

Monday, June 08, 2015

Colby Sterling
Talon LPE
921 N Bivins
Amarillo, TX 79107

Re: ALS Workorder: 1506061
Project Name: Razor 33 CPB
Project Number: 701530.037.01

Dear Mr. Sterling:

One soil sample was received from Talon LPE, on 6/3/2015. The sample was scheduled for the following analyses:

GC/MS Volatiles

Total Extractable Petroleum Hydrocarbons (Diesel)

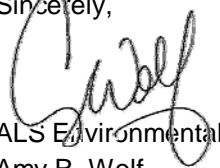
Total Volatile Petroleum Hydrocarbons (Gasoline)

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



1506061

GC/MS Volatiles:

The sample was analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C.

All acceptance criteria were met.

GRO:

The sample was 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 sample was 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.

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Sample Number(s) Cross-Reference Table

OrderNum: 1506061

Client Name: Talon LPE

Client Project Name: Razor 33 CPB

Client Project Number: 701530.037.01

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
SP-2 0-6"	1506061-1		SOIL	02-Jun-15	14:10



Chain-of-Custody

Form 202r8

*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.

5 of 12

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



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Taba Workorder No: 1506061
Project Manager: JE Initials: SDM Date: 06-03-15

1. Does this project require any special handling in addition to standard ALS procedures?		YES	<u>NO</u>
2. Are custody seals on shipping containers intact?	<u>NONE</u>	YES	NO
3. Are Custody seals on sample containers intact?	<u>NONE</u>	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<u>YES</u>	NO
5. Are the COC and bottle labels complete and legible?		<u>YES</u>	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
7. Were airbills / shipping documents present and/or removable?	<u>DROP OFF</u>	YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	<u>N/A</u>	YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	<u>N/A</u>	YES	NO
10. Is there sufficient sample for the requested analyses?		<u>YES</u>	NO
11. Were all samples placed in the proper containers for the requested analyses?		<u>YES</u>	NO
12. Are all samples within holding times for the requested analyses?		<u>YES</u>	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<u>YES</u>	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	<u>N/A</u>	YES	NO
15. Do any water samples contain sediment? Amount Amount of sediment: ____ dusting ____ moderate ____ heavy	<u>N/A</u>	YES	NO
16. Were the samples shipped on ice?		<u>YES</u>	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 <u>#4</u>		<u>YES</u>	NO
Cooler #: <u>1</u>			
Temperature (°C): <u>3.4</u>			
No. of custody seals on cooler: <u>2</u>			
External µR/hr reading: <u>N/A</u>			
Background µR/hr reading: <u>11</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / <u>NA</u> (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] 6/5/15

Client: Talon LPE
Project: 701530.037.01 Razor 33 CPB
Sample ID: SP-2 0-6"
Legal Location:
Collection Date: 6/2/2015 14:10

Date: 08-Jun-15
Work Order: 1506061
Lab ID: 1506061-1
Matrix: SOIL
Percent Moisture: 6.6

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics						
Diesel Range Organics	140	DMH	5.2	MG/KG	1	6/6/2015 05:18
<i>Surr: O-TERPHENYL</i>	<i>92</i>		<i>53-116</i>	<i>%REC</i>	1	6/6/2015 05:18
Gasoline Range Organics						
Gasoline Range Organics	ND		0.49	MG/KG	1	6/5/2015 12:21
<i>Surr: 2,3,4-TRIFLUOROTOLUENE</i>	<i>101</i>		<i>76-126</i>	<i>%REC</i>	1	6/5/2015 12:21
GC/MS Volatiles						
BENZENE	ND		0.005	MG/KG	1	6/4/2015 13:28
TOLUENE	ND		0.005	MG/KG	1	6/4/2015 13:28
ETHYLBENZENE	ND		0.005	MG/KG	1	6/4/2015 13:28
M+P-XYLENE	ND		0.005	MG/KG	1	6/4/2015 13:28
O-XYLENE	ND		0.005	MG/KG	1	6/4/2015 13:28
TOTAL XYLENES	ND		0.005	MG/KG	1	6/4/2015 13:28
<i>Surr: DIBROMOFLUOROMETHANE</i>	<i>98</i>		<i>61-134</i>	<i>%REC</i>	1	6/4/2015 13:28
<i>Surr: TOLUENE-D8</i>	<i>94</i>		<i>57-135</i>	<i>%REC</i>	1	6/4/2015 13:28
<i>Surr: 4-BROMOFLUOROBENZENE</i>	<i>94</i>		<i>52-151</i>	<i>%REC</i>	1	6/4/2015 13:28

Client: Talon LPE
Project: 701530.037.01 Razor 33 CPB
Sample ID: SP-2 0-6"
Legal Location:
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Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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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

ALS Environmental -- FC

Date: 6/8/2015 2:37:3

Client: Talon LPE

Work Order: 1506061

Project: 701530.037.01 Razor 33 CPB

QC BATCH REPORT

Batch ID: HC150605-61-1

Instrument ID: FUELS-1

Method: SW8015

LCS	Sample ID: HC150605-61				Units: MG/KG		Analysis Date: 6/5/2015 11:20				
Client ID:	Run ID: HC150605-6A				Prep Date: 6/5/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.51	0.5	2.5		101	79-118				20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.498		0.5		100	76-126					

LCSD	Sample ID: HC150605-61				Units: MG/KG			Analysis Date: 6/5/2015 16:30			
Client ID:	Run ID: HC150605-6A				Prep Date: 6/5/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.45	0.5	2.5		98	79-118		2.51	3	20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.507		0.5		101	76-126			2		

MB	Sample ID: HC150605-61				Units: MG/KG			Analysis Date: 6/5/2015 11:40			
Client ID:	Run ID: HC150605-6A				Prep Date: 6/5/2015			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	0.47		0.5		94	76-126					

The following samples were analyzed in this batch:

1506061-1

Client: Talon LPE
Work Order: 1506061
Project: 701530.037.01 Razor 33 CPB

QC BATCH REPORT

Batch ID: **HC150605-100-1** Instrument ID: **FUELS-1** Method: **SW8015M**

LCS		Sample ID: HC150605-100			Units: MG/KG			Analysis Date: 6/5/2015 21:06			
Client ID:		Run ID: HC150605-7A			Prep Date: 6/5/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	130	5	125		104	76-124				20	
Surr: O-TERPHENYL	9.87		12.5		79	53-116					

MB		Sample ID: HC150605-100			Units: MG/KG			Analysis Date: 6/5/2015 20:04			
Client ID:		Run ID: HC150605-7A			Prep Date: 6/5/2015			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	10.8		12.5		87	53-116					

The following samples were analyzed in this batch:

1506061-1

Client: Talon LPE
 Work Order: 1506061
 Project: 701530.037.01 Razor 33 CPB

QC BATCH REPORT

Batch ID: **VL150604-2-1** Instrument ID: **HPV1** Method: **SW8260**

LCS	Sample ID: VL150604-2			Units: MG/KG			Analysis Date: 6/4/2015 12:16				
Client ID:	Run ID: VL150604-2A			Prep Date: 6/4/2015			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0441	0.005	0.04		110	73-126				30	
TOLUENE	0.0449	0.005	0.04		112	71-127				30	
ETHYLBENZENE	0.0459	0.005	0.04		115	74-127				30	
M+P-XYLENE	0.0964	0.005	0.08		120	79-126				30	
O-XYLENE	0.0476	0.005	0.04		119	77-125				30	
Surr: DIBROMOFLUOROMETHANE	0.0492		0.05		98	61-134					
Surr: TOLUENE-D8	0.0478		0.05		96	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0483		0.05		97	52-151					

LCSD	Sample ID: VL150604-2			Units: MG/KG			Analysis Date: 6/4/2015 12:39				
Client ID:	Run ID: VL150604-2A			Prep Date: 6/4/2015			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0443	0.005	0.04		111	73-126		0.0441	1	30	
TOLUENE	0.0449	0.005	0.04		112	71-127		0.0449	0	30	
ETHYLBENZENE	0.0437	0.005	0.04		109	74-127		0.0459	5	30	
M+P-XYLENE	0.0904	0.005	0.08		113	79-126		0.0964	6	30	
O-XYLENE	0.046	0.005	0.04		115	77-125		0.0476	3	30	
Surr: DIBROMOFLUOROMETHANE	0.0493		0.05		99	61-134			0		
Surr: TOLUENE-D8	0.0481		0.05		96	57-135			1		
Surr: 4-BROMOFLUOROBENZENE	0.0491		0.05		98	52-151			2		

MB			Sample ID: VL150604-2			Units: MG/KG			Analysis Date: 6/4/2015 13:03		
Client ID:			Run ID: VL150604-2A			Prep Date: 6/4/2015			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									
TOTAL XYLENES	ND	0.005									
Surr: DIBROMOFLUOROMETHANE	0.0493		0.05		99	61-134					
Surr: TOLUENE-D8	0.0469		0.05		94	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0477		0.05		95	52-151					

Client: Talon LPE
Work Order: 1506061
Project: 701530.037.01 Razor 33 CPB

QC BATCH REPORT

Batch ID: **VL150604-2-1** Instrument ID: **HPV1** Method: **SW8260**

MS		Sample ID: 1506060-2		Units: MG/KG		Analysis Date: 6/4/2015 21:46					
Client ID: SP-2 0-6"		Run ID: VL150604-2A		Prep Date: 6/4/2015		DF: 1					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0397	0.00485	0.0388	0.0048	102	73-126				30	
TOLUENE	0.0388	0.00485	0.0388	0.0048	100	71-127				30	
ETHYLBENZENE	0.038	0.00485	0.0388	0.0048	98	74-127				30	
M+P-XYLENE	0.0783	0.00485	0.0777	0.0048	101	79-126				30	
O-XYLENE	0.0392	0.00485	0.0388	0.0048	101	77-125				30	
Surr: DIBROMOFLUOROMETHANE	0.0481		0.0485		99	61-134					
Surr: TOLUENE-D8	0.0452		0.0485		93	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0461		0.0485		95	52-151					

MSD		Sample ID: 1506060-2		Units: MG/KG		Analysis Date: 6/4/2015 22:11					
Client ID: SP-2 0-6"		Run ID: VL150604-2A		Prep Date: 6/4/2015		DF: 1					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0376	0.00466	0.0373	0.0048	101	73-126		0.0397	6	30	
TOLUENE	0.0378	0.00466	0.0373	0.0048	101	71-127		0.0388	3	30	
ETHYLBENZENE	0.0367	0.00466	0.0373	0.0048	98	74-127		0.038	3	30	
M+P-XYLENE	0.0743	0.00466	0.0746	0.0048	100	79-126		0.0783	5	30	
O-XYLENE	0.0378	0.00466	0.0373	0.0048	101	77-125		0.0392	4	30	
Surr: DIBROMOFLUOROMETHANE	0.045		0.0466		96	61-134			7		
Surr: TOLUENE-D8	0.0447		0.0466		96	57-135			1		
Surr: 4-BROMOFLUOROBENZENE	0.0443		0.0466		95	52-151			4		

The following samples were analyzed in this batch:

1506061-1