

Remediation Plan

October 23, 2020

Re: Lockhart B 12 # 12 Case # NRM2021223307

Background:

On 7/23/2020 a release occurred due to a stuffing box failure. The release (GPS: 32.49962, -103.11024) is located north of Eunice, NM in unit letter A section 12 township 21S range 37E. A groundwater survey was conducted utilizing NMOSE and USGS wells of record. The nearest well suggest that groundwater beneath the release is 81 feet.

On 9/22/2020 vertical delineation was conducted utilizing a backhoe. Samples were collected in one foot intervals. All sample points were advanced to a depth of 1 foot. All samples collected were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. Surface horizontal 5 point composite samples not to exceed 200 square feet were collected and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. On 9/29/2020 SP 2 was advanced to a depth of 3 feet. All samples collected were submitted to a commercial laboratory for analysis of TPH and BTEX.

Remediation Plan:

Apache Corporation proposes that the release area be excavated to a depth of 1 foot. All excavated material (135 yards) will be hauled to an NMOCD approved facility. After the excavation is complete final 5 point bottom composite samples will be collected not to exceed 500 square feet and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. Final 5 point wall composite samples will be collected not to exceed 200 square feet and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. Once analytical data confirms that the excavation meet table 1 standards for releases 51-100 feet to groundwater the excavation will be backfilled with clean imported caliche and the pad restored. The remediation will be completed within 180 days of NMOCD approval of the plan.

Enclosed: C-141, Groundwater data, Maps, Sample Data, and Laboratory Results

Submitted by;

Environmental Technician larry.baker@apachecorp.com

Cell# 432-631-6982

Received by OCD: 12/23/2020 3:37:33 PM Form C-141 State of New Mexico Page 3 Oil Conservation Division

	Page 2 of	30
Incident ID	NRM2021223307	
District RP		
Facility ID		
Application ID		

Site Assessment/Characterization

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

81(ft bgs)									
☐ Yes ☑ No									
☐ Yes ☑ No									
☐ Yes ☑ No									
☐ Yes ☑ No									
☐ Yes ☑ No									
☐ Yes ☑ No									
☐ Yes ☑ No									
☐ Yes ☑ No									
☐ Yes ☑ No									
☐ Yes ☑ No									
☐ Yes ☑ No									
☐ 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.									
s.									

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

Received by OCD: 12/23/2020 3:37:33 PM From C-141 State of New Mexico Page 4 Oil Conservation Division Page 3 of 30

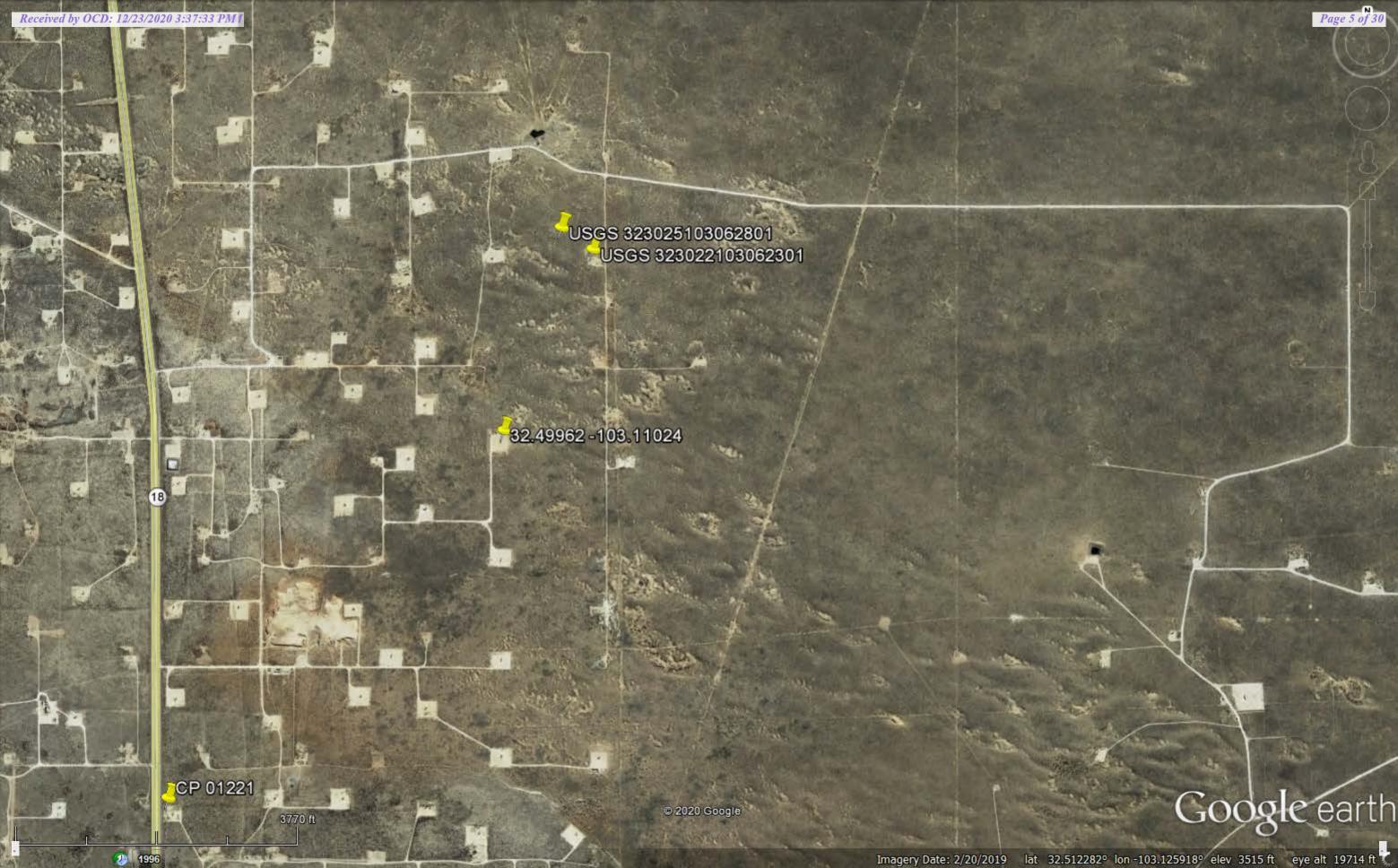
	1 4800 0 0
Incident ID	NRM2021223307
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release noti public health or the environment. The acceptance of a C-141 report by the C failed to adequately investigate and remediate contamination that pose a thre addition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	fications and perform corrective actions for releases which may endanger DCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In
Printed Name: Larry Baker	Title: Environmental Tech SR.
Signature: Larry Baker	Date: 10/23/2020
Signature: Larry Baker email: larry.baker@apachecorp.com	Telephone: 432-631-6982
OCD Only	
Received by:	Date: 10/23/2020

Received by OCD: 12/23/2020 3:37:33 PM Form C-141 State of New Mexico Page 5 Oil Conservation Division Incident ID NRM2021223307
District RP
Facility ID
Application ID

Remediation Plan

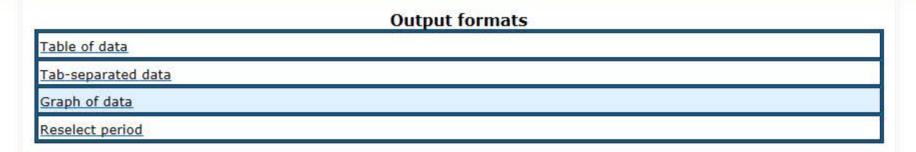
Remediation Plan Checklist: Each of the following items must be	included in the plan.
 ✓ Detailed description of proposed remediation technique ✓ Scaled sitemap with GPS coordinates showing delineation points ✓ Estimated volume of material to be remediated ✓ Closure criteria is to Table 1 specifications subject to 19.15.29.12 ✓ Proposed schedule for remediation (note if remediation plan time) 	
Deferral Requests Only: Each of the following items must be confi	irmed as part of any request for deferral of remediation.
	duction equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
☐ Contamination does not cause an imminent risk to human health,	the environment, or groundwater.
I hereby certify that the information given above is true and complete rules and regulations all operators are required to report and/or file ce which may endanger public health or the environment. The acceptance liability should their operations have failed to adequately investigate a surface water, human health or the environment. In addition, OCD acresponsibility for compliance with any other federal, state, or local law	rtain release notifications and perform corrective actions for releases ce of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, eceptance of a C-141 report does not relieve the operator of
Printed Name: Larry Baker	Title: Environmental Tech SR.
Signature:	Date: 10/23/2020
email: larry.baker@apachecorp.com	Telephone: 432-631-6982
OCD Only	
Cristina Eads Received by:	Date: 10/23/2020
Approved With Attached Conditions of A	pproval
Signature: Julius I	Date: 12/23/2020



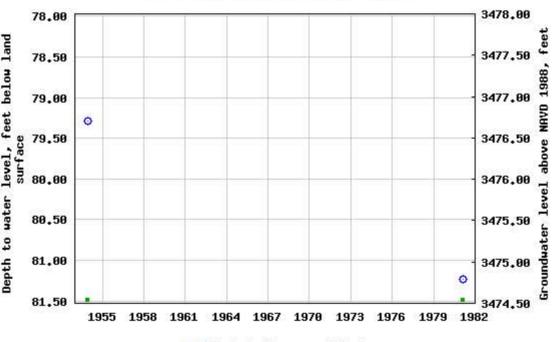
Available data for this site Groundwater: Field measurements

∨ GO

Lea County, New Mexico Hydrologic Unit Code 13070007 Latitude 32°30'22", Longitude 103°06'23" NAD27 Land-surface elevation 3,556 feet above NAVD88 The depth of the well is 90 feet below land surface. This well is completed in the Ogallala Formation (1210GLL) local aquifer.







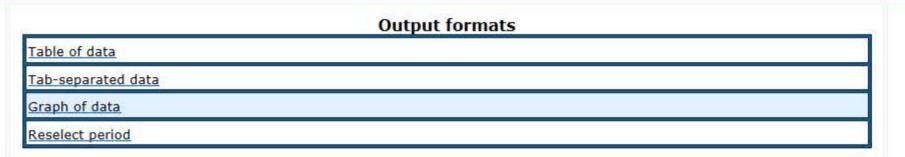
- Period of approved data

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

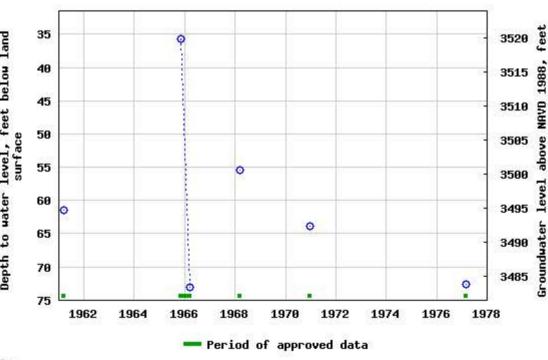
Available data for this site Groundwater: Field measurements V GO

Lea County, New Mexico Hydrologic Unit Code 13070007 Latitude 32°30'25", Longitude 103°06'28" NAD27 Land-surface elevation 3,556 feet above NAVD88 The depth of the well is 90 feet below land surface.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.



USGS 323025103062801 215.37E.01.242422



Breaks in the plot represent a gap of at least one year between field measurements.

Download a presentation-quality graph



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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag POD Number Q64 Q16 Q4 Sec Tws Rng

Y X

CP 01221 POD1

11 21S 37E 3588506

Driller License:

1711

Driller Company:

676254

STRAUB CORPORATION

Driller Name:

MARTIN STRAUB

Plug Date:

Drill Start Date: Log File Date:

11/07/2013 12/09/2013 Drill Finish Date: PCW Rcv Date:

Depth Well:

11/07/2013

Source: Shallow

Pump Type: Casing Size:

Pipe Discharge Size:

Estimated Yield: Depth Water:

60 feet

Water Bearing Stratifications:

4.00

Top

Bottom Description

60

75 feet

Sandstone/Gravel/Conglomerate

66

Sandstone/Gravel/Conglomerate

Casing Perforations:

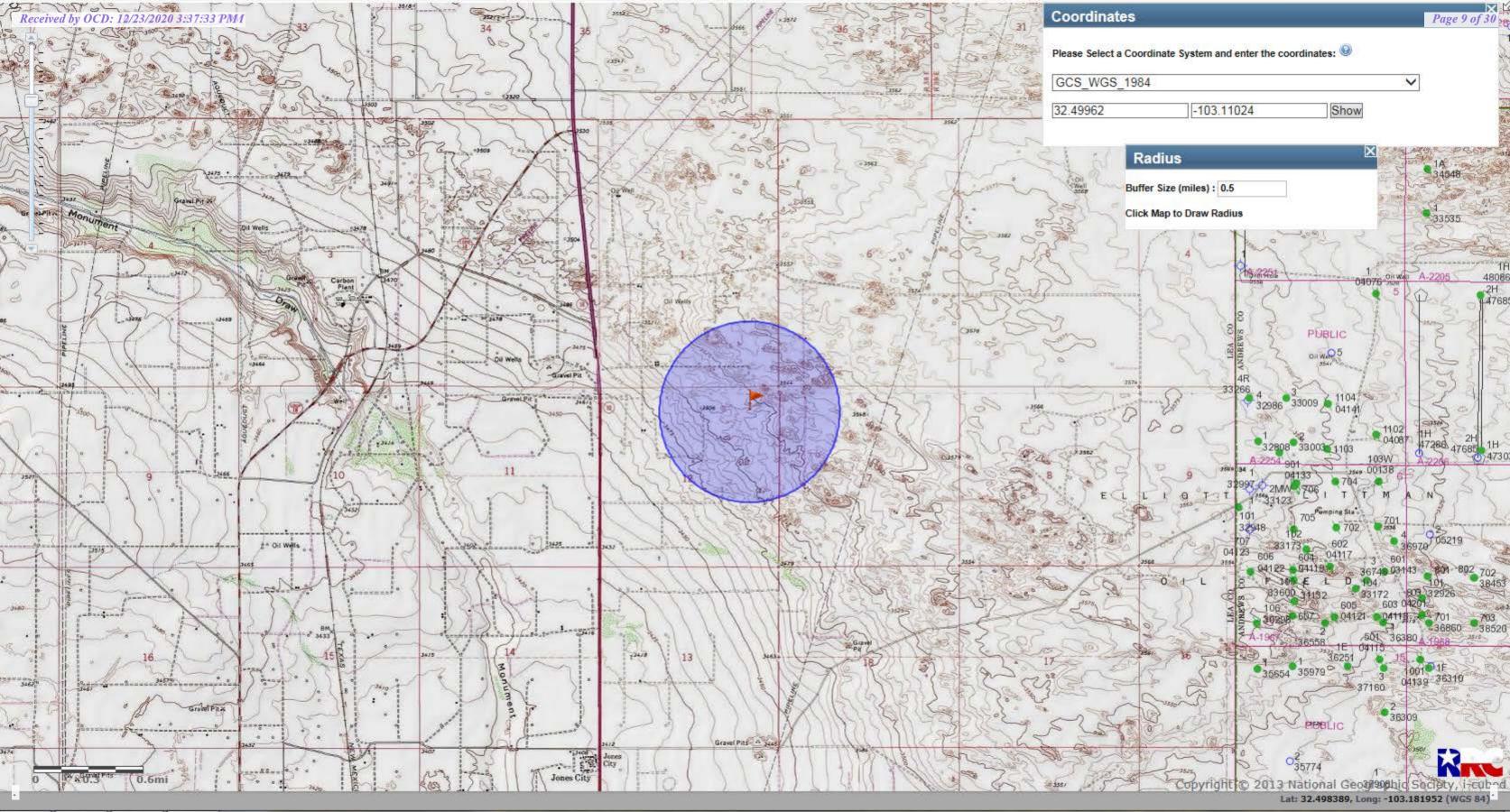
Bottom Top

50 75

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

10/23/20 10:28 AM

POINT OF DIVERSION SUMMARY





Delineation Samples

Sample	Sample ID	Depth	Chloride	Benzene	Toulene	Ethybenz	Total	Total	GRO	DRO	EXT DRO	GPS
Date						ene	Xylenes	BTEX				Coordinates
												32.499444,
9/22/2020	SP 1	Surface	18000	< 0.050	< 0.050	<0.050	<0.150	<0.300	<10.0	6260	1920	-103.110308
		1'	144	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
												32.499621,
9/22/2020	SP 2	Surface	17800	<0.050	< 0.050	<0.050	<0.150	<0.300	<50.0	8820	2040	-103.110316
		1'	208	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	25.4	<10.0	
												32.499573,
9/22/2020	SP 3	Surface	11000	<0.050	< 0.050	<0.050	0.283	<0.300	<50.0	12500	3250	-103.110164
		1'	80.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	200	26.4	
9/29/2020		2'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
												32.499468,
9/22/2020	HC1	Surface	80.0	<0.050	< 0.050	<0.050	<0.150	<0.300	<10.0	27	<10.0	-103.110340
												32.499667,
9/22/2020	HC2	Surface	80.0	<0.050	< 0.050	<0.050	<0.150	<0.300	<10.0	15.8	<10.0	-103.110208
												32.499531,
9/22/2020	HC3	Surface	160	<0.050	< 0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.110136
												32.499420,
9/22/2020	HC4	Surface	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-103.110185



September 24, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: LOCKHART B12

Enclosed are the results of analyses for samples received by the laboratory on 09/22/20 15:37.

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.

Celey D. Keine

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

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

Received:

09/22/2020

Sampling Date:

09/22/2020

Reported:

09/24/2020 LOCKHART B12

Sampling Type:

Soil

Project Name: Project Number:

NONE GIVEN

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

Project Location:

NONE GIVEN

Sample ID: SP 1 @ SURFACE (H002516-01)

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	09/22/2020	ND	2.11	106	2.00	1.39	
Toluene*	<0.050	0.050	09/22/2020	ND	2.14	107	2.00	1.68	
Ethylbenzene*	<0.050	0.050	09/22/2020	ND	2.08	104	2.00	2.59	
Total Xylenes*	<0.150	0.150	09/22/2020	ND	5.97	99.4	6.00	2.57	
Total BTEX	<0.300	0.300	09/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	18000	16.0	09/23/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	09/23/2020	ND	189	94.5	200	0.189	QR-03
DRO >C10-C28*	6260	50.0	09/23/2020	ND	189	94.3	200	0.266	QM-07
EXT DRO >C28-C36	1920	50.0	09/23/2020	ND					
Surrogate: 1-Chlorooctane	122 %	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	408 9	% 42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

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Analytical Results For:

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

Received: Reported: 09/22/2020

09/24/2020

Project Name: Project Number: Project Location: LOCKHART B12 NONE GIVEN NONE GIVEN

Sampling Date:

09/22/2020

Sampling Type: Soil

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

Sample ID: SP 1 @ 1' (H002516-02)

BTEX 8021B	
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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	09/22/2020	ND	2.11	106	2.00	1.39	
Toluene*	<0.050	0.050	09/22/2020	ND	2.14	107	2.00	1.68	
Ethylbenzene*	<0.050	0.050	09/22/2020	ND	2.08	104	2.00	2.59	
Total Xylenes*	<0.150	0.150	09/22/2020	ND	5.97	99.4	6.00	2.57	
Total BTEX	<0.300	0.300	09/22/2020	ND					
-									

Surrogate: 4-Bromofluorobenzene (PID

99.4 %

73.3-129

Chloride, SM4500CI-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	09/23/2020	ND	416	104	400	0.00	
TPH 8015M	mg,	mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/23/2020	ND	189	94.5	200	0.189	
DRO >C10-C28*	<10.0	10.0	09/23/2020	ND	189	94.3	200	0.266	
EXT DRO >C28-C36	<10.0	10.0	09/23/2020	ND					

Surrogate: 1-Chlorooctane

116 %

44.3-144

Surrogate: 1-Chlorooctadecane

125 %

42.2-156

Cardinal Laboratories *=Accredited Analyte

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Celeg D. Keene



Analytical Results For:

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

Received: Reported: 09/22/2020

09/24/2020

Project Name: Project Number: Project Location: **LOCKHART B12** NONE GIVEN NONE GIVEN

Sampling Date:

09/22/2020

Sampling Type:

Soil

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

Sample ID: SP 2 @ SURFACE (H002516-03)

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	09/22/2020	ND	2.11	106	2.00	1.39	
Toluene*	<0.050	0.050	09/22/2020	ND	2.14	107	2.00	1.68	
Ethylbenzene*	<0.050	0.050	09/22/2020	ND	2.08	104	2.00	2.59	
Total Xylenes*	0.239	0.150	09/22/2020	ND	5.97	99.4	6.00	2.57	
Total BTEX	<0.300	0.300	09/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	113 9	% 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	17800	16.0	09/23/2020	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	09/23/2020	ND	189	94.5	200	0.189	
DRO >C10-C28*	8820	50.0	09/23/2020	ND	189	94.3	200	0.266	
				ND					

Surrogate: 1-Chlorooctane

132 %

44.3-144

Surrogate: 1-Chlorooctadecane

436 %

42.2-156

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Celeg D. Keene



Analytical Results For:

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

Received: Reported: 09/22/2020

09/24/2020

Project Name: Project Number: Project Location: LOCKHART B12 NONE GIVEN NONE GIVEN

Sampling Date:

09/22/2020

Sampling Type: Soil

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

Sample ID: SP 2 @ 1' (H002516-04)

ВТ	EX	802	1B	
_				

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	09/22/2020	ND	2.11	106	2.00	1.39	
Toluene*	<0.050	0.050	09/22/2020	ND	2.14	107	2.00	1.68	
Ethylbenzene*	<0.050	0.050	09/22/2020	ND	2.08	104	2.00	2.59	
Total Xylenes*	<0.150	0.150	09/22/2020	ND	5.97	99.4	6.00	2.57	
Total BTEX	<0.300	0.300	09/22/2020	ND					

Surrogate: 4-Bromoflyorobenzene (PID)

101 %

73 3-129

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	09/23/2020	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	09/23/2020	ND	189	94.5	200	0.189	
DRO >C10-C28*	25.4	10.0	09/23/2020	ND	189	94.3	200	0.266	
EXT DRO >C28-C36	<10.0	10.0	09/23/2020	ND					

Surrogate: 1-Chlorooctane

87.7 %

44.3-144

Surrogate: 1-Chlorooctadecane

89.8 %

42.2-156

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Celeg D. Keene



Analytical Results For:

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

Received:

09/22/2020

Sampling Date:

09/22/2020

Reported:

09/24/2020

Sampling Type:

Soil

Project Name:

LOCKHART B12 NONE GIVEN

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

Project Number: Project Location:

NONE GIVEN

Sample ID: SP 3 @ SURFACE (H002516-05)

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	09/22/2020	ND	2.11	106	2.00	1.39	
Toluene*	<0.050	0.050	09/22/2020	ND	2.14	107	2.00	1.68	
Ethylbenzene*	<0.050	0.050	09/22/2020	ND	2.08	104	2.00	2.59	
Total Xylenes*	0.283	0.150	09/22/2020	ND	5.97	99.4	6.00	2.57	
Total BTEX	<0.300	0.300	09/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	108	% 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	11000	16.0	09/23/2020	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	09/23/2020	ND	189	94.5	200	0.189	
DRO >C10-C28*	12500	50.0	09/23/2020	ND	189	94.3	200	0.266	
EXT DRO >C28-C36	3250	50.0	09/23/2020	ND					
Surrogate: 1-Chlorooctane	103	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	568	% 42.2-15	6						

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Analytical Results For:

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

Received:

09/22/2020

Sampling Date:

09/22/2020

Reported: Project Name: 09/24/2020 **LOCKHART B12** Sampling Type:

Soil

Project Number:

NONE GIVEN

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

Project Location:

NONE GIVEN

Sample ID: SP 3 @ 1' (H002516-06)

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	09/22/2020	ND	2.11	106	2.00	1.39	
Toluene*	<0.050	0.050	09/22/2020	ND	2.14	107	2.00	1.68	
Ethylbenzene*	<0.050	0.050	09/22/2020	ND	2.08	104	2.00	2.59	
Total Xylenes*	<0.150	0.150	09/22/2020	ND	5.97	99.4	6.00	2.57	
Total BTEX	<0.300	0.300	09/22/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	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	80.0	16.0	09/23/2020	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	09/23/2020	ND	189	94.5	200	0.189	
DRO >C10-C28*	200	10.0	09/23/2020	ND	189	94.3	200	0.266	
EXT DRO >C28-C36	26.4	10.0	09/23/2020	ND					
Surrogate: 1-Chlorooctane	92.1	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	99.0	% 42.2-15	6						

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Analytical Results For:

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

Received:

09/22/2020

Sampling Date:

09/22/2020

Reported:

09/24/2020

Sampling Type:

Soil

Project Name: Project Number: **LOCKHART B12** NONE GIVEN

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

Project Location:

NONE GIVEN

Sample ID: HC 1 (H002516-07)

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	09/23/2020	ND	2.06	103	2.00	2.61	
Toluene*	<0.050	0.050	09/23/2020	ND	2.09	105	2.00	2.56	
Ethylbenzene*	<0.050	0.050	09/23/2020	ND	2.06	103	2.00	2.72	
Total Xylenes*	<0.150	0.150	09/23/2020	ND	5.92	98.7	6.00	2.57	
Total BTEX	<0.300	0.300	09/23/2020	ND					
Surrogate: 4-Bromofluorobenzene	(PID 101 S	% 73.3-12	9						

Surrogate: 4	4-Bromofluoroi	benzene (PID	
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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	09/23/2020	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	09/23/2020	ND	189	94.5	200	0.189	
DRO >C10-C28*	27.0	10.0	09/23/2020	ND	189	94.3	200	0.266	
EXT DRO >C28-C36	<10.0	10.0	09/23/2020	ND					

Surrogate: 1-Chlorooctane

85.4 %

44.3-144

Surrogate: 1-Chlorooctadecane

88.2 %

42.2-156

Cardinal Laboratories *=Accredited Analyte

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Celeg D. Keene



Analytical Results For:

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

, ,

ma/ka

 Received:
 09/22/2020
 Sampling Date:
 09/22/2020

 Reported:
 09/24/2020
 Sampling Type:
 Soil

Project Name: LOCKHART B12 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: NONE GIVEN

Sample ID: HC 2 (H002516-08)

RTFY 8021R

BIEX 8021B	mg	/ kg	Anaiyze	а ву: м5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/23/2020	ND	2.06	103	2.00	2.61	
Toluene*	<0.050	0.050	09/23/2020	ND	2.09	105	2.00	2.56	
Ethylbenzene*	<0.050	0.050	09/23/2020	ND	2.06	103	2.00	2.72	
Total Xylenes*	<0.150	0.150	09/23/2020	ND	5.92	98.7	6.00	2.57	
Total BTEX	<0.300	0.300	09/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 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	80.0	16.0	09/23/2020	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	09/23/2020	ND	189	94.5	200	0.189	
DRO >C10-C28*	15.8	10.0	09/23/2020	ND	189	94.3	200	0.266	
EXT DRO >C28-C36	<10.0	10.0	09/23/2020	ND					
Surrogate: 1-Chlorooctane	86.0	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	89.7	% 42.2-15	6						

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Analytical Results For:

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

Received: Reported: 09/22/2020

09/24/2020

Project Name: Project Number: **LOCKHART B12** NONE GIVEN NONE GIVEN

Project Location:

Sampling Date: 09/22/2020

Sampling Type: Soil

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

Sample ID: HC 3 (H002516-09)

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	09/23/2020	ND	2.06	103	2.00	2.61	
Toluene*	<0.050	0.050	09/23/2020	ND	2.09	105	2.00	2.56	
Ethylbenzene*	<0.050	0.050	09/23/2020	ND	2.06	103	2.00	2.72	
Total Xylenes*	<0.150	0.150	09/23/2020	ND	5.92	98.7	6.00	2.57	
Total BTEX	<0.300	0.300	09/23/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 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	160	16.0	09/23/2020	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	09/23/2020	ND	189	94.5	200	0.189	
DRO >C10-C28*	<10.0	10.0	09/23/2020	ND	189	94.3	200	0.266	
EXT DRO >C28-C36	<10.0	10.0	09/23/2020	ND					
Surrogate: 1-Chlorooctane	85.8	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	89.3	% 42.2-15	6						

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Analytical Results For:

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

Received: Reported: 09/22/2020

09/24/2020

Project Name: Project Number: Project Location: LOCKHART B12 NONE GIVEN NONE GIVEN Sampling Date:

09/22/2020

Sampling Type:

Sampling Condition: Sample Received By: Soil Cool & Intact

Tamara Oldaker

Sample ID: HC 4 (H002516-10)

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	09/23/2020	ND	2.06	103	2.00	2.61	
Toluene*	<0.050	0.050	09/23/2020	ND	2.09	105	2.00	2.56	
Ethylbenzene*	<0.050	0.050	09/23/2020	ND	2.06	103	2.00	2.72	
Total Xylenes*	<0.150	0.150	09/23/2020	ND	5.92	98.7	6.00	2.57	
Total BTEX	<0.300	0.300	09/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID

101 %

73.3-129

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	09/23/2020	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	09/23/2020	ND	189	94.5	200	0.189	
DRO >C10-C28*	<10.0	10.0	09/23/2020	ND	189	94.3	200	0.266	
EXT DRO >C28-C36	<10.0	10.0	09/23/2020	ND					

Surrogate: 1-Chlorooctane

87.4 %

44.3-144

Surrogate: 1-Chlorooctadecane

90.1 %

42.2-156

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Celey D. Keine



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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Celeg D. Freene

Relinquished By:

Time: Date: Time:

1537

Received By:

REMARKS

amara

Sampler - UPS - Bus - Other: Delivered By: (Circle One)

Corrected Temp. °C Observed Temp. °C 4.3

Sample Condition
Cool Intact
Tyes Tyes
No No

CHECKED BY: (Initials)

Turnaround Time:

Standard Rush

0

Bacteria (only) Sample Condition
Cool Intact Observed Temp.

Yes Yes
No Corrected Temp.

Corrected Temp. °C Observed Temp. °C

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 aboratories

(575) 393-2326 FAX (575) 393-2476

Company Name:	abacke Corporation	2	2/1/8	70			AN	ANALYSIS R	REQUEST	
Project Manager:	Sauce Bother		P.O. #:			-				
Address:			Company:							
City:	State:	Zip:	Attn:							
Phone #:	Fax #:		Address:							
Project #:	Project Owner:	er:	City:			_				
Project Name: 4	ockhart BID		State: Zip:							
Project Location:	Lockhart BIZ		Phone #:							
Sampler Name: (LEFT BOOM		Fax #:			+				-
FOR LAB USE ONLY		MATRIX	PRESERV.	SAMPLING						
2		VATER					TPH			
H002516		(G)RAB (G)RAB (G)	OTHER: ACID/BA ICE / CO OTHER:	DATE TIME	CL	BTE	EXT			
-	PL@ Surface		7	8460 me/ter	5	7				
7	PI @ 1'			6950	\	1				
<u>w</u>	Pa @ Surface			1020	^	1				
43	P2 @ 1.			1022	1	~				
5	P3@ Surface			1048	\	<	_			
6	P3 @ 12'			1050	/	-	\			
7 %	162			2550	5	,	\			
8	462			4550	1	'				
9 1.	103			1024	1	7	\			
10/1	404		5/26	5/28/20 1120	1	1	_			
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Relinquished By:	ed By: Date: 9/12/60	Photos Received By: All Results	M M I	Verbal Result: All Results are	ult: are emai	Yes iled. Ple	□ No Ado	Verbal Result:		
1	Time:	1/2	1 111 11	7						-

Thermometer ID #113
Correction Factor None



September 30, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: LOCKHART B12

Enclosed are the results of analyses for samples received by the laboratory on 09/29/20 14:08.

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.

Celey D. Keine

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

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

Fax To: (575) 393-2432

Received: 09/29/2020

Reported: 09/30/2020
Project Name: LOCKHART B12
Project Number: NONE GIVEN

Project Location: NONE GIVEN

Sampling Date: 09/29/2020

Sampling Type: Soil

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

Sample ID: SP 3 @ 2' (H002572-01)

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	09/29/2020	ND	2.01	101	2.00	6.53	
Toluene*	<0.050	0.050	09/29/2020	ND	1.96	98.0	2.00	6.64	
Ethylbenzene*	<0.050	0.050	09/29/2020	ND	1.99	99.6	2.00	6.97	
Total Xylenes*	<0.150	0.150	09/29/2020	ND	5.82	96.9	6.00	7.00	
Total BTEX	<0.300	0.300	09/29/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.9	% 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	09/29/2020	ND	189	94.3	200	0.997	
DRO >C10-C28*	<10.0	10.0	09/29/2020	ND	191	95.6	200	0.571	
EXT DRO >C28-C36	<10.0	10.0	09/29/2020	ND					
Surrogate: 1-Chlorooctane	104 %	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	117 %	6 42.2-15	6						

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Analytical Results For:

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

Received:

09/29/2020

Sampling Date:

09/29/2020

Reported: Project Name: 09/30/2020 LOCKHART B12 Sampling Type: Soil

Project Number:

NONE GIVEN

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

Project Location:

NONE GIVEN

Sample ID: SP 3 @ 3' (H002572-02)

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	09/29/2020	ND	2.01	101	2.00	6.53	
Toluene*	<0.050	0.050	09/29/2020	ND	1.96	98.0	2.00	6.64	
Ethylbenzene*	<0.050	0.050	09/29/2020	ND	1.99	99.6	2.00	6.97	
Total Xylenes*	<0.150	0.150	09/29/2020	ND	5.82	96.9	6.00	7.00	
Total BTEX	<0.300	0.300	09/29/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 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	09/29/2020	ND	189	94.3	200	0.997	
DRO >C10-C28*	<10.0	10.0	09/29/2020	ND	191	95.6	200	0.571	
EXT DRO >C28-C36	<10.0	10.0	09/29/2020	ND					
Surrogate: 1-Chlorooctane	106 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	120 9	% 42.2-15	6						

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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.

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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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

_			
Company Name:	101 Ea (575	CA Lat	
1	101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476	CARDIN Laborator	
1	bbs, NM 88240 (575) 393-2476	NAL	

38240

-	(EZE) 203 2326 EAX (575) 393-2476	2476		
Name:	(313) 330-2020		BILL TO	ANALYSIS REGOEST
roject Manager:	Marin Capación	P.	P.O. #:	
	The con a	Co	Company:	
lify:	State:	Zip: At	Attn:	
hone #:	Fax #:	Ac	Address:	
roject #:	Project Owner:		City:	
Project Name:	Lockhart Bla	Si	State: Zip:	
Project Location:		P	Phone #:	
I Jeot Looms	lift Bush	77	Fax #:	
Sampler Name:	JEHT BIVAN	MATRIX	PRESERV. SAMPLING	NG
FOR LAB USE ONLY		ERS ATER	:	
Lab I.D.	Sample I.D.	G)RAB OR (C) # CONTAINER GROUNDWA* WASTEWATE SOIL OIL SLUDGE	OTHER: ACID/BASE: ICE / COOL OTHER:	BTEX EXT. 7
1,5C90H	503 2'	#	06/25/35	-
2-	51303'	6	1 2/22/6	1326 1 1
PLEASE NOTE: Liability an	PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any dairn arising whether based in contract or fort, shall be limited to the amount paid by the client for the PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any dairn arising whether based in contract or fort, shall be limited to the amount paid by the client for the policable places.	ly for any claim arising whether based in contract or any claim arising whether based in contract or any claim arising and the deemed waived unless made in writing and the contract of the co	r tort, shall be limited to the amount paid received by Cardinal within 30 days after	y the client for the one of the applicable
service. In no event shall Caro affiliates or successors arising Relinquished By:	service. In no event shall Cardinal be liable for incidental or consequental daringles, including straining of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Verbal Results a Received By: Relinquished By: All Results a	nunder by Cardinal, regardless of whether such claim is	based upon any of the above stated reas	verbal Result: ☐ Yes ☐ No Add'I Phone #: All Results are emailed. Please provide Email address:
ADA 1	Rrum Time:	S Jamas	a Maken	REMARKS:
Relinquished By:	Time:			-
Delivered By: (Circle One)	ircle One) Observed Temp. °C	3.6	CHECKED BY: (Initials)	Standard Gool Intact Rush Gool Intact Yes Yes
Sampler - UPS - Bus - Other:	Bus - Other: Corrected Temp. °C	p. °C +Yes +Yes	70	Correction Factor None Nc No Corrected lemp. C

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

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

District III
1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

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

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

CONDITIONS

Action 10832

CONDITIONS OF APPROVAL

Operator	:		OGRID:	Action Number:	Action Type:
	APACHE CORPORATION	303 Veterans Airpark Ln	873	10832	C-141
#1000	Midland, TX79705				

OCD Reviewer	Condition
ceads	None