



2350 W Marland Blvd Hobbs, NM 88240

Deferment Request

February 3, 2020

Re: Big Kick Battery

API# 30-025-36745

Case # 1RP-5237

On 10/01/2018 a release was discovered due to a nipple corroded on the transfer pump. An initial C-141 was submitted and approved by NMOCD on 10/16/2018. The Big Kick Battery (GPS Coordinates 32.57835 -103.10499) is located south of Hobbs New Mexico in unit letter C section 13 township 20S range 38E. A 2000 meter radius groundwater survey was conducted utilizing the NMOSE web page. According to the NMOSE the average depth of groundwater in the area is 47 feet below ground surface. A fresh water well is within 1,000 feet radius of the release site.

The area inside the secondary containment was excavated to a depth of 6 inches. A remediation plan was submitted and approved by NMOCD on 06/18/2019. The dirt berms utilized as the secondary containment walls were removed and the release area was further excavated an additional foot. After the excavation was complete final 5 point bottom and wall composite samples were collected not to exceed 200 square feet and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. Bottom samples B2, B4, B7, and B10 were above chloride values of 600 mg/kg. B10 was excavated an additional 6 inches and another 5 point bottom composite sample was submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. B2, B4, and B7 were not further excavated due to the close proximity to the facility tanks. Wall samples W2, W4, W6, and W 11 were also above table one standards for releases less than 50 feet to groundwater. All the walls were extended laterally and 5 point wall composite samples were collected and submitted to a commercial laboratory. All excavated soil including the berms were disposed of at an NMOCD approved facility. The pad area was backfilled with clean imported caliche and the pad was restored. The pasture area east of the facility was backfilled with clean imported top soil and will be reseeded in consultation with the private surface owner.

Apache Corporation has remediated the majority of the release to table one standards except for B2, B4, and B7. Apache Corporation request deferment of those areas until system abandonment.

Enclosed: C-141, Maps, Sample Data, Laboratory Results, and Photos.

Submitted by;

Bruce Baker

Environmental Technician

larry.baker@apachecorp.com

Cell# 432-631-6982

Off# 575-393-7106

Form C-141

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State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>25</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

Form C-141

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State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: Bruce Baker Title: Environmental Tech SR
Signature: Bruce Baker Date: 1-11-19
email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by Dylan Rose-Coss Date: 06/18/2019

Form C-141

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State of New Mexico
Oil Conservation Division

Incident ID	
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 I specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Bruce Baker Title: Environmental Tech SR.
Signature: Bruce Baker Date: 1-11-19
email: larry.baker@apachecorp.com Telephone: 432-631-6992

OCD Only

Received by: _____ Date: _____

☒ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Dylan Rose-Coss Date: 06/18/2019

Incident ID	
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(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Bruce Baker Title: Environmental Tech. SR.
Signature: Bruce Baker Date: 2-3-20
email: Larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: _____ Date: _____
☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved
Signature: _____ Date: _____

Rose-Coss, Dylan H, EMNRD

From: Rose-Coss, Dylan H, EMNRD
Sent: Tuesday, June 18, 2019 11:53 AM
To: 'Baker, Larry'
Subject: RE: Remediation Plan 1RP-5237

Mr. Baker,

Thanks for the update. Please note: if the tanks are staying in place, then ensure that when remediation and final sampling take place, that any contamination that is not removed due to proximity to the tanks is fully delineated. Additionally, if remediation is unable to remove all of the contaminants near the tanks, then a deferral request is required as part of closure.

Otherwise the remediation plan for the Big Kick Battery (1RP-5237) is accepted. However, this determination by the Oil Conservation Division does not relieve Operator of responsibility should future information indicate a threat to ground water, surface water, human health, or the environment. Furthermore, it does not relieve Operator of responsibility for compliance with any federal, state, or local laws and/or regulations. Please notify the OCD 2 days prior to commencing with the final remediation and sampling event.

Regards,

Dylan Rose-Coss

Environmental Scientist
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

(505) 476-3488

From: Baker, Larry <Larry.Baker@apachecorp.com>
Sent: Tuesday, June 18, 2019 10:13 AM
To: Rose-Coss, Dylan H, EMNRD <DylanH.Rose-Coss@state.nm.us>
Subject: [EXT] RE: Remediation Plan 1RP-5237

Mr. Rose-Coss,

The excavation in the vicinity will be hand excavated with the tanks in place. Thanks and have a good day.

BRUCE BAKER

ENVIRONMENTAL TECHNICIAN SR
direct 575-393-7106 ext 1523 | Cell 432-631-6982

APACHE CORPORATION
2350 W. MARLAND BLVD
HOBBS, NM 88240

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From: Rose-Coss, Dylan H, EMNRD [<mailto:DylanH.Rose-Coss@state.nm.us>]
Sent: Monday, June 17, 2019 2:49 PM
To: Baker, Larry <Larry.Baker@apachecorp.com>
Subject: [EXTERNAL] RE: Remediation Plan 1RP-5237

Mr. Baker,

The OCD has reviewed the remediation workplan for the release at the Big Kick Battery (1RP-5237). During review the question arose as to what Apache proposes to do with the tank batteries during the site excavation. Will the tanks be moved, or are they to stay in place?

Thanks,

Dylan Rose-Coss

Environmental Scientist
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

(505) 476-3488

From: Baker, Larry <Larry.Baker@apachecorp.com>
Sent: Friday, June 14, 2019 8:58 AM
To: Rose-Coss, Dylan H, EMNRD <DylanH.Rose-Coss@state.nm.us>
Cc: Feather, David <David.Feather@apachecorp.com>; Broom, Jeffrey <Jeffrey.Broom@apachecorp.com>
Subject: [EXT] FW: Remediation Plan 1RP-5237

Mr. Rose-Coss,

I am resubmitted this plan for approval. Thanks

BRUCE BAKER

ENVIRONMENTAL TECHNICIAN SR
direct 575-393-7106 ext 1523 | Cell 432-631-6982

APACHE CORPORATION
2350 W. MARLAND BLVD
HOBBS, NM 88240

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From: Baker, Larry
Sent: Monday, April 15, 2019 10:46 AM
To: 'emnrd-ocd-district1spills@state.nm.us' <emnrd-ocd-district1spills@state.nm.us>
Cc: Feather, David <David.Feather@apachecorp.com>
Subject: FW: Remediation Plan 1RP-5237

I am re-submitting the remediation plan for 1RP-5237 for your review. Please let me know if you have any questions or wish to discuss. Thanks and have a good day.

BRUCE BAKER

ENVIRONMENTAL TECHNICIAN SR

direct 575-393-7106 ext 1523 | Cell 432-631-6982

APACHE CORPORATION

2350 W. MARLAND BLVD

HOBBS, NM 88240

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From: Baker, Larry

Sent: Friday, January 11, 2019 2:21 PM

To: 'Hernandez, Christina, EMNRD' <Christina.Hernandez@state.nm.us>

Cc: Feather, David <David.Feather@apachecorp.com>

Subject: Remediation Plan 1RP-5237

Ms. Hernandez,

Attached is the remediation plan for the Big Kick Battery (1RP-5237) for your review. Please let me know if you have any questions or wish to discuss. Thanks and have a good weekend.

BRUCE BAKER

ENVIRONMENTAL TECHNICIAN SR

direct 575-393-7106 ext 1523 | Cell 432-631-6982

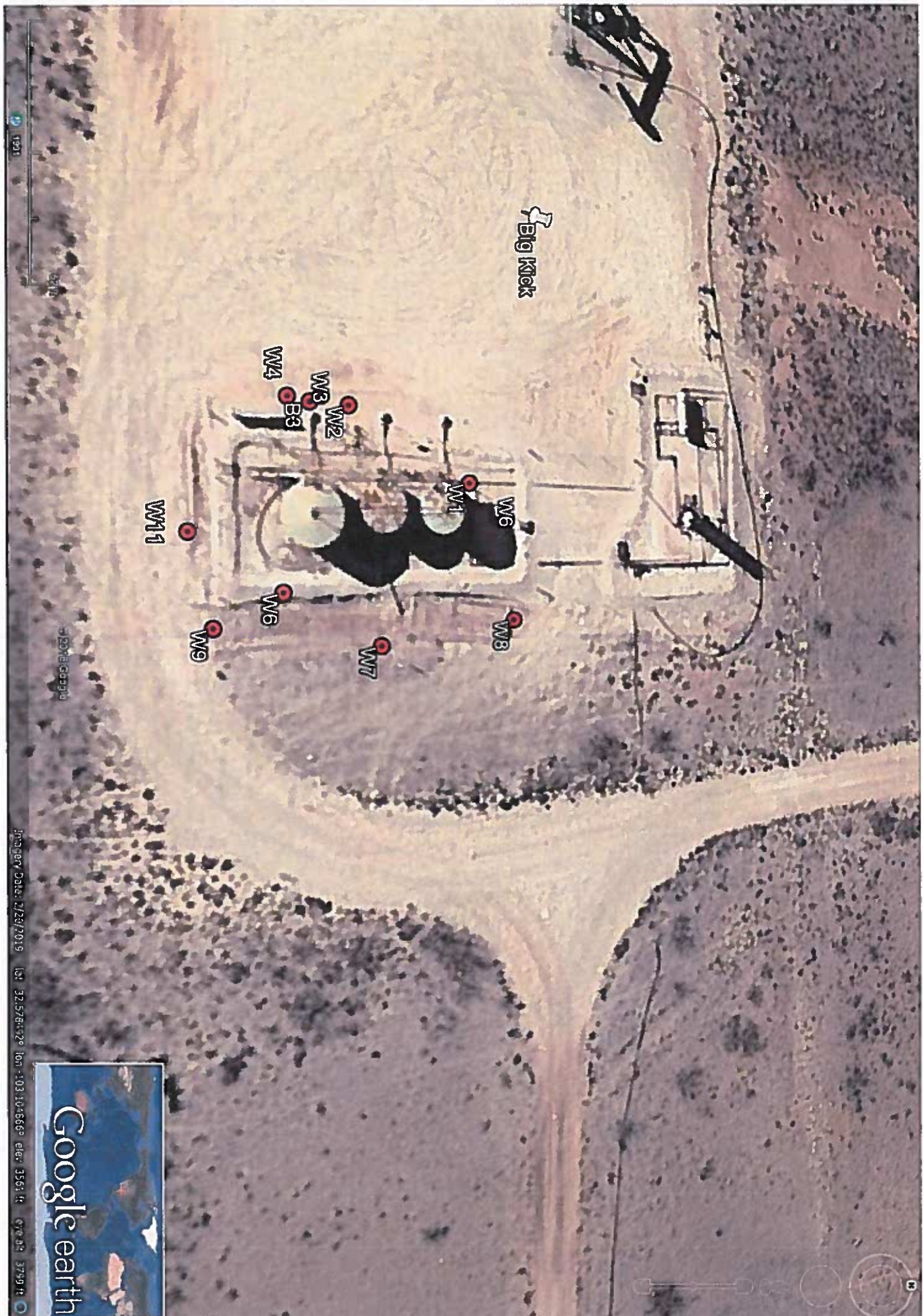
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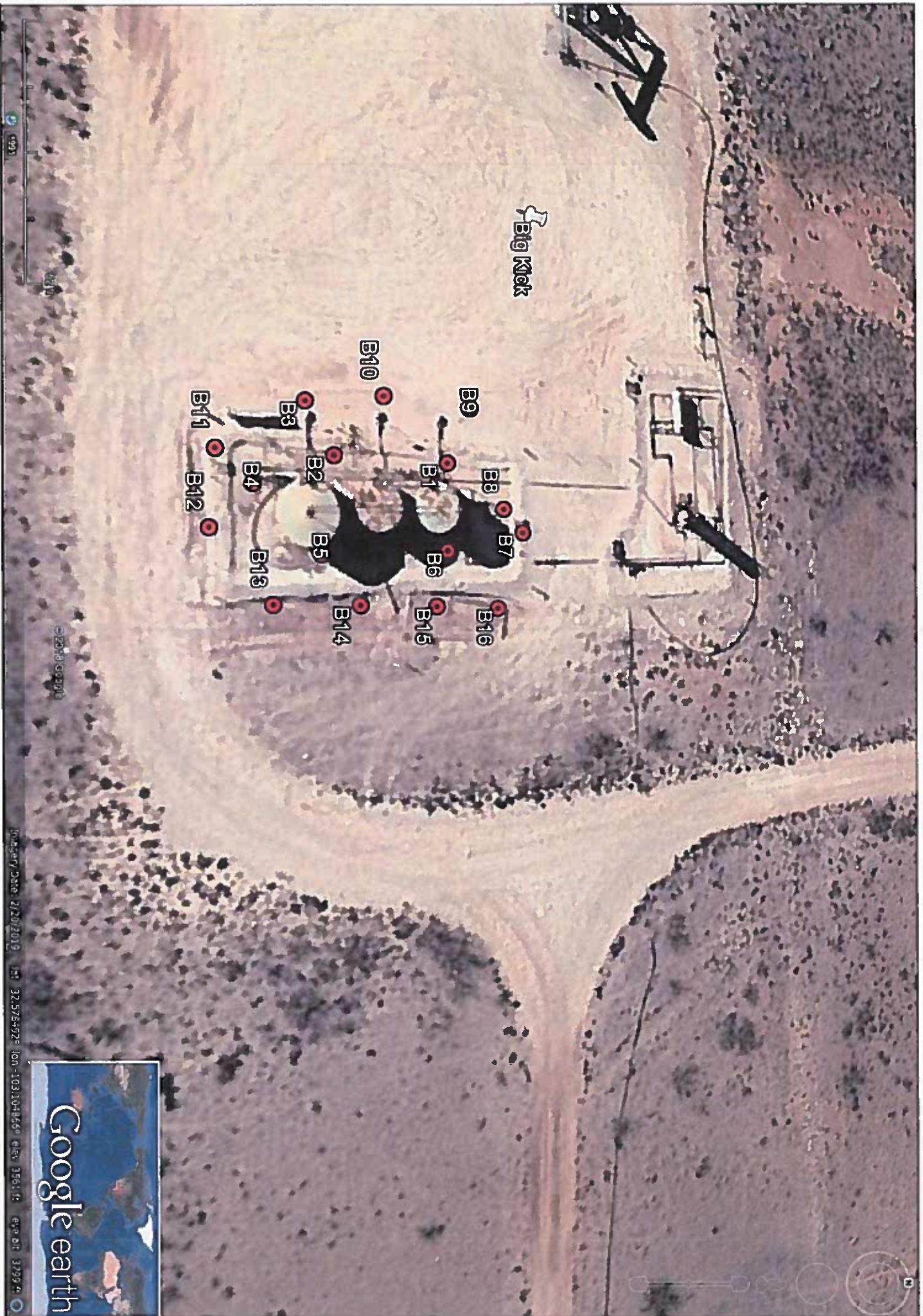
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Floor Samples

Map ID	Sample ID	Depth	Chloride	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
B1	B1	1'	320	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5784820, -103.1052240
B2	B2	1'	880	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	33.6	11.3	32.5783850, -103.1050570
B3	B3	1'	240	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5783480, -103.1049410
B4	B4	1'	1390	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5783480, -103.1049410
B5	B5	1'	512	<0.050	<0.050	<0.050	<0.150	<0.300	11.1	17.1	<10.0	32.5784170, -103.1049430
B6	B6	1'	304	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5785050, -103.1049339
B7	B7	1'	784	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5785260, -103.1049770
B8	B8	1'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5785120, -103.1049810
B9	B9	1'	240	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5784960, -103.1050644
B10	BH 1-0	1'	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5784485, -103.1050630
B11	B11	1'	448	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5783075, -103.1049993
B12	B12	1'	304	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5782990, -103.1049363
B13	B13	1'	240	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5783626, -103.1049030
B14	B14	1'	176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5783626, -103.1049190
B15	B15	1'	384	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5784728, -103.1048991
B16	B16	1'	576	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	20.1	<10.0	32.5785126, -103.1049001

Wall Samples

Map ID	Sample ID	Depth	Chloride	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
W1	W1	1'	208	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	34.2	<10.0	32.5783321, -103.1049668
W2	Wall 2-1'	1'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5784100, -103.1050603
W3	W3	1'	192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5783906, -103.1050640
W4	Wall 4-1'	1'	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5783725, -103.1050620
W5	W5	1'	176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5785228, -103.1049806
W6	Wall 6-1'	1'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5783626, -103.1049190
W7	W7	1'	336	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	13.1	<10.0	32.578350, -103.1048360
W8	W8	1'	480	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	10.9	<10.0	32.5785240, -103.1040660
W9	W9	1'	304	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	11.1	<10.0	32.8783280, -103.10409000
W11	Wall 11-1'	1'	336	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5783075, -103.1049563



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

September 03, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: BIG KICK #1 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 08/26/19 14:18.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 08/26/2019
 Reported: 09/03/2019
 Project Name: BIG KICK #1 BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 08/26/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 1 32.5784820-103.1052240 (H902936-01)

BTEX 80218		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2019	ND	1.77	88.6	2.00	5.48	
Toluene*	<0.050	0.050	08/28/2019	ND	1.95	97.5	2.00	4.88	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	2.09	105	2.00	4.00	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	6.27	104	6.00	3.52	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 87.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	08/28/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/28/2019	ND	218	109	200	5.82	
DRO >C10-C28*	<10.0	10.0	08/28/2019	ND	229	114	200	7.12	
EXT DRO >C28-C36	<10.0	10.0	08/28/2019	ND					

Surrogate: 1-Chlorooctane 97.1 % 41-142

Surrogate: 1-Chlorooctadecane 110 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	08/26/2019	Sampling Date:	08/26/2019
Reported:	09/03/2019	Sampling Type:	Soil
Project Name:	BIG KICK #1 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 2 32.5783850-103.1050570 (H902936-02)

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2019	ND	1.77	88.6	2.00	5.48	
Toluene*	<0.050	0.050	08/28/2019	ND	1.95	97.5	2.00	4.88	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	2.09	105	2.00	4.00	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	6.27	104	6.00	3.52	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 85.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	880	16.0	08/28/2019	ND	432	108	400	0.00	
TPH 8015M		mg/kg		Analyzed By: CK					

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/28/2019	ND	218	109	200	5.82	
DRO >C10-C28*	33.6	10.0	08/28/2019	ND	229	114	200	7.12	
EXT DRO >C28-C36	11.3	10.0	08/28/2019	ND					

Surrogate: 1-Chlorooctane 97.8 % 41-142

Surrogate: 1-Chlorooctadecane 113 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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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:	08/26/2019	Sampling Date:	08/26/2019
Reported:	09/03/2019	Sampling Type:	Soil
Project Name:	BIG KICK #1 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 3 32.5783480-103.1049410 (H902936-03)

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	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate 4-Bromofluorobenzene (PIC) 83.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	08/28/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/28/2019	ND	218	109	200	5.82	
DRO >C10-C28*	<10.0	10.0	08/28/2019	ND	229	114	200	7.12	
EXT DRO >C28-C36	<10.0	10.0	08/28/2019	ND					

Surrogate 1-Chlorooctane 103 % 41-142

Surrogate 1-Chlorooctadecane 116 % 37.6-147

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Celestine

Celestine D. Keene, Lab Director/Quality Manager



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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:	08/26/2019	Sampling Date:	08/26/2019
Reported:	09/03/2019	Sampling Type:	Soil
Project Name:	BIG KICK #1 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 4 32.5783480-103.1049410 (H902936-04)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 103 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1390	16.0	08/28/2019	ND	432	108	400	0.00	
TPH 8015M		mg/kg		Analyzed By: CK					

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/28/2019	ND	218	109	200	5.82	
DRO >C10-C28*	<10.0	10.0	08/28/2019	ND	229	114	200	7.12	
EXT DRO >C28-C36	<10.0	10.0	08/28/2019	ND					

Surrogate: 1-Chlorooctane 97.1 % 41-142

Surrogate: 1-Chlorooctadecane 111 % 37.6-147

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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:	08/26/2019	Sampling Date:	08/26/2019
Reported:	09/03/2019	Sampling Type:	Soil
Project Name:	BIG KICK #1 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 5 32.5784170-103.1049430 (H902936-05)

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 103 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	512	16.0	08/28/2019	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/29/2019	ND	195	97.6	200	0.686	
DRO >C10-C28*	11.1	10.0	08/29/2019	ND	199	99.3	200	4.30	
EXT DRO >C28-C36	17.1	10.0	08/29/2019	ND					

Surrogate: 1-Chlorooctane 76.9 % 41-142

Surrogate: 1-Chlorooctadecane 82.2 % 37.6-147

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Celestine Keene

Celestine D. Keene, Lab Director/Quality Manager



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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: 08/26/2019
 Reported: 09/03/2019
 Project Name: BIG KICK #1 BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 08/26/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 6 32.5785050-103.10493390 (H902936-06)

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	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 104 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	08/28/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/29/2019	ND	195	97.6	200	0.686	
DRO >C10-C28*	<10.0	10.0	08/29/2019	ND	199	99.3	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	08/29/2019	ND					

Surrogate: 1-Chlorooctane 74.9 % 41-142

Surrogate: 1-Chlorooctadecane 79.3 % 37.6-147

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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: 08/26/2019
 Reported: 09/03/2019
 Project Name: BIG KICK #1 BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 08/26/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 7 32.5785260-103.1049770 (H902936-07)

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 104 % 73 3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	784	16.0	08/28/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/29/2019	ND	195	97.6	200	0.686	
DRO >C10-C28*	<10.0	10.0	08/29/2019	ND	199	99.3	200	4.30	
EXT DRO >C28-C36	<10.0	10.0	08/29/2019	ND					

Surrogate: 1-Chlorooctane 70.4 % 41-142

Surrogate: 1-Chlorooctadecane 74.7 % 37.6-147

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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:	08/26/2019	Sampling Date:	08/26/2019
Reported:	09/03/2019	Sampling Type:	Soil
Project Name:	BIG KICK #1 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 8 32.5785120-103.1049810 (H902936-08)

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	08/28/2019	ND	1.66	83.2	2.00	0.196		
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538		
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632		
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468		
Total BTEX	<0.300	0.300	08/28/2019	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 104 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/28/2019	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/29/2019	ND	195	97.6	200	0.686		
DRO >C10-C28*	<10.0	10.0	08/29/2019	ND	199	99.3	200	4.30		
EXT DRO >C28-C36	<10.0	10.0	08/29/2019	ND						

Surrogate: 1-Chlorooctane 78.1 % 41-142

Surrogate: 1-Chlorooctadecane 86.1 % 37.6-147

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Celestine D. Keene, Lab Director/Quality Manager



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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: 08/26/2019
 Reported: 09/03/2019
 Project Name: BIG KICK #1 BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 08/26/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: W 1 32.5783321-103.1049668 (H902936-09)

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	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 105 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	08/28/2019	ND	432	108	400	0.00	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2019	ND	190	95.0	200	0.234	
DRO >C10-C28*	34.2	10.0	08/31/2019	ND	183	91.7	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	08/31/2019	ND					

Surrogate: 1-Chlorooctane 68.1 % 41-142

Surrogate: 1-Chlorooctadecane 72.9 % 37.6-147

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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:	08/26/2019	Sampling Date:	08/26/2019
Reported:	09/03/2019	Sampling Type:	Soil
Project Name:	BIG KICK #1 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 2 32.5784100-103.1050603 (H902936-10)

BTX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1740	16.0	08/28/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2019	ND	190	95.0	200	0.234	
DRO >C10-C28*	<10.0	10.0	08/31/2019	ND	183	91.7	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	08/31/2019	ND					

Surrogate: 1-Chlorooctane 67.5 % 41-142

Surrogate: 1-Chlorooctadecane 73.3 % 37.6-147

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Charles Keene

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 08/26/2019
 Reported: 09/03/2019
 Project Name: BIG KICK #1 BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 08/26/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: W 3 32.5783906-103.1050640 (H902936-11)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 105 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	08/28/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2019	ND	190	95.0	200	0.234	
DRO >C10-C28*	<10.0	10.0	08/31/2019	ND	183	91.7	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	08/31/2019	ND					

Surrogate: 1-Chlorooctane 82.0 % 41-142

Surrogate: 1-Chlorooctadecane 92.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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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: 08/26/2019
 Reported: 09/03/2019
 Project Name: BIG KICK #1 BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 08/26/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: W 4 32.5783725-103.1050620 (H902936-12)

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	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 105 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	08/28/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2019	ND	190	95.0	200	0.234	
DRO >C10-C28*	<10.0	10.0	08/31/2019	ND	183	91.7	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	08/31/2019	ND					

Surrogate: 1-Chlorooctane 73.2 % 41-142

Surrogate: 1-Chlorooctadecane 81.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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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:	08/26/2019	Sampling Date:	08/26/2019
Reported:	09/03/2019	Sampling Type:	Soil
Project Name:	BIG KICK #1 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 5 32.5785228-103.1049806 (H902936-13)

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate 4-Bromofluorobenzene (PIC) 104 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	08/28/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2019	ND	190	95.0	200	0.234	
DRO >C10-C28*	<10.0	10.0	08/31/2019	ND	183	91.7	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	08/31/2019	ND					

Surrogate 1-Chlorooctane 83.4 % 41-142

Surrogate 1-Chlorooctadecane 89.6 % 37.6-147

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Celely D. Keene

Celely D. Keene, Lab Director/Quality Manager



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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: 08/26/2019
 Reported: 09/03/2019
 Project Name: BIG KICK #1 BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 08/26/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 9 32.5784960-103.1050644 (H902936-14)

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate 4-Bromofluorobenzene (PIC) 105 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	08/28/2019	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2019	ND	190	95.0	200	0.234	
DRO >C10-C28*	<10.0	10.0	08/31/2019	ND	183	91.7	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	08/31/2019	ND					

Surrogate 1-Chlorooctane 74.8 % 41-142

Surrogate 1-Chlorooctadecane 81.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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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:	08/26/2019	Sampling Date:	08/26/2019
Reported:	09/03/2019	Sampling Type:	Soil
Project Name:	BIG KICK #1 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 10 32.5784485-103.1050630 (H902936-15)

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	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 104 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1260	16.0	08/28/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2019	ND	190	95.0	200	0.234	
DRO >C10-C28*	17.6	10.0	08/31/2019	ND	183	91.7	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	08/31/2019	ND					

Surrogate: 1-Chlorooctane 75.8 % 41-142

Surrogate: 1-Chlorooctadecane 85.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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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: 08/26/2019
 Reported: 09/03/2019
 Project Name: BIG KICK #1 BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 08/26/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 11 32.5783075-103.1049993 (H902936-16)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 104 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	08/28/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2019	ND	190	95.0	200	0.234	
DRO >C10-C28*	<10.0	10.0	08/31/2019	ND	183	91.7	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	08/31/2019	ND					

Surrogate: 1-Chlorooctane 75.5 % 41-142

Surrogate: 1-Chlorooctadecane 82.0 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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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: 08/26/2019
 Reported: 09/03/2019
 Project Name: BIG KICK #1 BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 08/26/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 12 32.5782990-103.1049363 (H902936-17)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 104 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	08/28/2019	ND	432	108	400	0.00	
TPH 8015M		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2019	ND	190	95.0	200	0.234	
DRO >C10-C28*	<10.0	10.0	08/31/2019	ND	183	91.7	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	08/31/2019	ND					

Surrogate: 1-Chlorooctane 81.0 % 41-142

Surrogate: 1-Chlorooctadecane 88.2 % 37.6-147

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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:	08/26/2019	Sampling Date:	08/26/2019
Reported:	09/03/2019	Sampling Type:	Soil
Project Name:	BIG KICK #1 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 6 32.5783626-103.1049190 (H902936-18)

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	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate 4-Bromofluorobenzene (PIC) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1180	16.0	08/28/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2019	ND	190	95.0	200	0.234	
DRO >C10-C28*	<10.0	10.0	08/31/2019	ND	183	91.7	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	08/31/2019	ND					

Surrogate 1-Chlorooctane 76.5 % 41-142

Surrogate 1-Chlorooctadecane 79.9 % 37.6-147

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Celestine

Celestine D. Keene, Lab Director/Quality Manager



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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: 08/26/2019
 Reported: 09/03/2019
 Project Name: BIG KICK #1 BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 08/26/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: W 7 32.5784350-103.1048360 (H902936-19)

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	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 104 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	08/28/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2019	ND	190	95.0	200	0.234	
DRO >C10-C28*	13.1	10.0	08/31/2019	ND	183	91.7	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	08/31/2019	ND					

Surrogate: 1-Chlorooctane 79.8 % 41-142

Surrogate: 1-Chlorooctadecane 86.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 08/26/2019
 Reported: 09/03/2019
 Project Name: BIG KICK #1 BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 08/26/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: W 8 32.5785240-103.1040660 (H902936-20)

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	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 103 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	08/28/2019	ND	432	108	400	0.00	
TPH 8015M		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

GRO C6-C10*	<10.0	10.0	08/30/2019	ND	187	93.5	200	1.31	
DRO >C10-C28*	10.9	10.0	08/30/2019	ND	192	95.8	200	8.76	
EXT DRO >C28-C36	<10.0	10.0	08/30/2019	ND					

Surrogate: 1-Chlorooctane 50.4 % 41-142

Surrogate: 1-Chlorooctadecane 56.5 % 37.6-147

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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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: 08/26/2019
 Reported: 09/03/2019
 Project Name: BIG KICK #1 BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 08/26/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: W 9 32.8783280-103.1040900 (H902936-21)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 104 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	08/28/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/30/2019	ND	187	93.5	200	1.31	
DRO >C10-C28*	11.1	10.0	08/30/2019	ND	192	95.8	200	8.76	
EXT DRO >C28-C36	<10.0	10.0	08/30/2019	ND					

Surrogate: 1-Chlorooctane 73.2 % 41-142

Surrogate: 1-Chlorooctadecane 81.9 % 37.6-147

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Celey D. Keene
 Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	08/26/2019	Sampling Date:	08/26/2019
Reported:	09/03/2019	Sampling Type:	Soil
Project Name:	BIG KICK #1 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 11 32.5783075-103.1049563 (H902936-22)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2019	ND	1.66	83.2	2.00	0.196	
Toluene*	<0.050	0.050	08/28/2019	ND	1.87	93.6	2.00	0.0538	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.4	2.00	0.632	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.86	97.6	6.00	0.468	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 105 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	752	16.0	08/28/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2019	ND	187	93.5	200	1.31	
DRO >C10-C28*	12.0	10.0	08/31/2019	ND	192	95.8	200	8.76	
EXT DRO >C28-C36	<10.0	10.0	08/31/2019	ND					


Surrogate: 1-Chlorooctane 54.9 % 41-142

Surrogate: 1-Chlorooctadecane 59.1 % 37.6-147

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 Celey D. Keene, Lab Director/Quality Manager



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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: 08/26/2019
 Reported: 09/03/2019
 Project Name: BIG KICK #1 BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 08/26/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 16 32.5785126-103.1049001 (H902936-23)

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	08/29/2019	ND	1.55	77.6	2.00	1.86	
Toluene*	<0.050	0.050	08/29/2019	ND	1.77	88.4	2.00	1.26	
Ethylbenzene*	<0.050	0.050	08/29/2019	ND	1.83	91.3	2.00	1.32	
Total Xylenes*	<0.150	0.150	08/29/2019	ND	5.60	93.3	6.00	1.59	
Total BTEX	<0.300	0.300	08/29/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 116 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	08/28/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2019	ND	187	93.5	200	1.31	
DRO >C10-C28*	20.1	10.0	08/31/2019	ND	192	95.8	200	8.76	
EXT DRO >C28-C36	<10.0	10.0	08/31/2019	ND					

Surrogate: 1-Chlorooctane 76.2 % 41-142

Surrogate: 1-Chlorooctadecane 85.6 % 37.6-147

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- 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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Heine</u>		P.O. #:		BILL TO										ANALYSIS REQUEST									
Project Manager: <u>Jeffrey Brown</u>		Company:																					
Address:		Attn:																					
City: <u>Hobbs</u>		Address:																					
State: <u>NM</u> Zip: <u>88240</u>		City:																					
Phone #:		State:																					
Fax #:		Zip:																					
Project #:		Project Owner:																					
Project Name:		Project Location:																					
Sample Name: <u>Big Hole Battery #1</u>		Fax #:																					
FROM LAB USE ONLY		Phone #:																					
Lab I.D.		Sample I.D.																					
H902936		BA-2.5789420																					
1		BA-2.5789420																					
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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Hopewell</u> Project Manager: <u>Jeffrey Brown</u>		P.O. #:		BILL TO ANALYSIS REQUEST
Address: <u>City: 1106bs</u> State: <u>MA</u> Zip: <u>01820</u>		Company:		
Phone #: Fax #:		Attn:		
Project #: Project Owner:		Address:		
Project Name:		City: State: Zip:		
Project Location: <u>Bigfield Battery #1</u>		Phone #:		
Sample Name: <u>Drill Core 1, etc.</u>		Fax #:		

Lab I.D.	Sample I.D.	FOR LAB USE ONLY						DATE	TIME	EXT	TPH	BTEX	
		(G)RAB OR (C)OM	# CONTAINERS	MATRIX									PRESERV
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICB	COOL	OTHER
H902336													
11	30.5783900												
12	32.5718265												
13	30.5783900												
14	30.5783900												
15	30.5783900												
16	32.5718265												
17	32.5718265												
18	30.5783900												
19	30.5783900												
20	30.5783900												

Relinquished By: <u>[Signature]</u> Date: <u>12/14</u> Received By: <u>[Signature]</u>	
Relinquished By: <u>[Signature]</u> Date: <u>12/14</u> Received By: <u>[Signature]</u>	

Delivered By: (Circle One) <u>2.72</u> Sample Condition: <u>Intact</u>	Checked By: (Initials) <u>[Signature]</u>
Sampler - UPS - Bus - Other: <u>Computer 2.6</u>	Remarks:



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 28 of 28

[illegible]



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

September 03, 2019

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: BIG KICK #1 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 08/27/19 15:33.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	08/27/2019	Sampling Date:	08/27/2019
Reported:	09/03/2019	Sampling Type:	Soil
Project Name:	BIG KICK #1 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 13 32.5783626-103.1049030 (H902956-01)

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/31/2019	ND	1.97	98.3	2.00	0.922	
Toluene*	<0.050	0.050	08/31/2019	ND	1.97	98.5	2.00	2.06	
Ethylbenzene*	<0.050	0.050	08/31/2019	ND	1.98	99.0	2.00	2.09	
Total Xylenes*	<0.150	0.150	08/31/2019	ND	5.91	98.6	6.00	3.00	
Total BTEX	<0.300	0.300	08/31/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 85.3 % 73.3-129

Chloride, SM4500CI-8		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	08/29/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2019	ND	216	108	200	1.12	
DRO >C10-C28*	<10.0	10.0	08/31/2019	ND	218	109	200	2.28	
EXT DRO >C28-C36	<10.0	10.0	08/31/2019	ND					

Surrogate: 1-Chlorooctane 107 % 41-142

Surrogate: 1-Chlorooctadecane 113 % 37.6-147

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*=Accredited Analyte

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Celestine Keene

Celestine D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 08/27/2019
Reported: 09/03/2019
Project Name: BIG KICK #1 BATTERY
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 08/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B 15 32.5784728-103.1048991 (H902956-02)

BTEX 8021B		mg/kg	Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/31/2019	ND	1.97	98.3	2.00	0.922	
Toluene*	<0.050	0.050	08/31/2019	ND	1.97	98.5	2.00	2.06	
Ethylbenzene*	<0.050	0.050	08/31/2019	ND	1.98	99.0	2.00	2.09	
Total Xylenes*	<0.150	0.150	08/31/2019	ND	5.91	98.6	6.00	3.00	
Total BTEX	<0.300	0.300	08/31/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 86.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	08/29/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2019	ND	216	108	200	2.35	
DRO >C10-C28*	<10.0	10.0	08/31/2019	ND	217	109	200	2.98	
EXT DRO >C28-C36	<10.0	10.0	08/31/2019	ND					

Surrogate: 1-Chlorooctane 126 % 41-142

Surrogate: 1-Chlorooctadecane 135 % 37.6-147

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by 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

ANALYSIS REQUEST

Email Receipts.



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

October 31, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: BIG KICK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 10/24/19 15:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 10/24/2019
 Reported: 10/31/2019
 Project Name: BIG KICK BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 10/22/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WALL 4-1' (H903654-01)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/30/2019	ND	1.91	95.7	2.00	3.83		
Toluene*	<0.050	0.050	10/30/2019	ND	1.90	95.0	2.00	2.55		
Ethylbenzene*	<0.050	0.050	10/30/2019	ND	1.94	97.1	2.00	3.72		
Total Xylenes*	<0.150	0.150	10/30/2019	ND	5.84	97.4	6.00	3.89		
Total BTEX	<0.300	0.300	10/30/2019	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 98.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/28/2019	ND	400	100	400	3.92	

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	10/28/2019	ND	218	109	200	1.30	
DRO >C10-C28*	<10.0	10.0	10/28/2019	ND	216	108	200	0.488	
EXT DRO >C28-C36	<10.0	10.0	10/28/2019	ND					

Surrogate: 1-Chlorooctane 104 % 41-142

Surrogate: 1-Chlorooctadecane 107 % 37.6-147

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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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: 10/24/2019
 Reported: 10/31/2019
 Project Name: BIG KICK BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 10/22/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B H 1-0 (H903654-02)

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	10/30/2019	ND	1.91	95.7	2.00	3.83		
Toluene*	<0.050	0.050	10/30/2019	ND	1.90	95.0	2.00	2.55		
Ethylbenzene*	<0.050	0.050	10/30/2019	ND	1.94	97.1	2.00	3.72		
Total Xylenes*	<0.150	0.150	10/30/2019	ND	5.84	97.4	6.00	3.89		
Total BTEX	<0.300	0.300	10/30/2019	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 98.8 % 73.3-129

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	10/28/2019	ND	400	100	400	3.92		

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	10/28/2019	ND	218	109	200	1.30	
DRO >C10-C28*	<10.0	10.0	10/28/2019	ND	216	108	200	0.488	
EXT DRO >C28-C36	<10.0	10.0	10/28/2019	ND					

Surrogate: 1-Chlorooctane 107 % 41-142

Surrogate: 1-Chlorooctadecane 110 % 37.6-147

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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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:	10/24/2019	Sampling Date:	10/22/2019
Reported:	10/31/2019	Sampling Type:	Soil
Project Name:	BIG KICK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: WALL 2-1' (H903654-03)

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	10/30/2019	ND	1.91	95.7	2.00	3.83	
Toluene*	<0.050	0.050	10/30/2019	ND	1.90	95.0	2.00	2.55	
Ethylbenzene*	<0.050	0.050	10/30/2019	ND	1.94	97.1	2.00	3.72	
Total Xylenes*	<0.150	0.150	10/30/2019	ND	5.84	97.4	6.00	3.89	
Total BTEX	<0.300	0.300	10/30/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 99.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/28/2019	ND	400	100	400	3.92		

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	10/28/2019	ND	218	109	200	1.30	
DRO >C10-C28*	<10.0	10.0	10/28/2019	ND	216	108	200	0.488	
EXT DRO >C28-C36	<10.0	10.0	10/28/2019	ND					

Surrogate: 1-Chlorooctane 110 % 41-142

Surrogate: 1-Chlorooctadecane 113 % 37.6-147

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Celely D. Keene

Celely D. Keene, Lab Director/Quality Manager



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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: 10/24/2019
 Reported: 10/31/2019
 Project Name: BIG KICK BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 10/22/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WALL 11-1' (H903654-04)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/30/2019	ND	1.91	95.7	2.00	3.83	
Toluene*	<0.050	0.050	10/30/2019	ND	1.90	95.0	2.00	2.55	
Ethylbenzene*	<0.050	0.050	10/30/2019	ND	1.94	97.1	2.00	3.72	
Total Xylenes*	<0.150	0.150	10/30/2019	ND	5.84	97.4	6.00	3.89	
Total BTEX	<0.300	0.300	10/30/2019	ND					

Surrogate 4-Bromofluorobenzene (PIC) 97.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	10/28/2019	ND	400	100	400	3.92	

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	10/29/2019	ND	217	108	200	0.204	
DRO >C10-C28*	<10.0	10.0	10/29/2019	ND	214	107	200	3.06	
EXT DRO >C28-C36	<10.0	10.0	10/29/2019	ND					

Surrogate 1-Chlorooctane 96.8 % 41-142

Surrogate 1-Chlorooctadecane 100 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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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: 10/24/2019
 Reported: 10/31/2019
 Project Name: BIG KICK BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 10/22/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WALL 6-1' (H903654-05)

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/30/2019	ND	1.91	95.7	2.00	3.83	
Toluene*	<0.050	0.050	10/30/2019	ND	1.90	95.0	2.00	2.55	
Ethylbenzene*	<0.050	0.050	10/30/2019	ND	1.94	97.1	2.00	3.72	
Total Xylenes*	<0.150	0.150	10/30/2019	ND	5.84	97.4	6.00	3.89	
Total BTEX	<0.300	0.300	10/30/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 98.7 % 73.3-129

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/28/2019	ND	400	100	400	3.92	

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	10/29/2019	ND	217	108	200	0.204	
DRO >C10-C28*	<10.0	10.0	10/29/2019	ND	214	107	200	3.06	
EXT DRO >C28-C36	<10.0	10.0	10/29/2019	ND					

Surrogate: 1-Chlorooctane 103 % 41-142

Surrogate: 1-Chlorooctadecane 106 % 37.6-147

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- * Chloride by 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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



ANALYSIS REQUEST

Received by OCD: 2/4/2020 2:13:55 PM

Big Kick Battery Photos



Area excavated with new installed berm



Area excavated with new installed berm



Pasture Excavation