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Closure Report

Ore Ida 14 Federal #10 SWD

|30-015-29290|2RP-3222 & 2RP-4123|

Prepared For:

Devon Energy Production

6488 Seven Rivers Hwy

Artesia, New Mexico 88210

Prepared By:

TALON/LPE

408 W. Texas Avenue

Artesia, New Mexico 88210

July 11, 2017

Mr. Mike Shoemaker
Devon Energy Corporation
6488 Seven Rivers Hwy.
Artesia, New Mexico 88210

Subject: **Closure Report**
Ore Ida 14 Federal #10 SWD
|30-015-29290| 2RP-3222 & 2RP-4123|

Dear Mr. Shoemaker,

Devon Energy Corporation (Devon) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced location. The incident description, soil sampling results, remediation activities and closure request are submitted herein.

Site Information

The Ore Ida 14 Federal #10 is located approximately twenty-six (26) miles southeast of Carlsbad, New Mexico. The legal location for this release is Unit Letter I, Section 14, Township 24 South and Range 29 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.2152138 North and -103.9494476 West. A site plan is presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Kermit-Berino fine sands with 0 to 3 percent slopes. Drainage courses in this area are normally dry.

Ground Water and Site Ranking

The New Mexico Office of the State Engineer (NMOSE) Water Rights Reporting System indicates that groundwater in the project vicinity is 150-feet below ground surface (BGS). See [Appendix II](#) for the referenced groundwater data.

Therefore the ranking for this site is a **0** based on the following:

Depth to ground water	>100'
Wellhead Protection Area	>1000'
Distance to surface water body	>1000'

Based upon the site ranking of **0**, NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, 5,000 mg/kg for TPH and the recommended guideline for Total Chlorides is 1,000 mg/kg.

Incident Description

2RP-3222: A tank overflow resulted in the loss of approximately 85bbls of produced water into the lined tank battery. Approximately 60bbls of fluid were recovered. All fluid remained inside of the lined containment.

2RP-4123: A lightning strike resulted in the release of approximately 123bbls of produced water into the lined containment and onto the location. Approximately 120bbls of produced water were recovered. All of the fluid remained on the location.

Talon mobilized personnel to conduct a site assessment and perform soil sampling within the impacted area on the location utilizing a hand auger. Upon receipt of analytical results from this soil sampling event it was determined that further vertical delineation would be required. Subsequently Talon mobilized a backhoe and achieved vertical chloride delineation goals at sample location S-2. A geoprobe was mobilized to the site in order to vertically delineate sample locations S-1 and S-3.

Following completion of the vertical delineation at this site a remediation plan to address the impacts on the location was developed. In an effort to minimize down time, demolition (in preparation for reconstruction) of the tank battery took place in conjunction with the remediation of the impacted area on the location.

After the battery infrastructure was removed (tanks, liner, etc) the soil and berms directly beneath the battery area were excavated. Bottom and sidewall confirmation soil samples were taken in order to ensure that the liner was not compromised.

The results of the soil sampling events are summarized in the tables below. See [Appendix V](#) for complete report of laboratory results.

Laboratory Results

March 23, 2014 Hand Auger Sampling

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	0	<0.300	1440*	<10.0	24.2
S-1	1	--	976*	--	--
S-1	2	--	1070*	--	--
S-1	3	--	656*	--	--
S-1	4	--	512*	--	--
S-1	5	--	368*	--	--
S-2	0	<0.300	14000*	<10.0	<10.0
S-2	1	--	2320*	--	--
S-2	2	--	992*	--	--
S-2	3	--	816*	--	--
S-2	4	--	1040*	--	--
S-2	5	--	864*	--	--
S-3	0	<0.300	16000*	<10.0	<10.0
S-3	1	--	2960*	--	--
S-3	2	--	5200*	--	--
S-3	3	--	4800*	--	--
S-3	4	--	4000*	--	--
S-3	5	--	2840*	--	--
S-4	0	--	160*	--	--
S-5	0	--	160*	--	--
S-6	0	--	32*	--	--

April 28, 2017 Backhoe Delineation

Sample ID	Depth (feet)	Chlorides (mg/kg)
S-1	6	1418
S-1	8	1418
S-1	10	850
S-1	12	496
S-1	14	709
S-2	6	1170*
S-2	8	864*
S-2	10	1120*
S-2	12	336*
S-2	14	160*
S-3	6	709
S-3	8	1205
S-3	10	1205
S-3	12	1063

May 16, 2017 Geoprobe Delineation

Sample ID	Depth (feet)	Chlorides (mg/kg)
S-1	15	1,134
S-1	20	2410
S-1	25	567
S-1	30	32*
S-3	15	463
S-3	20	709
S-3	25	425
S-3	30	283
S-3	38	32*

June 16, 2017 Confirmation Samples of Battery Area

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-7 Bottom	0.5	--	464*	--	--
S-7 Bottom	1	<0.300	336*	<10.0	<10.0
S-8 N. Sidewall	Sidewall	--	575*	--	--
S-9 E. Sidewall	Sidewall	--	336*	--	--
S-10 S. Sidewall	Sidewall	--	960*	--	--

(--) Analyte Not Tested

(*) Laboratory Chloride Confirmation

Based upon the site ranking of 0, NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, 5,000 mg/kg for TPH and the recommended guideline for Total Chlorides is 1,000 mg/kg

Remedial Actions Taken

- The area in the vicinity of sample location S-1 was excavated to a depth of 1-foot BGS.
- The area in the vicinity of sample location S-2 was excavated to a depth of 2-feet BGS.
- The impacted area in the vicinity of sample location S-3 was excavated to a depth of 4-feet BGS. A 20-mil reinforced liner padded with felt was installed at the bottom of the excavation in order to encapsulate the remaining chloride impacts.
- Following removal of the tank battery infrastructure the old tank battery berms were removed and the soil directly beneath the tank battery was scrapped to a depth of 0.5 to 1-foot BGS in order to remove any remaining gravel or debris from the demolition.
- Confirmation soil samples were taken from the bottom and sidewalls of the battery area to ensure that the liner had not been breached as a result of the lightning strike. Analytical results were below NMOCD RRAL's.
- All of the excavated material was hauled to an NMOCD approved solid waste disposal facility.
- Upon NMOCD & BLM review and approval of confirmation soil sampling results, the excavated areas were backfilled with caliche and contoured to match the surrounding location.

Closure


On behalf of Devon Energy Company we respectfully request that no further actions be required at this site and that closure of the two open RP's (2RP-3222 & 2RP-4123) be granted.

If we can provide additional information or be of further assistance, please contact our office at (575)-746-8768.

Respectfully submitted,

TALON/LPE


Sheldon Hitchcock
Project Manager


David J. Adkins
District Manager

Attachments

Appendix I	Site Plan
Appendix II	Groundwater Data
Appendix III	Initial C-141(s)
Appendix IV	Final C-141(s)
Appendix V	Laboratory Results

APPENDIX I

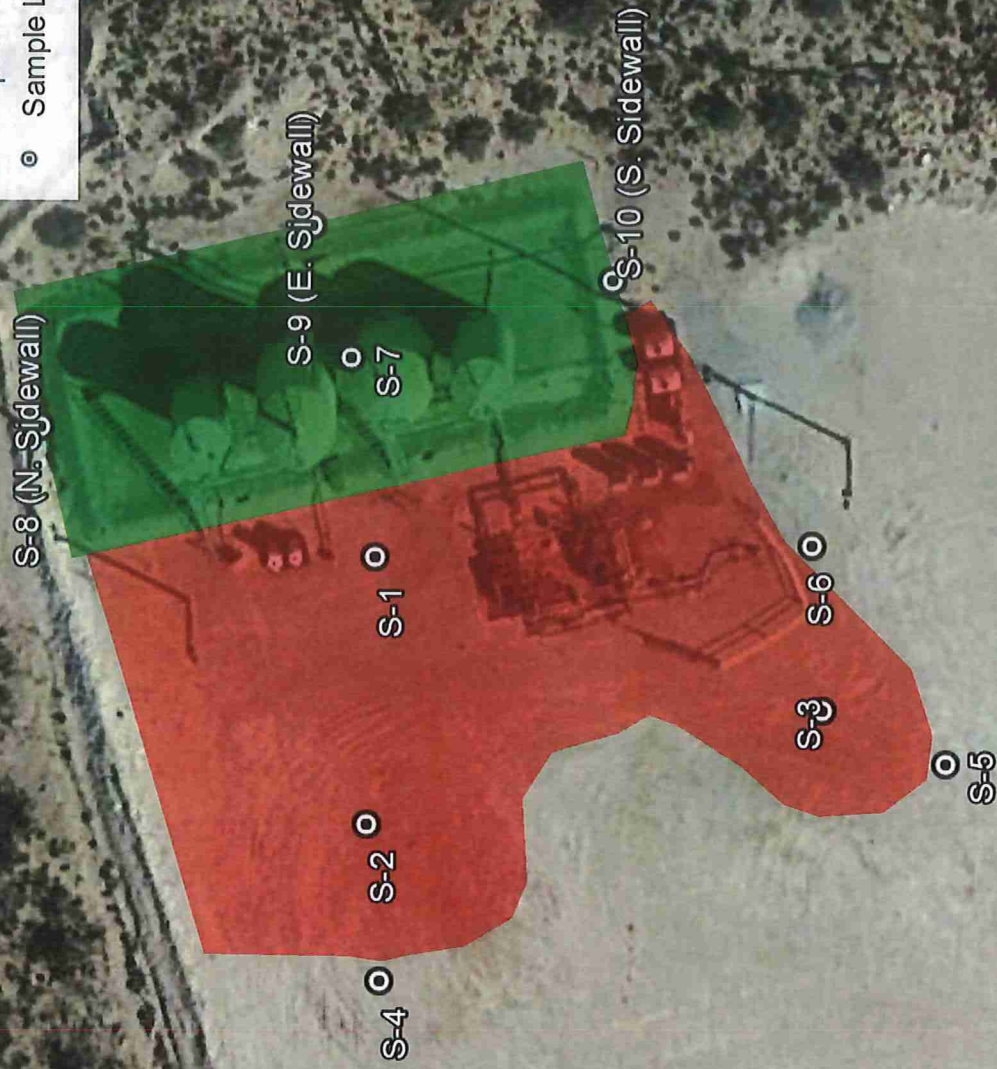
SITE PLAN

Ore Ida 14 Fed #10

Devon Energy Company

Legend

- Battery Area
- Impacted Location Area
- Sample Location



APPENDIX II

GROUNDWATER DATA



NEW MEXICO Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the
POD suffix indicates the
POD has been replaced
& no longer serves a
water right file.)

(R=POD has
been replaced,
O=orphaned,
C=the file is
closed)

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02109			ED	1	2	4	19	24S	30E	602130	3563412	3375	130	150	-20
C 02108			ED	1	3	08	24S	30E	602702	3566487*	3994	200	186	14	

Average Depth to Water: 168 feet

Minimum Depth: 150 feet

Maximum Depth: 186 feet

Record Count: 2

Basin/County Search:

County: Eddy

UTM NAD83 Radius Search (in meters):

Easting (X): 599067

Northing (Y): 3564830

Radius: 4000

*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.

APPENDIX III

INITIAL C-141(s)

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

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141
Revised August 8, 2011

AUG 25 2015

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

RECEIVED

Release Notification and Corrective Action

NAB1523931622		OPERATOR		<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> Final Report
Name of Company Devon Energy Production		Contact Daniel Suniga			
Address 6488 Seven Rivers Hwy Artesia, NM 88220		Telephone No. 575-390-5850			
Facility Name Ore Ida 14 Fed 10		Facility Type Oil			
Surface Owner Federal		Mineral Owner Federal		API No. 30-015-29290	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	14	24S	29E	1980	South	660	East	Eddy

Latitude: N 32°21'53.45"

Longitude: W 103°94'90.29"

NATURE OF RELEASE

Type of Release Spill Produced Water and Oil	Volume of Release 85 bbls	Volume Recovered 60 bbls
Source of Release Pump malfunction	Date and Hour of Occurrence 8/21/2015 @ 10:41 PM	Date and Hour of Discovery 8/21/2015 @ 10:41 PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? BLM OCD	
By Whom? David Simmons	Date and Hour August 21, 2015 @ 11:26 PM August 21, 2015 @ 11:31 PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Lease operator arrived at location and discovered that the water tank was over flowing causing an 85 bbl produced water and oil spill into lined containment. The pump was reset and within a minute the tank stopped from over flowing. Black River Trucking was called out and they were able to recover 60 bbls of produced water and oil.

Describe Area Affected and Cleanup Action Taken.*

Black River Trucking was called out and they were able to recover 60 bbls of produced water and oil. Environmental agency will be contacted for cleanup.

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: Corina Moya	OIL CONSERVATION DIVISION	
Printed Name: Corina Moya	Signed By: <i>[Signature]</i>	
Title: Field Admin Support	Approved by Environmental Specialist:	
E-mail Address: corina.moya@dmv.com	Approval Date: 8/27/15	Expiration Date: N/A
Date: 8/25/2015 Phone: 575.746.5559	Conditions of Approval:	
	mediation per O.C.D. Rules & Guidelines	
	EMIT REMEDIATION PROPOSAL NO	
	LATER THAN: 9/27/15	

* Attach Additional Sheets If Necessary

100.3222

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

NM OIL CONSERVATION

ARTESTA DISTRICT

FEB 22 2017

Form C-141
Revised August 8, 2011

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

RECEIVED

Release Notification and Corrective Action

NA 1705246718

OPERATOR <input checked="" type="checkbox"/> Initial Report <input type="checkbox"/> Final Report	
Name of Company Devon Energy Production <i>10137</i>	Contact Wesley Ryan, Production Foreman
Address 6488 Seven Rivers Hwy Artesia, NM 88220	Telephone No. 575-390-5436
Facility Name Ore Ida 14 Federal 10	Facility Type SWD
Surface Owner Federal	Mineral Owner Federal
API No. 30-015-29290	

LOCATION OF RELEASE

Unit Letter I	Section 14	Township 24S	Range 29E	Feet from the 1780	North/South Line FSL	Feet from the 860	East/West Line FEL	County: Eddy
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Latitude: 32.2152138 Longitude: -103.9494476

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 123 BBLS	Volume Recovered 120 BBLS
Source of Release Gun Barrel	Date and Hour of Occurrence 2-13-2017 @ 2:30 pm	Date and Hour of Discovery 2-13-2017 @ 2:30 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? BLM- Shelly Tucker OCD-Mike Bratcher	
By Whom? Wesley Ryan, Production Foreman	Date and Hour BLM- Shelly Tucker-2-14-2017 @6:30AM OCD-Mike Bratcher-2-14-2017 @8:04AM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse N/A	

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

Describe Cause of Problem and Remedial Action Taken.*

The SWD was struck by lightning resulting in a fire and a release of 123 BBLS of produced water. The valves were shut and power lines to the facility were immediately turned off to prevent further release. The local fire depart was called to ensure the fire was extinguished. The facility did have lightning protection installed on it.

Describe Area Affected and Cleanup Action Taken.*

123 BBLS of produced water were released when lighting struck the SWD, causing the water tanks to release fluid. Vacuum trucks were dispatched and recovered 120 BBLS of produced water. A remediation contractor will be contacted to complete remediation activities.

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: Dana DeLaRosa		OIL CONSERVATION DIVISION	
Printed Name: Dana DeLaRosa		Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Field Admin Support		Approval Date: 2/21/17	Expiration Date: N/A
E-mail Address: Dana.Delarosa@dvn.com		Conditions of Approval:	
Date: Phone: 575.746.5594		<i>See attached</i> Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

2RP-4123

APPENDIX IV
FINAL C-141(s)

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 April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Devon Energy Company	Contact Mike Shoemaker
Address 6488 Seven Rivers Hwy. Artesia, NM 88210	Telephone No. 575-746-5566
Facility Name Ore Ida 14 Federal #10	Facility Type SWD

Surface Owner BLM	Mineral Owner Federal	API No. 30-015-29290
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LOCATION OF RELEASE

Unit Letter I	Section 14	Township 24S	Range 29E	Feet from the 1780	North/South Line South	Feet from the 860	East/West Line East	County Eddy
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Latitude 32.2152138 Longitude -103.9494476 NAD83

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 85bbbs	Volume Recovered 60bbbs
Source of Release Transfer Pump	Date and Hour of Occurrence 8/21/2015 @ 10:41 pm	Date and Hour of Discovery 8/21/2015 @ 10:41 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? BLM, OCD	
By Whom? David Simmons	Date and Hour August 21, 2015 @ 11:26 PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A lease operator arrived at location and discovered that the water tank was over flowing causing an 85 bbl spill into the lined containment. The pump was reset and the tanks stopped over flowing. Vacuum trucks were utilized to recover the standing fluid within the battery.

Describe Area Affected and Cleanup Action Taken.*

The release was contained to the well pad. The facility infrastructure was removed. Remediation activities were carried out in accordance with NMOCD guidelines. Upon NMOCD approval of confirmation sample results, the excavation was backfilled and contoured to match the surrounding location. A closure report detailing remediation activities is provided.

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.

		<u>OIL CONSERVATION DIVISION</u>	
Signature:		Approved by Environmental Specialist:	
Printed Name: Mike Shoemaker			
Title: EHS Representative		Approval Date:	Expiration Date:
E-mail Address: Mike.Shoemaker@dvn.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: 7/11/2017 Phone: 575-746-5566			

* Attach Additional Sheets If Necessary

2RP-3222

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 April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Devon Energy Company	Contact Mike Shoemaker
Address 6488 Seven Rivers Hwy. Artesia, NM 88210	Telephone No. 575-746-5566
Facility Name Ore Ida 14 Federal #10	Facility Type SWD

Surface Owner BLM	Mineral Owner Federal	API No. 30-015-29290
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LOCATION OF RELEASE

Unit Letter I	Section 14	Township 24S	Range 29E	Feet from the 1780	North/South Line South	Feet from the 860	East/West Line East	County Eddy
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Latitude 32.2152138 Longitude -103.9494476 NAD83

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 123bbls	Volume Recovered 120bbls
Source of Release Lightning strike	Date and Hour of Occurrence 2/13/2017 @ 2:30 pm	Date and Hour of Discovery 2/13/17 @ 2:30 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? BLM-Shelly Tucker OCD-Mike Bratcher	
By Whom? Wesley Ryan, Production Foreman	Date and Hour BLM-Shelly Tucker 2/14/17 @ 6:30 am OCD-Mike Bratcher 2/14/17 @ 8:04 am	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The SWD was struck by lightning resulting in a fire and a release of 123 bbls of produced water. The valves and power were immediately shut off to prevent the release of additional fluid. The local fire department responded and extinguished the fire. Vacuum trucks were dispatched to the site to recover standing fluid. They were able to recover approximately 120bbls of fluid.

Describe Area Affected and Cleanup Action Taken.*

The release was contained to the lined facility. The facility infrastructure was removed. Confirmation soil samples were taken underneath the liner and were below NMOCD RRAL's. The impacted area on the well pad was vertically/horizontally delineated and remediated per NMOCD guidelines.

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:	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: Mike Shoemaker	Approved by Environmental Specialist:		
Title: EHS Representative	Approval Date:	Expiration Date:	
E-mail Address: Mike.Shoemaker@dmv.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 7/11/2017	Phone: 575-746-5566		

* Attach Additional Sheets If Necessary

2RP-4123

APPENDIX V

LABORATORY RESULTS

April 07, 2017

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ORE IDA SWD

Enclosed are the results of analyses for samples received by the laboratory on 03/24/17 15:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

TALON LPE
DAVID ADKINS
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 03/24/2017
Reported: 04/07/2017
Project Name: ORE IDA SWD
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 03/23/2017
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S-1 0' (H700788-01)

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	03/28/2017	ND	1.88	93.8	2.00	0.209	
Toluene*	<0.050	0.050	03/28/2017	ND	1.82	90.8	2.00	0.238	
Ethylbenzene*	<0.050	0.050	03/28/2017	ND	1.83	91.6	2.00	0.142	
Total Xylenes*	<0.150	0.150	03/28/2017	ND	5.26	87.7	6.00	0.0853	
Total BTEX	<0.300	0.300	03/28/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 97.8 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1440	16.0	03/27/2017	ND	432	108	400	0.00	

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	03/28/2017	ND	184	92.0	200	2.70	
DRO >C10-C28	24.2	10.0	03/28/2017	ND	193	96.5	200	2.06	

Surrogate: 1-Chlorooctane 81.4 % 25.1-158

Surrogate: 1-Chlorooctadecane 87.9 % 26.8-170

Sample ID: S-1 1' (H700788-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	976	16.0	03/29/2017	ND	448	112	400	3.51	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TALON LPE
DAVID ADKINS
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 03/24/2017
Reported: 04/07/2017
Project Name: ORE IDA SWD
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 03/23/2017
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S-1 2' (H700788-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1070	16.0	03/30/2017	ND	416	104	400	0.00	

Sample ID: S-1 3' (H700788-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	04/03/2017	ND	432	108	400	3.64	

Sample ID: S-1 4' (H700788-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	04/05/2017	ND	448	112	400	3.51	

Sample ID: S-1 5' (H700788-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	04/07/2017	ND	432	108	400	3.64	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TALON LPE
DAVID ADKINS
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 03/24/2017
Reported: 04/07/2017
Project Name: ORE IDA SWD
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 03/23/2017
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S-2 0' (H700788-07)

BTX 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	03/28/2017	ND	1.88	93.8	2.00	0.209	
Toluene*	<0.050	0.050	03/28/2017	ND	1.82	90.8	2.00	0.238	
Ethylbenzene*	<0.050	0.050	03/28/2017	ND	1.83	91.6	2.00	0.142	
Total Xylenes*	<0.150	0.150	03/28/2017	ND	5.26	87.7	6.00	0.0853	
Total BTX	<0.300	0.300	03/28/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 98.5 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14000	16.0	03/27/2017	ND	432	108	400	0.00	

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	03/28/2017	ND	184	92.0	200	2.70	
DRO >C10-C28	<10.0	10.0	03/28/2017	ND	193	96.5	200	2.06	

Surrogate: 1-Chlorooctane 86.4 % 25.1-158

Surrogate: 1-Chlorooctadecane 86.8 % 26.8-170

Sample ID: S-2 1' (H700788-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2320	16.0	03/29/2017	ND	432	108	400	3.64	QM-07

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TALON LPE
DAVID ADKINS
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 03/24/2017
Reported: 04/07/2017
Project Name: ORE IDA SWD
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 03/23/2017
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S-2 2' (H700788-09)

Chloride, SM4500CI-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	992	16.0	03/30/2017	ND	416	104	400	0.00	

Sample ID: S-2 3' (H700788-10)

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	816	16.0	04/03/2017	ND	432	108	400	3.64	

Sample ID: S-2 4' (H700788-11)

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1040	16.0	04/05/2017	ND	448	112	400	3.51	

Sample ID: S-2 5' (H700788-12)

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	864	16.0	04/07/2017	ND	432	108	400	3.64	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TALON LPE
DAVID ADKINS
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 03/24/2017
Reported: 04/07/2017
Project Name: ORE IDA SWD
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 03/23/2017
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S-3 0' (H700788-13)

BTX 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	03/28/2017	ND	1.88	93.8	2.00	0.209	
Toluene*	<0.050	0.050	03/28/2017	ND	1.82	90.8	2.00	0.238	
Ethylbenzene*	<0.050	0.050	03/28/2017	ND	1.83	91.6	2.00	0.142	
Total Xylenes*	<0.150	0.150	03/28/2017	ND	5.26	87.7	6.00	0.0853	
Total BTX	<0.300	0.300	03/28/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 97.3 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16000	16.0	03/27/2017	ND	432	108	400	0.00	

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	03/28/2017	ND	184	92.0	200	2.70	
DRO >C10-C28	<10.0	10.0	03/28/2017	ND	193	96.5	200	2.06	

Surrogate: 1-Chlorooctane 83.9 % 25.1-158

Surrogate: 1-Chlorooctadecane 82.1 % 26.8-170


Sample ID: S-3 1' (H700788-14)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2960	16.0	03/29/2017	ND	432	108	400	3.64	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TALON LPE
DAVID ADKINS
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 03/24/2017
Reported: 04/07/2017
Project Name: ORE IDA SWD
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 03/23/2017
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S-3 2' (H700788-15)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5200	16.0	03/30/2017	ND	416	104	400	0.00	

Sample ID: S-3 3' (H700788-16)

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	04/03/2017	ND	432	108	400	3.64	

Sample ID: S-3 4' (H700788-17)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4000	16.0	04/05/2017	ND	448	112	400	3.51	

Sample ID: S-3 5' (H700788-18)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2840	16.0	04/07/2017	ND	432	108	400	3.64	

Sample ID: S-4 0' (H700788-19)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	04/07/2017	ND	432	108	400	3.64	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

 Received: 03/24/2017
 Reported: 04/07/2017
 Project Name: ORE IDA SWD
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 03/23/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S-5 0' (H700788-20)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	04/07/2017	ND	432	108	400	3.64	

Sample ID: S-6 0' (H700788-21)

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	04/07/2017	ND	432	108	400	3.64	

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Celey D. Keene, Lab Director/Quality Manager

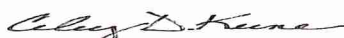
Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

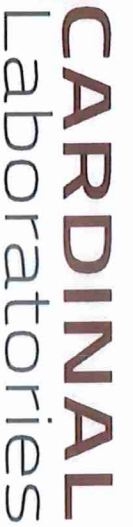


PG 101-3

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

stop if $\sum \leq 250 \text{ mg/kg}$

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

P/4-2063

Page 11 of 12

Company Name: Talon/LPE				P.O. #:				ANALYSIS REQUEST												
Project Manager: D. Atkins				Company: Talon/LPE																
Address: 408 W. Texas Ave.				Attn:																
City: Artesia				State: NM				Zip: 88210												
Phone #: 575-746-8768				Fax #: 575-746-8905				Address:												
Project #:				City:																
Project Name: Dr. Ida SVD				State:				Zip:												
Project Location:				Phone #:																
Sample Name: S. Hitchcock				Fax #:																
<small>FOR LAB USE ONLY</small>																				
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					PRESERV.	SAMPLING	DATE	TIME	TPH	BTEX	Chlorides					
H10788				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :								
11	S-2 4'	G-1	1	<input checked="" type="checkbox"/>									7/23/17	9:58						
12	S-2 5'	G-1	1	<input checked="" type="checkbox"/>										10:00						
13	S-3 0'	G-1	1	<input checked="" type="checkbox"/>										10:10						
14	S-3 1'	G-1	1	<input checked="" type="checkbox"/>										10:12						
15	S-3 2'	G-1	1	<input checked="" type="checkbox"/>										10:14						
16	S-3 3'	G-1	1	<input checked="" type="checkbox"/>										10:16						
17	S-3 4'	G-1	1	<input checked="" type="checkbox"/>										10:19						
18	S-3 5'	G-1	1	<input checked="" type="checkbox"/>										10:20						
19	S-4 0'	G-1	1	<input checked="" type="checkbox"/>										11:00						
20	S-5 0'	G-1	1	<input checked="" type="checkbox"/>										11:10						

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Relinquished By:	Date:	Received By:	Date:
Shelley Ann		Juanara	7/23/17
Delivered By: (Circle One)	Date:	Sample Condition	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other:	Time: 3:24	<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7/23/17
REMARKS:			
STOP CLIP ≤ 250 mg/kg			



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Talon/LPE Project Manager: Address: 408 W. Texas Ave. City: Artesia State: NM zip: 88210 Phone #: 575-746-8768 Fax #: 575-746-8905 Project #: Project Name: ore Ida sud Project Location: Sampler Name: S. Hitchcock										BILL TO P.O. #: Company: Talon/LPE Attn: Address: City: State: zip: Phone #: Fax #:										ANALYSIS REQUEST									
PLEASE NOTE: Liability and Damages, Cardinal's liability and clients' exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the services. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.																													
Relinquished By: Date: Time:										Received By: Date: Time:																			
Relinquished By: Date: 3-24-17 Time: 15:00										Received By: [Signature] Date: 3/23/17 Time: 11:20																			
Delivered By: (Circle One) Sampler - UPS Bus Other:										Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No										CHECKED BY: [Signature] (Initials)									
REMARKS: Stop CI if ≤ 250 ms/kg																													

May 05, 2017

SHELDON HITCHCOCK

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ORE IDA 14 FEDERAL NO. 10

Enclosed are the results of analyses for samples received by the laboratory on 04/28/17 14:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 SHELDON HITCHCOCK
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	04/28/2017	Sampling Date:	04/28/2017
Reported:	05/05/2017	Sampling Type:	Soil
Project Name:	ORE IDA 14 FEDERAL NO. 10	Sampling Condition:	** (See Notes)
Project Number:	700794.218.01	Sample Received By:	Tamara Oldaker
Project Location:	ULI-14-T24S-R29E		

Sample ID: S-2 6' (H701149-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1170	16.0	05/01/2017	ND	432	108	400	0.00	

Sample ID: S-2 8' (H701149-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	864	16.0	05/01/2017	ND	432	108	400	0.00	

Sample ID: S-2 10' (H701149-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1120	16.0	05/01/2017	ND	432	108	400	0.00	

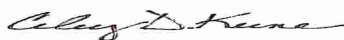
Sample ID: S-2 12' (H701149-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	05/01/2017	ND	432	108	400	0.00	

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TALON LPE
SHELDON HITCHCOCK
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 04/28/2017
Reported: 05/05/2017
Project Name: ORE IDA 14 FEDERAL NO. 10
Project Number: 700794.218.01
Project Location: ULI-14-T24S-R29E

Sampling Date: 04/28/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

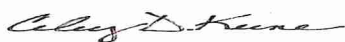
Sample ID: S-2 14' (H701149-05)**Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/01/2017	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

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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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Talon/LPE		P.O. #:	
Project Manager: S. Hitchcock		Company: Talon/LPE	
Address: 408 W. Texas Ave.			
City: Artesia	State: NM	Zip: 88210	Attn:
Phone #: 575-746-8768	Fax #: 575-746-8905	Address:	
Project #: 700744, 218, 01	Project Owner: Devon	City:	
Project Name: GVC IDa 14 ped #10		State:	Zip:
Project Location: I-14-245-29E		Phone #:	
Sampler Name: S. Hitchcock		Fax #:	
FOR LAB USE ONLY	MATRIX	PRESERV.	SAMPLING

[illegible]

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Relinquished By: _____ **Received By:** _____

Date:	
Time:	

Phone Result:	<input type="checkbox"/>
Fax Result:	<input type="checkbox"/>
REMARKS:	

<small>affiliates or successors arising out of or related to the performance of services hereunder by Cardinal. Regardless of whether such claim is based upon any of the above stated reasons or otherwise.</small>			
Relinquished By: <i>Shadla Price</i>		Date: _____	
Relinquished By: _____		Time: _____	
Date: <i>4-28-17</i>		Received By: <i>Shadla Price</i>	
Time: <i>8:55</i>		Sample Condition	
Delivered By: (Circle One)		Checked By: (Initials)	
Sampler - UPS - Bus - Other:		Cool Intact	
29.16		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
70. #75		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: _____	
REMARKS:		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #: _____	



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

May 23, 2017

SHELDON HITCHCOCK

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ORE IDA 14 FEDERAL NO. 10

Enclosed are the results of analyses for samples received by the laboratory on 05/22/17 14:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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,

Caley D. Keene

Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 SHELDON HITCHCOCK
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	05/22/2017	Sampling Date:	05/16/2017
Reported:	05/23/2017	Sampling Type:	Soil
Project Name:	ORE IDA 14 FEDERAL NO. 10	Sampling Condition:	** (See Notes)
Project Number:	700794.218.01	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: S-1 30' (H701360-01)

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	05/22/2017	ND	416	104	400	0.00	

Sample ID: S-3 38' (H701360-02)

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	05/22/2017	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Talon/LPE

Project Manager: S. Hitchcock

Address: 408 W. Texas Ave.

City: Artesia State: NM Zip: 88210

Phone #: 575-746-8768 Fax #: 575-746-8905

Project #: 700794.218.01 Project Owner: Devon

Project Name: Ore Ida 14 Fed #10

Project Location:

Sampler Name: K. Wilson

FOR LAB USE ONLY

Lab I.D. Sample I.D.

H7D1360

1 S-1 30'
2 S-3 38'

(G)RAB OR (C)OMP.
CONTAINERS

GROUNDWATER
WASTEWATER
SOIL
OIL
SLUDGE
OTHER :
ACID/BASE:
ICE / COOL
OTHER :

DATE
TIME

5/16/17 2:00
5/16/17 6:20

CHLORIDES

BILL TO

ANALYSIS REQUEST

P.O. #:

Company: Talon/LPE

Attn:

Address:

City:

State:

Phone #:

Fax #:

Zip:

PRESERV. SAMPLING

Relinquished By:

Sheldon M

Date: 5/21/17
Time: 2:00

Date: Received By: Heidi Henderson

Time: Received By:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other: #75 23.1°

Sample Condition
Cool ☐ Intact ☒
Yes ☒ No ☐

CHECKED BY: (initials)

RUSH

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

Fax Result: ☐ Yes ☐ No Add'l Fax #:

REMARKS:

June 19, 2017

SHELDON HITCHCOCK

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ORE IDA 14 FEDERAL NO. 10

Enclosed are the results of analyses for samples received by the laboratory on 06/16/17 12:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

TALON LPE
SHELDON HITCHCOCK
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	06/16/2017	Sampling Date:	06/15/2017
Reported:	06/19/2017	Sampling Type:	Soil
Project Name:	ORE IDA 14 FEDERAL NO. 10	Sampling Condition:	Cool & Intact
Project Number:	700794.218.01	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: S-7 0.5 CONFIRM (H701569-01)

Chloride, SM4500CI-B			mg/kg Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	06/16/2017	ND	400	100	400	3.92	

Sample ID: S-7 1' (H701569-02)

BTX 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	06/16/2017	ND	2.03	102	2.00	1.49	
Toluene*	<0.050	0.050	06/16/2017	ND	1.95	97.5	2.00	0.585	
Ethylbenzene*	<0.050	0.050	06/16/2017	ND	2.00	100	2.00	1.60	
Total Xylenes*	<0.150	0.150	06/16/2017	ND	5.41	90.2	6.00	1.67	
Total BTX	<0.300	0.300	06/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 104 % 72-148

Chloride, SM4500CI-B			mg/kg Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	06/16/2017	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	06/16/2017	ND	184	91.8	200	2.50	
DRO >C10-C28	<10.0	10.0	06/16/2017	ND	180	90.2	200	2.35	

Surrogate: 1-Chlorooctane 108 % 28.3-164

Surrogate: 1-Chlorooctadecane 96.7 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TALON LPE
SHELDON HITCHCOCK
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	06/16/2017	Sampling Date:	06/15/2017
Reported:	06/19/2017	Sampling Type:	Soil
Project Name:	ORE IDA 14 FEDERAL NO. 10	Sampling Condition:	Cool & Intact
Project Number:	700794.218.01	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: S-8 (H701569-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	06/16/2017	ND	400	100	400	3.92	

Sample ID: S-9 (H701569-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	06/16/2017	ND	400	100	400	3.92	

Sample ID: S-10 (H701569-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	960	16.0	06/16/2017	ND	400	100	400	3.92	

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Celey D. Keene, Lab Director/Quality Manager

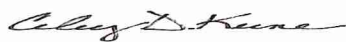
Notes and Definitions

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

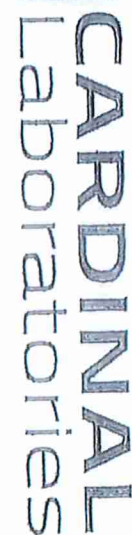
Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



Page 1 of 1

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

Page 5 of 5