

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

PCS 1620831816

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company Whiptail Midstream	Contact Ernie Johnson
Address 504 S. Bloomfield Blvd, Bloomfield, NM 87413	Telephone No. 918-289-2147
Facility Name 7-1 CDP	Facility Type Central Depository

Surface Owner Bureau of Land Management	Mineral Owner Bureau of Land Management	API No. N/A
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	Sec. 35	T23N	9W	554.8ft	South Line	32.4ft	West Line	San Juan County

Latitude 36.188903 Longitude -107.763032 NAD83

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 195bbl	Volume Recovered 194-194.5bbl
Source of Release Faulty gasket on LACT unit.	Date and Hour of Occurrence 6/5/18	Date and Hour of Discovery 6/5/18 1:30PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields - Environmental Specialist (NMOCD)	
By Whom? Kris Rowe (HRL Compliance Solutions)	Date and Hour 6/6/18 @1:20	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

NMOCD

JUL 13 2018

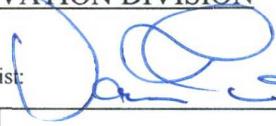
DISTRICT III

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
It was determined that approximately 195bbls of Crude Oil was released within the lined secondary containment due to a LACT unit gasket failure. The LACT unit was shut off upon discovery of the leak and has been repaired.

Describe Area Affected and Cleanup Action Taken.*
Of the 195bbls released, crews recovered 194-194.5bbls within containment. A small pinhole leak was observed, which misted ~0.5-1 bbl outside of containment and onto the soils around the containment wall. Whiptail personnel utilized vac-trucks to recover the released material within containment and placed it back into the tank system. A hydro-vac truck has been utilized to remove any impacted soils outside of containment. A liner crew repaired the pin-hole leak section Friday (6/8/18). Once the site had fully dried from hydro-excavation activities Monday (6/11/18), additional impacted soils were observed adjacent to the containment and were excavated utilizing a vac-truck on Wednesday (6/13/18). Additional impacted materials were removed from location by crews utilizing hand shovels (6/15/18). The analytical results (from sampling activities conducted on 6/27/18 with oversight from the NMOCD and Whiptail personnel) are at or below the recommended action levels for this location.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Ernest Johnson	Approved by Environmental Specialist: 	
Title: Director of Risk and Engineering Services	Approval Date: 7/17/18	Expiration Date:
E-mail Address: ernie.johnson@whiptailmidstream.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 09 July, 2018 Phone: 918.289.2147		

* Attach Additional Sheets If Necessary

NVF 1816448793



HRL
COMPLIANCE
SOLUTIONS

65 Mercado Street, Suite 109 • Durango, CO 81301
PHONE: 970.259.0926 • www.hrlcomp.com

July 5, 2018

Vanessa Fields
Oil Conservation Division
District III
1000 Rio Brazos Road,
Aztec, NM 87410

NMOC
JUL 13 2018
DISTRICT III

SUBJECT: Final Closure Report for Incident Number: nVF1816448793 (Whiptail Midstream 7-1 CDP)

Ms. Fields:

On behalf of Whiptail Midstream, HRL Compliance Solutions, Inc. (HRL) is submitting the attached final closure report summarizing the findings and closure actions for the 7-1 CDP. The purpose of the report is to obtain approval from the New Mexico Oil Conservation Division (NMOCD) for closure of the release that occurred on June 5, 2018. Table 1 below summarizes information regarding the release.

Table 1: Release Information and Site Ranking

Name	7-1 CDP
Company	Whiptail Midstream
Incident Number	nVF1816448793
API Number	N/A
Location	31.188903, -107.763032 NAD83
Date of Release	6/5/2018
Date Reported to NMOCD	6/6/2018
Land Owner	Bureau of Land Management
Reported to	OCD
Source of Release	LACT
Released Material	Oil
Released Volume	195 bbls oil
Recovered Volume	194-194.5 bbls oil
Net Release Volume	1 – 1.5 bbls oil
NMOCD Ranking	10
Response Date	6/5/2018



1.0 Background

On June 5, 2018, during routine facility operations, a gasket on one of three Lease Automatic Custody Transfer (LACT) units failed. Oil was released from the faulty gasket into the lined (steel) secondary containment. Pinhole leaks were observed at two locations in the liner along the southern portion of the containment structure. This allowed fluid from the release to migrate through the liner on to the southern edge of the pad surface adjacent to the containment structure. A vacuum truck was dispatched to remove any free standing fluids from outside and within the lined containment on 6/5/18. Recovered liquids were recycled into the adjacent 7-1 tank battery facility/storage system. Once cleaned, the liner was repaired with spray on patching. The faulty gasket on the LACT unit was repaired and the LACT unit was put back into operation.

Soils impacted along the southern edge of the pad/adjacent to the secondary containment were observed to be sandy loam, composed primarily of fine-course sands with little clay content. A vacuum truck and hand crews utilizing hand shovels removed free standing liquids and saturated soils from the impacted area along the southern edge of the pad and from underneath the containment liner to the furthest extent deemed to be safe. Remediation activities outside and underneath the containment took place between 6/5/18 and 6/15/18. In total, two vacuum trucks and two pickup truck loads of soil (placed in secured sand bags) were delivered to Envirotech Landfarm for disposal. An initial Form C-141 was submitted to the NMOCD District III Office in hard copy format on 6/19/2018.

2.0 Site Ranking and Land Jurisdiction

Recommended Remediation Action Levels (RRALs) were determined by the NMOCD District III Office. Table 2 presents the remediation standards and the site ranking for this location.

Table 2: Remediation Standards

Soil Remediation Standards	NMOCD Site Ranking: 10
Benzene	10 PPM
BTEX	50 PPM
TPH	1000 PPM

3.0 Assessment

Upon conducting an on-site review with NMOCD and Whiptail Midstream personnel on June 27, 2018, it was determined that the remediation activities conducted appeared to be sufficient to address impacts adjacent to and underneath the containment liner. As noted above, further excavation under the liner and/or use of hand tools in the area was deemed to be unsafe due to the proximity to the LACT unit, densely spaced below-grade flowline piping, and high voltage utility lines in the immediate area. Any residual impacts that remain beneath the liner/LACT containment will be addressed when the facility goes to final closure. HRL field personnel collected composite soil samples from excavated areas (identified as Areas 1-3) see Figures 1-3. All samples were homogenized, and prepared for analysis under the supervision of NMOCD and Whiptail Midstream personnel. All samples were analyzed at a National Environmental Laboratory Accreditation Program (NELAP) certified laboratory and in accordance with



NMOCD soil sampling procedures. The samples were submitted to ALS Environmental in Holland, MI for the following analysis; chlorides by Method 300.0, volatile organics (BTEX) by Method 8021, and ORO, DRO, and GRO by EPA Method 8015. Sample locations and excavations are depicted in Figure 1, Figure 2, and Figure 3.

4.0 Conclusion

Analytical results for the impacted areas are at or below the action levels for NMCOD constituents of concern. A summary of laboratory analytical results is included in Table 3. Laboratory analytical reports are included in Appendix B. No further remedial activities are recommended.

5.0 Scope and Limitations

The scope of services consisted of a spill assessment, verification of release stabilization, regulatory liaison, sampling for closure, and preparation of this Final Closure Report. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the San Juan Basin in New Mexico.

If there are any questions regarding this report, please contact Gunnar Westerman at 970-259-0926.

Submitted by:
HRL Compliance Solutions, Inc.
Gunnar Westerman
Project Lead

Attachments:

Figure 1: Site and Sample Location Map – Area 1
Figure 2: Site and Sample Location Map – Area 2
Figure 3: Site and Sample Location Map – Area 3

Table 3: Composite Sample Location Details
Table 4: Summary of Sample Results

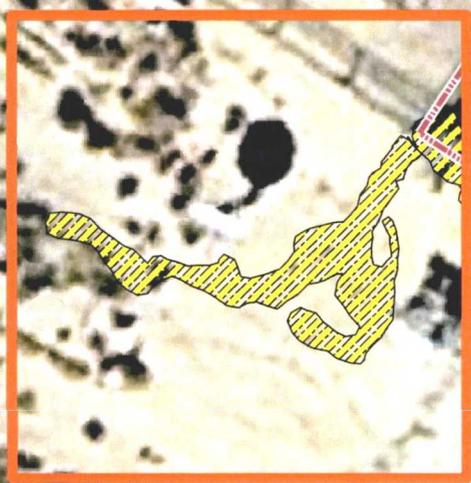
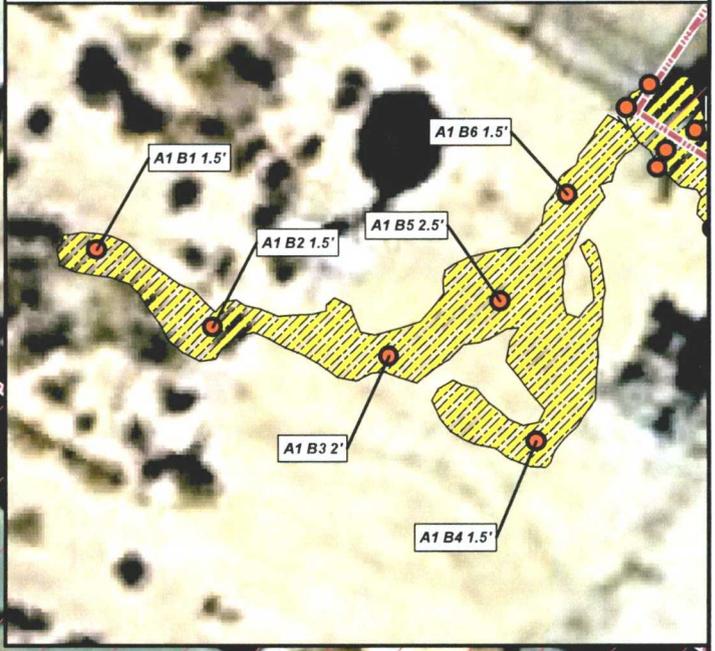
Appendix A: Final Form C141
Appendix B: Site Photos
Appendix C: Laboratory Analytical Reports



Figure 1:
Site and Sample Location Map – Area 1



AREA 1



Point of Origin



WHIPTAIL MIDSTREAM



7-1 CDP

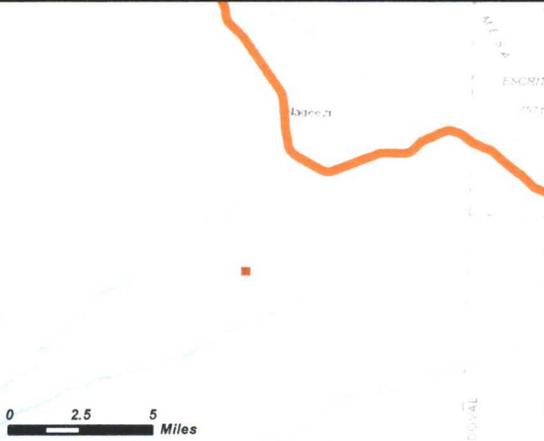
36.188631 -107.762806 (Spill Location)
Section 35, Township 23 North, Range 9 West

Feature

-  Excavated/Impacted Area
-  LACT Containment
-  Sample Location

Transportation

-  US Highway 550



DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HRL assumes no responsibility for any risks, damages, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.



Author: K. Fox
Revision: 0
Date: 7/5/2018

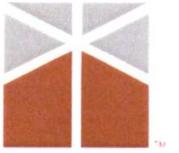
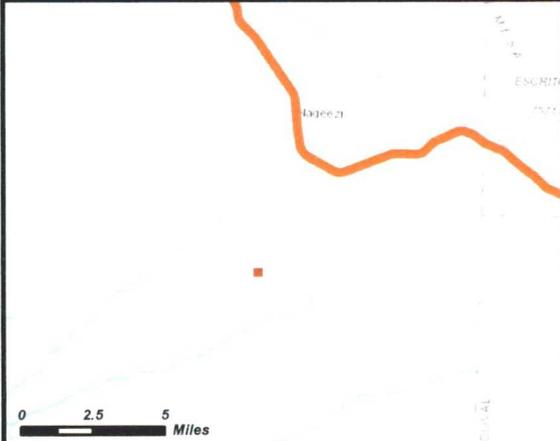


Figure 2:
Site and Sample Location Map – Area 2



0 10 20
Feet



WHIPTAIL MIDSTREAM



7-1 CDP

36.188631 -107.762806 (Spill Location)
Section 35, Township 23 North, Range 9 West

Feature

-  Excavated/Impacted Area
-  LACT Containment
-  Sample Location

Transportation

-  US Highway 550

DISCLAIMER: This presentation and the Geographic Information System (GIS) used to create it are designed as a general reference and not intended to replace official records and/or legal surveys. HRL assumes no responsibility for any misstatements or liabilities that may result from its use and makes no guarantees as to the results or accuracy of the information.

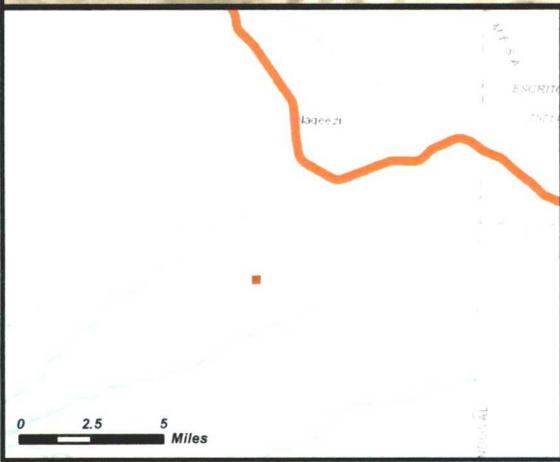
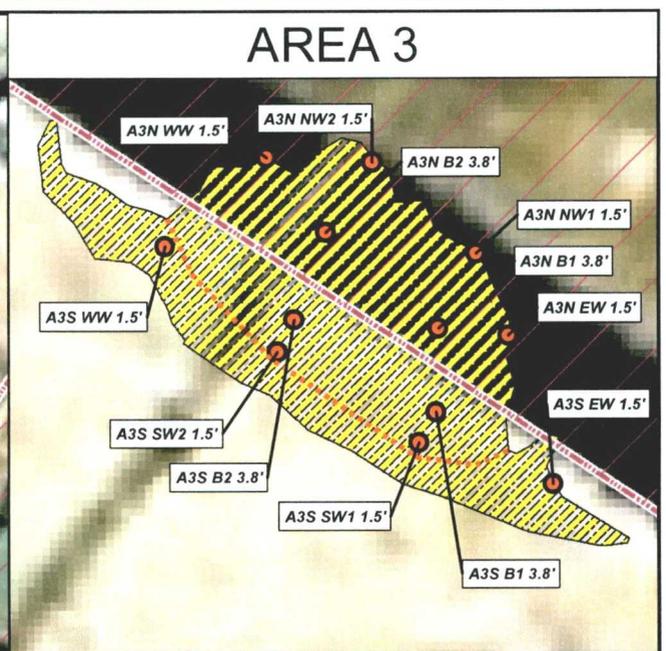
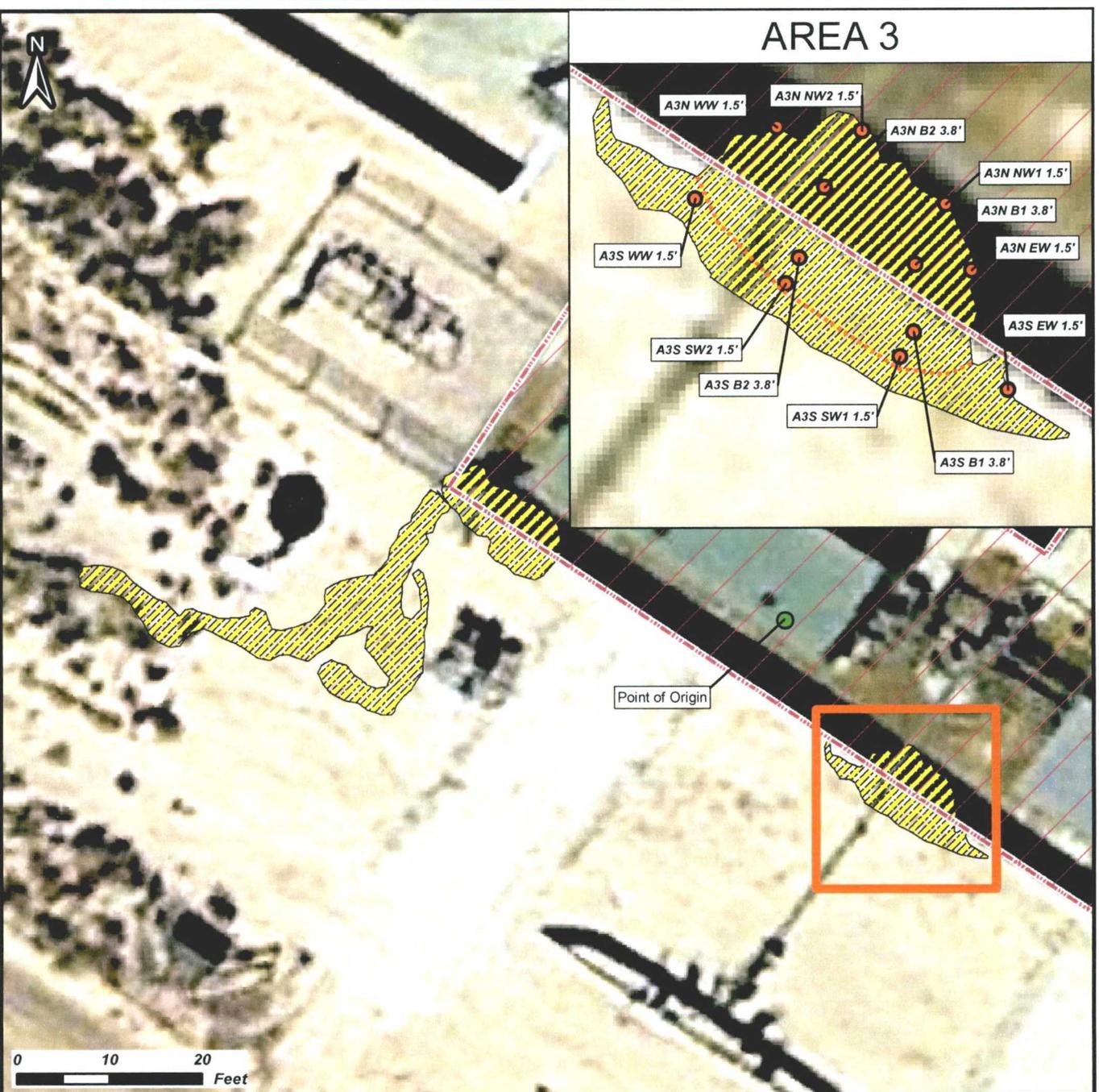


Author: K. Fox
Revision: 0
Date: 7/5/2018



Figure 3:

Site and Sample Location Map – Area 3



WHIPTAIL MIDSTREAM
7-1 CDP
 36.188631 -107.762806 (Spill Location)
 Section 35, Township 23 North, Range 9 West

Feature	
	Excavated/Impacted Area
	LACT Containment
	Excavation Bench
	Sample Location
Transportation	
	US Highway 550

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Author: K. Fox
Revision: 0
Date: 7/5/2018



Table 3: Composite Sample Location Details

ID	Sample Area	Surface Sampled	Depth Below Ground Surface (ft)	Composite Sample ID
A1 B1 1.5'	Area 1	Bottom	1.5	A1
A1 B2 1.5'	Area 1	Bottom	1.5	A1
A1 B3 2'	Area 1	Bottom	2	A1
A1 B4 1.5'	Area 1	Bottom	1.5	A1
A1 B5 2.5'	Area 1	Bottom	2.5	A1
A1 B6 1.5'	Area 1	Bottom	1.5	A1
A2N B1 3.0'	Area 2	Bottom	3	A2N
A2N B2 3.0'	Area 2	Bottom	3	A2N
A2N NW1 1.5'	Area 2	North Wall	1.5	A2N
A2N NW2 1.5'	Area 2	North Wall	1.5	A2N
A2N WW 1.5'	Area 2	West Wall	1.5	A2N
A2N EW 1.5'	Area 2	East Wall	1.5	A2N
A2S B1 3.0'	Area 2	Bottom	3	A2S
A2S B2 3.0'	Area 2	Bottom	3	A2S
A2S SW1 1.5'	Area 2	South Wall	1.5	A2S
A2S SW2 1.5'	Area 2	South Wall	1.5	A2S
A2S WW 1.5'	Area 2	West Wall	1.5	A2S
A2S EW 1.5'	Area 2	East Wall	1.5	A2S
A3N B1 3.8'	Area 3	Bottom	3.8	A3N
A3N B2 3.8'	Area 3	Bottom	3.8	A3N
A3N NW1 1.5'	Area 3	North Wall	1.5	A3N
A3N NW2 1.5'	Area 3	North Wall	1.5	A3N
A3N WW 1.5'	Area 3	West Wall	1.5	A3N
A3N EW 1.5'	Area 3	East Wall	1.5	A3N
A3S B1 3.8'	Area 3	Bottom	3.8	A3S
A3S B2 3.8'	Area 3	Bottom	3.8	A3S
A3S SW1 1.5'	Area 3	South Wall	1.5	A3S
A3S SW2 1.5'	Area 3	South Wall	1.5	A3S
A3S WW 1.5'	Area 3	West Wall	1.5	A3S
A3S EW 1.5'	Area 3	East Wall	1.5	A3S



Table 4: Analytical Results Summary

SAMPLE LOCATION	COMPOSITE SAMPLE ID	SAMPLE TYPE	SAMPLE DATE	SOIL STATUS	8021					8015				300
					BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYLBENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO (mg/Kg)	ORO (mg/Kg)	DRO (mg/Kg)	Total TPH (mg/Kg)	CHLORIDE (mg/Kg)
NMOCD - Guidelines for Remediation of Leaks, Spills and Releases					10	NE	NE	NE	50	NE	NE	NE	1,000	600
AREA 1	A1	Composite	6/27/2018	In-Situ	ND	ND	ND	ND	ND	ND	430	350	780	6.6
AREA 2	A2N	Composite	6/27/2018	In-Situ	ND	ND	ND	ND	ND	ND	48	31	79	6.3
AREA 2	A2S	Composite	6/27/2018	In-Situ	ND	ND	ND	ND	ND	ND	410	340	750	8.1
AREA 3	A3N	Composite	6/27/2018	In-Situ	ND	ND	ND	ND	ND	ND	99	58	157	5.7
AREA 3	A3S	Composite	6/27/2018	In-Situ	ND	ND	ND	ND	ND	ND	260	180	440	7.1
BACKGROUND	Background Sample	Composite	6/27/2018	In-Situ	ND	ND	ND	ND	ND	ND	13	3.4	16.4	5.3

ND = Not Detected



Appendix A: Form C-141 Final

District I
1625 N. French Dr., Hobbs, NM 88240
District II
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State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company Whiptail Midstream	Contact Ernie Johnson
Address 504 S. Bloomfield Blvd, Bloomfield, NM 87413	Telephone No. 918-289-2147
Facility Name 7-1 CDP	Facility Type Central Depository

Surface Owner Bureau of Land Management	Mineral Owner Bureau of Land Management	API No. N/A
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	Sec. 35	T23N	9W	554.8ft	South Line	32.4ft	West Line	San Juan County

Latitude 36.188903 Longitude -107.763032 NAD83

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 195bbl	Volume Recovered 194-194.5bbl
Source of Release Faulty gasket on LACT unit.	Date and Hour of Occurrence 6/5/18	Date and Hour of Discovery 6/5/18 1:30PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields - Environmental Specialist (NMOCD)	
By Whom? Kris Rowe (HRL Compliance Solutions)	Date and Hour 6/6/18 @1:20	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

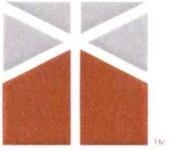
Describe Cause of Problem and Remedial Action Taken.*
It was determined that approximately 195bbls of Crude Oil was released within the lined secondary containment due to a LACT unit gasket failure. The LACT unit was shut off upon discovery of the leak and has been repaired.

Describe Area Affected and Cleanup Action Taken.*
Of the 195bbls released, crews recovered 194-194.5bbls within containment. A small pinhole leak was observed, which misted ~0.5-1 bbl outside of containment and onto the soils around the containment wall. Whiptail personnel utilized vac-trucks to recover the released material within containment and placed it back into the tank system. A hydro-vac truck has been utilized to remove any impacted soils outside of containment. A liner crew repaired the pin-hole leak section Friday (6/8/18). Once the site had fully dried from hydro-excavation activities Monday (6/11/18), additional impacted soils were observed adjacent to the containment and were excavated utilizing a vac-truck on Wednesday (6/13/18). Additional impacted materials were removed from location by crews utilizing hand shovels (6/15/18). The analytical results (from sampling activities conducted on 6/27/18 with oversight from the NMOCD and Whiptail personnel) are at or below the recommended action levels for this location.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Ernest Johnson	Approved by Environmental Specialist:	
Title: Director of Risk and Engineering Services	Approval Date:	Expiration Date:
E-mail Address: ernie.johnson@whiptailmidstream.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 09 July, 2018	Phone: 918.289.2147	

* Attach Additional Sheets If Necessary



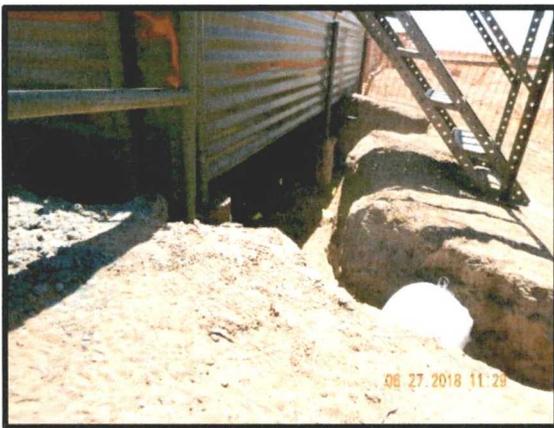
Appendix B: Site Photos



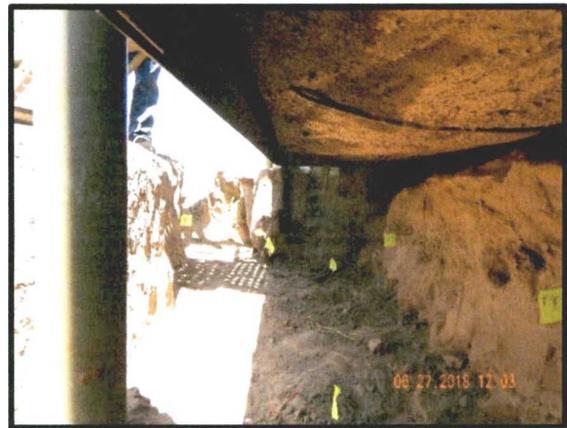
Area 1



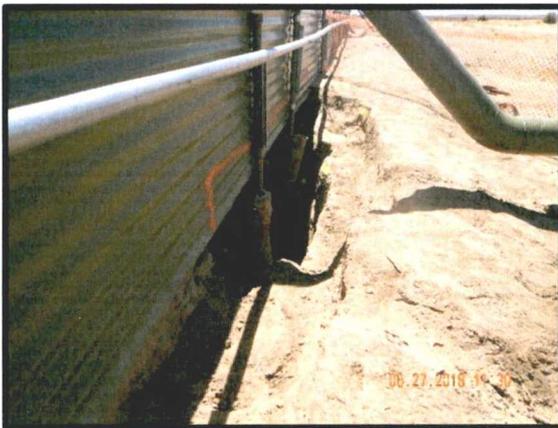
Area 1



Area 2



Area 2



Area 3



Area 3



Appendix C: Laboratory Analytical Reports



29-Jun-2018

Brian Skyles
HRL Compliance Solutions, Inc
65 Mercado St.
Suite 109
Durango, CO 81301

Re: **Whiptail Midstream lic. 7-1 CDP**

Work Order: **18061848**

Dear Brian,

ALS Environmental received 6 samples on 28-Jun-2018 08:30 AM for the analyses presented in the following report.

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

Sample results are compliant with industry accepted practices and Quality Control 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 18.

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

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

A handwritten signature in black ink, appearing to read "Chad Whelton".

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Report of Laboratory Analysis

Certificate No: MN 998501

www.alsglobal.com

RIGHT SOLUTIONS

Client: HRL Compliance Solutions, Inc
Project: Whiptail Midstream lic. 7-1 CDP
Work Order: 18061848

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>
18061848-01	A1	Soil		6/27/2018 09:34	6/28/2018 08:30	
18061848-02	A2N	Soil		6/27/2018 09:58	6/28/2018 08:30	
18061848-03	A2S	Soil		6/27/2018 09:58	6/28/2018 08:30	
18061848-04	A3N	Soil		6/27/2018 10:15	6/28/2018 08:30	
18061848-05	A3S	Soil		6/27/2018 10:15	6/28/2018 08:30	
18061848-06	Background Sample	Soil		6/27/2018 11:06	6/28/2018 08:30	

ALS Group, USA

Date: 29-Jun-18

Client: HRL Compliance Solutions, Inc
Project: Whiptail Midstream lic. 7-1 CDP
Work Order: 18061848

Case Narrative

Batch 120558, Method DRLVI_8015_S, Sample 18061848-01A MS/MSD: The MS/MSD recovery was below the lower control limit DRO/ORO. The corresponding result in the parent sample may be biased low.

Batch 120573, Method GRO_8015_S, Sample 18061848-06A: One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is required.

Client: HRL Compliance Solutions, Inc
Project: Whiptail Midstream lic. 7-1 CDP
WorkOrder: 18061848

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-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
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
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<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
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group, USA

Date: 29-Jun-18

Client: HRL Compliance Solutions, Inc
Project: Whiptail Midstream lic. 7-1 CDP
Sample ID: A1
Collection Date: 6/27/2018 09:34 AM

Work Order: 18061848
Lab ID: 18061848-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015C		Prep: SW3546 / 6/28/18		Analyst: MEB
DRO (C10-C28)	350		2.8	4.9	mg/Kg-dry	1	6/28/2018 18:25
ORO (C28-C40)	430		1.9	4.9	mg/Kg-dry	1	6/28/2018 18:25
Surr: 4-Terphenyl-d14	74.1			34-130	%REC	1	6/28/2018 18:25
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 6/28/18		Analyst: MEB
GRO (C6-C10)	U		2.1	5.1	mg/Kg-dry	1	6/29/2018 02:36
Surr: Toluene-d8	106			71-123	%REC	1	6/29/2018 02:36
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260C		Prep: SW5035 / 6/28/18		Analyst: LSY
Benzene	U		0.0052	0.030	mg/Kg-dry	1	6/28/2018 17:54
Ethylbenzene	U		0.0064	0.030	mg/Kg-dry	1	6/28/2018 17:54
m,p-Xylene	U		0.014	0.061	mg/Kg-dry	1	6/28/2018 17:54
o-Xylene	U		0.012	0.030	mg/Kg-dry	1	6/28/2018 17:54
Toluene	U		0.0083	0.030	mg/Kg-dry	1	6/28/2018 17:54
Xylenes, Total	U		0.026	0.091	mg/Kg-dry	1	6/28/2018 17:54
Surr: 1,2-Dichloroethane-d4	110			70-130	%REC	1	6/28/2018 17:54
Surr: 4-Bromofluorobenzene	93.3			70-130	%REC	1	6/28/2018 17:54
Surr: Dibromofluoromethane	87.6			70-130	%REC	1	6/28/2018 17:54
Surr: Toluene-d8	93.8			70-130	%REC	1	6/28/2018 17:54
CHLORIDE							
			Method: A4500-CL E-11		Prep: EXTRACT / 6/28/18		Analyst: STP
Chloride	6.6	Jx	1.1	10	mg/Kg-dry	1	6/29/2018 14:00
MOISTURE							
			Method: SW3550C				Analyst: NW
Moisture	0.51		0.025	0.050	% of sample	1	6/28/2018 14:45

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

ALS Group, USA

Date: 29-Jun-18

Client: HRL Compliance Solutions, Inc
 Project: Whiptail Midstream lic. 7-1 CDP
 Sample ID: A2N
 Collection Date: 6/27/2018 09:58 AM

Work Order: 18061848
 Lab ID: 18061848-02
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015C		Prep: SW3546 / 6/28/18		Analyst: MEB
DRO (C10-C28)	31		2.9	5.0	mg/Kg-dry	1	6/28/2018 21:49
ORO (C28-C40)	48		1.9	5.0	mg/Kg-dry	1	6/28/2018 21:49
Surr: 4-Terphenyl-d14	65.6			34-130	%REC	1	6/28/2018 21:49
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 6/28/18		Analyst: MEB
GRO (C6-C10)	U		2.1	5.1	mg/Kg-dry	1	6/29/2018 03:05
Surr: Toluene-d8	102			71-123	%REC	1	6/29/2018 03:05
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260C		Prep: SW5035 / 6/28/18		Analyst: LSY
Benzene	U		0.0052	0.031	mg/Kg-dry	1	6/28/2018 18:09
Ethylbenzene	U		0.0065	0.031	mg/Kg-dry	1	6/28/2018 18:09
m,p-Xylene	U		0.015	0.061	mg/Kg-dry	1	6/28/2018 18:09
o-Xylene	U		0.012	0.031	mg/Kg-dry	1	6/28/2018 18:09
Toluene	U		0.0084	0.031	mg/Kg-dry	1	6/28/2018 18:09
Xylenes, Total	U		0.026	0.092	mg/Kg-dry	1	6/28/2018 18:09
Surr: 1,2-Dichloroethane-d4	108			70-130	%REC	1	6/28/2018 18:09
Surr: 4-Bromofluorobenzene	95.3			70-130	%REC	1	6/28/2018 18:09
Surr: Dibromofluoromethane	90.2			70-130	%REC	1	6/28/2018 18:09
Surr: Toluene-d8	92.2			70-130	%REC	1	6/28/2018 18:09
CHLORIDE							
			Method: A4500-CL E-11		Prep: EXTRACT / 6/28/18		Analyst: STP
Chloride	6.3	Jx	1.1	9.8	mg/Kg-dry	1	6/29/2018 14:00
MOISTURE							
			Method: SW3550C				Analyst: NW
Moisture	1.1		0.025	0.050	% of sample	1	6/28/2018 14:45

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

ALS Group, USA

Date: 29-Jun-18

Client: HRL Compliance Solutions, Inc
Project: Whiptail Midstream lic. 7-1 CDP
Sample ID: A2S
Collection Date: 6/27/2018 09:58 AM

Work Order: 18061848
Lab ID: 18061848-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015C		Prep: SW3546 / 6/28/18		Analyst: MEB
DRO (C10-C28)	340		2.9	5.0	mg/Kg-dry	1	6/28/2018 22:47
ORO (C28-C40)	410		1.9	5.0	mg/Kg-dry	1	6/28/2018 22:47
Surr: 4-Terphenyl-d14	80.1			34-130	%REC	1	6/28/2018 22:47
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 6/28/18		Analyst: MEB
GRO (C6-C10)	U		2.1	5.1	mg/Kg-dry	1	6/29/2018 03:35
Surr: Toluene-d8	105			71-123	%REC	1	6/29/2018 03:35
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260C		Prep: SW5035 / 6/28/18		Analyst: LSY
Benzene	U		0.0052	0.030	mg/Kg-dry	1	6/28/2018 18:24
Ethylbenzene	U		0.0064	0.030	mg/Kg-dry	1	6/28/2018 18:24
m,p-Xylene	U		0.014	0.061	mg/Kg-dry	1	6/28/2018 18:24
o-Xylene	U		0.012	0.030	mg/Kg-dry	1	6/28/2018 18:24
Toluene	U		0.0083	0.030	mg/Kg-dry	1	6/28/2018 18:24
Xylenes, Total	U		0.026	0.091	mg/Kg-dry	1	6/28/2018 18:24
Surr: 1,2-Dichloroethane-d4	107			70-130	%REC	1	6/28/2018 18:24
Surr: 4-Bromofluorobenzene	96.7			70-130	%REC	1	6/28/2018 18:24
Surr: Dibromofluoromethane	90.2			70-130	%REC	1	6/28/2018 18:24
Surr: Toluene-d8	95.8			70-130	%REC	1	6/28/2018 18:24
CHLORIDE							
			Method: A4500-CL E-11		Prep: EXTRACT / 6/28/18		Analyst: STP
Chloride	8.1	Jx	1.1	10	mg/Kg-dry	1	6/29/2018 14:00
MOISTURE							
			Method: SW3550C				Analyst: NW
Moisture	0.73		0.025	0.050	% of sample	1	6/28/2018 14:45

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

ALS Group, USA

Date: 29-Jun-18

Client: HRL Compliance Solutions, Inc
 Project: Whiptail Midstream lic. 7-1 CDP
 Sample ID: A3N
 Collection Date: 6/27/2018 10:15 AM

Work Order: 18061848
 Lab ID: 18061848-04
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015C		Prep: SW3546 / 6/28/18		Analyst: MEB
DRO (C10-C28)	58		2.8	4.9	mg/Kg-dry	1	6/28/2018 23:16
ORO (C28-C40)	99		1.9	4.9	mg/Kg-dry	1	6/28/2018 23:16
Surr: 4-Terphenyl-d14	56.6			34-130	%REC	1	6/28/2018 23:16
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 6/28/18		Analyst: MEB
GRO (C6-C10)	U		2.2	5.2	mg/Kg-dry	1	6/29/2018 04:05
Surr: Toluene-d8	109			71-123	%REC	1	6/29/2018 04:05
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260C		Prep: SW5035 / 6/28/18		Analyst: LSY
Benzene	U		0.0054	0.031	mg/Kg-dry	1	6/28/2018 18:39
Ethylbenzene	U		0.0066	0.031	mg/Kg-dry	1	6/28/2018 18:39
m,p-Xylene	U		0.015	0.063	mg/Kg-dry	1	6/28/2018 18:39
o-Xylene	U		0.012	0.031	mg/Kg-dry	1	6/28/2018 18:39
Toluene	U		0.0086	0.031	mg/Kg-dry	1	6/28/2018 18:39
Xylenes, Total	U		0.027	0.094	mg/Kg-dry	1	6/28/2018 18:39
Surr: 1,2-Dichloroethane-d4	110			70-130	%REC	1	6/28/2018 18:39
Surr: 4-Bromofluorobenzene	97.2			70-130	%REC	1	6/28/2018 18:39
Surr: Dibromofluoromethane	88.1			70-130	%REC	1	6/28/2018 18:39
Surr: Toluene-d8	94.6			70-130	%REC	1	6/28/2018 18:39
CHLORIDE							
			Method: A4500-CL E-11		Prep: EXTRACT / 6/28/18		Analyst: STP
Chloride	5.7	Jx	1.1	10	mg/Kg-dry	1	6/29/2018 14:00
MOISTURE							
			Method: SW3550C				Analyst: NW
Moisture	2.2		0.025	0.050	% of sample	1	6/28/2018 14:45

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

ALS Group, USA

Date: 29-Jun-18

Client: HRL Compliance Solutions, Inc
Project: Whiptail Midstream lic. 7-1 CDP
Sample ID: A3S
Collection Date: 6/27/2018 10:15 AM

Work Order: 18061848
Lab ID: 18061848-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015C		Prep: SW3546 / 6/28/18		Analyst: MEB
DRO (C10-C28)	180		2.9	5.0	mg/Kg-dry	1	6/28/2018 23:45
ORO (C28-C40)	260		1.9	5.0	mg/Kg-dry	1	6/28/2018 23:45
Surr: 4-Terphenyl-d14	61.6			34-130	%REC	1	6/28/2018 23:45
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 6/28/18		Analyst: MEB
GRO (C6-C10)	U		2.2	5.1	mg/Kg-dry	1	6/29/2018 04:35
Surr: Toluene-d8	107			71-123	%REC	1	6/29/2018 04:35
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260C		Prep: SW5035 / 6/28/18		Analyst: LSY
Benzene	U		0.0053	0.031	mg/Kg-dry	1	6/28/2018 18:54
Ethylbenzene	U		0.0065	0.031	mg/Kg-dry	1	6/28/2018 18:54
m,p-Xylene	U		0.015	0.062	mg/Kg-dry	1	6/28/2018 18:54
o-Xylene	U		0.012	0.031	mg/Kg-dry	1	6/28/2018 18:54
Toluene	U		0.0084	0.031	mg/Kg-dry	1	6/28/2018 18:54
Xylenes, Total	U		0.027	0.093	mg/Kg-dry	1	6/28/2018 18:54
Surr: 1,2-Dichloroethane-d4	109			70-130	%REC	1	6/28/2018 18:54
Surr: 4-Bromofluorobenzene	97.2			70-130	%REC	1	6/28/2018 18:54
Surr: Dibromofluoromethane	87.2			70-130	%REC	1	6/28/2018 18:54
Surr: Toluene-d8	94.6			70-130	%REC	1	6/28/2018 18:54
CHLORIDE							
			Method: A4500-CL E-11		Prep: EXTRACT / 6/28/18		Analyst: STP
Chloride	7.1	Jx	1.1	9.7	mg/Kg-dry	1	6/29/2018 14:00
MOISTURE							
			Method: SW3550C				Analyst: NW
Moisture	1.4		0.025	0.050	% of sample	1	6/28/2018 14:45

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

ALS Group, USA

Date: 29-Jun-18

Client: HRL Compliance Solutions, Inc
Project: Whiptail Midstream lic. 7-1 CDP
Sample ID: Background Sample
Collection Date: 6/27/2018 11:06 AM

Work Order: 18061848
Lab ID: 18061848-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015C		Prep: SW3546 / 6/28/18		Analyst: MEB
DRO (C10-C28)	3.4	J	2.8	4.9	mg/Kg-dry	1	6/29/2018 12:15
ORO (C28-C40)	13		1.9	4.9	mg/Kg-dry	1	6/29/2018 12:15
Surr: 4-Terphenyl-d14	68.1			34-130	%REC	1	6/29/2018 12:15
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 6/28/18		Analyst: MEB
GRO (C6-C10)	U		2.1	5.0	mg/Kg-dry	1	6/29/2018 05:04
Surr: Toluene-d8	152	S		71-123	%REC	1	6/29/2018 05:04
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260C		Prep: SW5035 / 6/28/18		Analyst: LSY
Benzene	U		0.0051	0.030	mg/Kg-dry	1	6/28/2018 19:09
Ethylbenzene	U		0.0063	0.030	mg/Kg-dry	1	6/28/2018 19:09
m,p-Xylene	U		0.014	0.060	mg/Kg-dry	1	6/28/2018 19:09
o-Xylene	U		0.012	0.030	mg/Kg-dry	1	6/28/2018 19:09
Toluene	U		0.0082	0.030	mg/Kg-dry	1	6/28/2018 19:09
Xylenes, Total	U		0.026	0.090	mg/Kg-dry	1	6/28/2018 19:09
Surr: 1,2-Dichloroethane-d4	105			70-130	%REC	1	6/28/2018 19:09
Surr: 4-Bromofluorobenzene	94.0			70-130	%REC	1	6/28/2018 19:09
Surr: Dibromofluoromethane	87.6			70-130	%REC	1	6/28/2018 19:09
Surr: Toluene-d8	93.7			70-130	%REC	1	6/28/2018 19:09
CHLORIDE							
			Method: A4500-CL E-11		Prep: EXTRACT / 6/28/18		Analyst: STP
Chloride	5.3	Jx	1.1	9.8	mg/Kg-dry	1	6/29/2018 14:00
MOISTURE							
			Method: SW3550C				Analyst: NW
Moisture	U		0.025	0.050	% of sample	1	6/28/2018 14:45

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

ALS Group, USA

Date: 29-Jun-18

Client: HRL Compliance Solutions, Inc
Work Order: 18061848
Project: Whiptail Midstream lic. 7-1 CDP

QC BATCH REPORT

Batch ID: 120558 Instrument ID GC8 Method: SW8015C

MBLK		Sample ID: DBLKS1-120558-120558			Units: mg/Kg		Analysis Date: 6/28/2018 05:26 PM			
Client ID:		Run ID: GC8_180628A			SeqNo: 5120266		Prep Date: 6/28/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	U	5.0								
ORO (C28-C40)	U	5.0								
Surr: 4-Terphenyl-d14	2.233	0	3.33	0	67.1	34-130	0			

LCS		Sample ID: DLCSS1-120558-120558			Units: mg/Kg		Analysis Date: 6/28/2018 05:56 PM			
Client ID:		Run ID: GC8_180628A			SeqNo: 5120267		Prep Date: 6/28/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	297.7	5.0	333	0	89.4	65-122	0			
ORO (C28-C40)	301.1	5.0	333	0	90.4	81-116	0			
Surr: 4-Terphenyl-d14	2.567	0	3.33	0	77.1	34-130	0			

MS		Sample ID: 18061848-01A MS			Units: mg/Kg		Analysis Date: 6/28/2018 06:54 PM			
Client ID: A1		Run ID: GC8_180628A			SeqNo: 5120269		Prep Date: 6/28/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	574.2	4.8	320.9	345.1	71.4	65-122	0			
ORO (C28-C40)	677.4	4.8	320.9	427.8	77.8	81-116	0			S
Surr: 4-Terphenyl-d14	2.425	0	3.209	0	75.6	34-130	0			

MSD		Sample ID: 18061848-01A MSD			Units: mg/Kg		Analysis Date: 6/28/2018 07:23 PM			
Client ID: A1		Run ID: GC8_180628A			SeqNo: 5120270		Prep Date: 6/28/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	546.6	5.0	331.7	345.1	60.8	65-122	574.2	4.94	30	S
ORO (C28-C40)	595	5.013	331.7	427.8	50.4	81-116	677.4		30	S
Surr: 4-Terphenyl-d14	2.672	0	3.317	0	80.6	34-130	2.425	9.69	30	

The following samples were analyzed in this batch:

18061848-01A	18061848-02A	18061848-03A
18061848-04A	18061848-05A	18061848-06A

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

Client: HRL Compliance Solutions, Inc
 Work Order: 18061848
 Project: Whiptail Midstream lic. 7-1 CDP

QC BATCH REPORT

Batch ID: 120573 Instrument ID GC9 Method: SW8015D

MBLK		Sample ID: MBLK-120573-120573			Units: µg/Kg-dry		Analysis Date: 6/29/2018 02:06 AM			
Client ID:		Run ID: GC9_180628B			SeqNo: 5120032		Prep Date: 6/28/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	U	5,000								
Surr: Toluene-d8	5060	0	5000	0	101	71-123	0			

LCS		Sample ID: LCS-120573-120573			Units: µg/Kg-dry		Analysis Date: 6/29/2018 01:07 AM			
Client ID:		Run ID: GC9_180628B			SeqNo: 5120031		Prep Date: 6/28/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	401800	5,000	500000	0	80.4	71-123	0			
Surr: Toluene-d8	5614	0	5000	0	112	71-123	0			

MS		Sample ID: 18061848-01A MS			Units: µg/Kg-dry		Analysis Date: 6/29/2018 07:32 AM			
Client ID: A1		Run ID: GC9_180628B			SeqNo: 5120044		Prep Date: 6/28/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	424300	5,100	505100	0	84	71-123	0			
Surr: Toluene-d8	4877	0	5051	0	96.6	71-123	0			

MSD		Sample ID: 18061848-01A MSD			Units: µg/Kg-dry		Analysis Date: 6/29/2018 08:01 AM			
Client ID: A1		Run ID: GC9_180628B			SeqNo: 5120045		Prep Date: 6/28/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	424100	5,100	505100	0	84	71-123	424300	0.0517	30	
Surr: Toluene-d8	4594	0	5051	0	90.9	71-123	4877	5.99	30	

The following samples were analyzed in this batch:

18061848-01A	18061848-02A	18061848-03A
18061848-04A	18061848-05A	18061848-06A

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

Client: HRL Compliance Solutions, Inc
 Work Order: 18061848
 Project: Whiptail Midstream lic. 7-1 CDP

QC BATCH REPORT

Batch ID: 120572 Instrument ID VMS9 Method: SW8260C

MBLK Sample ID: **MBLK-120572-120572** Units: **µg/Kg-dry** Analysis Date: **6/28/2018 03:32 PM**
 Client ID: Run ID: **VMS9_180628A** SeqNo: **5120052** Prep Date: **6/28/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	30	0	0	0	0-0	0			
Ethylbenzene	U	30	0	0	0	0-0	0			
m,p-Xylene	U	60	0	0	0	0-0	0			
o-Xylene	U	30	0	0	0	0-0	0			
Toluene	U	30	0	0	0	0-0	0			
Xylenes, Total	U	90	0	0	0	0-0	0			
Surr: 1,2-Dichloroethane-d4	1080	0	1000	0	108	70-130	0			
Surr: 4-Bromofluorobenzene	938.5	0	1000	0	93.8	70-130	0			
Surr: Dibromofluoromethane	934.5	0	1000	0	93.4	70-130	0			
Surr: Toluene-d8	957.5	0	1000	0	95.8	70-130	0			

LCS Sample ID: **LCS-120572-120572** Units: **µg/Kg-dry** Analysis Date: **6/28/2018 02:47 PM**
 Client ID: Run ID: **VMS9_180628A** SeqNo: **5120048** Prep Date: **6/28/2018** 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	977	30	1000	0	97.7	75-125	0			
m,p-Xylene	1845	60	2000	0	92.2	80-125	0			
o-Xylene	988	30	1000	0	98.8	75-125	0			
Toluene	961.5	30	1000	0	96.2	70-125	0			
Xylenes, Total	2833	90	3000	0	94.4	75-125	0			
Surr: 1,2-Dichloroethane-d4	1049	0	1000	0	105	70-130	0			
Surr: 4-Bromofluorobenzene	985.5	0	1000	0	98.6	70-130	0			
Surr: Dibromofluoromethane	1019	0	1000	0	102	70-130	0			
Surr: Toluene-d8	940	0	1000	0	94	70-130	0			

MS Sample ID: **18061848-01A MS** Units: **µg/Kg-dry** Analysis Date: **6/28/2018 09:40 PM**
 Client ID: **A1** Run ID: **VMS9_180628A** SeqNo: **5120132** Prep Date: **6/28/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	974.9	30	1010	0	96.5	75-125	0			
Ethylbenzene	899.6	30	1010	0	89	75-125	0			
m,p-Xylene	1721	61	2021	0	85.2	80-125	0			
o-Xylene	905.2	30	1010	0	89.6	75-125	0			
Toluene	870.8	30	1010	0	86.2	70-125	0			
Xylenes, Total	2627	91	3031	0	86.7	75-125	0			
Surr: 1,2-Dichloroethane-d4	1030	0	1010	0	102	70-130	0			
Surr: 4-Bromofluorobenzene	1011	0	1010	0	100	70-130	0			
Surr: Dibromofluoromethane	930.9	0	1010	0	92.2	70-130	0			
Surr: Toluene-d8	956.7	0	1010	0	94.7	70-130	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 18061848
Project: Whiptail Midstream lic. 7-1 CDP

QC BATCH REPORT

Batch ID: **120572** Instrument ID **VMS9** Method: **SW8260C**

MSD Sample ID: **18061848-01A MSD** Units: **µg/Kg-dry** Analysis Date: **6/28/2018 09:55 PM**

Client ID: **A1** Run ID: **VMS9_180628A** SeqNo: **5120133** Prep Date: **6/28/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	992.6	30	1010	0	98.2	75-125	974.9	1.8	30	
Ethylbenzene	906.2	30	1010	0	89.7	75-125	899.6	0.727	30	
m,p-Xylene	1709	61	2021	0	84.6	80-125	1721	0.707	30	
o-Xylene	901.1	30	1010	0	89.2	75-125	905.2	0.447	30	
Toluene	838	30	1010	0	83	70-125	870.8	3.84	30	
Xylenes, Total	2610	91	3031	0	86.1	75-125	2627	0.617	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1063</i>	<i>0</i>	<i>1010</i>	<i>0</i>	<i>105</i>	<i>70-130</i>	<i>1030</i>	<i>3.14</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>999.6</i>	<i>0</i>	<i>1010</i>	<i>0</i>	<i>99</i>	<i>70-130</i>	<i>1011</i>	<i>1.16</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>957.2</i>	<i>0</i>	<i>1010</i>	<i>0</i>	<i>94.8</i>	<i>70-130</i>	<i>930.9</i>	<i>2.78</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>950.6</i>	<i>0</i>	<i>1010</i>	<i>0</i>	<i>94.1</i>	<i>70-130</i>	<i>956.7</i>	<i>0.636</i>	<i>30</i>	

The following samples were analyzed in this batch:

18061848-01A	18061848-02A	18061848-03A
18061848-04A	18061848-05A	18061848-06A

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

Client: HRL Compliance Solutions, Inc
Work Order: 18061848
Project: Whiptail Midstream lic. 7-1 CDP

QC BATCH REPORT

Batch ID: 120579 Instrument ID: GALLERY Method: A4500-CI E-11

MBLK Sample ID: MBLK-120579-120579 Units: mg/Kg Analysis Date: 6/29/2018 02:00 PM

Client ID:	Run ID: GALLERY_180629C	SeqNo: 5121337	Prep Date: 6/28/2018	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	4.281	10								Jx

MS Sample ID: 18061768-01AMS Units: mg/Kg Analysis Date: 6/29/2018 02:00 PM

Client ID:	Run ID: GALLERY_180629C	SeqNo: 5121339	Prep Date: 6/28/2018	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	5488	94	4717	393.1	108	75-125	0			x

MSD Sample ID: 18061768-01AMSD Units: mg/Kg Analysis Date: 6/29/2018 02:00 PM

Client ID:	Run ID: GALLERY_180629C	SeqNo: 5121340	Prep Date: 6/28/2018	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	4848	85	4237	393.1	105	75-125	5488	12.4	25	x

LCS1 Sample ID: LCS1-120579-120579 Units: mg/Kg Analysis Date: 6/29/2018 02:00 PM

Client ID:	Run ID: GALLERY_180629C	SeqNo: 5121347	Prep Date: 6/28/2018	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	102.4	10	100	0	102	80-120	0			x

LCS2 Sample ID: LCS2-120579-120579 Units: mg/Kg Analysis Date: 6/29/2018 02:00 PM

Client ID:	Run ID: GALLERY_180629C	SeqNo: 5121348	Prep Date: 6/28/2018	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	508.3	10	500	0	102	80-120	0			x

The following samples were analyzed in this batch:	18061848-01A	18061848-02A	18061848-03A
	18061848-04A	18061848-05A	18061848-06A

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

Client: HRL Compliance Solutions, Inc
 Work Order: 18061848
 Project: Whiptail Midstream lic. 7-1 CDP

QC BATCH REPORT

Batch ID: R239171 Instrument ID MOIST Method: SW3550C

MBLK	Sample ID: WBLKS-R239171	Units: % of sample					Analysis Date: 6/28/2018 02:45 PM			
Client ID:	Run ID: MOIST_180628B	SeqNo: 5120304	Prep Date:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.050								

LCS	Sample ID: LCS-R239171	Units: % of sample					Analysis Date: 6/28/2018 02:45 PM			
Client ID:	Run ID: MOIST_180628B	SeqNo: 5120303	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: 18061815-01A DUP	Units: % of sample					Analysis Date: 6/28/2018 02:45 PM			
Client ID:	Run ID: MOIST_180628B	SeqNo: 5120291	Prep Date:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	16.09	0.050	0	0	0	0-0	16.05	0.249	10	

DUP	Sample ID: 18061815-05A DUP	Units: % of sample					Analysis Date: 6/28/2018 02:45 PM			
Client ID:	Run ID: MOIST_180628B	SeqNo: 5120296	Prep Date:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	16.42	0.050	0	0	0	0-0	16.61	1.15	10	

The following samples were analyzed in this batch:

18061848-01A	18061848-02A	18061848-03A
18061848-04A	18061848-05A	18061848-06A

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



ALS Laboratory Group

3352 128th Ave. Holland, MI 49424
 TF: (1-616-399-6070) FH: 616-399-6185

Chain-of-Custody

Form 2826

WORKORDER #

18061848

SAMPLER		Gunnar Westerman			DATE		6/27/2018		PAGE		1 of 2			
PROJECT NAME	Whiptail Midstream Inc. 7-1 CDP - rVF1616448793			SITE ID	7-1 CDP		TURNAROUND	RUSH		DISPOSAL	By Lab or Return to Client			
PROJECT No.	N/A			EDD FORMAT			BENZENE (Method 8021) BTEX (Method 8021) MRO (Method 8015) DRO (Method 8015) GRO (Method 8015) CHLORIDES (Method 300)							
PURCHASE ORDER														
COMPANY NAME	HRL COMPLIANCE SOLUTIONS Inc.			BILL TO COMPANY	Whiptail Midstream LLC.									
SEND REPORT TO	Brian Skyles/Gunnar Westerman			INVOICE ATTN TO	Emie Johnston									
ADDRESS	65 Mercado St. Suite 109			ADDRESS	504 S Bloomfield Blvd									
CITY / STATE / ZIP	Durango, CO 81301			CITY / STATE / ZIP	Bloomfield, NM 87413									
PHONE	970-259-0926			PHONE	948-949-7850									
FAX	970-259-0971			FAX										
E-MAIL	bskyles@hrlcomp.com			E-MAIL	emie.johnson@whiptailmidstream.com									
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.		QC						
1	A1	S	6/27/2018	9:34	1	N/A		X	X	X	X	X		
2	A2N	S	6/27/2018	9:58	1	N/A		X	X	X	X	X		
3	A2S	S	6/27/2018	9:58	1	N/A		X	X	X	X	X		
4	A3N	S	6/27/2018	10:15	1	N/A		X	X	X	X	X		
5	A3S	S	6/27/2018	10:15	1	N/A		X	X	X	X	X		
6	Background Sample	S	6/27/2018	11:06	1	N/A		X	X	X	X	X		

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

For metals or anions, please detail analytes below.

Comments: SO2 3.2°C ⓐ	QC PACKAGE (check below)
	<input type="checkbox"/> LEVEL II (Standard QC)
	<input type="checkbox"/> LEVEL III (Std QC + forms)
	<input type="checkbox"/> LEVEL IV (Std QC + forms + raw data)
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035	

SIGNATURE	PRINTED NAME	DATE	TIME
<i>Brian Skyles</i>	Brian Skyles	6/27/2018	3:07 pm
<i>FGD Gx</i>			
<i>FGD Gx</i>			
<i>Diane E. Shan</i>	Diane E. Shan	6/28/18	0830

ALS Group, USA

Sample Receipt Checklist

Client Name: **HRL - DURANGO**

Date/Time Received: **28-Jun-18 08:30**

Work Order: **18061848**

Received by: **DS**

Checklist completed by Diane Sham 28-Jun-18
eSignature Date

Reviewed by: Chad Whilton 28-Jun-18
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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" 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>3.2/3.2 c</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<hr/>		
Date/Time sample(s) sent to storage:	<u>6/28/2018 11:13:12 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:	<hr/>		

Login Notes:

Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction: