



AE Order Number Banner

Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.



App Number: pCS1507831688

3RP - 1024

DJR OPERATING, LLC

6/7/2018

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

Form C-141
Revised April 3, 2017

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

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: DJR Operating, LLC	Contact: Amy Archuleta
Address: PO BOX 156 Bloomfield, NM 87413	Telephone No.: 505-632-3476 x201
Facility Name: Central Bisti Unit (CBU) Injection Plant (waterflood)	Facility Type: Injection Tanks/Waterflood Unit
Surface Owner: Navajo Tribal Trust	Mineral Owner: Navajo Tribal Trust API No.: N/A

LOCATION OF RELEASE

Unit Letter SE/SW	Section 05	Township 25N	Range 12W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude 36.423636 Longitude -108.133583 NAD83

NATURE OF RELEASE

Type of Release Historic (Tank Storage)	Volume of Release Unknown	Volume Recovered 540 yards soil
Source of Release Tank storage	Date and Hour of Occurrence 3-26-18	Date and Hour of Discovery 4:00 PM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Cory Smith/ Vanessa Fields	
By Whom? Amy Archuleta	Date and Hour Email 3-29-18 4:25PM.	
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.*
** Additional Remediation Required*
NMOCD
MAY 04 2018
DISTRICT III

Describe Cause of Problem and Remedial Action Taken.*
Storage Tanks located at an old waterflood site, the CBU Injection Plant, were removed and contaminated soil was found beneath them. The tanks were removed from the site.

Describe Area Affected and Cleanup Action Taken.*
Animas Environmental was on site and conducted field tests for OVM and TPH. The total contaminated soil removed was 540 yards. Samples were pulled and witnessed by Cory Smith on 4-03-2018. Samples results are attached. The area was sprayed with Hydrogen Peroxide on 4-27-18 and backfilled with soil from Envirotech on 5-2-18.

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: Amy Archuleta	Approved by Environmental Specialist:	
Title: Regulatory	Approval Date: 6/7/18	Expiration Date:
E-mail Address: aarchuleta@djrlc.com	Conditions of Approval: Contacted operator	Attached <input checked="" type="checkbox"/>
Date: 05-04-18 Phone: 505-632-3476 x201	<i>By Email Additional Remediation Req</i>	

* Attach Additional Sheets If Necessary

#NCS 1812055 995

NMOCD (21)

District I
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Facility Name: Central Bisti Unit (CBU) Injection Plant (waterflood)	Facility Type: Injection Tanks/Waterflood Unit

Surface Owner: Navajo Tribal Trust	Mineral Owner: Navajo Tribal Trust	API No.: N/A
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If a Watercourse was Impacted, Describe Fully.*

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Signature:	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: Amy Archuleta	Approved by Environmental Specialist: _____		
Title: Regulatory	Approval Date:	Expiration Date:	
E-mail Address: aarchuleta@djrlc.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 05-04-18 Phone: 505-632-3476 x201			

* Attach Additional Sheets If Necessary

April 23, 2018

Amy Archuleta
Regulatory Supervisor
DJR Operating, LLC
PO Box 156
Bloomfield, New Mexico 87413

Sent via electronic mail to:
aarchuleta@djrlc.com

**RE: Excavation Clearance Report
CBU Injection Plant
SW¼ SE¼, Section 5 T25N R12W
San Juan County, New Mexico**

Dear Ms. Archuleta:

On March 28, 2018 and April 3, 2018, Animas Environmental Services, LLC (AES) completed confirmation sampling of the excavated areas associated with petroleum-contaminated soils at the DJR Operating (DJR) CBU Injection Plant release location. The release consisted of historic contamination discovered during infrastructure removal activities at the location. The final excavations were completed by DJR contractors prior to AES' arrival at the location on March 28, 2018, and April 3, 2018.

1.0 Site Information

1.1 Location

Legal Description – SW¼ SE¼, Section 5, T25N, R12W, San Juan County, New Mexico

Release Latitude/Longitude – N36.42329 and W108.13359, respectively

Land Jurisdiction – Navajo Nation Allotment

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Location Map, March and April 2018

604 W. Piñon St.
Farmington, NM 87401
505-564-2281

1911 Main, Ste 206
Durango, CO 81301
970-403-3084

1.2 NMOCD Ranking

The DJR CBU Injection Plant is located within Navajo Nation Allotment lands. Navajo Nation Environmental Protection Agency (NNEPA) adheres to action levels for releases and spills as established by the New Mexico Oil Conservation Division (NMOCD).

In accordance with NMOCD release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to site work. The release was given a ranking score of 10 based on the following factors:

- **Depth to Groundwater:** Based on elevation, topographic interpretation and visual reconnaissance, depth to groundwater is calculated to be approximately 120 ft. A water well (SJ 01716) 3.8 mi to the east and at an approximate elevation of 6,278 ft had groundwater at a depth of 210 ft. The CBU WSW #2 water well on location has an estimated surface elevation of 6,188 ft. (0 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** The nearest wash is 480 ft northeast of the plant property boundary. Drainage is ultimately to Gallegos Canyon. (10 points)

1.3 Excavation Clearance

AES was initially contacted by Amy Archuleta of DJR on March 26, 2018, and on March 28, 2018, Corwin Lameman of AES completed the excavation clearance field work. The clearance included the collection and field sampling of nine soil samples from the walls and bases of three excavation areas (north tank area, south tank area, and pump building area).

On April 3, 2018, AES personnel collected a total of three confirmation soil samples (SC-1 through SC-3) for laboratory analysis from the bases of the excavation areas. The final excavations measured approximately 60 feet by 46 feet by 3 feet deep (north tank area); 55 feet by 34.5 feet by 2.5 to 5 feet deep (pump building area); and 23 feet by 21 feet by 4.5 feet deep (south tank area). Sample locations and final excavation extents are presented on Figure 3.

2.0 Soil Sampling

2.1 Field Sampling

2.1.1 Volatile Organic Compounds

Field screening for volatile organic compound (VOC) vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field

screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

2.1.2 Total Petroleum Hydrocarbons

Soil samples were also analyzed in the field for total petroleum hydrocarbons (TPH) per U.S. Environmental Protection Agency (USEPA) Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES' *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

2.2 Laboratory Analyses

The samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto sample chain of custody records. The samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. The samples were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8260B; and
- TPH as gasoline, diesel, and motor oil ranges (GRO, DRO, and MRO) per USEPA Method 8015 M/D.

2.3 Field and Laboratory Analytical Results

Field sampling results and laboratory analytical results are summarized in Tables 1 and 2, respectively, and on Figure 3. The AES Field Sampling Report and laboratory analytical reports are attached.

Table 1. Soil Field VOCs and TPH Results
 CBU Injection Plant Excavation Clearance, March 2018

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft)</i>	<i>VOCs OVM Reading (ppm)</i>	<i>Field TPH (418.1) (mg/kg)</i>
<i>NMOCD Action Level*</i>			100	1,000
S.T.A. SC-1	3/28/18	4.5	378	1,160
S.T.A. SC-2	3/28/18	1 to 3.5	12.7	NA
S.T.A. SC-3	3/28/18	1 to 3.5	0.2	NA
S.T.A. SC-4	3/28/18	1 to 3.5	6.8	NA
S.T.A. SC-5	3/28/18	1 to 3.5	2.1	NA
N.T.A. SC-1	3/28/18	3	35.2	144
N.T.A. SC-2	3/28/18	3	22.7	337
B.A. SC-1	3/28/18	2.5 to 5	10.1	46.1
B.A. SC-2	3/28/18	2.5 to 5	4.7	47.3

*Action level determined by NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases (August 1993)*

NA – Not Analyzed

Table 2. Soil Laboratory Analytical Results – Benzene, Total BTEX, and TPH
 Excavation Area Sample Locations and Results, April 2018

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Depth (ft)</i>	<i>Benzene (mg/kg)</i>	<i>Total BTEX (mg/kg)</i>	<i>TPH – GRO (mg/kg)</i>	<i>TPH – DRO (mg/kg)</i>	<i>TPH – MRO (mg/kg)</i>
<i>NMOCD Action Level*</i>			10	50	1,000		
SC-1	4/3/18	2 to 5	<0.024	<0.220	<4.9	<9.2	<46
SC-2	4/3/18	3	<0.024	<0.217	<4.8	600	740
SC-3	4/3/18	4 to 5	<0.024	<0.215	<4.8	54	150

*Action level determined by NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases (August 1993)*

3.0 Conclusions and Recommendations

On March 28, 2018, field sampling results of the excavation extents showed field TPH concentrations were below the applicable NMOCD action level of 1,000 mg/kg for all composite samples except S.T.A. SC-1 (south tank area base); further excavation was

completed to ensure action levels would be under the NMOCD action level for the confirmation sampling event. On April 3, 2018 final clearance of all excavation areas was completed under witness of NMOCD personnel. Laboratory analytical results reported benzene, total BTEX, and TPH concentrations (as GRO/DRO/MRO) in all samples as below NMOCD action levels in all samples, except SC-2 (North Tank Area base - **1,340 mg/kg**).

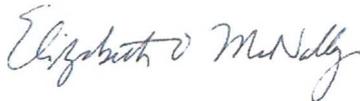
Based on the final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the CBU Injection Plant, benzene, total BTEX, and TPH concentrations were below the applicable NMOCD action levels for the final base and sidewalls of all excavation pits, except for the north tank area. Upon approval from NMOCD, DJR will apply a bioremediation compound to the base of the excavation prior to backfilling. No further work is recommended.

If you have any questions about this report or site conditions, please do not hesitate to contact Tami Knight, Project Lead, or Elizabeth McNally at (505) 564-2281.

Sincerely,



David J. Reese
Environmental Scientist



Elizabeth McNally, P.E.

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Location Map, March and April 2018
- Figure 3. Excavation Area Sample Locations and Results, March and April 2018
- AES Field Sampling Report 032818
- Hall Analytical Report 1804149

\\SVRMAIN2\Shared\Animas 2000\Dropbox (Animas Environmental)\0000 AES Server Client Projects
Dropbox\2018 Client Projects\DJ Resources\CBU Injection Plant Excavation Clearance\DJR Operating CBU
Injection Plant Excavation Clearance Report 042318 SJDR TKEM.docx

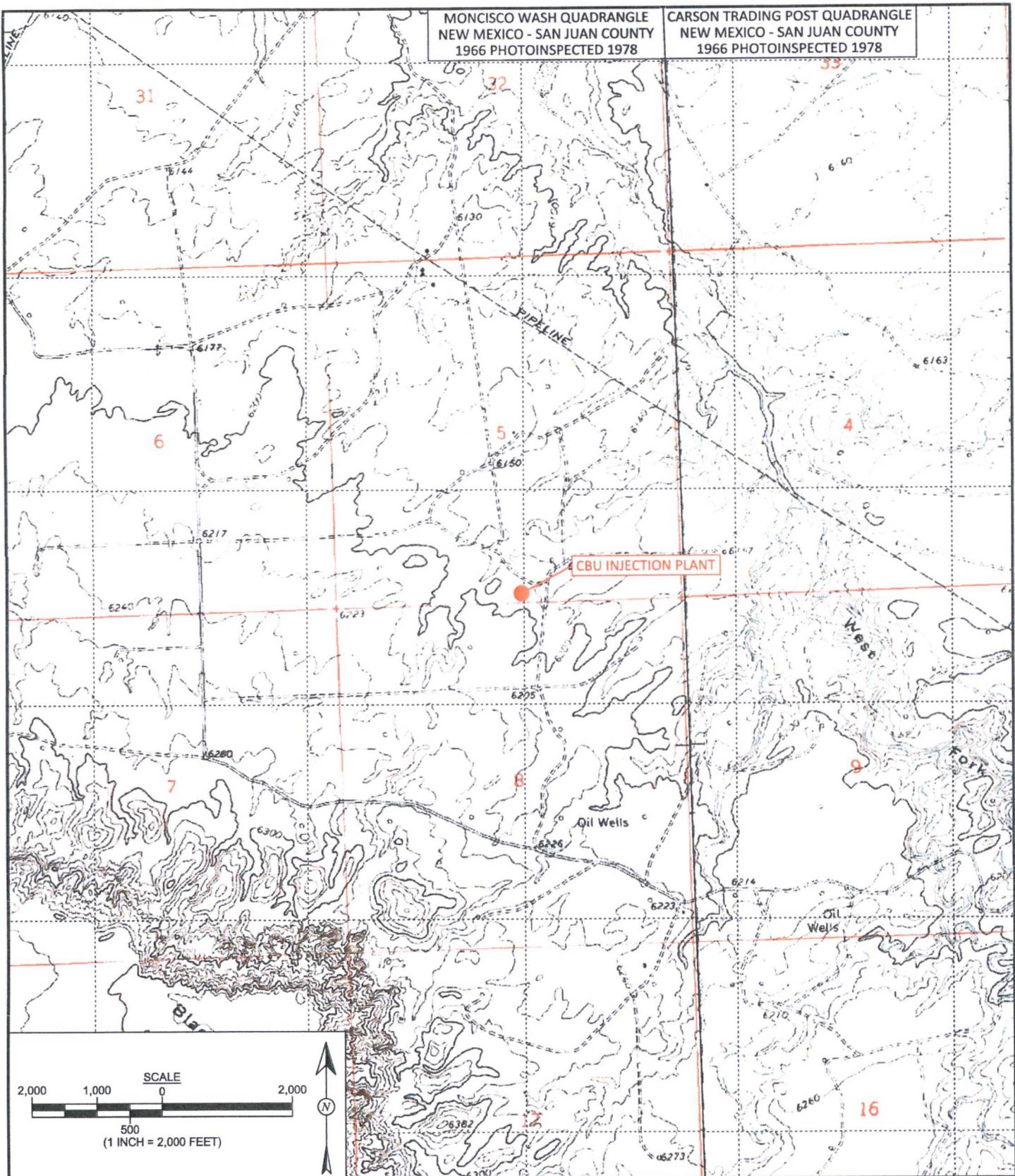


FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP
DJR OPERATING
CBU INJECTION PLANT
SW¼ SE¼, SECTION 5, T25N, R12W
SAN JUAN COUNTY, NEW MEXICO
N36.42329, W108.13359

DRAWN BY:

C. Lameman

DATE DRAWN:

April 11, 2018

REVISIONS BY:

C. Lameman

DATE REVISED:

April 11, 2018

CHECKED BY:

T. Knight

DATE CHECKED:

April 11, 2018

APPROVED BY:

E. McNally

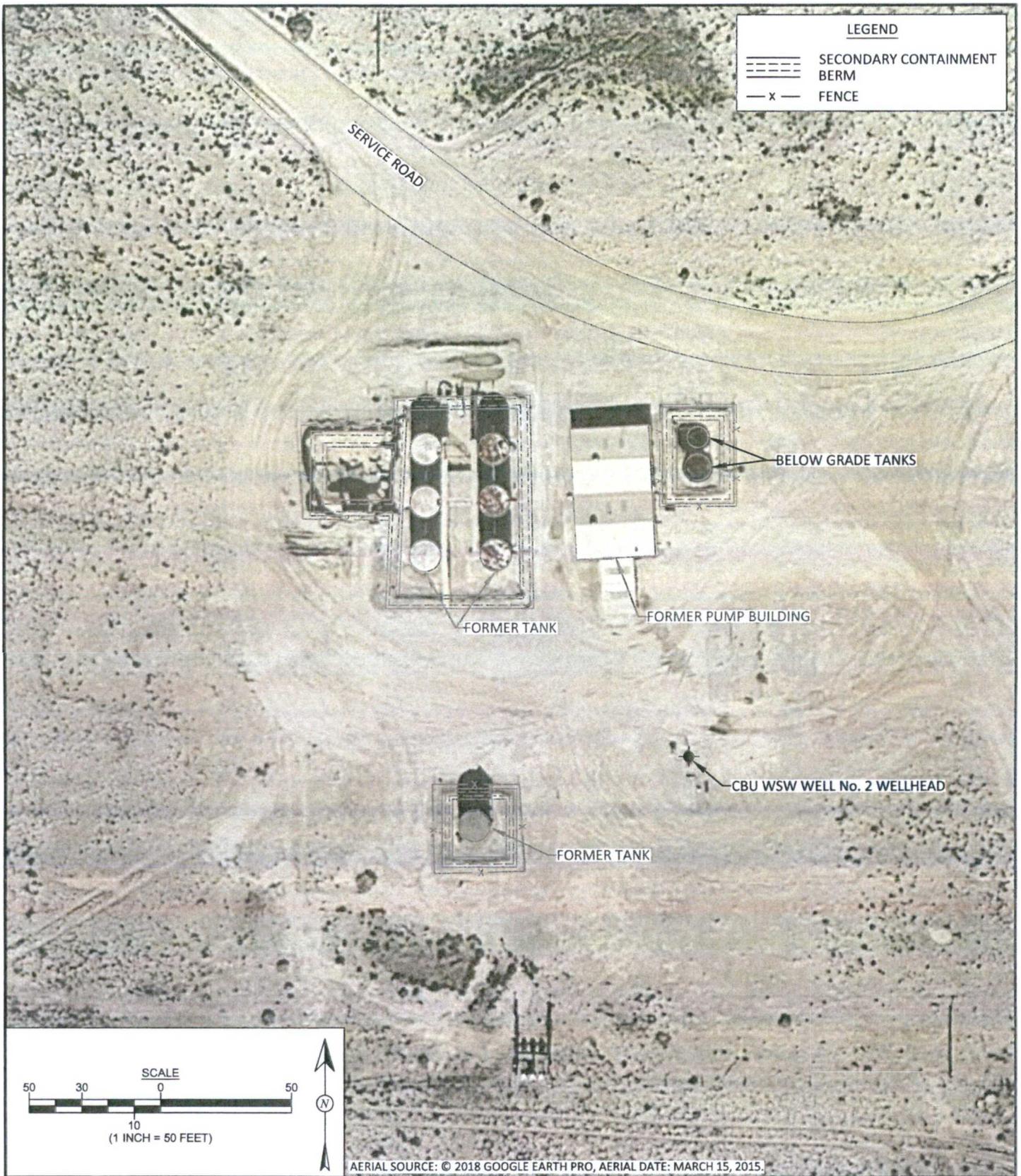
DATE APPROVED:

April 11, 2018



animas
environmental
services

Farmington, NM • Durango, CO
animasenvironmental.com



animas environmental services
 Farmington, NM • Durango, CO
 animasenvironmental.com

DRAWN BY: C. Lameman	DATE DRAWN: April 11, 2018
REVISIONS BY: C. Lameman	DATE REVISED: April 11, 2018
CHECKED BY: T. Knight	DATE CHECKED: April 11, 2018
APPROVED BY: E. McNally	DATE APPROVED: April 11, 2018

FIGURE 2

**AERIAL SITE LOCATION MAP
 MARCH AND APRIL 2018**

DJR OPERATING
 CBU INJECTION PLANT
 SW¼ SE¼, SECTION 5, T25N, R12W
 SAN JUAN COUNTY, NEW MEXICO
 N36.42329, W108.13359

FIGURE 3

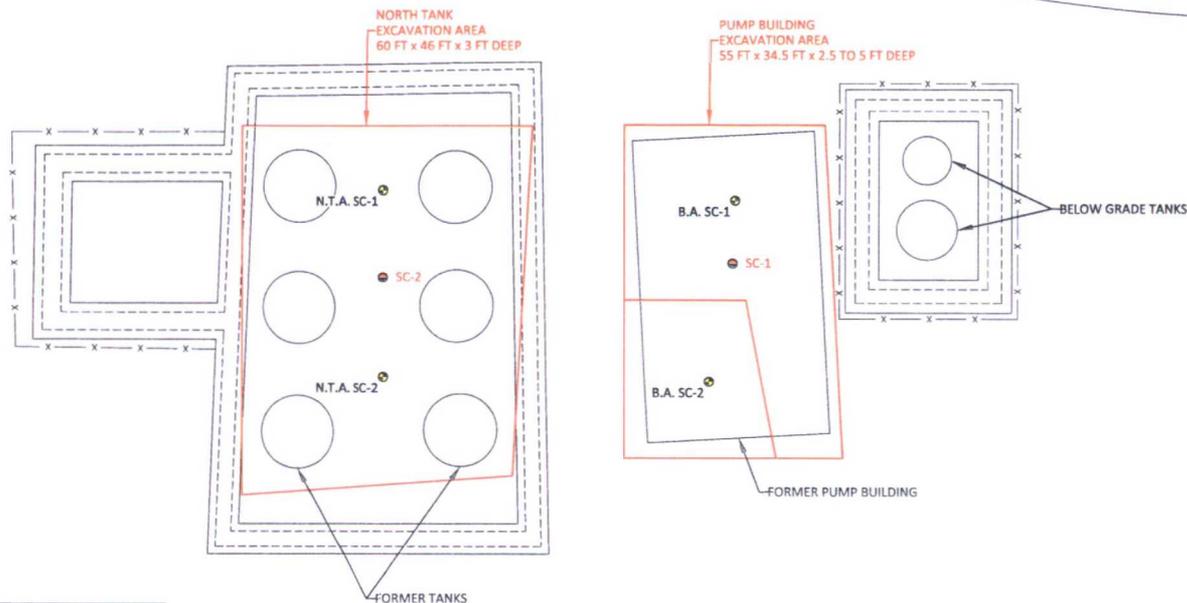
EXCAVATION AREA SAMPLE LOCATIONS AND RESULTS MARCH AND APRIL 2018
 DJR OPERATING
 CBU INJECTION PLANT
 SW¼ SE¼, SECTION 5, T25N, R12W
 SAN JUAN COUNTY, NEW MEXICO
 N36.42329, W108.13359



DRAWN BY: C. Lameman	DATE DRAWN: April 11, 2018
REVISIONS BY: S. Glasses	DATE REVISED: April 27, 2018
CHECKED BY: T. Knight	DATE CHECKED: April 27, 2018
APPROVED BY: E. McNally	DATE APPROVED: April 27, 2018

LEGEND

- ⊙ MARCH FIELD SAMPLE LOCATIONS
- APRIL CONFIRMATION SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM
- x- FENCE



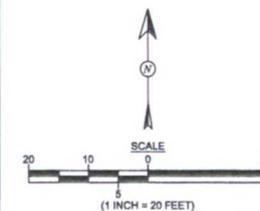
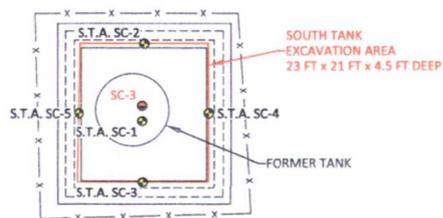
Sample ID	Date	Depth (ft)	PID - OVM (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL 100 1,000				
S.T.A. SC-1	3/28/18	4.5	9.1	1,160*
S.T.A. SC-2	3/28/18	1 to 3.5	12.7	NA
S.T.A. SC-3	3/28/18	1 to 3.5	0.2	NA
S.T.A. SC-4	3/28/18	1 to 3.5	6.8	NA
S.T.A. SC-5	3/28/18	1 to 3.5	2.1	NA
N.T.A. SC-1	3/28/18	3	35.2	144
N.T.A. SC-2	3/28/18	3	22.7	337
B.A. SC-1	3/28/18	2.5 to 5	10.1	46.1
B.A. SC-2	3/28/18	2.5 to 5	4.7	47.3

ALL SAMPLES WERE COMPOSITE SAMPLES.
 NA - NOT ANALYZED
 * - INITIAL FIELD ANALYSIS, A SECOND ANALYSIS WAS NOT ANALYZED DUE TO LOW PID READING.

Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	TPH - MRO (mg/kg)
NMOCD ACTION LEVEL 10 50 1,000							
SC-1	4/3/18	2.5 to 5	<0.024	<0.220	<4.9	<9.2	<46
SC-2	4/3/18	3	<0.024	<0.217	<4.8	600	740
SC-3	4/3/18	4.5	<0.024	<0.215	<4.8	54	150

ALL SAMPLES WERE CONFIRMATION SAMPLES AND LAB ANALYZED PER USEPA METHOD 8260B AND 8015D.

CBU WSW WELL No. 2 WELLHEAD





AES Field Sampling Report

Client: DJR Operating

Project Location: CBU Injection Plant

Date: 3/28/2018

Matrix: Soil

Sample ID	Collection Date	Collection Time	Sample Location	PID-OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
S.T.A. SC-1	3/28/2018	8:30	Base	378	1,160	9:37	20.0	1	CL
S.T.A. SC-2	3/28/2018	10:32	North Wall	12.7	<i>Not Analyzed for TPH</i>				
S.T.A. SC-3	3/28/2018	10:36	South Wall	0.2	<i>Not Analyzed for TPH</i>				
S.T.A. SC-4	3/28/2018	10:38	East Wall	6.8	<i>Not Analyzed for TPH</i>				
S.T.A. SC-5	3/28/2018	10:40	West Wall	2.1	<i>Not Analyzed for TPH</i>				
N.T.A. SC-1	3/28/2018	8:48	North 1/2 Base	35.2	144	9:40	20.0	1	CL
N.T.A. SC-2	3/28/2018	8:53	South 1/2 Base	22.7	337	9:43	20.0	1	CL
B.A. SC-1	3/28/2018	8:35	North 1/2 Base	10.1	46.1	9:45	20.0	1	CL
B.A. SC-2	3/28/2018	10:15	South 1/2 Base	4.7	47.3	11:21	20.0	1	CL

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

*TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 09, 2018

Tami Knight
Animas Environmental Services
604 Pinon Street
Farmington, NM 87401
TEL: (505) 564-2281
FAX (505) 324-2022

RE: DJR CBU Injection Plant Excavation

OrderNo.: 1804149

Dear Tami Knight:

Hall Environmental Analysis Laboratory received 3 sample(s) on 4/4/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SC-1

Project: DJR CBU Injection Plant Excavation

Collection Date: 4/3/2018 11:03:00 AM

Lab ID: 1804149-001

Matrix: SOIL

Received Date: 4/4/2018 7:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/6/2018 7:29:48 PM	37449
Surr: BFB	118	70-130		%Rec	1	4/6/2018 7:29:48 PM	37449
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/6/2018 11:08:07 AM	37453
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/6/2018 11:08:07 AM	37453
Surr: DNOP	92.3	70-130		%Rec	1	4/6/2018 11:08:07 AM	37453
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Benzene	ND	0.024		mg/Kg	1	4/6/2018 7:29:48 PM	37449
Toluene	ND	0.049		mg/Kg	1	4/6/2018 7:29:48 PM	37449
Ethylbenzene	ND	0.049		mg/Kg	1	4/6/2018 7:29:48 PM	37449
Xylenes, Total	ND	0.098		mg/Kg	1	4/6/2018 7:29:48 PM	37449
Surr: 4-Bromofluorobenzene	118	70-130		%Rec	1	4/6/2018 7:29:48 PM	37449
Surr: Toluene-d8	83.2	70-130		%Rec	1	4/6/2018 7:29:48 PM	37449

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SC-2

Project: DJR CBU Injection Plant Excavation

Collection Date: 4/3/2018 11:11:00 AM

Lab ID: 1804149-002

Matrix: SOIL

Received Date: 4/4/2018 7:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/6/2018 9:48:38 PM	37449
Surr: BFB	112	70-130		%Rec	1	4/6/2018 9:48:38 PM	37449
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	600	95		mg/Kg	10	4/6/2018 2:00:05 PM	37453
Motor Oil Range Organics (MRO)	740	480		mg/Kg	10	4/6/2018 2:00:05 PM	37453
Surr: DNOP	0	70-130	S	%Rec	10	4/6/2018 2:00:05 PM	37453
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Benzene	ND	0.024		mg/Kg	1	4/6/2018 9:48:38 PM	37449
Toluene	ND	0.048		mg/Kg	1	4/6/2018 9:48:38 PM	37449
Ethylbenzene	ND	0.048		mg/Kg	1	4/6/2018 9:48:38 PM	37449
Xylenes, Total	ND	0.097		mg/Kg	1	4/6/2018 9:48:38 PM	37449
Surr: 4-Bromofluorobenzene	119	70-130		%Rec	1	4/6/2018 9:48:38 PM	37449
Surr: Toluene-d8	85.4	70-130		%Rec	1	4/6/2018 9:48:38 PM	37449

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SC-3

Project: DJR CBU Injection Plant Excavation

Collection Date: 4/3/2018 11:19:00 AM

Lab ID: 1804149-003

Matrix: SOIL

Received Date: 4/4/2018 7:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/6/2018 10:57:57 PM	37449
Surr: BFB	119	70-130		%Rec	1	4/6/2018 10:57:57 PM	37449
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	54	10		mg/Kg	1	4/6/2018 2:24:33 PM	37453
Motor Oil Range Organics (MRO)	150	51		mg/Kg	1	4/6/2018 2:24:33 PM	37453
Surr: DNOP	101	70-130		%Rec	1	4/6/2018 2:24:33 PM	37453
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Benzene	ND	0.024		mg/Kg	1	4/6/2018 10:57:57 PM	37449
Toluene	ND	0.048		mg/Kg	1	4/6/2018 10:57:57 PM	37449
Ethylbenzene	ND	0.048		mg/Kg	1	4/6/2018 10:57:57 PM	37449
Xylenes, Total	ND	0.095		mg/Kg	1	4/6/2018 10:57:57 PM	37449
Surr: 4-Bromofluorobenzene	121	70-130		%Rec	1	4/6/2018 10:57:57 PM	37449
Surr: Toluene-d8	82.2	70-130		%Rec	1	4/6/2018 10:57:57 PM	37449

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804149

09-Apr-18

Client: Animas Environmental Services
Project: DJR CBU Injection Plant Excavation

Sample ID	LCS-37459	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	37459	RunNo:	50367					
Prep Date:	4/6/2018	Analysis Date:	4/6/2018	SeqNo:	1632357	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.7	70	130			

Sample ID	MB-37459	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	37459	RunNo:	50367					
Prep Date:	4/6/2018	Analysis Date:	4/6/2018	SeqNo:	1632358	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.9		10.00		98.8	70	130			

Sample ID	LCS-37453	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	37453	RunNo:	50366					
Prep Date:	4/5/2018	Analysis Date:	4/6/2018	SeqNo:	1632359	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.7	70	130			
Surr: DNOP	4.6		5.000		92.9	70	130			

Sample ID	MB-37453	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	37453	RunNo:	50366					
Prep Date:	4/5/2018	Analysis Date:	4/6/2018	SeqNo:	1632360	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		103	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804149

09-Apr-18

Client: Animas Environmental Services
Project: DJR CBU Injection Plant Excavation

Sample ID	1804149-001ams		SampType:	MS4		TestCode:	EPA Method 8260B: Volatiles Short List				
Client ID:	SC-1		Batch ID:	37449		RunNo:	50381				
Prep Date:	4/5/2018		Analysis Date:	4/6/2018		SeqNo:	1633391		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.90	0.023	0.9398	0	95.5	80	120				
Toluene	0.92	0.047	0.9398	0	97.8	80	120				
Ethylbenzene	1.0	0.047	0.9398	0	108	80	120				
Xylenes, Total	3.1	0.094	2.820	0.02579	108	80	120				
Surr: 4-Bromofluorobenzene	0.46		0.4699		98.9	70	130				
Surr: Toluene-d8	0.39		0.4699		82.9	70	130				

Sample ID	1804149-001amsd		SampType:	MSD4		TestCode:	EPA Method 8260B: Volatiles Short List				
Client ID:	SC-1		Batch ID:	37449		RunNo:	50381				
Prep Date:	4/5/2018		Analysis Date:	4/6/2018		SeqNo:	1633392		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.94	0.023	0.9302	0	101	80	120	4.40	0		
Toluene	0.95	0.047	0.9302	0	102	80	120	3.49	0		
Ethylbenzene	1.1	0.047	0.9302	0	113	80	120	3.97	0		
Xylenes, Total	3.2	0.093	2.791	0.02579	114	80	120	3.73	0		
Surr: 4-Bromofluorobenzene	0.46		0.4651		99.8	70	130	0	0		
Surr: Toluene-d8	0.41		0.4651		87.4	70	130	0	0		

Sample ID	MB-37449		SampType:	MBLK		TestCode:	EPA Method 8260B: Volatiles Short List				
Client ID:	PBS		Batch ID:	37449		RunNo:	50381				
Prep Date:	4/5/2018		Analysis Date:	4/6/2018		SeqNo:	1633401		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.025									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 4-Bromofluorobenzene	0.59		0.5000		117	70	130				
Surr: Toluene-d8	0.42		0.5000		84.5	70	130				

Sample ID	LCS-37449		SampType:	LCS		TestCode:	EPA Method 8260B: Volatiles Short List				
Client ID:	LCSS		Batch ID:	37449		RunNo:	50381				
Prep Date:	4/5/2018		Analysis Date:	4/6/2018		SeqNo:	1634134		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.86	0.025	1.000	0	85.7	80	120				
Toluene	0.87	0.050	1.000	0	87.5	80	120				
Ethylbenzene	0.98	0.050	1.000	0	98.5	80	120				
Xylenes, Total	2.9	0.10	3.000	0	95.2	80	120				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804149

09-Apr-18

Client: Animas Environmental Services
Project: DJR CBU Injection Plant Excavation

Sample ID: LCS-37449	SampType: LCS	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: LCSS	Batch ID: 37449	RunNo: 50381								
Prep Date: 4/5/2018	Analysis Date: 4/6/2018	SeqNo: 1634134 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Toluene-d8	0.42		0.5000		84.1	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804149

09-Apr-18

Client: Animas Environmental Services
Project: DJR CBU Injection Plant Excavation

Sample ID	1804149-002ams	SampType:	MS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	SC-2	Batch ID:	37449	RunNo:	50381					
Prep Date:	4/5/2018	Analysis Date:	4/6/2018	SeqNo:	1633354	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	34	4.8	24.25	4.091	124	64.7	142			
Surr: BFB	540		485.0		112	70	130			

Sample ID	1804149-002amsd	SampType:	MSD	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	SC-2	Batch ID:	37449	RunNo:	50381					
Prep Date:	4/5/2018	Analysis Date:	4/6/2018	SeqNo:	1633355	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.7	23.70	4.091	104	64.7	142	16.8	20	
Surr: BFB	560		473.9		118	70	130	0	0	

Sample ID	lcs-37449	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	37449	RunNo:	50381					
Prep Date:	4/5/2018	Analysis Date:	4/6/2018	SeqNo:	1633365	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	70	130			
Surr: BFB	530		500.0		106	70	130			

Sample ID	MB-37449	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	37449	RunNo:	50381					
Prep Date:	4/5/2018	Analysis Date:	4/6/2018	SeqNo:	1633366	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	580		500.0		116	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |



Hall Environmental Analysis Laboratory
 4901 Hawkins NE
 Albuquerque, NM 87109
 TEL: 505-345-3975 FAX: 505-345-4107
 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1804149

RcptNo: 1

Received By: Anne Thorne

4/4/2018 7:40:00 AM

Anne Thorne

Completed By: Anne Thorne

4/4/2018 10:46:56 AM

Anne Thorne

Reviewed By:

*DDS
MMW 4/5/18*

4/4/18

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present

2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes No NA

4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA

5. Sample(s) in proper container(s)? Yes No

6. Sufficient sample volume for indicated test(s)? Yes No

7. Are samples (except VOA and ONG) properly preserved? Yes No

8. Was preservative added to bottles? Yes No NA

9. VOA vials have zero headspace? Yes No No VOA Vials

10. Were any sample containers received broken? Yes No

11. Does paperwork match bottle labels? Yes No

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes No

13. Is it clear what analyses were requested? Yes No

14. Were all holding times able to be met? Yes No

(If no, notify customer for authorization.)

of preserved bottles checked for pH: MMW 4/5/18
 (2 or 12 unless noted)
 Adjusted?
 Checked by: _____

Special Handling (If applicable)

15. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

