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.

# Proposed Alternative Method Permit or Closure Plan Application

1 toposed Atternative Method 1 child of Closure 1 lan Application
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
lease 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 avironment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.
ı. Operator: _DJR Operating, LLC OGRID #:371838
Address: _1 Road 3263, Aztec, NM 87410
Facility or well name:Jicarilla Apache Tribal 122 2
API Number:30-039-22927 OCD Permit Number:
U/L or Qtr/Qtr P Section 04 Township 25N Range 04W County: Rio Arriba
Center of Proposed Design: Latitude36.423807 Longitude107.368217 NAD83
Surface Owner:  Federal State Private Tribal Trust or Indian Allotment
Surface Owner. [ ] reactar [ ] state [ ] rivate [ ] ribar riust of indian Anothicit
No Notification to Land Owner/OCD attached, Operator did not certify liquids, excessive equipment was removeed soil cover, etc.  Temporary: Drilling Workover Permanent Emergency Cavitation P&A Multi-Well Fluid Management Low Chloride Drilling Fluid yes no Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC Other  String-Reinforced  Liner Seams: Welded Factory Other Volume: bbl Dimensions: Lx Wx D
3
Below-grade tank: Subsection I of 19.15.17.11 NMAC  Volume:Unknownbbl Type of fluid:  Tank Construction material:Steel  Secondary containment with leak detection
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.
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

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)	
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	
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. <u>Siting Criteria (regarding permitting)</u> : 19.15.17.10 NMAC <i>Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accel material are provided below.</i> Siting criteria does not apply to drying pads or above-grade tanks.	ptable source
<b>General siting</b>	
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
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
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. ( <b>Does not apply to below grade tanks</b> )  - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine. ( <b>Does not apply to below grade tanks</b> ) - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
<ul> <li>Within an unstable area. (Does not apply to below grade tanks)</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	☐ Yes ☐ No
Within a 100-year floodplain. ( <b>Does not apply to below grade tanks</b> ) - 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
<ul> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> <li>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.</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>	☐ 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
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 N. Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc 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   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 19.1 and 19.15.17.13 NMAC   Previously Approved Design (attach copy of design) API Number: or Permit Number: or Permit Number:	NMAC  15.17.9 NMAC
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 doc 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. 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: or Permit Number:	uments are 15.17.9 NMAC

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 attached.	documents are
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	
Usanty Condo Quarty Assurance Construction and instantation Fian  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 <sub>2</sub> S, 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	
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 Fl	luid Management Pit
Proposed Closure Method: Waste Excavation and Removal	
<ul> <li>☐ Waste Removal (Closed-loop systems only)</li> <li>☐ On-site Closure Method (Only for temporary pits and closed-loop systems)</li> </ul>	
☐ In-place Burial ☐ On-site Trench Burial	
Alternative Closure Method	
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be defined by the second secon	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 sour	
provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. P 19.15.17.10 NMAC for guidance.	Please refer to
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	Yes No
lake (measured from the ordinary high-water mark).	
- Topographic map; Visual inspection (certification) of the proposed site	
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.	☐ Yes ☐ No
- NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	
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	
Within a 100-year floodplain.  - FEMA map	☐ Yes ☐ No ☐ Yes ☐ No
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure play 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 Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19 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 cant 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	7.11 NMAC 7.15.17.11 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 bel	lief.
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:	
Title: OCD Permit Number:	
Title: OCD Permit Number:	g the closure report.
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 is required to be submitted to the division within 60 days of the completion of the closure activities. Please do no section of the form until an approved closure plan has been obtained and the closure activities have been completed.	g the closure report. t complete this

22.	
Operator Closure Certification:	
I hereby certify that the information and attachments submitted with this closure re	
belief. I also certify that the closure complies with all applicable closure requirement	ents and conditions specified in the approved closure plan.
Name (Print): Larissa Farrell	Title: Regulatory Specialist
20000 1- 00	
Name (Print): _Larissa Farrell	Date:6/1/2020
e-mail address:_lfarrelldjrllc.com	Telephone:505-444-0289

April 21, 2020

Project #17035-0129 NMOCD Incident # nCS1932436155

Phone: (505) 632-3476

E-mail: lfarrell@djrllc.com

Ms. Larissa Farrell DJR Operating, LLC 1 Road 3263 Aztec. New Mexico 87410

RE: BGT Closure and Release Closure Report for the Jicarilla 122-2 Well Site Located in Section 4, Township 25N, Range 4W, San Juan County New Mexico

Dear Ms. Farrell:

Envirotech, Inc. (Envirotech) of Farmington, New Mexico, was contracted by DJR Operating, LLC (DJR) to provide sampling activities for the closure of a below grade tank (BGT) at the Jicarilla 122-2 well site (API: 30-039-22927) located within Section 4, Township 25 North, Range 4 West in San Juan County, New Mexico; see Figure 1, Vicinity Map.

On October 8, 2019, DJR personnel removed the BGT and Envirotech personnel collected a fivepoint composite confirmation soil sample from beneath the former location of the BGT. BGT removal and sampling activities were witnessed by Mr. Hobson Sandoval, Jicarilla Apache Nation Oil and Gas (JOGA) representative.

## **BGT CLOSURE CONFIRMATION LABORATORY ANALYSIS**

The soil sample was placed into individual laboratory provided 4-ounce jars, capped head space free, and transported on ice to Envirotech Analytical Laboratory. The soil sample was analyzed for contaminants of concern identified in the table below. Soil sample locations are illustrated in Figure 2, Site Map and in the attached Site Photography.

Based on the C-144 received by the New Mexico Oil Conservation Division (NMOCD) on January 21, 2009, the following closure criteria from 19.15.17.13 NMAC were applied:

Constituent	Method	Limit
Chloride	EPA 300.0	250 mg/kg
Total Petroleum Hydrocarbons (TPH)	EPA Method 8015D	100 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA Method 8021B	50 mg/kg
Benzene	EPA Method 8021B	0.2 mg/kg



DJR Operating, LLC Jicarilla 122-2 BGT Closure Project #17035-0129 October 2019 – April 2020 Page 2

Based on the laboratory analytical results, TPH as diesel and oil range organics (DRO and ORO) was above the applicable NMOCD and Jicarilla Oil and Gas Administration (JOGA) BGT Closure Criteria, see **Table 1**, *Summary of Soil Analytical Results*. Therefore, a release notification per 19.15.29.10 NMAC was submitted to NMOCD and JOGA on November 6, 2020.

#### REMEDIATION EXCAVATION MONITORING AND SAMPLING

DJR contracted roustabout personnel proceed with the remediation excavation activities.

A competent sandstone base was encountered at 5 feet below ground surface (bgs). Envirotech personnel was requested to return to the site on November 4, 2019 to collect soil samples of the excavation in order to guide and direct the remediation efforts. The excavation measured 40 feet by 49 feet by 5 feet in depth. One five-point composite sample was collected from the base of the excavation and each of the walls. Soil samples were placed into individual laboratory provided 4-ounce jars, capped head space free, and transported on ice to Envirotech Analytical Laboratory.

The soil samples were compared to the release closure criteria provided in 19.15.29.12 NMAC. Based on the enclosed *Siting Criteria Documentation*, the following NMOCD release closure criteria from *Table 1: Closure Criteria for Soils Impacted by a Release* were applied:

Depth to Groundwater			Limit
	Chloride	EPA 300.0	20,000 mg/kg
	ТРН	EPA Method 8015D	2,500 mg/kg
>100 feet	Gasoline + Diesel Range Organics (GRO+DRO)	EPA Method 8015D	1,000 mg/kg
	BTEX	EPA Method 8021B	50 mg/kg
	Benzene	EPA Method 8021B	10 mg/kg

Based on laboratory analytical results, the concentrations of contaminants of concern were above the applicable release closure criteria and required further remediation actions; see **Table 1**, Summary of Soil Analytical Results.

## **BGT Release Closure Confirmation Laboratory Analysis**

Due to inclement winter weather, DJR was not able to return to the site to continue the remediation excavation until March 2020. DJR maintained communication with JOGA on the status of the remediation throughout the standby time.

Envirotech personnel retuned to the site on March 25, 2020, to perform confirmation soil sampling activities. Mr. Richard Graves, DJR representative, was on-site to witness sampling activities. Five 5-point composite samples were collected from the excavation with final measurements being



DJR Operating, LLC Jicarilla 122-2 BGT Closure Project #17035-0129 October 2019 – April 2020 Page 3

50 feet by 40 feet by 5 feet in depth. One five-point composite sample was collected from the base of the excavation and each of the walls. Soil samples were placed into individual laboratory provided 4-ounce jars, capped head space free, and transported on ice to Envirotech Analytical Laboratory.

The soil samples were analyzed for contaminants of concern identified in the table above. Soil sample locations are illustrated in **Figure 2**, *Site Map* and in the attached *Site Photography*.

Based on the final laboratory analytical results, all contaminants of concern were below the applicable NMOCD and JOGA closure criteria except for DRO in the base sample, which returned results of 1,320 mg/kg; see **Table 1**, Summary of Soil Analytical Results.

## POTASSIUM PERMANGANATE APPLICATION

On April 1, 2020, Envirotech returned to the site to apply a potassium permanganate solution to the competent sandstone base of the excavation. The potassium permanganate application will aid in the situ remediation of the residual hydrocarbons. The application of the potassium permanganate solution was approved by JOGA representatives prior to application.

After the application of the potassium permanganate solution, DJR personnel backfilled the excavation with clean backfill and recontoured the area to match pre-existing conditions on April 7, 2020. The area was reseeded on April 8, 2020, with the approved Jicarilla Mesa seed mixture. Potassium permanganate application and backfilling activities are documented in the attached *Site Photography*.

## **SUMMARY AND CONCLUSIONS**

On March 25, 2020, Envirotech personnel completed confirmation sampling of the remediation excavation that was completed as a result of the removal and closure of a BGT at the Jicarilla 122-2 well site. On March 31, 2020, JOGA representatives approved the closure to *Table 1: Closure Criteria for Soils Impacted by a Release* and the application of potassium permanganate to aid insitu bioremediation. Envirotech personnel returned to the site on April 1, 2020, to perform potassium permanganate application activities. Based on the analytical results, Envirotech recommends requesting a *No Further Action* status from the NMOCD and JOGA regarding the BGT closure and subsequent release investigation.

## STATEMENT OF LIMITATIONS

The work and services provided were in accordance with NMOCD and JOGA standards. All observations and conclusions provided here are based on the information and current site conditions found at the subject well site. This work has been conducted and reported in accordance



DJR Operating, LLC Jicarilla 122-2 BGT Closure Project #17035-0129 October 2019 – April 2020 Page 4

with generally accepted professional practices in geology, engineering, environmental chemistry, and hydrogeology.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully submitted,

ENVIROTECH, INC.

**Brittany Hall** 

Environmental Field Technician

bhall@envirotech-inc.com

Reviewed by:

Felipe Aragon, CHMM, CES

Environmental Assistant Manager

faragon@envirotech-inc.com

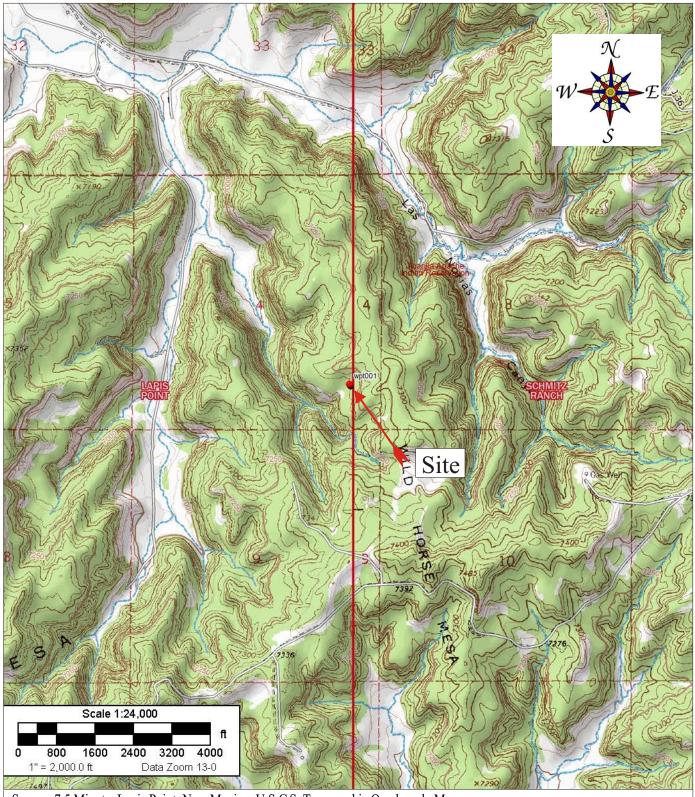
Enclosures: Figure 1, Vicinity Map

Figure 2, *Site Map Site Photography* 

Table 1, Summary of Soil Analytical Results

Laboratory Analytical Report

Cc: Client File 17035



Source: 7.5 Minute, Lapis Point, New Mexico U.S.G.S. Topographic Quadrangle Map

Scale:  $1:24,000 \quad 1" = 2,000$ 

DJR Operating, LLC
Jicarilla 122-2 Well Site
API: 30-039-22927
Section 4, Township 25N, Range 4W
Rio Arriba County, New Mexico
36.42384, -107.25091
Incident # nCS1932436155

Project Number: 17035-0129

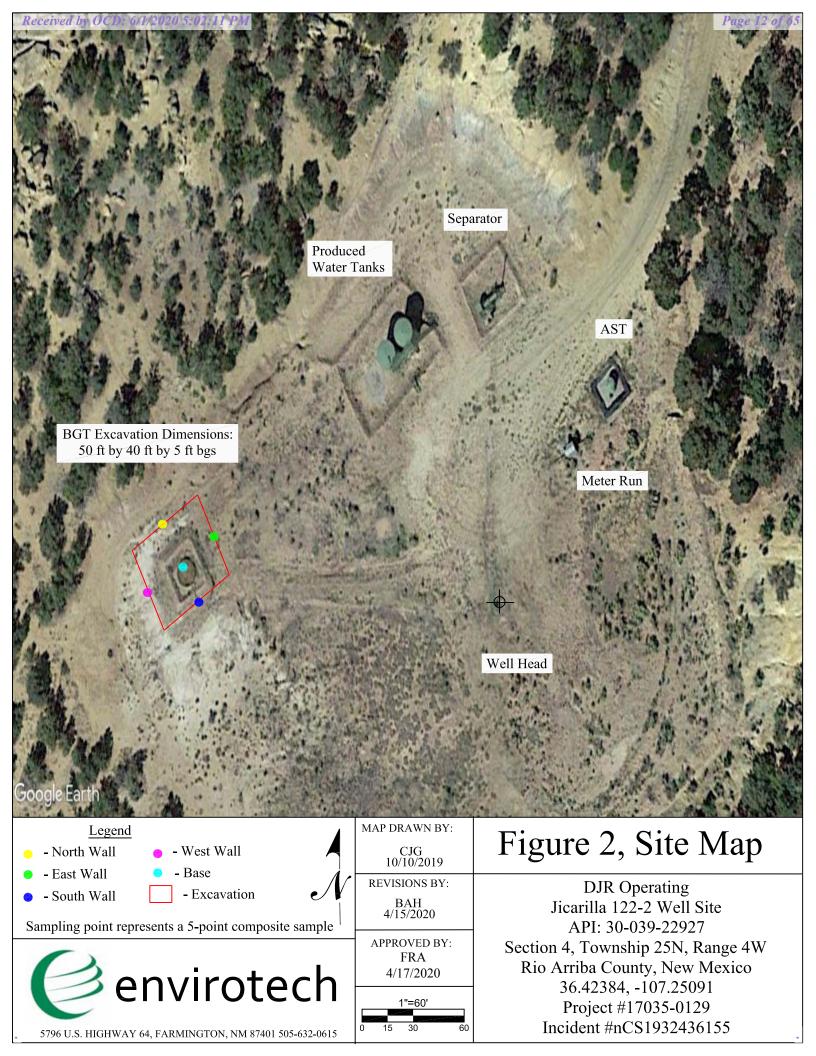
Date Drawn: 4/15/2020



5796 U.S. HIGHWAY 64 Farmington, New Mexico 87401 505.632.0615 Vicinity Map

Figure #1

DRAWN BY: Brittany Hall PROJECT MANAGER: Felipe Aragon



October 8, 2019



Picture 1: Well Site Sign



Picture 2: Sample Points Below BGT

March 25, 2020



Picture 3: View of Excavation West Wall



Picture 4: View of Excavation North Wall

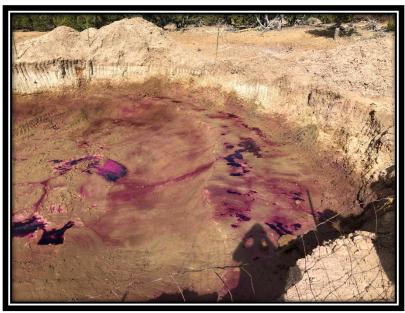


Picture 5: View of Excavation East Wall



Picture 6: View of Excavation South Wall

**April 1, 2020** 



Picture 7: Potassium Permanganate Application (North)



Picture 8: Potassium Permanganate Application (South)



Picture 9: View of Backfilled and Recontoured Area (View 1)



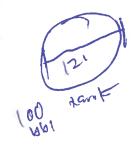
Picture 10: View of Backfilled and Recontoured Area (View 2)

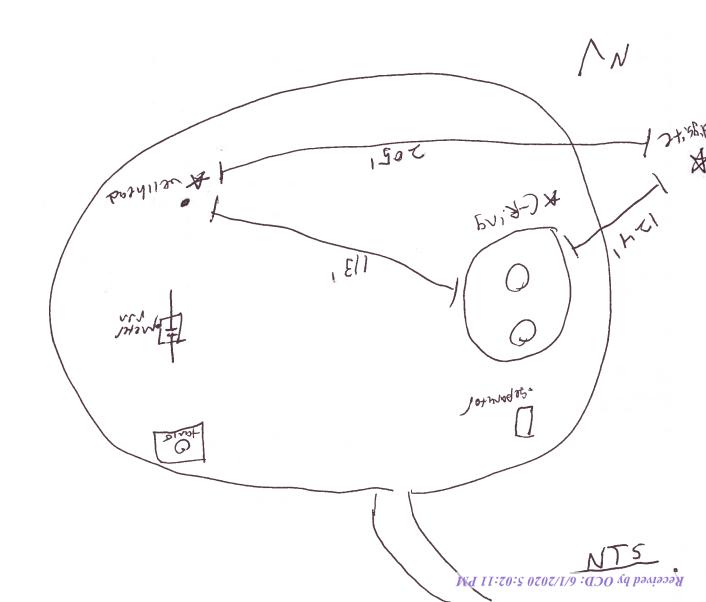
CLIENT:	DJRULU 11035-0129	envirotech	Environmental Specialist:		
CLIENT/JOB START DATE FINISH DATE	:: <u>\0/8/19</u>	(505) 632-0615 (500) 362-1878 6786 U.S. Hwy 54, Farmington, NE 27461	LAT: LONG:	36.423844	
Page #	of				
	FIELD	REPORT: BELOW GROUND TANK VEI	RIFICATI	ON	
LOCATION	NAME: J'Carilla	afache +1. "WELL#: 122 Temp Pit:		PERM Pit	
QUAD/UNIT:	D SEC: H	TWP 25N RNG HW		PM	
QTR/FOOTAG	<b>E</b> :	CNTY RIV AMA ba ST. New Me.	x,1co		
Excavation App	rox 15	Feet X VIS Feet X VII Feet Dee	p	Cubic Yardage:	
Disposal Facility	y.	Remediation Method			
Land Owner	Indian	22927 APL <b>30 - 039 - 2-039</b>	7 9 Pit Volum	e	
Construction Ma	C . 0 0	Double Walled, With Leak Detection	,		
	Temporary Pit Closure : NMAC	19.15.17 Table II (Pemitted after 6/28/2013)			
	BGT Closure: NMAC 19 15 17	Table I (Pemitted after 6/28/2013)			
	BGT Closure: BENZENE ≤ 0.2	mg/kg, BTEX ≤ 50 mg/kg, TPH (418.1) ≤ 100 mg/kg, CHLOR	.IDES < 250 m	g/kg (Pemitted before 6/28/2013)	
- C.		FIELD 418.1 ANLAYSIS		grag (1 stated between 0/20/2015)	
SAMPLE DESCR	RIPTION TIME S	SAMPLE ID LAB# WEIGHT mL FREON DILUTION	I BEADING	0410 ( # )	
		WEIGHT THE TREON BIED HON	READING	CALC. (mg/kg)	
Q#					
/_					
that the con					
	PID RESULTS	SITE PERIMETER		SAMPLE PROFILE	
SAMPLE ID	RESULTS (mg/kdg)	on bacil	 		
FIELD (	CHLORIDES RESULTS				
SAMPLE ID	READING CALC (mg/kg)		L		
SAMPLE ID	ANALYSIS US EPA				
	BENZENE 8021B/8015 BTEX 8021B/80260B				
20 mpos te	GRO & DRO 8015 CHLORIDES EPA300		ļ		
	TPH 418.1				
Janon	ares	NOTES: DJR representative, fily	id crew	- on 5.7°C	
	Analyst Signature	NOTES: DJR representative, five Hobson with EPA ong	ite		
Samon	carter				
	Printed Name	WO #: Who ordered/Site Rep.:			

C-ring to digsite - 174'

C-ring to weithcad - 113'

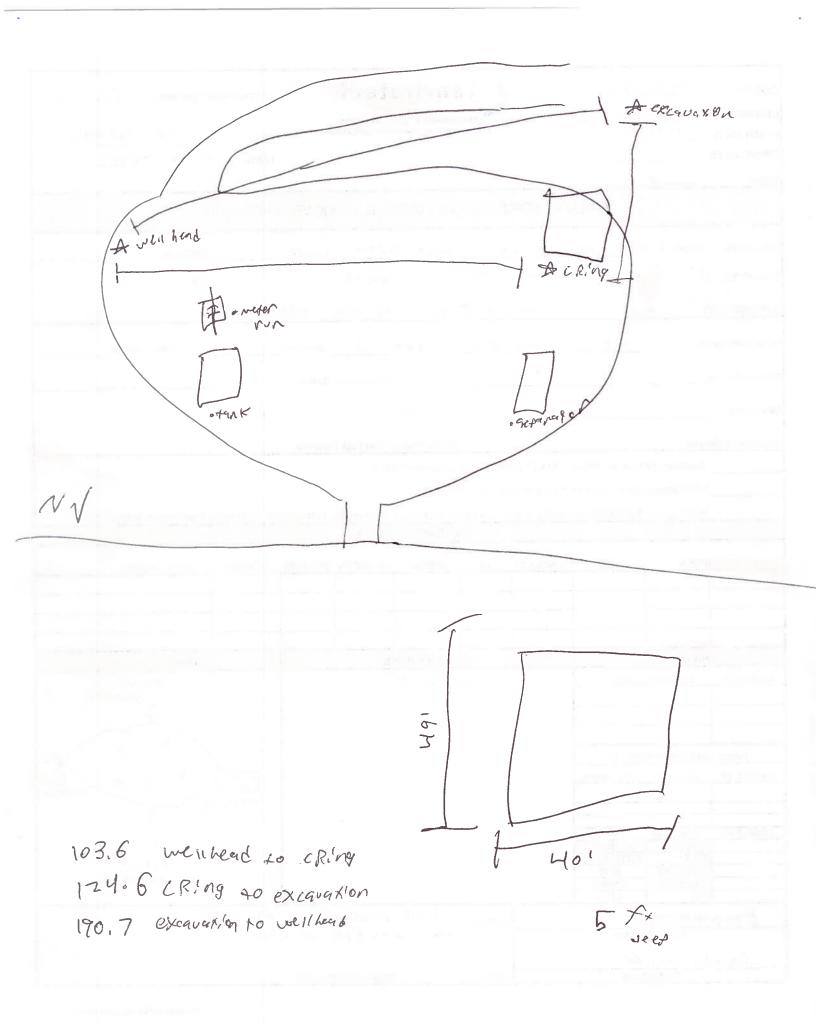






59 fo 61 ognd

Excavation Approx:    Lot   Feet X   Lot   Feet X   ST: Wloo   M & X & CO	nental Specialist:
FIELD REPORT: BELOW GROUND TANK VERIFICAT  LOCATION NAME: 3 ' C 49 ' 11 (A APACLAE NA ' 16 ' 17 )  QUAD/UNIT: D SEC: 4 TWP: 25 N RNG: 4 W  QUTR/FOOTAGE: CNTY: R. O N N 16 ST. N 16 M 4 X 1 CO  Excavation Approx: 4 G Feet X 4 9 Feet X 5 Feet Deep  Disposal Facility: Remediation Method:  Land Owner: API: Pit Volu  Construction Material: Double Walled, With Leak Detection:  Temporary Pit Closure: NMAC 19.15.17 Table II (Pemitted after 6/28/2013)  BGT Closure: NMAC 19.15.17 Table I (Pemitted after 6/28/2013)  BGT Closure: BENZENE S 0.2 mg/kg, BTEX S 50 mg/kg, TPH (418.1) S 100 mg/kg, CHLORIDES S 250 r  FIELD 418.1 ANLAYSIS  SAMPLE D RESULTS (mg/kdg)  PID RESULTS (mg/kdg)  ON 16 C S  FIELD CHLORIDES RESULTS  SAMPLE ID READING CALC. (mg/kg)  FIELD CHLORIDES RESULTS  SAMPLE ID READING CALC. (mg/kg)	36. 423844 -107, 250917
QUAD/UNIT: D SEC: 4 TWP: 25N RNG: 4W  QTR/FOOTAGE: CNTY: R. O A RY LOG ST: NOW MAX LOG  Excavation Approx: 40 Feet X 49 Feet X 5 Feet Deep  Disposal Facility: Remediation Method:  Land Owner: API: Pit Volume Walled, With Leak Detection:  Temporary Pit Closure: NMAC 19.15.17 Table II (Pemitted after 6/28/2013)  BGT Closure: NMAC 19.15.17 Table I (Pemitted after 6/28/2013)  BGT Closure: BENZENE < 0.2 mg/kg, BTEX < 50 mg/kg, TPH (418.1) < 100 mg/kg, CHLORIDES < 250 r  FIELD 418.1 ANLAYSIS  SAMPLE DESCRIPTION TIME SAMPLE ID LAB # WEIGHT mL FREON DILUTION READIN  PID RESULTS  SAMPLE ID RESULTS (mg/kdg)  ON 69 C CALC. (mg/kg)  FIELD CHLORIDES RESULTS  SAMPLE ID READING CALC. (mg/kg)  FIELD CHLORIDES RESULTS  SAMPLE ID READING CALC. (mg/kg)	ION
QUAD/UNIT: D SEC: 4 TWP: 25N RNG: 4W  QTR/FOOTAGE: CNTY: R.O A No. 4x. CO  Excavation Approx: 40 Feet X 49 Feet X 5 Feet Deep  Disposal Facility: Remediation Method:  Land Owner: API: Pit Volumental Pit Volument Section Material: Double Walled, With Leak Detection:  Temporary Pit Closure: NMAC 19.15.17 Table II (Pemitted after 6/28/2013)  BGT Closure: NMAC 19.15.17 Table I (Pemitted after 6/28/2013)  BGT Closure: BENZENE < 0.2 mg/kg, BTEX < 50 mg/kg, TPH (418.1) < 100 mg/kg, CHLORIDES < 250 mg/kg, TPH (418.1) ANLAYSIS  SAMPLE DESCRIPTION TIME SAMPLE ID LAB # WEIGHT mL FREON DILUTION READIN  PID RESULTS  SAMPLE ID RESULTS SITE PERIMETER  ON 69. COMPAGE  FIELD CHLORIDES RESULTS  SAMPLE ID READING CALC. (mg/kg)  FIELD CHLORIDES RESULTS  SAMPLE ID READING CALC. (mg/kg)	PERM Pit:
Excavation Approx:    Lot   Feet X   Lot   Feet X   Lot   Feet X   Lot	PM:
Excavation Approx:    Lot   Feet X   Lot   Feet X   Lot   Feet X   Lot	<u> </u>
Disposal Facility:	
Construction Material:  Double Walled, With Leak Detection:  Temporary Pit Closure: NMAC 19.15.17 Table II (Pemitted after 6/28/2013)  BGT Closure: NMAC 19.15.17 Table I (Pemitted after 6/28/2013)  BGT Closure: BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, TPH (418.1) ≤ 100 mg/kg, CHLORIDES ≤ 250 r  FIELD 418.1 ANLAYSIS  SAMPLE DESCRIPTION  TIME SAMPLE ID LAB # WEIGHT mL FREON DILUTION READIN  PID RESULTS  SAMPLE ID RESULTS (mg/kdg)  FIELD CHLORIDES RESULTS  SAMPLE ID READING CALC. (mg/kg)	
Construction Material:    Double Walled, With Leak Detection:   Temporary Pit Closure: NMAC 19.15.17 Table II (Pemitted after 6/28/2013)   BGT Closure: NMAC 19.15.17 Table I (Pemitted after 6/28/2013)   BGT Closure: BENZENE \( \leq \) 20 mg/kg, BTEX \( \leq \) 50 mg/kg, TPH (418.1) \( \leq \) 100 mg/kg, CHLORIDES \( \leq \) 250 r    FIELD 418.1 ANLAYSIS    SAMPLE DESCRIPTION   TIME   SAMPLE ID   LAB #   WEIGHT   mL FREON   DILUTION   READIN     PID RESULTS   SITE PERIMETER     SAMPLE ID   RESULTS (mg/kdg)   ON   b \( \leq \) C \( \leq \) Complete    FIELD CHLORIDES RESULTS   SAMPLE ID   READING   CALC. (mg/kg)     SAMPLE ID   READING   CALC. (mg/kg)   ON   b \( \leq \) C \( \leq \) Complete	ime:
Temporary Pit Closure : NMAC 19.15.17 Table II (Pemitted after 6/28/2013)  BGT Closure: NMAC 19.15.17 Table I (Pemitted after 6/28/2013)  BGT Closure: BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, TPH (418.1) ≤ 100 mg/kg, CHLORIDES ≤ 250 r  FIELD 418.1 ANLAYSIS  SAMPLE DESCRIPTION  TIME  SAMPLE ID  LAB # WEIGHT mL FREON DILUTION READIN  PID RESULTS  SITE PERIMETER  SAMPLE ID  RESULTS (mg/kdg)  FIELD CHLORIDES RESULTS  SAMPLE ID  READING  CALC. (mg/kg)  FIELD CHLORIDES CALC. (mg/kg)	
SAMPLE ID RESULTS (mg/kdg)  FIELD CHLORIDES RESULTS  SAMPLE ID READING CALC. (mg/kg)  Gradien Comps	G CALC. (mg/kg)
SAMPLE ID RESULTS (mg/kdg)  FIELD CHLORIDES RESULTS  SAMPLE ID READING CALC. (mg/kg)  Graph Comps	
FIELD CHLORIDES RESULTS  SAMPLE ID READING CALC. (mg/kg)  5 Av.: Comps	SAMPLE PROFILE
	5 Point Composite X X X 5 PO Composite
SAMPLE ID         ANALYSIS         US EPA           BENZENE         8021B/8015           BTEX         8021B/80260B           GRO & DRO         8015           CHLORIDES         EPA300           TPH         418.1	5 point composte
Danomare NOTES: 2 DJR representatives on 5  Analyst Signature Hobson with EPA ON 514C	cte
Printed Name WO #: Who ordered/Site Rep.:	



CLIENT:	DJR 34 1703	35-0129		envir	otecl	h	Environmen	tal Specialist: BLAN	_
START DATI		20	1780	105} 632-9675 (i 1 U.S. Nwy 54, Part	600) 362-1579 miligton, NM 27	) 481	LAT: LONG:	36.423844	
Page #	of						LUNG:	10 TID SUMIT	
		FIELD	REPORT: BE	LOW GRC	OUND TA	NK VER	UFICATIO	)N	
LOCATION	NAME:	Jicar 11	ila	WELL#	122-2	Temp Pit:	Marie Propinsi	PERM Pit	Ž. (18
QUAD/UNIT:		SEC: 4	TWP: 25	N	RNG: 41	W		PM:	
QTR/FOOTAC	GE:		CNTY: CIO	Ariba	ST: N	<b>√</b>	. <u> </u>	15,	
Excavation App	prox	49		Feet			)	Cubic Yardage	
Disposal Facilit	ty:				Remediation	n Method		excavation	
Land Owner	Jicari	la		AP	1.30-030	1-2292	7 Pit Volume	10	
Construction Ma	aterial			Double Wall	ed, With Leak	Detection			
		BENZENE ≤ 0.2		mg/kg, TPH (418 FIELD 418.1 A		⁄kg, CHLORI	DES ≤ 250 mg	kg (Pemitted before 6/28/2013)	4
SAMPLE DESCR		TIME	SAMPLE ID LAB#	WEIGHT		DILUTION	READING	CALC. (mg/kg)	
west 1	vali	120-1	2	15	20	14	494	1976	
North	wall	1300		5	80	4	13910	5560	
fact Santa	WALL	1900	3	5	12	4	७५५	2576	
- Sowth	PID PESULTS	1410			1 90	United Street Line Street	161	644	
	PID RESULTS			SITE PERIMET	TER			SAMPLE PROFILE	
SAMPLE ID	RESULTS (	(mg/kdg)					II .	VX V	
<b>A</b>	0.0	+					X	*	
3		4-00					14		
	CHLORIDES R						14	north of	
SAMPLE ID	READING	CALC. (mg/kg)						1/6	2gt
SKIVII DE I	NEADING	CALC. (mg/kg)				И	1 X	* /	
							1 7	7/	
SAMPLE ID	ANALYSIS	US EPA					1	1	
0.2	BENZENE	8021B/8015				1	1	FAT,	
	GRO & DRO	8021B/80260B 8015				I	1	1-Som	
	CHLORIDES	EPA300				]			
	TPH	418.1							
	Analyst Si		NOTES	Con firme	tion s	ianding	57	back	
	Allaiyst O	gnature			•	ر .		Lace	
	Printed I	Name	WO #:		Who ordered/	/Site Rep.:			

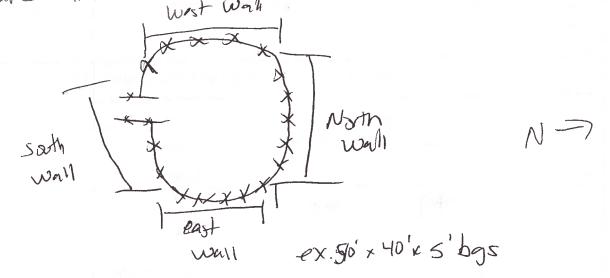
200 Standard 1203 - reading 224

Pit Closure Verification 2015

March 25,2020

. no field analysis

· Richard Graves on-site (Ticarilla + larssa Farrell did not male +)



bed rock Arther

Sita Nama	Licavilla 122 2				
Site Name: Jicarilla 122-2  API #: 30-039-22927					
		250015			
3	36.423844, -107.2				
	Section 4 T25N R				
Land Jurisdiction:	Jicarilla Apache N	Vation			
County:	Rio Arriba				
Wellhead Protection Area Assessment					
Water Source Type (well/spring/stock					
pond)	ID	Latitude	Longitude	Distance	
None					
<b>Distance to Nearest Significant Watercourse</b>			•		
786.3 ft northeast of tributary of La Norias Cany	on .				
Depth to Groundwater Determination					
Cathodic Report/Site Specific Hydrogeology	Not available				
Elevation Differential	440 ft higher tha	an La Norias	Canyon		
Water Wells	RG 50845 POD1			W=135 ft	
Sensitive Receptor Determination					
<300' of any continuously flowing watercourse or any other significant watercourse					
<200' of any lakebed, sinkhole or playa lake (measured from the Ordinary High Water Mark)					
<300' of an occupied permanent residence, school, hospital, institution or church					
<500' of a spring or private/domestic water well used by <5 households for domestic or stock					
watering purposes				No	
<1000' of any water well or spring				No	
Within incorporated municipal boundaries or wi	thin a defined mun	icipal fresh v	vater well	No	
<300' of a wetland				No	
Within the area overlying a subsurface mine					
Within an unstable area					
Within a 100-year floodplain					
DTW Determination		50-100	>100 🗹		
Benzene	10	10	10		
BTEX (mg/kg)	50	50	50		
8015 TPH (GRO/DRO) (mg/kg)	Not Applicable	1,000	1,000		
8015 TPH (GRO/DRO/MRO) (mg/kg)	100	2,500	2,500		
Chlorides (mg/kg)	600	10,000	20,000		



Table 1, Summary of Soil Analytical Results
DJR Operating, LLC
BGT and Release Closure Report
Jicarilla Apache 122-2; API: 30-039-22927
Section 4, Township 25N, Range 4W
Rio Arriba County, New Mexico
Project #17035-0129

Incident #nCS1932436155

r				EPA Method 8015			ЕРА Ме	ethod 8021	EPA Method 300.0
	Sample Description*	Sample Description* Date Sample Depth			DRO (mg/kg)	ORO (mg/kg)	Benzene (mg/kg)	Total BTEX (mg/kg)	Chlorides (mg/kg)
	NMOCD BGT Closure Criteria: Table 1 -19.15.17.13 (2008)				100		0.2	50	250
	BGT Sample	10/8/2019	0.5 feet	<20.0	4,700	3,030	< 0.0250	< 0.100	36.3

NMOCD Release Closur	1,0	2,500		10	50	10,000		
Time of Release Closur	NMOCD Release Closure Criteria: Table 1 -19.15.29.12					10	20	10,000
West Wall	11/4/2019	1-5 feet	<20.0	11,800	6,430	< 0.0250	< 0.100	242
North Wall	11/4/2019	1-5 feet	<20.0	18,000	12,000	< 0.0250	< 0.100	600
East Wall	11/4/2019	1-5 feet	<20.0	8,650	13,200	< 0.0250	< 0.100	1,710
Base	11/4/2019	5 feet	<20.0	2,260	< 500	< 0.0250	< 0.100	560
South Wall	11/4/2019	1-5 feet	< 20.0	2,470	2,900	< 0.0250	< 0.100	805
West Wall	3/25/2020	1-5 feet	<20.0	311	210	< 0.0250	< 0.100	532
North Wall	3/25/2020	1-5 feet	<20.0	619	228	< 0.0250	< 0.100	542
East Wall	3/25/2020	1-5 feet	<20.0	848	291	< 0.0250	< 0.100	356
Base	3/25/2020	5 feet	<20.0	1,320	255	< 0.0250	< 0.100	330
South Wall	3/25/2020	1-5 feet	<20.0	315	150	< 0.0250	< 0.100	688

\*5-point composite soil sample

Samples used for release closure

**BOLD** - above applicable regulatory standard





## **Analytical Report**

## **Report Summary**

Client: DJR Operating, LLC

Samples Received: 10/8/2019 Job Number: 17035-0129 Work Order: P910027

Project Name/Location: Jicarilla 122-2

Report Reviewed By:	Walter Hinkman	Date:	10/15/19	
-				

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise. Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. Envirotech, Inc, holds the Utah TNI certification NM009792018-1 for the data reported. Envirotech, Inc, holds the Texas TNI certification T104704557-19-2 for the data reported.

5796 Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865



DJR Operating, LLC Project Name:
1 Rd 3263 Project Number:

1 Rd 3263 Project Number: 17035-0129
Aztec NM, 87410 Project Manager: Felipe Aragon

**Reported:** 10/15/19 14:34

## **Analytical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BGT Sample	P910027-01A	Soil	10/08/19	10/08/19	Glass Jar, 4 oz.
	P910027-01B	Soil	10/08/19	10/08/19	Glass Jar, 4 oz.

Jicarilla 122-2

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DJR Operating, LLC Project Name:

 1 Rd 3263
 Project Number:
 17035-0129
 Reported:

 Aztec NM, 87410
 Project Manager:
 Felipe Aragon
 10/15/19 14:34

#### BGT Sample P910027-01 (Solid)

Jicarilla 122-2

		P9100	27-01 (Solid)					
		Reporting			·			·
Analyte	Result	Limit	Units Di	lution Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021								
Benzene	ND	0.0250	mg/kg 1	1941027	10/09/19	10/10/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg 1	1941027	10/09/19	10/10/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg 1	1941027	10/09/19	10/10/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg 1	1941027	10/09/19	10/10/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg 1	1941027	10/09/19	10/10/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg 1	1941027	10/09/19	10/10/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		92.6 %	50-150	1941027	10/09/19	10/10/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO	O/ORO							
Diesel Range Organics (C10-C28)	4700	50.0	mg/kg 2	1941026	10/09/19	10/09/19	EPA 8015D	
Oil Range Organics (C28-C40)	3030	250	mg/kg 5	1941026	10/09/19	10/11/19	EPA 8015D	
Surrogate: n-Nonane		143 %	50-200	1941026	10/09/19	10/09/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO	)							
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg 1	1941027	10/09/19	10/10/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		87.0 %	50-150	1941027	10/09/19	10/10/19	EPA 8015D	
Anions by 300.0/9056A								
Chloride	36.3	20.0	mg/kg 1	1941028	10/09/19	10/09/19	EPA 300.0/9056A	

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DJR Operating, LLC

Project Name:

Jicarilla 122-2

1 Rd 3263 Project Number: Aztec NM, 87410 Project Manager: 17035-0129 Felipe Aragon

Reported: 10/15/19 14:34

## Volatile Organics by EPA 8021 - Quality Control

## **Envirotech Analytical Laboratory**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1941027 - Purge and Trap EPA 5030A										
Blank (1941027-BLK1)				Prepared: 1	10/09/19 1 A	nalyzed: 1	0/11/19 0			
Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							
Surrogate: 4-Bromochlorobenzene-PID	7.57		"	8.00		94.6	50-150			
LCS (1941027-BS1)				Prepared: 1	10/09/19 1 A	nalyzed: 1	0/11/19 0			
Benzene	5.17	0.0250	mg/kg	5.00		103	70-130			
Toluene	5.15	0.0250	"	5.00		103	70-130			
Ethylbenzene	5.13	0.0250	"	5.00		103	70-130			
p,m-Xylene	10.3	0.0500	"	10.0		103	70-130			
o-Xylene	5.16	0.0250	"	5.00		103	70-130			
Total Xylenes	15.4	0.0250	"	15.0		103	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.57		"	8.00		94.6	50-150			
Matrix Spike (1941027-MS1)	Sou	rce: P910027-	01	Prepared: 1	10/09/19 1 A	Analyzed: 1	0/11/19 0			
Benzene	4.91	0.0250	mg/kg	5.00	ND	98.2	54.3-133			
Toluene	4.89	0.0250	"	5.00	ND	97.8	61.4-130			
Ethylbenzene	4.87	0.0250	"	5.00	ND	97.5	61.4-133			
p,m-Xylene	9.77	0.0500	"	10.0	ND	97.7	63.3-131			
o-Xylene	4.88	0.0250	"	5.00	ND	97.6	63.3-131			
Total Xylenes	14.6	0.0250	"	15.0	ND	97.6	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	7.16		"	8.00		89.6	50-150			
Matrix Spike Dup (1941027-MSD1)	Sou	rce: P910027-	01	Prepared: 1	10/09/19 1 A	nalyzed: 1	0/11/19 1			
Benzene	5.02	0.0250	mg/kg	5.00	ND	100	54.3-133	2.16	20	
Toluene	4.99	0.0250	"	5.00	ND	99.8	61.4-130	1.94	20	
Ethylbenzene	4.96	0.0250	"	5.00	ND	99.1	61.4-133	1.65	20	
p,m-Xylene	9.89	0.0500	"	10.0	ND	98.9	63.3-131	1.27	20	
o-Xylene	4.99	0.0250	"	5.00	ND	99.7	63.3-131	2.18	20	
Total Xylenes	14.9	0.0250	"	15.0	ND	99.2	63.3-131	1.58	20	
Surrogate: 4-Bromochlorobenzene-PID	7.61		"	8.00		95.1	50-150			

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DJR Operating, LLC

Project Name:

Jicarilla 122-2

1 Rd 3263 Aztec NM, 87410 Project Number: Project Manager: 17035-0129 Felipe Aragon

Reported: 10/15/19 14:34

## Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

## **Envirotech Analytical Laboratory**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1941026 - DRO Extraction EPA 3570										
Blank (1941026-BLK1)				Prepared: 1	10/09/19 0 2	Analyzed: 1	0/09/19 1			
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	58.4		"	50.0		117	50-200			
LCS (1941026-BS1)				Prepared: 1	10/09/19 0 2	Analyzed: 1	0/09/19 1			
Diesel Range Organics (C10-C28)	537	25.0	mg/kg	500		107	38-132			
Surrogate: n-Nonane	60.1		"	50.0		120	50-200			
Matrix Spike (1941026-MS1)	Sou	rce: P910028-	01	Prepared: 1	10/09/19 0 2	Analyzed: 1	0/09/19 1			
Diesel Range Organics (C10-C28)	767	25.0	mg/kg	500	220	109	38-132			
Surrogate: n-Nonane	58.8		"	50.0		118	50-200			
Matrix Spike Dup (1941026-MSD1)	Sour	rce: P910028-	01	Prepared: 1	10/09/19 0 2	Analyzed: 1	0/09/19 1			
Diesel Range Organics (C10-C28)	777	25.0	mg/kg	500	220	112	38-132	1.33	20	
Surrogate: n-Nonane	58.6		"	50.0		117	50-200			

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Page 31 of 65



DJR Operating, LLC

Project Name:

Jicarilla 122-2 17035-0129

Felipe Aragon

Spike

Source

%REC

1 Rd 3263 Aztec NM, 87410

Project Number: Project Manager:

Reporting

Reported:

10/15/19 14:34

RPD

## Nonhalogenated Organics by 8015 - GRO - Quality Control

## **Envirotech Analytical Laboratory**

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1941027 - Purge and Trap EPA 5030A										
Blank (1941027-BLK1)				Prepared:	10/09/19 1	Analyzed: 1	0/11/19 0			
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.07		"	8.00		88.4	50-150			
LCS (1941027-BS2)				Prepared:	10/09/19 1	Analyzed: 1	0/11/19 1			
Gasoline Range Organics (C6-C10)	43.9	20.0	mg/kg	50.0		87.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.06		"	8.00		88.3	50-150			
Matrix Spike (1941027-MS2)	Sourc	ee: P910027-	01	Prepared:	10/09/19 1	Analyzed: 1	0/11/19 1			
Gasoline Range Organics (C6-C10)	46.5	20.0	mg/kg	50.0	ND	93.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.07		"	8.00		88.4	50-150			
Matrix Spike Dup (1941027-MSD2)	ce: P910027-	01	Prepared:	10/09/19 1	Analyzed: 1	0/11/19 1				
Gasoline Range Organics (C6-C10)	46.2	20.0	mg/kg	50.0	ND	92.3	70-130	0.734	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.02		"	8.00		87.8	50-150			

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DJR Operating, LLC

Project Name:

Jicarilla 122-2

Spike

Source

%REC

1 Rd 3263 Aztec NM, 87410 Project Number: 17035-0129 Project Manager: Felipe Aragon

Reporting

Reported:

RPD

10/15/19 14:34

## Anions by 300.0/9056A - Quality Control

## **Envirotech Analytical Laboratory**

		· r · · · · · · · · · · · · ·		. 1						
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1941028 - Anion Extraction EPA 3	300.0/9056A									
Blank (1941028-BLK1)				Prepared &	ል Analyzed:	10/09/19 1				
Chloride	ND	20.0	mg/kg							
LCS (1941028-BS1)				Prepared &	ኔ Analyzed:	10/09/19 1				
Chloride	256	20.0	mg/kg	250		102	90-110			
Matrix Spike (1941028-MS1)	Sourc	e: P910027-	01	Prepared &	k Analyzed:	10/09/19 1				
Chloride	295	20.0	mg/kg	250	36.3	103	80-120			
Matrix Spike Dup (1941028-MSD1)	01	Prepared &	ኔ Analyzed:	10/09/19 1						
Chloride	293	20.0	mg/kg	250	36.3	103	80-120	0.677	20	

#### QC Summary Report

Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values my differ slightly.

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DJR Operating, LLC Project Name: Jicarilla 122-2

 1 Rd 3263
 Project Number:
 17035-0129
 Reported:

 Aztec NM, 87410
 Project Manager:
 Felipe Aragon
 10/15/19 14:34

#### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

\*\* Methods marked with \*\* are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

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Report due by: Email: Address: City, State, Zip Phone: Time Date Sampled Sampled Sampled ID S 2 BGT Sample ID S BGT SAmple ID	l_ of		
Project Manager: F.Aragon Address:  City, State, Zip Phone:  Email: Grabtree Dearter Faragon  Time Date Sampled Sample	EPA Program		
City, State, Zip Phone:    City, State, Zip Phone:   City   State, Zip Phon	CWA SDWA		
Phone: Email: Gcrabtree Dcarter Faragon Time Sampled Sampled Matrix No Constalters Sample ID  BGT Sample  9:57 30/8/2019 S 2 BGT Sample  Number Sample  Numb	State		
Sample   Date   Sample   Matrix   No Constitutes   Sample   Date   Sample	/I CO UT AZ		
Time Sampled Sampled Sampled Matrix Considerates Sample ID  Set Sampled Sampled Sampled Sample ID  Set Sampled Sampled Sample ID  Set Sampled Sampled Sample ID  Set Sample			
Sampled Matrix Containers Sample ID Number 56 86 56 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5			
Additional Instructions:	Remarks		
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is received packed in ice at an avg temp above 0 but less than 6°C on such as the considered fraud and may be grounds for legal action. Sampled by: Damon Carter	2 4 oz Jars, Cool		
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by:Damon Carter			
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I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is Samples requiring thermal preservation must be received on ice the received packed in ice at an avg temp above 0 but less than 6°C on such as a such	oler		
	day they are sampled o		
Relinquished by: (Signature)  Date  Time  (3!58)  Received by: (Signature)  Date  Time  Lab Use Only  Received on ice: (7) N			
Relinquished by: (Signature)  Date  Time  Received by: (Signature)  Date  Time  T1  AVG Temp °C  T3			
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA			
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analy samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.	sis of the above		



Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301



# **Analytical Report**

## **Report Summary**

Client: DJR Operating, LLC

Samples Received: 11/4/2019 Job Number: 17035-0132 Work Order: P911010

Project Name/Location: Jicarilla 122-2 **Confirmation Samples** 

_		_
Renort	Reviewed	Bv.

Wallet Hinkon

Date:

11/11/19

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise. Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. Envirotech, Inc, holds the Utah TNI certification NM009792018-1 for the data reported. Envirotech, Inc, holds the Texas TNI certification T104704557-19-2 for the data reported.

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DJR Operating, LLC Project Name: Jicarilla 122-2 Confirmation Samples

1 Rd 3263 Project Number: 17035-0132 Reported: Aztec NM, 87410 Project Manager: Felipe Aragon 11/11/19 17:28

## **Analytical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Base	P911010-01A	Soil	11/04/19	11/04/19	Glass Jar, 4 oz.
	P911010-01B	Soil	11/04/19	11/04/19	Glass Jar, 4 oz.
North Wall	P911010-02A	Soil	11/04/19	11/04/19	Glass Jar, 4 oz.
	P911010-02B	Soil	11/04/19	11/04/19	Glass Jar, 4 oz.
West Wall	P911010-03A	Soil	11/04/19	11/04/19	Glass Jar, 4 oz.
	P911010-03B	Soil	11/04/19	11/04/19	Glass Jar, 4 oz.
South Wall	P911010-04A	Soil	11/04/19	11/04/19	Glass Jar, 4 oz.
	P911010-04B	Soil	11/04/19	11/04/19	Glass Jar, 4 oz.
East Wall	P911010-05A	Soil	11/04/19	11/04/19	Glass Jar, 4 oz.
	P911010-05B	Soil	11/04/19	11/04/19	Glass Jar, 4 oz.

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1 Rd 3263 Project Number: 17035-0132 Reported: Aztec NM, 87410 Project Manager: Felipe Aragon 11/11/19 17:28

#### Base P911010-01 (Solid)

		P9110	10-01 (Solia)					
		Reporting						
Analyte	Result	Limit	Units D	ilution Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021								
Benzene	ND	0.0250	mg/kg 1	1945025	11/06/19	11/07/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg 1	1945025	11/06/19	11/07/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg 1	1945025	11/06/19	11/07/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg 1	1945025	11/06/19	11/07/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg 1	1945025	11/06/19	11/07/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg 1	1945025	11/06/19	11/07/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		108 %	50-150	1945025	11/06/19	11/07/19	EPA 8021B	_
Nonhalogenated Organics by 8015 - DRO/	ORO							
Diesel Range Organics (C10-C28)	2260	250	mg/kg 10	1945026	11/06/19	11/11/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	500	mg/kg 10	1945026	11/06/19	11/11/19	EPA 8015D	
Surrogate: n-Nonane		98.9 %	50-200	1945026	11/06/19	11/11/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg 1	1945025	11/06/19	11/07/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		96.8 %	50-150	1945025	11/06/19	11/07/19	EPA 8015D	
Anions by 300.0/9056A								
Chloride	560	100	mg/kg 5	1945022	11/07/19	11/07/19	EPA 300.0/9056A	

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1 Rd 3263 Project Number: 17035-0132 Reported: Aztec NM, 87410 Project Manager: Felipe Aragon 11/11/19 17:28

#### North Wall P911010-02 (Solid)

			10-02 (So	lid)					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	1945025	11/06/19	11/07/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1945025	11/06/19	11/07/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1945025	11/06/19	11/07/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1945025	11/06/19	11/07/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1945025	11/06/19	11/07/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1945025	11/06/19	11/07/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		102 %	50-	150	1945025	11/06/19	11/07/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO	O/ORO								
Diesel Range Organics (C10-C28)	18000	1250	mg/kg	50	1945026	11/06/19	11/11/19	EPA 8015D	
Oil Range Organics (C28-C40)	12000	2500	mg/kg	50	1945026	11/06/19	11/11/19	EPA 8015D	
Surrogate: n-Nonane		110 %	50-	200	1945026	11/06/19	11/11/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GR	0								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1945025	11/06/19	11/07/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		95.2 %	50-	-150	1945025	11/06/19	11/07/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	600	100	mg/kg	5	1945022	11/07/19	11/07/19	EPA 300.0/9056A	

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1 Rd 3263 Project Number: 17035-0132 Reported: Aztec NM, 87410 Project Manager: Felipe Aragon 11/11/19 17:28

#### West Wall P911010-03 (Solid)

P911010-03 (Solid)									
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	1945025	11/06/19	11/07/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1945025	11/06/19	11/07/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1945025	11/06/19	11/07/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1945025	11/06/19	11/07/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1945025	11/06/19	11/07/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1945025	11/06/19	11/07/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		104 %	50-15	50	1945025	11/06/19	11/07/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DR	O/ORO								
Diesel Range Organics (C10-C28)	11800	2500	mg/kg	100	1945026	11/06/19	11/11/19	EPA 8015D	
Oil Range Organics (C28-C40)	6430	5000	mg/kg	100	1945026	11/06/19	11/11/19	EPA 8015D	
Surrogate: n-Nonane		%	50-20	00	1945026	11/06/19	11/11/19	EPA 8015D	<i>S4</i>
Nonhalogenated Organics by 8015 - GR	0								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1945025	11/06/19	11/07/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		95.7 %	50-15	50	1945025	11/06/19	11/07/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	242	100	mg/kg	5	1945022	11/07/19	11/07/19	EPA 300.0/9056A	

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1 Rd 3263 Project Number: 17035-0132 Reported: Aztec NM, 87410 Project Manager: Felipe Aragon 11/11/19 17:28

# South Wall

		P9110	10-04 (Solid	)					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg 1		1945025	11/06/19	11/07/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg 1		1945025	11/06/19	11/07/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg 1		1945025	11/06/19	11/07/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg 1		1945025	11/06/19	11/07/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg 1		1945025	11/06/19	11/07/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg 1		1945025	11/06/19	11/07/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		107 %	50-150	)	1945025	11/06/19	11/07/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO	O/ORO								
Diesel Range Organics (C10-C28)	2470	250	mg/kg 1	0	1945026	11/06/19	11/11/19	EPA 8015D	
Oil Range Organics (C28-C40)	2900	500	mg/kg 1	0	1945026	11/06/19	11/11/19	EPA 8015D	
Surrogate: n-Nonane		140 %	50-200	)	1945026	11/06/19	11/11/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GR	0								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg 1		1945025	11/06/19	11/07/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		95.2 %	50-150	)	1945025	11/06/19	11/07/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	805	100	mg/kg 5		1945022	11/07/19	11/07/19	EPA 300.0/9056A	

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1 Rd 3263 Project Number: 17035-0132 Reported: Aztec NM, 87410 Project Manager: Felipe Aragon 11/11/19 17:28

### **East Wall** P911010-05 (Solid)

		P9110	10-05 (S011a)					
		Reporting						
Analyte	Result	Limit	Units D	ilution Bate	h Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021								
Benzene	ND	0.0250	mg/kg 1	19450	25 11/06/19	11/07/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg 1	19450	25 11/06/19	11/07/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg 1	19450	25 11/06/19	11/07/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg 1	19450	25 11/06/19	11/07/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg 1	19450	25 11/06/19	11/07/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg 1	19450	25 11/06/19	11/07/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		105 %	50-150	19450	25 11/06/19	11/07/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO	O/ORO							
Diesel Range Organics (C10-C28)	8650	2500	mg/kg 10	0 19450	26 11/06/19	11/11/19	EPA 8015D	
Oil Range Organics (C28-C40)	13200	5000	mg/kg 10	0 19450	26 11/06/19	11/11/19	EPA 8015D	
Surrogate: n-Nonane		%	50-200	19450	26 11/06/19	11/11/19	EPA 8015D	S4
Nonhalogenated Organics by 8015 - GRO	0							
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg 1	19450	25 11/06/19	11/07/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		94.4 %	50-150	19450	25 11/06/19	11/07/19	EPA 8015D	
Anions by 300.0/9056A								
Chloride	1710	100	mg/kg 5	19450	22 11/07/19	11/07/19	EPA 300.0/9056A	

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1 Rd 3263 Project Number: 17035-0132 Reported: Aztec NM, 87410 Project Manager: Felipe Aragon 11/11/19 17:28

# **Volatile Organics by EPA 8021 - Quality Control**

# **Envirotech Analytical Laboratory**

Applieto	Dagult	Reporting	Unite	Spike	Source	0/DEC	%REC	DDD	RPD	Not
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1945025 - Purge and Trap EPA 5030A										
Blank (1945025-BLK1)				Prepared:	11/06/19 1 <i>A</i>	nalyzed: 1	1/06/19 2			
Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							
Surrogate: 4-Bromochlorobenzene-PID	8.52		"	8.00		107	50-150			
LCS (1945025-BS1)				Prepared:	11/06/19 1 <i>A</i>	nalyzed: 1	1/06/19 2			
Benzene	4.67	0.0250	mg/kg	5.00		93.3	70-130			
Toluene	4.61	0.0250	"	5.00		92.3	70-130			
Ethylbenzene	4.58	0.0250	"	5.00		91.6	70-130			
p,m-Xylene	9.14	0.0500	"	10.0		91.4	70-130			
o-Xylene	4.60	0.0250	"	5.00		92.0	70-130			
Total Xylenes	13.7	0.0250	"	15.0		91.6	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.67		"	8.00		108	50-150			
Matrix Spike (1945025-MS1)	Sou	rce: P911010-	01	Prepared:	11/06/19 1 <i>A</i>	nalyzed: 1	1/07/19 0			
Benzene	4.67	0.0250	mg/kg	5.00	ND	93.4	54.3-133			
Toluene	4.62	0.0250	"	5.00	ND	92.4	61.4-130			
Ethylbenzene	4.60	0.0250	"	5.00	ND	92.0	61.4-133			
p,m-Xylene	9.19	0.0500	"	10.0	ND	91.9	63.3-131			
o-Xylene	4.61	0.0250	"	5.00	ND	92.2	63.3-131			
Total Xylenes	13.8	0.0250	"	15.0	ND	92.0	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8.63		"	8.00		108	50-150			
Matrix Spike Dup (1945025-MSD1)	Sou	rce: P911010-	01	Prepared:	11/06/19 1 <i>A</i>	nalyzed: 1	1/07/19 0			
Benzene	4.58	0.0250	mg/kg	5.00	ND	91.7	54.3-133	1.86	20	
Toluene	4.54	0.0250	"	5.00	ND	90.8	61.4-130	1.68	20	
Ethylbenzene	4.52	0.0250	"	5.00	ND	90.4	61.4-133	1.70	20	
p,m-Xylene	9.05	0.0500	"	10.0	ND	90.5	63.3-131	1.55	20	
o-Xylene	4.55	0.0250	"	5.00	ND	91.0	63.3-131	1.29	20	
Total Xylenes	13.6	0.0250	"	15.0	ND	90.7	63.3-131	1.46	20	
Surrogate: 4-Bromochlorobenzene-PID	8.92		"	8.00		111	50-150			
	0.72			0.00			20 220			

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1 Rd 3263 Project Number: 17035-0132 Reported: Aztec NM, 87410 Project Manager: Felipe Aragon 11/11/19 17:28

# Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

# **Envirotech Analytical Laboratory**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1945026 - DRO Extraction EPA 3570										
Blank (1945026-BLK1)				Prepared:	11/06/19 1 A	Analyzed: 1	1/11/19 1			
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	65.3		"	50.0		131	50-200			
LCS (1945026-BS1)				Prepared:	11/06/19 1 A	Analyzed: 1	1/11/19 1			
Diesel Range Organics (C10-C28)	488	25.0	mg/kg	500		97.5	38-132			
Surrogate: n-Nonane	49.9		"	50.0		99.7	50-200			
Matrix Spike (1945026-MS1)	Sour	ce: P911010-	01	Prepared:	11/06/19 1 A	Analyzed: 1	1/11/19 1			
Diesel Range Organics (C10-C28)	2670	250	mg/kg	500	2260	81.9	38-132			
Surrogate: n-Nonane	48.4		"	50.0		96.9	50-200			
Matrix Spike Dup (1945026-MSD1)	Sour	ce: P911010-	01	Prepared:	11/06/19 1 A	Analyzed: 1	1/11/19 1			
Diesel Range Organics (C10-C28)	2580	250	mg/kg	500	2260	62.9	38-132	3.63	20	
Surrogate: n-Nonane	45.8		"	50.0		91.5	50-200			

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DJR Operating, LLC Project Name: Jicarilla 122-2 Confirmation Samples

1 Rd 3263 Project Number: 17035-0132 Reported: Aztec NM, 87410 Project Manager: Felipe Aragon 11/11/19 17:28

Reporting

# Nonhalogenated Organics by 8015 - GRO - Quality Control

#### **Envirotech Analytical Laboratory**

Spike

Source

%REC

RPD

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1945025 - Purge and Trap EPA 5030A										
Blank (1945025-BLK1)				Prepared: 1	11/06/19 1 A	Analyzed: 1	1/06/19 2			
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.68		"	8.00		96.0	50-150			
LCS (1945025-BS2)				Prepared: 1	11/06/19 1 A	Analyzed: 1	1/07/19 0			
Gasoline Range Organics (C6-C10)	59.4	20.0	mg/kg	50.0		119	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.76		"	8.00		97.0	50-150			
Matrix Spike (1945025-MS2)	Sourc	e: P911010-0	01	Prepared: 1	11/06/19 1 A	Analyzed: 1	1/07/19 0			
Gasoline Range Organics (C6-C10)	60.3	20.0	mg/kg	50.0	ND	121	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.70		"	8.00		96.2	50-150			
Matrix Spike Dup (1945025-MSD2)	Sourc	e: P911010-0	01	Prepared: 1	11/06/19 1 A	Analyzed: 1	1/07/19 0			
Gasoline Range Organics (C6-C10)	61.3	20.0	mg/kg	50.0	ND	123	70-130	1.50	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.71		"	8.00		96.4	50-150			

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1 Rd 3263 Project Number: 17035-0132 Reported: Aztec NM, 87410 Project Manager: Felipe Aragon 11/11/19 17:28

Reporting

# Anions by 300.0/9056A - Quality Control

#### **Envirotech Analytical Laboratory**

Spike

%REC

RPD

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1945022 - Anion Extraction EPA 300	0.0/9056A									
Blank (1945022-BLK1)				Prepared:	11/06/19 0 A	Analyzed: 1	1/06/19 1			
Chloride	ND	20.0	mg/kg							
LCS (1945022-BS1)				Prepared:	11/06/19 0 A	Analyzed: 1	1/06/19 1			
Chloride	252	20.0	mg/kg	250		101	90-110			
Matrix Spike (1945022-MS1)	Source	e: P911013-	01	Prepared:	11/06/19 0 A	Analyzed: 1	1/06/19 1			
Chloride	990	40.0	mg/kg	250	717	109	80-120			
Matrix Spike Dup (1945022-MSD1)	Source	e: P911013-	01	Prepared:	11/06/19 0 A	Analyzed: 1	1/06/19 1			
Chloride	946	40.0	mg/kg	250	717	91.8	80-120	4.51	20	

#### QC Summary Report

24 Hour Emergency Response Phone (800) 362-1879

Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values my differ slightly.

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1 Rd 3263 Project Number: 17035-0132 Reported: Aztec NM, 87410 Project Manager: Felipe Aragon 11/11/19 17:28

#### **Notes and Definitions**

Surrogate was diluted out due to high concentrations of target and/or non-target analytes and does not provide useful information. The S4

associated LCS spike recovery was acceptable.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

Methods marked with \*\* are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

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Project	Information	on				Chain of C	n of Custody					Р	Page							
Client: I	DJR LLC					Report Attention	44			La	ab U	se O	nly		"	TAT	E	PA Program		
	arilla 122-2 Co				<u>R</u>	eport due by:		Lab	wo			_		mber	1	D 3D	RCRA	CWA	SDWA	
	Manager:	F.Ara	gon			mail:		P	1110	10		1	.703	5-013	2					
Address				<del></del>	<u>  A</u>	ddress:						Anal	ysis a	nd Me	ethod	•		S	tate	
City, Sta	ate, Zip					ity, State, Zip							T					NM CC	UT A	
Phone:					<u>P</u>	hone:														
Email: C	Crabtree D	Ocarter F	<u>aragon</u>															×		
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID			Lab Number	8015	ORO	8021	÷							Re	marks	
14:02	11/4/2019	S	2	Basi				х	х	х	х							2 4 02	Jars, Cool	
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Addition	nal Instruc	tions:															2	l		
				f this sample. I am a Impled by:Damon Ca		campering with or intentionally mislabelling th	e sample location, d	late or	time o	f collec	tion is						e received on it out less than 6°		are sampled or nt days.	
	ned by: (Signa		Date		:01	Received by: (Signature)	Date \\-\-\9		Time	1:0		Rec	eive	d on i		Lab Us	e Only			
Relinquish	ned by: (Signa	ture)	Date			Received by: (Signature)	Date		Time			T1	i Ter		T			<u>T3</u>		
Sample Ma	trix: <b>S</b> - Soil, <b>Sd</b>	l - Solid, <b>Sg</b> -	Sludge, A -	Aqueous, <b>O</b> - Oth	er		Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA													
Note: Samp samples is a	oles are discard applicable only	to those sa	after results mples recei	are reported unlo ved by the laborat	ess other ory with	arrangements are made. Hazardous sai this COC. The liability of the laboraotry	mples will be retu	rned	to clie	nt or o	dispos	sed of	at the						the above	
1								683-			ni		- 8					=5,0;		





# **Analytical Report**

# **Report Summary**

Client: DJR Operating, LLC

Samples Received: 3/25/2020 Job Number: 17035-0129 Work Order: P003122

Project Name/Location: Jicarilla 122-2

Report Reviewed By:	Waltet Hinternan	Date:	3/30/20	

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise. Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. Envirotech, Inc, holds the Utah TNI certification NM009792018-1 for the data reported. Envirotech, Inc, holds the Texas TNI certification T104704557-19-2 for the data reported.

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Aztec NM, 87410



DJR Operating, LLC Project Name: Jicarilla 122-2 1 Rd 3263

Project Number: 17035-0129 Project Manager: Felipe Aragon

Reported: 03/30/20 12:27

# **Analytical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
West Wall	P003122-01A	Soil	03/25/20	03/25/20	Glass Jar, 4 oz.
	P003122-01B	Soil	03/25/20	03/25/20	Glass Jar, 4 oz.
North Wall	P003122-02A	Soil	03/25/20	03/25/20	Glass Jar, 4 oz.
	P003122-02B	Soil	03/25/20	03/25/20	Glass Jar, 4 oz.
East Wall	P003122-03A	Soil	03/25/20	03/25/20	Glass Jar, 4 oz.
	P003122-03B	Soil	03/25/20	03/25/20	Glass Jar, 4 oz.
Base	P003122-04A	Soil	03/25/20	03/25/20	Glass Jar, 4 oz.
	P003122-04B	Soil	03/25/20	03/25/20	Glass Jar, 4 oz.
South Wall	P003122-05A	Soil	03/25/20	03/25/20	Glass Jar, 4 oz.
	P003122-05B	Soil	03/25/20	03/25/20	Glass Jar, 4 oz.

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Project Name:

Jicarilla 122-2

1 Rd 3263 Project Number: Aztec NM, 87410 Project Manager: 17035-0129 Felipe Aragon

Reported: 03/30/20 12:27

# West Wall P003122-01 (Solid)

			22-01 (301	iu)					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/27/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/27/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/27/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2013020	03/27/20	03/27/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/27/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2013020	03/27/20	03/27/20	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		103 %	50-1	150	2013020	03/27/20	03/27/20	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO	/ORO								
Diesel Range Organics (C10-C28)	311	25.0	mg/kg	1	2013004	03/27/20	03/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	210	50.0	mg/kg	1	2013004	03/27/20	03/27/20	EPA 8015D	
Surrogate: n-Nonane		94.7 %	50-2	200	2013004	03/27/20	03/27/20	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO	)								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2013020	03/27/20	03/27/20	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		87.9 %	50-1	150	2013020	03/27/20	03/27/20	EPA 8015D	
Anions by 300.0/9056A									
Chloride	532	20.0	mg/kg	1	2013018	03/27/20	03/27/20	EPA 300.0/9056A	

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1 Rd 3263

Aztec NM, 87410

Project Name:

Jicarilla 122-2

Project Number: Project Manager: 17035-0129 Felipe Aragon

Reported: 03/30/20 12:27

### North Wall P003122-02 (Solid)

		1 0051	22-02 (301	iu)					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %	50-1	150	2013020	03/27/20	03/28/20	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO	/ORO								
Diesel Range Organics (C10-C28)	619	25.0	mg/kg	1	2013004	03/27/20	03/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	228	50.0	mg/kg	1	2013004	03/27/20	03/27/20	EPA 8015D	
Surrogate: n-Nonane		109 %	50-2	200	2013004	03/27/20	03/27/20	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO	1								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		87.7 %	50-1	150	2013020	03/27/20	03/28/20	EPA 8015D	
Anions by 300.0/9056A									
Chloride	542	20.0	mg/kg	1	2013018	03/27/20	03/27/20	EPA 300.0/9056A	

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Aztec NM, 87410

1 Rd 3263

Project Name:

Jicarilla 122-2

Project Number: Project Manager: 17035-0129 Felipe Aragon Reported:

03/30/20 12:27

**East Wall** P003122-03 (Solid)

		1 0051	22-03 (30)	iiu)					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		102 %	50-	150	2013020	03/27/20	03/28/20	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO	/ORO								
Diesel Range Organics (C10-C28)	848	25.0	mg/kg	1	2013004	03/27/20	03/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	291	50.0	mg/kg	1	2013004	03/27/20	03/27/20	EPA 8015D	
Surrogate: n-Nonane		110 %	50-2	200	2013004	03/27/20	03/27/20	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		86.7 %	50	150	2013020	03/27/20	03/28/20	EPA 8015D	
Anions by 300.0/9056A									
Chloride	356	20.0	mg/kg	1	2013018	03/27/20	03/27/20	EPA 300.0/9056A	

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1 Rd 3263

Aztec NM, 87410

Project Name:

Jicarilla 122-2

Project Number: Project Manager: 17035-0129 Felipe Aragon

Reported: 03/30/20 12:27

Base P003122-04 (Solid)

		P0031	22-04 (501	ia)					
		Reporting	•	•	•		•		
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		102 %	50-1	50	2013020	03/27/20	03/28/20	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO	D/ORO								
Diesel Range Organics (C10-C28)	1320	25.0	mg/kg	1	2013004	03/27/20	03/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	255	50.0	mg/kg	1	2013004	03/27/20	03/27/20	EPA 8015D	
Surrogate: n-Nonane		93.1 %	50-2	200	2013004	03/27/20	03/27/20	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO	)								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		86.5 %	50-1	50	2013020	03/27/20	03/28/20	EPA 8015D	
Anions by 300.0/9056A									
Chloride	330	40.0	mg/kg	2	2013018	03/27/20	03/27/20	EPA 300.0/9056A	

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Project Name:

Jicarilla 122-2

1 Rd 3263 Project Number: Aztec NM, 87410 Project Manager: 17035-0129 Felipe Aragon

Reported: 03/30/20 12:27

#### **South Wall** P003122-05 (Solid)

		1 0051	22-03 (301	iu)					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		102 %	50-1	150	2013020	03/27/20	03/28/20	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/0	ORO								
Diesel Range Organics (C10-C28)	315	25.0	mg/kg	1	2013004	03/27/20	03/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	150	50.0	mg/kg	1	2013004	03/27/20	03/27/20	EPA 8015D	
Surrogate: n-Nonane		94.0 %	50-2	200	2013004	03/27/20	03/27/20	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2013020	03/27/20	03/28/20	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		87.3 %	50-1	150	2013020	03/27/20	03/28/20	EPA 8015D	
Anions by 300.0/9056A									
Chloride	688	40.0	mg/kg	2	2013018	03/27/20	03/27/20	EPA 300.0/9056A	

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Project Name:

Jicarilla 122-2

1 Rd 3263 Project Number: Aztec NM, 87410 Project Manager: 17035-0129 Felipe Aragon

Reported: 03/30/20 12:27

# **Volatile Organics by EPA 8021 - Quality Control**

# **Envirotech Analytical Laboratory**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 2013020 - Purge and Trap EPA 5030A										
Blank (2013020-BLK1)				Prepared &	Analyzed:	03/27/20 1	l			
Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							
Surrogate: 4-Bromochlorobenzene-PID	8.29		"	8.00		104	50-150			
LCS (2013020-BS1)				Prepared &	Analyzed:	03/27/20 1	l			
Benzene	4.98	0.0250	mg/kg	5.00		99.5	70-130			
Toluene	5.12	0.0250	"	5.00		102	70-130			
Ethylbenzene	5.07	0.0250	"	5.00		101	70-130			
p,m-Xylene	10.1	0.0500	"	10.0		101	70-130			
o-Xylene	5.04	0.0250	"	5.00		101	70-130			
Total Xylenes	15.1	0.0250	"	15.0		101	0-200			
Surrogate: 4-Bromochlorobenzene-PID	8.49		"	8.00		106	50-150			
Matrix Spike (2013020-MS1)	Sou	rce: P003122-	01	Prepared: (	03/27/20 1 A	Analyzed: (	03/27/20 2			
Benzene	4.72	0.0250	mg/kg	5.00	ND	94.4	54.3-133			
Toluene	4.88	0.0250	"	5.00	ND	97.6	61.4-130			
Ethylbenzene	4.81	0.0250	"	5.00	ND	96.2	61.4-133			
p,m-Xylene	9.54	0.0500	"	10.0	ND	95.4	63.3-131			
o-Xylene	4.74	0.0250	"	5.00	ND	94.8	63.3-131			
Total Xylenes	14.3	0.0250	"	15.0	ND	95.2	0-200			
Surrogate: 4-Bromochlorobenzene-PID	8.39		"	8.00		105	50-150			
Matrix Spike Dup (2013020-MSD1)	Sou	rce: P003122-	01	Prepared: (	)3/27/20 1 A	Analyzed: (	3/27/20 2			
Benzene	4.86	0.0250	mg/kg	5.00	ND	97.3	54.3-133	3.02	20	
Toluene	4.98	0.0250	"	5.00	ND	99.7	61.4-130	2.10	20	
Ethylbenzene	4.92	0.0250	"	5.00	ND	98.5	61.4-133	2.36	20	
p,m-Xylene	9.76	0.0500	"	10.0	ND	97.6	63.3-131	2.38	20	
o-Xylene	4.88	0.0250	"	5.00	ND	97.7	63.3-131	2.99	20	
Total Xylenes	14.6	0.0250	"	15.0	ND	97.7	0-200	2.58	200	
Surrogate: 4-Bromochlorobenzene-PID	8.37		"	8.00		105	50-150			

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Project Name:

Jicarilla 122-2

1 Rd 3263 Project Number: Aztec NM, 87410

17035-0129 Felipe Aragon Reported:

Project Manager:

03/30/20 12:27

# Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

# **Envirotech Analytical Laboratory**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 2013004 - DRO Extraction EPA 3570										
Blank (2013004-BLK1)				Prepared &	& Analyzed:	03/27/20 (	)			
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	53.5		"	50.0		107	50-200			
LCS (2013004-BS1)	Prepared & Analyzed: 03/27/20 0									
Diesel Range Organics (C10-C28)	433	25.0	mg/kg	500		86.6	38-132			
Surrogate: n-Nonane	46.9		"	50.0		93.9	50-200			
Matrix Spike (2013004-MS1)	Sou	rce: P003122-	01	Prepared &	& Analyzed:	03/27/20 (	)			
Diesel Range Organics (C10-C28)	722	25.0	mg/kg	500	311	82.2	38-132			
Surrogate: n-Nonane	24.8		"	25.0		99.4	50-200			
Matrix Spike Dup (2013004-MSD1)	Sou	rce: P003122-	01	Prepared: (	03/27/20 0 A	Analyzed: (	03/27/20 1			
Diesel Range Organics (C10-C28)	719	25.0	mg/kg	500	311	81.5	38-132	0.471	20	
Surrogate: n-Nonane	25.1		"	25.0		101	50-200			

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Analyte

Surrogate: 1-Chloro-4-fluorobenzene-FID

Project Name:

Reporting

Limit

Result

Jicarilla 122-2

1 Rd 3263 Project Number: Aztec NM, 87410 Project Manager: 17035-0129 Felipe Aragon

Spike

Level

Source

Result

%REC

%REC

Limits

50-150

RPD

**Reported:** 03/30/20 12:27

RPD

Limit

Notes

# Nonhalogenated Organics by 8015 - GRO - Quality Control

#### **Envirotech Analytical Laboratory**

Units

Batch 2013020 - Purge and Trap EPA 50	)30A							
Blank (2013020-BLK1)				Prepared &	Analyzed:	03/27/20 1		
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg					
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.12		"	8.00		89.0	50-150	
LCS (2013020-BS2)				Prepared &	Analyzed:	03/27/20 1		
Gasoline Range Organics (C6-C10)	46.3	20.0	mg/kg	50.0		92.5	70-130	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.13		"	8.00		89.1	50-150	
Matrix Spike (2013020-MS2)	Source	Source: P003122-01			3/27/20 1 A	nalyzed: 0	3/27/20 2	
Gasoline Range Organics (C6-C10)	50.5	20.0	mg/kg	50.0	ND	101	70-130	

 Matrix Spike Dup (2013020-MSD2)
 Source: P003122-01
 Prepared: 03/27/20 1 Analyzed: 03/27/20 2

 Gasoline Range Organics (C6-C10)
 49.3
 20.0
 mg/kg
 50.0
 ND
 98.6
 70-130
 2.33
 20

 Surrogate: 1-Chloro-4-fluorobenzene-FID
 7.09
 "
 8.00
 88.7
 50-150

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Project Name:

Jicarilla 122-2

1 Rd 3263 Aztec NM, 87410 Project Number: 17035-0129 Project Manager: Felipe Aragon **Reported:** 03/30/20 12:27

Anions by 300.0/9056A - Quality Control

**Envirotech Analytical Laboratory** 

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Ratch 2013018 Anion Extraction EDA	300 0/0056 4									

Batch 2013018 - Anion Extraction EPA 30	00.0/9056A									
Blank (2013018-BLK1)				Prepared &	: Analyzed:	03/27/20 1				
Chloride	ND	20.0	mg/kg							
LCS (2013018-BS1)				Prepared &	Analyzed:	03/27/20 1				
Chloride	249	20.0	mg/kg	250		99.4	90-110			
Matrix Spike (2013018-MS1)	Source	: P003124-	01	Prepared &	Analyzed:	03/27/20 1				
Chloride	251	20.0	mg/kg	250	ND	101	80-120			
Matrix Spike Dup (2013018-MSD1)	Source	Source: P003124-01			Prepared & Analyzed: 03/27/20 1					
Chloride	252	20.0	mg/kg	250	ND	101	80-120	0.314	20	

#### QC Summary Report

Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values my differ slightly.

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DJR Operating, LLC Project Name: Jicarilla 122-2

 1 Rd 3263
 Project Number:
 17035-0129
 Reported:

 Aztec NM, 87410
 Project Manager:
 Felipe Aragon
 03/30/20 12:27

#### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

\*\* Methods marked with \*\* are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

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Labadmin@envirotech-inc.com

envirotech-inc.com

considered fraud and may be grounds for legal	action. Sampled by:	The state of the s				100
Relinquished by: (Signature)	Date. 3/25/2020	12 01	Received by: (Signature)	3/25/20	Time 15:34	Lab Use Only Received on ice: Y/N
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 T2 T3 T3 AVG Temp °C 4
Sample Matrix: S - Soil, Sd - Solid, Sg - Slu	dge, A - Aqueous, C	O - Other	_	Container Ty	ype: g - glass, p	p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboraotry is limited to the amount paid for on the report.

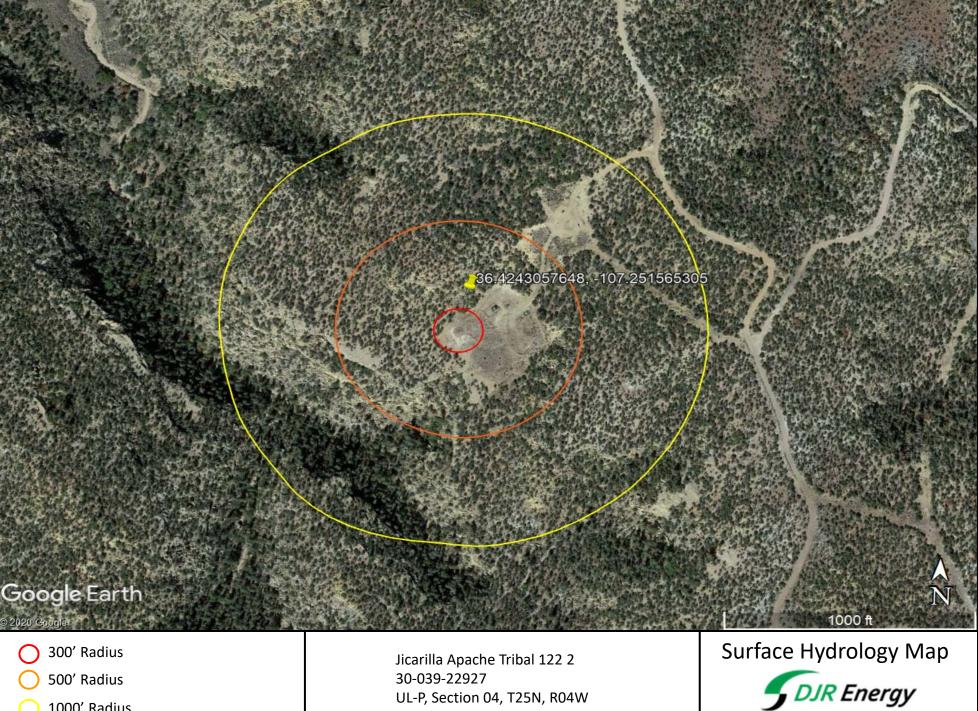


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Ph (505) 632-0615 Fx (505) 632-1865

Three Springs - 65 Mercado Street, Suite 115, Durango, CD \$1301

environeth-inc.com Ph (970) 259-0615 Fr (800) 362-1829 laboratory service tech-inc.com 641/2020 5:02:11 PM



UL-P, Section 04, T25N, R04W

1000' Radius



# New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW#### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned,

C=the file is

(quarters are 1=NW 2=NE 3=SW 4=SE) closed)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD

MRG

Sub-QQQ

Code basin County 6416 4 Sec Tws Rng X

3 26 25N 04W

340 300247 4026989\*

Water DepthWellDepthWaterColumn

Average Depth to Water:

135 feet

Minimum Depth:

135 feet

Maximum Depth:

135 feet

#### Record Count: 1

**POD Number** 

RG 50845 POD1

#### PLSS Search:

Section(s):4, 5, 8, 9, 10, Township: 25N 3, 26

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/1/20 1:16 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

# **Larissa Farrell**

From:

Yahoo Warning <kcmanwell@yahoo.com>

Sent:

Tuesday, March 31, 2020 8:18 AM

To:

Larissa Farrell

Subject:

Re: Jicarilla 122 2 BGT Closure

Follow Up Flag:

Follow up

Flag Status:

Flagged

Good Morning Larissa,

Per our discussion about the Jicarilla 122 2, due to excavation hitting bedrock and still having contaminants on the bottom of excavation. The use of potassium permanganate will be an alternative method to help the degradation of present contaminates, backfill will be permitted and noted as an amendment to the closure plan. Approval is granted to expedite the the approval process, should you have any questions or comments. Please contact myself via email or 505-330-8031.

Thank You,

K.C. Manwell, Environmental Specialist Jicarilla Environmental Protection Office

Good afternoon Keith,

Attached are the results from the Jicarilla 122 2 BGT Closure. All constituents were below the Table I closure standard except the base of the excavation due to the sandstone which no further excavation can occur in this area. We would like to have Envirotech apply potassium permanganate to the base to mitigate the contaminates within the sandstone. Please provide an email with your approval on this path forward.

If you have any questions, please let me know.

Thank you,

Larissa Farrell

Regulatory Specialist

(505)444-0289

Ifarrell@djrllc.com



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March 16, 2020

Larissa Ferrell Regulatory Specialist DJR ENERGY

Hi Larissa,

Per our conversation about the Backfill Material for The Jicarilla Apache F-6 and Jicarilla Apache Tribal 122 2. Your Company has the permission from the Jicarilla Apache Nation Environmental Protection Office (JAN-EPO) to use said ponds for backfill of the two locations. I will be out of the office for Tuesday and Wednesday of this week, don't hesitate to call should you have any questions.

Thank You,

K.C. Manwell, Environmental Specialist JAN-EPO 505-330-8031