-130	2.02	11.9
Ethylbenzene	0.0982	0.0050	"	0.100	ND	98.2	39-133	0.670	20
m,p-Xylene	0.183	0.010	"	0.200	ND	91.5	34.7-134	0.978	20
o-Xylene	0.0930	0.0050	"	0.100	ND	93.0	41.3-126	0.291	20
Surrogate: 1,2-Dichloroethane-d4	0.0374		"	0.0397		94.3	67.4-143		
Surrogate: Toluene-d8	0.0426		"	0.0400		107	77.3-114		
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.8	78.4-125		

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04/04/12 17:12

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 2032904 - EPA 5030 Soil MS**

Matrix Spike Dup (2032904-MSD2)		Source: R203215-07			Prepared & Analyzed: 03/29/12					
Benzene	0.0814	0.0050	mg/kg	0.100	ND	81.4	42.9-137	1.64	17.9	
Toluene	0.0949	0.0050	"	0.100	ND	94.9	42.6-130	0.912	11.9	
Ethylbenzene	0.0994	0.0050	"	0.100	ND	99.4	39-133	0.121	20	
m,p-Xylene	0.184	0.010	"	0.200	ND	91.9	34.7-134	0.456	20	
o-Xylene	0.0937	0.0050	"	0.100	ND	93.7	41.3-126	0.575	20	
Surrogate: 1,2-Dichloroethane-d4	0.0371		"	0.0397		93.6	67.4-143			
Surrogate: Toluene-d8	0.0427		"	0.0400		107	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.6	78.4-125			

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Project: NEP - Eckhardt 1, 33-15

Project Number: 0083  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 17:12

**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 2032906 - General Preparation**

<b>Duplicate (2032906-DUP1)</b>		<b>Source: R203214-01</b>		Prepared & Analyzed: 03/29/12						
pH	8.8		pH Units		8.2			7.30	20	
<b>Duplicate (2032906-DUP2)</b>		<b>Source: R203213-01</b>		Prepared & Analyzed: 03/29/12						
pH	7.1		pH Units		7.0			2.27	20	

**Batch 2032907 - General Preparation**

<b>Duplicate (2032907-DUP1)</b>		<b>Source: R203213-01</b>		Prepared & Analyzed: 03/29/12						
Specific Conductance (EC)	0.630	0.00100	mmhos/cm		0.656			3.96	20	
<b>Duplicate (2032907-DUP2)</b>		<b>Source: R203214-01</b>		Prepared & Analyzed: 03/29/12						
Specific Conductance (EC)	0.610	0.00100	mmhos/cm		0.582			4.78	20	

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Project Number: 0083  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 17:12

**Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike Level	Source		%REC		RPD	
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

**Batch 2032903 - General Preparation**

**Blank (2032903-BLK1)**

Prepared: 03/29/12 Analyzed: 03/30/12

Calcium	ND	2.50	mg/kg
Magnesium	ND	1.00	"
Sodium	ND	5.00	"

**Blank (2032903-BLK2)**

Prepared: 03/29/12 Analyzed: 03/30/12

Calcium	ND	2.50	mg/kg
Magnesium	ND	1.00	"
Sodium	ND	5.00	"

**LCS (2032903-BS1)**

Prepared: 03/29/12 Analyzed: 03/30/12

Calcium	394	2.50	mg/kg	400	98.4	70-130
Magnesium	191	1.00	"	200	95.7	70-130
Sodium	810	5.00	"	800	101	70-130

**LCS (2032903-BS2)**

Prepared: 03/29/12 Analyzed: 03/30/12

Calcium	392	2.50	mg/kg	400	98.1	70-130
Magnesium	189	1.00	"	200	94.4	70-130
Sodium	838	5.00	"	800	105	70-130

**LCS Dup (2032903-BSD1)**

Prepared: 03/29/12 Analyzed: 03/30/12

Calcium	389	2.50	mg/kg	400	97.3	70-130	1.11	25
Magnesium	191	1.00	"	200	95.3	70-130	0.438	25
Sodium	849	5.00	"	800	106	70-130	4.63	25

**LCS Dup (2032903-BSD2)**

Prepared: 03/29/12 Analyzed: 03/30/12

Calcium	393	2.50	mg/kg	400	98.3	70-130	0.265	25
Magnesium	191	1.00	"	200	95.5	70-130	1.12	25
Sodium	836	5.00	"	800	105	70-130	0.219	25

Summit Scientific

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: NEP - Eckhardt 1, 33-15

Project Number: 0083  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 17:12

**Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 2032903 - General Preparation**

<b>Matrix Spike (2032903-MS1)</b>		<b>Source: R203213-01</b>			Prepared: 03/29/12		Analyzed: 03/30/12			
Calcium	534	2.50	mg/kg	334	139	118	70-130			
Magnesium	245	1.00	"	167	67.4	106	70-130			
Sodium	879	5.00	"	669	128	112	70-130			
<b>Matrix Spike (2032903-MS2)</b>		<b>Source: R203215-01</b>			Prepared: 03/29/12		Analyzed: 03/30/12			
Calcium	398	2.50	mg/kg	339	116	83.1	70-130			
Magnesium	190	1.00	"	169	40.2	88.4	70-130			
Sodium	1240	5.00	"	678	726	75.5	70-130			
<b>Matrix Spike Dup (2032903-MSD1)</b>		<b>Source: R203213-01</b>			Prepared: 03/29/12		Analyzed: 03/30/12			
Calcium	496	2.50	mg/kg	366	139	97.7	70-130	7.51	25	
Magnesium	236	1.00	"	183	67.4	92.2	70-130	3.67	25	
Sodium	880	5.00	"	731	128	103	70-130	0.119	25	
<b>Matrix Spike Dup (2032903-MSD2)</b>		<b>Source: R203215-01</b>			Prepared: 03/29/12		Analyzed: 03/30/12			
Calcium	453	2.50	mg/kg	364	116	92.5	70-130	13.0	25	
Magnesium	207	1.00	"	182	40.2	91.4	70-130	8.43	25	
Sodium	1440	5.00	"	729	726	98.6	70-130	15.4	25	

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Project: NEP - Eckhardt 1, 33-15

Project Number: 0083  
Project Manager: Steve Kahn

**Reported:**  
04/04/12 17:12

### Notes and Definitions

S-02      The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

DET      Analyte DETECTED

ND      Analyte NOT DETECTED at or above the reporting limit

NR      Not Reported

dry      Sample results reported on a dry weight basis

RPD      Relative Percent Difference

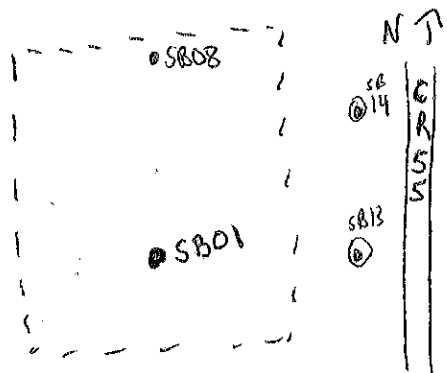
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Summit Scientific

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A handwritten signature in black ink, appearing to be 'MSM'.

Location Map:



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**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number: **SB01** Project: **Eckhardt 1, 33-15**

Date: **3-28-12** Project Number: **NA**

Logged By: **Jacob Evans** Drilled By: **High Plains Drilling**

Elevation: **N/A** Detector: **PID** Drilling Method: **Direct Push** Sampling Method: **Continuous**

Gravel Pack: **10-20 Silica Sand** Seal: **Bentonite** Grout: **NA**

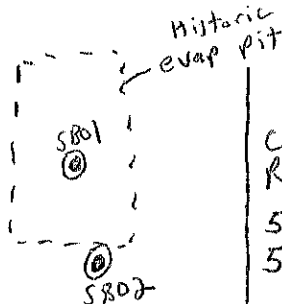
Casing Type: **PVC** Diameter: **1"** Length: **5'** Hole Diameter: **2.25"** Depth to Liquid: **NA**

Screen Type: **PVC** Slot: **0.010"** Diameter: **1"** Length: **10'** Total Depth: **14.5'** Depth to Water: **11.5'**

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
					0		SM	1-4 sandy silt fine grain loose	X
					2	1-4			X
					4			3.5-4.0 gray staining/odor/SAA	
		1258			6		CL	4-5 silty clay medium, pliable gray stain/odor	
		1450		7-9 sample	8	4-8			
		1605			10		SM	5-8 fine grain sand loose gray stain/odor	
		1080			12	9-12		9-10 SAA gray/black stain odor	
		302	None		14	12-14.5	CL	10-11 medium clay with fines pliable black/gray staining w/ fines	
					16				
					18		ML	11-12 sandy silt fine grain tight, black/gray staining	
					20				
					22		ML	12-14.5 silty sand fine grain tight no stain no odor light brown	
					24				
					26			refusal @ 14.5'	
					28				
					30				

Location Map:

N↑



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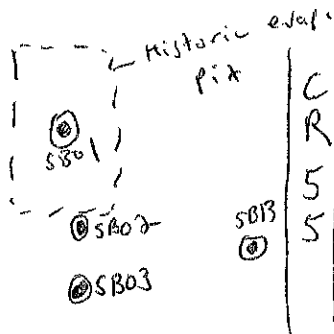
**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number:	S802	Project:	Eckhardt 1, 33-15
Date:	3-28-12	Project Number:	NA
Logged By:	Jacob Evans	Drilled By:	High Plains Drilling
Drilling Method:	Direct Push	Sampling Method:	Continuous
Seal:	Bentonite	Grout:	NA
Casing Type:	PVC	Diameter:	1"
Screen Type:	PVC	Length:	5'
Slot:	0.010"	Hole Diameter:	2.25"
Diameter:	1"	Length:	10'
Total Depth:	14.5'	Depth to Liquid:	NA
Depth to Water:	~10.5'		

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
		0.00	None		0		OL	1-4 clayey silt, fine grain, tight, brown	
					2	1-4			
					4		ML	5-7 silty sand, fine grain, loose	
		0.00	None		6	5-8			
					8		CL	7-8 hard clay, tight, firm	
		2.05	None	9-10'	10	8-12	CL	8-11 sandy clay, tight, hard	
					12				
		0.000	None		14	12-14.5	SC	11-12 <del>clayey</del> clayey sand tight/hard	
					16		SC	12-14.5 SAA	
					18				
					20				
					22				
					24				
					26				
					28				
					30				

Location Map:

NA



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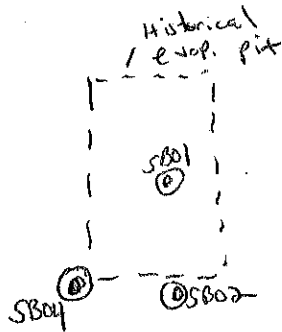
## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	SB03	Project:	Eckhardt 1, 33-15
Date:	3-28-12	Project Number:	NA
Logged By:	Jacob Evans	Drilled By:	High Plains Drilling
Drilling Method:	Direct Push	Sampling Method:	Continuous
Seal:	Bentonite	Grout:	NA
Casing Type:	PVC	Diameter:	1"
Screen Type:	PVC	Slot:	0.010"
		Length:	5'
		Hole Diameter:	2.25"
		Depth to Liquid:	NA
		Total Depth:	14.5'
		Depth to Water:	11'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
		0.00	None		0		SM	1-4 fine grain <sup>sandy</sup> silt, tight brown	X
					2	1-4	CL	6-7 sandy clay, medium, friable	X
		0.00	None		6	6-8	SM	7-8 silty sand loose	X
					8				X
		0.00	None	10-11 sample	10	10-12	CL	10-12 tight silty clay medium hardness	X
					12				X
		0.00	None		14	12-14.5	CL	12-14.5 SAA	X
					16				X
					18				X
					20				X
					22				X
					24				X
					26				X
					28				X
					30				X

Location Map:

N ↑



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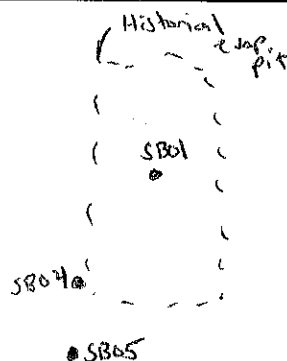
## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	SB04		Project:	Eckhardt 1, 33-15	
Date:	3-28-12		Project Number:	NA	
Logged By:	Jacob Evans		Drilled By:	High Plains Drilling	
Drilling Method:	Direct Push		Sampling Method:	Continuous	
Gravel Pack:	10-20 Silica Sand		Seal:	Bentonite	
Casing Type:	PVC		Diameter:	1"	Length:
Screen Type:	PVC		Diameter:	1"	Length:
	Slot: 0.010"		Hole Diameter:	2.25"	Depth to Liquid:
			Total Depth:	14'	Depth to Water:

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
		0.00	None		0		ML	1-4' loose silty sand fine grain	X
					2	1-4'			X
					4		ML	5-6 SAA	
		0.00	None		6	5-8	CL	6-8 silty clay tight, medium	
				(a) 10-11	8				
		789			10	10-12	CL	10-12 SAA gray/black stain odor	
		213			12		CL	12-12.5 SAA	
		0.00	None		14	12-14.5	CL	12.5-14.5 clayey silt tight	
					16				
					18				
					20				
					22				
					24				
					26				
					28				
					30				

Location Map:

N



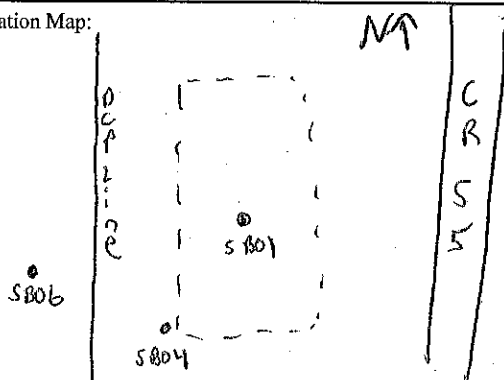
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## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: SB05	Project: Eckhardt 1, 33-15
Date: 3-29-12	Project Number: NA
Logged By: Jacob Evans	Drilled By: High Plains Drilling
Drilling Method: Direct Push	Sampling Method: Continuous
Seal: Bentonite	Grout: NA
Casing Type: PVC	Diameter: 1" Length: 5'
Gravel Pack: 10-20 Silica Sand	Hole Diameter: 2.25" Depth to Liquid: NA
Screen Type: PVC Slot: 0.010"	Diameter: 1" Length: 10'
	Total Depth: 14' Depth to Water: ~11'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
		0.00	None		0		ML	2-3' fine grain silt, tight	
					2	2-4	CL	3-4 Silty clay, pliable, tight, medium	X
		0.00	None		6	4-8	SM	4-5 Silty sand, fine grain	
					8		CL	5-7 sandy clay, soft, pliable	
		0.00	None	10-11 Sample	10	10-12	CL	7-8 Tight clay, hard	
					12		CL	10-12 SAA	
		0.00	None		14	12-14	CL	12-14 clayey sand, tight, medium	
					16		SC		
					18				
					20				
					22				
					24				
					26				
					28				
					30				

Location Map:



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## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

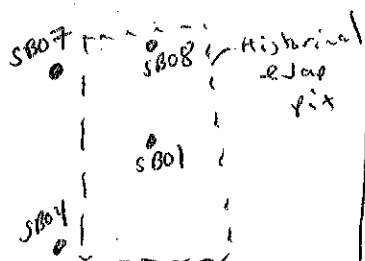
Boring/Well Number: <b>S806</b>	Project: <b>Eckhardt 1, 33-15</b>
Date: <b>3-29-12</b>	Project Number: <b>NA</b>
Logged By: <b>Jacob Evans</b>	Drilled By: <b>High Plains Drilling</b>
Drilling Method: <b>Direct Push</b>	Sampling Method: <b>Continuous</b>
Seal: <b>Bentonite</b>	Grout: <b>NA</b>
Casing Type: <b>PVC</b>	Diameter: <b>1"</b> Length: <b>5'</b>
Screen Type: <b>PVC</b> Slot: <b>0.010"</b>	Hole Diameter: <b>2.25"</b> Depth to Liquid: <b>NA</b>
	Total Depth: <b>14'</b> Depth to Water: <b>11'</b>

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
		0.00	None		0		ML	1-3 fine grain silt soft	X
					2	1-4	CL	3-4 Hard tight silty clay	X
					4				
					6	4-8	ML	4-5 sandy silt, fine grain	
		0.00	None		8		CL	5-6 stiff silty clay, medium, pliable	
					10	10-12			
					12		CL	7-8 medium clay	
					14	13-16	CL	10-11 tight, medium sandy clay	
					16		CL	11-12 tight clayey sand	
					18	17-20	CL	13-16 tight clayey sand fine grain, not pliable	
					20				
					22		SM	17-19 silty sand	
					24			19-20 Bedrock	
					26				
					28				
					30				



Location Map:

N↑



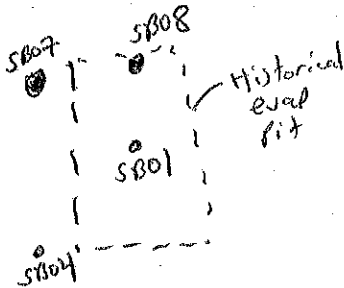
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## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	SB07	Project:	Eckhardt 1, 33-15
Date:	3-29-12	Project Number:	NA
Logged By:	Jacob Evans	Drilled By:	High Plains Drilling
Elevation:	N/A	Drilling Method:	Direct Push
Detector:	PID	Sampling Method:	Continuous
Gravel Pack:	10-20 Silica Sand	Seal:	Bentonite
Casing Type:	PVC	GROUT:	NA
Screen Type:	PVC	Diameter:	1"
Slot:	0.010"	Length:	5'
		Hole Diameter:	2.25"
		Depth to Liquid:	NA
		Total Depth:	14'
		Depth to Water:	11'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
		1.6	None		0		ML	1-4 clayey silt, not pliable loose	X
					2	1-4			
					4		ML	4-6 fine grain sand loose	
		642			6	4-8	CL	6-7 sandy clay, tight, medium, pliable	
		1126			8				
					10	10-12	CL	7-8 medium clay w/ fines tight gray stain/odor	
					12				
		1.3	None		14	13-16	CL	10-12 SAA stained gray / slight odor	
					16				
					18		CL	13-15 silty clay pliable tight medium	
					20		ML	15-16 clayey silt, tight, not pliable	
					22				
					24				
					26				
					28				
					30				

Location Map:



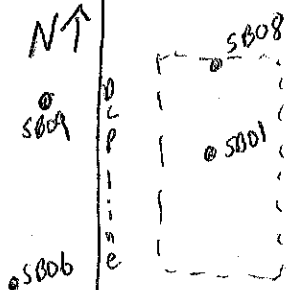
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## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	SB08	Project:	Eckhardt 1, 33-15	
Date:	3-29-12	Project Number:	NA	
Logged By:	Jacob Evans	Drilled By:	High Plains Drilling	
Drilling Method:	Direct Push	Sampling Method:	Continuous	
Seal:	Bentonite	Grout:	NA	
Diameter:	Length:	Hole Diameter:	Depth to Liquid:	
1"	5'	2.25"	NA	
Diameter:	Length:	Total Depth:	Depth to Water:	
1"	10'	14'	11'	

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
		0.00			0		CL	2'-4' Silty clay pliable	X
					2	2'-4'			X
					4				
					6	5-8	SM	5-7.5 loose silty sand fine grain	
		487		Sample 7'-8'	8		CL	7.5-8 hard, tight, clay	
		146			10	9-12		black/gray stain odor	
					12		CL	9-12 SAA	
		10.4			14	13-16	CL	13-15 silty clay / pliable / medium / tight	
		0.00	None		16		CL	gray stain / No odor	
					18			15-16 SAA No stain / No odor	
					20				
					22				
					24				
					26				
					28				
					30				

Location Map:



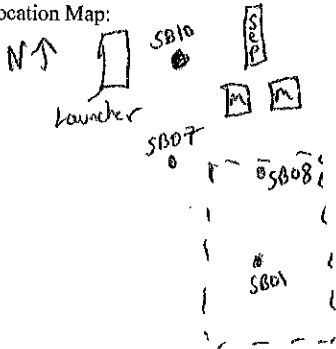
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## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: SB09	Project: Eckhardt 1, 33-15
Date: 3-29-12	Project Number: NA
Logged By: Jacob Evans	Drilled By: High Plains Drilling
Drilling Method: Direct Push	Sampling Method: Continuous
Seal: Bentonite	Grout: NA
Casing Type: PVC	Diameter: 1" Length: 5'
Screen Type: PVC	Slot: 0.010" Diameter: 1" Length: 10'
	Hole Diameter: 2.25" Depth to Liquid: NA
	Total Depth: 14' Depth to Water: 11'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
		0.00	None		0		SC	1-4 clayey sand, fine grain, not pliable	X
					2	1-4			
					4				
		0.00	None		6	5-8	CL	5-8 silty clay soft, tight pliable	
					8				
		0.00	None	10-11	10	9-12	ML	9-12 clayey silt, tight, not pliable	
					12				
		0.00	None		14	13-16	ML	13-16 SAA wet	
					16				
					18				
					20				
					22				
					24				
					26				
					28				
					30				

## Location Map:



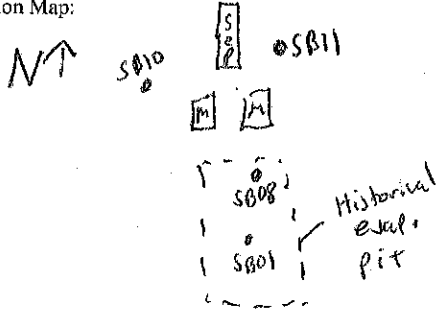
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## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	SB10	Project:	Eckhardt 1, 33-15
Date:	3-29-12	Project Number:	NA
Logged By:	Jacob Evans	Drilled By:	High Plains Drilling
Drilling Method:	Direct Push	Sampling Method:	Continuous
Seal:	Bentonite	Grout:	NA
Casing Type:	PVC	Diameter:	1"
Screen Type:	PVC	Slot:	0.010"
Gravel Pack:	10-20 Silica Sand	Length:	4'
		Hole Diameter:	2.25"
		Depth to Liquid:	NA
		Total Depth:	14'
		Depth to Water:	11'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				FLUSH
		0.00	None		2	2-4	CL	2-4 clay w/ fines soft plastic	X
					4				
		0.00	None		6	7-8	CL	7-8 SAA	
					8				
		0.00	None	sample 10-11	10	10-12	CL	10-12 SAA	
	wet				12	12-13	ML	11-12 fine grain sand loose	
					14			12-13 SAA	
					16				
					18				
					20				
					22				
					24				
					26				
					28				
					30			Bedrock @ 13'	

Location Map:



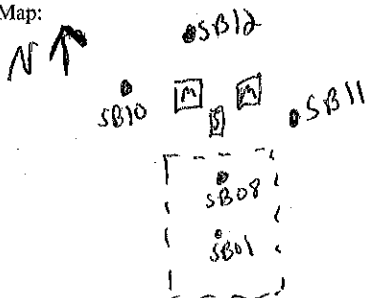
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## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	SB11	Project:	Eckhardt 1, 33-15
Date:	3-29-12	Project Number:	NA
Logged By:	Jacob Evans	Drilled By:	High Plains Drilling
Drilling Method:	Direct Push	Sampling Method:	Continuous
Seal:	Bentonite	Grout:	NA
Casing Type:	PVC	Diameter:	1"
Gravel Pack:	10-20 Silica Sand	Length:	5'
Screen Type:	PVC	Hole Diameter:	2.25"
Slot:	0.010"	Depth to Liquid:	NA
Diameter:	1"	Total Depth:	14'
Length:	16'	Depth to Water:	11'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
		0.00	None		0		SM	1-4' silty sand loose brown	FLUSH
					2	1-4			
					4				
					6		SM	5-8 SAA	
		0.00	None		8	5-8			
					10		ML	10-12 layer silt, not plastic	
				Sample 10-11	10-12				
		0.00	None		12		ML	12-13 SAA	
					14	12-16			
		0.00	None		16			Bedrock @ 13'	
					18				
					20				
					22				
					24				
					26				
					28				
					30				

Location Map:



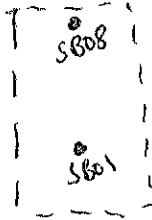
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## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	SB12	Project:	Eckhardt 1, 33-15
Date:	3-29-12	Project Number:	NA
Logged By:	Jacob Evans	Drilled By:	High Plains Drilling
Elevation:	N/A	Drilling Method:	Direct Push
Detector:	PID	Sampling Method:	Continuous
Gravel Pack:	10-20 Silica Sand	Seal:	Bentonite
Casing Type:	PVC	Grout:	NA
Screen Type:	PVC	Diameter:	1"
Slot:	0.010"	Length:	5'
		Hole Diameter:	2.25"
		Depth to Liquid:	NA
		Total Depth:	13'
		Depth to Water:	~10'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				Flush
			None		2	2-4	ML	2-4 - clayey silt, soft, not pliable	X
					4		ML	5-6 SAA	
			None		6	5-8	CL	6-8 Silty clay, tight, medium, pliable	
					8				
					10	9-12	CL	9-11 SAA / small spot of black staining	
					12	12-13		No odor @ 10'	
					14				
					16			11-13 bedrock No stain / No odor	
					18			Bedrock @ 11'	
					20				
					22				
					24				
					26				
					28				
					30				

Location Map:



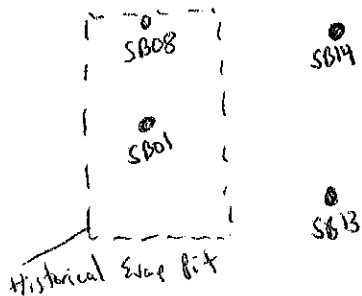
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**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number:	SB13	Project:	Eckhardt 1, 33-15
Date:	4/6/2012	Project Number:	NA
Logged By:	Jacob Evans	Drilled By:	High Plains Drilling
Elevation:	N/A	Drilling Method:	Direct Push
Detector:	PID	Sampling Method:	Continuous
Gravel Pack:	10-20 Silica Sand	Seal:	Bentonite
Casing Type:	PVC	Grout:	NA
Screen Type:	PVC	Diameter:	1"
Slot:	0.010"	Length:	5'
		Hole Diameter:	2.25"
		Depth to Liquid:	N/A
		Total Depth:	14'
		Depth to Water:	~11'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
		0.00	None		0		ML	1-2 clayey silt, not pliable	
					2	1-4	SM	2-4 silty sand loose fine grain	
					4		SM	4-6 SAA	
		0.00	None		6	4-8	CL	6-8 tight medium clay	
					8				
		0.00	None	① 10-11'	10	10-12	CL	10-12 SAA	
	wet				12				
		0.00	None		14	13-16	SC	tight clayey sand, not pliable, fine grain	
					16				
					18				
					20				
					22				
					24				
					26				
					28				
					30				

Location Map:



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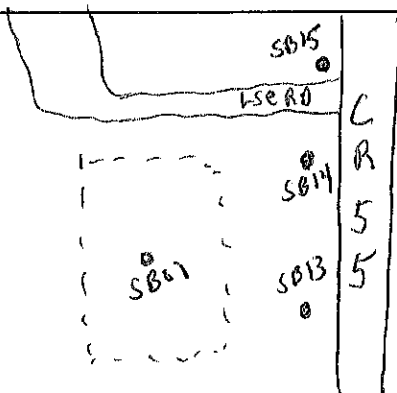
**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number:	SB14	Project:	Eckhardt 1, 33-15
Date:	4/6/2012	Project Number:	NA
Logged By:	Jacob Evans	Drilled By:	High Plains Drilling
Drilling Method:	Direct Push	Sampling Method:	Continuous
Seal:	Bentonite	Grout:	NA
Casing Type:	PVC	Diameter:	1"
		Length:	5'
Screen Type:	PVC	Hole Diameter:	2.25"
		Depth to Liquid:	N/A
Slot:	0.010"	Total Depth:	14'
		Depth to Water:	~11'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
			None		0		ML	1-2 clayey silt, fine grain, not pliable, tight	X
					2	1-4	ML	2-4 fine grain sand tight	X
			None		4		ML	5-6.5 SAA	
					6	5-8	ML	6.5-8 tight medium clay, pliable, gray black staining from 7.5'-8.0'	
		158			8		CL	10-12 tight medium clay staining from 10'-11'	
		213			10	10-12	CL	13-16 Silty clay medium / pliable	
					12		CL		
			None		14	12-16	CL		
					16				
					18				
					20				
					22				
					24				
					26				
					28				
					30				



Location Map:



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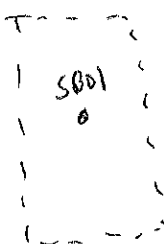
**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number:	SB 15	Project:	Eckhardt 1, 33-15
Date:	4/6/2012	Project Number:	NA
Logged By:	Jacob Evans	Drilled By:	High Plains Drilling
Drilling Method:	Direct Push	Sampling Method:	Continuous
Gravel Pack:	10-20 Silica Sand	Seal:	Bentonite
Casing Type:	PVC	Diameter:	1"
Screen Type:	PVC	Slot:	0.010"
		Length:	5'
		Hole Diameter:	2.25"
		Depth to Liquid:	N/A
		Total Depth:	14'
		Depth to Water:	~11'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
			None		0		ML	1-3 clayey silt loose not pliable	X
			None		2	1-4	ML	3-4 fine grain sand loose	X
			None		4				
			None		6	5-8	SC	5-8 clayey sand fine grain black stain from 7.5' - 8.0'	
		213	None	7-8'	8				
			None		10	8-12	CL	8-12 tight clayey sand fine grain no stain/odor	
	wet		None		12				
			None		14	13-16	ML	13-16 tight fine grain sand	
					16				
					18				
					20				
					22				
					24				
					26				
					28				
					30				

Location Map:

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## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	SB16	Project:	Eckhardt 1, 33-15
Date:	4/6/2012	Project Number:	NA
Logged By:	Jacob Evans	Drilled By:	High Plains Drilling
Drilling Method:	Direct Push	Sampling Method:	Continuous
Gravel Pack:	10-20 Silica Sand	Seal:	Bentonite
Casing Type:	PVC	Hole Diameter:	2.25"
Screen Type:	PVC	Slot:	0.010"
Diameter:	1"	Length:	5'
Screen Type:	PVC	Slot:	0.010"
Diameter:	1"	Length:	10'
Total Depth:	14'	Depth to Liquid:	N/A
Depth to Water:	~11'		

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
		0.00	None		0		ML	3-4 loose fine grain sand	X
					2	3-4			
					4				
		0.00	None		6	4-8	CL	4-8 silty clay tight	
					8			pliable	
		0.00	None		10	8-12	CL	8-12 tight medium clay	
					12				
		0.00	None		14	14-16	ML	14-16 tight clayey silt	
					16			not pliable	
					18				
					20				
					22				
					24				
					26				
					28				
					30				

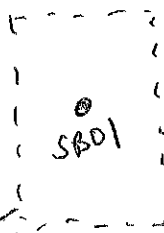
Location Map: 		 <b>Compliance • Engineering • Remediation</b> <b>LT Environmental, Inc.</b> 4600 W. 60th Avenue Arvada, Colorado 80003	
<b>BORING LOG/MONITORING WELL COMPLETION DIAGRAM</b>			
Boring/Well Number: <b>SB17</b>		Project: <b>Eckhardt 1, 33-15</b>	
Date: <b>4/6/2012</b>		Project Number: <b>NA</b>	
Logged By: <b>Jacob Evans</b>		Drilled By: <b>High Plains Drilling</b>	
Elevation: <b>N/A</b>	Detector: <b>PID</b>	Drilling Method: <b>Direct Push</b>	Sampling Method: <b>Continuous</b>
Gravel Pack: <b>10-20 Silica Sand</b>		Seal: <b>Bentonite</b>	Grout: <b>NA</b>
Casing Type: <b>PVC</b>	Diameter: <b>1"</b>	Length: <b>5'</b>	Hole Diameter: <b>2.25"</b>
			Depth to Liquid: <b>N/A</b>
Screen Type: <b>PVC</b>	Slot: <b>0.010"</b>	Diameter: <b>1"</b>	Length: <b>10'</b>
		Total Depth: <b>14'</b>	Depth to Water: <b>~11'</b>

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
					0		CL	2-3 silty clay medium	
					2	2-4	ML	3-4 loose fine grain sand	
			None		4				
					6	6-8	CL	6-8 medium clay, pliable, black staining 7-8'	
		543		@ 7-8'	8				
			None		10	10-12	CL	10-12 tight clay, medium, pliable	
					12				
			None		14	13-16	CL	13-16 SAA	
					16				
					18				
					20				
					22				
					24				
					26				
					28				
					30				

Location Map:

N ↑

Historical  
evap. pitC  
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5SB18  
SB17  
SB16

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## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: SB18		Project: Eckhardt 1, 33-15	
Date: 4/6/2012		Project Number: NA	
Logged By: Jacob Evans		Drilled By: High Plains Drilling	
Drilling Method: Direct Push		Sampling Method: Continuous	
Seal: Bentonite		Grout: NA	
Diameter: 1"	Length: 5'	Hole Diameter: 2.25"	Depth to Liquid: N/A
Diameter: 1"	Length: 10'	Total Depth: 12'	Depth to Water: ~10'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				
					2	1-4	ML	1-4 fine grain sand loose	X
			None		4				
					6	5-8	ML	5-8 clayey sand fine grain black stain @ 8'	
					8				
		56.3		8-9'	10	10-12	ML	9-11.5 SAA No stain/No odor	
	wet		None		12			11.5-12 Bedrock	
					14				
					16			Bedrock @ 11.5'	
					18				
					20				
					22				
					24				
					26				
					28				
					30				

Location Map:

N ↑

SB08  
SB01  
Historical  
exposed pit

C  
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SB18

SB17 SB19

SB16



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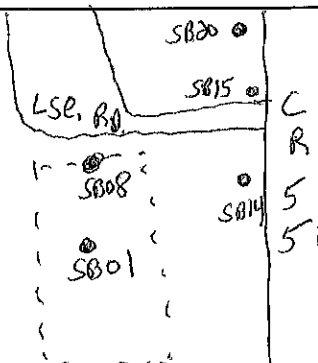
## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	SB19	Project:	Eckhardt 1, 33-15
Date:	4/6/2012	Project Number:	NA
Logged By:	Jacob Evans	Drilled By:	High Plains Drilling
Drilling Method:	Direct Push	Sampling Method:	Continuous
Gravel Pack:	10-20 Silica Sand	Seal:	Bentonite
Casing Type:	PVC	Hole Diameter:	2.25"
Screen Type:	PVC	Slot:	0.010"
Diameter:	1"	Length:	5'
Screen Type:	PVC	Slot:	0.010"
Diameter:	1"	Length:	10'
Total Depth:	14'	Depth to Liquid:	N/A
Depth to Water:	~11'		

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
		0.00	None		0		CL	2-4 silty clay soft pliable	X
					2	2-4			X
					4				
		0.00	None		6	5-8	ML	5-6 fine loose sand	
					8		CL	6-8 tight silty clay medium	
		0.00	None		10	10-12	CL	10-12 SAA	
	wet			② 10-11'	12				
High		0.00	None		14	12-14	CL	12-14 tight clayey sand fine grain	
					16				
					18			refusal @ 14'	
					20				
					22				
					24				
					26				
					28				
					30				

Location Map:

N↑



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## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	SB20	Project:	Eckhardt 1, 33-15
Date:	4/6/2012	Project Number:	NA
Logged By:	Jacob Evans	Drilled By:	High Plains Drilling
Drilling Method:	Direct Push	Sampling Method:	Continuous
Gravel Pack:	10-20 Silica Sand	Seal:	Bentonite
Casing Type:	PVC	Hole Diameter:	2.25"
Screen Type:	PVC	Slot:	0.010"
		Diameter:	1"
		Length:	5'
		Total Depth:	14'
		Depth to Liquid:	N/A
		Depth to Water:	11'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
		0.00	None		0		CL	1-4 silty clay soft pliable	X
		0.00	None		2	1-4	CL		X
		0.00	None		4		CL	6-8 sandy clay medium	
		0.00	None		6	6-8	CL		
		0.00	None		8		CL	10-12 tight silty clay pliable	
		0.00	None		10	10-12	CL		
		0.00	None		12		CL	12-14 sandy clay tight	
		0.00	None		14	12-14	CL		
					16			refusal @ 14'	
					18				
					20				
					22				
					24				
					26				
					28				
					30				