Trinity Oilfield Services & Rentals, LLC



Environmental Site Summary & Deferment Request

Company: Apache Corporation	Address: 2530	W. Marland St., Hobbs, NM 88240	Telephone #: (575) 393-7106
Site Name: State Land Lease 15		NMOCD Reference#:1RP	-5580
Surface Owner: State of New M	exico Mine	ral Owner: State of New Mexico	
Unit Letter: N (SE/SW) Section:	16 Township: 215 Range: 37E	County: Lea GPS Coordin	ates: <u>32.47274</u> N <u>-103.16856</u> W
Date/Time of Release: 6/19	7/2019 Type of Release:	☐ Crude Oil	er
Volume(s) Released: 20 bbls		Volume(s) Recovered: 15 bbls	
Closure Criteria for Impacted So	il (mg/kg; See Appendix C, "Cl	osure Criteria Justification"):	
Benzene: 10 BTEX: 50 G	RO+DRO: 1,000 TPH: ☐ 100		
Background Information:			
water load line failed due to o spill was limited to the caliche response activities, the load I free-standing liquid.	corrosion, resulting in the rele e pad surrounding the tank be ine was repaired, and a vac	eattery and did not impact the acuum truck was utilized to recove	s (bbls) of produced water. The jacent pasture. During initial approximately 15 bbls of
The release was immediately The NMOCD "Release Notific is provided as Figure 1.	reported to the New Mexico cation & Corrective Action" for	o Oil Conservation Division's (Norm (C-141) is provided as App	MOCD) Hobbs District Office, endix A. A "Site Location Map"
Summary of Field Activities:			
On September 13, 2019, deli and a hand auger was used t	neation of the release site of advance a series of boreh	ommenced. A hydrovac was uti	lized to locate buried pipelines, affected area to investigate the

extent of impacted soil. The auger holes were advanced to total depths ranging from 2 feet (SP-3) to 10 feet (SP-2) below ground surface (bgs). Soil samples were collected at 2-foot vertical intervals, and ten (10) confirmation samples (SP-2 @ 2', SP-2 @ 4', SP-2 @ 6', SP-2 @ 8', SP-2 @ 10', and SP-3 @ 2') were submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of benzene, toluene, ethylbenzene, and total xylene (BTEX) and total petroleum hydrocarbons (TPH) using Environmental Protection Agency (EPA) Methods SW 846-8021B and SW 846-8015 Mod, respectively.

Laboratory analytical results indicated benzene concentrations ranged from less than the laboratory method detection limit (MDL) in soil samples SP-2 @ 8', SP-2 @ 10', and SP-3 @ 2' to 1.72 mg/kg in sample SP-2 @ 2'. BTEX concentrations ranged from less than the laboratory MDL in samples SP-2 @ 10' and SP-3 @ 2' to 27.3 mg/kg in sample SP-2 @ 2'. Sum total concentrations of Gas Range Organics and Diesel Range Organics (GRO + DRO) ranged from less than the laboratory MDL in sample SP-2 @ 10' to 8,261 mg/kg in sample SP-2 @ 2'. TPH concentrations ranged from less than the laboratory MDL in sample SP-2 @ 10' to 10,051 mg/kg in sample SP-2 @ 2.

On September 18, 2019, excavation of impacted soil commenced. A chloride field-test kit and olfactory/visual senses were utilized to determine the horizontal extent of impacted soil and to guide the excavation. From September 18 through October 16, 2019, excavated soil was stockpiled on-site on 6-mil plastic, pending final disposition.

From September 18 through October 4, 2019, approximately 228 cubic yards of impacted soil was transported to Sundance Services, Inc. (NMOCD Permit #NM-01-0003), for disposal.

Trinity Oilfield Services & Rentals, LLC





Summary of Field Activities (cont.)

On October 4, 2019, ten (10) 5-point composite soil samples (B-3 @ 1', B-4 @ 1', B-5 @ 1', B-6 @ 1', B-7 @ 1', B-8 @ 1', B-9 @ 1', B-10 @ 1', W-5 @ 1', and W-6 @ 1') were collected from the bottom and sidewalls of the excavation and field-screened with a chloride test kit. Confirmation samples were submitted to the laboratory for analysis of BTEX and TPH concentrations. The samples were also analyzed for chloride concentrations using EPA Method 4500-CI B. Laboratory analytical results indicated benzene and BTEX constituent concentrations were less than the appropriate laboratory MDL in all submitted samples. GRO+DRO concentrations ranged from 62.0 mg/kg in sample B-8 @ 1' to 1,906 mg/kg in sample B-7 @ 1'. TPH concentrations ranged from 105 mg/kg in sample B-8 @ 1' to 3,050 mg/kg in sample B-9 @ 1'. Chloride concentrations ranged from 16.0 mg/kg in sample B-8 @ 1' to 128 mg/kg in sample B-10 @ 1'.

On October 7, 2019, four (4) 5-point composite soil samples (B-11 @ 1', B-12 @ 1', B-13 @ 1', and W-7 @ 1') were collected from the bottom and sidewall of the excavation and field-screened with a chloride test kit. Based on the results of the field-screens, the excavation was advanced to approximately 3 feet bgs in the area represented by soil sample B-11 @ 1', and six (6) confirmation samples (B-11 @ 1', B-11 @ 2', B-11 @ 3', B-12 @ 1', B-13 @ 1', and W-7 @ 1') were submitted to the laboratory for analysis of BTEX, TPH, BTEX, and chloride concentrations. Laboratory analytical results indicated benzene and BTEX constituent concentrations were less than the appropriate laboratory MDL in all submitted samples. GRO+DRO concentrations ranged from less than the laboratory MDL in sample B-13 @ 1' to 220 mg/kg in sample B-12 @ 1'. TPH concentrations ranged from less than the laboratory MDL in sample B-13 @ 1' to 365 mg/kg in sample B-12 @ 1'. Chloride concentrations ranged from 80.0 mg/kg in samples B-13 @ 1' and W-7 @ 1' to 640 mg/kg in sample B-11 @ 1'.

On October 16, 2019, three (3) delineation trenches (B-2, B-4, and B-10) were advanced in the bottom of the excavation to further investigate the vertical extent of impacted soil in the areas represented by samples B-2 @ 1', B-4 @ 1', and B-10 @ 1'. The delineation trenches were advanced in 2-foot vertical intervals to total depths ranging from 10 feet (B-4 and B-10) to 11 feet bgs (B-2). Soil samples were field-screened with a chloride test kit, and fifteen (15) confirmation samples (B-2 @ 3', B-2 @ 5', B-2 @ 7', B-2 @ 9', B-2 @ 11', B-4 @ 2', B-4 @ 4', B-4 @ 6', B-4 @ 8', B-4 @ 10', B-10 @ 2', B-10 @ 4', B-10 @ 6', B-10 @ 8', B-10 @ 10') were submitted to the laboratory for analysis of BTEX, TPH, and chloride concentrations. Laboratory analytical results indicated benzene concentrations were less than the laboratory MDL in all submitted samples, with the exceptions of samples B-2 @ 9' and B-10 @ 6', which exhibited benzence concentrations of 0.207 mg/kg and 0.575 mg/kg, respectively. BTEX concentrations ranged from less than the laboratory MDL in samples B-2 @ 3', B-4 @ 2', B-4 @ 4', B-4 @ 6', B-4 @ 8', B-4 @ 10', B-10 @ 2', B-10 @ 8', and B-10 @ 10' to 39.6 mg/kg in sample B-2 @ 9'. GRO+DRO concentrations ranged from less than the laboratory MDL in samples B-4 @ 4', B-4 @ 6', B-4 @ 8', and B-4 @ 10' to 10,187 mg/kg in sample B-10 @ 6'. Chloride concentrations ranged from 16.0 mg/kg in sample B-10 @ 10' to 1,620 mg/kg in sample B-2 @ 3'.

Based on these laboratory analytical results, vertical delineation of the areas represented by trenches B-2, B-4, and B-10 was achieved.

The surface area of the final excavation measures approximately 3,960 square feet, with excavation depths ranging from 1 to 3 feet bgs.

Locations of the auger holes, delineation trenches, and soil samples are depicted in Figure 2, "Sample Location Map". Photographs of the excavation are provided in Appendix B. Laboratory analytical results are summarized in Table 1, and chloride field-screen data is summarized in Table 2. Laboratory analytical reports are provided in Appendix D.

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Deferment Request:

Soil samples collected from the impacted area were analyzed by an NMOCD-approved laboratory, and chloride and BTEX constituent concentrations were below the Closure Criteria listed in Table I of Section 19.15.29.12 of the New Mexico Administrative Code (NMAC) for a site where depth to groundwater is 51-100 feet bgs (see Appendix C, "Closure Criteria Justification", for more information).

The GRO+DRO and TPH contamination in the areas represented by auger hole SP-2 and trenches B-2 and B-10 has been vertically delineated. Additional delineation and excavation in the areas represented by soil samples B-7 and B-9 is hindered by the presence of numerous pipes and appurtenances. Pursuant to Section 19.15.29.12.C(2) NMAC, since the impacted zone is in an area which would require a "major facility deconstruction", Apache hereby requests approval to defer further delineation and remediation until such time that the State Land Lease 15 tank battery is decommissioned and removed.

Enclosures:

Figure 1: Site Location Map
Figure 2: Sample Location Map

Table 1: Concentrations of Benzene, BTEX, TPH & Chloride in Soil

Table 2: Field Screens

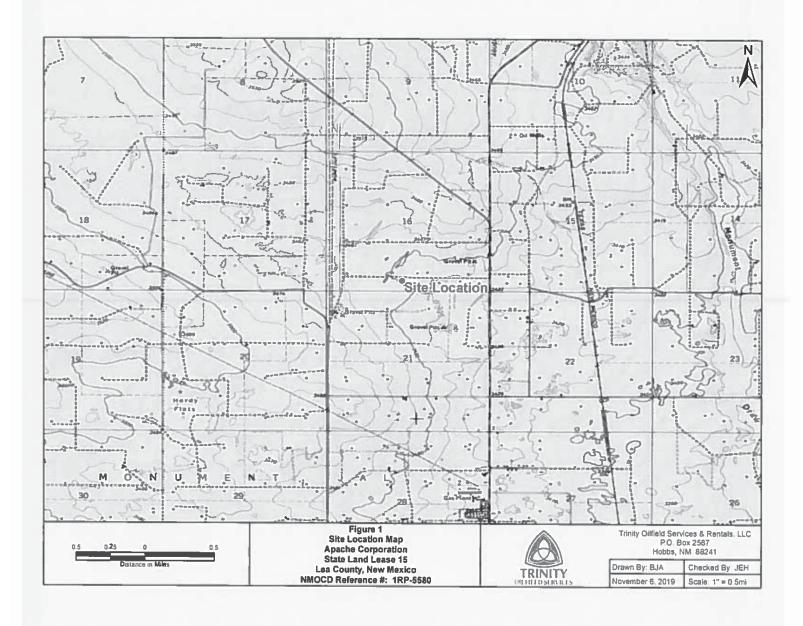
Appendix A: Release Notification & Corrective Action (Form C-141)

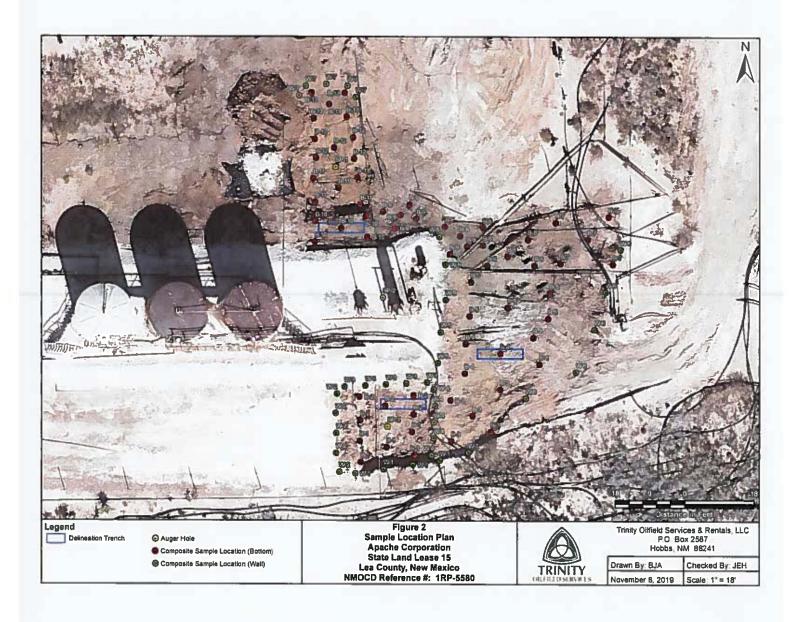
Appendix B: Photographs

Appendix C: Closure Criteria Justification
Appendix D: Laboratory Analytical Results

11/8/2019

Ben J. Arguijo Project Manager **Figures**





Tables

TABLE 1 CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

APACHE CORPORATION STATE LAND LEASE 15 LEA COUNTY, NEW MEXICO NMOCD REFERENCE #: 1RP-5580



	SAMPLE				EPA S	N-846 Metho	1 8021B			EPA SW	-846 Meth	od 8015M		4500-CI B
SAMPLE	DEPTH (BGS)	SAMPLE DATE	SOIL	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL- BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)	TOTAL BTEX (mg/kg)	GRO C6-C12 (mg/kg)	DRO C12-C28 (mg/kg)	GRO+ DRO (mg/kg)	MRO C28-C35 (mg/kg)	TPH C8-C35 (mg/kg)	CHLORIDI (mg/kg)
NMO	O Closure L	imits (mg/kg)		10	NE	NE	NE	50	NE	NE	1,000	NE	2,500	10,000
SP-2 @ 2'	2'	9/13/2019	In-Situ	1.72	10.7	8.75	6.11	07.0	704		THE PERSON NAMED IN	indictions.	Name and	
SP-2 @ 4'	4'	9/13/2019	In-Situ	0.297	0.170	1.67	0.471	27.3 2.61	721	7,540	8,261	1,790	10,051	
SP-2 @ 6'	6'	9/13/2019	In-Situ	1.51	0.178	3.26	1.03	5.97	20.5	275	296	11.4	307	
SP-2@8'	8'	9/13/2019	In-Situ	<0.050	<0.050	0.093	0.195	0.288	80.3	1,050	1,130	190	1,320	-
SP-2 @ 10'	101	9/13/2019	In-Situ	<0.050	<0.050	0.093	<0.150		<10.0	285	285	19.4	304	
	1000	2710/2019	III-ORU	QU.030	₹0.030	0.002	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	-
SP-3 @ 2'	2'	9/13/2019	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	355	355	171	526	
3-3 @ 1'	1'	10/4/2019	In-Situ	<0.050	0.000	0.050	STATE OF THE REAL PROPERTY.	and the same	1001000					W-300
3-4 @ 1'	111	10/4/2019	In-Situ		<0.050	<0.050	<0.150	<0.300	<10.0	168	168	113.0	281	48.0
3.5@1'	-	10/4/2019	In-Situ	<0.050 <0.050	<0.050	<0.050	<0.150	<0.300	<10.0	108	108	85.5	194	48.0
3-5@1'	11	10/4/2019	In-Situ	<0.050	<0.050	<0.050	< 0.150	< 0.300	<10.0	329	329	233	562	48.0
3.7 @ 1	12	10/4/2019	In-Situ		<0.050	< 0.050	<0.150	< 0.300	14.8	505	520	393	913	32.0
3-8 @ 1'	1	10/4/2019	In-Situ	<0.050	<0.050 <0.050	<0.050	<0.150	<0.300	15.7	1,890	1,906	1,010	2,916	48.0
3-9 @ 1'	12	10/4/2019	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	62.0	62.0	43.3	105	16.0
3-10 @ 1'	12	10/4/2019	In-Situ	<0.050		<0.050	<0.150	< 0.300	<10.0	1,880	1,880	1,170	3,050	32.0
N-5@1	1'	10/4/2019	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	192	192	146	338	128
N-6 @ 1'	1'	10/4/2019	In-Situ	<0.050	<0.050	<0.050	<0.150	< 0.300	<10.0	87.3	87.3	54.1	141	96.0
14-0 (8-1	0.55	10/4/2019	10-2101	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	127	127	89,9	217	112
3-11 @ 1'	1	10/7/2019	In-Situ	< 0.050	< 0.050	<0.050	<0.150	<0.300	<10.0	63.9	63.9	24.9	88.8	640
3-11 @ 2'	5.	10/7/2019	In-Situ	< 0.050	< 0.050	<0.050	< 0.150	< 0.300	<10.0	174	174	78.9	253	320
3-11 @ 3'	3'	10/7/2019	In-Situ	< 0.050	< 0.050	< 0.050	<0.150	< 0.300	<10.0	13.0	13.0	<10.0	13.0	96.0
3-12@1'	11	10/7/2019	In-Situ	<0.050	< 0.050	< 0.050	<0.150	< 0.300	<10.0	220	220	145	365	208
3-13 @ 1"	1'	10/7/2019	In-Situ	<0.050	< 0.050	< 0.050	< 0.150	< 0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
N-7	1'	10/7/2019	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	148	148	153	301	80.0
3-2@3'	3.	10/16/2019	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	305	305	202	507	1,620
3-2@5	5'	10/16/2019	In-Situ	< 0.050	0.055	< 0.050	1.12	1.17	48.3	379	427	64.9	492	256
3-2@7	7'	10/16/2019	In-Situ	<0.200	< 0.200	2.80	6.87	9.67	434	1,580	2.014	107	2.121	112
3-2@9"	9,	10/16/2019	In-Situ	0.207	< 0.200	10.8	28.5	39.6	607	1,770	2,377	218	2,595	112
3-2@11'	11'	10/16/2019	In-Situ	< 0.050	< 0.050	1.52	3.83	5.35	102	518	620	102	722	48.0
3-4 @ 2'	2'	10/16/2019	In-Situ	_<0.050	< 0.050	< 0.050	< 0.150	<0.300	<10.0	59.7	59.7	33.1	92.8	128
1-4 @ 4'	4'	10/16/2019	In-Situ	< 0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
3-4@6"	6'	10/16/2019	In-Situ	< 0.050	< 0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256
3-4 @ 8'	8.	10/16/2019	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
3-4 @ 10'	10'	10/16/2019	_tn-Situ	< 0.050	< 0.050	< 0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0

NE = Not Established = Not Analyzed Concentrations in BOLD exceed the NMOCD Closure Limit

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TABLE 1 CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

APACHE CORPORATION STATE LAND LEASE 15 LEA COUNTY, NEW MEXICO NMOCD REFERENCE #: 1RP-5580



	SAMPLE				EPA S	N-846 Method	8021B			EPA SW	-846 Metho	od 8015M		4500-CI B
SAMPLE LOCATION	DEPTH (BGS)	SAMPLE DATE	SOIL	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL- BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)	TOTAL BTEX (mg/kg)		DRO C12-C28 (mg/kg)	GRO+ DRO (mg/kg)	MRO C28-C35 (mg/kg)	TPH C6-C35 (mg/kg)	CHLORIDE (mg/kg)
NMC	CD Clasure L	imits (mg/kg)		10	NE	NE	NE	50	NE	NE	1,000	NE	2,500	10,000
B-10 @ 21	2	10/16/2019	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	168	168	102	270	160
B-10 @ 41	4'	10/16/2019	In-Situ	< 0.050	< 0.050	0.060	< 0.150	0.060	<10.0	211	211	89.4	300	80.0
B-10@6	6'	10/16/2019	In-Situ	0.575	0.366	2.51	3.17	6.62	297	7,860	8.157	2.030	10,187	512
B-10@8"	8,	10/16/2019	In-Situ	<0.050	< 0.050	< 0.050	<0.150	< 0.300	<10.0	378	378	116	494	304
8-10@10"	10"	10/16/2019	In-Situ	< 0.050	< 0.050	<0.050	<0.150	< 0.1300	<10.0	20.8	20.8	13.6	34.4	16.0
									00.00000	100		Date of the last		and the second

NE = Not Established = = Not Analyzed Concentrations in BOLD exceed the NIMOCD Closure Limit

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TABLE 2 FIELD TESTS

APACHE CORPORATION STATE LAND LEASE 15 LEA COUNTY, NEW MEXICO NMOCD REFERENCE #: 1RP-5580



	SAMPLE			HACH QUANTA	
SAMPLE LOCATION	DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	CHLORIDE (mg/Kg)	
NMOCD	Closure Lin	nit (mg/kg)		10,000	
14/4 (0.4)					
W-1 @ 1'	1'	9/17/2019	In-Situ	1,049	
D 2 @ 41	41	101410010			
B-3 @ 1'	1'	10/4/2019	In-Situ	599	
B-4 @ 1'	1'	10/4/2019	In-Situ	509	
B-5 @ 1'	1'	10/4/2019	In-Situ	569	
B-6 @ 1'	1'	10/4/2019	In-Situ	299	
B-7 @ 1'	1'	10/4/2019	In-Situ	239	
B-8 @ 1'	1'	10/4/2019	In-Situ	509	
B-9 @ 1'	1'	10/4/2019	In-Situ	359	
B-10 @ 1'	1'	10/4/2019	In-Situ	569	
W-5 @ 1'	1'	10/4/2019	In-Situ	539	
W-6 @ 1'	1'	10/4/2019	In-Situ	359	
B-11 @ 1'	1'	10/7/2019	Excavated	989	
B-11 @ 2'	2'	10/7/2019	Excavated	839	
B-11 @ 3'	3'	10/7/2019	In-Situ	599	
B-12 @ 1'	1'	10/7/2019	In-Situ	599	
B-13 @ 1'	1'	10/7/2019	In-Situ	389	
W-7 @ 1'	1'	10/7/2019	In-Situ	329	
	Willes III				
B-2 @ 3'	3'	10/16/2019	In-Situ	599	
B-2 @ 5'	5'	10/16/2019	In-Situ	299	
B-2 @ 7'	7'	10/16/2019	In-Situ	149	
B-2 @ 9'	9'	10/16/2019	In-Situ	149	
B-2 @ 11'	11'	10/16/2019	In-Situ	119	
B-4 @ 2'	2'	10/16/2019	In-Situ	119	
B-4 @ 4'	4'	10/16/2019	In-Situ	269	
B-4 @ 6'	6'	10/16/2019	In-Situ	179	
B-4 @ 8'	8'	10/16/2019	In-Situ	239	
B-4 @ 10'	10'	10/16/2019	In-Situ	119	
B-10 @ 2'	2'	10/16/2019	In-Situ	239	
B-10 @ 4'	4'	10/16/2019	In-Situ	89	
B-10 @ 6'	6'	10/16/2019	In-Situ	419	
B-10 @ 8'	8'	10/16/2019	In-Situ	209	
B-10 @ 10'	10'	10/16/2019	In-Situ	89	

Appendices

Appendix A Release Notification & Corrective Action (Form C-141)

<u>District 1</u> 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aziec, 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 Submit to appropriate OCD District office

Incident ID	NDHR1917859000
District RP	1RP-5580
Facility ID	
Application ID	pDHR1917858803

Release Notification

Responsible	Party: Apac	he Corporation		OG	OGRID 873			
Contact Nar	ne: Bruce B	laker		Con	tact Telephone: (432) 631-6982			
Contact ema	iil: Larry.Ba	ker@apachecorp.	com	Inci	dent # (assigned by OCD) NDHR1917859000	1		
Contact Mai 88240	ling Addres	s: 2350 W. Marla	nd Blvd, Hobbs,					
			Locatio	n of Relea	se Source			
		1	atitude: W 32.47	274 [.d	ngitude: N - 103.16856			
					5 decimal places)			
ite Name: S	tate Land L	ease 15		Site	Гуре: Well			
Date Release	Discovered	: June 19, 2019		API	# 3002506631(Nearest Well)			
	T		Mar Market and	_				
Unit Letter	Section	Township	Range	LEA	County			
	16 21S 37E L				Est 1			
arface Owne	er: 🛭 State	Federal 7			of Release			
urface Owne	Materi		Nature ar	nd Volume	of Release			
Crude Oi	Materi:	al(s) Released (Select Volume Releas	Nature ar	nd Volume	specific justification for the volumes provided below) Volume Recovered			
	Materi:	al(s) Released (Select Volume Releas Volume Releas Is the concentra	Nature are all that apply and attached sed (20 bbls) ation of dissolved	nd Volume	volume Recovered (15 bbls)			
Crude Oi	Materi:	al(s) Released (Select Volume Releas Volume Releas Is the concentra	Nature are all that apply and attached sed (20 bbls) atton of dissolved r >10,000 mg/l?	nd Volume	volume Recovered (15 bbls)			
☐ Crude Oi	Materi: I Water	Volume Released Volume Released Volume Released Is the concentration produced water	Nature are all that apply and attached sed (20 bbls) atton of dissolved r > 10,000 mg/l? sed (bbls)	nd Volume	volume Recovered (15 bbls) Yes No			
☐ Crude Oi ☐ Produced ☐ Condense	Materi: I Water ate	Al(s) Released (Select Volume Releas Volume Releas Is the concentra produced water Volume Releas	Nature are all that apply and attached sed (20 bbls) atton of dissolved r > 10,000 mg/l? sed (bbls)	nd Volume	volume Recovered (15 bbls) Volume Recovered (bbls))		
Crude Oi Produced Condense Natural C	Materi: I Water ate Gas escribe)	Al(s) Released (Select Volume Releas Volume Releas Is the concentra produced water Volume Releas	Nature an all that apply and attaced sed (20 bbls) atton of dissolved r >10,000 mg/l? sed (bbls) sed (Mcf)	nd Volume	volume Recovered (15 bbls) Volume Recovered (15 bbls) Volume Recovered (bbls) Volume Recovered (bbls))		
Crude Oi Produced Condense	Materi: I Water ate Gas escribe)	Al(s) Released (Select Volume Releas Volume Releas Is the concentra produced water Volume Releas	Nature an all that apply and attaced sed (20 bbls) atton of dissolved r >10,000 mg/l? sed (bbls) sed (Mcf)	nd Volume	volume Recovered (15 bbls) Volume Recovered (15 bbls) Volume Recovered (bbls) Volume Recovered (bbls))		
Crude Oi Produced Condense Natural C Other (de	Materi: I Water ate Gas escribe)	Volume Releas Is the concentra produced water Volume Releas Volume Releas Volume Releas Volume Releas Volume/Weigh	Nature an all that apply and attaced sed (20 bbls) atton of dissolved r >10,000 mg/l? sed (bbls) sed (Mcf)	nd Volume	volume Recovered (15 bbls) Volume Recovered (15 bbls) Volume Recovered (bbls) Volume Recovered (bbls))		
Crude Oi Produced Condense Natural C Other (de	Materi: I Water ate Gas escribe)	Volume Releas Is the concentra produced water Volume Releas Volume Releas Volume Releas Volume Releas Volume/Weigh	Nature an all that apply and attaced sed (20 bbls) attion of dissolved r >10,000 mg/l? sed (bbls) sed (Mcf)	nd Volume	volume Recovered (15 bbls) Volume Recovered (15 bbls) Volume Recovered (bbls) Volume Recovered (bbls))		
Crude Oi Produced Condense Natural C Other (de	Materi: I Water ate Gas escribe)	Volume Releas Is the concentra produced water Volume Releas Volume Releas Volume Releas Volume Releas Volume/Weigh	Nature an all that apply and attaced sed (20 bbls) attion of dissolved r >10,000 mg/l? sed (bbls) sed (Mcf)	nd Volume	volume Recovered (15 bbls) Volume Recovered (15 bbls) Volume Recovered (bbls) Volume Recovered (bbls))		
Crude Oi Produced Condense Natural C Other (de	Materi: I Water ate Gas escribe)	Volume Releas Is the concentra produced water Volume Releas Volume Releas Volume Releas Volume Releas Volume/Weigh	Nature an all that apply and attaced sed (20 bbls) attion of dissolved r >10,000 mg/l? sed (bbls) sed (Mcf)	nd Volume	volume Recovered (15 bbls) Volume Recovered (15 bbls) Volume Recovered (bbls) Volume Recovered (bbls))		

Form C-141 Page 2

State of New Mexico Oil Conservation Division

Was this a major release as defined by 19.15.29.7(A) NMAC? If YES, for what reason(s) does the responsible party consider this a major release?
☐ Yes 🖾 No
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Via email given to NM OCD by Bruce Baker, Senior Environmental Technician, Apache Corporation
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.
Printed Name: <u>Jeff Broom</u> Title: <u>Environmental Technician</u>
Signature: Date: <u>06/19/2019</u>
Email: <u>Jeffrey.Broom@apachecorp.com</u> Telephone: (432) 664-4677
OCD Only
Received by: Dylan Rose-Coss Date: 06/27/2019

Form C-141 Page 3

State of New Mexico Oil Conservation Division

Incident ID	nDHR1917859000
District RP	1RP-5580
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?	
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 V 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 vert contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	ical extents of soil
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.	s.
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.

Form C-141

Page 4

State of New Mexico Oil Conservation Division

Incident ID	nDHR1917859000
District RP	1RP-5580
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release not public health or the environment. The acceptance of a C-141 report by the failed to adequately investigate and remediate contamination that pose a thr addition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	ifications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In
Printed Name: Bruce BAKEr	Title: Environmental Tech SR.
Signature: Baker	Date: _// -// -//
email: larry, baker@apachecorp.com	Telephone: 432-631-6982
OCD Only	
Received by: Cristina Eads	Date: 002/17/2020

Form C-141 Page 5

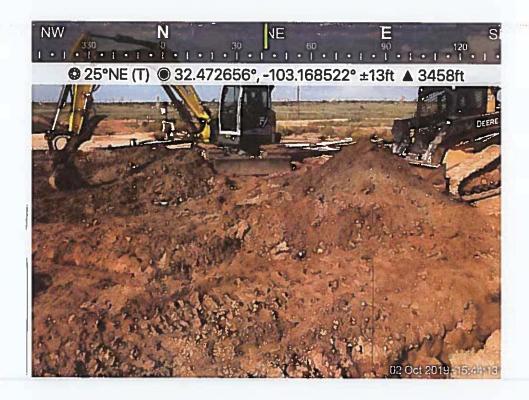
State of New Mexico Oil Conservation Division

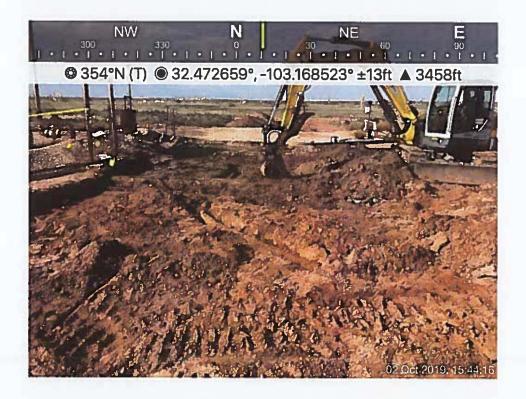
Incident ID	nDHR1917859000
District RP	1RP-5580
Facility ID	
Application ID	

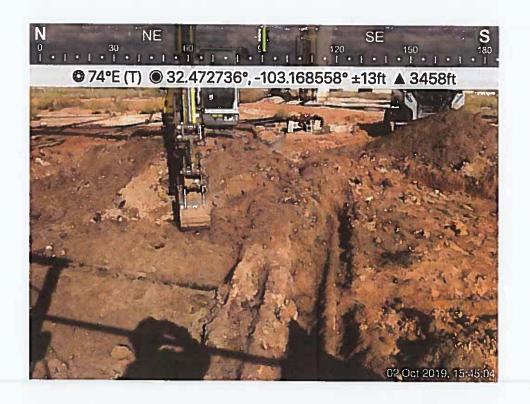
Remediation Plan

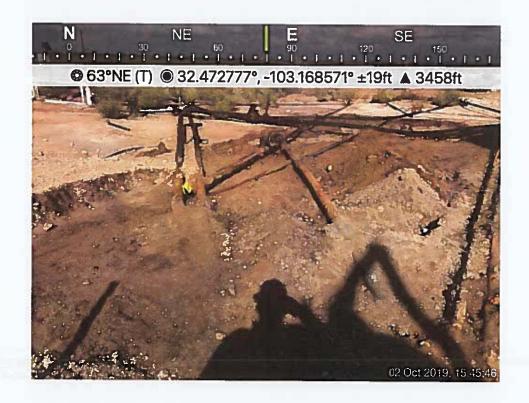
Remediation Plan Checklist: Each of the following items must b	e included in the plan.
Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation poin Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29. Proposed schedule for remediation (note if remediation plan times)	ts 12(C)(4) NMAC
Deferral Requests Only: Each of the following items must be con	nfirmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around predeconstruction.	roduction equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	1
Contamination does not cause an imminent risk to human health	h, the environment, or groundwater.
I hereby certify that the information given above is true and comple rules and regulations all operators are required to report and/or file which may endanger public health or the environment. The accepta liability should their operations have failed to adequately investigate surface water, human health or the environment. In addition, OCD responsibility for compliance with any other federal, state, or local	e and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of laws and/or regulations.
Printed Name: Bruce BAKer	Title: Environmental Tech. SR.
Signature: Bruce Baker	Date: //~//-/9
email: larry. baker @ apachecorp.com	Telephone: 432-631-6782
OCD Only	
Received by: Cristina Eads	Date:02/17/2020
Approved Approved with Attached Conditions of	Approval Denied Deferral Approved
Signature: Cristina Cads	Date: 02/17/2020

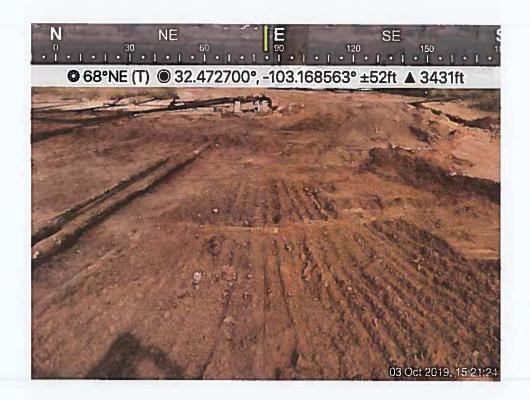
Appendix B Photographs



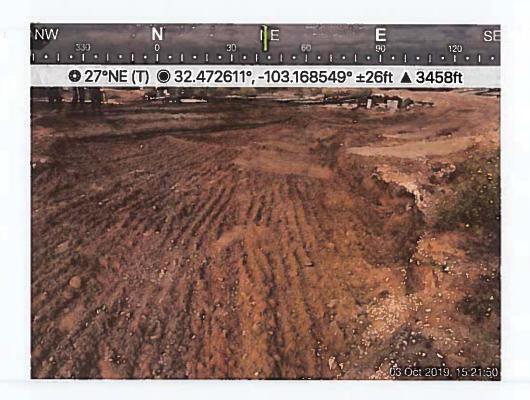














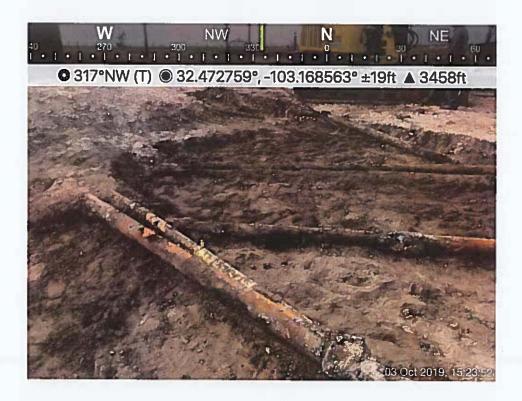
















Appendix C

Closure Criteria Justification

TABLE 3 CLOSURE CRITERIA JUSTIFICATION

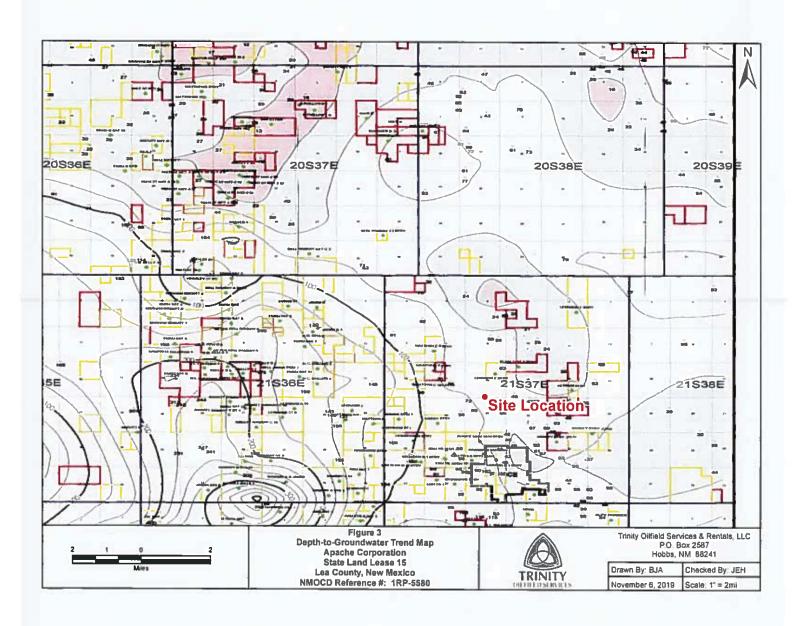
APACHE CORPORATION STATE LAND LEASE 15 LEA COUNTY, NEW MEXICO NMOCD REFERENCE #: 1RP-5580

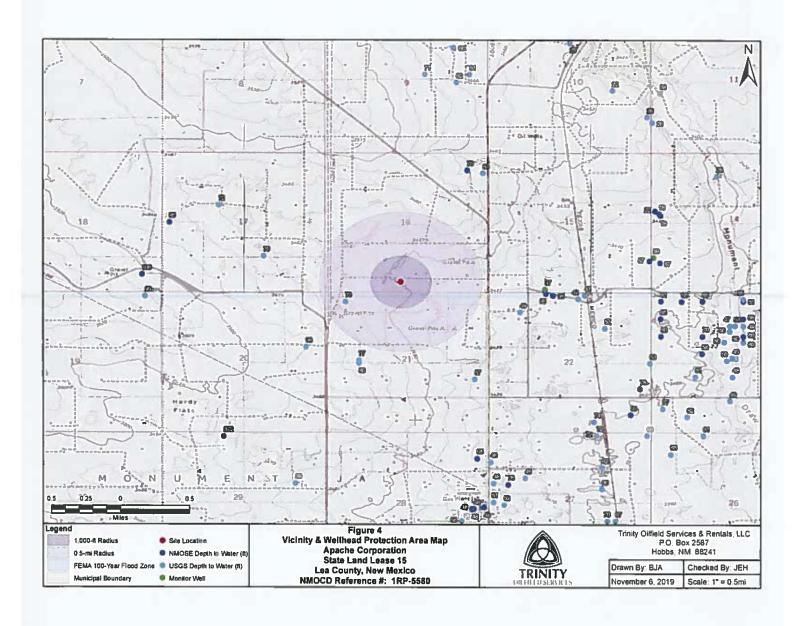


Groundwater, Water Wells & Other Water So	Durces
Depth to groundwater (ft)?	70
Horizontal distance (ft) from all water sources within 0.5 miles?	1,940
Within 500' of a spring or a private, domestic fresh water well used than 5 households for domestic or stock watering purposes?	by less No
Within 1000' of any fresh water well or spring?	No
Surface Water	
Horizontal distance (ft) to nearest significant watercourse?	>1,000
Within 300' of any continuously flowing watercourse or any other significant watercourse?	No
Within 200' of any lakebed, sinkhole or playa lake?	No
Human-Occupied, Environmental & Other A	Areas
Within incorporated municipal boundaries or within a defined muni fresh water well field?	icipal No
Within 300' of an occupied permanent residence, school, hospital, institution or church?	No
Within 300' of a wetland?	No
Within the area overlying a subsurface mine?	No
Within an unstable area?	No
Within a 100-year floodplain?	No

Closure Criteria (mg/kg)*										
Benzene	BTEX	GRO + DRO	TPH	Chloride						
10	50	1,000	2,500	10,000						

^{*}Numerical limits or natural background level, whichever is greater







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

No records found.

UTMNAD83 Radius Search (in meters):
--------------------------	-------------

Easting (X): 672107.58

Northing (Y): 3594320.21

Radius: 804.67 (0.5 miles)



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

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

(R=POD has been replaced, O=orphaned, C=the file is

closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

	5.0004/	1	-1						(TOO O THE IN THE	10107		III icci)	
POD Number	POD Sub- Code basin	County		Q (Sec	Tws	Rng	×	Y	Distance			Water Column
CP 00729 POD1	CP	LE	4	1	3	15	215	37E	673259	3594711*	1215	8015		Per i i e e e e e e e e e e e e e e e e e
CP 01141 POD3	СР	LE				15	215	37E	673520	3594272	1413	40		
CP 01141 POD2	CP	LE				15	215	37E	673543	3594250 🌑	1436	40		
CP 00554	СР	LE		2	2	16	215	37E	672744	3595610*	1438	80	70	10
CP 01575 POD1	СР	LE	1	2	1	22	215	37E	673544	3594204	1441	40	35	
CP 01141 POD	СР	LE				15	218	37E	673556	3594239 🌑	1450	45		
CP 00731 POD1	СР	LE		2	1	22	215	37E	673577	3594015*	1500	8130		
CP 01575 POD2	СР	LE	2	2	1	22	215	37E	673615	3594181 🌑	1514	35	35	(
										Avera	ge Depth to	Water	46	feet
									- 35		Minimum	Depth:	35	feet
											Maximum	Depth:	70	feet

Record Count: 8

UTMNAD83 Radius Search (in meters):

Easting (X): 672107.58

Northing (Y): 3594320.21

Radius: 1610 (1 mile)

*UTM location was derived from PLSS - see Help

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

Appendix D

Laboratory Analytical Reports



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

September 16, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: STATE LAND LEASE 15

Enclosed are the results of analyses for samples received by the laboratory on 09/13/19 15:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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.

Celey D. Keine

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. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received: Reported: 09/13/2019

09/16/2019

Project Name: Project Number: STATE LAND LEASE 15

Project Location:

NONE GIVEN **NOT GIVEN**

Sampling Date:

09/13/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact Jodi Henson

Sample ID: SP-2 @ 2 - 32.472733 (H903170-01)

BTEX 80218

mg/kg

Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	1.72	0.500	09/16/2019	ND	1.84	92.0	2.00	6.79	
Toluene*	10.7	0.500	09/16/2019	ND	1.89	94.4	2.00	4.62	
Ethylbenzene*	8.75	0.500	09/16/2019	ND	1.94	96.9	2.00	4.64	
Total Xylenes*	6.11	1.50	09/16/2019	ND	5.87	97.9	6.00	5.18	
Total BTEX	27.3	3.00	09/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL

94.0%

73.3-129

TPH 8015M	mg,	/kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	721	100	09/14/2019	ND	198	98.8	200	5.98	
DRO >C10-C28*	7540	100	09/14/2019	ND	201	100	200	7.76	
EXT DRO >C28-C36	1790	100	09/14/2019	ND					

Surrogate: 1-Chlorooctane

106%

41-142

Surrogate: 1-Chlorooctadecane

262 %

37.6-147

Cardinal Laboratories

*=Accredited Analyte

limited to the amount paid by client for analyses. All claims, including those for ne erly other clause whatsoever shall be deemed valved unless made in writing and received by Cardinal within thirty (10) days after completion of the applicable service. In no event shall Cardinal be including, without limitation, business interruptions, loss of use, or loss of profits incurred by Client, as subsidenes, affiliates or successors arong out of or related to the performance of the services her claim is based upon any of the above stated reasons or otherwise. Results related only to the semples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeny To Keene

Celey D. Keene, Lab Director/Quality Manager

Page 2 of 9



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received: Reported: 09/13/2019

09/16/2019

Project Name:

STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN NOT GIVEN

Sampling Date:

09/13/2019

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: SP-2 @ 4 - 103.168650 (H903170-02)

BTEX 80218	mg	/kg	Analyze	d By: BF				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	0.297	0.050	09/16/2019	ND	1.84	92.0	2.00	6.79		
Toluene*	0.170	0.050	09/16/2019	ND	1.89	94.4	2.00	4.62		
Ethylbenzene*	1.67	0.050	09/16/2019	ND	1.94	96.9	2.00	4.64		
Total Xylenes*	0.471	0.150	09/16/2019	ND	5.87	97.9	6.00	5.18		
Total BTEX	2.61	0.300	09/16/2019	ND						

Surrogate: 4-Bromofluorobenzene (PIL

142 %

73.3-129

TPH 8015M	mg	mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	20.5	10.0	09/16/2019	ND	198	98.8	200	5.98	
DRO >C10-C28*	275	10.0	09/16/2019	ND	201	100	200	7.76	
EXT DRO >C28-C36	11.4	10.0	09/16/2019	ND					
Surrogate: 1-Chloroociane	88.1	% 41-142	,		-				

Surrogate: 1-Chlorooctadecane

96.7%

37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Usability and Damages. Cardinal's lability and cleants exclusive remedy for any clean ansang, whether based in contract or tort, shall be limited to the amount paid by cleant for analyses. All cleans, exclusing those for negligence and any other cause whatsoever shall be dearmed waved unless made in writing and received by Cardinal within theiry (30) days after complexion of the applicable service. In no event shall Cardinal be Rable for incidental or consequential damages, including, without familiation, business interruptions, loss of use, or loss of grafts encurred by cleant, its aubsidiances, affiliated or successors arising cut of or related to the performance of the services hereunder by Cardinal, regardless of whether such

Celent treens

Celey D. Keene, Lab Director/Quality Manager

Page 3 of 9



Analytical Results For:

APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received:

09/13/2019

Sampling Date:

09/13/2019

Reported:

09/16/2019

Sampling Type:

Soil

Project Name:

STATE LAND LEASE 15

Sampling Condition:

Cool & Intact

Project Number: Project Location: NONE GIVEN NOT GIVEN Sample Received By:

Jodi Henson

Sample ID: SP-2 @ 6 (H903170-03)

BTEX 8021B	mg	/kg	Analyzed By: CK						5-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	1.51	0.050	09/16/2019	ND	2.14	107	2.00	2.36	
Toluene*	0.178	0.050	09/16/2019	ND	1.96	98.0	2.00	4.79	
Ethylbenzene*	3.26	0.050	09/16/2019	ND	2.42	121	2.00	17.2	
Total Xylenes*	1.03	0.150	09/16/2019	ND	6.01	100	6.00	1.48	
Total BTEX	5.97	0.300	09/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE

141%

73.3-129

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*	80.3	10.0	09/16/2019	ND	198	98.8	200	5.98	
DRO >C10-C28*	1050	10.0	09/16/2019	ND	201	100	200	7.76	
EXT DRO >C28-C36	190	10.0	09/16/2019	ND					

Surrogate: 1-Chlorooctane

92.0 %

41-142

Surrogate: I-Chlorooctadecane

106 %

37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liabstey, and Damages. Cardnaff substey and chem's evaluative remady for any claim bring, whether based in compress or tors, shall be limited to the amount paid by client for enabyses. All claims, including those for negligence and any other claims whatcover shall be deemed waved unless made in wrong and received by Cardnall within within 100 days after completion of the applications service. In no event shall Cardnal be labele for incidental or consequenced demages, including, without limitations, between interruptions, loss of use, or loss of profits incurred by cleent, as Absolutiones, affiliation or successors entering out of or related to the performance of the services hereunder by Cardnal, regardless of whether such claim is based upon any of the above stated relations or otherwise. Results related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardnal Laboratories.

Celego trame

Celey D. Keene, Lab Director/Quality Manager

Page 4 of 9



Analytical Results For:

APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. **HOBBS NM, 88240**

Fax To:

(575) 393-2432

Received: Reported: 09/13/2019

09/16/2019

Project Name:

STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN **NOT GIVEN**

Sampling Date:

09/13/2019

Sampling Type: Sampling Condition: Soil

Sample Received By:

Cool & Intact Jodi Henson

Sample ID: SP-2 @ 8 (H903170-04)

BTEX 80218

mg/kg

Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2019	ND	2.14	107	2.00	2.36	
Toluene*	<0,050	0.050	09/16/2019	В	1.96	98.0	2.00	4.79	
Ethylbenzene*	0.093	0.050	09/16/2019	ND	2.42	121	2.00	17.2	
Total Xylenes*	0.195	0.150	09/16/2019	ND	6.01	100	6.00	1.48	
Total BTEX	<0.300	0.300	09/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE

107%

73.3-129

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	09/14/2019	ND	198	98.8	200	5.98	
DRO >C10-C28*	285	10.0	09/14/2019	ND	201	100	200	7.76	
EXT DRO >C28-C36	19.4	10.0	09/14/2019	ND					

Surrogate: 1-Chlorooctane

96.3 %

41-142

Surrogate: 1-Chlorooctadecane

108 %

37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's Rability and cleam's exclusive remedy for any claim ansing, whether based in contract or tort, shall be limited to the amount paid by clent for analyses. All cleams, including those for negligence and eved by Cardenal within thirty (30) days after co id by thert, its subsidiaries, affiliates or successors

Celega to Kame

Celey D. Keene, Lab Director/Quality Manager

Page 5 of 9



Analytical Results For:

APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received:

09/13/2019

Reported:

09/16/2019

Project Name: Project Number: STATE LAND LEASE 15 NONE GIVEN

Project Location:

NOT GIVEN

Sampling Date:

09/13/2019 Soil

Sampling Type: Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: SP-2 @ 10 (H903170-05)

BTEX 8021B

mg/kg

Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2019	ND	2.14	107	2.00	2.36	
Toluene*	< 0.050	0.050	09/16/2019	ND	1.96	98.0	2.00	4.79	
Ethylbenzene*	0.082	0.050	09/16/2019	ND	2.42	121	2.00	17.2	
Total Xylenes*	< 0.150	0.150	09/16/2019	ND	6.01	100	6.00	1.48	
Total BTEX	<0.300	0.300	09/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL

103 %

73.3-129

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	09/14/2019	ND	198	98.8	200	5.98	
DRO >C10-C28*	<10.0	10.0	09/14/2019	ND	201	100	200	7.76	
EXT DRO >C28-C36	<10.0	10.0	09/14/2019	ND					

Surrogate: 1-Chlorooctane

97.3 %

41-142

Surrogate: 1-Chlorooctadecane

107 %

37.6-147

Cardinal Laboratories

*=Accredited Analyte

tract or turt, shall be limited to the amount paid by client for analysiss. All claims, including those for nephysics and within thirty (30) days after comp including, without a mattern, business interruptions, loss of use, or loss of profes incurred by client, its subsidiaries, affiliates or successions arraing out of or related on the client is based upon any of the above stated reasons or otherwise. Results related residently to the subsidiaries and the report shall not be reproduced execut in life with written approval of Cardnell successions. This report shall not be reproduced execut in life with written approval of Cardnell successions.

Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager

Page 6 of 9



Analytical Results For:

APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. **HOBBS NM, 88240** Fax To: (575) 393-2432

Received: 09/13/2019

Reported: 09/16/2019

Project Name: STATE LAND LEASE 15

Project Number: NONE GIVEN

Project Location: **NOT GIVEN** Sampling Date:

09/13/2019

Sampling Type: Cool & Intact

Sampling Condition: Sample Received By:

Jodi Henson

Sample ID: SP-3 @ 2 32.472663 - 103.168602 (H903170-06)

mg/	ny	Allalyze	d By: CK					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<0.050	0.050	09/16/2019	ND	2.14	107	2.00	2.36	
<0.050	0.050	09/16/2019	ND	1.96	98.0	2.00	4.79	
<0.050	0.050	09/16/2019	ND	2.42	121	2.00	17.2	
<0.150	0.150	09/16/2019	ND	6.01	100	6.00	1.48	
<0.300	0.300	09/16/2019	ND					
	Result <0.050 <0.050 <0.050 <0.150	Result Reporting Limit <0.050 0.050 <0.050 0.050 <0.050 0.050 <0.150 0.150	Result Reporting Limit Analyzed <0.050	Result Reporting Limit Analyzed Method Blank <0.050	Result Reporting Limit Analyzed Method Blank BS <0.050	Result Reporting Limit Analyzed Method Blank BS % Recovery <0.050	Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC <0.050	Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD <0.050

Surrogate: 4-Bromofluorobenzene (PIL 96.6 % 73.3-129

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	09/16/2019	ND	198	98.8	200	5.98	
DRO >C10-C28*	355	10.0	09/16/2019	ND	201	100	200	7.76	
EXT DRO >C28-C36	171	10.0	09/16/2019	ND					

Surrogate: 1-Chlorooctane 91.9% 41-142 Surrogate: 1-Chlorooctadecane 103 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

Celeg L Keen



Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
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 SM4500CI-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

Cardinal Laboratories

*=Accredited Analyte

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Caleny L. Keine



101 East Marland, Hobbs, NM 88240

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

	575) 393-2326 FAX (875) 393-2476 _APache_corroration								-	IIL.	L TO	111				AN	ALYS	SIS	REQ	UEST				
roject Manager;	Bruce Buser						P.6). #.																1
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By:	State:	Zip:					At	tn:			-													1
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	David Rayler		_			ATF	Fa	u di	ESE		SAMPL		-		1 1	- 1			-	- 1				
Lab I.D. H903170	Sample I.D. 47-4-02-22-472733 47-2-04-103-11-8160 52-2-05 47-2-08 47-2-08 47-2-08 47-2-103-11-81-02	(G)RAB OR (C)OMP.	's CONTANERS	GROUNDWATER	EWATER		OTHER	ACIDIBASE		OTHER	DATE AlisiM	TIME	SACKS ENTTH	STEV STEX										
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October 10, 2019

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: STATE LAND LEASE 15

Enclosed are the results of analyses for samples received by the laboratory on 10/04/19 16:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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.

Celey D. Keene

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. Keene

Lab Director/Quality Manager



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received:

10/04/2019

Reported:

BTEX 8021B

10/10/2019

Project Name:

STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN EUNICE, NM

Sampling Date:

10/04/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: B 3 @ 1' 32.472647 - 103.168564 (H903392-01)

	111317		raidiyac	0 0y. Di					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/07/2019	ND	2.25	113	2.00	0.131	
Toluene*	<0.050	0.050	10/07/2019	ND	1.96	98.2	2.00	0.844	
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.98	99.1	2.00	0.661	
Total Xylenes*	<0.150	0.150	10/07/2019	ND	6.06	101	6.00	0.0505	
Total BTEX	<0.300	0.300	10/07/2019	ND					
Surrogate: 4-Bromosluorobenzene (PIE	98.7 9	6 73.3-12	9		1188				
Chloride, SM4500CI-B	mg/l	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/07/2019	ND	432	108	400	0.00	
TOU GOIEM		I	A	4 0 140					

Analyzed By: BF

			,					4100	
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	10/07/2019	ND	201	101	200	11.7	
DRO >C10-C28*	168	10.0	10/07/2019	ND	196	98.0	200	6.25	
EXT DRO >C28-C36	113	10.0	10/07/2019	ND					
			1122						

Surrogate: 1-Chlorooctane 77.7 % 41-142 Surrogate: 1-Chlorooctadecane 105 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. **HOBBS NM, 88240**

Fax To:

(575) 393-2432

Received: Reported: 10/04/2019

10/10/2019

Project Name:

STATE LAND LEASE 15

Project Number:

NONE GIVEN

Project Location:

EUNICE, NM

Sampling Date:

10/04/2019

Sampling Type: Sampling Condition: Soil

Sample Received By:

Cool & Intact

Tamara Oldaker

Sample ID: B 4 @ 1' 32.472683 - 103.168637 (H903392-02)

BTEX 80218	mg/	kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/07/2019	ND	2.25	113	2.00	0.131	
Toluene*	<0.050	0.050	10/07/2019	ND	1.96	98.2	2.00	0.844	
Ethylbenzene*	< 0.050	0.050	10/07/2019	ND	1.98	99.1	2.00	0.661	
Total Xylenes*	<0.150	0.150	10/07/2019	ND	6.06	101	6.00	0.0505	
Total BTEX	<0.300	0.300	10/07/2019	ND					
			-222						

Surrogate: 4-Bromofluorobenzene (PIL

95.9%

73.3-129

Chloride, SM4500CI-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	10/07/2019	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	10/07/2019	ND	201	101	200	11.7	
DRO >C10-C28*	108	10.0	10/07/2019	ND	196	98.0	200	6.25	
EXT DRO >C28-C36	85.5	10.0	10/07/2019	NĐ					

Surrogate: 1-Chlorooctane

81.2%

41-142

Surrogate: 1-Chlorooctadecane

95.5 %

37.6-147

Cardinal Laboratories

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Calego Karae



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. **HOBBS NM, 88240**

Fax To:

(575) 393-2432

Received:

10/04/2019

Sampling Date:

10/04/2019

Reported:

10/10/2019

Sampling Type:

Soil

Project Name:

STATE LAND LEASE 15

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Project Location:

EUNICE, NM

Sample Received By:

Tamara Oldaker

Sample ID: B 5 @ 1' 32.472717 - 103.168551 (H903392-03)

BTEX 80218	mg,	/kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/07/2019	ND	2.25	113	2.00	0.131	
Toluene*	<0.050	0.050	10/07/2019	ND	1.96	98.2	2.00	0.844	
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.98	99.1	2.00	0.661	
Total Xylenes*	<0.150	0.150	10/07/2019	ND	6.06	101	6.00	0.0505	
Total BTEX	<0.300	0.300	10/07/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL

102%

73.3-129

mg/kg		Analyzed By: AC						
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
48.0	16.0	10/07/2019	ND	432	108	400	0.00	
mg,	/kg	Analyze	d By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<10.0	10.0	10/08/2019	ND	201	101	200	11.7	
329	10.0	10/08/2019	ND	196	98.0	200	6.25	
233	10.0	10/08/2019	ND					
	Result 48.0 mg Result <10.0 329	Result Reporting Limit 48.0 16.0 mg/kg Result Reporting Limit <10.0 10.0 329 10.0	Result Reporting Limit Analyzed 48.0 16.0 10/07/2019 mg/kg Analyze Result Reporting Limit Analyzed <10.0	Result Reporting Limit Analyzed Method Blank 48.0 16.0 10/07/2019 ND mg/kg Analyzed By: MS Result Reporting Limit Analyzed Method Blank <10.0	Result Reporting Limit Analyzed Method Blank BS 48.0 16.0 10/07/2019 ND 432 mg/kg Analyzed By: MS Result Reporting Limit Analyzed Method Blank BS <10.0	Result Reporting Limit Analyzed Method Blank BS % Recovery 48.0 16.0 10/07/2019 ND 432 108 mg/kg Analyzed By: MS Result Reporting Limit Analyzed Method Blank BS % Recovery <10.0	Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC 48.0 16.0 10/07/2019 ND 432 108 400 mg/kg Analyzed By: MS Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC <10.0	Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD 48.0 16.0 10/07/2019 ND 432 108 400 0.00 mg/kg Analyzed By: MS Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD <10.0

Surrogate: 1-Chlorooctane

95.4%

41-142

Surrogate: 1-Chlorooctadecane

126%

37.6-147

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Celeny L. Keene



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received: Reported: 10/04/2019

10/10/2019

Project Name:

STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN

EUNICE, NM

Sampling Date:

Sampling Type:

10/04/2019 Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: B 6 @ 1' 32.472784 - 103.168577 (H903392-04)

BTEX 8021B	mg/	kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/07/2019	ND	2.25	113	2.00	0.131	
Toluene*	<0.050	0.050	10/07/2019	ND	1.96	98.2	2.00	0.844	
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.98	99.1	2.00	0.661	
Total Xylenes*	<0.150	0.150	10/07/2019	ND	6.06	101	6.00	0.0505	
Total BTEX	<0.300	0.300	10/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.4	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/07/2019	ND	432	108	400	0.00	

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/07/2019	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*	14.8	10.0	10/08/2019	ND	201	101	200	11.7	
DRO >C10-C28*	505	10.0	10/08/2019	ND	196	98.0	200	6.25	
EXT DRO >C28-C36	393	10.0	10/08/2019	ND					

Surrogate: 1-Chlorooctane 99.9 % 41-142 Surrogate: 1-Chlorooctadecane 105 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celega Karaa



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received:

10/04/2019

Reported:

10/10/2019

Project Name: Project Number: STATE LAND LEASE 15 NONE GIVEN

Project Location:

EUNICE, NM

Sampling Date:

Sampling Type:

10/04/2019 Soil

Sampling Condition:

Sample Received By:

Cool & Intact

Tamara Oldaker

Sample ID: B 7 @ 1' 32.472820 - 103.168489 (H903392-05)

BTEX 8021B

Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/07/2019	ND	2.25	113	2.00	0.131	
Toluene*	<0.050	0.050	10/07/2019	ND	1.96	98.2	2.00	0.844	
Ethylbenzene	<0.050	0.050	10/07/2019	ND	1.98	99.1	2.00	0.661	
Total Xylenes*	<0.150	0.150	10/07/2019	ND	6.06	101	6.00	0.0505	
Total BTEX	<0.300	0.300	10/07/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL

99.4%

73.3-129

Chloride, SM4500CI-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	10/07/2019	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*	15.7	10.0	10/08/2019	ND	201	101	200	11.7	
DRO >C10-C28*	1890	10.0	10/08/2019	ND	196	98.0	200	6.25	
EXT DRO >C28-C36	1010	10.0	10/08/2019	ND					

Surrogate: 1-Chlorooctane

102 %

41-142

Surrogate: 1-Chlorooctadecane

154%

37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celega trans



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. HOBBS NM, 88240 Fax To: (575) 393-2432

Received:

10/04/2019

Reported:

10/10/2019

Project Name: Project Number: STATE LAND LEASE 15

Project Location:

NONE GIVEN

EUNICE, NM

Sampling Date:

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

10/04/2019

Tamara Oldaker

Sample ID: B 8 @ 1' 32.472739 - 103.168420 (H903392-06)

BTEX 8021B

mg/kg

Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/07/2019	ND	2.25	113	2.00	0.131	
Toluene*	<0.050	0.050	10/07/2019	ND	1.96	98.2	2.00	0.844	
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.98	99.1	2.00	0.661	
Total Xylenes*	<0.150	0.150	10/07/2019	ND	6.06	101	6.00	0.0505	
Total BTEX	<0.300	0.300	10/07/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL

96.4%

73.3-129

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/07/2019	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	10/07/2019	ND	201	101	200	11.7	
DRO >C10-C28*	62.0	10.0	10/07/2019	ND	196	98.0	200	6.25	
EXT DRO >C28-C36	43.3	10.0	10/07/2019	ND					
Surrogate 1-Chlomostana	P. ()	o/ 11.115							

Surrogate: 1-Chlorooctane

84.4 %

Surrogate 1-Chlorooctadecane

92.8%

37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardina's liability and chant's exclusive remedy for any claim arising, whether based in contract or tort, shall be any other claims whostower shall be deermad welved unless made in writing and recoved by Cardinal workin theirty (20) days after completion of the including, without findicion, business interruptions, lose of use, or loss of profits inclumed by client, as subsidiaries, a militages or successions arising out of claim is based upon any of the above stated reasons or otherwise. Results related only ors arming out of or related to the performance of the services hereunder by Cardinal, regardless of whisther

Celeng to Keene



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. **HOBBS NM, 88240**

Fax To:

(575) 393-2432

Received:

10/04/2019

Reported:

BTEX 8021B

10/10/2019

Project Name:

STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN **EUNICE, NM**

mg/kg

Sampling Date:

10/04/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: B 9 @ 1' 32.472717 - 103.168569 (H903392-07)

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	10/07/2019	ND	2.25	113	2.00	0.131	
Toluene*	<0.050	0.050	10/07/2019	ND	1.96	98.2	2.00	0.844	
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.98	99.1	2.00	0.661	
Total Xylenes*	<0.150	0.150	10/07/2019	ND	6.06	101	6.00	0.0505	
Total BTEX	<0.300	0.300	10/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIC	94 3 9	% 73.3-12	9	Se College					
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	32.0	16.0	10/07/2019	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	Qualifie
GRO C6-C10*	<10.0	10.0	10/08/2019	ND	201	101	200	11.7	
DRO >C10-C28*	1880	10.0	10/08/2019	ND	196	98.0	200	6.25	
EXT DRO >C28-C36	1170	10.0	10/08/2019	ND					

Analyzed By: BF

Surrogate: 1-Chlorooctane 101% 41-142 Surrogate: 1-Chlorooctadecane 157% 37.6-147

Cardinal Laboratories

*=Accredited Analyte

All claims, including those for negligence and whatonever shall be deemed waived unless made in writing and received by Cardinal within there (30) days after com finitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors

Celeny L. Keen



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. HOBBS NM, 88240 Fax To: (575) 393-2432

Received:

10/04/2019

Reported:

BTEX 8021B

10/10/2019

Project Name:

STATE LAND LEASE 15

Project Number: Project Location: **NONE GIVEN EUNICE, NM**

146

86.3 %

102 %

10.0

41-142

37.6-147

mg/kg

Sampling Date:

Sampling Type:

10/04/2019 Soil

Sampling Condition:

Sample Received By:

Cool & Intact

Tamara Oldaker

Sample ID: B 10 @ 1' 32.472819 - 103.168663 (H903392-08)

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/07/2019	ND	2.25	113	2.00	0.131	
Toluene*	<0.050	0.050	10/07/2019	ND	1.96	98.2	2.00	0.844	
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.98	99.1	2.00	0.661	
Total Xylenes*	<0.150	0.150	10/07/2019	ND	6.06	101	6.00	0.0505	
Total STEX	<0.300	0.300	10/07/2019	ND					
Surrogate 4-Bromofluorobenzene (PIE	96.89	6 73.3-12	9						
Chloride, SM4500CI-B	mg/i	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/07/2019	ND	432	108	400	0.00	
TPH 8015M	mg/i	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	10/07/2019	ND	201	101	200	11.7	
DRO >C10-C28*	192	10.0	10/07/2019	ND	196	98.0	200	6.25	

ND

10/07/2019

Analyzed By: BF

Cardinal Laboratories

EXT DRO >C28-C36

Surrogate: 1-Chlorooctane

Surrogate: 1-Chlorooctadecane

*=Accredited Analyte

within thirty (30) days after com

Celeg to Keene



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received:

10/04/2019

Sampling Date:

10/04/2019

Reported:

10/10/2019

Sampling Type:

Soil

Project Name:

Sampling Condition:

Cool & Intact

Project Number:

STATE LAND LEASE 15 NONE GIVEN

Sample Received By:

Tamara Oldaker

Project Location:

EUNICE, NM

Sample ID: W 5 @ 1' 32.472816 - 103.168556 (H903392-09)

B1EX 80218	मातु/	kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	10/07/2019	ND	2.25	113	2.00	0.131	
Toluene*	<0.050	0.050	10/07/2019	ND	1.96	98.2	2.00	0.844	
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.98	99.1	2.00	0.661	
Total Xylenes*	<0.150	0.150	10/07/2019	ND	6.06	101	6.00	0.0505	
Total BTEX	< 0.300	0.300	10/07/2019	ND					

Chloride, SM4500CI-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	10/07/2019	ND	416	104	400	0.00	
TPH 8015M	mg/kg		Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/07/2019	ND	201	101	200	11.7	
DRO >C10-C28*	87.3	10.0	10/07/2019	ND	196	98.0	200	6.25	
EXT DRO >C28-C36	54.1	10.0	10/07/2019	ND					

Surrogate: 1-Chlorooctane

87.3%

41-142

Surrogate: 1-Chlorooctadecane

96.9%

37.6-147

Cardinal Laboratories

*=Accredited Analyte

Cellen & Kenne

Celey D. Keene, Lab Director/Quality Manager

Page 10 of 14



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. **HOBBS NM, 88240**

Fax To:

(575) 393-2432

Analyzed By: BF

Received:

10/04/2019

Reported:

10/10/2019

Project Name:

STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN

EUNICE, NM

mg/kg

Sampling Date:

Sampling Type:

Sampling Condition:

Sample Received By:

10/04/2019

Cool & Intact

Soil

Tamara Oldaker

Sample ID: W 6 @ 1' 32.472690 - 103.168405 (H903392-10) BTEX 8021B

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	10/10/2019	ND	1.87	93.4	2.00	3.03	
Toluene*	<0.050	0.050	10/10/2019	ND	1.91	95.4	2.00	2.50	
Ethylbenzene*	<0.050	0.050	10/10/2019	ND	1.93	96.3	2.00	2.53	
Total Xylenes*	<0.150	0.150	10/10/2019	ND	5.76	96.1	6.00	2.79	
Total BTEX	<0.300	0.300	10/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIC	94,2	% 73.3-12	9				715		
Chloride, SM4500CI-B	mg,			d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/07/2019	ND	416	104	400	0.00	
	112 mg,			ND d By: MS	416	104	400	0.00	
					416 BS	104 % Recovery	400 True Value QC	0.00	Qualifie
Chloride TPH 8015M Analyte GRO C6-C10*	mg,	ľkg	Analyze	d By: MS				-	Qualifie

10/07/2019

41-142 Surrogate: 1-Chlorooctane 83.4% Surrogate: 1-Chlorooctadecane 93.6% 37.6-147

89.9

10.0

Cardinal Laboratories

EXT DRO > C28-C36

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's babbity and client's exclusive remedy for any claim an any other cause whatevever shall be deemed wewed unless made in writing and received by Cardinal within thirty (30) days after completion of the appl including, without limitation, business interruptions, loss of use, or tass of profits incurred by chent, its subsedur-claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. Their report sha ors arraing out of or related to the perfor

Celeg T. Kanne

Celey D. Keene, Lab Director/Quality Manager

Page 11 of 14



Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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 SM4500CI-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

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's Babbley and client's exclusive remedy for any claim insing, whether based in contract or tort, shall be limited to the amount paid by clent for analyses. All claims, including those for negligence and any other causes whatesover shall be deemed viewed unless made in writing and increved by Cardinal within there (30) days after completion of the applicable service. In no event shall Cardinal be lable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or law of profits manned by Clent, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hersunder by Cardinal, regardless of whether such claims is based upon any of the above stated resistors or otherwise. Results related event or only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Liaboratomies.

Celent Keene



101 East Marland, Hobbs, NM 88240

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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October 15, 2019

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: STATE LAND LEASE 15

Enclosed are the results of analyses for samples received by the laboratory on 10/07/19 16:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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 accredited accredited analytes.

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.

Celey D. Keine

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. Keene

Lab Director/Quality Manager



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received:

10/07/2019

Sampling Date:

10/07/2019

Reported:

10/15/2019

Sampling Type:

Soil

Project Name:

STATE LAND LEASE 15

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Tamara Oldaker

Project Location:

EUNICE, NM

Sample ID: B 11 @ 1' 32.472748 (H903404-01)

BTEX 8021B

mg/kg

Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	RPD I	Qualifier
Benzene*	<0.050	0.050	10/11/2019	ND	1.93	96.6	2.00	3.23	
Toluene*	<0.050	0.050	10/11/2019	ND	2.04	102	2.00	2.72	
Ethylbenzene*	< 0.050	0.050	10/11/2019	ND	2.02	101	2.00	2.07	
Total Xylenes*	<0.150	0.150	10/11/2019	ND	6.14	102	6.00	1.41	
Total BTEX	<0.300	0.300	10/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL

102%

73 3-129

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	10/09/2019	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	10/08/2019	ND	216	108	200	2.40	
DRO >C10-C28*	63.9	10.0	10/08/2019	ND	208	104	200	1.31	
EXT DRO >C28-C36	24.9	10.0	10/08/2019	ND					
Surrogate 1-Chlorooctane	97.9	% 41-142				11/1		8	

Surrogate: 1-Chlorooctadecane

108 %

37.6-147

Cardinal Laboratories

*=Accredited Analyte

ed by Cardinal within thirty (30) days after to

Celega Kenne



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. **HOBBS NM, 88240**

Fax To:

(575) 393-2432

Received: Reported: 10/07/2019

10/15/2019

Project Name: Project Number: STATE LAND LEASE 15 NONE GIVEN

Project Location:

EUNICE, NM

Sampling Date:

Sampling Type:

10/07/2019

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: B 11 @ 2' -103.168664 (H903404-02)

BIEX 8051B	mg/	kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2019	ND	1.93	96.6	2.00	3.23	
Toluene*	<0.050	0.050	10/11/2019	ND	2.04	102	2.00	2.72	
Ethylbenzene*	<0.050	0.050	10/11/2019	ND	2.02	101	2.00	2.07	
Total Xylenes*	<0.150	0.150	10/11/2019	ND	6.14	102	6.00	1.41	

ND

10/11/2019

Surrogate: 4-Bromofluorobenzene (PIL

Total BTEX

102%

< 0.300

73.3-129

0.300

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte Chloride	Result	Reporting Limit	Analyzed 10/09/2019	Method Blank ND	8S 400	% Recovery	True Value QC 400	RPD 7.69	Qualifier
TPH 8015M	mg/kg		Analyze	Analyzed By: MS					(6):
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/08/2019	ND	216	108	200	2.40	
DRO >C10-C28*	174	10.0	10/08/2019	ND	208	104	200	1.31	
EXT DRO >C28-C36	78.9	10.0	10/08/2019	ND					
Summer I Chiamana	00.0	0/ // //	20		-110	S 0		- 10	

Surrogate: 1-Chlorooctane

99.0%

41-142

Surrogate: 1-Chlorooctadecane

117%

37.6-147

Cardinal Laboratories

*=Accredited Analyte

Celeny treens

Celey D. Keene, Lab Director/Quality Manager

Page 3 of 9



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. **HOBBS NM, 88240**

Fax To:

(575) 393-2432

Received: Reported:

Project Name:

10/07/2019

10/15/2019

STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN EUNICE, NM

Sampling Date:

Sampling Type:

10/07/2019

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: B 11 @ 3' (H903404-03)

BTEX 8021B	

		~y	/ Mary ZE	o by. or					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2019	ND	1.93	96.6	2.00	3.23	
Toluene*	< 0.050	0.050	10/11/2019	ND	2.04	102	2.00	2.72	
Ethylbenzene*	<0.050	0.050	10/11/2019	ND	2.02	101	2.00	2.07	
Total Xylenes*	<0.150	0.150	10/11/2019	ND	6.14	102	6.00	1.41	
Total BTEX	<0.300	0.300	10/11/2019	ND					
And the second second									

Surrogate: 4-Bromofluorobenzene (PIL

103 %

73.3-129

Chloride, SM4500CI-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	10/09/2019	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	10/08/2019	ND	216	108	200	2.40	
DRO >C10-C28*	13.0	10.0	10/08/2019	ND	208	104	200	1.31	
EXT DRO >C28-C36	<10.0	10.0	10/08/2019	ND					

Surrogate: 1-Chlorooctane

100 %

41-142

Surrogate: 1-Chlorooctadecane

104%

37.6-147

Cardinal Laboratories

*=Accredited Analyte

idy for any claim arising, whether based in contract or tort, shall be firmled to the amount paid by client for analyses. All claims, including those for negligence and any other cause whitsoners shall be deemed waved unless made in wrong and received by Cardinal within thety (30) days after cor including, without limitation, business interruptions, form of use, or loss of profits incurred by client, its subsidiance, effects or successors

Celany L. Kan

Celey D. Keene, Lab Director/Quality Manager

Page 4 of 9



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. **HOBBS NM, 88240**

Fax To:

(575) 393-2432

Received:

10/07/2019

10/15/2019

Sampling Date: Sampling Type: 10/07/2019

Reported:

Soil Cool & Intact

Project Name:

STATE LAND LEASE 15 NONE GIVEN

Sampling Condition: Sample Received By:

Tamara Oldaker

Project Number: Project Location:

EUNICE, NM

Sample ID: B 12 @ 1' 32.440247 (H903404-04)

BTEX 8021B	mg,	/kg	Analyze	d By: BF		<u> </u>			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2019	ND	1.93	96.6	2.00	3.23	
Toluene*	<0.050	0.050	10/11/2019	ND	2.04	102	2.00	2.72	
Ethylbenzene*	<0.050	0.050	10/11/2019	ND	2.02	101	2.00	2.07	
Total Xylenes*	<0.150	0.150	10/11/2019	ND	6.14	102	6.00	1.41	
Total BTEX	<0.300	0.300	10/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE

101%

73.3-129

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte Chloride	Result	Reporting Limit	Analyzed 10/09/2019			% Recovery	True Value QC	RPD 0.00	Qualifier
TPH 8015M	mg	/kg		d By: MS	416			0.00	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	B5	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/08/2019	ND	216	108	200	2.40	
DRO >C10-C28*	220	10.0	10/08/2019	ND	208	104	200	1.31	
EXT DRO >C28-C36	145	10.0	10/08/2019	ND					

Surrogate: 1-Chlorooctane

97.8%

41-142

Surrogate: 1-Chlorooctadecane

118%

37.6-147

Cardinal Laboratories

*=Accredited Analyte

Celeny & treme-

Celey D. Keene, Lab Director/Quality Manager

Page 5 of 9



Analytical Results For:

APACHE CORP - HOBBS **JEFFREY BROOM** 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received:

10/07/2019

Sampling Date:

10/07/2019

Reported:

10/15/2019

Sampling Type:

Soil

Project Name:

STATE LAND LEASE 15

Sampling Condition:

Cool & Intact

Project Number: Project Location: NONE GIVEN EUNICE, NM

Sample Received By:

Tamara Oldaker

Sample ID: B 13 @ 1' -103.191134 (H903404-05)

21EY 805TB	mg/	кд	Anaiyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2019	ND	1.93	96.6	2.00	3.23	
Toluene*	<0.050	0.050	10/11/2019	ND	2.04	102	2.00	2.72	
Ethylbenzene*	<0.050	0.050	10/11/2019	ND	2.02	101	2.00	2.07	
Total Xylenes*	<0.150	0.150	10/11/2019	ND	6.14	102	6.00	1.41	
Total BTEX	< 0.300	0.300	10/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC

101%

73.3-129

37.6-147

Chloride, 5M4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	oride 80.0 16.0		10/09/2019	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	Qualifler
GRO C6-C10*	<10.0	10.0	10/09/2019	ND	195	97.3	200	3.90	
DRO >C10-C28*	<10.0	10.0	10/09/2019	ND	201	100	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	10/09/2019	ND					
Surrogate: 1-Chlorooctane	91.1	% 41-142		074		20			-19116172

Surrogate: 1-Chlorooctadecane

92,9%

Cardinal Laboratories

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Celeng To Keen



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received: Reported: 10/07/2019

Project Name:

10/15/2019 **STATE LAND LEASE 15**

Project Number: Project Location: NONE GIVEN **EUNICE, NM**

Sampling Date:

10/07/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact Tamara Oldaker

Sample ID: W 7 32.472832- 103.168625 (H903404-06)

BTEX 8021B

Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2019	ND	1.93	96.6	2.00	3.23	
Toluene*	<0.050	0.050	10/11/2019	ND	2.04	102	2.00	2.72	
Ethylbenzene*	<0.050	0.050	10/11/2019	ND	2.02	101	2.00	2.07	
Total Xylenes*	<0.150	0.150	10/11/2019	ND	6.14	102	6.00	1.41	
Total BTEX	<0.300	0.300	10/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL

988%

73.3-129

Chloride,	SM4500CI-B

mg/kg

Allolyzed by. Ac	

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/09/2019	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	10/09/2019	ND	195	97.3	200	3.90	
DRO >C10-C28*	148	10.0	10/09/2019	ND	201	100	200	2.10	
EXT DRO >C28-C36	153	10.0	10/09/2019	ND					

Surrogate: 1-Chlorooctadecane

98.8 %

37.6-147

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Celeny & Keen

Celey D. Keene, Lab Director/Quality Manager

Page 7 of 9



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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 SM4500CI-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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PLEASE NOTE: Lieblety and Damages. Cardinal's Babilety and charts's exclusive remedy for any claim arising, whitcher based in contract or tort, shall be intend to the amount paid by cherk for analyses. All claims, including those for negligence and any other cause whatepower shall be deemed waved unless made in writing and received by Cardinal within thetty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidencial or consequential damages, including, without amiliation, business interruptions, loss of use, or loss of profits incurred by Clerk, it is ubsidiants, affiliation or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated nestors or otherwise. Results related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celen T. Keine

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name	HANCHE COMPONETON							100	1/3/	18	8//	LL TO	SVMSLASO	6 8		G171.0	AA	ALVE	IR P	70115	O.T.	-	_
Project Manage	Jeff Broom / Brice Bake	-						P.	0,#	_		100			ANALYSIS REQUEST						-		
Address:		Sie.						Co	mp	any				1									
Ity.	State:	Zij	:	100				Attn					1										
Phone #:	Fax #:							Address:					1		1	1			12.3	1			
Project #:	Project Owner	10				-	19	CI	ty:	T				1	1								
Project Name:	State hand Lease 15		1	-				State: Zip:			0.0	1			1 1		8		1 1				
roject Locatio	n: Eurice, NM			-			0-	Ph	one					1									
ampler Name:	David Robler	_						_	x#:	-		Way and	2.23	1								4	
PORTAR USE ONLY	- Language Constitution of the Constitution of		Г	_	M	ATR	ρX	20	PRI	53E	RV	SAMPLI	NG	1	1		V 11						
5	Sample I.D. B-II @1-32-472-749 B-II @ 2-lo3-14944 B-II @ 3 R-1201-32-440247 B-1301-lo3-14-134 W-7-32-472-832 -103-14-8125	(G)RAB DR (C)OMP.	CONTAINERS	GROUNDWATER	WASTEWATER	1000	3DON'16	OTHER:	ACIDIBASE	ICE / COOF	OTHER:	DATE 10/7/M	TIME	777777	AND THE TEN	SOS SOS SER							
atinquished By	and the control of th	Re	COLV	ed l	ly:		dum	on	de	CHE	CKE	ED BY:	Phone Re Fax Resis REMATRIC	erico. Heritalt:	O Yes		No Add			IFold	lson	ikes.	COM



October 21, 2019

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: STATE LAND LEASE 15

Enclosed are the results of analyses for samples received by the laboratory on 10/16/19 16:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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/qa/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.

Celey D. Keene

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. Keene

Lab Director/Quality Manager



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To: (575) 393-2432

Received:

10/16/2019

Reported:

10/21/2019

Project Name:

STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN **EUNICE, NM**

Sampling Date:

10/16/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact Tamara Oldaker

Sample ID: B - 2 @ 3 32.47670 (H903527-01)

BTEX 8021B	mg/kg
Amelia	Danie III Daniel III i

Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<0.050	0.050	10/19/2019	ND	2.07	103	2.00	2.28	
<0.050	0.050	10/19/2019	ND	2.09	104	2.00	0.481	
<0.050	0.050	10/19/2019	ND	2.03	102	2.00	0.478	
<0.150	0.150	10/19/2019	ND	6.11	102	6.00	1.21	
<0.300	0.300	10/19/2019	ND					
	<0.050 <0.050 <0.150	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Analyzed By: BF

Surrogate: 4-Bromofluorobenzene (PIL

101%

73.3-129

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC			+			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1620	16.0	10/21/2019	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	10/19/2019	ND	212	106	200	1.71	
DRO >C10-C28*	305	10.0	10/19/2019	ND	208	104	200	1.04	
EXT DRO >C28-C36	202	10.0	10/19/2019	ND					

Surrogate: 1-Chlorooctane

108%

41-142

Surrogate: 1-Chlorooctadecane

136%

37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Usablery and Damages. Cardinal's liability and chent's exclusive remedy for any any other cause whistoever shall be deemed weeved unless made in writing and received by

Celen To Keene



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. **HOBBS NM, 88240** (575) 393-2432

Fax To:

Received: Reported: 10/16/2019

Project Name:

10/21/2019

Project Number:

STATE LAND LEASE 15 NONE GIVEN

Project Location:

EUNICE, NM

Sampling Date:

10/16/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: B - 2 @ 5 -103.168581 (H903527-02)

BTEX 8021B	mg/kg		Analyze	Analyzed By: BF				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/19/2019	ND	2.07	103	2.00	2.28		
Toluene*	0.055	0.050	10/19/2019	ND	2.09	104	2.00	0.481		
Ethylbenzene*	<0.050	0.050	10/19/2019	ND	2.03	102	2.00	0.478		
Total Xylenes*	1.12	0.150	10/19/2019	ND	6.11	102	6.00	1.21		
Total BTEX	1.17	0.300	10/19/2019	ND						
Surrogate: 4-Bromofluorobenzene (PIE	139 5	6 73.3-12	9							
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	10/21/2019	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*	48.3	10.0	10/19/2019	ND	212	106	200	1.71		
DRO >C10-C28*	379	10.0	10/19/2019	ND	208	104	200	1.04		
EXT DRO >C28-C36	64.9	10.0	10/19/2019	ND						
Surrogate 1-Chlorooctane	112 9	6 41-142								
Surrogate: 1-Chlorooctadecane	112 9	6 37.6-14	7							

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PLEASE NOTE: Liability and Damages. Cardnal's Rability and chern's exclusive re-any other cluste whitsoever shall be deemed waved unless made in writing an d velocid unless made in vertical and received by Cardinal widths there (30) days after completion of the applicable service. In no event shall Ca one, loss of use, or use of profits incurred by chert, its subsidered, affiliates or successors arising out of or related to the performance of the ser

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Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received: Reported: 10/16/2019

10/21/2019

Project Name:

STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN EUNICE, NM Sampling Date:

10/16/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: B - 2 @ 7 (H903527-03)

BTEX 8021B

mg/kg

Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	10/19/2019	ND	2.07	103	2.00	2.28	
Toluene*	<0.200	0.200	10/19/2019	ND	2.09	104	2.00	0.481	
Ethylbenzene*	2.80	0.200	10/19/2019	ND	2.03	102	2.00	0.478	
Total Xylenes*	6.87	0.600	10/19/2019	ND	6.11	102	6.00	1.21	
Total BTEX	9.67	1.20	10/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC

123 %

73.3-129

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/21/2019	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*	434	50.0	10/19/2019	ND	212	106	200	1.71	
DRO >C10-C28*	1580	50.0	10/19/2019	ND	208	104	200	1.04	
EXT DRO >C28-C36	107	50.0	10/19/2019	ND					

Surrogate: 1-Chlorooctane

138 %

41-142 37.6-147

Surrogate: 1-Chlorooctadecane

142 %

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Page 4 of 19



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received:

10/16/2019

10/21/2019

Reported: Project Name:

STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN **EUNICE, NM**

141%

218

73.3-129

50.0

Sampling Date:

10/16/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: B - 2 @ 9 (H903527-04)

Surrogate: 4-Bromofluorobenzene (PIL

		Analyzed By: BF				S-04		
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
0.207	0.200	10/19/2019	ND	2.07	103	2.00	2.28	
<0.200	0.200	10/19/2019	ND	2.09	104	2.00	0.481	GC-NC
10.8	0.200	10/19/2019	ND	2.03	102	2.00	0.478	
28.5	0.600	10/19/2019	ND	6.11	102	6.00	1.21	
39.6	1.20	10/19/2019	ND					
	0.207 <0.200 10.8 28.5	0.207 0.200 <0.200	0.207 0.200 10/19/2019 <0.200	0.207 0.200 10/19/2019 ND <0.200	0.207 0.200 10/19/2019 ND 2.07 <0.200	0.207 0.200 10/19/2019 ND 2.07 103 <0.200	0.207 0.200 10/19/2019 ND 2.07 103 2.00 <0.200	0.207 0.200 10/19/2019 ND 2.07 103 2.00 2.28 <0.200

Chloride, SM4500CI-B	mg.	/kg	Analyzed By: AC					_	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/21/2019	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	607	50.0	10/19/2019	ND	212	106	200	1.71	
DRO >C10-C28*	1770	50.0	10/19/2019	ND	208	104	200	1.04	

ND

208

104

200

1.04

10/19/2019

10/19/2019

Surrogate: 1-Chlorooctane 150% 41-142 Surrogate: 1-Chlorooctadecane 151% 37.6-147

Cardinal Laboratories

EXT DRO >C28-C36

*=Accredited Analyte

Celega to treene



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. **HOBBS NM, 88240** Fax To: (575) 393-2432

Received:

10/16/2019

Reported:

10/21/2019

Project Name:

STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN EUNICE, NM

Sampling Date:

10/16/2019

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: B - 2 @ 11 (H903527-05)

BTEX 8021B

mg/kg

Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2019	ND	2.07	103	2.00	2.28	
Toluene*	<0.050	0.050	10/20/2019	ND	2.09	104	2.00	0.481	
Ethylbenzene*	1.52	0.050	10/20/2019	ND	2.03	102	2.00	0.478	- 1
Total Xylenes*	3.83	0.150	10/20/2019	ND	6.11	102	6.00	1.21	2
Total BTEX	5.35	0.300	10/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL

150 %

73.3-129

Chloride, SM4500CI-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	10/21/2019	ND	432	108	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*	102	10.0	10/18/2019	ND	208	104	200	3.40	
DRO >C10-C28*	518	10.0	10/18/2019	ND	200	100	200	4.71	QM-07
EXT DRO >C28-C36	102	10.0	10/18/2019	ND					

Surrogate: 1-Chlorooctane

103 %

41-142

Surrogate: 1-Chlorooctadecane

104%

37.6-147

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Celley & Keens

Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. **HOBBS NM, 88240**

Fax To: (575) 393-2432

Received:

10/16/2019

Sampling Date:

10/16/2019

Reported:

10/21/2019

Sampling Type:

Soil

Project Name:

STATE LAND LEASE 15

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Tamara Oldaker

Project Location:

EUNICE, NM

Sample ID: B - 4 @ 2 32.436157 (H903527-06)

BTEX 8021B	mg/	kg	Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2019	ND	2.07	103	2.00	2.28	
Toluene*	<0.050	0.050	10/20/2019	ND	2.09	104	2.00	0.481	
Ethylbenzene*	<0.050	0.050	10/20/2019	ND	2.03	102	2.00	0.478	
Total Xylenes*	<0.150	0.150	10/20/2019	ND	6.11	102	6.00	1.21	
Total BTEX	<0.300	0.300	10/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL

102 %

73.3-129

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/21/2019	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	10/18/2019	ND	208	104	200	3.40	
DRO >C10-C28*	59.7	10.0	10/18/2019	ND	200	100	200	4.71	
EXT DRO >C28-C36	33.1	10.0	10/18/2019	ND					
Surrogate: 1-Chlorooctane	102	% 41-142	3.243 10					2335-E	- 17/11 - 2

Surrogate: 1-Chlorooctadecane

129 %

37.6-147

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Celleng Z. Kenne

Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. **HOBBS NM, 88240**

Fax To:

(575) 393-2432

Analyzed By: BF

Received:

BTEX 8021B

10/16/2019

Reported:

10/21/2019

Project Name:

STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN EUNICE, NM

Sampling Date:

10/16/2019

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: B - 4 @ 4 -103.181344 (H903527-07)

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2019	ND	2.07	103	2.00	2.28	
Toluene*	<0.050	0.050	10/20/2019	ND	2.09	104	2.00	0.481	
Ethylbenzene*	<0.050	0.050	10/20/2019	ND	2.03	102	2.00	0.478	
Total Xylenes*	<0.150	0.150	10/20/2019	ND	6.11	102	6.00	1.21	
Total BTEX	<0.300	0.300	10/20/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.8 9	6 73.3-12	9		11020		15310		NE-
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	10/21/2019	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	10/18/2019	ND	208	104	200	3.40	
DRO >C10-C28*	<10.0	10.0	10/18/2019	ND	200	100	200	4.71	
EXT DRO >C28-C36	<10.0	10.0	10/18/2019	ND					
Surrogate 1-Chlorooctane	96.0 9	% 41-142					70.		
Surrogate: 1-Chlorooctadecane	1139	6 37.6-14	7						

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red in contract or tors, shall be limited to the amount paid by chert for analyses. All claims, including those for negligence and and by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be lable to by chert, its subsidiance, affiliates or successors arising out of or related to the performance of the services harmander

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Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received:

10/16/2019

Reported:

10/21/2019

Project Name:

STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN EUNICE, NM

Sampling Date:

10/16/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By:

Cool & Intact

Tamara Oldaker

Sample ID: B - 4 @ 6 (H903527-08)

BTEX 8021B

mg/kg

Analyzed By: BF

		<u>-</u>						
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<0.050	0.050	10/20/2019	ND	2.07	103	2.00	2.28	
<0.050	0.050	10/20/2019	ND	2.09	104	2.00	0.481	
<0.050	0.050	10/20/2019	ND	2.03	102	2.00	0.478	
<0.150	0.150	10/20/2019	ND	6.11	102	6.00	1.21	
<0.300	0.300	10/20/2019	ND				100	
	Result <0.050 <0.050 <0.050 <0.150	Result Reporting Limit <0.050 0.050 <0.050 0.050 <0.050 0.050 <0.150 0.150	Result Reporting Limit Analyzed <0.050 0.050 10/20/2019 <0.050 0.050 10/20/2019 <0.050 0.050 10/20/2019 <0.150 0.150 10/20/2019	Result Reporting Limit Analyzed Method Blank <0.050	Result Reporting Limit Analyzed Method Blank BS <0.050	Result Reporting Limit Analyzed Method Blank BS % Recovery <0.050	Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC <0.050	Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD <0.050

Surrogate: 4-Bromofluorobenzene (PIL

102 %

73.3-129

37.6-147

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte Chloride	Result	Reporting Limit	Analyzed 10/21/2019	Method Blank	BS 432	% Recovery	True Value QC 400	RPD 0.00	Qualifier
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	10/18/2019	ND	208	104	200	3.40	
DRO >C10-C28*	<10.0	10.0	10/18/2019	ND	200	100	200	4.71	
EXT DRO >C28-C36	<10.0	10.0	10/18/2019	ND					
Surrogate: 1-Chlorooctane	95.3	% 41-142		- JOB 150		P			

Surrogate: 1-Chlorooctadecane

114%

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Calley L. Keene

Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. **HOBBS NM, 88240** (575) 393-2432

Fax To:

Received: Reported: 10/16/2019

Project Name:

10/21/2019

Project Number:

STATE LAND LEASE 15 NONE GIVEN

Project Location:

EUNICE, NM

Sampling Date:

Sampling Type:

10/16/2019 Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: B - 4 @ 8 (H903527-09)

BTEX 8021B

mg/kg

Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2019	ND	2.07	103	2.00	2.28	
Toluene*	<0.050	0.050	10/20/2019	ND	2.09	104	2.00	0.481	
Ethylbenzene*	<0.050	0.050	10/20/2019	ND	2.03	102	2.00	0.478	
Total Xylenes*	<0.150	0.150	10/20/2019	ND	6.11	102	6.00	1.21	
Total BTEX	<0.300	0.300	10/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL

102 %

73.3-129

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	10/21/2019	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	10/18/2019	ND	208	104	200	3.40	
DRO >C10-C28*	<10.0	10.0	10/18/2019	ND	200	100	200	4.71	
EXT DRO > C28-C36	<10.0	10.0	10/18/2019	ND					

Surrogate: 1-Chlorooctane

95.2%

41-142

Surrogate: 1-Chlorooctadecane

106 %

37.6-147

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PLEASE NOTE: Liability and Damages. Cardinal's liability and clerk's exclusive remaily for any claim ensuring, whether based in contract or toxt, shall be limited to the amount paid by clerk for analyses. All claims, including from for any other cause whatcoever shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be finable for incidental or consequer including, without firmation, business interruptions, toss of use, or loss of profits incurred by clerk, its extends nee, affiliates or successors around out of or related to the performance of the services hereunder by Cardinal, regardless of

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. **HOBBS NM, 88240**

Fax To:

(575) 393-2432

Received: Reported: 10/16/2019

Project Name:

10/21/2019 STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN **EUNICE, NM**

Sampling Date:

10/16/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: B - 4 @ 10 (H903527-10)

mg/	kg	Analyze	d By: BF					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<0.050	0.050	10/20/2019	ND	2.07	103	2.00	2.28	
<0.050	0.050	10/20/2019	NĐ	2.09	104	2.00	0.481	
<0.050	0.050	10/20/2019	ND	2.03	102	2.00	0.478	
<0.150	0.150	10/20/2019	ND	6.11	102	6.00	1.21	
<0.300	0.300	10/20/2019	ND					
	Result <0.050 <0.050 <0.050 <0.150	<0.050 0.050 <0.050 0.050 <0.050 0.050 <0.150 0.150	Result Reporting Limit Analyzed <0.050	Result Reporting Limit Analyzed Method Blank <0.050	Result Reporting Limit Analyzed Method Blank BS <0.050	Result Reporting Limit Analyzed Method Blank BS % Recovery <0.050	Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC <0.050	Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD <0.050

Surrogate: 4-Bromofluorobenzene (PIL

100 %

73.3-129

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/21/2019	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	10/18/2019	ND	208	104	200	3.40	
DRO >C10-C28*	<10.0	10.0	10/18/2019	ND	200	100	200	4.71	
EXT DRO >C28-C36	<10.0	10.0	10/18/2019	ND					

Surrogate: 1-Chlorooctane

93.1%

41-142

Surrogate: 1-Chlorooctadecane

102 %

37.6-147

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including, without limitation, business instamupoons, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors a claim is based upon eny of the above stated reasons or otherwise. Reputs related only to the above stated reasons or otherwise. Reputs related only to the above stated reasons or otherwise. Reputs related only to the above stated reasons or otherwise.

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Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To: (575) 393-2432

Received:

10/16/2019

Reported:

10/21/2019

Project Name: Project Number: STATE LAND LEASE 15

Project Location:

NONE GIVEN EUNICE, NM

Sampling Date:

10/16/2019

Sampling Type: Sampling Condition: Sample Received By: Soil Cool & Intact

Tamara Oldaker

Sample ID: B - 10 @ 2 32.472800 (H903527-11)

BTEX 8021B	mg,	mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2019	ND	2.07	103	2.00	2.28	
Toluene*	<0.050	0.050	10/20/2019	ND	2.09	104	2.00	0.481	
Ethylbenzene*	<0.050	0.050	10/20/2019	ND	2.03	102	2.00	0.478	
Total Xylenes*	<0.150	0.150	10/20/2019	ND	6.11	102	6.00	1.21	
Total BTEX	<0.300	0.300	10/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL

99.5 %

73.3-129

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	10/21/2019	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	10/19/2019	ND	208	104	200	3.40	
DRO >C10-C28*	168	10.0	10/19/2019	ND	200	100	200	4.71	
EXT DRO >C28-C36	102	10.0	10/19/2019	ND					

Surrogate: 1-Chlorooctane

93.3%

41-142

Surrogate: 1-Chlorooctadecane

130 %

37.6-147

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. **HOBBS NM, 88240**

Fax To:

(575) 393-2432

Received: Reported: 10/16/2019

10/21/2019

Project Name:

STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN **EUNICE, NM**

Sampling Date:

10/16/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: B - 10 @ 4 -103.168640 (H903527-12)

BTE	X 8021	.В	mg	/kg	Analyz	ed By: BF
	ı	Analyte	Result	Reporting Limit	Analyzed	Method

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2019	ND	2.07	103	2.00	2.28	
Toluene*	< 0.050	0.050	10/20/2019	ND	2.09	104	2.00	0.481	
Ethylbenzene*	0.060	0.050	10/20/2019	ND	2.03	102	2.00	0.478	
Total Xylenes*	<0.150	0.150	10/20/2019	ND	6.11	102	6.00	1.21	
Total BTEX	<0.300	0.300	10/20/2019	ND					

Surrogate 4-Bromofluorobenzene (PIC

102 %

73.3-129

Chloride, SM4500CI-B	mg.	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/21/2019	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	10/18/2019	ND	208	104	200	3.40	
DRO >C10-C28*	211	10.0	10/18/2019	ND	200	100	200	4.71	
EXT DRO >C28-C36	89.4	10.0	10/18/2019	ND					

Surrogate: 1-Chlorooctane

92.4%

41-142 37.6-147

Surrogate 1-Chlorooctadecane

112%

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Celeny L. Keen

Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. **HOBBS NM, 88240**

Fax To:

(575) 393-2432

Received: Reported: 10/16/2019

10/21/2019

Project Name:

STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN EUNICE, NM

Sampling Date:

10/16/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact Tamara Oldaker

Sample ID: B - 10 @ 6 (H903527-13)

BTEX 8021B

mg/kg

Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	0.575	0.100	10/20/2019	ND	2.07	103	2.00	2.28	
Toluene*	0.366	0.100	10/20/2019	ND	2.09	104	2.00	0.481	1
Ethylbenzene*	2.51	0.100	10/20/2019	ND	2.03	102	2.00	0.478	
Total Xylenes*	3.17	0.300	10/20/2019	ND	6.11	102	6.00	1.21	
Total BTEX	6.62	0.600	10/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL

117%

73.3-129

Chloride, 5M4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	10/21/2019	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*	297	10.0	10/19/2019	ND	208	104	200	3.40	
DRO >C10-C28*	7860	10.0	10/19/2019	ND	200	100	200	4.71	
EXT DRO >C28-C36	2030	10.0	10/19/2019	ND					
Surrogate 1-Chlorooctane	125	% 41-142	202	- 10					

37.6-147

Surrogate: 1-Chlorooctadecane

382 %

Cardinal Laboratories

*=Accredited Analyte

ed in contract or tort, shall be invited to the amount pand by cleant for analyses. All claims, including those for neg any other clause whitsoever shall be deemed waved unless made in writing and received by Curdnall within thetty (30) days after completion of the applicable service. In no event shall be lable including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, althastes or successors arising out of or related to the performance of the services hereunder client 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 Cardnal Laborationes.

Celang & Kenne



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. **HOBBS NM, 88240**

Fax To:

(575) 393-2432

Received: Reported: 10/16/2019

10/21/2019

Project Name:

STATE LAND LEASE 15 NONE GIVEN

Project Number: Project Location:

EUNICE, NM

Sampling Date:

10/16/2019

Sampling Type:

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: B - 10 @ 8 (H903527-14)

BTEX 8021B	mg,	/kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2019	ND	2.02	101	2.00	0.404	
Toluene*	<0.050	0.050	10/20/2019	ND	2.09	104	2.00	0.633	
Ethylbenzene*	<0.050	0.050	10/20/2019	ND	2.02	101	2.00	1.59	
Total Xylenes*	<0.150	0.150	10/20/2019	ND	6.06	101	6.00	1.11	
Total BTEX	<0.300	0.300	10/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL

100 %

73.3-129

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	10/21/2019	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	10/18/2019	ND	208	104	200	3.40	
DRO >C10-C28*	378	10.0	10/18/2019	ND	200	100	200	4.71	
EXT DRO >C28-C36	116	10.0	10/18/2019	NĐ					

Surrogate: 1-Chlorooctane

93.2 %

41-142

Surrogate: 1-Chlorooctadecane

114%

37.6-147

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nor shall be deemed welved unless made in writing and received by Cardinal within theiry (30) days after con t, business interruptions, loss of use, or loss of profits incurred by client, its autoeclaries, affisiates or successors

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Celey D. Keene, Lab Director/Quality Manager

Page 15 of 19



Analytical Results For:

APACHE CORP - HOBBS JEFFREY BROOM 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received:

10/16/2019

Reported:

10/21/2019

Project Name:

STATE LAND LEASE 15

Project Number: Project Location:

NONE GIVEN

EUNICE, NM

Sampling Date:

10/16/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: B - 10 @ 10 (H903527-15)

BTEX 80218	mg/	kg	Analyze	d By: BF			<u> </u>		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2019	ND	2.02	101	2.00	0.404	
Toluene*	<0.050	0.050	10/20/2019	ND	2.09	104	2.00	0.633	
Ethylbenzene*	<0.050	0.050	10/20/2019	ND	2.02	101	2.00	1.59	
Total Xylenes*	<0.150	0.150	10/20/2019	ND	6.06	101	6.00	1.11	
Total BTEX	<0.300	0.300	10/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL

99.2%

73.3-129

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/21/2019	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: M5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/18/2019	ND	208	104	200	3.40	
DRO >C10-C28*	20.8	10.0	10/18/2019	ND	200	100	200	4.71	
EXT DRO >C28-C36	13.6	10.0	10/18/2019	ND					
	EKONII .		117-118		III E			10	

Surrogate: 1-Chlorooctane

86.8 %

41-142

Surrogate: 1-Chlorooctadecane

98.7%

37.6-147

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*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardina's lability and client's exclusive remody for any claim arising, whicher based in contract or tort, shall be limited to the emount paid by client for any other cause whistonive shall be idented waived unless made in writing and received by Cardinal widthin thirty ([35] days, litter completion of the applicable service. In no event shall Cardinal widthin thirty ([35] days, litter completion of the applicable service. In no event shall Cardinal widthin thirty ([35] days, litter completion of the applicable service. In no event shall cardinally exclusive statements of the applicable services. In no event shall cardinally exclusive statement of the applicable services of cardinal benefit on the services of the applicable services. In no event shall cardinally exclusive statement of the applicable services. In no event shall cardinally exclusive statement of the applicable services. In no event shall cardinally exclusive statement of the applicable services. In no event shall cardinally exclusive statement of the applicable services. In no event shall cardinally exclusive statement of the applicable services. In no event shall cardinally exclusive statement of the applicable services. In no event shall cardinally exclusive statement of the applicable services. In no event shall cardinally exclusive statement of the applicable services. In no event shall cardinally exclusive statement of the applicable services. In no event shall cardinally exclusive statement of the applicable services. In no event shall cardinally exclusive statement of the applicable services. In no event shall cardinally exclusive statement of the applicable services. In no event shall cardinally exclusive statement of the applicable services are shall be shall be applicable services. In no event shall cardinally exclusive statement of the applicable services are shall be applicable services. In no event shall cardinally exclusive statement of the applicable services are shall be applicable services. In wer based in contract or tort, shall be limited to the emount paid by client for analyses. All claims, including those for negligence and

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Celey D. Keene, Lab Director/Quality Manager

Page 16 of 19



Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
5-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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.
2	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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*=Accredited Analyte

PLEASE MOTE: Liability and Damages. Cardana's Bability and chent's exclusive remedy for any claim arising, whicher 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 claims white paid white any other claims are completed on contract or tort, shall be deemed white the another shall be deemed white unless made in writing and received by Cardanal within thirty (30) days after completion of the applicable service. In no event, shall Cardinal be table for incidence or consequential demages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by chent, its subsidiance, affiliates or successors arising out of or related to the performance of the services hereunder by Cardanal, regardless of whether such claims is based upon any of the above stated relation or colleaves. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approved of Cerdinal Laboratories.

Celen D. Kuna



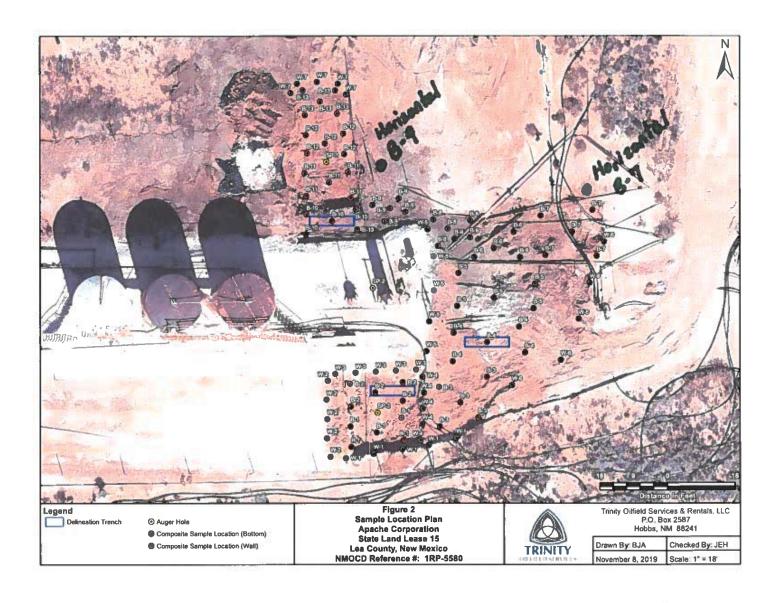
CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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February 19, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: STATE LAND LEASE 15

Enclosed are the results of analyses for samples received by the laboratory on 02/17/20 16:23.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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/qa/lab accredited 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.

Celey L. Keene

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. Keene

Lab Director/Quality Manager



Analytical Results For:

APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received: Reported: 02/17/2020

02/19/2020

Project Name: Project Number: STATE LAND LEASE 15 NONE GIVEN

Project Location:

EUNICE, NM

Sampling Date:

Sampling Type:

02/17/2020

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: HORIZONTAL B - 7 32.47284-103.16842 (H000486-01)

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	02/18/2020	ND	1.97	98.6	2.00	3.82	
Toluene*	<0.050	0.050	02/18/2020	ND	2.00	99.9	2.00	3.58	
Ethylbenzene*	<0.050	0.050	02/18/2020	ND	2.01	100	2.00	3.62	
Total Xylenes*	<0.150	0.150	02/18/2020	ND	5.83	97.2	6.00	3.39	
Total BTEX	<0.300	0.300	02/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIE	100	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/19/2020	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	02/18/2020	ND	212	106	200	1.10	
DRO >C10-C28*	<10.0	10.0	02/18/2020	ND	230	115	200	3.71	
EXT DRO >C28-C36	<10.0	10.0	02/18/2020	ND					
Surrogate: 1-Chlorooctane	91.4	% 41-142	!						
Surrogate: 1-Chlorooctadecane	95.5	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

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Colony L. triana



Analytical Results For:

APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. HOBBS NM, 88240 (575) 393-2432

Fax To:

Received:

02/17/2020

02/19/2020

Reported: Project Name:

STATE LAND LEASE 15

Project Number: Project Location: NONE GIVEN EUNICE, NM

Sampling Date:

02/17/2020

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: HORIZONTAL B - 9 32.47291-103.16862 (H000486-02)

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	02/18/2020	ND	1.97	98.6	2.00	3.82	
Toluene*	<0.050	0.050	02/18/2020	ND	2.00	99.9	2.00	3.58	
Ethylbenzene*	<0.050	0.050	02/18/2020	ND	2.01	100	2.00	3.62	
Total Xylenes*	<0.150	0.150	02/18/2020	ND	5.83	97.2	6.00	3.39	
Total BTEX	<0.300	0.300	02/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	98.3	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC			<u></u>		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/19/2020	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	02/19/2020	ND	212	106	200	1.10	
DRO >C10-C28*	266	10.0	02/19/2020	ND	230	115	200	3.71	
EXT DRO >C28-C36	273	10.0	02/19/2020	ND					
Surrogate: 1-Chlorooctane	92.7	% 41-142	?						
Surrogate: 1-Chlorooctadecane	109	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

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Notes and Definitions

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 SM4500CI-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

PLEASE NOTE: Usblirty and Damages. Cardwal's labblirty and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount pland by client for analysies. All claims, including those for negligence and any other cause whistower shall be determed waved unless made in vinting and received by Cardwal within thirty (30) days after completion of the applicable service. In no event shall Cardwall be labele for incidental dismapes, including, without limitation, bread on, because of use, or loss of profits incrured by client, or subsidiances, affiliates or successors arising out of or related to the performance of the services hereunder by Cardwall, 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 Cardwall Liborations.

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Cardinal Laboratories

Celey D. Keene, Lab Director/Quality Manager

*=Accredited Analyte

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

company Name: anache Corporation	57	3/4/470	ANALYSIS REQUEST
Project Manager: Bruce Bator	P.O. #		
\ddress:	Сотрапу:		
City: State:	Zip: Attn:		
hone #: Fax #:	Address:		
Project Owner:	City:		
roject Name: State Land 15	State:	Zip:	
roject Location: State Land 15	Phone #:		
Sampler Name: Jeff Regn	Fax #:		
FOR LAB USE ONLY	MATRIX PRESERV.	SAMPLING	
Lab I.D. Sample I.D.	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER:	DATE TIME	BIEX EXT. TPH
Horizatal 6-7			
2 Hojawital 8-5	<u> </u>		
32. 47291, -103.16862			
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LEASE NOTE: Lability and Damages. Cardinal's dability and client's exclusive remedy for any claim arising whether based in contract or lort, shalt be finised to the amount paid by the client for the	wy claim arising whether based in contract or lort, shall be limited it	to the amount paid by the client for the	

sankjass. All claims including those for negligence and any other cause whatscower shall be deemed waved unless made in witing and measured by cardinal witin 3D days after completion of the applicable server. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of years or loss of profits incurred by cleant, its substitutes.

If a profit or processors around out of or halled to the partiessance of services hereunder by Cauthus, equalless of whether such claim the sead upon any of the above stated easons or otherwise.

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