REM 9146
Received 6/18/2015
Document 2314897

Nelson C1
Subsurface Site Assessment

June 17, 2015

Prepared for:

Whiting Petroleum Corporation

Prepared by:

Talon/LPE
1811 East Mulberry St
Fort Collins, CO 80524

Table of Contents

1 Introduction

Talon/LPE (Talon) was contracted by Whiting Petroleum Corporation (Whiting) to conduct site investigation assessment activities associated with a pipeline release identified at the Nelson C1 site (Site) in Weld County, Colorado. The site is located at the northwest quarter of the southeast quarter of Section 18, Township 10 North, Range 58 West, 6th Principal Meridian at 40°50'10.72"N and 103°54'17.73"W (Attachment 1). The site is identified by the State of Colorado Oil and Gas Conservation Commission (COGCC) as Spill/Release Point Facility ID 441208.

The following document is a chronological assessment of site investigation activities associated with a flowline leak. Activities included excavation, collection of confirmation soil boring samples, and preparation of this summary report.

2 Objective

The primary objective of this investigation is to determine the nature and extent of soil and/or groundwater impacts resulting from a flowline release. The release was discovered and reported on COGCC Form 19 on March 30, 2015.

3 Site Characteristics

3.1 Geography

The site is located in the Pawnee Grasslands in Weld County, which is the northeastern part of Colorado. The Grasslands are part of the Colorado Eastern Plains and are relatively flat with the exception of the Pawnee Creek which drains into the South Platte River.

3.2 Geologic Summary

Surficial geology surrounding the area consists of Tertiary age fluvial deposits of the lower Ogallala Formation. More specifically, these deposits are Miocene in age and are composed of gray to brown and semi-consolidated, ashy sands and silt beds with volcanic ash beds. Deposited material hardened into sandstone and siltstone which are grouped into three formations: White River, Arikaree, and Ogallala.

3.3 Groundwater

Groundwater was not encountered during soil boring activities which reached a total depth of 40 ft bgs. Based on the area topography and regional surface water drainages, the expected groundwater flow is south-southeast. According to the Colorado Division of Water Resources Website, there are no water wells within 1,000 foot radius of the Site.

4 Field Investigation Activities

On March 20, 2015, COGCC Form 19 was submitted which describes a condensate leak which was found on a flowline leading to a treater due to a loose union. The union was tightened to stop the leak. The Form 19 outlines a remedial action plan of excavating impacted soils and placing them on a liner for onsite remediation via soil shredding.

On March 30, 2015, a Supplemental Form 19 was submitted which reports that excavation activities indicated that soil was impacted and the extent of impacts needs to be delineated.

At the request of Whiting, Talon performed this field investigation to delineate the extent of impacts. Between April 1 and 2, 2015, Talon conducted soil boring activities. Borings SB-1 through SB-5 were drilled to a depth of 25 to 40 ft bgs to define vertical and horizontal extent of impacts.

During field drilling activities, soil samples were field screened for volatile organic compounds (VOCs) using a

photoionization detector (PID) to determine any areas of impacts. Based on the PID values, soil samples were collected from the borings from depths ranging between 0-5 ft bgs and 35-40 ft bgs. A total of 17 soil samples were collected and analyzed for Total Petroleum Hydrocarbons (TPH) via Diesel Range Organics (DRO) and Gasoline Range Organics GRO method SW8015 and benzene, toluene, ethylbenzene, and total xylenes (BTEX) and naphthalene via method SW8260 at ALS Environmental (ALS) of Fort Collins, Colorado. Analytical results in soil sample SB-1 at 5-10 ft bgs exhibited a TPH concentration at the COGCC Table 910-1 concentration level of 500 mg/kg. This sample was collected just west of the treater area.

On April 7, 2015, Talon drilled soil borings SB-6 and SB-7 to further delineate the extent of impacts. These borings were drilled to the southeast of the treater location (Attachment 1). A total of six soil samples were collected and analyzed for TPH via DRO and GRO method SW8015 and BTEX and naphthalene via method SW8260 at ALS. Analytical results for benzene in soil sample SB-6 at 20-25 ft bgs (0.93 mg/kg) and analytical results for TPH in soil sample SB-7 at 20-25 ft bgs (870 mg/kg) were above the COGCC Table 910-1 concentration levels. These samples were collected to the southeast of the treater.

On April 22 and 23, 2015, Talon drilled soil borings SB-8 through SB-11 to further delineate the extent of impacts. A total of 16 soil samples were collected and analyzed for TPH via DRO and GRO method SW8015 and BTEX and naphthalene via method SW8260 at ALS. The analytical result for benzene in soil sample SB-8 at 25-30 ft bgs (0.85 mg/kg) was above the COGCC Table 910-1 concentration levels. This sample was collected to the south of the tank battery area.

On June 4, 2015, Talon drilled soil borings SB-12 and SB-13 to further delineate the extent of impacts. A total of nine soil samples were collected and analyzed for TPH via DRO and GRO method SW8015 and BTEX and naphthalene via method SW8260 at ALS. Analytical results for benzene in soil samples SB-12 at 20-25 ft bgs (0.96 mg/kg) and SB-12 at 25-30 ft bgs (0.57 mg/kg) are above the COGCC Table 910-1 concentration levels. These samples were collected to the east of the tank battery area.

Boring logs detailing observed lithology and PID values are included in Attachment 3. A copy of the laboratory reports and chain of custody documentation is included in Attachment 4. At the time of this report, boring logs and figures include borings SB-1 through SB-11. Borings SB-12 and SB-13 will be included in future reports.

4.1 Discussion of Results

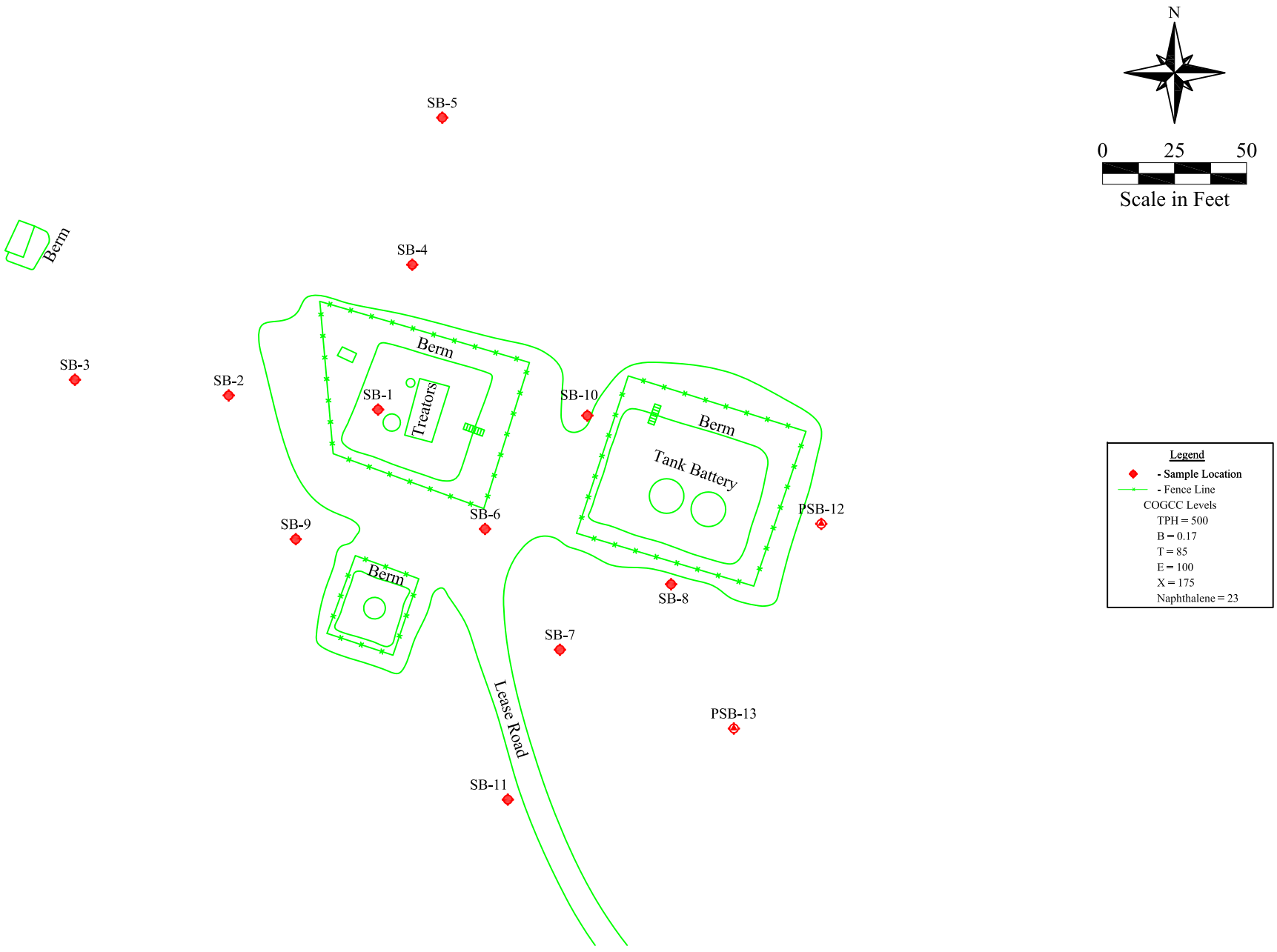
Table 1 in Attachment 2 summarizes the laboratory analytical results. Analytical results in soil sample SB-1 at 5-10 ft bgs exhibited a TPH concentration at the COGCC Table 910-1 concentration level of 500 mg/kg. Analytical results for benzene in soil sample SB-6 at 20-25 ft bgs (0.93 mg/kg) and analytical results for TPH in soil sample SB-7 at 20-25 ft bgs (870 mg/kg) were above the COGCC Table 910-1 concentration levels. The analytical result for benzene in soil sample SB-8 at 25-30 ft bgs (0.85 mg/kg) was above the COGCC Table 910-1 concentration levels. Analytical results for benzene in soil samples SB-12 at 20-25 ft bgs (0.96 mg/kg) and SB-12 at 25-30 ft bgs (0.57 mg/kg) are above the COGCC Table 910-1 concentration levels. All other analytical results were below COGCC Table 910-1 concentration levels. Impacted areas include west and southeast of the treater area, and to the south and east of the tank battery area.

5 Conclusions & Recommendations

The objective of this report was to document the nature and extent of the historical impacts from the Nelson C1 flowline release location. Talon has installed 13 borings to assess any remaining soil or groundwater impacts from this release. Analytical results were above COGCC Table 910-1 concentration levels in soil samples SB-1 at 5-10 ft bgs, SB-6 at 20-25 ft bgs, SB-7 at 20-25 ft bgs, SB-8 at 25-30 ft bgs, and SB-12 at 20-30 ft bgs. Analytical results from the soil samples indicate impacts remain and that the extent of impacts is not fully known.

Talon recommends performing two more soil borings to the north and east of the tank battery area to further delineate the horizontal and vertical extent of impacts. Once the site is fully delineated, remedial options can be considered. Talon recommends that soil vapor extraction (SVE), excavation and disposal of impacted soils, or *in-situ* chemical oxidation (ISCO) injections be considered as remedial options. Talon will provide Whiting with a separate proposal and compare the technical and economic feasibility of these options.

Attachment 1
Figures



TALON LPE

Date: 05/20/2015

Scale: 1" = 50'

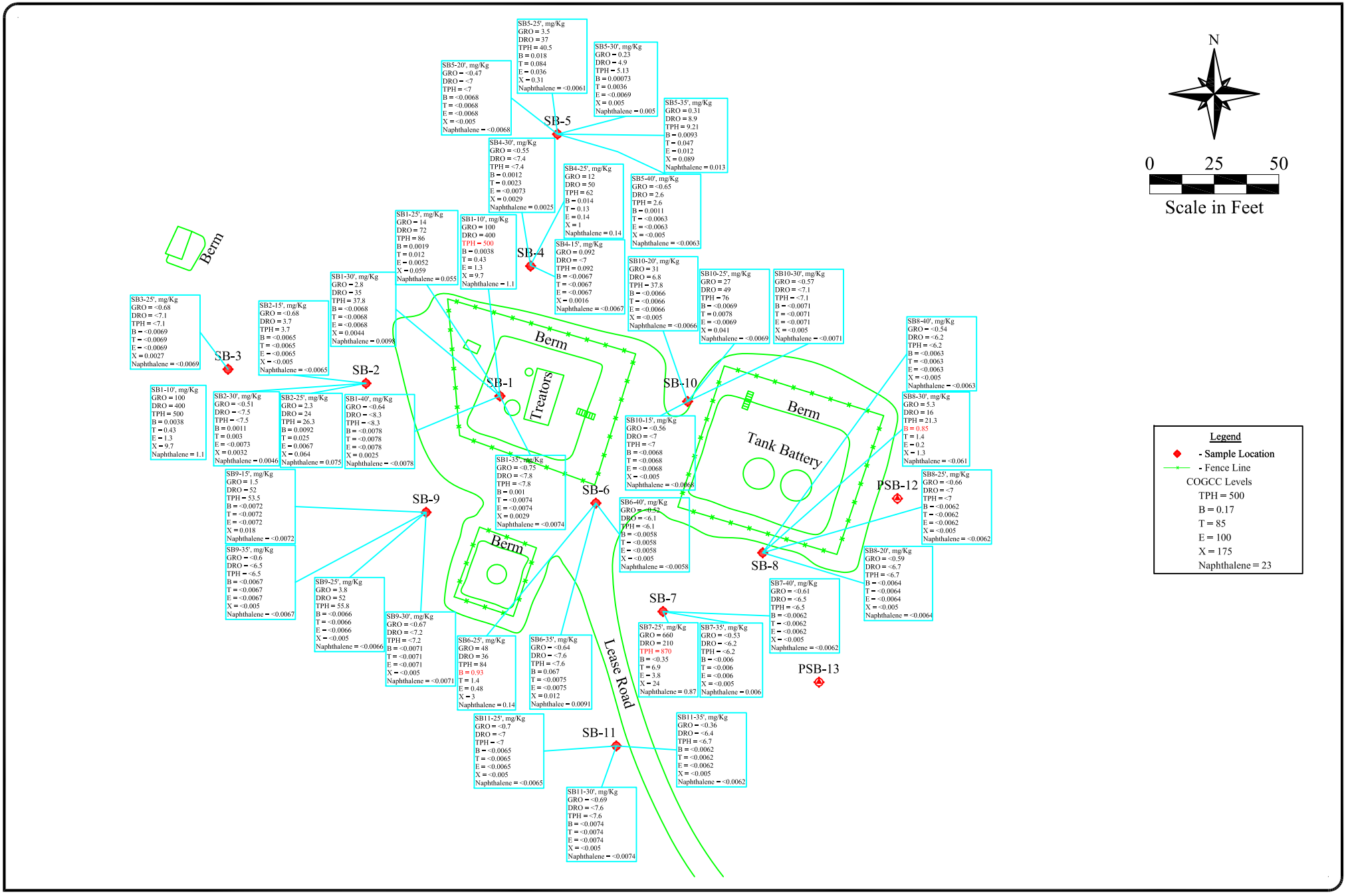
Drawn By: TJS

Nelson C-1

Whiting Oil & Gas

Weld County, Colorado

Figure 1 - Site Plan



TALON LPE

Date: 05/20/2015

Scale: 1" = 50'

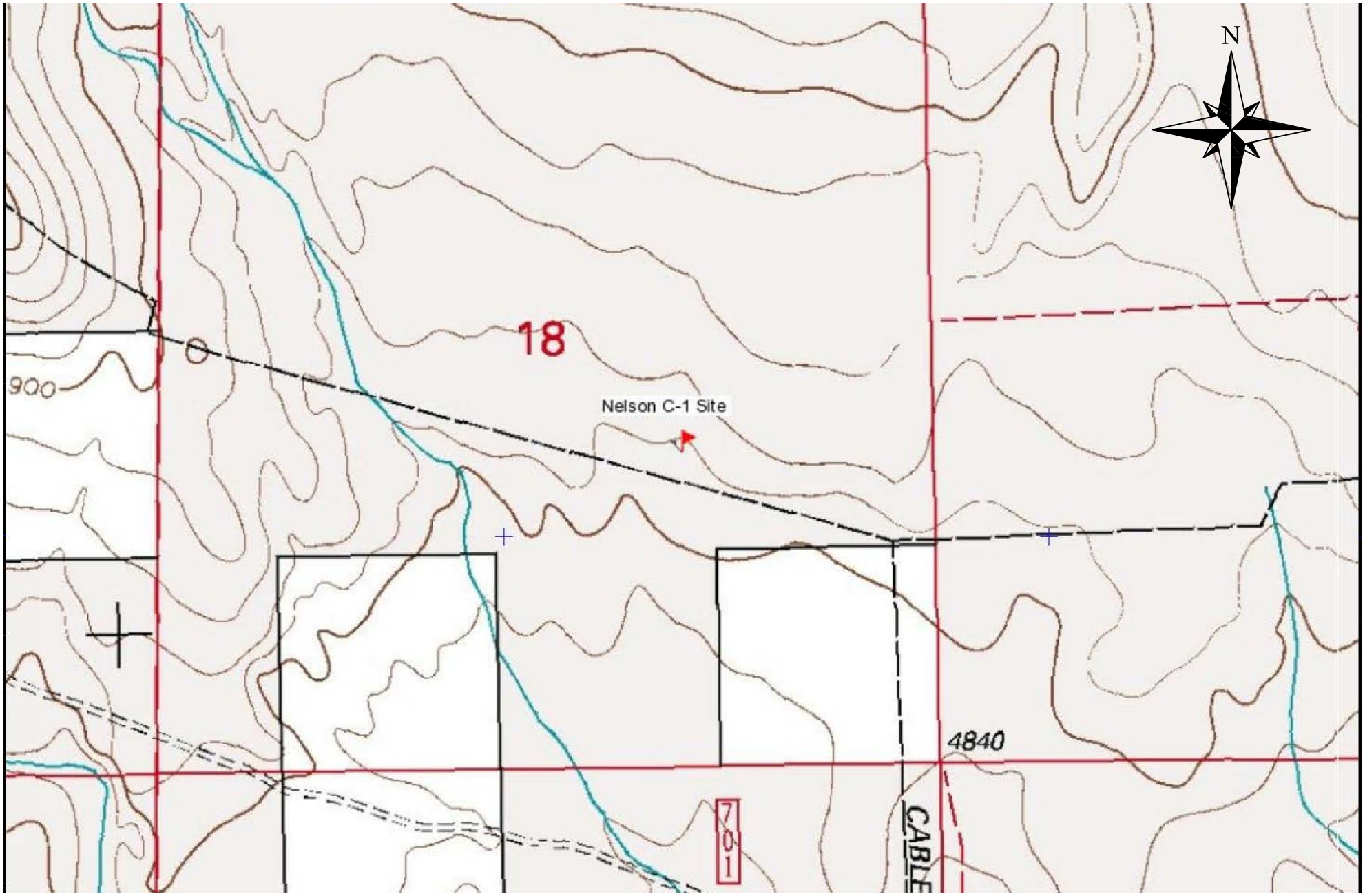
Drawn By: TJS

Nelson C-1

Whiting Oil & Gas

Weld County, Colorado

Figure 2 - Soil Concentration Map (04/01-23/2015)



TALON LPE

Date:	05/20/2015
Scale:	1" = 10,000'
Drawn By:	TJS

Nelson C-1

Whiting Oil & Gas
Weld County, Colorado
Figure 3 - Topographic Map

Attachment 2
Analytical Table

Table 1 - Soil Analytical Data

Whiting Oil and Gas Corporation
Nelson C-1
Weld County, Colorado

Sample ID	Lab ID	Date Sampled	Concentration (mg/kg)							
			Benzene	Toluene	Ethyl-Benzene	Xylenes	Naphthalene	GRO	DRO	TPH
COGCC Table 910-1 Concentration Levels			0.17	85	100	175	23	NA	NA	500
SB-1 - 5-10'	1504124-1	04/01/15	0.0038	0.43	1.3	9.7	1.1	100	400	500
SB-1 - 20-25'	1504124-2	04/01/15	0.0019	0.012	0.0052	0.059	0.055	14	72	86
SB-1 - 25-30'	1504124-3	04/01/15	<0.0068	<0.0068	<0.0068	0.0044	0.0098	2.8	35	37.8
SB-1 - 30-35'	1504124-4	04/01/15	0.001	<0.0074	<0.0074	0.0029	<0.0074	<0.75	<7.8	<7.8
SB-1 - 35-40'	1504124-5	04/01/15	<0.0078	<0.0078	<0.0078	0.0025	<0.0078	<0.64	<8.3	<8.3
SB-2 - 10-15'	1504124-6	04/01/15	<0.0065	<0.0065	<0.0065	<0.005	<0.0065	<0.68	3.7	3.7
SB-2 - 20-25'	1504124-7	04/01/15	0.0092	0.025	0.0067	0.064	0.075	2.3	24	26.3
SB-2 - 25-30'	1504124-8	04/01/15	0.0011	0.003	<0.0073	0.0032	0.0046	<0.51	<7.5	<7.5
SB-3 - 20-25'	1504124-9	04/01/15	<0.0069	<0.0069	<0.0069	0.0027	<0.0069	<0.68	<7.1	<7.1
SB-4 - 10-15'	1504124-10	04/02/15	<0.0067	<0.0067	<0.0067	0.0016	<0.0067	0.092	<7	0.092
SB-4 - 20-25'	1504124-11	04/02/15	0.014	0.13	0.14	1	0.14	12	50	62
SB-4 - 25-30'	1504124-12	04/02/15	0.0012	0.0023	<0.0073	0.0029	0.0025	<0.55	<7.4	<7.4
SB-5 - 15-20'	1504124-13	04/02/15	<0.0068	<0.0068	<0.0068	<0.005	<0.0068	<0.47	<7	<7
SB-5 - 20-25'	1504124-14	04/02/15	0.018	0.084	0.036	0.31	<0.0061	3.5	37	40.5
SB-5 - 25-30'	1504124-15	04/02/15	0.00073	0.0036	<0.0069	0.005	0.005	0.23	4.9	5.13
SB-5 - 30-35'	1504124-16	04/02/15	0.0093	0.047	0.012	0.089	0.013	0.31	8.9	9.21
SB-5 - 35-40'	1504124-17	04/02/15	0.0011	<0.0063	<0.0063	<0.005	<0.0063	<0.65	2.6	2.6
SB-6 - 20-25'	1504197-1	04/07/15	0.93	1.4	0.48	3	0.14	48	36	84
SB-6 - 30-35'	1504197-2	04/07/15	0.067	<0.0075	<0.0075	0.012	0.0091	<0.64	<7.6	<7.6
SB-6 - 35-40'	1504197-3	04/07/15	<0.0058	<0.0058	<0.0058	<0.005	<0.0058	<0.52	<6.1	<6.1
SB-7 - 20-25'	1504197-4	04/07/15	<0.35	6.9	3.8	24	0.87	660	210	870
SB-7 - 30-35'	1504197-5	04/07/15	<0.006	<0.006	<0.006	<0.005	<0.006	<0.53	<6.2	<6.2
SB-7 - 35-40'	1504197-6	04/07/15	<0.0062	<0.0062	<0.0062	<0.005	<0.0062	<0.61	<6.5	<6.5
SB-8 - 15-20'	1504496-1	04/22/15	<0.0064	<0.0064	<0.0064	<0.005	<0.0064	<0.59	<6.7	<6.7
SB-8 - 20-25'	1504496-2	04/22/15	<0.0062	<0.0062	<0.0062	<0.005	<0.0062	<0.66	<7	<7
SB-8 - 25-30'	1504496-3	04/22/15	0.85	1.4	0.2	1.3	<0.061	5.3	16	21.3
SB-8 - 35-40'	1504496-4	04/22/15	<0.0063	<0.0063	<0.0063	<0.005	<0.0063	<0.54	<6.2	<6.2
SB-9 - 10-15'	1504496-5	04/22/15	<0.0072	<0.0072	<0.0072	0.018	<0.0072	1.5	52	53.5
SB-9 - 20-25'	1504496-6	04/22/15	<0.0066	<0.0066	<0.0066	<0.005	<0.0066	3.8	52	55.8
SB-9 - 25-30'	1504496-7	04/22/15	<0.0071	<0.0071	<0.0071	<0.005	<0.0071	<0.67	<7.2	<7.2
SB-9 - 30-35'	1504496-8	04/22/15	<0.0067	<0.0067	<0.0067	<0.005	<0.0067	<0.6	<6.5	<6.5
SB-10 - 10-15'	1504496-9	04/22/15	<0.0068	<0.0068	<0.0068	<0.005	<0.0068	<0.56	<7	<7
SB-10 - 15-20'	1504496-10	04/22/15	<0.0066	<0.0066	<0.0066	<0.005	<0.0066	31	6.8	37.8

Table 1 - Soil Analytical Data

Whiting Oil and Gas Corporation
Nelson C-1
Weld County, Colorado

Sample ID	Lab ID	Date Sampled	Concentration (mg/kg)							
			Benzene	Toluene	Ethyl-Benzene	Xylenes	Naphthalene	GRO	DRO	TPH
COGCC Table 910-1 Concentration Levels			0.17	85	100	175	23	NA	NA	500
SB-10 - 20-25'	1504496-11	04/22/15	<0.0069	0.0078	<0.0069	0.041	<0.0069	27	49	76
SB-10 - 25-30'	1504496-12	04/22/15	<0.0071	<0.0071	<0.0071	<0.005	<0.0071	<0.57	<7.1	<7.1
SB-10 - 30-35'	1504496-13	04/22/15	<0.0081	<0.0081	<0.0081	<0.005	<0.0081	<0.66	<8.1	<8.1
SB-11 - 20-25'	1504496-14	04/23/15	<0.0065	<0.0065	<0.0065	<0.005	<0.0065	<0.7	<7	<7
SB-11 - 25-30'	1504496-15	04/23/15	<0.0074	<0.0074	<0.0074	<0.005	<0.0074	<0.69	<7.6	<7.6
SB-11 - 30-35'	1504496-16	04/23/15	<0.0062	<0.0062	<0.0062	<0.005	<0.0062	<0.36	<6.4	<6.7
SB-12 - 20-25'	1506115-1	06/04/15	0.96	1.9	0.44	2.5	0.071	14	9.5	23.5
SB-12 - 25-30'	1506115-2	06/04/15	0.57	0.59	0.07	0.43	<0.047	3.2	<7	<7
SB-13 - 20-25'	1506115-3	06/04/15	<0.0072	<0.0072	<0.0072	<0.005	<0.0072	<0.48	<7.4	<7.4
SB-13 - 35-40'	1506115-4	06/04/15	<0.0061	<0.0061	<0.0061	<0.005	<0.0061	<0.49	<6.3	<6.3
SB-12 - 30-35'	1506115-5	06/04/15	0.076	0.0071	0.0079	0.021	<0.0061	<0.46	<6	<6
SB-13 - 30-35'	1506115-6	06/04/15	0.14	0.096	0.019	0.073	<0.0076	<0.55	<7.6	<7.6
SB-12 - 15-20'	1506115-7	06/04/15	<0.0064	<0.0064	<0.0064	<0.005	<0.0064	<0.59	<6.8	<6.8
SB-13 - 15-20'	1506115-8	06/04/15	<0.0061	<0.0061	<0.0061	<0.005	<0.0061	<0.61	<6.4	<6.4
SB-13 - 25-30'	1506115-9	06/04/15	<0.0062	<0.0062	<0.0062	<0.005	<0.0062	<0.49	<6.6	<6.6

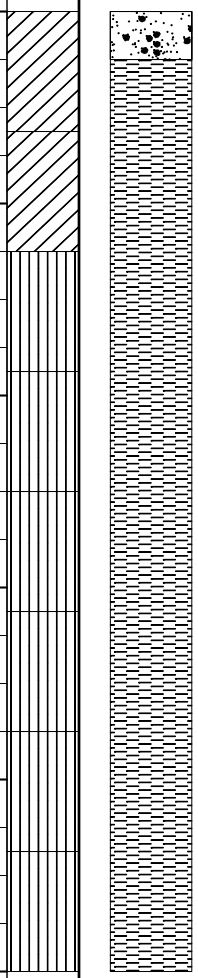
mg/kg - milligrams per kilogram
< - Analytical result is less than the reporting limit
COGCC - Colorado Oil and Gas Conservation Commisssion
GRO - Gasoline Range Organics
DRO - Diesel Range Organics
TPH - Total Petroleum Hydrocarbons (Combined GRO/DRO)

Attachment 3
Boring Logs

SOIL BORING / MONITORING WELL LOG

PROJECT: Nelson C-1
PROJECT NUMBER: 701530.020.02
CLIENT: Whiting Oil & Gas Corporation
BORING / WELL NUMBER: SB-1
TOTAL DEPTH: 40'
SURFACE ELEVATION:
GEOLOGIST: Colby Sterling

DRILLING COMPANY: Talon/LPE
DRILLER: Ronnie Rodriguez
DRILLING METHOD: Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
SCREEN: Diam. _____ Length _____ Slot Size _____
CASING: Diam. _____ Length _____ Type _____
DATE DRILLED: April 1, 2015



Depth (FT.)	PID Readings	Description Interval	Description of Stratum	Depth (FT.)
0				0
			Sands & Silty Clay, Damp, Low Plasticity, Loose, Soft, 7.5YR 4/2 Brown	
	149.9	5'		
			Sands & Silty Clay, Damp, Low Plasticity, Loose, Soft, Very Stained to 7.5', 7.5YR 4/1 Dark Green	8
8	1,819	10'	Silty Clay, Damp, No Plasticity, Very Dense, Hard, 10YR 6/3 Brown	
	1,429	15'	Silt, Dry, No Plasticity, Very Dense, Hard, 10YR 5/3 Brown	16
16	890	20'	Clayey Silts, Damp, No Plasticity, Very Dense, Hard, 10YR 5/3 Brown	
24	612	25'	Silt, Strong Cementation, Non Plastic, Damp, Hard, 10YR 6/3 Pale Brown	24
	733	30'	Silt, Moderate Cementation, Non Plastic, Damp, Hard, 10YR 6/2 Light Brownish Gray	32
32	23.3	35'	Silt, Moderate Cementation, Non Plastic, Damp, Hard, GLEY1 6/5G Greenish Gray	
40	6.9	40'	Bottom of Hole	40
48				48

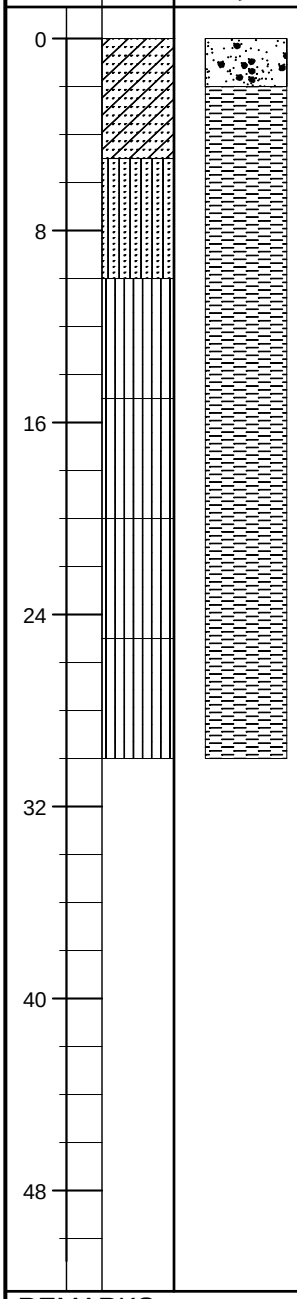
REMARKS:

THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT

SOIL BORING / MONITORING WELL LOG

PROJECT: Nelson C-1
PROJECT NUMBER: 701530.020.02
CLIENT: Whiting Oil & Gas Corporation
BORING / WELL NUMBER: SB-2
TOTAL DEPTH: 30'
SURFACE ELEVATION:
GEOLOGIST: Colby Sterling

DRILLING COMPANY: Talon/LPE
DRILLER: Ronnie Rodriguez
DRILLING METHOD: Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
SCREEN: Diam. _____ Length _____ Slot Size _____
CASING: Diam. _____ Length _____ Type _____
DATE DRILLED: April 1, 2015



Depth (FT.)	PID Readings	Description Interval	Description of Stratum
0			
	1.1	5'	Clayey Silty Sands, Medium Dense, Damp, Low Plasticity, 7.5YR 4/2 Brown
8	1.0	10'	Silty Sand with Little Clay, Medium Dense, Damp, Low Plasticity, 7.5YR 6/3 Light Brown
	8.3	15'	Silt with Very Little Clay, Very Stiff, Non Plastic, Moderate Cementation, Damp, 10YR 6/4 Light Yellowish Brown
16	198	20'	Silt, Very Stiff, Non Plastic, Moderate Cementation, Damp, 10YR 5/3 Brown
	842	25'	Clayey Silts, Very Stiff, Damp, Non Plastic, Moderate Cementation, GLEY1 7/1 Light Greenish Gray
24	28.8	30'	Silt, Strong Cementation, Hard, Damp, Non Plastic, GLEY1 6/1 Greenish Gray
32			Bottom of Hole
40			
48			

Depth (FT.)
0
8
16
24
32
40
48

REMARKS:

THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT

TALON LPE

SOIL BORING / MONITORING WELL LOG

PROJECT: Nelson C-1
PROJECT NUMBER: 701530.020.02
CLIENT: Whiting Oil & Gas Corporation
BORING / WELL NUMBER: SB-3
TOTAL DEPTH: 25'
SURFACE ELEVATION:
GEOLOGIST: Colby Sterling

DRILLING COMPANY: Talon/LPE
DRILLER: Ronnie Rodriguez
DRILLING METHOD: Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
SCREEN: Diam. _____ Length _____ Slot Size _____
CASING: Diam. _____ Length _____ Type _____
DATE DRILLED: April 1, 2015

Depth (FT.)	Soil Symbol	Well Construction	PID Readings	Samples	Sample Interval	Description Interval	Description of Stratum	Depth (FT.)
0								0
						5'	Silty Sand, Moderately Dense, No Plasticity, Damp, 7.5YR 5/2 Brown	
			0.2				Silty Sand with Little Clay, Moderately Dense, No Plasticity, Damp, 10YR 7/3 Very Pale Brown	
8						10'		8
			1.6				Silt with Little Clay, Very Stiff, Non Plastic, Damp, Moderate Cementation, 10YR 7/2 Light Gray	
						15'		
			1.1				Silt with Little Clay, Very Stiff, Non Plastic, Damp, Moderate Cementation, GLEY1 6/1 Greenish Gray	
16						20'		16
			15.6				Silt with Little Clay, Very Stiff, Non Plastic, Damp, Strong Cementation, GLEY1 6/1 Greenish Gray	
24						25'		24
			27.7				Bottom of Hole	
32								32
40								40
48								48

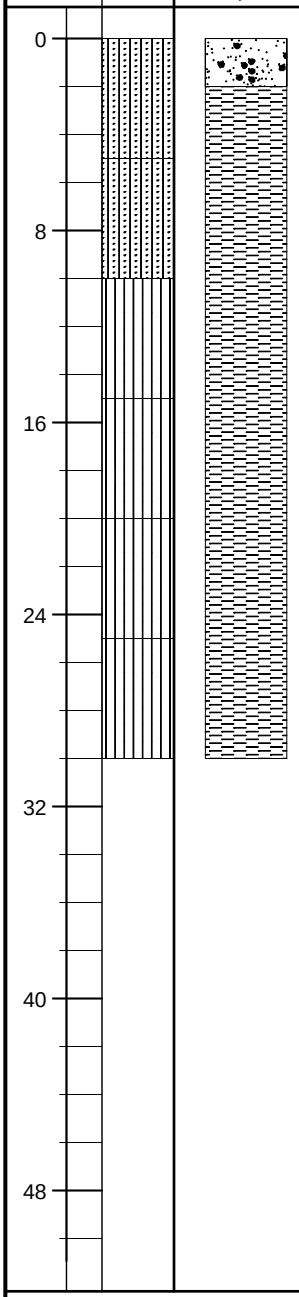
REMARKS:

THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT

SOIL BORING / MONITORING WELL LOG

PROJECT: Nelson C-1
PROJECT NUMBER: 701530.020.02
CLIENT: Whiting Oil & Gas Corporation
BORING / WELL NUMBER: SB-4
TOTAL DEPTH: 30'
SURFACE ELEVATION:
GEOLOGIST: Colby Sterling

DRILLING COMPANY: Talon/LPE
DRILLER: Ronnie Rodriguez
DRILLING METHOD: Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
SCREEN: Diam. _____ Length _____ Slot Size _____
CASING: Diam. _____ Length _____ Type _____
DATE DRILLED: April 2, 2015



Depth (FT.)	PID Readings	Description Interval	Description of Stratum
0			
		5'	Silty Sand, No Plasticity, Loose, Damp, No Cementation, 7.5YR 7/2 Pinkish Gray
	0.4		
		10'	Silty Sand, No Plasticity, Loose, Damp, No Cementation, 7.5YR 6/3 Light Brown
8	0.8		
		15'	Silt with Little Clay, Stiff, Damp, Non Plastic, Moderate Cementation, 10YR 6/4 Light Yellowish Brown
	78.8		
16		20'	Silt with Little Clay, Very Stiff, Damp, Non Plastic, Moderate Cementation, 10YR 6/3 Pale Brown
	223		
		25'	Silt with Little Clay, Very Stiff, Damp, Non Plastic, Moderate Cementation, GLEY1 6/1 Greenish Gray
24	941		
		30'	Silt with Little Clay, Very Stiff, Damp, Non Plastic, Strong Cementation, GLEY1 6/1 Greenish Gray
	13.2		Bottom of Hole
32			
40			
48			

Depth (FT.)
0
8
16
24
32
40
48

REMARKS:

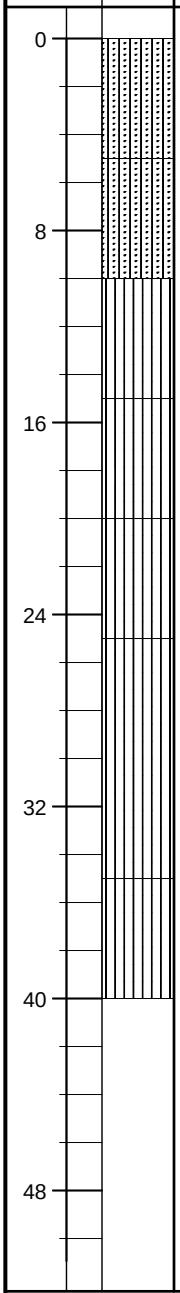
THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT

TALON LPE

SOIL BORING / MONITORING WELL LOG

PROJECT: Nelson C-1
PROJECT NUMBER: 701530.020.02
CLIENT: Whiting Oil & Gas Corporation
BORING / WELL NUMBER: SB-5
TOTAL DEPTH: 40'
SURFACE ELEVATION:
GEOLOGIST: Colby Sterling

DRILLING COMPANY: Talon/LPE
DRILLER: Ronnie Rodriguez
DRILLING METHOD: Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
SCREEN: Diam. _____ Length _____ Slot Size _____
CASING: Diam. _____ Length _____ Type _____
DATE DRILLED: April 2, 2015



Depth (FT.)	PID Readings	Description Interval	Description of Stratum	Depth (FT.)
0				0
	1.3	5'	Silty Sand, No Plasticity, Loose, Damp, No Cementation, 7.5YR 7/2 Pinkish Gray	
8	0.8	10'	Silty Sand, No Plasticity, Loose, Damp, No Cementation, 7.5YR 7/3 Very Pale Brown	8
	1.3	15'	Silt with Little Clay, Stiff, Damp, Non Plastic, Moderate Cementation, 10YR 6/4 Light Yellowish Brown	
16	14.2	20'	Silt with Little Clay, Stiff, Damp, Non Plastic, Moderate Cementation, 10YR 6/3 Pale Brown	16
	1,107	25'	Silt with Little Clay, Stiff, Damp, Non Plastic, Moderate Cementation, GLEY1 6/1 Greenish Gray	
24	478	35'	Silt with Very Little Clay, Very Stiff, Damp, Non Plastic, Moderate Cementation, GLEY1 6/1 Greenish Gray	24
32	322	40'	Silt with Very Little Clay, Very Stiff, Damp, Non Plastic, Strong Cementation, GLEY1 6/1 Greenish Gray	32
40	7.7		Bottom of Hole	40
48				48

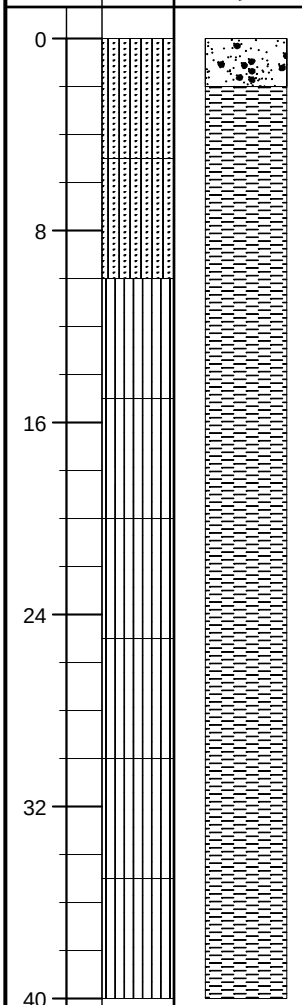
REMARKS:

THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT

SOIL BORING / MONITORING WELL LOG

PROJECT: Nelson C-1
PROJECT NUMBER: 701530.020.02
CLIENT: Whiting Oil & Gas Corporation
BORING / WELL NUMBER: SB-6
TOTAL DEPTH: 40'
SURFACE ELEVATION:
GEOLOGIST: Debbie Duran

DRILLING COMPANY: Talon/LPE
DRILLER: Ronnie Rodriguez
DRILLING METHOD: Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
SCREEN: Diam. _____ Length _____ Slot Size _____
CASING: Diam. _____ Length _____ Type _____
DATE DRILLED: April 7, 2015



Depth (FT.)	PID Readings	Description Interval	Description of Stratum	Depth (FT.)
0				0
		5'	85% Fine Grained, Poorly Graded Sand, 15% Silt, Soft, No Odor, No Moisture, Low Plasticity, 7YR 4/2 Brown	
	11.0			
		10'	90% Silty Sands, Poorly Graded, Few Gravels, No Odor, Soft, No Moisture, Low Plasticity, 10YR 5/6 Yellow Brown	8
8	5.6			
		15'	85% Fine Grained, Poorly Graded Clayey Sand & Silt, Low Odor, 10YR 6/4 Light Yellowish Brown	
	17.0			16
16		20'	85% fine Grained, Poorly Graded Clayey Sand & Silt, High Odor, No Moisture, Low Plasticity, Hard, 10YR 6/4 Light Yellowish Brown	
	1,286			
		25'	85% Fine Grained, Poorly Graded Sand & Clayey Silt, High Odor, No Moisture, Low Plasticity, Very Hard, 10YR 7/2 Light Gray with Green Spots	24
24	1,755			
		30'	85% Fine Grained, Poorly Graded Clayey Sand & Silt, Very Hard, No Moisture, Moderate Odor, Low Plasticity, GLEY1 7/10Y Light Greenish Gray	
	325			
32		35'	90% Fine Grained, Poorly Graded clayey Sand & Silt, No Moisture, Moderate Odor, Low Plasticity, Hard Clay, GLEY1 7/5GY Light Green Gray	32
	71.0			
		40'	85% Fine Grained, Poorly Graded Clayey Sand & Silt, Very Hard Clay, No Moisture, Low Plasticity, Low Odor, GLEY1 6/10Y Greenish Gray	
40	26.0		Bottom of Hole	40
48				48

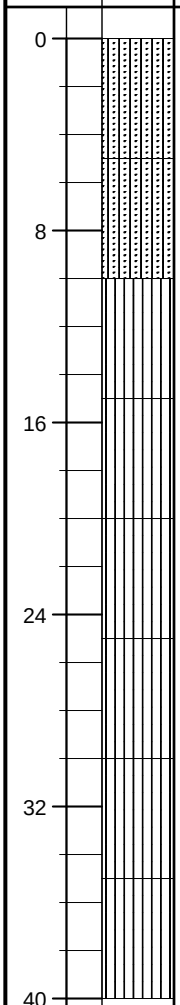
REMARKS:

THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT

SOIL BORING / MONITORING WELL LOG

PROJECT: Nelson C-1
PROJECT NUMBER: 701530.020.02
CLIENT: Whiting Oil & Gas Corporation
BORING / WELL NUMBER: SB-7
TOTAL DEPTH: 40'
SURFACE ELEVATION:
GEOLOGIST: Debbie Duran

DRILLING COMPANY: Talon/LPE
DRILLER: Ronnie Rodriguez
DRILLING METHOD: Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
SCREEN: Diam. _____ Length _____ Slot Size _____
CASING: Diam. _____ Length _____ Type _____
DATE DRILLED: April 7, 2015



Depth (FT.)	PID Readings	Description Interval	Description of Stratum	Depth (FT.)
				0
		5'	85% Fine Grained, Poorly Graded Sand, 15% Silt, Soft, No Moisture, No Odor, Low Plasticity, 10YR 7/3 Very Pale Brown	
	0.3	10'	85% Fine Grained, Poorly Graded Sand, 15% Silt, Soft, No Moisture, No Odor, Low Plasticity, 10YR 6/4 Light Yellowish Brown	8
	0.1	15'	85%-90% Fine Grained, Poorly Graded Clayey Sand & Silt, No Moisture, Hard Pieces of Clay, No Odor, 10YR 7/3 Very Pale Brown	
	0.4	20'	85% Fine Grained, Poorly Graded Clayey Sand & Silt, No Moisture, Moderate Odor, Hard Clay, GLEY1 7/10Y Light Greenish Gray	16
	33.0	25'	85% Fine Grained, Poorly Graded Clayey Sand & Silt, No MOisture, High Odor, Hard Clay, Low Plasticity, GLeY1 7/10Y Light Greenish Clay	24
	945	30'	75% Fine Grained, Poorly Graded Clayey Sand & Silt, Very Hard Pieces of Clay, No Moisture, Low Plasticity, GLEY1 7/10Y Light Greenish Gray	
	1.9	35'	85% Fine Grained, Poorly Graded Clayey Sand & Silt, Hard Clay, No Moisture, Low Plasticity, GLEY1 6/10Y Greenish Gray	32
	309	40'	80% Fine Grained, Poorly Graded Clayey Sand & Silt, Hard Clay, No Moisture, Low Plasticity, No Odor, GLEY1 6/5GY Greenish Gray	40
	13.2		Bottom of Hole	48

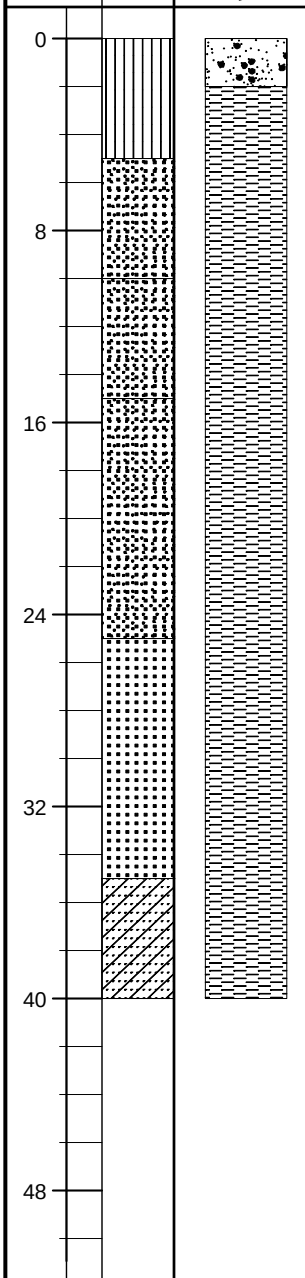
REMARKS:

THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT

SOIL BORING / MONITORING WELL LOG

PROJECT: Nelson C-1
PROJECT NUMBER: 701530.020.02
CLIENT: Whiting Oil & Gas Corporation
BORING / WELL NUMBER: SB-8
TOTAL DEPTH: 40'
SURFACE ELEVATION:
GEOLOGIST: Tyrell Grisel

DRILLING COMPANY: Talon/LPE
DRILLER: Ronnie Rodriguez
DRILLING METHOD: Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
SCREEN: Diam. _____ Length _____ Slot Size _____
CASING: Diam. _____ Length _____ Type _____
DATE DRILLED: April 22, 2015



Depth (FT.)	PID Readings	Sample Interval	Description Interval	Description of Stratum	Depth (FT.)
					0
		0'-2'6"		Silty Sand, Moisture, Some Clay, Loose, Brown, Fine Grained Sand	
			5'		
	0.0	5'-7'6"		Sand, Moisture, Trace Silt, Loose, Tan, Fine Grained Sand	8
			10'		
	0.0	10'-13'		Sand, Moisture, Trace Silt, Very Hard, Tan, Fine Grained Sand	
			15'		
	10.4	15'-19'		Sand, Moisture, Trace Silt, Very Hard, Greenish Gray, Fine Grained Sand	16
	94.6	20'-24'			
			25'		24
	2,084	25'-29'4"		Sandstone, Wet, Very Hard, Greenish Grey, Fine Grained Sand, Amber Colored Mottling, Grades to Moist	
	65.2	30'-34'			32
			35'		
	67.0	35'-39'		Clayey Sand, Moist, Greenish Grey, Fine Grained Sand, Very Stiff	
			40'		40
	3.4			Bottom of Hole	
					48

REMARKS:

THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT

SOIL BORING / MONITORING WELL LOG

PROJECT: Nelson C-1
PROJECT NUMBER: 701530.020.02
CLIENT: Whiting Oil & Gas Corporation
BORING / WELL NUMBER: SB-9
TOTAL DEPTH: 35'
SURFACE ELEVATION:
GEOLOGIST: Tyrell Grisel

DRILLING COMPANY: Talon/LPE
DRILLER: Ronnie Rodriguez
DRILLING METHOD: Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
SCREEN: Diam. _____ Length _____ Slot Size _____
CASING: Diam. _____ Length _____ Type _____
DATE DRILLED: April 22, 2015

Depth (FT.)	Soil Symbol	Well Construction	PID Readings	Samples	Sample Interval	Description Interval	Description of Stratum	Depth (FT.)
0								0
					0'-1'		Silty Sand, Moist, Brown, Fine Grained, Soft, Some Clay	
			0.0		5'-6'6"			
8								8
			0.0		10'-12'	10'	Sand, Moist, Brown, Fine Grained with Silt, Dense	
			1,571		15'-17'6"			
16								16
			1,536		20'-22'			
24						25'		24
			1,424		25'-30'		Sandstone, Wet, Olive Gray, Fine Grains, Very Dense, Color Change @26' BGS	
			25.0		30'-34'			
32								32
						35'		
			21.1				Bottom of Hole	
40								40
48								48

REMARKS:

THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT

TALON LPE

SOIL BORING / MONITORING WELL LOG

PROJECT: Nelson C-1
PROJECT NUMBER: 701530.020.02
CLIENT: Whiting Oil & Gas Corporation
BORING / WELL NUMBER: SB-10
TOTAL DEPTH: 35'
SURFACE ELEVATION:
GEOLOGIST: Tyrell Grisel

DRILLING COMPANY: Talon/LPE
DRILLER: Ronnie Rodriguez
DRILLING METHOD: Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
SCREEN: Diam. _____ Length _____ Slot Size _____
CASING: Diam. _____ Length _____ Type _____
DATE DRILLED: April 22, 2015

Depth (FT.)	Soil Symbol	Well Construction	PID Readings	Samples	Sample Interval	Description Interval	Description of Stratum	Depth (FT.)
0					0'-1'		Silty Sand, Moist, Fine Grains, Soft, Some Clay	0
			0.0		5'-7'4"			
8			0.0		10'-12'			8
			12.6		15'-18'	15'	Sand, Moist, Fine Grains, Greenish Grey, Some Silt	16
16			1,832		20'-24'	20'	Sandstone, Wet, Fine Grains, Greenish Grey, Some Silt	
24			1,474		25'-30'			24
			881					32
32						35'	Bottom of Hole	
			20.6					40
40								
								48
48								

REMARKS:

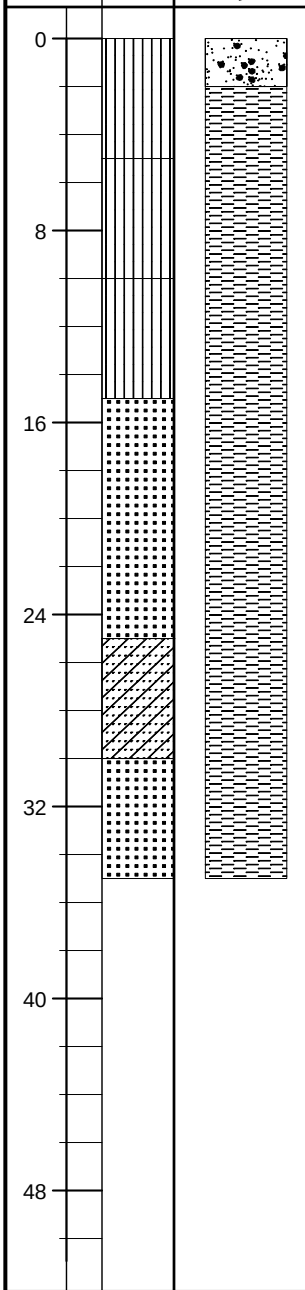
THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT

TALON LPE

SOIL BORING / MONITORING WELL LOG

PROJECT: Nelson C-1
PROJECT NUMBER: 701530.020.02
CLIENT: Whiting Oil & Gas Corporation
BORING / WELL NUMBER: SB-11
TOTAL DEPTH: 35'
SURFACE ELEVATION:
GEOLOGIST: Tyrell Grisel

DRILLING COMPANY: Talon/LPE
DRILLER: Ronnie Rodriguez
DRILLING METHOD: Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
SCREEN: Diam. _____ Length _____ Slot Size _____
CASING: Diam. _____ Length _____ Type _____
DATE DRILLED: April 23, 2015



Depth (FT.)	Soil Symbol	Well Construction	PID Readings	Samples	Sample Interval	Description Interval	Description of Stratum	Depth (FT.)
0					0'-1"	5'	Silty Sand, Brown, Fine Grains, Moist, Soft, Some Clay, 7.5YR 4/3 Brown	0
			0.0		5'-6'6"	10'	Silty Sand, Brown, Grades to Tan, Fine Grains, Moist, Soft, Grades to Dense, Grades to Trace Clay, 10YR 7/3 Very Pale Brown	8
8			0.0		10'-13'	15'	Silty Sand, Brown, Grades to Tan, Fine Grains, Moist, Soft, Grades to Dense, Grades to Trace Clay, 10YR 6/4 Yellowish Brown	
			0.0		15'-19'	25'	Sandstone, Dense, Moist, GLEY1 6/10Y Greenish-Grey	16
16			0.0		20'-25'			
			9.2		25'-30'	30'	Clayey Sand, Fine Grained Sand, Hard, GLEY1 6/10Y Greenish-Grey	24
24			63.7		30'-35'	35'	Sandstone, Very Dense, Moist, Fine Grained, GLEY1 6/10Y Greenish-Grey	32
32			5.5				Bottom of Hole	
40								40
48								48

REMARKS:

THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT

KEY TO SYMBOLS

Symbol Description

Strata symbols

Low plasticity clay

Silt

Clayey sand

Silty sand

Poorly graded sand

Sandstone

Soil Samplers

Split Spoon sampler

Monitor Well Details

Concrete Filler

Plugged soil boring.

Attachment 4
Analytical Reports

Tuesday, April 14, 2015

Colby Sterling
Talon LPE
921 N Bivins
Amarillo, TX 79107

Re: ALS Workorder: 1504124
Project Name: Nelson C-1
Project Number: 701530.020.01

Dear Mr. Sterling:

Seventeen soil samples were received from Talon LPE, on 4/7/2015. The samples were scheduled for the following analyses:

GC/MS Volatiles
Total Extractable Petroleum Hydrocarbons (Diesel)
Total Volatile Petroleum Hydrocarbons (Gasoline)

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Julie Ellingson
Project Manager

JME/erh
Enclosure(s):

ALS is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Laboratory Certifications	
Accreditation Body	License or Certification Number
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Connecticut (CT)	PH-0232
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
L-A-B (DoD ELAP/ISO 170250)	L2257
Maryland (MD)	285
Missouri	175
Nebraska	NE-OS-24-13
Nevada (NV)	CO000782008A
New Jersey (NJ)	CO003
North Dakota (ND)	R-057
Oklahoma	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington	C1280

1504124

GC/MS Volatiles:
The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C.

All acceptance criteria were met.

GRO:
The samples were analyzed following the current revision of SOP 425 generally based on SW-846 Methods 8000C and 8015D. TVPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C6 to C10.

All acceptance criteria were met with the following exceptions:

The surrogate recovery for sample -1 was above the upper control limit. Examination of the chromatogram shows co-elution of the surrogate peak with target component peaks, biasing the surrogate result high. No further action was taken.

The recoveries for gasoline range organics in the laboratory control sample and laboratory control sample duplicate were within control limits, which suggest the outliers in the matrix spikes may have been due to matrix effects, so no further action was taken.

DRO:
The samples were analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C10 to C28.

All acceptance criteria were met.

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1504124
Client Name: Talon LPE
Client Project Name: Nelson C-1
Client Project Number: 701530.020.01
Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
SB-1 5-10'	1504124-1		SOIL	01-Apr-15	11:59
SB-1 20-25'	1504124-2		SOIL	01-Apr-15	12:38
SB-1 25-30'	1504124-3		SOIL	01-Apr-15	12:50
SB-1 30-35'	1504124-4		SOIL	01-Apr-15	13:05
SB-1 35-40'	1504124-5		SOIL	01-Apr-15	13:20
SB-2 10-15'	1504124-6		SOIL	01-Apr-15	15:09
SB-2 20-25'	1504124-7		SOIL	01-Apr-15	15:52
SB-2 25-30'	1504124-8		SOIL	01-Apr-15	16:10
SB-3 20-25'	1504124-9		SOIL	01-Apr-15	17:55
SB-4 10-15'	1504124-10		SOIL	02-Apr-15	12:07
SB-4 20-25'	1504124-11		SOIL	02-Apr-15	12:35
SB-4 25-30'	1504124-12		SOIL	02-Apr-15	12:48
SB-5 15-20'	1504124-13		SOIL	02-Apr-15	14:52
SB-5 20-25'	1504124-14		SOIL	02-Apr-15	15:09
SB-5 25-30'	1504124-15		SOIL	02-Apr-15	15:25
SB-5 30-35'	1504124-16		SOIL	02-Apr-15	16:00
SB-5 35-40'	1504124-17		SOIL	02-Apr-15	16:58

ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202r8

WORKORDER # 1504124

PROJECT NAME	Nelson C-1	SAMPLER	Colby Sterling	DATE	4-6-15
PROJECT No.	701530.020.01	SITE ID		TURNAROUND	Standard
		EDD FORMAT			
COMPANY NAME	Talon / LPE	PURCHASE ORDER			
SEND REPORT TO	Colby Sterling	BILL TO COMPANY	Same		
ADDRESS	921 N. Bivins	INVOICE ATTN TO			
CITY / STATE / ZIP	Amarillo, TX 79107	ADDRESS			
PHONE	806-467-0607	CITY / STATE / ZIP			
FAX	806-467-0622	PHONE			
E-MAIL	csterling@talonlpe.com	FAX			
		E-MAIL			

PAGE 1 of 2

DISPOSAL: By Lab or Return to Client

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	GRO 8015	DRO 8015	BTEX 8260	Naphthalene
1	SB-1 5-10'	S	4-1-15	1159	2			X	X	X	X
2	SB-1 20-25'			1238							
3	SB-1 25-30'			1250							
4	SB-1 30-35'			1305							
5	SB-1 35-40'			1320	1						
6	SB-2 10-15'			1509	2						
7	SB-2 20-25'			1552							
8	SB-2 25-30'			1610							
9	SB-3 20-25'			1755							
10	SB-4 10-15'		4-2-15	1207							

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:

1 of 33

QC PACKAGE (check below)	
	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Colby Sterling	Colby Sterling	4-6-15	
RECEIVED BY	C Trumble	C Trimble	4-7-15	0935
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202r8

WORKORDER # 1504124

PAGE 2 of 2

PROJECT NAME	Nelson C-1	SAMPLER	Colby Sterling	DATE	4-6-15
PROJECT No.	701530.020.01	SITE ID		TURNAROUND	Standard
		EDD FORMAT		DISPOSAL	By Lab or Return to Client
COMPANY NAME	Talon / LPE	PURCHASE ORDER			
SEND REPORT TO	Colby Sterling	BILL TO COMPANY	Same		
ADDRESS	921 N. Bivins	INVOICE ATTN TO			
CITY / STATE / ZIP	Amarillo, TX 79107	ADDRESS			
PHONE	806-467-0607	CITY / STATE / ZIP			
FAX	806-467-0622	PHONE			
E-MAIL	csterling@talonlpe.com	FAX			
		E-MAIL			

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	GRO 8015	DRO 8015	BTEX 8260	Naphthalene
11	SB-4 20-25'	S	4-2-15	1235	2			X	X	X	X
12	SB-4 25-30'			1248							
13	SB-5 15-20'			1452							
14	SB-5 20-25'			1509							
15	SB-5 25-30'			1525							
16	SB-5 30-35'			1600							
17	SB-5 35-40'			1658							

*Time Zone (Circle): EST CST (MST) PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)
	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Colby Sterling	4-6-15	
RECEIVED BY	C Trimble	C Trimble	4-7-15	0935
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: TALON Workorder No: 1504124

Project Manager: JE Initials: CDT Date: 4-7-15

1. Does this project require any special handling in addition to standard ALS procedures?		YES	(NO)
2. Are custody seals on shipping containers intact?	NONE	(YES)	NO
3. Are Custody seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		(YES)	NO
5. Are the COC and bottle labels complete and legible?		(YES)	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		(YES)	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	(YES)	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	(N/A)	YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	(N/A)	YES	NO
10. Is there sufficient sample for the requested analyses?		(YES)	NO
11. Were all samples placed in the proper containers for the requested analyses?		(YES)	NO
12. Are all samples within holding times for the requested analyses?		(YES)	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		(YES)	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ____ < green pea ____ > green pea	(N/A)	YES	NO
15. Do any water samples contain sediment? Amount Amount of sediment: ____ dusting ____ moderate ____ heavy	(N/A)	YES	NO
16. Were the samples shipped on ice?		(YES)	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: (#2) #4	RAD ONLY	(YES)	NO

Cooler #:	1								
Temperature (°C):	5.6								
No. of custody seals on cooler:	1								
DOT Survey/ Acceptance Information — External µR/hr reading:	11								
Background µR/hr reading:	11								

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? (YES) / NO / NA (If no, see Form 008.)

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

If applicable, was the client contacted? YES / NO (NA) Contact: _____ Date/Time: _____

Project Manager Signature / Date: [signature] 4-7-15

*IR Gun #2: Oakton, SN 29922500201-0066
*IR Gun #4: Oakton, SN 2372220101-0002

Align Open End of FedEx Pouch Here

225 COMMERCE DR
FORT COLLINS, CO 805242762
UNITED STATES US

DIMS: 24x14x14 IN
BILL SENDER

156297-435 RIT2 03/15

TO
ALS ENVIRONMENTAL
225 COMMERCE DR

FORT COLLINS CO 80524
(970) 490-1611 REF:
INV:
PO: DEPT:

FedEx Express

E

J151215022301 uv

5.6

TUE - 07 APR 10:30A
PRIORITY OVERNIGHT

TRK# 0215 **8062 8382 5008**

AG FTCA

80524
CO-US **DEN**

00138
00200

FedEx Express Package US Airbill

FedEx Tracking Number 8062 8382 5008 1504124

Form ID No. 021

1 From [redacted]

Date 4-6-15

Sender's Name Colby Sterling Phone 806 467-060

Company Talon/LPE

Address 921 N. Bivins Dept./Floor/Suite/Room

City Amarillo State TX ZIP 79107

2 Your Internal Billing Reference

3 To
Recipient's Name Phone 970 490-1511

Company ALS ENVIRONMENTAL GCP

Address 225 COMMERCE DR Dept./Floor/Suite/Room
We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address
Use this line for the HOLD location address or for continuation of your shipping address.

City FORT COLLINS State CO ZIP 80524-2762

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

0115205875

8062 8382 5008

4 Express Packa...
NOTE: Service order h...
Next Business Da...
FedEx First Overni...
FedEx Priority Ove... Next business morning. Delivered on Monday unl... is selected.
FedEx Standard O... Next business afternoon. Saturday Delivery NOT a...

5 Packaging
FedEx Envelope*

6 Special Hand...
SATURDAY Deliv... NOT available for FedEx...

No Signature Required Package may be left without obtaining a signature for delivery.
Direct Signature Someone at recipient's address may sign for delivery. Fee applies.
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?
One box must be checked.
[X] No
Yes As per attached Shipper's Declaration.
Yes Shipper's Declaration not required.
Dry Ice Dry Ice, 9, UN 1845 ___ x ___ kg
Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.
Cargo Aircraft Only

7 Payment Bill to:
Enter FedEx Acct. No. or Credit Card No. below.
Obtain recip. Acct. No.
Sender Acct. No. in Section 1 will be billed. [X] Recipient Third Party Credit Card Cash/Check

[redacted]

Total Packages Total Weight lbs. Credit Card Auth.

611

Your liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

Rev. Date 2/12 • Part #163134 • ©1994–2012 FedEx • PRINTED IN U.S.A. SRS

1.800.463.3339

fedex.com 1.800.GoFedEx 1.800.463.3339

Client:	Talon LPE	**Date:**	*14-Apr-15*
Project:	701530.020.01 Nelson C-1	**Work Order:**	1504124
Sample ID:	SB-1 5-10'	**Lab ID:**	1504124-1
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/1/2015 11:59	**Percent Moisture:**	24.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	**400**	4,5,8,H	**6.4**	**MG/KG**	1	4/8/2015 18:24
Surr: O-TERPHENYL	*86*		*53-116*	*%REC*	1	4/8/2015 18:24
Gasoline Range Organics			**SW8015**	Prep Date: **4/8/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**100**	GZ	**1.2**	**MG/KG**	1	4/8/2015 11:02
Surr: 2,3,4-TRIFLUOROTOLUENE	*135*	*	*76-126*	*%REC*	1	4/8/2015 11:02
GC/MS Volatiles			**SW8260**	Prep Date: **4/8/2015**		PrepBy: **SDW**
BENZENE	**0.0038**	J	**0.0066**	**MG/KG**	1	4/8/2015 15:34
TOLUENE	**0.43**		**0.21**	**MG/KG**	50	4/9/2015 16:16
ETHYLBENZENE	**1.3**		**0.21**	**MG/KG**	50	4/9/2015 16:16
M+P-XYLENE	**6.9**		**0.21**	**MG/KG**	50	4/9/2015 16:16
O-XYLENE	**2.8**		**0.21**	**MG/KG**	50	4/9/2015 16:16
NAPHTHALENE	**1.1**		**0.21**	**MG/KG**	50	4/9/2015 16:16
TOTAL XYLENES	**9.7**		**0.005**	**MG/KG**	1	4/8/2015 15:34
Surr: DIBROMOFLUOROMETHANE	*99*		*61-134*	*%REC*	50	4/9/2015 16:16
Surr: DIBROMOFLUOROMETHANE	*116*		*61-134*	*%REC*	1	4/8/2015 15:34
Surr: TOLUENE-D8	*106*		*57-135*	*%REC*	1	4/8/2015 15:34
Surr: TOLUENE-D8	*98*		*57-135*	*%REC*	50	4/9/2015 16:16
Surr: 4-BROMOFLUOROBENZENE	*97*		*52-151*	*%REC*	50	4/9/2015 16:16
Surr: 4-BROMOFLUOROBENZENE	*92*		*52-151*	*%REC*	1	4/8/2015 15:34

Client: Talon LPE
Project: 701530.020.01 Nelson C-1
Sample ID: SB-1 20-25'
Legal Location:
Collection Date: 4/1/2015 12:38

Date: *14-Apr-15*
Work Order: 1504124
Lab ID: 1504124-2
Matrix: SOIL
Percent Moisture: 31.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	**72**	4,5,8,H	**7.2**	**MG/KG**	1	4/8/2015 19:00
Surr: O-TERPHENYL	*83*		*53-116*	*%REC*	1	4/8/2015 19:00
Gasoline Range Organics			**SW8015**	Prep Date: **4/8/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**14**	GZ	**1.3**	**MG/KG**	1	4/8/2015 11:44
Surr: 2,3,4-TRIFLUOROTOLUENE	*107*		*76-126*	*%REC*	1	4/8/2015 11:44
GC/MS Volatiles			**SW8260**	Prep Date: **4/9/2015**		PrepBy: **SDW**
BENZENE	**0.0019**	J	**0.007**	**MG/KG**	1	4/9/2015 17:44
TOLUENE	**0.012**		**0.007**	**MG/KG**	1	4/9/2015 17:44
ETHYLBENZENE	**0.0052**	J	**0.007**	**MG/KG**	1	4/9/2015 17:44
M+P-XYLENE	**0.034**		**0.007**	**MG/KG**	1	4/9/2015 17:44
O-XYLENE	**0.025**		**0.007**	**MG/KG**	1	4/9/2015 17:44
NAPHTHALENE	**0.055**		**0.007**	**MG/KG**	1	4/9/2015 17:44
TOTAL XYLENES	**0.059**		**0.005**	**MG/KG**	1	4/9/2015 17:44
Surr: DIBROMOFLUOROMETHANE	*98*		*61-134*	*%REC*	1	4/9/2015 17:44
Surr: TOLUENE-D8	*95*		*57-135*	*%REC*	1	4/9/2015 17:44
Surr: 4-BROMOFLUOROBENZENE	*94*		*52-151*	*%REC*	1	4/9/2015 17:44

Client:	Talon LPE	**Date:**	*14-Apr-15*
Project:	701530.020.01 Nelson C-1	**Work Order:**	1504124
Sample ID:	SB-1 25-30'	**Lab ID:**	1504124-3
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/1/2015 12:50	**Percent Moisture:**	30.5

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	**35**	4,5,8,H	**7**	**MG/KG**	1	4/8/2015 19:36
Surr: O-TERPHENYL	*84*		*53-116*	*%REC*	1	4/8/2015 19:36
Gasoline Range Organics			**SW8015**	Prep Date: **4/8/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**2.8**	GZ	**1**	**MG/KG**	1	4/8/2015 12:06
Surr: 2,3,4-TRIFLUOROTOLUENE	*108*		*76-126*	*%REC*	1	4/8/2015 12:06
GC/MS Volatiles			**SW8260**	Prep Date: **4/9/2015**		PrepBy: **SDW**
BENZENE	ND		0.0068	MG/KG	1	4/9/2015 17:00
TOLUENE	ND		0.0068	MG/KG	1	4/9/2015 17:00
ETHYLBENZENE	ND		0.0068	MG/KG	1	4/9/2015 17:00
M+P-XYLENE	**0.0023**	J	**0.0068**	**MG/KG**	1	4/9/2015 17:00
O-XYLENE	**0.0021**	J	**0.0068**	**MG/KG**	1	4/9/2015 17:00
NAPHTHALENE	**0.0098**		**0.0068**	**MG/KG**	1	4/9/2015 17:00
TOTAL XYLENES	**0.0044**	J	**0.005**	**MG/KG**	1	4/9/2015 17:00
Surr: DIBROMOFLUOROMETHANE	*101*		*61-134*	*%REC*	1	4/9/2015 17:00
Surr: TOLUENE-D8	*98*		*57-135*	*%REC*	1	4/9/2015 17:00
Surr: 4-BROMOFLUOROBENZENE	*95*		*52-151*	*%REC*	1	4/9/2015 17:00

Client: Talon LPE
Project: 701530.020.01 Nelson C-1
Sample ID: SB-1 30-35'
Legal Location:
Collection Date: 4/1/2015 13:05

Date: *14-Apr-15*
Work Order: 1504124
Lab ID: 1504124-4
Matrix: SOIL
Percent Moisture: 36.3

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		7.8	MG/KG	1	4/8/2015 20:13
Surr: O-TERPHENYL	*83*		*53-116*	*%REC*	1	4/8/2015 20:13
Gasoline Range Organics			**SW8015**	Prep Date: **4/8/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.75	MG/KG	1	4/8/2015 12:26
Surr: 2,3,4-TRIFLUOROTOLUENE	*104*		*76-126*	*%REC*	1	4/8/2015 12:26
GC/MS Volatiles			**SW8260**	Prep Date: **4/8/2015**		PrepBy: **SDW**
BENZENE	**0.001**	J	**0.0074**	**MG/KG**	1	4/8/2015 16:48
TOLUENE	ND		0.0074	MG/KG	1	4/8/2015 16:48
ETHYLBENZENE	ND		0.0074	MG/KG	1	4/8/2015 16:48
M+P-XYLENE	**0.0029**	J	**0.0074**	**MG/KG**	1	4/8/2015 16:48
O-XYLENE	ND		0.0074	MG/KG	1	4/8/2015 16:48
NAPHTHALENE	ND		0.0074	MG/KG	1	4/8/2015 16:48
TOTAL XYLENES	**0.0029**	J	**0.005**	**MG/KG**	1	4/8/2015 16:48
Surr: DIBROMOFLUOROMETHANE	*98*		*61-134*	*%REC*	1	4/8/2015 16:48
Surr: TOLUENE-D8	*99*		*57-135*	*%REC*	1	4/8/2015 16:48
Surr: 4-BROMOFLUOROBENZENE	*99*		*52-151*	*%REC*	1	4/8/2015 16:48

Client: Talon LPE
Project: 701530.020.01 Nelson C-1
Sample ID: SB-1 35-40'
Legal Location:
Collection Date: 4/1/2015 13:20

Date: *14-Apr-15*
Work Order: 1504124
Lab ID: 1504124-5
Matrix: SOIL
Percent Moisture: 39.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		8.3	MG/KG	1	4/8/2015 20:48
Surr: O-TERPHENYL	*85*		*53-116*	*%REC*	1	4/8/2015 20:48
Gasoline Range Organics			**SW8015**	Prep Date: **4/8/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.64	MG/KG	1	4/8/2015 12:47
Surr: 2,3,4-TRIFLUOROTOLUENE	*102*		*76-126*	*%REC*	1	4/8/2015 12:47
GC/MS Volatiles			**SW8260**	Prep Date: **4/8/2015**		PrepBy: **SDW**
BENZENE	ND		0.0078	MG/KG	1	4/8/2015 17:14
TOLUENE	ND		0.0078	MG/KG	1	4/8/2015 17:14
ETHYLBENZENE	ND		0.0078	MG/KG	1	4/8/2015 17:14
M+P-XYLENE	**0.0025**	J	**0.0078**	**MG/KG**	1	4/8/2015 17:14
O-XYLENE	ND		0.0078	MG/KG	1	4/8/2015 17:14
NAPHTHALENE	ND		0.0078	MG/KG	1	4/8/2015 17:14
TOTAL XYLENES	**0.0025**	J	**0.005**	**MG/KG**	1	4/8/2015 17:14
Surr: DIBROMOFLUOROMETHANE	*100*		*61-134*	*%REC*	1	4/8/2015 17:14
Surr: TOLUENE-D8	*96*		*57-135*	*%REC*	1	4/8/2015 17:14
Surr: 4-BROMOFLUOROBENZENE	*98*		*52-151*	*%REC*	1	4/8/2015 17:14

Client: Talon LPE
Project: 701530.020.01 Nelson C-1
Sample ID: SB-2 10-15'
Legal Location:
Collection Date: 4/1/2015 15:09

Date: *14-Apr-15*
Work Order: 1504124
Lab ID: 1504124-6
Matrix: SOIL
Percent Moisture: 30.8

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	**3.7**	J	**7.2**	**MG/KG**	1	4/8/2015 21:24
Surr: O-TERPHENYL	*85*		*53-116*	*%REC*	1	4/8/2015 21:24
Gasoline Range Organics			**SW8015**	Prep Date: **4/9/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.68	MG/KG	1	4/9/2015 09:50
Surr: 2,3,4-TRIFLUOROTOLUENE	*96*		*76-126*	*%REC*	1	4/9/2015 09:50
GC/MS Volatiles			**SW8260**	Prep Date: **4/8/2015**		PrepBy: **SDW**
BENZENE	ND		0.0065	MG/KG	1	4/8/2015 17:39
TOLUENE	ND		0.0065	MG/KG	1	4/8/2015 17:39
ETHYLBENZENE	ND		0.0065	MG/KG	1	4/8/2015 17:39
M+P-XYLENE	ND		0.0065	MG/KG	1	4/8/2015 17:39
O-XYLENE	ND		0.0065	MG/KG	1	4/8/2015 17:39
NAPHTHALENE	ND		0.0065	MG/KG	1	4/8/2015 17:39
TOTAL XYLENES	ND		0.005	MG/KG	1	4/8/2015 17:39
Surr: DIBROMOFLUOROMETHANE	*102*		*61-134*	*%REC*	1	4/8/2015 17:39
Surr: TOLUENE-D8	*96*		*57-135*	*%REC*	1	4/8/2015 17:39
Surr: 4-BROMOFLUOROBENZENE	*98*		*52-151*	*%REC*	1	4/8/2015 17:39

Client: Talon LPE
Project: 701530.020.01 Nelson C-1
Sample ID: SB-2 20-25'
Legal Location:
Collection Date: 4/1/2015 15:52

Date: *14-Apr-15*
Work Order: 1504124
Lab ID: 1504124-7
Matrix: SOIL
Percent Moisture: 31.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	**24**	4,5,8,H	**6.9**	**MG/KG**	1	4/8/2015 22:35
Surr: O-TERPHENYL	*83*		*53-116*	*%REC*	1	4/8/2015 22:35
Gasoline Range Organics			**SW8015**	Prep Date: **4/9/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**2.3**	GZ	**0.67**	**MG/KG**	1	4/9/2015 10:10
Surr: 2,3,4-TRIFLUOROTOLUENE	*105*		*76-126*	*%REC*	1	4/9/2015 10:10
GC/MS Volatiles			**SW8260**	Prep Date: **4/8/2015**		PrepBy: **SDW**
BENZENE	**0.0092**		**0.0069**	**MG/KG**	1	4/8/2015 18:04
TOLUENE	**0.025**		**0.0069**	**MG/KG**	1	4/8/2015 18:04
ETHYLBENZENE	**0.0067**	J	**0.0069**	**MG/KG**	1	4/8/2015 18:04
M+P-XYLENE	**0.039**		**0.0069**	**MG/KG**	1	4/8/2015 18:04
O-XYLENE	**0.025**		**0.0069**	**MG/KG**	1	4/8/2015 18:04
NAPHTHALENE	**0.075**		**0.0069**	**MG/KG**	1	4/8/2015 18:04
TOTAL XYLENES	**0.064**		**0.005**	**MG/KG**	1	4/8/2015 18:04
Surr: DIBROMOFLUOROMETHANE	*101*		*61-134*	*%REC*	1	4/8/2015 18:04
Surr: TOLUENE-D8	*97*		*57-135*	*%REC*	1	4/8/2015 18:04
Surr: 4-BROMOFLUOROBENZENE	*97*		*52-151*	*%REC*	1	4/8/2015 18:04

Client: Talon LPE **Date:** *14-Apr-15*
Project: 701530.020.01 Nelson C-1 **Work Order:** 1504124
Sample ID: SB-2 25-30' **Lab ID:** 1504124-8
Legal Location: **Matrix:** SOIL
Collection Date: 4/1/2015 16:10 **Percent Moisture:** 34.6

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		7.5	MG/KG	1	4/8/2015 23:11
Surr: O-TERPHENYL	*81*		*53-116*	*%REC*	1	4/8/2015 23:11
Gasoline Range Organics			**SW8015**	Prep Date: **4/9/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.51	MG/KG	1	4/9/2015 10:31
Surr: 2,3,4-TRIFLUOROTOLUENE	*100*		*76-126*	*%REC*	1	4/9/2015 10:31
GC/MS Volatiles			**SW8260**	Prep Date: **4/8/2015**		PrepBy: **SDW**
BENZENE	**0.0011**	J	**0.0073**	**MG/KG**	1	4/8/2015 18:27
TOLUENE	**0.003**	J	**0.0073**	**MG/KG**	1	4/8/2015 18:27
ETHYLBENZENE	ND		0.0073	MG/KG	1	4/8/2015 18:27
M+P-XYLENE	**0.0032**	J	**0.0073**	**MG/KG**	1	4/8/2015 18:27
O-XYLENE	ND		0.0073	MG/KG	1	4/8/2015 18:27
NAPHTHALENE	**0.0046**	J	**0.0073**	**MG/KG**	1	4/8/2015 18:27
TOTAL XYLENES	**0.0032**	J	**0.005**	**MG/KG**	1	4/8/2015 18:27
Surr: DIBROMOFLUOROMETHANE	*99*		*61-134*	*%REC*	1	4/8/2015 18:27
Surr: TOLUENE-D8	*98*		*57-135*	*%REC*	1	4/8/2015 18:27
Surr: 4-BROMOFLUOROBENZENE	*100*		*52-151*	*%REC*	1	4/8/2015 18:27

Client:	Talon LPE	**Date:**	*14-Apr-15*
Project:	701530.020.01 Nelson C-1	**Work Order:**	1504124
Sample ID:	SB-3 20-25'	**Lab ID:**	1504124-9
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/1/2015 17:55	**Percent Moisture:**	31.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		7.1	MG/KG	1	4/8/2015 23:47
Surr: O-TERPHENYL	*82*		*53-116*	*%REC*	1	4/8/2015 23:47
Gasoline Range Organics			**SW8015**	Prep Date: **4/9/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.68	MG/KG	1	4/9/2015 10:52
Surr: 2,3,4-TRIFLUOROTOLUENE	*93*		*76-126*	*%REC*	1	4/9/2015 10:52
GC/MS Volatiles			**SW8260**	Prep Date: **4/8/2015**		PrepBy: **SDW**
BENZENE	ND		0.0069	MG/KG	1	4/8/2015 18:50
TOLUENE	ND		0.0069	MG/KG	1	4/8/2015 18:50
ETHYLBENZENE	ND		0.0069	MG/KG	1	4/8/2015 18:50
M+P-XYLENE	**0.0027**	J	**0.0069**	**MG/KG**	1	4/8/2015 18:50
O-XYLENE	ND		0.0069	MG/KG	1	4/8/2015 18:50
NAPHTHALENE	ND		0.0069	MG/KG	1	4/8/2015 18:50
TOTAL XYLENES	**0.0027**	J	**0.005**	**MG/KG**	1	4/8/2015 18:50
Surr: DIBROMOFLUOROMETHANE	*100*		*61-134*	*%REC*	1	4/8/2015 18:50
Surr: TOLUENE-D8	*98*		*57-135*	*%REC*	1	4/8/2015 18:50
Surr: 4-BROMOFLUOROBENZENE	*99*		*52-151*	*%REC*	1	4/8/2015 18:50

Client: Talon LPE
Project: 701530.020.01 Nelson C-1
Sample ID: SB-4 10-15'
Legal Location:
Collection Date: 4/2/2015 12:07

Date: *14-Apr-15*
Work Order: 1504124
Lab ID: 1504124-10
Matrix: SOIL
Percent Moisture: 29.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		7	MG/KG	1	4/9/2015 00:23
Surr: O-TERPHENYL	*86*		*53-116*	*%REC*	1	4/9/2015 00:23
Gasoline Range Organics			**SW8015**	Prep Date: **4/9/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**0.092**	J	**0.45**	**MG/KG**	1	4/9/2015 11:12
Surr: 2,3,4-TRIFLUOROTOLUENE	*100*		*76-126*	*%REC*	1	4/9/2015 11:12
GC/MS Volatiles			**SW8260**	Prep Date: **4/8/2015**		PrepBy: **SDW**
BENZENE	ND		0.0067	MG/KG	1	4/8/2015 19:13
TOLUENE	ND		0.0067	MG/KG	1	4/8/2015 19:13
ETHYLBENZENE	ND		0.0067	MG/KG	1	4/8/2015 19:13
M+P-XYLENE	**0.0016**	J	**0.0067**	**MG/KG**	1	4/8/2015 19:13
O-XYLENE	ND		0.0067	MG/KG	1	4/8/2015 19:13
NAPHTHALENE	ND		0.0067	MG/KG	1	4/8/2015 19:13
TOTAL XYLENES	**0.0016**	J	**0.005**	**MG/KG**	1	4/8/2015 19:13
Surr: DIBROMOFLUOROMETHANE	*103*		*61-134*	*%REC*	1	4/8/2015 19:13
Surr: TOLUENE-D8	*97*		*57-135*	*%REC*	1	4/8/2015 19:13
Surr: 4-BROMOFLUOROBENZENE	*101*		*52-151*	*%REC*	1	4/8/2015 19:13

Client: Talon LPE **Date:** *14-Apr-15*
Project: 701530.020.01 Nelson C-1 **Work Order:** 1504124
Sample ID: SB-4 20-25' **Lab ID:** 1504124-11
Legal Location: **Matrix:** SOIL
Collection Date: 4/2/2015 12:35 **Percent Moisture:** 31.6

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	**50**	4,5,8	**7.2**	**MG/KG**	1	4/9/2015 01:00
Surr: O-TERPHENYL	*83*		*53-116*	*%REC*	1	4/9/2015 01:00
Gasoline Range Organics			**SW8015**	Prep Date: **4/8/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**12**	GZ	**0.58**	**MG/KG**	1	4/8/2015 14:54
Surr: 2,3,4-TRIFLUOROTOLUENE	*106*		*76-126*	*%REC*	1	4/8/2015 14:54
GC/MS Volatiles			**SW8260**	Prep Date: **4/8/2015**		PrepBy: **SDW**
BENZENE	**0.014**		**0.0069**	**MG/KG**	1	4/8/2015 19:37
TOLUENE	**0.13**		**0.0069**	**MG/KG**	1	4/8/2015 19:37
ETHYLBENZENE	**0.14**		**0.0069**	**MG/KG**	1	4/8/2015 19:37
M+P-XYLENE	**0.69**		**0.23**	**MG/KG**	50	4/9/2015 15:30
O-XYLENE	**0.32**		**0.23**	**MG/KG**	50	4/9/2015 15:30
NAPHTHALENE	**0.14**		**0.0069**	**MG/KG**	1	4/8/2015 19:37
TOTAL XYLENES	**1**		**0.005**	**MG/KG**	1	4/8/2015 19:37
Surr: DIBROMOFLUOROMETHANE	*103*		*61-134*	*%REC*	50	4/9/2015 15:30
Surr: DIBROMOFLUOROMETHANE	*106*		*61-134*	*%REC*	1	4/8/2015 19:37
Surr: TOLUENE-D8	*100*		*57-135*	*%REC*	1	4/8/2015 19:37
Surr: TOLUENE-D8	*98*		*57-135*	*%REC*	50	4/9/2015 15:30
Surr: 4-BROMOFLUOROBENZENE	*98*		*52-151*	*%REC*	50	4/9/2015 15:30
Surr: 4-BROMOFLUOROBENZENE	*96*		*52-151*	*%REC*	1	4/8/2015 19:37

Client:	Talon LPE	**Date:**	*14-Apr-15*
Project:	701530.020.01 Nelson C-1	**Work Order:**	1504124
Sample ID:	SB-4 25-30'	**Lab ID:**	1504124-12
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/2/2015 12:48	**Percent Moisture:**	33.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		7.4	MG/KG	1	4/9/2015 01:36
Surr: O-TERPHENYL	*84*		*53-116*	*%REC*	1	4/9/2015 01:36
Gasoline Range Organics			**SW8015**	Prep Date: **4/9/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.55	MG/KG	1	4/9/2015 11:33
Surr: 2,3,4-TRIFLUOROTOLUENE	*96*		*76-126*	*%REC*	1	4/9/2015 11:33
GC/MS Volatiles			**SW8260**	Prep Date: **4/8/2015**		PrepBy: **SDW**
BENZENE	**0.0012**	J	**0.0073**	**MG/KG**	1	4/8/2015 20:02
TOLUENE	**0.0023**	J	**0.0073**	**MG/KG**	1	4/8/2015 20:02
ETHYLBENZENE	ND		0.0073	MG/KG	1	4/8/2015 20:02
M+P-XYLENE	**0.0029**	J	**0.0073**	**MG/KG**	1	4/8/2015 20:02
O-XYLENE	ND		0.0073	MG/KG	1	4/8/2015 20:02
NAPHTHALENE	**0.0025**	J	**0.0073**	**MG/KG**	1	4/8/2015 20:02
TOTAL XYLENES	**0.0029**	J	**0.005**	**MG/KG**	1	4/8/2015 20:02
Surr: DIBROMOFLUOROMETHANE	*97*		*61-134*	*%REC*	1	4/8/2015 20:02
Surr: TOLUENE-D8	*97*		*57-135*	*%REC*	1	4/8/2015 20:02
Surr: 4-BROMOFLUOROBENZENE	*101*		*52-151*	*%REC*	1	4/8/2015 20:02

Client: Talon LPE
Project: 701530.020.01 Nelson C-1
Sample ID: SB-5 15-20'
Legal Location:
Collection Date: 4/2/2015 14:52

Date: *14-Apr-15*
Work Order: 1504124
Lab ID: 1504124-13
Matrix: SOIL
Percent Moisture: 30.3

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		7	MG/KG	1	4/9/2015 16:10
Surr: O-TERPHENYL	*84*		*53-116*	*%REC*	1	4/9/2015 16:10
Gasoline Range Organics		**SW8015**		Prep Date: **4/9/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.47	MG/KG	1	4/9/2015 11:53
Surr: 2,3,4-TRIFLUOROTOLUENE	*95*		*76-126*	*%REC*	1	4/9/2015 11:53
GC/MS Volatiles		**SW8260**		Prep Date: **4/8/2015**		PrepBy: **SDW**
BENZENE	ND		0.0068	MG/KG	1	4/8/2015 20:26
TOLUENE	ND		0.0068	MG/KG	1	4/8/2015 20:26
ETHYLBENZENE	ND		0.0068	MG/KG	1	4/8/2015 20:26
M+P-XYLENE	ND		0.0068	MG/KG	1	4/8/2015 20:26
O-XYLENE	ND		0.0068	MG/KG	1	4/8/2015 20:26
NAPHTHALENE	ND		0.0068	MG/KG	1	4/8/2015 20:26
TOTAL XYLENES	ND		0.005	MG/KG	1	4/8/2015 20:26
Surr: DIBROMOFLUOROMETHANE	*97*		*61-134*	*%REC*	1	4/8/2015 20:26
Surr: TOLUENE-D8	*99*		*57-135*	*%REC*	1	4/8/2015 20:26
Surr: 4-BROMOFLUOROBENZENE	*98*		*52-151*	*%REC*	1	4/8/2015 20:26

Client:	Talon LPE	**Date:**	*14-Apr-15*
Project:	701530.020.01 Nelson C-1	**Work Order:**	1504124
Sample ID:	SB-5 20-25'	**Lab ID:**	1504124-14
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/2/2015 15:09	**Percent Moisture:**	28.3

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	**37**	4,5,8	**6.7**	**MG/KG**	1	4/9/2015 02:34
Surr: O-TERPHENYL	*83*		*53-116*	*%REC*	1	4/9/2015 02:34
Gasoline Range Organics			**SW8015**	Prep Date: **4/8/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**3.5**	GZ	**0.61**	**MG/KG**	1	4/8/2015 16:41
Surr: 2,3,4-TRIFLUOROTOLUENE	*111*		*76-126*	*%REC*	1	4/8/2015 16:41
GC/MS Volatiles			**SW8260**	Prep Date: **4/8/2015**		PrepBy: **SDW**
BENZENE	**0.018**		**0.0061**	**MG/KG**	1	4/8/2015 20:49
TOLUENE	**0.084**		**0.0061**	**MG/KG**	1	4/8/2015 20:49
ETHYLBENZENE	**0.036**		**0.0061**	**MG/KG**	1	4/8/2015 20:49
M+P-XYLENE	**0.19**		**0.0061**	**MG/KG**	1	4/8/2015 20:49
O-XYLENE	**0.12**		**0.0061**	**MG/KG**	1	4/8/2015 20:49
NAPHTHALENE	ND		0.0061	MG/KG	1	4/8/2015 20:49
TOTAL XYLENES	**0.31**		**0.005**	**MG/KG**	1	4/8/2015 20:49
Surr: DIBROMOFLUOROMETHANE	*97*		*61-134*	*%REC*	1	4/8/2015 20:49
Surr: TOLUENE-D8	*101*		*57-135*	*%REC*	1	4/8/2015 20:49
Surr: 4-BROMOFLUOROBENZENE	*99*		*52-151*	*%REC*	1	4/8/2015 20:49

Client:	Talon LPE	**Date:**	*14-Apr-15*
Project:	701530.020.01 Nelson C-1	**Work Order:**	1504124
Sample ID:	SB-5 25-30'	**Lab ID:**	1504124-15
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/2/2015 15:25	**Percent Moisture:**	31.3

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	**4.9**	J	**6.9**	**MG/KG**	1	4/9/2015 03:11
Surr: O-TERPHENYL	*84*		*53-116*	*%REC*	1	4/9/2015 03:11
Gasoline Range Organics			**SW8015**	Prep Date: **4/8/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**0.23**	J	**0.61**	**MG/KG**	1	4/8/2015 17:21
Surr: 2,3,4-TRIFLUOROTOLUENE	*105*		*76-126*	*%REC*	1	4/8/2015 17:21
GC/MS Volatiles			**SW8260**	Prep Date: **4/9/2015**		PrepBy: **SDW**
BENZENE	**0.00073**	J	**0.0069**	**MG/KG**	1	4/9/2015 17:22
TOLUENE	**0.0036**	J	**0.0069**	**MG/KG**	1	4/9/2015 17:22
ETHYLBENZENE	ND		0.0069	MG/KG	1	4/9/2015 17:22
M+P-XYLENE	**0.0028**	J	**0.0069**	**MG/KG**	1	4/9/2015 17:22
O-XYLENE	**0.0023**	J	**0.0069**	**MG/KG**	1	4/9/2015 17:22
NAPHTHALENE	**0.005**	J	**0.0069**	**MG/KG**	1	4/9/2015 17:22
TOTAL XYLENES	**0.005**	J	**0.005**	**MG/KG**	1	4/9/2015 17:22
Surr: DIBROMOFLUOROMETHANE	*104*		*61-134*	*%REC*	1	4/9/2015 17:22
Surr: TOLUENE-D8	*97*		*57-135*	*%REC*	1	4/9/2015 17:22
Surr: 4-BROMOFLUOROBENZENE	*99*		*52-151*	*%REC*	1	4/9/2015 17:22

Client:	Talon LPE	**Date:**	*14-Apr-15*
Project:	701530.020.01 Nelson C-1	**Work Order:**	1504124
Sample ID:	SB-5 30-35'	**Lab ID:**	1504124-16
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/2/2015 16:00	**Percent Moisture:**	35.5

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	**8.9**	4,5,8	**7.5**	**MG/KG**	1	4/9/2015 03:47
Surr: O-TERPHENYL	*83*		*53-116*	*%REC*	1	4/9/2015 03:47
Gasoline Range Organics			**SW8015**	Prep Date: **4/8/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**0.31**	J	**0.7**	**MG/KG**	1	4/8/2015 18:03
Surr: 2,3,4-TRIFLUOROTOLUENE	*102*		*76-126*	*%REC*	1	4/8/2015 18:03
GC/MS Volatiles			**SW8260**	Prep Date: **4/8/2015**		PrepBy: **SDW**
BENZENE	**0.0093**		**0.0075**	**MG/KG**	1	4/8/2015 21:39
TOLUENE	**0.047**		**0.0075**	**MG/KG**	1	4/8/2015 21:39
ETHYLBENZENE	**0.012**		**0.0075**	**MG/KG**	1	4/8/2015 21:39
M+P-XYLENE	**0.055**		**0.0075**	**MG/KG**	1	4/8/2015 21:39
O-XYLENE	**0.033**		**0.0075**	**MG/KG**	1	4/8/2015 21:39
NAPHTHALENE	**0.013**		**0.0075**	**MG/KG**	1	4/8/2015 21:39
TOTAL XYLENES	**0.089**		**0.005**	**MG/KG**	1	4/8/2015 21:39
Surr: DIBROMOFLUOROMETHANE	*101*		*61-134*	*%REC*	1	4/8/2015 21:39
Surr: TOLUENE-D8	*99*		*57-135*	*%REC*	1	4/8/2015 21:39
Surr: 4-BROMOFLUOROBENZENE	*101*		*52-151*	*%REC*	1	4/8/2015 21:39

Client:	Talon LPE	**Date:**	*14-Apr-15*
Project:	701530.020.01 Nelson C-1	**Work Order:**	1504124
Sample ID:	SB-5 35-40'	**Lab ID:**	1504124-17
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/2/2015 16:58	**Percent Moisture:**	29.4

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/8/2015**		PrepBy: **JFN**
Diesel Range Organics	**2.6**	J	**6.8**	**MG/KG**	1	4/9/2015 05:34
Surr: O-TERPHENYL	*85*		*53-116*	*%REC*	1	4/9/2015 05:34
Gasoline Range Organics			**SW8015**	Prep Date: **4/8/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.65	MG/KG	1	4/8/2015 18:45
Surr: 2,3,4-TRIFLUOROTOLUENE	*96*		*76-126*	*%REC*	1	4/8/2015 18:45
GC/MS Volatiles			**SW8260**	Prep Date: **4/8/2015**		PrepBy: **SDW**
BENZENE	**0.0011**	J	**0.0063**	**MG/KG**	1	4/8/2015 22:05
TOLUENE	ND		0.0063	MG/KG	1	4/8/2015 22:05
ETHYLBENZENE	ND		0.0063	MG/KG	1	4/8/2015 22:05
M+P-XYLENE	ND		0.0063	MG/KG	1	4/8/2015 22:05
O-XYLENE	ND		0.0063	MG/KG	1	4/8/2015 22:05
NAPHTHALENE	ND		0.0063	MG/KG	1	4/8/2015 22:05
TOTAL XYLENES	ND		0.005	MG/KG	1	4/8/2015 22:05
Surr: DIBROMOFLUOROMETHANE	*102*		*61-134*	*%REC*	1	4/8/2015 22:05
Surr: TOLUENE-D8	*96*		*57-135*	*%REC*	1	4/8/2015 22:05
Surr: 4-BROMOFLUOROBENZENE	*99*		*52-151*	*%REC*	1	4/8/2015 22:05

Client:	Talon LPE	**Date:**	*14-Apr-15*
Project:	701530.020.01 Nelson C-1	**Work Order:**	1504124
Sample ID:	SB-5 35-40'	**Lab ID:**	1504124-17
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/2/2015 16:58	**Percent Moisture:**	29.4

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Explanation of Qualifiers

Radiochemistry:

U or ND - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.

Y2 - Chemical Yield outside default limits.

W - DER is greater than Warning Limit of 1.42

* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.

- Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.

G - Sample density differs by more than 15% of LCS density.

D - DER is greater than Control Limit

M - Requested MDC not met.

LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

L - LCS Recovery below lower control limit.

H - LCS Recovery above upper control limit.

P - LCS, Matrix Spike Recovery within control limits.

N - Matrix Spike Recovery outside control limits

NC - Not Calculated for duplicate results less than 5 times MDC

B - Analyte concentration greater than MDC.

B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

QC BATCH REPORT

Batch ID: **HC150408-61-1** Instrument ID **FUELS-1** Method: **SW8015**

LCS Sample ID: **HC150408-61** Units: **MG/KG** Analysis Date: **4/8/2015 09:17**

Client ID: Run ID: **HC150408-6A** Prep Date: **4/8/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.35	0.5	2.5		94	79-118				20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.558		0.5		112	76-126					

LCSD Sample ID: **HC150408-61** Units: **MG/KG** Analysis Date: **4/8/2015 16:20**

Client ID: Run ID: **HC150408-6A** Prep Date: **4/8/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.5	0.5	2.5		100	79-118		2.35	6	20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.568		0.5		114	76-126			2		

MB Sample ID: **HC150408-61** Units: **MG/KG** Analysis Date: **4/8/2015 09:38**

Client ID: Run ID: **HC150408-6A** Prep Date: **4/8/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	ND	0.5									
Surr: 2,3,4-TRIFLUOROTOLUENE	0.504		0.5		101	76-126					

The following samples were analyzed in this batch:

1504124-1	1504124-2	1504124-3
1504124-4	1504124-5	1504124-11
1504124-14	1504124-15	1504124-16
1504124-17		

Client: Talon LPE
Work Order: 1504124
Project: 701530.020.01 Nelson C-1

QC BATCH REPORT

Batch ID: **HC150408-100-1** Instrument ID **FUELS-1** Method: **SW8015M**

LCS Sample ID: **HC150408-100** Units: **MG/KG** Analysis Date: **4/8/2015 17:49**
Client ID: Run ID: **HC150408-8A** Prep Date: **4/8/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	119	5	125		95	76-124				20	
Surr: O-TERPHENYL	9.06		12.5		73	53-116					

MB Sample ID: **HC150408-100** Units: **MG/KG** Analysis Date: **4/8/2015 16:39**
Client ID: Run ID: **HC150408-8A** Prep Date: **4/8/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	ND	5									
Surr: O-TERPHENYL	9.57		12.5		77	53-116					

MS Sample ID: **1504124-17** Units: **MG/KG** Analysis Date: **4/9/2015 04:23**
Client ID: **SB-5 35-40'** Run ID: **HC150408-8A** Prep Date: **4/8/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	154	7.03	176	2.6	86	76-124				20	
Surr: O-TERPHENYL	14.8		17.6		84	53-116					

MSD Sample ID: **1504124-17** Units: **MG/KG** Analysis Date: **4/9/2015 04:58**
Client ID: **SB-5 35-40'** Run ID: **HC150408-8A** Prep Date: **4/8/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	146	6.76	169	2.6	85	76-124		154	5	20	
Surr: O-TERPHENYL	14.2		16.9		84	53-116			4		

The following samples were analyzed in this batch:

1504124-1	1504124-2	1504124-3
1504124-4	1504124-5	1504124-6
1504124-7	1504124-8	1504124-9
1504124-10	1504124-11	1504124-12
1504124-14	1504124-15	1504124-16
1504124-17		

Client: Talon LPE
Work Order: 1504124
Project: 701530.020.01 Nelson C-1

QC BATCH REPORT

Batch ID: **HC150409-61-1** Instrument ID **FUELS-1** Method: **SW8015**

LCS Sample ID: **HC150409-61** Units: **MG/KG** Analysis Date: **4/9/2015 08:48**
Client ID: Run ID: **HC150409-6A** Prep Date: **4/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.24	0.5	2.5		90	79-118				20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.522		0.5		104	76-126					

LCSD Sample ID: **HC150409-61** Units: **MG/KG** Analysis Date: **4/9/2015 12:56**
Client ID: Run ID: **HC150409-6A** Prep Date: **4/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.32	0.5	2.5		93	79-118		2.24	3	20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.533		0.5		107	76-126			2		

MB Sample ID: **HC150409-61** Units: **MG/KG** Analysis Date: **4/9/2015 09:08**
Client ID: Run ID: **HC150409-6A** Prep Date: **4/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	ND	0.5									
Surr: 2,3,4-TRIFLUOROTOLUENE	0.477		0.5		95	76-126					

MS Sample ID: **1504124-6** Units: **MG/KG** Analysis Date: **4/9/2015 12:14**
Client ID: **SB-2 10-15'** Run ID: **HC150409-6A** Prep Date: **4/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.38	0.657	3.29	0.68	72	79-118				40	*
Surr: 2,3,4-TRIFLUOROTOLUENE	0.666		0.657		101	76-126					

MSD Sample ID: **1504124-6** Units: **MG/KG** Analysis Date: **4/9/2015 12:35**
Client ID: **SB-2 10-15'** Run ID: **HC150409-6A** Prep Date: **4/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1.82	0.539	2.7	0.68	67	79-118		2.38	27	40	*
Surr: 2,3,4-TRIFLUOROTOLUENE	0.552		0.539		102	76-126			19		

The following samples were analyzed in this batch:

1504124-6	1504124-7	1504124-8
1504124-9	1504124-10	1504124-12
1504124-13		

QC BATCH REPORT

Batch ID: **VL150408-2-2** Instrument ID **HPV1** Method: **SW8260**

LCS Sample ID: **VL150408-2** Units: **MG/KG** Analysis Date: **4/8/2015 12:21**

Client ID: Run ID: **VL150408-2A** Prep Date: **4/8/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0369	0.005	0.04		92	73-126				30	
TOLUENE	0.0366	0.005	0.04		91	71-127				30	
ETHYLBENZENE	0.0355	0.005	0.04		89	74-127				30	
M+P-XYLENE	0.0724	0.005	0.08		90	79-126				30	
O-XYLENE	0.0359	0.005	0.04		90	77-125				30	
NAPHTHALENE	0.042	0.005	0.04		105	64-141				30	
Surr: DIBROMOFLUOROMETHANE	0.0513		0.05		103	61-134					
Surr: TOLUENE-D8	0.0491		0.05		98	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0501		0.05		100	52-151					

LCSD Sample ID: **VL150408-2** Units: **MG/KG** Analysis Date: **4/8/2015 12:46**

Client ID: Run ID: **VL150408-2A** Prep Date: **4/8/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0393	0.005	0.04		98	73-126		0.0369	6	30	
TOLUENE	0.0378	0.005	0.04		94	71-127		0.0366	3	30	
ETHYLBENZENE	0.037	0.005	0.04		93	74-127		0.0355	4	30	
M+P-XYLENE	0.0749	0.005	0.08		94	79-126		0.0724	3	30	
O-XYLENE	0.0382	0.005	0.04		96	77-125		0.0359	6	30	
NAPHTHALENE	0.0423	0.005	0.04		106	64-141		0.042	1	30	
Surr: DIBROMOFLUOROMETHANE	0.051		0.05		102	61-134			1		
Surr: TOLUENE-D8	0.0489		0.05		98	57-135			0		
Surr: 4-BROMOFLUOROBENZENE	0.0495		0.05		99	52-151			1		

QC BATCH REPORT

Batch ID: **VL150408-2-2** Instrument ID **HPV1** Method: **SW8260**

MB Sample ID: **VL150408-2** Units: **MG/KG** Analysis Date: **4/8/2015 13:12**

Client ID: Run ID: **VL150408-2A** Prep Date: **4/8/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	ND	0.005									
TOLUENE	ND	0.005									
ETHYLBENZENE	ND	0.005									
M+P-XYLENE	ND	0.005									
O-XYLENE	ND	0.005									
NAPHTHALENE	ND	0.005									
TOTAL XYLENES	ND	0.005									
Surr: DIBROMOFLUOROMETHANE	0.0499		0.05		100	61-134					
Surr: TOLUENE-D8	0.0495		0.05		99	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0498		0.05		100	52-151					

The following samples were analyzed in this batch:

1504124-1	1504124-4	1504124-5
1504124-6	1504124-7	1504124-8
1504124-9	1504124-10	1504124-11
1504124-12	1504124-13	1504124-14
1504124-16	1504124-17	

QC BATCH REPORT

Batch ID: **VL150409-2-2** Instrument ID **HPV1** Method: **SW8260**

LCS Sample ID: **VL150409-2** Units: **MG/KG** Analysis Date: **4/9/2015 13:55**

Client ID: Run ID: **VL150409-2A** Prep Date: **4/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0426	0.005	0.04		106	73-126				30	
TOLUENE	0.0424	0.005	0.04		106	71-127				30	
ETHYLBENZENE	0.0414	0.005	0.04		103	74-127				30	
M+P-XYLENE	0.0856	0.005	0.08		107	79-126				30	
O-XYLENE	0.0424	0.005	0.04		106	77-125				30	
NAPHTHALENE	0.0497	0.005	0.04		124	64-141				30	
Surr: DIBROMOFLUOROMETHANE	0.0494		0.05		99	61-134					
Surr: TOLUENE-D8	0.0477		0.05		95	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0494		0.05		99	52-151					

LCSD Sample ID: **VL150409-2** Units: **MG/KG** Analysis Date: **4/9/2015 14:17**

Client ID: Run ID: **VL150409-2A** Prep Date: **4/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0439	0.005	0.04		110	73-126		0.0426	3	30	
TOLUENE	0.042	0.005	0.04		105	71-127		0.0424	1	30	
ETHYLBENZENE	0.0422	0.005	0.04		106	74-127		0.0414	2	30	
M+P-XYLENE	0.0856	0.005	0.08		107	79-126		0.0856	0	30	
O-XYLENE	0.0434	0.005	0.04		108	77-125		0.0424	2	30	
NAPHTHALENE	0.0521	0.005	0.04		130	64-141		0.0497	5	30	
Surr: DIBROMOFLUOROMETHANE	0.0514		0.05		103	61-134			4		
Surr: TOLUENE-D8	0.0476		0.05		95	57-135			0		
Surr: 4-BROMOFLUOROBENZENE	0.049		0.05		98	52-151			1		

Client: Talon LPE
Work Order: 1504124
Project: 701530.020.01 Nelson C-1

QC BATCH REPORT

Batch ID: **VL150409-2-2** Instrument ID **HPV1** Method: **SW8260**

MB Sample ID: **VL150409-2** Units: **MG/KG** Analysis Date: **4/9/2015 14:42**

Client ID: Run ID: **VL150409-2A** Prep Date: **4/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	ND	0.005									
TOLUENE	ND	0.005									
ETHYLBENZENE	ND	0.005									
M+P-XYLENE	ND	0.005									
O-XYLENE	ND	0.005									
NAPHTHALENE	ND	0.005									
TOTAL XYLENES	ND	0.005									
Surr: DIBROMOFLUOROMETHANE	0.0506		0.05		101	61-134					
Surr: TOLUENE-D8	0.049		0.05		98	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0504		0.05		101	52-151					

MB Sample ID: **VL150409-2M** Units: **MG/KG** Analysis Date: **4/9/2015 15:04**

Client ID: Run ID: **VL150409-2A** Prep Date: **4/9/2015** DF: **50**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	ND	0.25									
TOLUENE	ND	0.25									
ETHYLBENZENE	ND	0.25									
M+P-XYLENE	ND	0.25									
O-XYLENE	ND	0.25									
NAPHTHALENE	ND	0.25									
TOTAL XYLENES	ND	0.005									
Surr: DIBROMOFLUOROMETHANE	2.52		2.5		101	61-134					
Surr: TOLUENE-D8	2.46		2.5		98	57-135					
Surr: 4-BROMOFLUOROBENZENE	2.44		2.5		98	52-151					

The following samples were analyzed in this batch:

1504124-1	1504124-2	1504124-3
1504124-11	1504124-15	

Thursday, April 16, 2015

Colby Sterling
Talon LPE
921 N Bivins
Amarillo, TX 79107

Re: ALS Workorder: 1504197
Project Name: Nelson C-1
Project Number: 701530.020.01

Dear Mr. Sterling:

Six soil samples were received from Talon LPE, on 4/10/2015. The samples were scheduled for the following analyses:

GC/MS Volatiles
Total Extractable Petroleum Hydrocarbons (Diesel)
Total Volatile Petroleum Hydrocarbons (Gasoline)

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Amy R. Wolf
Project Manager

ARW/erh
Enclosure(s):

ALS is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Laboratory Certifications	
Accreditation Body	License or Certification Number
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Connecticut (CT)	PH-0232
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
L-A-B (DoD ELAP/ISO 170250)	L2257
Maryland (MD)	285
Missouri	175
Nebraska	NE-OS-24-13
Nevada (NV)	CO000782008A
New Jersey (NJ)	CO003
North Dakota (ND)	R-057
Oklahoma	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington	C1280

1504197

GC/MS Volatiles:
The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C.

All acceptance criteria were met.

GRO:
The samples were analyzed following the current revision of SOP 425 generally based on SW-846 Methods 8000C and 8015D. TVPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C6 to C10.

All acceptance criteria were met.

DRO:
The samples were analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C10 to C28.

All acceptance criteria were met.

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1504197
Client Name: Talon LPE
Client Project Name: Nelson C-1
Client Project Number: 701530.020.01
Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
SB6 20-25'	1504197-1		SOIL	07-Apr-15	10:55
SB6 30-35'	1504197-2		SOIL	07-Apr-15	11:15
SB6 35-40'	1504197-3		SOIL	07-Apr-15	11:30
SB7 20-25'	1504197-4		SOIL	07-Apr-15	13:25
SB7 30-35'	1504197-5		SOIL	07-Apr-15	13:45
SB7 35-40'	1504197-6		SOIL	07-Apr-15	14:00

ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202r8

WORKORDER # 1504197

PAGE 1 of 1

DISPOSAL By Lab or Return to Client

PROJECT NAME	Nelson C-1	SAMPLER	Tim Wilhelm
PROJECT No.	701530.020.01	SITE ID	
		EDD FORMAT	
COMPANY NAME	Talon LPE	PURCHASE ORDER	
SEND REPORT TO	Colby Sterling	BILL TO COMPANY	SAME
ADDRESS	921 N Bivins	INVOICE ATTN TO	
CITY / STATE / ZIP	Amarillo TX 79107	ADDRESS	
PHONE	806-467-0607	CITY / STATE / ZIP	
FAX	806-467-0622	PHONE	
E-MAIL	CSterling@talonlpe.com	FAX	
		E-MAIL	

DATE 4/9/2015

TURNAROUND

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	GRO 8015	DRO 8015	BTEX 8260	Naphthalene
1	SB6 - 20-25'	S	4-7-15	10:55	2	ICE		X	X	X	X
2	SB6 30-35'	S		11:15	2			X	X		
3	SB6 35-40'	S		11:30	2			X	X		
4	SB7 20-25			13:25	2						
5	SB7 ~~25-30~~ 30-35'			13:45	2						
6	SB7 ~~30~~ 35-40'			14:00	2						

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:

QC PACKAGE (check below)

- LEVEL II (Standard QC)
- LEVEL III (Std QC + forms)
- LEVEL IV (Std QC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Tim Wilhelm	Tim Wilhelm	4/10/15	0845
RECEIVED BY	Erin Pet	Erin Peterson	4/10/15	0845
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Talon Workorder No: 1504197

Project Manager: _____ Initials: ECP Date: 4/10/15

1. Does this project require any special handling in addition to standard ALS procedures?		YES	(NO)
2. Are custody seals on shipping containers intact?	(NONE)	YES	NO
3. Are Custody seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		(YES)	NO
5. Are the COC and bottle labels complete and legible?		(YES)	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		(YES)	NO
7. Were airbills / shipping documents present and/or removable?	(DROP OFF)	YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	(N/A)	YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	(N/A)	YES	NO
10. Is there sufficient sample for the requested analyses?		(YES)	NO
11. Were all samples placed in the proper containers for the requested analyses?		(YES)	NO
12. Are all samples within holding times for the requested analyses?		(YES)	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		(YES)	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ____ < green pea ____ > green pea	(N/A)	YES	NO
15. Do any water samples contain sediment? Amount Amount of sediment: ____ dusting ____ moderate ____ heavy	(N/A)	YES	NO
16. Were the samples shipped on ice?		(YES)	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 (#4)	RAD ONLY	(YES)	NO

Cooler #:	1							
Temperature (°C):	2.6°							
No. of custody seals on cooler:	0							
DOT Survey/ Acceptance Information — External µR/hr reading:	NA							
Background µR/hr reading:	12							

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? **YES / NO / (NA)** (If no, see Form 008.)

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

If applicable, was the client contacted? **YES / NO / (NA)** Contact: _____ Date/Time: _____

Project Manager Signature / Date: [signature] 4/10/15

*IR Gun #2: Oakton, SN 29922500201-0066
*IR Gun #4: Oakton, SN 2372220101-0002

Client: Talon LPE
Project: 701530.020.01 Nelson C-1
Sample ID: SB6 20-25'
Legal Location:
Collection Date: 4/7/2015 10:55

Date: *16-Apr-15*
Work Order: 1504197
Lab ID: 1504197-1
Matrix: SOIL
Percent Moisture: 39.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **4/13/2015**		PrepBy: **JFN**
Diesel Range Organics	**36**	4,5,8,H	**7.9**	**MG/KG**	1	4/14/2015 01:40
Surr: O-TERPHENYL	*87*		*53-116*	*%REC*	1	4/14/2015 01:40
Gasoline Range Organics		**SW8015**		Prep Date: **4/13/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**48**	GZ	**0.79**	**MG/KG**	1	4/13/2015 11:29
Surr: 2,3,4-TRIFLUOROTOLUENE	*131*	*	*76-126*	*%REC*	1	4/13/2015 11:29
GC/MS Volatiles		**SW8260**		Prep Date: **4/14/2015**		PrepBy: **TWK**
BENZENE	**0.93**		**0.075**	**MG/KG**	1	4/14/2015 11:26
TOLUENE	**1.4**		**0.075**	**MG/KG**	1	4/14/2015 11:26
ETHYLBENZENE	**0.48**		**0.075**	**MG/KG**	1	4/14/2015 11:26
M+P-XYLENE	**2.1**		**0.075**	**MG/KG**	1	4/14/2015 11:26
O-XYLENE	**0.87**		**0.075**	**MG/KG**	1	4/14/2015 11:26
NAPHTHALENE	**0.14**		**0.075**	**MG/KG**	1	4/14/2015 11:26
TOTAL XYLENES	**3**		**0.005**	**MG/KG**	1	4/14/2015 11:26
Surr: DIBROMOFLUOROMETHANE	*102*		*61-134*	*%REC*	1	4/14/2015 11:26
Surr: TOLUENE-D8	*95*		*57-135*	*%REC*	1	4/14/2015 11:26
Surr: 4-BROMOFLUOROBENZENE	*98*		*52-151*	*%REC*	1	4/14/2015 11:26

Client: Talon LPE
Project: 701530.020.01 Nelson C-1
Sample ID: SB6 30-35'
Legal Location:
Collection Date: 4/7/2015 11:15

Date: *16-Apr-15*
Work Order: 1504197
Lab ID: 1504197-2
Matrix: SOIL
Percent Moisture: 34.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/13/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		7.6	MG/KG	1	4/14/2015 02:16
Surr: O-TERPHENYL	*82*		*53-116*	*%REC*	1	4/14/2015 02:16
Gasoline Range Organics			**SW8015**	Prep Date: **4/13/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.64	MG/KG	1	4/13/2015 12:10
Surr: 2,3,4-TRIFLUOROTOLUENE	*101*		*76-126*	*%REC*	1	4/13/2015 12:10
GC/MS Volatiles			**SW8260**	Prep Date: **4/14/2015**		PrepBy: **TWK**
BENZENE	**0.067**		**0.0075**	**MG/KG**	1	4/14/2015 09:51
TOLUENE	ND		0.0075	MG/KG	1	4/14/2015 09:51
ETHYLBENZENE	ND		0.0075	MG/KG	1	4/14/2015 09:51
M+P-XYLENE	**0.012**		**0.0075**	**MG/KG**	1	4/14/2015 09:51
O-XYLENE	ND		0.0075	MG/KG	1	4/14/2015 09:51
NAPHTHALENE	**0.0091**		**0.0075**	**MG/KG**	1	4/14/2015 09:51
TOTAL XYLENES	**0.012**		**0.005**	**MG/KG**	1	4/14/2015 09:51
Surr: DIBROMOFLUOROMETHANE	*99*		*61-134*	*%REC*	1	4/14/2015 09:51
Surr: TOLUENE-D8	*97*		*57-135*	*%REC*	1	4/14/2015 09:51
Surr: 4-BROMOFLUOROBENZENE	*100*		*52-151*	*%REC*	1	4/14/2015 09:51

Client: Talon LPE
Project: 701530.020.01 Nelson C-1
Sample ID: SB6 35-40'
Legal Location:
Collection Date: 4/7/2015 11:30

Date: *16-Apr-15*
Work Order: 1504197
Lab ID: 1504197-3
Matrix: SOIL
Percent Moisture: 21.3

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **4/13/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		6.1	MG/KG	1	4/14/2015 02:52
Surr: O-TERPHENYL	*83*		*53-116*	*%REC*	1	4/14/2015 02:52
Gasoline Range Organics		**SW8015**		Prep Date: **4/13/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.52	MG/KG	1	4/13/2015 12:31
Surr: 2,3,4-TRIFLUOROTOLUENE	*103*		*76-126*	*%REC*	1	4/13/2015 12:31
GC/MS Volatiles		**SW8260**		Prep Date: **4/14/2015**		PrepBy: **TWK**
BENZENE	ND		0.0058	MG/KG	1	4/14/2015 10:15
TOLUENE	ND		0.0058	MG/KG	1	4/14/2015 10:15
ETHYLBENZENE	ND		0.0058	MG/KG	1	4/14/2015 10:15
M+P-XYLENE	ND		0.0058	MG/KG	1	4/14/2015 10:15
O-XYLENE	ND		0.0058	MG/KG	1	4/14/2015 10:15
NAPHTHALENE	ND		0.0058	MG/KG	1	4/14/2015 10:15
TOTAL XYLENES	ND		0.005	MG/KG	1	4/14/2015 10:15
Surr: DIBROMOFLUOROMETHANE	*103*		*61-134*	*%REC*	1	4/14/2015 10:15
Surr: TOLUENE-D8	*94*		*57-135*	*%REC*	1	4/14/2015 10:15
Surr: 4-BROMOFLUOROBENZENE	*100*		*52-151*	*%REC*	1	4/14/2015 10:15

Client: Talon LPE
Project: 701530.020.01 Nelson C-1
Sample ID: SB7 20-25'
Legal Location:
Collection Date: 4/7/2015 13:25

Date: *16-Apr-15*
Work Order: 1504197
Lab ID: 1504197-4
Matrix: SOIL
Percent Moisture: 29.8

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/13/2015**		PrepBy: **JFN**
Diesel Range Organics	**210**	4,5,8,H	**6.9**	**MG/KG**	1	4/14/2015 03:28
Surr: O-TERPHENYL	*86*		*53-116*	*%REC*	1	4/14/2015 03:28
Gasoline Range Organics			**SW8015**	Prep Date: **4/13/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**660**	GZ	**14**	**MG/KG**	100	4/13/2015 17:23
Surr: 2,3,4-TRIFLUOROTOLUENE	*127*	*	*76-126*	*%REC*	100	4/13/2015 17:23
GC/MS Volatiles			**SW8260**	Prep Date: **4/14/2015**		PrepBy: **TWK**
BENZENE	ND		0.35	MG/KG	50	4/14/2015 09:01
TOLUENE	**6.9**		**0.35**	**MG/KG**	50	4/14/2015 09:01
ETHYLBENZENE	**3.8**		**0.35**	**MG/KG**	50	4/14/2015 09:01
M+P-XYLENE	**17**		**0.35**	**MG/KG**	50	4/14/2015 09:01
O-XYLENE	**6.4**		**0.35**	**MG/KG**	50	4/14/2015 09:01
NAPHTHALENE	**0.87**		**0.35**	**MG/KG**	50	4/14/2015 09:01
TOTAL XYLENES	**24**		**0.005**	**MG/KG**	1	4/14/2015 09:01
Surr: DIBROMOFLUOROMETHANE	*103*		*61-134*	*%REC*	50	4/14/2015 09:01
Surr: TOLUENE-D8	*96*		*57-135*	*%REC*	50	4/14/2015 09:01
Surr: 4-BROMOFLUOROBENZENE	*97*		*52-151*	*%REC*	50	4/14/2015 09:01

Client: Talon LPE **Date:** *16-Apr-15*
Project: 701530.020.01 Nelson C-1 **Work Order:** 1504197
Sample ID: SB7 30-35' **Lab ID:** 1504197-5
Legal Location: **Matrix:** SOIL
Collection Date: 4/7/2015 13:45 **Percent Moisture:** 19.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **4/13/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		6.2	MG/KG	1	4/14/2015 04:04
Surr: O-TERPHENYL	*85*		*53-116*	*%REC*	1	4/14/2015 04:04
Gasoline Range Organics		**SW8015**		Prep Date: **4/13/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.53	MG/KG	1	4/13/2015 13:12
Surr: 2,3,4-TRIFLUOROTOLUENE	*108*		*76-126*	*%REC*	1	4/13/2015 13:12
GC/MS Volatiles		**SW8260**		Prep Date: **4/14/2015**		PrepBy: **TWK**
BENZENE	ND		0.006	MG/KG	1	4/14/2015 11:03
TOLUENE	ND		0.006	MG/KG	1	4/14/2015 11:03
ETHYLBENZENE	ND		0.006	MG/KG	1	4/14/2015 11:03
M+P-XYLENE	ND		0.006	MG/KG	1	4/14/2015 11:03
O-XYLENE	ND		0.006	MG/KG	1	4/14/2015 11:03
NAPHTHALENE	ND		0.006	MG/KG	1	4/14/2015 11:03
TOTAL XYLENES	ND		0.005	MG/KG	1	4/14/2015 11:03
Surr: DIBROMOFLUOROMETHANE	*102*		*61-134*	*%REC*	1	4/14/2015 11:03
Surr: TOLUENE-D8	*98*		*57-135*	*%REC*	1	4/14/2015 11:03
Surr: 4-BROMOFLUOROBENZENE	*100*		*52-151*	*%REC*	1	4/14/2015 11:03

Client: Talon LPE
Project: 701530.020.01 Nelson C-1
Sample ID: SB7 35-40'
Legal Location:
Collection Date: 4/7/2015 14:00

Date: *16-Apr-15*
Work Order: 1504197
Lab ID: 1504197-6
Matrix: SOIL
Percent Moisture: 23.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/13/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		6.5	MG/KG	1	4/14/2015 04:40
Surr: O-TERPHENYL	*87*		*53-116*	*%REC*	1	4/14/2015 04:40
Gasoline Range Organics			**SW8015**	Prep Date: **4/13/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.61	MG/KG	1	4/13/2015 14:01
Surr: 2,3,4-TRIFLUOROTOLUENE	*130*	*	*76-126*	*%REC*	1	4/13/2015 14:01
GC/MS Volatiles			**SW8260**	Prep Date: **4/14/2015**		PrepBy: **TWK**
BENZENE	ND		0.0062	MG/KG	1	4/14/2015 11:50
TOLUENE	ND		0.0062	MG/KG	1	4/14/2015 11:50
ETHYLBENZENE	ND		0.0062	MG/KG	1	4/14/2015 11:50
M+P-XYLENE	ND		0.0062	MG/KG	1	4/14/2015 11:50
O-XYLENE	ND		0.0062	MG/KG	1	4/14/2015 11:50
NAPHTHALENE	ND		0.0062	MG/KG	1	4/14/2015 11:50
TOTAL XYLENES	ND		0.005	MG/KG	1	4/14/2015 11:50
Surr: DIBROMOFLUOROMETHANE	*99*		*61-134*	*%REC*	1	4/14/2015 11:50
Surr: TOLUENE-D8	*99*		*57-135*	*%REC*	1	4/14/2015 11:50
Surr: 4-BROMOFLUOROBENZENE	*101*		*52-151*	*%REC*	1	4/14/2015 11:50

Client:	Talon LPE	**Date:**	*16-Apr-15*
Project:	701530.020.01 Nelson C-1	**Work Order:**	1504197
Sample ID:	SB7 35-40'	**Lab ID:**	1504197-6
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/7/2015 14:00	**Percent Moisture:**	23.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Explanation of Qualifiers

Radiochemistry:

U or ND - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.

Y2 - Chemical Yield outside default limits.

W - DER is greater than Warning Limit of 1.42

* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.

- Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.

G - Sample density differs by more than 15% of LCS density.

D - DER is greater than Control Limit

M - Requested MDC not met.

LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

L - LCS Recovery below lower control limit.

H - LCS Recovery above upper control limit.

P - LCS, Matrix Spike Recovery within control limits.

N - Matrix Spike Recovery outside control limits

NC - Not Calculated for duplicate results less than 5 times MDC

B - Analyte concentration greater than MDC.

B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

Batch ID: **HC150413-61-1** Instrument ID **FUELS-1** Method: **SW8015**

LCS Sample ID: **HC150413-61** Units: **MG/KG** Analysis Date: **4/13/2015 10:26**

Client ID: Run ID: **HC150413-6A** Prep Date: **4/13/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.29	0.5	2.5		92	79-118				20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.565		0.5		113	76-126					

LCSD Sample ID: **HC150413-61** Units: **MG/KG** Analysis Date: **4/13/2015 18:48**

Client ID: Run ID: **HC150413-6A** Prep Date: **4/13/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.26	0.5	2.5		90	79-118		2.29	1	20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.556		0.5		111	76-126			2		

MB Sample ID: **HC150413-61** Units: **MG/KG** Analysis Date: **4/13/2015 11:50**

Client ID: Run ID: **HC150413-6A** Prep Date: **4/13/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	ND	0.5									
Surr: 2,3,4-TRIFLUOROTOLUENE	0.489		0.5		98	76-126					

MB Sample ID: **HC150413-61M** Units: **MG/KG** Analysis Date: **4/13/2015 10:47**

Client ID: Run ID: **HC150413-6A** Prep Date: **4/13/2015** DF: **50**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	ND	5									
Surr: 2,3,4-TRIFLUOROTOLUENE	5.29		5		106	76-126					

MS Sample ID: **1504197-6** Units: **MG/KG** Analysis Date: **4/13/2015 18:05**

Client ID: **SB7 35-40'** Run ID: **HC150413-6A** Prep Date: **4/13/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1.83	0.447	2.23	0.61	82	79-118				40	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.472		0.447		106	76-126					

QC BATCH REPORT

Batch ID: **HC150413-61-1** Instrument ID **FUELS-1** Method: **SW8015**

MSD Sample ID: **1504197-6** Units: **MG/KG** Analysis Date: **4/13/2015 18:27**

Client ID: **SB7 35-40'** Run ID: **HC150413-6A** Prep Date: **4/13/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.43	0.538	2.69	0.61	90	79-118		1.83	29	40	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.607		0.538		113	76-126			25		

The following samples were analyzed in this batch:

1504197-1	1504197-2	1504197-3
1504197-4	1504197-5	1504197-6

QC BATCH REPORT

Batch ID: **HC150413-100-1** Instrument ID **FUELS-1** Method: **SW8015M**

LCS Sample ID: **HC150413-100** Units: **MG/KG** Analysis Date: **4/13/2015 18:32**

Client ID: Run ID: **HC150413-81A** Prep Date: **4/13/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	115	5	125		92	76-124				20	
Surr: O-TERPHENYL	8.93		12.5		71	53-116					

MB Sample ID: **HC150413-100** Units: **MG/KG** Analysis Date: **4/13/2015 17:21**

Client ID: Run ID: **HC150413-81A** Prep Date: **4/13/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	ND	5									
Surr: O-TERPHENYL	9.37		12.5		75	53-116					

The following samples were analyzed in this batch:

QC BATCH REPORT

Batch ID: **HC150413-100-1** Instrument ID **FUELS-1** Method: **SW8015M**

MS Sample ID: **1504197-6** Units: **MG/KG** Analysis Date: **4/14/2015 05:15**

Client ID: **SB7 35-40'** Run ID: **HC150413-82A** Prep Date: **4/13/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	135	6.24	156	6.5	86	76-124				20	
Surr: O-TERPHENYL	13.3		15.6		85	53-116					

MSD Sample ID: **1504197-6** Units: **MG/KG** Analysis Date: **4/14/2015 05:52**

Client ID: **SB7 35-40'** Run ID: **HC150413-82A** Prep Date: **4/13/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	140	6.44	161	6.5	87	76-124		135	4	20	
Surr: O-TERPHENYL	13.5		16.1		84	53-116			2		

The following samples were analyzed in this batch:

1504197-1	1504197-2	1504197-3
1504197-4	1504197-5	1504197-6

QC BATCH REPORT

Batch ID: **VL150414-2-2** Instrument ID **HPV1** Method: **SW8260**

LCS Sample ID: **VL150414-2** Units: **MG/KG** Analysis Date: **4/14/2015 07:23**

Client ID: Run ID: **VL150414-2A** Prep Date: **4/14/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0394	0.005	0.04		99	73-126				30	
TOLUENE	0.0374	0.005	0.04		94	71-127				30	
ETHYLBENZENE	0.0361	0.005	0.04		90	74-127				30	
M+P-XYLENE	0.0754	0.005	0.08		94	79-126				30	
O-XYLENE	0.037	0.005	0.04		93	77-125				30	
NAPHTHALENE	0.0416	0.005	0.04		104	64-141				30	
Surr: DIBROMOFLUOROMETHANE	0.0521		0.05		104	61-134					
Surr: TOLUENE-D8	0.0486		0.05		97	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.05		0.05		100	52-151					

LCSD Sample ID: **VL150414-2** Units: **MG/KG** Analysis Date: **4/14/2015 07:47**

Client ID: Run ID: **VL150414-2A** Prep Date: **4/14/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0396	0.005	0.04		99	73-126		0.0394	0	30	
TOLUENE	0.0378	0.005	0.04		95	71-127		0.0374	1	30	
ETHYLBENZENE	0.037	0.005	0.04		92	74-127		0.0361	2	30	
M+P-XYLENE	0.0769	0.005	0.08		96	79-126		0.0754	2	30	
O-XYLENE	0.0379	0.005	0.04		95	77-125		0.037	2	30	
NAPHTHALENE	0.0432	0.005	0.04		108	64-141		0.0416	4	30	
Surr: DIBROMOFLUOROMETHANE	0.052		0.05		104	61-134			0		
Surr: TOLUENE-D8	0.0498		0.05		100	57-135			2		
Surr: 4-BROMOFLUOROBENZENE	0.0506		0.05		101	52-151			1		

QC BATCH REPORT

Batch ID: **VL150414-2-2** Instrument ID **HPV1** Method: **SW8260**

MB Sample ID: **VL150414-2** Units: **MG/KG** Analysis Date: **4/14/2015 08:13**

Client ID: Run ID: **VL150414-2A** Prep Date: **4/14/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	ND	0.005									
TOLUENE	ND	0.005									
ETHYLBENZENE	ND	0.005									
M+P-XYLENE	ND	0.005									
O-XYLENE	ND	0.005									
NAPHTHALENE	ND	0.005									
TOTAL XYLENES	ND	0.005									
Surr: DIBROMOFLUOROMETHANE	0.0524		0.05		105	61-134					
Surr: TOLUENE-D8	0.048		0.05		96	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0497		0.05		99	52-151					

MB Sample ID: **VL150414-2M** Units: **MG/KG** Analysis Date: **4/14/2015 08:39**

Client ID: Run ID: **VL150414-2A** Prep Date: **4/14/2015** DF: **50**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	ND	0.25									
TOLUENE	ND	0.25									
ETHYLBENZENE	ND	0.25									
M+P-XYLENE	ND	0.25									
O-XYLENE	ND	0.25									
NAPHTHALENE	ND	0.25									
TOTAL XYLENES	ND	0.005									
Surr: DIBROMOFLUOROMETHANE	2.53		2.5		101	61-134					
Surr: TOLUENE-D8	2.48		2.5		99	57-135					
Surr: 4-BROMOFLUOROBENZENE	2.49		2.5		100	52-151					

The following samples were analyzed in this batch:

1504197-1	1504197-2	1504197-3
1504197-4	1504197-5	1504197-6

Thursday, April 30, 2015

Colby Sterling
Talon LPE
921 N Bivins
Amarillo, TX 79107

Re: ALS Workorder: 1504496
Project Name: Nelson C-1
Project Number: 701530.020.02

Dear Mr. Sterling:

Sixteen soil samples were received from Talon LPE, on 4/24/2015. The samples were scheduled for the following analyses:

GC/MS Volatiles
Total Extractable Petroleum Hydrocarbons (Diesel)
Total Volatile Petroleum Hydrocarbons (Gasoline)

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Amy R. Wolf
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Connecticut (CT)	PH-0232
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
L-A-B (DoD ELAP/ISO 170250)	L2257
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New Jersey (NJ)	CO003
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280

1504496

GC/MS Volatiles:
The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C.

All acceptance criteria were met.

GRO:
The samples were analyzed following the current revision of SOP 425 generally based on SW-846 Methods 8000C and 8015D. TVPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C6 to C10.

All matrix spike and matrix spike duplicate recoveries and RPDs were within the acceptance criteria with the following exceptions:

Spiked Compound	QC Sample	Direction
Gasoline range organics	MS/MSD	Low

The recoveries for gasoline range organics in the laboratory control sample and laboratory control sample duplicate were within control limits, which suggest the outlier in the matrix spikes may have been due to matrix effects. No further action was taken. Laboratory control sample and laboratory control sample duplicate results have been included.

All remaining acceptance criteria were met.

DRO:
The samples were analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C10 to C28.

All acceptance criteria were met.

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1504496
Client Name: Talon LPE
Client Project Name: Nelson C-1
Client Project Number: 701530.020.02
Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
SB-8 15-20	1504496-1		SOIL	22-Apr-15	9:12
SB-8 20-25	1504496-2		SOIL	22-Apr-15	9:30
SB-8 25-30	1504496-3		SOIL	22-Apr-15	9:40
SB-8 35-40	1504496-4		SOIL	22-Apr-15	10:10
SB-9 10-15	1504496-5		SOIL	22-Apr-15	11:14
SB-9 20-25	1504496-6		SOIL	22-Apr-15	11:32
SB-9 25-30	1504496-7		SOIL	22-Apr-15	11:42
SB-9 30-35	1504496-8		SOIL	22-Apr-15	11:52
SB-10 10-15	1504496-9		SOIL	22-Apr-15	15:40
SB-10 15-20	1504496-10		SOIL	22-Apr-15	15:50
SB-10 20-25	1504496-11		SOIL	22-Apr-15	16:00
SB-10 25-30	1504496-12		SOIL	22-Apr-15	16:10
SB-10 30-35	1504496-13		SOIL	22-Apr-15	16:20
SB-11 20-25	1504496-14		SOIL	23-Apr-15	9:40
SB-11 25-30	1504496-15		SOIL	23-Apr-15	9:58
SB-11 30-35	1504496-16		SOIL	23-Apr-15	10:15

ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202r8

WORKORDER # 1504496

PAGE 1 of 2

DISPOSAL: By Lab or Return to Client

PROJECT NAME	Nelson C-1	SAMPLER	TJ Grisel
PROJECT No.	701530.020.02	SITE ID	
		EDD FORMAT	
COMPANY NAME	Talon/LPE	PURCHASE ORDER	
SEND REPORT TO	Colby Sterling	BILL TO COMPANY	Whiting
ADDRESS	921 N. Bivins	INVOICE ATTN TO	Kyle Waggoner
CITY / STATE / ZIP	Amarillo, TX 79107	ADDRESS	
PHONE	806-467-0622 0607	CITY / STATE / ZIP	
FAX	806-467-0622	PHONE	
E-MAIL	csterling@talonlpe.com	FAX	
		E-MAIL	Kyle.waggoner@whiting.com
		DATE	4-24-15
		TURNAROUND	Standard

Lab ID	Field ID		Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	GRO 8015	DRO 8015	BTEX 8260	Naphthalene
1	SB-8	15-20	Soil	4-22-15	0912	2	NA		X	X	X	X
2		20-25			0930							
3		25-30			0940							
4		35-40			1010							
5	SB-9	10-15			1114							
6		20-25			1132							
7		25-30			1142							
8		30-35			1152							
9	SB-10	10-15			1540							
10	SB-10	15-20			1550							

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:

QC PACKAGE (check below)

	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		TJ Grisel	4-24-15	1525
RECEIVED BY		Amy Wolf	4/24/15	1525
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202r8

WORKORDER # 1504496

PAGE 2 of 2

DISPOSAL By Lab or Return to Client

PROJECT NAME	Nelson C-1	SAMPLER	T I Grisel
PROJECT No.	76/530.020.02	SITE ID	
		EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	Talon/LPE	BILL TO COMPANY	Whiting
SEND REPORT TO	Colby Sterling	INVOICE ATTN TO	Kyle Waggoner
ADDRESS	921 N. Bivins	ADDRESS	
CITY / STATE / ZIP	Amarillo, TX 79107	CITY / STATE / ZIP	
PHONE	806-467-0607	PHONE	
FAX	806-467-0622	FAX	
E-MAIL	csterling@talonlpe.com	E-MAIL	kyle.waggoner@whiting.com

DATE 4-24-15

TURNAROUND Standard

Lab ID	Field ID		Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	GRO 8015	DRO 8015	BETX 8260	Naphthalene
11	SB-10	20-25	Soil	4-22-15	1600	2	NA	NA	X	X	X	X
12	SB-10	25-30		4-22-15	1610							
13	SB-10	30-35		4-22-15	1620							
14	SB-11	20-25		4-23-15	0940							
15		25-30			0958							
16		30-35			1015							

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:

QC PACKAGE (check below)	
	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		T I Grisel	4-24-15	1525
RECEIVED BY		Amy Wolf	4/24/15	1525
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

ALS Environmental - Fort Collins

CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Talon / LPE Workorder No: 1504496

Project Manager: ARW Initials: SDM Date: 04-24-2015

1. Does this project require any special handling in addition to standard ALS procedures?		YES	(NO)
2. Are custody seals on shipping containers intact?	(NONE)	YES	NO
3. Are Custody seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		(YES)	NO
5. Are the COC and bottle labels complete and legible?		(YES)	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		YES	NO
7. Were airbills / shipping documents present and/or removable?	(DROP OFF)	YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	(N/A)	YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	(N/A)	YES	NO
10. Is there sufficient sample for the requested analyses?		(YES)	NO
11. Were all samples placed in the proper containers for the requested analyses?		(YES)	NO
12. Are all samples within holding times for the requested analyses?		(YES)	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		(YES)	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ____ < green pea ____ > green pea	(N/A)	YES	NO
15. Do any water samples contain sediment? Amount Amount of sediment: ____ dusting ____ moderate ____ heavy	(N/A)	YES	NO
16. Were the samples shipped on ice?		(YES)	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 (#4)	RAD ONLY	(YES)	NO

Cooler #:	1	2							
Temperature (°C):	5.6	5.0							
No. of custody seals on cooler:	Ø	Ø							
DOT Survey/ Acceptance Information — External µR/hr reading:	N/A	N/A							
Background µR/hr reading:	N/A								

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? **YES / NO / (NA)** (If no, see Form 008.)

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

If applicable, was the client contacted? **YES / NO / (NA)** Contact: _____ Date/Time: _____

Project Manager Signature / Date: [signature] 4/24/15

*IR Gun #2: Oakton, SN 29922500201-0066

*IR Gun #4: Oakton, SN 2372220101-0002

Client: Talon LPE
Project: 701530.020.02 Nelson C-1
Sample ID: SB-8 15-20
Legal Location:
Collection Date: 4/22/2015 09:12

Date: *30-Apr-15*
Work Order: 1504496
Lab ID: 1504496-1
Matrix: SOIL
Percent Moisture: 26.5

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **4/28/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		6.7	MG/KG	1	4/28/2015 23:57
Surr: O-TERPHENYL	*87*		*53-116*	*%REC*	1	4/28/2015 23:57
Gasoline Range Organics		**SW8015**		Prep Date: **4/27/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.59	MG/KG	1	4/27/2015 11:32
Surr: 2,3,4-TRIFLUOROTOLUENE	*97*		*76-126*	*%REC*	1	4/27/2015 11:32
GC/MS Volatiles		**SW8260**		Prep Date: **4/29/2015**		PrepBy: **SDW**
BENZENE	ND		0.0064	MG/KG	1	4/29/2015 20:54
TOLUENE	ND		0.0064	MG/KG	1	4/29/2015 20:54
ETHYLBENZENE	ND		0.0064	MG/KG	1	4/29/2015 20:54
M+P-XYLENE	ND		0.0064	MG/KG	1	4/29/2015 20:54
O-XYLENE	ND		0.0064	MG/KG	1	4/29/2015 20:54
NAPHTHALENE	ND		0.0064	MG/KG	1	4/29/2015 20:54
TOTAL XYLENES	ND		0.005	MG/KG	1	4/29/2015 20:54
Surr: DIBROMOFLUOROMETHANE	*108*		*61-134*	*%REC*	1	4/29/2015 20:54
Surr: TOLUENE-D8	*94*		*57-135*	*%REC*	1	4/29/2015 20:54
Surr: 4-BROMOFLUOROBENZENE	*106*		*52-151*	*%REC*	1	4/29/2015 20:54

Client:	Talon LPE	**Date:**	*30-Apr-15*
Project:	701530.020.02 Nelson C-1	**Work Order:**	1504496
Sample ID:	SB-8 20-25	**Lab ID:**	1504496-2
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/22/2015 09:30	**Percent Moisture:**	29.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **4/28/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		7	MG/KG	1	4/29/2015 00:33
Surr: O-TERPHENYL	*85*		*53-116*	*%REC*	1	4/29/2015 00:33
Gasoline Range Organics		**SW8015**		Prep Date: **4/27/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.66	MG/KG	1	4/27/2015 11:52
Surr: 2,3,4-TRIFLUOROTOLUENE	*98*		*76-126*	*%REC*	1	4/27/2015 11:52
GC/MS Volatiles		**SW8260**		Prep Date: **4/29/2015**		PrepBy: **SDW**
BENZENE	ND		0.0062	MG/KG	1	4/29/2015 23:07
TOLUENE	ND		0.0062	MG/KG	1	4/29/2015 23:07
ETHYLBENZENE	ND		0.0062	MG/KG	1	4/29/2015 23:07
M+P-XYLENE	ND		0.0062	MG/KG	1	4/29/2015 23:07
O-XYLENE	ND		0.0062	MG/KG	1	4/29/2015 23:07
NAPHTHALENE	ND		0.0062	MG/KG	1	4/29/2015 23:07
TOTAL XYLENES	ND		0.005	MG/KG	1	4/29/2015 23:07
Surr: DIBROMOFLUOROMETHANE	*104*		*61-134*	*%REC*	1	4/29/2015 23:07
Surr: TOLUENE-D8	*92*		*57-135*	*%REC*	1	4/29/2015 23:07
Surr: 4-BROMOFLUOROBENZENE	*103*		*52-151*	*%REC*	1	4/29/2015 23:07

Client: Talon LPE **Date:** *30-Apr-15*
Project: 701530.020.02 Nelson C-1 **Work Order:** 1504496
Sample ID: SB-8 25-30 **Lab ID:** 1504496-3
Legal Location: **Matrix:** SOIL
Collection Date: 4/22/2015 09:40 **Percent Moisture:** 30.1

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/28/2015**		PrepBy: **JFN**
Diesel Range Organics	**16**	D,M	**7**	**MG/KG**	1	4/29/2015 01:09
Surr: O-TERPHENYL	*87*		*53-116*	*%REC*	1	4/29/2015 01:09
Gasoline Range Organics			**SW8015**	Prep Date: **4/27/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**5.3**	GZ	**1.3**	**MG/KG**	1	4/27/2015 12:13
Surr: 2,3,4-TRIFLUOROTOLUENE	*100*		*76-126*	*%REC*	1	4/27/2015 12:13
GC/MS Volatiles			**SW8260**	Prep Date: **4/30/2015**		PrepBy: **TWK**
BENZENE	**0.85**		**0.061**	**MG/KG**	1	4/30/2015 12:07
TOLUENE	**1.4**		**0.061**	**MG/KG**	1	4/30/2015 12:07
ETHYLBENZENE	**0.2**		**0.061**	**MG/KG**	1	4/30/2015 12:07
M+P-XYLENE	**0.85**		**0.061**	**MG/KG**	1	4/30/2015 12:07
O-XYLENE	**0.4**		**0.061**	**MG/KG**	1	4/30/2015 12:07
NAPHTHALENE	ND		0.061	MG/KG	1	4/30/2015 12:07
TOTAL XYLENES	**1.3**		**0.005**	**MG/KG**	1	4/30/2015 12:07
Surr: DIBROMOFLUOROMETHANE	*105*		*61-134*	*%REC*	1	4/30/2015 12:07
Surr: TOLUENE-D8	*93*		*57-135*	*%REC*	1	4/30/2015 12:07
Surr: 4-BROMOFLUOROBENZENE	*100*		*52-151*	*%REC*	1	4/30/2015 12:07

Client:	Talon LPE	**Date:**	*30-Apr-15*
Project:	701530.020.02 Nelson C-1	**Work Order:**	1504496
Sample ID:	SB-8 35-40	**Lab ID:**	1504496-4
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/22/2015 10:10	**Percent Moisture:**	24.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **4/28/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		6.2	MG/KG	1	4/29/2015 01:44
Surr: O-TERPHENYL	*88*		*53-116*	*%REC*	1	4/29/2015 01:44
Gasoline Range Organics		**SW8015**		Prep Date: **4/27/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.54	MG/KG	1	4/27/2015 12:54
Surr: 2,3,4-TRIFLUOROTOLUENE	*98*		*76-126*	*%REC*	1	4/27/2015 12:54
GC/MS Volatiles		**SW8260**		Prep Date: **4/29/2015**		PrepBy: **SDW**
BENZENE	ND		0.0063	MG/KG	1	4/29/2015 21:17
TOLUENE	ND		0.0063	MG/KG	1	4/29/2015 21:17
ETHYLBENZENE	ND		0.0063	MG/KG	1	4/29/2015 21:17
M+P-XYLENE	ND		0.0063	MG/KG	1	4/29/2015 21:17
O-XYLENE	ND		0.0063	MG/KG	1	4/29/2015 21:17
NAPHTHALENE	ND		0.0063	MG/KG	1	4/29/2015 21:17
TOTAL XYLENES	ND		0.005	MG/KG	1	4/29/2015 21:17
Surr: DIBROMOFLUOROMETHANE	*106*		*61-134*	*%REC*	1	4/29/2015 21:17
Surr: TOLUENE-D8	*90*		*57-135*	*%REC*	1	4/29/2015 21:17
Surr: 4-BROMOFLUOROBENZENE	*105*		*52-151*	*%REC*	1	4/29/2015 21:17

Client:	Talon LPE	**Date:**	*30-Apr-15*
Project:	701530.020.02 Nelson C-1	**Work Order:**	1504496
Sample ID:	SB-9 10-15	**Lab ID:**	1504496-5
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/22/2015 11:14	**Percent Moisture:**	33.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/28/2015**		PrepBy: **JFN**
Diesel Range Organics	**52**	4,5,8,M	**6.9**	**MG/KG**	1	4/29/2015 02:56
Surr: O-TERPHENYL	*88*		*53-116*	*%REC*	1	4/29/2015 02:56
Gasoline Range Organics			**SW8015**	Prep Date: **4/27/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**1.5**	G	**0.64**	**MG/KG**	1	4/27/2015 13:15
Surr: 2,3,4-TRIFLUOROTOLUENE	*104*		*76-126*	*%REC*	1	4/27/2015 13:15
GC/MS Volatiles			**SW8260**	Prep Date: **4/30/2015**		PrepBy: **TWK**
BENZENE	ND		0.0072	MG/KG	1	4/30/2015 12:29
TOLUENE	ND		0.0072	MG/KG	1	4/30/2015 12:29
ETHYLBENZENE	ND		0.0072	MG/KG	1	4/30/2015 12:29
M+P-XYLENE	ND		0.0072	MG/KG	1	4/30/2015 12:29
O-XYLENE	**0.018**		**0.0072**	**MG/KG**	1	4/30/2015 12:29
NAPHTHALENE	ND		0.0072	MG/KG	1	4/30/2015 12:29
TOTAL XYLENES	**0.018**		**0.005**	**MG/KG**	1	4/30/2015 12:29
Surr: DIBROMOFLUOROMETHANE	*108*		*61-134*	*%REC*	1	4/30/2015 12:29
Surr: TOLUENE-D8	*92*		*57-135*	*%REC*	1	4/30/2015 12:29
Surr: 4-BROMOFLUOROBENZENE	*103*		*52-151*	*%REC*	1	4/30/2015 12:29

Client: Talon LPE
Project: 701530.020.02 Nelson C-1
Sample ID: SB-9 20-25
Legal Location:
Collection Date: 4/22/2015 11:32

Date: *30-Apr-15*
Work Order: 1504496
Lab ID: 1504496-6
Matrix: SOIL
Percent Moisture: 29.4

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/28/2015**		PrepBy: **JFN**
Diesel Range Organics	**52**	4,5,8,M	**6.9**	**MG/KG**	1	4/29/2015 03:31
Surr: O-TERPHENYL	*88*		*53-116*	*%REC*	1	4/29/2015 03:31
Gasoline Range Organics			**SW8015**	Prep Date: **4/27/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**3.8**	Z	**0.54**	**MG/KG**	1	4/27/2015 13:36
Surr: 2,3,4-TRIFLUOROTOLUENE	*101*		*76-126*	*%REC*	1	4/27/2015 13:36
GC/MS Volatiles			**SW8260**	Prep Date: **4/30/2015**		PrepBy: **TWK**
BENZENE	ND		0.0066	MG/KG	1	4/30/2015 12:51
TOLUENE	ND		0.0066	MG/KG	1	4/30/2015 12:51
ETHYLBENZENE	ND		0.0066	MG/KG	1	4/30/2015 12:51
M+P-XYLENE	ND		0.0066	MG/KG	1	4/30/2015 12:51
O-XYLENE	ND		0.0066	MG/KG	1	4/30/2015 12:51
NAPHTHALENE	ND		0.0066	MG/KG	1	4/30/2015 12:51
TOTAL XYLENES	ND		0.005	MG/KG	1	4/30/2015 12:51
Surr: DIBROMOFLUOROMETHANE	*103*		*61-134*	*%REC*	1	4/30/2015 12:51
Surr: TOLUENE-D8	*95*		*57-135*	*%REC*	1	4/30/2015 12:51
Surr: 4-BROMOFLUOROBENZENE	*101*		*52-151*	*%REC*	1	4/30/2015 12:51

Client: Talon LPE
Project: 701530.020.02 Nelson C-1
Sample ID: SB-9 25-30
Legal Location:
Collection Date: 4/22/2015 11:42

Date: *30-Apr-15*
Work Order: 1504496
Lab ID: 1504496-7
Matrix: SOIL
Percent Moisture: 32.4

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **4/28/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		7.2	MG/KG	1	4/29/2015 04:07
Surr: O-TERPHENYL	*86*		*53-116*	*%REC*	1	4/29/2015 04:07
Gasoline Range Organics		**SW8015**		Prep Date: **4/27/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.67	MG/KG	1	4/27/2015 13:57
Surr: 2,3,4-TRIFLUOROTOLUENE	*100*		*76-126*	*%REC*	1	4/27/2015 13:57
GC/MS Volatiles		**SW8260**		Prep Date: **4/29/2015**		PrepBy: **SDW**
BENZENE	ND		0.0071	MG/KG	1	4/29/2015 22:23
TOLUENE	ND		0.0071	MG/KG	1	4/29/2015 22:23
ETHYLBENZENE	ND		0.0071	MG/KG	1	4/29/2015 22:23
M+P-XYLENE	ND		0.0071	MG/KG	1	4/29/2015 22:23
O-XYLENE	ND		0.0071	MG/KG	1	4/29/2015 22:23
NAPHTHALENE	ND		0.0071	MG/KG	1	4/29/2015 22:23
TOTAL XYLENES	ND		0.005	MG/KG	1	4/29/2015 22:23
Surr: DIBROMOFLUOROMETHANE	*105*		*61-134*	*%REC*	1	4/29/2015 22:23
Surr: TOLUENE-D8	*94*		*57-135*	*%REC*	1	4/29/2015 22:23
Surr: 4-BROMOFLUOROBENZENE	*104*		*52-151*	*%REC*	1	4/29/2015 22:23

Client: Talon LPE
Project: 701530.020.02 Nelson C-1
Sample ID: SB-9 30-35
Legal Location:
Collection Date: 4/22/2015 11:52

Date: *30-Apr-15*
Work Order: 1504496
Lab ID: 1504496-8
Matrix: SOIL
Percent Moisture: 29.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **4/28/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		6.5	MG/KG	1	4/29/2015 04:43
Surr: O-TERPHENYL	*86*		*53-116*	*%REC*	1	4/29/2015 04:43
Gasoline Range Organics		**SW8015**		Prep Date: **4/27/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.6	MG/KG	1	4/27/2015 14:37
Surr: 2,3,4-TRIFLUOROTOLUENE	*94*		*76-126*	*%REC*	1	4/27/2015 14:37
GC/MS Volatiles		**SW8260**		Prep Date: **4/29/2015**		PrepBy: **SDW**
BENZENE	ND		0.0067	MG/KG	1	4/29/2015 22:45
TOLUENE	ND		0.0067	MG/KG	1	4/29/2015 22:45
ETHYLBENZENE	ND		0.0067	MG/KG	1	4/29/2015 22:45
M+P-XYLENE	ND		0.0067	MG/KG	1	4/29/2015 22:45
O-XYLENE	ND		0.0067	MG/KG	1	4/29/2015 22:45
NAPHTHALENE	ND		0.0067	MG/KG	1	4/29/2015 22:45
TOTAL XYLENES	ND		0.005	MG/KG	1	4/29/2015 22:45
Surr: DIBROMOFLUOROMETHANE	*106*		*61-134*	*%REC*	1	4/29/2015 22:45
Surr: TOLUENE-D8	*93*		*57-135*	*%REC*	1	4/29/2015 22:45
Surr: 4-BROMOFLUOROBENZENE	*101*		*52-151*	*%REC*	1	4/29/2015 22:45

Client: Talon LPE
Project: 701530.020.02 Nelson C-1
Sample ID: SB-10 10-15
Legal Location:
Collection Date: 4/22/2015 15:40

Date: *30-Apr-15*
Work Order: 1504496
Lab ID: 1504496-9
Matrix: SOIL
Percent Moisture: 30.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **4/28/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		7	MG/KG	1	4/29/2015 05:54
Surr: O-TERPHENYL	*89*		*53-116*	*%REC*	1	4/29/2015 05:54
Gasoline Range Organics		**SW8015**		Prep Date: **4/27/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.56	MG/KG	1	4/27/2015 14:58
Surr: 2,3,4-TRIFLUOROTOLUENE	*95*		*76-126*	*%REC*	1	4/27/2015 14:58
GC/MS Volatiles		**SW8260**		Prep Date: **4/29/2015**		PrepBy: **SDW**
BENZENE	ND		0.0068	MG/KG	1	4/29/2015 16:52
TOLUENE	ND		0.0068	MG/KG	1	4/29/2015 16:52
ETHYLBENZENE	ND		0.0068	MG/KG	1	4/29/2015 16:52
M+P-XYLENE	ND		0.0068	MG/KG	1	4/29/2015 16:52
O-XYLENE	ND		0.0068	MG/KG	1	4/29/2015 16:52
NAPHTHALENE	ND		0.0068	MG/KG	1	4/29/2015 16:52
TOTAL XYLENES	ND		0.005	MG/KG	1	4/29/2015 16:52
Surr: DIBROMOFLUOROMETHANE	*102*		*61-134*	*%REC*	1	4/29/2015 16:52
Surr: TOLUENE-D8	*93*		*57-135*	*%REC*	1	4/29/2015 16:52
Surr: 4-BROMOFLUOROBENZENE	*98*		*52-151*	*%REC*	1	4/29/2015 16:52

Client: Talon LPE
Project: 701530.020.02 Nelson C-1
Sample ID: SB-10 15-20
Legal Location:
Collection Date: 4/22/2015 15:50

Date: *30-Apr-15*
Work Order: 1504496
Lab ID: 1504496-10
Matrix: SOIL
Percent Moisture: 28.5

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/28/2015**		PrepBy: **JFN**
Diesel Range Organics	**6.8**	4	**6.6**	**MG/KG**	1	4/29/2015 06:30
Surr: O-TERPHENYL	*87*		*53-116*	*%REC*	1	4/29/2015 06:30
Gasoline Range Organics			**SW8015**	Prep Date: **4/27/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**31**	Z	**0.67**	**MG/KG**	1	4/27/2015 16:00
Surr: 2,3,4-TRIFLUOROTOLUENE	*113*		*76-126*	*%REC*	1	4/27/2015 16:00
GC/MS Volatiles			**SW8260**	Prep Date: **4/30/2015**		PrepBy: **TWK**
BENZENE	ND		0.0066	MG/KG	1	4/30/2015 13:13
TOLUENE	ND		0.0066	MG/KG	1	4/30/2015 13:13
ETHYLBENZENE	ND		0.0066	MG/KG	1	4/30/2015 13:13
M+P-XYLENE	ND		0.0066	MG/KG	1	4/30/2015 13:13
O-XYLENE	ND		0.0066	MG/KG	1	4/30/2015 13:13
NAPHTHALENE	ND		0.0066	MG/KG	1	4/30/2015 13:13
TOTAL XYLENES	ND		0.005	MG/KG	1	4/30/2015 13:13
Surr: DIBROMOFLUOROMETHANE	*105*		*61-134*	*%REC*	1	4/30/2015 13:13
Surr: TOLUENE-D8	*93*		*57-135*	*%REC*	1	4/30/2015 13:13
Surr: 4-BROMOFLUOROBENZENE	*102*		*52-151*	*%REC*	1	4/30/2015 13:13

Client:	Talon LPE	**Date:**	*30-Apr-15*
Project:	701530.020.02 Nelson C-1	**Work Order:**	1504496
Sample ID:	SB-10 20-25	**Lab ID:**	1504496-11
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/22/2015 16:00	**Percent Moisture:**	29.6

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **4/28/2015**		PrepBy: **JFN**
Diesel Range Organics	**49**	4,5,8,M	**6.8**	**MG/KG**	1	4/29/2015 07:06
Surr: O-TERPHENYL	*87*		*53-116*	*%REC*	1	4/29/2015 07:06
Gasoline Range Organics			**SW8015**	Prep Date: **4/27/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**27**	Z	**0.58**	**MG/KG**	1	4/27/2015 16:40
Surr: 2,3,4-TRIFLUOROTOLUENE	*107*		*76-126*	*%REC*	1	4/27/2015 16:40
GC/MS Volatiles			**SW8260**	Prep Date: **4/30/2015**		PrepBy: **TWK**
BENZENE	ND		0.0069	MG/KG	1	4/30/2015 13:35
TOLUENE	**0.0078**		**0.0069**	**MG/KG**	1	4/30/2015 13:35
ETHYLBENZENE	ND		0.0069	MG/KG	1	4/30/2015 13:35
M+P-XYLENE	**0.026**		**0.0069**	**MG/KG**	1	4/30/2015 13:35
O-XYLENE	**0.015**		**0.0069**	**MG/KG**	1	4/30/2015 13:35
NAPHTHALENE	ND		0.0069	MG/KG	1	4/30/2015 13:35
TOTAL XYLENES	**0.041**		**0.005**	**MG/KG**	1	4/30/2015 13:35
Surr: DIBROMOFLUOROMETHANE	*105*		*61-134*	*%REC*	1	4/30/2015 13:35
Surr: TOLUENE-D8	*95*		*57-135*	*%REC*	1	4/30/2015 13:35
Surr: 4-BROMOFLUOROBENZENE	*101*		*52-151*	*%REC*	1	4/30/2015 13:35

Client: Talon LPE
Project: 701530.020.02 Nelson C-1
Sample ID: SB-10 25-30
Legal Location:
Collection Date: 4/22/2015 16:10

Date: *30-Apr-15*
Work Order: 1504496
Lab ID: 1504496-12
Matrix: SOIL
Percent Moisture: 30.1

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **4/28/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		7.1	MG/KG	1	4/29/2015 07:41
Surr: O-TERPHENYL	*86*		*53-116*	*%REC*	1	4/29/2015 07:41
Gasoline Range Organics		**SW8015**		Prep Date: **4/27/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.57	MG/KG	1	4/27/2015 17:22
Surr: 2,3,4-TRIFLUOROTOLUENE	*97*		*76-126*	*%REC*	1	4/27/2015 17:22
GC/MS Volatiles		**SW8260**		Prep Date: **4/29/2015**		PrepBy: **SDW**
BENZENE	ND		0.0071	MG/KG	1	4/29/2015 23:51
TOLUENE	ND		0.0071	MG/KG	1	4/29/2015 23:51
ETHYLBENZENE	ND		0.0071	MG/KG	1	4/29/2015 23:51
M+P-XYLENE	ND		0.0071	MG/KG	1	4/29/2015 23:51
O-XYLENE	ND		0.0071	MG/KG	1	4/29/2015 23:51
NAPHTHALENE	ND		0.0071	MG/KG	1	4/29/2015 23:51
TOTAL XYLENES	ND		0.005	MG/KG	1	4/29/2015 23:51
Surr: DIBROMOFLUOROMETHANE	*103*		*61-134*	*%REC*	1	4/29/2015 23:51
Surr: TOLUENE-D8	*95*		*57-135*	*%REC*	1	4/29/2015 23:51
Surr: 4-BROMOFLUOROBENZENE	*101*		*52-151*	*%REC*	1	4/29/2015 23:51

Client:	Talon LPE	**Date:**	*30-Apr-15*
Project:	701530.020.02 Nelson C-1	**Work Order:**	1504496
Sample ID:	SB-10 30-35	**Lab ID:**	1504496-13
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/22/2015 16:20	**Percent Moisture:**	39.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **4/28/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		8.1	MG/KG	1	4/29/2015 08:16
Surr: O-TERPHENYL	*88*		*53-116*	*%REC*	1	4/29/2015 08:16
Gasoline Range Organics		**SW8015**		Prep Date: **4/27/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.66	MG/KG	1	4/27/2015 17:43
Surr: 2,3,4-TRIFLUOROTOLUENE	*92*		*76-126*	*%REC*	1	4/27/2015 17:43
GC/MS Volatiles		**SW8260**		Prep Date: **4/29/2015**		PrepBy: **SDW**
BENZENE	ND		0.0081	MG/KG	1	4/29/2015 20:33
TOLUENE	ND		0.0081	MG/KG	1	4/29/2015 20:33
ETHYLBENZENE	ND		0.0081	MG/KG	1	4/29/2015 20:33
M+P-XYLENE	ND		0.0081	MG/KG	1	4/29/2015 20:33
O-XYLENE	ND		0.0081	MG/KG	1	4/29/2015 20:33
NAPHTHALENE	ND		0.0081	MG/KG	1	4/29/2015 20:33
TOTAL XYLENES	ND		0.005	MG/KG	1	4/29/2015 20:33
Surr: DIBROMOFLUOROMETHANE	*108*		*61-134*	*%REC*	1	4/29/2015 20:33
Surr: TOLUENE-D8	*92*		*57-135*	*%REC*	1	4/29/2015 20:33
Surr: 4-BROMOFLUOROBENZENE	*106*		*52-151*	*%REC*	1	4/29/2015 20:33

Client: Talon LPE
Project: 701530.020.02 Nelson C-1
Sample ID: SB-11 20-25
Legal Location:
Collection Date: 4/23/2015 09:40

Date: *30-Apr-15*
Work Order: 1504496
Lab ID: 1504496-14
Matrix: SOIL
Percent Moisture: 30.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **4/28/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		7	MG/KG	1	4/29/2015 08:52
Surr: O-TERPHENYL	*85*		*53-116*	*%REC*	1	4/29/2015 08:52
Gasoline Range Organics		**SW8015**		Prep Date: **4/27/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.7	MG/KG	1	4/27/2015 18:04
Surr: 2,3,4-TRIFLUOROTOLUENE	*89*		*76-126*	*%REC*	1	4/27/2015 18:04
GC/MS Volatiles		**SW8260**		Prep Date: **4/29/2015**		PrepBy: **SDW**
BENZENE	ND		0.0065	MG/KG	1	4/29/2015 21:39
TOLUENE	ND		0.0065	MG/KG	1	4/29/2015 21:39
ETHYLBENZENE	ND		0.0065	MG/KG	1	4/29/2015 21:39
M+P-XYLENE	ND		0.0065	MG/KG	1	4/29/2015 21:39
O-XYLENE	ND		0.0065	MG/KG	1	4/29/2015 21:39
NAPHTHALENE	ND		0.0065	MG/KG	1	4/29/2015 21:39
TOTAL XYLENES	ND		0.005	MG/KG	1	4/29/2015 21:39
Surr: DIBROMOFLUOROMETHANE	*105*		*61-134*	*%REC*	1	4/29/2015 21:39
Surr: TOLUENE-D8	*92*		*57-135*	*%REC*	1	4/29/2015 21:39
Surr: 4-BROMOFLUOROBENZENE	*100*		*52-151*	*%REC*	1	4/29/2015 21:39

Client: Talon LPE
Project: 701530.020.02 Nelson C-1
Sample ID: SB-11 25-30
Legal Location:
Collection Date: 4/23/2015 09:58

Date: *30-Apr-15*
Work Order: 1504496
Lab ID: 1504496-15
Matrix: SOIL
Percent Moisture: 36.3

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **4/28/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		7.6	MG/KG	1	4/29/2015 09:27
Surr: O-TERPHENYL	*87*		*53-116*	*%REC*	1	4/29/2015 09:27
Gasoline Range Organics		**SW8015**		Prep Date: **4/27/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.69	MG/KG	1	4/27/2015 18:24
Surr: 2,3,4-TRIFLUOROTOLUENE	*89*		*76-126*	*%REC*	1	4/27/2015 18:24
GC/MS Volatiles		**SW8260**		Prep Date: **4/29/2015**		PrepBy: **SDW**
BENZENE	ND		0.0074	MG/KG	1	4/29/2015 23:29
TOLUENE	ND		0.0074	MG/KG	1	4/29/2015 23:29
ETHYLBENZENE	ND		0.0074	MG/KG	1	4/29/2015 23:29
M+P-XYLENE	ND		0.0074	MG/KG	1	4/29/2015 23:29
O-XYLENE	ND		0.0074	MG/KG	1	4/29/2015 23:29
NAPHTHALENE	ND		0.0074	MG/KG	1	4/29/2015 23:29
TOTAL XYLENES	ND		0.005	MG/KG	1	4/29/2015 23:29
Surr: DIBROMOFLUOROMETHANE	*107*		*61-134*	*%REC*	1	4/29/2015 23:29
Surr: TOLUENE-D8	*93*		*57-135*	*%REC*	1	4/29/2015 23:29
Surr: 4-BROMOFLUOROBENZENE	*102*		*52-151*	*%REC*	1	4/29/2015 23:29

Client:	Talon LPE	**Date:**	*30-Apr-15*
Project:	701530.020.02 Nelson C-1	**Work Order:**	1504496
Sample ID:	SB-11 30-35	**Lab ID:**	1504496-16
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/23/2015 10:15	**Percent Moisture:**	22.4

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **4/28/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		6.4	MG/KG	1	4/29/2015 10:37
Surr: O-TERPHENYL	*86*		*53-116*	*%REC*	1	4/29/2015 10:37
Gasoline Range Organics		**SW8015**		Prep Date: **4/27/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.36	MG/KG	1	4/27/2015 18:45
Surr: 2,3,4-TRIFLUOROTOLUENE	*88*		*76-126*	*%REC*	1	4/27/2015 18:45
GC/MS Volatiles		**SW8260**		Prep Date: **4/29/2015**		PrepBy: **SDW**
BENZENE	ND		0.0062	MG/KG	1	4/29/2015 22:01
TOLUENE	ND		0.0062	MG/KG	1	4/29/2015 22:01
ETHYLBENZENE	ND		0.0062	MG/KG	1	4/29/2015 22:01
M+P-XYLENE	ND		0.0062	MG/KG	1	4/29/2015 22:01
O-XYLENE	ND		0.0062	MG/KG	1	4/29/2015 22:01
NAPHTHALENE	ND		0.0062	MG/KG	1	4/29/2015 22:01
TOTAL XYLENES	ND		0.005	MG/KG	1	4/29/2015 22:01
Surr: DIBROMOFLUOROMETHANE	*105*		*61-134*	*%REC*	1	4/29/2015 22:01
Surr: TOLUENE-D8	*92*		*57-135*	*%REC*	1	4/29/2015 22:01
Surr: 4-BROMOFLUOROBENZENE	*103*		*52-151*	*%REC*	1	4/29/2015 22:01

Client:	Talon LPE	**Date:**	*30-Apr-15*
Project:	701530.020.02 Nelson C-1	**Work Order:**	1504496
Sample ID:	SB-11 30-35	**Lab ID:**	1504496-16
Legal Location:		**Matrix:**	SOIL
Collection Date:	4/23/2015 10:15	**Percent Moisture:**	22.4

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Explanation of Qualifiers

Radiochemistry:

U or ND - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.

Y2 - Chemical Yield outside default limits.

W - DER is greater than Warning Limit of 1.42

* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.

- Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.

G - Sample density differs by more than 15% of LCS density.

D - DER is greater than Control Limit

M - Requested MDC not met.

LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

L - LCS Recovery below lower control limit.

H - LCS Recovery above upper control limit.

P - LCS, Matrix Spike Recovery within control limits.

N - Matrix Spike Recovery outside control limits

NC - Not Calculated for duplicate results less than 5 times MDC

B - Analyte concentration greater than MDC.

B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

Batch ID: **HC150427-61-1** Instrument ID **FUELS-1** Method: **SW8015**

LCS Sample ID: **HC150427-61** Units: **MG/KG** Analysis Date: **4/27/2015 09:07**

Client ID: Run ID: **HC150427-61** Prep Date: **4/27/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.19	0.5	2.5		88	79-118				20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.52		0.5		104	76-126					

LCSD Sample ID: **HC150427-61** Units: **MG/KG** Analysis Date: **4/27/2015 14:17**

Client ID: Run ID: **HC150427-61** Prep Date: **4/27/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.28	0.5	2.5		91	79-118		2.19	4	20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.523		0.5		105	76-126			1		

MB Sample ID: **HC150427-61** Units: **MG/KG** Analysis Date: **4/27/2015 09:28**

Client ID: Run ID: **HC150427-61** Prep Date: **4/27/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	ND	0.5									
Surr: 2,3,4-TRIFLUOROTOLUENE	0.476		0.5		95	76-126					

MB Sample ID: **HC150427-61M** Units: **MG/KG** Analysis Date: **4/27/2015 10:08**

Client ID: Run ID: **HC150427-61** Prep Date: **4/27/2015** DF: **50**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	ND	5									
Surr: 2,3,4-TRIFLUOROTOLUENE	5.06		5		101	76-126					

MS Sample ID: **1504496-9** Units: **MG/KG** Analysis Date: **4/27/2015 15:18**

Client ID: **SB-10 10-15** Run ID: **HC150427-61** Prep Date: **4/27/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1.45	0.426	2.13	0.56	68	79-118				40	*
Surr: 2,3,4-TRIFLUOROTOLUENE	0.429		0.426		101	76-126					

QC BATCH REPORT

Batch ID: **HC150427-61-1** Instrument ID **FUELS-1** Method: **SW8015**

MSD Sample ID: **1504496-9** Units: **MG/KG** Analysis Date: **4/27/2015 15:39**

Client ID: **SB-10 10-15** Run ID: **HC150427-61** Prep Date: **4/27/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.18	0.592	2.96	0.56	74	79-118		1.45	40	40	*
Surr: 2,3,4-TRIFLUOROTOLUENE	0.595		0.592		101	76-126			32		

The following samples were analyzed in this batch:

1504496-1	1504496-2	1504496-3
1504496-4	1504496-5	1504496-6
1504496-7	1504496-8	1504496-9
1504496-10	1504496-11	1504496-12
1504496-13	1504496-14	1504496-15
1504496-16		

QC BATCH REPORT

Batch ID: **HC150428-101-1** Instrument ID **FUELS-1** Method: **SW8015M**

DUP Sample ID: **1504496-8** Units: **MG/KG** Analysis Date: **4/29/2015 05:19**
Client ID: **SB-9 30-35** Run ID: **HC150428-8A** Prep Date: **4/28/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	ND	6.88						6.5		30	
Surr: O-TERPHENYL	14.6		17.2		85	53-116					

LCS Sample ID: **HC150428-101** Units: **MG/KG** Analysis Date: **4/28/2015 20:59**
Client ID: Run ID: **HC150428-8A** Prep Date: **4/28/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	122	5	125		97	76-124				20	
Surr: O-TERPHENYL	8.93		12.5		71	53-116					

MB Sample ID: **HC150428-101** Units: **MG/KG** Analysis Date: **4/28/2015 21:34**
Client ID: Run ID: **HC150428-8A** Prep Date: **4/28/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	ND	5									
Surr: O-TERPHENYL	9.47		12.5		76	53-116					

MS Sample ID: **1504496-15** Units: **MG/KG** Analysis Date: **4/29/2015 10:02**
Client ID: **SB-11 25-30** Run ID: **HC150428-8A** Prep Date: **4/28/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	171	7.59	190	7.6	90	76-124				20	
Surr: O-TERPHENYL	16.3		19		86	53-116					

The following samples were analyzed in this batch:

1504496-1	1504496-2	1504496-3
1504496-4	1504496-5	1504496-6
1504496-7	1504496-8	1504496-9
1504496-10	1504496-11	1504496-12
1504496-13	1504496-14	1504496-15
1504496-16		

QC BATCH REPORT

Batch ID: **VL150429-2-3** Instrument ID **HPV1** Method: **SW8260**

LCS Sample ID: **VL150429-2** Units: **MG/KG** Analysis Date: **4/29/2015 12:56**

Client ID: Run ID: **VL150429-2A** Prep Date: **4/29/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0456	0.005	0.04		114	73-126				30	
TOLUENE	0.0418	0.005	0.04		104	71-127				30	
ETHYLBENZENE	0.0414	0.005	0.04		104	74-127				30	
M+P-XYLENE	0.0857	0.005	0.08		107	79-126				30	
O-XYLENE	0.0439	0.005	0.04		110	77-125				30	
NAPHTHALENE	0.0515	0.005	0.04		129	64-141				30	
Surr: DIBROMOFLUOROMETHANE	0.0531		0.05		106	61-134					
Surr: TOLUENE-D8	0.0454		0.05		91	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0519		0.05		104	52-151					

LCSD Sample ID: **VL150429-2** Units: **MG/KG** Analysis Date: **4/29/2015 13:20**

Client ID: Run ID: **VL150429-2A** Prep Date: **4/29/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0398	0.005	0.04		99	73-126		0.0456	14	30	
TOLUENE	0.0365	0.005	0.04		91	71-127		0.0418	14	30	
ETHYLBENZENE	0.0368	0.005	0.04		92	74-127		0.0414	12	30	
M+P-XYLENE	0.0755	0.005	0.08		94	79-126		0.0857	13	30	
O-XYLENE	0.0386	0.005	0.04		97	77-125		0.0439	13	30	
NAPHTHALENE	0.0426	0.005	0.04		106	64-141		0.0515	19	30	
Surr: DIBROMOFLUOROMETHANE	0.0538		0.05		108	61-134			1		
Surr: TOLUENE-D8	0.0452		0.05		90	57-135			0		
Surr: 4-BROMOFLUOROBENZENE	0.0516		0.05		103	52-151			1		

QC BATCH REPORT

Batch ID: **VL150429-2-3** Instrument ID **HPV1** Method: **SW8260**

MB Sample ID: **VL150429-2** Units: **MG/KG** Analysis Date: **4/29/2015 13:45**

Client ID: Run ID: **VL150429-2A** Prep Date: **4/29/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	ND	0.005									
TOLUENE	ND	0.005									
ETHYLBENZENE	ND	0.005									
M+P-XYLENE	ND	0.005									
O-XYLENE	ND	0.005									
NAPHTHALENE	ND	0.005									
TOTAL XYLENES	ND	0.005									
Surr: DIBROMOFLUOROMETHANE	0.0496		0.05		99	61-134					
Surr: TOLUENE-D8	0.047		0.05		94	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0501		0.05		100	52-151					

MSD Sample ID: **1504496-9** Units: **MG/KG** Analysis Date: **4/29/2015 20:11**

Client ID: **SB-10 10-15** Run ID: **VL150429-2A** Prep Date: **4/29/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0534	0.00704	0.0563	0.0068	95	73-126				30	
TOLUENE	0.0491	0.00704	0.0563	0.0068	87	71-127				30	
ETHYLBENZENE	0.0422	0.00704	0.0563	0.0068	75	74-127				30	
M+P-XYLENE	0.106	0.00704	0.113	0.0068	94	79-126				30	
O-XYLENE	0.0598	0.00704	0.0563	0.0068	106	77-125				30	
NAPHTHALENE	0.0523	0.00704	0.0563	0.0068	93	64-141				30	
Surr: DIBROMOFLUOROMETHANE	0.0775		0.0704		110	61-134					
Surr: TOLUENE-D8	0.0637		0.0704		91	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0824		0.0704		117	52-151					

The following samples were analyzed in this batch:

1504496-1	1504496-2	1504496-4
1504496-7	1504496-8	1504496-9
1504496-12	1504496-13	1504496-14
1504496-15	1504496-16	

QC BATCH REPORT

Batch ID: **VL150430-2-1** Instrument ID **HPV1** Method: **SW8260**

LCS Sample ID: **VL150430-2** Units: **MG/KG** Analysis Date: **4/30/2015 10:37**

Client ID: Run ID: **VL150430-2A** Prep Date: **4/30/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0406	0.005	0.04		102	73-126				30	
TOLUENE	0.0349	0.005	0.04		87	71-127				30	
ETHYLBENZENE	0.0341	0.005	0.04		85	74-127				30	
M+P-XYLENE	0.0705	0.005	0.08		88	79-126				30	
O-XYLENE	0.0355	0.005	0.04		89	77-125				30	
NAPHTHALENE	0.0372	0.005	0.04		93	64-141				30	
Surr: DIBROMOFLUOROMETHANE	0.0534		0.05		107	61-134					
Surr: TOLUENE-D8	0.0462		0.05		92	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0516		0.05		103	52-151					

LCSD Sample ID: **VL150430-2** Units: **MG/KG** Analysis Date: **4/30/2015 10:59**

Client ID: Run ID: **VL150430-2A** Prep Date: **4/30/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0396	0.005	0.04		99	73-126		0.0406	3	30	
TOLUENE	0.0343	0.005	0.04		86	71-127		0.0349	2	30	
ETHYLBENZENE	0.033	0.005	0.04		82	74-127		0.0341	3	30	
M+P-XYLENE	0.0693	0.005	0.08		87	79-126		0.0705	2	30	
O-XYLENE	0.0341	0.005	0.04		85	77-125		0.0355	4	30	
NAPHTHALENE	0.0387	0.005	0.04		97	64-141		0.0372	4	30	
Surr: DIBROMOFLUOROMETHANE	0.0513		0.05		103	61-134			4		
Surr: TOLUENE-D8	0.0459		0.05		92	57-135			1		
Surr: 4-BROMOFLUOROBENZENE	0.0505		0.05		101	52-151			2		

QC BATCH REPORT

Batch ID: **VL150430-2-1** Instrument ID **HPV1** Method: **SW8260**

MB Sample ID: **VL150430-2** Units: **MG/KG** Analysis Date: **4/30/2015 11:21**

Client ID: Run ID: **VL150430-2A** Prep Date: **4/30/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	ND	0.005									
TOLUENE	ND	0.005									
ETHYLBENZENE	ND	0.005									
M+P-XYLENE	ND	0.005									
O-XYLENE	ND	0.005									
NAPHTHALENE	ND	0.005									
TOTAL XYLENES	ND	0.005									
Surr: DIBROMOFLUOROMETHANE	0.0531		0.05		106	61-134					
Surr: TOLUENE-D8	0.0457		0.05		91	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0512		0.05		102	52-151					

The following samples were analyzed in this batch: 1504496-3, 1504496-5, 1504496-6, 1504496-10, 1504496-11

Friday, June 12, 2015

Colby Sterling
Talon LPE
921 N Bivins
Amarillo, TX 79107

Re: ALS Workorder: 1506115
Project Name: Nelson C-1
Project Number: 701530.020.02

Dear Mr. Sterling:

Nine soil samples were received from Talon LPE, on 6/5/2015. The samples were scheduled for the following analyses:

GC/MS Volatiles
Total Extractable Petroleum Hydrocarbons (Diesel)
Total Volatile Petroleum Hydrocarbons (Gasoline)

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Amy R. Wolf
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Connecticut (CT)	PH-0232
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
L-A-B (DoD ELAP/ISO 170250)	L2257
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New Jersey (NJ)	CO003
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280

1506115

GC/MS Volatiles:
The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C.

All acceptance criteria were met.

GRO:
The samples were analyzed following the current revision of SOP 425 generally based on SW-846 Methods 8000C and 8015D. TVPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C6 to C10.

All matrix spike and matrix spike duplicate recoveries and RPDs were within the acceptance criteria with the following exceptions:

Spiked Compound	QC Sample	Direction
Gasoline range organics	MSD	Low

The recoveries for gasoline range organics in the laboratory control sample and laboratory control sample duplicate were within control limits, which suggest the outlier in the matrix spikes may have been due to matrix effects. No further action was taken. Laboratory control sample and laboratory control sample duplicate results have been included.

All remaining acceptance criteria were met.

DRO:
The samples were analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C10 to C28.

All acceptance criteria were met.

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1506115
Client Name: Talon LPE
Client Project Name: Nelson C-1
Client Project Number: 701530.020.02
Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
SB-12 20-25	1506115-1		SOIL	04-Jun-15	15:10
SB-12 25-30	1506115-2		SOIL	04-Jun-15	15:18
SB-13 20-25	1506115-3		SOIL	04-Jun-15	11:12
SB-13 35-40	1506115-4		SOIL	04-Jun-15	11:45
SB-12-30-35	1506115-5		SOIL	04-Jun-15	15:28
SB-13 30-35	1506115-6		SOIL	04-Jun-15	11:35
SB-12 15-20	1506115-7		SOIL	04-Jun-15	15:00
SB-13 15-20	1506115-8		SOIL	04-Jun-15	11:00
SB-13 25-30	1506115-9		SOIL	04-Jun-15	11:20

ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202r8

WORKORDER # 1506115

PAGE 1 of 1

DISPOSAL: By Lab or Return to Client

PROJECT NAME	Nelson C-1	SAMPLER	T.J Grisel
PROJECT No.	701530.020.02	SITE ID	
		EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	Talon/LPE	BILL TO COMPANY	Whiting
SEND REPORT TO	Colby Sterling	INVOICE ATTN TO	Kyle Waggoner
ADDRESS	1811 E Mulberry	ADDRESS	
CITY / STATE / ZIP	Ft Collins, CO 80524	CITY / STATE / ZIP	
PHONE	970-818-5330	PHONE	
FAX		FAX	
E-MAIL	csterling@talonlpe.com	E-MAIL	Kyle.Waggoner@whiting.com

DATE: 6-5-15

TURNAROUND: Standard

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX	GRO/DRO	Naphthalene	
1	SB-12 20-25	Soil	6-4-15	1510	1	NA	NA	X	X	X	X
2	SB-12 25-30	Soil	6-4-15	1516	1	NA	NA	↓	↓	↓	↓
3	SB-13 20-25	Soil	6-4-15	1112	1	NA	NA				
4	SB-13 35-40	Soil	6-4-15	1145	1	NA	NA				
5	SB-12 30-35	Soil	6-4-15	1528	1	NA	NA				
6	SB-13 30-35	Soil	6-4-15	1135	1	NA	NA				
7	SB-12 15-20	Soil	6-4-15	1500	1	NA	NA	X	X	X	X
8	SB-13 15-20	Soil	6-4-15	1100	1	NA	NA	X	X	X	X
9	SB-13 25-30	Soil	6-4-15	1120	1	NA	NA	X	X	X	X
10	Diff 6.5.15										

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:

QC PACKAGE (check below)

- LEVEL II (Standard QC)
- LEVEL III (Std QC + forms)
- LEVEL IV (Std QC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		T.J Grisel	6-5-15	1245
RECEIVED BY		Erin Peterson	6/5/15	1215
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: TALON Workorder No: 1506115

Project Manager: ARW Initials: SDM Date: 06-05-15

1.	Does this project require any special handling in addition to standard ALS procedures?		YES	(NO)
2.	Are custody seals on shipping containers intact?	(NONE)	YES	NO
3.	Are Custody seals on sample containers intact?	(NONE)	YES	NO
4.	Is there a COC (Chain-of-Custody) present or other representative documents?		(YES)	NO
5.	Are the COC and bottle labels complete and legible?		(YES)	NO
6.	Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)	SDM 06-05-15	(YES)	(NO)
7.	Were airbills / shipping documents present and/or removable?	(DROP OFF)	YES	NO
8.	Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	(N/A)	YES	NO
9.	Are all aqueous non-preserved samples pH 4-9?	(N/A)	YES	NO
10.	Is there sufficient sample for the requested analyses?		(YES)	NO
11.	Were all samples placed in the proper containers for the requested analyses?		(YES)	NO
12.	Are all samples within holding times for the requested analyses?		(YES)	NO
13.	Were all sample containers received intact? (not broken or leaking, etc.)		(YES)	NO
14.	Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ____ < green pea ____ > green pea	(N/A)	YES	NO
15.	Do any water samples contain sediment? Amount Amount of sediment: ____ dusting ____ moderate ____ heavy	(N/A)	YES	NO
16.	Were the samples shipped on ice?		(YES)	NO
17.	Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 (#4)	RAD ONLY	(YES)	NO

Cooler #:	1							
Temperature (°C):	1.4							
No. of custody seals on cooler:	0							
DOT Survey/ Acceptance Information — External µR/hr reading:	NA							
Background µR/hr reading:	12							

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / (NA) (If no, see Form 008.)

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

SB-12 15-20 rec'd 2 4oz jars; COC states 1 bottle

* Sample 5 (SB-12 30-35) reads "SB-13 30-35" on the label. Date & Sample time Match the COC for Sample 5.

↳ matching by time is the correct course of action. Log using COC ID. aw 6/8/15

If applicable, was the client contacted? (YES) / NO / NA Contact: Colby Sterling Date/Time: 6/8/15

Project Manager Signature / Date: 6/8/15

*IR Gun #2: Oakton, SN 29922500201-0066
*IR Gun #4: Oakton, SN 2372220101-0002

Client:	Talon LPE	**Date:**	*12-Jun-15*
Project:	701530.020.02 Nelson C-1	**Work Order:**	1506115
Sample ID:	SB-12 20-25	**Lab ID:**	1506115-1
Legal Location:		**Matrix:**	SOIL
Collection Date:	6/4/2015 15:10	**Percent Moisture:**	28.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **6/9/2015**		PrepBy: **JFN**
Diesel Range Organics	**9.5**	ZL	**6.6**	**MG/KG**	1	6/10/2015 19:39
Surr: O-TERPHENYL	*86*		*53-116*	*%REC*	1	6/10/2015 19:39
Gasoline Range Organics			**SW8015**	Prep Date: **6/9/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**14**	GZ	**1.4**	**MG/KG**	1	6/9/2015 14:06
Surr: 2,3,4-TRIFLUOROTOLUENE	*120*		*76-126*	*%REC*	1	6/9/2015 14:06
GC/MS Volatiles			**SW8260**	Prep Date: **6/9/2015**		PrepBy: **TWK**
BENZENE	**0.96**		**0.29**	**MG/KG**	50	6/9/2015 16:14
TOLUENE	**1.9**		**0.29**	**MG/KG**	50	6/9/2015 16:14
ETHYLBENZENE	**0.44**		**0.035**	**MG/KG**	1	6/8/2015 18:36
M+P-XYLENE	**1.8**		**0.035**	**MG/KG**	1	6/8/2015 18:36
O-XYLENE	**0.71**		**0.035**	**MG/KG**	1	6/8/2015 18:36
NAPHTHALENE	**0.071**		**0.035**	**MG/KG**	1	6/8/2015 18:36
TOTAL XYLENES	**2.5**		**0.005**	**MG/KG**	1	6/9/2015 16:14
Surr: DIBROMOFLUOROMETHANE	*95*		*61-134*	*%REC*	50	6/9/2015 16:14
Surr: DIBROMOFLUOROMETHANE	*97*		*61-134*	*%REC*	1	6/8/2015 18:36
Surr: TOLUENE-D8	*96*		*57-135*	*%REC*	1	6/8/2015 18:36
Surr: TOLUENE-D8	*91*		*57-135*	*%REC*	50	6/9/2015 16:14
Surr: 4-BROMOFLUOROBENZENE	*97*		*52-151*	*%REC*	50	6/9/2015 16:14
Surr: 4-BROMOFLUOROBENZENE	*96*		*52-151*	*%REC*	1	6/8/2015 18:36

Client:	Talon LPE	**Date:**	*12-Jun-15*
Project:	701530.020.02 Nelson C-1	**Work Order:**	1506115
Sample ID:	SB-12 25-30	**Lab ID:**	1506115-2
Legal Location:		**Matrix:**	SOIL
Collection Date:	6/4/2015 15:18	**Percent Moisture:**	29.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **6/9/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		7	MG/KG	1	6/10/2015 20:10
Surr: O-TERPHENYL	*94*		*53-116*	*%REC*	1	6/10/2015 20:10
Gasoline Range Organics			**SW8015**	Prep Date: **6/9/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	**3.2**	GZ	**1.3**	**MG/KG**	1	6/9/2015 14:27
Surr: 2,3,4-TRIFLUOROTOLUENE	*108*		*76-126*	*%REC*	1	6/9/2015 14:27
GC/MS Volatiles			**SW8260**	Prep Date: **6/8/2015**		PrepBy: **TWK**
BENZENE	**0.57**		**0.047**	**MG/KG**	1	6/8/2015 19:02
TOLUENE	**0.59**		**0.047**	**MG/KG**	1	6/8/2015 19:02
ETHYLBENZENE	**0.07**		**0.047**	**MG/KG**	1	6/8/2015 19:02
M+P-XYLENE	**0.3**		**0.047**	**MG/KG**	1	6/8/2015 19:02
O-XYLENE	**0.13**		**0.047**	**MG/KG**	1	6/8/2015 19:02
NAPHTHALENE	ND		0.047	MG/KG	1	6/8/2015 19:02
TOTAL XYLENES	**0.43**		**0.005**	**MG/KG**	1	6/8/2015 19:02
Surr: DIBROMOFLUOROMETHANE	*97*		*61-134*	*%REC*	1	6/8/2015 19:02
Surr: TOLUENE-D8	*93*		*57-135*	*%REC*	1	6/8/2015 19:02
Surr: 4-BROMOFLUOROBENZENE	*94*		*52-151*	*%REC*	1	6/8/2015 19:02

Client: Talon LPE **Date:** *12-Jun-15*
Project: 701530.020.02 Nelson C-1 **Work Order:** 1506115
Sample ID: SB-13 20-25 **Lab ID:** 1506115-3
Legal Location: **Matrix:** SOIL
Collection Date: 6/4/2015 11:12 **Percent Moisture:** 33.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **6/9/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		7.4	MG/KG	1	6/10/2015 20:41
Surr: O-TERPHENYL	*94*		*53-116*	*%REC*	1	6/10/2015 20:41
Gasoline Range Organics		**SW8015**		Prep Date: **6/9/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.48	MG/KG	1	6/9/2015 14:48
Surr: 2,3,4-TRIFLUOROTOLUENE	*95*		*76-126*	*%REC*	1	6/9/2015 14:48
GC/MS Volatiles		**SW8260**		Prep Date: **6/8/2015**		PrepBy: **TWK**
BENZENE	ND		0.0072	MG/KG	1	6/8/2015 19:24
TOLUENE	ND		0.0072	MG/KG	1	6/8/2015 19:24
ETHYLBENZENE	ND		0.0072	MG/KG	1	6/8/2015 19:24
M+P-XYLENE	ND		0.0072	MG/KG	1	6/8/2015 19:24
O-XYLENE	ND		0.0072	MG/KG	1	6/8/2015 19:24
NAPHTHALENE	ND		0.0072	MG/KG	1	6/8/2015 19:24
TOTAL XYLENES	ND		0.005	MG/KG	1	6/8/2015 19:24
Surr: DIBROMOFLUOROMETHANE	*99*		*61-134*	*%REC*	1	6/8/2015 19:24
Surr: TOLUENE-D8	*94*		*57-135*	*%REC*	1	6/8/2015 19:24
Surr: 4-BROMOFLUOROBENZENE	*96*		*52-151*	*%REC*	1	6/8/2015 19:24

Client:	Talon LPE	**Date:**	*12-Jun-15*
Project:	701530.020.02 Nelson C-1	**Work Order:**	1506115
Sample ID:	SB-13 35-40	**Lab ID:**	1506115-4
Legal Location:		**Matrix:**	SOIL
Collection Date:	6/4/2015 11:45	**Percent Moisture:**	23.3

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **6/9/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		6.3	MG/KG	1	6/10/2015 21:12
Surr: O-TERPHENYL	*98*		*53-116*	*%REC*	1	6/10/2015 21:12
Gasoline Range Organics		**SW8015**		Prep Date: **6/9/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.49	MG/KG	1	6/9/2015 15:09
Surr: 2,3,4-TRIFLUOROTOLUENE	*99*		*76-126*	*%REC*	1	6/9/2015 15:09
GC/MS Volatiles		**SW8260**		Prep Date: **6/8/2015**		PrepBy: **TWK**
BENZENE	ND		0.0061	MG/KG	1	6/8/2015 19:49
TOLUENE	ND		0.0061	MG/KG	1	6/8/2015 19:49
ETHYLBENZENE	ND		0.0061	MG/KG	1	6/8/2015 19:49
M+P-XYLENE	ND		0.0061	MG/KG	1	6/8/2015 19:49
O-XYLENE	ND		0.0061	MG/KG	1	6/8/2015 19:49
NAPHTHALENE	ND		0.0061	MG/KG	1	6/8/2015 19:49
TOTAL XYLENES	ND		0.005	MG/KG	1	6/8/2015 19:49
Surr: DIBROMOFLUOROMETHANE	*96*		*61-134*	*%REC*	1	6/8/2015 19:49
Surr: TOLUENE-D8	*95*		*57-135*	*%REC*	1	6/8/2015 19:49
Surr: 4-BROMOFLUOROBENZENE	*95*		*52-151*	*%REC*	1	6/8/2015 19:49

Client:	Talon LPE	**Date:**	*12-Jun-15*
Project:	701530.020.02 Nelson C-1	**Work Order:**	1506115
Sample ID:	SB-12-30-35	**Lab ID:**	1506115-5
Legal Location:		**Matrix:**	SOIL
Collection Date:	6/4/2015 15:28	**Percent Moisture:**	24.1

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **6/9/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		6	MG/KG	1	6/10/2015 21:43
Surr: O-TERPHENYL	*100*		*53-116*	*%REC*	1	6/10/2015 21:43
Gasoline Range Organics			**SW8015**	Prep Date: **6/9/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.46	MG/KG	1	6/9/2015 15:29
Surr: 2,3,4-TRIFLUOROTOLUENE	*97*		*76-126*	*%REC*	1	6/9/2015 15:29
GC/MS Volatiles			**SW8260**	Prep Date: **6/8/2015**		PrepBy: **TWK**
BENZENE	**0.076**		**0.0061**	**MG/KG**	1	6/8/2015 20:15
TOLUENE	**0.0071**		**0.0061**	**MG/KG**	1	6/8/2015 20:15
ETHYLBENZENE	**0.0079**		**0.0061**	**MG/KG**	1	6/8/2015 20:15
M+P-XYLENE	**0.021**		**0.0061**	**MG/KG**	1	6/8/2015 20:15
O-XYLENE	ND		0.0061	MG/KG	1	6/8/2015 20:15
NAPHTHALENE	ND		0.0061	MG/KG	1	6/8/2015 20:15
TOTAL XYLENES	**0.021**		**0.005**	**MG/KG**	1	6/8/2015 20:15
Surr: DIBROMOFLUOROMETHANE	*97*		*61-134*	*%REC*	1	6/8/2015 20:15
Surr: TOLUENE-D8	*96*		*57-135*	*%REC*	1	6/8/2015 20:15
Surr: 4-BROMOFLUOROBENZENE	*97*		*52-151*	*%REC*	1	6/8/2015 20:15

Client:	Talon LPE	**Date:**	*12-Jun-15*
Project:	701530.020.02 Nelson C-1	**Work Order:**	1506115
Sample ID:	SB-13 30-35	**Lab ID:**	1506115-6
Legal Location:		**Matrix:**	SOIL
Collection Date:	6/4/2015 11:35	**Percent Moisture:**	36.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			**SW8015M**	Prep Date: **6/9/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		7.6	MG/KG	1	6/10/2015 22:13
Surr: O-TERPHENYL	*97*		*53-116*	*%REC*	1	6/10/2015 22:13
Gasoline Range Organics			**SW8015**	Prep Date: **6/9/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.55	MG/KG	1	6/9/2015 15:49
Surr: 2,3,4-TRIFLUOROTOLUENE	*99*		*76-126*	*%REC*	1	6/9/2015 15:49
GC/MS Volatiles			**SW8260**	Prep Date: **6/8/2015**		PrepBy: **TWK**
BENZENE	**0.14**		**0.0076**	**MG/KG**	1	6/8/2015 20:40
TOLUENE	**0.096**		**0.0076**	**MG/KG**	1	6/8/2015 20:40
ETHYLBENZENE	**0.019**		**0.0076**	**MG/KG**	1	6/8/2015 20:40
M+P-XYLENE	**0.056**		**0.0076**	**MG/KG**	1	6/8/2015 20:40
O-XYLENE	**0.017**		**0.0076**	**MG/KG**	1	6/8/2015 20:40
NAPHTHALENE	ND		0.0076	MG/KG	1	6/8/2015 20:40
TOTAL XYLENES	**0.073**		**0.005**	**MG/KG**	1	6/8/2015 20:40
Surr: DIBROMOFLUOROMETHANE	*99*		*61-134*	*%REC*	1	6/8/2015 20:40
Surr: TOLUENE-D8	*94*		*57-135*	*%REC*	1	6/8/2015 20:40
Surr: 4-BROMOFLUOROBENZENE	*96*		*52-151*	*%REC*	1	6/8/2015 20:40

Client:	Talon LPE	**Date:**	*12-Jun-15*
Project:	701530.020.02 Nelson C-1	**Work Order:**	1506115
Sample ID:	SB-12 15-20	**Lab ID:**	1506115-7
Legal Location:		**Matrix:**	SOIL
Collection Date:	6/4/2015 15:00	**Percent Moisture:**	29.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **6/9/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		6.8	MG/KG	1	6/10/2015 22:44
Surr: O-TERPHENYL	*95*		*53-116*	*%REC*	1	6/10/2015 22:44
Gasoline Range Organics		**SW8015**		Prep Date: **6/9/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.59	MG/KG	1	6/9/2015 16:11
Surr: 2,3,4-TRIFLUOROTOLUENE	*96*		*76-126*	*%REC*	1	6/9/2015 16:11
GC/MS Volatiles		**SW8260**		Prep Date: **6/8/2015**		PrepBy: **TWK**
BENZENE	ND		0.0064	MG/KG	1	6/8/2015 21:06
TOLUENE	ND		0.0064	MG/KG	1	6/8/2015 21:06
ETHYLBENZENE	ND		0.0064	MG/KG	1	6/8/2015 21:06
M+P-XYLENE	ND		0.0064	MG/KG	1	6/8/2015 21:06
O-XYLENE	ND		0.0064	MG/KG	1	6/8/2015 21:06
NAPHTHALENE	ND		0.0064	MG/KG	1	6/8/2015 21:06
TOTAL XYLENES	ND		0.005	MG/KG	1	6/8/2015 21:06
Surr: DIBROMOFLUOROMETHANE	*98*		*61-134*	*%REC*	1	6/8/2015 21:06
Surr: TOLUENE-D8	*93*		*57-135*	*%REC*	1	6/8/2015 21:06
Surr: 4-BROMOFLUOROBENZENE	*97*		*52-151*	*%REC*	1	6/8/2015 21:06

Client: Talon LPE
Project: 701530.020.02 Nelson C-1
Sample ID: SB-13 15-20
Legal Location:
Collection Date: 6/4/2015 11:00

Date: *12-Jun-15*
Work Order: 1506115
Lab ID: 1506115-8
Matrix: SOIL
Percent Moisture: 23.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **6/9/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		6.4	MG/KG	1	6/10/2015 23:15
Surr: O-TERPHENYL	*94*		*53-116*	*%REC*	1	6/10/2015 23:15
Gasoline Range Organics		**SW8015**		Prep Date: **6/9/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.61	MG/KG	1	6/9/2015 16:32
Surr: 2,3,4-TRIFLUOROTOLUENE	*93*		*76-126*	*%REC*	1	6/9/2015 16:32
GC/MS Volatiles		**SW8260**		Prep Date: **6/8/2015**		PrepBy: **TWK**
BENZENE	ND		0.0061	MG/KG	1	6/8/2015 21:32
TOLUENE	ND		0.0061	MG/KG	1	6/8/2015 21:32
ETHYLBENZENE	ND		0.0061	MG/KG	1	6/8/2015 21:32
M+P-XYLENE	ND		0.0061	MG/KG	1	6/8/2015 21:32
O-XYLENE	ND		0.0061	MG/KG	1	6/8/2015 21:32
NAPHTHALENE	ND		0.0061	MG/KG	1	6/8/2015 21:32
TOTAL XYLENES	ND		0.005	MG/KG	1	6/8/2015 21:32
Surr: DIBROMOFLUOROMETHANE	*99*		*61-134*	*%REC*	1	6/8/2015 21:32
Surr: TOLUENE-D8	*93*		*57-135*	*%REC*	1	6/8/2015 21:32
Surr: 4-BROMOFLUOROBENZENE	*98*		*52-151*	*%REC*	1	6/8/2015 21:32

Client: Talon LPE **Date:** *12-Jun-15*
Project: 701530.020.02 Nelson C-1 **Work Order:** 1506115
Sample ID: SB-13 25-30 **Lab ID:** 1506115-9
Legal Location: **Matrix:** SOIL
Collection Date: 6/4/2015 11:20 **Percent Moisture:** 25.6

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics		**SW8015M**		Prep Date: **6/9/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		6.6	MG/KG	1	6/10/2015 23:46
Surr: O-TERPHENYL	*94*		*53-116*	*%REC*	1	6/10/2015 23:46
Gasoline Range Organics		**SW8015**		Prep Date: **6/9/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.49	MG/KG	1	6/9/2015 17:34
Surr: 2,3,4-TRIFLUOROTOLUENE	*94*		*76-126*	*%REC*	1	6/9/2015 17:34
GC/MS Volatiles		**SW8260**		Prep Date: **6/8/2015**		PrepBy: **TWK**
BENZENE	ND		0.0062	MG/KG	1	6/8/2015 21:58
TOLUENE	ND		0.0062	MG/KG	1	6/8/2015 21:58
ETHYLBENZENE	ND		0.0062	MG/KG	1	6/8/2015 21:58
M+P-XYLENE	ND		0.0062	MG/KG	1	6/8/2015 21:58
O-XYLENE	ND		0.0062	MG/KG	1	6/8/2015 21:58
NAPHTHALENE	ND		0.0062	MG/KG	1	6/8/2015 21:58
TOTAL XYLENES	ND		0.005	MG/KG	1	6/8/2015 21:58
Surr: DIBROMOFLUOROMETHANE	*98*		*61-134*	*%REC*	1	6/8/2015 21:58
Surr: TOLUENE-D8	*94*		*57-135*	*%REC*	1	6/8/2015 21:58
Surr: 4-BROMOFLUOROBENZENE	*96*		*52-151*	*%REC*	1	6/8/2015 21:58

Client:	Talon LPE	**Date:**	*12-Jun-15*
Project:	701530.020.02 Nelson C-1	**Work Order:**	1506115
Sample ID:	SB-13 25-30	**Lab ID:**	1506115-9
Legal Location:		**Matrix:**	SOIL
Collection Date:	6/4/2015 11:20	**Percent Moisture:**	25.6

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Explanation of Qualifiers

Radiochemistry:

U or ND - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.

Y2 - Chemical Yield outside default limits.

W - DER is greater than Warning Limit of 1.42

* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.

- Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.

G - Sample density differs by more than 15% of LCS density.

D - DER is greater than Control Limit

M - Requested MDC not met.

LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

L - LCS Recovery below lower control limit.

H - LCS Recovery above upper control limit.

P - LCS, Matrix Spike Recovery within control limits.

N - Matrix Spike Recovery outside control limits

NC - Not Calculated for duplicate results less than 5 times MDC

B - Analyte concentration greater than MDC.

B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

Batch ID: **HC150609-61-1** Instrument ID **FUELS-1** Method: **SW8015**

LCS Sample ID: **HC150609-61** Units: **MG/KG** Analysis Date: **6/9/2015 08:57**

Client ID: Run ID: **HC150609-6A** Prep Date: **6/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.53	0.5	2.5		101	79-118				20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.518		0.5		104	76-126					

LCSD Sample ID: **HC150609-61** Units: **MG/KG** Analysis Date: **6/9/2015 13:04**

Client ID: Run ID: **HC150609-6A** Prep Date: **6/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.63	0.5	2.5		105	79-118		2.53	4	20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.5		0.5		100	76-126			3		

MB Sample ID: **HC150609-61** Units: **MG/KG** Analysis Date: **6/9/2015 09:17**

Client ID: Run ID: **HC150609-6A** Prep Date: **6/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	ND	0.5									
Surr: 2,3,4-TRIFLUOROTOLUENE	0.468		0.5		94	76-126					

MS Sample ID: **1506115-8** Units: **MG/KG** Analysis Date: **6/9/2015 16:53**

Client ID: **SB-13 15-20** Run ID: **HC150609-6A** Prep Date: **6/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.54	0.618	3.09	0.61	82	79-118				40	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.662		0.618		107	76-126					

MSD Sample ID: **1506115-8** Units: **MG/KG** Analysis Date: **6/9/2015 17:14**

Client ID: **SB-13 15-20** Run ID: **HC150609-6A** Prep Date: **6/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.1	0.546	2.73	0.61	77	79-118		2.54	19	40	*
Surr: 2,3,4-TRIFLUOROTOLUENE	0.55		0.546		101	76-126			18		

The following samples were analyzed in this batch:

1506115-1	1506115-2	1506115-3
1506115-4	1506115-5	1506115-6
1506115-7	1506115-8	1506115-9

QC BATCH REPORT

Batch ID: **HC150609-101-1** Instrument ID **FUELS-1** Method: **SW8015M**

LCS Sample ID: **HC150609-101** Units: **MG/KG** Analysis Date: **6/10/2015 10:55**
Client ID: Run ID: **HC150610-7A** Prep Date: **6/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	126	5	125		100	76-124				20	
Surr: O-TERPHENYL	9.79		12.5		78	53-116					

MB Sample ID: **HC150609-101** Units: **MG/KG** Analysis Date: **6/10/2015 10:25**
Client ID: Run ID: **HC150610-7A** Prep Date: **6/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	ND	5									
Surr: O-TERPHENYL	10.3		12.5		82	53-116					

The following samples were analyzed in this batch:

1506115-1	1506115-2	1506115-3
1506115-4	1506115-5	1506115-6
1506115-7	1506115-8	1506115-9

QC BATCH REPORT

Batch ID: **VL150608-2-3** Instrument ID **HPV1** Method: **SW8260**

LCS Sample ID: **VL150608-2** Units: **MG/KG** Analysis Date: **6/8/2015 11:34**

Client ID: Run ID: **VL150608-2A** Prep Date: **6/8/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0373	0.005	0.04		93	73-126				30	
TOLUENE	0.035	0.005	0.04		87	71-127				30	
ETHYLBENZENE	0.0349	0.005	0.04		87	74-127				30	
M+P-XYLENE	0.072	0.005	0.08		90	79-126				30	
O-XYLENE	0.036	0.005	0.04		90	77-125				30	
NAPHTHALENE	0.0387	0.005	0.04		97	64-141				30	
Surr: DIBROMOFLUOROMETHANE	0.0494		0.05		99	61-134					
Surr: TOLUENE-D8	0.046		0.05		92	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0508		0.05		102	52-151					

LCSD Sample ID: **VL150608-2** Units: **MG/KG** Analysis Date: **6/8/2015 11:59**

Client ID: Run ID: **VL150608-2A** Prep Date: **6/8/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0391	0.005	0.04		98	73-126		0.0373	5	30	
TOLUENE	0.0377	0.005	0.04		94	71-127		0.035	7	30	
ETHYLBENZENE	0.037	0.005	0.04		93	74-127		0.0349	6	30	
M+P-XYLENE	0.0761	0.005	0.08		95	79-126		0.072	6	30	
O-XYLENE	0.038	0.005	0.04		95	77-125		0.036	5	30	
NAPHTHALENE	0.0399	0.005	0.04		100	64-141		0.0387	3	30	
Surr: DIBROMOFLUOROMETHANE	0.0491		0.05		98	61-134			1		
Surr: TOLUENE-D8	0.0472		0.05		94	57-135			3		
Surr: 4-BROMOFLUOROBENZENE	0.0497		0.05		99	52-151			2		

QC BATCH REPORT

Batch ID: **VL150608-2-3** Instrument ID **HPV1** Method: **SW8260**

MB Sample ID: **VL150608-2** Units: **MG/KG** Analysis Date: **6/8/2015 12:27**

Client ID: Run ID: **VL150608-2A** Prep Date: **6/8/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	ND	0.005									
TOLUENE	ND	0.005									
ETHYLBENZENE	ND	0.005									
M+P-XYLENE	ND	0.005									
O-XYLENE	ND	0.005									
NAPHTHALENE	ND	0.005									
TOTAL XYLENES	ND	0.005									
Surr: DIBROMOFLUOROMETHANE	0.0501		0.05		100	61-134					
Surr: TOLUENE-D8	0.0466		0.05		93	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0487		0.05		97	52-151					

The following samples were analyzed in this batch:

1506115-1	1506115-2	1506115-3
1506115-4	1506115-5	1506115-6
1506115-7	1506115-8	1506115-9

QC BATCH REPORT

Batch ID: **VL150609-2-3** Instrument ID **HPV1** Method: **SW8260**

LCS Sample ID: **VL150609-2** Units: **MG/KG** Analysis Date: **6/9/2015 09:59**

Client ID: Run ID: **VL150609-2A** Prep Date: **6/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0418	0.005	0.04		105	73-126				30	
TOLUENE	0.0395	0.005	0.04		99	71-127				30	
ETHYLBENZENE	0.0383	0.005	0.04		96	74-127				30	
M+P-XYLENE	0.079	0.005	0.08		99	79-126				30	
O-XYLENE	0.0394	0.005	0.04		98	77-125				30	
NAPHTHALENE	0.0428	0.005	0.04		107	64-141				30	
Surr: DIBROMOFLUOROMETHANE	0.0488		0.05		98	61-134					
Surr: TOLUENE-D8	0.048		0.05		96	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0497		0.05		99	52-151					

LCSD Sample ID: **VL150609-2** Units: **MG/KG** Analysis Date: **6/9/2015 10:22**

Client ID: Run ID: **VL150609-2A** Prep Date: **6/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0411	0.005	0.04		103	73-126		0.0418	2	30	
TOLUENE	0.0394	0.005	0.04		98	71-127		0.0395	0	30	
ETHYLBENZENE	0.0378	0.005	0.04		95	74-127		0.0383	1	30	
M+P-XYLENE	0.0784	0.005	0.08		98	79-126		0.079	1	30	
O-XYLENE	0.0387	0.005	0.04		97	77-125		0.0394	2	30	
NAPHTHALENE	0.0411	0.005	0.04		103	64-141		0.0428	4	30	
Surr: DIBROMOFLUOROMETHANE	0.0502		0.05		100	61-134			3		
Surr: TOLUENE-D8	0.047		0.05		94	57-135			2		
Surr: 4-BROMOFLUOROBENZENE	0.049		0.05		98	52-151			1		

Client: Talon LPE
Work Order: 1506115
Project: 701530.020.02 Nelson C-1

QC BATCH REPORT

Batch ID: **VL150609-2-3** Instrument ID **HPV1** Method: **SW8260**

MB Sample ID: **VL150609-2** Units: **MG/KG** Analysis Date: **6/9/2015 12:27**

Client ID: Run ID: **VL150609-2A** Prep Date: **6/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	ND	0.005									
TOLUENE	ND	0.005									
ETHYLBENZENE	ND	0.005									
M+P-XYLENE	ND	0.005									
O-XYLENE	ND	0.005									
NAPHTHALENE	ND	0.005									
TOTAL XYLENES	ND	0.005									
Surr: DIBROMOFLUOROMETHANE	0.0494		0.05		99	61-134					
Surr: TOLUENE-D8	0.0466		0.05		93	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0484		0.05		97	52-151					

MB Sample ID: **VL150609-2M** Units: **MG/KG** Analysis Date: **6/9/2015 12:53**

Client ID: Run ID: **VL150609-2A** Prep Date: **6/9/2015** DF: **50**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	ND	0.25									
TOLUENE	ND	0.25									
ETHYLBENZENE	ND	0.25									
M+P-XYLENE	ND	0.25									
O-XYLENE	ND	0.25									
NAPHTHALENE	ND	0.25									
TOTAL XYLENES	ND	0.005									
Surr: DIBROMOFLUOROMETHANE	2.45		2.5		98	61-134					
Surr: TOLUENE-D8	2.38		2.5		95	57-135					
Surr: 4-BROMOFLUOROBENZENE	2.44		2.5		98	52-151					

The following samples were analyzed in this batch: 1506115-1