



2350 W Marland Blvd Hobbs, NM 88240

Remediation Plan

May 22, 2020

Re: Monument ABO Battery
Case # NRM2005941614

Background:

On 2/24/2020 a release occurred due to a small hole developed in the fire tube on a heater treater resulting in the loss of fluid. The release (GPS: 32.61128, -103.332806) is located west of Monument NM in unit letter M section 35 township 19S range 36E. A groundwater survey was conducted utilizing the NMOSE wells of record. The nearest well suggest that groundwater beneath the release is 50 feet.

On 3/2/2020 vertical delineation was conducted utilizing a backhoe. Samples were collected in one foot intervals. SP 1 was advanced to a depth of 1 foot. All samples collected were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. On 5/5/2020 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.

Remediation Plan:

Apache Corporation proposes that the release area be excavated to a depth of 1 foot. All excavated material (180 yards) will be hauled to an NMOCD approved facility. After the excavation is complete final 5 point bottom and 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 less than 50 feet to groundwater the excavation will be backfilled with clean imported caliche and the pad restored. The remediation will be completed within 90 days of NMOCD approval of the plan.

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

Submitted by;

Bruce Baker

Environmental Technician
larry.baker@apachecorp.com
Cell# 432-631-6982
Off# 575-393-7106

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

| | |
|----------------|--------------|
| Incident ID | NCE200839139 |
| District RP | |
| Facility ID | |
| Application ID | |

Release Notification

Responsible Party

| | |
|--|-----------------------------------|
| Responsible Party: Apache Corporation | OGRID 873 |
| Contact Name: Bruce Baker | Contact Telephone: (432) 631-6982 |
| Contact email: Larry.Baker@apachecorp.com | Incident # (assigned by OCD) |
| Contact Mailing Address: 2350 W. Marland Blvd, Hobbs, NM 88240 | |

Location of Release Source

Latitude: 32.61128 Longitude: -103.332806

(NAD 83 in decimal degrees to 5 decimal places)

| | |
|-------------------------------------|--------------------|
| Site Name: Monument CTB | Site Type: Battery |
| Date Release Discovered: 02/24/2020 | API # |

| Unit Letter | Section | Township | Range | County |
|-------------|---------|----------|-------|--------|
| M | 35 | 19S | 36E | LEA |

Surface Owner: State Federal Tribal Private (Name: DLD Corporation)

Nature and Volume of Release

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

| | | |
|--|--|---|
| <input type="checkbox"/> Crude Oil | Volume Released () | Volume Recovered () |
| <input checked="" type="checkbox"/> Produced Water | Volume Released (<u>110 Barrels</u>) | Volume Recovered (<u>80 Barrels</u>) |
| | Is the concentration of dissolved chloride in the produced water >10,000 mg/l? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <input type="checkbox"/> Condensate | Volume Released (bbls) | Volume Recovered (bbls) |
| <input type="checkbox"/> Natural Gas | Volume Released (Mcf) | Volume Recovered (Mcf) |
| <input type="checkbox"/> Other (describe) | Volume/Weight Released (provide units) | Volume/Weight Recovered (provide units) |

Cause of Release
Small hole in a fire tube located on a heater treater.

State of New Mexico
Oil Conservation Division

| | |
|----------------|--|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

| | |
|---|---|
| Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | If YES, for what reason(s) does the responsible party consider this a major release? Release is greater than 25 barrels. |
| If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? NMOCD was notified via (emnrd-cod-district1spills@state.nm.us) email by Bruce Baker, Senior Environmental Technician, Apache Corporation on 02/25/2020. | |

Initial Response

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

| |
|--|
| <input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately. |
| If all the actions described above have <u>not</u> been undertaken, explain why: |
| Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation. |
| I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. |
| Printed Name: <u>Jeff Broom</u> Title: <u>Environmental Technician</u> Signature: <u></u> Date: <u>02/28/2020</u> Email: <u>Jeffrey.Broom@apachecorp.com</u> Telephone: <u>(432) 664-4677</u> |
| <u>OCD Only</u> Received by: _____ Date: _____ |

Volume Calculation

1,870 cubic feet of soil contamination X 7.48 gallons per cubic foot = 13,987 gallons/42 gallons to a barrel=333 barrels X .33 soil porosity= 110 barrels fluid in soil + 80 barrels recovered = 190 barrels total loss.

| | |
|----------------|--|
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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? | 50 (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.

| | |
|----------------|--|
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Printed Name: Bruce Baker Title: Environmental Tech SR.

Signature: Bruce Baker Date: 5/22/20

email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: _____ Date: _____

| | |
|----------------|--|
| 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: 5/22/20
 email: larry.baker@apachecorp.com Telephone: 432-631-6982

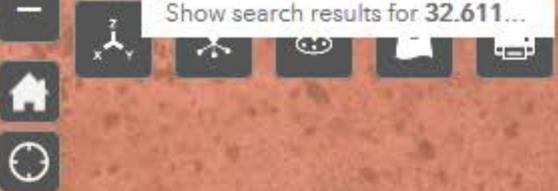
OCD Only

Received by: _____ Date: _____

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature: _____ Date: _____

Show search results for 32.611...



L-10804

CR-11A

1:2256

200ft

-103.336 32.612 Degrees



New Mexico Office of the State Engineer Point of Diversion Summary

| | | | | | | | | | |
|----------|------------|------------------------------------|-----|-----|-----------------------|-----|--------|----------|--|
| | | (quarters are 1=NW 2=NE 3=SW 4=SE) | | | | | | | |
| Well Tag | POD Number | (quarters are smallest to largest) | | | (NAD83 UTM in meters) | | | | |
| | | Q64 Q16 Q4 | Sec | Tws | Rng | X | Y | | |
| L | 10804 | 4 | 4 | 34 | 19S | 36E | 656159 | 3609422* | |

| | | | |
|-------------------|---------------|----------------------|------------------------------------|
| Driller License: | 1044 | Driller Company: | EADES WELL DRILLING & PUMP SERVICE |
| Driller Name: | ALAN G. EADES | | |
| Drill Start Date: | 09/16/1997 | Drill Finish Date: | 09/16/1997 |
| Log File Date: | 05/14/1998 | PCW Rcv Date: | |
| Pump Type: | | Pipe Discharge Size: | |
| Casing Size: | 6.00 | Depth Well: | 66 feet |
| | | Plug Date: | |
| | | Source: | Shallow |
| | | Estimated Yield: | |
| | | Depth Water: | 50 feet |

| Water Bearing Stratifications: | Top | Bottom | Description |
|--------------------------------|-----|--------|-----------------------------|
| | 52 | 66 | Shallow Alluvium/Basin Fill |

| Casing Perforations: | Top | Bottom | |
|----------------------|-----|--------|--|
| | 36 | 66 | |

*UTM location was derived from PLSS - see Help

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

5/22/20 10:13 AM

POINT OF DIVERSION SUMMARY



HC3

SP1

HC4

HC2

HC1

Monument Abo

100 ft

© 2020 Google

Google earth

NEDU Injection Line

Complete List

| Map ID | Sample Date | Sample ID | Depth | Chloride | Benzene | Toulene | Ethybenzene | Total Xylenes | Total BTEX | GRO | DRO | EXT DRO | GPS Coordinates |
|-----------------------|-------------|-----------|-------|----------|---------|---------|-------------|---------------|------------|-------|-------|---------|--------------------------|
| Wall Samples | | | | | | | | | | | | | |
| HC1 | 5/5/2020 | HC1 | S | 192 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | <10.0 | <10.0 | <10.0 | 32.611743 -103.332744 |
| HC2 | 5/5/2020 | HC2 | S | 160 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | <10.0 | <10.0 | <10.0 | 32.611801 -103.332849 |
| HC3 | 5/5/2020 | HC3 | S | 480 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | <10.0 | <10.0 | <10.0 | 32.611931 -103.332766 |
| HC4 | 5/5/2020 | HC4 | S | 464 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | <10.0 | <10.0 | <10.0 | 32.611840 -103.332660 |
| Bottom Samples | | | | | | | | | | | | | |
| SP1 | 3/2/2020 | SP1 | S | 10400 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | <10.0 | <10.0 | <10.0 | 32.611827 -103.332738 |
| | | SP1 | 1' | 304 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | <10.0 | <10.0 | <10.0 | |



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

March 03, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: MONUMENT ABO CTB

Enclosed are the results of analyses for samples received by the laboratory on 03/02/20 10:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_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".

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: | 03/02/2020 | Sampling Date: | 03/02/2020 |
| Reported: | 03/03/2020 | Sampling Type: | Soil |
| Project Name: | MONUMENT ABO CTB | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NONE GIVEN | | |

Sample ID: SP 1 @ SURFACE (H000656-01)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Benzene* | <0.050 | 0.050 | 03/03/2020 | ND | 1.89 | 94.6 | 2.00 | 3.00 | | |
| Toluene* | <0.050 | 0.050 | 03/03/2020 | ND | 1.90 | 94.9 | 2.00 | 2.81 | | |
| Ethylbenzene* | <0.050 | 0.050 | 03/03/2020 | ND | 1.91 | 95.4 | 2.00 | 2.84 | | |
| Total Xylenes* | <0.150 | 0.150 | 03/03/2020 | ND | 5.52 | 92.0 | 6.00 | 2.81 | | |
| Total BTEX | <0.300 | 0.300 | 03/03/2020 | ND | | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 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 | 10400 | 16.0 | 03/02/2020 | 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 | 03/03/2020 | ND | 190 | 94.8 | 200 | 1.02 | | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/03/2020 | ND | 187 | 93.3 | 200 | 1.93 | | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/03/2020 | ND | | | | | | |

Surrogate: 1-Chlorooctane 84.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.6 % 42.2-156

Cardinal Laboratories

* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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: | 03/02/2020 | Sampling Date: | 03/02/2020 |
| Reported: | 03/03/2020 | Sampling Type: | Soil |
| Project Name: | MONUMENT ABO CTB | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NONE GIVEN | | |

Sample ID: SP 1 @ 1' (H000656-02)

| 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 | 03/03/2020 | ND | 1.89 | 94.6 | 2.00 | 3.00 | |
| Toluene* | <0.050 | 0.050 | 03/03/2020 | ND | 1.90 | 94.9 | 2.00 | 2.81 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/03/2020 | ND | 1.91 | 95.4 | 2.00 | 2.84 | |
| Total Xylenes* | <0.150 | 0.150 | 03/03/2020 | ND | 5.52 | 92.0 | 6.00 | 2.81 | |
| Total BTEX | <0.300 | 0.300 | 03/03/2020 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 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 | 304 | 16.0 | 03/02/2020 | 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 | 03/03/2020 | ND | 190 | 94.8 | 200 | 1.02 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/03/2020 | ND | 187 | 93.3 | 200 | 1.93 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/03/2020 | ND | | | | | |

Surrogate: 1-Chlorooctane 90.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.7 % 42.2-156

Cardinal Laboratories

* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

May 08, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: MONUMENT ABO

Enclosed are the results of analyses for samples received by the laboratory on 05/05/20 14:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_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".

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: | 05/05/2020 | Sampling Date: | 05/05/2020 |
| Reported: | 05/08/2020 | Sampling Type: | Soil |
| Project Name: | MONUMENT ABO | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Kelly Jacobson |
| Project Location: | NONE GIVEN | | |

Sample ID: HC 1 (H001244-01)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 05/06/2020 | ND | 1.85 | 92.7 | 2.00 | 9.59 | |
| Toluene* | <0.050 | 0.050 | 05/06/2020 | ND | 1.89 | 94.5 | 2.00 | 9.75 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/06/2020 | ND | 1.95 | 97.5 | 2.00 | 9.53 | |
| Total Xylenes* | <0.150 | 0.150 | 05/06/2020 | ND | 5.69 | 94.8 | 6.00 | 9.76 | |
| Total BTEX | <0.300 | 0.300 | 05/06/2020 | ND | | | | | |

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

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: GM | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 192 | 16.0 | 05/06/2020 | ND | 416 | 104 | 400 | 3.77 | |

| 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 | 05/06/2020 | ND | 186 | 92.9 | 200 | 1.22 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/06/2020 | ND | 184 | 91.8 | 200 | 0.949 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/06/2020 | ND | | | | | |

Surrogate: 1-Chlorooctane 109 % 44.3-144

Surrogate: 1-Chlorooctadecane 112 % 42.2-156

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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: | 05/05/2020 | Sampling Date: | 05/05/2020 |
| Reported: | 05/08/2020 | Sampling Type: | Soil |
| Project Name: | MONUMENT ABO | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Kelly Jacobson |
| Project Location: | NONE GIVEN | | |

Sample ID: HC 2 (H001244-02)

| 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 | 05/06/2020 | ND | 1.85 | 92.7 | 2.00 | 9.59 | | |
| Toluene* | <0.050 | 0.050 | 05/06/2020 | ND | 1.89 | 94.5 | 2.00 | 9.75 | | |
| Ethylbenzene* | <0.050 | 0.050 | 05/06/2020 | ND | 1.95 | 97.5 | 2.00 | 9.53 | | |
| Total Xylenes* | <0.150 | 0.150 | 05/06/2020 | ND | 5.69 | 94.8 | 6.00 | 9.76 | | |
| Total BTEX | <0.300 | 0.300 | 05/06/2020 | ND | | | | | | |

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

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: GM | | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Chloride | 160 | 16.0 | 05/06/2020 | ND | 416 | 104 | 400 | 3.77 | | |

| 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 | 05/06/2020 | ND | 186 | 92.9 | 200 | 1.22 | | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/06/2020 | ND | 184 | 91.8 | 200 | 0.949 | | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/06/2020 | ND | | | | | | |

Surrogate: 1-Chlorooctane 101 % 44.3-144

Surrogate: 1-Chlorooctadecane 102 % 42.2-156

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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: | 05/05/2020 | Sampling Date: | 05/05/2020 |
| Reported: | 05/08/2020 | Sampling Type: | Soil |
| Project Name: | MONUMENT ABO | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Kelly Jacobson |
| Project Location: | NONE GIVEN | | |

Sample ID: HC 3 (H001244-03)

| 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 | 05/06/2020 | ND | 1.85 | 92.7 | 2.00 | 9.59 | | |
| Toluene* | <0.050 | 0.050 | 05/06/2020 | ND | 1.89 | 94.5 | 2.00 | 9.75 | | |
| Ethylbenzene* | <0.050 | 0.050 | 05/06/2020 | ND | 1.95 | 97.5 | 2.00 | 9.53 | | |
| Total Xylenes* | <0.150 | 0.150 | 05/06/2020 | ND | 5.69 | 94.8 | 6.00 | 9.76 | | |
| Total BTEX | <0.300 | 0.300 | 05/06/2020 | ND | | | | | | |

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

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: GM | | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Chloride | 480 | 16.0 | 05/06/2020 | ND | 416 | 104 | 400 | 3.77 | | |

| 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 | 05/06/2020 | ND | 186 | 92.9 | 200 | 1.22 | | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/06/2020 | ND | 184 | 91.8 | 200 | 0.949 | | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/06/2020 | ND | | | | | | |

Surrogate: 1-Chlorooctane 103 % 44.3-144

Surrogate: 1-Chlorooctadecane 104 % 42.2-156

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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: | 05/05/2020 | Sampling Date: | 05/05/2020 |
| Reported: | 05/08/2020 | Sampling Type: | Soil |
| Project Name: | MONUMENT ABO | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Kelly Jacobson |
| Project Location: | NONE GIVEN | | |

Sample ID: HC 4 (H001244-04)

| 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 | 05/06/2020 | ND | 1.85 | 92.7 | 2.00 | 9.59 | |
| Toluene* | <0.050 | 0.050 | 05/06/2020 | ND | 1.89 | 94.5 | 2.00 | 9.75 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/06/2020 | ND | 1.95 | 97.5 | 2.00 | 9.53 | |
| Total Xylenes* | <0.150 | 0.150 | 05/06/2020 | ND | 5.69 | 94.8 | 6.00 | 9.76 | |
| Total BTEX | <0.300 | 0.300 | 05/06/2020 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: GM | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 464 | 16.0 | 05/06/2020 | ND | 416 | 104 | 400 | 3.77 | |

| 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 | 05/06/2020 | ND | 186 | 92.9 | 200 | 1.22 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/06/2020 | ND | 184 | 91.8 | 200 | 0.949 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/06/2020 | ND | | | | | |

Surrogate: 1-Chlorooctane 89.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.9 % 42.2-156

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Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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