



April 21, 2016

Ms. Annette Garrigues
Williams Midstream
Willow Creek Plant
20219 County Road 5
Rifle, Colorado 81650

**Subject: Site Characterization Summary Report and Recommendations
Parachute Creek Gas Plant (COGCC Facility: 120109)
Garfield County, Colorado
Apex Project No. 5255**

Dear Ms. Garrigues:

Apex Companies, LLC (Apex), is pleased to provide Bargath, LLC (Bargath), with this site characterization summary report for the Parachute Creek Gas Plant (Site) (COGCC Spill/Release Point ID: 440473) with recommendations for additional characterization. Site characterization work was conducted to define the magnitude and extent of petroleum hydrocarbon impacted soils resulting from a suspected release in the middle of the facility footprint, adjacent to two 100 barrel (BBL) hot oil tanks and a pipe rack junction. This report includes background information, a summary of characterization efforts to date, and a recommendation for additional site characterization to complete lateral definition of soil impacts.

Attachments to this document, including maps, diagrams, field reports, and laboratory analytical results are listed in the attachments section at the end of this report.

Project Location and Background

The Parachute Creek Gas Plant is a natural gas production facility owned and operated by Williams Midstream. A diagram illustrating the facility layout is attached to this report. The disturbed footprint of the facility enclosed by a gated fence encompasses an area of approximately 21.5 acres, and is located four miles northwest of the town of Parachute, Garfield County, Colorado. A site characterization map illustrating the project location is attached, and the legal description and geographic coordinates are as follows:

- NWNE, Section 33, T6S-R96W, 6th PM
- 39.487041 / -108.109535

In late 2014, Apex was contacted to provide site characterization services for petroleum hydrocarbon impacted soils resulting from a suspected release at the Site. In response to the request, Apex scheduled and completed two soil boring investigations in December 2014 and January 2015. To date, a total of 11 soil borings (SB-1 through SB-11) have been completed, with 23 soil samples collected and submitted for laboratory analysis. The soil boring locations are detailed in the attached site characterization map, and laboratory analytical results are provided in the attached summary tables and laboratory reports. Details on the site investigation events are provided in the following sections.

Soil Boring Investigation Summary

Apex performed a subsurface soil investigation on December 3, 2014, and January 9, 2015. During those efforts, Apex staff and subcontractors completed the following tasks:

- 1) Potholing for utility locates and pre-drilling due diligence at each boring location. In accordance with Bargath's guidance, this activity was carried out by facility personnel.
- 2) Advancement of 11 soil borings to total depths of 35 to 40 feet below ground surface (bgs) with a direct-push drilling rig: 5 soil borings (SB-1 through SB-5) on December 3; and 6 soil borings (SB-6 through SB-11) on January 9.
- 3) Continuous logging and characterization of soil conditions by an Apex senior geologist.
- 4) Field screening of all soil cuttings for hydrocarbon impacts using a photo-ionization detector (PID).
- 5) Collection of two or three soil samples from each boring location for laboratory analysis. A total of 23 soil samples were submitted to a qualified laboratory for analysis of Colorado Oil and Gas Conservation Commission (COGCC) Table 910-1 constituents of concern (COC). Those COC include benzene, toluene, ethylbenzene, and xylenes (BTEX), total petroleum hydrocarbons (TPH) in the gasoline range (GRO) and diesel range (DRO), semi-volatile organic compounds (SVOCs), metals, and inorganics (EC, SAR, pH). To limit cost, and in accordance with generally accepted practice, full suite analysis, including metals, inorganics, and SVOCs was completed on only 4 of the 23 submitted samples.

Field observations by Apex staff during soil boring efforts, field screening of soil cuttings, and laboratory analytical results indicated that subsurface soils within the investigation area were impacted by petroleum hydrocarbons, with the following COC above COGCC Table 910-1 allowable limits.

- Benzene in 7 of 23 samples.
- Toluene in 2 of 23 samples.
- TPH in 4 of 23 samples.
- Arsenic in all 4 analyzed samples.

Laboratory analytical results are provided in the attached summary tables and laboratory reports. Soil boring locations are identified along with COC above allowable limits in the attached site investigation diagram. Report attachments are listed in the attachments section at the end of this report.

Conclusions and Recommendations

Results from the initial site characterization event in December 2014 indicate relatively shallow soil contamination in the immediate area around the suspected release site. In all five soil boring locations (SB-1 through SB-5), organic COC (TPH, BTEX) concentrations above Table 910-1 allowable limits were identified between 10 and 20 feet bgs, while samples collected between 30 and 40 feet bgs were non-detect, or well below allowable limits for organic COC. The subsequent site investigation carried out in January 2015 provided lateral definition for identified impacts to the north, with four soil boring locations (SB-6 through SB-9) below allowable limits for field-screened and lab-analyzed COC. Soil boring locations SB-10 and SB-11 provided similar results to the December site investigation with benzene concentrations above allowable limits at depths between 10 and 20 feet bgs, while samples collected between 30 and 40 feet bgs were non-detect for organic COC.

Based on field screening results and laboratory analysis, it appears that soil impacts in the project area have been vertically defined to depths of less than 30 feet bgs. From an aerial perspective, if the project site is viewed as a clock face, there is lateral definition of soil impacts on the north side, from 3:00 to 9:00, while the extent to the south, from 3:00 to 9:00 is still undetermined. Based on existing data, there is no evidence of impacts to groundwater. The organic COC causing soil impacts at the site are volatile hydrocarbons, at relatively low concentrations, which will provide Williams with a number of remediation options in the future.

To confirm lateral definition of soil impacts, Apex recommends advancing three additional soil borings to the south of the project area in the driving access area between the compressor building and previously completed soil borings. The proposed soil boring locations are illustrated in the attached site investigation diagram. Based on collected data, we believe these borings would be adequate to define soil impacts, and would allow preparation of a remediation plan appropriate to this area.

Please call me at 303-443-4209 if you have any questions about this summary report, or any of the tasks performed. Apex would be pleased to assist with any additional investigation or remediation.

Sincerely,
Apex Companies, LLC



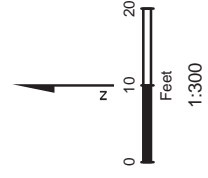
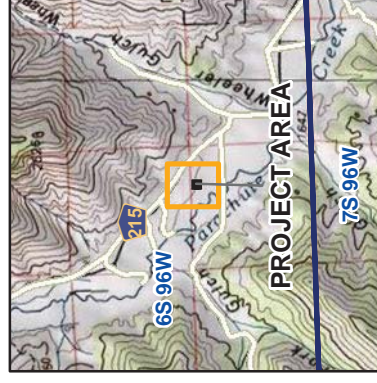
W. Catt Wilson, P.E.
Principal Engineer

Attachments


- 1) Facility layout diagram
- 2) Site characterization map
- 3) Laboratory results summary table
- 4) Soil boring logs
- 5) Laboratory reports



● COC Exceedances
● No COC Exceedances
● Proposed Soil Boring
➔ Assumed Groundwater Flow Direction



REVISID	BY	COMMENT
3/25/2016	BJB	Map Updates



APEX Companies, LLC
 benji.bjgstrom@apex.com
 M:\Projects\Barpath, LLC\
 Colorado\Remediation\Projects
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Proposed soil boring locations are subject to change based on utility locate information and day-to-day operational needs.



Laboratory Results Summary Table

3/29/2016

Allowable Concentration -->				Organic Compounds in Soil (mg/kg [ppm])										Inorganics in Soil				Metals in Soil (mg/kg [ppm])										
				500	TPH-DRO (C10-C36)					Benzene	Toluene	Ethylbenzene	Xylenes - total	EC (<4 mmhos/cm or 2x background)	SAR (calculation)	pH	Arsenic	Barium - EPA Total Barium	Cadmium	Chromium (III)	Chromium (VI)	Copper	Lead (inorganic)	Mercury	Nickel (soluble salts)	Selenium	Silver	Zinc
Location	Sample Date:	Sample Matrix	Matrix Notes	TPH (total volatile and extractable petroleum hydrocarbons) (TPH-GRO + TPH-DRO)	TPH-GRO (C6-C10)	Low Fraction	High Fraction	37	11	84	6.4	88	175	1.5	2.8	8.5	9.1	190	<0.91	11	<0.57	16	14	0.044	15	1	<0.46	67
SB-01	12/03/14	Soil	10.0'-18.0'	1937	1900																							
SB-01	12/03/14	Soil	29.5'-30.0'	21	<2.9	21	<0.035	<0.035	<0.035	<0.035	<0.035	<0.110																
SB-01	12/03/14	Soil	30.0'-40.0'	20	<2.9	20	<0.035	<0.035	<0.035	<0.035	<0.035	<0.110		4.9	1.7	7.8	9.8	180	<0.91	11	<0.58	18	14	0.032	16	<0.91	<0.45	73
SB-02	12/03/14	Soil	10.0'-20.0'	447	430	17	5.1	31	5.1	31	1.4	25		8.3	1.2	7.7	8.8	210	<0.83	11	<0.59	16	14	0.025	14	<0.83	<0.42	67
SB-02	12/03/14	Soil	25.0'-35.0'	31	<2.9	31	<0.035	<0.035	<0.035	<0.035	<0.035	<0.110		4.8	1.7	7.8	11	260	<0.91	9.8	<0.58	15	14	0.026	12	1.3	<0.45	59
SB-03	12/03/14	Soil	14.5'-15.0'	1744	1700	44	28	160	28	160	8.5	120																
SB-03	12/03/14	Soil	32.0'-32.5'	18	<3.0	18	<0.036	0.056	<0.036	<0.036	<0.036	<0.110																
SB-04	12/03/14	Soil	32.0'-32.5'	22	<3.0	22	<0.036	0.063	<0.036	<0.036	<0.036	<0.110																
SB-04	12/03/14	Soil	9.5'-10.0'	2642	2600	42	10	150	10	150	7.9	110																
SB-05	12/03/14	Soil	34.5'-35.0'	20	<3.0	20	<0.036	<0.036	<0.036	<0.036	<0.036	<0.110																
SB-05	12/03/14	Soil	9.5'-10.0'	1831	1800	31	4.7	68	4.7	68	6.3	76																
SB-06	01/09/15	Soil	24.5'-25.0'	ND	<2.9	<4.8	<0.035	<0.035	<0.035	<0.035	<0.035	<0.100																
SB-06	01/09/15	Soil	34.5'-35.0'	ND	<2.9	<4.8	<0.035	<0.035	<0.035	<0.035	<0.035	<0.110																
SB-07	01/09/15	Soil	22.0'-22.5'	ND	<3.00	<4.9	<0.036	<0.036	<0.036	<0.036	<0.036	<0.110																
SB-07	01/09/15	Soil	34.5'-35.0'	ND	<3.00	<4.8	<0.036	<0.036	<0.036	<0.036	<0.036	<0.110																
SB-08	01/09/15	Soil	24.5'-25.0'	ND	<2.9	<4.7	<0.034	<0.034	<0.034	<0.034	<0.034	<0.100																
SB-08	01/09/15	Soil	34.5'-35.0'	ND	<2.9	<4.9	<0.035	<0.035	<0.035	<0.035	<0.035	<0.110																
SB-09	01/09/15	Soil	24.5'-25.0'	62.7	53	9.7	0.11	<0.35	0.11	<0.35	0.31	1.9																
SB-09	01/09/15	Soil	34.5'-35.0'	ND	<3.0	<4.8	<0.036	<0.036	<0.036	<0.036	<0.036	<0.110																
SB-09	01/09/15	Soil	34.5'-35.0'	ND	<2.9	<4.8	<0.035	<0.035	<0.035	<0.035	<0.035	<0.100																
SB-10	01/09/15	Soil	9.5'-10.0'	257	240	17	6.3	43	6.3	43	5.7	82																
SB-11	01/09/15	Soil	16.0'-16.5'	215.2	210	5.2	2.1	39	2.1	39	1.3	33																
SB-11	01/09/15	Soil	34.5'-35.0'	ND	<2.9	<4.8	<0.035	<0.035	<0.035	<0.035	<0.035	<0.110																

- Analysis was completed on SB-01 and SB-02 with non-detect [ND] results for the Semi-Volatile Organic Compounds [SVOCs] Acenaphthene, Anthracene, Benzo(A)anthracene, Benzo(B)fluoranthene, Benzo(K)fluoranthene, Benzo(A)pyrene, Chrysene, Dibenzo(A,H)anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-C,D)pyrene, Naphthalene, and Pyrene
- Italicized and lightly greyed results indicate a non-detect [ND] result with the method detection limit [MDL]
- Bold and orange highlighted results indicate a result above Colorado Oil and Gas Conservation Commission [COGCC] Table 910-1 allowable concentration for that constituent.
- Bold results indicate a detected concentration above the Method Detection Limit [MDL], but below the COGCC Table 910-1 allowable concentration.
- ND - non-detect
- bgs - below ground surface
- mg/kg - milligrams per kilogram
- ppm - parts per million
- TPH - total petroleum hydrocarbons
- DRO - diesel range organics
- GRO - gasoline range organics
- EC - electrical conductivity
- SAR - sodium adsorption ratio



Boring Location Sketch

SOIL BORING LOG

Project Number

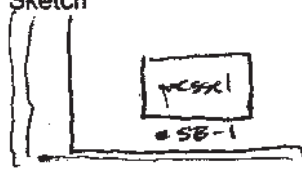
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Boring Number

SB-1

Sheet

1 of 1

Project Parachute Gas Plant - WilliamsLocation Parachute, CODrilling Method & Equipment DP Geoprobe U620DTDrilling Contractor GDIDate 12/3/14

Water Level

Start 0915Finish 1100Logger Mike Crenshaw

Depth Below Surface	Sample			Standard Penetration Test Results	Soil Description USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
	Interval	Depth/Time	Recovery %						
				6" 6" 6" 6"					
				Retained to 4.5' and backfilled	0.0 - 4.5' Fill clay, gravel/rock chips w/sand				
5			25		4.5' - 40.0' CL/OL clay/gravel			548.25	5.0 - 5.5
		0730	50	I	Soft-silts. med plastic, olive gray; 1" black zone (4.0')			742.2	4.0 - 4.5
10				h	HC odor, 720% fine sand				
		0940	50	D	Hard zone @ 13.0' ↓ (rock)			234510	9.5 - 10.0
					Softens @ 15' ↓, HC mottling, HC odor, moist; v. moist	OL/CL		731.2	12.5 - 13.0
15					to 20, then moist; occ. cobbles/detritus; no			115.715	14.5 - 15.0
		0945	85	I	mottling (HC) @ 22.0' ↓, reduced odor.			2430	15.5 - 16.0
				V	YB w/no HC stain/odor 24-30'			1718	16.5 - 17.0
20					v. moist/wet (?) from 27.5.			253520	19.5 - 20.0 *
		ML 0945	60	UD	Zones of broken detritus (shale)			2396	21.0 - 21.5
					continue between sandy clay			805.7	22.5 - 23.0
25				AL	to TD; moist, no HC.			114.825	24.5 - 25.0
		1020	70	-				15.0	27.0 - 27.5
30				D				1.430	29.5 - 30.0 *
		1035	60					2.3	32.0 - 32.5
35								3.6	34.5 - 35.0
		1045	60					15.835	37.0 - 37.5
								2.3	39.5 - 40.0
40								0.6	

Total Depth(s) = 40.0

Soil Sample(s):

19.5 - 20.0

27.0 - 27.5

29.5 - 30.0

10-18; 30-38 TABLE 910

Rationale:

BTEX/GAO/PRO

Additional Information:

Possible GW 27.5' ↓ (penched?)



Boring Location Sketch

SB-2

SOIL BORING LOG

Project Number

5855-C

Boring Number

SB-2

Sheet

1 of 1



vessel

Project Williams - Parachute Gas Plant

Location Parachute, CO

Drilling Method & Equipment DP Geoprobe 4420DT

Drilling Contractor GDI

Date 12/3/14

Water Level

Start 1140

Finish 1240

Logger Mike Crenshaw

Depth Below Surface	Sample			Standard Penetration Test Results	Soil Description	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
	Interval	Depth/Time	Recovery						
				6" / 6" / 6" / 6"	USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor				
				Retained to 4'	0.0' - 35.0' GCL clay w/ cobbles soft, poor nod plasticity, olive gray w/ HC mottling, >15% fine med sand, detritus & cobbles common. HC mottling to 19.5 w/ HC odor then YB; dump, distinct contact w/ v. moist-wet sticky clay @ 27.5-30'; no HC stain/odor. Scattered gravel/rock chips continue to TD within CL.				
5		455 75						1719.5	5.0-5.5
10		1205 90						2061 10	9.5-10.0 *
15		1210 60						784.2	12.5-13.0
								718.4 15	14.5-15.0
20		1215 60						2060	17.0-17.5
								634.1 20	19.5-20.0
25		1220 70						15.0	22.0-22.5
								13.7 25	24.5-25.0
30		1230 60						7.7	26.0-26.5
								4.0	27.0-27.5
								0.1 30	29.5-30.0 *
								0.1	32.0-32.5
35								0.0 35	34.5-35.0
Total Depth(s) = 35.0'				Soil Sample(s): 9.5-10.0 } BTEX/GRO/DEO 29.5-30.0 } 10-20; 25-35 TALK 910			Additional Information: Possible GW 27.5' ↓ (?) (perched?)		



Boring Location Sketch

SOIL BORING LOG

Project Number

S255-C

Boring Number

SB-3

Sheet

1 of 1

Project Williams-Parachute Gas PlantLocation Parachute, CODrilling Method & Equipment DP Geoprobe 6620DTDrilling Contractor GDIDate 12/3/14

Water Level

Start 1250Finish 1350Logger Mike Crenshaw

Depth Below Surface	Sample			Standard Penetration Test Results	Soil Description USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
	Interval	Depth/Time	Recovery %						
				6" / 6" / 6" / 6"					
				Pothole to 4'	0.0 - 40.0' GC/CL Clay w/cobbles soft to stiff, YB/olue brown, low med plasticity; 72090 fine med sand, abundant cobbles and shale detritus, damp; Gray HC mottle to 5' turn YB, HC odor.				
5		1255	60					901.15	4.5-5.0
10		1300	60		Gray/black mottle from 21' ↓ scattered cobbles, moist generally clay; No HC stain from 27' ↓, abundant cobbles, damp; wet YB			2630 10	9.5-10
15		1310	70		clay zone from 32.5' ↓; no HC; clay tightens, stiff w/occ. thin sm lenses (<1") continued detritus cobbles; damp/moist.	GC/CL		1346	12.0-12.5
20		1315	60					2610 15	14.5-15.0 *
25		1325	70					2524	16.0-16.5
30		1330	60					2097 20	19.5-20.0
35		1340	60					934.1	22.0-22.5
40								624.5 25	24.5-25.0
								73.8	29.5-30.0
								5.7 30	31.0-31.5
								1.1	32.0-32.5 *
								2.4 35	35.0-35.5
								0.2	39.5-40.0
Total Depth(s) = 40.0'				Soil Sample(s): 14.5-15.0 } BTEX/HCRO/DRD 9-15(2) 32.0-32.5 } 30-35; 35-38 Table 910			Additional Information: Possible GW ~ 32.5 (?) (pore d?)		



Boring Location Sketch

SOIL BORING LOG

Project Number

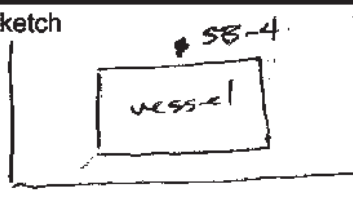
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Boring Number

SB-4

Sheet

1 of 1

Project Williams-Paradise Gas PlantLocation Paradise, CODrilling Method & Equipment DP Geoprobe 6620 DTDrilling Contractor GDIDate 12/3/14

Water Level

Start

1400

Finish

1425Logger Mike Crenshaw

Depth Below Surface	Sample			Standard Penetration Test Results	Soil Description	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
	Interval	Depth/Time	Recovery						
				6" 6" 6" 6"	USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor				
				Retained to 4.0'	0.0' - 35.0' CL/GC Soft to stiff, low- and plastic w/ abundant gravel/cobbles and shale detritus; damp moist; olive gray w/ faint mottled HC and odor; HC continues to 24.0', damp, moist in zones, occasional sandy layers/cobbles. YB from 24' ↓, w/ v. moist from 32.5' ↓, stiffens; no HC; clay w/ gravel & cobbles continues to TD, damp/moist.	CL/GC			
5		1404	50					2665	5.5-6.0
10		1407	85					2725	9.5-10.0
15		1409	60					2317	12.0-12.5
20		1411	40					1063	14.5-15.0
25		1415	60					847.1	17.5-18.0
30		1420	75					2717	19.5-20.0
35								574.2	22.0-22.5
								21.6	24.5-25.0
								7.5	27.0-27.5
								7.8	29.5-30.0
								0.1	32.0-32.5
								1.1	34.5-35.0

Total Depth(s) = 35.0'

Soil Sample(s): 9.5-10.0 } BTEX/GRO/DRO
32.0-32.5 }
10-15(2) 30-35(2) Table 910

Rationale:

Additional Information:
Possible GW @ 32.5' ↓
(perched?)



Boring Location Sketch

SOIL BORING LOG

Project Number

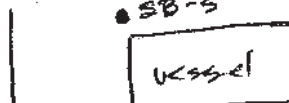
S255-C

Boring Number

SB-5

Sheet

1 of 1

Project Williams - Parachute Gas PlantLocation Parachute, CODrilling Method & Equipment DP Geoprobe 6620 DTDrilling Contractor GDIDate 12/3/14

Water Level

Start 1430Finish 1505Logger Mike Crenshaw

Depth Below Surface	Sample			Standard Penetration Test Results	Soil Description	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
	Interval	Depth/Time	Recovery						
				6" / 6" / 6" / 6"					
				Pot Holed to 4.0	0.0 - 35.0' CL/GC Clay/cobbles soft-stiff, low-med plasticity, olive brown w/ gray HC mottles to 22'; HC odor; Abundant cobbles in vague layered zones, >15% fine to med sand w/ some coarse fractions; silty layer 26 to 29'; dry YB, no HC stain from 22' ↓, YB, softens @ ~34, v. moist.				
5									
				I				625.2	6.0-6.5
				U					
10				S				2393	9.5-10.0
				R				2282	12.0-12.5
15								1621	14.5-15.0
				I				1982	17.5-18.0
				U				734.1	19.5-20.0
20									
				U				10.3	22.0-22.5
25				N				6.9	24.5-25.0
				N				6.0	27.0-27.5
30				-				2.3	29.5-30.0
								1.5	32.0-32.5
35				R				0.9	34.5-35.0

Total Depth(s) = 35.0'Soil Sample(s): 9.5-10.0 } Rationale:34.5-35.0 } BTEX/GRO/PRO10-15 (2); 30.0-35.0 (2) Table 910

Additional Information:



Boring Location Sketch

SOIL BORING LOG

Project Number

5255-C

Boring Number

SB-6

Sheet

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SB-6

Project Paraschute C.P. - WilliamsLocation Paraschute, CODrilling Method & Equipment DP Geoprobe 6620 DTDrilling Contractor GPIDate 1/9/15Water Level NAStart 0830Finish 0906Logger Mike Crenshaw

Depth Below Surface	Sample			Standard Penetration Test Results	Soil Description	Symbol of UCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
	Interval	Depth/Time	Recovery %						
				6" 6" 6" 6"	USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor				
					0.0' - 35.0' CL/GC clay/gravel				
					soft-stiff, low-med plastic,				
					dine YB, up to 25% gravel				
					4 cobbles, damp, moist				
					@ 14-15', no HC; generally				
					sandy clay w/ indistinct				
					GC layers and scattered				
					gravel/rock clump/detritus.				
					variable damp/moist/v. moist				
					Dry/damp from 25' ↓ w/ increase				
					in shale detritus; No HC				
5			75					0.1 5	5.0-5.5
10			75					0.1 10	9.5-10.0
15			90					0.1 15	14.5-15.0
20								0.4	17.0-17.5
25		0856 600						0.5 20	19.5-20.0
30		0853 45						0.5	22.5-23.0
35								0.5 25	24.5-25.0
								0.0	32.0-32.5
								0.0 30	29.5-30.0
								0.1	32.0-32.5
								0.1 35	34.5-35.0
Total Depth(s) = 35.0				Soil Sample(s): 24.5-25.0 34.5-35.0		Rationale:		Additional Information:	



Boring Location Sketch

SOIL BORING LOG

Project Number

Boring Number

Sheet

5255-C

SB-7

1 of 1

N



SB-7

Project Williams - Parachute G.P.Location Parachute, CODrilling Method & Equipment DP Geoprobe 6620DTDrilling Contractor GDIDate 1/9/15 Water Level NA Start 0920 Finish 0950Logger Mike Crenshaw

Depth Below Surface	Sample			Standard Penetration Test Results	Soil Description	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
	Interval	Depth/Time	Recovery						
				6" 6" 6" 6"					
5					Both ok to 5.5' 0.0'-35.0' CL/GC clay & gravelly soft-stiff, low-med plasticity silty/sandy clay w/ abundant gravel/rock and shell detritus in indistinct scattered zones; dry to moist; olive brown/YB; generally CL from 10' w/ scattered GC, no HC; alternating moist/dry zones continue; gravel horizons ~ every 12"; YB sm lens (dry) @ 29.5-29.9 CL/GC continues 30-35, v. moist zone/soft clay 31.0-32.0', then damp; no HC.			0.0 5	5.5-6.0
10			50	I			0.0 10	9.5-10.0	
15			80	N			0.0 12.5	12.5-13.0	
20			90	3			0.0 15	14.5-15.0	
25		6425	90	A			0.0 17.5	17.5-18.0	
30			90				0.0 20	19.5-20.0	
35			90				0.0 22.5	22.0-22.5 *	
			90				0.0 25	24.5-25.0	
			90				0.0 27.5	27.0-27.5	
			90				0.0 30	29.5-30.0	
		0935	90				0.0 32.5	32.0-32.5	
			90	A			0.0 35	34.5-35.0 *	
Total Depth(s) = 35.0				Soil Sample(s): 22.0-22.5 34.5-35.0		Rationale:		Additional Information:	

Depth Below Surface	Sample			Standard Penetration Test Results 6" 6" 6" 6"	Soil Description USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
	Interval	Depth/Time	Recovery %						
0					0.0' - 35.0' CL/GC clay/clayey gravel soft-stiff, low-med plasticity clay w/ <20% fine-med sand and abundant scattered zones and horizons of gravel/rock chips; no HC; olive brown/YB variable horizons damp to moist Dry silty "lenses" 16'-17.5', then damp CL/GC as above; GC horizons ~ every 12" or less; no HC.				
5			60					0.1	5.0-5.5
10			60	I N O R				0.1	9.5-10.0
15			90			CL/GC		0.2	12.0-12.5
20			60	T V C R I A				0.1	14.5-15.0
25		1010	90					0.1	17.0-17.5
30			60					0.1	19.5-20.0
35		1020	60					0.1	22.0-22.5
								0.3	24.5-25.0
								0.1	27.0-27.5
								0.1	29.5-30.0
								0.1	32.0-32.5
								0.1	34.5-35.0
Total Depth(s) = 35.0'				Soil Sample(s): 24.5-25.0 34.5-35.0		Rationale:		Additional Information:	



Boring Location Sketch

SB-10

SOIL BORING LOG

Project Number

5255-C

Boring Number

SB-10

Sheet

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W-4A

Project Williams-Parachute G.P.Location Parachute, CODrilling Method & Equipment DP Geoprobe 4620DTDrilling Contractor GDIDate 1/9/15Water Level NAStart 1130Finish 1200Logger Mike Crenshaw

Depth Below Surface	Sample			Standard Penetration Test Results	Soil Description	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
	Interval	Depth/ Time	Recovery %						
				6" 6" 6" 6"	USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor				
5				Pothole to 5'3"	0.0'-35.0 GL/GC clay/gravel soft-stiff, low-med plasticity, <20% fine med sand; scattered gravel/rock chips/detritus; gray mottled w/odor. Discontinuous mottling turn 19.0'; then due brown/YB w/no HC stain; clay w/rock chips continues, med-plast. damp w/moist horizons; no HC to TD; becomes sandy from 23.4' w/abundant gravel/rock chips, dry-damp.				
10		1135	18"					409.4	5.5-6.0
15			70					520.3	9.5-10.0
20			85					271.2	12.0-12.5
25			90					5.3	14.5-15.0
30								6.2	17.0-17.5
35								1.2	19.5-20.0
								1.3	22.0-22.0
								0.8	24.5-25.0
								1.4	27.0-27.5
								0.7	29.5-30.0
								2.0	32.0-32.5
								0.3	34.5-35.0
Total Depth(s) = 35.0				Soil Sample(s): 9.5-10.0 34.5-35.0		Rationale:		Additional Information:	



Boring Location Sketch

SOIL BORING LOG

Project Number Boring Number Sheet

5255-C

SB-11

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SB-11



Project Williams - Parachute G.P.

Location Parachute, CO

Drilling Method & Equipment DP Geoprobe 6620DT Drilling Contractor GDI

Date 1/9/15 Water Level NA Start 1205 Finish 1305 Logger Mike Crenshaw

Depth Below Surface	Sample			Standard Penetration Test Results	Soil Description		Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)				
	Interval	Depth/Time	Recovery		USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor									
5				4"	Pot hole to 5.0'	0.0' - 35.0' CL/GL Clay w/gravel Soft to stiff, low-med plasticity >20% fine-med sand; w/shnd. gravel/rock chips/shale debris variable horizons of dry-moist sand sandy vs. clay rich as well as silt content;; Boulder @ 13.5'-14.5' (mixed limer jam); sample has odor, no staining; faint gray mottle @ ~16' and 19.5'; damp clay w/sand/gravel layers; mottling continues to ~23.0' then olive brown/YB w/no HC stain/odor; alternating damp/dry/moist zones continue to TD.	CL/ GL	NONE MINOR MINOR	0.2	5	5.0-5.5			
10		1215	12"	I					516.4	10	10.5-11.0			
15		1230	90	n						15	14.0-14.5			
20			80	Q					367.2	20	19.5-20.0			
25			60	v					183.3	25	22.0-22.5			
30				W					44.4	30	24.5-25.0			
35		1250	70	Q					4.3	35	27.5-28.0			
				1					0.9		29.5-30.0			
				A					2.0		32.0-32.5			
									1.0		34.5-35.0			
Total Depth(s) = 35.0'				Soil Sample(s): 16.0'-16.5' 34.5'-35.0'					Rationale:		Additional Information:			



15-Dec-2014

Ben Williams
Altus Environmental
1227 N. 23rd St.
Suite 107
Grand Junction, CO 81501

Re: **Williams-Parachute 1 NGL Release 12.3.14**

Work Order: **1412325**

Dear Ben,

ALS Environmental received 11 samples on 05-Dec-2014 09:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 36.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

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RIGHT SOLUTIONS RIGHT PARTNER

Client: Altus Environmental
Project: Williams-Parachute 1 NGL Release 12.3.14
Work Order: 1412325

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1412325-01	SB-1 29.5'-30.0'	Soil		12/3/2014 10:20	12/5/2014 09:00	<input type="checkbox"/>
1412325-02	SB-3 14.5'-15.0'	Soil		12/3/2014 13:00	12/5/2014 09:00	<input type="checkbox"/>
1412325-03	SB-3 32.0'-32.5'	Soil		12/3/2014 13:30	12/5/2014 09:00	<input type="checkbox"/>
1412325-04	SB-4 9.5'-10.0'	Soil		12/3/2014 14:04	12/5/2014 09:00	<input type="checkbox"/>
1412325-05	SB-4 32.0'-32.5'	Soil		12/3/2014 14:20	12/5/2014 09:00	<input type="checkbox"/>
1412325-06	SB-5 9.5'-10.0'	Soil		12/3/2014 14:40	12/5/2014 09:00	<input type="checkbox"/>
1412325-07	SB-5 34.5'-35.0'	Soil		12/3/2014 15:00	12/5/2014 09:00	<input type="checkbox"/>
1412325-08	SB-1 10'-18'	Soil		12/3/2014 09:45	12/5/2014 09:00	<input type="checkbox"/>
1412325-09	SB-1 30'-40'	Soil		12/3/2014 10:45	12/5/2014 09:00	<input type="checkbox"/>
1412325-10	SB-2 10'-20'	Soil		12/3/2014 12:10	12/5/2014 09:00	<input type="checkbox"/>
1412325-11	SB-2 25'-35'	Soil		12/3/2014 12:30	12/5/2014 09:00	<input type="checkbox"/>

Client: Altus Environmental
Project: Williams-Parachute 1 NGL Release 12.3.14
Work Order: 1412325

Case Narrative

Batch 65710 LCS recovery for Anthracene was above the upper control limit. All sample results in the batch were non-detect. No qualification is necessary for Anthracene. The MS/MSD data for PAHs is not related to this project's samples. No data requires qualification.

Batch 65725 samples 1412325-04, 1412325-06 and 1412325-08 GRO surrogate recoveries were high due to matrix interference and high analyte concentrations. The GRO results in each sample was very high. The results for GRO do not require qualification.

Batch 65731 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 65748 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: 15-Dec-14

Client: Altus Environmental

Project: Williams-Parachute 1 NGL Release 12.3.14

Work Order: 1412325

Sample ID: SB-1 29.5'-30.0'

Lab ID: 1412325-01

Collection Date: 12/3/2014 10:20 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 12/8/14	Analyst: IT
DRO (C10-C28)	21		4.8	mg/Kg-dry	1	12/8/2014 08:31 PM
Surr: 4-Terphenyl-d14	73.5		39-133	%REC	1	12/8/2014 08:31 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 12/8/14	Analyst: IT
GRO (C6-C10)	ND		2,900	µg/Kg-dry	1	12/9/2014 07:56 AM
Surr: Toluene-d8	114		50-150	%REC	1	12/9/2014 07:56 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 12/8/14	Analyst: AK
Benzene	ND		35	µg/Kg-dry	1	12/11/2014 04:22 PM
Ethylbenzene	ND		35	µg/Kg-dry	1	12/11/2014 04:22 PM
m,p-Xylene	ND		70	µg/Kg-dry	1	12/11/2014 04:22 PM
o-Xylene	ND		35	µg/Kg-dry	1	12/11/2014 04:22 PM
Toluene	ND		35	µg/Kg-dry	1	12/11/2014 04:22 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	12/11/2014 04:22 PM
Surr: 1,2-Dichloroethane-d4	92.6		70-130	%REC	1	12/11/2014 04:22 PM
Surr: 4-Bromofluorobenzene	94.1		70-130	%REC	1	12/11/2014 04:22 PM
Surr: Dibromofluoromethane	87.0		70-130	%REC	1	12/11/2014 04:22 PM
Surr: Toluene-d8	103		70-130	%REC	1	12/11/2014 04:22 PM
MOISTURE						
			A2540 G			Analyst: EVB
Moisture	15		0.050	% of sample	1	12/8/2014 07:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 15-Dec-14

Client: Altus Environmental

Project: Williams-Parachute 1 NGL Release 12.3.14

Sample ID: SB-3 14.5'-15.0'

Collection Date: 12/3/2014 01:00 PM

Work Order: 1412325

Lab ID: 1412325-02

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 12/8/14	Analyst: IT
DRO (C10-C28)	44		4.8	mg/Kg-dry	1	12/8/2014 08:59 PM
Surr: 4-Terphenyl-d14	69.4		39-133	%REC	1	12/8/2014 08:59 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 12/8/14	Analyst: IT
GRO (C6-C10)	1,700,000		2,900	µg/Kg-dry	1	12/9/2014 08:21 AM
Surr: Toluene-d8	99.4		50-150	%REC	1	12/9/2014 08:21 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 12/8/14	Analyst: AK
Benzene	28,000		3,500	µg/Kg-dry	100	12/11/2014 02:38 PM
Ethylbenzene	8,500		3,500	µg/Kg-dry	100	12/11/2014 02:38 PM
m,p-Xylene	100,000		7,000	µg/Kg-dry	100	12/11/2014 02:38 PM
o-Xylene	12,000		3,500	µg/Kg-dry	100	12/11/2014 02:38 PM
Toluene	160,000		3,500	µg/Kg-dry	100	12/11/2014 02:38 PM
Xylenes, Total	120,000		10,000	µg/Kg-dry	100	12/11/2014 02:38 PM
Surr: 1,2-Dichloroethane-d4	89.4		70-130	%REC	100	12/11/2014 02:38 PM
Surr: 4-Bromofluorobenzene	96.1		70-130	%REC	100	12/11/2014 02:38 PM
Surr: Dibromofluoromethane	89.7		70-130	%REC	100	12/11/2014 02:38 PM
Surr: Toluene-d8	105		70-130	%REC	100	12/11/2014 02:38 PM
MOISTURE						
			A2540 G			Analyst: EVB
Moisture	14		0.050	% of sample	1	12/8/2014 07:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 15-Dec-14

Client: Altus Environmental

Project: Williams-Parachute 1 NGL Release 12.3.14

Work Order: 1412325

Sample ID: SB-3 32.0'-32.5'

Lab ID: 1412325-03

Collection Date: 12/3/2014 01:30 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 12/8/14	Analyst: IT
DRO (C10-C28)	18		4.9	mg/Kg-dry	1	12/8/2014 09:54 PM
Surr: 4-Terphenyl-d14	76.4		39-133	%REC	1	12/8/2014 09:54 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 12/8/14	Analyst: IT
GRO (C6-C10)	ND		3,000	µg/Kg-dry	1	12/9/2014 09:11 AM
Surr: Toluene-d8	107		50-150	%REC	1	12/9/2014 09:11 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 12/8/14	Analyst: AK
Benzene	ND		36	µg/Kg-dry	1	12/11/2014 04:48 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	12/11/2014 04:48 PM
m,p-Xylene	ND		71	µg/Kg-dry	1	12/11/2014 04:48 PM
o-Xylene	ND		36	µg/Kg-dry	1	12/11/2014 04:48 PM
Toluene	56		36	µg/Kg-dry	1	12/11/2014 04:48 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	12/11/2014 04:48 PM
Surr: 1,2-Dichloroethane-d4	91.0		70-130	%REC	1	12/11/2014 04:48 PM
Surr: 4-Bromofluorobenzene	94.8		70-130	%REC	1	12/11/2014 04:48 PM
Surr: Dibromofluoromethane	88.0		70-130	%REC	1	12/11/2014 04:48 PM
Surr: Toluene-d8	102		70-130	%REC	1	12/11/2014 04:48 PM
MOISTURE						
			A2540 G			Analyst: EVb
Moisture	16		0.050	% of sample	1	12/8/2014 07:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 15-Dec-14

Client: Altus Environmental

Project: Williams-Parachute 1 NGL Release 12.3.14

Work Order: 1412325

Sample ID: SB-4 9.5'-10.0'

Lab ID: 1412325-04

Collection Date: 12/3/2014 02:04 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 12/8/14	Analyst: IT
DRO (C10-C28)	42		4.8	mg/Kg-dry	1	12/8/2014 10:22 PM
Surr: 4-Terphenyl-d14	69.7		39-133	%REC	1	12/8/2014 10:22 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 12/8/14	Analyst: IT
GRO (C6-C10)	2,600,000		2,900	µg/Kg-dry	1	12/9/2014 09:35 AM
Surr: Toluene-d8	323	S	50-150	%REC	1	12/9/2014 09:35 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 12/8/14	Analyst: JDW
Benzene	10,000		690	µg/Kg-dry	20	12/12/2014 07:55 PM
Ethylbenzene	7,900		690	µg/Kg-dry	20	12/12/2014 07:55 PM
m,p-Xylene	99,000		1,400	µg/Kg-dry	20	12/12/2014 07:55 PM
o-Xylene	12,000		690	µg/Kg-dry	20	12/12/2014 07:55 PM
Toluene	150,000		1,700	µg/Kg-dry	50	12/13/2014 04:32 PM
Xylenes, Total	110,000		2,100	µg/Kg-dry	20	12/12/2014 07:55 PM
Surr: 1,2-Dichloroethane-d4	98.4		70-130	%REC	50	12/13/2014 04:32 PM
Surr: 1,2-Dichloroethane-d4	88.8		70-130	%REC	20	12/12/2014 07:55 PM
Surr: 4-Bromofluorobenzene	102		70-130	%REC	50	12/13/2014 04:32 PM
Surr: 4-Bromofluorobenzene	97.2		70-130	%REC	20	12/12/2014 07:55 PM
Surr: Dibromofluoromethane	96.4		70-130	%REC	50	12/13/2014 04:32 PM
Surr: Dibromofluoromethane	91.4		70-130	%REC	20	12/12/2014 07:55 PM
Surr: Toluene-d8	118		70-130	%REC	20	12/12/2014 07:55 PM
Surr: Toluene-d8	105		70-130	%REC	50	12/13/2014 04:32 PM
MOISTURE						
			A2540 G			Analyst: EVW
Moisture	13		0.050	% of sample	1	12/8/2014 07:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 15-Dec-14

Client: Altus Environmental

Project: Williams-Parachute 1 NGL Release 12.3.14

Sample ID: SB-4 32.0'-32.5'

Collection Date: 12/3/2014 02:20 PM

Work Order: 1412325

Lab ID: 1412325-05

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 12/8/14	Analyst: IT
DRO (C10-C28)	22		4.8	mg/Kg-dry	1	12/8/2014 10:50 PM
Surr: 4-Terphenyl-d14	71.3		39-133	%REC	1	12/8/2014 10:50 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 12/8/14	Analyst: IT
GRO (C6-C10)	ND		3,000	µg/Kg-dry	1	12/9/2014 01:49 PM
Surr: Toluene-d8	115		50-150	%REC	1	12/9/2014 01:49 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 12/8/14	Analyst: AK
Benzene	ND		36	µg/Kg-dry	1	12/11/2014 05:14 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	12/11/2014 05:14 PM
m,p-Xylene	ND		72	µg/Kg-dry	1	12/11/2014 05:14 PM
o-Xylene	ND		36	µg/Kg-dry	1	12/11/2014 05:14 PM
Toluene	63		36	µg/Kg-dry	1	12/11/2014 05:14 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	12/11/2014 05:14 PM
Surr: 1,2-Dichloroethane-d4	91.4		70-130	%REC	1	12/11/2014 05:14 PM
Surr: 4-Bromofluorobenzene	94.4		70-130	%REC	1	12/11/2014 05:14 PM
Surr: Dibromofluoromethane	86.0		70-130	%REC	1	12/11/2014 05:14 PM
Surr: Toluene-d8	103		70-130	%REC	1	12/11/2014 05:14 PM
MOISTURE						
			A2540 G			Analyst: EVB
Moisture	16		0.050	% of sample	1	12/8/2014 07:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 15-Dec-14

Client: Altus Environmental

Project: Williams-Parachute 1 NGL Release 12.3.14

Sample ID: SB-5 9.5'-10.0'

Collection Date: 12/3/2014 02:40 PM

Work Order: 1412325

Lab ID: 1412325-06

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 12/8/14	Analyst: IT
DRO (C10-C28)	31		4.8	mg/Kg-dry	1	12/8/2014 11:17 PM
Surr: 4-Terphenyl-d14	62.4		39-133	%REC	1	12/8/2014 11:17 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 12/8/14	Analyst: IT
GRO (C6-C10)	1,800,000		3,000	µg/Kg-dry	1	12/9/2014 02:14 PM
Surr: Toluene-d8	248	S	50-150	%REC	1	12/9/2014 02:14 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 12/8/14	Analyst: AK
Benzene	4,700		3,500	µg/Kg-dry	100	12/11/2014 03:04 PM
Ethylbenzene	6,300		3,500	µg/Kg-dry	100	12/11/2014 03:04 PM
m,p-Xylene	66,000		7,100	µg/Kg-dry	100	12/11/2014 03:04 PM
o-Xylene	9,500		3,500	µg/Kg-dry	100	12/11/2014 03:04 PM
Toluene	68,000		3,500	µg/Kg-dry	100	12/11/2014 03:04 PM
Xylenes, Total	76,000		11,000	µg/Kg-dry	100	12/11/2014 03:04 PM
Surr: 1,2-Dichloroethane-d4	88.0		70-130	%REC	100	12/11/2014 03:04 PM
Surr: 4-Bromofluorobenzene	92.2		70-130	%REC	100	12/11/2014 03:04 PM
Surr: Dibromofluoromethane	88.0		70-130	%REC	100	12/11/2014 03:04 PM
Surr: Toluene-d8	105		70-130	%REC	100	12/11/2014 03:04 PM
MOISTURE						
			A2540 G			Analyst: EVB
Moisture	15		0.050	% of sample	1	12/8/2014 07:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 15-Dec-14

Client: Altus Environmental

Project: Williams-Parachute 1 NGL Release 12.3.14

Work Order: 1412325

Sample ID: SB-5 34.5'-35.0'

Lab ID: 1412325-07

Collection Date: 12/3/2014 03:00 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 12/8/14	Analyst: IT
DRO (C10-C28)	20		4.9	mg/Kg-dry	1	12/8/2014 11:45 PM
Surr: 4-Terphenyl-d14	72.7		39-133	%REC	1	12/8/2014 11:45 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 12/8/14	Analyst: IT
GRO (C6-C10)	ND		3,000	µg/Kg-dry	1	12/9/2014 02:39 PM
Surr: Toluene-d8	107		50-150	%REC	1	12/9/2014 02:39 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 12/8/14	Analyst: JDW
Benzene	ND		36	µg/Kg-dry	1	12/12/2014 08:21 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	12/12/2014 08:21 PM
m,p-Xylene	ND		72	µg/Kg-dry	1	12/12/2014 08:21 PM
o-Xylene	ND		36	µg/Kg-dry	1	12/12/2014 08:21 PM
Toluene	ND		36	µg/Kg-dry	1	12/12/2014 08:21 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	12/12/2014 08:21 PM
Surr: 1,2-Dichloroethane-d4	92.4		70-130	%REC	1	12/12/2014 08:21 PM
Surr: 4-Bromofluorobenzene	92.3		70-130	%REC	1	12/12/2014 08:21 PM
Surr: Dibromofluoromethane	91.8		70-130	%REC	1	12/12/2014 08:21 PM
Surr: Toluene-d8	98.8		70-130	%REC	1	12/12/2014 08:21 PM
MOISTURE						
			A2540 G			Analyst: EVB
Moisture	16		0.050	% of sample	1	12/8/2014 07:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 15-Dec-14

Client: Altus Environmental

Project: Williams-Parachute 1 NGL Release 12.3.14

Work Order: 1412325

Sample ID: SB-1 10'-18'

Lab ID: 1412325-08

Collection Date: 12/3/2014 09:45 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	37		SW8015M		Prep: SW3541 / 12/8/14	Analyst: IT
Surr: 4-Terphenyl-d14	73.2		4.7	mg/Kg-dry	1	12/8/2014 06:41 PM
			39-133	%REC	1	12/8/2014 06:41 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	1,900,000		SW8015		Prep: SW5035 / 12/8/14	Analyst: IT
Surr: Toluene-d8	273	S	2,900	µg/Kg-dry	1	12/9/2014 03:03 PM
			50-150	%REC	1	12/9/2014 03:03 PM
MERCURY BY CVAA						
Mercury	0.044		SW7471		Prep: SW7471 / 12/8/14	Analyst: LR
			0.014	mg/Kg-dry	1	12/10/2014 04:19 PM
METALS ANALYSIS BY ICP						
Arsenic	9.1		SW846 6010C		Prep: SW3050B / 12/8/14	Analyst: JEC
Barium	190		0.46	mg/Kg-dry	1	12/8/2014 10:03 PM
Cadmium	ND		0.46	mg/Kg-dry	1	12/8/2014 10:03 PM
Chromium	12		0.91	mg/Kg-dry	1	12/8/2014 10:03 PM
Copper	16		0.46	mg/Kg-dry	1	12/8/2014 10:03 PM
Lead	14		0.91	mg/Kg-dry	1	12/8/2014 10:03 PM
Nickel	15		0.46	mg/Kg-dry	1	12/8/2014 10:03 PM
Selenium	1.0		0.91	mg/Kg-dry	1	12/8/2014 10:03 PM
Silver	ND		0.46	mg/Kg-dry	1	12/9/2014 04:30 PM
Zinc	67		0.91	mg/Kg-dry	1	12/8/2014 10:03 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 12/10/14	Analyst: JEC
Calcium	91		5.0	mg/L	10	12/10/2014 04:49 PM
Magnesium	24		2.0	mg/L	10	12/10/2014 04:49 PM
Sodium	110		2.0	mg/L	10	12/10/2014 04:49 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHOD		Prep: USDA Method 20B / 12/10/14	Analyst: JEC
Sodium Adsorption Ratio	2.8		0.010	none	1	12/10/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 12/8/14	Analyst: RM
Acenaphthene	ND		7.6	µg/Kg-dry	1	12/8/2014 10:03 PM
Anthracene	ND		7.6	µg/Kg-dry	1	12/8/2014 10:03 PM
Benzo(a)anthracene	ND		7.6	µg/Kg-dry	1	12/8/2014 10:03 PM
Benzo(a)pyrene	ND		7.6	µg/Kg-dry	1	12/8/2014 10:03 PM
Benzo(b)fluoranthene	ND		7.6	µg/Kg-dry	1	12/8/2014 10:03 PM
Benzo(k)fluoranthene	ND		7.6	µg/Kg-dry	1	12/8/2014 10:03 PM
Chrysene	ND		7.6	µg/Kg-dry	1	12/8/2014 10:03 PM
Dibenzo(a,h)anthracene	ND		7.6	µg/Kg-dry	1	12/8/2014 10:03 PM
Fluoranthene	ND		7.6	µg/Kg-dry	1	12/8/2014 10:03 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 15-Dec-14

Client: Altus Environmental

Project: Williams-Parachute 1 NGL Release 12.3.14

Work Order: 1412325

Sample ID: SB-1 10'-18'

Lab ID: 1412325-08

Collection Date: 12/3/2014 09:45 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		7.6	µg/Kg-dry	1	12/8/2014 10:03 PM
Indeno(1,2,3-cd)pyrene	ND		7.6	µg/Kg-dry	1	12/8/2014 10:03 PM
Naphthalene	ND		7.6	µg/Kg-dry	1	12/8/2014 10:03 PM
Pyrene	ND		7.6	µg/Kg-dry	1	12/8/2014 10:03 PM
Surr: 2-Fluorobiphenyl	74.7		12-100	%REC	1	12/8/2014 10:03 PM
Surr: 4-Terphenyl-d14	78.4		25-137	%REC	1	12/8/2014 10:03 PM
Surr: Nitrobenzene-d5	81.2		37-107	%REC	1	12/8/2014 10:03 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 12/8/14		Analyst: AK
Benzene	11,000		3,400	µg/Kg-dry	100	12/11/2014 03:30 PM
Ethylbenzene	6,400		3,400	µg/Kg-dry	100	12/11/2014 03:30 PM
m,p-Xylene	78,000		6,900	µg/Kg-dry	100	12/11/2014 03:30 PM
o-Xylene	9,500		3,400	µg/Kg-dry	100	12/11/2014 03:30 PM
Toluene	84,000		3,400	µg/Kg-dry	100	12/11/2014 03:30 PM
Xylenes, Total	88,000		10,000	µg/Kg-dry	100	12/11/2014 03:30 PM
Surr: 1,2-Dichloroethane-d4	93.8		70-130	%REC	100	12/11/2014 03:30 PM
Surr: 4-Bromofluorobenzene	92.2		70-130	%REC	100	12/11/2014 03:30 PM
Surr: Dibromofluoromethane	93.1		70-130	%REC	100	12/11/2014 03:30 PM
Surr: Toluene-d8	106		70-130	%REC	100	12/11/2014 03:30 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 12/10/14		Analyst: JB
Electrical Conductivity @ Saturation	1.5		0.050	mmhos/cm @25	10	12/10/2014 04:15 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	11		0.57	mg/Kg-dry	1	12/10/2014 09:00 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 12/8/14		Analyst: DAH
Chromium, Hexavalent	ND		0.57	mg/Kg-dry	1	12/9/2014 02:30 PM
MOISTURE			A2540 G			Analyst: EVB
Moisture	13		0.050	% of sample	1	12/8/2014 07:00 PM
PH			SW9045D	Prep: EXTRACT / 12/8/14		Analyst: AXL
pH	8.5			s.u.	1	12/8/2014 05:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 15-Dec-14

Client: Altus Environmental

Project: Williams-Parachute 1 NGL Release 12.3.14

Work Order: 1412325

Sample ID: SB-1 30'-40'

Lab ID: 1412325-09

Collection Date: 12/3/2014 10:45 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	20		SW8015M		Prep: SW3541 / 12/8/14	Analyst: IT
Surr: 4-Terphenyl-d14	71.1		4.8	mg/Kg-dry	1	12/9/2014 12:13 PM
			39-133	%REC	1	12/9/2014 12:13 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 12/8/14	Analyst: IT
Surr: Toluene-d8	148		2,900	µg/Kg-dry	1	12/9/2014 03:28 PM
			50-150	%REC	1	12/9/2014 03:28 PM
MERCURY BY CVAA						
Mercury	0.032		SW7471		Prep: SW7471 / 12/8/14	Analyst: LR
			0.015	mg/Kg-dry	1	12/10/2014 04:22 PM
METALS ANALYSIS BY ICP						
Arsenic	9.8		SW846 6010C		Prep: SW3050B / 12/8/14	Analyst: JEC
Barium	180		0.45	mg/Kg-dry	1	12/8/2014 10:09 PM
Cadmium	ND		0.45	mg/Kg-dry	1	12/8/2014 10:09 PM
Chromium	11		0.91	mg/Kg-dry	1	12/8/2014 10:09 PM
Copper	18		0.45	mg/Kg-dry	1	12/8/2014 10:09 PM
Lead	14		0.91	mg/Kg-dry	1	12/8/2014 10:09 PM
Nickel	16		0.45	mg/Kg-dry	1	12/8/2014 10:09 PM
Selenium	ND		0.45	mg/Kg-dry	1	12/8/2014 10:09 PM
Silver	ND		0.91	mg/Kg-dry	1	12/9/2014 04:36 PM
Zinc	73		0.45	mg/Kg-dry	1	12/8/2014 10:09 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 12/10/14	Analyst: JEC
Calcium	470		5.0	mg/L	10	12/10/2014 04:55 PM
Magnesium	87		2.0	mg/L	10	12/10/2014 04:55 PM
Sodium	160		2.0	mg/L	10	12/10/2014 04:55 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHOD		Prep: USDA Method 20B / 12/10/14	Analyst: JEC
Sodium Adsorption Ratio	1.7		0.010	none	1	12/10/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 12/8/14	Analyst: RM
Acenaphthene	ND		7.7	µg/Kg-dry	1	12/8/2014 10:23 PM
Anthracene	ND		7.7	µg/Kg-dry	1	12/8/2014 10:23 PM
Benzo(a)anthracene	ND		7.7	µg/Kg-dry	1	12/8/2014 10:23 PM
Benzo(a)pyrene	ND		7.7	µg/Kg-dry	1	12/8/2014 10:23 PM
Benzo(b)fluoranthene	ND		7.7	µg/Kg-dry	1	12/8/2014 10:23 PM
Benzo(k)fluoranthene	ND		7.7	µg/Kg-dry	1	12/8/2014 10:23 PM
Chrysene	ND		7.7	µg/Kg-dry	1	12/8/2014 10:23 PM
Dibenzo(a,h)anthracene	ND		7.7	µg/Kg-dry	1	12/8/2014 10:23 PM
Fluoranthene	ND		7.7	µg/Kg-dry	1	12/8/2014 10:23 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 15-Dec-14

Client: Altus Environmental

Project: Williams-Parachute 1 NGL Release 12.3.14

Work Order: 1412325

Sample ID: SB-1 30'-40'

Lab ID: 1412325-09

Collection Date: 12/3/2014 10:45 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		7.7	µg/Kg-dry	1	12/8/2014 10:23 PM
Indeno(1,2,3-cd)pyrene	ND		7.7	µg/Kg-dry	1	12/8/2014 10:23 PM
Naphthalene	ND		7.7	µg/Kg-dry	1	12/8/2014 10:23 PM
Pyrene	ND		7.7	µg/Kg-dry	1	12/8/2014 10:23 PM
Surr: 2-Fluorobiphenyl	63.4		12-100	%REC	1	12/8/2014 10:23 PM
Surr: 4-Terphenyl-d14	75.8		25-137	%REC	1	12/8/2014 10:23 PM
Surr: Nitrobenzene-d5	62.9		37-107	%REC	1	12/8/2014 10:23 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 12/8/14		Analyst: AK
Benzene	ND		35	µg/Kg-dry	1	12/11/2014 12:17 PM
Ethylbenzene	ND		35	µg/Kg-dry	1	12/11/2014 12:17 PM
m,p-Xylene	ND		70	µg/Kg-dry	1	12/11/2014 12:17 PM
o-Xylene	ND		35	µg/Kg-dry	1	12/11/2014 12:17 PM
Toluene	97		35	µg/Kg-dry	1	12/11/2014 12:17 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	12/11/2014 12:17 PM
Surr: 1,2-Dichloroethane-d4	87.9		70-130	%REC	1	12/11/2014 12:17 PM
Surr: 4-Bromofluorobenzene	96.3		70-130	%REC	1	12/11/2014 12:17 PM
Surr: Dibromofluoromethane	89.0		70-130	%REC	1	12/11/2014 12:17 PM
Surr: Toluene-d8	103		70-130	%REC	1	12/11/2014 12:17 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 12/10/14		Analyst: JB
Electrical Conductivity @ Saturation	4.9		0.050	mmhos/cm @25	10	12/10/2014 04:15 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	11		0.58	mg/Kg-dry	1	12/10/2014 09:00 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 12/8/14		Analyst: DAH
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	12/9/2014 02:30 PM
MOISTURE			A2540 G			Analyst: EVB
Moisture	14		0.050	% of sample	1	12/8/2014 07:00 PM
PH			SW9045D	Prep: EXTRACT / 12/8/14		Analyst: AXL
pH	7.8			s.u.	1	12/8/2014 05:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 15-Dec-14

Client: Altus Environmental

Project: Williams-Parachute 1 NGL Release 12.3.14

Work Order: 1412325

Sample ID: SB-2 10'-20'

Lab ID: 1412325-10

Collection Date: 12/3/2014 12:10 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	17		SW8015M		Prep: SW3541 / 12/8/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	73.3		4.8	mg/Kg-dry	1	12/9/2014 12:40 PM
			39-133	%REC	1	12/9/2014 12:40 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	430,000		SW8015		Prep: SW5035 / 12/8/14	Analyst: IT
<i>Surr: Toluene-d8</i>	119		3,000	µg/Kg-dry	1	12/9/2014 03:53 PM
			50-150	%REC	1	12/9/2014 03:53 PM
MERCURY BY CVAA						
Mercury	0.025		SW7471		Prep: SW7471 / 12/8/14	Analyst: LR
			0.016	mg/Kg-dry	1	12/10/2014 04:24 PM
METALS ANALYSIS BY ICP						
Arsenic	8.8		SW846 6010C		Prep: SW3050B / 12/8/14	Analyst: JEC
Barium	210		0.42	mg/Kg-dry	1	12/8/2014 10:15 PM
Cadmium	ND		0.42	mg/Kg-dry	1	12/8/2014 10:15 PM
Chromium	12		0.83	mg/Kg-dry	1	12/8/2014 10:15 PM
Copper	16		0.42	mg/Kg-dry	1	12/8/2014 10:15 PM
Lead	14		0.83	mg/Kg-dry	1	12/8/2014 10:15 PM
Nickel	14		0.42	mg/Kg-dry	1	12/8/2014 10:15 PM
Selenium	ND		0.42	mg/Kg-dry	1	12/8/2014 10:15 PM
Silver	ND		0.83	mg/Kg-dry	1	12/9/2014 04:41 PM
Zinc	67		0.42	mg/Kg-dry	1	12/8/2014 10:15 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 12/10/14	Analyst: JEC
Calcium	1,200		5.0	mg/L	10	12/10/2014 05:00 PM
Magnesium	190		2.0	mg/L	10	12/10/2014 05:00 PM
Sodium	170		2.0	mg/L	10	12/10/2014 05:00 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHOD		Prep: USDA Method 20B / 12/10/14	Analyst: JEC
Sodium Adsorption Ratio	1.2		0.010	none	1	12/10/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 12/8/14	Analyst: RM
Acenaphthene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:04 PM
Anthracene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:04 PM
Benzo(a)anthracene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:04 PM
Benzo(a)pyrene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:04 PM
Benzo(b)fluoranthene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:04 PM
Benzo(k)fluoranthene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:04 PM
Chrysene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:04 PM
Dibenzo(a,h)anthracene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:04 PM
Fluoranthene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:04 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 15-Dec-14

Client: Altus Environmental

Project: Williams-Parachute 1 NGL Release 12.3.14

Work Order: 1412325

Sample ID: SB-2 10'-20'

Lab ID: 1412325-10

Collection Date: 12/3/2014 12:10 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:04 PM
Indeno(1,2,3-cd)pyrene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:04 PM
Naphthalene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:04 PM
Pyrene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:04 PM
Surr: 2-Fluorobiphenyl	72.6		12-100	%REC	1	12/8/2014 11:04 PM
Surr: 4-Terphenyl-d14	76.9		25-137	%REC	1	12/8/2014 11:04 PM
Surr: Nitrobenzene-d5	75.9		37-107	%REC	1	12/8/2014 11:04 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 12/8/14		Analyst: JDW
Benzene	5,100		350	µg/Kg-dry	10	12/12/2014 08:47 PM
Ethylbenzene	1,400		350	µg/Kg-dry	10	12/12/2014 08:47 PM
m,p-Xylene	23,000		710	µg/Kg-dry	10	12/12/2014 08:47 PM
o-Xylene	2,500		350	µg/Kg-dry	10	12/12/2014 08:47 PM
Toluene	31,000		350	µg/Kg-dry	10	12/12/2014 08:47 PM
Xylenes, Total	25,000		1,100	µg/Kg-dry	10	12/12/2014 08:47 PM
Surr: 1,2-Dichloroethane-d4	87.8		70-130	%REC	10	12/12/2014 08:47 PM
Surr: 4-Bromofluorobenzene	93.0		70-130	%REC	10	12/12/2014 08:47 PM
Surr: Dibromofluoromethane	91.8		70-130	%REC	10	12/12/2014 08:47 PM
Surr: Toluene-d8	109		70-130	%REC	10	12/12/2014 08:47 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 12/10/14		Analyst: JB
Electrical Conductivity @ Saturation	8.3		0.050	mmhos/cm @25	10	12/10/2014 04:15 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	11		0.59	mg/Kg-dry	1	12/10/2014 09:00 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 12/8/14		Analyst: DAH
Chromium, Hexavalent	ND		0.59	mg/Kg-dry	1	12/9/2014 02:30 PM
MOISTURE			A2540 G			Analyst: EVB
Moisture	15		0.050	% of sample	1	12/8/2014 07:00 PM
PH			SW9045D	Prep: EXTRACT / 12/8/14		Analyst: AXL
pH	7.7			s.u.	1	12/8/2014 05:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 15-Dec-14

Client: Altus Environmental

Project: Williams-Parachute 1 NGL Release 12.3.14

Work Order: 1412325

Sample ID: SB-2 25'-35'

Lab ID: 1412325-11

Collection Date: 12/3/2014 12:30 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	31		SW8015M		Prep: SW3541 / 12/8/14	Analyst: IT
Surr: 4-Terphenyl-d14	69.1		4.8	mg/Kg-dry	1	12/9/2014 01:08 AM
			39-133	%REC	1	12/9/2014 01:08 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 12/8/14	Analyst: IT
Surr: Toluene-d8	93.6		2,900	µg/Kg-dry	1	12/9/2014 04:42 PM
			50-150	%REC	1	12/9/2014 04:42 PM
MERCURY BY CVAA						
Mercury	0.026		SW7471		Prep: SW7471 / 12/8/14	Analyst: LR
			0.015	mg/Kg-dry	1	12/10/2014 04:28 PM
METALS ANALYSIS BY ICP						
Arsenic	11		SW846 6010C		Prep: SW3050B / 12/8/14	Analyst: JEC
Barium	260		0.45	mg/Kg-dry	1	12/8/2014 10:20 PM
Cadmium	ND		0.45	mg/Kg-dry	1	12/8/2014 10:20 PM
Chromium	9.8		0.91	mg/Kg-dry	1	12/8/2014 10:20 PM
Copper	15		0.45	mg/Kg-dry	1	12/8/2014 10:20 PM
Lead	14		0.91	mg/Kg-dry	1	12/8/2014 10:20 PM
Nickel	12		0.45	mg/Kg-dry	1	12/8/2014 10:20 PM
Selenium	1.3		0.91	mg/Kg-dry	1	12/8/2014 10:20 PM
Silver	ND		0.45	mg/Kg-dry	1	12/9/2014 04:47 PM
Zinc	59		0.91	mg/Kg-dry	1	12/8/2014 10:20 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 12/10/14	Analyst: JEC
Calcium	540		5.0	mg/L	10	12/10/2014 05:06 PM
Magnesium	92		2.0	mg/L	10	12/10/2014 05:06 PM
Sodium	170		2.0	mg/L	10	12/10/2014 05:06 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHOD		Prep: USDA Method 20B / 12/10/14	Analyst: JEC
Sodium Adsorption Ratio	1.7		0.010	none	1	12/10/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 12/8/14	Analyst: RM
Acenaphthene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:24 PM
Anthracene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:24 PM
Benzo(a)anthracene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:24 PM
Benzo(a)pyrene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:24 PM
Benzo(b)fluoranthene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:24 PM
Benzo(k)fluoranthene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:24 PM
Chrysene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:24 PM
Dibenzo(a,h)anthracene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:24 PM
Fluoranthene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:24 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 15-Dec-14

Client: Altus Environmental

Project: Williams-Parachute 1 NGL Release 12.3.14

Work Order: 1412325

Sample ID: SB-2 25'-35'

Lab ID: 1412325-11

Collection Date: 12/3/2014 12:30 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:24 PM
Indeno(1,2,3-cd)pyrene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:24 PM
Naphthalene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:24 PM
Pyrene	ND		7.7	µg/Kg-dry	1	12/8/2014 11:24 PM
Surr: 2-Fluorobiphenyl	64.1		12-100	%REC	1	12/8/2014 11:24 PM
Surr: 4-Terphenyl-d14	67.4		25-137	%REC	1	12/8/2014 11:24 PM
Surr: Nitrobenzene-d5	58.1		37-107	%REC	1	12/8/2014 11:24 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 12/8/14		Analyst: JDW
Benzene	ND		35	µg/Kg-dry	1	12/13/2014 06:45 AM
Ethylbenzene	ND		35	µg/Kg-dry	1	12/13/2014 06:45 AM
m,p-Xylene	ND		70	µg/Kg-dry	1	12/13/2014 06:45 AM
o-Xylene	ND		35	µg/Kg-dry	1	12/13/2014 06:45 AM
Toluene	50		35	µg/Kg-dry	1	12/13/2014 06:45 AM
Xylenes, Total	ND		100	µg/Kg-dry	1	12/13/2014 06:45 AM
Surr: 1,2-Dichloroethane-d4	88.6		70-130	%REC	1	12/13/2014 06:45 AM
Surr: 4-Bromofluorobenzene	93.3		70-130	%REC	1	12/13/2014 06:45 AM
Surr: Dibromofluoromethane	94.0		70-130	%REC	1	12/13/2014 06:45 AM
Surr: Toluene-d8	102		70-130	%REC	1	12/13/2014 06:45 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 12/10/14		Analyst: JB
Electrical Conductivity @ Saturation	4.8		0.050	mmhos/cm @25	10	12/10/2014 04:15 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	9.8		0.58	mg/Kg-dry	1	12/10/2014 09:00 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 12/8/14		Analyst: DAH
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	12/9/2014 02:30 PM
MOISTURE			A2540 G			Analyst: EVB
Moisture	14		0.050	% of sample	1	12/8/2014 07:00 PM
PH			SW9045D	Prep: EXTRACT / 12/8/14		Analyst: AXL
pH	7.8			s.u.	1	12/8/2014 05:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Altus Environmental

QC BATCH REPORT

Work Order: 1412325

Project: Williams-Parachute 1 NGL Release 12.3.14

Batch ID: 65711

Instrument ID GC8

Method: SW8015M

MBLK		Sample ID: DBLKS1-65711-65711				Units: mg/Kg		Analysis Date: 12/8/2014 04:51 PM		
Client ID:		Run ID: GC8_141208A				SeqNo: 3066480		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	1.552	0	2	0	77.6	39-133	0			

LCS		Sample ID: DLCSS1-65711-65711				Units: mg/Kg		Analysis Date: 12/8/2014 05:18 PM		
Client ID:		Run ID: GC8_141208A				SeqNo: 3066481		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	170.4	5.0	200	0	85.2	61-109	0			
Surr: 4-Terphenyl-d14	1.452	0	2	0	72.6	39-133	0			

MS		Sample ID: 1412325-08B MS				Units: mg/Kg		Analysis Date: 12/8/2014 05:46 PM		
Client ID: SB-1 10'-18'		Run ID: GC8_141208A				SeqNo: 3066482		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	276.8	8.3	330.8	32.08	74	48-110	0			
Surr: 4-Terphenyl-d14	2.312	0	3.308	0	69.9	39-133	0			

MSD		Sample ID: 1412325-08B MSD				Units: mg/Kg		Analysis Date: 12/8/2014 06:13 PM		
Client ID: SB-1 10'-18'		Run ID: GC8_141208A				SeqNo: 3066483		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	253.3	8.1	325.7	32.08	67.9	48-110	276.8	8.83	30	
Surr: 4-Terphenyl-d14	2.196	0	3.257	0	67.4	39-133	2.312	5.14	30	

The following samples were analyzed in this batch:

1412325-01A	1412325-02A	1412325-03A
1412325-04A	1412325-05A	1412325-06A
1412325-07A	1412325-08B	1412325-09B
1412325-10B	1412325-11B	

Client: Altus Environmental
 Work Order: 1412325
 Project: Williams-Parachute 1 NGL Release 12.3.14

QC BATCH REPORT

Batch ID: **65725** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-65725-65725				Units: µg/Kg		Analysis Date: 12/9/2014 05:03 AM		
Client ID:		Run ID: GC9_141208A				SeqNo: 3066912		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
Surr: Toluene-d8	6178	0	5000	0	124	50-150	0			

LCS		Sample ID: LCS-65725-65725				Units: µg/Kg		Analysis Date: 12/9/2014 04:38 AM		
Client ID:		Run ID: GC9_141208A				SeqNo: 3066905		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	495800	2,500	500000	0	99.2	70-130	0			
Surr: Toluene-d8	4761	0	5000	0	95.2	50-150	0			

MS		Sample ID: 1412325-01A MS				Units: µg/Kg		Analysis Date: 12/9/2014 09:59 AM		
Client ID: SB-1 29.5'-30.0'		Run ID: GC9_141208A				SeqNo: 3066997		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	532200	2,500	500000	0	106	70-130	0			
Surr: Toluene-d8	5214	0	5000	0	104	50-150	0			

MSD		Sample ID: 1412325-01A MSD				Units: µg/Kg		Analysis Date: 12/9/2014 10:24 AM		
Client ID: SB-1 29.5'-30.0'		Run ID: GC9_141208A				SeqNo: 3066998		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	491700	2,500	500000	0	98.3	70-130	532200	7.92	30	
Surr: Toluene-d8	4790	0	5000	0	95.8	50-150	5214	8.47	30	

The following samples were analyzed in this batch:

1412325-01A	1412325-02A	1412325-03A
1412325-04A	1412325-05A	1412325-06A
1412325-07A	1412325-08A	1412325-09A
1412325-10A	1412325-11A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
Work Order: 1412325
Project: Williams-Parachute 1 NGL Release 12.3.14

QC BATCH REPORT

Batch ID: **65750** Instrument ID **HG1** Method: **SW7471**

MBLK				Sample ID: MBLK-65750-65750				Units:mg/Kg			Analysis Date: 12/8/2014 09:59 PM			
Client ID:				Run ID: HG1_141208A				SeqNo:3066044		Prep Date: 12/8/2014		DF: 1		
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury ND 0.020

LCS		Sample ID: LCS-65750-65750				Units:mg/Kg		Analysis Date: 12/8/2014 10:02 PM		
Client ID:		Run ID: HG1_141208A		SeqNo:3066045		Prep Date: 12/8/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1639 0.020 0.1665 0 98.4 80-120 0

MS				Sample ID: 1412290-01BMS				Units:mg/Kg			Analysis Date: 12/8/2014 10:17 PM		
Client ID:				Run ID: HG1_141208A				SeqNo:3066501		Prep Date: 12/8/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		

Mercury 0.1298 0.015 0.1243 0 104 75-125 0

MSD				Sample ID: 1412290-01BMSD				Units:mg/Kg			Analysis Date: 12/8/2014 10:19 PM												
Client ID:				Run ID: HG1_141208A				SeqNo:3066502		Prep Date: 12/8/2014		DF: 1											
Analyte				Result		PQL		SPK Val		SPK Ref Value		%REC		Control Limit		RPD Ref Value		%RPD		RPD Limit		Qual	

Mercury 0.1229 0.015 0.1208 0 102 75-125 0.1298 5.44 35

The following samples were analyzed in this batch:

1412325-08B	1412325-09B	1412325-10B
1412325-11B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
Work Order: 1412325
Project: Williams-Parachute 1 NGL Release 12.3.14

QC BATCH REPORT

Batch ID: **65731** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK		Sample ID: MBLK-65731-65731				Units: mg/Kg		Analysis Date: 12/8/2014 08:25 PM		
Client ID:		Run ID: ICP2_141208A				SeqNo: 3066229		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.50								
Chromium	ND	0.25								
Copper	ND	0.50								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	0.13	0.50								J

MBLK		Sample ID: MBLK-65731-65731				Units: mg/Kg		Analysis Date: 12/9/2014 02:54 PM		
Client ID:		Run ID: ICP2_141209A				SeqNo: 3068056		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Silver	ND	0.25								

LCS		Sample ID: LCS-65731-65731				Units: mg/Kg		Analysis Date: 12/8/2014 08:31 PM		
Client ID:		Run ID: ICP2_141208A				SeqNo: 3066230		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.484	0.25	5	0	89.7	80-120	0			
Barium	4.637	0.25	5	0	92.7	80-120	0			
Cadmium	4.437	0.50	5	0	88.7	80-120	0			
Chromium	4.817	0.25	5	0	96.3	80-120	0			
Copper	4.795	0.50	5	0	95.9	80-120	0			
Lead	4.825	0.25	5	0	96.5	80-120	0			
Nickel	4.691	0.25	5	0	93.8	80-120	0			
Selenium	4.43	0.50	5	0	88.6	80-120	0			
Silver	4.22	0.25	5	0	84.4	80-120	0			
Zinc	4.695	0.50	5	0	93.9	80-120	0			

LCS		Sample ID: LCS-65731-65731				Units: mg/Kg		Analysis Date: 12/9/2014 03:00 PM		
Client ID:		Run ID: ICP2_141209A				SeqNo: 3068060		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Silver	4.372	0.25	5	0	87.4	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
 Work Order: 1412325
 Project: Williams-Parachute 1 NGL Release 12.3.14

QC BATCH REPORT

Batch ID: **65731** Instrument ID **ICP2** Method: **SW846 6010C**

MS					Sample ID: 1412279-01BMS		Units:mg/Kg		Analysis Date: 12/8/2014 09:42 PM		
Client ID:			Run ID: ICP2_141208A			SeqNo:3066247		Prep Date: 12/8/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	15.66	0.37	7.331	7.603	110	75-125	0				
Barium	125.1	0.37	7.331	101.6	321	75-125	0			SO	
Cadmium	7.141	0.73	7.331	0.001281	97.4	75-125	0				
Chromium	20.78	0.37	7.331	9.978	147	75-125	0			S	
Copper	22.19	0.73	7.331	13.89	113	75-125	0				
Lead	28.79	0.37	7.331	14.82	191	75-125	0			S	
Nickel	22.92	0.37	7.331	16.3	90.2	75-125	0				
Selenium	8.461	0.73	7.331	1.332	97.2	75-125	0				
Zinc	494.5	0.73	7.331	81.25	5640	75-125	0			SO	

MS				Sample ID: 1412279-01BMS				Units:mg/Kg			Analysis Date: 12/9/2014 04:14 PM		
Client ID:			Run ID: ICP2_141209A				SeqNo:3068322			Prep Date: 12/8/2014		DF: 1	
Analyte			Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Silver			7.333	0.37	7.331	-0.09234	101	75-125	0				

MSD					Sample ID: 1412279-01BMSD		Units:mg/Kg		Analysis Date: 12/8/2014 09:47 PM		
Client ID:			Run ID: ICP2_141208A			SeqNo:3066248		Prep Date: 12/8/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	15.72	0.37	7.353	7.603	110	75-125	15.66	0.344	20		
Barium	128.7	0.37	7.353	101.6	368	75-125	125.1	2.82	20	SO	
Cadmium	6.735	0.74	7.353	0.001281	91.6	75-125	7.141	5.85	20		
Chromium	20.54	0.37	7.353	9.978	144	75-125	20.78	1.15	20	S	
Copper	21.39	0.74	7.353	13.89	102	75-125	22.19	3.67	20		
Lead	22.48	0.37	7.353	14.82	104	75-125	28.79	24.6	20	R	
Nickel	23.7	0.37	7.353	16.3	101	75-125	22.92	3.34	20		
Selenium	8.539	0.74	7.353	1.332	98	75-125	8.461	0.925	20		
Zinc	89.85	0.74	7.353	81.25	117	75-125	494.5	138	20	RO	

MSD		Sample ID: 1412279-01BMSD					Units:mg/Kg		Analysis Date: 12/9/2014 04:19 PM		
Client ID:		Run ID: ICP2_141209A			SeqNo:3068323		Prep Date: 12/8/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Silver	7.385	0.37	7.353	-0.09234	102	75-125	7.333	0.702	20		

The following samples were analyzed in this batch:

1412325-08B	1412325-09B	1412325-10B
1412325-11B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
Work Order: 1412325
Project: Williams-Parachute 1 NGL Release 12.3.14

QC BATCH REPORT

Batch ID: **65781** Instrument ID **ICP2** Method: **SW846 6010C**

DUP		Sample ID: 1412255-01CDUP				Units: mg/L		Analysis Date: 12/10/2014 05:17 PM		
Client ID:		Run ID: ICP2_141210A				SeqNo: 3070221		Prep Date: 12/10/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	55.64	5.0	0	0	0	0-0	59.15	6.11		
Magnesium	41.13	2.0	0	0	0	0-0	44.65	8.21		
Sodium	384	2.0	0	0	0	0-0	406.3	5.62		

DUP		Sample ID: 1412255-01CDUP				Units: none		Analysis Date: 12/10/2014		
Client ID:		Run ID: SAR_141210A				SeqNo: 3070226		Prep Date: 12/10/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	9.518	0.010	0	0	0		9.709	1.99	50	

The following samples were analyzed in this batch:

1412325-08A	1412325-09A	1412325-10A
1412325-11A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
 Work Order: 1412325
 Project: Williams-Parachute 1 NGL Release 12.3.14

QC BATCH REPORT

Batch ID: **65710** Instrument ID **SVMS5** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-65710-65710				Units: µg/Kg		Analysis Date: 12/8/2014 06:05 PM		
Client ID:		Run ID: SVMS5_141208A				SeqNo: 3066954		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
Surr: 2-Fluorobiphenyl	1269	0	1667	0	76.2	12-100	0			
Surr: 4-Terphenyl-d14	1570	0	1667	0	94.2	25-137	0			
Surr: Nitrobenzene-d5	1252	0	1667	0	75.1	37-107	0			

LCS		Sample ID: SLCSS1-65710-65710				Units: µg/Kg		Analysis Date: 12/8/2014 06:29 PM		
Client ID:		Run ID: SVMS5_141208A				SeqNo: 3066955		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	629	6.7	666.7	0	94.3	45-110	0			
Anthracene	713.7	6.7	666.7	0	107	55-105	0			S
Benzo(a)anthracene	692.7	6.7	666.7	0	104	50-110	0			
Benzo(a)pyrene	682.7	6.7	666.7	0	102	50-110	0			
Benzo(b)fluoranthene	699.7	6.7	666.7	0	105	45-115	0			
Benzo(k)fluoranthene	705	6.7	666.7	0	106	45-115	0			
Chrysene	722	6.7	666.7	0	108	55-110	0			
Dibenzo(a,h)anthracene	680	6.7	666.7	0	102	40-125	0			
Fluoranthene	749.7	6.7	666.7	0	112	55-115	0			
Fluorene	689	6.7	666.7	0	103	50-110	0			
Indeno(1,2,3-cd)pyrene	643.3	6.7	666.7	0	96.5	40-120	0			
Naphthalene	617	6.7	666.7	0	92.5	40-105	0			
Pyrene	758	6.7	666.7	0	114	45-125	0			
Surr: 2-Fluorobiphenyl	1435	0	1667	0	86.1	12-100	0			
Surr: 4-Terphenyl-d14	1649	0	1667	0	98.9	25-137	0			
Surr: Nitrobenzene-d5	1412	0	1667	0	84.7	37-107	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
 Work Order: 1412325
 Project: Williams-Parachute 1 NGL Release 12.3.14

QC BATCH REPORT

Batch ID: **65710** Instrument ID **SVMS5** Method: **SW846 8270D**

MS				Sample ID: 1412354-02B MS			Units: µg/Kg		Analysis Date: 12/8/2014 06:53 PM		
Client ID:			Run ID: SVMS5_141208A			SeqNo: 3066957		Prep Date: 12/8/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1261	13	1324	0	95.2	45-110	0				
Anthracene	1399	13	1324	0	106	55-105	0			S	
Benzo(a)anthracene	1309	13	1324	0	98.9	50-110	0				
Benzo(a)pyrene	1272	13	1324	0	96.1	50-110	0				
Benzo(b)fluoranthene	1270	13	1324	0	95.9	45-115	0				
Benzo(k)fluoranthene	1315	13	1324	0	99.3	45-115	0				
Chrysene	1356	13	1324	0	102	55-110	0				
Dibenzo(a,h)anthracene	1297	13	1324	0	97.9	40-125	0				
Fluoranthene	1366	13	1324	0	103	55-115	0				
Fluorene	1344	13	1324	0	101	50-110	0				
Indeno(1,2,3-cd)pyrene	1299	13	1324	0	98.1	40-120	0				
Naphthalene	1194	13	1324	0	90.1	40-105	0				
Pyrene	1518	13	1324	0	115	45-125	0				
Surr: 2-Fluorobiphenyl	2644	0	3310	0	79.9	12-100	0				
Surr: 4-Terphenyl-d14	3165	0	3310	0	95.6	25-137	0				
Surr: Nitrobenzene-d5	2594	0	3310	0	78.4	37-107	0				

MSD				Sample ID: 1412354-02B MSD				Units: µg/Kg		Analysis Date: 12/8/2014 07:18 PM	
Client ID:			Run ID: SVMS5_141208A			SeqNo: 3066959		Prep Date: 12/8/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1161	13	1268	0	91.5	45-110	1261	8.27	30		
Anthracene	1276	13	1268	0	101	55-105	1399	9.25	30		
Benzo(a)anthracene	1219	13	1268	0	96.1	50-110	1309	7.13	30		
Benzo(a)pyrene	1214	13	1268	0	95.7	50-110	1272	4.68	30		
Benzo(b)fluoranthene	1230	13	1268	0	97	45-115	1270	3.17	30		
Benzo(k)fluoranthene	1231	13	1268	0	97	45-115	1315	6.6	30		
Chrysene	1252	13	1268	0	98.7	55-110	1356	7.94	30		
Dibenzo(a,h)anthracene	1208	13	1268	0	95.2	40-125	1297	7.11	30		
Fluoranthene	1290	13	1268	0	102	55-115	1366	5.73	30		
Fluorene	1240	13	1268	0	97.8	50-110	1344	8.02	30		
Indeno(1,2,3-cd)pyrene	1151	13	1268	0	90.8	40-120	1299	12.1	30		
Naphthalene	1091	13	1268	0	86	40-105	1194	9.02	30		
Pyrene	1314	13	1268	0	104	45-125	1518	14.4	30		
Surr: 2-Fluorobiphenyl	2446	0	3170	0	77.2	12-100	2644	7.77	40		
Surr: 4-Terphenyl-d14	2790	0	3170	0	88	25-137	3165	12.6	40		
Surr: Nitrobenzene-d5	2480	0	3170	0	78.2	37-107	2594	4.47	40		

The following samples were analyzed in this batch:

1412325-08B	1412325-09B	1412325-10B
1412325-11B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
 Work Order: 1412325
 Project: Williams-Parachute 1 NGL Release 12.3.14

QC BATCH REPORT

Batch ID: **65723** Instrument ID **VMS5** Method: **SW8260B**

MBLK				Sample ID: MBLK-65723-65723				Units: µg/Kg			Analysis Date: 12/8/2014 12:51 PM			
Client ID:				Run ID: VMS5_141208A				SeqNo: 3066343			Prep Date: 12/8/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Benzene	ND	30												
Ethylbenzene	ND	30												
m,p-Xylene	ND	60												
o-Xylene	ND	30												
Toluene	ND	30												
Xylenes, Total	ND	90												
Surr: 1,2-Dichloroethane-d4	933	0	1000	0	93.3	70-130		0						
Surr: 4-Bromofluorobenzene	943	0	1000	0	94.3	70-130		0						
Surr: Dibromofluoromethane	996.5	0	1000	0	99.6	70-130		0						
Surr: Toluene-d8	947.5	0	1000	0	94.8	70-130		0						

LCS				Sample ID: LCS-65723-65723			Units: µg/Kg		Analysis Date: 12/8/2014 11:08 AM		
Client ID:			Run ID: VMS5_141208A			SeqNo: 3066342		Prep Date: 12/8/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1102	30	1000	0	110	75-125	0				
Ethylbenzene	1156	30	1000	0	116	75-125	0				
m,p-Xylene	2346	60	2000	0	117	80-125	0				
o-Xylene	1170	30	1000	0	117	75-125	0				
Toluene	1118	30	1000	0	112	70-125	0				
Xylenes, Total	3516	90	3000	0	117	75-125	0				
Surr: 1,2-Dichloroethane-d4	939.5	0	1000	0	94	70-130	0				
Surr: 4-Bromofluorobenzene	986.5	0	1000	0	98.6	70-130	0				
Surr: Dibromofluoromethane	987	0	1000	0	98.7	70-130	0				
Surr: Toluene-d8	966	0	1000	0	96.6	70-130	0				

MS					Sample ID: 1412325-07A MS		Units: µg/Kg		Analysis Date: 12/11/2014 08:17 PM		
Client ID: SB-5 34.5'-35.0'			Run ID: VMS6_141211A			SeqNo: 3072952		Prep Date: 12/8/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	923	30	1000	13	91	75-125		0			
Ethylbenzene	990	30	1000	9.5	98	75-125		0			
m,p-Xylene	2034	60	2000	105.5	96.4	80-125		0			
o-Xylene	1012	30	1000	14.5	99.8	75-125		0			
Toluene	978	30	1000	96.5	88.2	70-125		0			
Xylenes, Total	3046	90	3000	124	97.4	75-125		0			
Surr: 1,2-Dichloroethane-d4	896.5	0	1000	0	89.6	70-130		0			
Surr: 4-Bromofluorobenzene	992.5	0	1000	0	99.2	70-130		0			
Surr: Dibromofluoromethane	930.5	0	1000	0	93	70-130		0			
Surr: Toluene-d8	1054	0	1000	0	105	70-130		0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
Work Order: 1412325
Project: Williams-Parachute 1 NGL Release 12.3.14

QC BATCH REPORT

Batch ID: **65723** Instrument ID **VMS5** Method: **SW8260B**

MSD				Sample ID: 1412325-07A MSD			Units: µg/Kg		Analysis Date: 12/11/2014 08:43 PM	
Client ID: SB-5 34.5'-35.0'				Run ID: VMS6_141211A			SeqNo: 3072953		Prep Date: 12/8/2014	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	866.5	30	1000	13	85.4	75-125	923	6.31	30	
Ethylbenzene	929.5	30	1000	9.5	92	75-125	990	6.3	30	
m,p-Xylene	1860	60	2000	105.5	87.8	80-125	2034	8.93	30	
o-Xylene	941.5	30	1000	14.5	92.7	75-125	1012	7.22	30	
Toluene	908.5	30	1000	96.5	81.2	70-125	978	7.37	30	
Xylenes, Total	2802	90	3000	124	89.3	75-125	3046	8.36	30	
Surr: 1,2-Dichloroethane-d4	899.5	0	1000	0	90	70-130	896.5	0.334	30	
Surr: 4-Bromofluorobenzene	959.5	0	1000	0	96	70-130	992.5	3.38	30	
Surr: Dibromofluoromethane	942.5	0	1000	0	94.2	70-130	930.5	1.28	30	
Surr: Toluene-d8	1040	0	1000	0	104	70-130	1054	1.29	30	

The following samples were analyzed in this batch:

1412325-01A	1412325-02A	1412325-03A
1412325-04A	1412325-05A	1412325-06A
1412325-07A	1412325-08A	1412325-09A
1412325-10A	1412325-11A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
Work Order: 1412325
Project: Williams-Parachute 1 NGL Release 12.3.14

QC BATCH REPORT

Batch ID: **65748** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-65748-65748				Units: mg/Kg		Analysis Date: 12/9/2014 02:30 PM		
Client ID:		Run ID: WETCHEM_141209L				SeqNo: 3067968		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50

LCS		Sample ID: LCS-65748-65748				Units: mg/Kg		Analysis Date: 12/9/2014 02:30 PM		
Client ID:		Run ID: WETCHEM_141209L				SeqNo: 3067969		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.772 0.50 2 0 88.6 80-120 0

MS		Sample ID: 1412255-01B MS				Units: mg/Kg		Analysis Date: 12/9/2014 02:30 PM		
Client ID:		Run ID: WETCHEM_141209L				SeqNo: 3067971		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.508 0.50 1.984 0.368 57.5 75-125 0 S

MS		Sample ID: 1412255-01B MSI				Units: mg/Kg		Analysis Date: 12/9/2014 02:30 PM		
Client ID:		Run ID: WETCHEM_141209L				SeqNo: 3067973		Prep Date: 12/8/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 656.2 50 692.3 0.368 94.7 75-125 0

MSD		Sample ID: 1412255-01B MSD				Units: mg/Kg		Analysis Date: 12/9/2014 02:30 PM		
Client ID:		Run ID: WETCHEM_141209L				SeqNo: 3067972		Prep Date: 12/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.62 0.50 2 0.368 62.6 75-125 1.508 7.17 20 S

The following samples were analyzed in this batch:

1412325-08B	1412325-09B	1412325-10B
1412325-11B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
Work Order: 1412325
Project: Williams-Parachute 1 NGL Release 12.3.14

QC BATCH REPORT

Batch ID: **65749** Instrument ID **WETCHEM** Method: **SW9045D**

LCS				Sample ID: LCS-65749-65749				Units: s.u.			Analysis Date: 12/8/2014 05:00 PM			
Client ID:				Run ID: WETCHEM_141208G				SeqNo: 3065632			Prep Date: 12/8/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
pH		4.03	0	4	0	101	90-110	0						

DUP				Sample ID: 1412273-01A dup				Units:s.u.			Analysis Date: 12/8/2014 05:00 PM			
Client ID:				Run ID: WETCHEM_141208G				SeqNo: 3065637			Prep Date: 12/8/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
pH	7.73	0	0	0	0	0-0	7.69	0.519	20					

The following samples were analyzed in this batch:

1412325-08B	1412325-09B	1412325-10B
1412325-11B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
Work Order: 1412325
Project: Williams-Parachute 1 NGL Release 12.3.14

QC BATCH REPORT

Batch ID: **65781** Instrument ID **WETCHEM** Method: **USDA H60 Method**

Sample ID: 1412255-01C DUP				Units:mmhos/cm @25°C		Analysis Date: 12/10/2014 04:15 PM				
Client ID:		Run ID: WETCHEM_141210Q			SeqNo:3070020		Prep Date: 12/10/2014		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	2.79	0.050	0	0	0		2.96	5.91	50	

The following samples were analyzed in this batch:

1412325-08A	1412325-09A	1412325-10A
1412325-11A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
Work Order: 1412325
Project: Williams-Parachute 1 NGL Release 12.3.14

QC BATCH REPORT

Batch ID: **R154026** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R154026				Units: % of sample		Analysis Date: 12/8/2014 07:00 PM		
Client ID:		Run ID: MOIST_141208C				SeqNo: 3070160		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R154026				Units: % of sample		Analysis Date: 12/8/2014 07:00 PM		
Client ID:		Run ID: MOIST_141208C				SeqNo: 3070159		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 1412325-01A DUP				Units: % of sample		Analysis Date: 12/8/2014 07:00 PM		
Client ID: SB-1 29.5'-30.0'		Run ID: MOIST_141208C				SeqNo: 3070142		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 14.15 0.050 0 0 0 0-0 14.65 3.47 20

DUP		Sample ID: 1412325-11B DUP				Units: % of sample		Analysis Date: 12/8/2014 07:00 PM		
Client ID: SB-2 25'-35'		Run ID: MOIST_141208C				SeqNo: 3070156		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 13.96 0.050 0 0 0 0-0 13.86 0.719 20

The following samples were analyzed in this batch:

1412325-01A	1412325-02A	1412325-03A
1412325-04A	1412325-05A	1412325-06A
1412325-07A	1412325-08B	1412325-09B
1412325-10B	1412325-11B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



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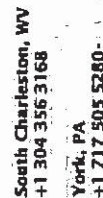
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Page 1 of 2

COC ID: 13132

Customer Information				ALS Project Manager				ALS Work Order # 1412375													
Project Information				Project Information				Parameter/Method Request for Analysis													
Purchase Order	Project Name			Project Number			Williams - Parachute G.P.														
Work Order	Bill To Company			Invoice Attn			5255-C														
Company Name	Address			City/State/Zip			Williams														
Send Report To	e-Mail Address			Phone			Annette G.														
	City/State/Zip			Phone			Rifle, CO 81650														
	Fax			Fax																	
	e-Mail Address			e-Mail Address			ewilson@2huseenviro.com														
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold				
1	SB-1 19.5'-20.0'	12/3/14	0945	SOIL	8	1	X														
2	SB-1 29.5'-30.0'	12/3/14	1020	SOIL	8	1	X														
3	SB-2 29.5'-30.0'	12/3/14	1155	SOIL	8	1	X														
4	SB-2 29.5'-30.0'	12/3/14	1220	SOIL	8	1	X														
5	SB-3 14.5'-15.0'	12/3/14	1300	SOIL	8	1	X														
6	SB-3 32.0'-32.5'	12/3/14	1330	SOIL	8	1	X														
7	SB-4 9.5'-10.0'	12/3/14	1404	SOIL	8	1	X														
8	SB-4 32.0'-32.5'	12/3/14	1420	SOIL	8	1	X														
9	SB-5 9.5'-10.0'	12/3/14	1440	SOIL	8	1	X														
10	SB-5 34.5'-35.0'	12/3/14	1500	SOIL	8	1	X														
Sampler(s) Please Print & Sign				Shipment Method				Required Turnaround Time: (Check Box)				Results Due Date:									
MICHAEL GREENSHAW Michael Green								<input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour				<input type="checkbox"/> Offer									
Relinquished by: Michael Green				Received by: [Signature]				Notes:				Cooler ID									
Relinquished by: [Signature]				Received by: [Signature]				Laboratory:				Cooler Temp									
Logged by: [Signature]				Checked by: [Signature]				12/14/0800				4.2°C									
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₈ 6-NaHSO ₄ 7-Other 8-4°C 9-5035																					

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.



Page 2 of 2
cocid: 13131

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
MICHAEL CRENSHAW		Michael Crenshaw		<input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour			
Refrigerated by:		Date:	Time:	Received by:			
Refrigerated by:		Date:	Time:	Received by (Laboratory):			
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):			
Preservative Key:		1-HCl	2-HNO ₃	3-H ₂ SO ₄	4-NaOH	5-Na ₂ SO ₃	6-NaHSO ₃
12/23/14 1505		12/23/14 1055		12/15/14 0900		Cooler Temp Cooler ID	
QC Package: (Check One Box Below) <input type="checkbox"/> Level II Std QC <input type="checkbox"/> Level III Std QC/Raw Date <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other		TAPP Checklist <input type="checkbox"/> TAPP Level IV					

Note:

1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Sample Receipt Checklist

Client Name: **ALTUSENV**

Date/Time Received: **05-Dec-14 09:00**

Work Order: **1412325**

Received by: **KRW**

Checklist completed by <u>Keith Wurenga</u>	05-Dec-14	Reviewed by: <u>Ann Preston</u>	08-Dec-14
eSignature	Date	eSignature	Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.2 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>12/5/2014 4:25:04 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:



19-Jan-2015

Ben Williams
Altus Environmental
1227 N. 23rd St.
Suite 107
Grand Junction, CO 81501

Re: **Williams- Parachute Gas Plant 1.9.15**

Work Order: **1501327**

Dear Ben,

ALS Environmental received 12 samples on 10-Jan-2015 10:50 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 27.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Altus Environmental
Project: Williams- Parachute Gas Plant 1.9.15
Work Order: 1501327

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1501327-01	SB-6 24.5-25.0	Soil		1/9/2015 08:50	1/10/2015 10:50	<input type="checkbox"/>
1501327-02	SB-6 34.5-35.0	Soil		1/9/2015 09:00	1/10/2015 10:50	<input type="checkbox"/>
1501327-03	SB-7 22.0-22.5	Soil		1/9/2015 09:25	1/10/2015 10:50	<input type="checkbox"/>
1501327-04	SB-7 34.5-35.0	Soil		1/9/2015 09:35	1/10/2015 10:50	<input type="checkbox"/>
1501327-05	SB-8 24.5-25.0	Soil		1/9/2015 10:10	1/10/2015 10:50	<input type="checkbox"/>
1501327-06	SB-8 34.5-35.0	Soil		1/9/2015 10:20	1/10/2015 10:50	<input type="checkbox"/>
1501327-07	SB-9 24.5-25.0	Soil		1/9/2015 10:50	1/10/2015 10:50	<input type="checkbox"/>
1501327-08	SB-9 34.5-35.0	Soil		1/9/2015 11:00	1/10/2015 10:50	<input type="checkbox"/>
1501327-09	SB-10 9.5-10.0	Soil		1/9/2015 11:35	1/10/2015 10:50	<input type="checkbox"/>
1501327-10	SB-10 34.5-35.0	Soil		1/9/2015 11:45	1/10/2015 10:50	<input type="checkbox"/>
1501327-11	SB-11 16.0-16.5	Soil		1/9/2015 12:30	1/10/2015 10:50	<input type="checkbox"/>
1501327-12	SB-11 34.5-35.0	Soil		1/9/2015 12:50	1/10/2015 10:50	<input type="checkbox"/>

Client: Altus Environmental
Project: Williams- Parachute Gas Plant 1.9.15
Work Order: 1501327

Case Narrative

Batch 66699 MS/MSD data for DRO is not related to this project's samples. No data requires qualification.

Client: Altus Environmental
Project: Williams- Parachute Gas Plant 1.9.15
WorkOrder: 1501327

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group USA, Corp

Date: 19-Jan-15

Client: Altus Environmental

Project: Williams- Parachute Gas Plant 1.9.15

Sample ID: SB-6 24.5-25.0

Collection Date: 1/9/2015 08:50 AM

Work Order: 1501327

Lab ID: 1501327-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 1/12/15	Analyst: IT
DRO (C10-C28)	ND		4.8	mg/Kg-dry	1	1/12/2015 09:30 PM
Surr: 4-Terphenyl-d14	75.4		39-133	%REC	1	1/12/2015 09:30 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 1/12/15	Analyst: IT
GRO (C6-C10)	ND		2,900	µg/Kg-dry	1	1/12/2015 10:25 PM
Surr: Toluene-d8	125		50-150	%REC	1	1/12/2015 10:25 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 1/12/15	Analyst: JDW
Benzene	ND		35	µg/Kg-dry	1	1/13/2015 02:52 AM
Ethylbenzene	ND		35	µg/Kg-dry	1	1/13/2015 02:52 AM
m,p-Xylene	ND		70	µg/Kg-dry	1	1/13/2015 02:52 AM
o-Xylene	ND		35	µg/Kg-dry	1	1/13/2015 02:52 AM
Toluene	ND		35	µg/Kg-dry	1	1/13/2015 02:52 AM
Xylenes, Total	ND		100	µg/Kg-dry	1	1/13/2015 02:52 AM
Surr: 1,2-Dichloroethane-d4	95.2		70-130	%REC	1	1/13/2015 02:52 AM
Surr: 4-Bromofluorobenzene	98.2		70-130	%REC	1	1/13/2015 02:52 AM
Surr: Dibromofluoromethane	95.2		70-130	%REC	1	1/13/2015 02:52 AM
Surr: Toluene-d8	97.5		70-130	%REC	1	1/13/2015 02:52 AM
MOISTURE						
			E160.3M			Analyst: EVB
Moisture	14		0.050	% of sample	1	1/12/2015 11:45 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Jan-15

Client: Altus Environmental

Project: Williams- Parachute Gas Plant 1.9.15

Sample ID: SB-6 34.5-35.0

Collection Date: 1/9/2015 09:00 AM

Work Order: 1501327

Lab ID: 1501327-02

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M		Prep: SW3541 / 1/12/15	Analyst: IT
DRO (C10-C28)	ND		4.8	mg/Kg-dry	1	1/12/2015 09:58 PM
Surr: 4-Terphenyl-d14	77.9		39-133	%REC	1	1/12/2015 09:58 PM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015		Prep: SW5035 / 1/12/15	Analyst: IT
GRO (C6-C10)	ND		2,900	µg/Kg-dry	1	1/12/2015 10:49 PM
Surr: Toluene-d8	106		50-150	%REC	1	1/12/2015 10:49 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 1/12/15	Analyst: JDW
Benzene	ND		35	µg/Kg-dry	1	1/13/2015 03:18 AM
Ethylbenzene	ND		35	µg/Kg-dry	1	1/13/2015 03:18 AM
m,p-Xylene	ND		70	µg/Kg-dry	1	1/13/2015 03:18 AM
o-Xylene	ND		35	µg/Kg-dry	1	1/13/2015 03:18 AM
Toluene	ND		35	µg/Kg-dry	1	1/13/2015 03:18 AM
Xylenes, Total	ND		110	µg/Kg-dry	1	1/13/2015 03:18 AM
Surr: 1,2-Dichloroethane-d4	94.8		70-130	%REC	1	1/13/2015 03:18 AM
Surr: 4-Bromofluorobenzene	98.6		70-130	%REC	1	1/13/2015 03:18 AM
Surr: Dibromofluoromethane	93.8		70-130	%REC	1	1/13/2015 03:18 AM
Surr: Toluene-d8	97.2		70-130	%REC	1	1/13/2015 03:18 AM
MOISTURE			E160.3M			Analyst: EVB
Moisture	15		0.050	% of sample	1	1/12/2015 11:45 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Jan-15

Client: Altus Environmental

Project: Williams- Parachute Gas Plant 1.9.15

Sample ID: SB-7 22.0-22.5

Collection Date: 1/9/2015 09:25 AM

Work Order: 1501327

Lab ID: 1501327-03

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M		Prep: SW3541 / 1/12/15	Analyst: IT
DRO (C10-C28)	ND		4.9	mg/Kg-dry	1	1/12/2015 10:26 PM
Surr: 4-Terphenyl-d14	74.4		39-133	%REC	1	1/12/2015 10:26 PM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015		Prep: SW5035 / 1/12/15	Analyst: IT
GRO (C6-C10)	ND		3,000	µg/Kg-dry	1	1/12/2015 11:14 PM
Surr: Toluene-d8	109		50-150	%REC	1	1/12/2015 11:14 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 1/12/15	Analyst: JDW
Benzene	ND		36	µg/Kg-dry	1	1/13/2015 03:44 AM
Ethylbenzene	ND		36	µg/Kg-dry	1	1/13/2015 03:44 AM
m,p-Xylene	ND		71	µg/Kg-dry	1	1/13/2015 03:44 AM
o-Xylene	ND		36	µg/Kg-dry	1	1/13/2015 03:44 AM
Toluene	ND		36	µg/Kg-dry	1	1/13/2015 03:44 AM
Xylenes, Total	ND		110	µg/Kg-dry	1	1/13/2015 03:44 AM
Surr: 1,2-Dichloroethane-d4	97.6		70-130	%REC	1	1/13/2015 03:44 AM
Surr: 4-Bromofluorobenzene	98.6		70-130	%REC	1	1/13/2015 03:44 AM
Surr: Dibromofluoromethane	95.6		70-130	%REC	1	1/13/2015 03:44 AM
Surr: Toluene-d8	97.4		70-130	%REC	1	1/13/2015 03:44 AM
MOISTURE			E160.3M			Analyst: EVB
Moisture	16		0.050	% of sample	1	1/12/2015 11:45 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Jan-15

Client: Altus Environmental

Project: Williams- Parachute Gas Plant 1.9.15

Sample ID: SB-7 34.5-35.0

Collection Date: 1/9/2015 09:35 AM

Work Order: 1501327

Lab ID: 1501327-04

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M		Prep: SW3541 / 1/12/15	Analyst: IT
DRO (C10-C28)	ND		4.8	mg/Kg-dry	1	1/12/2015 10:53 PM
Surr: 4-Terphenyl-d14	79.4		39-133	%REC	1	1/12/2015 10:53 PM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015		Prep: SW5035 / 1/12/15	Analyst: IT
GRO (C6-C10)	ND		3,000	µg/Kg-dry	1	1/12/2015 11:39 PM
Surr: Toluene-d8	110		50-150	%REC	1	1/12/2015 11:39 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 1/12/15	Analyst: JDW
Benzene	ND		36	µg/Kg-dry	1	1/13/2015 04:10 AM
Ethylbenzene	ND		36	µg/Kg-dry	1	1/13/2015 04:10 AM
m,p-Xylene	ND		71	µg/Kg-dry	1	1/13/2015 04:10 AM
o-Xylene	ND		36	µg/Kg-dry	1	1/13/2015 04:10 AM
Toluene	ND		36	µg/Kg-dry	1	1/13/2015 04:10 AM
Xylenes, Total	ND		110	µg/Kg-dry	1	1/13/2015 04:10 AM
Surr: 1,2-Dichloroethane-d4	97.4		70-130	%REC	1	1/13/2015 04:10 AM
Surr: 4-Bromofluorobenzene	97.5		70-130	%REC	1	1/13/2015 04:10 AM
Surr: Dibromofluoromethane	94.4		70-130	%REC	1	1/13/2015 04:10 AM
Surr: Toluene-d8	97.0		70-130	%REC	1	1/13/2015 04:10 AM
MOISTURE			E160.3M			Analyst: EVB
Moisture	16		0.050	% of sample	1	1/12/2015 11:45 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Jan-15

Client: Altus Environmental

Project: Williams- Parachute Gas Plant 1.9.15

Sample ID: SB-8 24.5-25.0

Collection Date: 1/9/2015 10:10 AM

Work Order: 1501327

Lab ID: 1501327-05

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 1/12/15	Analyst: IT
DRO (C10-C28)	ND		4.7	mg/Kg-dry	1	1/12/2015 11:21 PM
Surr: 4-Terphenyl-d14	76.8		39-133	%REC	1	1/12/2015 11:21 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 1/12/15	Analyst: IT
GRO (C6-C10)	ND		2,900	µg/Kg-dry	1	1/13/2015 12:28 PM
Surr: Toluene-d8	95.1		50-150	%REC	1	1/13/2015 12:28 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 1/12/15	Analyst: JDW
Benzene	ND		34	µg/Kg-dry	1	1/13/2015 04:36 AM
Ethylbenzene	ND		34	µg/Kg-dry	1	1/13/2015 04:36 AM
m,p-Xylene	ND		69	µg/Kg-dry	1	1/13/2015 04:36 AM
o-Xylene	ND		34	µg/Kg-dry	1	1/13/2015 04:36 AM
Toluene	ND		34	µg/Kg-dry	1	1/13/2015 04:36 AM
Xylenes, Total	ND		100	µg/Kg-dry	1	1/13/2015 04:36 AM
Surr: 1,2-Dichloroethane-d4	96.4		70-130	%REC	1	1/13/2015 04:36 AM
Surr: 4-Bromofluorobenzene	98.3		70-130	%REC	1	1/13/2015 04:36 AM
Surr: Dibromofluoromethane	94.0		70-130	%REC	1	1/13/2015 04:36 AM
Surr: Toluene-d8	97.9		70-130	%REC	1	1/13/2015 04:36 AM
MOISTURE						
			E160.3M			Analyst: EVB
Moisture	12		0.050	% of sample	1	1/12/2015 11:45 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Jan-15

Client: Altus Environmental

Project: Williams- Parachute Gas Plant 1.9.15

Sample ID: SB-8 34.5-35.0

Collection Date: 1/9/2015 10:20 AM

Work Order: 1501327

Lab ID: 1501327-06

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M		Prep: SW3541 / 1/12/15	Analyst: IT
DRO (C10-C28)	ND		4.9	mg/Kg-dry	1	1/12/2015 11:48 PM
Surr: 4-Terphenyl-d14	73.8		39-133	%REC	1	1/12/2015 11:48 PM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015		Prep: SW5035 / 1/12/15	Analyst: IT
GRO (C6-C10)	ND		2,900	µg/Kg-dry	1	1/13/2015 12:53 PM
Surr: Toluene-d8	107		50-150	%REC	1	1/13/2015 12:53 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 1/12/15	Analyst: JDW
Benzene	ND		35	µg/Kg-dry	1	1/13/2015 05:02 AM
Ethylbenzene	ND		35	µg/Kg-dry	1	1/13/2015 05:02 AM
m,p-Xylene	ND		71	µg/Kg-dry	1	1/13/2015 05:02 AM
o-Xylene	ND		35	µg/Kg-dry	1	1/13/2015 05:02 AM
Toluene	ND		35	µg/Kg-dry	1	1/13/2015 05:02 AM
Xylenes, Total	ND		110	µg/Kg-dry	1	1/13/2015 05:02 AM
Surr: 1,2-Dichloroethane-d4	93.2		70-130	%REC	1	1/13/2015 05:02 AM
Surr: 4-Bromofluorobenzene	97.3		70-130	%REC	1	1/13/2015 05:02 AM
Surr: Dibromofluoromethane	93.6		70-130	%REC	1	1/13/2015 05:02 AM
Surr: Toluene-d8	97.4		70-130	%REC	1	1/13/2015 05:02 AM
MOISTURE			E160.3M			Analyst: EVB
Moisture	15		0.050	% of sample	1	1/12/2015 11:45 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Jan-15

Client: Altus Environmental

Project: Williams- Parachute Gas Plant 1.9.15

Sample ID: SB-9 24.5-25.0

Collection Date: 1/9/2015 10:50 AM

Work Order: 1501327

Lab ID: 1501327-07

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 1/12/15	Analyst: IT
DRO (C10-C28)	9.7		4.9	mg/Kg-dry	1	1/13/2015 12:15 PM
Surr: 4-Terphenyl-d14	66.1		39-133	%REC	1	1/13/2015 12:15 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 1/12/15	Analyst: IT
GRO (C6-C10)	53,000		2,900	µg/Kg-dry	1	1/13/2015 01:18 AM
Surr: Toluene-d8	133		50-150	%REC	1	1/13/2015 01:18 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 1/12/15	Analyst: JDW
Benzene	110		35	µg/Kg-dry	1	1/13/2015 05:28 AM
Ethylbenzene	310		35	µg/Kg-dry	1	1/13/2015 05:28 AM
m,p-Xylene	1,800		70	µg/Kg-dry	1	1/13/2015 05:28 AM
o-Xylene	58		35	µg/Kg-dry	1	1/13/2015 05:28 AM
Toluene	ND		35	µg/Kg-dry	1	1/13/2015 05:28 AM
Xylenes, Total	1,900		110	µg/Kg-dry	1	1/13/2015 05:28 AM
Surr: 1,2-Dichloroethane-d4	95.6		70-130	%REC	1	1/13/2015 05:28 AM
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	1/13/2015 05:28 AM
Surr: Dibromofluoromethane	94.0		70-130	%REC	1	1/13/2015 05:28 AM
Surr: Toluene-d8	110		70-130	%REC	1	1/13/2015 05:28 AM
MOISTURE						
			E160.3M			Analyst: EVB
Moisture	14		0.050	% of sample	1	1/12/2015 11:45 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Jan-15

Client: Altus Environmental

Project: Williams- Parachute Gas Plant 1.9.15

Sample ID: SB-9 34.5-35.0

Collection Date: 1/9/2015 11:00 AM

Work Order: 1501327

Lab ID: 1501327-08

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 1/12/15	Analyst: IT
DRO (C10-C28)	ND		4.8	mg/Kg-dry	1	1/13/2015 12:43 PM
Surr: 4-Terphenyl-d14	70.7		39-133	%REC	1	1/13/2015 12:43 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 1/12/15	Analyst: IT
GRO (C6-C10)	ND		3,000	µg/Kg-dry	1	1/13/2015 01:42 AM
Surr: Toluene-d8	106		50-150	%REC	1	1/13/2015 01:42 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 1/12/15	Analyst: JDW
Benzene	ND		36	µg/Kg-dry	1	1/13/2015 05:54 AM
Ethylbenzene	ND		36	µg/Kg-dry	1	1/13/2015 05:54 AM
m,p-Xylene	ND		71	µg/Kg-dry	1	1/13/2015 05:54 AM
o-Xylene	ND		36	µg/Kg-dry	1	1/13/2015 05:54 AM
Toluene	ND		36	µg/Kg-dry	1	1/13/2015 05:54 AM
Xylenes, Total	ND		110	µg/Kg-dry	1	1/13/2015 05:54 AM
Surr: 1,2-Dichloroethane-d4	95.8		70-130	%REC	1	1/13/2015 05:54 AM
Surr: 4-Bromofluorobenzene	98.0		70-130	%REC	1	1/13/2015 05:54 AM
Surr: Dibromofluoromethane	92.4		70-130	%REC	1	1/13/2015 05:54 AM
Surr: Toluene-d8	97.5		70-130	%REC	1	1/13/2015 05:54 AM
MOISTURE						
			E160.3M			Analyst: EVB
Moisture	16		0.050	% of sample	1	1/12/2015 11:45 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Jan-15

Client: Altus Environmental

Project: Williams- Parachute Gas Plant 1.9.15

Work Order: 1501327

Sample ID: SB-10 9.5-10.0

Lab ID: 1501327-09

Collection Date: 1/9/2015 11:35 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M		Prep: SW3541 / 1/12/15	Analyst: IT
DRO (C10-C28)	17		4.9	mg/Kg-dry	1	1/13/2015 01:10 AM
Surr: 4-Terphenyl-d14	65.8		39-133	%REC	1	1/13/2015 01:10 AM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015		Prep: SW5035 / 1/12/15	Analyst: IT
GRO (C6-C10)	240,000		2,900	µg/Kg-dry	1	1/12/2015 07:56 PM
Surr: Toluene-d8	105		50-150	%REC	1	1/12/2015 07:56 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 1/12/15	Analyst: BG
Benzene	6,300		350	µg/Kg-dry	10	1/13/2015 07:29 PM
Ethylbenzene	5,700		350	µg/Kg-dry	10	1/13/2015 07:29 PM
m,p-Xylene	73,000		710	µg/Kg-dry	10	1/13/2015 07:29 PM
o-Xylene	9,100		350	µg/Kg-dry	10	1/13/2015 07:29 PM
Toluene	43,000		350	µg/Kg-dry	10	1/13/2015 07:29 PM
Xylenes, Total	82,000		1,100	µg/Kg-dry	10	1/13/2015 07:29 PM
Surr: 1,2-Dichloroethane-d4	98.4		70-130	%REC	10	1/13/2015 07:29 PM
Surr: 4-Bromofluorobenzene	99.0		70-130	%REC	10	1/13/2015 07:29 PM
Surr: Dibromofluoromethane	98.0		70-130	%REC	10	1/13/2015 07:29 PM
Surr: Toluene-d8	98.4		70-130	%REC	10	1/13/2015 07:29 PM
MOISTURE			E160.3M			Analyst: EVB
Moisture	15		0.050	% of sample	1	1/12/2015 11:45 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Jan-15

Client: Altus Environmental

Project: Williams- Parachute Gas Plant 1.9.15

Sample ID: SB-10 34.5-35.0

Collection Date: 1/9/2015 11:45 AM

Work Order: 1501327

Lab ID: 1501327-10

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 1/12/15	Analyst: IT
DRO (C10-C28)	ND		4.8	mg/Kg-dry	1	1/13/2015 01:38 AM
Surr: 4-Terphenyl-d14	69.9		39-133	%REC	1	1/13/2015 01:38 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 1/12/15	Analyst: IT
GRO (C6-C10)	ND		2,900	µg/Kg-dry	1	1/13/2015 02:07 AM
Surr: Toluene-d8	111		50-150	%REC	1	1/13/2015 02:07 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 1/12/15	Analyst: JDW
Benzene	ND		35	µg/Kg-dry	1	1/13/2015 06:46 AM
Ethylbenzene	ND		35	µg/Kg-dry	1	1/13/2015 06:46 AM
m,p-Xylene	ND		70	µg/Kg-dry	1	1/13/2015 06:46 AM
o-Xylene	ND		35	µg/Kg-dry	1	1/13/2015 06:46 AM
Toluene	ND		35	µg/Kg-dry	1	1/13/2015 06:46 AM
Xylenes, Total	ND		100	µg/Kg-dry	1	1/13/2015 06:46 AM
Surr: 1,2-Dichloroethane-d4	94.2		70-130	%REC	1	1/13/2015 06:46 AM
Surr: 4-Bromofluorobenzene	97.9		70-130	%REC	1	1/13/2015 06:46 AM
Surr: Dibromofluoromethane	95.7		70-130	%REC	1	1/13/2015 06:46 AM
Surr: Toluene-d8	96.8		70-130	%REC	1	1/13/2015 06:46 AM
MOISTURE						
			E160.3M			Analyst: EVB
Moisture	14		0.050	% of sample	1	1/12/2015 11:45 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Jan-15

Client: Altus Environmental

Project: Williams- Parachute Gas Plant 1.9.15

Sample ID: SB-11 16.0-16.5

Collection Date: 1/9/2015 12:30 PM

Work Order: 1501327

Lab ID: 1501327-11

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 1/12/15	Analyst: IT
DRO (C10-C28)	5.2		4.8	mg/Kg-dry	1	1/13/2015 02:33 AM
Surr: 4-Terphenyl-d14	76.1		39-133	%REC	1	1/13/2015 02:33 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 1/12/15	Analyst: IT
GRO (C6-C10)	210,000		2,900	µg/Kg-dry	1	1/13/2015 02:32 AM
Surr: Toluene-d8	122		50-150	%REC	1	1/13/2015 02:32 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 1/12/15	Analyst: JDW
Benzene	2,100		35	µg/Kg-dry	1	1/13/2015 07:12 AM
Ethylbenzene	1,300		35	µg/Kg-dry	1	1/13/2015 07:12 AM
m,p-Xylene	30,000		690	µg/Kg-dry	10	1/13/2015 07:55 PM
o-Xylene	3,300		350	µg/Kg-dry	10	1/13/2015 07:55 PM
Toluene	39,000		350	µg/Kg-dry	10	1/13/2015 07:55 PM
Xylenes, Total	33,000		1,000	µg/Kg-dry	10	1/13/2015 07:55 PM
Surr: 1,2-Dichloroethane-d4	93.3		70-130	%REC	10	1/13/2015 07:55 PM
Surr: 1,2-Dichloroethane-d4	97.2		70-130	%REC	1	1/13/2015 07:12 AM
Surr: 4-Bromofluorobenzene	97.8		70-130	%REC	10	1/13/2015 07:55 PM
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	1/13/2015 07:12 AM
Surr: Dibromofluoromethane	92.4		70-130	%REC	10	1/13/2015 07:55 PM
Surr: Dibromofluoromethane	92.9		70-130	%REC	1	1/13/2015 07:12 AM
Surr: Toluene-d8	126		70-130	%REC	1	1/13/2015 07:12 AM
Surr: Toluene-d8	104		70-130	%REC	10	1/13/2015 07:55 PM
MOISTURE						
			E160.3M			Analyst: EVB
Moisture	13		0.050	% of sample	1	1/12/2015 11:45 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Jan-15

Client: Altus Environmental

Project: Williams- Parachute Gas Plant 1.9.15

Sample ID: SB-11 34.5-35.0

Collection Date: 1/9/2015 12:50 PM

Work Order: 1501327

Lab ID: 1501327-12

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M		Prep: SW3541 / 1/12/15	Analyst: IT
DRO (C10-C28)	ND		4.8	mg/Kg-dry	1	1/13/2015 03:00 AM
Surr: 4-Terphenyl-d14	89.0		39-133	%REC	1	1/13/2015 03:00 AM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015		Prep: SW5035 / 1/12/15	Analyst: IT
GRO (C6-C10)	ND		2,900	µg/Kg-dry	1	1/13/2015 02:56 AM
Surr: Toluene-d8	110		50-150	%REC	1	1/13/2015 02:56 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 1/12/15	Analyst: JDW
Benzene	ND		35	µg/Kg-dry	1	1/13/2015 07:39 AM
Ethylbenzene	ND		35	µg/Kg-dry	1	1/13/2015 07:39 AM
m,p-Xylene	ND		71	µg/Kg-dry	1	1/13/2015 07:39 AM
o-Xylene	ND		35	µg/Kg-dry	1	1/13/2015 07:39 AM
Toluene	ND		35	µg/Kg-dry	1	1/13/2015 07:39 AM
Xylenes, Total	ND		110	µg/Kg-dry	1	1/13/2015 07:39 AM
Surr: 1,2-Dichloroethane-d4	93.4		70-130	%REC	1	1/13/2015 07:39 AM
Surr: 4-Bromofluorobenzene	98.4		70-130	%REC	1	1/13/2015 07:39 AM
Surr: Dibromofluoromethane	93.8		70-130	%REC	1	1/13/2015 07:39 AM
Surr: Toluene-d8	97.0		70-130	%REC	1	1/13/2015 07:39 AM
MOISTURE			E160.3M			Analyst: EVB
Moisture	15		0.050	% of sample	1	1/12/2015 11:45 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Altus Environmental

Work Order: 1501327

Project: Williams- Parachute Gas Plant 1.9.15

QC BATCH REPORT

Batch ID: 66699

Instrument ID GC8

Method: SW8015M

MBLK		Sample ID: DBLKS1-66699-66699				Units: mg/Kg		Analysis Date: 1/12/2015 04:28 PM		
Client ID:		Run ID: GC8_150112A				SeqNo: 3105592		Prep Date: 1/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	1.75	0	2	0	87.5	39-133	0			

LCS		Sample ID: DLCSS1-66699-66699				Units: mg/Kg		Analysis Date: 1/12/2015 04:56 PM		
Client ID:		Run ID: GC8_150112A				SeqNo: 3105593		Prep Date: 1/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	160.7	5.0	200	0	80.3	61-109	0			
Surr: 4-Terphenyl-d14	1.248	0	2	0	62.4	39-133	0			

MS		Sample ID: 1501314-03B MS				Units: mg/Kg		Analysis Date: 1/12/2015 05:23 PM		
Client ID:		Run ID: GC8_150112A				SeqNo: 3105594		Prep Date: 1/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	385.9	8.1	325.5	31.31	109	48-110	0			
Surr: 4-Terphenyl-d14	2.697	0	3.255	0	82.9	39-133	0			

MSD		Sample ID: 1501314-03B MSD				Units: mg/Kg		Analysis Date: 1/12/2015 05:51 PM		
Client ID:		Run ID: GC8_150112A				SeqNo: 3105595		Prep Date: 1/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	273.1	8.1	325.3	31.31	74.3	48-110	385.9	34.2	30	R
Surr: 4-Terphenyl-d14	3.396	0	3.253	0	104	39-133	2.697	22.9	30	

The following samples were analyzed in this batch:

1501327-01A	1501327-02A	1501327-03A
1501327-04A	1501327-05A	1501327-06A
1501327-07A	1501327-08A	1501327-09A
1501327-10A	1501327-11A	1501327-12A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
 Work Order: 1501327
 Project: Williams- Parachute Gas Plant 1.9.15

QC BATCH REPORT

Batch ID: **66704** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-66704-66704				Units: µg/Kg		Analysis Date: 1/12/2015 12:03 PM		
Client ID:		Run ID: GC9_150112A				SeqNo: 3105139		Prep Date: 1/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
Surr: Toluene-d8	5334	0	5000	0	107	50-150	0			

LCS		Sample ID: LCS-66704-66704				Units: µg/Kg		Analysis Date: 1/12/2015 11:38 AM		
Client ID:		Run ID: GC9_150112A				SeqNo: 3105138		Prep Date: 1/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	420600	2,500	500000	0	84.1	70-130	0			
Surr: Toluene-d8	5290	0	5000	0	106	50-150	0			

MS		Sample ID: 1501314-01A MS				Units: µg/Kg		Analysis Date: 1/12/2015 03:24 PM		
Client ID:		Run ID: GC9_150112A				SeqNo: 3105146		Prep Date: 1/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	433000	2,500	500000	0	86.6	70-130	0			
Surr: Toluene-d8	4663	0	5000	0	93.3	50-150	0			

MSD		Sample ID: 1501314-01A MSD				Units: µg/Kg		Analysis Date: 1/12/2015 03:49 PM		
Client ID:		Run ID: GC9_150112A				SeqNo: 3105147		Prep Date: 1/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	426700	2,500	500000	0	85.3	70-130	433000	1.47	30	
Surr: Toluene-d8	4717	0	5000	0	94.3	50-150	4663	1.15	30	

The following samples were analyzed in this batch:

1501327-01A	1501327-02A	1501327-03A
1501327-04A	1501327-05A	1501327-06A
1501327-07A	1501327-08A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
Work Order: 1501327
Project: Williams- Parachute Gas Plant 1.9.15

QC BATCH REPORT

Batch ID: **66741** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-66741-66741				Units: µg/Kg		Analysis Date: 1/12/2015 06:17 PM		
Client ID:		Run ID: GC9_150112A				SeqNo: 3105835		Prep Date: 1/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	5508	0	5000	0	110	50-150	0			

LCS		Sample ID: LCS-66741-66741				Units: µg/Kg		Analysis Date: 1/12/2015 05:52 PM		
Client ID:		Run ID: GC9_150112A				SeqNo: 3105833		Prep Date: 1/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	463200	2,500	500000	0	92.6	70-130	0			
<i>Surr: Toluene-d8</i>	4754	0	5000	0	95.1	50-150	0			

MS		Sample ID: 1501327-09A MS				Units: µg/Kg		Analysis Date: 1/12/2015 06:42 PM		
Client ID: SB-10 9.5-10.0		Run ID: GC9_150112A				SeqNo: 3105837		Prep Date: 1/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	724400	2,500	500000	203600	104	70-130	0			
<i>Surr: Toluene-d8</i>	4775	0	5000	0	95.5	50-150	0			

MSD		Sample ID: 1501327-09A MSD				Units: µg/Kg		Analysis Date: 1/12/2015 07:07 PM		
Client ID: SB-10 9.5-10.0		Run ID: GC9_150112A				SeqNo: 3105839		Prep Date: 1/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	728900	2,500	500000	203600	105	70-130	724400	0.615	30	
<i>Surr: Toluene-d8</i>	4938	0	5000	0	98.8	50-150	4775	3.35	30	

The following samples were analyzed in this batch:

1501327-09A	1501327-10A	1501327-11A
1501327-12A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
 Work Order: 1501327
 Project: Williams- Parachute Gas Plant 1.9.15

QC BATCH REPORT

Batch ID: **66740** Instrument ID **VMS6** Method: **SW8260B**

MBLK				Sample ID: MBLK-66740-66740				Units: µg/Kg			Analysis Date: 1/13/2015 01:08 AM		
Client ID:			Run ID: VMS6_150112B				SeqNo: 3105920			Prep Date: 1/12/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	ND	30											
Ethylbenzene	ND	30											
m,p-Xylene	ND	60											
o-Xylene	ND	30											
Toluene	ND	30											
Xylenes, Total	ND	90											
Surr: 1,2-Dichloroethane-d4	958	0	1000	0	95.8	70-130		0					
Surr: 4-Bromofluorobenzene	963.5	0	1000	0	96.4	70-130		0					
Surr: Dibromofluoromethane	975	0	1000	0	97.5	70-130		0					
Surr: Toluene-d8	967	0	1000	0	96.7	70-130		0					

LCS				Sample ID: LCS-66740-66740				Units: µg/Kg			Analysis Date: 1/12/2015 11:50 PM		
Client ID:			Run ID: VMS6_150112B				SeqNo: 3105918			Prep Date: 1/12/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	965	30	1000	0	96.5	75-125	0						
Ethylbenzene	923.5	30	1000	0	92.4	75-125	0						
m,p-Xylene	1856	60	2000	0	92.8	80-125	0						
o-Xylene	925	30	1000	0	92.5	75-125	0						
Toluene	937	30	1000	0	93.7	70-125	0						
Xylenes, Total	2780	90	3000	0	92.7	75-125	0						
Surr: 1,2-Dichloroethane-d4	977.5	0	1000	0	97.8	70-130	0						
Surr: 4-Bromofluorobenzene	1000	0	1000	0	100	70-130	0						
Surr: Dibromofluoromethane	1003	0	1000	0	100	70-130	0						
Surr: Toluene-d8	979	0	1000	0	97.9	70-130	0						

MS					Sample ID: 1501349-04A MS			Units: µg/Kg		Analysis Date: 1/13/2015 05:01 AM	
Client ID:			Run ID: VMS7_150112B			SeqNo: 3105867		Prep Date: 1/12/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	962.5	30	1000	0	96.2	75-125	0				
Ethylbenzene	984.5	30	1000	0	98.4	75-125	0				
m,p-Xylene	1934	60	2000	0	96.7	80-125	0				
o-Xylene	995	30	1000	0	99.5	75-125	0				
Toluene	954	30	1000	0	95.4	70-125	0				
Xylenes, Total	2930	90	3000	0	97.6	75-125	0				
Surr: 1,2-Dichloroethane-d4	956	0	1000	0	95.6	70-130	0				
Surr: 4-Bromofluorobenzene	1033	0	1000	0	103	70-130	0				
Surr: Dibromofluoromethane	957.5	0	1000	0	95.8	70-130	0				
Surr: Toluene-d8	959	0	1000	0	95.9	70-130	0				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
Work Order: 1501327
Project: Williams- Parachute Gas Plant 1.9.15

QC BATCH REPORT

Batch ID: **66740** Instrument ID **VMS6** Method: **SW8260B**

MSD					Sample ID: 1501349-04A MSD			Units:µg/Kg		Analysis Date: 1/13/2015 05:26 AM	
Client ID:			Run ID: VMS7_150112B			SeqNo:3105868		Prep Date: 1/12/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	956	30	1000	0	95.6	75-125	962.5	0.678	30		
Ethylbenzene	967	30	1000	0	96.7	75-125	984.5	1.79	30		
m,p-Xylene	1903	60	2000	0	95.2	80-125	1934	1.64	30		
o-Xylene	982	30	1000	0	98.2	75-125	995	1.32	30		
Toluene	933.5	30	1000	0	93.4	70-125	954	2.17	30		
Xylenes, Total	2885	90	3000	0	96.2	75-125	2930	1.53	30		
Surr: 1,2-Dichloroethane-d4	957	0	1000	0	95.7	70-130	956	0.105	30		
Surr: 4-Bromofluorobenzene	1034	0	1000	0	103	70-130	1033	0.0484	30		
Surr: Dibromofluoromethane	960.5	0	1000	0	96	70-130	957.5	0.313	30		
Surr: Toluene-d8	959.5	0	1000	0	96	70-130	959	0.0521	30		

The following samples were analyzed in this batch:

1501327-01A	1501327-02A	1501327-03A
1501327-04A	1501327-05A	1501327-06A
1501327-07A	1501327-08A	1501327-09A
1501327-10A	1501327-11A	1501327-12A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Altus Environmental
Work Order: 1501327
Project: Williams- Parachute Gas Plant 1.9.15

QC BATCH REPORT

Batch ID: **R155745** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R155745				Units: % of sample		Analysis Date: 1/12/2015 11:45 AM		
Client ID:		Run ID: MOIST_150112B				SeqNo: 3106064		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R155745				Units: % of sample		Analysis Date: 1/12/2015 11:45 AM		
Client ID:		Run ID: MOIST_150112B				SeqNo: 3106063		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 99.99 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 1501327-01A DUP				Units: % of sample		Analysis Date: 1/12/2015 11:45 AM		
Client ID: SB-6 24.5-25.0		Run ID: MOIST_150112B				SeqNo: 3106050		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 15.61 0.050 0 0 0 13.76 12.6 20

DUP		Sample ID: 1501327-11A DUP				Units: % of sample		Analysis Date: 1/12/2015 11:45 AM		
Client ID: SB-11 16.0-16.5		Run ID: MOIST_150112B				SeqNo: 3106061		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 13.03 0.050 0 0 0 13.12 0.688 20

The following samples were analyzed in this batch:

1501327-01A	1501327-02A	1501327-03A
1501327-04A	1501327-05A	1501327-06A
1501327-07A	1501327-08A	1501327-09A
1501327-10A	1501327-11A	1501327-12A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



Cincinnati, OH
+1 513 733 5336

Everett, WA
+1 425 356 2600

Fort Collins, CO
+1 970 490 1511

Holland, MI
+1 616 399 6070

Chain of Custody Form

Houston, TX
+1 281 530 5656

Middletown, PA
+1 717 944 5541

Spring City, PA
+1 610 948 4903

Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168

York, PA
+1 717 505 5280

Environmental

Page 1 of 2
COC ID: **13136**

Customer Information				Project Information				ALS Work Order #									
Purchase Order	Project Name			ALS Project Manager:				Parameter/Method Request for Analysis									
Work Order	Project Number			Williams - Beredute G.P.				BTEX/GRO/DRD									
Company Name	Bill To Company			Williams													
Send Report To	Invoice Attn			Annette G.													
Address	Address			20219 County Rd 5													
City/State/Zip	City/State/Zip			Riflo, CO 81650													
Phone	Phone			970 285-5964													
Fax	Fax																
e-Mail/Address	e-Mail Address			cwillson@2thussenvi.to.com													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-6 24.5-25.0	1/9/15	0850	soil	8	1	X										
2	SB-6 34.5-35.0	1/9/15	0900	soil	8	1	X										
3	SB-7 22.0-22.5	1/9/15	0925	soil	8	1	X										
4	SB-7 34.5-35.0	1/9/15	0935	soil	8	1	X										
5	SB-8 24.5-25.0	1/9/15	1010	soil	8	1	X										
6	SB-8 34.5-35.0	1/9/15	1020	soil	8	1	X										
7	SB-9 24.5-25.0	1/9/15	1050	soil	8	1	X										
8	SB-9 34.5-35.0	1/9/15	1100	soil	8	1	X										
9	SB-10 9.5-10.0	1/9/15	1135	soil	8	1	X										
10	SB-10 34.5-35.0	1/9/15	1145	soil	8	1	X										

Shipment Method		Required Turnaround Time (Check Box)		Results Due Date:	
<input checked="" type="checkbox"/> STD 10 Wk Days	<input type="checkbox"/> 5 Wk Days	<input type="checkbox"/> 2 Wk Days	<input type="checkbox"/> 24 Hour		
Received by:		Received by (Laboratory):		Notes:	
Time: 1445		Time: 1500		Cooler ID	
Date: 1/9/15		Date: 1/12/15		Cooler Temp	
Time: 1500		Time: 0905		3.0°C	
Date: 1/9/15		Date: 1/12/15		QC Package: (Check One Box Below)	
Time: 0905		Time: 0905		<input type="checkbox"/> Level II Std QC	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> Level III Std QC/Raw Data	
Time: 0905		Time: 0905		<input type="checkbox"/> Level IV SWAB/CLP	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> Other	
Time: 0905		Time: 0905		THRP Checklist	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level I	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level II	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level III	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level IV	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level V	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level VI	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level VII	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level VIII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level IX	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level X	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XI	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XIII	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XIV	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XV	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XVI	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XVII	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XVIII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XIX	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XX	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XXI	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XXII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XXIII	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XXIV	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XXV	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XXVI	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XXVII	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XXVIII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XXIX	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XXX	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XXXI	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XXXII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XXXIII	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XXXIV	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XXXV	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XXXVI	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XXXVII	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XXXVIII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XXXIX	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XL	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XLI	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XLII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XLIII	
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Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XLVII	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level XLVIII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level XLIX	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level L	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LI	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LIII	
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Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXVIII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXIX	
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Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXII	
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Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXIV	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXV	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXVI	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXVII	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXVIII	
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Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXIII	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXIV	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXV	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXVI	
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Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXXIV	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXXV	
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Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXXXVI	
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Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXXXVIII	
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Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXXXXVII	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXXXXVIII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXXXXIX	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXXXXX	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXXXXXI	
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Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXXXXXIII	
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Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXXXXXVI	
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Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXXXXXVII	
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Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXXXXXVI	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXXXXXVII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXXXXXVIII	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXXXXXIX	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXXXXXI	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXXXXXII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXXXXXIII	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXXXXXIV	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXXXXXV	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXXXXXVI	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXXXXXVII	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXXXXXVIII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXXXXXIX	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXXXXXI	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXXXXXII	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXXXXXIII	
Date: 1/12/15		Date: 1/12/15		<input type="checkbox"/> THRP Level LXXXXXXXIV	
Time: 0905		Time: 0905		<input type="checkbox"/> THRP Level LXXXXXXXV	
Date: 1					

Ann Preston

From: Garrigues, Annette [Annette.Garrigues@williams.com]
Sent: Tuesday, January 13, 2015 9:51 AM
To: Ann Preston
Subject: RE: 1501327 Williams- Parachute Gas Plant 1.9.15 WOA

Hi Ann,

Your PO for this is: **606899**
Routing code: **NXM99**

Thanks!

Annette Garrigues
Environmental Specialist



4289 County Road 215
Parachute, CO 81635
970-618-3329 (Cell Phone)
970-285-5461 (Office Phone)

From: Ann Preston [mailto:Ann.Preston@ALSGlobal.com]
Sent: Monday, January 12, 2015 9:26 AM
To: bwiliams@altusenviro.com
Cc: mcrenshaw@altusenviro.com; Garrigues, Annette
Subject: 1501327 Williams- Parachute Gas Plant 1.9.15 WOA

Please see the attached work order acknowledgement that contains the sample IDs, test assignment, and costs associated with the recent samples you submitted. Please let me know if you have any changes, otherwise we will proceed as shown. Modifications to the final report, after issue, may incur additional cost.

Regards,

Ann

ANNOUNCEMENT: In order to better serve you, improvements to Webtrieve™ are coming soon!
Contact your Project Manager or Sales Representative for more information.
Take our short online customer survey for a chance to win a FREE iPad!

Ann L. Preston

Senior Project Manager
ALS Life Sciences Division | Environmental
3352 128th Avenue
Holland, MI 49424 USA

1/13/2015

Sample Receipt Checklist

Client Name: **ALTUSENV**

Date/Time Received: **10-Jan-15 10:50**

Work Order: **1501327**

Received by: **KRW**

Checklist completed by Keith Wurenga
eSignature

12-Jan-15
Date

Reviewed by: Ann Preston
eSignature

12-Jan-15
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.0 C</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>1/12/2015 9:50:23 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u></u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (016) 298-1033
Nick Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, CO 81035

Origin ID: RLA



BILL BENDER

SHIP TO: (616) 399-8070
sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

Ship Date: 08JAN15
ActWgt: 64.0 LB
CAD: 2264840INET3550

Dims: 14 X 26 X 15 IN

Delivery Address Bar Code



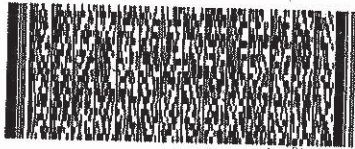
Ref # 010914-1
Invoice #
PO # Parachute
Dept #

SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 7725 3281 5068
6201

XO HLMA

49424
MI-US
GRR



522616F158A03

After printing this label:

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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ALS Parachute Custody Seal

DATE 1-9-15 Time 1700

Name Lin



HEALTH AND SAFETY PLAN – Level 2

This Level 2 HASP is intended to provide health and safety guidelines for project field work meeting the following criteria:

- **“Buddy System” in use (or communication plan implemented for “lone worker”**
- **Some likelihood of chemical and/or physical hazard exposure**
- **No supplied-air respirator use**

The Project Manager should review this Health and Safety Plan with all Apex project personnel. A copy of the HASP must be kept in the field with the project team as well as maintained in project files.

Administrative Information This document is valid for a maximum time period of one year after initial completion and must be re-evaluated by the project team at that time. A minimum of two persons with appropriate training must be onsite or an appropriate communication plan must be implemented. A mix of Apex and other personnel can satisfy this requirement.	Site Name and Location Parachute Creek Gas Plant - 4289 County Road 215 - Parachute, Colorado	
	Client Contact and Phone Annette Garrigues (970-618-3329)	
	Project Name Spill Impact Delineation	
	Health & Safety Plan Date April 19, 2016	Revision Number and Date 001
	Field Work Start Date May 4, 2016	Anticipated Field Work End Date May 6, 2016
	Project Manager (<i>responsible for implementing the site health and safety program on this project</i>) W. Catt Wilson	Site Safety Officer (SSO) (<i>responsible for overall site health and safety performance on this project</i>). Chris Hines

Project Background and Scope of Work Include numbered list of tasks to be completed by Apex personnel during this project, and a separate list of tasks to be completed by any subcontractors at the site. JSAs are to be prepared for each task listed. Subcontractors are responsible for preparing JSAs for their activities.	Apex Scope of Work: Direct-push drilling for soil sampling to support horizontal definition of known hydrocarbon soil impacts. 1. Mobilize to site, 2. provide drilling oversight, 3. log and field screen soil samples generated from drilling, and 4. collect soil samples.
	Subcontractor Scope of Work: Direct-push subcontractor will 1. drill, 2. abandon associated boreholes, 3. decontaminate equipment, and 4. conduct investigation-derived waste (IDW) management activities (i.e., drum soils, relocate soils, etc.). Williams designated subcontractor will conduct potholing activities under Apex supervision, looking for signs of impacted soil and the presence of underground utilities.

Site/Project General Information An asterisk (*) indicates that additional checklists or permits are required and must be completed and attached to this document. A double asterisk (**) indicates that a Risk Review performed by a member of the Corporate Safety Committee must take place prior to beginning fieldwork on the project.	Site Type (check all applicable boxes) <table border="0"> <tr> <td><input checked="" type="checkbox"/> Active Facility</td> <td><input type="checkbox"/> Remote Facility</td> <td><input type="checkbox"/> Inactive Facility</td> <td><input type="checkbox"/> Residential</td> </tr> <tr> <td><input type="checkbox"/> Mine</td> <td><input type="checkbox"/> Railroad</td> <td><input checked="" type="checkbox"/> Industrial</td> <td><input type="checkbox"/> Secured</td> </tr> <tr> <td><input type="checkbox"/> Uncontrolled</td> <td><input checked="" type="checkbox"/> Other (specify)</td> <td colspan="2">Oil and gas plant</td> </tr> </table>	<input checked="" type="checkbox"/> Active Facility	<input type="checkbox"/> Remote Facility	<input type="checkbox"/> Inactive Facility	<input type="checkbox"/> Residential	<input type="checkbox"/> Mine	<input type="checkbox"/> Railroad	<input checked="" type="checkbox"/> Industrial	<input type="checkbox"/> Secured	<input type="checkbox"/> Uncontrolled	<input checked="" type="checkbox"/> Other (specify)	Oil and gas plant																				
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Main Site Hazards (check all applicable boxes) <table border="0"> <tr> <td><input checked="" type="checkbox"/> Slip/Trip/Fall</td> <td><input type="checkbox"/> Cold Stress</td> <td><input type="checkbox"/> Heat Stress</td> <td><input type="checkbox"/> Extreme Weather</td> </tr> <tr> <td><input type="checkbox"/> Biological</td> <td><input type="checkbox"/> Organic/Inorganic Chemicals</td> <td><input checked="" type="checkbox"/> High Noise</td> <td><input type="checkbox"/> Construction Traffic</td> </tr> <tr> <td><input checked="" type="checkbox"/> Vehicular Traffic</td> <td><input type="checkbox"/> Respirable Particles</td> <td><input type="checkbox"/> Excavations</td> <td><input checked="" type="checkbox"/> Buried/Overhead Utilities</td> </tr> <tr> <td><input type="checkbox"/> Non-Ionizing Radiation</td> <td><input type="checkbox"/> Security</td> <td><input type="checkbox"/> ASTs/USTs</td> <td><input type="checkbox"/> Manlift/Cherry Picker Use</td> </tr> <tr> <td><input type="checkbox"/> Work Over 6' High*</td> <td><input type="checkbox"/> Hand/Portable Power Tools</td> <td><input type="checkbox"/> Oxygen Deficiency</td> <td><input type="checkbox"/> Construction</td> </tr> <tr> <td><input type="checkbox"/> Blasting Agents</td> <td><input type="checkbox"/> Confined Spaces</td> <td><input type="checkbox"/> Welding or Hot Work</td> <td><input type="checkbox"/> Chemical Mixing**</td> </tr> <tr> <td><input type="checkbox"/> Lockout/Tagout</td> <td><input type="checkbox"/> Forklift Use</td> <td><input checked="" type="checkbox"/> Other (specify)</td> <td>direct-push drilling</td> </tr> <tr> <td><input type="checkbox"/> Scaffold Use</td> <td><input type="checkbox"/> Portable Ladders</td> <td><input type="checkbox"/> Other (specify)</td> <td></td> </tr> </table>	<input checked="" type="checkbox"/> Slip/Trip/Fall	<input type="checkbox"/> Cold Stress	<input type="checkbox"/> Heat Stress	<input type="checkbox"/> Extreme Weather	<input type="checkbox"/> Biological	<input type="checkbox"/> Organic/Inorganic Chemicals	<input checked="" type="checkbox"/> High Noise	<input type="checkbox"/> Construction Traffic	<input checked="" type="checkbox"/> Vehicular Traffic	<input type="checkbox"/> Respirable Particles	<input type="checkbox"/> Excavations	<input checked="" type="checkbox"/> Buried/Overhead Utilities	<input type="checkbox"/> Non-Ionizing Radiation	<input type="checkbox"/> Security	<input type="checkbox"/> ASTs/USTs	<input type="checkbox"/> Manlift/Cherry Picker Use	<input type="checkbox"/> Work Over 6' High*	<input type="checkbox"/> Hand/Portable Power Tools	<input type="checkbox"/> Oxygen Deficiency	<input type="checkbox"/> Construction	<input type="checkbox"/> Blasting Agents	<input type="checkbox"/> Confined Spaces	<input type="checkbox"/> Welding or Hot Work	<input type="checkbox"/> Chemical Mixing**	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Forklift Use	<input checked="" type="checkbox"/> Other (specify)	direct-push drilling	<input type="checkbox"/> Scaffold Use	<input type="checkbox"/> Portable Ladders	<input type="checkbox"/> Other (specify)	
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<p>Chemical Products Apex will Use or Store Onsite</p> <p>For each chemical product identified, an SDS must be attached to this HASP</p>	<table style="width: 100%; border: none;"> <tr> <td><input checked="" type="checkbox"/> Alconox or Liquinox</td> <td><input type="checkbox"/> Calibration gas (Methane)</td> <td><input type="checkbox"/> Isopropyl Alcohol</td> </tr> <tr> <td><input type="checkbox"/> Hydrochloric acid (HCl)*</td> <td><input type="checkbox"/> Calibration gas (Isobutylene)</td> <td><input type="checkbox"/> Household bleach (NaOCl)*</td> </tr> <tr> <td><input type="checkbox"/> Nitric acid (HNO₃)*</td> <td><input type="checkbox"/> Calibration gas (Pentane)</td> <td><input type="checkbox"/> Sulfuric acid (H₂SO₄)*</td> </tr> <tr> <td><input type="checkbox"/> Sodium hydroxide (NaOH)*</td> <td><input type="checkbox"/> Calibration gas (4-gas mixture)</td> <td><input type="checkbox"/> Hexane</td> </tr> <tr> <td><input type="checkbox"/> Other (specify)</td> <td><input type="checkbox"/> Other (specify)</td> <td><input type="checkbox"/> Other (specify)</td> </tr> </table> <p>*NOTE: Eyewash solution shall be readily available on ALL projects where corrosive materials are used or stored, including sample preservatives.</p>	<input checked="" type="checkbox"/> Alconox or Liquinox	<input type="checkbox"/> Calibration gas (Methane)	<input type="checkbox"/> Isopropyl Alcohol	<input type="checkbox"/> Hydrochloric acid (HCl)*	<input type="checkbox"/> Calibration gas (Isobutylene)	<input type="checkbox"/> Household bleach (NaOCl)*	<input type="checkbox"/> Nitric acid (HNO ₃)*	<input type="checkbox"/> Calibration gas (Pentane)	<input type="checkbox"/> Sulfuric acid (H ₂ SO ₄)*	<input type="checkbox"/> Sodium hydroxide (NaOH)*	<input type="checkbox"/> Calibration gas (4-gas mixture)	<input type="checkbox"/> Hexane	<input type="checkbox"/> Other (specify)	<input type="checkbox"/> Other (specify)	<input type="checkbox"/> Other (specify)
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<p>Safe Work Practices</p> <p>Place a checkmark by applicable SWPs and attach to this document</p> <p>For hazards not covered by SWPs listed in this section, ensure the hazard is addressed in the JSA for that task. Otherwise, the JSA may reference the SWP for that hazard.</p>	<p style="text-align: center;">SWPs Applicable To This Project (check all applicable boxes)</p> <table style="width: 100%; border: none;"> <tr> <td><input checked="" type="checkbox"/> Hazard Communication</td> <td><input checked="" type="checkbox"/> Medical Services and First Aid</td> <td><input type="checkbox"/> Airborne Contaminants</td> <td><input checked="" type="checkbox"/> Heat Stress</td> </tr> <tr> <td><input type="checkbox"/> Cold Stress</td> <td><input checked="" type="checkbox"/> Natural Hazards</td> <td><input checked="" type="checkbox"/> Personal Protective Equipment</td> <td><input type="checkbox"/> Respiratory Protection</td> </tr> <tr> <td><input type="checkbox"/> Confined Space Entry</td> <td><input type="checkbox"/> Drum Handling</td> <td><input type="checkbox"/> Excavation</td> <td><input type="checkbox"/> Fall Protection and Prevention</td> </tr> <tr> <td><input type="checkbox"/> Forklift and Truck Operations</td> <td><input type="checkbox"/> Hand/Power Tool Use</td> <td><input type="checkbox"/> Heavy and Material Handling Equipment</td> <td><input type="checkbox"/> Ladder Safety</td> </tr> <tr> <td><input type="checkbox"/> Wet Utilities – Maintenance, Inspection, Repair</td> <td><input type="checkbox"/> Other Task (specify)</td> <td><input type="checkbox"/> Other Task (specify)</td> <td><input type="checkbox"/> Other Task (specify)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Other Task (specify) direct-push drilling</td> <td><input type="checkbox"/> Other Task (specify)</td> <td><input type="checkbox"/> Other Task (specify)</td> <td><input type="checkbox"/> Other Task (specify)</td> </tr> </table>	<input checked="" type="checkbox"/> Hazard Communication	<input checked="" type="checkbox"/> Medical Services and First Aid	<input type="checkbox"/> Airborne Contaminants	<input checked="" type="checkbox"/> Heat Stress	<input type="checkbox"/> Cold Stress	<input checked="" type="checkbox"/> Natural Hazards	<input checked="" type="checkbox"/> Personal Protective Equipment	<input type="checkbox"/> Respiratory Protection	<input type="checkbox"/> Confined Space Entry	<input type="checkbox"/> Drum Handling	<input type="checkbox"/> Excavation	<input type="checkbox"/> Fall Protection and Prevention	<input type="checkbox"/> Forklift and Truck Operations	<input type="checkbox"/> Hand/Power Tool Use	<input type="checkbox"/> Heavy and Material Handling Equipment	<input type="checkbox"/> Ladder Safety	<input type="checkbox"/> Wet Utilities – Maintenance, Inspection, Repair	<input type="checkbox"/> Other Task (specify)	<input type="checkbox"/> Other Task (specify)	<input type="checkbox"/> Other Task (specify)	<input checked="" type="checkbox"/> Other Task (specify) direct-push drilling	<input type="checkbox"/> Other Task (specify)	<input type="checkbox"/> Other Task (specify)	<input type="checkbox"/> Other Task (specify)
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<p>Levels of Protection Required for each Task</p> <p>Signature of the SSO on page 1 of this document signifies certification of PPE Hazard Assessment</p>	Task Description	Level			
		A	B	C	D
	mobilize to site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	provide drilling oversight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	log and field screen soil samples	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	collect soil samples	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Personal Protective Equipment Req=Required Rec=Recommended An asterisk (*) indicates that employees must be a participant in the respiratory program, including, annual training and fit testing.	Equipment	Req	Rec	NA	Equipment	Req	Rec	NA
	Steel Toe Boots	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tyvek Suit	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Safety Glasses Shields	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Outer Disposable Boots	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Hi Vis Vest (Specify Class 2/3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Indirect Vented Goggles	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Hi Vis Shirt	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Poly-Coated Tyvek	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Hard Hat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dust Mask*	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Fire Resistant Clothing (FRC)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Full-Face Respirator*	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Hearing Protection	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Half-Face Respirator*	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Work Gloves – Type:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Inner Chemical Gloves	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Outer Chemical Gloves	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Training and Medical Surveillance Req=Required Rec=Recommended	Training	Req	Rec	NA	Medical Surveillance	Req	Rec	NA
	40 Hour HAZWOPER	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Medical Clearance (fit for duty)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Current 8 Hour HAZWOPER	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Respirator Clearance	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	8 Hour HAZWOPER Supervisor	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Blood Lead and ZPP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	24Hour HAZWOPER	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Current CPR and First Aid	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	10 Hour Construction	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Other (specify) Williams Safety Orient'n	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Safety Supplies Req=Required Rec=Recommended	Supplies	Req	Rec	NA	Supplies	Req	Rec	NA
	First Aid Kit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fire Extinguisher	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Eyewash Solution	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Water/Sports Drink	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Air Horn	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Oral Thermometer (heat monitoring)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Noise Meter (Dosimeter)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Decontamination Supplies	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Work Zones If exclusion zones are necessary because of chemical OR equipment hazards, describe the plan	Exclusion Zone: The project area is located within a secured and gated facility to prevent access from unauthorized personnel. Keep a safe distance from energized equipment, unless approach is necessary to accomplish project tasks. Facility-specific exclusion zones identified by Williams during check-in at facility. Avoid line-of-fire areas around pipe racks and other pressurized equipment. (e.g. line caps, valves, other likely washout points)
	Contamination Reduction Zone: The project area is located within a secured and gated facility to prevent access from unauthorized personnel. Any CRZ necessary for this project will be designated by the facility operator.
	Support Zone: The project area is located within a secured and gated facility to prevent access from unauthorized personnel. Any SZ necessary for this project will be designated by the facility operator.

Site Access/Control How do we limit unauthorized entry to the site itself?	Access Control Procedures: The project area is located within a Williams secured and gated facility to prevent access from unauthorized personnel. Any facility personnel approaching the project area will be immediately briefed of activities and included in the HASP, JSA, and tailgate as applicable. Potholed locations will be appropriately marked to limit the potential of near hits or incidents.
DECON Procedures	Decontamination Procedures: Due to the low levels of contamination documented for this site, decontamination of equipment or personnel will not routinely be required. If site conditions change and decontamination is needed, the site safety coordinator will monitor decontamination procedures. Sample collection will be carried out by personnel wearing nitrile gloves, which will be placed in an appropriate receptacle for disposal.

Communication Plan In the event work must be completed alone by an Apex employee or work is performed in a rural area with limited communication, this Communication Plan must be completed.	The purpose of the communication plan is to provide a "What to Do" if the project manager/supervisor cannot contact field personnel. The field team and PM must coordinate a call in time daily. The check-in intervals will depend on the project setting and hazards. More importantly, if the field team does not check in, what is the requirement or actions of the PM.			
	Daily Check in Time	Responsible Person	Daily Check In Time	Responsible person
	18:00 (end of day)	W. Catt Wilson		
	Plan of Action (in the event of no communication): 1. Call field personnel (Chris Hines) cell phone (970-261-1127). 2. Call Branch Manager (Jana Nilsen) cell phone (307-399-2870) 3. Call Annette Garrigues (970-618-3329) to contact Parachute Creek Gas Plant office for project information. 4. Call Parachute Fire Department (970-285-9119)			

<p>Chemicals of Concern</p> <p>In the section to the right, check any chemicals present onsite in any media (air, soil water).</p> <p>In the table below, list chemicals suspected or confirmed to be onsite, and provide requested information.</p>	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Friable Asbestos</div> <div style="width: 33%;"><input type="checkbox"/> Vinyl chloride</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Toluene</div> <div style="width: 33%;"><input checked="" type="checkbox"/> RCRA Metals</div> <div style="width: 33%;"><input type="checkbox"/> Inorganic Arsenic</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Ethylbenzene</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Lead</div> <div style="width: 33%;"><input type="checkbox"/> Cadmium</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Xylene</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Benzene</div> <div style="width: 33%;"><input type="checkbox"/> Formaldehyde</div> <div style="width: 33%;"><input type="checkbox"/> Polyaromatic hydrocarbons (PAHs)</div> <div style="width: 33%;"><input type="checkbox"/> Trichloroethylene (TCE)</div> <div style="width: 33%;"><input type="checkbox"/> Fuel Oils</div> <div style="width: 33%;"><input type="checkbox"/> Polychlorinated biphenyl (PCBs)</div> <div style="width: 33%;"><input type="checkbox"/> Tetrachloroethylene (PCE)</div> <div style="width: 33%;"><input type="checkbox"/> Methylene chloride</div> <div style="width: 33%;"><input type="checkbox"/> Chromium (VI)</div> <div style="width: 33%;"><input type="checkbox"/> Other</div> <div style="width: 33%;"><input type="checkbox"/> Other</div> <div style="width: 33%;"><input type="checkbox"/> Other</div> <div style="width: 33%;"><input type="checkbox"/> Other</div> <div style="width: 33%;"><input type="checkbox"/> Other</div> </div>	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> No Apex exposure to these</div> </div>
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Materials Present or Suspected at Site	Highest Reported Concentration (specify units and sample medium)	Exposure Limit (specify ppm or mg/m ³)	IDLH Level (specify ppm or mg/m ³)	Primary Hazards of the Material (explosive, flammable, corrosive, toxic, volatile, radioactive, biohazard, oxidizer, or other)	Symptoms and Effects of Acute Exposure	Ionization Potential (eV)
Benzene 71-43-2	35 mg/kg (soil)	PEL = 1 ppm REL = 0.1 ppm TLV = 0.5 ppm Skin Hazard <input checked="" type="checkbox"/>	500 ppm	explosive, flammable,	Leukemia	9.24
Toluene 108-88-3	310 mg/kg (soil)	PEL = 200 ppm REL = 100 ppm TLV = 20 ppm Skin Hazard <input type="checkbox"/>	500 ppm	explosive, flammable	Visual impairment; female reproductive; pregnancy loss	8.82
Gasoline 86290-81-5	8,900 mg/kg (soil)	PEL = 300 ppm REL = TLV = Skin Hazard <input type="checkbox"/>	NA		Upper respiratory tract & eye irritation; central nervous system impairment	NA
Arsenic 7440-38-2	9.8 mg/kg (soil)	PEL = 0.01 mg/m ³ REL = 0.002 mg/m ³ TLV = 0.01 mg/m ³ Skin Hazard <input type="checkbox"/>	5 mg/m ³		respiratory and gastrointestinal effects;	NA

PEL = OSHA Permissible Exposure Limit
 REL = NIOSH Recommended Exposure Limit
 TLV = ACGIH Threshold Limit Value
 IDLH = Immediately Dangerous to Life or Health

Monitoring Equipment: All monitoring equipment on site must be calibrated before and after each use and results recorded.				
Instrument (Check all required)	Task	Instrument Reading	Action Guideline	Comments
<input checked="" type="checkbox"/> Combustible gas indicator model:	<input type="checkbox"/> 1	0 to 10% LEL	Monitor; evacuate if confined space	
	<input type="checkbox"/> 2	10 to 25% LEL	Potential explosion hazard	
	<input type="checkbox"/> 3			
	<input type="checkbox"/> 4	>25% LEL	Explosion hazard; interrupt task; evacuate site	
	<input type="checkbox"/> 5			
<input checked="" type="checkbox"/> Oxygen meter model:	<input type="checkbox"/> 1	>23.5% Oxygen	Potential fire hazard; evacuate site	
	<input type="checkbox"/> 2	23.5 to 19.5% Oxygen	Oxygen level normal	
	<input type="checkbox"/> 3			
	<input type="checkbox"/> 4	<19.5% Oxygen	Oxygen deficiency; interrupt task; evacuate site	
	<input type="checkbox"/> 5			
<input type="checkbox"/> Radiation survey meter model:	<input type="checkbox"/> 1	Normal background	Proceed	Annual exposure not to exceed 1,250 mrem per quarter Background reading must be taken in an area known to be free of radiation sources
	<input type="checkbox"/> 2	Two to three times background	Notify SSO	
	<input type="checkbox"/> 3			
	<input type="checkbox"/> 4	>Three times background	Radiological hazard; interrupt task; evacuate site	
	<input type="checkbox"/> 5			
<input checked="" type="checkbox"/> Photoionization detector model: <input type="checkbox"/> 11.7 eV <input type="checkbox"/> 10.6 eV <input type="checkbox"/> 10.2 eV <input type="checkbox"/> 9.8 eV <input type="checkbox"/> ____ eV	<input checked="" type="checkbox"/> 1	Any response above background to ____ ppm above background	Level D is acceptable	Action levels must be determined based on the COCs and concentrations identified in the media sampled. If no COC concentrations are known, then use 5 ppm sustained within the breathing zone as your action level until the contaminants are identified.
	<input type="checkbox"/> 2	____ ppm above background	Level C (not anticipated)	
	<input type="checkbox"/> 3			
	<input type="checkbox"/> 4	____ ppm above background	Discontinue work	
	<input type="checkbox"/> 5			
<input type="checkbox"/> Flame ionization detector model:	<input type="checkbox"/> 1	Any response above background to ____ ppm above background	Level C is acceptable Level B is recommended	Action levels must be determined based on the COCs and concentrations identified in the media sampled. If no COC concentrations are known, then use 5 ppm sustained within the breathing zone as your action level until the contaminants are identified.
	<input type="checkbox"/> 2	____ ppm above background	Level B	
	<input type="checkbox"/> 3			
	<input type="checkbox"/> 4	above background	Level A	
	<input type="checkbox"/> 5			
<input type="checkbox"/> Detector tube models:	<input type="checkbox"/> 1	Specify:	Specify:	The action level for upgrading the level of protection is one-half of the contaminant's PEL. If the PEL is reached, evacuate the site and notify a safety specialist.
	<input type="checkbox"/> 2			
	<input type="checkbox"/> 3			
	<input type="checkbox"/> 4			
	<input type="checkbox"/> 5			
<input type="checkbox"/> Other (specify):	<input type="checkbox"/> 1	Specify:	Specify:	
	<input type="checkbox"/> 2			
	<input type="checkbox"/> 3			
	<input type="checkbox"/> 4			
	<input type="checkbox"/> 5			

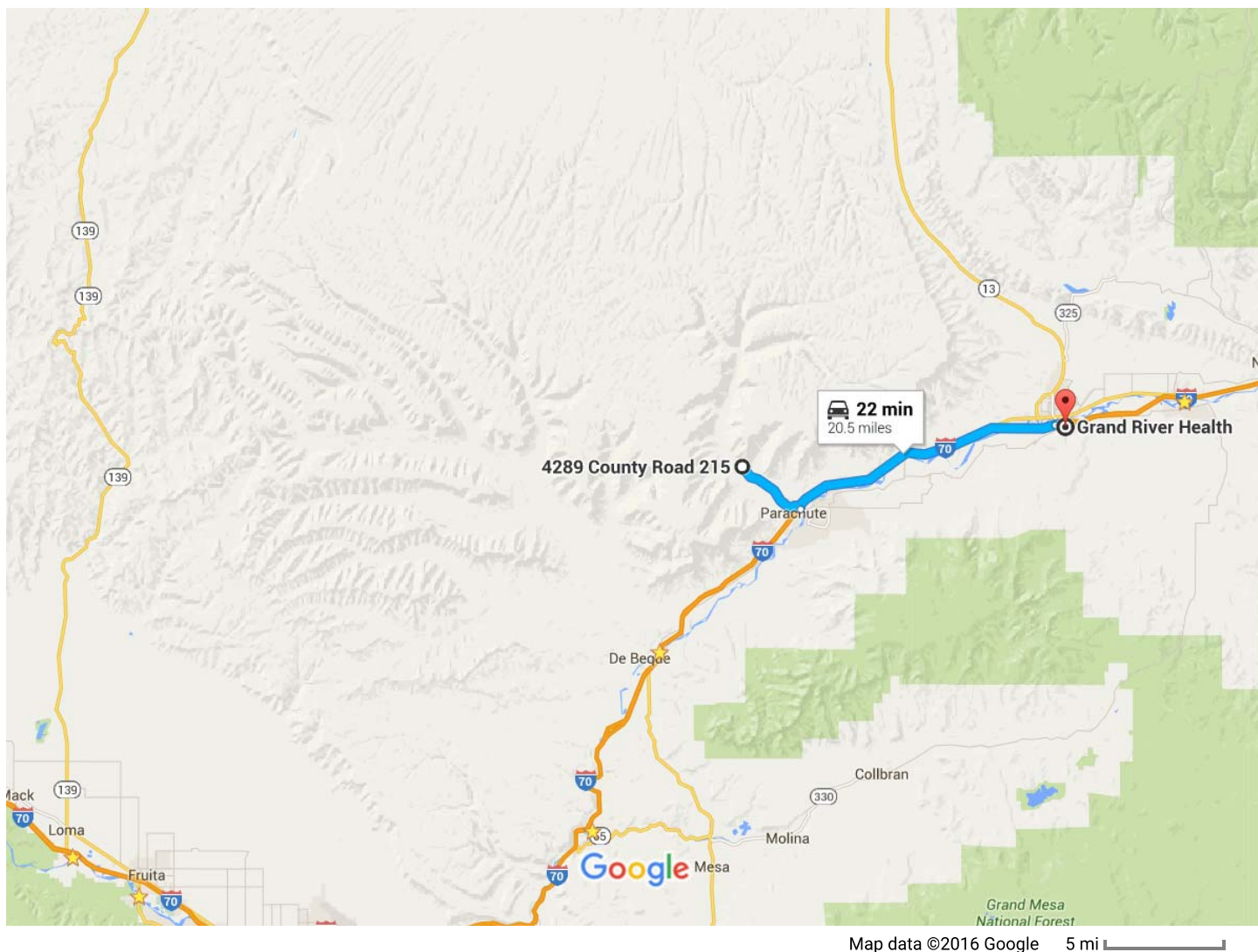
<p>Emergency Response Planning</p> <p>In the pre-work briefing and Daily Tailgate Safety meetings, all onsite employees will be trained in the provisions of emergency response planning, site communication systems, and site evacuation routes.</p> <p>Signal a site emergency or medical emergency with three blasts of a loud horn (car horn, fog horn, or similar device).</p> <p>To complete this section, attach a hospital route map to the HASP.</p>	<p>All work-related incidents must be reported. For all medical emergencies, call 911 or the local emergency number. For non-emergency incidents, you must:</p> <ul style="list-style-type: none"> • Give appropriate first aid care to the injured or ill individual and secure the scene. • Immediately call WorkCare at (888) 449-7787 (available 24 hours/7 days per week) if the injured person is an Apex employee. • Notify the Project Manager and/or SSO after calling WorkCare. • Enter the safety incident into the Apex Incident Report and submit to incidents@apexcoss.com within 24 hours. <p>In the event of an emergency that necessitates evacuation of the work task area or the site as a whole, the following procedures shall occur:</p> <ul style="list-style-type: none"> • The Apex site supervisor or Project Manager will contact all nearby personnel using the onsite communications system to advise of the emergency. • Personnel will proceed along site roads to a safe distance upwind from the hazard source to a pre-determined assembly area. • Call 911 • Personnel will remain in that area until the site supervisor or Project Manager or other authorized individual provides further instruction. <p>In the event of a severe spill or leak, site personnel will follow the procedures listed below:</p> <ul style="list-style-type: none"> • STOP WORK • Evacuate the affected area and relocate personnel to an upwind, pre-determined assembly area. • Inform the Apex site supervisor or Project Manager, an Apex office, and a site representative immediately. • Locate the source of the spill or leak, and stop the source if it is safe to do so until appropriately trained personnel are onsite to do so. Begin containment and recovery of spilled or leaked materials. • Notify appropriate local, state, and federal agencies after obtaining client consent to do so. <p>In the event of severe weather, site personnel will follow the procedures listed below:</p> <ul style="list-style-type: none"> • Site work shall not be conducted during severe weather, including high winds and lightning. • In the event of severe weather, stop work, lower any equipment (drill rigs), and evacuate the affected area. • Monitor internet or other sources for severe weather alerts before resuming work. • In the event of lightning, outdoor work must be halted for a minimum of 30 minutes from the last lightning observation.
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Emergency Contacts	Name	Location	Phone	Cell Phone
Hospital (attach map)	Grand River Health	Rifle, CO	970-625-1510	NA
Police	Parachute Police Department	Parachute, CO	970-285-7630	NA
Fire	Grand Valley Fire	Parachute, CO	970-285-9119	NA
Project Manager	W. Catt Wilson	Boulder, CO	303-443-4209 x2503	303-903-5429
Field Manager (if not PM)	Ben Williams	Grand Junction, CO	970-255-8163	970-985-8919
Site Safety Officer (if not PM)	Chris Hines	Grand Junction, CO	970-263-8679	970-261-1127
Division H&S Contact	Kevin Anders	Gillette, WY	307-686-6664	307-680-5775
Corporate H&S Contact	Joe Schmids	Malvern, PA	610-722-9050	484-467-9333
Incident Intervention	WorkCare	NA	888-449-7787	
Subcontractor Safety Contact				
Subcontractor Safety Contact				



4289 County Road 215, Parachute, CO to 501
Airport Rd, Rifle, CO 81650

Drive 20.5 miles, 22 min



4289 County Road 215

Parachute, CO 81635

1. Head southeast on Co Rd 215
4.3 mi
2. Turn left to merge onto I-70 E
15.6 mi
3. Take exit 90 toward Colorado 13 N/Rifle/Meeker
0.2 mi
4. At the traffic circle, take the 1st exit onto Taugenbaugh Blvd
249 ft
5. At the traffic circle, take the 3rd exit onto Airport Rd
 Destination will be on the right
0.4 mi

Grand River Health

501 Airport Road, Rifle, CO 81650

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Google Maps