



October 15, 2008

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

RE: Environmental Site Assessment Results
Collins 14-20 Tank Battery
Weld County, Colorado

Dear Mr. Faraguna:

LT Environmental, Inc. (LTE) was retained by Noble Energy, Inc. (Noble) to conduct a limited Environmental Site Assessment (ESA) at the Collins 14-20 Tank Battery (Site) located on a vacant lot approximately 1,000 feet northeast of the intersection of Harvest Mile Road and East 136th Avenue in Weld County, Colorado (Figure 1). The purpose of this ESA was to define the horizontal and vertical extent of hydrocarbon-impacted soils and groundwater.

A previous Phase I/II investigation was conducted by ATC Associates, Inc. (ATC) on July 28, 2008 and August 19, 2008, respectively. Findings in the report titled, *Limited Phase II Environmental Site Assessment, Vacant Parcel, Harvest Road and E. 136th Avenue, Brighton, CO 80603*, were used by LTE to aid in delineation of the petroleum hydrocarbon impacts at the Site.

Field Observations

LTE advanced a total of seven soil borings (SB01 through SB07) on September 25, 2008 (Figure 2). The soil borings were installed using a direct push/solid stem auger rig owned and operated by Dakota Drilling of Denver, Colorado. Installation of soil boring SB01 was attempted with direct push technology, only to encounter shallow refusal due to bedrock conditions at 10 to 11 feet below ground surface (bgs). The remainder of soil boring SB01 and all remaining borings were advanced with a solid stem auger. Split spoon samples were collected every 5 feet for field screening, lithologic characterization, and soil sample collection. Each soil boring was converted into a temporary groundwater monitoring well to allow for groundwater sample collection.

The soil borings were logged by an LTE geologist. The geologist inspected the soil for the presence of petroleum hydrocarbon odor and/or staining. A photo-ionization detector (PID) was used to determine the presence of volatile organic vapors. The soils were also characterized by visually inspecting the soil samples collected in transparent, four foot long, acetate sampling liners and split spoon core barrels. Soil borings SB01 through SB07 were completed to total depths ranging from 23 feet bgs to 25 feet bgs. Borehole lithologic logs are included as



Attachment 1. Depth to groundwater ranged from 17 feet bgs to 20 feet bgs. Estimated groundwater flow direction is northwest.

Soils identified at the Site were predominantly clayey, fine-grained sand that extended from the ground surface to depths ranging from approximately 5 feet bgs to 10 feet bgs. Beneath the clayey sand was weathered, fine-grained, clayey sandstone extending to a total depth of 25 feet bgs.

Field-identified soil impacts were observed in soil borings SB02 and SB03. The impacted soil interval was observed from 5 feet bgs to 12 feet bgs at soil boring location SB02, and from 15 feet bgs to 17 feet bgs at soil boring location SB03.

Soil Sampling

Each soil boring was advanced using a solid-stem auger and field sampled using a split spoon core barrel. Field measurements were collected in order to identify the vertical extent of soil impacts. Soil samples were submitted for analysis based on the sample interval that exhibited visible soil staining or where the highest PID reading was observed. If field screening methods indicated no petroleum hydrocarbon impacts were present in the borehole, a soil sample was collected directly above the static water level.

Soil samples were transferred into laboratory-prepared, 4-ounce, wide-mouth glass jars. The soil samples were placed on ice and delivered with a completed chain-of-custody (COC) form to Origins Laboratory, Inc. (Origins) of Denver, Colorado. Soil samples were submitted for analysis of total volatile hydrocarbons-gasoline range organics (TVH-GRO) by United States Environmental Protection Agency (EPA) Method 8015M and for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8260B.

Soil Analytical Results

The Colorado Oil and Gas Conservation Commission (COGCC) soil regulatory standard for TVH-GRO in sensitive areas is 1,000 milligrams per kilogram (mg/kg). Currently, there are no BTEX soil standards for exploration and production-related impacts.

Using the Colorado Department of Labor and Employment – Division of Oil and Public Safety (CDLE-OPS) Risk Based Screening Levels (RBSLs) to evaluate if BTEX concentrations in soil have the potential to impact groundwater, it was determined that soil BTEX concentrations do not have the potential to impact groundwater at all soil boring locations. Soil analytical results from SB02, SB03 and SB04 exhibited concentrations of benzene, toluene, ethylbenzene, and total xylenes above laboratory method detection limits, but below the CDLE-OPS RBSLs. The remaining soil samples did not exhibit BTEX concentrations above the laboratory method detection limits.

Soil analytical results indicate that the TVH-GRO concentration in soil exceeded the COGCC Sensitive Area Standard of 1,000 mg/kg at soil boring location SB02 with a concentration of



1,090 mg/kg. Concentrations of TVH-GRO were not detected above the laboratory method detection limit or COGCC Sensitive Area Standard in the remaining soil borings.

The soil analytical results are summarized in Table 1. Benzene and TVH-GRO concentrations in soil are illustrated on Figure 3. Laboratory analytical reports are included as Attachment 2.

Temporary Groundwater Monitoring Well Installation

Each direct push soil boring was converted into a temporary groundwater monitoring well. The wells were constructed of 1-inch diameter polyvinyl chloride (PVC) casing extending from the surface stickups to depths ranging between 5.5 feet and 7 feet bgs. The lower 5 feet of each temporary well consisted of 0.010-inch factory slotted PVC well screen. Silica sand (size 10x20) was placed from the bottom of each well to approximately 1 foot above the well screen to act as filter pack for the temporary groundwater wells. Bentonite chips were placed from the top of the silica sand to the ground surface and hydrated at each boring to provide a seal against surface contamination and precipitation run-off.

Groundwater Sampling

Groundwater samples were collected from temporary monitoring well locations SB01 through SB07 on September 26, 2008. Each monitoring well was developed by purging approximately 10 casing volumes using a peristaltic pump. Once the well had been purged, a groundwater sample was collected.

Groundwater samples were collected in three laboratory-prepared 40-milliliter vials. The groundwater samples were placed on ice and delivered with a completed COC form to Origins. The groundwater samples were submitted for BTEX analysis by EPA Method 8260B.

Groundwater Analytical Results

The Colorado Department of Public Health and Environment (CDPHE) has established Colorado Groundwater Quality Standards (CGWQS) for BTEX of 5 micrograms per liter ($\mu\text{g/L}$), 1,000 $\mu\text{g/L}$, 700 $\mu\text{g/L}$, and 1,400 $\mu\text{g/L}$, respectively.

Groundwater analytical results from temporary monitoring wells SB02 and SB04 indicate that benzene and total xylenes concentrations exceed the CGWQS. Analytical results from monitoring well SB02 exhibit benzene and total xylenes concentrations of 1,640 $\mu\text{g/L}$ and 5,344 $\mu\text{g/L}$, respectively. Analytical results from monitoring well SB04 exhibit benzene and total xylenes concentrations of 272 $\mu\text{g/L}$ and 2,747 $\mu\text{g/L}$, respectively. Toluene and ethylbenzene were detected in monitoring wells SB02 and SB04 at concentrations above the laboratory method detection limits and below the CGWQS. Groundwater collected in temporary monitoring wells SB03 and SB07 also exhibited BTEX concentrations above the laboratory method detection limits but below the CGWQS. BTEX concentrations were below laboratory method detection limits and the CGWQS for all remaining samples.



Groundwater analytical results are summarized in Table 2. Benzene concentrations in groundwater are illustrated on Figure 4. Laboratory analytical reports are included as Attachment 2.

Summary and Conclusions

A total of seven soil borings (SB01 through SB07) were advanced at the Site. Hydrocarbon-stained soils are present in two soil borings ranging from approximately 5 to 12 feet bgs at SB02 to approximately 15 to 17 feet bgs in SB03.

Soil analytical results indicate that BTEX concentrations, when compared to CDLE-OPS RBSLs, do not show potential to impact groundwater. Soil analytical results from soil boring SB02 exhibit a TVH-GRO concentration above the COGCC Sensitive Area Standard; all remaining samples are in compliance with the COGCC Sensitive Area Standard.

Groundwater analytical results indicate that benzene and total xylenes concentrations exceed the CGWQS in the groundwater samples collected from temporary monitoring wells SB02 and SB04. Historical groundwater samples collected by ATC Associates indicate benzene concentrations above the CGWQS in temporary monitoring wells SB-2 and SB-3, at 599 mg/L and 68.1 mg/L, respectively. Additional assessment work will be conducted in areas northeast and southwest of the identified groundwater impacts in order to delineate impact in those areas. An estimation of the extent of impact is presented on Figure 3 as a 5.0 µg/L benzene isoconcentration line.

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 that reads 'Brian Dodek'.

Brian Dodek, P.G.
Project Manager

A handwritten signature in black ink that appears to read 'Steve Kahn'.

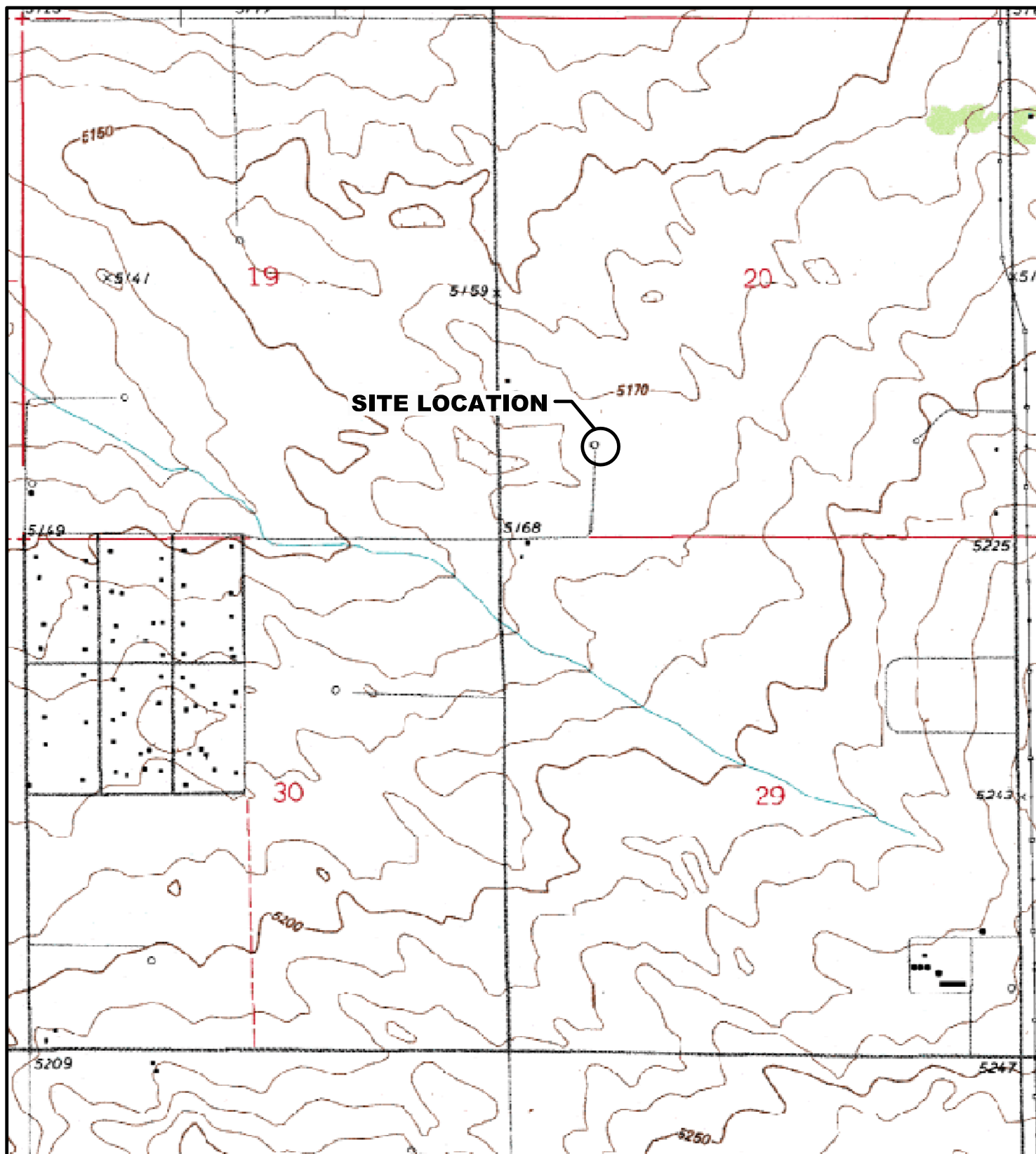
Steve Kahn, P.E.
Senior Engineer

Attachments (2):

Soil Boring Logs
Laboratory Analytical Reports

FIGURES





LEGEND



SITE LOCATION



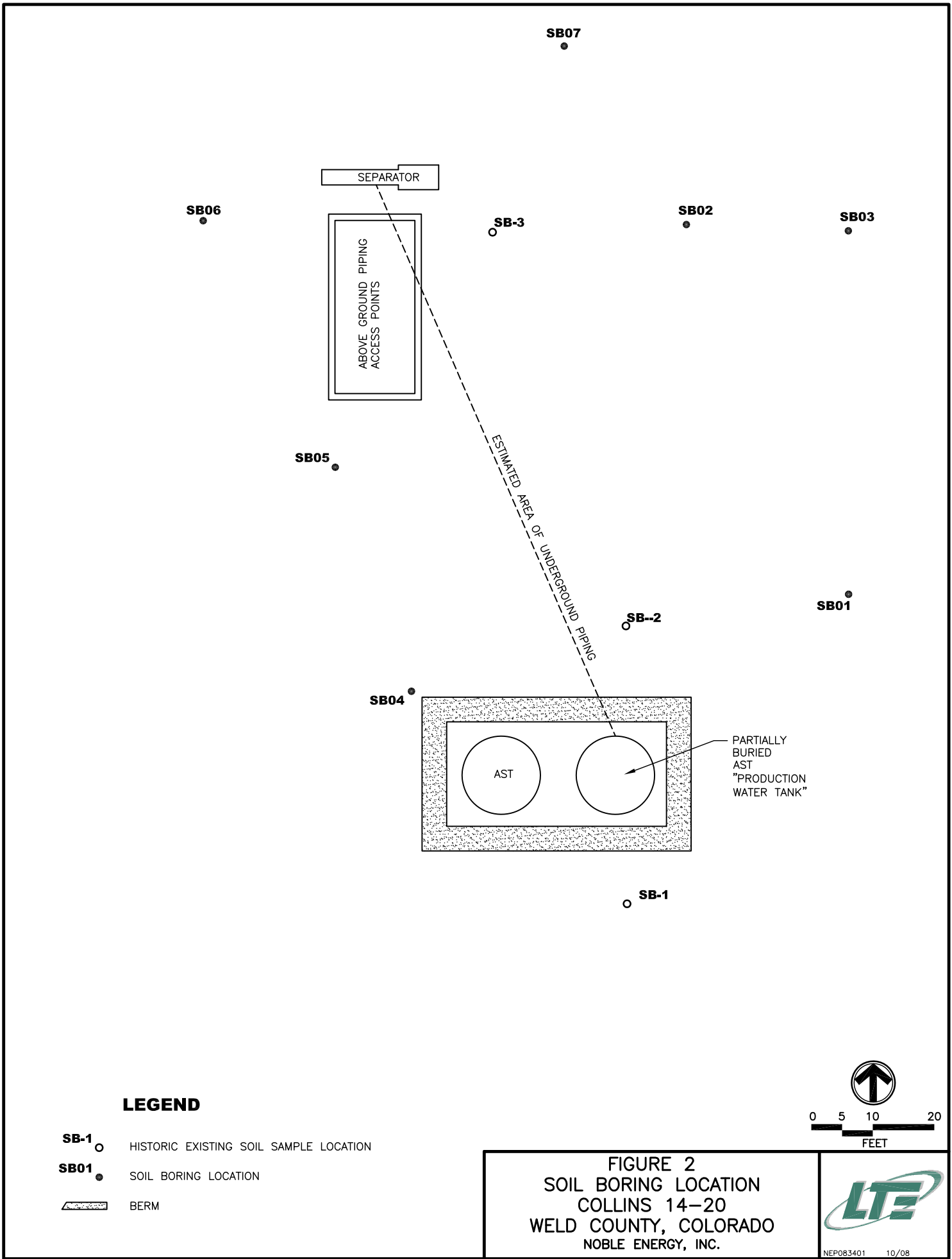
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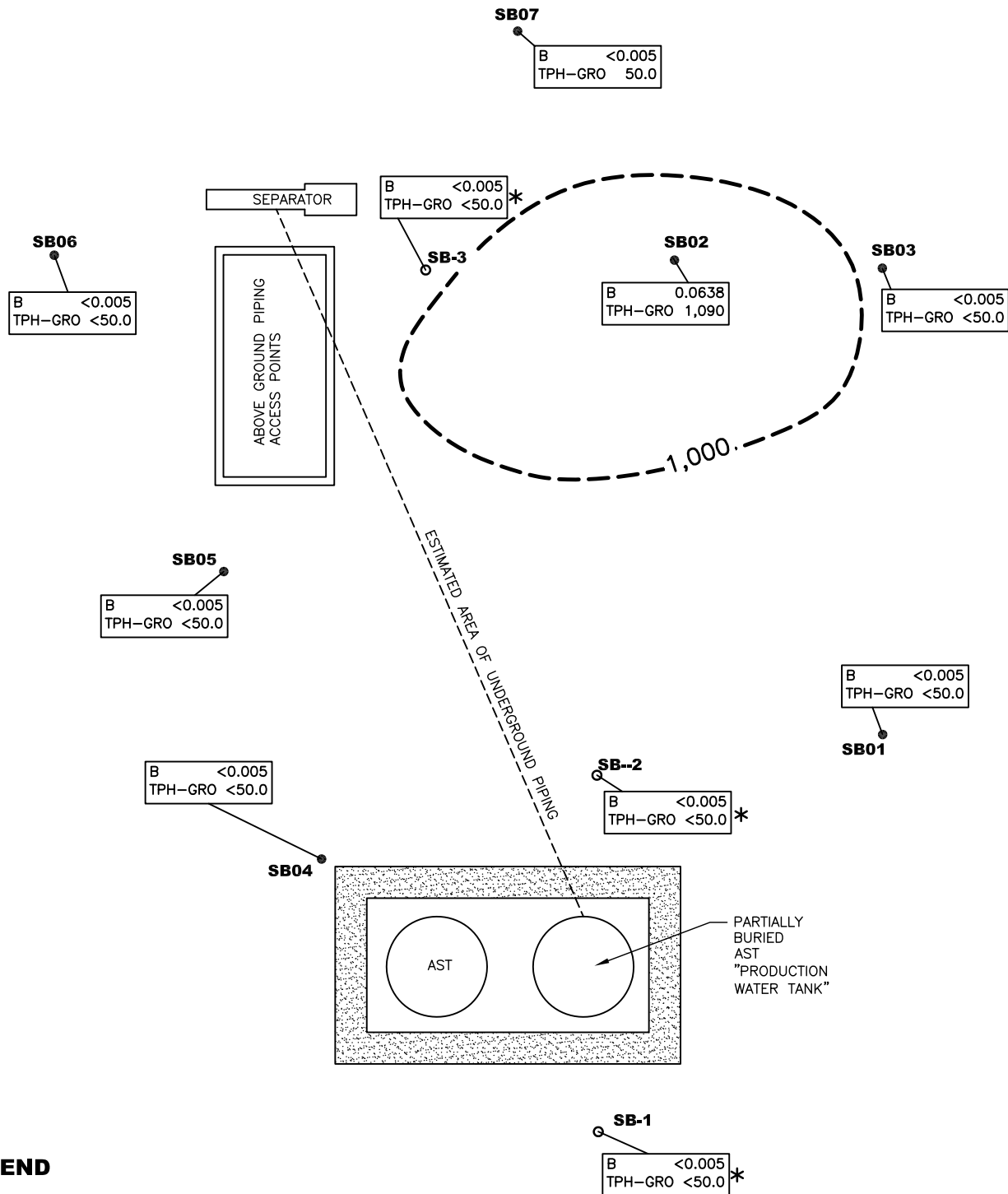
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USGS 7.5' QUADRANGLE
(NAD27)

FIGURE 1
SITE LOCATION MAP
COLLINS 14-20
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.



NEP083401_SL 10/08





LEGEND

SB-1 ○ HISTORIC SOIL SAMPLE LOCATION

SB01 ● SOIL BORING LOCATION

 BERM

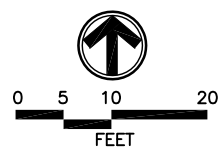
AST ABOVEGROUND STORAGE TANK

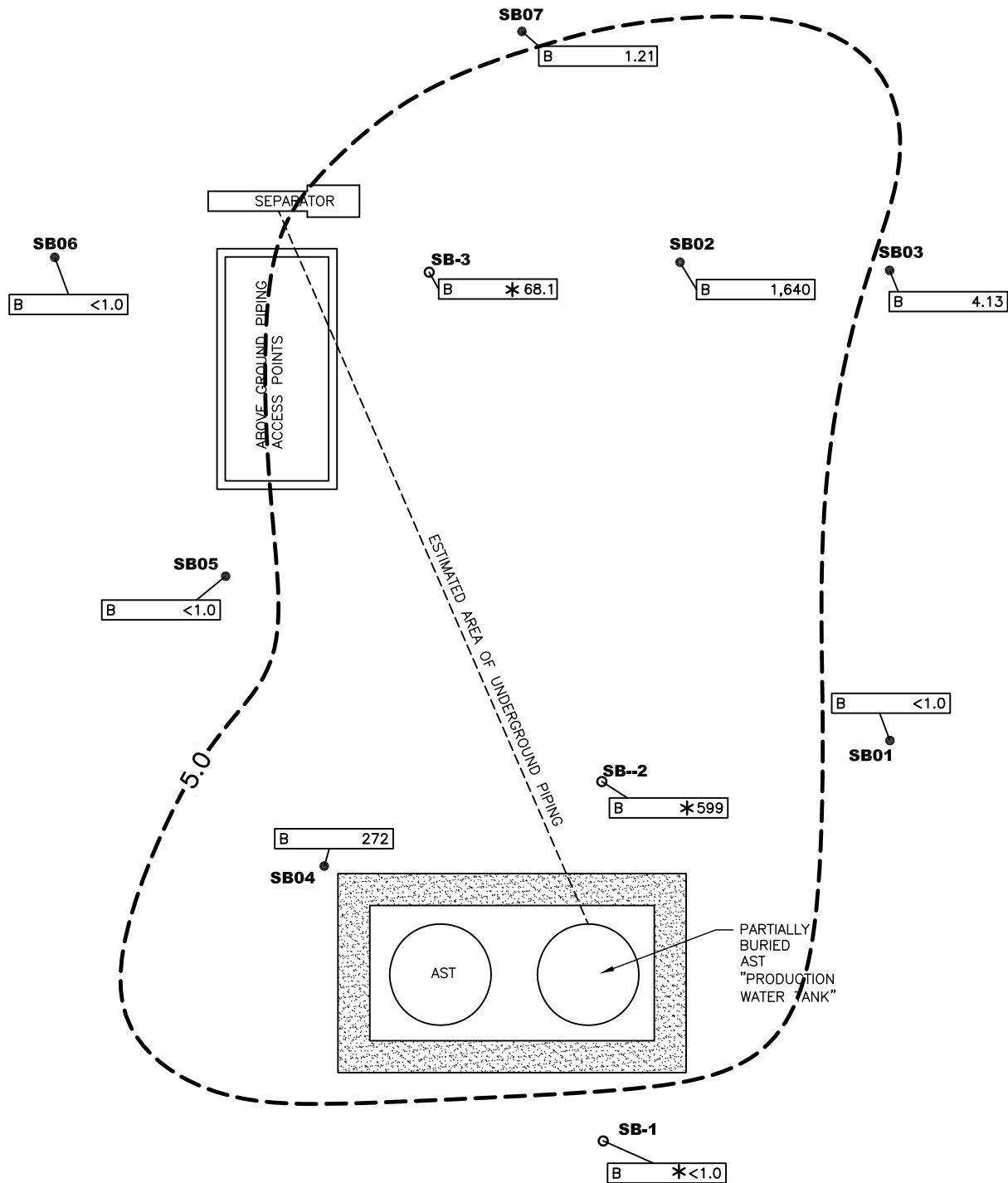
* DATA FROM ATC ASSOCIATES (8/19/08)
ALL OTHER SAMPLES COLLECTED 9/25/08

B BENZENE
TPH-GRO TOTAL PETROLEUM HYDROCARBONS-GASOLINE RANGE ORGANICS
ANALYTICAL RESULTS ARE REPORTED IN MILLIGRAMS PER KILOGRAM (mg/kg)

-1,000- APPROXIMATE 1,000 mg/kg (MILLIGRAMS PER KILOGRAM) TVH-GRO CONTOUR

FIGURE 3
SOIL ANALYTICAL RESULTS
COLLINS 14-20
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.





LEGEND

SB-1 ○ HISTORIC SOIL SAMPLE LOCATION

SB01 ● SOIL BORING LOCATION

 BERM

AST ABOVEGROUND STORAGE TANK

* DATA FROM ATC ASSOCIATES (8/19/08)
ALL OTHER SAMPLES COLLECTED 9/26/08

B BENZENE

ANALYTICAL RESULTS ARE REPORTED IN MICROGRAMS PER LITER (µg/L)

— 5.0 — APPROXIMATE 5.0 µg/L (MICROGRAMS PER LITER) BENZENE CONTOUR

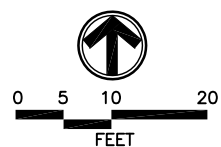


FIGURE 4
BENZENE IN GROUNDWATER
COLLINS 14-20
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.



TABLES

TABLE 1

**SOIL ANALYTICAL DATA
COLLINS 14-20
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.**

Soil Boring ID	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TVH-GRO (mg/kg)
SB01	9/25/2008	<0.005	<0.005	<0.005	<0.015	<50.0
SB02	9/25/2008	0.0638	0.508	0.631	4.330	1,090
SB03	9/25/2008	<0.005	<0.005	0.00836	0.1074	<50.0
SB04	9/25/2008	<0.005	<0.005	<0.005	0.02384	<50.0
SB05	9/25/2008	<0.005	<0.005	<0.005	<0.015	<50.0
SB06	9/25/2008	<0.005	<0.005	<0.005	<0.015	<50.0
SB07	9/25/2008	<0.005	<0.005	<0.005	<0.015	<50.0
CDLE-OPS RBSLs		0.26	140	190	1,900	
COGCC Sensitive Area Standard*						1,000

NOTES:

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

Total volatile hydrocarbons-gasoline range organics (TVH-GRO) analyzed by EPA modified Method 8015 M

mg/kg - milligrams per kilogram

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

CDLE-OPS RBSLs - Colorado Department of Labor and Employment, Division of Oil and Public Safety
Risk-Based Screening Levels

COGCC - Colorado Oil and Gas Conservation Commission

*Applies to contaminated subsurface soil >2 feet below ground surface (bgs)

and where the distance to groundwater is < 20 feet bgs



TABLE 2

**GROUNDWATER ANALYTICAL DATA
COLLINS 14-20
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.**

Well ID	Date	Depth to Water (feet btoc)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
SB01	9/26/2008	19.75	<1.0	<1.0	<1.0	<3.0
SB02	9/26/2008	19.03	1,640	47.4	652	5,344
SB03	9/26/2008	19.20	4.13	<1.0	3.34	67.33
SB04	9/26/2008	19.86	272	33.0	294	2,747
SB05	9/26/2008	21.83	<1.0	<1.0	<1.0	<3.0
SB06	9/26/2008	20.84	<1.0	<1.0	<1.0	<3.0
SB07	9/26/2008	20.93	1.21	<1.0	<1.0	21.60
CGWQS			5.0	1,000	700	1,400

NOTES:

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

btoc - below top of casing

ug/L - micrograms per liter

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

CGWQS - Colorado Groundwater Quality Standards

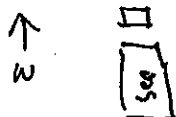
BOLD - indicates result exceeds CGWQS



ATTACHMENT 1
BOREHOLE LITHOLOGIC LOGS



Well Location Sketch:



S201



Compliance • Engineering • Remediation

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, Colorado 80003

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	S201	Project:	Collins 14-20
Date:	9/25/2008	Project Number:	NEP0834.01
Logged By:	Chris Purcell	Drilled By:	Dakota Drilling
Drilling Method:	Direct Push / ES Auger	Sampling Method:	Continuous
Seal:	Bentonite Chips	Grout:	NA
Gravel Pack:	CSSI 10x20	Hole Diameter:	2" / 4"
Casing Type:	Sch 40 PVC	Depth to Liquid:	NA
Screen Type:	Sch 40 PVC	Total Depth:	25'
Slot:	0.01	Depth to Water:	~20

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2			SP	Sand (F ₅); silt (75% x 25%)	
					4			SP	Drain well sorted loose	
					6			CL	SNA (same as above)	
					8			SP	clay; grayish tan moderate plasticity	
					10			SP	Sand (F ₅); well sorted clay lenses	
					12				refusal @ 11'	
					14					
42 50/5	moist	0	no		16			cls	weathered sandstone platy	
				1133	18				Dark brown	
					20			SS	Sand (mg); well sort	
50/4	wet	0	no		22				Dark brown weathered sandstone	
					24					
					26					
					28					
					30					
					32					
					34					
					36					
					38					
					40					

TD: 25'; 10' screen

Well Location Sketch:



A
2007
SB02



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Arvada, Colorado 80003

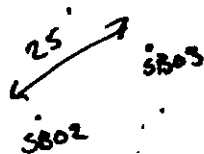
BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: SB02	Project: Collins 14-20				
Date: 9/25/2008	Project Number: NEP0834.01				
Logged By: Chris Purcell	Drilled By: Dakota Drilling				
Drilling Method: Direct Push / SS A-g	Sampling Method: Continuous				
Seal: Bentonite Chips	Grout:				
Casing Type: Sch 40 PVC	Diameter: 1"	Length: 10'	Hole Diameter: 2 1/4"	Depth to Liquid: NP	
Screen Type: Sch 40 PVC	Slot: 0.01	Diameter: 1"	Length: 5'	Total Depth: 12'	Depth to Water: ~18'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2					
					4					
3 1/2	MOIST	4900	YES		6			SS	FINE SAND (BLACK) loose poorly graded	
3					8					
3					10					
32	DRY	6196	YES		12			CLs	CLAYSTONE, SLIGHT ORG, GREY RATEY	
50/6				1200	12					
					14					
					16					
					18					
					20					
					22					
					24					
					26					
					28					
					30					
					32					
					34					
					36					
					38					
					40					

TOTAL DEPTH : 12'
REDRILLED TO 23'
10' SCREEN

Well Location Sketch:



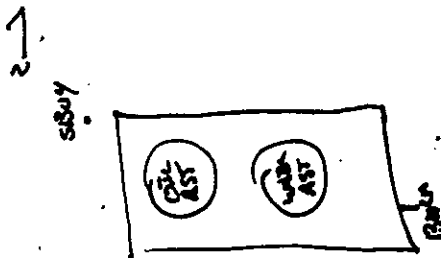
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 LT Environmental, Inc.
 4600 W. 60th Avenue
 Arvada, Colorado 80003

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	SB03	Project:	Collins 14-20
Date:	9/25/2008	Project Number:	NEP0834.01
Logged By:	Chris Purcell	Drilled By:	Dakota Drilling
Drilling Method:	Direct Push SS Auger	Sampling Method:	Continuous
Seal:	Bentonite Chips	Grout:	ND
Gravel Pack:	CSSI 10x20	Hole Diameter:	3/4"
Casing Type:	Sch 40 PVC	Depth to Liquid:	ND
Screen Type:	Sch 40 PVC	Total Depth:	25'
Slot:	0.01	Depth to Water:	220'
Diameter:	1"		
Length:	10'		
Diameter:	1"		
Length:	5'		

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2					
					4					
	DRY	0	NO		6	X		SS	WEATHERED SANDSTONE TO CLAY MODERATE PLASTICITY Brown	
					8					
					10	X		SS	WEATHERED SANDSTONE WELL SORTED Brown	
					12					
					14					
21					16	X		SS	MEDIUM COARSE SAND WELL SORTED GREENISH GREY/BLACK SLIGHT ODOR	
21					18					
21					20	X		SS	SAA @ 15-17'	
	WET		YES		22					
					24					
					26					
					28					
					30					
					32					
					34					
					36					
					38					
					40					

Well Location Sketch:



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LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, Colorado 80003

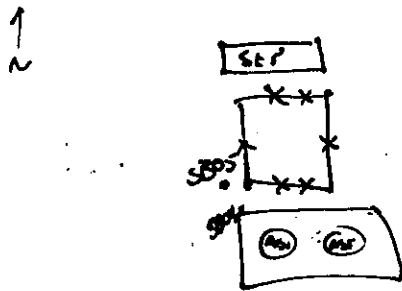
BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	SBOY			Project:	Collins 14-20		
Date:	9/25/2008			Project Number:	NEP0834.01		
Logged By:	Chris Purcell			Drilled By:	Dakota Drilling		
Drilling Method:	SAUGER SSAUGER			Sampling Method:	Continuous		
Seal:	Bentonite Chips			Grout:	M2		
Gravel Pack:	CSSI 10x20			Hole Diameter:	4"		Depth to Liquid:
Casing Type:	Sch 40 PVC			Diameter:	1"		Length:
Screen Type:	Sch 40 PVC			Diameter:	1"		Length:
Slot:	0.01			Total Depth:	23'		Depth to Water:
							~20'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2					
					4					
5	5	0	NO		6	X		SP	FINE SAND 2' CLAY LENSE WELL SORTED BROWN	
					8					
50/6	DRY	0	NO		10	X		SS	WEATHERED SANDSTONE MOLD PLASTICITY PLATEY	
					12					
50/6	MOIST	0	NO		14					
					16	X		SS	SAND TO SANDSTONE PEBBLES	
				1242	18					
	WET	80.4	2.16		20			SS	SAND BROWN → MUD CLAY	
					22					
					24					
					26					
					28					
					30					
					32					
					34					
					36					
					38					
					40					

TOTAL DEPTH @ 23'
10' SCREEN

Well Location Sketch:



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LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, Colorado 80003

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	SBO5			Project:	Collins 14-20		
Date:	9/25/2008			Project Number:	NEP0834.01		
Logged By:	Chris Purcell			Drilled By:	Dakota Drilling		
Drilling Method:	Rotary Drill SS w/over			Sampling Method:	Continuous		
Gravel Pack:	CSSI 10x20			Seal:	Bentonite Chips		
Casing Type:	Sch 40 PVC			Diameter:	1"	Length:	10'
Screen Type:	Sch 40 PVC			Diameter:	1"	Length:	5'
Slot:	0.01			Hole Diameter:	4"	Depth to Liquid:	
				Total Depth:	24'	Depth to Water:	~17'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2					
8					4			SS/CIS	SAND TO CLAYSTONE (FINE SAND) WELL SORTED BROWN	
6	dry	φ	NO		6					
9					8					
SS/2	dry	φ	NO		10			SS	SANDSTONE (LIGHT TAN & BROWN) HARD HIGH PLASTICITY	
					12					
					14					
SS/5	dry	φ	NO		16			SS	SANDSTONE MEDIUM GRADE WELL SORTED	
				1308	18					
					20					
					22					
					24					
					26					
					28					
					30					
					32					
					34					
					36					
					38					
					40					

Well Location Sketch:

1

SBOG SEP

00
AS7's

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LT Environmental, Inc.

4600 W. 60th Avenue

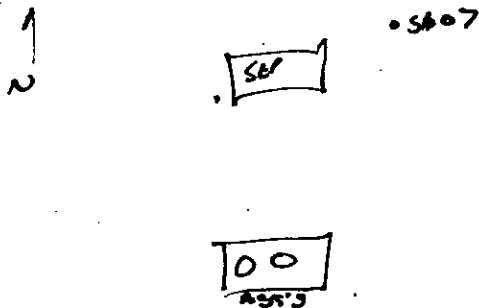
Arvada, Colorado 80003

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	SBOG	Project:	Collins 14-20
Date:	9/25/2008	Project Number:	NEP0834.01
Logged By:	Chris Purcell	Drilled By:	Dakota Drilling
Drilling Method:	Direct Push SS ANGER	Sampling Method:	Continuous
Gravel Pack:	CSSI 10x20	Seal:	Bentonite Chips
Casing Type:	Sch 40 PVC	Diameter:	1"
Screen Type:	Sch 40 PVC	Length:	16'
Slot:	0.01	Diameter:	1"
		Length:	5'
		Hole Diameter:	4"
		Depth to Liquid:	
		Total Depth:	24'
		Depth to Water:	~20'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2					
					4					
10 18 14	DRY	0	NO		6	X		SP	SAWD → FINE CLAY LOW PLASTICITY Brown NO odor	
					8	X				
35 50/6	MOIST	0	NO		10	X		SS	WEATHERED SANDSTONE FLAKY Brown NO odor	
					12	X				
					14					
50/4	MOIST	0	NO	X	16	X		SS	SAA	
				1340	18					
					20	X		SS	SANDSTONE	
	WED		NO		22	X				
					24					
					26					
					28					
					30					
					32					
					34					
					36					
					38					
					40					

Well Location Sketch:



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LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, Colorado 80003

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	SB07	Project:	Collins 14-20
Date:	9/25/2008	Project Number:	NEP0834.01
Logged By:	Chris Purcell	Drilled By:	Dakota Drilling
Drilling Method:	Direct Push SS AUGER	Sampling Method:	Continuous
Seal:	Bentonite Chips	Grout:	NO
Diameter:	1"	Length:	10'
Hole Diameter:	4"	Depth to Liquid:	
Screen Type:	Sch 40 PVC	Total Depth:	
Slot:	0.01	Depth to Water:	~20'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2					
					4					
4 7 9	dry	0	NO		6	X		SS	SAND w/ CLAY LENSES BROWN LENSE NO ODR	
					8					
17 23 40	dry	0	NO		10	X		SS	SAND w/ CLAY LENSES LARGE NO ODR PLATE	
					12					
					14					
0/3	moist	0	NO		16	X		SS	WEATHERED SANDSTONE	
				1409	18					
					20					
					22					
					24					
					26					
					28					
					30					
					32					
					34					
					36					
					38					
					40					

TD: 24'
10' SCREEN

ATTACHMENT 2
LABORATORY ANALYTICAL REPORTS





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

October 02, 2008

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

Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

Attached are the analytical results for Collins 14-20 5A received by Origins Laboratory, Inc. 9/26/2008 2:10:00PM. 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.

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303.433.1322 | Laboratory
303.265.9645 | Fax



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

Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

CROSS REFERENCE REPORT

Laboratory ID	Sample ID	Matrix	Sampled	Date Received
SB01	X809082-01	Water	9/26/2008 12:00:00PM	09/26/2008 14:10
SB02	X809082-02	Water	9/26/2008 12:10:00PM	09/26/2008 14:10
SB03	X809082-03	Water	9/26/2008 12:20:00PM	09/26/2008 14:10
SB04	X809082-04	Water	9/26/2008 12:30:00PM	09/26/2008 14:10
SB05	X809082-05	Water	9/26/2008 12:40:00PM	09/26/2008 14:10
SB06	X809082-06	Water	9/26/2008 12:50:00PM	09/26/2008 14:10
SB07	X809082-07	Water	9/26/2008 1:00:00PM	09/26/2008 14:10

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.

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

Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

page 3 of 3



originslaboratory.com

Client: LT Environmental, Inc.
Address: 4600 W 60th Ave
Telephone Number: (303) 433-9783
E-Mail Address: bdodek@ltenv.com

Project Manager: Brian Dodek
Project Name: Collins 14-20 5A
Project Number: NEP0834
Samples Collected by: Brian Dodek

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 #			
S001	9-26-08	12:05	3	X	X	X	X	X	X	X	Brix 8260	1	
S002	↓	12:10	3	X	X	X	X	X	X	X		2	
S003		12:20	3	X	X	X	X	X	X	X		3	
S004		12:30	3	X	X	X	X	X	X	X		4	
S005		12:40	3	X	X	X	X	X	X	X		5	
S006		12:50	3	X	X	X	X	X	X	X		6	
S007		13:00	3	X	X	X	X	X	X	X		7	
													8
												9	
												10	
Relinquished by: <u>Brian Dodek</u>	Date: <u>9-26-08</u>	Time: <u>1710</u>		Received by: <u>[Signature]</u>							Date: <u>9/26/08</u>	Time: <u>14:10</u>	Temperature Upon Receipt: <u>X</u>
Relinquished by:	Date:	Time:		Received by:							Date:	Time:	Turn Around Time: <u>24 hr</u>
													48 hr
													72 hr

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.

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

Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

SB01

X809082-01 (Water)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	1.00	ug/L	1	8129003	09/29/2008	09/30/2008
Toluene	ND	1.00	"	"	"	"	"
Ethylbenzene	ND	1.00	"	"	"	"	"
o-Xylene	ND	1.00	"	"	"	"	"
m,p-Xylene	ND	2.00	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	98.0 %	70.3-123	"	"	"
Surrogate: Toluene-d8	102 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	82.1 %	83-123	"	"	" S-GC

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

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

Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

SB02

X809082-02 (Water)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	1640	50.0	ug/L	50	8129003	09/29/2008	10/01/2008
Toluene	47.4	1.00	"	1	"	"	09/30/2008
Ethylbenzene	652	50.0	"	50	"	"	10/01/2008
o-Xylene	854	50.0	"	"	"	"	"
m,p-Xylene	4490	100	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	113 %	70.3-123	"	"	09/30/2008
Surrogate: Toluene-d8	89.8 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	109 %	83-123	"	"	"

Origins Laboratory, Inc.

Noelle E Doyle, Laboratory Manager

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LT Environmental, Inc.
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Arvada CO 80003

Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

SB03

X809082-03 (Water)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	4.13	1.00	ug/L	1	8129003	09/29/2008	09/30/2008
Toluene	ND	1.00	"	"	"	"	"
Ethylbenzene	3.34	1.00	"	"	"	"	"
o-Xylene	1.13	1.00	"	"	"	"	"
m,p-Xylene	66.2	2.00	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	105 %	70.3-123	"	"	"
Surrogate: Toluene-d8	90.7 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	97.8 %	83-123	"	"	"

Origins Laboratory, Inc.

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Noelle E Doyle, Laboratory Manager

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Arvada CO 80003

Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

SB04

X809082-04 (Water)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	272	20.0	ug/L	20	8129003	09/29/2008	09/30/2008
Toluene	33.0	1.00	"	1	"	"	"
Ethylbenzene	294	20.0	"	20	"	"	"
o-Xylene	387	20.0	"	"	"	"	"
m,p-Xylene	2360	40.0	"	"	"	"	10/01/2008

Surrogate: 1,2-Dichloroethane-d4	104 %	70.3-123	"	"	09/30/2008
Surrogate: Toluene-d8	88.9 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	83-123	"	"	"

Origins Laboratory, Inc.

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Noelle E Doyle, Laboratory Manager

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Arvada CO 80003

Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

SB05

X809082-05 (Water)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	1.00	ug/L	1	8129003	09/29/2008	09/30/2008
Toluene	ND	1.00	"	"	"	"	"
Ethylbenzene	ND	1.00	"	"	"	"	"
o-Xylene	ND	1.00	"	"	"	"	"
m,p-Xylene	ND	2.00	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	102 %	70.3-123	"	"	"
Surrogate: Toluene-d8	96.4 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	85.6 %	83-123	"	"	"

Origins Laboratory, Inc.

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Noelle E Doyle, Laboratory Manager

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LT Environmental, Inc.
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Arvada CO 80003

Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

SB06

X809082-06 (Water)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	1.00	ug/L	1	8129003	09/29/2008	09/30/2008
Toluene	ND	1.00	"	"	"	"	"
Ethylbenzene	ND	1.00	"	"	"	"	"
o-Xylene	ND	1.00	"	"	"	"	"
m,p-Xylene	ND	2.00	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	97.8 %	70.3-123	"	"	"
Surrogate: Toluene-d8	99.6 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	83.5 %	83-123	"	"	"

Origins Laboratory, Inc.

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Noelle E Doyle, Laboratory Manager

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4600 West 60th Avenue
Arvada CO 80003

Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

SB07

X809082-07 (Water)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	1.21	1.00	ug/L	1	8129003	09/29/2008	09/30/2008
Toluene	ND	1.00	"	"	"	"	"
Ethylbenzene	ND	1.00	"	"	"	"	"
o-Xylene	1.70	1.00	"	"	"	"	"
m,p-Xylene	19.9	2.00	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	92.6 %	70.3-123	"	"	"
Surrogate: Toluene-d8	95.5 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	92.6 %	83-123	"	"	"

Origins Laboratory, Inc.

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Noelle E Doyle, Laboratory Manager

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

Brian Dodek
 Project Number: NEP0834
 Project: Collins 14-20 5A

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 8I29003 – EPA 5030B

Blank (8I29003-BLK1)

Prepared: 09/29/2008 Analyzed: 09/29/2008

Benzene	ND	1.00	ug/L							
Toluene	ND	1.00	"							
Ethylbenzene	ND	1.00	"							
o-Xylene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
Surrogate: 1,2-Dichloroethane-d4	61.0		"	62.5		97.7	70.3-123			
Surrogate: Toluene-d8	64.0		"	62.5		102	75.9-123			
Surrogate: 4-Bromofluorobenzene	52.3		"	62.5		83.6	83-123			

LCS (8I29003-BS1)

Prepared: 09/29/2008 Analyzed: 10/01/2008

Benzene	37.9	1.00	ug/L	50.0		75.7	64.2-124			
Toluene	40.9	1.00	"	50.0		81.9	63.9-119			
Surrogate: 1,2-Dichloroethane-d4	66.1		"	62.5		106	70.3-123			
Surrogate: Toluene-d8	51.0		"	62.5		81.6	75.9-123			
Surrogate: 4-Bromofluorobenzene	51.6		"	62.5		82.5	83-123			S-GC

Matrix Spike (8I29003-MS1)

Source: X809082-01

Prepared: 09/29/2008 Analyzed: 09/29/2008

Benzene	38.6	1.00	ug/L	50.0	ND	77.2	64.2-124			
Toluene	40.3	1.00	"	50.0	0.91	78.8	63.9-119			
Surrogate: 1,2-Dichloroethane-d4	61.0		"	62.5		97.7	70.3-123			
Surrogate: Toluene-d8	64.9		"	62.5		104	75.9-123			
Surrogate: 4-Bromofluorobenzene	48.7		"	62.5		77.9	83-123			S-GC

Matrix Spike Dup (8I29003-MSD1)

Source: X809082-01

Prepared: 09/29/2008 Analyzed: 09/30/2008

Benzene	33.6	1.00	ug/L	50.0	ND	67.1	64.2-124	14.0	25	
Toluene	36.9	1.00	"	50.0	0.91	72.0	63.9-119	8.75	25	
Surrogate: 1,2-Dichloroethane-d4	61.0		"	62.5		97.6	70.3-123			
Surrogate: Toluene-d8	63.8		"	62.5		102	75.9-123			
Surrogate: 4-Bromofluorobenzene	50.9		"	62.5		81.4	83-123			S-GC

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

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

Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference

Origins Laboratory, Inc.

Noelle E Doyle, Laboratory Manager

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October 02, 2008

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

Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

Attached are the analytical results for Collins 14-20 5A received by Origins Laboratory, Inc. 9/26/2008 9:32:00AM. 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.

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

Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

CROSS REFERENCE REPORT

Laboratory ID	Sample ID	Matrix	Sampled	Date Received
SB01	X809081-01	Soil	9/25/2008 11:38:00AM	09/26/2008 09:32
SB02	X809081-02	Soil	9/25/2008 12:00:00PM	09/26/2008 09:32
SB03	X809081-03	Soil	9/25/2008 12:15:00PM	09/26/2008 09:32
SB04	X809081-04	Soil	9/25/2008 12:42:00PM	09/26/2008 09:32
SB05	X809081-05	Soil	9/25/2008 1:08:00PM	09/26/2008 09:32
SB06	X809081-06	Soil	9/25/2008 1:40:00PM	09/26/2008 09:32
SB07	X809081-07	Soil	9/25/2008 2:09:00PM	09/26/2008 09:32

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.


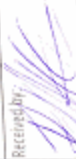
Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A



O'BRIEN
LABORATORY, INC.

Project Manager: Brian Weber
Project Name: LOWESS 14-22 SA
Project Number: 1608234
Samples Collected by: CHUCKS MURPHY / BERT FOLMER

Client: LT LUSSEMBURG
Address: HEDER W 6075 NW
ALBUQUERQUE, CO 80033
Telephone Number: 303-433-9788
E-Mail Address: bbs@lt@LTENL.COM

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 #	
5301	9-25-08	1138	1	X							CEC	1
5302		1200	1	X							RTX 8260	2
5303		1215	1	X								3
5304		1242	1	X								4
5305		1308	1	X								5
5306		1340	1	X								6
5307		1409	1	X								7
												8
												9
												10
					Received by:		Date		Time		Temperature Upon Receipt	
Relinquished by: 	Date: 9/26/08	Time: 0932			Received by: 		Date: 9/26/08		Time: 932		Turn Around Time: Same Day 48 hr 72 hr Standard	

1600 Franklin Avenue, Suite 100, Denver, Colorado 80202 | Tel: 303.733.1111 | Fax: 303.733.1112

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Page 3 of 13

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

Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

SB01

X809081-01 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	5.00	ug/kg	1	8129002	09/29/2008	09/29/2008
Toluene	ND	5.00	"	"	"	"	"
Ethylbenzene	ND	5.00	"	"	"	"	"
o-Xylene	ND	5.00	"	"	"	"	"
m,p-Xylene	ND	10.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	94.2 %	70.3-123	"	"	"
Surrogate: Toluene-d8	103 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	82.2 %	83-123	"	"	" S-GC

Gasoline Range Organics (GRO) by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	8J01001	10/01/2008	10/01/2008
-------------------	----	------	-------	---	---------	------------	------------

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

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

Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

SB02

X809081-02 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	63.8	5.00	ug/kg	1	8129002	09/29/2008	09/29/2008
Toluene	508	5.00	"	"	"	"	"
Ethylbenzene	631	5.00	"	"	"	"	"
o-Xylene	1300	5.00	"	"	"	"	"
m,p-Xylene	3030	10.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	102 %	70.3-123	"	"	"
Surrogate: Toluene-d8	86.2 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	83-123	"	"	"

Gasoline Range Organics (GRO) by EPA 8015M

Gasoline (C6-C10)	1090	50.0	mg/kg	1	8J01001	10/01/2008	10/01/2008
-------------------	------	------	-------	---	---------	------------	------------

Origins Laboratory, Inc.

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Noelle E Doyle, Laboratory Manager

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

Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

SB03

X809081-03 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	5.00	ug/kg	1	8129002	09/29/2008	09/29/2008
Toluene	ND	5.00	"	"	"	"	"
Ethylbenzene	8.36	5.00	"	"	"	"	"
o-Xylene	28.0	5.00	"	"	"	"	"
m,p-Xylene	79.4	10.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	97.5 %	70.3-123			"	"	"
Surrogate: Toluene-d8	99.5 %	75.9-123			"	"	"
Surrogate: 4-Bromofluorobenzene	93.8 %	83-123			"	"	"

Gasoline Range Organics (GRO) by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	8J01001	10/01/2008	10/01/2008
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Origins Laboratory, Inc.

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SB04
X809081-04 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	5.00	ug/kg	1	8129002	09/29/2008	09/29/2008
Toluene	ND	5.00	"	"	"	"	"
Ethylbenzene	ND	5.00	"	"	"	"	"
o-Xylene	6.24	5.00	"	"	"	"	"
m,p-Xylene	17.6	10.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	92.3 %	70.3-123	"	"	"
Surrogate: Toluene-d8	105 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	90.3 %	83-123	"	"	"

Gasoline Range Organics (GRO) by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	8J01001	10/01/2008	10/01/2008
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SB05

X809081-05 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	5.00	ug/kg	1	8129002	09/29/2008	09/29/2008
Toluene	ND	5.00	"	"	"	"	"
Ethylbenzene	ND	5.00	"	"	"	"	"
o-Xylene	ND	5.00	"	"	"	"	"
m,p-Xylene	ND	10.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	85.5 %	70.3-123	"	"	"
Surrogate: Toluene-d8	110 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	87.1 %	83-123	"	"	"

Gasoline Range Organics (GRO) by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	8J01001	10/01/2008	10/01/2008
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Project Number: NEP0834
Project: Collins 14-20 5A

SB06

X809081-06 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	5.00	ug/kg	1	8129002	09/29/2008	09/29/2008
Toluene	ND	5.00	"	"	"	"	"
Ethylbenzene	ND	5.00	"	"	"	"	"
o-Xylene	ND	5.00	"	"	"	"	"
m,p-Xylene	ND	10.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	93.7 %	70.3-123	"	"	"
Surrogate: Toluene-d8	104 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	83.5 %	83-123	"	"	"

Gasoline Range Organics (GRO) by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	8J01001	10/01/2008	10/01/2008
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Project: Collins 14-20 5A

SB07

X809081-07 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	5.00	ug/kg	1	8129002	09/29/2008	09/29/2008
Toluene	ND	5.00	"	"	"	"	"
Ethylbenzene	ND	5.00	"	"	"	"	"
o-Xylene	ND	5.00	"	"	"	"	"
m,p-Xylene	ND	10.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	97.9 %	70.3-123	"	"	"
Surrogate: Toluene-d8	101 %	75.9-123	"	"	"
Surrogate: 4-Bromofluorobenzene	79.1 %	83-123	"	"	" S-GC

Gasoline Range Organics (GRO) by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	8J01001	10/01/2008	10/01/2008
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Brian Dodek
Project Number: NEP0834
Project: Collins 14-20 5A

Extractable Petroleum Hydrocarbons by 8015M – Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8J01001 – Default Prep GC-Semi										
Blank (8J01001-BLK1)					Prepared: 10/01/2008 Analyzed: 10/01/2008					
Gasoline (C6-C10)	ND	50.0	mg/kg							
LCS (8J01001-BS1)					Prepared: 10/01/2008 Analyzed: 10/01/2008					
Gasoline (C6-C10)	187	50.0	mg/kg	200		93.7	65-135			
Matrix Spike (8J01001-MS1)					Source: X809081-04		Prepared: 10/01/2008 Analyzed: 10/01/2008			
Gasoline (C6-C10)	232	50.0	mg/kg	200	ND	116	65-135			
Matrix Spike Dup (8J01001-MSD1)					Source: X809081-04		Prepared: 10/01/2008 Analyzed: 10/01/2008			
Gasoline (C6-C10)	244	50.0	mg/kg	200	ND	122	65-135	4.98	25	

Origins Laboratory, Inc.

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Project Number: NEP0834
Project: Collins 14-20 5A

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 8I29002 – EPA 5030B

Blank (8I29002-BLK1)

Prepared: 09/29/2008 Analyzed: 09/29/2008

Benzene	ND	5.00	ug/kg							
Toluene	ND	5.00	"							
Ethylbenzene	ND	5.00	"							
o-Xylene	ND	5.00	"							
m,p-Xylene	ND	10.0	"							
Surrogate: 1,2-Dichloroethane-d4	248		"	250		99.0	70.3-123			
Surrogate: Toluene-d8	242		"	250		96.9	75.9-123			
Surrogate: 4-Bromofluorobenzene	210		"	250		83.9	83-123			

LCS (8I29002-BS1)

Prepared: 09/29/2008 Analyzed: 09/29/2008

Benzene	177	5.00	ug/kg	200		88.6	64.2-124			
Toluene	197	5.00	"	200		98.3	63.9-119			
Surrogate: 1,2-Dichloroethane-d4	258		"	250		103	70.3-123			
Surrogate: Toluene-d8	235		"	250		93.9	75.9-123			
Surrogate: 4-Bromofluorobenzene	221		"	250		88.2	83-123			

Matrix Spike (8I29002-MS1)

Source: X809081-03

Prepared: 09/29/2008 Analyzed: 09/29/2008

Benzene	173	5.00	ug/kg	200	ND	86.6	64.2-124			
Toluene	201	5.00	"	200	4.40	98.3	63.9-119			
Surrogate: 1,2-Dichloroethane-d4	260		"	250		104	70.3-123			
Surrogate: Toluene-d8	248		"	250		99.1	75.9-123			
Surrogate: 4-Bromofluorobenzene	212		"	250		85.0	83-123			

Matrix Spike Dup (8I29002-MSD1)

Source: X809081-03

Prepared: 09/29/2008 Analyzed: 09/29/2008

Benzene	184	5.00	ug/kg	200	ND	91.8	64.2-124	5.87	25	
Toluene	215	5.00	"	200	4.40	106	63.9-119	6.95	25	
Surrogate: 1,2-Dichloroethane-d4	252		"	250		101	70.3-123			
Surrogate: Toluene-d8	252		"	250		101	75.9-123			
Surrogate: 4-Bromofluorobenzene	212		"	250		84.9	83-123			

Origins Laboratory, Inc.

Noelle E Doyle, Laboratory Manager

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Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference

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