



December 31, 2008

Mr. Mike Cox  
Environmental Coordinator  
Noble Energy, Inc.  
804 Grand Avenue  
Platteville, Colorado 80651

RE: Fourth Quarter 2008 Remediation and Monitoring Report  
Frick 18 – 2 & 8 Natural Gas Wellhead Site  
Weld County, Colorado

Dear Mr. Cox:

LT Environmental, Inc. (LTE) was retained by Noble Energy, Inc. (Noble) to conduct corrective actions at the Frick 18 – 2 & 8 natural gas wellhead site (Site) located approximately 0.4 miles north of the intersection of Weld County Road (WCR) 44 and WCR 51 in Weld County, Colorado (Figure 1). LTE, on behalf of Noble, has completed remediation system design, installation, startup, and operation and maintenance (O&M) of the air sparging/soil vapor extraction (AS/SVE) system. LTE is continuing to conduct groundwater monitoring at the Site to evaluate groundwater impact documented in previous reports. This correspondence is provided as the fourth quarter 2008 remediation and monitoring report, and summarizes activities conducted at the Site from October 1, 2008 through December 31, 2008. Activities conducted during the reporting period included operations and maintenance of the remediation system, groundwater monitoring events, and equipment upgrades related to the replaced water well and associated infrastructure.

### **Remediation System Description**

The AS system is designed to introduce ambient air into the subsurface water column for dissolved hydrocarbon volatilization and to promote aerobic microbial decomposition of petroleum constituents. The SVE system is designed to volatilize petroleum constituents adsorbed onto soil particles and to remove petroleum vapors released from the groundwater by the AS process. AS and SVE wells are connected to a remediation equipment trailer housing the equipment for the AS/SVE systems. The remediation system installation is described in the previously submitted report *Remediation System Installation and Startup, and Pre-System Groundwater Sampling Results* dated September 11, 2008. The remediation system began operation at the Site on August 8, 2008.

### **Remediation System Operation and Maintenance**

O&M activities conducted in the reporting period included:

- Completion of routine, weekly, monthly, and quarterly O&M checks to monitor and adjust system performance;



- Troubleshooting of generator alternator and subsequent alternator replacement;
- Replacement of AS solenoid diaphragms;
- Generator maintenance, which included changing oil, and oil filters; and
- System shutdown and transport to another Noble facility (Becky 2-6 wellhead and tank battery) on November 14, 2008. The system is expected to be returned to this site in February 2009.

The remediation program for this Site includes continued intermittent operation of the AS/SVE system. Operation of the remediation system will be conducted continuously for an approximate three month period, followed by a three month static evaluation, with no remediation system operation occurring. This program will allow for continued removal of hydrocarbon impact along with static evaluations to determine which areas of the Site require continued operations.

In addition to remediation system O&M activities, work was conducted on the water supply system for the residence onsite. This work included replacement of the water well pump controller, installation of a new sealed subsurface equipment vault, and repair of the electrical service wiring.

### **Groundwater Sampling Procedures**

Two groundwater monitoring wells were sampled at the Site on November 14, 2008 to determine the remediation system influence while the system was operational. On November 24, 2008, eleven groundwater monitoring wells were sampled to determine the current plume extent following three months of remediation system operation. Prior to sampling, depth to groundwater in each monitoring well was measured and recorded for calculating purge volumes (Table 1). Each well was purged of three casing volumes and then groundwater samples were collected from the well points by advancing disposable 3/16-inch diameter polyvinyl chloride (PVC) tubing inside 1-inch diameter PVC casing and extending the 3/16-inch diameter tubing below the water table. A peristaltic pump was utilized to bring the groundwater samples to the surface for placement into laboratory prepared sample bottles. Groundwater samples were collected in 40-milliliter vials, placed on ice, and delivered under chain-of-custody (COC) protocol to Origins Laboratory located in Denver, Colorado. Samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) by Environmental Protection Agency Method 8260B.

### **Hydrogeology**

During the November 24, 2008 sampling event, the depths to static groundwater level ranged from 1.89 feet below top of casing (TOC) in SB11 to 7.18 feet below TOC in SB20 (Table 1). The groundwater flow direction was to the east with an average hydraulic gradient of approximately 0.014 feet per foot (ft/ft).



## **Groundwater Analytical Results**

The Colorado Department of Public Health and Environment has established Colorado Groundwater Quality Standards (CGWQS) for BTEX of 5.0 micrograms per liter ( $\mu\text{g/L}$ ), 1,000  $\mu\text{g/L}$ , 700  $\mu\text{g/L}$ , and 10,000  $\mu\text{g/L}$ , respectively. Table 2 summarizes groundwater analytical results for samples collected during all monitoring events. The laboratory analytical reports, laboratory quality assurance/quality control data, and COC documentation are presented in Attachment 1.

During the November 14, 2008 sampling event, two groundwater samples were collected (MW01 and SB16). During the November 24, 2008 sampling event, eleven groundwater samples were collected (MW01, MW02, SB03, SB11, SB15, SB16, SB20, SB21, SB23, SB24, and SB25). The remaining wells were not sampled because either they could not be located or they were not scheduled for quarterly monitoring. The November 24, 2008 Groundwater analytical results indicated that benzene was detected above the CGWQS during in monitoring wells MW01 and SB16 at concentrations of 9,210  $\mu\text{g/L}$  and 727  $\mu\text{g/L}$ , respectively. Benzene was also detected above the CGWQS at a concentration of 9,459  $\mu\text{g/L}$  in MW01 during the November 14, 2008 monitoring event. Total xylenes were detected above the CGWQS in monitoring well MW01 during the November 14 and 24, 2008 monitoring events. Total xylenes were detected above the CGWQS in monitoring well SB16 during the November 24, 2008 monitoring event. Toluene and ethylbenzene were not detected above laboratory detection limits or regulatory standards in the remaining samples. Groundwater analytical results for the November 2008 sampling events are summarized in Table 2 and illustrated on Figure 4.

## **Summary and Conclusions**

Current data suggest the remediation system has successfully decreased benzene concentrations in monitoring wells MW02 and SB20 into compliance with groundwater standards. Monitoring well SB16 indicated benzene concentrations in compliance with CGWQS during the November 14, 2008 event; however, when the monitoring well was sampled following 10 days of static conditions on November 24, 2008, benzene concentrations had increased to above the groundwater standards, but below historical highs. The change in benzene concentrations illustrates that the remediation system is positively influencing the groundwater impact in the SB16 area, with additional system operation required to complete remediation activities and achieve cleanup goals. As seen in the attached Table 1, high concentrations of benzene are still present at the Site and continued remediation system operation is recommended.

It is likely that many of the historically impacted monitoring wells were destroyed during system construction. Due to the absence of monitoring wells in the central plume area, LTE proposes installation/replacement of eight monitoring wells (SB01, SB02, SB06, SB07, SB08, SB09, SB10, and SB18). These wells will be replaced in January 2009, and will be used to optimize and monitor remediation system performance. The next groundwater sampling event will be conducted in February 2009. Groundwater monitoring will continue to be conducted at the Site on a quarterly basis, until site closure status is received from the COGCC. Active remediation will be re-initiated at the site in February 2009.



LTE appreciates the opportunity to provide environmental services to Noble. Please call us at 303-433-9788 if you have any questions or comments regarding this report.

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read 'Rob Rebel'.

Rob Rebel, E.I.T.  
Project Manager

A handwritten signature in black ink, appearing to read 'Steve Kahn'.

Steve Kahn, P.E.  
Senior Engineer

Attachments

Figure 1: Site Map

Figure 2: AS System Layout

Figure 3: SVE System Layout

Figure 4: Groundwater Analytical Results – November 12 & 24, 2008

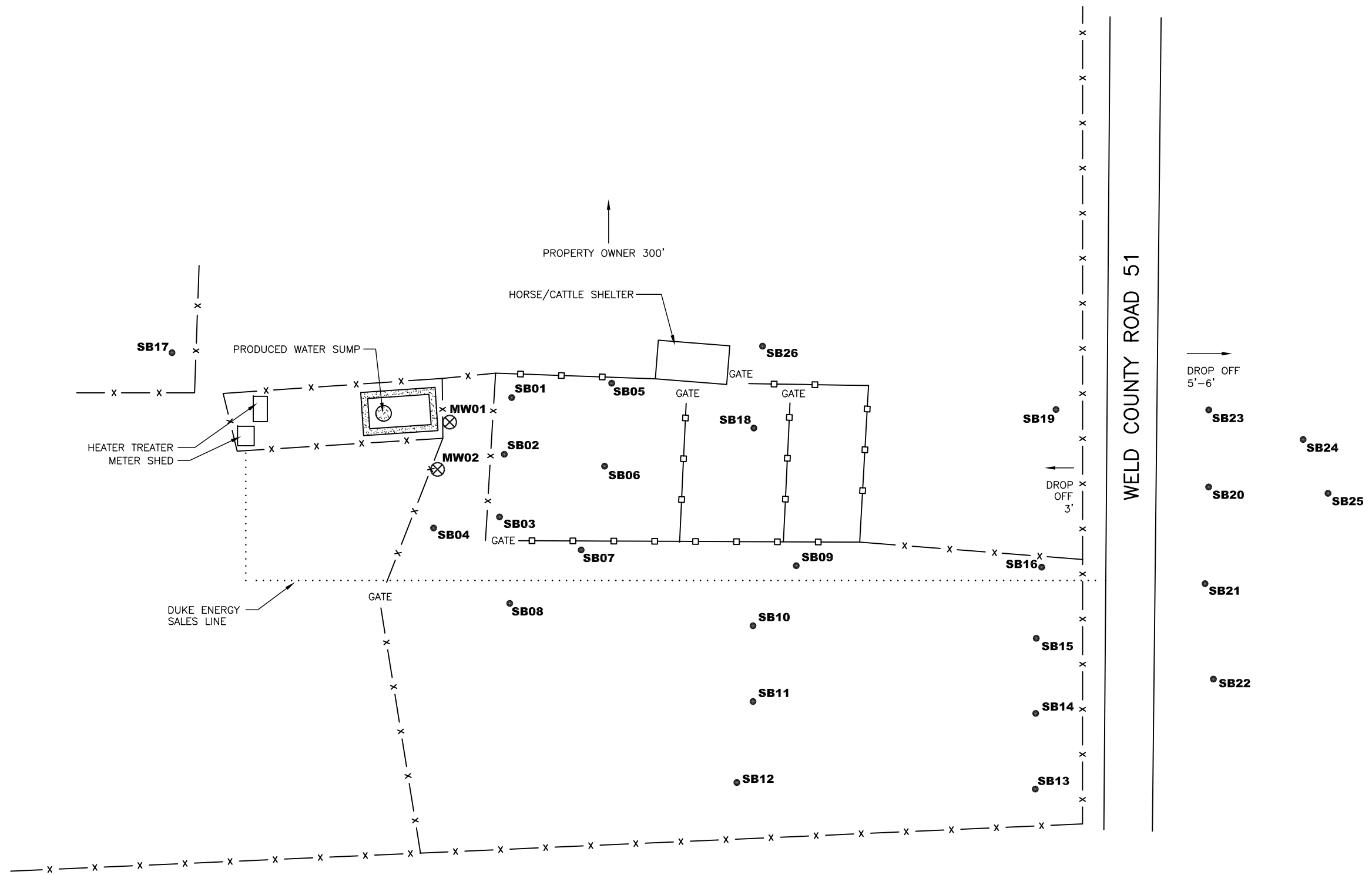
Table 1: Groundwater Elevation Summary

Table 2: Groundwater Analytical Results – Volatile Organic Compounds



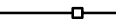
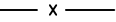

Attachment 1: Laboratory Analytical Report

## FIGURES





**LEGEND**

- MW01  MONITORING WELL LOCATION
- SB01  SOIL BORING/TEMPORARY MONITORING WELL LOCATION
-  METAL PIPE FENCE
-  BARBED WIRE FENCE
-  BERM

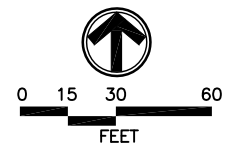
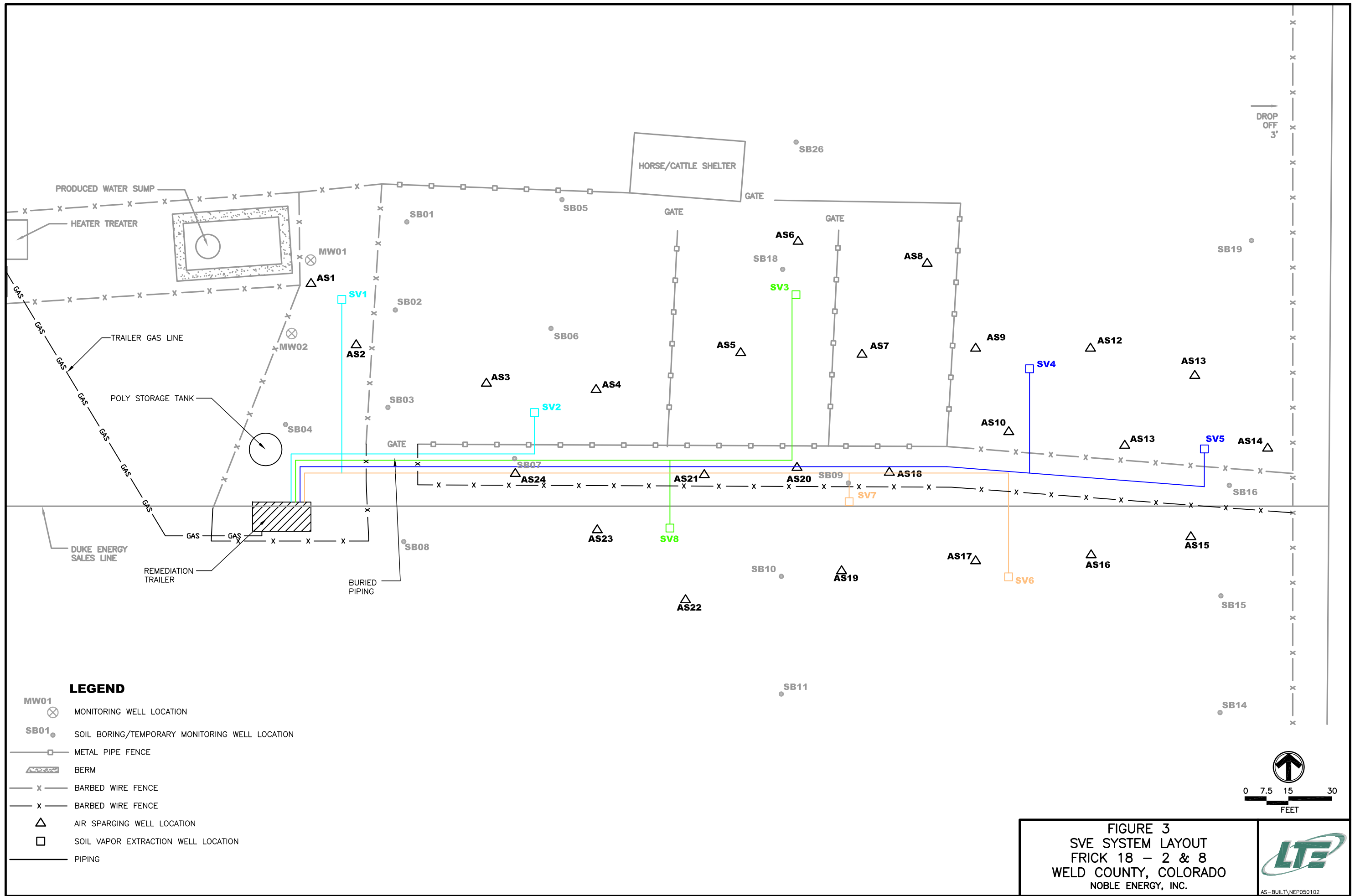


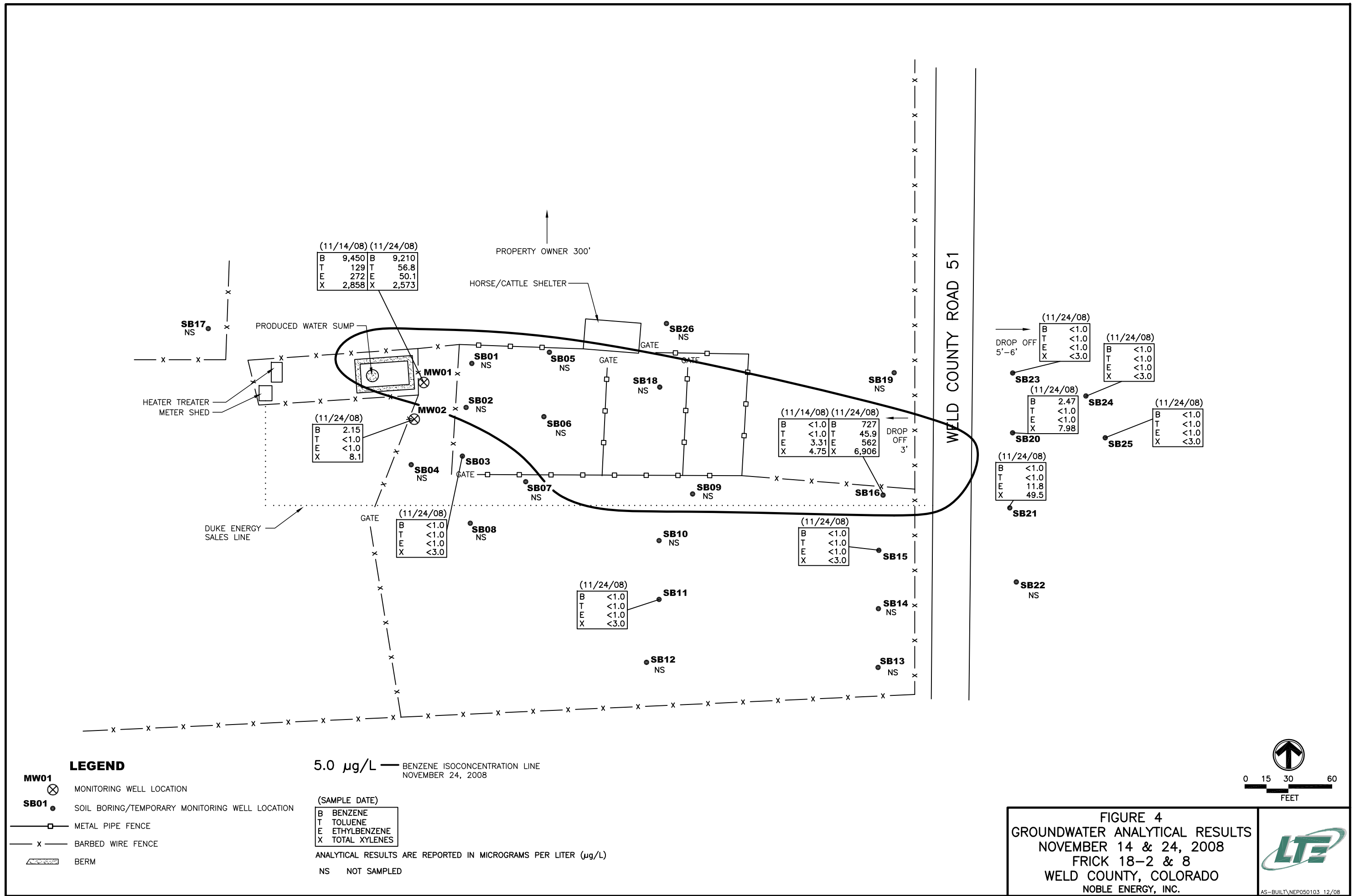
FIGURE 1  
SITE MAP  
FRICK 18-2 & 8  
WELD COUNTY, COLORADO  
NOBLE ENERGY, INC.











## TABLES

**TABLE 1  
GROUNDWATER ELEVATION SUMMARY**

**FRICK 18 - 2 & 8  
WELD COUNTY, COLORADO  
NOBLE ENERGY, INC.**

<b>Well ID</b>	<b>Date</b>	<b>Total Depth (ft)</b>	<b>Depth to Water (ft)</b>	<b>TOC Elevation (ft)</b>	<b>Groundwater Elevation (relative ft)</b>
MW01	10/11/05	17.78	8.80	96.33	87.53
	01/20/06	17.78	8.23	96.33	88.10
	03/28/07	17.78	7.63	96.33	88.70
	08/05/08	17.78	6.27	96.33	90.06
	11/14/08	17.78	4.32	96.33	92.01
	11/24/08	17.78	3.49	96.33	92.84
MW02	10/11/05	18.39	9.68	96.83	87.15
	01/20/06	18.39	8.78	96.83	88.05
	03/28/07	18.39	7.95	96.83	88.88
	08/05/08	18.39	6.51	96.83	90.32
	11/24/08	18.39	3.78	96.83	93.05
SB01	10/11/05	14.98	8.72	95.82	87.10
SB02	10/11/05	12.68	9.24	96.06	86.82
	01/20/06	12.68	8.35	96.06	87.71
	03/28/07	12.68	7.62	96.06	88.44
SB03	10/11/05	15.01	9.50	96.06	86.56
	01/20/06	15.01	8.45	96.06	87.61
	03/28/07	15.01	7.64	96.06	88.42
	08/05/08	15.01	6.34	96.06	89.72
	11/24/08	15.01	3.44	96.06	92.62
SB04	10/11/05	12.86	10.04	97.26	87.22
SB05	10/11/05	12.09	8.18	94.48	86.30
SB06	10/11/05	12.27	8.56	94.71	86.15
	01/20/06	12.27	7.60	94.71	87.11
	03/28/07	12.27	6.94	94.71	87.77
SB07	10/11/05	12.30	8.86	94.98	86.12
	01/20/06	12.30	7.85	94.98	87.13
	03/28/07	12.30	7.18	94.98	87.80
SB08	01/20/06	12.18	7.79	NM	NM
	03/28/07	12.18	6.90	NM	NM
SB09	01/20/06	15.04	7.25	NM	NM
	03/28/07	15.04	6.84	NM	NM
SB10	10/11/05	11.71	8.06	93.04	84.98
	01/20/06	11.71	6.98	93.04	86.06
	03/28/07	11.71	6.50	93.04	86.54
	08/05/08	11.71	5.12	93.04	87.92
SB11	10/11/05	11.95	7.80	92.87	85.07
	01/20/06	11.95	6.66	92.87	86.21
	03/28/07	11.95	6.06	92.87	86.81
	08/05/08	11.95	4.75	92.87	88.12
	11/24/08	11.95	1.89	92.87	90.98
SB12	10/11/05	11.68	8.23	93.04	84.81
	01/20/06	11.68	6.86	93.04	86.18
	03/28/07	11.68	6.13	93.04	86.91
SB13	10/11/05	11.79	10.23	92.27	82.04
	01/20/06	11.79	9.35	92.27	82.92
	03/28/07	11.79	8.59	92.27	83.86



**TABLE 1 (CONTINUED)**  
**GROUNDWATER ELEVATION SUMMARY**

**FRICK 18 - 2 & 8**  
**WELD COUNTY, COLORADO**  
**NOBLE ENERGY, INC.**

<b>Well ID</b>	<b>Date</b>	<b>Total Depth (ft)</b>	<b>Depth to Water (ft)</b>	<b>TOC Elevation (ft)</b>	<b>Groundwater Elevation (relative ft)</b>
SB14	10/11/05	12.11	9.95	92.63	82.68
	01/20/06	12.11	9.01	92.63	83.62
	03/28/07	12.11	8.83	92.63	83.80
	08/05/08	12.11	6.07	92.63	86.56
SB15	10/11/05	12.01	10.05	92.80	82.75
	01/20/06	12.01	9.11	92.80	83.69
	03/28/07	12.01	8.95	92.80	83.85
	08/05/08	12.01	7.51	92.80	85.29
	11/24/08	12.01	5.29	92.80	87.51
SB16	10/11/05	12.06	9.27	92.21	82.94
	01/20/06	12.06	8.38	92.21	83.83
	03/28/07	12.06	8.26	92.21	83.95
	08/05/08	12.06	6.96	92.21	85.25
	11/14/08	12.06	5.62	92.21	86.59
	11/24/08	12.06	4.81	92.21	87.40
SB17	10/11/05	14.56	11.02	101.25	90.23
SB18	10/11/05	12.00	8.66	93.63	84.97
	01/20/06	12.00	7.72	93.63	85.91
SB19	10/11/05	12.08	9.23	92.37	83.14
	01/20/06	12.08	8.39	92.37	83.98
	03/28/07	12.08	8.27	92.37	84.10
SB20	10/11/05	13.27	11.54	93.31	81.77
	01/20/06	13.27	8.65	93.31	84.66
	03/28/07	13.27	10.37	93.31	82.94
	08/05/08	13.27	9.38	93.31	83.93
	11/24/08	13.27	7.18	93.31	86.13
SB21	10/11/05	13.90	9.91	91.36	81.45
	01/20/06	13.90	7.89	91.36	83.47
	03/28/07	13.90	9.60	91.36	81.76
	11/24/08	13.90	5.13	92.36	87.23
SB22	10/11/05	13.93	9.31	90.57	81.26
SB23	10/11/05	13.70	8.40	89.98	81.58
	01/20/06	13.70	7.15	89.98	82.83
	03/28/07	13.70	8.88	89.98	81.10
	11/24/08	13.70	4.19	89.98	85.79
SB24	10/11/05	13.69	8.00	88.90	80.90
	01/20/06	13.69	6.65	88.90	82.25
	03/28/07	13.69	8.58	88.90	80.32
	11/24/08	13.69	3.72	88.90	85.18
SB25	10/11/05	13.77	7.90	88.48	80.58
	11/24/08	13.77	3.58	89.48	85.90
SB26	10/11/05	11.94	8.91	93.85	84.94

**Notes:**

ft - feet

NM - Not measured

All depths measured from the north side of the top of the casing (TOC).



**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS**

**FRICK 18 - 2 & 8**  
**WELD COUNTY, COLORADO**  
**NOBLE ENERGY, INC**

Sample ID	Sample Date	Volatile Organic Compounds (ug/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW01	10/11/2005	<b>1,200</b>	4.2	150	562
	1/20/2006	<b>1,700</b>	<20	39	337
	3/28/2007	<b>1,200</b>	<20.0	27	260
	8/5/2008	<b>7,770</b>	111	97.6	812.2
	11/14/2008	<b>9,450</b>	129	272	<b>2,858</b>
	11/24/2008	<b>9,210</b>	56.8	50.1	<b>2,573</b>
MW02	10/11/2005	<b>390</b>	<1.0	15	285
	1/20/2006	<1.0	<1.0	<1.0	<3.0
	3/28/2007	1.5	<2.0	<2.0	7.2
	8/5/2008	<b>53.8</b>	<1.0	66.7	381.7
	11/24/2008	2.15	<1.0	<1.0	8.1
SB01	6/16/2005	< 1.0	< 1.0	< 1.0	<3.0
SB02	6/16/2005	<b>48</b>	39.8	508	<b>7,160</b>
	10/11/2005	3.6	<1.0	170	<b>7,078</b>
	1/20/2006	<1.0	<1.0	190	586
	3/28/2007	1.2	<2.0	49	38
SB03	6/16/2005	<b>630</b>	892	182	<b>2,070</b>
	10/11/2005	<b>4,800</b>	280	280	<b>2,150</b>
	1/20/2006	<b>2,400</b>	38	170	960
	3/28/2007	<b>350</b>	<20.0	230	1,300
	8/5/2008	< 1.0	< 1.0	< 1.0	3.41
	11/24/2008	<1.0	<1.0	<1.0	<3.0
SB04	6/16/2005	4.8	31.7	46.0	62.6
SB05	6/16/2005	< 1.0	2.9	3.5	41.8
SB06	6/16/2005	<b>9.1</b>	80.3	106	881
	10/11/2005	2.9	<1.0	47	221
	1/20/2006	<1.0	<1.0	16	61.5
	3/28/2007	<1.0	<2.0	<2.0	<6.0
SB07	6/16/2005	<b>7,120</b>	<b>3,090</b>	433	<b>4,610</b>
	10/11/2005	<b>6,400</b>	200	510	1,000
	1/20/2006	<b>3,300</b>	1.2	230	<b>1,698</b>
	3/28/2007	<b>2,100</b>	<100.0	210	<b>1,800</b>
SB08	6/16/2005	<b>69.0</b>	80.4	15.5	175
	1/20/2006	<1.0	<1.0	<1.0	<3.0
	3/28/2007	<1.0	<2.0	<2.0	<6.0
SB09	6/16/2005	<b>11.1</b>	7.1	2.4	27.8
	1/20/2006	<b>1,800</b>	<1.0	130	1,016
	3/28/2007	<b>68</b>	<2.0	25	200
SB10	6/16/2005	<b>3,260</b>	<b>1,180</b>	211	<b>2,910</b>
	10/11/2005	<b>1,900</b>	450	230	<b>2,030</b>
	1/20/2006	<b>1,900</b>	150	170	1,350
	3/28/2007	<b>1,600</b>	<20.0	190	<b>1,756</b>
	8/5/2008	<b>40.6</b>	<1.0	33.0	68.1
SB11	6/17/2005	<b>17.6</b>	57.4	185	590
	10/14/2005	1.8	<1.0	92	240
	1/20/2006	<1.0	<1.0	15	34
	3/28/2007	<1.0	<2.0	7.9	12
	8/5/2008	<1.0	<1.0	<1.0	<3.0
	11/24/2008	<1.0	<1.0	<1.0	<3.0
SB12	6/17/2005	<b>15.1</b>	28.7	10.2	103
	10/11/2005	1.1	<1.0	<1.0	2.1
	1/20/2006	<1.0	<1.0	<1.0	<3.0
	3/28/2007	<1.0	<2.0	<2.0	<6.0
SB13	6/17/2005	<b>9.2</b>	17.3	6.1	65.4
	10/11/2005	2.4	<1.0	<1.0	4.6
	1/20/2006	<1.0	<1.0	<1.0	<3.0
	3/28/2007	<1.0	<2.0	<2.0	<6.0



**TABLE 2 (CONTINUED)**  
**GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS**

**FRICK 18 - 2 & 8**  
**WELD COUNTY, COLORADO**  
**NOBLE ENERGY, INC**

Sample ID	Sample Date	Volatile Organic Compounds (ug/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
SB14	6/17/2005	<b>7.5</b>	15.4	7.0	66.3
	10/11/2005	<b>17</b>	<1.0	54	150
	1/20/2006	1.0	<1.0	5.3	5.6
	3/28/2007	<1.0	<2.0	<2.0	<6.0
	8/5/2008	<1.0	<1.0	<1.0	<3.0
SB15	6/17/2005	<b>21.4</b>	19.0	35.0	812
	10/11/2005	<b>14</b>	<1.0	15	110
	1/20/2006	<1.0	<1.0	5.4	<3.0
	3/28/2007	2.9	<2.0	61.0	101.7
	8/5/2008	<1.0	<1.0	<1.0	<3.0
	11/24/2008	<1.0	<1.0	<1.0	<3.0
SB16	6/17/2005	<b>7,630</b>	<b>8,210</b>	463	<b>6,770</b>
	10/11/2005	<b>5,400</b>	<b>4,600</b>	470	<b>5,280</b>
	1/20/2006	<b>4,300</b>	<b>4,300</b>	290	<b>3,530</b>
	3/28/2007	<b>2,600</b>	<b>4,400</b>	400	<b>5,860</b>
	8/5/2008	<b>933</b>	86.7	395	<b>3,831</b>
	11/14/2008	<1.0	<1.0	3.31	4.75
	11/24/2008	<b>727</b>	45.9	562	<b>6,906</b>
SB17	6/27/2005	< 1.0	< 1.0	< 1.0	< 3.0
SB18	6/17/2005	<b>1,060</b>	190	6.2	870
	10/11/2005	<b>1,000</b>	18	290	<b>2,778</b>
	1/20/2006	<b>41</b>	50	35	700
SB19	6/17/2005	<b>29.9</b>	51.3	9.6	109
	10/11/2005	<1.0	<1.0	<1.0	<3.0
	1/20/2006	<1.0	<1.0	<1.0	<3.0
	3/28/2007	<1.0	<2.0	<2.0	<6.0
SB20	7/18/2005	<b>5,640</b>	< 10	321	<b>4,780</b>
	10/11/2005	<b>2,800</b>	2.0	260	<b>2,500</b>
	1/20/2006	<b>&lt;50</b>	<50	<1.0	2.8
	3/28/2007	<b>140</b>	<2.0	21	130
	8/5/2008	<b>25.3</b>	<1.0	28.9	200.46
	11/24/2008	2.74	<1.0	<1.0	7.98
SB21	7/18/2005	<b>209</b>	< 1.0	1.9	22.3
	10/11/2005	<b>11</b>	< 1.0	<1.0	<3.0
	1/20/2006	<1.0	<1.0	<1.0	<3.0
	3/28/2007	<1.0	<2.0	<2.0	<6.0
	11/24/2008	<1.0	<1.0	11.8	49.5
SB22	7/18/2005	< 1.0	< 1.0	< 1.0	3.2
SB23	7/18/2005	<b>13.2</b>	< 1.0	1.5	22.8
	10/11/2005	<1.0	< 1.0	<1.0	<3.0
	1/20/2006	1.0	<1.0	<1.0	<3.0
	3/28/2007	<1.0	<2.0	<2.0	<6.0
	11/24/2008	<1.0	<1.0	<1.0	<3.0
SB24	7/18/2005	<b>21.0</b>	< 1.0	2.7	38.9
	10/11/2005	<1.0	<1.0	<1.0	<3.0
	1/20/2006	<1.0	< 1.0	<1.0	<3.0
	3/28/2007	<1.0	<2.0	<2.0	<6.0
	11/24/2008	<1.0	<1.0	<1.0	<3.0
SB25	7/18/2005	< 1.0	< 1.0	< 1.0	7
	11/24/2008	<1.0	<1.0	<1.0	<3.0
SB26	7/18/2005	1.8	4.7	51.4	648
Water Well	6/17/2005	< 1.0	< 1.0	< 1.0	< 3.0
	10/11/2005	< 1.0	< 1.0	< 1.0	< 3.0
	1/20/2006	< 1.0	< 1.0	< 1.0	< 3.0
	3/28/2007	<1.0	<2.0	<2.0	<6.0
<b>CGWQS</b>		<b>5.0</b>	<b>1,000</b>	<b>700</b>	<b>1,400</b>

**Notes:**

ug/L - micrograms per liter.

CGWQS - Colorado Groundwater Quality Standard.

**Bold** indicates concentration exceeds the CGWQS.

Analysis by Environmental Protection Agency Method 8260B.

< indicates analytical result is less than the laboratory detection limit



**ATTACHMENT 1**  
**LABORATORY ANALYTICAL REPORT**





4640 Pecos Street | Unit C | Denver, Colorado 80211  
303.433.1322 Phone 303.265.9645 Fax

---

December 04, 2008

---

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

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

---

Attached are the analytical results for Frick 18-2&8 received by Origins Laboratory, Inc. 11/24/2008 3:08:00PM. Please let us know if you have any questions, or if we can help with anything at all.

Laboratory Manager  
Noelle E Doyle

The analytical results in the following report were analyzed under the guidelines of EPA Methods specified in SW-846. The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. This laboratory report is intended solely for the above addressee and it is only to be used and or reproduced in its entirety.



4640 Pecos Street | Unit C  
Denver, Colorado 80211  
303.433.1322 | Laboratory  
303.265.9645 | Fax



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

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

#### CROSS REFERENCE REPORT

Laboratory ID	Sample ID	Matrix	Sampled	Date Received
MW01	X811095-01	Water	11/24/2008 12:30:00PM	11/24/2008 15:08
MW02	X811095-02	Water	11/24/2008 12:35:00PM	11/24/2008 15:08
SB15	X811095-03	Water	11/24/2008 12:40:00PM	11/24/2008 15:08
SB16	X811095-04	Water	11/24/2008 12:45:00PM	11/24/2008 15:08
SB20	X811095-05	Water	11/24/2008 12:55:00PM	11/24/2008 15:08
SB21	X811095-06	Water	11/24/2008 1:00:00PM	11/24/2008 15:08
SB23	X811095-07	Water	11/24/2008 1:05:00PM	11/24/2008 15:08
SB24	X811095-08	Water	11/24/2008 1:10:00PM	11/24/2008 15:08
SB25	X811095-09	Water	11/24/2008 1:40:00PM	11/24/2008 15:08
SB03	X811095-10	Water	11/24/2008 12:40:00PM	11/24/2008 15:08
SB11	X811095-11	Water	11/24/2008 12:45:00PM	11/24/2008 15:08

Origins Laboratory, Inc.

Noelle E Doyle, Laboratory Manager

*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.*

4640 Pecos Street | Unit C  
Denver, Colorado 80211  
303.433.1322 | Laboratory  
303.265.9645 | Fax



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

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

X811095  
page 1 of 1



originslaboratory.com

Client: LTE  
Address: 4600 W 60th Ave  
Arvada CO 80003  
Telephone Number: DNFILE  
E-Mail Address: DNFILE

Project Manager: BDD  
Project Name: Frick 18-2  
Project Number: NEP 0505  
Samples Collected by: TED

Sample ID - Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other - HCl	Soil	Groundwater	Air - Summa Canister #		
MW01	11/24	1230	3	X	X	X	X	X	X	X	X	1
MW02	11/24	1235		X	X	X	X	X	X	X	X	2
SB15	11/24	1240		X	X	X	X	X	X	X	X	3
PL 16	11/24	1245		X	X	X	X	X	X	X	X	4
PL 19	11/24	1250		X	X	X	X	X	X	X	X	5
20	11/24	1255		X	X	X	X	X	X	X	X	6
21	11/24	1300		X	X	X	X	X	X	X	X	7
23	11/24	1305		X	X	X	X	X	X	X	X	8
24	11/24	1310		X	X	X	X	X	X	X	X	9
25	11/24	1340		X	X	X	X	X	X	X	X	10

Relinquished by: [Signature] Date: 11/24/08 Time: 15:08  
Received by: [Signature] Date: 11/24/08 Time: 15:08  
Temperature Upon Receipt: 3.3°C  
Turn Around Time: 24-hr 48-hr 72-hr Standard

Per Brian Dodek's Request: Not Sampled - 11/24/08

4640 North Pecos Street | Unit C | Denver, Colorado 80211 | Laboratory - 303.433.1322 | Fax - 303.265.9645

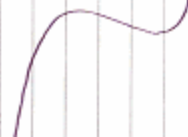
Origins Laboratory, Inc.

Noelle E Doyle

Noelle E Doyle, Laboratory Manager

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.

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

Sample ID - Description	Date Sampled	Time Sampled	Number of Containers	Preservative					Matrix	Analysis	10	
				Unpreserved	HCl	HNO <sub>3</sub>	Other -	Groundwater				Soil
SB03	11-24-08	1240	3		X							
SB11	11-24-08	1245	3		X							
<div style="text-align: center;">  </div>												
Requisitioned by: TED	Date: 11-24-08	Time: 1508	Received by: [Signature]	Date: 11-24-08	Time: 1508							
Requisitioned by: [Signature]	Date: 11-24-08	Time: 1508	Received by: [Signature]	Date: 11-24-08	Time: 1508							
						Turn Around Time:						
						Same Day		24-hr		72-hr		
						48-hr		Standard				

4640 North Pecon Street Unit C Denver, Colorado 80217 Laboratory - 303.433.1322 Fax - 303.265.9645

Naucke

*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.*

4640 Pecos Street | Unit C  
Denver, Colorado 80211  
303.433.1322 | Laboratory  
303.265.9645 | Fax



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

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

**MW01**

**X811095-01 (Water)**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

**Origins Laboratory, Inc.**

**BTEX by EPA 8260B**

Benzene	9.21	0.0500	mg/L	50	8L01002	12/01/2008	12/01/2008
Toluene	0.0568	0.00100	"	1	"	"	12/02/2008
Ethylbenzene	0.0501	0.00100	"	"	"	"	12/01/2008
o-Xylene	0.253	0.0500	"	50	"	"	"
m,p-Xylene	2.32	0.100	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	94.2 %	70.3-123	"	"	12/02/2008
Surrogate: Toluene-d8	104 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	98.5 %	83-123	"	"	"

Origins Laboratory, Inc.

Noelle E Doyle, Laboratory Manager

*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.*

4640 Pecos Street | Unit C  
Denver, Colorado 80211  
303.433.1322 | Laboratory  
303.265.9645 | Fax



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

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

**MW02**

**X811095-02 (Water)**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

**Origins Laboratory, Inc.**

**BTEX by EPA 8260B**

Benzene	0.00215	0.00100	mg/L	1	8L01002	12/01/2008	12/01/2008
Toluene	ND	0.00100	"	"	"	"	"
Ethylbenzene	ND	0.00100	"	"	"	"	"
o-Xylene	ND	0.00100	"	"	"	"	"
m,p-Xylene	0.00810	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	98.9 %	70.3-123	"	"	"
Surrogate: Toluene-d8	109 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	83-123	"	"	"

Origins Laboratory, Inc.

*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.*

Noelle E Doyle, Laboratory Manager

4640 Pecos Street | Unit C  
Denver, Colorado 80211  
303.433.1322 | Laboratory  
303.265.9645 | Fax



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

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

**SB15**

**X811095-03 (Water)**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

**Origins Laboratory, Inc.**

**BTEX by EPA 8260B**

Benzene	ND	0.00100	mg/L	1	8L01002	12/01/2008	12/01/2008
Toluene	ND	0.00100	"	"	"	"	"
Ethylbenzene	ND	0.00100	"	"	"	"	"
o-Xylene	ND	0.00100	"	"	"	"	"
m,p-Xylene	ND	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	99.6 %	70.3-123	"	"	"
Surrogate: Toluene-d8	109 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	83-123	"	"	"

Origins Laboratory, Inc.

*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.*

Noelle E Doyle, Laboratory Manager

4640 Pecos Street | Unit C  
Denver, Colorado 80211  
303.433.1322 | Laboratory  
303.265.9645 | Fax



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

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

**SB16**  
**X811095-04 (Water)**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

**Origins Laboratory, Inc.**

**BTEX by EPA 8260B**

Benzene	<b>0.727</b>	0.0200	mg/L	20	8L01002	12/01/2008	12/02/2008
Toluene	<b>0.0459</b>	0.00100	"	1	"	"	12/01/2008
Ethylbenzene	<b>0.562</b>	0.0200	"	20	"	"	"
o-Xylene	<b>0.656</b>	0.0200	"	"	"	"	12/02/2008
m,p-Xylene	<b>6.25</b>	0.0400	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	84.7 %	70.3-123	"	"	12/01/2008
Surrogate: Toluene-d8	97.9 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	83-123	"	"	"

Origins Laboratory, Inc.

Noelle E Doyle, Laboratory Manager

*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.*

4640 Pecos Street | Unit C  
Denver, Colorado 80211  
303.433.1322 | Laboratory  
303.265.9645 | Fax



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

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

**SB20**

**X811095-05 (Water)**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

**Origins Laboratory, Inc.**

**BTEX by EPA 8260B**

Benzene	<b>0.00274</b>	0.00100	mg/L	1	8L01002	12/01/2008	12/01/2008
Toluene	ND	0.00100	"	"	"	"	"
Ethylbenzene	ND	0.00100	"	"	"	"	"
o-Xylene	ND	0.00100	"	"	"	"	"
m,p-Xylene	<b>0.00798</b>	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	96.0 %	70.3-123	"	"	"
Surrogate: Toluene-d8	112 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	104 %	83-123	"	"	"

Origins Laboratory, Inc.

*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.*

Noelle E Doyle, Laboratory Manager



4640 Pecos Street | Unit C  
Denver, Colorado 80211  
303.433.1322 | Laboratory  
303.265.9645 | Fax



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

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

**SB21**

**X811095-06 (Water)**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

**Origins Laboratory, Inc.**

**BTEX by EPA 8260B**

Benzene	ND	0.00100	mg/L	1	8L01002	12/01/2008	12/01/2008
Toluene	ND	0.00100	"	"	"	"	"
Ethylbenzene	<b>0.0118</b>	0.00100	"	"	"	"	"
o-Xylene	ND	0.00100	"	"	"	"	"
m,p-Xylene	<b>0.0495</b>	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	98.0 %	70.3-123	"	"	"
Surrogate: Toluene-d8	108 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	104 %	83-123	"	"	"

Origins Laboratory, Inc.

*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.*

Noelle E Doyle, Laboratory Manager

4640 Pecos Street | Unit C  
Denver, Colorado 80211  
303.433.1322 | Laboratory  
303.265.9645 | Fax



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

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

**SB23**

**X811095-07 (Water)**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

**Origins Laboratory, Inc.**

**BTEX by EPA 8260B**

Benzene	ND	0.00100	mg/L	1	8L01002	12/01/2008	12/01/2008
Toluene	ND	0.00100	"	"	"	"	"
Ethylbenzene	ND	0.00100	"	"	"	"	"
o-Xylene	ND	0.00100	"	"	"	"	"
m,p-Xylene	ND	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	97.5 %	70.3-123	"	"	"
Surrogate: Toluene-d8	109 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	83-123	"	"	"

Origins Laboratory, Inc.

*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.*

Noelle E Doyle, Laboratory Manager

4640 Pecos Street | Unit C  
Denver, Colorado 80211  
303.433.1322 | Laboratory  
303.265.9645 | Fax



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

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

**SB24**

**X811095-08 (Water)**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

**Origins Laboratory, Inc.**

**BTEX by EPA 8260B**

Benzene	ND	0.00100	mg/L	1	8L01002	12/01/2008	12/01/2008
Toluene	ND	0.00100	"	"	"	"	"
Ethylbenzene	ND	0.00100	"	"	"	"	"
o-Xylene	ND	0.00100	"	"	"	"	"
m,p-Xylene	ND	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	97.9 %	70.3-123	"	"	"
Surrogate: Toluene-d8	110 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	83-123	"	"	"

Origins Laboratory, Inc.

*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.*

Noelle E Doyle, Laboratory Manager

4640 Pecos Street | Unit C  
Denver, Colorado 80211  
303.433.1322 | Laboratory  
303.265.9645 | Fax



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

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

**SB25**

**X811095-09 (Water)**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

**Origins Laboratory, Inc.**

**BTEX by EPA 8260B**

Benzene	ND	0.00100	mg/L	1	8L01002	12/01/2008	12/02/2008
Toluene	ND	0.00100	"	"	"	"	"
Ethylbenzene	ND	0.00100	"	"	"	"	"
o-Xylene	ND	0.00100	"	"	"	"	"
m,p-Xylene	ND	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	101 %	70.3-123	"	"	"
Surrogate: Toluene-d8	109 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	83-123	"	"	"

Origins Laboratory, Inc.

*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.*

Noelle E Doyle, Laboratory Manager

4640 Pecos Street | Unit C  
Denver, Colorado 80211  
303.433.1322 | Laboratory  
303.265.9645 | Fax



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

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

**SB03**

**X811095-10 (Water)**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

**Origins Laboratory, Inc.**

**BTEX by EPA 8260B**

Benzene	ND	0.00100	mg/L	1	8L01002	12/01/2008	12/02/2008
Toluene	ND	0.00100	"	"	"	"	"
Ethylbenzene	ND	0.00100	"	"	"	"	"
o-Xylene	ND	0.00100	"	"	"	"	"
m,p-Xylene	ND	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	98.1 %	70.3-123	"	"	"
Surrogate: Toluene-d8	111 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	83-123	"	"	"

Origins Laboratory, Inc.

*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.*

Noelle E Doyle, Laboratory Manager

4640 Pecos Street | Unit C  
Denver, Colorado 80211  
303.433.1322 | Laboratory  
303.265.9645 | Fax



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

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

SB11

X811095-11 (Water)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	0.00100	mg/L	1	8L01002	12/01/2008	12/02/2008
Toluene	ND	0.00100	"	"	"	"	"
Ethylbenzene	ND	0.00100	"	"	"	"	"
o-Xylene	ND	0.00100	"	"	"	"	"
m,p-Xylene	ND	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	99.7 %	70.3-123	"	"	"
Surrogate: Toluene-d8	108 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	104 %	83-123	"	"	"

Origins Laboratory, Inc.

*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.*

Noelle E Doyle, Laboratory Manager



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

Brian Dodek  
 Project Number: NEP0505.01  
 Project: Frick 18-2&8

**Volatile Organic Compounds by EPA Method 8260B – Quality Control**  
**Origins Laboratory, Inc.**

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

**Batch 8L01002 – EPA 5030B**

**Blank (8L01002-BLK1)**

Prepared: 12/01/2008 Analyzed: 12/01/2008

Benzene	ND	0.001	mg/L							
Toluene	ND	0.001	"							
Ethylbenzene	ND	0.001	"							
o-Xylene	ND	0.001	"							
m,p-Xylene	ND	0.002	"							
Surrogate: 1,2-Dichloroethane-d4	50.4		ug/L	62.5		80.6	70.3-123			
Surrogate: Toluene-d8	70.6		"	62.5		113	75.9-123			
Surrogate: 4-Bromofluorobenzene	72.2		"	62.5		115	83-123			

**Blank (8L01002-BLK2)**

Prepared: 12/01/2008 Analyzed: 12/01/2008

Benzene	ND	0.001	mg/L							
Toluene	ND	0.001	"							
Ethylbenzene	ND	0.001	"							
o-Xylene	ND	0.001	"							
m,p-Xylene	ND	0.002	"							
Surrogate: 1,2-Dichloroethane-d4	53.3		ug/L	62.5		85.2	70.3-123			
Surrogate: Toluene-d8	71.3		"	62.5		114	75.9-123			
Surrogate: 4-Bromofluorobenzene	64.8		"	62.5		104	83-123			

**LCS (8L01002-BS1)**

Prepared: 12/01/2008 Analyzed: 12/01/2008

Benzene	0.05	0.001	mg/L	0.0500		99.2	64.2-124			
Toluene	0.06	0.001	"	0.0500		114	63.9-119			
Surrogate: 1,2-Dichloroethane-d4	58.6		ug/L	62.5		93.7	70.3-123			
Surrogate: Toluene-d8	68.2		"	62.5		109	75.9-123			
Surrogate: 4-Bromofluorobenzene	65.2		"	62.5		104	83-123			

**LCS (8L01002-BS2)**

Prepared: 12/01/2008 Analyzed: 12/01/2008

Benzene	0.05	0.001	mg/L	0.0500		101	64.2-124			
Toluene	0.06	0.001	"	0.0500		117	63.9-119			

Origins Laboratory, Inc.

*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.*

Noelle E Doyle, Laboratory Manager

4640 Pecos Street | Unit C  
 Denver, Colorado 80211  
 303.433.1322 | Laboratory  
 303.265.9645 | Fax



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

Brian Dodek  
 Project Number: NEP0505.01  
 Project: Frick 18-2&8

**Volatile Organic Compounds by EPA Method 8260B – Quality Control**  
**Origins Laboratory, Inc.**

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

**Batch 8L01002 – EPA 5030B**

**LCS (8L01002–BS2)**

Prepared: 12/01/2008 Analyzed: 12/01/2008

Surrogate: 1,2-Dichloroethane-d4	58.1		ug/L	62.5		93.0	70.3–123			
Surrogate: Toluene-d8	70.0		"	62.5		112	75.9–123			
Surrogate: 4-Bromofluorobenzene	65.3		"	62.5		104	83–123			

**Matrix Spike (8L01002–MS1)**

Source: X811104–01

Prepared: 12/01/2008 Analyzed: 12/01/2008

Benzene	0.06	0.001	mg/L	0.0500	0.008	110	64.2–124			
Toluene	0.07	0.001	"	0.0500	0.01	127	63.9–119			QM-07
Surrogate: 1,2-Dichloroethane-d4	60.1		ug/L	62.5		96.1	70.3–123			
Surrogate: Toluene-d8	70.6		"	62.5		113	75.9–123			
Surrogate: 4-Bromofluorobenzene	64.3		"	62.5		103	83–123			

**Matrix Spike (8L01002–MS2)**

Source: X811108–01

Prepared: 12/01/2008 Analyzed: 12/01/2008

Benzene	0.05	0.001	mg/L	0.0500	ND	98.8	64.2–124			
Toluene	0.06	0.001	"	0.0500	ND	111	63.9–119			
Surrogate: 1,2-Dichloroethane-d4	61.4		ug/L	62.5		98.3	70.3–123			
Surrogate: Toluene-d8	68.7		"	62.5		110	75.9–123			
Surrogate: 4-Bromofluorobenzene	64.7		"	62.5		104	83–123			

**Matrix Spike Dup (8L01002–MSD1)**

Source: X811104–01

Prepared: 12/01/2008 Analyzed: 12/01/2008

Benzene	0.06	0.001	mg/L	0.0500	0.008	107	64.2–124	2.53	25	
Toluene	0.07	0.001	"	0.0500	0.01	122	63.9–119	4.10	25	QM-07
Surrogate: 1,2-Dichloroethane-d4	60.7		ug/L	62.5		97.2	70.3–123			
Surrogate: Toluene-d8	68.5		"	62.5		110	75.9–123			
Surrogate: 4-Bromofluorobenzene	64.7		"	62.5		103	83–123			

**Matrix Spike Dup (8L01002–MSD2)**

Source: X811108–01

Prepared: 12/01/2008 Analyzed: 12/01/2008

Benzene	0.05	0.001	mg/L	0.0500	ND	98.2	64.2–124	0.568	25	
Toluene	0.05	0.001	"	0.0500	ND	107	63.9–119	3.12	25	
Surrogate: 1,2-Dichloroethane-d4	64.3		ug/L	62.5		103	70.3–123			

Origins Laboratory, Inc.

*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.*

Noelle E Doyle, Laboratory Manager



4640 Pecos Street | Unit C  
Denver, Colorado 80211  
303.433.1322 | Laboratory  
303.265.9645 | Fax



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

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

**Volatile Organic Compounds by EPA Method 8260B – Quality Control**  
**Origins Laboratory, Inc.**

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

**Batch 8L01002 – EPA 5030B**

**Matrix Spike Dup (8L01002-MSD2)**

**Source: X811108-01**

Prepared: 12/01/2008 Analyzed: 12/01/2008

Surrogate: Toluene-d8	67.3	ug/L	62.5	108	75.9-123
Surrogate: 4-Bromofluorobenzene	64.6	"	62.5	103	83-123

Origins Laboratory, Inc.

Noelle E Doyle, Laboratory Manager

*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.*

4640 Pecos Street | Unit C  
Denver, Colorado 80211  
303.433.1322 | Laboratory  
303.265.9645 | Fax



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

Brian Dodek  
Project Number: NEP0505.01  
Project: Frick 18-2&8

### Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference

Origins Laboratory, Inc.

*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.*

Noelle E Doyle, Laboratory Manager