

303 Veterans Airpark Lane Midland, TX 79705

Closure Report

September 23, 2020

Re: Northeast Drinkard Unit Satellite 4A Emulsion Line Case # NRM1927750734 (1RP-5732)

On 9/27/2019 a release occurred due to an 8 inch emulsion line failed resulting in the loss of fluid. The release (GPS: 32.4668, -103.1534) is located north of Eunice, New Mexico in unit letter E section 22 township 21S range 37E. A groundwater survey was conducted utilizing NMOSE and USGS wells of records. The nearest wells suggest that groundwater beneath the release is 35 feet below ground surface.

The release was excavated to various depths ranging from 1 foot to 17.5 feet. Beginning on 6/4/2020 5 point bottom and wall composite samples were collected not exceeding 200 square feet and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. All excavated material was hauled to an OCD approved facility. Once laboratory results confirmed the entire excavation was below table one standards for releases less than or equal to 50 feet the excavation was backfilled with clean imported caliche to a depth of 2 foot at the request of the surface landowner. The remaining two feet was backfilled with clean top soil from the surrounding area and contoured. The disturbed area will be reseeded in accordance with the surface landowner's guidelines.

Apache Corporation has completed remediation and respectfully request that the event be closed.

Enclosed: C-141, Groundwater Data, Sample Diagram, Sample Data, Laboratory Results, Photos, and Variance Request.

Submitted by;

Bruce Baker

Environmental Technician larry.baker@apachecorp.com Cell# 432-631-6982 Off# 432-818-1000 **Received by OCD: 9/23/2020 11:31:25 AM** Form C-141 State of New Mexico

Oil Conservation Division

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Incident ID	NRM1927750734	
District RP		
Facility ID		
Application II)	

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?	(ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 📈 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🔽 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🔽 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🔽 No
Did the release impact areas not on an exploration, development, production, or storage site?	🗹 Yes 🗌 No

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

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

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. Field data
- Data table of soil contaminant concentration data
- \checkmark 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.

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Received by OCD	D: 9/23/2020 11:31:25 AM State of New Mexico		Page 3 of 1					
Form C-141			Incident ID	NRM1927750734				
Page 4	Oil Conservation Division		District RP					
			Facility ID					
			Application ID					
regulations all op public health or t failed to adequate addition, OCD ac and/or regulation Printed Name: Signature: email:	hat the information given above is true and complete to the berators are required to report and/or file certain release noti the environment. The acceptance of a C-141 report by the C ely investigate and remediate contamination that pose a three cceptance of a C-141 report does not relieve the operator of as. Larry Baker Larry Baker y.baker@apachecorp.com	ifications and perform co OCD does not relieve the eat to groundwater, surfa	prrective actions for rele operator of liability sho ce water, human health iance with any other feo ental Tech SR.	ases which may endanger ould their operations have or the environment. In				
OCD Only Received by: _	Cristina Eads	Date:09	/23/2020					

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Oil Conservation Division

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Application ID	

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Closure

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

<u>Closure Report Attachment Checklist</u>: Each of the following items must be included in the closure report.

A scaled site and sampling diagram as described in 19.15.29.11 NMAC

Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

 \square Description of remediation activities

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Larry Baker

Signature: Larry Baker Date: 9/23/2020

email: <u>larry.baker@apachecorp.com</u>

Telephone: 432-631-6982

______ _{Title:} Environmental Tech SR.

OCD Only

Received by: Cristina Eads

Date: 09/23/2020

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

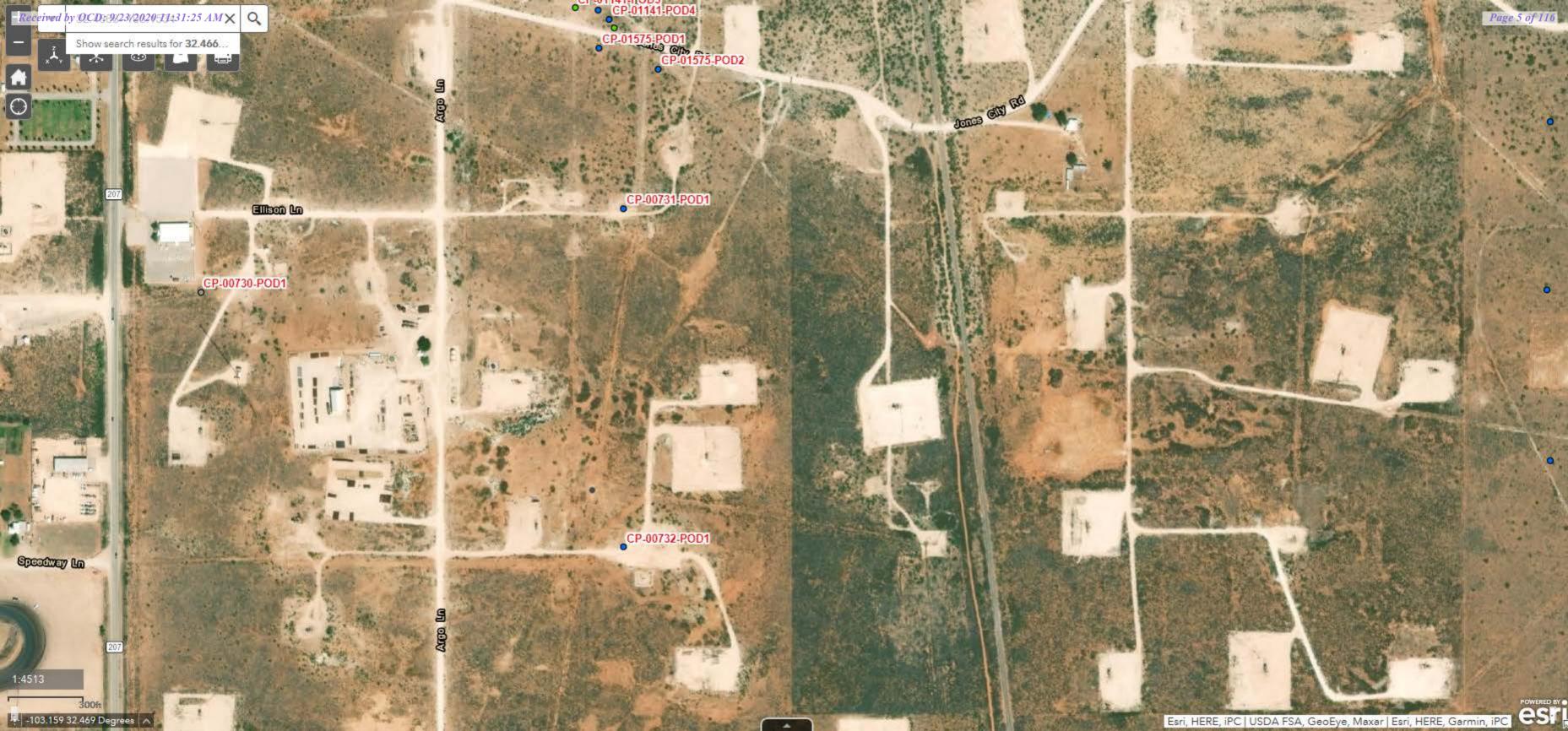
Closure Approved by:

ed by: / Turtur es

Date: 11/06/2020

Printed Name: Cristina Eads

Title: Environmental Specialist





New Mexico Office of the State Engineer **Point of Diversion Summary**

	(quarters are 1=NV (quarters are small									83 UTI	M in meters)	
Well Tag	POD	Number	Q64	Q16	Q4	Sec	Tws	Rn	g	Х	Y	
	СР	01575 POD2	2	2	1	22	21S	37	E 673	515	3594181 🌍	
Driller Licer Driller Nam	Driller	Driller Company: WHITE DRILLING COMPANY										
Drill Start D	Date:	12/15/2015	Drill Fi	inish	Date:		1	2/16	5/2015	Plug	g Date:	
Log File Da	te:	12/30/2015	PCW R	lev D	ate:					Sou	rce:	Shallow
Pump Type:	:		Pipe Di	ischa	rge S	ize:				Esti	mated Yield:	
Casing Size	:	2.00	Depth V	Well:			3	5 fe	et	Dep	th Water:	35 feet
	Wate	er Bearing Stratification	ons:		Тор) E	Botton	ı D	escription			
					32	2	33	S	andstone/Gr	avel/C	Conglomerate	
					33	3	35	5 S	hale/Mudsto	one/Sil	tstone	
		Casing Perfora	tions:		Тор) E	Bottom	1				
					25	5	35	5				

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.

9/22/20 12:48 PM

POINT OF DIVERSION SUMMARY



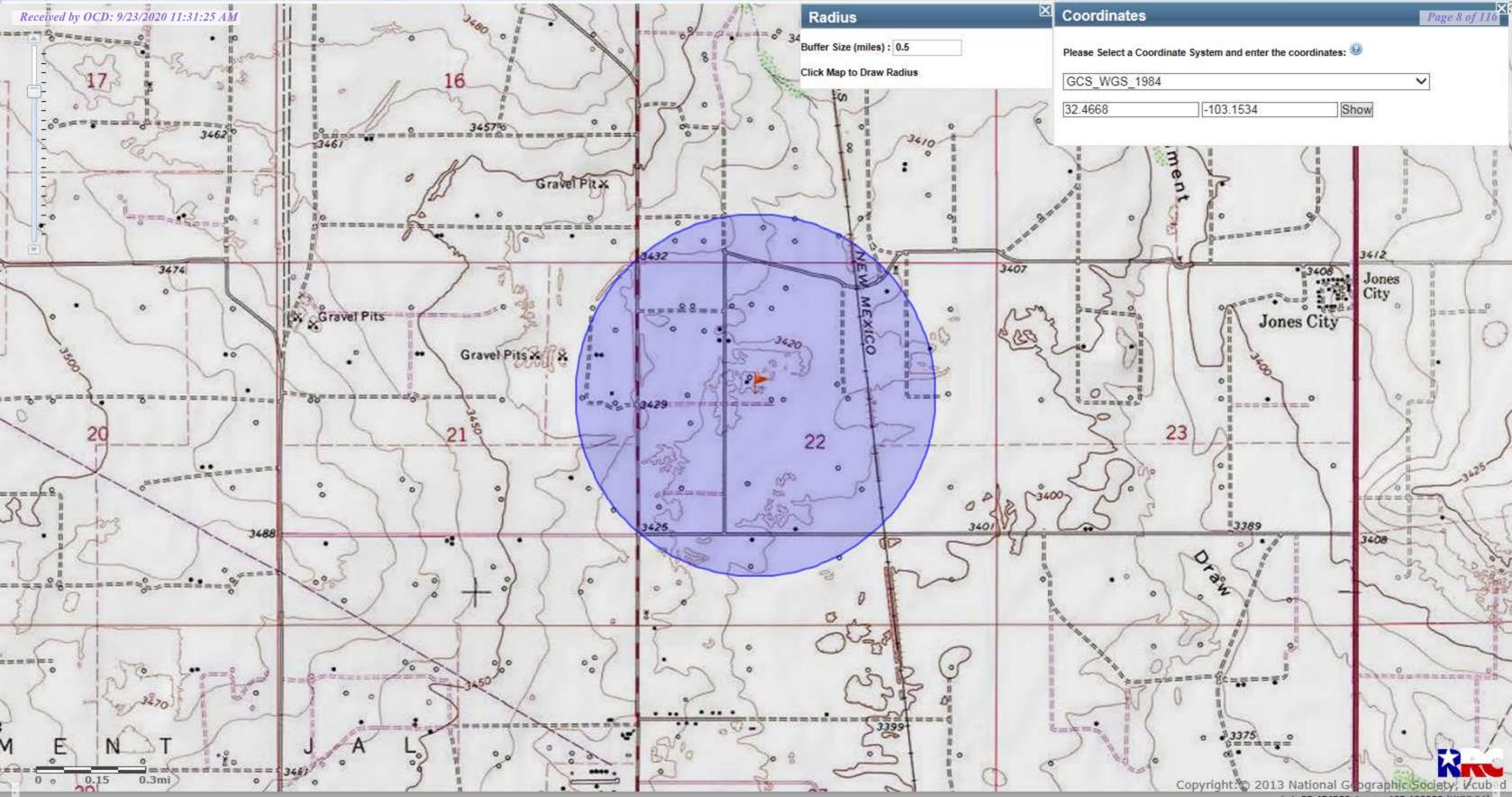
New Mexico Office of the State Engineer **Point of Diversion Summary**

			< 1	arters are 1=NW 2=NE 3=SW 4=SE) uarters are smallest to largest)					/	83 UT	M in meters)	
Well Tag	POE	Number	Q64	Q16	Q4	Sec	Tws	Rng		Х	Y	
	СР	01575 POD1	1	2	1	22	21S	37E	6735	544	3594204 🌍)
	Driller License: 1456 Driller Name: WHITE, JOHN W				Driller Company: WHITE DRILLING COMPANY							
Drill Start D	Date:	12/15/2015	Drill F	inish 1	Date:		1	2/16/2	015	Plu	g Date:	
Log File Dat	te:	12/30/2015	PCW F	Rev D	ate:					Sou	rce:	Shallow
Pump Type:			Pipe D	ischar	ge Si	ze:				Esti	mated Yield:	
Casing Size:	:	2.00	Depth	Well:			4) feet		Dep	oth Water:	35 feet
	Wate	er Bearing Stratification	ons:		Тор) E	Botton	Des	cription			
					23	;	38	San	dstone/Gr	avel/(Conglomerate	
					38	8	4(Shal	le/Mudsto	one/Si	ltstone	
		Casing Perfora	tions:		Тор) E	Bottom	L				
					30)	40)				

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.

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POINT OF DIVERSION SUMMARY



Lat: 32.454380, Long: -103.189020 (WGS 84)

. 52.454560, cong. 105.169020 [Web



		Depth	Chloride	Benzene	Toulene	Ethybenz	Total	Total	GRO	DRO	EXT DRO	GPS
Sample ID	Sample Date					ene	Xylenes	BTEX				Coordinates
												32.466699
B1	6/4/2020	17'	784	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153352
	6/26/2020	17.5'	80									
												32.466721
B2	6/4/2020	17'	288	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153325
												32.466748
B3	6/4/2020	17'	176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153308
5.4	6 14 19 99 9	4 71		0.050	0.050		0.450		40.0	10.6	10.0	32.466780
B4	6/4/2020	17'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	18.6	<10.0	-103.153292
B5	6/4/2020	17'	128	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.466811 -103.153286
63	0/4/2020	17	120	<0.050	<0.050	<0.050	<0.150	<0.500	<10.0	<10.0	<10.0	32.466844
B6	6/4/2020	17'	240	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	2340	152	-103.153267
	6/26/2020	17.5'	210	<0.050	<0.050	< 0.050	<0.150	< 0.300	<10.0	<10.0	<10.0	103.133207
	-,,											32.466724
B7	6/4/2020	17'	128	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	658	88.3	-103.153394
	6/26/2020	17.5'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
												32.466749
B8	6/4/2020	17'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153378
												32.466799
B9	6/4/2020	17'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153362
												32.466809
B10	6/4/2020	17'	1230	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153346
	6/26/2020	17.5'	192									22.466226
D11	6/4/2020	17	110			<0.050	×0.1F0	<0.200	<10.0	<10.0	<10.0	32.466836
B11	6/4/2020	17'	112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153328 32.466865
B12	6/4/2020	17'	672	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	235	40.4	-103.153317
DIZ	6/26/2020	17.5'	128	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	105.155517
	5, 20, 2020	17.5	120	.0.000	-0.000	.0.000	-0.130		10.0	.10.0	10.0	32.466783
B13	6/4/2020	8'	1540	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	105	<10.0	-103.153429
	6/26/2020	8.5'	144									

												32.466817
B14	6/4/2020	8'	64	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153416
DII	07 172020	0	01	.0.000					10.0	10.0	10.0	32.466840
B15	6/4/2020	8'	1170	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153405
_	6/26/2020	8.5'	16									
												32.466868
B16	6/4/2020	8'	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153383
												32.466837
B17	6/4/2020	8'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153452
												32.466883
B18	6/4/2020	8'	128	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153425
												32.466853
B19	6/4/2020	4'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153487
												32.466902
B20	6/4/2020	4'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153454
	<i>c. (. (</i> 2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,								10.0		10.0	32.466876
B21	6/4/2020	4'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153513 32.466921
022	6/4/2020	4'	16	<0.050		<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153486
B22	6/4/2020	4	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.466885
B23	6/4/2020	4'	96	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153560
025	0/4/2020	7	50	NO.000	×0.050	\$0.050	VO.100	NO.300	10.0	(10.0	10.0	32.466783
B24	6/19/2020	1'	176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153237
												32.466798
B25	6/19/2020	1'	112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153174
												32.466813
B26	6/19/2020	1'	144	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	13.6	<10.0	-103.153127
												32.466831
B27	6/19/2020	1'	112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153091
												32.466848
B28	6/19/2020	1'	224	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153062
												32.466877
B29	6/19/2020	1'	192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153031
												32.466916
B30	6/19/2020	1'	160	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.152988

												32.467000
B31	6/19/2020	1'	96	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	39.2	<10.0	-103.152898
												32.467039
B32	6/19/2020	1'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.152820
												32.467119
B33	6/19/2020	1'	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.152752
												32.467204
B34	6/19/2020	1'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	18.5	<10.0	-103.152731
												32.467258
B35	6/19/2020	1'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	241	40	-103.152732
	7/28/2020	1.5"		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	25.1	<10.0	
												32.467301
B36	6/19/2020	1'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	36.4	<10.0	-103.152735



Google earth

Sample ID	Sample	Chloride	Benzene	Toulene	Ethybenzene	Total	Total	GRO	DRO	EXT DRO	GPS Coordinates
oumpie is	Date					Xylenes	BTEX				
											32.466733°
W1	6/4/2020	320	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.1534234
											32.466711
W2	6/16/2020	112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153400
											32.466692
W3	6/16/2020	64	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153363
											32.466693
W4	6/16/2020	272	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153327
											32.466708
W5	6/4/2020	592	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153296
											32.466713
W6	6/4/2020	432	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153275
											32.466758
W7	6/16/2020	448	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153269
											32.466788
W8	6/16/2020	144	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153258
											32.466817
W9	6/16/2020	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153255
											32.466863
W10	6/4/2020	64	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153254
											32.466879
W11	6/4/2020	96	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	16.6	<10.0	-103.153288
											32.466885
W12	6/4/2020	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	85	70.4	-103.153334
											32.466940
W13	6/4/2020	192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	35.3	22.3	-103.153435
											32.466901
W14	6/4/2020	240	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	13	<10.0	-103.153515
											32.466852
W15	6/16/2020	64	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153528
											32.466778
W16	6/16/2020	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153435

											32.466782
W17	6/16/2020	128	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153395
											32.466809
W18	6/19/2020	64	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153990
											32.467237
W19	6/19/2020	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.152716
											32.467326
W20	6/19/2020	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.152735
											32.467045
W21	6/19/2020	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	154	16.5	-103.152840
	8/24/2020		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
											32.466845
W22	6/19/2020	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.153120



June 10, 2020

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

RE: NEDU 4A

Enclosed are the results of analyses for samples received by the laboratory on 06/04/20 16:20.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: W 1 (H001521-01)

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	06/05/2020	ND	2.02	101	2.00	2.79	
Toluene*	<0.050	0.050	06/05/2020	ND	2.18	109	2.00	2.24	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	2.08	104	2.00	2.19	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	6.06	101	6.00	1.18	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	115 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	06/08/2020	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2020	ND	184	91.8	200	4.92	
DRO >C10-C28*	<10.0	10.0	06/05/2020	ND	187	93.3	200	3.63	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					
Surrogate: 1-Chlorooctane	98.9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	110 9	% 42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



	APACHE CORP - HOBBS
	BRUCE BAKER
	2350 W. MARLAND BLVD.
	HOBBS NM, 88240
	Fax To: (575) 393-2432
06/04/2020	Sampling Date:

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: W 5 (H001521-02)

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	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.2	73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	06/08/2020	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2020	ND	184	91.8	200	4.92	
DRO >C10-C28*	<10.0	10.0	06/05/2020	ND	187	93.3	200	3.63	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					
Surrogate: 1-Chlorooctane	103 9	<i>44.3-14</i>	4						
Surrogate: 1-Chlorooctadecane	112 9	6 42.2-15	6						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



NEDU 4A

NONE GIVEN

NONE GIVEN

Sampling Condition:

Sample Received By:

06/04/2020

Cool & Intact

Kelly Jacobson

Soil

Analytical Results For:

	APACHE C	ORP - HOBBS		
	BRUCE BA	KER		
	2350 W. M	1arland Blvd.		
	HOBBS NN	4, 88240		
	Fax To:	(575) 393-2432		
06/04/2	020		Sampling Date:	
06/10/2	020		Sampling Type:	

Sample ID: W 6 (H001521-03)

Received:

Reported:

Project Name:

Project Number:

Project Location:

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	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.4	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	06/08/2020	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2020	ND	184	91.8	200	4.92	
DRO >C10-C28*	<10.0	10.0	06/05/2020	ND	187	93.3	200	3.63	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					
Surrogate: 1-Chlorooctane	102 9	44.3-14	4						
Surrogate: 1-Chlorooctadecane	110 9	6 42.2-15	,						

Cardinal Laboratories

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		BRUCE BAK	ARLAND BLVD.		
		Fax To:	(575) 393-2432		
Received:	06/04/2020			Sampling Date:	06/04/2020
Reported:	06/10/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number: Project Location:	NONE GIVEN NONE GIVEN			Sample Received By:	Kelly Jacobson

Sample ID: W 10 (H001521-04)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.8	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/08/2020	ND	416	104	400	3.77	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2020	ND	184	91.8	200	4.92	
DRO >C10-C28*	<10.0	10.0	06/05/2020	ND	187	93.3	200	3.63	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					
Surrogate: 1-Chlorooctane	107 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	109 9	42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



NONE GIVEN

Analytical Results For:

		BRUCE BAH	orp - Hobbs Ker Arland Blvd.		
		HOBBS NM			
		Fax To:	(575) 393-2432	2	
Received:	06/04/2020			Sampling Date:	06/04/2020
Reported:	06/10/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Kelly Jacobson

Sample ID: W 11 (H001521-05)

Project Location:

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	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.0	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/08/2020	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2020	ND	184	91.8	200	4.92	
DRO >C10-C28*	16.6	10.0	06/05/2020	ND	187	93.3	200	3.63	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					
Surrogate: 1-Chlorooctane	102	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	110 9	% 42.2-15	6						

Cardinal Laboratories

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		APACHE C	Corp - Hobbs		
		BRUCE BA	AKER		
		2350 W. N	MARLAND BLVD.		
		HOBBS N	M, 88240		
		Fax To:	(575) 393-2432	2	
Received:	06/04/2020			Sampling Date:	06/04/2020
Reported:	06/10/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN				

Sample ID: W 12 (H001521-06)

BTEX 8021B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.7	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/08/2020	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2020	ND	184	91.8	200	4.92	
DRO >C10-C28*	85.0	10.0	06/05/2020	ND	187	93.3	200	3.63	
EXT DRO >C28-C36	70.4	10.0	06/05/2020	ND					
Surrogate: 1-Chlorooctane	110 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	114 9	42.2-15	6						

Cardinal Laboratories

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		APACHE C	Corp - Hobbs		
		BRUCE BA	AKER		
		2350 W. N	MARLAND BLVD.		
		HOBBS N	M, 88240		
		Fax To:	(575) 393-2432	2	
Received:	06/04/2020			Sampling Date:	06/04/2020
Reported:	06/10/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN				

Sample ID: W 13 (H001521-07)

BTEX 8021B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.3	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	06/08/2020	ND	416	104	400	3.77	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2020	ND	184	91.8	200	4.92	
DRO >C10-C28*	35.3	10.0	06/05/2020	ND	187	93.3	200	3.63	
EXT DRO >C28-C36	22.3	10.0	06/05/2020	ND					
Surrogate: 1-Chlorooctane	107	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	117 9	42.2-15	6						

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*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		BRUCE BAK	ARLAND BLVD.		
		Fax To:	(575) 393-2432		
Received:	06/04/2020			Sampling Date:	06/04/2020
Reported:	06/10/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN				

Sample ID: W 14 (H001521-08)

BTEX 8021B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.2	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	06/08/2020	ND	416	104	400	3.77	
TPH 8015M	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2020	ND	184	91.8	200	4.92	
DRO >C10-C28*	13.0	10.0	06/05/2020	ND	187	93.3	200	3.63	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					
Surrogate: 1-Chlorooctane	106	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	116	42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 26 of 116 Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

•

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

· Yo	in harding					
Project Manager: Bruce Baker	ken	P.C	P.O. #:			
		Co	Company:			
City:	State: Zip:	: Attn:	3			
Phone #:	Fax #:	Ad	Address:			
Project #:	Project Owner:	City:	×			
Project Name: NEDU YA		State:	ite: Zip:			
Project Location: NEUU 4A		Ph	Phone #:			
Sampler Name: JEFF Journ		Fax #:	C #:			
FOR LAB USE ONLY		MATRIX	PRESERV. SAMPLING	LING		
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 CL. BTEX EXT. TPH		
1 201	C		6/4/20	111111111111		
2	c			IHIS		
3 26	e			SIL		
4 w10	e			142v		
	c			104/		
6 w12	e			1422		
+ 213	2			M23		
him 8	r		6 /4/20	1424 1 1 1		
PLEASE NOTE: Liability and Damages. Cardina's liability and clients exclusive render for any diam arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of ruse, profess of profits incurred by client, its subsidiaries, artifiates or successors arising out of or related to the performance of services hereunder by Cardinal, nearcless of whether such claim is baseddoon any of the above stated reasons or otherwise.	and client's exclusive remedy for any clain other cause whatsoever shall be deeme consequental damages, including withou mance of services hereunder by Cardina	m arising whether based in contract or tort, d waived unless made in writing and recein ut limitation, business interruptions, loss of l. regardless of whether such claim is these	shall be limited to the amount paid by the client for th ved by Cardinal within 30 days after completion of the use prioss of profils incurred by client, its subsidiarie before any of the above stated reasons or otherwise.	by the client for the completion of the applicable ant, its subsidiaries, sons or otherwise.		
Relinquished By:	Time:	Received By:		Verbal Result: □ Yes □ No Add'I Phone #: All Results are emailed. Please provide Email address:	vo Add'I Phone #: provide Email address:	
Relinquished By:	0	Received By:				
Delivered By: (Circle One)	Observed Temp. °C	Sample Condition	CHECKED BY: (Initials)	Turnaround Time: Standard Rush	Bacteria (only) S Cool Intact	ample Condition Observed Temp. °C
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Yes Yes	42	Thermometer ID 端辺 Correction Factor その4℃単川ろ	□Yes □Yes □Nc □No	Corrected Temp. °C

Received by OCD: 9/23/2020 11:31:25 AM

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



June 10, 2020

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

RE: NEDU 4A

Enclosed are the results of analyses for samples received by the laboratory on 06/04/20 16:20.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 1 (H001522-01)

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	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.5	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	784	16.0	06/08/2020	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	06/05/2020	ND	184	91.8	200	4.92	
DRO >C10-C28*	<10.0	10.0	06/05/2020	ND	187	93.3	200	3.63	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					
Surrogate: 1-Chlorooctane	108 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	118 9	42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 2 (H001522-02)

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	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.5	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	06/08/2020	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	06/05/2020	ND	184	91.8	200	4.92	
DRO >C10-C28*	<10.0	10.0	06/05/2020	ND	187	93.3	200	3.63	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					
Surrogate: 1-Chlorooctane	105	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	114	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 3 (H001522-03)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.7	% 73.3-12	9						
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	06/08/2020	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	06/05/2020	ND	184	91.8	200	4.92	
DRO >C10-C28*	<10.0	10.0	06/05/2020	ND	187	93.3	200	3.63	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					
Surrogate: 1-Chlorooctane	108	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	116	% 42.2-15	6						

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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 4 (H001522-04)

BTEX 8021B	mg	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.6	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/08/2020	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	06/05/2020	ND	184	91.8	200	4.92	
DRO >C10-C28*	18.6	10.0	06/05/2020	ND	187	93.3	200	3.63	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					
Surrogate: 1-Chlorooctane	105	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	113 9	42.2-15	6						

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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 5 (H001522-05)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.2	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/08/2020	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	06/05/2020	ND	184	91.8	200	4.92	
DRO >C10-C28*	<10.0	10.0	06/05/2020	ND	187	93.3	200	3.63	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					
Surrogate: 1-Chlorooctane	104	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	112 9	% 42.2-15	6						

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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 6 (H001522-06)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	0.192	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	06/08/2020	ND	416	104	400	0.00	
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*	<50.0	50.0	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	2340	50.0	06/06/2020	ND	174	87.0	200	13.4	QM-07
EXT DRO >C28-C36	152	50.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	95.9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	157	% 42.2-15	6						

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Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 7 (H001522-07)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	73.3-12	9						
Chloride, SM4500Cl-B	mg,	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/08/2020	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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	658	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	88.3	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	104	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	134	42.2-15	6						

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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 8 (H001522-08)

BTEX 8021B	mg,	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.5	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/08/2020	ND	416	104	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	104	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	114 9	42.2-15	6						

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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 9 (H001522-09)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.3	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/08/2020	ND	416	104	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	105	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	113 9	42.2-15	6						

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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 10 (H001522-10)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.6	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1230	16.0	06/08/2020	ND	416	104	400	0.00	QM-07
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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	98.6	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	107	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 11 (H001522-11)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.5	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/08/2020	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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	108 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	117 9	42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 12 (H001522-12)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.8	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	06/08/2020	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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	235	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	40.4	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	110 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	133 9	42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 13 (H001522-13)

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	06/05/2020	ND	1.87	93.3	2.00	2.87	
Toluene*	<0.050	0.050	06/05/2020	ND	1.90	94.8	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	96.2	2.00	2.50	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.58	93.1	6.00	2.68	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.7	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1540	16.0	06/08/2020	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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	105	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	98.3	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	112 9	42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



	APACHE C	orp - Hobbs		
	BRUCE BA	KER		
	2350 W. M	IARLAND BLVD.		
	HOBBS NM	1, 88240		
	Fax To:	(575) 393-2432		
06/04/2020			Sampling Date:	

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 14 (H001522-14)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.97	98.5	2.00	2.32	
Toluene*	<0.050	0.050	06/05/2020	ND	1.91	95.7	2.00	2.45	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	95.9	2.00	2.34	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.55	92.5	6.00	2.48	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.4	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/08/2020	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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	94.5	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	104 9	42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 15 (H001522-15)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.97	98.5	2.00	2.32	
Toluene*	<0.050	0.050	06/05/2020	ND	1.91	95.7	2.00	2.45	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	95.9	2.00	2.34	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.55	92.5	6.00	2.48	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.6	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1170	16.0	06/08/2020	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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	104	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	114 9	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 16 (H001522-16)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.97	98.5	2.00	2.32	
Toluene*	<0.050	0.050	06/05/2020	ND	1.91	95.7	2.00	2.45	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	95.9	2.00	2.34	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.55	92.5	6.00	2.48	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.4	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/08/2020	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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	104	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	115 9	42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 17 (H001522-17)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.97	98.5	2.00	2.32	
Toluene*	<0.050	0.050	06/05/2020	ND	1.91	95.7	2.00	2.45	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	95.9	2.00	2.34	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.55	92.5	6.00	2.48	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.3	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/08/2020	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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	99.7	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	108	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 18 (H001522-18)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.97	98.5	2.00	2.32	
Toluene*	<0.050	0.050	06/05/2020	ND	1.91	95.7	2.00	2.45	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	95.9	2.00	2.34	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.55	92.5	6.00	2.48	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.6	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/08/2020	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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	85.2	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	92.8	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 19 (H001522-19)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.97	98.5	2.00	2.32	
Toluene*	<0.050	0.050	06/05/2020	ND	1.91	95.7	2.00	2.45	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	95.9	2.00	2.34	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.55	92.5	6.00	2.48	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/08/2020	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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	99.4	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	109	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 20 (H001522-20)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.97	98.5	2.00	2.32	
Toluene*	<0.050	0.050	06/05/2020	ND	1.91	95.7	2.00	2.45	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	95.9	2.00	2.34	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.55	92.5	6.00	2.48	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.7	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/08/2020	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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	108	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	123	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 21 (H001522-21)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2020	ND	1.97	98.5	2.00	2.32	
Toluene*	<0.050	0.050	06/05/2020	ND	1.91	95.7	2.00	2.45	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	1.92	95.9	2.00	2.34	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	5.55	92.5	6.00	2.48	
Total BTEX	<0.300	0.300	06/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.0	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/08/2020	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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	100	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	110 9	42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 22 (H001522-22)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/06/2020	ND	1.99	99.6	2.00	0.880	
Toluene*	<0.050	0.050	06/06/2020	ND	1.94	96.9	2.00	0.901	
Ethylbenzene*	<0.050	0.050	06/06/2020	ND	1.96	98.1	2.00	0.890	
Total Xylenes*	<0.150	0.150	06/06/2020	ND	5.65	94.2	6.00	1.12	
Total BTEX	<0.300	0.300	06/06/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.0	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/08/2020	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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	93.9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	105	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2020	Sampling Date:	06/04/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	NONE GIVEN		

Sample ID: B 23 (H001522-23)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/06/2020	ND	1.99	99.6	2.00	0.880	
Toluene*	<0.050	0.050	06/06/2020	ND	1.94	96.9	2.00	0.901	
Ethylbenzene*	<0.050	0.050	06/06/2020	ND	1.96	98.1	2.00	0.890	
Total Xylenes*	<0.150	0.150	06/06/2020	ND	5.65	94.2	6.00	1.12	
Total BTEX	<0.300	0.300	06/06/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.4	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/08/2020	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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					
Surrogate: 1-Chlorooctane	108	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	125	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

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Page 52 of 116

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

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ANALYSIS REQUEST		9	BILL TO		Corporation	ne: Caparla	Company Name:

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Page 53 of 116 Page 27 of 28 D C boratories RDIN

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

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Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C	Sample Condition Cool Intact	CHECKED BY: Tu (Initials) Th	Turnaround Time: Standard Thermometer ID #97	Jard ☐ Bacteria (only) Sample Condition ☐ Cool Intact Observed Temp. °C ☐ Yes ☐ Yes
FORM-000 R S.O				Correction Factor ter C # 11)	

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PLEASE NOTE: Liability and Damag analyses. All claims including those for service. In no event shall Cardinal be affiliates or successors arising out of c	PLEASE NOTE: Llability and Damages. Cardina's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount plad by the client for the paralyses. All claims including these for negligence and any other cause whatsoever shall be limited to any other cause the applicable service. In one vent shall Cardinal within 30 days after completion of the applicable service, in one vent shall Cardinal within 30 days after completion of the applicable service. In one vent shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, artificas or successors arising and the beneformance of services hereunder by Cardinal, regardless of withetier such claim is based upon any of the above stated reasons or otherwise.	or any clair be deeme ding withou by Cardina	m arisi id waiv ut limit	ng wh ed un ation, rdless	ether less m busine	basec hade i has int	in co n writi errup such	ntrac ng ar tions, clain	t or to Ind rec	ort, si beive of us	hall b d by (e, or	e lim Cardi loss any	ited t nal w of pr	o the vithin ofits i	amount p 30 days a ncurred b we stated	haid by the fter compl g client, its reasons c	client for etion of th subsidiar r otherwis	the le applica ies, ies.	ble	2																
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June 22, 2020

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

RE: NEDU 4A

Enclosed are the results of analyses for samples received by the laboratory on 06/16/20 15:53.

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

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



APACHE CORP - HOBBS 2350 W. MARLAND BLVD. HOBBS NM, 88240	Project: NEDU 4A Project Number: NONE GIVEN Project Manager: BRUCE BAKER Fax To: (575) 393-2432	Reported: 22-Jun-20 11:38
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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W 2	H001598-01	Soil	16-Jun-20 09:35	16-Jun-20 15:53
W 3	H001598-02	Soil	16-Jun-20 12:16	16-Jun-20 15:53
W 4	H001598-03	Soil	16-Jun-20 09:37	16-Jun-20 15:53
W 7	H001598-04	Soil	16-Jun-20 11:24	16-Jun-20 15:53
W 8	H001598-05	Soil	16-Jun-20 10:00	16-Jun-20 15:53
W 9	H001598-06	Soil	16-Jun-20 10:01	16-Jun-20 15:53
W 15	H001598-07	Soil	16-Jun-20 10:50	16-Jun-20 15:53
W 16	H001598-08	Soil	16-Jun-20 10:51	16-Jun-20 15:53
W 17	H001598-09	Soil	16-Jun-20 12:16	16-Jun-20 15:53

06/22/20 - Client changed the name of the project via email. This is the revised report and will replace the one sent on 06/18/20.

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

APACHE CORP - HOBBS 2350 W. MARLAND BLVD. HOBBS NM, 88240			Project Num Project Mana	ger: BRL	NE GIVEN	2		:	Reported: 22-Jun-20 11:3	38
			H0015	W 2 598-01 (Se	oil)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	tories					
Inorganic Compounds										
Chloride	112		16.0	mg/kg	4	0061808	GM	18-Jun-20	4500-Cl-B	
Volatile Organic Compounds by 1	EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			104 %	73.3	-129	0061709	MS	17-Jun-20	8021B	
Petroleum Hydrocarbons by GC	FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B	
Surrogate: 1-Chlorooctane			128 %	44.3	-144	0061611	MS	17-Jun-20	8015B	
Surrogate: 1-Chlorooctadecane			144 %	42.2	-156	0061611	MS	17-Jun-20	8015B	

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APACHE CORP - HOBBS 2350 W. MARLAND BLVD. HOBBS NM, 88240	Project:NEDU 4AReported:Project Number:NONE GIVEN22-Jun-20 11:38Project Manager:BRUCE BAKERFax To:(575) 393-2432										
			H001	W 3 598-02 (Se	oil)						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	al Laborat	ories						
Inorganic Compounds Chloride	64.0		16.0	mg/kg	4	0061808	GM	18-Jun-20	4500-Cl-B		
			10.0	mg/kg	-	0001808	GW	18 -Ju ii-20	4500-CI-B		
Volatile Organic Compounds b		8021									
Benzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Toluene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Total Xylenes*	< 0.150		0.150	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Total BTEX	< 0.300		0.300	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Surrogate: 4-Bromofluorobenzene (PID)			106 %	73.3	-129	0061709	MS	17 - Jun-20	8021B		
Petroleum Hydrocarbons by G	C FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B		
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B		
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B		
Surrogate: 1-Chlorooctane			127 %	44.3	-144	0061611	MS	17-Jun-20	8015B		
Surrogate: 1-Chlorooctadecane			141 %	42.2	-156	0061611	MS	17-Jun-20	8015B		

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APACHE CORP - HOBBS 2350 W. MARLAND BLVD. HOBBS NM, 88240		2	Reported: 22-Jun-20 11:38							
			H001	W 4 598-03 (Se	oil)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	tories					
Inorganic Compounds										
Chloride	272		16.0	mg/kg	4	0061808	GM	18-Jun-20	4500-Cl-B	
Volatile Organic Compounds b	oy EPA Method 8	8021								
Benzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			106 %	73.3	-129	0061709	MS	17-Jun-20	8021B	
Petroleum Hydrocarbons by G	C FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B	
Surrogate: 1-Chlorooctane			126 %	44.3	-144	0061611	MS	17-Jun-20	8015B	
Surrogate: 1-Chlorooctadecane			140 %	42.2	-156	0061611	MS	17-Jun-20	8015B	

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APACHE CORP - HOBBS 2350 W. MARLAND BLVD. HOBBS NM, 88240	Project:NEDU 4AReported:Project Number:NONE GIVEN22-Jun-20 11:38Project Manager:BRUCE BAKERFax To:(575) 393-2432										
			H001	W 7 598-04 (Se	oil)						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	al Laborat	tories						
Inorganic Compounds	448		16.0	mg/kg	4	0061808	GM	18-Jun-20	4500-Cl-B		
Chloride			10.0	iiig/kg	4	0001808	GW	18-Juli-20	4300-СІ-В		
Volatile Organic Compounds b	y EPA Method	8021									
Benzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Toluene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Total Xylenes*	< 0.150		0.150	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Total BTEX	< 0.300		0.300	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Surrogate: 4-Bromofluorobenzene (PID)			105 %	73.3	-129	0061709	MS	17-Jun-20	8021B		
Petroleum Hydrocarbons by G	C FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B		
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B		
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B		
Surrogate: 1-Chlorooctane			131 %	44.3	-144	0061611	MS	17-Jun-20	8015B		
Surrogate: 1-Chlorooctadecane			147 %	42.2	-156	0061611	MS	17-Jun-20	8015B		

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APACHE CORP - HOBBS 2350 W. MARLAND BLVD. HOBBS NM, 88240		Project: NEDU 4A Project Number: NONE GIVEN Project Manager: BRUCE BAKER Fax To: (575) 393-2432									
			H001	W 8 598-05 (Se	oil)						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	al Laborat	tories						
Inorganic Compounds											
Chloride	144		16.0	mg/kg	4	0061808	GM	18-Jun-20	4500-Cl-B		
Volatile Organic Compounds b	y EPA Method	8021									
Benzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Toluene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Total Xylenes*	< 0.150		0.150	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Total BTEX	< 0.300		0.300	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Surrogate: 4-Bromofluorobenzene (PID)			106 %	73.3	-129	0061709	MS	17-Jun-20	8021B		
Petroleum Hydrocarbons by G	C FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B		
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B		
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B		
Surrogate: 1-Chlorooctane			122 %	44.3	-144	0061611	MS	17-Jun-20	8015B		
Surrogate: 1-Chlorooctadecane			136 %	42.2	-156	0061611	MS	17-Jun-20	8015B		

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APACHE CORP - HOBBS 2350 W. MARLAND BLVD. HOBBS NM, 88240	Project:NEDU 4AReported:Project Number:NONE GIVEN22-Jun-20 11:38Project Manager:BRUCE BAKERFax To:(575) 393-2432										
			H001	W 9 598-06 (Se	oil)						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	al Laborat	tories						
Inorganic Compounds	16.0		16.0	mg/kg	4	0061809	GM	18-Jun-20	4500-Cl-B		
Chloride			16.0	mg/kg	4	0001809	GM	18-Juli-20	4300-СІ-В		
Volatile Organic Compounds b		8021									
Benzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Toluene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Total Xylenes*	< 0.150		0.150	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Total BTEX	< 0.300		0.300	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Surrogate: 4-Bromofluorobenzene (PID)			106 %	73.3	-129	0061709	MS	17-Jun-20	8021B		
Petroleum Hydrocarbons by G	C FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B		
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B		
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B		
Surrogate: 1-Chlorooctane			119 %	44.3	-144	0061611	MS	17-Jun-20	8015B		
Surrogate: 1-Chlorooctadecane			132 %	42.2	-156	0061611	MS	17-Jun-20	8015B		

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

APACHE CORP - HOBBS 2350 W. MARLAND BLVD. HOBBS NM, 88240			Reported: 22-Jun-20 11:38							
			H001	W 15 598-07 (Se	oil)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	tories					
Inorganic Compounds										
Chloride	64.0		16.0	mg/kg	4	0061809	GM	18-Jun-20	4500-Cl-B	
Volatile Organic Compounds b	oy EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			106 %	73.3	-129	0061709	MS	17-Jun-20	8021B	
Petroleum Hydrocarbons by G	C FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B	
Surrogate: 1-Chlorooctane			125 %	44.3	-144	0061611	MS	17-Jun-20	8015B	
Surrogate: 1-Chlorooctadecane			140 %	42.2	-156	0061611	MS	17-Jun-20	8015B	

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APACHE CORP - HOBBS 2350 W. MARLAND BLVD. HOBBS NM, 88240		2	Reported: 22-Jun-20 11:38							
			H001	W 16 598-08 (Se	oil)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	tories					
Inorganic Compounds										
Chloride	<16.0		16.0	mg/kg	4	0061809	GM	18-Jun-20	4500-Cl-B	
Volatile Organic Compounds b	y EPA Method 8	3021								
Benzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	0061709	MS	17-Jun-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			104 %	73.3	-129	0061709	MS	17-Jun-20	8021B	
Petroleum Hydrocarbons by G	C FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B	
Surrogate: 1-Chlorooctane			129 %	44.3	-144	0061611	MS	17-Jun-20	8015B	
Surrogate: 1-Chlorooctadecane			146 %	42.2	-156	0061611	MS	17-Jun-20	8015B	

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APACHE CORP - HOBBS 2350 W. MARLAND BLVD. HOBBS NM, 88240	Project:NEDU 4AReported:Project Number:NONE GIVEN22-Jun-20 11:38Project Manager:BRUCE BAKERFax To:(575) 393-2432										
			H001	W 17 598-09 (Se	oil)						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	al Laborat	tories						
Inorganic Compounds Chloride	128		16.0	mg/kg	4	0061809	GM	18-Jun-20	4500-Cl-B		
Volatile Organic Compounds by	y EPA Method	8021									
Benzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Toluene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Total Xylenes*	< 0.150		0.150	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Total BTEX	< 0.300		0.300	mg/kg	50	0061709	MS	17-Jun-20	8021B		
Surrogate: 4-Bromofluorobenzene (PID)			106 %	73.3	-129	0061709	MS	17-Jun-20	8021B		
Petroleum Hydrocarbons by G	C FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B		
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B		
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0061611	MS	17-Jun-20	8015B		
Surrogate: 1-Chlorooctane			129 %	44.3	-144	0061611	MS	17-Jun-20	8015B		
Surrogate: 1-Chlorooctadecane			144 %	42.2	-156	0061611	MS	17-Jun-20	8015B		

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	Project: Project Number: Project Manager:		Reported: 22-Jun-20 11:38
	Fax To:	(575) 393-2432	

Inorganic Compounds - Quality Control

Cardinal Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 0061808 - 1:4 DI Water										
Blank (0061808-BLK1)				Prepared &	k Analyzed:	18-Jun-20				
Chloride	ND	16.0	mg/kg							
LCS (0061808-BS1)				Prepared &	analyzed:	18-Jun-20				
Chloride	432	16.0	mg/kg	400		108	80-120			
LCS Dup (0061808-BSD1)				Prepared &	z Analyzed:	18-Jun-20				
Chloride	432	16.0	mg/kg	400		108	80-120	0.00	20	
Batch 0061809 - 1:4 DI Water										
Blank (0061809-BLK1)				Prepared &	k Analyzed:	18-Jun-20				
Chloride	ND	16.0	mg/kg							
LCS (0061809-BS1)				Prepared &	k Analyzed:	18-Jun-20				
Chloride	400	16.0	mg/kg	400		100	80-120			
LCS Dup (0061809-BSD1)				Prepared &	k Analyzed:	18-Jun-20				
Chloride	416	16.0	mg/kg	400		104	80-120	3.92	20	

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



APACHE CORP - HOBBS 2350 W. MARLAND BLVD.	Project Number:		Reported: 22-Jun-20 11:38
HOBBS NM, 88240	Project Manager:		
	Fax 10:	(575) 393-2432	

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 0061709 - Volatiles										
Blank (0061709-BLK1)				Prepared &	Analyzed:	17-Jun-20				
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0523		mg/kg	0.0500		105	73.3-129			
LCS (0061709-BS1)				Prepared &	Analyzed:	17-Jun-20				
Benzene	1.93	0.050	mg/kg	2.00		96.7	72.2-131			
Toluene	1.83	0.050	mg/kg	2.00		91.5	71.7-126			
Ethylbenzene	1.82	0.050	mg/kg	2.00		91.1	68.9-126			
Total Xylenes	5.28	0.150	mg/kg	6.00		88.1	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.0523		mg/kg	0.0500		105	73.3-129			
LCS Dup (0061709-BSD1)				Prepared &	Analyzed:	17-Jun-20				
Benzene	2.15	0.050	mg/kg	2.00		107	72.2-131	10.4	14.6	
Toluene	2.00	0.050	mg/kg	2.00		99.9	71.7-126	8.71	17.4	
Ethylbenzene	1.96	0.050	mg/kg	2.00		98.2	68.9-126	7.50	18.9	
Total Xylenes	5.68	0.150	mg/kg	6.00		94.7	71.4-125	7.23	18.5	
Surrogate: 4-Bromofluorobenzene (PID)	0.0523		mg/kg	0.0500		105	73.3-129			

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



APACHE CORP - HOBBS 2350 W. MARLAND BLVD. HOBBS NM, 88240	Project: NEE Project Number: NOI Project Manager: BRL Fax To: (57!	ne given Jce baker	Reported: 22-Jun-20 11:38
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Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 0061611 - General Prep - Organics										
Blank (0061611-BLK1)				Prepared: 1	l 6-Jun-20 A	nalyzed: 1	7-Jun-20			
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	55.6		mg/kg	50.0		111	44.3-144			
Surrogate: 1-Chlorooctadecane	62.1		mg/kg	50.0		124	42.2-156			
LCS (0061611-BS1)				Prepared: 1	l 6-Jun-20 A	nalyzed: 1	7-Jun-20			
GRO C6-C10	220	10.0	mg/kg	200		110	78.8-127			
DRO >C10-C28	237	10.0	mg/kg	200		118	80-132			
Total TPH C6-C28	457	10.0	mg/kg	400		114	81.3-128			
Surrogate: 1-Chlorooctane	63.3		mg/kg	50.0		127	44.3-144			
Surrogate: 1-Chlorooctadecane	70.8		mg/kg	50.0		142	42.2-156			
LCS Dup (0061611-BSD1)				Prepared: 1	l 6-Jun-20 A	nalyzed: 1	7-Jun-20			
GRO C6-C10	205	10.0	mg/kg	200		103	78.8-127	6.84	15.1	
DRO >C10-C28	230	10.0	mg/kg	200		115	80-132	2.94	17.1	
Total TPH C6-C28	435	10.0	mg/kg	400		109	81.3-128	4.80	15	
Surrogate: 1-Chlorooctane	66.0		mg/kg	50.0		132	44.3-144			
Surrogate: 1-Chlorooctadecane	70.7		mg/kg	50.0		141	42.2-156			

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

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

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

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Laboratories

Page 70 of 116

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(575) 393-2326	FAA (212) 223-2410		BILL TO				ANALYSIS RE	REQUEST	
Company Name. alache	(perfortant)	P.O. #:							
Project Manager: Juun U	ALLA	Company:	nv.						
Address:		Aller: 1							
City:	State: 21p:								
Phone #:	Fax #:	Address	S			-			
Project #:	Project Owner:	City:			2				
	TITU NENI JA	State:	Zip:						
Project Name: Libour J/		Dhone	ŧ	_					
Project Location: 2004 3.	I DEA NEDU HI	Phone							
Sampler Name: J. Rouan		Fax #:	1	1					_
- 0		MATRIX PRE	PRESERV. SAMPLING	G					
FOR LAB USE ONLY	the second second					OH			_
Lab I.D. Sample I.D.	PRAB OR (C)O	ROUNDWATER ASTEWATER DIL IL LUDGE THER : CID/BASE:	THER :	CL-	BTEX	EXT. TH			
Hooisas		S O S	0 cc/21/2	V 5660	V v	- /			
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6 WT	~		//	1050					
1 wis			1	1151	_				
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9 217	0								
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analyses. All claims including trobe to in representation of consequential damages, including without limitation, business interruptions, loss of use, or loss or provide interruptions, loss of use, or loss or loss of use, or loss of	or consequental damages, including without limitation, busin comence of services hereunder by Cardinal, regardless of w	nitation, business interruptions, loss of use gardless of whether such claim is based u	por any of the above stated reason	s or otherwise.			Add'l Phone #:		
affiliates or successors arising out of or related to the person Relinquished By:	Date: 6/16/22 Rece	Received By:	A	All Results are	emailed.	Please pro	All Results are emailed. Please provide Email address:	n	
THE Know	Time: S	111		EMADKS:		•		01 (1)	120 (1
Relinquished By:		Received By:		* Project		chan	fer as per s	came changed as per sett. Or cores.	
	Observed Temp. °C	Sample Condition	CHECKED BY: TI	Turnaround Time:		Standard	y	Bacteria (only) Sample Condition	ndition Temp. °C
Delivered By: (Circle One)	Corrected Temp. °C	Cool Intact		Thermometer ID . #97 Correction Factor - 8.	10.1	Rush		1	Temp. °C
FORM-000 N 3.0	† Cardinal cannot	Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com	. Please email chang	es to celey.	keene@c	ardinalla	bsnm.com		

Received by OCD: 9/23/2020 11:31:25 AM



June 24, 2020

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

RE: NEDU 4A

Enclosed are the results of analyses for samples received by the laboratory on 06/19/20 13:54.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



		BRUCE BA	1arland BLVD.		
		Fax To:	(575) 393-2432	2	
Received:	06/19/2020			Sampling Date:	06/19/2020
Reported:	06/24/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NEDU 4A				

Sample ID: W 18 (H001635-01)

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	06/22/2020	ND	1.95	97.5	2.00	5.72	
Toluene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.85	
Ethylbenzene*	<0.050	0.050	06/22/2020	ND	1.99	99.5	2.00	5.62	
Total Xylenes*	<0.150	0.150	06/22/2020	ND	5.80	96.6	6.00	5.46	
Total BTEX	<0.300	0.300	06/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.6	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/22/2020	ND	416	104	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2020	ND	216	108	200	7.38	
DRO >C10-C28*	<10.0	10.0	06/20/2020	ND	220	110	200	6.73	
EXT DRO >C28-C36	<10.0	10.0	06/20/2020	ND					
Surrogate: 1-Chlorooctane	111 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	122	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		BRUCE BA	1arland BLVD.		
		Fax To:	(575) 393-2432	2	
Received:	06/19/2020			Sampling Date:	06/19/2020
Reported:	06/24/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NEDU 4A				

Sample ID: W 19 (H001635-02)

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	06/22/2020	ND	1.95	97.5	2.00	5.72	
Toluene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.85	
Ethylbenzene*	<0.050	0.050	06/22/2020	ND	1.99	99.5	2.00	5.62	
Total Xylenes*	<0.150	0.150	06/22/2020	ND	5.80	96.6	6.00	5.46	
Total BTEX	<0.300	0.300	06/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/22/2020	ND	416	104	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2020	ND	216	108	200	7.38	
DRO >C10-C28*	<10.0	10.0	06/20/2020	ND	220	110	200	6.73	
EXT DRO >C28-C36	<10.0	10.0	06/20/2020	ND					
Surrogate: 1-Chlorooctane	116	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	127	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		BRUCE BA	1arland BLVD.		
		Fax To:	(575) 393-2432	2	
Received:	06/19/2020			Sampling Date:	06/19/2020
Reported:	06/24/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NEDU 4A				

Sample ID: W 20 (H001635-03)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.72	
Toluene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.85	
Ethylbenzene*	<0.050	0.050	06/22/2020	ND	1.99	99.5	2.00	5.62	
Total Xylenes*	<0.150	0.150	06/22/2020	ND	5.80	96.6	6.00	5.46	
Total BTEX	<0.300	0.300	06/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.7	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/22/2020	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2020	ND	216	108	200	7.38	
DRO >C10-C28*	<10.0	10.0	06/20/2020	ND	220	110	200	6.73	
EXT DRO >C28-C36	<10.0	10.0	06/20/2020	ND					
Surrogate: 1-Chlorooctane	116 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	125	42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		BRUCE BA	iarland BLVD.		
		Fax To:	(575) 393-2432	2	
Received:	06/19/2020			Sampling Date:	06/19/2020
Reported:	06/24/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NEDU 4A				

Sample ID: W 21 (H001635-04)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.72	
Toluene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.85	
Ethylbenzene*	<0.050	0.050	06/22/2020	ND	1.99	99.5	2.00	5.62	
Total Xylenes*	<0.150	0.150	06/22/2020	ND	5.80	96.6	6.00	5.46	
Total BTEX	<0.300	0.300	06/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.2	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/22/2020	ND	416	104	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2020	ND	209	104	200	4.46	
DRO >C10-C28*	154	10.0	06/20/2020	ND	238	119	200	0.420	
EXT DRO >C28-C36	16.5	10.0	06/20/2020	ND					
Surrogate: 1-Chlorooctane	129	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	154	% 42.2-15	6						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		BRUCE BA	1arland BLVD.		
		Fax To:	(575) 393-2432	2	
Received:	06/19/2020			Sampling Date:	06/19/2020
Reported:	06/24/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NEDU 4A				

Sample ID: W 22 (H001635-05)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.72	
Toluene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.85	
Ethylbenzene*	<0.050	0.050	06/22/2020	ND	1.99	99.5	2.00	5.62	
Total Xylenes*	<0.150	0.150	06/22/2020	ND	5.80	96.6	6.00	5.46	
Total BTEX	<0.300	0.300	06/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.8	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/22/2020	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2020	ND	209	104	200	4.46	
DRO >C10-C28*	<10.0	10.0	06/20/2020	ND	238	119	200	0.420	
EXT DRO >C28-C36	<10.0	10.0	06/20/2020	ND					
Surrogate: 1-Chlorooctane	119 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	134 9	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



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.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: appliche Congulation		BILL TO		ANALYSIS REQUEST
Project Manager: Ruce Odjer	P.O. #			
Address:	Соп	Company:		
City: State:	Zip: Attn:			
Phone #: Fax #:	Add	Address:		
Project #: Project Owner:		••		
Project Name: NEUL 44	State:	e: Zip:		
Project Location: NEDU 41A	Pho	#		
Sampler Name: J. Known	Fax #:	#		
	MATRIX	PRESERV. SAMPLING	NG	
Lab I.D. Sample I.D.	DWATER /ATER	DL		
HOO163	# CONT/ GROUN WASTEV SOIL OIL SLUDGE OTHER :	ACID/BA ICE / CO OTHER : DATE	тіме ВТЕХ ЕХТ.	
3103		6/19/20 1	1147	
2 WIS	0	.,	1148 1 1 1 8411	
3 W2W	C	11	1/20 / / / /	
1631	<u>^</u>	11	1/52 / 1/1	
UT- C 22 SD	0	11 ac/31/3	1/54 / / /	
PLEASE NOTE: Liability and Damages. Cardina's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including these for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 20 days after completion of the epplicable service. In no event shall Cardinal be liable for incidental or consequental damages, including whoult limitadion, business interruptors, loss of use, or loss of profits incurred by client, its subadiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, repard(sec) whether such claims the service and end on the service and end or consequents and any services hereunder by Cardinal, repard(sec) whether such claims the advect to conserve and any services arising out of or related to the performance of services hereunder by Cardinal, repard(sec) whether such claims the service advect to conserve the service advector conserved.	ly for any claim arising whether based in contract or tort, sh all be deemed waived unless made in writing and received cluding without limitation, business interruptions, loss of us of by Cardinal, recardless of vithens such claim is based i	hall be limited to the amount paid by the days after com- d by Cardinal within 30 days after com- re, or loss of profits incurred by client, upon any of the above styled components of the second se	aid by the client for the ter completion of the applicable client, its subsidiaries,	
JOF Rush	114/20 Received By:	All All	Verbal Result: Yes No No No No No No No No No N	☐ Yes ☐ No Add'I Phone #: ailed. Please provide Email address:
Relinguished By: Time:	Received By:	RE	REMARKS:	
(Circle One)	.°C 3. Sample Condition	CHECKED BY: Tur (Initials)	Turnaround Time: Standard Rush	Bacteria (only) Sample Condition
	.°C	The Cor	Thermometer ID #113 Correction Factor None	Yes Yes Occurrected Temp. °C
† Cardin	Cardinal cannot accept verbal changes. Please email changes to celey keene@cardinallabsnm.com	Please email change	s to celey.keene@cardinallab	

Received by OCD: 9/23/2020 11:31:25 AM

Page 78 of 116



June 24, 2020

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

RE: NEDU 4A

Enclosed are the results of analyses for samples received by the laboratory on 06/19/20 13:54.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



NEDU 4A

Analytical Results For:

		APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. HOBBS NM, 88240 Fax To: (575) 393-24	32	
Received:	06/19/2020		Sampling Date:	06/19/2020
Reported:	06/24/2020		Sampling Type:	Soil
Project Name:	NEDU 4A		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker

Sample ID: B 24 (H001636-01)

Project Location:

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	06/22/2020	ND	1.95	97.5	2.00	5.72	
Toluene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.85	
Ethylbenzene*	<0.050	0.050	06/22/2020	ND	1.99	99.5	2.00	5.62	
Total Xylenes*	<0.150	0.150	06/22/2020	ND	5.80	96.6	6.00	5.46	
Total BTEX	<0.300	0.300	06/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.7	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	06/22/2020	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2020	ND	209	104	200	4.46	
DRO >C10-C28*	<10.0	10.0	06/20/2020	ND	238	119	200	0.420	
EXT DRO >C28-C36	<10.0	10.0	06/20/2020	ND					
Surrogate: 1-Chlorooctane	113 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	129	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



		BRUCE BAK	ARLAND BLVD.		
		Fax To:	(575) 393-2432		
Received:	06/19/2020			Sampling Date:	06/19/2020
Reported:	06/24/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number: Project Location:	None given Nedu 4a			Sample Received By:	Tamara Oldaker

Sample ID: B 25 (H001636-02)

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	06/22/2020	ND	1.95	97.5	2.00	5.72	
Toluene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.85	
Ethylbenzene*	<0.050	0.050	06/22/2020	ND	1.99	99.5	2.00	5.62	
Total Xylenes*	<0.150	0.150	06/22/2020	ND	5.80	96.6	6.00	5.46	
Total BTEX	<0.300	0.300	06/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.4	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/22/2020	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2020	ND	209	104	200	4.46	
DRO >C10-C28*	<10.0	10.0	06/20/2020	ND	238	119	200	0.420	
EXT DRO >C28-C36	<10.0	10.0	06/20/2020	ND					
Surrogate: 1-Chlorooctane	117 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	131	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



		APACHE COR	P - HOBBS					
	BRUCE BAKER							
	2350 W. MARLAND BLVD.							
		HOBBS NM, 8	38240					
		Fax To:	(575) 393-2432					
Received:	06/19/2020			Sampling Date:		06/19/2020		
Reported:	06/24/2020			Sampling Type:		Soil		
Project Name:	NEDU 4A			Sampling Condition:		Cool & Intact		
Project Number:	NONE GIVEN			Sample Received By:		Tamara Oldaker		
Project Location:	NEDU 4A							

Sample ID: B 26 (H001636-03)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.72	
Toluene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.85	
Ethylbenzene*	<0.050	0.050	06/22/2020	ND	1.99	99.5	2.00	5.62	
Total Xylenes*	<0.150	0.150	06/22/2020	ND	5.80	96.6	6.00	5.46	
Total BTEX	<0.300	0.300	06/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.6	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	06/22/2020	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	06/20/2020	ND	209	104	200	4.46	
DRO >C10-C28*	13.6	10.0	06/20/2020	ND	238	119	200	0.420	
EXT DRO >C28-C36	<10.0	10.0	06/20/2020	ND					
Surrogate: 1-Chlorooctane	123	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	140	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



		BRUCE BAK	ARLAND BLVD.		
		Fax To:	(575) 393-2432		
Received:	06/19/2020			Sampling Date:	06/19/2020
Reported:	06/24/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NEDU 4A				

Sample ID: B 27 (H001636-04)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.72	
Toluene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.85	
Ethylbenzene*	<0.050	0.050	06/22/2020	ND	1.99	99.5	2.00	5.62	
Total Xylenes*	<0.150	0.150	06/22/2020	ND	5.80	96.6	6.00	5.46	
Total BTEX	<0.300	0.300	06/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.7	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/22/2020	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	06/22/2020	ND	216	108	200	1.38	QR-03
DRO >C10-C28*	<10.0	10.0	06/22/2020	ND	214	107	200	0.714	
EXT DRO >C28-C36	<10.0	10.0	06/22/2020	ND					
Surrogate: 1-Chlorooctane	101	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	111 9	42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



NONE GIVEN

NEDU 4A

Tamara Oldaker

Sample Received By:

Analytical Results For:

	APACHE CORP	- HOBBS	
	BRUCE BAKER		
	2350 W. MARL	AND BLVD.	
	HOBBS NM, 88	3240	
	Fax To: (5	575) 393-2432	
06/19/2020		Sampling Date:	06/19/2020
06/24/2020		Sampling Type:	Soil
NEDU 4A		Sampling Condition:	Cool & Intact

Sample ID: B 28 (H001636-05)

Received:

Reported:

Project Name:

Project Number:

Project Location:

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	06/22/2020	ND	1.95	97.5	2.00	5.72	
Toluene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.85	
Ethylbenzene*	<0.050	0.050	06/22/2020	ND	1.99	99.5	2.00	5.62	
Total Xylenes*	<0.150	0.150	06/22/2020	ND	5.80	96.6	6.00	5.46	
Total BTEX	<0.300	0.300	06/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.4	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	06/22/2020	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	06/22/2020	ND	216	108	200	1.38	
DRO >C10-C28*	<10.0	10.0	06/22/2020	ND	214	107	200	0.714	
EXT DRO >C28-C36	<10.0	10.0	06/22/2020	ND					
Surrogate: 1-Chlorooctane	97.4	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	105 9	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



NEDU 4A

Analytical Results For:

		APACHE C	ORP - HOBBS		
		BRUCE BA	KER		
		2350 W. N	1arland Blvd.		
		HOBBS NN	4, 88240		
		Fax To:	(575) 393-2432	2	
Received:	06/19/2020			Sampling Date:	06/19/2020
Reported:	06/24/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker

Sample ID: B 29 (H001636-06)

Project Location:

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	06/22/2020	ND	1.95	97.5	2.00	5.72	
Toluene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.85	
Ethylbenzene*	<0.050	0.050	06/22/2020	ND	1.99	99.5	2.00	5.62	
Total Xylenes*	<0.150	0.150	06/22/2020	ND	5.80	96.6	6.00	5.46	
Total BTEX	<0.300	0.300	06/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg Analyzed By: GM		d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	06/22/2020	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	06/22/2020	ND	216	108	200	1.38	
DRO >C10-C28*	<10.0	10.0	06/22/2020	ND	214	107	200	0.714	
EXT DRO >C28-C36	<10.0	10.0	06/22/2020	ND					
Surrogate: 1-Chlorooctane	112 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	124	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



		BRUCE BA	1arland BLVD.		
		Fax To:	(575) 393-2432	<u>.</u>	
Received:	06/19/2020			Sampling Date:	06/19/2020
Reported:	06/24/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NEDU 4A				

Sample ID: B 30 (H001636-07)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.72	
Toluene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.85	
Ethylbenzene*	<0.050	0.050	06/22/2020	ND	1.99	99.5	2.00	5.62	
Total Xylenes*	<0.150	0.150	06/22/2020	ND	5.80	96.6	6.00	5.46	
Total BTEX	<0.300	0.300	06/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	mg/kg Analyzed By: GM		d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	06/22/2020	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	06/22/2020	ND	216	108	200	1.38	
DRO >C10-C28*	<10.0	10.0	06/22/2020	ND	214	107	200	0.714	
EXT DRO >C28-C36	<10.0	10.0	06/22/2020	ND					
Surrogate: 1-Chlorooctane	91.3	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	101 9	42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



NEDU 4A

Analytical Results For:

		APACHE C	ORP - HOBBS		
		BRUCE BA	KER		
		2350 W. N	1arland Blvd.		
		HOBBS NN	4, 88240		
		Fax To:	(575) 393-2432	2	
Received:	06/19/2020			Sampling Date:	06/19/2020
Reported:	06/24/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker

Sample ID: B 31 (H001636-08)

Project Location:

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	06/22/2020	ND	1.95	97.5	2.00	5.72	
Toluene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.85	
Ethylbenzene*	<0.050	0.050	06/22/2020	ND	1.99	99.5	2.00	5.62	
Total Xylenes*	<0.150	0.150	06/22/2020	ND	5.80	96.6	6.00	5.46	
Total BTEX	<0.300	0.300	06/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	mg/kg Analyzed By: GM		d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/22/2020	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	06/22/2020	ND	216	108	200	1.38	
DRO >C10-C28*	39.2	10.0	06/22/2020	ND	214	107	200	0.714	
EXT DRO >C28-C36	<10.0	10.0	06/22/2020	ND					
Surrogate: 1-Chlorooctane	110	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	126	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		BRUCE BAI	ARLAND BLVD.		
		Fax To:	(575) 393-2432		
Received:	06/19/2020			Sampling Date:	06/19/2020
Reported:	06/24/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NEDU 4A				

Sample ID: B 32 (H001636-09)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.72	
Toluene*	<0.050	0.050	06/22/2020	ND	1.95	97.5	2.00	5.85	
Ethylbenzene*	<0.050	0.050	06/22/2020	ND	1.99	99.5	2.00	5.62	
Total Xylenes*	<0.150	0.150	06/22/2020	ND	5.80	96.6	6.00	5.46	
Total BTEX	<0.300	0.300	06/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.4	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	mg/kg Analyzed By: GM		d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/22/2020	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	06/22/2020	ND	216	108	200	1.38	
DRO >C10-C28*	<10.0	10.0	06/22/2020	ND	214	107	200	0.714	
EXT DRO >C28-C36	<10.0	10.0	06/22/2020	ND					
Surrogate: 1-Chlorooctane	94.6	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	105	% 42.2-15	6						

Cardinal Laboratories

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		APACHE C	Corp - Hobbs		
		BRUCE BA	AKER		
		2350 W. N	MARLAND BLVD.		
		HOBBS N	M, 88240		
		Fax To:	(575) 393-2432	2	
Received:	06/19/2020			Sampling Date:	06/19/2020
Reported:	06/24/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NEDU 4A				

Sample ID: B 33 (H001636-10)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/24/2020	ND	2.03	102	2.00	5.21	
Toluene*	<0.050	0.050	06/24/2020	ND	2.04	102	2.00	4.90	
Ethylbenzene*	<0.050	0.050	06/24/2020	ND	2.07	104	2.00	4.22	
Total Xylenes*	<0.150	0.150	06/24/2020	ND	6.01	100	6.00	4.21	
Total BTEX	<0.300	0.300	06/24/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.2	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	mg/kg Analyzed By: GM		d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/22/2020	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	06/22/2020	ND	216	108	200	1.38	
DRO >C10-C28*	<10.0	10.0	06/22/2020	ND	214	107	200	0.714	
EXT DRO >C28-C36	<10.0	10.0	06/22/2020	ND					
Surrogate: 1-Chlorooctane	102 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	115 9	42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



		BRUCE BA	IARLAND BLVD.		
		Fax To:	(575) 393-2432	2	
Received:	06/19/2020			Sampling Date:	06/19/2020
Reported:	06/24/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NEDU 4A				

Sample ID: B 34 (H001636-11)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/24/2020	ND	2.03	102	2.00	5.21	
Toluene*	<0.050	0.050	06/24/2020	ND	2.04	102	2.00	4.90	
Ethylbenzene*	<0.050	0.050	06/24/2020	ND	2.07	104	2.00	4.22	
Total Xylenes*	<0.150	0.150	06/24/2020	ND	6.01	100	6.00	4.21	
Total BTEX	<0.300	0.300	06/24/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.7	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	mg/kg Analyzed By: GM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/22/2020	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	06/22/2020	ND	216	108	200	1.38	
DRO >C10-C28*	18.5	10.0	06/22/2020	ND	214	107	200	0.714	
EXT DRO >C28-C36	<10.0	10.0	06/22/2020	ND					
Surrogate: 1-Chlorooctane	98.2	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	110 9	42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		BRUCE BA	1arland BLVD.		
		Fax To:	(575) 393-2432	2	
Received:	06/19/2020			Sampling Date:	06/19/2020
Reported:	06/24/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NEDU 4A				

Sample ID: B 35 (H001636-12)

BTEX 8021B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/24/2020	ND	2.03	102	2.00	5.21	
Toluene*	<0.050	0.050	06/24/2020	ND	2.04	102	2.00	4.90	
Ethylbenzene*	<0.050	0.050	06/24/2020	ND	2.07	104	2.00	4.22	
Total Xylenes*	<0.150	0.150	06/24/2020	ND	6.01	100	6.00	4.21	
Total BTEX	<0.300	0.300	06/24/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.6	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	mg/kg Analyzed By: GM		d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/22/2020	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	06/22/2020	ND	216	108	200	1.38	
DRO >C10-C28*	241	10.0	06/22/2020	ND	214	107	200	0.714	
EXT DRO >C28-C36	40.0	10.0	06/22/2020	ND					
Surrogate: 1-Chlorooctane	106	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	131	% 42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		BRUCE BAK	ARLAND BLVD.		
		Fax To:	(575) 393-2432		
Received:	06/19/2020			Sampling Date:	06/19/2020
Reported:	06/24/2020			Sampling Type:	Soil
Project Name:	NEDU 4A			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NEDU 4A				

Sample ID: B 36 (H001636-13)

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	06/24/2020	ND	2.03	102	2.00	5.21	
Toluene*	<0.050	0.050	06/24/2020	ND	2.04	102	2.00	4.90	
Ethylbenzene*	<0.050	0.050	06/24/2020	ND	2.07	104	2.00	4.22	
Total Xylenes*	<0.150	0.150	06/24/2020	ND	6.01	100	6.00	4.21	
Total BTEX	<0.300	0.300	06/24/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.3	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/22/2020	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	06/22/2020	ND	216	108	200	1.38	
DRO >C10-C28*	36.4	10.0	06/22/2020	ND	214	107	200	0.714	
EXT DRO >C28-C36	<10.0	10.0	06/22/2020	ND					
Surrogate: 1-Chlorooctane	102	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	118	% 42.2-15	6						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

+ 0	Sampler - UPS - Bus - Other: Corrected Temp. °C	Delivered By: (Circle One) Observed Temp. °C	Time:	Date:	num		Animates of successors arising out of or related to the performance of services in Relinguished By: Date:	te a	PLEASE NOTE: Liability and Damages, Cardinal's liability and client's exclusion	55 8 OI	-	12 12	0	6 829	883	1637	3626	2 625	1634	Lab I.D. Sample I.D.	FOR LAB USE ONLY	Sampler Name: J. Known	Project Location: NEDW 4A	Project Name: NEDU 4A	Project #: Proje	Phone #: Fax #:	City: State:	Address:	1 man and 1
Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com		Sa Sa		Received By:	1354	06/01/90	Date: Received Rv.	Isoever shall be deemed waived unless made in writing an mages, including without limitation, business interruptions, I	we remedy for any claim arising whether based in contract	C	0	0	0	C	C	0	0	0	C	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	MATRIX				Project Owner:	*	ite: Zip:		
inges. Please email change	10,	CHECKED BY:		R	March		n is based upon any of the above stated reasons or otherwise.	nd received by Cardinal within 30 days after con loss of use, or loss of profits incurred by client,	t or tort, shall be limited to the amount paid by t	1/ w /1/20 /1		11							6/19/20	OTHER : ACID/BASE: ICE / COOL OTHER : DATE	PRESERV. SAMPLING	Fax #:	Phone #:	State: Zip:	City:	Address:	Attn:	Company:	て.つ. 共
es to celey.keene@cardinallab	Correction Factor None	Turnaround Time: Standard		REMARKS:		All Results are emailed. Please provide Email address:		mpletion of the applicable t, its subsidiaries,	the client for the	138 8 8 11	1/36	45/1	1/32	1/30	1/28	1/26	1/24	1128 1 1 1	123 VVV	TIME CL BTEX EXT.TIM	NG								
		ly) S				Add'l Phone #: vide Email address:																							

Received by OCD: 9/23/2020 11:31:25 AM

Page 95 of 116 Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

200 (010) 101 1 0707-000 (010)			
Company Name: applicate Corporation		BILL TO	
Project Manager: Bruce Vaker		P.O. #:	
Address:	0	Company:	
City: State:	Zip:	Attn:	
Phone #: Fax #:	2	Address:	
Project #: Project Owner:		City:	
Project Name: NEOU 4A		State: Zip:	
on: NEOU	-	Phone #:	
J. Bou	77	Fax #:	
	MATRIX	PRESERV. SAMPLING	NG
Lab I.D. Sample I.D.)RAB OR (C)OMP. CONTAINERS ROUNDWATER ASTEWATER DIL L LUDGE	THER : DID/BASE: E / COOL THER :	CL 8.TEX EXT. TPH
HE & 11		6/19/20	1/40 V V V 04/1
12 835	0		
[3] J 36	0	6/19/20	
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be demed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable analyses. All claims including those for negligence and any other cause whatsoever shall be demed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable sonce, in no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, artification are completed by Cardinal be and any of the above stated reasons or concinents.	for any claim arising whether based in contract o II be deemed waived unless made in writing and uding without limitation, business interruptions, lo - hv C-ardinal, neoratless of whether such claim is	r tort, shall be limited to the armount paid received by Cardinal within 20 days after or yss of use, or loss of profits incurred by clie s based upon any of the above stated reas	r the client for the models of the applicable the second sec
Relinquished By: Date: 6/19/200 Time: / 354 N	Received By:	alather	Verbal Result: □ Yes □ No Add'I Phone #: All Results are emailed. Please provide Email address:
स्	Received By:	C	REMARKS:
Delivered By: (Circle One) Observed Temp. °C 38	Sample (Cool li	CHECKED BY: (Initials)	e: Standard Bacteria
	°C Yes Yes		Thermometer ID #113 Yes Yes Correction Factor None INC No Corrected Temp. °C
Ŧ	al cannot accept verbal char	nges. Please email chan	Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

Received by OCD: 9/23/2020 11:31:25 AM



June 29, 2020

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

RE: NEDU 4A

Enclosed are the results of analyses for samples received by the laboratory on 06/26/20 16:20.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	06/26/2020	Sampling Date:	06/26/2020
Reported:	06/29/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NEDU 4A	Sample Received By:	Tamara Oldaker
Project Location:	NEDU 4A		

Sample ID: B 1 (H001684-01)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/29/2020	ND	416	104	400	3.77	

Sample ID: B 6 (H001684-02)

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	06/27/2020	ND	1.92	96.0	2.00	0.265	
Toluene*	<0.050	0.050	06/27/2020	ND	1.92	96.1	2.00	0.437	
Ethylbenzene*	<0.050	0.050	06/27/2020	ND	1.96	98.2	2.00	0.215	
Total Xylenes*	<0.150	0.150	06/27/2020	ND	5.73	95.5	6.00	0.162	
Total BTEX	<0.300	0.300	06/27/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.2 9	73.3-12	9						
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	06/29/2020	ND	191	95.4	200	0.529	
DRO >C10-C28*	<10.0	10.0	06/29/2020	ND	176	88.1	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	06/29/2020	ND					
Surrogate: 1-Chlorooctane	127 %	% 44. 3- 14	4						
Surrogate: 1-Chlorooctadecane	140 %	42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/26/2020	Sampling Date:	06/26/2020
Reported:	06/29/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NEDU 4A	Sample Received By:	Tamara Oldaker
Project Location:	NEDU 4A		

Sample ID: B 7 (H001684-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/27/2020	ND	1.92	96.0	2.00	0.265	
Toluene*	<0.050	0.050	06/27/2020	ND	1.92	96.1	2.00	0.437	
Ethylbenzene*	<0.050	0.050	06/27/2020	ND	1.96	98.2	2.00	0.215	
Total Xylenes*	<0.150	0.150	06/27/2020	ND	5.73	95.5	6.00	0.162	
Total BTEX	<0.300	0.300	06/27/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.9 9	73.3-12	9						
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	06/29/2020	ND	191	95.4	200	0.529	
DRO >C10-C28*	<10.0	10.0	06/29/2020	ND	176	88.1	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	06/29/2020	ND					
Surrogate: 1-Chlorooctane	124 %	6 44.3-14	4						

Sample ID: B 10 (H001684-04)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	06/29/2020	ND	416	104	400	3.77	

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



NEDU 4A

NEDU 4A

NEDU 4A

Sampling Condition:

Sample Received By:

06/26/2020

Cool & Intact

Tamara Oldaker

Soil

Analytical Results For:

	APACHE CORP - HOBBS	
	BRUCE BAKER	
	2350 W. MARLAND BLVD.	
	HOBBS NM, 88240	
	Fax To: (575) 393-2432	
06/26/2020	Sampling Date:	
06/29/2020	Sampling Type:	

Sample ID: B 12 (H001684-05)

Received:

Reported:

Project Name:

Project Number:

Project Location:

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	06/27/2020	ND	1.92	96.0	2.00	0.265	
Toluene*	<0.050	0.050	06/27/2020	ND	1.92	96.1	2.00	0.437	
Ethylbenzene*	<0.050	0.050	06/27/2020	ND	1.96	98.2	2.00	0.215	
Total Xylenes*	<0.150	0.150	06/27/2020	ND	5.73	95.5	6.00	0.162	
Total BTEX	<0.300	0.300	06/27/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.5	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/29/2020	ND	416	104	400	3.77	
TPH 8015M	mg,	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2020	ND	191	95.4	200	0.529	
DRO >C10-C28*	<10.0	10.0	06/29/2020	ND	176	88.1	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	06/29/2020	ND					
Surrogate: 1-Chlorooctane	123	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	136	42.2-15	6						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/26/2020	Sampling Date:	06/26/2020
Reported:	06/29/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NEDU 4A	Sample Received By:	Tamara Oldaker
Project Location:	NEDU 4A		

Sample ID: B 13 (H001684-06)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/27/2020	ND	1.92	96.0	2.00	0.265	
Toluene*	<0.050	0.050	06/27/2020	ND	1.92	96.1	2.00	0.437	
Ethylbenzene*	<0.050	0.050	06/27/2020	ND	1.96	98.2	2.00	0.215	
Total Xylenes*	<0.150	0.150	06/27/2020	ND	5.73	95.5	6.00	0.162	
Total BTEX	<0.300	0.300	06/27/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.1	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	06/29/2020	ND	416	104	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2020	ND	191	95.4	200	0.529	
DRO >C10-C28*	<10.0	10.0	06/29/2020	ND	176	88.1	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	06/29/2020	ND					
Surrogate: 1-Chlorooctane	113	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	124	% 42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/26/2020	
Reported:	06/29/2020	
Project Name:	NEDU 4A	
Project Number:	NEDU 4A	
Project Location:	NEDU 4A	

06/26/2020 Soil Cool & Intact Tamara Oldaker

Sample ID: B 15 (H001684-07)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/29/2020	ND	416	104	400	3.77	

Sampling Date:

Sampling Type:

Sampling Condition:

Sample Received By:

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

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

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

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

.

(575) 393-23	(575) 393-2326 FAX (575) 393-2476			
Company Name: auch	· Corporation	BILL TO		ANALYSIS REQUEST
Project Manager: "Bruce	Caken	P.O. #		
Address:	2	Company:		
City:	State: Zip:	Attn:		
Phone #:	Fax #:	Address:		
Project #:	Project Owner:	City:		
Project Name: NEOLL YA	v	State: Zip:		
Project Location: NEOU 4	AP.	Phone #:		
Sampler Name: VEFF Brunn	3	Fax #:		
		MATRIX PRESERV. SAM	SAMPLING	
Lab I.D. Sam	(G)RAB OR (C)OM # CONTAINERS GROUNDWATER WASTEWATER	SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER : DATE	TIME CL- BTEX EXT. TPH	
181			1300 V	
2 86			1303 11	
587			1304 11	
4 8 10			1306 1	
5 812			1324 1 1 1	
6 313			1326 1 1 1	
7 815		6/26/22	/328	
PLEASE NOTE: Lability and Damages. Cardinal's liability and clie analyses. All claims including those for negligence and any other re- service. In no event shall Cardinal be liable for incidental or conse affiliates or successors arising out of or related to the performance	야 같 같 같	s exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for th sex swhatsoewr shall be deemed waived unless made in withing and received by Cardinal within 304 days after completion of the antal damagee, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiarie services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.	id by the client for the applicable client, its subsidiaries, easons or otherwise.	
Relinquished By:	Date: 6/26/30 Received By:	NIN IN	Verbal Result:	Add'l Phone #: vide Email address:
Relinquished By	Date: Received By:	Cora William	REMARKS:	E
	Time:			
Delivered By: (Circle One)	Observed Temp. °C 2.0 Samp	Sample Condition CHECKED BY: Cool Intact (Initials)	Turnaround Time: Standard Rush	Bacteria (only) Sample Condition Cool Intact Observed Temp. °C
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Aves Aves Aves	Thermometer ID #113 Correction Factor None	☐ Yes ☐ Yes ☐ Nc ☐ No Corrected Temp. °C

Received by OCD: 9/23/2020 11:31:25 AM

- OKIVI-000 K 3.1 00/04/20

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



July 28, 2020

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

RE: NEDU 4A

Enclosed are the results of analyses for samples received by the laboratory on 07/28/20 12:43.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	07/28/2020	Sampling Date:	07/28/2020
Reported:	07/28/2020	Sampling Type:	Soil
Project Name:	NEDU 4A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NEDU 4A		

Sample ID: B 35 (H001952-01)

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	07/28/2020	ND	1.83	91.5	2.00	4.16	
Toluene*	<0.050	0.050	07/28/2020	ND	1.85	92.5	2.00	3.95	
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.86	93.0	2.00	3.90	
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.33	88.9	6.00	3.97	
Total BTEX	<0.300	0.300	07/28/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.3 9	73.3-12	9						
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	07/28/2020	ND	208	104	200	0.448	
DRO >C10-C28*	25.1	10.0	07/28/2020	ND	200	99.8	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	07/28/2020	ND					
Surrogate: 1-Chlorooctane	99.3 9	% 44.3-14	4						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

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

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

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Received by OCD: 9/23/2020 11:31:25 AM

Ity: State: Zip: Attn: Project Name: ////////////////////////////////////	Build Backson Carl PO.#: State: Zip: Fax #: Fax #: NEGRU HR VEGRU HE VERSTON Sample VERSTON Sample VERSTON Sample VERSTON Sample VERSTON Soil OIL OIL OIL OIL VERSTON OIL VERSTON OIL VERSTON OIL VERSTON	BILL TO Rouge data is a serie of a long o	Inclust Martand, Hobbs, NM 8224 (675) 393-2236 FAX (675) 393-2476 Inclust Martand, Hobbs, NM 8224 (675) 393-2236 FAX (675) 393-2476 Inclust Martand, Hobbs, NM 8224 (675) 393-2236 FAX (675) 393-2476 Inclust Martand, Hobbs, NM 8224 (675) 393-2236 FAX (675) 393-2476 Inclust Martand, Hobbs, NM 8224 Inclust Martand, Hobbs, NM 8244 Inclust Martand, Hobbs, MM
In the #: State: Zip: Attn: In the #: Fax #: Fax #: Address: In the me: NEDUL YA Address: In the me: NEDUL YA State: Zip: In the me: NETAINERS MATRIX PRESERV. SAMPLING In the me: NETAINERS MATRIX PRESERV. SAMPLING In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: In the me: <	Sample I.D. Sample I.D. Sample X KAN Sample	Sample I.D. Sample	BOR CLOPIES Indication right state: Zip: State: Zip: State: Zip: Fax #: Fax #: Fax #: Fax #: Foject Owner: Fax #: City: Fax #: City: State: Zip: Project Owner: Fax #: Foject Owner: Fax #: Fax #: Foject Owner: Foject Owner: Fax #: Foject Owner: Fax #: Foject Owner: Fax #: Foject Owner: Fax #: Foject Owner: Fojec
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State: Zip: Fax #:	"Gruce Gaken State: Zip: Fax#:	- Company: State: Zip: Attn: Fax #: Address:	aboratories
	Gruce Gakes	Comparts P.O. #: Bruce Baken Company:	aboratories 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476 Grade Corporation F.O. #: Company:

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August 25, 2020

BRUCE BAKER APACHE CORP - HOBBS 2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NEDU 4A

Enclosed are the results of analyses for samples received by the laboratory on 08/24/20 13:50.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



		APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. HOBBS NM, 88240				
		Fax To:	(575) 393-2432			
Received:	08/24/2020			Sampling Date:	08	/24/2020
Reported:	08/25/2020			Sampling Type:	So	il
Project Name:	NEDU 4A			Sampling Condition:	Co	ol & Intact
Project Number:	NONE GIVEN			Sample Received By:	Jo	di Henson
Project Location:	NEDU 4A					

Sample ID: W 21 (H002223-01)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/24/2020	ND	2.06	103	2.00	3.86	
Toluene*	<0.050	0.050	08/24/2020	ND	2.06	103	2.00	4.18	
Ethylbenzene*	<0.050	0.050	08/24/2020	ND	2.04	102	2.00	3.97	
Total Xylenes*	<0.150	0.150	08/24/2020	ND	5.90	98.4	6.00	4.08	
Total BTEX	<0.300	0.300	08/24/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.6 9	73.3-12	9						
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/24/2020	ND	183	91.6	200	6.67	
DRO >C10-C28*	<10.0	10.0	08/24/2020	ND	182	91.0	200	5.19	
EXT DRO >C28-C36	<10.0	10.0	08/24/2020	ND					
Surrogate: 1-Chlorooctane	92.5 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane									

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

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

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

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Received by OCD: 9/23/2020 11:31:25 AM

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Photos















303 Veterans Airpark Lane Midland, TX 79705

Variance Request

Apache Corporation request a variance to the reclamation rule regarding the top four feet being top soil. The surface landowner requested that the excavation be backfilled to a depth of 2 feet with caliche and utilizing the natural top soil from the edges of the excavation to cover the caliche.