COMPLIANCE / ENGINEERING / REMEDIATION

LT Environmental Inc.

4600 West. 60th Avenue
Arvada, Colorado 80003
T 303.433.9788 / F 303.433.1432

WELL INSTALLATION AND GROUNDWATER MONITORING REPORT MAY 2009

SCHMIDT 30-11G, 12G TANK BATTERY SITE

LT Environmental, Inc. (LTE) was retained by Noble Energy, Inc. (Noble) to install post-remediation monitoring wells and to conduct sampling activities at the Schmidt 30-11G, 12G Tank Battery (Site). Monitoring well installation activities and groundwater sampling occurred on April 14, 2009 and April 28, 2009, respectively. Site history and remediation activities were described in the preceding *Remediation Summary Report*, dated April 2009. This well installation and groundwater monitoring event constitutes the first post remediation performance groundwater monitoring event.

LTE personnel were onsite April 14, 2009 to install three monitoring wells (MW01 through MW03) to determine if impacted groundwater exists at the Site. The monitoring wells were installed using a direct-push drill rig owned and operated by High Plains Drilling of Denver, Colorado, and were advanced to 15 feet below ground surface (bgs). The monitoring wells were completed as 2-foot stickups with 1-inch diameter, 0.010-inch slotted, schedule 40, polyvinyl chloride (PVC) screen from 5 feet bgs to 15 feet bgs. Boreholes were filled with 10-20 silica sand from total depth to 3 feet bgs. Bentonite chips were then placed from the top of the sand pack to ground surface and hydrated. Monitoring well (MW03) was installed northeast of the excavation, as an upgradient well. The remaining two monitoring wells (MW02 and MW01) were installed southwest of the excavation footprint (downgradient). The locations of the three monitoring wells relative to the excavation are presented as Figure 1. Borehole lithologic logs are included as Attachment 1.

Groundwater level measurements were collected from the monitoring wells and are summarized in Table 1. Depth to groundwater, which ranged from 6.23 feet below top of casing (btoc) in MW03 to 6.87 feet btoc in MW01, was used to calculate well-specific purge volumes. Following purging, groundwater samples were collected and preserved on ice. Samples were then 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 at sample locations MW01 and MW03 are in compliance with Colorado Department of Public Health and Environment – Water Quality Control Commission Regulation 41 (WQCC Reg. 41). Monitoring well MW02 exhibited a benzene concentration of 5.67 micrograms per liter (ug/L). This concentration exceeds the WQCC Reg. 41 benzene standard of 5.0 ug/L. It is expected that the remaining groundwater impact will dissipate due to source removal activities, continued bioremediation activity promoted by the activated carbon groundwater amendment, and through

enhanced natural attenuation processes. The laboratory analytical report is included as Attachment 2.

LTE will continue to conduct quarterly groundwater monitoring events with the goal of observing four consecutive quarters with analytical results in compliance with WQCC Reg. 41. The next quarterly groundwater sampling event is scheduled for August 2009.

TABLE

TABLE 1

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

MONITORING WELL	DATE	DEPTH TO WATER (feet btoc)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYLBENZENE (ug/L)	TOTAL XYLENES (ug/L)
MW01	4/28/2009	6.87	<1.0	<1.0	1.35	<3.0
MW02	4/28/2009	6.37	**5.67**	<1.0	<1.0	3.36
MW03	4/28/2009	6.23	<1.0	<1.0	<1.0	<3.0
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

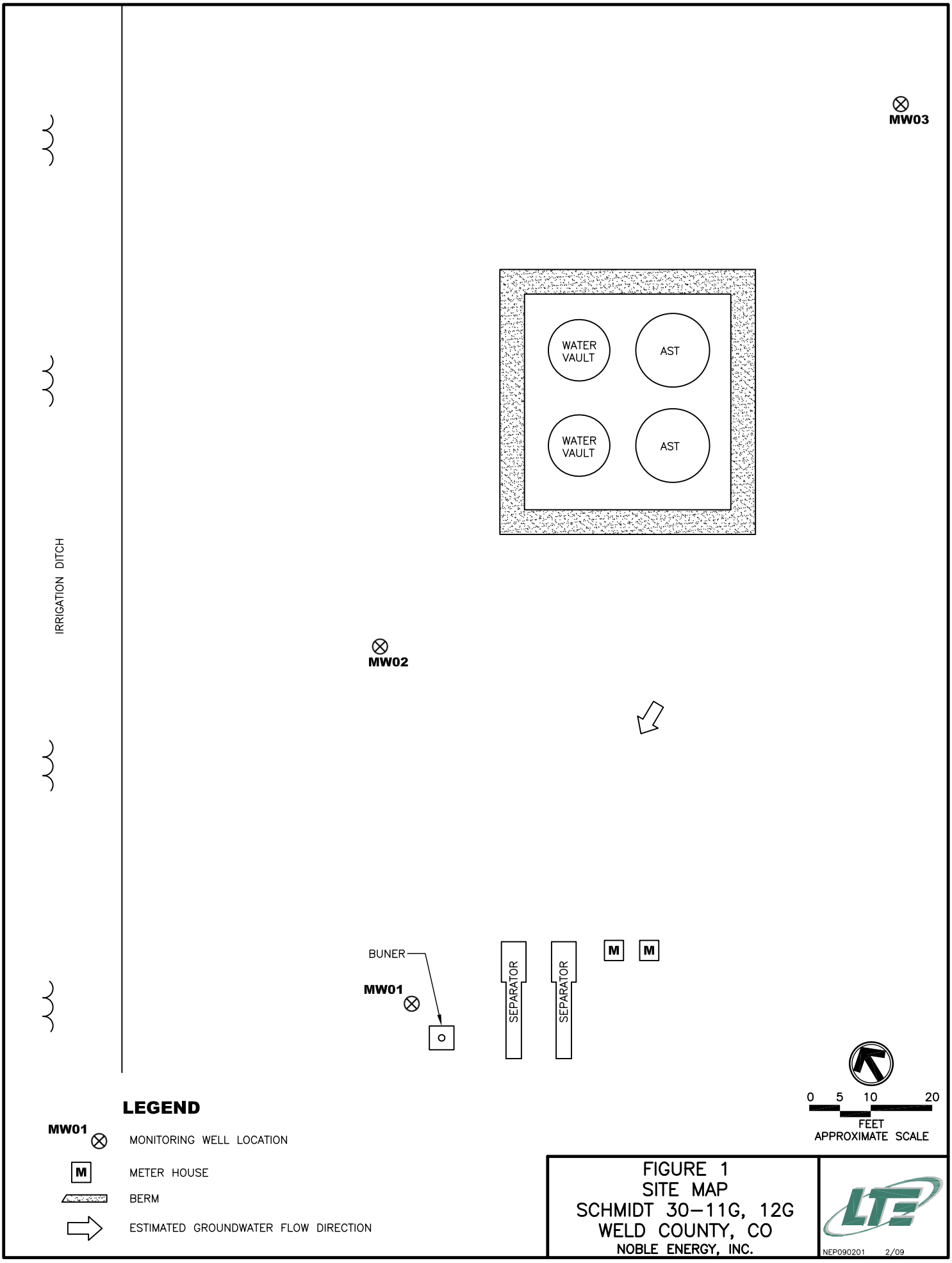


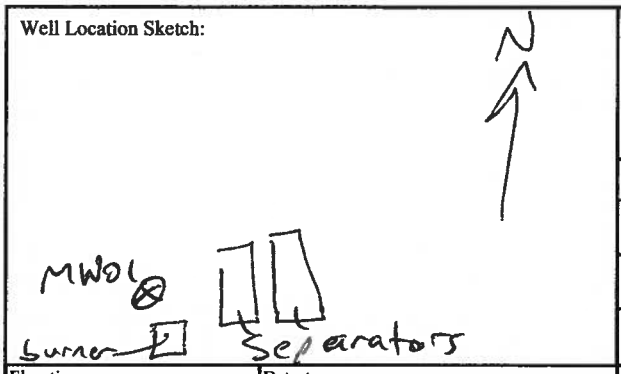
FIGURE 1
SITE MAP
SCHMIDT 30–11G, 12G
WELD COUNTY, CO
NOBLE ENERGY, INC.

NEP090201 2/09

ATTACHMENT 1

BOREHOLE LITHOLOGIC LOGS

Well Location Sketch:



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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW01		Project: Schmidt	
Date: 4/14/09		Project Number: NEP0902	
Logged By: TED		Drilled By: High Plains	
Elevation:	Detector: MiniRAE 2000	Drilling Method: Direct Push	Sampling Method: Continuous
Gravel Pack: CSSI 10x20		Seal: Bentonite Chips	Grout: Bentonite
Casing Type: Sch 40 PVC	Diameter: 1" Length: 5'	Hole Diameter: 2"	Depth to Liquid: —
Screen Type: Sch 40 PVC	Slot: 0.01 Diameter: 1" Length: 10'	Total Depth: 15'	Depth to Water:

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
	Moist	0.0	No		2			CL	clay, sandy very fine – medium lt. brown	
		0.0	No		4					
		0.0	No		6					
		0.0	No		8			SW	sand, well sorted fine – coarse no odor some clay	
	Wet		No		10					
			No		12					
			No		14					
					16				TD – 15'	
					18					
					20					
					22					
					24					
					26					
					28					
					30					
					32					
					34					
					36					
					38					
					40					

Well Location Sketch:

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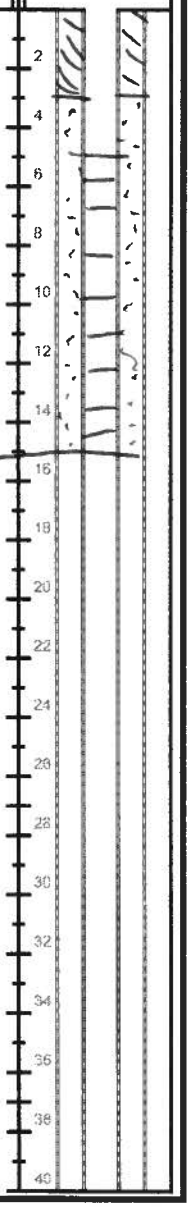
BORING LOG/MONITORING WELL COMPLETION DIAGRAM

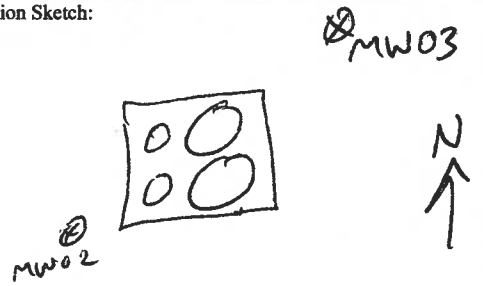
Boring/Well Number: MW02	Project: Schmidt
Date: 4/14/09	Project Number: NEP0902
Logged By: TED	Drilled By: High Plains
Elevation:	Detector: MiniRAE 2000
Drilling Method: Direct Push	Sampling Method: Continuous
Gravel Pack: CSSI 10x20	Seal: Bentonite Chips
Grout: Bentonite	
Casing Type: Sch 40 PVC	Diameter: 1" Length: 5'
Hole Diameter: 2"	Depth to Liquid: —
Screen Type: Sch 40 PVC	Slot: 0.01 Diameter: 1" Length: 10'
Total Depth: 15'	Depth to Water: 7'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks
					0				
	Moist	0.0	No		2			CL	clay, sandy very fine – medium lt. brown
		0.0	No		4				
		0.0	No		6				
			No		8			SW	sand, well sorted fine – coarse no odor some clay
	Wet		No		10				
			No		12				
			No		14				
					16				TD-15'
					18				
					20				
					22				
					24				
					26				
					28				
					30				
					32				
					34				
					36				
					38				
					40				

Well Completion Diagram



Well Location Sketch:



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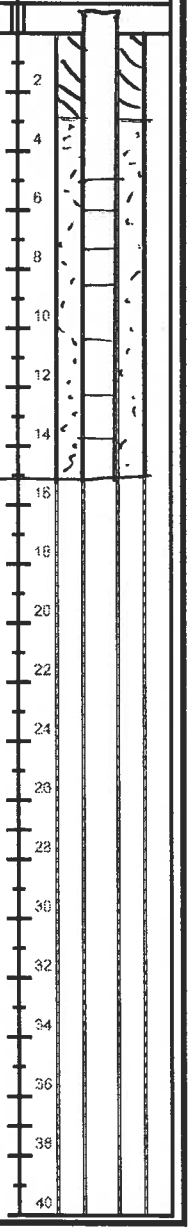
BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW03	Project: Schmidt
Date: 4/14/09	Project Number: NEP0902
Logged By: TED	Drilled By: ~~TED~~ High Plains
Elevation:	Detector: MiniRAE 2000
Drilling Method: Direct Push	Sampling Method: Continuous
Gravel Pack: CSSI 10x20	Seal: Bentonite Chips
Grout: Bentonite	
Casing Type: Sch 40 PVC	Diameter: 1" Length: 5'
Hole Diameter: 2"	Depth to Liquid:
Screen Type: Sch 40 PVC	Slot: 0.01
Diameter: 1" Length: 10'	Total Depth: 15'
Depth to Water: 7'	

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks
					0				
	Moist	0.0	No		2			CL	clay, sandy very fine – medium lt. brown
		0.0	No		4				
		0.0	No		6				
			No		8			SW	sand, well sorted fine – coarse no odor some clay
	Wet		No		10				
			No		12				
			No		14				
					16				TD = 15'
					18				
					20				
					22				
					24				
					26				
					28				
					30				
					32				
					34				
					36				
					38				
					40				

Well Completion Diagram



ATTACHMENT 2

ANALYTICAL LABORATORY REPORT

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

April 30, 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. 4/28/2009 2:58:00PM. 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 guidlines 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 entireity.

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	X904083-01	Water	4/28/2009 12:10:00PM	04/28/2009 14:58
MW02	X904083-02	Water	4/28/2009 12:15:00PM	04/28/2009 14:58
MW03	X904083-03	Water	4/28/2009 12:20:00PM	04/28/2009 14:58

Origins Laboratory, Inc.

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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

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Project Number: NEP0902
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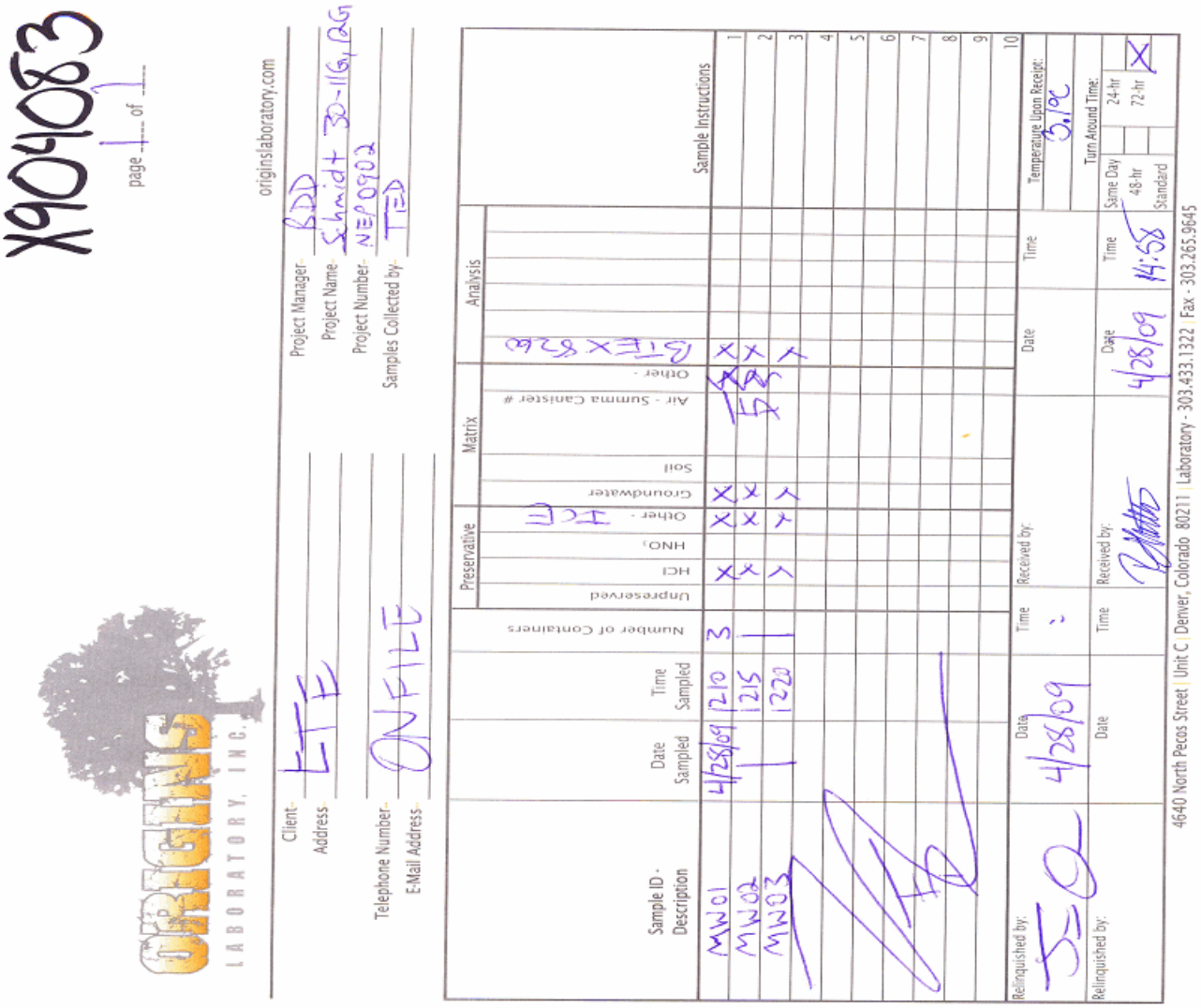

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Brian Dodek

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

MW01

X904083-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
Origins Laboratory, Inc.								
BTEX by EPA 8260B								
Benzene	ND	0.00100	mg/L	1	9D29001	04/29/2009	04/29/2009	
Toluene	ND	0.00100	"	"	"	"	"	
Ethylbenzene	**0.00135**	0.00100	"	"	"	"	"	
o-Xylene	ND	0.00100	"	"	"	"	"	
m,p-Xylene	ND	0.00200	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	*100 %*	*70.3-128*			"	"	"	
Surrogate: Toluene-d8	*102 %*	*78.8-125*			"	"	"	
Surrogate: 4-Bromofluorobenzene	*113 %*	*75.5-131*			"	"	"	

Origins Laboratory, Inc.

Noelle E Doyle, Laboratory Manager

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

MW02

X904083-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
Origins Laboratory, Inc.								
BTEX by EPA 8260B								
Benzene	**0.00567**	0.00100	mg/L	1	9D29001	04/29/2009	04/30/2009	
Toluene	ND	0.00100	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	
o-Xylene	**0.00336**	0.00100	"	"	"	"	"	
m,p-Xylene	ND	0.00200	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	*99.7 %*	*70.3-128*			"	"	"	
Surrogate: Toluene-d8	*102 %*	*78.8-125*			"	"	"	
Surrogate: 4-Bromofluorobenzene	*126 %*	*75.5-131*			"	"	"	

Origins Laboratory, Inc.

Noelle E Doyle, Laboratory Manager

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

MW03

X904083-03 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
Origins Laboratory, Inc.								
BTEX by EPA 8260B								
Benzene	ND	0.00100	mg/L	1	9D29001	04/29/2009	04/30/2009	
Toluene	ND	0.00100	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	
o-Xylene	ND	0.00100	"	"	"	"	"	
m,p-Xylene	ND	0.00200	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	*99.3 %*	*70.3-128*			"	"	"	
Surrogate: Toluene-d8	*100 %*	*78.8-125*			"	"	"	
Surrogate: 4-Bromofluorobenzene	*126 %*	*75.5-131*			"	"	"	

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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
Batch 9D29001 - EPA 5030B										
Blank (9D29001-BLK1)						Prepared: 04/29/2009 Analyzed: 04/29/2009				
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	*64.1*		*ug/L*	*62.5*		*103*	*70.3-128*			
Surrogate: Toluene-d8	*64.0*		*"*	*62.5*		*102*	*78.8-125*			
Surrogate: 4-Bromofluorobenzene	*70.8*		*"*	*62.5*		*113*	*75.5-131*			
LCS (9D29001-BS1)						Prepared: 04/29/2009 Analyzed: 04/29/2009				
Benzene	0.05	0.001	mg/L	0.0500		104	64.2-124			
Toluene	0.06	0.001	"	0.0500		113	63.9-119			
Surrogate: 1,2-Dichloroethane-d4	*62.6*		*ug/L*	*62.5*		*100*	*70.3-128*			
Surrogate: Toluene-d8	*64.9*		*"*	*62.5*		*104*	*78.8-125*			
Surrogate: 4-Bromofluorobenzene	*68.8*		*"*	*62.5*		*110*	*75.5-131*			
Matrix Spike (9D29001-MS1)		Source: X904075-03				Prepared: 04/29/2009 Analyzed: 04/29/2009				
Benzene	0.14	0.001	mg/L	0.0500	0.10	92.5	64.2-124			
Toluene	0.06	0.001	"	0.0500	ND	112	63.9-119			
Surrogate: 1,2-Dichloroethane-d4	*61.3*		*ug/L*	*62.5*		*98.1*	*70.3-128*			
Surrogate: Toluene-d8	*62.9*		*"*	*62.5*		*101*	*78.8-125*			
Surrogate: 4-Bromofluorobenzene	*66.0*		*"*	*62.5*		*106*	*75.5-131*			
Matrix Spike Dup (9D29001-MSD1)		Source: X904075-03				Prepared: 04/29/2009 Analyzed: 04/29/2009				
Benzene	0.14	0.001	mg/L	0.0500	0.10	85.4	64.2-124	2.49	25	
Toluene	0.06	0.001	"	0.0500	ND	112	63.9-119	0.661	25	
Surrogate: 1,2-Dichloroethane-d4	*62.7*		*ug/L*	*62.5*		*100*	*70.3-128*			
Surrogate: Toluene-d8	*64.8*		*"*	*62.5*		*104*	*78.8-125*			
Surrogate: 4-Bromofluorobenzene	*64.2*		*"*	*62.5*		*103*	*75.5-131*			

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Brian Dodek

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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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