



Request For Incident Closure

January 12, 2021

Re: Remediation Activities & Closure Report Emerald PWU 20 #1H API No. 30-015-38338 GPS: Latitude 32.6525154 Longitude -104.1045456 UL "D," Sec. 20, T19S, R29E Eddy County, NM NMOCD Ref. No. 2RP-779; 2RP-4281; 2RP-5167; 2RP-5377

Pima Environmental Services, LLC (Pima) was contracted by Devon Energy Production Company (Devon) to perform remediation activities and submit a closure report on the forthcoming releases that occurred at the Emerald PWU 20 Fed #1H (Emerald). There are currently four open spills at this site. 2RP-779 release, the initial C-141, has been submitted and was assigned Incident ID nMLR1113050834 by the New Mexico Oil Conservation Division (NMOCD). 2RP-4281 release, the initial C-141 was submitted on June 29, 2017, and was assigned Incident ID nAB1718733399. A work plan was submitted and approved for this incident. The work plan was followed as approved. The third release, 2RP-5167, the C-141, was submitted on November 20, 2018, and assigned Incident ID NAB1900959144. The fourth release, 2RP-5377, the initial C-141, was submitted on November 21, 2018, and assigned Incident ID NAB1912031219.

See Appendix C for all Initial and Final C-141's.

Site Characterization

The Emerald is located approximately eighteen (18) miles northeast of Carlsbad, NM. This spill site is in Unit D, Section 20, Township 19S, Range 29E, Latitude 32.6525154, Longitude -104.1045456, Eddy County, NM. Figure 1 references a location map.

Per the New Mexico Bureau of Geology and Mineral Resources, the geology is in the Quaternary Formation Eolian and piedmont deposits (Holocene to middle Pleistocene)-interlayed eolian sands and piedmont-slope deposits (QEP). According to the United States Department of Agriculture Natural Resources Conservation Service soil survey, the soil in this area comprises Simona-Bippus complex, 0 to 5 percent slopes (Appendix B). The drainage courses in this area are well-drained. There is a high potential for karst geology in the Emerald area (Figure 3).

According to the New Mexico Office of the State Engineer, depth to the nearest groundwater in this area is 150 feet below grade surface (BGS). According to the United States Geological Survey (USGS), the closest groundwater is between 51-100 feet below grade surface (BGS). See Appendix A for referenced water surveys.

	Table 1 NMAC and Closure Criteria 19.15.29									
Depth to		Const	ituent & Limits							
Groundwater (Appendix A)	Chlorides Total TPH GRO+DRO BTEX Benzene									
150'	20,000 mg/kg	20,000 mg/kg 2,500 mg/kg 1,000 mg/kg 50 mg/kg 10 mg/kg								
<50	600 mg/kg	100 mg/kg	100 mg/kg	50 mg/kg	10mg/kg					
	ed within any of the fo s than 50 feet per Rule		sponsible party wou	ld treat the rele	ase as if the					

Water Issues	Yes	No
Within <u>300</u> feet of any continuously flowing watercourse or any other significant watercourse		х
Within 200 feet of any lakebed, sinkhole, or playa lake (measures from the ordinary high-water mark		х
Within <u>300</u> feet from an occupied permanent residence, school, hospital, institution, or church		х
Within 500 feet of a spring or a private, domestic freshwater well used by less than five households for domestic or stock water purposes		х
Within 1000 feet of any freshwater well or spring		Х
Within incorporated municipal boundaries or within a defined municipal freshwater well field		х
Within <u>300</u> feet of a wetlands		Х
Within the area overlying a subsurface mine		Х
Within an unstable area (Karst)	х	
Within a 100-year floodplain		Х

Reference Figure 2 for a TOPO Map.

Release Information

2RP-779: On May 4, 2011, during the flowback process, the overnight watchman fell asleep and awoke to a frac tank overflowing. The released fluids were calculated to be approximately 23 barrels (bbls) of oil and 3 bbls of produced water. A vac truck was dispatched and was able to recover 22 bbls of fluids.

2RP-4281: On June 28, 2017, repairs were being made to the three-phase separator, gas, and sand cut the water dump resulting in a release of 0.5 bbls of oil and 4.5 bbls of produced water. The wells were shut-in, repairs were made to contain the leak. No fluids were recovered in this area.

2RP-5167: On November 10, 2018, a gasket failed on the heater treater resulting in a release of 20 bbls of oil and 10 bbls of produced water. The treater was isolated, and repairs were made. A vac truck was able to recover app 5 bbls of oil.

2RP-5377: On November 13, 2018, oil was found spraying out of the wellhead resulting in a release of 7 bbls of oil with no fluids being recovered.

Site Assessment and Soil Sampling Results

Another Environmental Service Company conducted a site assessment and soil sampling event for the 2RP-4281 spill. They submitted a work plan that was approved by the NMOCD.

On July 7, 2020, Pima Environmental mobilized to the site to conduct a site assessment and obtain soil samples. Upon first look, there was no visual staining from any of the releases. We followed previously outlined diagrams and descriptions from C-141's to track the spills' vicinity and sampled in various random locations. The laboratory results of this sampling event can be found in the following data table. Pima submitted a work plan that would address all open RP's and was approved by the NMOCD.

Sample Dat 7-7-20	e	1		NM Approved Laboratory Results							
Sample ID	Depth (BG5)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Ci mg/kg			
5-1	0-6	ND	ND	ND	ND	ND	ND	360			
2-1	1	ND	ND	ND	ND	ND	ND	160			
5-2	0-6	ND	ND	ND	11000	8300	19300	3800			
5-3	0-6	ND	ND	ND	11	ND	11	17000			
5.4	0-6	ND	ND	ND	ND	ND	ND	570			
S-4	.1	ND	ND	ND	ND	ND	ND	210			
5-5	0-6	ND	ND	ND	ND	ND	ND	ND			
-2-3	1	ND	ND	ND	ND	ND	ND	54			
5-6	0-6	ND	ND	ND	ND	ND	ND	1200			
5-7	0-6	ND	ND	ND	ND	ND	ND	ND			
3-1	1	ND	ND	ND	ND	ND	ND	ND			
	0-6	ND	ND	ND	ND	ND	ND	2300			
S-8	1	ND	ND	ND	ND	ND	ND	200			
5-9	0-6	ND	ND	ND	20000	12000	32000	4100			
2-9	1	ND	ND	ND	240	190	430	430			
5-10	0-6	ND	ND	ND	2700	3200	5900	2600			
6.14	0-6	ND	ND	ND	3500	3600	7100	250			
5-11	1	ND	ND	ND	74	90	164	460			

7-7-20 Soil Sample Results

ND- Analyte Not Detected

Complete Laboratory Reports are attached in Appendix E.

Remediation Activities

Pima submitted a work plan to address all open RP's that was ultimately approved and followed. Pima removed the contaminated areas from the releases and our sampling event that exceeded the NMAC Closure Criteria. We remediated through excavation and removal using mechanical equipment and hand tools. The area in the vicinity of S-2 and S-3 was excavated to a depth of 2-feet BGS. As we started excavating in the vicinity of S-6, S-8, S-9, and S-10, we extended our sampling to define where our excavation would require cleanup horizontally. This area's excavation extended further horizontally and vertically than initially expected. We ended up excavating vertically to a depth of 2-feet and 3-feet BGS respectively. The vicinity of S-11 was excavated to a depth of 2-feet BGS and ended up becoming part of the larger area. Five-point composite bottom and sidewall composite samples were obtained to ensure that the contamination's vertical and horizontal extents had been removed. Each composite sample was representative of no more than 200 square feet. Laboratory analysis includes Method SM-4500 for chlorides and Method 8015 for TPH, including MRO, DRO, and GRO. See Figure 5 for Confirmation Sample Map.

Sample Dat 11-19-20	e			NM Approved Laboratory Results							
Sample ID	Depth (BG5)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DBO mg/kg	MRO mg/kg	Total TPH mg/kg	Ci mg/kg			
1.2	1	ND	ND	ND	1350	272	1622	560			
S-15	2	ND	ND	ND	204	53.2	257.2	688			
	3	ND	ND	ND	50.8	ND	50.8	464			
1.00	1	ND	ND	ND	13,2	ND	13.2	320			
5-16	2	ND	ND	ND	ND	ND	ND	272			
	3	ND	ND	ND	70,5	15.8	85.3	176			
2.71	1	ND	ND	ND	ND	ND	ND	48			
5-17	2	ND	ND	ND	ND	ND	ND	32			
- 14 A	3	ND	NDN	ND	ND	ND	ND	32			
	.1	ND	ND	ND	ND	ND	ND	16			
5-18	2	ND	ND	NDN	ND	ND	ND	32			
	3	ND	ND	ND	ND	ND	ND	32			
1	1	1.11	ND	121	4640	814	5575	368			
S-19	2	ND	ND	12	904	151	1067	512			
	3	ND	ND	ND	418	80.9	498.9	544			
in a state of the	1	ND	ND	35.6	5850	1120	7005.6	96			
5-20	2	ND	ND	ND	83.9	18.2	102.1	128			
	3	ND	ND	ND	290	55.9	345.9	176			
5-21	1	ND	ND	ND	123	35.6	158.6	80			
10.01	1	ND	ND	ND	44.4	10.6	55	1620			
5-22	2	ND	ND	ND	22	ND	22	48			
	3	ND	ND	ND	11.1	ND	11.1	32			

11-19-20 Extended Soil Sample Results

ND-Analyte Not Detected

On November 25, 2020, Pima sent an Env. Tech to obtain confirmation sidewall and bottom samples. Samples were obtained and field screened using method S300 for chlorides and using a Tiger Select to measure for VOC. Samples representing the largest areas of the excavation were sent to the lab to back up our field tests. The results of both results are on the following data tables.

NMOCD Table	High Ka		15.29 NMAC				
mple Date		Field Screening Utilizin PID Meter & \$300					
Sample (D	Depth (BGS)	VOC	Chloride				
S-1 B	2	0.8	142				
5-15	2	0.8	284				
5-2 B	2	1.8	284				
S-2 S	2	2.2	284				
5-3 B	2	24	284				
5-35	2	0.9	142				
5-4 B	2	0.4	284				
S-4 S	2	0.Z	142				
5-5 B	2	0.4	284				
5-55	2	4.3	284				
S-5 B	2	0.2	425				
S-5 S	2	0.3	284				
5-7 B	2	0	Ø				
5.75	2	0	D				
5-8.8	2	0					
5-85	2	0	567 284				
		-					
5-9 B	2	0	0				
5-95	2	0	355				
5-10 B	2	0	142				
5-10 5	2	0	0				
5-11 8	2	0.5	284				
5-11 5	2	0.1	425				
5-12 B	2	0	567				
5-12 5	2	0	284				
5-13.8	2	0	567				
5-135	2	0	567				
5-14 B	2	0.1	284				

11-25-20 Confirmation Soil Sample Results

Sample Date 11-25	-20		NM Approved Laboratory Results										
Sample ID	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg					
S-1 W. BOTTOM	2	ND	ND	ND	ND	ND	ND	64					
5-1 W. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	64					
5-5 S. BOTTOM	2	ND	ND	ND	ND	ND	ND	96					
S-5 S. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	80					
S-6 S. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	112					
5-6 5. BOTTOM	2	ND	ND	ND	ND	ND	ND	112					
S-13 E. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	64					
5-13 E. BOTTOM	2	ND	ND	ND	ND	ND	ND	80					
5-12 N. BOTTOM	2	ND	ND	ND	ND	ND	ND	96					
5-12 N. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	64					
S-11 W. BOTTOM	2	ND	ND	ND	ND	ND	ND	80					
5-11 W. SIDEWALL COMP	2	ND	ND	ND	20.9	23.1	44	64					
5-14 5. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	54					
S-14 S. BOTTOM	2	ND	ND	ND	ND	ND	ND	80					
the state of the s	1	ND	ND	ND	ND	ND	ND	112					
5-23	2	ND	ND	ND	ND	ND	ND	112					
the state of the state	3	ND	ND	ND	ND	ND	ND	112					
1	1	ND	ND	ND	ND	ND	ND	800					
5-24	2	ND	ND	ND	ND	ND	ND	112					
	3	ND	ND	ND	ND	ND	ND	96					
	1	ND	ND	ND	ND	ND	ND	272					
5-25	2	ND	ND	ND	ND	ND	ND	80					
	3	ND	ND	ND	ND	ND	ND	112					

ND- Analyte Not Detected

NMO	CD Table	1 Closure	Criteria 19.	15.29 NM	AC (HIGH K	ARST ABEA	30')				
Sample Date 12-10	-20	NM Approved Laboratory Results									
Sample (D	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MBO mg/kg	Total TPH mg/kg	CI mg/kg			
5-6 S. BOTTOM	2	ND	ND	ND	ND	ND	ND	96			
S-6 S. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	80			
S-9 E. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	80			
S-9 E. BOTTOM	2	ND	ND	ND	ND	ND	ND	80			
S-22 N. SIDEWALL	2	ND	ND	ND	ND	ND	ND	96			
S-22 N. BOTTOM	2	ND	ND	ND	ND	ND	ND	112			
S-24 N. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	80			
5-24 N. BOTTOM	2	ND	ND	ND	ND	ND	ND	64			
S-25 E. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	48			
5-25 E. BOTTOM	2	ND	ND	ND	ND	ND	ND	48			
5-26 S. SIDEWALL COMP	3	ND	ND	ND	ND	ND	ND	80			
S-26 S. BOTTOM	3	ND	ND	ND	ND	ND	ND	64			

12-10-20 Confirmation Soil Sample Results

Complete Laboratory Reports are attached in Appendix E.

Upon laboratory results showing all samples had met the required closure criteria, the excavation was backfilled with locally obtained clean like material and contoured to match the surrounding location.

Closure Request

After careful review, Pima requests that these incidents be closed. Devon has complied with the applicable closure requirements outlined in rule 19.15.19.12 NMAC.

Should you have any questions or need additional information, please feel free to contact Chris Jones at 575-964-7740 or chris@pimaoil.com.

Respectfully,

Chris Jones Environmental Professional Pima Environmental Services, LLC

Attachments

Figures:

- 1- Site Map
- 2- ТОРО Мар
- 3- Karst Map
- 4- Location Map
- 5- Confirmation Sample Map

Appendices:

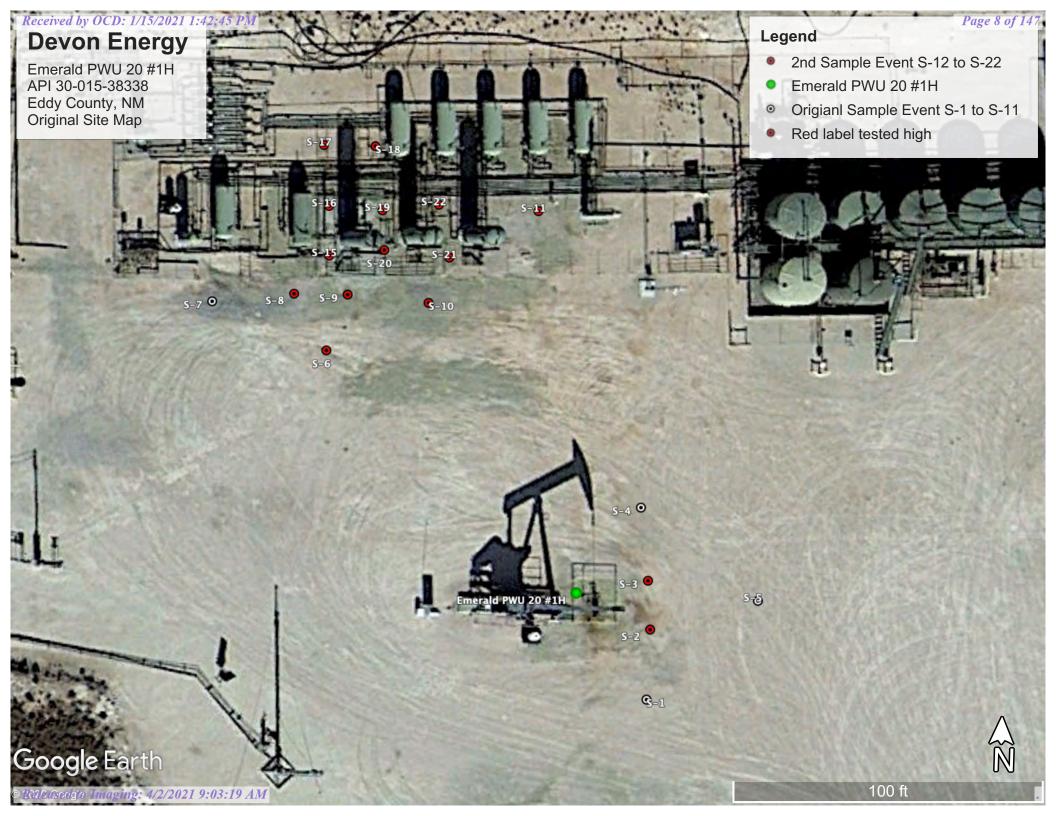
- Appendix A- Referenced Water Surveys
- Appendix B- Soil Survey and FEMA Flood Map
- Appendix C- Initial & Final C-141's
- Appendix D- Photographic Documentation

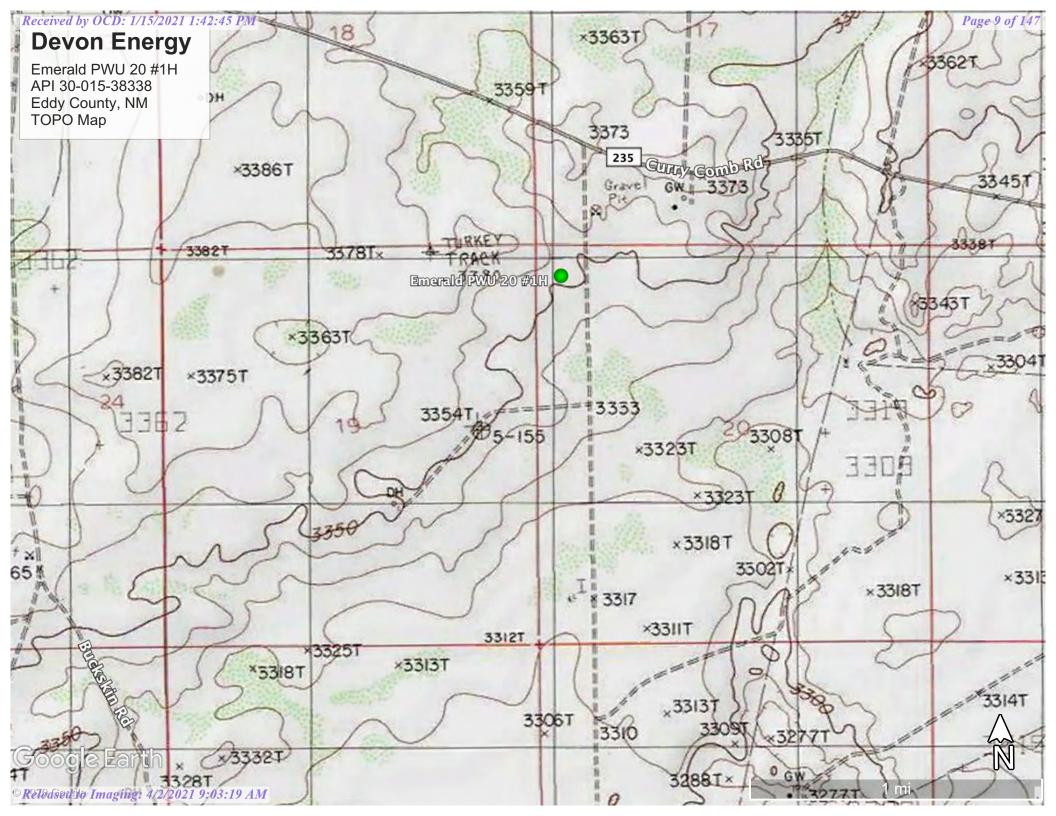
Appendix E- Laboratory Reports



Figures: I-Site Map 2- TOPO Map 3- Karst Map 4- Location Map

4- Location Map5- Confirmation Sample Map





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Emerald PWU 20 #1H API 30-015-38338 Eddy County, NM Karst Map

Emerald PWU 20 #1H 🤜



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High

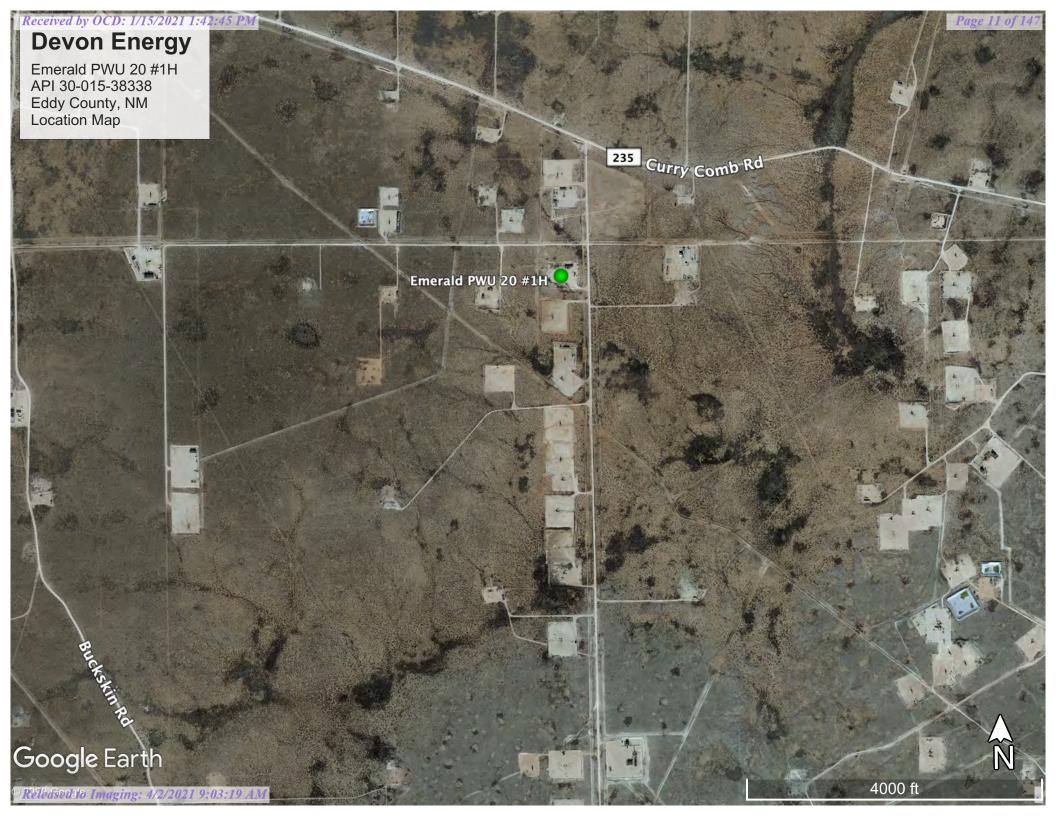
Low

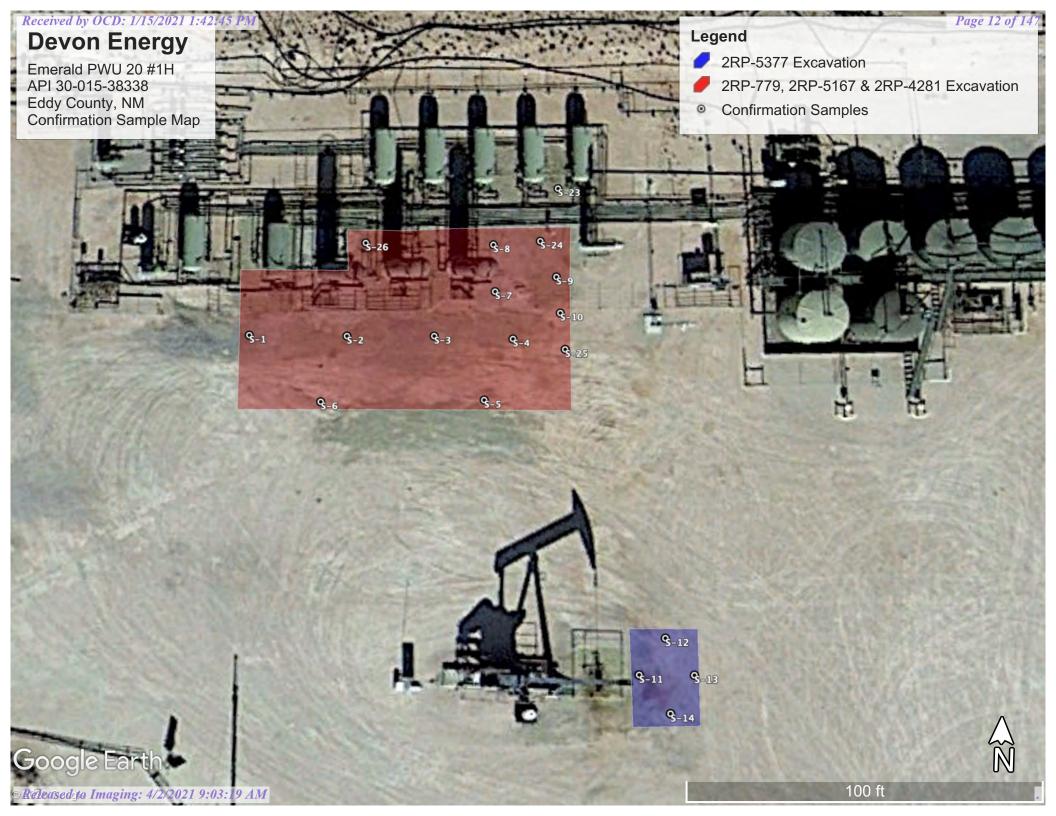
Medium

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Appendix A Water Surveys: OSE USGS



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

(A CLW##### in the POD suffix indicates th POD has been replaced & no longer serves a water right file.)	replaced.	, ned,	n	• •				V 2=NE est to la	3=SW 4=; rgest) (SE) (NAD83 U	JTM in n	neters)	(In t	eet)	
		POD Sub-		QQ											Vater
POD Number	Code	basin	County	64 1	64	Sec	Tws	Rng	X	X	Y	DistanceDep	othWellDep	thWater C	olumn
<u>CP 00646</u>		СР	ED	1 1	4	07	19S	29E	583155	5 3615	551 🌍	2565	199	150	49
											Avera	ge Depth to Wat	er:	150 fe	et
												Minimum De	pth:	150 fe	et
												Maximum De	oth:	150 fe	et
Record Count: 1															
UTMNAD83_Ra	dius_Search_(in	meters)	:												
Easting (X):	583977		North	ning (N	Y):	3613	3121.6	15		Radius:	3000				
The data is furnished by the accuracy, completened										g that the C)SE/ISC n	nake no warrantie		_	_

6/9/20 11:34 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



National Water Information System: Web Interface

USGS Water Resources



- Introducing The Next Generation of USGS Water Data for the Nation
- Full_News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

• 323900104052901

Minimum number of levels = 1

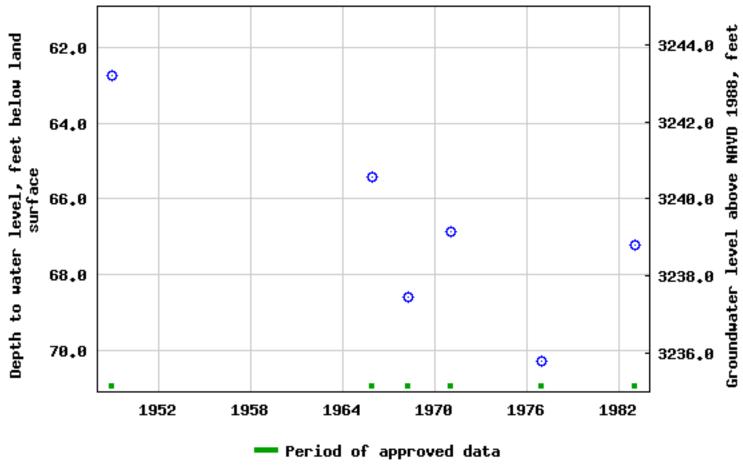
Save file of selected sites to local disk for future upload

USGS 323900104052901 19S.29E.20.24111 RATLSNAKE

Eddy County, New Mexico Hydrologic Unit Code 13060011 Latitude 32°39'00", Longitude 104°05'29" NAD27 Land-surface elevation 3,306 feet above NAVD88 This well is completed in the Rustler Formation (312RSLR) local aquifer.







Breaks in the plot represent a gap of at least one year between field measurements. Download a presentation-quality graph

<u>Questions about sites/data?</u> Feedback on this web site Automated retrievals <u>Help</u>

FOIA Accessibility Plug-Ins Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey **Title: Groundwater for USA: Water Levels** URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team Page Last Modified: 2020-06-16 17:08:47 EDT 0.6 0.54 nadww01



Data Category: Groundwater

Geographic Area: United States

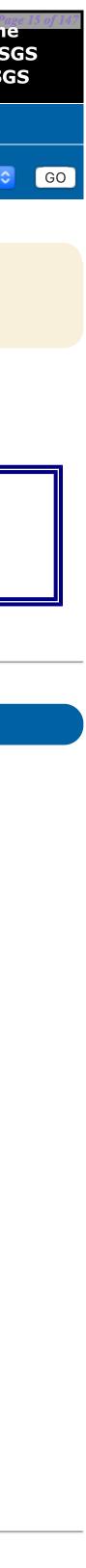
Available data for this site Groundwater: Field measurements 📀 GO

Output formats Table of data Tab-separated_data <u>Graph_of_data</u> Reselect period

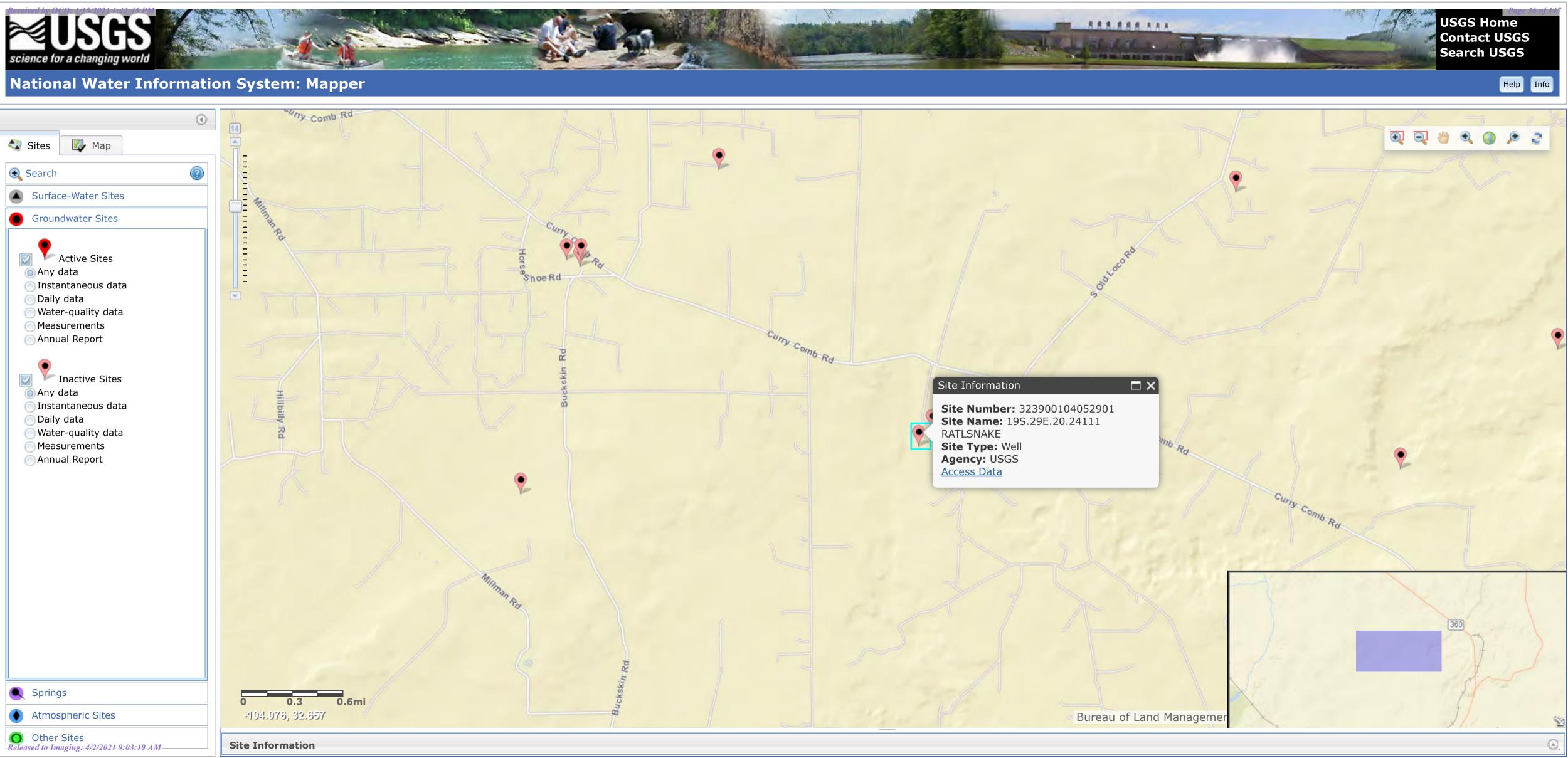
USGS 323900104052901 195,29E,20,24111 RATLSNAKE

<u>Data Tips</u> Explanation of terms Subscribe for system changes <u>News</u>











Appendix B Soil Survey & Geological Data: FEMA Flood Map

Eddy Area, New Mexico

SM—Simona-Bippus complex, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1w5x Elevation: 1,800 to 5,000 feet Mean annual precipitation: 8 to 24 inches Mean annual air temperature: 57 to 70 degrees F Frost-free period: 180 to 230 days Farmland classification: Not prime farmland

Map Unit Composition

Simona and similar soils: 55 percent Bippus and similar soils: 30 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Simona

Setting

Landform: Plains, alluvial fans Landform position (three-dimensional): Rise Down-slope shape: Convex, linear Across-slope shape: Linear Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 19 inches: gravelly fine sandy loam *H2 - 19 to 23 inches:* indurated

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 7 to 20 inches to petrocalcic
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7e Hydrologic Soil Group: D

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Ecological site: Shallow Sandy (R042XC002NM) *Hydric soil rating:* No

Description of Bippus

Setting

Landform: Flood plains, alluvial fans Landform position (three-dimensional): Talf, rise Down-slope shape: Convex, linear Across-slope shape: Linear Parent material: Mixed alluvium

Typical profile

H1 - 0 to 37 inches: silty clay loam *H2 - 37 to 60 inches:* clay loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): 2e Land capability classification (nonirrigated): 3e Hydrologic Soil Group: B Ecological site: Bottomland (R042XC017NM) Hydric soil rating: No

Minor Components

Simona

Percent of map unit: 8 percent Ecological site: Shallow Sandy (R042XC002NM) Hydric soil rating: No

Bippus

Percent of map unit: 7 percent Ecological site: Bottomland (R042XC017NM)



Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico Survey Area Data: Version 15, Sep 15, 2019



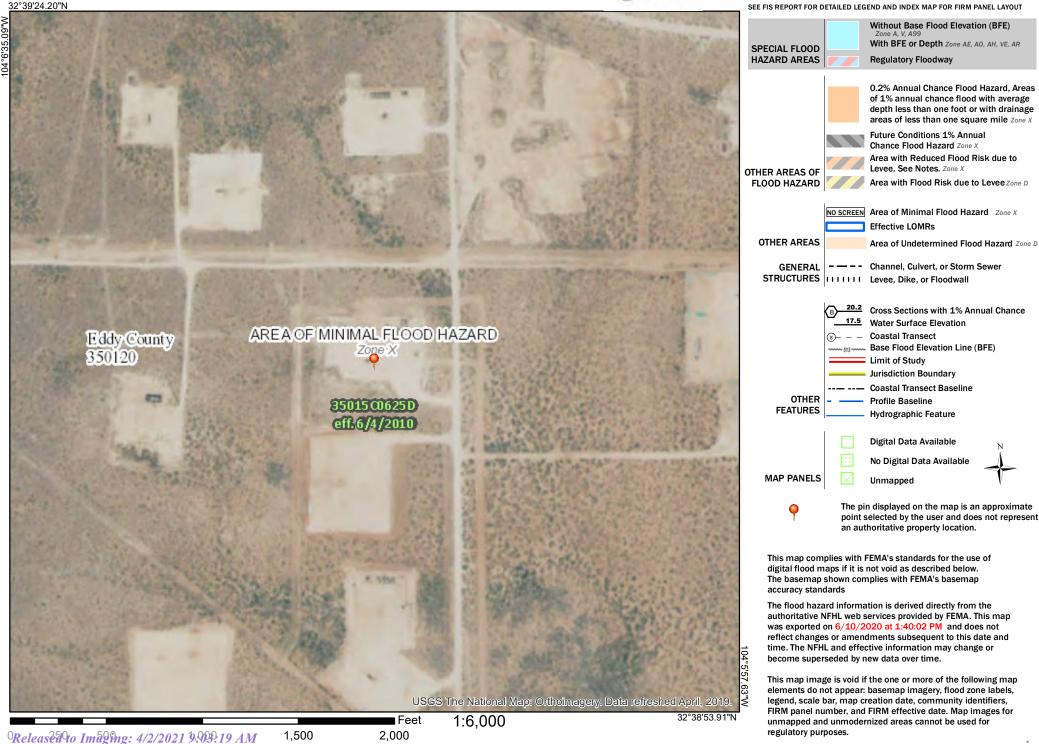
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Legend

-090114

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Appendix C C-141's: Initial Final

						Page 23 of 1	
625 N. French Dr., Hobbs, NM 88240		New Mex				Form C-141	
District II Energy I 301 W. Grand Avenue, Artesia, NM 88210	Minerals	and Natura	l Resources			Revised October 10, 2003	
UUU RIO Brazos Road Aztec NM 8/410		vation Div			Submit 2 Copies to appropriate District Office in accordance		
		i St. Franc e, NM 875				with Rule 116 on back side of form	
	. و بر مورد ده اه ادر دی	Constraint of the second second	The second	otion			
Release Noti				cuon	× X		
MLB /1130.50834 Name of Company Devon Energy 41		OPERAT	by White, Fo	remai		al Report 📋 Final Repor	
Address 6488 Seven Rivers Hwy – P.O. Box			No. 575-513-				
Facility Name Emerald PWU 20 #1H 30-015-3		Facility Typ					
Surface Owner Minera	al Owner		·····,		Lease N		
	CATIO	N OF REI	FASE				
Unit Letter Section Township Range Feet from the		South Line	Feet from the	East/V	West Line	County	
D 20 19S 29E 400		FNL	330	F	WL	Eddy	
Latitude		_ Longitud	le				
. Na	ATURE	OF REL	EASE				
Type of Release		Volume of	Release		Volume F		
Dil & Produced Water			- Oil - 3 bbls lour of Occurrent			- Oil - 2 bbls - PW Hour of Discovery	
An overnight flow back hand fell asleep during	his shift		- 6:22 am			1 - 06-22 am	
esulting in a frac tank to overflow and release	26 bbl						
of oil and produced water on the ground. Was Immediate Notice Given?		If YES, To	Whom?				
Yes No No	t Required		atcher, NMC	DCD			
By Whom?		Date and H				1. 8 5	
Roy White, Foreman			1 - 10:100 and a second		ercourse		
was a watercourse Reached?					cicouise.		
Was a Watercourse Reached?			nume impacting	the wat	/		
🗌 Yes 🖾 No							
Yes ⊠ No f a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* Trac tank to overflow and release 26 bbl of oil rank at 5:00 am before he fell asleep. Tank (50 am and observed the 9' tall tank was overflow contract company. 22 bbl of the oil and produce Describe Area Affected and Cleanup Action Taken.*	and proc 0 bbl cap wing. Cr ed water	rnight flow duced wat pacity) wa rew memb was recov	v back hand f er on the gro s at 6'5" at 5 er who fell a ered resultin	ell asle ound. :00 am asleep g in a 4	Flow bac . Crew i is no lo 4 bbl spi	ck hand had gauged the member woke up at 5:45 nger employed with the ll	
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Released to Imaging: 4/2/2021 9:03:19 AM

eceived by OCD: 1/15/2021 1:42:45 PM						Page 24 of 1		
District I	State of [*]	New Mexi	NM OIL					
525 N. French Dr., Hobbs, NM 88240 istrict II	Energy Minerals a			RTESIA D		Form C-141 Revised August 8, 2011		
11 S. First St., Artesia, NM 88210			J	UN_29	2017	te energiate District Office in		
<u>vistrict III</u> 000 Rio Brazos Road, Aztec, NM 87410	Energy Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Energy Minerals and Natural Resources JUN 2 9 2017 Submit 1 Copy to appropriate District Off accordance with 19.15.29 NM							
<u>bistrict IV</u> 220 S. St. Francis Dr., Santa Fe, NM 87505				RECEI	VED			
Release Notification and Corrective Action								
NAB1718733399	lease monitation	OPERAT			🛛 Initia	al Report 🛛 Final Repo		
Name of Company Devon Energy Produ	ction Company 10137							
Address 6488 Seven Rivers Hwy Artesia			No. 575-703-33					
Facility Name Emerald PWU 20 1H		Facility Typ	e Oil					
Surface Owner State	Mineral Owner	State	<u></u>		API No	30-015-38338		
LOCATION OF RELEASE								
Unit Letter Section Township Range		/South Line	Feet from the	East/W	est Line	County		
D 20 19S 29E	400'	FNL	330'	F	WL	Eddy		
		l	•• •					
L	atitude: 32.6525154		gitude: -104.104	45456				
Г	NATURE			- 1 0	¥7-1	Recovered		
Гуре of Release Dil & Produced Water			Release .5bbls duced water		Obbls reco			
Source of Release		Date and H	Iour of Occurre	F		Hour of Discovery		
Water dump on three-phase separator Was Immediate Notice Given?		June 28, 2017 @ 7:00 PM June 28, 2017 @ 7:00 PM If YES, To Whom? If YES, To Whom?						
	No Not Required	Shelly Tucl						
	Mike Brate							
By Whom? Jesse Armendariz, Asst. Production	Date and H	Iour ker, BLM June 2	8 2017 a	9.38 PM	ſ			
		her, OCD June 2						
Was a Watercourse Reached?		lume Impacting	g the Wa	tercourse				
TYes		N/A	· · · · · · · · · · · · · · · · · · ·					
If a Watercourse was Impacted, Describe F N/A	ully.*							
Describe Cause of Problem and Remedial A	Action Taken.*							
Three-phase separator was being bled down w		ater dump. Th	e wells producin	ng to the b	attery we	re shut in to stop the flow to the		
battery and then the water dump and three-pha	ise separator were isolated.							
Describe Area Affected and Cleanup Action	n Takan *							
Approximately .5bbls oil and 4.5bbls produce		location. All	fluid remained o	n location	n and Obbl	ls were recovered. The affected		
area is approximately 13' x 12' on location.								
I hereby certify that the information given abo								
regulations all operators are required to report public health or the environment. The acceptation of the environment of the acceptation of the second s								
should their operations have failed to adequate	ely investigate and remediate	e contaminati	on that pose a thr	reat to gro	ound wate	r, surface water, human health		
or the environment. In addition, NMOCD acc		oes not reliev	e the operator of	responsil	oility for c	compliance with any other		
federal, state, or local laws and/or regulations.	·			SEDV		DIVISION		
Signature: Sheila Fisher		<u>OIL CON</u>	SER V.	$\overline{\Delta}$	Δ			
		(11 M						
Printed Name: Sheila Fisher		Approved by	Environmental S	Specialist:	M	Dux VV -		
Title: Field Admin Support		Approval Dat	e: 7/3/1	<u>1</u> E	xpiration	Date: N/A		
			• • • •		. 0	~ /		
E-mail Address: Sheila.fisher@dvn.com		Conditions of	Approval:	100	X	Attached		
Date: 6/29/17 Phone: 575	749 1920	YVV			v			
Attach Additional Sheets If Necessary	Please refer	r to the New	viexico Uli	-		2012-4281		
	Conservatio	on Division V				UKTON		
	updated to	111(5) at.						

Released to Imaging: 4/2/2021 9:03:19 AM

http://www.emnrd.state.nm.us/ Thankyou •

Operator/Responsible Party,

The OCD has received the form C-141 you provided on **6/29/17** regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number <u>3RP428</u> has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete <u>division-approved corrective action</u> for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District II office in Artesia on or before 7/29/17. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

• Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

• Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.

• Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold OCD Environmental Bureau Chief 1220 South St. Francis Drive Santa Fe, New Mexico 87505 505-476-3465 jim.griswold@state.nm.us

Weaver, Crystal, EMNRD

From:	Fisher, Sheila <sheila.fisher@dvn.com></sheila.fisher@dvn.com>
Sent:	Thursday, June 29, 2017 3:52 PM
То:	Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD; Amber Groves
	(agroves@slo.state.nm.us)
Cc:	Shoemaker, Mike; Fulks, Brett; Velo, Danny; Armendariz, Jesse; Scott, KY
Subject:	Emerald PWU 20 1H5bbls oil & 4.5bbls pw_6.28.17
Attachments:	Emerald PWU 20 1H5bbls oil & 4.5bbls pw_Intial C-141_6.28.17.doc; Emerald PWU 20
	1H5bbls oil & 4.5bbls pw_GIS Image_6.28.17.pdf

Good Afternoon,

Attached please find the Initial C-141 and GIS Image for the .5bbl oil & 4.5bbls produced water release at the Emerald PWU 20 1H on 6.28.17.

If you have any questions please feel free to contact me.

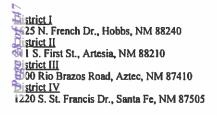
Thank you,

Sheila Fisher Field Admin Support Production B-Schedule

Devon Energy Corporation PO Box 250 Artesia, NM 88211 575 748 1829 Direct



Confidentiality Warning: This message and any attachments are intended only for the use of the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation or other use of all or any portion of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system.



State of New Mexico Energy Minerals and Natural Resources Department

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

Incident ID	NAB1900959144
District RP	2RP-5167
Facility ID	
Application ID	pAB1900958601

Release Notification

Responsible Party

Responsible Party Devon Energy Production	OGRID ₆₁₃₇
Contact Name Amanda T. Davis	Contact Telephone 575-748-3371
Contact email amanda.davis@dvn.com	Incident # (assigned by OCD) NAB1900959144
Contact mailing address 6488 Seven Rivers Hwy	

Location of Release Source

Latitude 32.6525154

Longitude	-104.1045456
(NAD 83 in decimal degrees to 5 decimal places)	

Site Name Emerald PWU 20 1H	Site Type Oil
Date Release Discovered 11/10/2018	API# (if applicable) 3001538338

	Unit Letter	Section	Township	Range	County
1	D	20	19S	29Ë	Eddy

Surface Owner: 🔳 State 🗌 Federal 🗌 Tribal 🔲 Private (Name:

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

Crude Oil	Volume Released (bbls) 20 BBLS	Volume Recovered (bbls) 10 BBLS
Produced Water	Volume Released (bbls) 5 BBLS	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release Gasket failed on the heater treater. Recovered 10 bbls. All stayed on the pad

orm C-141	State of New Mexico	Incident ID	NAB1900959144
2	Oil Conservation Division	District RP	2RP-5167
29 0		Facility ID	
Page		Application ID	pAB1900958601
Pa			
Was this a major	If YES, for what reason(s) does the responsible party	consider this a major release?	
release as defined by 19.15.29.7(A) NMAC?	This release is considered a major release	e because it is over th	e 25 BBLS.
Yes 🗌 No			
If YES, was immediate n	otice given to the OCD? By whom? To whom? When	a and by what means (phone, o	email, etc)?
	Initial Response		

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

The source of the release has been stopped.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

•US

Printed Name: Kendra DeHoyos

Signature:	Kendra	DeHoyos	Digitally signed by Kendra DeHoyee DN on=Kendra DeHoyee, o, ou, email=lendra dehoyee@dvn com, o Date: 2018.11.20 15 57.39 -07007
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0		7
email:	kendra.dehoyos@dvn.com	

samante

Title:	EHS	Asso	ciate

Date: _____

Telephone: 575-748-3371

OCD Only

Received by:

Received by OCB

Date: 1/09/2019

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-141 Revised August 24, 2018

Page 30 of 147

Revised August 24, 2018 Submit to appropriate OCD District office

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Incident ID	NAB1912031438
District RP	2RP-5377
Facility ID	
Application ID	pAB1912031219

Release Notification

Responsible Party

Responsible Party Devon Energy Production	OGRID ₆₁₃₇
Contact Name Amanda T. Davis	Contact Telephone 575-748-3371
Contact email amanda.davis@dvn.com	Incident # (assigned by OCD) NAB1912031438
Contact mailing address 6488 Seven Rivers Hwy	

Location of Release Source

Latitude 32.65251

Longitude _-104.10455

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Emerald PWU 20 #001H	Site Type Oil
Date Release Discovered 11/13/2018	API# (if applicable) 30-015-38338

Unit Letter	Section	Township	Range	County
D	20	19S	29E	Eddy

Surface Owner: 🔲 State 🗌 Federal 🔲 Tribal 🗌 Private (Name: ____

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)				
Crude Oil	Volume Released (bbls) 7 BBLS	Volume Recovered (bbls) 0 BBLS		
Produced Water	Volume Released (bbls)	Volume Recovered (bbls)		
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	Yes No		
Condensate	Volume Released (bbls)	Volume Recovered (bbls)		
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)		
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)		
Cause of Release Oil spraying out from wellhead. Affected area 18'X18'X8" around the well head.				

ceived by OCD: 1/15/202	21 1:42:45 PM State of New Mexico			Page 31 of
			Incident ID	NAB1912031438
e 2	Oil Conservation Division	m	District RP	2RP-5377
			Facility ID	A
			Application II) pAB1912031219
Was this a major release as defined by 19.15.29.7(A) NMAC? Yes 🔳 No	If YES, for what reason(s) does the re	esponsible pa	rty consider this a major relea	se?
If YES, was immediate r	notice given to the OCD? By whom? T	o whom? W	hen and by what means (phon	ne, email, etc)?
	Initia	l Respon	se	
The responsible	party must undertake the following actions imme	diately unless th	ey could create a safety hazard that v	vould result in injury
Released materials hAll free liquids and r	as been secured to protect human health ave been contained via the use of berms ecoverable materials have been remove ad above have <u>not</u> been undertaken, exp intainment	s or dikes, ab d and manag	sorbent pads, or other containing	ment devices.
has begun, please attach	AC the responsible party may commer a narrative of actions to date. If reme nt area (see 19.15.29.11(A)(5)(a) NMA	dial efforts h	ave been successfully comple	eted or if the release occurred
regulations all operators are public health or the environ failed to adequately investig addition, OCD acceptance of and/or regulations.	prmation given above is true and complete to required to report and/or file certain release ment. The acceptance of a C-141 report by gate and remediate contamination that pose a of a C-141 report does not relieve the operat	e notifications the OCD does a threat to grou	and perform corrective actions for not relieve the operator of liabili indwater, surface water, human h illity for compliance with any oth	r releases which may endanger ty should their operations have ealth or the environment. In
Printed Name: Kend		Title	the second	
	DeHoyos Distriktive signed by Kendro DeHoyos Distriktive deHoyos of DeHoyos of the signed electron of the deHoyos of the signed electron of the dehoyos of the dehoyos Dete: 2018;11:21 11:49:08:07:00*	Date		
email. kendra.del	noyos@dvn.com	Telen	hone: 575-748-3371	

OCD Only

Received by:

Date: 4/30/2019

Mala

Intamante

Received by OCD: 1/15/2021 1:42:45 PM Form C-141 State of New Mexico

Oil Conservation Division

	Page 32 of 14
Incident ID	NAB1718733399
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>150</u> (ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🗌 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🗌 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🗌 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🗌 No
Are the lateral extents of the release 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?	🗌 Yes 🗌 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🗌 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🗌 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🗌 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🗌 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🗌 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🗌 No
Did the release impact areas not on an exploration, development, production, or storage site?	🗌 Yes 🗌 No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
Field data
Data table of soil contaminant concentration data
Depth to water determination
Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
Boring or excavation logs
Photographs including date and GIS information
Topographic/Aerial maps

Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Received by OCD	: 1/15/2021 1:42:45 PM State of New Mexico			Page 33 of 147
			Incident ID	NAB1718733399
Page 4	Oil Conservation Division	ervation Division	District RP	
			Facility ID	
			Application ID	
regulations all op public health or th failed to adequate addition, OCD ac and/or regulations	Tom Bynum <i>Tom Bynum</i>	fications and perform co CD does not relieve the at to groundwater, surfa	rrective actions for rele operator of liability sho ce water, human health iance with any other fee Iltant	ases which may endanger ould their operations have or the environment. In
OCD Only Received by:	Cristina Eads	Date: 01/1	5/2021	

Received by OCD: 1/15/2021 1:42:45 PM Form C-141 State of New Mexico

In	cident ID	NAB1718733399
Di	istrict RP	
Fa	cility ID	
A	pplication ID	

Remediation Plan

<u>Remediation Plan Checklist</u> : Each of the following items must be i	ncluded in the plan.
 Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12 Proposed schedule for remediation (note if remediation plan timel 	
Deferral Requests Only: Each of the following items must be confi	rmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around produce deconstruction.	duction equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
Contamination does not cause an imminent risk to human health,	the environment, or groundwater.
I hereby certify that the information given above is true and complete rules and regulations all operators are required to report and/or file cer which may endanger public health or the environment. The acceptance liability should their operations have failed to adequately investigate a surface water, human health or the environment. In addition, OCD ac responsibility for compliance with any other federal, state, or local law	rtain release notifications and perform corrective actions for releases ce of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, ceptance of a C-141 report does not relieve the operator of
Printed Name: Tom Bynum	Title: EHS Consultant
Signature: Tom Bynum	Date: <u>10/21/2020</u>
Signature: <u>Tom Bynum</u> email: tom.bynum@dvn.com Tel	lephone: <u>575-748-2663</u>
OCD Only	
Received by:	Date:
Approved Approved with Attached Conditions of A	pproval Denied Deferral Approved
Signature: D	ate:

Page 6

Incident ID	NAB1718733399
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

<u>Closure Report Attachment Checklist</u> : Each of the following	items must be included in the closure report.	
A scaled site and sampling diagram as described in 19.15.29.	11 NMAC	
Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)		
Laboratory analyses of final sampling (Note: appropriate OD	C District office must be notified 2 days prior to final sampling)	
Description of remediation activities		
and regulations all operators are required to report and/or file certa may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and re human health or the environment. In addition, OCD acceptance of	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in	
Printed Name: Tom Bynum	Title: EHS Consultant	
Signature: <u>Tom Bynum</u> email: tom.bynum@dvn.com	Date:10-21-20	
email: tom.bynum@dvn.com	Telephone: <u>575-748-2663</u>	
OCD Only	04/45/0004	
Received by: Cristina Eads	Date:01/15/2021	
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible /or regulations.	
Closure Approved by:	Date: 04/02/2021	
Printed Name: Cristina Eads	Title: Environmental Specialist	

Received by OCD: 1/15/2021 1:42:45 PM Form C-141 State of New Mexico

Oil Conservation Division

	Page 36 of 14
Incident ID	NAB1912031438
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>150</u> (ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🗌 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🗌 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🗌 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🗌 No
Are the lateral extents of the release 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?	🗌 Yes 🗌 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🗌 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🗌 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🗌 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🗌 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🗌 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🗌 No
Did the release impact areas not on an exploration, development, production, or storage site?	🗌 Yes 🗌 No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
Field data
Data table of soil contaminant concentration data
Depth to water determination
Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
Boring or excavation logs
Photographs including date and GIS information
Topographic/Aerial maps

Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Received by OCD	: 1/15/2021 1:42:45 PM State of New Mexico			Page 37 of 147
			Incident ID	NAB1912031438
Page 4	Oil Conservation Division		District RP	
			Facility ID	
			Application ID	
regulations all op public health or the failed to adequate addition, OCD ac and/or regulations Printed Name:	Tom Bynum <i>Tom Bynum</i>	fications and perform co CD does not relieve the at to groundwater, surfa	rrective actions for rele operator of liability sho ce water, human health iance with any other feo Iltant	eases which may endanger ould their operations have or the environment. In
OCD Only Received by:	Cristina Eads	Date: 01/1	5/2021	

Received by OCD: 1/15/2021 1:42:45 PM Form C-141 State of New Mexico

Incident ID	NAB1912031438
District RP	
Facility ID	
Application ID	

Remediation Plan

<u>Remediation Plan Checklist</u> : Each of the following items must be included	luded in the plan.		
 Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C) Proposed schedule for remediation (note if remediation plan timeline) 			
Deferral Requests Only: Each of the following items must be confirm	ed as part of any request for deferral of remediation.		
Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.			
Extents of contamination must be fully delineated.			
Contamination does not cause an imminent risk to human health, the	environment, or groundwater.		
I hereby certify that the information given above is true and complete to rules and regulations all operators are required to report and/or file certain which may endanger public health or the environment. The acceptance of liability should their operations have failed to adequately investigate and surface water, human health or the environment. In addition, OCD accept responsibility for compliance with any other federal, state, or local laws a	n release notifications and perform corrective actions for releases of a C-141 report by the OCD does not relieve the operator of remediate contamination that pose a threat to groundwater, otance of a C-141 report does not relieve the operator of		
Printed Name: Tom Bynum T	itle: EHS Consultant		
Signature: <u>Tom Bynum</u> D	ate: <u>10/21/2020</u>		
Signature: Tom Bynum D email: tom.bynum@dvn.com Telep	hone: <u>575-748-2663</u>		
OCD Only			
Received by: Da	te:		
Approved Approved with Attached Conditions of Appr	roval Denied Deferral Approved		
Signature: Date	<u>. </u>		

Page 5

Incident ID	NAB1912031438
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

<u>Closure Report Attachment Checklist</u>: Each of the follow	wing items must be included in the closure report.	
A scaled site and sampling diagram as described in 19.15.29.11 NMAC		
Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)		
Laboratory analyses of final sampling (Note: appropriate	e ODC District office must be notified 2 days prior to final sampling)	
Description of remediation activities		
and regulations all operators are required to report and/or file may endanger public health or the environment. The acceptar should their operations have failed to adequately investigate a human health or the environment. In addition, OCD acceptan compliance with any other federal, state, or local laws and/or	omplete to the best of my knowledge and understand that pursuant to OCD rules certain release notifications and perform corrective actions for releases which nee of a C-141 report by the OCD does not relieve the operator of liability and remediate contamination that pose a threat to groundwater, surface water, nee of a C-141 report does not relieve the operator of responsibility for regulations. The responsible party acknowledges they must substantially the conditions that existed prior to the release or their final land use in the OCD when reclamation and re-vegetation are complete.	
Printed Name: Tom Bynum	Title: EHS Consultant	
Signature: <u>Tom Bynum</u> email: tom.bynum@dvn.com	Date:10-21-20	
email: tom.bynum@dvn.com	Telephone: <u>575-748-2663</u>	
OCD Only		
Received by: Cristina Eads	Date: 01/15/2021	
	party of liability should their operations have failed to adequately investigate and irface water, human health, or the environment nor does not relieve the responsible s and/or regulations.	
Closure Approved by:	Date:04/02/2021	
Printed Name: Cristina Eads	Title: Environmental Specialist	
Printed Name: Cristina Eads	Title: Environmental Specialist	

Page 6

Received by OCD: 1/15/2021 1:42:45 PM Form C-141 State of New Mexico

Oil Conservation Division

	Page 40 of 14
Incident ID	NMLB1113050834
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>150</u> (ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🗌 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🗌 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🗌 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🗌 No
Are the lateral extents of the release 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?	🗌 Yes 🗌 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🗌 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🗌 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🗌 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🗌 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🗌 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🗌 No
Did the release impact areas not on an exploration, development, production, or storage site?	🗌 Yes 🗌 No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
Field data
Data table of soil contaminant concentration data
Depth to water determination
Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
Boring or excavation logs
Photographs including date and GIS information
Topographic/Aerial maps

Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Received by OCD.	: 1/15/2021 1:42:45 PM State of New Mexico			Page 41 of 147
			Incident ID	NMLB1113050834
Page 4	Oil Conservation Division		District RP	
			Facility ID	
			Application ID	
regulations all op public health or th failed to adequate addition, OCD ac and/or regulations Printed Name:	Tom Bynum <i>Tom Bynum</i>	fications and perform co CD does not relieve the at to groundwater, surfa	prrective actions for rele operator of liability sho ce water, human health iance with any other feo litant	ases which may endanger ould their operations have or the environment. In
OCD Only Received by:	Cristina Eads	Date: 01/1	5/2021	

Received by OCD: 1/15/2021 1:42:45 PM Form C-141 State of New Mexico

Incident ID	NMLB1113050834
District RP	
Facility ID	
Application ID	

Remediation Plan

<u>Remediation Plan Checklist</u> : Each of the following items must be	e included in the plan.
 Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation point Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.1 Proposed schedule for remediation (note if remediation plan tim 	2(C)(4) NMAC
Deferral Requests Only: Each of the following items must be con	firmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around pr deconstruction.	oduction equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
Contamination does not cause an imminent risk to human health	, the environment, or groundwater.
I hereby certify that the information given above is true and complet rules and regulations all operators are required to report and/or file c which may endanger public health or the environment. The acceptan liability should their operations have failed to adequately investigate surface water, human health or the environment. In addition, OCD a responsibility for compliance with any other federal, state, or local la	ertain release notifications and perform corrective actions for releases nee of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of
Printed Name: Tom Bynum	Title: EHS Consultant
Signature: Tom Bynum	Date: <u>10/21/2020</u>
Signature: <u>Tom Bynum</u> email: tom.bynum@dvn.com T	elephone: <u>575-748-2663</u>
OCD Only	
Received by:	Date:
Approved Approved with Attached Conditions of A	Approval Denied Deferral Approved
Signature:	Date:

Page 5

Oil Conservation Division

Incident ID	NMLB1113050834
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

<u>Closure Report Attachment Checklist</u>: Each of the following it	ems must be included in the closure report.								
A scaled site and sampling diagram as described in 19.15.29.11 NMAC									
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office								
Laboratory analyses of final sampling (Note: appropriate ODC	District office must be notified 2 days prior to final sampling)								
Description of remediation activities									
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of	nediate contamination that pose a threat to groundwater, surface water, a C-141 report does not relieve the operator of responsibility for tions. The responsible party acknowledges they must substantially inditions that existed prior to the release or their final land use in								
Printed Name: Tom Bynum	EHS Consultant								
Signature: <u>Tom Bynum</u>	Date: <u>10-21-20</u>								
Signature: <u>Tom Bynum</u> email: tom.bynum@dvn.com To	elephone: <u>575-748-2663</u>								
OCD Only									
Received by: Cristina Eads	Date:01/15/2021								
	of liability should their operations have failed to adequately investigate and vater, human health, or the environment nor does not relieve the responsible or regulations.								
Closure Approved by: Juntan e.S.	Date: 04/02/2021								
Printed Name: Cristina Eads	Title: Environmental Specialist								



Appendix D: Photographic Documentation

Excavation Photos

Tank Battery Area

















In Front of Wellhead for 2RP-5377

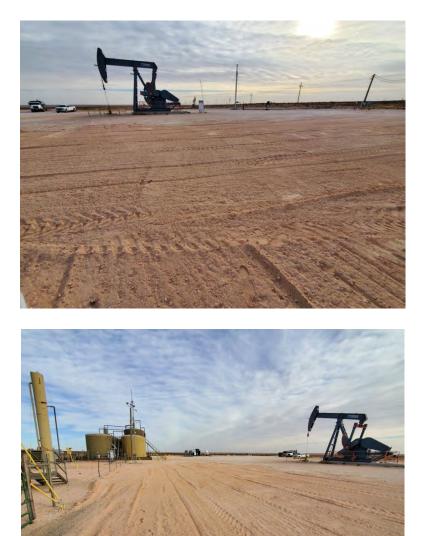
Completed & Backfilled













Appendix E: Laboratory Results



July 16, 2020

Chris Jones Pima Environmental Services LLC 1601 N. Turner Ste 500 Hobbs, NM 88240 TEL: (575) 631-6977 FAX:

RE: Emerald PWU 20 1H

OrderNo.: 2007408

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107

Website: clients.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

Dear Chris Jones:

Hall Environmental Analysis Laboratory received 18 sample(s) on 7/9/2020 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 #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Surr: Toluene-d8

Analytical Report Lab Order 2007408

Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC Client Sample ID: S1, 0"-6" **Project:** Emerald PWU 20 1H Collection Date: 7/7/2020 3:30:00 PM Lab ID: 2007408-001 Matrix: SOIL Received Date: 7/9/2020 9:18:00 AM Result **RL** Oual Units **DF** Date Analyzed Batch Analyses Analyst: CJS **EPA METHOD 300.0: ANIONS** Chloride 360 60 mg/Kg 20 7/11/2020 4:41:31 PM 53651 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 4.6 mg/Kg 1 7/11/2020 9:45:27 PM 53614 Surr: BFB 7/11/2020 9:45:27 PM 53614 93.5 70-130 %Rec 1 EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: BRM **Diesel Range Organics (DRO)** ND 9.9 mg/Kg 1 7/11/2020 10:07:05 AM 53629 Motor Oil Range Organics (MRO) ND 7/11/2020 10:07:05 AM 53629 50 mg/Kg 1 Surr: DNOP 97.5 55.1-146 %Rec 7/11/2020 10:07:05 AM 53629 1 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF ND 7/11/2020 9:45:27 PM Benzene 0.023 mg/Kg 53614 1 Toluene ND 0.046 mg/Kg 1 7/11/2020 9:45:27 PM 53614 Ethylbenzene ND 0.046 mg/Kg 1 7/11/2020 9:45:27 PM 53614 Xylenes, Total ND mg/Kg 7/11/2020 9:45:27 PM 53614 0.092 1 Surr: 1,2-Dichloroethane-d4 104 70-130 %Rec 1 7/11/2020 9:45:27 PM 53614 Surr: 4-Bromofluorobenzene 94.6 70-130 %Rec 1 7/11/2020 9:45:27 PM 53614 7/11/2020 9:45:27 PM Surr: Dibromofluoromethane 112 70-130 %Rec 1 53614

101

70-130

%Rec

1

7/11/2020 9:45:27 PM

53614

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 23

Project:

Analytical Report
Lab Order 2007408

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Emerald PWU 20 1H

Lab Order 2007408 Date Reported: 7/16/2020

Client Sample ID: S1, 1' Collection Date: 7/7/2020 3:35:00 PM Received Date: 7/9/2020 9:18:00 AM

Lab ID: 2007408-002	Matrix: SOIL		Received Date	e: 7/9	9/2020 9:18:00 AM	
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CJS
Chloride	160	60	mg/Kg	20	7/11/2020 4:53:56 PM	53651
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	7/11/2020 10:42:56 PM	53614
Surr: BFB	94.9	70-130	%Rec	1	7/11/2020 10:42:56 PM	53614
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	7/11/2020 11:20:31 AM	53629
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	7/11/2020 11:20:31 AM	53629
Surr: DNOP	56.7	55.1-146	%Rec	1	7/11/2020 11:20:31 AM	53629
EPA METHOD 8260B: VOLATILES S	SHORT LIST				Analyst:	DJF
Benzene	ND	0.024	mg/Kg	1	7/11/2020 10:42:56 PM	53614
Toluene	ND	0.048	mg/Kg	1	7/11/2020 10:42:56 PM	53614
Ethylbenzene	ND	0.048	mg/Kg	1	7/11/2020 10:42:56 PM	53614
Xylenes, Total	ND	0.097	mg/Kg	1	7/11/2020 10:42:56 PM	53614
Surr: 1,2-Dichloroethane-d4	109	70-130	%Rec	1	7/11/2020 10:42:56 PM	53614
Surr: 4-Bromofluorobenzene	96.4	70-130	%Rec	1	7/11/2020 10:42:56 PM	53614
Surr: Dibromofluoromethane	115	70-130	%Rec	1	7/11/2020 10:42:56 PM	53614
Surr: Toluene-d8	104	70-130	%Rec	1	7/11/2020 10:42:56 PM	53614

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Analytical Report

Hall Environmental Analysis Laboratory, Inc.

Lab Order 2007408

Date Reported: 7/16/2020

	U /					F	
CLIENT: Pima Environmental Services Project: Emerald PWU 20 1H Lab ID: 2007408-003	SLLC Matrix: SOIL		Collect		e:7/7	, 0"-6" 7/2020 3:40:00 PM 0/2020 9:18:00 AM	
Analyses	Result	RL		Units		Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: ЈМТ
Chloride	3800	150		mg/Kg	50	7/13/2020 3:54:10 PM	53651
EPA METHOD 8015D MOD: GASOLIN	E RANGE			0 0		Analyst	DJF
Gasoline Range Organics (GRO)	ND	23	D	mg/Kg	5	7/12/2020 2:04:49 AM	53614
Surr: BFB	93.1	70-130	D	%Rec	5	7/12/2020 2:04:49 AM	53614
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS					Analyst	BRM
Diesel Range Organics (DRO)	11000	490		mg/Kg	50	7/11/2020 11:45:11 AM	53629
Motor Oil Range Organics (MRO)	8300	2500		mg/Kg	50	7/11/2020 11:45:11 AM	53629
Surr: DNOP	0	55.1-146	S	%Rec	50	7/11/2020 11:45:11 AM	53629
EPA METHOD 8260B: VOLATILES SH	IORT LIST					Analyst	: DJF
Benzene	ND	0.12	D	mg/Kg	5	7/12/2020 2:04:49 AM	53614
Toluene	ND	0.23	D	mg/Kg	5	7/12/2020 2:04:49 AM	53614
Ethylbenzene	ND	0.23	D	mg/Kg	5	7/12/2020 2:04:49 AM	53614
Xylenes, Total	ND	0.46	D	mg/Kg	5	7/12/2020 2:04:49 AM	53614
Surr: 1,2-Dichloroethane-d4	105	70-130	D	%Rec	5	7/12/2020 2:04:49 AM	53614
Surr: 4-Bromofluorobenzene	93.7	70-130	D	%Rec	5	7/12/2020 2:04:49 AM	53614
	55.7	10-100		/01100	0	1, 12/2020 2.04.43 AM	

109

102

70-130

70-130

D

D

%Rec 5

%Rec 5

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits Sample pH Not In Range
- Р RL Reporting Limit
- Page 3 of 23

.

53614

53614

7/12/2020 2:04:49 AM

7/12/2020 2:04:49 AM

Surr: Dibromofluoromethane

Surr: Toluene-d8

Analytical Report

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab Order 2007408

Date Reported: 7/16/2020

Client Sample ID: S3, 0"-6" Collection Date: 7/7/2020 3:45:00 PM **Dessived Deter** 7/0/2020 0.18:00 AM

Lab ID: 2007408-004	Matrix: SOIL		Recei	ved Dat	e: 7/9	/2020 9:18:00 AM	
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	ЈМТ
Chloride	17000	600		mg/Kg	200	7/13/2020 4:06:35 PM	53651
EPA METHOD 8015D MOD: GASOLINE	RANGE					Analyst:	DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 2:33:19 AM	53614
Surr: BFB	97.3	70-130		%Rec	1	7/12/2020 2:33:19 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst:	BRM
Diesel Range Organics (DRO)	11	9.8		mg/Kg	1	7/11/2020 12:09:59 PM	53629
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/11/2020 12:09:59 PM	53629
Surr: DNOP	49.1	55.1-146	S	%Rec	1	7/11/2020 12:09:59 PM	53629
EPA METHOD 8260B: VOLATILES SHO	RT LIST					Analyst:	DJF
Benzene	ND	0.024		mg/Kg	1	7/12/2020 2:33:19 AM	53614
Toluene	ND	0.049		mg/Kg	1	7/12/2020 2:33:19 AM	53614
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 2:33:19 AM	53614
Xylenes, Total	ND	0.098		mg/Kg	1	7/12/2020 2:33:19 AM	53614
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	7/12/2020 2:33:19 AM	53614
Surr: 4-Bromofluorobenzene	97.3	70-130		%Rec	1	7/12/2020 2:33:19 AM	53614
Surr: Dibromofluoromethane	104	70-130		%Rec	1	7/12/2020 2:33:19 AM	53614
Surr: Toluene-d8	103	70-130		%Rec	1	7/12/2020 2:33:19 AM	53614

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Analytical Report Lab Order 2007408

Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC Client Sample ID: S4, 0"-6" **Project:** Emerald PWU 20 1H Collection Date: 7/7/2020 3:50:00 PM Lab ID: 2007408-005 Matrix: SOIL Received Date: 7/9/2020 9:18:00 AM Result **RL** Oual Units **DF** Date Analyzed Batch Analyses Analyst: CJS **EPA METHOD 300.0: ANIONS** Chloride 570 60 mg/Kg 20 7/11/2020 5:31:09 PM 53651 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 7/12/2020 3:01:50 AM 53614 Surr: BFB 96.1 70-130 %Rec 1 7/12/2020 3:01:50 AM 53614 EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: BRM **Diesel Range Organics (DRO)** ND 9.6 mg/Kg 1 7/11/2020 12:34:49 PM 53629 Motor Oil Range Organics (MRO) ND mg/Kg 7/11/2020 12:34:49 PM 53629 48 1 Surr: DNOP 33.0 55.1-146 S %Rec 7/11/2020 12:34:49 PM 53629 1 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF ND 7/12/2020 3:01:50 AM Benzene 0.024 mg/Kg 53614 1 Toluene ND 0.048 mg/Kg 1 7/12/2020 3:01:50 AM 53614 Ethylbenzene ND 0.048 mg/Kg 1 7/12/2020 3:01:50 AM 53614 Xylenes, Total ND 0.096 mg/Kg 7/12/2020 3:01:50 AM 53614 1 Surr: 1,2-Dichloroethane-d4 113 70-130 %Rec 1 7/12/2020 3:01:50 AM 53614 Surr: 4-Bromofluorobenzene 96.5 70-130 %Rec 1 7/12/2020 3:01:50 AM 53614 7/12/2020 3:01:50 AM Surr: Dibromofluoromethane 112 70-130 %Rec 1 53614 Surr: Toluene-d8 102 70-130 %Rec 1 7/12/2020 3:01:50 AM 53614

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- POL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits Р Sample pH Not In Range
- RL

Reporting Limit

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Project:

Analytical Report

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Emerald PWU 20 1H

Lab Order **2007408** Date Reported: **7/16/2020**

Client Sample ID: S4, 1' Collection Date: 7/7/2020 3:55:00 PM Beceived Date: 7/9/2020 9:18:00 AM

Lab ID: 2007408-006	Matrix: SOIL		Recei	ved Dat	e: 7/9	9/2020 9:18:00 AM	
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	CJS
Chloride	210	60		mg/Kg	20	7/11/2020 5:43:33 PM	53651
EPA METHOD 8015D MOD: GASOLIN	E RANGE					Analyst	DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/12/2020 3:30:36 AM	53614
Surr: BFB	96.4	70-130		%Rec	1	7/12/2020 3:30:36 AM	53614
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS					Analyst	BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/11/2020 12:59:50 PM	53629
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2020 12:59:50 PM	53629
Surr: DNOP	44.3	55.1-146	S	%Rec	1	7/11/2020 12:59:50 PM	53629
EPA METHOD 8260B: VOLATILES SH	ORT LIST					Analyst	DJF
Benzene	ND	0.025		mg/Kg	1	7/12/2020 3:30:36 AM	53614
Toluene	ND	0.050		mg/Kg	1	7/12/2020 3:30:36 AM	53614
Ethylbenzene	ND	0.050		mg/Kg	1	7/12/2020 3:30:36 AM	53614
Xylenes, Total	ND	0.10		mg/Kg	1	7/12/2020 3:30:36 AM	53614
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	7/12/2020 3:30:36 AM	53614
Surr: 4-Bromofluorobenzene	95.1	70-130		%Rec	1	7/12/2020 3:30:36 AM	53614
Surr: Dibromofluoromethane	108	70-130		%Rec	1	7/12/2020 3:30:36 AM	53614
Surr: Toluene-d8	104	70-130		%Rec	1	7/12/2020 3:30:36 AM	53614

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Surr: 4-Bromofluorobenzene

Surr: Dibromofluoromethane

Surr: Toluene-d8

Analytical Report Lab Order 2007408

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/16/2020 **CLIENT:** Pima Environmental Services LLC Client Sample ID: S5, 0"-6" **Project:** Emerald PWU 20 1H Collection Date: 7/7/2020 4:00:00 PM Lab ID: 2007408-007 Matrix: SOIL Received Date: 7/9/2020 9:18:00 AM Result **RL** Oual Units **DF** Date Analyzed Batch Analyses **EPA METHOD 300.0: ANIONS** Analyst: CJS Chloride ND 60 mg/Kg 20 7/11/2020 5:55:57 PM 53651 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 7/12/2020 3:59:11 AM 53614 Surr: BFB 94.2 70-130 %Rec 1 7/12/2020 3:59:11 AM 53614 EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: BRM **Diesel Range Organics (DRO)** ND 9.2 mg/Kg 1 7/11/2020 1:24:53 PM 53629 Motor Oil Range Organics (MRO) ND mg/Kg 7/11/2020 1:24:53 PM 53629 46 1 Surr: DNOP 29.7 55.1-146 S %Rec 7/11/2020 1:24:53 PM 53629 1 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF ND 7/12/2020 3:59:11 AM Benzene 0.024 mg/Kg 53614 1 Toluene ND 0.048 mg/Kg 1 7/12/2020 3:59:11 AM 53614 Ethylbenzene ND 0.048 mg/Kg 1 7/12/2020 3:59:11 AM 53614 Xylenes, Total ND 0.095 mg/Kg 7/12/2020 3:59:11 AM 53614 1 Surr: 1,2-Dichloroethane-d4 103 70-130 %Rec 1 7/12/2020 3:59:11 AM 53614

92.0

109

102

70-130

70-130

70-130

%Rec

%Rec

%Rec

1

1

1

7/12/2020 3:59:11 AM

7/12/2020 3:59:11 AM

7/12/2020 3:59:11 AM

53614

53614

53614

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- POL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits Р
- Sample pH Not In Range
- RL Reporting Limit

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Surr: Toluene-d8

Analytical Report

Hall Environmental Analysis Laboratory, Inc.

Lab Order **2007408** Date Reported: **7/16/2020**

CLIENT	Pima Environmental Service	es LLC	Cl	ient S	ample II	D: S5	, 1'	
Project:	Emerald PWU 20 1H		(Collec	tion Dat	e: 7/7	7/2020 4:05:00 PM	
Lab ID:	2007408-008	Matrix: SOIL		Rece	ived Dat	e: 7/9	9/2020 9:18:00 AM	
Analyses	5	Result	RL	Qua	l Units	DF	Date Analyzed	Batch
EPA ME	THOD 300.0: ANIONS						Analyst	: CJS
Chloride	9	64	60		mg/Kg	20	7/11/2020 6:08:22 PM	53651
EPA ME	THOD 8015D MOD: GASOLI	NE RANGE					Analyst	DJF
Gasolin	e Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 4:27:38 AM	53614
Surr:	BFB	96.4	70-130		%Rec	1	7/12/2020 4:27:38 AM	53614
EPA ME	THOD 8015M/D: DIESEL RA	NGE ORGANICS					Analyst	BRM
Diesel F	Range Organics (DRO)	ND	10		mg/Kg	1	7/11/2020 1:49:46 PM	53629
Motor O	il Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2020 1:49:46 PM	53629
Surr:	DNOP	47.2	55.1-146	S	%Rec	1	7/11/2020 1:49:46 PM	53629
EPA ME	THOD 8260B: VOLATILES S	HORT LIST					Analyst	DJF
Benzen	e	ND	0.025		mg/Kg	1	7/12/2020 4:27:38 AM	53614
Toluene	•	ND	0.049		mg/Kg	1	7/12/2020 4:27:38 AM	53614
Ethylber	nzene	ND	0.049		mg/Kg	1	7/12/2020 4:27:38 AM	53614
Xylenes	, Total	ND	0.099		mg/Kg	1	7/12/2020 4:27:38 AM	53614
Surr:	1,2-Dichloroethane-d4	108	70-130		%Rec	1	7/12/2020 4:27:38 AM	53614
Surr:	4-Bromofluorobenzene	93.1	70-130		%Rec	1	7/12/2020 4:27:38 AM	53614
Surr:	Dibromofluoromethane	110	70-130		%Rec	1	7/12/2020 4:27:38 AM	53614

105

70-130

%Rec

1

7/12/2020 4:27:38 AM 53614

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project:

Analytical Report Lab Order 2007408

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Emerald PWU 20 1H

Date Reported: 7/16/2020

Client Sample ID: S6, 0"-6" Collection Date: 7/7/2020 4:10:00 PM Baseived Date: 7/0/2020 0:18:00 AM

Lab ID: 2007408-009	Matrix: SOIL		Recei	ved Dat	e: 7/9	9/2020 9:18:00 AM	
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	CJS
Chloride	1200	60		mg/Kg	20	7/11/2020 6:45:34 PM	53651
EPA METHOD 8015D MOD: GASOLINE	RANGE					Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 4:56:06 AM	53614
Surr: BFB	94.2	70-130		%Rec	1	7/12/2020 4:56:06 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst	BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	7/11/2020 2:14:39 PM	53629
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/11/2020 2:14:39 PM	53629
Surr: DNOP	30.9	55.1-146	S	%Rec	1	7/11/2020 2:14:39 PM	53629
EPA METHOD 8260B: VOLATILES SHOP	RT LIST					Analyst	DJF
Benzene	ND	0.025		mg/Kg	1	7/12/2020 4:56:06 AM	53614
Toluene	ND	0.049		mg/Kg	1	7/12/2020 4:56:06 AM	53614
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 4:56:06 AM	53614
Xylenes, Total	ND	0.098		mg/Kg	1	7/12/2020 4:56:06 AM	53614
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	7/12/2020 4:56:06 AM	53614
Surr: 4-Bromofluorobenzene	94.8	70-130		%Rec	1	7/12/2020 4:56:06 AM	53614
Surr: Dibromofluoromethane	104	70-130		%Rec	1	7/12/2020 4:56:06 AM	53614
Surr: Toluene-d8	102	70-130		%Rec	1	7/12/2020 4:56:06 AM	53614

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range

RL Reporting Limit

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Analytical Report Lab Order 2007408

Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC Client Sample ID: S7, 0"-6" **Project:** Emerald PWU 20 1H Collection Date: 7/7/2020 4:15:00 PM Lab ID: 2007408-010 Matrix: SOIL Received Date: 7/9/2020 9:18:00 AM Result **RL** Oual Units **DF** Date Analyzed Batch Analyses **EPA METHOD 300.0: ANIONS** Analyst: CJS Chloride ND 60 mg/Kg 20 7/11/2020 6:57:58 PM 53651 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 4.7 mg/Kg 1 7/12/2020 5:25:03 AM 53614 Surr: BFB 92.3 70-130 %Rec 1 7/12/2020 5:25:03 AM 53614 EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: BRM **Diesel Range Organics (DRO)** ND 9.6 mg/Kg 1 7/11/2020 2:39:45 PM 53629 Motor Oil Range Organics (MRO) ND mg/Kg 7/11/2020 2:39:45 PM 53629 48 1 Surr: DNOP 55.1-146 S %Rec 7/11/2020 2:39:45 PM 53629 44.4 1 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF ND 7/12/2020 5:25:03 AM Benzene 0.024 mg/Kg 53614 1 Toluene ND 0.047 mg/Kg 1 7/12/2020 5:25:03 AM 53614 Ethylbenzene ND 0.047 mg/Kg 1 7/12/2020 5:25:03 AM 53614 Xylenes, Total ND 0.095 mg/Kg 7/12/2020 5:25:03 AM 53614 1 Surr: 1,2-Dichloroethane-d4 104 70-130 %Rec 1 7/12/2020 5:25:03 AM 53614 Surr: 4-Bromofluorobenzene 92.3 70-130 %Rec 1 7/12/2020 5:25:03 AM 53614 7/12/2020 5:25:03 AM Surr: Dibromofluoromethane 115 70-130 %Rec 1 53614 Surr: Toluene-d8 99.0 70-130 %Rec 1 7/12/2020 5:25:03 AM 53614

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limitsP Sample pH Not In Range
- RL Reporting Limit

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Batch

CJS

53651

Analytical Report Lab Order 2007408

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/16/2020

CLIENT:	Pima Environmental Service	s LLC	Clie	nt Sample II	D: S7	, 1'		
Project:	Emerald PWU 20 1H	Collection Date: 7/7/2020 4:20:00 PM						
Lab ID:	2007408-011	Matrix: SOIL Received Date: 7/9/2020 9:18:00 A						
Analyses		Result	RL (Qual Units	DF	Date Analyzed]	
EPA MET	THOD 300.0: ANIONS					Ana	lyst:	
Chloride		ND	60	mg/Kg	20	7/11/2020 7:10:22 F	РΜ	
EPA MET	THOD 8015D MOD: GASOLIN	IE RANGE				Ana	lyst:	
Gasoline	Range Organics (GRO)	ND	4.9	ma/Ka	1	7/12/2020 5:53:47	١M	

EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst:	DJF
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	7/12/2020 5:53:47 AM	53614
Surr: BFB	94.8	70-130	%Rec	1	7/12/2020 5:53:47 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst:	BRM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	7/11/2020 3:04:50 PM	53629
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	7/11/2020 3:04:50 PM	53629
Surr: DNOP	71.9	55.1-146	%Rec	1	7/11/2020 3:04:50 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	DJF
Benzene	ND	0.025	mg/Kg	1	7/12/2020 5:53:47 AM	53614
Toluene	ND	0.049	mg/Kg	1	7/12/2020 5:53:47 AM	53614
Ethylbenzene	ND	0.049	mg/Kg	1	7/12/2020 5:53:47 AM	53614
Xylenes, Total	ND	0.099	mg/Kg	1	7/12/2020 5:53:47 AM	53614
Surr: 1,2-Dichloroethane-d4	108	70-130	%Rec	1	7/12/2020 5:53:47 AM	53614
Surr: 4-Bromofluorobenzene	98.0	70-130	%Rec	1	7/12/2020 5:53:47 AM	53614
Surr: Dibromofluoromethane	114	70-130	%Rec	1	7/12/2020 5:53:47 AM	53614
Surr: Toluene-d8	101	70-130	%Rec	1	7/12/2020 5:53:47 AM	53614

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Project: Lab ID:

Analytical Report

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC Emerald PWU 20 1H

2007408-012

Lab Order 2007408

Date Reported: 7/16/2020

Client Sample ID: S8, 0"-6"
Collection Date: 7/7/2020 4:25:00 PM
Received Date: 7/9/2020 9:18:00 AM

	III JOIL	Accelved Date: 119/2020 9:10:00 144					
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch	
EPA METHOD 300.0: ANIONS					Analyst	: CJS	
Chloride	2300	60	mg/Kg	20	7/11/2020 7:22:47 PM	53651	
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	DJF	
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	7/12/2020 6:22:15 AM	53614	
Surr: BFB	95.8	70-130	%Rec	1	7/12/2020 6:22:15 AM	53614	
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM	
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	7/11/2020 3:54:54 PM	53629	
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	7/11/2020 3:54:54 PM	53629	
Surr: DNOP	57.8	55.1-146	%Rec	1	7/11/2020 3:54:54 PM	53629	
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	DJF	
Benzene	ND	0.024	mg/Kg	1	7/12/2020 6:22:15 AM	53614	
Toluene	ND	0.048	mg/Kg	1	7/12/2020 6:22:15 AM	53614	
Ethylbenzene	ND	0.048	mg/Kg	1	7/12/2020 6:22:15 AM	53614	
Xylenes, Total	ND	0.096	mg/Kg	1	7/12/2020 6:22:15 AM	53614	
Surr: 1,2-Dichloroethane-d4	108	70-130	%Rec	1	7/12/2020 6:22:15 AM	53614	
Surr: 4-Bromofluorobenzene	93.9	70-130	%Rec	1	7/12/2020 6:22:15 AM	53614	
Surr: Dibromofluoromethane	105	70-130	%Rec	1	7/12/2020 6:22:15 AM	53614	
Surr: Toluene-d8	106	70-130	%Rec	1	7/12/2020 6:22:15 AM	53614	

Matrix: SOIL

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Analytical Report Lab Order 2007408

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Date Reported: 7/16/2020 Client Sample ID: S8, 1' Collection Date: 7/7/2020 4:30:00 PM

Lab ID: 2007408-013	Matrix: SOIL]	Received Date	e:7/9	9/2020 9:18:00 AM	
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CJS
Chloride	200	61	mg/Kg	20	7/11/2020 7:35:12 PM	53651
EPA METHOD 8015D MOD: GASOLINE F	RANGE				Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	7/12/2020 6:50:45 AM	53614
Surr: BFB	95.3	70-130	%Rec	1	7/12/2020 6:50:45 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	7/11/2020 4:19:36 PM	53629
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	7/11/2020 4:19:36 PM	53629
Surr: DNOP	86.4	55.1-146	%Rec	1	7/11/2020 4:19:36 PM	53629
EPA METHOD 8260B: VOLATILES SHOP	RT LIST				Analyst	DJF
Benzene	ND	0.025	mg/Kg	1	7/12/2020 6:50:45 AM	53614
Toluene	ND	0.049	mg/Kg	1	7/12/2020 6:50:45 AM	53614
Ethylbenzene	ND	0.049	mg/Kg	1	7/12/2020 6:50:45 AM	53614
Xylenes, Total	ND	0.098	mg/Kg	1	7/12/2020 6:50:45 AM	53614
Surr: 1,2-Dichloroethane-d4	105	70-130	%Rec	1	7/12/2020 6:50:45 AM	53614
Surr: 4-Bromofluorobenzene	93.1	70-130	%Rec	1	7/12/2020 6:50:45 AM	53614
Surr: Dibromofluoromethane	106	70-130	%Rec	1	7/12/2020 6:50:45 AM	53614
Surr: Toluene-d8	104	70-130	%Rec	1	7/12/2020 6:50:45 AM	53614

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Analytical Report

Hall Environmental Anal	ysis Laboratory, Inc.
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Lab Order 2007408

Date Reported: 7/16/2020

	THOD 300.0: ANIONS				st: JMT
Analyses	5	Result	RL Qual Units	DF Date Analyzed	Batch
Lab ID:	2007408-014	Matrix: SOIL	Received Dat	e: 7/9/2020 9:18:00 AM	
Project:	Emerald PWU 20 1H		Collection Dat	e: 7/7/2020 4:35:00 PM	
CLIENT :	: Pima Environmental Service	s LLC	Client Sample I	D: S9, 0"-6"	

			-			•	
EPA METHOD 300.0: ANIONS						Analyst	: ЈМТ
Chloride	4100	150		mg/Kg	50	7/13/2020 4:18:59 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst	DJF
Gasoline Range Organics (GRO)	ND	25	D	mg/Kg	5	7/12/2020 7:19:14 AM	53614
Surr: BFB	96.4	70-130	D	%Rec	5	7/12/2020 7:19:14 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS					Analyst	BRM
Diesel Range Organics (DRO)	20000	490		mg/Kg	50	7/11/2020 4:44:23 PM	53629
Motor Oil Range Organics (MRO)	12000	2500		mg/Kg	50	7/11/2020 4:44:23 PM	53629
Surr: DNOP	0	55.1-146	S	%Rec	50	7/11/2020 4:44:23 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst	DJF
Benzene	ND	0.12	D	mg/Kg	5	7/12/2020 7:19:14 AM	53614
Toluene	ND	0.25	D	mg/Kg	5	7/12/2020 7:19:14 AM	53614
Ethylbenzene	ND	0.25	D	mg/Kg	5	7/12/2020 7:19:14 AM	53614
Xylenes, Total	ND	0.49	D	mg/Kg	5	7/12/2020 7:19:14 AM	53614
Surr: 1,2-Dichloroethane-d4	104	70-130	D	%Rec	5	7/12/2020 7:19:14 AM	53614
Surr: 4-Bromofluorobenzene	73.9	70-130	D	%Rec	5	7/12/2020 7:19:14 AM	53614
Surr: Dibromofluoromethane	106	70-130	D	%Rec	5	7/12/2020 7:19:14 AM	53614
Surr: Toluene-d8	104	70-130	D	%Rec	5	7/12/2020 7:19:14 AM	53614

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Analytical Report
Lab Order 2007408

Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC Client Sample ID: S9,1' **Project:** Emerald PWU 20 1H Collection Date: 7/7/2020 4:40:00 PM Lab ID: 2007408-015 Matrix: SOIL Received Date: 7/9/2020 9:18:00 AM Result **RL** Oual Units **DF** Date Analyzed Batch Analyses Analyst: CJS **EPA METHOD 300.0: ANIONS** Chloride 430 59 mg/Kg 20 7/11/2020 8:00:00 PM 53651 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 7/12/2020 7:47:47 AM 53614 Surr: BFB 92.4 70-130 %Rec 1 7/12/2020 7:47:47 AM 53614 EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: BRM **Diesel Range Organics (DRO)** 240 9.8 mg/Kg 1 7/11/2020 5:09:07 PM 53629 Motor Oil Range Organics (MRO) 190 7/11/2020 5:09:07 PM 53629 49 mg/Kg 1 Surr: DNOP 55.1-146 %Rec 7/11/2020 5:09:07 PM 53629 112 1 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF 7/12/2020 7:47:47 AM ND Benzene 0.024 mg/Kg 53614 1 Toluene ND 0.049 mg/Kg 1 7/12/2020 7:47:47 AM 53614 Ethylbenzene ND 0.049 mg/Kg 1 7/12/2020 7:47:47 AM 53614 Xylenes, Total ND 0.098 mg/Kg 7/12/2020 7:47:47 AM 53614 1 Surr: 1,2-Dichloroethane-d4 101 70-130 %Rec 1 7/12/2020 7:47:47 AM 53614 Surr: 4-Bromofluorobenzene 92.1 70-130 %Rec 1 7/12/2020 7:47:47 AM 53614 7/12/2020 7:47:47 AM Surr: Dibromofluoromethane 106 70-130 %Rec 1 53614 Surr: Toluene-d8 101 70-130 %Rec 1 7/12/2020 7:47:47 AM 53614

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project:

Lab ID:

Analytical Report Lab Order 2007408

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Emerald PWU 20 1H

2007408-016

Lab Order 2007408 Date Reported: 7/16/2020

Client Sample ID: S10, 0"-6" Collection Date: 7/7/2020 4:45:00 PM Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: JMT
Chloride	2600	150		mg/Kg	50	7/13/2020 4:31:23 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst	DJF
Gasoline Range Organics (GRO)	ND	23	D	mg/Kg	5	7/12/2020 8:16:16 AM	53614
Surr: BFB	95.2	70-130	D	%Rec	5	7/12/2020 8:16:16 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS					Analyst	BRM
Diesel Range Organics (DRO)	2700	190		mg/Kg	20	7/11/2020 5:34:21 PM	53629
Motor Oil Range Organics (MRO)	3200	930		mg/Kg	20	7/11/2020 5:34:21 PM	53629
Surr: DNOP	0	55.1-146	S	%Rec	20	7/11/2020 5:34:21 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst	DJF
Benzene	ND	0.12	D	mg/Kg	5	7/12/2020 8:16:16 AM	53614
Toluene	ND	0.23	D	mg/Kg	5	7/12/2020 8:16:16 AM	53614
Ethylbenzene	ND	0.23	D	mg/Kg	5	7/12/2020 8:16:16 AM	53614
Xylenes, Total	ND	0.47	D	mg/Kg	5	7/12/2020 8:16:16 AM	53614
Surr: 1,2-Dichloroethane-d4	107	70-130	D	%Rec	5	7/12/2020 8:16:16 AM	53614
Surr: 4-Bromofluorobenzene	95.7	70-130	D	%Rec	5	7/12/2020 8:16:16 AM	53614
Surr: Dibromofluoromethane	113	70-130	D	%Rec	5	7/12/2020 8:16:16 AM	53614
Surr: Toluene-d8	103	70-130	D	%Rec	5	7/12/2020 8:16:16 AM	53614

Matrix: SOIL

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Analytical Report Lab Order 2007408

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/16/2020 **CLIENT:** Pima Environmental Services LLC Client Sample ID: S11, 0"-6" **Project:** Emerald PWU 20 1H Collection Date: 7/7/2020 4:50:00 PM Lab ID: 2007408-017 Matrix: SOIL Received Date: 7/9/2020 9:18:00 AM Result **RL** Oual Units **DF** Date Analyzed Analyses Batch **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 250 60 mg/Kg 20 7/13/2020 11:46:02 AM 53665 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 24 D mg/Kg 5 7/12/2020 8:44:46 AM 53614 Surr: BFB 70-130 D 5 95.7 %Rec 7/12/2020 8:44:46 AM 53614 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM **Diesel Range Organics (DRO)** 3500 98 mg/Kg 10 7/11/2020 5:59:39 PM 53629 Motor Oil Range Organics (MRO) 3600 490 mg/Kg 7/11/2020 5:59:39 PM 53629 10 Surr: DNOP 0 55.1-146 S %Rec 10 7/11/2020 5:59:39 PM 53629 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF ND D 7/12/2020 8:44:46 AM Benzene 0.12 mg/Kg 5 53614 Toluene ND 0.24 D mg/Kg 5 7/12/2020 8:44:46 AM 53614 Ethylbenzene ND 0.24 D mg/Kg 5 7/12/2020 8:44:46 AM 53614 Xylenes, Total ND 0.49 D mg/Kg 5 7/12/2020 8:44:46 AM 53614 70-130 5 Surr: 1,2-Dichloroethane-d4 103 D %Rec 7/12/2020 8:44:46 AM 53614 Surr: 4-Bromofluorobenzene 90.5 70-130 D %Rec 5 7/12/2020 8:44:46 AM 53614

104

106

70-130

70-130

D

D

%Rec

%Rec

5

5

7/12/2020 8:44:46 AM

7/12/2020 8:44:46 AM

53614

53614

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- POL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits Р Sample pH Not In Range
- RL Reporting Limit

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Surr: Dibromofluoromethane

Surr: Toluene-d8

Project: Lab ID: Analytical Report

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC **Project:** Emerald PWU 20 1H

2007408-018

Lab Order 2007408

Date Reported: 7/16/2020

Client Sample ID: S11, 1'
Collection Date: 7/7/2020 4:55:00 PM
Received Date: 7/9/2020 9:18:00 AM

IIA. SOIL	Received Date: 119/2020 9:10:00 Phys								
Result	RL	Qual Units	DF	Date Analyzed	Batch				
				Analyst	JMT				
460	60	mg/Kg	20	7/13/2020 11:58:26 AM	53665				
				Analyst	DJF				
ND	4.8	mg/Kg	1	7/12/2020 9:13:15 AM	53614				
97.7	70-130	%Rec	1	7/12/2020 9:13:15 AM	53614				
NICS				Analyst	BRM				
74	10	mg/Kg	1	7/11/2020 6:24:55 PM	53629				
90	50	mg/Kg	1	7/11/2020 6:24:55 PM	53629				
109	55.1-146	%Rec	1	7/11/2020 6:24:55 PM	53629				
Г				Analyst	DJF				
ND	0.024	mg/Kg	1	7/12/2020 9:13:15 AM	53614				
ND	0.048	mg/Kg	1	7/12/2020 9:13:15 AM	53614				
ND	0.048	mg/Kg	1	7/12/2020 9:13:15 AM	53614				
ND	0.096	mg/Kg	1	7/12/2020 9:13:15 AM	53614				
105	70-130	%Rec	1	7/12/2020 9:13:15 AM	53614				
97.4	70-130	%Rec	1	7/12/2020 9:13:15 AM	53614				
107	70-130	%Rec	1	7/12/2020 9:13:15 AM	53614				
107	70-130	%Rec	1	7/12/2020 9:13:15 AM	53614				
	Result 460 ND 97.7 NICS 74 90 109 ND ND ND 90 109 97.7	Result RL 460 60 ND 4.8 97.7 70-130 NICS 74 10 90 50 109 55.1-146 ND 0.024 ND 0.024 ND 0.048 ND 0.096 105 70-130 97.4 70-130 97.4 70-130	Result RL Qual Units 460 60 mg/Kg ND 4.8 mg/Kg 97.7 70-130 %Rec NICS 74 10 mg/Kg 109 55.1-146 %Rec ND 0.024 mg/Kg ND 0.048 mg/Kg ND 0.048 mg/Kg ND 0.048 mg/Kg ND 0.048 mg/Kg ND 0.096 mg/Kg ND 0.096	Result RL Qual Units DF 460 60 mg/Kg 20 ND 4.8 mg/Kg 1 97.7 70-130 %Rec 1 97.7 70-130 %Rec 1 NICS 74 10 mg/Kg 1 90 50 mg/Kg 1 109 55.1-146 %Rec 1 ND 0.024 mg/Kg 1 ND 0.048 mg/Kg 1 ND 0.048 mg/Kg 1 ND 0.096 mg/Kg 1 105 70-130 %Rec 1 97.4 70-130 %Rec 1 107 70-130 %Rec 1	Result RL Qual Units DF Date Analyzed 460 60 mg/Kg 20 7/13/2020 11:58:26 AM 460 60 mg/Kg 1 7/12/2020 9:13:15 AM ND 4.8 mg/Kg 1 7/12/2020 9:13:15 AM 97.7 70-130 %Rec 1 7/12/2020 9:13:15 AM NNCS Analyst 74 10 mg/Kg 1 7/11/2020 6:24:55 PM 90 50 mg/Kg 1 7/11/2020 6:24:55 PM 109 55.1-146 %Rec 1 7/11/2020 6:24:55 PM 109 55.1-146 %Rec 1 7/11/2020 6:24:55 PM 109 55.1-146 %Rec 1 7/11/2020 6:24:55 PM MD 0.024 mg/Kg 1 7/12/2020 9:13:15 AM ND 0.048 mg/Kg 1 7/12/2020 9:13:15 AM ND 0.048 mg/Kg 1 7/12/2020 9:13:15 AM ND 0.096 mg/Kg 1 7/12/202				

Matrix: SOIL

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Client:	Pima En	vironmenta	l Servic	ces LLC								
Project:	Emerald	PWU 20 1	Н									
Sample ID: ME	B-53651	SampT	ype: ml	olk	TestCode: EPA Method 300.0: Anions							
Client ID: PE	BS	Batch	n ID: 53	651	F	RunNo: 7	0283					
Prep Date: 7	/11/2020	Analysis D	ate: 7/	11/2020	S	SeqNo: 24	443142	Units: mg/K	g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride		ND	1.5									
Sample ID: LC	S-53651	SampType: Ics TestCode: EPA Method 300.0: Anions										
Client ID: LC	SS	Batch	n ID: 53	651	F	RunNo: 7	0283					
Prep Date: 7	/11/2020	Analysis D	ate: 7/	11/2020	SeqNo: 2443143			Units: mg/Kg				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride		14	1.5	15.00	0	94.4	90	110				
Sample ID: ME	B-53665	SampT	ype: m l	olk	Tes	tCode: El	PA Method	300.0: Anion	S			
Client ID: PE	BS	Batch	n ID: 53	665	F	RunNo: 7	0304					
Prep Date: 7	/13/2020	Analysis D	ate: 7/	13/2020	S	SeqNo: 24	443770	Units: mg/K	g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride		ND	1.5									
Sample ID: LC	S-53665	SampT	ype: Ics	; ;	Tes	tCode: El	PA Method	300.0: Anion	s			
Client ID: LC	ss	Batch	n ID: 53	665	F	RunNo: 7	0304					
Prep Date: 7	/13/2020	Analysis D	ate: 7/	13/2020	S	SeqNo: 24	443771	Units: mg/K	g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride		14	1.5	15.00	0	93.1	90	110				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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2007408

16-Jul-20

Analyte

Analyte

Surr: DNOP

Surr: DNOP

Diesel Range Organics (DRO)

Client ID: S1, 0"-6"

Prep Date: 7/10/2020

Diesel Range Organics (DRO)

Sample ID: 2007408-001AMSD

Result

Result

45

4.4

44

4.5

PQL

SampType: MSD

Batch ID: 53629

Analysis Date: 7/11/2020

PQL

9.7

9.4

SPK value SPK Ref Val

47.13

4.713

48.40

4.840

Hall Environment	al Analysis Laborat	ory, Inc.		16-Jul-20				
	vironmental Services LLC PWU 20 1H							
Sample ID: MB-53629	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics					
Client ID: PBS	Batch ID: 53629	RunNo: 70238						
Prep Date: 7/10/2020	Analysis Date: 7/11/2020	SeqNo: 2442220	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	12 10.00	121 55.1	146					
Sample ID: LCS-53629	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics					
Client ID: LCSS	Batch ID: 53629	RunNo: 70238						
Prep Date: 7/10/2020	Analysis Date: 7/11/2020	SeqNo: 2442221	Units: mg/Kg					
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual				
Diesel Range Organics (DRO)	53 10 50.00	0 106 70	130					
Surr: DNOP	4.9 5.000	97.0 55.1	146					
Sample ID: 2007408-001AMS	SampType: MS	TestCode: EPA Method	8015M/D: Diesel Range Organics					
Client ID: S1, 0"-6"	Batch ID: 53629	RunNo: 70238						
Prep Date: 7/10/2020	Analysis Date: 7/11/2020	SeqNo: 2442223	Units: mg/Kg					

%REC

92.4

95.2

RunNo: 70238

92.4

91.6

SeqNo: 2442224

0

0

SPK value SPK Ref Val %REC

LowLimit

LowLimit

47.4

55.1

47.4

55.1

HighLimit

TestCode: EPA Method 8015M/D: Diesel Range Organics

136

146

Units: mg/Kg

136

146

HighLimit

%RPD

%RPD

2.60

0

RPDLimit

RPDLimit

43.4

0

Qual

Qual

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- R Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Sample pH Not In Range Р
- RL Reporting Limit

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2007408

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

	vironmenta PWU 20 1		es LLC								
Sample ID: mb-53614	Samp	Туре: МЕ	BLK	TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: PBS	Batc	h ID: 536	614	RunNo: 70265							
Prep Date: 7/9/2020	Analysis I	Date: 7/	11/2020	S	SeqNo: 24	442043	Units: mg/K	Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.025									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		107	70	130				
Surr: 4-Bromofluorobenzene	0.47		0.5000		93.1	70	130				
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130				
Surr: Toluene-d8	0.50		0.5000		99.2	70	130				
Sample ID: Ics-53614	Samp	Type: LC	S4	Tes	TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: BatchQC	Batc	h ID: 536	614	RunNo: 70265							
Prep Date: 7/9/2020	Analysis I	Date: 7/	11/2020	S	SeqNo: 24	442044	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.025	1.000	0	111	80	120				
Toluene	1.0	0.050	1.000	0	102	80	120				
Ethylbenzene	1.0	0.050	1.000	0	103	80	120				
Xylenes, Total	3.3	0.10	3.000	0	111	80	120				
Surr: 1,2-Dichloroethane-d4	0.55		0.5000		110	70	130				
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.8	70	130				
Surr: Dibromofluoromethane	0.56		0.5000		111	70	130				
Surr: Toluene-d8	0.48		0.5000		96.4	70	130				
Sample ID: 2007408-001ams	Samp	Type: MS	64	Tes	tCode: EF	PA Method	8260B: Volat	iles Short	List		
Client ID: S1, 0"-6"	Batc	h ID: 536	614	F	RunNo: 70	0265					
Prep Date: 7/9/2020	Analysis I	Date: 7/	11/2020	S	SeqNo: 24	442046	Units: mg/K	íg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.025	0.9814	0	116	71.1	115			S	
Toluene	1.0	0.049	0.9814	0	106	79.6	132				
Ethylbenzene	1.1	0.049	0.9814	0	107	83.8	134				
Xylenes, Total	3.3	0.098	2.944	0	113	82.4	132				
Surr: 1,2-Dichloroethane-d4	0.52		0.4907		107	70	130				
Surr: 4-Bromofluorobenzene	0.44		0.4907		89.4	70	130				
Surr: Dibromofluoromethane	0.55		0.4907		111	70	130				
Surr: Toluene-d8	0.48		0.4907		98.0	70	130				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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16-Jul-20

Xylenes, Total

Surr: 1,2-Dichloroethane-d4

Surr: 4-Bromofluorobenzene

Surr: Dibromofluoromethane

Surr: Toluene-d8

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

0.095

2.860

0.4766

0.4766

0.4766

0.4766

3.4

0.50

0.48

0.55

0.47

Released to Imaging: 4/2/2021 9:03:19 AM

Value exceeds Maximum Contaminant Level.

- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded Not Detected at the Reporting Limit
- ND PQL Practical Quanitative Limit

Qualifiers:

% Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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16-Jul-20

20

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0

0

Client:	Pima Env	Pima Environmental Services LLC									
Project:	Emerald F	PWU 20 1	Η								
Sample ID:	2007408-001amsd	Samp	Гуре: МS	SD4	TestCode: EPA Method 8260B: Volatiles Short List						
Client ID:	S1, 0"-6"	614	RunNo: 70265								
Prep Date:	7/9/2020 Analysis Date: 7/11/2020				SeqNo: 2442047 Units: mg/Kg						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.1	0.024	0.9533	0	118	71.1	115	0.906	20	S
Toluene		1.0	0.048	0.9533	0	106	79.6	132	3.28	20	
Ethylbenzene		1.1	0.048	0.9533	0	111	83.8	134	0.748	20	

0

117

106

101

115

98.8

82.4

70

70

70

70

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WO#:	2007408

0.974

0

0 0

0

132

130

130

130

130

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:		rironmental PWU 20 1H		es LLC									
Sample ID:	mb-53614	b-53614 SampType: MBLK					TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID:	PBS	Batch I	D: 53	614	F	RunNo: 70265							
Prep Date:	7/9/2020	Analysis Da	te: 7/	11/2020	S	eqNo: 24	442071	Units: mg/k	g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Rang Surr: BFB	ge Organics (GRO)	ND 450	5.0	500.0		89.8	70	130					
Sample ID:	lcs-53614	SampTy	pe: LC	S	Tes	tCode: EF	PA Method	8015D Mod:	Gasoline	Range			
Client ID:	LCSS	Batch I	D: 53	614	RunNo: 70265								
Prep Date:	7/9/2020	Analysis Da	11/2020	S	eqNo: 24	442072	Units: mg/k	g					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
	ge Organics (GRO)	19	5.0	25.00	0	75.9	70	130					
Surr: BFB		480		500.0		96.2	70	130					
Sample ID:	2007408-002ams	SampTy	pe: MS	6	Tes	tCode: EF	PA Method	8015D Mod:	Gasoline	Range			
Client ID:	S1, 1'	Batch I	D: 53	614	F	unNo: 7	0265						
Prep Date:	7/9/2020	Analysis Da	te: 7/	11/2020	S	eqNo: 24	442076	Units: mg/k	íg				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Rang	ge Organics (GRO)	21	4.9	24.73	0	84.3	70	130					
Surr: BFB		480		494.6		97.1	70	130					
Sample ID:	2007408-002amsd	SampTy	pe: MS	SD.	Tes	tCode: EF	PA Method	8015D Mod:	Gasoline	Range			
Client ID:	S1, 1'	Batch I	D: 53	614	F	lunNo: 7	0265						
Prep Date:	7/9/2020	Analysis Da	te: 7/	12/2020	S	eqNo: 24	442077	Units: mg/k	(g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
	ge Organics (GRO)	21	4.8	23.92	0	86.0	70	130	1.38	20			
Surr: BFB		470		478.5		97.3	70	130	0	0			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

2007408

16-Jul-20

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HALL ENVIRONMENTAL ANALYSIS LABORATORY	TEL: 505-345-3	ntal Analysis Lab 4901 Haw Albuquerque, NN 975 FAX: 505-34 s.hallenvironmen	kins NE 187109 Sar 5-4107	nple Log-In Check List
Client Name: Pima Environmental Services LLC	Work Order Num	ber: 2007408		RcptNo: 1
Received By: Juan Rojas	7/9/2020 9:18:00 A	м	Hanay	-
Completed By: Juan Rojas	7/9/2020 10:12:55	AM	Guarran g	-
Reviewed By: Em 71912	6			
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 sample	e7	Yes 🔽	No 🗌	
		165		
4. Were all samples received at a temperatu	re of >0° C to 6.0°C	Yes 🔽	No 🗌	
5. Sample(s) in proper container(s)?		Yes 🔽	No 🗌	
6. Sufficient sample volume for indicated tes	t(s)?	Yes 🔽	No 🗌	
7. Are samples (except VOA and ONG) prop	erly preserved?	Yes 🔽	No 🗌	
8. Was preservative added to bottles?		Yes 🗌	No 🔽	NA 🗌
9. Received at least 1 vial with headspace <	1/4" for AQ VOA?	Yes	No 🗌	NA 🗹
 Were any sample containers received bro 	ken?	Yes 🗆	No 🔽	# of preserved
1. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No 🗌	bottles checked for pH: (<2 or >12 unless noted)
2. Are matrices correctly identified on Chain	of Custody?	Yes 🔽	No 🗔	Adjusted?
3. Is it clear what analyses were requested?	1	Yes 🔽	No 🗌	
4. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🔽	No 🗌	Checked by: JP 7/9/7
Special Handling (if applicable)			~	
15. Was client notified of all discrepancies with	th 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 0.7 Good			Louis and the second	

Page 1 of 1

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client Pima Environ mental	M Standard	🗆 Rush				ANA	LYS	SIS	LAE	ANALYSIS LABORATOR	>
	Project Name:					www.	www.hallenvironmental.com	ronme	ental.co	E	
Mailing Address: 1601 N. Turner 579 500	EMERAND	PW4 ZC	H	490	4901 Hawkins NE	ins NE	,	nduero	due, NI	Albuquerque, NM 87109	. 1/1
HOBES, NM 2240	Project #:			Tel	Tel. 505-345-3975	45-397		ax 50	Fax 505-345-4107	4107	57 20
51-697	20715188	8					Anal	sis Re	Analysis Request		
Chris (Pinal oil am	Project Manager	jer:				-	*O\$		(ìn		.72.
QA/QC Package:	CMrs	JONG			PCB's	SMISC	PO₄, S		əsdA\tr		:45 PM
□ Az Compliance	Sampler:				_		^{'7} 0		Jəse		
□ Other	On Ice:	L-Yes	ON D	1.51		9 JO	-	(V)			
EDD (Type)	# of Coolers. 1	astit				01	_	-		L	
	Cooler Temp(including CF):	ncluding CF): 0	いしていこうのしょう		2.2.4	y 83	_			ni	
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18/20 1900 MALINA MARCE	(prof)	Var. 8	2116 No12	E-A		4	-				74 of

Walterial Ral Visional Project Name: Project Manager:	Chain-of-Custody Record	Turn-Around Time: 5 Davy			HA	HALLE	NVTE	NOS	FNVTRONMENTAL
Project Name: Project Name: Project Name: Project Name: Project Manager: 20715 R&R 20715 R&R Project Manager: 20715 R Project Manager: 20715 R Project Manager: 20716 R Project Manager: 2010 R Project Manager: 2010 R Project Manager: 2010 R Project Manager: 100 I.los: Project Propreservative 11055 L Project R 1010 R Project Templond 50/1 1010 R Project Contain		Standard 🗆 Rush			AN	ALYS	T SIS	ABO	RATOR
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November 25, 2020

CHRIS JONES PIMA ENVIROMENTAL 1601 N TURNER STE. 500 HOBBS, NM 88240

RE: EMERALD 20 PWV #1H

Enclosed are the results of analyses for samples received by the laboratory on 11/23/20 8:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Whe Singh

Mike Snyder For Celey D. Keene Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 15 - 1' (H003091-01)

BTEX 8021B	mg,	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.78	88.9	2.00	11.6	
Toluene*	<0.050	0.050	11/23/2020	ND	1.70	84.9	2.00	11.6	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.74	87.1	2.00	11.3	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.05	84.1	6.00	10.6	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	124	73.3-12	9						
Chloride, SM4500Cl-B	mg,	mg/kg Analyze		d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	11/23/2020	ND	400	100	400	7.69	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	1350	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	272	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	88.1	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	110 9	42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 15 - 2' (H003091-02)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.78	88.9	2.00	11.6	
Toluene*	<0.050	0.050	11/23/2020	ND	1.70	84.9	2.00	11.6	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.74	87.1	2.00	11.3	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.05	84.1	6.00	10.6	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	100	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	mg/kg Ana		d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	11/23/2020	ND	400	100	400	7.69	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	204	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	53.2	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	94.5	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	102	% 42.2-15	6						

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Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 15 - 3' (H003091-03)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.78	88.9	2.00	11.6	
Toluene*	<0.050	0.050	11/23/2020	ND	1.70	84.9	2.00	11.6	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.74	87.1	2.00	11.3	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.05	84.1	6.00	10.6	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	100	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	11/23/2020	ND	400	100	400	7.69	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	50.8	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	94.4	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	91.1	% 42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 16 - 1' (H003091-04)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.78	88.9	2.00	11.6	
Toluene*	<0.050	0.050	11/23/2020	ND	1.70	84.9	2.00	11.6	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.74	87.1	2.00	11.3	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.05	84.1	6.00	10.6	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 \$	73.3-12	9						
Chloride, SM4500Cl-B	mg/kg		Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	11/23/2020	ND	400	100	400	7.69	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	13.2	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	97.9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	91.9	% 42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 16 - 2' (H003091-05)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.78	88.9	2.00	11.6	
Toluene*	<0.050	0.050	11/23/2020	ND	1.70	84.9	2.00	11.6	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.74	87.1	2.00	11.3	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.05	84.1	6.00	10.6	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	<10.0	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	101 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	93.8	% 42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 16 - 3' (H003091-06)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.78	88.9	2.00	11.6	
Toluene*	<0.050	0.050	11/23/2020	ND	1.70	84.9	2.00	11.6	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.74	87.1	2.00	11.3	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.05	84.1	6.00	10.6	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.6	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	70.1	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	15.8	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	94.0	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	91.8	% 42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 17 - 1' (H003091-07)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.78	88.9	2.00	11.6	
Toluene*	<0.050	0.050	11/23/2020	ND	1.70	84.9	2.00	11.6	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.74	87.1	2.00	11.3	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.05	84.1	6.00	10.6	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	<10.0	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	105 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	96.2	% 42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 17 - 2' (H003091-08)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	<10.0	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	108	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	100	42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 17 - 3' (H003091-09)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	<10.0	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	103	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	94.0	% 42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 18 - 1' (H003091-10)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	<10.0	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	100	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	92.5	% 42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 18 - 2' (H003091-11)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	<10.0	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	95.7	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	90.2	% 42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 18 - 3' (H003091-12)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	<10.0	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	97.3	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	91.1	% 42.2-15	6						

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Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 19 - 1' (H003091-13)

BTEX 8021B	mg	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	GC-NC
Total Xylenes*	1.09	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	1.11	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	246	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	121	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	4640	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	814	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	138	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	214	% 42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 19 - 2' (H003091-14)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	GC-NC
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	114 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	12.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	904	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	151	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	103	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	111 9	42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 19 - 3' (H003091-15)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	107	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	418	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	80.9	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	107	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	118	% 42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 20 - 1' (H003091-16)

BTEX 8021B	mg/	kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	GC-NC
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	175 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	35.6	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	5850	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	1120	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	113 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	270 9	% 42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 20 - 2' (H003091-17)

BTEX 8021B	mg,	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	100	73.3-12	9						
Chloride, SM4500Cl-B	mg,	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	83.9	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	18.2	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	102	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	100	42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 20 - 3' (H003091-18)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	290	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	55.9	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	97.6	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	106	% 42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 21 - 1' (H003091-19)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	123	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	35.6	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	90.3	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	94.3	% 42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 22 - 1' (H003091-20)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1620	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	44.4	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	10.6	10.0	11/23/2020	ND					
Surrogate: 1-Chlorooctane	107	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	105	% 42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 22 - 2' (H003091-21)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/24/2020	ND	246	123	200	8.82	
DRO >C10-C28*	22.0	10.0	11/24/2020	ND	249	125	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	11/24/2020	ND					
Surrogate: 1-Chlorooctane	89.6	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	88.0	% 42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/23/2020		Sampling Date:	11/19/2020
Reported:	11/25/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWV	#1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 22 - 3' (H003091-22)

BTEX 8021B	mg,	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	73.3-12	9						
Chloride, SM4500Cl-B	mg,	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/23/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/24/2020	ND	246	123	200	8.82	
DRO >C10-C28*	11.1	10.0	11/24/2020	ND	249	125	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	11/24/2020	ND					
Surrogate: 1-Chlorooctane	97.9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	96.2	% 42.2-15	6						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

101 East Marland, Hobbs, NM 88240

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 1		-	
Rush #//3 To	(Initiats) Thermome	Corrected Temp. °C	Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Standard	alda Kyd	Received	Relinquished By:
emailed. Please provi	All Results are	Time: 4:54	Relinquished By:
It TYes I No Add'I Phone #:	is based upon any of the above stated reasons or otherwise.	service. In no event shall Cardinal be liable for incidental or consequential damages, including winioul irrination, uservices were overway or arritantes or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim a	vice. In no event shall Cardinal be liable for incidental o failes or successors arising out of or related to the perfo
pplcable	rad; or fort, strail be inned to are amount para by the creek or g and received by Cardial within 30 days after completion of the a complete of the strain of these of nonfest incurred by client its subsidiarities.	PLEASE NOTE: Liability and Damagés. Candinal's liability and client's exclusive remedy for any claim ansing whether based in contract or ten, shall be dimension para by new one were a solution of the applicable analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in the cause of tendes or negligence and any other cause whatsoever shall be deemed waived unless made in the cause of tendes or negligence and any other cause whatsoever shall be deemed waived unless made in tendents or tendes or tendes income to called a subsidiaries.	PLEASE NOTE: Liability and Damages. Cardinar's liability and inalyses. All claims including those for negligence and any other other and any other sectors are sectors a
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	Attn: TOM Bymm	State: NM Zip: 85240	City: A-bbs
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		Environmely	Company Name: Pine Enc

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Bacteria (only) Sample Condition	Time: Standard	CHECKED BX: Turnaround	Received By: MUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	Date: 23-2 Time 205	Relinquished By: '
Add'I Phone #: de Email address:	alt: □ Yes □ No are emailed. Please provi	All Res	-28-30 Received By:	Date: 11-28-30 Time: 8:5%	Relinquished By:
		Cardinal within 30 days after completion of the or loss of profits incurred by client, its subsidiants on any of the above stated reasons or otherwise	med waived unless made in writin hout limitation, business interrupt inal, regardless of whether such c	figence and any other cause whatsoeve for incidental or consequental damages ted to the performance of services here!	analyses. All claims including those for negligence and any oth service. In no event shall Cardinal be liable for incidental or co stillates or successors arising out of or related to the performan
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	A	BILLIO	when	ma knuironmente	Company Name: TCM

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

PLEASE NOTE: Liability and Damagee. Cardinal's liability and c analyses. All claims including those for negligence and any offer service. In no event shall Cardinal be liable for incidential or com- artifiates or successors indiving out of or related to the serforman		E-ce-5 00	e-ce-2 100	Lab I.D. Sample I.D.			9	ame:	Deviant#: 3	le#: (142665	of Nº TA	Chris		101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476
	PLEASE BIOTE: Lability and Damagers. Cardinal's lability and client's exclusive remedy for any claim ansing whether based in contract or ton, shall be limited to the amount pad by the client for the analyses. All claims including those for negligence and any other cause wagapower shall be deemed whether busined and the based by Caudinal whith 30 days after completion of the applicable scrubes. In one vent shall Caufinal be liable for incidential or consequential damages, including whole limitation, busines internations, loss of user, or torse of proteins. It is subsidiaries, and and a scrubes of an or event shall Caufinal be liable for incidential or consequential damages, including without limitation, busines internations, loss of user, or torse of proteins to accessed or otherwise.	2 2 2	e x	(G)RAB OR (C)OM # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL	P. MATRIX	14		AMN 1H	Project Owner:	Fax #:	State: A7 Zip: 88940	er	Tomes	Gavico amental	, Hobbs, NM 88240 FAX (575) 393-2476
5	ntract or ton, shall be limited to the amount paid by ing and received by Cardinal within 30 days after con tions, loss of use, or loss of profits incurred by client, claim is based upon any of the above stated reason claim is based upon any of the above stated reason	T X	h cc-4-11 Y		PRESERV. SAMPLING	1	Phone #:	State: Zip:	City:	Address:	Attn: Tom Bynun	Company: Ceron	P.O. # Jot /5745	BILL TO	
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de Email address:	Add'!! Phone 井:													ANALYSIS REQUEST	



December 03, 2020

CHRIS JONES PIMA ENVIROMENTAL 1601 N TURNER STE. 500 HOBBS, NM 88240

RE: EMERALD 20 PWU #1H

Enclosed are the results of analyses for samples received by the laboratory on 11/30/20 12:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 1 W - BOTTOM (H003128-01)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					
Surrogate: 1-Chlorooctane	120	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	125	% 42.2-15	6						

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PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose site to the services interruptors, loss of profits incurred by client, its subsidiaries, afflictes or successor arising out of or related to the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 1 W - SIDE (H003128-02)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					
Surrogate: 1-Chlorooctane	114 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	118 9	% 42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 5 S - BOTTOM (H003128-03)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					
Surrogate: 1-Chlorooctane	105 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	108 9	% 42.2-15	6						

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*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 5 S - SIDE (H003128-04)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					
Surrogate: 1-Chlorooctane	113 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	118 9	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 6 S - SIDE (H003128-05)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					
Surrogate: 1-Chlorooctane	118 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	123 9	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 6 S - BOTTOM (H003128-06)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					
Surrogate: 1-Chlorooctane	103 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	107 9	% 42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 13 E - SIDE (H003128-07)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					
Surrogate: 1-Chlorooctane	119 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	124 9	% 42.2-15	6						

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*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 13 E - BOTTOM (H003128-08)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					
Surrogate: 1-Chlorooctane	107 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	113 9	42.2-15	6						

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Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 12 N - BOTTOM (H003128-09)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					
Surrogate: 1-Chlorooctane	115 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	122 9	% 42.2-15	6						

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Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 12 N - SIDE (H003128-10)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					
Surrogate: 1-Chlorooctane	114 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	120 9	42.2-15	6						

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Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 11 W - BOTTOM (H003128-11)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					
Surrogate: 1-Chlorooctane	109	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	116 9	42.2-15	6						

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Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 11 W - SIDE (H003128-12)

BTEX 8021B	mg/kg		Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	20.9	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	23.1	10.0	12/02/2020	ND					
Surrogate: 1-Chlorooctane	97.8	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	93.2	% 42.2-15	6						

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Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 14 S - SIDE (H003128-13)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					
Surrogate: 1-Chlorooctane	95.5	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	89.9	% 42.2-15	6						

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Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 14 S - BOTTOM (H003128-14)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					
Surrogate: 1-Chlorooctane	86.9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	84.9	% 42.2-15	6						

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Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 23 - 1' (H003128-15)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					
Surrogate: 1-Chlorooctane	97.4	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	94.1	% 42.2-15	6						

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Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 23 - 2' (H003128-16)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					
Surrogate: 1-Chlorooctane	86.9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	85.1	% 42.2-15	6						

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Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 23 - 3' (H003128-17)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					
Surrogate: 1-Chlorooctane	87.6	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	86.2	% 42.2-15	6						

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Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 24 - 1' (H003128-18)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					
Surrogate: 1-Chlorooctane	92.5	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	89.9	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 24 - 2' (H003128-19)

BTEX 8021B	mg,	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	73.3-12	9						
Chloride, SM4500Cl-B	mg,	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					
Surrogate: 1-Chlorooctane	89.7	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	85.2	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 24 - 3' (H003128-20)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	12/01/2020	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					
Surrogate: 1-Chlorooctane	94.7	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	91.9	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 25 - 1' (H003128-21)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	12/01/2020	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					
Surrogate: 1-Chlorooctane	90.1	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	87.1	% 42.2-15	6						

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Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 25 - 2' (H003128-22)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/01/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					
Surrogate: 1-Chlorooctane	87.7	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	85.6	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	11/30/2020		Sampling Date:	11/25/2020
Reported:	12/03/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 25 - 3' (H003128-23)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/01/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					
Surrogate: 1-Chlorooctane	94.5	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	91.4	% 42.2-15	6						

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Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

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City: Hotels State: NM Zip: Attn: ToM By Num Phone #: 575-914-4446 Fax #: Address: Project #: Fax #: City: Address: Project Name: For Variable S Project Owner: City: Project Name: Sampler Name: Sampler NM Sampler Name: Kaper Fax #: Provaduse ONLY _ MATRIX PRESERV

aboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Released to Imaging: 4/2/2021 9:03:19 AM

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Received by OCD: 1/15/2021 1:42:45 PM

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State: N/H Zip: Address: 94/4-71740 Fax #: Project Owner: City: Cutenal 20 //Au/11 Bits: Zip: Project Owner: City: City: City: Cutenal 20 //Au/11 Fax #: Zip: Cutenal 20 //Au/21 //Au/21	Address: 1601 N. Torne	r St. Soo	Company: Della		
944.7774b Fax #: Address: Clb; Clb; State: Zip: Phone #: Phone #: Phone #: Clb; Phone #: Phone #: Phone #:	city: Hold bs	Z	(laud	
Sample I.D. City: State: City: The None #: Sample I.D. Name: None #: Sample I.D. Recent And	Phone #:575.964.7740		Address:		
CALLER LI Priore #: Caller Lin Fax #: Caller Lin Fax #: Caller Lin Fax #: Sample I.D. Fax #:	Project #: 3	Project Owner:	City:	-	
Phone #: Phone #: Barry C. 1044 Fax #: Sample I.D. CONTAINERS Sample I.D. GIRAB OR (COMP 4 GIRAB OR (COMP 5-11 W - Sold GIRAB OR (COMP 9-11 W - Sold GIRAB OR (COMP 9-12 S - 21 OIL 9-14 S - 30 JUDGE 9-15 S - 30 JUDGE 9-16 S - 30 JUDGE 9-17 S - 30 JUDGE 9-10 S - 30	Project Name: ENerald 20	PAUL IH			
Build - Carter Fax #: Sample I.D. MATRIX PRESERV SAMPLING S-11 W- Bolfler (G) COMP. (G) COMP. S-11 W- Sold (G) COMP. (G) COMP. S-12 S-2: (G) COMP. (G) COMP. S-24 -1: (G) COMP. (G) COMP. S-24 -2: (G) COMP. (G) COMP.	Project Location: Eddu C	NIM			
S-11W-Scher S-11W-	Sampler Name: Koller +	Carper	Fax #:		
S-II W- Bothom Gild S-II W- Side - II W- Sole - II W- S	FOR LAB USE ONLY	S ER R			
S-11 W - BoH6M S-11 W - Stele S-14 S - BoH6M S-13 - 2 ¹ S-24 -		(G)RAB OR (C) # CONTAINERS GROUNDWATE WASTEWATER SOIL OIL	OTHER : ACID/BASE: ICE / COOL OTHER :	TIME TPH	
3-11, W = Sude (1)(33 3-14, S = Sude (1)(33 3-14, S = Sude (1)(33 3-23 = 1 (1)(35 3-23 = 2 (1)(35 3-24 = 21 (1)(35 3-24 (1	11 S-11 W- Both		V 11.25-2	0/0:00	
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S - 2.3 - 1' (1): 20 (1): 20 S - 2.3 - 2' (1): 25 (1): 30 (1): 30 S - 2.4 - 1' (1): 30 (1): 30 (1): 30 S - 2.4 - 1' (1): 30 (1): 30 (1): 30 S - 2.4 - 1' (1): 30 (1): 30 (1): 30 S - 2.4 - 1' (1): 40 (1): 30 (1): 30 S - 2.4 - 2.1 (1): 40 (1): 40 (1): 30 S - 2.4 - 2.1 (1): 40 (1): 40 (1): 45 S - 2.4 - 2.1 (1): 40 (1): 45 (1): 45 Dampse. Culture leader and entry data setup, where leaded to contract or text state leader the annotary lead the completion of the annotary contract and the completion of the annotary lead the completion of the annotary contract and the annotary contract and the completion of the annotary contract	14 S-148-Both	M		10:15	
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-3' (i): 30 (i): 30 -1' (i): 30 (i): 30 -21 (i): 30 (i): 30 -3' (i): 30 (i): 30 andraits actuative remedy for any claim acting whether based in contract or text, shall be lamided to the announg add by the observation to consequential damages, including whether based in contract or text, shall be lamided to the announg add by the observation to consequential damages, including whether based in contract or text, shall be lamided to the announg add by the observation to consequential damages, including whether and claim is based upon any of the above shall or consequence is the observation. It is a constrained in the observation to consequence or the observation to consequence is the cardinal regulation or observation to cardinal regulations of upon the above shallor former. The constrained by Cardinal whether and claim is based upon any of the above shallor former. The constrained by Cardinal whether and claim is based upon any of the above shallor former. The constrained by Cardinal whether and claim is based upon any of the above shallor former. The constrained by Cardinal whether and claim is based upon any of the above shallor former. The constrained by Cardinal whether and claim is based upon any of the above shallor former. The constrained by Cardinal whether and claim is based upon any of the above shallor former. The constrained by Cardinal whether and claim is based upon any of the above shallor former. The constrained by Cardinal Whether and claim is based upon any of the above shallor former. The constrained to the annound the above shallor former. The constrained con	S			10:25	
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S-24-31 10:45 Damages, Cardinal's lacibility and client's avoidable for any client stage in contract or tort, shall be inhered to the amount paid by the client for the the those for negligence and any other cause whatboewer shall be demed waked unless made in writing and client's avoidable without inhibition, business made in writing and client's avoidable without inhibition, business made in writing and client's avoidable without inhibition, business made in writing and client's avoidable without inhibition, business made in writing and unless of yheather such claim is based upon any of the above shall be cert as busidations: Intel: Date:: Received BY: Verbal Result: Verbal Result: Verbal Result: Verbal Result: Verbal Result: Verbal Result: No AddTI Phone #: Intel: Date:: Received BY: Verbal Result: Verbal Result: Verbal Result: Verbal Result: No AddTI Phone #: Intel: Date:: Received BY: Intel: No AddTI Phone #: No AddTI Phone #: Intel: Time: Received BY: Intel: No AddTI Phone #: Standard Bacteria (only) Intel: Time: Cool Intact (Initials) Turnaround Time: Standard Bacteria (only) Is - Other: Other: Corrected Temp. °C Yes	nu			10:55	
Damages, Cardinal's liability and client's exclusive remarky for any cliam ansing whether based in contract or tort, shall be limited to the amount paid by the client for the thread on other applicable fractor has based on any of the accuracy what any other cause what accuracy what whether based in contract or tort, shall be limited to the amount paid by the client for the thread or the applicable fractor and or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the acove stated reasons or otherwise. out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the acove stated reasons or otherwise. Image: Received BY: Verbal Result: Yes No Add'l Phone #: Date: Received BY: No Add'l Phone #: All Result: Yes No Add'l Phone #: Time: Received BY: No Add'l Phone #: All Result: Yes No Add'l Phone #: Time: Received BY: No Add'l Phone #: All Result: Standard No Add'l Phone #: Use One) Observed Temp. °C Sample Condition (Initials) Cool Intact Initials) RemarkS: use - Other: Corrected Temp. °C Yes Yes Yes Correction Earlor Mona Eacteria (only) S	S	<u>}-</u>	1	10:45	
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Date: Received By: Remarks: Time: Time: Cool Intact (Initials) cle One) Observed Temp. °C Cool Intact (Initials) us - Other: Corrected Temp. °C Pres Cool Intact Us - Other: Corrected Temp. °C Pres Cool Intact Us - Other: Corrected Temp. °C Pres Cool Intact Us - Other: Corrected Temp. °C Pres Cool Intact Us - Other: Corrected Temp. °C Pres Cool Intact	Relinquished By:	Received By:	Math	All Results are emailed. Ple	□ No Add'I Phone #: ase provide Email address:
Observed Temp. °C 7 Sample Condition CHECKED BY: Turnaround Time: Standard Bacteria (only) S Cool Intact (Initials) Cool Intact Cool Intact Corrected Temp. °C Yes Yes Yes Yes Yes Yes Yes Correction Earlor None Correction Earlor None Correction Earlor None Yes Yes	Relinquished By:	-	Kunner	REMARKS:	
	Delivered By: (Circle One) Sampler - UPS - Bus - Other:	12.7			Bacteria (only) S Cool Intact

Received by OCD: 1/15/2021 1:42:45 PM

- ō	(579) 393-2326 FAX (575) 393-2476	8111 70	ANAL	ANALYSIS REQUEST
Company Name: KILLA ENL	ENVIRON MERIA		ANA	
4	2PM	P.O. #: 20715188		
Address: 1601 N Turner	54.500	Company: Devo N		
dates	State: NH Zip: 88240	Attn: TON BYNAM		
Ð	Fax #:	Address:		
Project #: 3	Project Owner:	City:		
Project Name: F. Worald 20	D	State: Zip:		
-	NM	Phone #:		
Sampler Name: Robert C	arper	Fax #:		
FOR LAB USE ONLY	P. MATRIX	RIX PRESERV. SAMPLING		
Lab I.D. Sample I.D.	(G)RAB OR (C)OM # CONTAINERS GROUNDWATER WASTEWATER SOIL		TPH BTEX Chlorid	
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20.00			H:45	
		Inc	大や	
			1:8	
			T-B	
		++	4:40	
PLEASE NOTE: Liability and Damages. Cardinal's liability and analyses. All claims including those for negligence and any oth analyses.	billy and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or fort, shall be limited to the amount paid by the client for the including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicab the access of the state for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicab the access of the state for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicab the access of the state for including without limitation, business interruptors, loss of use, or loss of profits incurred by client, its subsidiaries,	i in contract or tort, shall be limited to the amount paid in writing and received by Cardinal within 30 days after (herruptions, loss of use, or loss of profits incurred by clic terruptions.	y the client for the completion of the applicable et, its subadaries,	
affiliates or successors arising out of or related to the performance of the second se	10	er such claim is based upon any of the above stated reas	ilt: □ Yes □ No ire emailed. Please provi	Add'l Phone #: de Email address:
Relinquished By:	Date: Received By: Time:	,	REMARKS:	F
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 12.7 Sample Coorrected Temp. °C	Sample Condition CHECKED BY: Cool Intact (Initials)	Turnaround Time: Standard E Rush Correction Factor None	Bacteria (only) Sample Condition Cool Intact Observed Temp. °C Ves Yes Nc No Corrected Temp. °C

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December 14, 2020

CHRIS JONES PIMA ENVIROMENTAL 1601 N TURNER STE. 500 HOBBS, NM 88240

RE: EMERALD 20 PWU #1H

Enclosed are the results of analyses for samples received by the laboratory on 12/10/20 16:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	12/10/2020		Sampling Date:	12/10/2020
Reported:	12/14/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO I	NM		

Sample ID: S - 6 S - BOTTOM (H003237-01)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2020	ND	1.93	96.6	2.00	8.05	
Toluene*	<0.050	0.050	12/11/2020	ND	1.85	92.4	2.00	7.75	
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	1.92	95.8	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.47	91.1	6.00	8.59	
Total BTEX	<0.300	0.300	12/11/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	12/14/2020	ND	432	108	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/11/2020	ND	244	122	200	1.35	
DRO >C10-C28*	<10.0	10.0	12/11/2020	ND	235	118	200	1.05	
EXT DRO >C28-C36	<10.0	10.0	12/11/2020	ND					
Surrogate: 1-Chlorooctane	87.1	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	81.5	% 42.2-15	6						

Cardinal Laboratories

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	12/10/2020		Sampling Date:	12/10/2020
Reported:	12/14/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 6 S - SIDE (H003237-02)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2020	ND	1.93	96.6	2.00	8.05	
Toluene*	<0.050	0.050	12/11/2020	ND	1.85	92.4	2.00	7.75	
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	1.92	95.8	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.47	91.1	6.00	8.59	
Total BTEX	<0.300	0.300	12/11/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/14/2020	ND	432	108	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/11/2020	ND	244	122	200	1.35	
DRO >C10-C28*	<10.0	10.0	12/11/2020	ND	235	118	200	1.05	
EXT DRO >C28-C36	<10.0	10.0	12/11/2020	ND					
Surrogate: 1-Chlorooctane	84.6	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	79.6	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	12/10/2020		Sampling Date:	12/10/2020
Reported:	12/14/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 9 E - SIDE (H003237-03)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2020	ND	1.93	96.6	2.00	8.05	
Toluene*	<0.050	0.050	12/11/2020	ND	1.85	92.4	2.00	7.75	
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	1.92	95.8	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.47	91.1	6.00	8.59	
Total BTEX	<0.300	0.300	12/11/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/14/2020	ND	432	108	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/11/2020	ND	244	122	200	1.35	
DRO >C10-C28*	<10.0	10.0	12/11/2020	ND	235	118	200	1.05	
EXT DRO >C28-C36	<10.0	10.0	12/11/2020	ND					
Surrogate: 1-Chlorooctane	87.2	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	82.2	% 42.2-15	6						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	12/10/2020		Sampling Date:	12/10/2020
Reported:	12/14/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 9 E - BOTTOM (H003237-04)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2020	ND	1.93	96.6	2.00	8.05	
Toluene*	<0.050	0.050	12/11/2020	ND	1.85	92.4	2.00	7.75	
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	1.92	95.8	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.47	91.1	6.00	8.59	
Total BTEX	<0.300	0.300	12/11/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/14/2020	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114	
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43	
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND					
Surrogate: 1-Chlorooctane	85.6	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	79.9	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	12/10/2020		Sampling Date:	12/10/2020
Reported:	12/14/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 22 N - SIDE (H003237-05)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2020	ND	1.93	96.6	2.00	8.05	
Toluene*	<0.050	0.050	12/11/2020	ND	1.85	92.4	2.00	7.75	
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	1.92	95.8	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.47	91.1	6.00	8.59	
Total BTEX	<0.300	0.300	12/11/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	12/14/2020	ND	432	108	400	3.77	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114	
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43	
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND					
Surrogate: 1-Chlorooctane	91.6	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	85.6	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	12/10/2020		Sampling Date:	12/10/2020
Reported:	12/14/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 22 N - BOTTOM (H003237-06)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2020	ND	1.93	96.6	2.00	8.05	
Toluene*	<0.050	0.050	12/11/2020	ND	1.85	92.4	2.00	7.75	
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	1.92	95.8	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.47	91.1	6.00	8.59	
Total BTEX	<0.300	0.300	12/11/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/14/2020	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114	
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43	
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND					
Surrogate: 1-Chlorooctane	84.5	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	80.3	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	12/10/2020		Sampling Date:	12/10/2020
Reported:	12/14/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 24 N - SIDE (H003237-07)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2020	ND	1.93	96.6	2.00	8.05	
Toluene*	<0.050	0.050	12/11/2020	ND	1.85	92.4	2.00	7.75	
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	1.92	95.8	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.47	91.1	6.00	8.59	
Total BTEX	<0.300	0.300	12/11/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/14/2020	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114	
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43	
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND					
Surrogate: 1-Chlorooctane	88.4	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	83.4	% 42.2-15	6						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	12/10/2020		Sampling Date:	12/10/2020
Reported:	12/14/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 24 N - BOTTOM (H003237-08)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2020	ND	2.02	101	2.00	5.96	
Toluene*	<0.050	0.050	12/11/2020	ND	1.92	96.0	2.00	5.88	
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	2.01	101	2.00	5.69	
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.76	96.0	6.00	5.29	
Total BTEX	<0.300	0.300	12/11/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/14/2020	ND	432	108	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114	
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43	
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND					
Surrogate: 1-Chlorooctane	80.2	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	75.7	% 42.2-15	6						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	12/10/2020		Sampling Date:	12/10/2020
Reported:	12/14/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 25 E - SIDE (H003237-09)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2020	ND	2.02	101	2.00	5.96	
Toluene*	<0.050	0.050	12/11/2020	ND	1.92	96.0	2.00	5.88	
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	2.01	101	2.00	5.69	
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.76	96.0	6.00	5.29	
Total BTEX	<0.300	0.300	12/11/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/14/2020	ND	432	108	400	3.77	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114	
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43	
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND					
Surrogate: 1-Chlorooctane	85.1	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	79.7	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	12/10/2020		Sampling Date:	12/10/2020
Reported:	12/14/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 25 E - BOTTOM (H003237-10)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2020	ND	2.02	101	2.00	5.96	
Toluene*	<0.050	0.050	12/11/2020	ND	1.92	96.0	2.00	5.88	
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	2.01	101	2.00	5.69	
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.76	96.0	6.00	5.29	
Total BTEX	<0.300	0.300	12/11/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/14/2020	ND	432	108	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114	
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43	
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND					
Surrogate: 1-Chlorooctane	92.5	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	86.6	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	12/10/2020		Sampling Date:	12/10/2020
Reported:	12/14/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 26 S - SIDE (H003237-11)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2020	ND	2.02	101	2.00	5.96	
Toluene*	<0.050	0.050	12/11/2020	ND	1.92	96.0	2.00	5.88	
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	2.01	101	2.00	5.69	
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.76	96.0	6.00	5.29	
Total BTEX	<0.300	0.300	12/11/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/14/2020	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114	
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43	
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND					
Surrogate: 1-Chlorooctane	84.6	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	78.8	% 42.2-15	6						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

		PIMA ENVIROMENTAL CHRIS JONES 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:		
Received:	12/10/2020		Sampling Date:	12/10/2020
Reported:	12/14/2020		Sampling Type:	Soil
Project Name:	EMERALD 20 PWU	#1H	Sampling Condition:	** (See Notes)
Project Number:	3		Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO	NM		

Sample ID: S - 26 S - BOTTOM (H003237-12)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2020	ND	2.02	101	2.00	5.96	
Toluene*	<0.050	0.050	12/11/2020	ND	1.92	96.0	2.00	5.88	
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	2.01	101	2.00	5.69	
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.76	96.0	6.00	5.29	
Total BTEX	<0.300	0.300	12/11/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/14/2020	ND	432	108	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114	
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43	
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND					
Surrogate: 1-Chlorooctane	86.8	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	80.4	% 42.2-15	6						

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Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the Q batch were accepted based on percent recoveries and completeness of QC data.						
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.						
ND	Analyte NOT DETECTED at or above the reporting limit						
RPD	Relative Percent Difference						
**	Samples not received at proper temperature of 6°C or below.						
***	Insufficient time to reach temperature.						
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C						
	Samples reported on an as received basis (wet) unless otherwise noted on report						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Received by OCD: 1/15/2021 1:42:45 PM

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(575) 393-	93-2476	BILL TO	ANALYSIS REQUEST
Project Manager: Chara Children	P.O.	#	
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State: /	zip: 88210	Attn: Wes Mathews	
Phone #: 0/04- + + + Color Fax #:		Address:	
3	owner: Devon city:		
Project Name: Emercula Jo PWU	U 1 H State:	le: Zip:	
on: Eddy (Pho	Phone #:	
Sampler Name: Robert Car Der	Fax		
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service. In no event shall Cardinal be liable for incidental or consequential damages, affiliates or successors arising out of or related to the performance of services hereu	including without limitation, busin nder by Cardinal, regardless of w	n any of the above stated reas	Fr 1
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Sampler - UPS - Bus - Other: Corrected Temp. °C	emp. °C	d Temp. °C Yes Yes To To Correction Factor None	Correction Factor None INC No Corrected Temp. °C

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PLEASE NOTE: Liability and Damages. Cardinal's liability and analyses. All claims including those for negligence and any oth service. In no event shall Cardinal be liable for incidental or con- adflinete or successors arising out of or related to the performan Relinquished By: Relinquished By: Delivered By: (Circle One) Sampler - UPS - Bus - Other:	101 E (57 Company Name: P Project Manager: Address: /60/ City: 42365 Phone #: 760/ Project Name: 27 Project Location: 27 Project Location: 27 For Lab I.D. Lab I.D. //2
client's exclusive er cause whatso resource a services a Date: // Date: // Date: // Date: // Date: // Corrected	st Marland, Hobbs, NM 5) 393-2326 FAX (575) 39 Chris Sares N. TUrnet State: 7740 Fax #: Project O Nerdd D Pur 6 Aubert Corpt Sample I.D. Sample I.D.
Received By	# CONTAINERS # CONTAINERS GROUNDWATER WASTEWATER X SOIL OIL SLUDGE
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CONDITIONS

Action 14823

District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410

Phone:(505) 334-6178 Fax:(505) 334-6170 <u>District IV</u> 1220 S. St Francis Dr., Santa Fe, NM 87505

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
PIMA ENVIRONMENTAL SERVICES, L 1601 N. Turner	329999	14823	C-141
Suite 500 Hobbs, NM88240			
OCD Reviewer	Condition		
ceads	None		