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: pCS1808654783

144B - 16296

DJR OPERATING, LLC

6/29/2018

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

Form C-144
Revised April 3, 2017

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pmt# 16296

Pit, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

TRR# 16350

Type of action:
- ☐ Below grade tank registration
- ☐ Permit of a pit or proposed alternative method
- ☒ Closure of a pit, below-grade tank, or proposed alternative method
- ☐ Modification to an existing permit/or registration
- ☐ Closure plan only submitted for an existing permitted or non-permitted pit, **below-grade tank,** or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

NMOCD
MAY 04 2018
DISTRICT III

1.
Operator: **DJR Operating, LLC** OGRID #: **371838**
Address: **PO BOX 156 Bloomfield, NM 87413**
Facility or well name: **CBU Injection Plant BGT2**
API Number: **N/A** OCD Permit Number: **N/A**
U/L or Qtr/Qtr **O: SW/SE** Section **5** Township **25N** Range **12W** County: **San Juan**
Center of Proposed Design: Latitude **36.423597** Longitude **-108.133581** NAD83
Surface Owner: ☐ Federal ☐ State ☐ Private ☒ Tribal Trust or Indian Allotment

2.
☐ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC
Temporary: ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no
☐ Lined ☐ Unlined Liner type: Thickness _____mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: _____bbl Dimensions: L_____ x W_____ x D_____

3.
☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: **20** bbl Type of fluid: **produced water**
Tank Construction material: **Steel**
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☒ Visible sidewalls only ☐ Other _____
Liner type: Thickness _____mil ☐ HDPE ☐ PVC ☐ Other _____

4.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.
Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*
☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*
☒ Four foot height, four strands of barbed wire evenly spaced between one and four feet
☐ Alternate. Please specify_____

27

6.

Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☒ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

7.

Signs: Subsection C of 19.15.17.11 NMAC

☒ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☐ Signed in compliance with 19.15.16.8 NMAC

8.

Variances and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. **Siting criteria does not apply to drying pads or above-grade tanks.**

General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. - ☒ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☐ Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit . NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. **(Does not apply to below grade tanks)** - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine. **(Does not apply to below grade tanks)** - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. **(Does not apply to below grade tanks)** - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. **(Does not apply to below grade tanks)** - FEMA map	☐ Yes ☐ No
Below Grade Tanks	
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No

Within 100 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit Non-low chloride drilling fluid	
Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application; - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Permanent Pit or Multi-Well Fluid Management Pit	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No

10.

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

11.

Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ A List of wells with approved application for permit to drill associated with the pit.
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
- ☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.

Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

13.

Proposed Closure: 19.15.17.13 NMAC

Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☒ Below-grade Tank ☐ Multi-well Fluid Management Pit ☐ Alternative

Proposed Closure Method: ☒ Waste Excavation and Removal
- ☐ Waste Removal (Closed-loop systems only)
- ☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
  - ☐ In-place Burial ☐ On-site Trench Burial
- ☐ Alternative Closure Method

14.

Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☒ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC
- ☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☒ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15.

Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC

Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	

adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☐ No

16.
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
- ☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
- ☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- ☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.
Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

18.
OCD Approval: ☐ Permit Application (including closure plan) ☒ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: _____ **Approval Date:** 5/10/18

Title: Environmental Spec **OCD Permit Number:** 16295

19.
Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☒ **Closure Completion Date:** 5-4-2018

20.
Closure Method:

☒ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)

☐ If different from approved plan, please explain.

21.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

- ☒ Proof of Closure Notice (surface owner and division)
- ☐ Proof of Deed Notice (required for on-site closure for private land only)
- ☐ Plot Plan (for on-site closures and temporary pits)
- ☒ Confirmation Sampling Analytical Results (if applicable)
- ☐ Waste Material Sampling Analytical Results (required for on-site closure)
- ☐ Disposal Facility Name and Permit Number
- ☒ Soil Backfilling and Cover Installation
- ☐ Re-vegetation Application Rates and Seeding Technique
- ☒ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude 36.423597 Longitude -108.133581 NAD: ☐ 1927 ☐ 1983

22.

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Amy Archuleta Title: Regulatory

Signature: Date: 5-4-18

e-mail address: aarchuleta@djrllc.com Telephone: 505-632-3476 x201

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DJR Operating

March 29, 2018

Navajo Region, Real Estate Services
N425 - Leases/Permits/Surface
P.O. Box 1060
Gallup, NM 87305-1060

To Whom It May Concern:

Per the Below Grade Tank Closure Plan that was submitted to the NMOCD in March 2018. DJR Operating, LLC is required to give no less than 72 hours and no more than one (1) weeks notice that DJR Operating, LLC plans to close the Below Grade Tank (BGT) at DJR's **Central Bisti Unit Injection Plant Facility** located at "O" Section 5-T25N-R12W, Lat: **36.423636** Long: **-108.133583**.

This is our official notice that on **Tuesday, April 3rd, 2018** DJR will lift the tank and test the soil beneath. If the test results pass the regulatory standards we will then backfill the location within the next 60 days. If results are above regulatory standards we will need excavate the area to meet the standards. I have attached a copy of the closure plan for you to view.

If you have any questions of concerns, please feel free to contact me, Amy Archuleta at 505-320-6917.

Best Regards,

Amy Archuleta
Regulatory Supervisor
DJR Operating, LLC

Amy Archuleta

From: Amy Archuleta
Sent: Thursday, March 29, 2018 4:09 PM
To: 'Smith, Cory, EMNRD'; 'Fields, Vanessa, EMNRD'
Subject: BGT Removal - CBU Injection Plant Lat: 36.423636 Long: -108.133583

Cory/Vanessa:

We will be closing the BGTs at this site on **April 3rd, 2018** at **10 am**. A certified letter has been sent to BIA -Navajo Nation also.

CBU Injection Plant
"O" Sec. 05-T24N-R12W
Lat: 36.423636 Long: -108.133583
(Navajo Tribal Trust Surface)
San Juan County, NM

If you have any questions, please let me know.

Thank you,

DJR Operating, LLC
Amy Archuleta
Regulatory Supervisor
P: 505.632.3476 x201
C: 505.320.6917
F: 505.632.8151
E: aarchuleta@djrllc.com
Mail: PO Box 156
Physical: 20 CR 5060
Bloomfield, NM 87413

animas environmental services

April 13, 2018

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

Sent via electronic mail to:
aarchuleta@djrllc.com

RE: Below Grade Tanks Closure Report
CBU Injection Plant
San Juan County, New Mexico

Dear Ms. Archuleta:

Animas Environmental Services, LLC (AES) is pleased to provide the final report associated with the closure of two below grade tanks (BGT) at the DJR Operating (DJR) CBU Injection Plant, located in San Juan County, New Mexico. Tank removal had been completed by DJR contractors after AES' arrival at the location.

1.0 Site Information

1.1 Location

Site Name – CBU Injection Plant
Legal Description – SW¼ SE¼, Section 5, T25N, R12W, San Juan County, New Mexico
Well Latitude/Longitude – N36.42329 and W108.13359, respectively
BGT SC-1 (South BGT) Latitude/Longitude – N36.42359 and W108.13358
BGT SC-2 (North BGT) Latitude/Longitude – N36.42363 and W108.13358
Land Jurisdiction – Navajo Nation Allotment
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, April 2018

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

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

www.animasenvironmental.com

1.2 Depth to Groundwater Determination (NMAC 19.25.17.13 Table 1)

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) and New Mexico Office of the State Engineer (NMOSE) databases were reviewed, and depth to groundwater information could not be located for this site. A water well in Section 1, T25N, R12W with POD #SJ 01716 was used along with elevation to estimate depth to groundwater and was approved by NMOCD. With this knowledge, the depth to groundwater for this site was estimated to be 120 feet below ground surface (bgs).

2.0 Soil Sampling

AES was initially contacted by Amy Archuleta of DJR on March 28, 2018, and on April 3, 2018, Sheradan Jaquez and Sam Glasses of AES mobilized to the location. AES personnel collected one soil sample from the center of each BGT footprint (BGT SC-1 and BGT SC-2) from below the former BGT liners.

2.1 Field Sampling

2.1.1 Volatile Organic Compounds

Portions of BGT SC-1 and BGT SC-2 were utilized for field screening of volatile organic compound (VOC) vapors 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 BGT SC-1 and BGT SC-2 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*.

2.1.3 Chlorides

No chloride samples were tested in the field.

2.2 Laboratory Analyses

Soil sample BGT SC-1 and BGT SC-2 were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8260B;
- TPH as Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and Motor Oil Range Organics (MRO) per USEPA Method 8015M/D; and

- Chloride per USEPA Method 300.0.

2.3 *Field and Laboratory Analytical Results*

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

Table 1. Soil Field VOCs, TPH, and Chloride Results
CBU Injection Plant BGT Closure, April 2018

Sample ID	*Date Sampled*	*Depth below BGT (ft)*	*VOCs OVM Reading (ppm)*	*TPH 418.1 (mg/kg)*	*Field Chlorides (mg/kg)*
NMOCD Action Level (NMAC 19.15.17.13 Table 1)			--	*2,500*	*20,000*
BGT SC-1	4/3/18	4	0.0	82.2	-
BGT SC-2	4/3/18	6.5	0.0	421	-

Table 2. Soil Laboratory Analytical Results
CBU Injection Plant BGT Closure, April 2018

Sample ID	*Date Sampled*	*Depth (ft)*	*Benzene (8021) (mg/kg)*	*Total BTEX (8021) (mg/kg)*	*TPH – GRO (8015) (mg/kg)*	*TPH – DRO (8015) (mg/kg*	*TPH – MRO (8015) (mg/kg*	*Chlorides (300.0) (mg/kg)*
NMOCD Action Level (NMAC 19.15.17.13 Table 1)			*10*	*50*	*1,000 GRO/DRO 2,500 GRO/DRO/MRO**			*20,000*
BGT SC-1	4/3/18	4	<0.025	<0.225	<5.0	61	370	270
BGT SC-2	4/3/18	6.5	<0.024	<0.220	<4.9	250	950	<30.0

**Note – USEPA Method 8015 (GRO, DRO, MRO) utilized in lieu of USEPA Method 418.1.*

3.0 Conclusions and Recommendations

NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13 Table 1. Field TPH concentrations in BGT SC-1 and BGT SC-2 were below the NMOCD action level of 2,500 mg/kg, with concentration reported at 82.2 and 421 mg/kg, respectively. Laboratory analytical results for benzene and total BTEX concentrations were below the NMOCD action levels of 10 mg/kg and 50 mg/kg, respectively. Laboratory analytical results (per USEPA Method 8015) reported GRO and DRO below the NMOCD action level of 1,000 mg/kg and the combined TPH range of GRO, DRO, and MRO concentration as below the action level of 2,500 mg/kg.

Chloride concentrations in BGT SC-1 and BGT SC-2 were below the NMOCD action level of 20,000 mg/kg for depths to groundwater greater than 100 feet.

Based on BGT field sampling results and laboratory analytical results for benzene, total BTEX, TPH, and chlorides for both BGTs removed from the location, no further work is recommended at CBU Injection Plant for the BGT Closures.

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

Sincerely,

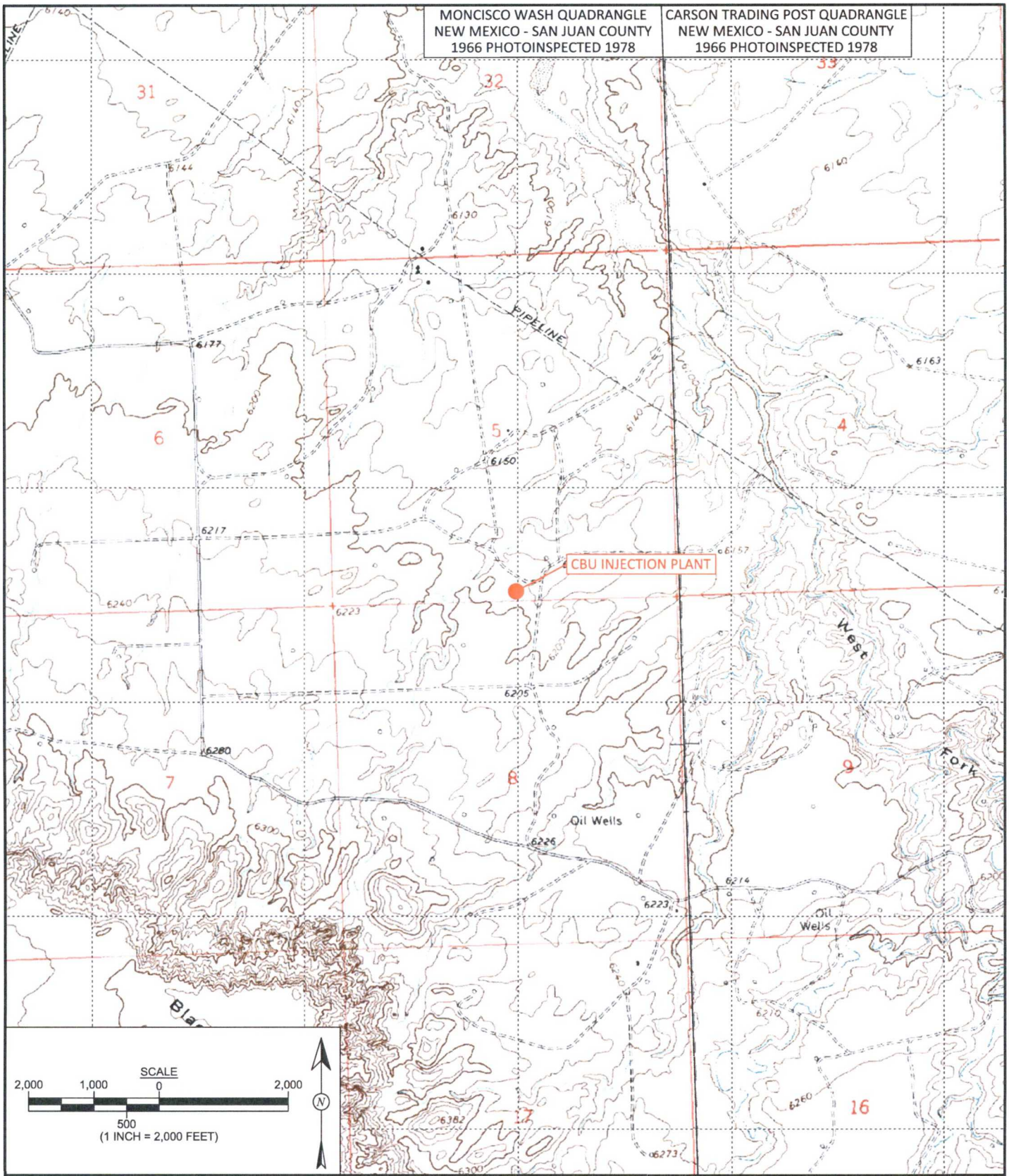
Tami C. Knight, CHMM
Environmental Project Manager

Elizabeth McNally, P.E.

Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, April 2018
AES Field Sampling Report 040318
Hall Analytical Report 1804134

C:\Users\emcnally\Dropbox (Animas Environmental)\0000 aes server client projects dropbox\2018 Client Projects\DJ Resources\CBU Injection BGT Closure\BGT Closure Report CBU Injection Plant 041318 TK EM.docx



DRAWN BY: C. Lameman	**DATE DRAWN:** April 13, 2018	**FIGURE 1**
REVISIONS BY: C. Lameman	**DATE REVISED:** April 13, 2018	**TOPOGRAPHIC SITE LOCATION MAP**
CHECKED BY: T. Knight	**DATE CHECKED:** April 13, 2018	DJR OPERATING CBU INJECTION PLANT SW¼ SE¼, SECTION 5, T25N, R12W SAN JUAN COUNTY, NEW MEXICO N36.42329, W108.13359
APPROVED BY: E. McNally	**DATE APPROVED:** April 13, 2018	

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animasenvironmental.com

Field Sampling Results

Sample ID	Date	Depth (ft)	PID-OVM (ppm)	TPH (mg/kg)	Chlorides (mg/kg)
NMOCD ACTION LEVEL			--	2,500	20,000
BGT SC-1	4/3/18	4	0.0	82.2	-
BGT SC-2	4/3/18	6.5	0.0	421	-

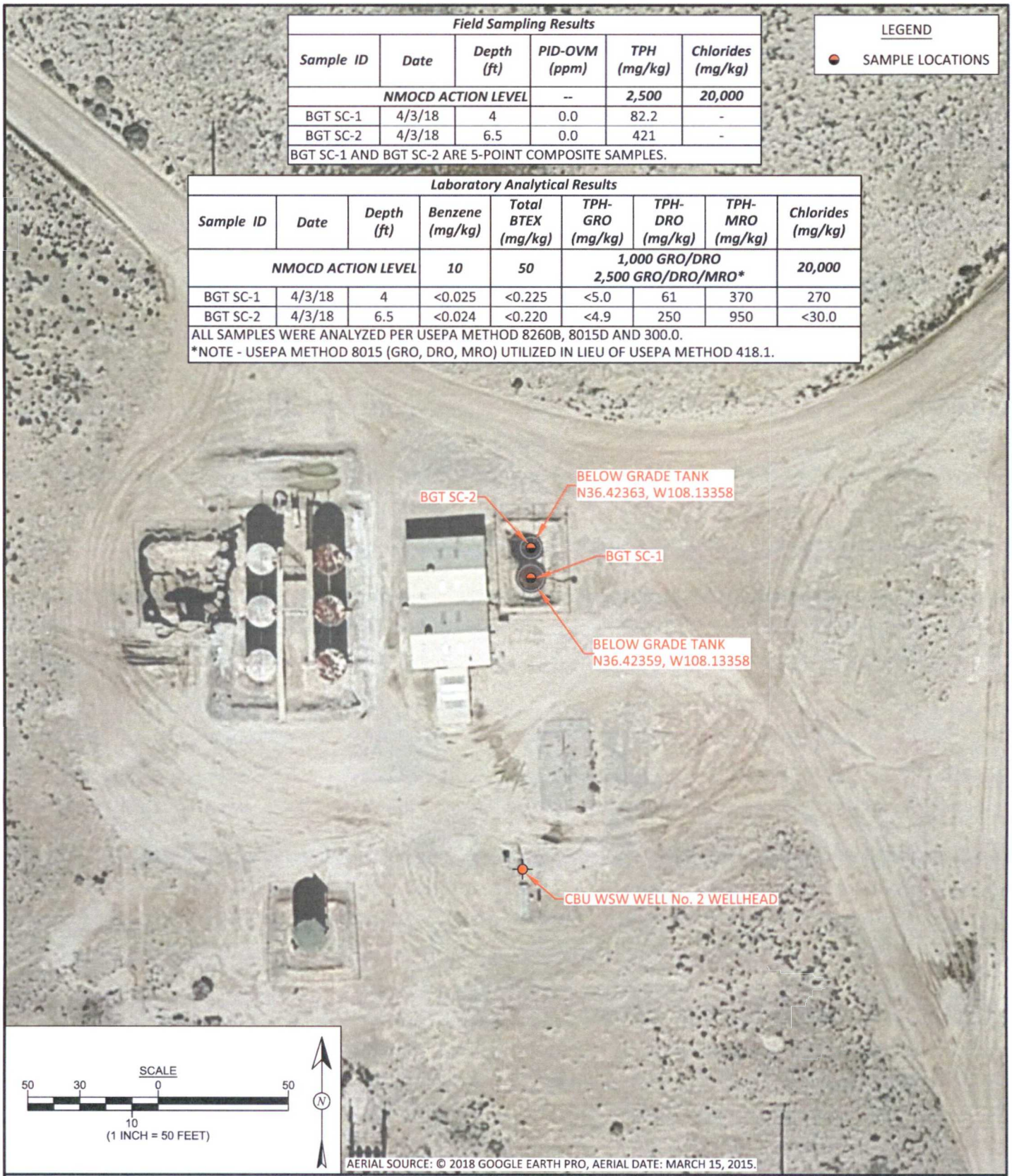
BGT SC-1 AND BGT SC-2 ARE 5-POINT COMPOSITE SAMPLES.

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)	Chlorides (mg/kg)
NMOCD ACTION LEVEL			10	50	1,000 GRO/DRO 2,500 GRO/DRO/MRO*			20,000
BGT SC-1	4/3/18	4	<0.025	<0.225	<5.0	61	370	270
BGT SC-2	4/3/18	6.5	<0.024	<0.220	<4.9	250	950	<30.0

ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8260B, 8015D AND 300.0.
*NOTE - USEPA METHOD 8015 (GRO, DRO, MRO) UTILIZED IN LIEU OF USEPA METHOD 418.1.

LEGEND
SAMPLE LOCATIONS



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DRAWN BY: C. Lameman	DATE DRAWN: April 13, 2018
REVISIONS BY: C. Lameman	DATE REVISED: April 13, 2018
CHECKED BY: T. Knight	DATE CHECKED: April 13, 2018
APPROVED BY: E. McNally	DATE APPROVED: April 13, 2018

FIGURE 2

AERIAL SITE LOCATION MAP
BELOW GRADE TANK CLOSURE
APRIL 2018
DJR OPERATING
CBU INJECTION PLANT
SW¼ SE¼, SECTION 5, T25N, R12W
SAN JUAN COUNTY, NEW MEXICO
N36.42329, W108.13359

AES Field Sampling Report

Animas Environmental Services, LLC

Client: DJR Operating

Project Location: CBU Injection Plant

Date: 4/3/2018

Matrix: Soil

Sample ID	Collection Date	Collection Time	Sample Location	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
BGT SC-1	4/3/2018	10:51	South Tank	0.0	82.2	11:31	20.0	1	SJ
BGT SC-2	4/3/2018	10:57	North Tank	0.0	421	11:36	20.0	1	SJ

DF Dilution Factor
NA Not Analyzed
PQL Practical Quantitation Limit
**TPH concentrations recorded may be below PQL.*

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

Report Finalized: 04/12/18

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 10, 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 BGT OrderNo.: 1804134

Dear Tami Knight:

Hall Environmental Analysis Laboratory received 2 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Project: DJR CBU Injection Plant BGT
Lab ID: 1804134-001 **Matrix:** SOIL

Client Sample ID: BGT SC-1
Collection Date: 4/3/2018 10:51:00 AM
Received Date: 4/4/2018 7:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	270	30		mg/Kg	20	4/9/2018 10:33:41 PM	37502
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/5/2018 3:15:54 PM	37419
Surr: BFB	139	70-130	S	%Rec	1	4/5/2018 3:15:54 PM	37419
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	61	9.8		mg/Kg	1	4/6/2018 1:39:35 PM	37453
Motor Oil Range Organics (MRO)	370	49		mg/Kg	1	4/6/2018 1:39:35 PM	37453
Surr: DNOP	104	70-130		%Rec	1	4/6/2018 1:39:35 PM	37453
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.025		mg/Kg	1	4/5/2018 3:15:54 PM	37419
Toluene	ND	0.050		mg/Kg	1	4/5/2018 3:15:54 PM	37419
Ethylbenzene	ND	0.050		mg/Kg	1	4/5/2018 3:15:54 PM	37419
Xylenes, Total	ND	0.10		mg/Kg	1	4/5/2018 3:15:54 PM	37419
Surr: 4-Bromofluorobenzene	141	70-130	S	%Rec	1	4/5/2018 3:15:54 PM	37419
Surr: Toluene-d8	83.0	70-130		%Rec	1	4/5/2018 3:15:54 PM	37419

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 Quanitative 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
Project: DJR CBU Injection Plant BGT
Lab ID: 1804134-002 **Matrix:** SOIL

Client Sample ID: BGT SC-2
Collection Date: 4/3/2018 10:57:00 AM
Received Date: 4/4/2018 7:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	4/9/2018 11:10:55 PM	37502
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/5/2018 4:25:07 PM	37419
Surr: BFB	119	70-130		%Rec	1	4/5/2018 4:25:07 PM	37419
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	250	10		mg/Kg	1	4/6/2018 10:19:04 AM	37453
Motor Oil Range Organics (MRO)	950	50		mg/Kg	1	4/6/2018 10:19:04 AM	37453
Surr: DNOP	120	70-130		%Rec	1	4/6/2018 10:19:04 AM	37453
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	4/5/2018 4:25:07 PM	37419
Toluene	ND	0.049		mg/Kg	1	4/5/2018 4:25:07 PM	37419
Ethylbenzene	ND	0.049		mg/Kg	1	4/5/2018 4:25:07 PM	37419
Xylenes, Total	ND	0.098		mg/Kg	1	4/5/2018 4:25:07 PM	37419
Surr: 4-Bromofluorobenzene	120	70-130		%Rec	1	4/5/2018 4:25:07 PM	37419
Surr: Toluene-d8	82.6	70-130		%Rec	1	4/5/2018 4:25:07 PM	37419

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 Quanitative 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#: **1804134**

10-Apr-18

Client: Animas Environmental Services

Project: DJR CBU Injection Plant BGT

Sample ID **MB-37502**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **37502**	RunNo: **50408**
Prep Date: **4/9/2018**	Analysis Date: **4/9/2018**	SeqNo: **1634794** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID **LCS-37502**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **37502**	RunNo: **50408**
Prep Date: **4/9/2018**	Analysis Date: **4/9/2018**	SeqNo: **1634795** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	90	110			

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 Quanitative 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#: **1804134**

10-Apr-18

Client: Animas Environmental Services

Project: DJR CBU Injection Plant BGT

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			

Sample ID **MB-37471**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **37471**	RunNo: **50391**
Prep Date: **4/6/2018**	Analysis Date: **4/9/2018**	SeqNo: **1633657** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.9		10.00		98.9	70	130			

Sample ID **LCS-37471**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **37471**	RunNo: **50391**
Prep Date: **4/6/2018**	Analysis Date: **4/9/2018**	SeqNo: **1633785** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		86.2	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 Quanitative 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#: **1804134**

10-Apr-18

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

Sample ID **1804134-001ams**	SampType: **MS4**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BGT SC-1**	Batch ID: **37419**	RunNo: **50360**
Prep Date: **4/4/2018**	Analysis Date: **4/5/2018**	SeqNo: **1631811** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.024	0.9506	0	94.5	80	120			
Toluene	0.94	0.048	0.9506	0	98.9	80	120			
Ethylbenzene	1.0	0.048	0.9506	0	107	80	120			
Xylenes, Total	3.1	0.095	2.852	0.02366	108	80	120			
Surr: 4-Bromofluorobenzene	0.50		0.4753		104	70	130			
Surr: Toluene-d8	0.42		0.4753		87.4	70	130			

Sample ID **1804134-001amsd**	SampType: **MSD4**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BGT SC-1**	Batch ID: **37419**	RunNo: **50360**
Prep Date: **4/4/2018**	Analysis Date: **4/5/2018**	SeqNo: **1631812** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.024	0.9506	0	90.0	80	120	4.88	0	
Toluene	0.87	0.048	0.9506	0	91.5	80	120	7.76	0	
Ethylbenzene	1.0	0.048	0.9506	0	106	80	120	0.970	0	
Xylenes, Total	3.0	0.095	2.852	0.02366	104	80	120	3.79	0	
Surr: 4-Bromofluorobenzene	0.49		0.4753		103	70	130	0	0	
Surr: Toluene-d8	0.38		0.4753		80.7	70	130	0	0	

Sample ID **lcs-37419**	SampType: **LCS4**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC**	Batch ID: **37419**	RunNo: **50360**
Prep Date: **4/4/2018**	Analysis Date: **4/5/2018**	SeqNo: **1631820** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.8	80	120			
Toluene	0.89	0.050	1.000	0	89.2	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.0	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.8	80	120			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.1	70	130			
Surr: Toluene-d8	0.44		0.5000		87.3	70	130			

Sample ID **mb-37419**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **37419**	RunNo: **50360**
Prep Date: **4/4/2018**	Analysis Date: **4/5/2018**	SeqNo: **1631821** 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								

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 Quanitative 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#: **1804134**

10-Apr-18

Client: Animas Environmental Services

Project: DJR CBU Injection Plant BGT

Sample ID **mb-37419**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **37419**	RunNo: **50360**
Prep Date: **4/4/2018**	Analysis Date: **4/5/2018**	SeqNo: **1631821** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.64		0.5000		128	70	130			
Surr: Toluene-d8	0.42		0.5000		85.0	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 Quanitative 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#: **1804134**

10-Apr-18

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

Sample ID **lcs-37419**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **37419**	RunNo: **50360**
Prep Date: **4/4/2018**	Analysis Date: **4/5/2018**	SeqNo: **1631732** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	70	130			
Surr: BFB	520		500.0		105	70	130			

Sample ID **mb-37419**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **37419**	RunNo: **50360**
Prep Date: **4/4/2018**	Analysis Date: **4/5/2018**	SeqNo: **1631733** 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	630		500.0		127	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 Quanitative 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

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: 1804134 RcptNo: 1

Received By: Anne Thorne 4/4/2018 7:40:00 AM Anne Thorne

Completed By: Anne Thorne 4/4/2018 8:57:21 AM Anne Thorne

Reviewed By: 04/04/18 LB: DDS 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? (Note discrepancies on chain of custody) Yes ☑ No ☐
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? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: DDS 4/4/18 (<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: ☐ eMail ☐ Phone ☐ Fax ☐ 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			

Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address: 604 W Pinon St.
Farmington, NM 87401

Phone #: 505-564-2281

Email or Fax#: tknight@animasenvironmental.com

QA/QC Package:
X Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other_____
☐ EDD (Type) _____

Turn-Around Time:
X Standard ☐ Rush 24 TAT

Project Name:
DJR CBU Injection Plant BGT

Project #:

Project Manager:
T. Knight

Sampler: SG/SJ
On Ice: ☒ Yes ☐ No
Sample Temperature: .0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1804134	8021B - BTEX	8015M - DRO/GRO/MRO	300.0 - Chlorides	Air Bubbles (Y or N)
4/3/18	10:51	Soil	BGT SC-1	2 - 4oz jar	cool	001	X	X	X	
4/3/18	10:57	Soil	BGT SC-2	2 - 4oz jar	cool	002	X	X	X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/3/18	1542			4/3/18	1542
Date:	Time:	Relinquished by:	Received by:	Date	Time
4/3/18	1827			04/04/18	0740

Remarks: Please call with any questions


05/03/2018 11:31