

November 28, 2017

RYAN MUELLER

ARCADIS - MIDLAND

1004 N BIG SPRING ST., SUITE 300

MIDLAND, TX 79701

RE: APACHE

Enclosed are the results of analyses for samples received by the laboratory on 11/20/17 13:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-9. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab accred certif.html.

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

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

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

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

Method EPA 552.2 Total Haloacetic Acids (HAA-5)

Celey D. Keine

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

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

Reported:

28-Nov-17 17:47



Analytical Results For:

ARCADIS - MIDLAND

1004 N BIG SPRING ST., SUITE 300

MIDLAND TX, 79701

Project: APACHE

Project Number: BARNSDALE

Project Manager: RYAN MUELLER

Fax To: NA

Sample ID Laboratory ID Matrix Date Sampled Date Received

EAST WALL 4 H703233-01 Soil 20-Nov-17 10:30 20-Nov-17 13:50

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence are any other cause whistoever 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 damage 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 claims 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. Keine

Reported:

28-Nov-17 17:47



Analytical Results For:

ARCADIS - MIDLAND

1004 N BIG SPRING ST., SUITE 300

MIDLAND TX, 79701

Project: APACHE

Project Number: BARNSDALE

Project Manager: RYAN MUELLER

Fax To: NA

EAST WALL 4

H703233-01 (Soil)

Reporting
Analyte Result MDL Limit Units Dilution Batch Analyst Analyzed Method Notes

Green Analytical Laboratories

Soluble (DI Water Extraction)

Chloride 131 10.0 mg/kg wet 10 B711202 JDA 27-Nov-17 EPA300.0

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Analytical Results For:

ARCADIS - MIDLAND

1004 N BIG SPRING ST., SUITE 300

MIDLAND TX, 79701

Project: APACHE

Project Number: BARNSDALE

Project Manager: RYAN MUELLER

Fax To: NA

Reported: 28-Nov-17 17:47

Soluble (DI Water Extraction) - Quality Control

Green Analytical Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B711202 - General Prep - Wet Chem										
Blank (B711202-BLK1)				Prepared: 2	22-Nov-17	Analyzed: 2	27-Nov-17			
Chloride	ND	10.0	mg/kg wet							
LCS (B711202-BS1)				Prepared: 2	22-Nov-17	Analyzed: 2	27-Nov-17			
Chloride	244	10.0	mg/kg wet	250		97.5	85-115			
LCS Dup (B711202-BSD1)				Prepared: 2	22-Nov-17	Analyzed: 2	27-Nov-17			
Chloride	245	10.0	mg/kg wet	250		98.0	85-115	0.458	20	

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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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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

(575)	(575) 393-2326 FAX (575) 393-2476	3-2476			A	ANALYSIS REQUEST	
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ddress: 1004 N Big Spring		State: +X Zin:	Attn: Bruce Boles	1			
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