August 9, 2018

Mike Bratcher and Crystal Weaver

NMOCD District 2

811 S. First St

Artesia, New Mexico 88210

Re: Work Plan

Ghostrider 25/36 W0DM Fed Com #2H

NMOCD Reference #: 2RP-4781

Mr. Mike Bratcher and Ms. Crystal Weaver:

RXSoil, Inc. is pleased to submit the work plan summarizing the on-site remediation of produced water impacted soil at the Mewbourne Ghostrider 25/36 W0DM Fed Com #2H site located in Eddy County, New Mexico. Remediation work plan follows in the attached report.

Sincerely,

Jace Caraway
Chief Operating Officer
RXSoil, Inc.
(940) 210-2051

Zach Robbins
Technical and Engineering Analyst
RXSoil, Inc.
(210) 400-7645

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Figures

Appendix

I. Introduction

On behalf of Mewbourne Oil Company ("Mewbourne"), RXSoil, Inc. ("RXSoil") has prepared this work plan that describes the assessment and action plan for remediation of the release of 2RP-4781.

The release occurred in Unit Letter D/C, Section 19, Township 23S, Range 27E (see *Figure 1* for Vicinity Map) at coordinates 32.294613, -104.235441. The Release Notification and Corrective Action document (C-141, *Appendix A*), approved June 5, 2018, indicates a line failure occurred on May 26, 2018. It was reported that 900 barrels of produced water were released, and 60 barrels were recovered during the initial response. This was reported to have affected pipeline ROW.

II. Regulatory Guidelines

The New Mexico Office of the State Engineer Water Column/Average Depth to Water lists the depth to water of the closest well to be approximately 3,200' east of release. An Eddy County depth to groundwater map (*Figure 2*, dated 2005) indicates a depth to groundwater between 150' and 175', resulting in a Depth to Ground Water score of 0 and a Wellhead Protection Area score of 0.

Figure 3 displays the location of the release on the NM OCD Oil and Gas Map with Hydrology Layer, with no surface water within a 1000' radius. This results in a Distance to Surface Water score of 0. The total ranking score for this site's threat to public health, ground water and environment is 0.

Depth to Ground Water:			
(Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet	20 points	
	50 feet to 99 feet	10 points	
	>100 feet	0 points	**X**
Wellhead Protection Area:			
(Less than 200 feet from a private domestic water source; or less than 1000 feet from all other water sources)	Yes	20 points	
	No	0 points	**X**
Distance to Surface Water:			
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	20 points	
	200 feet to 1000 feet	10 points	
	>1000 feet	0 points	**X**
RANKING SCORE (TOTAL POINTS)			**0**

The target cleanup levels are determined using *Guidelines for Remediation of Leaks, Spills and Releases* published by the NMOCD (August 13, 1993). The Recommended Remediation Action Levels (RRAL) are **10** parts per million (ppm) benzene, **50** ppm combined benzene, toluene, ethyl benzene, and total xylenes (BTEX), **5,000** ppm total petroleum hydrocarbons (TPH) and **600** ppm chlorides.

As discussed in the later portion of **Section IV**, post-remediation discrete confirmation samples will be taken and properly packaged, preserved and transported to a third-party laboratory by chain of custody, and analyzed for chlorides (Method 300 or Method 4500, per revised Rule 29). The results will be included in the closure report along with chain of custody and quality control.

III. Delineation Report

Based on a spill map and visual evidence, eight borehole locations were selected throughout the affected area. These locations, as well as a spill map, can be seen in *Figure 4*.

RXSoil contracted Atkins Engineering Associates to drill boreholes for vertical delineation. RXSoil had personnel present during the drilling of boreholes to guide delineation. Drilling occurred at each borehole until 10' of clean soil was discovered, with intervals of depth not exceeding 5' when soil allowed this. In some cases, equipment reached refusal before this could happen. Due to the intense amount of shallow cobble we experienced refusal as early as 3' and ranging to 19' deep. Multiple tooling and bits were damaged in the drilling process. Samples were field screened for chlorides to guide the delineation activity and then transported on ice to Cardinal Laboratories in Hobbs, NM, for confirmation.

BH01 was positioned close to an open pit with 4" and 6" polylines that bend (subsurface) in the direction of our point. RXSoil chose not to drill this hole because the polylines were not indicated or marked by flags, despite having an 811 in place.

Full results from vertical delineation can be found in *Appendix B*. This includes a data summary table, the laboratory reports, and a copy of the digital field notes.

Further horizontal delineation will be completed during excavation and is specified in **Section IV**.

IV. Soil Remediation Work Plan

RXSoil's core process of on-site remediation will be used to address the contamination. RXSoil will supervise all excavation with approval from area utilities owners via NM 811.

RXSoil will construct two in-ground treatment cells to the southeast of the contaminated area. Once the final location of the treatment cells has been field verified, District 2 will be notified with coordinates of the four corners of each cell. These cells will be excavated to a depth of 4'. A 30-mil poly liner will be installed on the bottom and sides of the cell to contain treatment (to be demarcated on map in Closure Report). A proprietary drainage and collection system will be installed. The background material (not affected by the release) will be staged away from any contaminated material to avoid cross-contamination. The cells are planned to cover an area of 110' by 260'. Final dimensions will be included in the closure report and the area will be demarcated on a map.

Sidewall and bottom samples will be taken for the contaminated area using a stainless-steel hand shovel while remediation samples will be taken using a stainless-steel bucket auger. All tools will be decontaminated before each sample, as specified in *Field Equipment Cleaning and Decontamination* (EPA, 2015). This includes wiping the equipment clean, water-rinsing the equipment, washing the equipment in detergent and water, and rinsing the equipment in water. Samples will be temporarily transferred to a new plastic bag in the field. Once in a location safer for handling glass, the samples will be transferred to glass jars, supplied by an approved laboratory. The threads on all jars will be wiped clean to allow an air-tight seal. Samples will be placed on ice and transferred to a third-party laboratory within an appropriate time period never to exceed 28 days, as recommended in the EPA

Method 300.0 handbook. RXSoil will make reasonable efforts to minimize this transfer time.

The affected material will be excavated and placed into the RXSoil treatment cell. Sidewall samples in each cardinal direction will be collected (with samples no further than 50' apart) and transferred to a third-party lab for confirmation (via approved chloride tests) that all affected material has been excavated. Excavation will continue until all sidewall samples are below 600 ppm chlorides (via approved chloride tests).

Throughout excavation, bottom samples will be taken to determine the required excavation depth. Based on delineation data, excavation is planned to go to 4' in the entire spill area, except around Borehole 7, which is planned to be excavated to 2' depth (see *Figure 4*). Borehole 2 and Borehole 8 showed no evidence of contamination and will not be excavated. This data was used to project a total cubic yardage of 8,291 cubic yards.

Vertical excavation will continue until a clean bottom sample is gathered or depth reaches 4'. When the bottom sampling leads excavation to a depth of 4', excavation in that area will halt, a sample will be collected, and a 20-mil poly liner will be placed on the subsurface (to be demarcated in Closure Report) before backfilling. These samples will be appropriately transferred to a third-party lab for confirmation.

The clean material previously staged will be used to backfill the excavated area. A proprietary delivery system will be installed in the treatment cell to apply RXSoil chemicals for remediation of the soil. RXSoil chemicals and biological agents will go through the profile of the soil before entering the collection system. RXSoil will collect this leachate and properly dispose of it. No subsoil will be exposed to leachate from the treatment cells during remediation. No harmful or hazardous chemicals are used in the RXSoil Process.

Final discrete soil samples will be collected and tested for every 50 cubic yards of treated material at the end of treatment to confirm impacted soil has been remediated to required chloride levels directed by NMOCD standards, as specified in **Section II**. All samples will consist of enough material for at least one (1) field screening and two (2) laboratory tests. A portion of each sample will be field screened and no fewer than 50% of these samples will have a portion transferred to a third-party laboratory for confirmation that all soil passes NMOCD standards for chloride levels. Lab reports and a map with sample points from a GPS device will all be included in the final report.

The current proposed cell dimensions are approximately 110' by 260' by 4' depth. This cell would hold up to 4,237 cubic yards, requiring no fewer than 85 samples per cell. The planned sample grid will be an evenly spaced grid of 6 columns by 15 rows (90 samples) with samples taken at a depth of 36"-48".

Based on this cell size, 90 samples will be taken per cell with 45 (50% of 90) duplicates being sent to a third-party laboratory for testing. All samples that are collected for lab analysis and not submitted will be preserved for future analysis if required with the understanding that the recommended hold time of 28 days may be exceeded.

If any sample points test for a chloride concentration greater than 600 ppm, RXSoil will continue

treatment in that area of the treatment cell. Following re-treatment, samples will be redrawn from any location that initially tested above regulations. This will be done until all sample locations test below threshold. All sample points throughout the project will be GPS located and demarcated on a final sampling map, provided in the closure report.

After completion of the remedial phase of the project a minimum of two composite samples (one from a treatment cell and one from the restored area) will be collected for agricultural analysis (CEC, SAR, ESP, anions and cations). These results will be provided to an agronomist so that proper soil amendments can be determined to provide for the landowner approved vegetative cover. The amendments and seed will be applied following the remediation project, at the discretion of the landowner.

A closure report summarizing all remediation activities, including scaled maps and all test results stated above, will be submitted upon completion of the project.

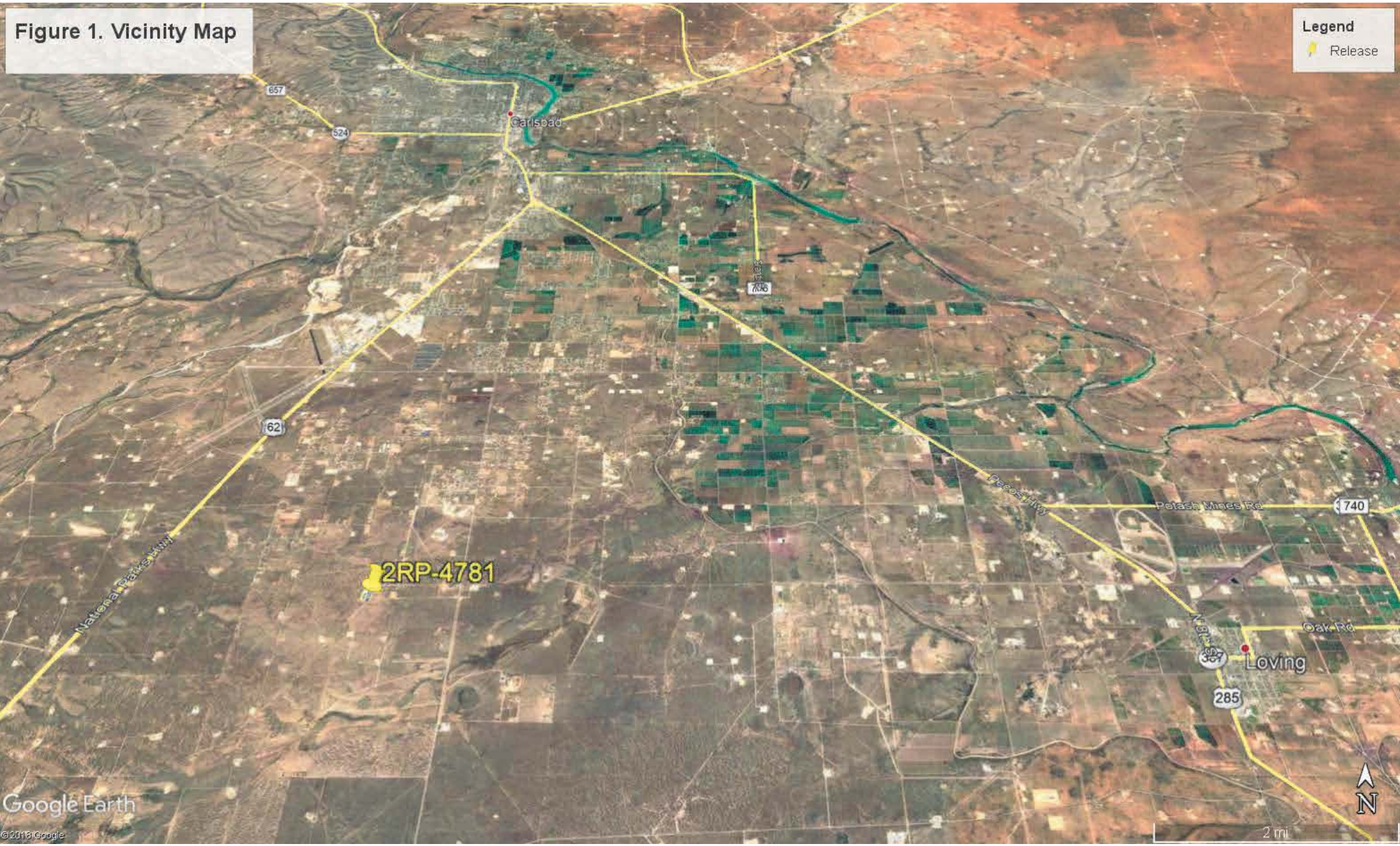
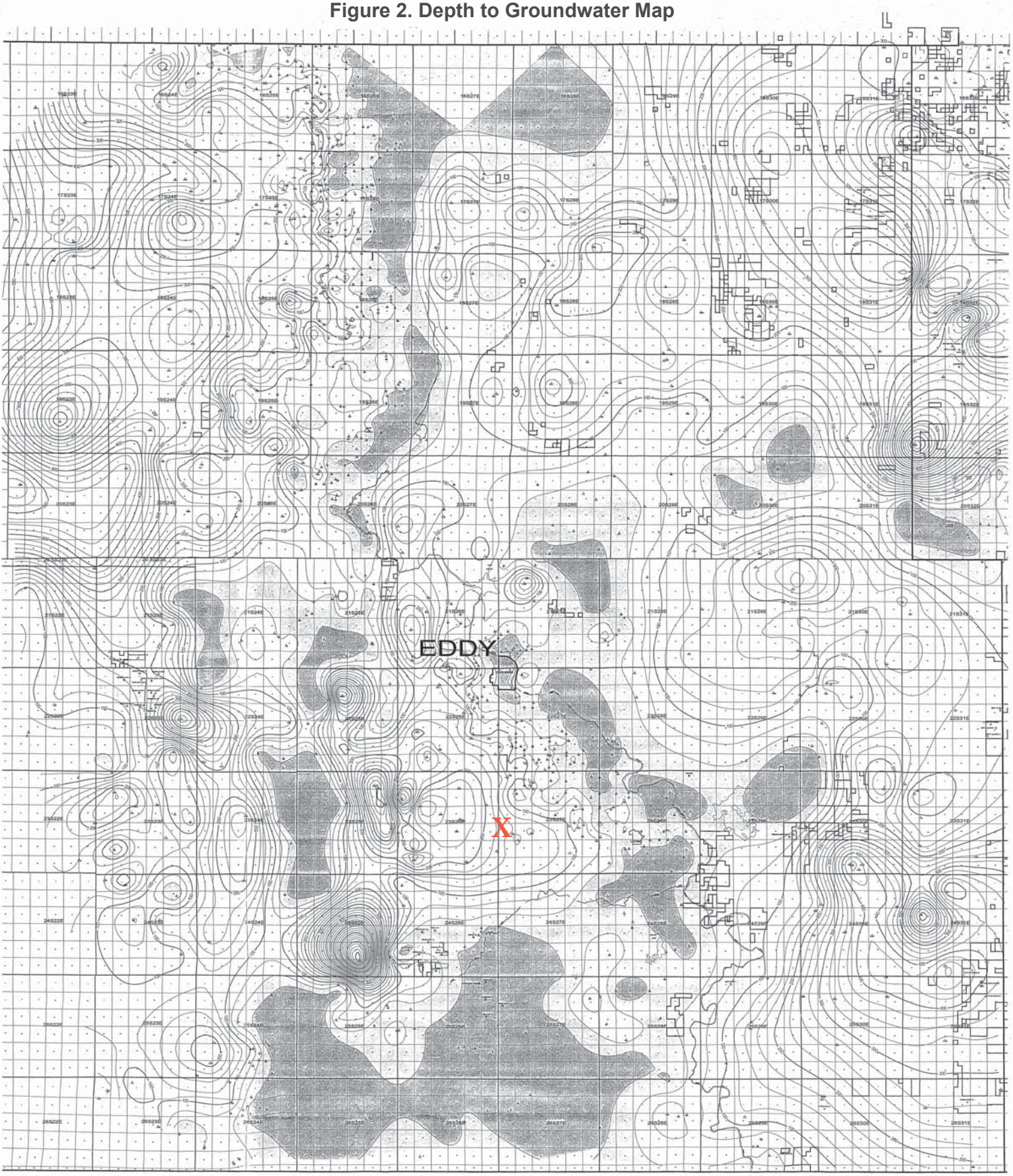


Figure 1. Vicinity Map
Legend
Release
657
524
Carlsbad
62
2RP-4781
Potash Mines Rd
740
Oak Rd
Loving
285
Google Earth
©2018 Google
2 mi
N

Figure 2. Depth to Groundwater Map

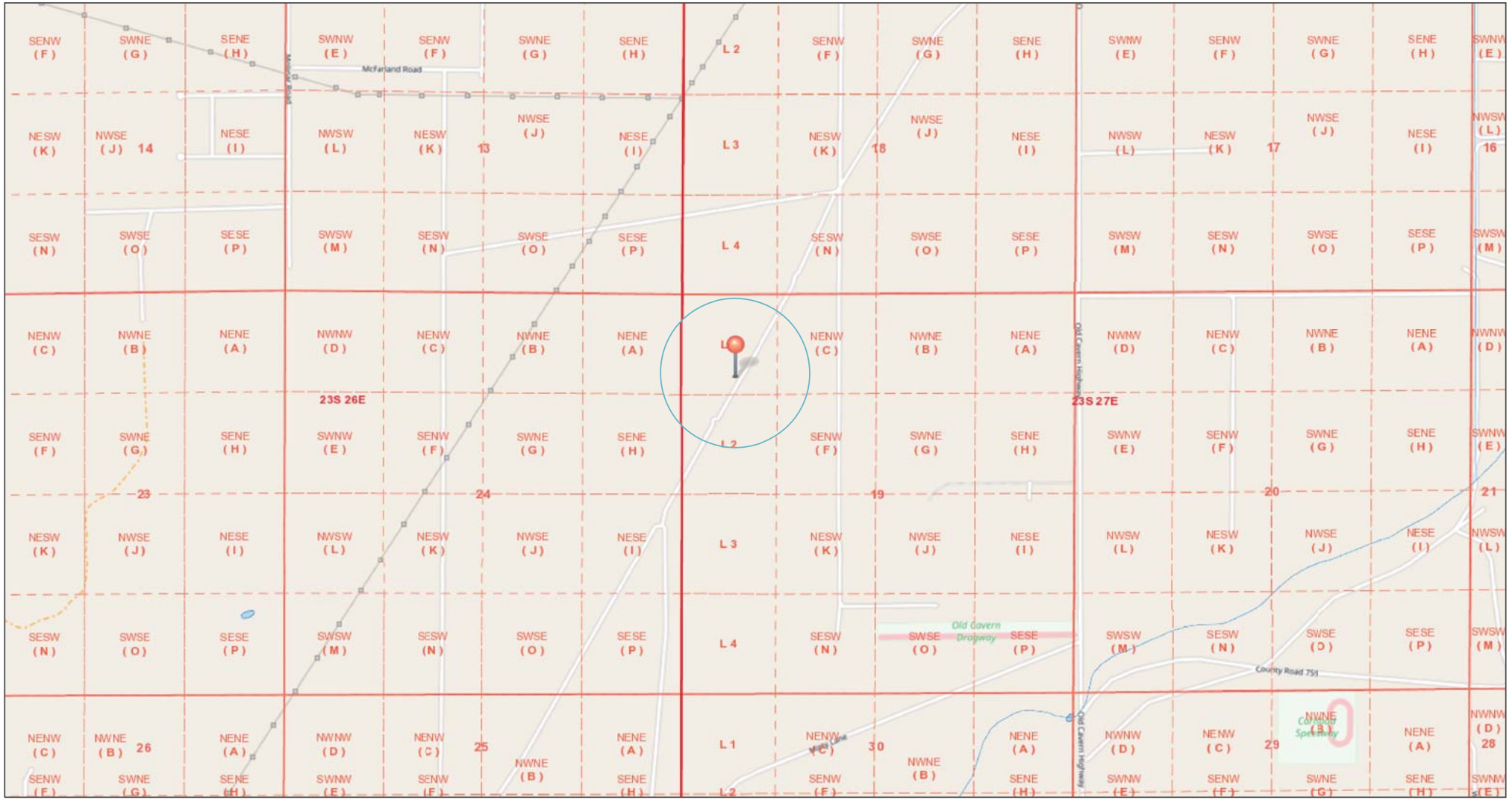


X Release Location

ChevronTexaco

Eddy Co. Depth To Ground Water
Water Wells
Facilities

Figure 3. Hydrology Map



8/8/2018, 6:15:21 PM

1,000' Radius

Release

OCD Districts

OCD District Offices

PLSS First Division

PLSS Second Division

PLSS Townships

OSE Water-bodies

PLJV Probable Playas

OSE Streams

1:18,056

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/: New Mexico Oil Conservation Division

Figure 4. Spill Map

APPENDIX A

C-141, RELEASE NOTIFICATION AND CORRECTIVE ACTION DOCUMENT

RECEIVED

MAY 31 2018

DISTRICT II-ARTESIA O.C.D.

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

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1815837940

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Mewbourne Oil Company 14744	Contact: Zack Thomas
Address: PO Box 5270 Hobbs NM 88240	Telephone No. 575-393-5905
Facility Name: Ghostrider 25/36 W0DM Fed Com #2H	Facility Type: Water Transfer Line

Surface Owner: State	Mineral Owner:	API No. 30-015-44302

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D/C	19	23S	27E	1000'	North	745'	West	Eddy

Latitude__32.294613_ **Longitude**__-104.235441__

NATURE OF RELEASE

Type of Release: produced water	Volume of Release: 900 bbls	Volume Recovered: 60 bbls recovered
Source of Release: 8 inch Water Transfer Line	Date and Hour of Occurrence 5-26-18	Date and Hour of Discovery 5-26-18 9:00 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher	
By Whom? Zack Thomas	Date and Hour 5-29-18 6:00 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*

Line failure. Shut valves on both ends of the line to isolate failure point.

Describe Area Affected and Cleanup Action Taken.*

Affected area- Release flowed Northeast an estimated 1000 feet down pipeline ROW.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Z. Thomas	OIL CONSERVATION DIVISION Signed By Approved by Environmental Specialist:	
Printed Name: Zack Thomas		
Title: Environmental Rep.	Approval Date: 6/5/18	Expiration Date: N/A
E-mail Address: zthomas@mewbourne.com	Conditions of Approval: See attached	Attached ☒
Date: 5-30-18 Phone: 575-602-2188		

nAB.4781

APPENDIX B.1

DELINEATION REPORT

DELINEATION SUMMARY TABLE

Appendix B.1. Delineation Summary Table					
Laboratory: Cardinal Laboratories				Report Date:	7/27/2018
Location	Depth (feet)	Lab ID Sample	Sample Date	Chloride	
				Field Screening	Method 4500
2	1	BH2-1'	7/19/2018	ND	32
2	2	BH2-2'	7/19/2018	ND	80
2	3	BH2-3'	7/19/2018	ND	80
2	4	BH2-4'	7/19/2018	ND	64
2	6	BH2-6'	7/19/2018	ND	64
2	8	BH2-8'	7/19/2018	ND	64
3	1	BH3-1'	7/19/2018	**9544**	**6640**
3	2	BH3-2'	7/19/2018	**4540**	**2720**
3	3	BH3-3'	7/19/2018	**1756**	**2480**
4	1	BH4-1'	7/19/2018	**2916**	**4800**
4	2	BH4-2'	7/19/2018	**6864**	**7860**
4	3	BH4-3'	7/19/2018	**4540**	**6240**
4	4	BH4-4'	7/19/2018	**1396**	**1410**
5	1	BH5-1'	7/18/2018	**8780**	**9460**
5	2	BH5-2'	7/18/2018	**2652**	**4560**
5	3	BH5-3'	7/18/2018	**5828**	**5840**
5	4	BH5-4'	7/18/2018	ND	176
5	6	BH5-6'	7/18/2018	292	416
5	9	BH5-9'	7/18/2018	556	**688**
5	11	BH5-11'	7/18/2018	556	592
6	1	BH6-1'	7/18/2018	**5368**	**5840**
6	2	BH6-2'	7/18/2018	**4540**	**4400**
6	3	BH6-3'	7/18/2018	332	352
6	4	BH6-4'	7/18/2018	**3200**	**3770**
6	6	BH6-6'	7/18/2018	372	592
6	9	BH6-9'	7/18/2018	372	**624**
6	11	BH6-11'	7/18/2018	412	560
7	1	BH7-1'	7/18/2018	**3824**	**4320**
7	2	BH7-2'	7/18/2018	ND	128
7	3	BH7-3'	7/18/2018	144	128
7	4	BH7-4'	7/18/2018	ND	32
7	6	BH7-6'	7/18/2018	ND	32
8	1	BH8-1'	7/18/2018	168	288
8	2	BH8-2'	7/18/2018	ND	64
8	3	BH8-3'	7/18/2018	ND	32
8	4	BH8-4'	7/18/2018	ND	32
8	6	BH8-6'	7/18/2018	ND	ND
8	9	BH8-9'	7/18/2018	ND	16
8	14	BH8-14'	7/18/2018	ND	32
NMOCD Thresholds				**600**	**600**

BOLD results indicate results above RRAL

"ND" indicates a non-detectable result, below testing limits

Blue indicates the deepest depth before refusal at that point

APPENDIX B.2

DELINEATION REPORT

DELINEATION LABORATORY REPORT

CARDINAL Laboratories

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

July 27, 2018

JACE CARAWAY

RX-SOIL INC.

201 MAIN STREET, SUITE 1360

FORT WORTH, TX 76102

RE: MEWBOURNE #4

Enclosed are the results of analyses for samples received by the laboratory on 07/20/18 8:50.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	07/20/2018	Sampling Date:	07/19/2018
Reported:	07/27/2018	Sampling Type:	Soil
Project Name:	MEWBOURNE #4	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: BH 2 - 1 (H801983-01)

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	07/23/2018	ND	432	108	400	3.77	

Sample ID: BH 2 - 2 (H801983-02)

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	07/23/2018	ND	432	108	400	3.77	

Sample ID: BH 2 - 3 (H801983-03)

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	07/23/2018	ND	432	108	400	3.77	

Sample ID: BH 2 - 4 (H801983-04)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	07/23/2018	ND	432	108	400	3.77	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	07/20/2018	Sampling Date:	07/19/2018
Reported:	07/27/2018	Sampling Type:	Soil
Project Name:	MEWBOURNE #4	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: BH 2 - 6 (H801983-05)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	07/23/2018	ND	432	108	400	3.77	

Sample ID: BH 2 - 8 (H801983-06)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	07/23/2018	ND	432	108	400	3.77	

Sample ID: BH 3 - 1 (H801983-07)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6640**	16.0	07/23/2018	ND	432	108	400	3.77	

Sample ID: BH 3 - 2 (H801983-08)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2720**	16.0	07/23/2018	ND	432	108	400	3.77	

Sample ID: BH 3 - 3 (H801983-09)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2480**	16.0	07/23/2018	ND	432	108	400	3.77	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	07/20/2018	Sampling Date:	07/19/2018
Reported:	07/27/2018	Sampling Type:	Soil
Project Name:	MEWBOURNE #4	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: BH 4 - 1 (H801983-10)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**4800**	16.0	07/23/2018	ND	432	108	400	3.77	QM-07

Sample ID: BH 4 - 2 (H801983-11)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7860**	16.0	07/24/2018	ND	432	108	400	3.77	

Sample ID: BH 4 - 3 (H801983-12)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6240**	16.0	07/24/2018	ND	432	108	400	3.77	

Sample ID: BH 4 - 4 (H801983-13)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1410**	16.0	07/24/2018	ND	432	108	400	3.77	

Sample ID: BH 5 - 1 (H801983-14)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**9460**	16.0	07/24/2018	ND	432	108	400	3.77	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	07/20/2018	Sampling Date:	07/18/2018
Reported:	07/27/2018	Sampling Type:	Soil
Project Name:	MEWBOURNE #4	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: BH 5 - 2 (H801983-15)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**4560**	16.0	07/24/2018	ND	432	108	400	3.77	

Sample ID: BH 5 - 3 (H801983-16)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**5840**	16.0	07/24/2018	ND	432	108	400	3.77	

Sample ID: BH 5 - 4 (H801983-17)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	07/24/2018	ND	432	108	400	3.77	

Sample ID: BH 5 - 6 (H801983-18)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**416**	16.0	07/24/2018	ND	432	108	400	3.77	

Sample ID: BH 5 - 9 (H801983-19)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**688**	16.0	07/24/2018	ND	432	108	400	3.77	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	07/20/2018	Sampling Date:	07/18/2018
Reported:	07/27/2018	Sampling Type:	Soil
Project Name:	MEWBOURNE #4	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: BH 5 - 11 (H801983-20)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**592**	16.0	07/24/2018	ND	432	108	400	3.77	

Sample ID: BH 6 - 1 (H801983-21)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**5840**	16.0	07/24/2018	ND	432	108	400	3.77	

Sample ID: BH 6 - 2 (H801983-22)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**4400**	16.0	07/24/2018	ND	432	108	400	3.77	

Sample ID: BH 6 - 3 (H801983-23)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**352**	16.0	07/24/2018	ND	432	108	400	3.77	

Sample ID: BH 6 - 4 (H801983-24)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3770**	16.0	07/24/2018	ND	432	108	400	3.77	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	07/20/2018	Sampling Date:	07/18/2018
Reported:	07/27/2018	Sampling Type:	Soil
Project Name:	MEWBOURNE #4	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: BH 6 - 6 (H801983-25)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**592**	16.0	07/24/2018	ND	432	108	400	3.77	

Sample ID: BH 6 - 9 (H801983-26)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**624**	16.0	07/24/2018	ND	432	108	400	3.77	

Sample ID: BH 6 - 11 (H801983-27)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**560**	16.0	07/24/2018	ND	432	108	400	3.77	

Sample ID: BH 7 - 1 (H801983-28)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**4320**	16.0	07/24/2018	ND	432	108	400	3.77	

Sample ID: BH 7 - 2 (H801983-29)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	07/24/2018	ND	432	108	400	3.77	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	07/20/2018	Sampling Date:	07/18/2018
Reported:	07/27/2018	Sampling Type:	Soil
Project Name:	MEWBOURNE #4	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: BH 7 - 3 (H801983-30)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	07/24/2018	ND	432	108	400	0.00	

Sample ID: BH 7 - 4 (H801983-31)

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	07/24/2018	ND	432	108	400	0.00	

Sample ID: BH 7 - 6 (H801983-32)

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	07/24/2018	ND	432	108	400	0.00	

Sample ID: BH 8 - 1 (H801983-33)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**288**	16.0	07/24/2018	ND	432	108	400	0.00	

Sample ID: BH 8 - 2 (H801983-34)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	07/24/2018	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	07/20/2018	Sampling Date:	07/18/2018
Reported:	07/27/2018	Sampling Type:	Soil
Project Name:	MEWBOURNE #4	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: BH 8 - 3 (H801983-35)

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	07/24/2018	ND	432	108	400	0.00	

Sample ID: BH 8 - 4 (H801983-36)

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	07/24/2018	ND	432	108	400	0.00	

Sample ID: BH 8 - 6 (H801983-37)

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	07/24/2018	ND	432	108	400	0.00	

Sample ID: BH 8 - 9 (H801983-38)

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	07/24/2018	ND	432	108	400	0.00	

Sample ID: BH 8 - 14 (H801983-39)

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	07/24/2018	ND	432	108	400	0.00	

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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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	RXSOIL	**BILL TO**	
Project Manager:	JACE CARALAN	P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	210-853-7645 Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	MELBOURNE #4	State: Zip:	
Project Location:		Phone #:	
Sampler Name:	JACOB MICKLE	Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CHLORIDES (4500)
H801983															
1	BH2-1	G				x					x		07/19	1245	x
2	BH2-2														
3	BH2-3														
4	BH2-4														
5	BH2-5														
6	BH2-8													1400	

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Relinquished By:	Date: 7-20-18	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 8:50		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		
Delivered By: (Circle One)	4.1°	Sample Condition Cool Intact	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other:	Corrected 4.0°	☑ Yes ☑ Yes ☐ No ☐ No	TC. #15

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	RKSOIL	**BILL TO**	
Project Manager:	JALE CARAWAY	P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	210-853-7645 Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	MELBOURNE #4	State: Zip:	
Project Location:		Phone #:	
Sampler Name:	JACOB MECKLE	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: CHLORIDES (4500)
H801983															
7	BH3-1	G				X					X		07/19	1215	
8	BH3-2													1220	
9	BH3-3													1225	

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Relinquished By:	Date: 7-20-18	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 8:50	Tamara Oldaker	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		
Delivered By: (Circle One) 4.1°	Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No	CHECKED BY: (Initials) TO-#75	
Sampler - UPS - Bus - Other: Corrected 4.0°			

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CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: RKS GIL	BILL TO
Project Manager: JALE CARAWAY	P.O. #:
Address:	Company:
City: State: Zip:	Attn:
Phone #: 210-853-7645 Fax #:	Address:
Project #: Project Owner:	City:
Project Name: MELBOURNE #4	State: Zip:
Project Location:	Phone #:
Sampler Name: JACOB MILLER	Fax #:

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CHLORIDES (4500)
H801983															
10	BH4 - 1	G				X					X		07/19	1130	X
11	BH4 - 2														
12	BH4 - 3														
13	BH4 - 4													1200	

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Relinquished By:	Date: 7-20-18	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 8:50		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		
Delivered By: (Circle One) 4.1°	Sample Condition Cool Intact	CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other: Corrected 4.0°C	☐ Yes ☐ Yes ☐ No ☐ No	T.O. #25	

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CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	RXSOIL	BILL TO	
Project Manager:	JACE CARAWAY	P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	210-853-7645 Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	MEBOURNE #4	State: Zip:	
Project Location:		Phone #:	
Sampler Name:	JACOB MICKLE	Fax #:	

ANALYSIS REQUEST: CHLORIDES (4500)

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	CHLORIDES (4500)
H801983															
14	BH5-1	G				X					X		07/18	1700	X
15	BH5-2	↓				↓					↓		↓	↓	↓
16	BH5-3														
17	BH5-4														
18	BH5-6														
19	BH5-9														
20	BH5-11	↓				↓					↓		↓	1900	↓

Relinquished By:	Date: 7-20-18	Received By:	Phone Result: ☐ Yes ☐ No	Add'l Phone #:
	Time: 8:50		Fax Result: ☐ Yes ☐ No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:			

Delivered By: (Circle One)	Sample Condition	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other: 4.1° Corrected 4.0°	Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	TO-#15

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CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	RXSOIL
Project Manager:	JALE CARAWAY
Address:	
City:	State: Zip:
Phone #:	210-853-7645 Fax #:
Project #:	Project Owner:
Project Name:	MELBOURNE #4
Project Location:	
Sampler Name:	JACOB MICKLE

BILL TO

P.O. #:	
Company:	
Attn:	
Address:	
City:	
State: Zip:	
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	CHLORIDES (4500)
H801983															
21	BH 6 - 1	G				x					x		07/19	1120	x
22	BH G - 2	↓				↓					↓		↓	↓	↓
23	BHG - 3														
24	BHG - 4														
25	BHG - 6														
26	BHG - 9														
27	BHG - 11	↓				↓					↓		↓	1330	↓

Relinquished By:	Date: 7-20-18	Received By:	Tamara Oldaker
	Time: 8:50		
Relinquished By:	Date:	Received By:	
	Time:		

Delivered By: (Circle One) 4.1c
Sampler - UPS - Bus - Other: Corrected 4.0c

Sample Condition		CHECKED BY: (Initials)
Cool	Intact	
☑ Yes ☐ No	☑ Yes ☐ No	TQ #15

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:

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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:	RxSOIL	**BILL TO**	
Project Manager:	JACE CARAWAY	P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	210-853-7645 Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	MEWBOURNE #4	State: Zip:	
Project Location:		Phone #:	
Sampler Name:	JACOB MICKLE	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: CHLORIDES (4500)
H801983															
28	BH7-1	G				x					x		07/18	1100	x
29	BH7-2														
30	BH7-3														
31	BH7-4														
32	BH7-6													1300	

Relinquished By:	Date: 7-20-18	Received By:	Tamara Oldaker
	Time: 8:50		
Relinquished By:	Date:	Received By:	
	Time:		

Delivered By: (Circle One) 4.1°
Sampler - UPS - Bus - Other: Corrected 4.0°C

Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials) JO #15

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:

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CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	RXSOIL	**BILL TO**	
Project Manager:	JALE CRAWAY	P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	210-853-7645 Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	MELBOURNE #4	State: Zip:	
Project Location:		Phone #:	
Sampler Name:	JACOB MICKLE	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: CHLORIDES (4500)
H801983															
33	BH 8-1	G				X					X		07/18	0900	X
34	BH 8-2														
35	BH 8-3														
36	BH 8-4														
37	BH 8-6														
38	BH 8-9														
39	BH 8-14													1100	

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Relinquished By:	Date: 7-20-18	Received By: Tamara Oldaker	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 8:50		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	4.1° Corrected 4.0°	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials) TO #75

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APPENDIX B.3

DELINEATION REPORT

DELINEATION DIGITAL FIELD NOTES

RXSOIL

Form Information

Form Name:	**RXSoil Field Test**
Submitter Name:	Jacob Mickle (jacob.mickle@rxsoil.solutions)
Submission Date:	Jul 19, 2018 8:44:53 PM MDT
Server Receive Date:	Jul 19, 2018 8:45:04 PM MDT
Reference Number:	20180720-1883354375
Location:	4620 N Lovington Hwy, Hobbs, NM 88240, USA Jul 19, 2018 8:21:54 PM MDT [View Map]

Project Overview

Client Name	Mewbourne
Project Name	Mewbourne 4 - Ghostrider
Date/Time	Jul 19, 2018 8:35:20 PM MDT
RXSoil Sampler	Jacob Mickle
Lab Name	Cardinal Labs

Sample 1

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH2.1’
Depth (feet)	1
Chloride Strip Reading	0.8
Strip Type	Low
Chloride Level (ppm)	0
Comments	07/19 1245-1400

Picture of Result or Sample Taken

Add test	yes

Sample 2

Type of Field Test	Soil
Method of Testing	Chloride Strips

Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH2.2’
Depth (feet)	2
Chloride Strip Reading	0.8
Strip Type	Low
Chloride Level (ppm)	0

Picture of Result or Sample Taken

Add test	yes

Sample 3

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH2.3’
Depth (feet)	3
Chloride Strip Reading	0.8
Strip Type	Low
Chloride Level (ppm)	0

Picture of Result or Sample Taken

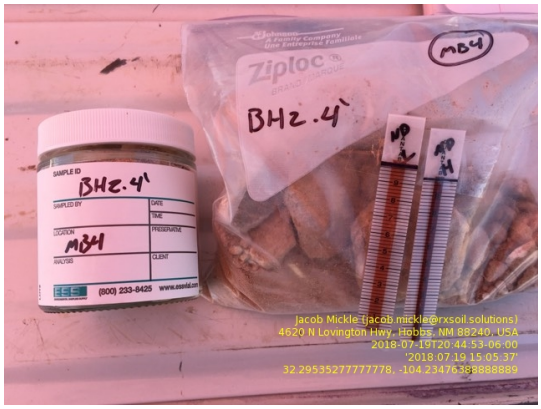
Add test	yes

Sample 4

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH

Name of Sample Point	BH2.4’
Depth (feet)	4
Chloride Strip Reading	0.8
Strip Type	Low
Chloride Level (ppm)	0

Picture of Result or Sample Taken



Add test	yes

Sample 5

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH2.6’
Depth (feet)	6
Chloride Strip Reading	0.8
Strip Type	Low
Chloride Level (ppm)	0

Picture of Result or Sample Taken

Add test	yes

Sample 6

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH2.8

Depth (feet)	8
Chloride Strip Reading	0.8
Strip Type	Low
Chloride Level (ppm)	0
Comments	REJECTION - COBBLE

Picture of Result or Sample Taken

RXSOIL

Form Information

Form Name:	**RXSoil Field Test**
Submitter Name:	Jacob Mickle (jacob.mickle@rxsoil.solutions)
Submission Date:	Jul 19, 2018 8:44:43 PM MDT
Server Receive Date:	Jul 19, 2018 8:44:54 PM MDT
Reference Number:	20180720-1883354374
Location:	4620 N Lovington Hwy, Hobbs, NM 88240, USA Jul 19, 2018 8:21:54 PM MDT [View Map]

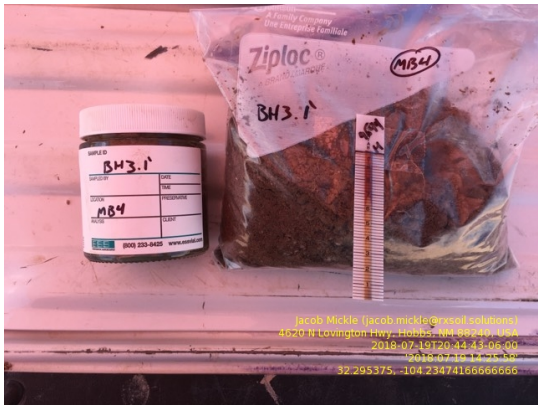
Project Overview

Client Name	Mewbourne
Project Name	Mewbourne 4 - Ghostrider
Date/Time	Jul 19, 2018 8:28:55 PM MDT
RXSoil Sampler	Jacob Mickle
Lab Name	Cardinal Labs

Sample 1

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH3.1’
Depth (feet)	1
Chloride Strip Reading	6.8
Strip Type	High
Chloride Level (ppm)	9544
Comments	07/19 1215-1230

Picture of Result or Sample Taken



Add test	yes

Sample 2

Type of Field Test	Soil
Method of Testing	Chloride Strips

Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH3.2’
Depth (feet)	2
Chloride Strip Reading	5.0
Strip Type	High
Chloride Level (ppm)	4540

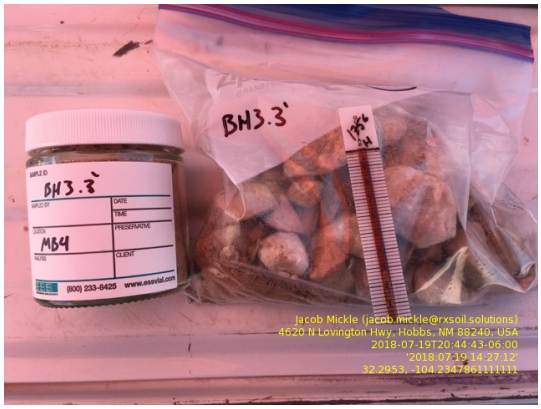
Picture of Result or Sample Taken

Add test	yes

Sample 3

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Hand Auger HA
Name of Sample Point	BH3.3’
Depth (feet)	3
Chloride Strip Reading	3.0
Strip Type	N/A
Chloride Level (ppm)	1756
Comments	REJECTION - GIANT BOULDERS AND ROCK AT 3’-4’

Picture of Result or Sample Taken



RXSOIL

Form Information

Form Name:	**RXSoil Field Test**
Submitter Name:	Jacob Mickle (jacob.mickle@rxsoil.solutions)
Submission Date:	Jul 19, 2018 8:44:35 PM MDT
Server Receive Date:	Jul 19, 2018 8:44:44 PM MDT
Reference Number:	20180720-1883354371
Location:	4620 N Lovington Hwy, Hobbs, NM 88240, USA Jul 19, 2018 8:21:54 PM MDT [View Map]

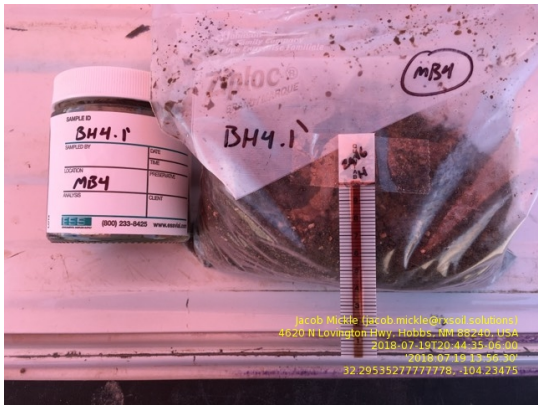
Project Overview

Client Name	Mewbourne
Project Name	Mewbourne 4 - Ghostrider
Date/Time	Jul 19, 2018 8:15:49 PM MDT
RXSoil Sampler	Jacob Mickle
Lab Name	Cardinal Labs

Sample 1

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH4.1’
Depth (feet)	1
Chloride Strip Reading	4.0
Strip Type	High
Chloride Level (ppm)	2916
Comments	07/19 1100-1200

Picture of Result or Sample Taken



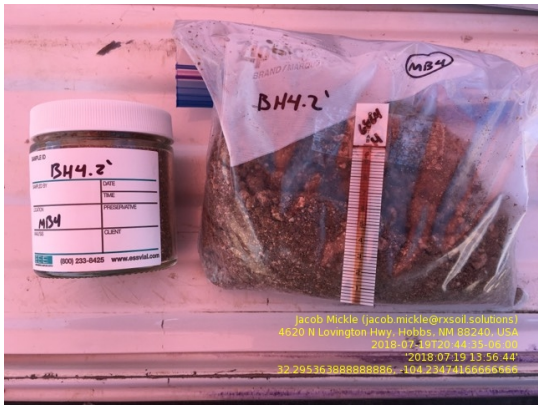
Add test	yes

Sample 2

Type of Field Test	Soil
Method of Testing	Chloride Strips

Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH4.2’
Depth (feet)	2
Chloride Strip Reading	6.0
Strip Type	High
Chloride Level (ppm)	6864

Picture of Result or Sample Taken

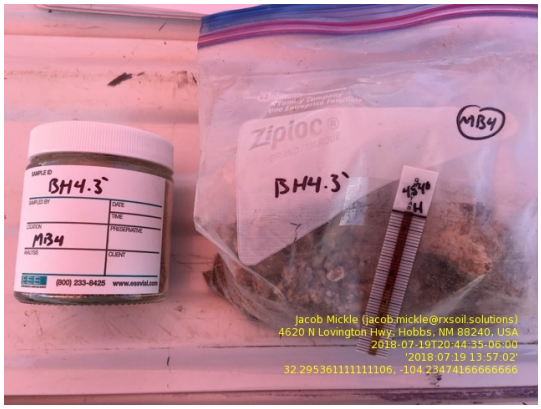


Add test	yes

Sample 3

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH4.3’
Depth (feet)	3
Chloride Strip Reading	5.0
Strip Type	High
Chloride Level (ppm)	4540

Picture of Result or Sample Taken



Add test	yes

Sample 4

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH

Name of Sample Point	BH4.4’
Depth (feet)	4
Chloride Strip Reading	2.6
Strip Type	High
Chloride Level (ppm)	1396
Comments	REJECTION - GIANT ROCK

Picture of Result or Sample Taken

Add test	yes

RXSOIL

Form Information

Form Name:	**RXSoil Field Test**
Submitter Name:	Jacob Mickle (jacob.mickle@rxsoil.solutions)
Submission Date:	Jul 19, 2018 8:44:20 PM MDT
Server Receive Date:	Jul 19, 2018 8:44:32 PM MDT
Reference Number:	20180720-1883354369
Location:	4620 N Lovington Hwy, Hobbs, NM 88240, USA Jul 19, 2018 8:21:54 PM MDT [View Map]

Project Overview

Client Name	Mewbourne
Project Name	Mewbourne 4 - Ghostrider
Date/Time	Jul 19, 2018 7:56:53 PM MDT
RXSoil Sampler	Jacob Mickle
Lab Name	Cardinal Labs

Sample 1

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH5.1’
Depth (feet)	1
Chloride Strip Reading	6.1
Strip Type	High
Chloride Level (ppm)	8780
Comments	07/18 1700-1900

Picture of Result or Sample Taken

Add test	yes

Sample 2

Type of Field Test	Soil
Method of Testing	Chloride Strips

Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH5.2’
Depth (feet)	2
Chloride Strip Reading	3.8
Strip Type	High
Chloride Level (ppm)	2652

Picture of Result or Sample Taken

Add test	yes

Sample 3

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH5.3’
Depth (feet)	3
Chloride Strip Reading	5.6
Strip Type	High
Chloride Level (ppm)	5828

Picture of Result or Sample Taken

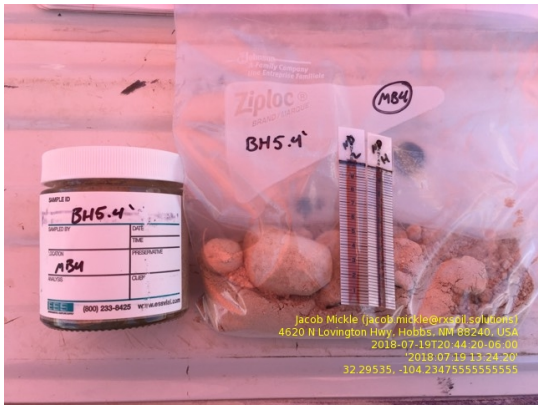
Add test	yes

Sample 4

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH

Name of Sample Point	BH5.4’
Depth (feet)	4
Chloride Strip Reading	0.4
Strip Type	Low
Chloride Level (ppm)	0

Picture of Result or Sample Taken



Add test	yes

Sample 5

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH5.6’
Depth (feet)	6
Chloride Strip Reading	2.8
Strip Type	Low
Chloride Level (ppm)	292

Picture of Result or Sample Taken

Add test	yes

Sample 6

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH5.9’

Depth (feet)	9
Chloride Strip Reading	4.6
Strip Type	Low
Chloride Level (ppm)	556

Picture of Result or Sample Taken

Add test	yes

Sample 7

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH5.11’
Depth (feet)	11
Chloride Strip Reading	4.6
Strip Type	Low
Chloride Level (ppm)	556
Comments	REJECTION - COBBLE

Picture of Result or Sample Taken

RXSOIL

Form Information

Form Name:	**RXSoil Field Test**
Submitter Name:	Jacob Mickle (jacob.mickle@rxsoil.solutions)
Submission Date:	Jul 19, 2018 8:44:11 PM MDT
Server Receive Date:	Jul 19, 2018 8:44:21 PM MDT
Reference Number:	20180720-1883354367
Location:	4620 N Lovington Hwy, Hobbs, NM 88240, USA Jul 19, 2018 8:21:54 PM MDT [View Map]

Project Overview

Client Name	Mewbourne
Project Name	Mewbourne 4 - Ghostrider
Date/Time	Jul 19, 2018 7:37:47 PM MDT
RXSoil Sampler	Jacob Mickle
Lab Name	N/a

Sample 1

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH6.1’
Depth (feet)	1
Chloride Strip Reading	5.4
Strip Type	High
Chloride Level (ppm)	5368
Comments	07/18 1330-1630

Picture of Result or Sample Taken

Add test	yes

Sample 2

Type of Field Test	Soil
Method of Testing	Chloride Strips

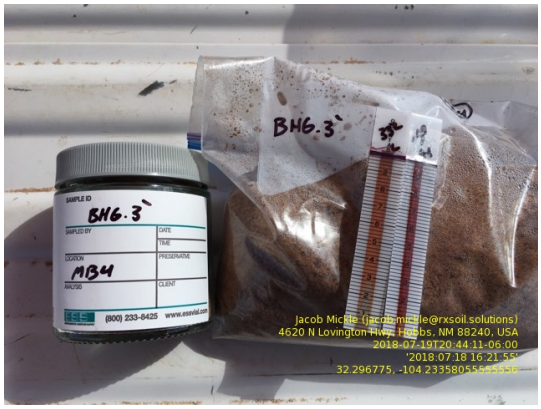
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH6.2’
Depth (feet)	2
Chloride Strip Reading	5.0
Strip Type	High
Chloride Level (ppm)	4540

Picture of Result or Sample Taken

Sample 3

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH6.3’
Depth (feet)	3
Chloride Strip Reading	0.0
Strip Type	Low
Chloride Level (ppm)	332

Picture of Result or Sample Taken



Add test	yes

Sample 4

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH6.4’

Depth (feet)	4
Chloride Strip Reading	4.2
Strip Type	High
Chloride Level (ppm)	3200

Picture of Result or Sample Taken

Add test	yes

Sample 5

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH6.6’
Depth (feet)	6
Chloride Strip Reading	3.2
Strip Type	Low
Chloride Level (ppm)	372

Picture of Result or Sample Taken

Add test	yes

Sample 6

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH6.9’
Depth (feet)	9

Chloride Strip Reading	3.2
Strip Type	Low
Chloride Level (ppm)	372

Picture of Result or Sample Taken

Add test	yes

Sample 7

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Hand Auger HA
Name of Sample Point	BH6.11’
Depth (feet)	11
Chloride Strip Reading	3.4
Strip Type	Low
Chloride Level (ppm)	412
Comments	REJECTION - COBBLE

Picture of Result or Sample Taken

Add test	no

RXSOIL

Form Information

Form Name:	**RXSoil Field Test**
Submitter Name:	Jacob Mickle (jacob.mickle@rxsoil.solutions)
Submission Date:	Jul 19, 2018 8:43:59 PM MDT
Server Receive Date:	Jul 19, 2018 8:44:10 PM MDT
Reference Number:	20180720-1883354364
Location:	4620 N Lovington Hwy, Hobbs, NM 88240, USA Jul 19, 2018 8:21:54 PM MDT [View Map]

Project Overview

Client Name	Mewbourne
Project Name	Mewbourne 4 - Ghostrider
Date/Time	Jul 19, 2018 6:38:21 PM MDT
RXSoil Sampler	Jacob Mickle
Lab Name	N/a

Sample 1

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH7.1’
Depth (feet)	1
Chloride Strip Reading	4.6
Strip Type	High
Chloride Level (ppm)	3824
Comments	07/18 1120-1300

Picture of Result or Sample Taken

Add test	yes

Sample 2

Type of Field Test	Soil
Method of Testing	Chloride Strips

Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH7.2’
Depth (feet)	2
Chloride Strip Reading	1.0
Strip Type	Low
Chloride Level (ppm)	0

Picture of Result or Sample Taken

Add test	yes

Sample 3

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH7.3’
Depth (feet)	3
Chloride Strip Reading	1.6
Strip Type	Low
Chloride Level (ppm)	144

Picture of Result or Sample Taken

Add test	yes

Sample 4

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH

Name of Sample Point	BH7.4’
Depth (feet)	4
Chloride Strip Reading	0.8
Strip Type	Low
Chloride Level (ppm)	0

Picture of Result or Sample Taken

Add test	yes

Sample 5

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH7.6’
Depth (feet)	6
Chloride Strip Reading	0.8
Strip Type	Low
Chloride Level (ppm)	0

Picture of Result or Sample Taken

Add test	yes

Sample 6

Type of Field Test	Soil
Method of Testing	Record
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH7.9-11’

Depth (feet)	9
Chloride Strip Reading	0.0
Strip Type	N/A
Chloride Level (ppm)	0
Comments	REJECTION - COBBLE BROKE 2ND SPOON CAP

Picture of Result or Sample Taken

Add test	yes

Sample 7

Type of Field Test	Soil
Method of Testing	RECORD
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH7.14
Depth (feet)	14
Chloride Strip Reading	0.0
Strip Type	N/A
Chloride Level (ppm)	0
Comments	REJECTION

Picture of Result or Sample Taken

Sample 8

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Hand Auger HA
Chloride Strip Reading	0.0

RXSOIL

Form Information

Form Name:	**RXSoil Field Test**
Submitter Name:	Jacob Mickle (jacob.mickle@rxsoil.solutions)
Submission Date:	Jul 19, 2018 8:43:48 PM MDT
Server Receive Date:	Jul 19, 2018 8:43:59 PM MDT
Reference Number:	20180720-1883354363
Location:	4620 N Lovington Hwy, Hobbs, NM 88240, USA Jul 19, 2018 8:21:54 PM MDT [View Map]

Project Overview

Client Name	Mewbourne
Project Name	Mewbourne 4 - Ghostrider
Date/Time	Jul 19, 2018 6:18:56 PM MDT
RXSoil Sampler	Jacob Mickle
Lab Name	Cardinal Labs

Sample 1

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH8.1’
Depth (feet)	1
Chloride Strip Reading	2.0
Strip Type	Low
Chloride Level (ppm)	168
Comments	07/18 0900-1100

Picture of Result or Sample Taken

Add test	yes

Sample 2

Type of Field Test	Soil
Method of Testing	Chloride Strips

Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH8.2’
Depth (feet)	2
Chloride Strip Reading	0.8
Strip Type	Low
Chloride Level (ppm)	0

Picture of Result or Sample Taken

Add test	yes

Sample 3

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH8.3’
Depth (feet)	3
Chloride Strip Reading	0.8
Strip Type	Low
Chloride Level (ppm)	0

Picture of Result or Sample Taken

Add test	yes

Sample 4

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH

Name of Sample Point	BH8.4’
Depth (feet)	4
Chloride Strip Reading	0.6
Strip Type	Low
Chloride Level (ppm)	0

Picture of Result or Sample Taken

Add test	yes

Sample 5

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH8.6’
Depth (feet)	6
Chloride Strip Reading	0.8
Strip Type	Low
Chloride Level (ppm)	0

Picture of Result or Sample Taken

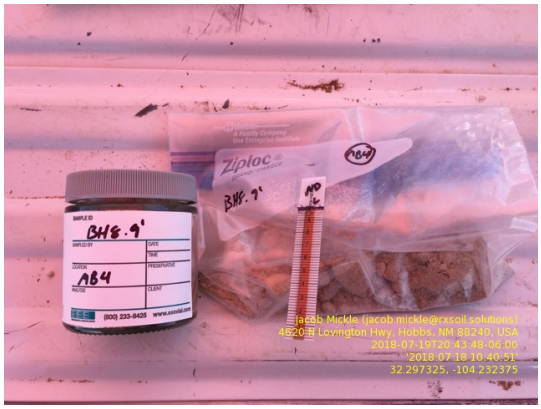
Add test	yes

Sample 6

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH8.9’

Depth (feet)	9
Chloride Strip Reading	0.8
Strip Type	Low
Chloride Level (ppm)	0

Picture of Result or Sample Taken



Add test	yes

Sample 7

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Bore Hole BH
Name of Sample Point	BH8.14’
Depth (feet)	14
Chloride Strip Reading	0.8
Strip Type	Low
Chloride Level (ppm)	0
Comments	REJECTION - Broke tooling at 14’. Stopped drilling.

Picture of Result or Sample Taken

Sample 8

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Hand Auger HA
Chloride Strip Reading	0.0

Sample 9

Type of Field Test	Soil
Method of Testing	Chloride Strips
Method of Sample Collecting	Hand Auger HA
Chloride Strip Reading	0.0