

GROUNDWATER MONITORING REPORT OCTOBER 2009

SCHMIDT 30-11G, 12G WELL SITE

On August 24, 2009, LT Environmental, Inc. (LTE) conducted groundwater sampling, on behalf of Noble Energy, Inc., at the Schmidt 30-11G, 12G Well Site (Site). This sampling event constitutes the second post remediation monitoring event at this Site. Site history, remediation activities, well installation, and performance monitoring have been described in preceding reports.

Groundwater level measurements were collected from the monitoring wells and are summarized in Table 1. The three monitoring wells installed on April 14, 2009 (MW01, MW02, and MW03), were used to conduct groundwater sampling. Figure 1 illustrates the Site layout and monitoring well locations.

Depth to groundwater, ranged from 3.18 feet below top of casing (btoc) in MW01 to 5.21 feet btoc in MW03, was used to calculate well-specific purge volumes. Following purging, groundwater samples were collected and preserved on ice. Samples were submitted under strict chain of custody protocol to Origins Laboratory, Inc. of Denver, Colorado for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by United States Environmental Protection Agency Method 8260B.

Analytical results from the monitoring wells, presented in Table 1, indicate BTEX concentrations are in compliance with Colorado Department of Public Health and Environment – Water Quality Control Commission Regulation 41. The laboratory analytical report is included in the Appendix.

LTE will continue to conduct quarterly groundwater monitoring events with the goal of observing four consecutive quarters of analytical results in compliance with applicable regulatory standards. The next quarterly groundwater sampling event is scheduled for November 2009.

TABLE

TABLE 1

**GROUNDWATER ANALYTICAL DATA
SCHMIDT 30-11G, 12G TANK BATTERY SITE
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.**

MONITORING		DEPTH TO				TOTAL
WELL	DATE	WATER (feet btoc)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYLBENZENE (ug/L)	XYLENES (ug/L)
MW01	4/28/2009	6.87	<1.0	<1.0	1.35	<3.0
	8/24/2009	3.18	<1.0	<1.0	<1.0	<3.0
MW02	4/28/2009	6.37	5.67	<1.0	<1.0	3.36
	8/24/2009	4.81	<1.0	<1.0	<1.0	<3.0
MW03	4/28/2009	6.23	<1.0	<1.0	<1.0	<3.0
	8/24/2009	5.21	3.55	<1.0	36.5	1.295
CDPHE WQCC Reg 41			5.0	560	700	1,400

NOTES:

btoc - below top of casing

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

ug/L - micrograms per liter

< indicates result is less than the stated laboratory method detection limit

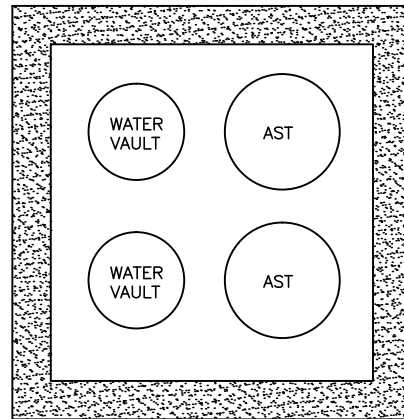
BOLD - indicates result is above the applicable standard

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



FIGURE

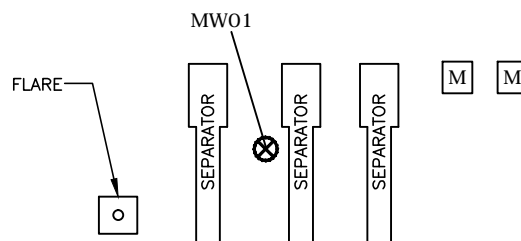
MW03



MW02



LEASE ROAD



LEGEND

MW01  MONITORING WELL LOCATION

 METER HOUSE

 BERM

 ESTIMATED GROUNDWATER FLOW DIRECTION

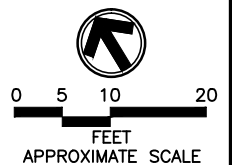


FIGURE 1
SITE MAP
SCHMIDT 30-11G, 12G
WELD COUNTY, CO
NOBLE ENERGY, INC.



APPENDIX
ANALYTICAL REPORT



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

September 04, 2009

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

Brian Dodek
Project Number: NEP0902
Project: Noble – Schmidt 30-11G, 12G

Attached are the analytical results for Noble – Schmidt 30-11G, 12G received by
Origins Laboratory, Inc. 8/25/2009 4:00:00PM. Please let us know if you have
any questions, or if we can help with anything at all.

Noelle E Doyle
Laboratory Manager

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: NEP0902
Project: Noble – Schmidt 30–11G,
12G

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Sampled	Date Received
MW01	X908092-01	Water	8/25/2009 12:40:00PM	08/25/2009 16:00
MW02	X908092-02	Water	8/25/2009 12:50:00PM	08/25/2009 16:00
MW03	X908092-03	Water	8/25/2009 1:00:00PM	08/25/2009 16:00

Origins Laboratory, Inc.

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Noelle E Doyle, Laboratory Manager

Brian Dodek
Project Number: NEP0902
Project: Noble – Schmidt 30–11G,
12G



Project Manager - Brian Vacker
Project Name - Schmidt 30-116, 12G
Project Number - NEP0902
Samples Collected by - M. Harrison

Client-
Address-
Telephone Number-
E-Mail Address-

Sample ID - Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analysis			Sample Instructions	
				Unpreserved	HCl	HNO ₃	Other -	Groundwater	Soil	Air - Summa Canister #	Other -				
MWD1	8/15/09	1240	2	X				X						1	
MWD2		1250	1											2	
MWD3		1300												3	
														4	
														5	
														6	
														7	
														8	
														9	
														10	
Relinquished by:	Date: 8/25/09	Time: 1600	Received by:			Date:			Time:			Temperature Upon Receipt:			
Relinquished by:	Date:	Time:	Received by:			Date:			Time:			Temperature Upon Receipt:			
												Turn Around Time:			
												Same Day			
												48-hr			
												72-hr			
												Standard			

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

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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
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12G

MW01

X908092–01 (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	9H26001	08/26/2009	08/26/2009
Toluene	ND	0.00100	"	"	"	"	"
Ethylbenzene	ND	0.00100	"	"	"	"	"
o-Xylene	ND	0.00100	"	"	"	"	"
m,p-Xylene	ND	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	115 %	85.7–134	"	"	"
Surrogate: Toluene-d8	90.5 %	81.4–121	"	"	"
Surrogate: 4-Bromofluorobenzene	116 %	74.7–127	"	"	"

Origins Laboratory, Inc.

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



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Arvada CO 80003

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12G

MW02
X908092–02 (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	9H26001	08/26/2009	08/26/2009
Toluene	ND	0.00100	"	"	"	"	"
Ethylbenzene	ND	0.00100	"	"	"	"	"
o-Xylene	ND	0.00100	"	"	"	"	"
m,p-Xylene	ND	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	117 %	85.7–134	"	"	"
Surrogate: Toluene-d8	88.7 %	81.4–121	"	"	"
Surrogate: 4-Bromofluorobenzene	114 %	74.7–127	"	"	"

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12G

MW03

X908092–03 (Water)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	0.00355	0.00100	mg/L	1	9H26001	08/26/2009	08/26/2009
Toluene	ND	0.00100	"	"	"	"	"
Ethylbenzene	0.0365	0.00100	"	"	"	"	"
o-Xylene	0.00117	0.00100	"	"	"	"	"
m,p-Xylene	0.125	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	116 %	85.7–134	"	"	"
Surrogate: Toluene-d8	86.1 %	81.4–121	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	74.7–127	"	"	"

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



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4600 West 60th Avenue
Arvada CO 80003

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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
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Batch 9H26001 – EPA 5030B

Blank (9H26001–BLK1)

Prepared: 08/26/2009 Analyzed: 08/26/2009

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	70.3		ug/L	62.5		112	85.7–134			
Surrogate: Toluene-d8	59.4		"	62.5		95.0	81.4–121			
Surrogate: 4-Bromofluorobenzene	72.0		"	62.5		115	74.7–127			

LCS (9H26001–BS1)

Prepared: 08/26/2009 Analyzed: 08/26/2009

Benzene	0.04	0.001	mg/L	0.0500		87.3	74.9–126			
Toluene	0.05	0.001	"	0.0500		90.5	73.3–128			
Surrogate: 1,2-Dichloroethane-d4	68.6		ug/L	62.5		110	85.7–134			
Surrogate: Toluene-d8	56.9		"	62.5		91.0	81.4–121			
Surrogate: 4-Bromofluorobenzene	70.8		"	62.5		113	74.7–127			

Matrix Spike (9H26001–MS1)

Source: X908090–01

Prepared: 08/26/2009 Analyzed: 08/26/2009

Benzene	0.05	0.001	mg/L	0.0500	ND	92.6	78.1–132			
Toluene	0.05	0.001	"	0.0500	ND	95.2	71.7–124			
Surrogate: 1,2-Dichloroethane-d4	70.9		ug/L	62.5		113	85.7–134			
Surrogate: Toluene-d8	56.0		"	62.5		89.6	81.4–121			
Surrogate: 4-Bromofluorobenzene	71.3		"	62.5		114	74.7–127			

Matrix Spike Dup (9H26001–MSD1)

Source: X908090–01

Prepared: 08/26/2009 Analyzed: 08/26/2009

Benzene	0.04	0.001	mg/L	0.0500	ND	87.7	78.1–132	5.44	24.8	
Toluene	0.04	0.001	"	0.0500	ND	89.9	71.7–124	5.68	25	
Surrogate: 1,2-Dichloroethane-d4	70.0		ug/L	62.5		112	85.7–134			
Surrogate: Toluene-d8	57.3		"	62.5		91.7	81.4–121			
Surrogate: 4-Bromofluorobenzene	72.2		"	62.5		115	74.7–127			

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303.433.1322 | Laboratory
303.265.9645 | Fax



LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

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Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

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