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Remediation and Closure Report:

Algerita 32 State Com #1 API # 30-015-35339 - 2RP-3345 Talon Project No. 700794.227.01

Prepared For:

Devon Energy Corporation 6488 Seven Rivers Hwy Artesia, New Mexico 88210

Prepared By:

Kimberly M. Wilson TALON/LPE 408 W. Texas Avenue Artesia, New Mexico 88210

September 18, 2017

Mr. Mike Bratcher **NMOCD District 2** 811 S. 1st Street Artesia, NM 88210

Subject:

Remediation and Closure Report

Algerita 32 State Com #1

API # 30-015-35339 - 2RP-3345

Dear Mr. Bratcher,

Devon Energy Corporation 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 Algerita 32 State Com #1 is located approximately forty-two (42) miles southwest of Artesia, New Mexico. The legal location for this release is Unit Letter M, Section 32, Township 22 South and Range 26 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.34283 North and -104.32000 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 Reagan loam with 0 to 3 percent slopes. The local surface and shallow geology, Quaternary Age sedimentary deposits, is comprised of alluvium and eolian sands which includes silty soils under lain by gypsum and hard. Drainage courses in this area are normally dry.

Ground Water and Site Ranking

The New Mexico State Engineer web site indicates the nearest ground water is 367' below ground surface (BGS). See Appendix II for the referenced groundwater data.

Therefore the ranking for this site is a $\mathbf{0}$ 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 600 mg/kg for total chlorides is the recommended guidelines.

Incident Description and Initial Remedial Actions

On October 15, 2015 the 3-phase separator malfunctioned causing 8 barrels of produced water and 2 barrels of oil to be released on location. The well was shut-in until repairs could be made. All fluids remained on location and 6 barrels of produced water and 1 barrel of oil were recovered. A site plan is presented in Appendix I which illustrates the impacted area.

Remedial Actions Taken

The remediation activities were completed pursuant to the work plan approved by the NMOCD. See attached NMOCD stipulations/conditions in Appendix II. The horizontal delineation for chlorides at sample S-1 and S-3 are under the recommended guidelines of 600 mg/kg and are presented below.

The impacted area in the vicinity of S-1 was excavated to a depth of 4.0-feet deep. A liner was installed in the bottom of the excavation and confirmation samples were obtained on the sidewalls. The impacted area along S-2 and S-3 were excavated to a depth of 4-feet deep and confirmation samples were collected from the bottom and sidewalls pursuant to the work plan. The results of our soil sampling activities are summarized in the table below. See Appendix III for complete report of laboratory results.

September 11, 2017

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1					
North sidewall			480		
South sidewall			160		
East sidewall			512		
West sidewall			224		

-- Analyte Not Tested

September 13, 2017

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-2 Bottom	4'		96		
N. sidewall			464		
S. sidewall			80		
S-3 Bottom	4'		48		
N. sidewall			320		
S. sidewall			32		
E. sidewall			32		

-- Analyte Not Tested

All contaminated soil was transported to Lea Land, LLC, a NMOCD approved disposal facility. The excavated areas were backfilled with new caliche and the work area was contoured to match the surrounding location.

Closure

On behalf of Devon Energy we respectfully request that no further actions be required and that closure with respect to this release be granted. A Final C-141 is also attached. See Appendix IV.

Should you have any questions or if further information is required, please do not hesitate to contact our office at (575)-746-8768

Respectfully submitted,

TALON/LPE

Kimberly M. Wilson

Project Manager

David J. Adkins

District Manager

Attachments:

Appendix I Site Map

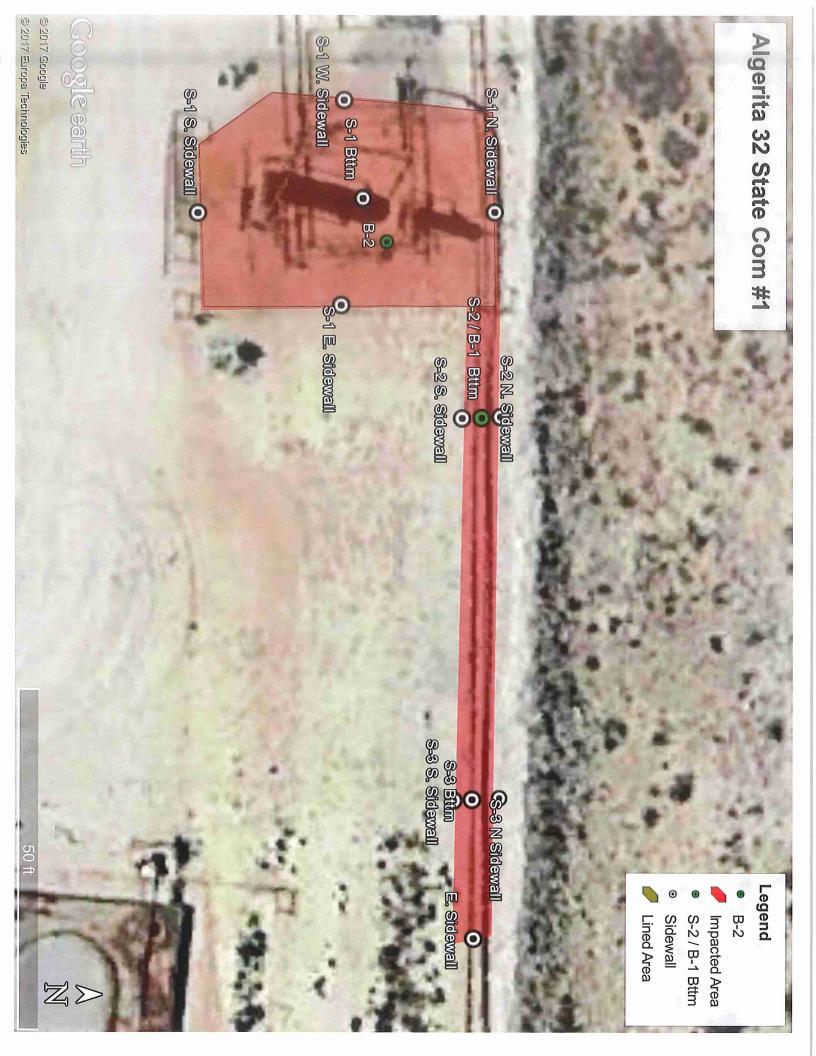
Appendix II Regulatory Stipulations and Groundwater Data

berly M. Wilson

Appendix III Laboratory Results

Appendix IV Final C-141

APPENDIX I SITE MAP



APPENDIX II REGULATOR'S STIPULATIONS GROUNDWATER DATA

Kimberly M. Wilson

From:

Bratcher, Mike, EMNRD [mike.bratcher@state.nm.us]

Sent:

Friday, September 01, 2017 4:55 PM

To: Cc: Kimberly M. Wilson Shoemaker, Mike; David Adkins; Weaver, Crystal, EMNRD

Subject:

RE: Algerita 32 State Com #1 - 30-015-35339 – 2RP-3345

RE: Devon Energy * Algerita 32 St. 1 * 2RP-3345 * DOR: 10/3/2015

Kimberly,

Your proposal for remediation of the above referenced release is approved with the following:

Target remediation goal for chloride levels in sidewalls is 600 mg/kg.

OCD believes groundwater could possibly be encountered at shallower depths than indicated in the proposal, however, based on the vertical delineation performed, and current OCD spill guidance, the proposal is approved.

Mike Bratcher NMOCD District 2 811 South First Street Artesia, NM 88210 575-748-1283 Ext 108

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Kimberly M. Wilson [mailto:kwilson@talonlpe.com]

Sent: Friday, September 1, 2017 11:42 AM

To: Bratcher, Mike, EMNRD < mike.bratcher@state.nm.us >

Cc: Shoemaker, Mike < Mike.Shoemaker@dvn.com >; David Adkins < dadkins@talonlpe.com >; Weaver, Crystal, EMNRD

<Crystal.Weaver@state.nm.us>

Subject: Algerita 32 State Com #1 - 30-015-35339 - 2RP-3345

Mike,

Please find attached the work plan for the above referenced location. We would like to move on this early next week.

Thank you.

Kimberly

Kimberly M. Wilson

Project Manager
Office: 575.746.8768
Direct: 575.616.4023
Cell: 575.602.3826
Fax: 575.746.8905
Emergency: 866.742.0742
Web: www.talonlpe.com



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

Sub-QQQ

γ

DistanceDepthWellDepthWater Column

1432

POD Number C 01445

Code basin County 6416 4 Sec Tws Rng 4 1 3 31 22S 26E C ED

562356 3578903*

389

367 22

Water

C 02855

CUB ED 1 1 2 32 22S 26E

564529 3579996*

Χ

1661

127

Average Depth to Water:

367 feet

Minimum Depth:

367 feet

Maximum Depth:

367 feet

Record Count:2

UTMNAD83 Radius Search (in meters):

Easting (X): 563740

Northing (Y): 3578534

Radius: 2000

*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.

9/19/17 6:42 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

APPENDIX III LABORATORY RESULTS



September 11, 2017

KIMBERLY WILSON

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ALGERITA 32 STATE COM #1

Enclosed are the results of analyses for samples received by the laboratory on 09/08/17 15:49.

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 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.

Celeg D. Keine

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 KIMBERLY WILSON 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

09/08/2017

09/11/2017

Sampling Date:

09/07/2017

Reported:

Sampling Type:

Soil

Project Name:

ALGERITA 32 STATE COM #1

Sampling Condition:

** (See Notes)

Project Number:

7000794,227,01

Sample Received By:

Jodi Henson

Project Location:

EDDY COUNTY, NM

Sample ID: NORTH SIDEWALL (H702394-01)

Chloride, SM4500CI-B

Analyzed By: AC

Analyte

Reporting Limit Result

Analyzed Method Blank BS

True Value QC % Recovery

RPD

0.00

Qualifier

Chloride

480

09/11/2017 16.0

ND

448

112

400

Sample ID: SOUTH SIDEWALL (H702394-02)

Chloride, SM4500CI-B

Analyte

mg/kg

Analyzed By: AC

Method Blank

BS % Recovery True Value QC

RPD

0.00

Chloride

Chloride

Chloride

Result 160

Reporting Limit 16.0

16.0

Reporting Limit

16.0

Analyzed 09/11/2017

ND

416 104 400

Qualifier

Sample ID: EAST SIDEWALL (H702394-03)

Chloride, SM4500CI-B

Analyzed By: AC

Result Analyte 512

Reporting Limit Analyzed 09/11/2017

Analyzed

09/11/2017

Method Blank ND

BS 416

416

% Recovery 104

104

True Value QC

400

400

RPD Qualifier

0.00

Sample ID: WEST SIDEWALL (H702394-04)

Chloride, SM4500CI-B

Analyte

Result

224

Analyzed By: AC

Method Blank

ND

BS

% Recovery True Value QC

RPD 0.00

Qualifier

Cardinal Laboratories

*=Accredited Analyte

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Celeg & Keens

Celey D. Keene, Lab Director/Quality Manager

Page 2 of 4



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

Cardinal Laboratories

*=Accredited Analyte

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Celeg & Keene



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

PLEASE NOTE: Linking and Datasges. Continues inhality and elentic ancholory returnity for any based by resident based in contract or tart, and be limited to the amount paid by the election to make an about the definition including those for management and he decemed valued unless much in willing and returned which of days after compelled on a review, in no event chall Continue be liable for included of consequented changes, including without limited, business, interriginate, these of prices incurred by dear it is published.

All these or concessor articles of or related to the undermance of each of the surface, including without limitation, business, interriginate, these of prices incurred by dear it is published.

Place in the contract of the above shall meaner or elevation.

Relinguished By:

Place in the contract of Relinquished By: Company Name: Talon/LPE Phones: 575-746-8768 Project Wanager: Lall Sampler - UPS - Bus - Other: Project Name: // city: Artesia TREASE THE PROPERTY Sampler Name: Project #: 700794. 227. roject Location: Delivered By: uddress; 408 W. FOR LAB USE ONLY Lab LD. 101 East Warland, Hobbs, NW 88240 (Circle One) (575) 393-2326 FAX (575) 393-2476 Texas Ave. Sample LD Kins W Project Owner: Fax#: 575-746-8905 State: NM Zip: 88210 (G)RAB OR (C)OMP. Received By: #CONTAINERS 3 **GROUNDWATER** Cool Intact
Parkes IT Yes
Parkes IT Yes WASTEWATER # MATRIX SOIL OIL Myses SLUDGE P.O. #: State: City: OTHER; Faxe Attn: Company: Phone # Address: ACID/BASE CHECKED BY: ICE/COOL OTHER: Talon/LPE Zip: DATE SAMPLING Phone Result: Fax Result: REMARKS: 4:002 3:500 3:500 TIME □ Yes □ No ANALYSIS REQUEST



September 13, 2017

KIMBERLY WILSON

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ALGERITA 32 STATE COM #1

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Method EPA 524.2

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Regulated VOCs (V1, V2, V3)

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Celey D. Keene

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Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

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

Received:

09/12/2017

Reported:

09/13/2017

Project Name:

ALGERITA 32 STATE COM #1

Project Number:

700794.227.01

Project Location:

Analyte

Analyte

DEVON - EDDY COUNTY, NM

Sampling Date:

Sampling Type:

09/12/2017 Soil

ng Type:

3011

Sampling Condition:

** (See Notes)

Sample Received By:

Tamara Oldaker

Sample ID: S-2 N SIDEWALL (H702455-01)

Chloride,	SM4500Cl-B
-	

Chloride

Chloride

Chloride

Chloride

mg/kg

Analyzed By: AC

Result

Result

80.0

Reporting Limit 16.0

Reporting Limit

16.0

Reporting Limit

16.0

Analyzed 09/13/2017

Method Blank ND BS 416

BS

416

% Recovery

True Value QC 400 RPD

Qualifier

3.77

Sample ID: S -2. S SIDEWALL (H702455-02)

Chloride,	SM4500CI-B
-----------	------------

a/ka

Analyzed By: AC

Analyzed

09/13/2017

Method Blank

ND

% Recovery

104

104

True Value QC

400

Qualifier

3.77

RPD

Sample ID: S -2 4' (H702455-03)

mg/kg

Analyzed By: AC

Analyte

Analyte

Result

Reporting Limit

Analyzed 09/13/2017

Analyzed

09/13/2017

Method Blank ND BS % Recovery

416

416

True Value QC

400

RPD 3.77

Qualifier

Sample ID: S-3 N SIDEWALL (H702455-04)

Chloride.	SM4500Cl-B
Cilionac,	21,142,0001 P

mg/kg

Result

320

Analyzed By: AC

u by. Ac

ND

Method Blank BS

% Recovery

True Value QC 400 RPD 3,77

Qualifier

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keena

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

TALON LPE KIMBERLY WILSON 408 W. TEXAS AVE. ARTESIA NM, 88210 (575) 745-8905

Fax To:

Reported:

Received:

09/12/2017

09/13/2017 ALGERITA 32 STATE COM #1

Project Name: Project Number:

700794.227.01

Project Location:

Analyte

Analyte

DEVON - EDDY COUNTY, NM

Sampling Date:

Sampling Type:

Sampling Condition:

Sample Received By:

** (See Notes)

09/12/2017

Soil

Tamara Oldaker

Sample ID: S-3 SSIDEWALL (H702455-05)

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AC

Result

Reporting Limit 16.0

Reporting Limit

16.0

Analyzed

Analyzed

09/13/2017

Method Blank

BS 416 % Recovery 104

True Value QC

RPD

Qualifier

Chloride

32.0

Result

32.0

09/13/2017

ND

ND

400

3.77

RPD

0.00

Sample ID: S -3 E SIDEWALL (H702455-06)

Chloride, SM4500Cl-B

Analyzed By: AC

Method Blank

BS 432

% Recovery

108

True Value QC 400

Qualifier

Chloride

Chloride

Sample ID: S -3 4' (H702455-07)

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AC

Reporting Limit Analyzed Analyte Result 48.0 09/13/2017 16.0

Method Blank ND

BS 432 % Recovery 108

True Value QC 400

RPD 0.00 Qualifier

Cardinal Laboratories

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Celeg Ditiena



ND

Notes and Definitions

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

Analyte NOT DETECTED at or above the reporting limit

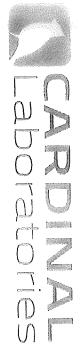
Chloride by SM4500Cl-B does not require samples be received at or below 6° C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

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Celeg & Keene



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

			ANALYSIS REQUEST
Company Name: Talon/LPE	Talon/LPE		
Project Manager:		P.O. #:	
Address: 408 W.	W. Texas Ave.	Company: Talon/LPE	
City: Artesia	state: NM zip: 88210	Àttn:	
Phone #: 575-746-8768	746-8768 Fax #: 575-746-8905	Address:	
Project#:	Project Owner:	City:	
Uroject Name:	The second secon	State: Zip:	
Project Location:	And the second s	Phone #:	
Sampler Name:		Fax#:	
FOR LAB USE ONLY	N.	MATRIX PRESERV SAMPLING	
25 E	(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER	SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: DATE TIME	
Ø			
دى			
Ţ.			
رک			
S			
3			
		cours occurred or tark shall be infired to the emount paid by the client for the	
TORINGE MOTE: Liability a	#1.51/35 NOTE: (Labilly and Damages, Cardinal's featily, and client's exclusive reneway for any delan antidig whether based in contract or set, attend to the term of the propriet of the prop	يون أم ومتابع من التجار المتعادلة الله المتعادلة المتعا	
Signer of successors and	Phone Rest	Phone Result: Yes	es 🗆 No Add'l Phone #:

Sample Condition |
Cool Intact
Cool Yes X Yes
X No No

CHECKED BY: (Initials)

Sampler - UPS - Bus - Other:

Selivered By: (Circle One)

Relinquished By:

Time:

Received By:

Received By:

Time: <

্টিল্ডিল of suppossors arising out of or related to the performance of sen Relinquished By:

APPENDIX IV FINAL C-141