

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 August 8, 2011

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: Elm Ridge Exploration	Contact: Dianna Hamilton 330-2736
Address: 2001 E. Blanco Blvd. Bloomfield, NM 87413	Telephone No. 634-1144
Facility Name: AXI H9	Facility Type: Pipeline

Surface Owner: Jicarilla	Mineral Owner:	API No.
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30-039-05220

**LOCATION OF RELEASE**

Unit Letter	Section 32	Township 24N	Range 5W	Feet from the	North/South Line	Feet from the	East/West Line	County
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Latitude 36.264 Longitude -107.388

**NATURE OF RELEASE**

Type of Release: unknown at this time	Volume of Release: unknown	Volume Recovered: n/a
Source of Release: reducer near valve	Date and Hour of Occurrence	6.6.2017 2:30pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith, via email.	
By Whom? Dianna Hamilton	Date and Hour 6.8.17 3:36pm	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\* Yes, this line does run into the wash. While excavating to replace 4" line, discoloration and hydrocarbon odor was discovered.

Describe Cause of Problem and Remedial Action Taken.\* On 6/6/17 approximately 2:30 p.m. working on a lateral line from the Martin Whitaker 57 and the AXI H-9 DJR discovered what appeared to be discolored soil near the pipeline we were working on. The soil had a foul odor, reported to DJR supervisor Allen Lain. Reported to DJR Health, Safety & Environmental rep on 6.7.17. Dianna Hamilton notified Jicarilla rep, Hobson Sandoval. Soil sampling will be conducted on 6.13.17. See attached lab and full report. The base of the excavation was slightly above standard, permission to spray Potassium permanganate from Jicarilla was given. We sprayed on June 30<sup>th</sup>. Backfill soil was taken from J6 borrow pit with permission from Hobson Sandoval.

Describe Area Affected and Cleanup Action Taken.\* TBD

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: <i>Dianna Hamilton</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Dianna Hamilton	Approved by Environmental Specialist: <i>Cory Smith</i>	
Title: HSE Coordinator	Approval Date: 8/4/17	Expiration Date:
E-mail Address: dhamilton@djrlc.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: July 26, 2017 Phone: 505-330-2736		

\* Attach Additional Sheets If Necessary

#NCS 1721636937

**OIL CONS. DIV DIST. 3**

**JUL 27 2017**

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Energy Minerals and Natural Resources

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

Form C-138  
Revised August 1, 2011

\*Surface Waste Management Facility Operator  
and Generator shall maintain and make this  
documentation available for Division inspection.

## REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

**1. Generator Name and Address:**

Elmridge Exploration CO, 2001 E. Blanco Blvd, PO Box 1280 Bloomfield NM 87413

**2. Originating Site:**

AXI H9

**3. Location of Material (Street Address, City, State or ULSTR):**

S32 T24N R5W

**4. Source and Description of Waste:**

Hydrocarbon impacted soil from the release of produced water and crude oil mixture due to pipeline release.

Estimated Volume 40-50 <sup>yd<sup>3</sup></sup> / bbls Known Volume (to be entered by the operator at the end of the haul) \_\_\_\_\_ yd<sup>3</sup> / bbls

**5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Dianna Hamilton, representative or authorized agent for Elm Ridge Exploration do hereby

**PRINT & SIGN NAME**

**COMPANY NAME**

certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency ☐ Monthly ☐ Weekly ☐ Per Load

☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

**GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS**

I, Dianna R. Hamilton, representative for DJR Operating authorize Envirotech to

**Generator Signature**

complete the required testing/sign the Generator Waste Testing Certification.

I, \_\_\_\_\_, representative for \_\_\_\_\_ do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

**5. Transporter: Bailey's**

**OCD Permitted Surface Waste Management Facility**

Name and Facility Permit #: Envirotech Permit # NM-01-0011

Address of Facility: #43 Road 7175 South of Bloomfield NM 87413

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

**Waste Acceptance Status:**

☐ **APPROVED**

☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

TELEPHONE NO.: \_\_\_\_\_

Surface Waste Management Facility Authorized Agent

**OIL CONS. DIV DIST. 3**

**JUL 27 2017**



July 10, 2017

Dianna Hamilton  
DJ Resources, LLC  
2001 E. Blanco Blvd  
Bloomfield, New Mexico 87413

*Via electronic mail with delivery confirmation receipt to:  
[dhamilton@djrlc.com](mailto:dhamilton@djrlc.com)*

**OIL CONS. DIV DIST. 3**

**JUL 27 2017**

**RE: Excavation Clearance Report  
AXI-H9 Lateral Pipeline Release  
SW¼ SW¼, Section 32, T24N, R5W  
Rio Arriba County, New Mexico**

Dear Ms. Hamilton:

On June 13, 2017, Animas Environmental Services, LLC (AES) completed confirmation sampling of the excavation area associated with petroleum contaminated soils at the DJ Resources AXI-H9 Lateral Pipeline release location. The release volume was unknown. In addition, a water sample was collected on June 15, 2017, from groundwater which had accumulated within the excavation limits in the immediate vicinity of the release location.

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## **1.0 Site Information**

### **1.1 Location**

Legal Description – SW¼ SW¼, Section 32, T24N, R5W, Rio Arriba County, New Mexico

Release Latitude/Longitude – N36.26487 and W107.38830, respectively

Land Jurisdiction – Jicarilla Apache Nation

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, June 2017

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

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

## **1.2 Risk Ranking**

### **1.2.1 JANOGA Action Levels**

The DJ Resources AXI-H9 Lateral Pipeline release is located on Jicarilla Apache Nation lands, and soil remediation action levels are determined by the Jicarilla Apache Nation Oil and Gas Administration (JANOGA). JANOGA action levels for soils currently follow the New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993). Per JANOGA, all locations within Jicarilla Apache Nation lands receive a ranking score of 20:

- 100 parts per million (ppm) volatile organic compounds (VOCs) or 10 mg/kg benzene and 50 mg/kg total BTEX (benzene, toluene, ethylbenzene, and xylenes); and
- 100 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO).

JANOGA water quality standards currently follow New Mexico Water Quality Control Commission (WQCC).

### **1.2.2 Surface and Groundwater**

The AXI-H9 pipeline release location occurred within the Canyon Largo Wash floodplain. Depth to water is approximately seven feet below ground surface (bgs), as determined by AES and DJ Resources personnel upon recharge of water within the excavation extents. Additional unrelated release assessments conducted by AES in the immediate vicinity correlate with the shallow depth to water, approximately 5 to 10 feet bgs.

## **1.3 Excavation Clearance**

On June 13, 2017, DJ Resources contractors completed an excavation along the pipeline, and AES personnel collected a total of five confirmation soil samples for laboratory analysis from the walls and base of the excavation. The final excavation measured approximately 10 feet by 43 feet by 7 feet deep. Sample locations and final excavation extents are presented on Figure 2.

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## **2.0 Soil and Water Sampling**

On June 13, 2017, five soil samples (SC-1 through SC-5) were collected from the walls and base of the excavation. On June 15, 2017, one grab water sample (Water Sample) was collected from groundwater which had collected in the immediate vicinity of the release location. All samples were submitted for laboratory analysis.



## 2.1 Laboratory Analyses

The samples collected for laboratory analysis (SC-1 through SC-5 and Water Sample) 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:

- BTEX per U.S. Environmental Protection Agency (USEPA) Method 8021B; and
- TPH as GRO, DRO, and MRO per USEPA Method 8015M/D.

## 2.2 Laboratory Analytical Results

Laboratory analytical results are summarized in Tables 1 and 2 and on Figure 2. The laboratory analytical reports are attached.

Table 1. Soil Laboratory Analytical Results – Benzene, Total BTEX, and TPH  
AXI-H9 Lateral Pipeline Release Excavation Clearance, June 2017

Sample ID	Date Sampled	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH – GRO (mg/kg)	TPH – DRO (mg/kg)	TPH – MRO (mg/kg)
<b>JANOGA Action Level*</b>			<b>10</b>	<b>50</b>		<b>100</b>	
SC-1	6/13/17	0 to 7	<0.024	<0.212	<4.7	<9.5	<48
SC-2	6/13/17	0 to 7	<0.023	<0.207	<4.6	<9.9	<49
SC-3	6/13/17	0 to 7	<0.024	<0.219	<4.9	<9.5	<48
SC-4	6/13/17	0 to 7	<0.025	<0.225	<5.0	<9.3	<47
SC-5	6/13/17	7	0.26	7.12	200	70	<46

\*Action level determined by JANOGA (Ref. NMOCD ranking score of 20 per NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993)).

Table 2. Water Laboratory Analytical Results – Benzene, Total BTEX, and TPH  
AXI-H9 Lateral Pipeline Release Excavation Clearance, June 2017

Sample ID	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	TPH – GRO (mg/L)	TPH – DRO (mg/L)	TPH – MRO (mg/L)
<b>WQCC Standards</b>		<b>10</b>	<b>750</b>	<b>750</b>	<b>620</b>		<b>NE</b>	
Water Sample	6/15/17	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0

NE – Not Established

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### 3.0 Conclusions and Recommendations

On June 13, 2017, AES completed confirmation sampling of the excavation area associated with petroleum contaminated soils at the DJ Resources AXI-H9 Lateral Pipeline release location. Action levels for releases are determined by JANOGA and currently reflect a site ranking of 20 per NMOCD *Guideline for Remediation of Leaks, Spills and Releases* (August 1993).

Soil laboratory analyses for SC-1 through SC-5 showed benzene and total BTEX concentrations below the JANOGA action levels of 10 mg/kg and 50 mg/kg, respectively, with the highest total BTEX concentration noted in SC-5 (final base) with 7.12 mg/kg. TPH (GRO/DRO/MRO) concentrations were below the JANOGA (NMOCD) action level of 100 mg/kg in all soil samples, except SC-5 (final base). A water sample (Water Sample) was collected on June 15, 2017, from the groundwater within the excavation limits in the immediate vicinity of the release location. Laboratory analytical results showed dissolved phase benzene and BTEX concentrations were below the applicable WQCC standards of 10 µg/L and 50 µg/L, respectively, in the Water Sample.

Based on the final laboratory analytical results of the excavation of petroleum contaminated soils at the AXI-H9 Lateral Pipeline release location, benzene and total BTEX were below the applicable JANOGA action levels for the final base and sidewalls. However, TPH exceeded the JANOGA action level for the base (270 mg/kg GRO and DRO), but approval was obtained to apply a potassium permanganate solution and then backfill the excavation. No further work is recommended.

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

Sincerely,



David J. Reese  
Environmental Scientist



Elizabeth McNally, P.E.

**Attachments:**

**Figure 1. Topographic Site Location Map**

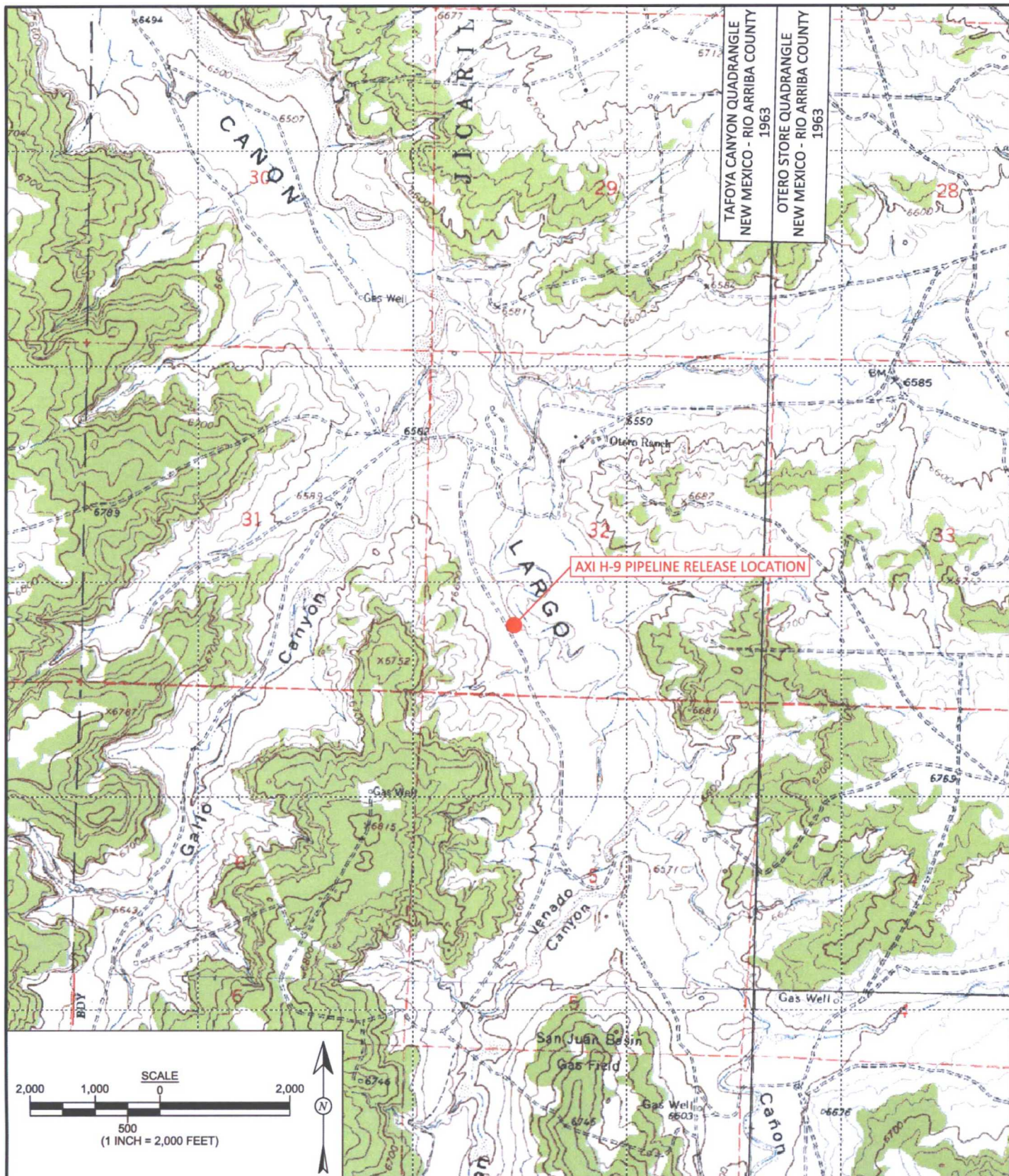
**Figure 2. Aerial Site Map, June 2017**

**Hall Analytical Report 1706908**

**Hall Analytical Report 1706922**

C:\Users\emcnally\Dropbox (Animas Environmental)\0000 aes server client projects dropbox\2017 Client Projects\DJ Resources (Bee Line)\AXI H-9 Pipeline Release\DJ Resources AXI H-9 Lateral Pipeline Release Final Excavation Report 071017.docx





TAFOYA CANYON QUADRANGLE  
NEW MEXICO - RIO ARRIBA COUNTY  
1963

OTERO STORE QUADRANGLE  
NEW MEXICO - RIO ARRIBA COUNTY  
1963

**FIGURE 1**

**TOPOGRAPHIC SITE LOCATION MAP**  
DJ RESOURCES  
AXI H-9 PIPELINE  
SW¼ SW¼, SECTION 32, T24N, R5W  
RIO ARRIBA COUNTY, NEW MEXICO  
N36.26487, W107.38830



**animas  
environmental  
services**

Farmington, NM • Durango, CO  
animasenvironmental.com

**DRAWN BY:**  
C. Lameman

**DATE DRAWN:**  
June 23, 2017

**REVISIONS BY:**  
C. Lameman

**DATE REVISED:**  
July 5, 2017

**CHECKED BY:**  
E. McNally

**DATE CHECKED:**  
July 5, 2017

**APPROVED BY:**  
E. McNally

**DATE APPROVED:**  
July 5, 2017



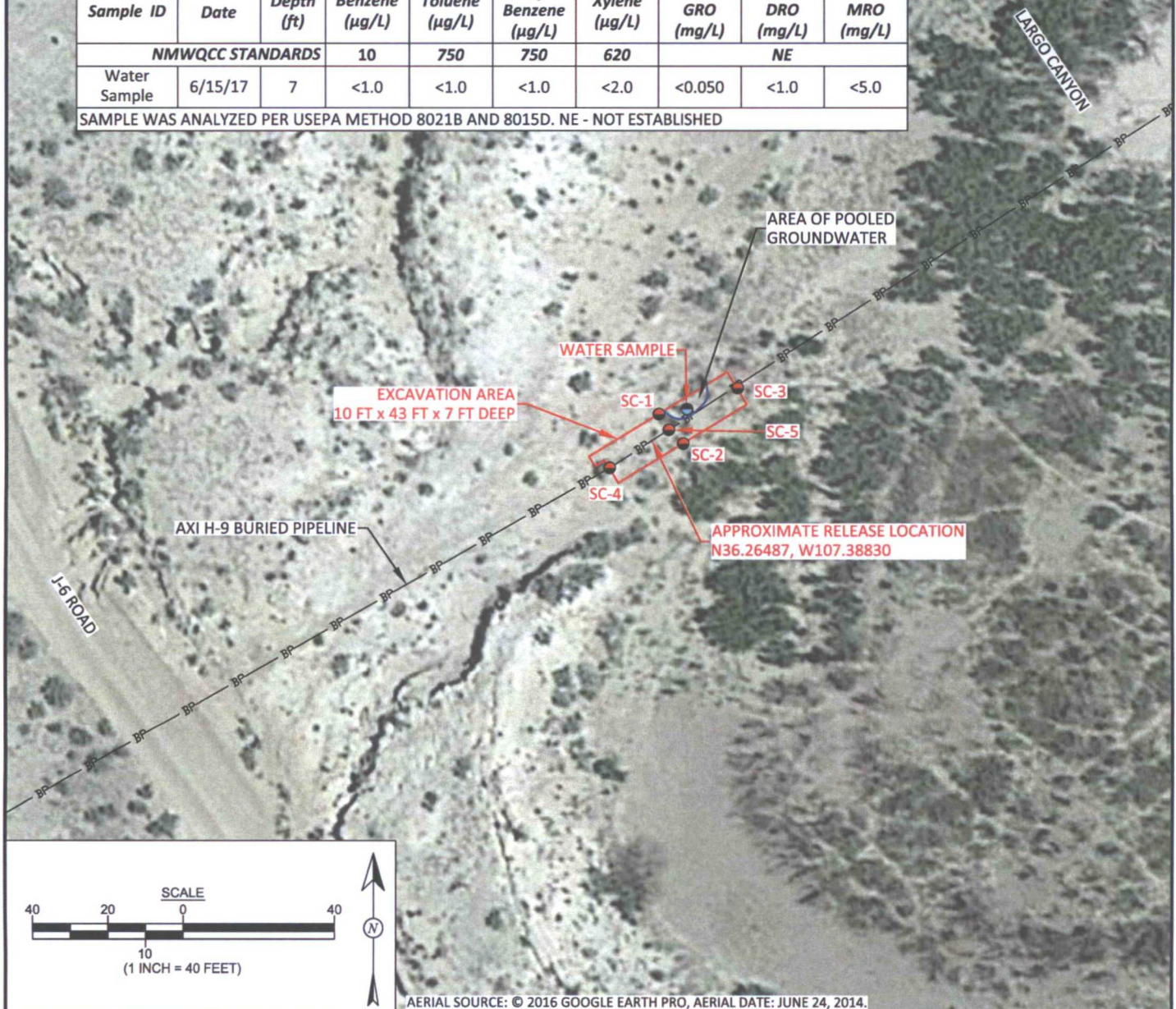
Soil Laboratory Analytical Results							
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	TPH - MRO (mg/kg)
JANOGA ACTION LEVEL			10	50	100		
SC-1	6/13/17	0 to 7	<0.024	<0.212	<4.7	<9.5	<48
SC-2	6/13/17	0 to 7	<0.023	<0.207	<4.6	<9.9	<49
SC-3	6/13/17	0 to 7	<0.024	<0.219	<4.9	<9.5	<48
SC-4	6/13/17	0 to 7	<0.025	<0.225	<5.0	<9.3	<47
SC-5	6/13/17	7	0.26	7.12	200	70	<46

ALL SOIL SAMPLES WERE COMPOSITE SAMPLES. ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8021B AND 8015D.

Water Laboratory Analytical Results									
Sample ID	Date	Depth (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylene (µg/L)	TPH - GRO (mg/L)	TPH - DRO (mg/L)	TPH - MRO (mg/L)
NMWQCC STANDARDS			10	750	750	620	NE		
Water Sample	6/15/17	7	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0

SAMPLE WAS ANALYZED PER USEPA METHOD 8021B AND 8015D. NE - NOT ESTABLISHED

LEGEND	
	SOIL SAMPLE LOCATION
	WATER SAMPLE LOCATION



AERIAL SOURCE: © 2016 GOOGLE EARTH PRO, AERIAL DATE: JUNE 24, 2014.



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animasenvironmental.com

**DRAWN BY:**  
C. Lameman

**DATE DRAWN:**  
June 23, 2017

**REVISIONS BY:**  
C. Lameman

**DATE REVISED:**  
July 5, 2017

**CHECKED BY:**  
E. McNally

**DATE CHECKED:**  
July 5, 2017

**APPROVED BY:**  
E. McNally

**DATE APPROVED:**  
July 5, 2017

## FIGURE 2

### AERIAL SITE MAP JUNE 2017

DJ RESOURCES  
AXI H-9 PIPELINE  
SW¼ SW¼, SECTION 32, T24N, R5W  
RIO ARriba COUNTY, NEW MEXICO  
N36.26487, W107.38830





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

June 21, 2017

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

RE: DJ Resources AXI H 9 Pipeline

OrderNo.: 1706908

Dear Elizabeth McNally:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/15/2017 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](http://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,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



**Hall Environmental Analysis Laboratory, Inc.****Analytical Report**

Lab Order 1706908

Date Reported: 6/21/2017

**CLIENT:** Animas Environmental Services**Client Sample ID:** SC-1**Project:** DJ Resources AXI H 9 Pipeline**Collection Date:** 6/13/2017 10:25:00 AM**Lab ID:** 1706908-001**Matrix:** SOIL**Received Date:** 6/15/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/20/2017 12:54:12 PM	32362
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/20/2017 12:54:12 PM	32362
Surr: DNOP	90.8	70-130		%Rec	1	6/20/2017 12:54:12 PM	32362
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/19/2017 1:25:28 PM	32325
Surr: BFB	95.6	54-150		%Rec	1	6/19/2017 1:25:28 PM	32325
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	6/19/2017 1:25:28 PM	32325
Toluene	ND	0.047		mg/Kg	1	6/19/2017 1:25:28 PM	32325
Ethylbenzene	ND	0.047		mg/Kg	1	6/19/2017 1:25:28 PM	32325
Xylenes, Total	ND	0.094		mg/Kg	1	6/19/2017 1:25:28 PM	32325
Surr: 4-Bromofluorobenzene	120	66.6-132		%Rec	1	6/19/2017 1:25:28 PM	32325

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

<b>Qualifiers:</b>	•	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 8
	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.**

Analytical Report

Lab Order 1706908

Date Reported: 6/21/2017

CLIENT: Animas Environmental Services

Client Sample ID: SC-2

Project: DJ Resources AXI H 9 Pipeline

Collection Date: 6/13/2017 10:30:00 AM

Lab ID: 1706908-002

Matrix: SOIL

Received Date: 6/15/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/20/2017 2:48:49 PM	32362
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/20/2017 2:48:49 PM	32362
Surr: DNOP	90.9	70-130		%Rec	1	6/20/2017 2:48:49 PM	32362
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/19/2017 2:38:20 PM	32325
Surr: BFB	98.1	54-150		%Rec	1	6/19/2017 2:38:20 PM	32325
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	6/19/2017 2:38:20 PM	32325
Toluene	ND	0.046		mg/Kg	1	6/19/2017 2:38:20 PM	32325
Ethylbenzene	ND	0.046		mg/Kg	1	6/19/2017 2:38:20 PM	32325
Xylenes, Total	ND	0.092		mg/Kg	1	6/19/2017 2:38:20 PM	32325
Surr: 4-Bromofluorobenzene	122	66.6-132		%Rec	1	6/19/2017 2:38:20 PM	32325

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

<b>Qualifiers:</b>	*	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.****Analytical Report**

Lab Order 1706908

Date Reported: 6/21/2017

**CLIENT:** Animas Environmental Services**Client Sample ID:** SC-3**Project:** DJ Resources AXI H 9 Pipeline**Collection Date:** 6/13/2017 10:35:00 AM**Lab ID:** 1706908-003**Matrix:** SOIL**Received Date:** 6/15/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/20/2017 3:17:46 PM	32362
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/20/2017 3:17:46 PM	32362
Surr: DNOP	89.0	70-130		%Rec	1	6/20/2017 3:17:46 PM	32362
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/19/2017 3:51:17 PM	32325
Surr: BFB	98.4	54-150		%Rec	1	6/19/2017 3:51:17 PM	32325
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	6/19/2017 3:51:17 PM	32325
Toluene	ND	0.049		mg/Kg	1	6/19/2017 3:51:17 PM	32325
Ethylbenzene	ND	0.049		mg/Kg	1	6/19/2017 3:51:17 PM	32325
Xylenes, Total	ND	0.097		mg/Kg	1	6/19/2017 3:51:17 PM	32325
Surr: 4-Bromofluorobenzene	122	66.6-132		%Rec	1	6/19/2017 3:51:17 PM	32325

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 3 of 8
	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.****Analytical Report**

Lab Order 1706908

Date Reported: 6/21/2017

**CLIENT:** Animas Environmental Services**Client Sample ID:** SC-4**Project:** DJ Resources AXI H 9 Pipeline**Collection Date:** 6/13/2017 10:40:00 AM**Lab ID:** 1706908-004**Matrix:** SOIL**Received Date:** 6/15/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/20/2017 3:46:35 PM	32362
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/20/2017 3:46:35 PM	32362
Surr: DNOP	89.5	70-130		%Rec	1	6/20/2017 3:46:35 PM	32362
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/19/2017 4:15:37 PM	32325
Surr: BFB	94.6	54-150		%Rec	1	6/19/2017 4:15:37 PM	32325
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	6/19/2017 4:15:37 PM	32325
Toluene	ND	0.050		mg/Kg	1	6/19/2017 4:15:37 PM	32325
Ethylbenzene	ND	0.050		mg/Kg	1	6/19/2017 4:15:37 PM	32325
Xylenes, Total	ND	0.10		mg/Kg	1	6/19/2017 4:15:37 PM	32325
Surr: 4-Bromofluorobenzene	120	66.6-132		%Rec	1	6/19/2017 4:15:37 PM	32325

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

<b>Qualifiers:</b>	• 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.****Analytical Report**

Lab Order 1706908

Date Reported: 6/21/2017

**CLIENT:** Animas Environmental Services**Client Sample ID:** SC-5**Project:** DJ Resources AXI H 9 Pipeline**Collection Date:** 6/13/2017 10:45:00 AM**Lab ID:** 1706908-005**Matrix:** SOIL**Received Date:** 6/15/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	70	9.1		mg/Kg	1	6/20/2017 4:15:40 PM	32362
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/20/2017 4:15:40 PM	32362
Surr: DNOP	90.8	70-130		%Rec	1	6/20/2017 4:15:40 PM	32362
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	200	48		mg/Kg	10	6/19/2017 10:12:31 AM	32325
Surr: BFB	174	54-150	S	%Rec	10	6/19/2017 10:12:31 AM	32325
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	0.26	0.24		mg/Kg	10	6/19/2017 10:12:31 AM	32325
Toluene	1.3	0.48		mg/Kg	10	6/19/2017 10:12:31 AM	32325
Ethylbenzene	0.76	0.48		mg/Kg	10	6/19/2017 10:12:31 AM	32325
Xylenes, Total	4.8	0.96		mg/Kg	10	6/19/2017 10:12:31 AM	32325
Surr: 4-Bromofluorobenzene	125	66.6-132		%Rec	10	6/19/2017 10:12:31 AM	32325

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

<b>Qualifiers:</b>	* 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#: 1706908

21-Jun-17

Client: Animas Environmental Services

Project: DJ Resources AXI H 9 Pipeline

Sample ID	LCS-32362		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 32362		RunNo: 43629					
Prep Date:	6/19/2017		Analysis Date: 6/20/2017		SeqNo: 1374617		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.4	73.2	114			
Surr: DNOP	4.9		5.000		97.7	70	130			

Sample ID	MB-32362		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	32362		RunNo:	43629				
Prep Date:	6/19/2017		Analysis Date:	6/20/2017		SeqNo:	1374618		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		100	70	130				

Sample ID	1706908-001AMS		SampType:	MS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	SC-1		Batch ID:	32362		RunNo:	43631				
Prep Date:	6/19/2017		Analysis Date:	6/20/2017		SeqNo:	1375153		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	53	9.6	47.76	0	110	55.8	122				
Surr: DNOP	4.6		4.776		96.1	70	130				

Sample ID	1706908-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	SC-1		Batch ID:	32362		RunNo:	43631				
Prep Date:	6/19/2017		Analysis Date:	6/20/2017		SeqNo:	1375154		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	52	9.3	46.30	0	112	55.8	122	1.37	20		
Surr: DNOP	4.5		4.630		96.5	70	130	0	0		

### 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#: 1706908

21-Jun-17

Client: Animas Environmental Services

Project: DJ Resources AXI H 9 Pipeline

Sample ID	MB-32325	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	32325	RunNo:	43604					
Prep Date:	6/16/2017	Analysis Date:	6/19/2017	SeqNo:	1374087	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	950		1000		94.9	54	150			

Sample ID	LCS-32325	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	32325	RunNo:	43604					
Prep Date:	6/16/2017	Analysis Date:	6/19/2017	SeqNo:	1374088	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.6	76.4	125			
Surr: BFB	1100		1000		108	54	150			

Sample ID	1706908-002AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-2	Batch ID:	32325	RunNo:	43604					
Prep Date:	6/16/2017	Analysis Date:	6/19/2017	SeqNo:	1374097	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.7	23.47	0	92.2	77.8	128			
Surr: BFB	1000		939.0		106	54	150			

Sample ID	1706908-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-2	Batch ID:	32325	RunNo:	43604					
Prep Date:	6/16/2017	Analysis Date:	6/19/2017	SeqNo:	1374098	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	4.6	22.98	0	80.8	77.8	128	15.2	20	
Surr: BFB	1000		919.1		109	54	150	0	0	

### 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#: 1706908

21-Jun-17

Client: Animas Environmental Services

Project: DJ Resources AXI H 9 Pipeline

Sample ID	MB-32325	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS	Batch ID:	32325		RunNo:	43604				
Prep Date:	6/16/2017	Analysis Date:	6/19/2017		SeqNo:	1374110	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	1.2		1.000		123	66.6	132			

Sample ID	LCS-32325	SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID: 32325			RunNo: 43604					
Prep Date:	6/16/2017	Analysis Date: 6/19/2017			SeqNo: 1374111		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	106	80	120			
Toluene	1.1	0.050	1.000	0	107	80	120			
Ethylbenzene	1.1	0.050	1.000	0	108	80	120			
Xylenes, Total	3.3	0.10	3.000	0	109	80	120			
Surr: 4-Bromofluorobenzene	1.3		1.000		126	66.6	132			

Sample ID	1706908-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-1	Batch ID:	32325	RunNo:	43604					
Prep Date:	6/16/2017	Analysis Date:	6/19/2017	SeqNo:	1374119	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.024	0.9542	0	85.7	61.5	138			
Toluene	0.82	0.048	0.9542	0	86.1	71.4	127			
Ethylbenzene	0.83	0.048	0.9542	0	86.9	70.9	132			
Xylenes, Total	2.5	0.095	2.863	0	88.3	76.2	123			
Surr: 4-Bromofluorobenzene	1.2		0.9542		121	66.6	132			

Sample ID	1706908-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-1	Batch ID:	32325	RunNo:	43604					
Prep Date:	6/16/2017	Analysis Date:	6/19/2017	SeqNo:	1374120	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.023	0.9381	0	94.2	61.5	138	7.73	20	
Toluene	0.94	0.047	0.9381	0	99.7	71.4	127	13.0	20	
Ethylbenzene	0.96	0.047	0.9381	0	103	70.9	132	14.9	20	
Xylenes, Total	2.9	0.094	2.814	0	104	76.2	123	14.6	20	
Surr: 4-Bromofluorobenzene	1.1		0.9381		122	66.6	132	0	0	

### 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



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: 1706908

RcptNo: 1

Received By: Sophia Campuzano 8/15/2017 9:00:00 AM

Completed By: Ashley Gallegos 8/15/2017 3:12:55 PM

Reviewed By: *SGC* 06/15/17

### Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒  
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
3. How was the sample delivered? Courier

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐  
6. Sample(s) in proper container(s)? Yes ☒ No ☐  
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐  
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒  
11. Were any sample containers received broken? Yes ☐ No ☒  
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐  
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
14. Is it clear what analyses were requested? Yes ☒ No ☐  
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐  
# of preserved bottles checked for pH: \_\_\_\_\_  
( $<2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

16. 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:	_____		

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good	Yes			

<b>Chain-of-Custody Record</b>		Turn-Around Time:
Client:	Animas Environmental Services, LLC	XX Standard
Mailing Address:	604 W Pinon St. Farmington, NM 87401	Project Name: DJ Resources AXI H-9 Pipeline
Phone #:	505-564-2281	Project #:
Email or Fax#:	emcnally@animasenvironmental.co	Project Manager: Elizabeth McNally
QA/QC Package:	<input checked="" type="checkbox"/> X Standard <input type="checkbox"/> Level 4 (Full Validation)	

Project #:

**Elizabeth McNally**

Sample Temperature: 23

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
6/14/17	11003	Ben Lu	Phil Wachs	6/14/17	11003
Date:	Time:	Relinquished by:	Received by:	Date	Time
6/14/17	1910	Phil Wachs	Sophia Cross	6/15/17	0900

## Bill to AES

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



**www.hallenvironmental.com**

**4901 Hawkins NE - Albuquerque, NM 87109**

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request



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

June 20, 2017

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

RE: DJ Resources AXI H 9 Pipeline

OrderNo.: 1706922

Dear Elizabeth McNally:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/16/2017 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](http://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,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



**Hall Environmental Analysis Laboratory, Inc.****Analytical Report**

Lab Order 1706922

Date Reported: 6/20/2017

**CLIENT:** Animas Environmental Services**Client Sample ID:** Water Sample**Project:** DJ Resources AXI H 9 Pipeline**Collection Date:** 6/15/2017 9:40:00 AM**Lab ID:** 1706922-001**Matrix:** AQUEOUS**Received Date:** 6/16/2017 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/19/2017 5:58:36 PM	32334
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/19/2017 5:58:36 PM	32334
Surr: DNOP	113	72.4-157		%Rec	1	6/19/2017 5:58:36 PM	32334
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/19/2017 11:47:41 AM	G43605
Surr: BFB	118	52.3-138		%Rec	1	6/19/2017 11:47:41 AM	G43605
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	1.0		µg/L	1	6/19/2017 11:47:41 AM	B43605
Toluene	ND	1.0		µg/L	1	6/19/2017 11:47:41 AM	B43605
Ethylbenzene	ND	1.0		µg/L	1	6/19/2017 11:47:41 AM	B43605
Xylenes, Total	ND	2.0		µg/L	1	6/19/2017 11:47:41 AM	B43605
Surr: 4-Bromofluorobenzene	116	80-120		%Rec	1	6/19/2017 11:47:41 AM	B43605

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

<b>Qualifiers:</b>	* 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#: 1706922

20-Jun-17

Client: Animas Environmental Services

Project: DJ Resources AXI H 9 Pipeline

Sample ID	LCS-32333	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW	Batch ID:	32333	RunNo:	43596					
Prep Date:	6/16/2017	Analysis Date:	6/19/2017	SeqNo:	1373452	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.56		0.5000		111	72.4	157			

Sample ID	MB-32333	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range					
Client ID:	PBW	Batch ID:	32333	RunNo:	43596					
Prep Date:	6/16/2017	Analysis Date:	6/19/2017	SeqNo:	1373453	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	1.1		1.000		112	72.4	157			

Sample ID	LCS-32334		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range				
Client ID:	LCSW		Batch ID:	32334		RunNo:	43597				
Prep Date:	6/16/2017		Analysis Date:	6/19/2017		SeqNo:	1374170		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	97.9	82.8	146				
Surr: DNOP	0.47		0.5000		93.2	72.4	157				

Sample ID	MB-32334	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range				
Client ID:	PBW	Batch ID:	32334		RunNo:	43597				
Prep Date:	6/16/2017	Analysis Date:	6/19/2017		SeqNo:	1374171	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.85		1.000		84.8	72.4	157			

### 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#: 1706922

20-Jun-17

Client: Animas Environmental Services

Project: DJ Resources AXI H 9 Pipeline

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	G43605	RunNo:	43605					
Prep Date:		Analysis Date:	6/19/2017	SeqNo:	1374131	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	24		20.00		118	52.3	138			

Sample ID	2.5UG GRO LCSB	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	G43605	RunNo:	43605					
Prep Date:		Analysis Date:	6/19/2017	SeqNo:	1374132	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.42	0.050	0.5000	0	84.4	79.1	123			
Surr: BFB	26		20.00		128	52.3	138			

## 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#: 1706922

20-Jun-17

Client: Animas Environmental Services

Project: DJ Resources AXI H 9 Pipeline

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	B43605	RunNo:	43605					
Prep Date:		Analysis Date:	6/19/2017	SeqNo:	1374199	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	23		20.00		117	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	B43605	RunNo:	43605					
Prep Date:		Analysis Date:	6/19/2017	SeqNo:	1374201	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	90.2	71.7	126			
Toluene	18	1.0	20.00	0	90.0	73.3	119			
Ethylbenzene	18	1.0	20.00	0	88.6	80	120			
Xylenes, Total	53	2.0	60.00	0	88.9	80	120			
Surr: 4-Bromofluorobenzene	24		20.00		120	80	120			

### 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: 1708922

RcptNo: 1

Received By: Anne Thorne

8/18/2017 7:55:00 AM

Completed By: Ashley Gallegos

8/18/2017 9:55:02 AM

Reviewed By:

### Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH: \_\_\_\_\_  
( $<2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

17. Additional remarks: \_\_\_\_\_

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			





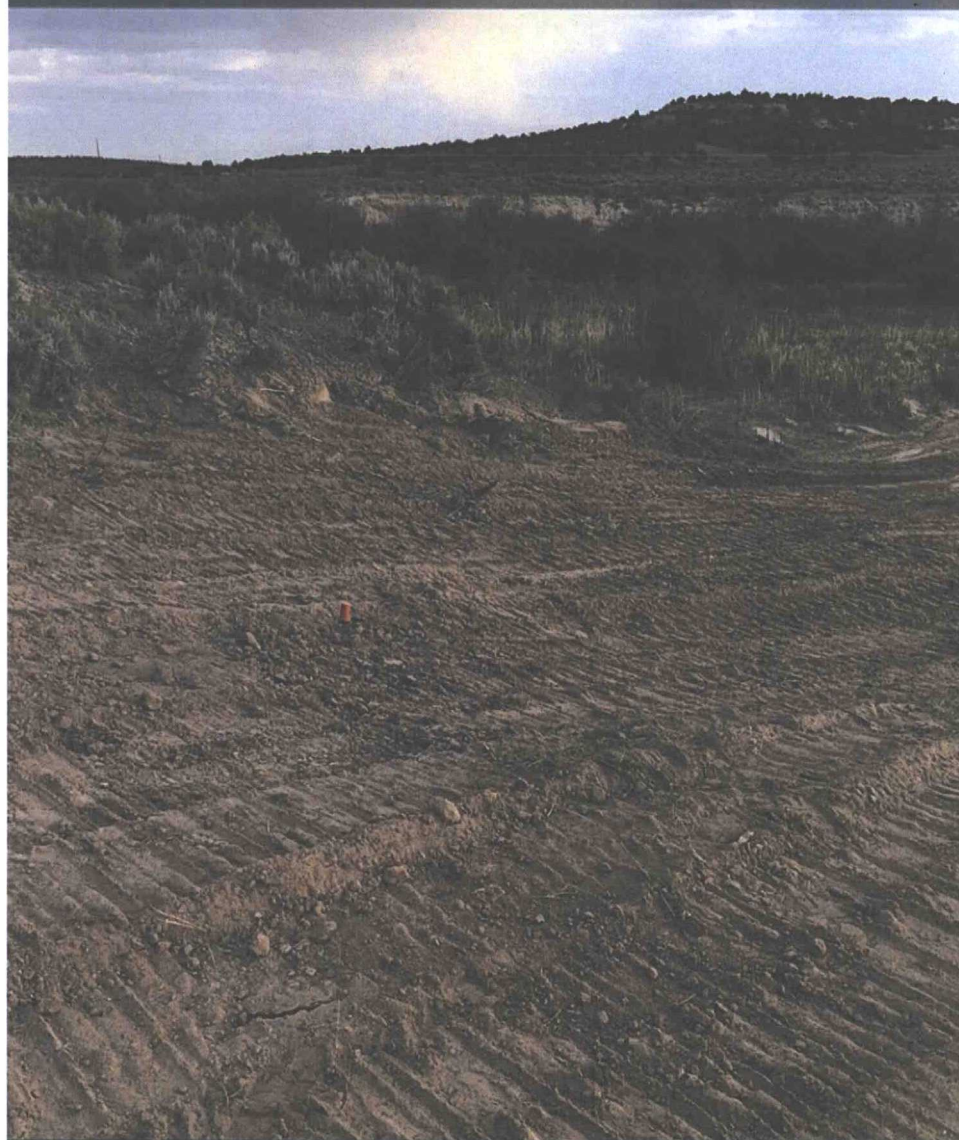




DIRECTION  
184 deg(T)

36.26564°N  
107.38708°W

ACCURACY 5 m  
DATUM WGS84



2017-06-07  
19:47:16-06:00

