

COTTON DRAW UNIT 114 BATTERY

11/2/2023

OCD INCIDENT # nAPP2330654822

Spills In Lined Containment	
Measurements Of Standing Fluid	
Length(Ft)	100
Width(Ft)	108
Depth(in.)	0.54
Total Capacity without tank displacements (bbls)	86.56
No. of 500 bbl Tanks In Standing Fluid	4
No. of Other Tanks In Standing Fluid	
OD Of Other Tanks In Standing Fluid(feet)	
Total Volume of standing fluid accounting for tank displacement.	80.51



December 5, 2023

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**Re: Closure Request
Cotton Draw Unit 114H Battery
Incident Number NAPP2330654822
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Devon Energy Production Company (Devon), has prepared this *Closure Request* to document assessment and soil sampling activities performed at the **Cotton Draw Unit 114H Battery** (Site) in Unit B, Section 34, Township 24 South, Range 31 East, in Eddy County, New Mexico (Figure 1). The purpose of the Site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil resulting from a release of produced water within a lined containment at the Site. Based on field observations, field screening activities, and laboratory analytical results, Devon is submitting this *Closure Request* and requesting closure for Incident Number NAPP2330654822.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Eddy County, New Mexico (32.18020287°, -103.7634653°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On November 2, 2023, Devon personnel discovered fluids inside containment, and it was determined the cone bottom tank was leaking and had released 80.5 barrels (bbls) of produced water inside the lined secondary containment. The tank was isolated to stop the release and a vacuum truck was immediately dispatched to the Site to recover free-standing fluids; 80 bbls of produced water were recovered from within the lined containment. The remaining 0.5 bbls evaporated and/or remained in low or unreachable areas in the lined containment. Devon reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on November 2, 2023. The release was assigned Incident Number NAPP2330654822. A 48-hour advance notice of liner inspection was provided via email to the NMOCD office on November 6, 2023. A liner integrity inspection was conducted by Ensolum personnel on November 17, 2023, and the liner was determined to be intact and had the ability to contain the release in question.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site

Assessment/Characterization for both releases, see Appendix A. Potential Site receptors are identified on Figure 1.

According to the New Mexico Office of the State Engineer (NMOSE), the closest permitted groundwater well with depth to groundwater data is C 04633 POD1, located approximately 0.5 miles east of the Site. The well had a reported depth to groundwater of greater than 55 feet below ground surface (bgs) and a total depth of 55 feet bgs. There are no regional or Site-specific hydrogeological conditions, such as shallow surface water, karst features, wetlands, or vegetation to suggest the Site is conducive to shallow groundwater. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well record is included in Appendix B.

The closest continuously flowing or significant watercourse to the Site is a freshwater pond, located approximately 1.41 miles southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- Total TPH: 2,500 mg/kg
- Chloride: 10,000 mg/kg

SITE ASSESSMENT ACTIVITIES

On November 14, 2023, Site assessment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. On November 17, 2023, Ensolum personnel completed a liner integrity inspection and it was determined the liner remained intact. Four lateral delineation samples (SS01 through SS04) were collected around the lined containment at ground surface to confirm the release remained inside the lined secondary containment. Soil from the lateral delineation samples was field screened for TPH utilizing a calibrated PetroFLAG[®] soil analyzer system and chloride using Hach[®] chloride QuanTab[®] test strips. The delineation soil sample locations are depicted on Figure 2. Photographs were taken during the liner integrity inspection and during soil sampling activities and a photographic log is included in Appendix C.

All soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Envirotech Analytical Laboratory (Envirotech) in Farmington, New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for soil samples SS01 through SS04, collected outside of the lined secondary containment, were compliant with the strictest Closure Criteria per NMOC Table I. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical report is included as Appendix D.

CLOSURE REQUEST

Following the liner integrity inspection and delineation sampling at the Site, it was determined the release was contained laterally and vertically by the lined secondary containment. The remaining 0.5 bbls evaporated and/or remained in low or unreachable areas in the lined containment. Based on initial response efforts, laboratory analytical results for lateral delineation soil samples (SS01 through SS04), and a lack of visual evidence indicating the release breached the containment liner, it has been determined COC impacts are not present at the Site as associated with this release. In addition, waste-containing soil was not documented and as such, reclamation is not required for this release. Actions completed to-date have been protective of human health, the environment, and groundwater. As such, Devon respectfully requests closure for Incident Number nAPP2330654822.

If you have any questions or comments, please contact Ms. Ashley Giovengo at (575) 988-0055 or agiovengo@ensolum.com.

Sincerely,
Ensolum, LLC



Ashley Giovengo
Senior Engineer



Daniel R. Moir, PG
Senior Managing Geologist

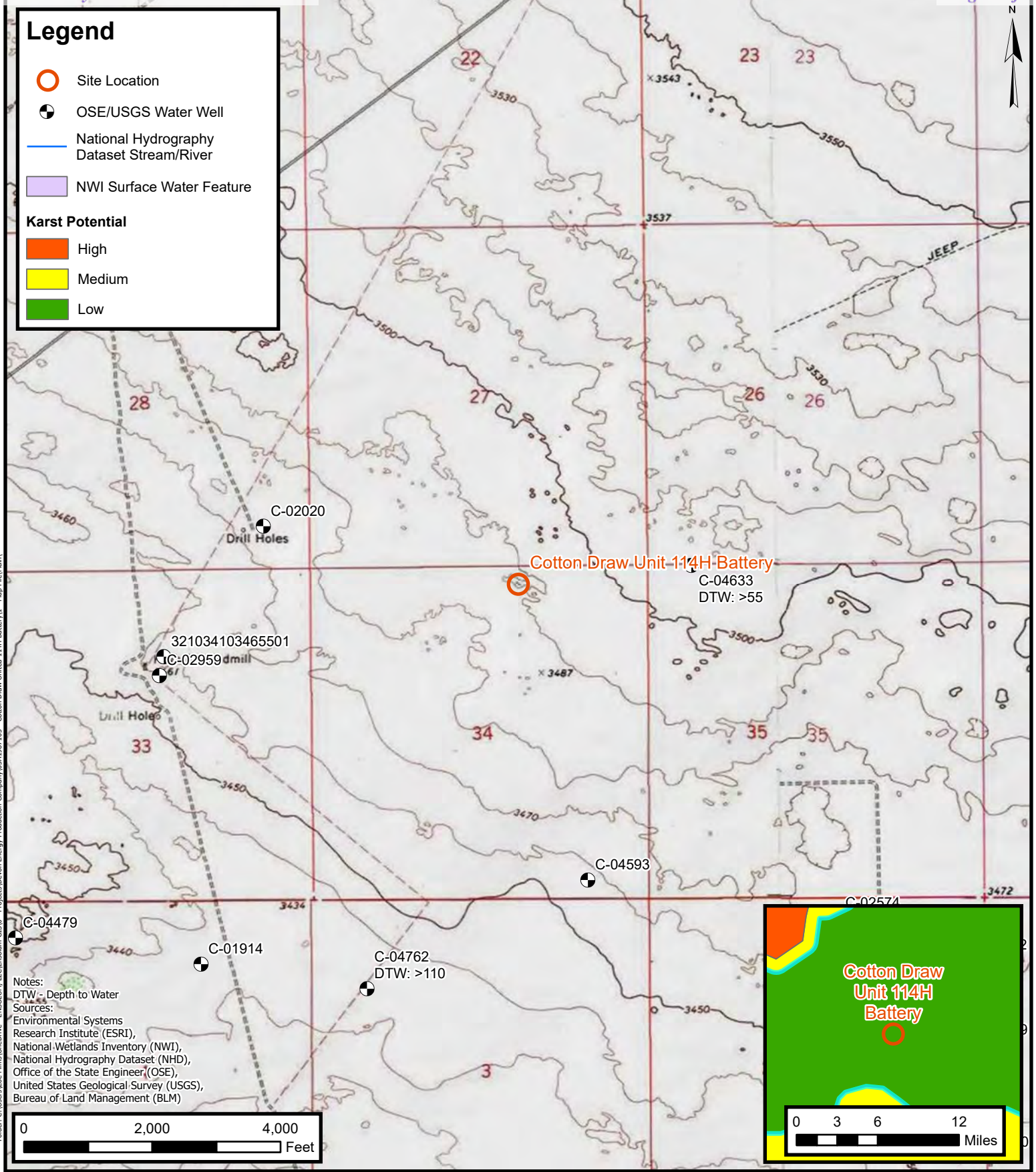
cc: Dale Woodall, Devon
Bureau of Land Management

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Form C-141
Appendix B	Well Record and Log
Appendix C	Photographic Log
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	NMOC Correspondence



FIGURES



Site Receptor Map

Devon Energy Production Company
Cotton Draw Unit 114H Battery
Incident Number: NAPP2330654822
Unit B, Section 34, Township 24S, Range 31E
Eddy County, New Mexico

FIGURE

1

Legend

- Delineation Soil Sample
in Compliance with
Closure Criteria
- Liner Containment Area



Sources: Environmental Systems Research Institute (ESRI)

**Delineation Soil Sample Locations**

Devon Energy Production Company
Cotton Draw Unit 114H Battery
Incident Number: nAPP2330654822
Unit B, Section 34, Township 24S, Range 31E
Eddy Co., New Mexico

**FIGURE
2**



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Cotton Draw Unit 114H Battery
 Devon Energy
 Eddy County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Delineation Soil Samples										
SS01	11/17/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<25.0	<50.0	312
SS02	11/17/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<25.0	<50.0	29.5
SS03	11/17/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SS04	11/17/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<25.0	<50.0	343

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

Grey text represents samples that have been excavated

<: Laboratory Analytical result is less than reporting limit

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation standard where applicable.

* Indicates sample was collected in area to be reclaimed after remediation is complete; reclamation for chloride in the top 4 feet is 600 mg/kg and total TPH is 100 mg/kg.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes



APPENDIX A

C-141 Forms

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: Dale Woodall	Title: Env. Professional
Signature: Dale Woodall	Date: _____
email: dale.woodall@dvn.com	Telephone: 575-748-1838
<u>OCD Only</u>	
Received by: Shelly Wells	Date: 11/3/2023

Incident ID	nAPP2330654822
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>55</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	nAPP2330654822
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Dale Woodall Title: Environmental Professional
Signature: Dale Woodall Date: 12/8/2023
email: dale.woodall@dn.com Telephone: 575-748-1838

OCD Only

Received by: _____ Date: _____

Incident ID	nAPP2330654822
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of 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 OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Dale Woodall Title: Environmental Professional

Signature: Dale Woodall Date: 12/8/2023

email: dale.woodall@dvn.com Telephone: 575-748-1838

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____



APPENDIX B

Well Log and Record



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD 1 (TW-1)		WELL TAG ID NO. N/A		OSE FILE NO(S). C-4633			
	WELL OWNER NAME(S) Devon Energy				PHONE (OPTIONAL) 575-748-1838			
	WELL OWNER MAILING ADDRESS 6488 7 Rivers Hwy				CITY Artesia	STATE NM	ZIP 88210	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 10	SECONDS 51.34 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NE NW NW Sec.35 T24S R31S NMPM								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 6/2/2022	DRILLING ENDED 6/2/2022	DEPTH OF COMPLETED WELL (FT) Temporary Well		BORE HOLE DEPTH (FT) ±55	DEPTH WATER FIRST ENCOUNTERED (FT) N/A		
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A	DATE STATIC MEASURED 6/6/2022		
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger					CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>		
	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	0 55		±6.5	Boring-HSA	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL		AMOUNT (cubic feet)	METHOD OF PLACEMENT	

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 01/28/2022)

FILE NO. C-4633-POD 1 (TW-1)	POD NO. 1	TRN NO. 726271
LOCATION Expt 24.31.35.211	WELL TAG ID NO. —	PAGE 1 OF 2

1. HYDROGEOLOGIC LOG OF WELL

5. TEST: RIG SUPERVISION

5. SIGNATURE

WR-20 WELL RECORD & LOG (Version 01/28/2022)

Mike A. Hamman, P.E.
State Engineer



Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

**STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 726271
File Nbr: C 04633
Well File Nbr: C 04633 POD1

Jun. 10, 2022

DALE WOODALL
DEVON ENERGY
6488 7 RIVERS HWY
ARTESIA, NM 88210

Greetings:

The above numbered permit was issued in your name on 05/24/2022.

The Well Record was received in this office on 06/10/2022, stating that it had been completed on 06/02/2022, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 05/24/2023.

If you have any questions, please feel free to contact us.

Sincerely,

A handwritten signature in blue ink, appearing to read "Maret Amaral".

Maret Amaral
(575) 622-6521

drywell



APPENDIX C

Photographic Log



Photographic Log

Devon Energy Production Company
Cotton Draw Unit 114H Battery
Incident Number nAPP2330654822



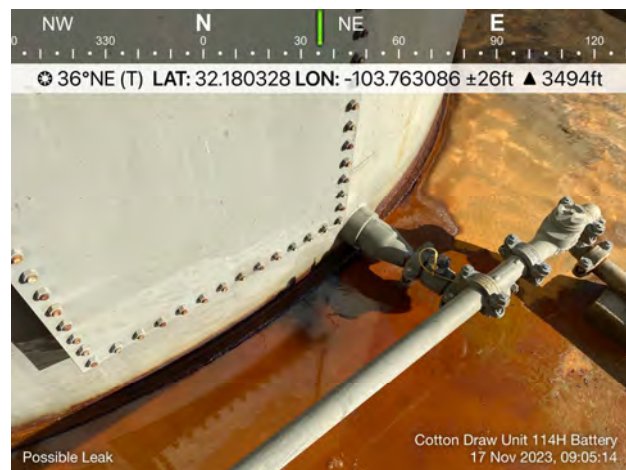
Photograph 1 Date: 11/17/2023
Description: Liner Integrity Inspection
View: East



Photograph 2 Date: 11/17/2023
Description: Liner Integrity Inspection
View: West



Photograph 3 Date: 11/17/2023
Description: Liner Integrity Inspection
View: South



Photograph 4 Date: 11/17/2023
Description: Liner Integrity Inspection
View: Northeast



Photographic Log

Devon Energy Production Company
Cotton Draw Unit 114H Battery
Incident Number nAPP2330654822



Photograph 5 Date: 11/17/2023
Description: Liner Integrity Inspection
View: Northeast



Photograph 6 Date: 11/17/2023
Description: Delineation Sampling
View: Northeast



Photograph 7 Date: 11/17/2023
Description: Delineation Sampling
View: Southeast



Photograph 8 Date: 11/17/2023
Description: Delineation Sampling
View: South



APPENDIX D

Laboratory Analytical Reports & Chain-of-Custody Documentation

Report to:

Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Devon Energy - Carlsbad

Project Name: Cotton Draw Unit 114H Battery

Work Order: E311177

Job Number: 01058-0007

Received: 11/21/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/30/23

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/30/23

Ashley Giovengo
6488 7 Rivers Hwy
Artesia, NM 88210



Project Name: Cotton Draw Unit 114H Battery
Workorder: E311177
Date Received: 11/21/2023 7:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/21/2023 7:30:00AM, under the Project Name: Cotton Draw Unit 114H Battery.

The analytical test results summarized in this report with the Project Name: Cotton Draw Unit 114H Battery apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzaes
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SS01-0'	5
SS02-0'	6
SS03-0'	7
SS04-0'	8
QC Summary Data	9
QC - Volatile Organic Compounds by EPA 8260B	9
QC - Nonhalogenated Organics by EPA 8015D - GRO	10
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	11
QC - Anions by EPA 300.0/9056A	12
Definitions and Notes	13
Chain of Custody etc.	14

Sample Summary

Devon Energy - Carlsbad	Project Name:	Cotton Draw Unit 114H Battery	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/30/23 15:47

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS01-0'	E311177-01A	Soil	11/17/23	11/21/23	Glass Jar, 2 oz.
SS02-0'	E311177-02A	Soil	11/17/23	11/21/23	Glass Jar, 2 oz.
SS03-0'	E311177-03A	Soil	11/17/23	11/21/23	Glass Jar, 2 oz.
SS04-0'	E311177-04A	Soil	11/17/23	11/21/23	Glass Jar, 2 oz.



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Cotton Draw Unit 114H Battery
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
11/30/2023 3:47:03PM

SS01-0'

E311177-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2347085
Benzene	ND	0.0250	1	11/22/23	11/28/23	
Ethylbenzene	ND	0.0250	1	11/22/23	11/28/23	
Toluene	ND	0.0250	1	11/22/23	11/28/23	
o-Xylene	ND	0.0250	1	11/22/23	11/28/23	
p,m-Xylene	ND	0.0500	1	11/22/23	11/28/23	
Total Xylenes	ND	0.0250	1	11/22/23	11/28/23	
Surrogate: Bromofluorobenzene	95.3 %	70-130		11/22/23	11/28/23	
Surrogate: 1,2-Dichloroethane-d4	97.7 %	70-130		11/22/23	11/28/23	
Surrogate: Toluene-d8	92.0 %	70-130		11/22/23	11/28/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2347085
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/22/23	11/28/23	
Surrogate: Bromofluorobenzene	95.3 %	70-130		11/22/23	11/28/23	
Surrogate: 1,2-Dichloroethane-d4	97.7 %	70-130		11/22/23	11/28/23	
Surrogate: Toluene-d8	92.0 %	70-130		11/22/23	11/28/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2348056
Diesel Range Organics (C10-C28)	ND	25.0	1	11/29/23	11/29/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/29/23	11/29/23	
Surrogate: n-Nonane	84.9 %	50-200		11/29/23	11/29/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2348060
Chloride	312	20.0	1	11/29/23	11/29/23	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Cotton Draw Unit 114H Battery
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
11/30/2023 3:47:03PM

SS02-0'

E311177-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2347085
Benzene	ND	0.0250	1	11/22/23	11/28/23	
Ethylbenzene	ND	0.0250	1	11/22/23	11/28/23	
Toluene	ND	0.0250	1	11/22/23	11/28/23	
o-Xylene	ND	0.0250	1	11/22/23	11/28/23	
p,m-Xylene	ND	0.0500	1	11/22/23	11/28/23	
Total Xylenes	ND	0.0250	1	11/22/23	11/28/23	
Surrogate: Bromofluorobenzene	95.6 %	70-130		11/22/23	11/28/23	
Surrogate: 1,2-Dichloroethane-d4	94.5 %	70-130		11/22/23	11/28/23	
Surrogate: Toluene-d8	92.2 %	70-130		11/22/23	11/28/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2347085
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/22/23	11/28/23	
Surrogate: Bromofluorobenzene	95.6 %	70-130		11/22/23	11/28/23	
Surrogate: 1,2-Dichloroethane-d4	94.5 %	70-130		11/22/23	11/28/23	
Surrogate: Toluene-d8	92.2 %	70-130		11/22/23	11/28/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2348056
Diesel Range Organics (C10-C28)	ND	25.0	1	11/29/23	11/29/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/29/23	11/29/23	
Surrogate: n-Nonane	86.6 %	50-200		11/29/23	11/29/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2348060
Chloride	29.5	20.0	1	11/29/23	11/29/23	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Cotton Draw Unit 114H Battery Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 11/30/2023 3:47:03PM
---	---	-----------------------------------

SS03-0'

E311177-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2347085
Benzene	ND	0.0250	1	11/22/23	11/28/23	
Ethylbenzene	ND	0.0250	1	11/22/23	11/28/23	
Toluene	ND	0.0250	1	11/22/23	11/28/23	
o-Xylene	ND	0.0250	1	11/22/23	11/28/23	
p,m-Xylene	ND	0.0500	1	11/22/23	11/28/23	
Total Xylenes	ND	0.0250	1	11/22/23	11/28/23	
Surrogate: Bromofluorobenzene	96.8 %	70-130		11/22/23	11/28/23	
Surrogate: 1,2-Dichloroethane-d4	95.6 %	70-130		11/22/23	11/28/23	
Surrogate: Toluene-d8	91.6 %	70-130		11/22/23	11/28/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2347085
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/22/23	11/28/23	
Surrogate: Bromofluorobenzene	96.8 %	70-130		11/22/23	11/28/23	
Surrogate: 1,2-Dichloroethane-d4	95.6 %	70-130		11/22/23	11/28/23	
Surrogate: Toluene-d8	91.6 %	70-130		11/22/23	11/28/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2348056
Diesel Range Organics (C10-C28)	ND	25.0	1	11/29/23	11/29/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/29/23	11/29/23	
Surrogate: n-Nonane	87.5 %	50-200		11/29/23	11/29/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2348060
Chloride	ND	20.0	1	11/29/23	11/29/23	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Cotton Draw Unit 114H Battery
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
11/30/2023 3:47:03PM

SS04-0'

E311177-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2347085
Benzene	ND	0.0250	1	11/22/23	11/29/23	
Ethylbenzene	ND	0.0250	1	11/22/23	11/29/23	
Toluene	ND	0.0250	1	11/22/23	11/29/23	
o-Xylene	ND	0.0250	1	11/22/23	11/29/23	
p,m-Xylene	ND	0.0500	1	11/22/23	11/29/23	
Total Xylenes	ND	0.0250	1	11/22/23	11/29/23	
Surrogate: Bromofluorobenzene	98.5 %	70-130		11/22/23	11/29/23	
Surrogate: 1,2-Dichloroethane-d4	95.1 %	70-130		11/22/23	11/29/23	
Surrogate: Toluene-d8	85.2 %	70-130		11/22/23	11/29/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2347085
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/22/23	11/29/23	
Surrogate: Bromofluorobenzene	98.5 %	70-130		11/22/23	11/29/23	
Surrogate: 1,2-Dichloroethane-d4	95.1 %	70-130		11/22/23	11/29/23	
Surrogate: Toluene-d8	85.2 %	70-130		11/22/23	11/29/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2348056
Diesel Range Organics (C10-C28)	ND	25.0	1	11/29/23	11/29/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/29/23	11/29/23	
Surrogate: n-Nonane	85.1 %	50-200		11/29/23	11/29/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2348060
Chloride	343	20.0	1	11/29/23	11/29/23	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Cotton Draw Unit 114H Battery	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/30/2023 3:47:03PM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2347085-BLK1)

Prepared: 11/22/23 Analyzed: 11/29/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.480		0.500		96.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.467		0.500		93.3	70-130			
Surrogate: Toluene-d8	0.508		0.500		102	70-130			

LCS (2347085-BS1)

Prepared: 11/22/23 Analyzed: 11/29/23

Benzene	2.83	0.0250	2.50		113	70-130			
Ethylbenzene	2.62	0.0250	2.50		105	70-130			
Toluene	2.30	0.0250	2.50		91.8	70-130			
o-Xylene	3.24	0.0250	2.50		129	70-130			
p,m-Xylene	5.13	0.0500	5.00		103	70-130			
Total Xylenes	8.36	0.0250	7.50		112	70-130			
Surrogate: Bromofluorobenzene	0.648		0.500		130	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.462		0.500		92.4	70-130			
Surrogate: Toluene-d8	0.454		0.500		90.7	70-130			

Matrix Spike (2347085-MS1)

Source: E311177-03

Prepared: 11/22/23 Analyzed: 11/30/23

Benzene	2.23	0.0250	2.50	ND	89.4	48-131			
Ethylbenzene	2.21	0.0250	2.50	ND	88.4	45-135			
Toluene	2.09	0.0250	2.50	ND	83.8	48-130			
o-Xylene	2.60	0.0250	2.50	ND	104	43-135			
p,m-Xylene	5.50	0.0500	5.00	ND	110	43-135			
Total Xylenes	8.10	0.0250	7.50	ND	108	43-135			
Surrogate: Bromofluorobenzene	0.489		0.500		97.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.439		0.500		87.8	70-130			
Surrogate: Toluene-d8	0.404		0.500		80.8	70-130			

Matrix Spike Dup (2347085-MSD1)

Source: E311177-03

Prepared: 11/22/23 Analyzed: 11/29/23

Benzene	2.80	0.0250	2.50	ND	112	48-131	22.5	23	
Ethylbenzene	2.51	0.0250	2.50	ND	100	45-135	12.7	27	
Toluene	2.42	0.0250	2.50	ND	96.7	48-130	14.3	24	
o-Xylene	2.39	0.0250	2.50	ND	95.4	43-135	8.62	27	
p,m-Xylene	4.70	0.0500	5.00	ND	94.0	43-135	15.6	27	
Total Xylenes	7.09	0.0250	7.50	ND	94.5	43-135	13.3	27	
Surrogate: Bromofluorobenzene	0.471		0.500		94.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.490		0.500		97.9	70-130			
Surrogate: Toluene-d8	0.459		0.500		91.7	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Cotton Draw Unit 114H Battery	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/30/2023 3:47:03PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2347085-BLK1) Prepared: 11/22/23 Analyzed: 11/29/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.480		0.500		96.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.467		0.500		93.3	70-130			
Surrogate: Toluene-d8	0.508		0.500		102	70-130			

LCS (2347085-BS2) Prepared: 11/22/23 Analyzed: 11/30/23

Gasoline Range Organics (C6-C10)	54.7	20.0	50.0		109	70-130			
Surrogate: Bromofluorobenzene	0.603		0.500		121	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.472		0.500		94.4	70-130			
Surrogate: Toluene-d8	0.464		0.500		92.8	70-130			

Matrix Spike (2347085-MS2) Source: E311177-03 Prepared: 11/22/23 Analyzed: 11/30/23

Gasoline Range Organics (C6-C10)	42.3	20.0	50.0	ND	84.6	70-130			
Surrogate: Bromofluorobenzene	0.509		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.413		0.500		82.5	70-130			
Surrogate: Toluene-d8	0.481		0.500		96.1	70-130			

Matrix Spike Dup (2347085-MSD2) Source: E311177-03 Prepared: 11/22/23 Analyzed: 11/29/23

Gasoline Range Organics (C6-C10)	45.4	20.0	50.0	ND	90.7	70-130	7.01	20	
Surrogate: Bromofluorobenzene	0.479		0.500		95.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.473		0.500		94.6	70-130			
Surrogate: Toluene-d8	0.461		0.500		92.1	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Cotton Draw Unit 114H Battery	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/30/2023 3:47:03PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2348056-BLK1)					Prepared: 11/29/23 Analyzed: 11/29/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.4		50.0		90.8	50-200			

LCS (2348056-BS1)					Prepared: 11/29/23 Analyzed: 11/29/23				
Diesel Range Organics (C10-C28)	230	25.0	250		92.1	38-132			
Surrogate: n-Nonane	45.5		50.0		91.1	50-200			

Matrix Spike (2348056-MS1)					Source: E311177-01		Prepared: 11/29/23 Analyzed: 11/29/23		
Diesel Range Organics (C10-C28)	236	25.0	250	ND	94.4	38-132			
Surrogate: n-Nonane	46.2		50.0		92.4	50-200			

Matrix Spike Dup (2348056-MSD1)					Source: E311177-01		Prepared: 11/29/23 Analyzed: 11/29/23		
Diesel Range Organics (C10-C28)	238	25.0	250	ND	95.1	38-132	0.694	20	
Surrogate: n-Nonane	45.7		50.0		91.4	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Cotton Draw Unit 114H Battery	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/30/2023 3:47:03PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2348060-BLK1)					Prepared: 11/29/23 Analyzed: 11/29/23				
Chloride	ND	20.0							
LCS (2348060-BS1)					Prepared: 11/29/23 Analyzed: 11/29/23				
Chloride	251	20.0	250		100	90-110			
Matrix Spike (2348060-MS1)					Source: E311159-23		Prepared: 11/29/23 Analyzed: 11/29/23		
Chloride	290	20.0	250	29.5	104	80-120			
Matrix Spike Dup (2348060-MSD1)					Source: E311159-23		Prepared: 11/29/23 Analyzed: 11/29/23		
Chloride	286	20.0	250	29.5	102	80-120	1.38	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Devon Energy - Carlsbad	Project Name:	Cotton Draw Unit 114H Battery	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/30/23 15:47







- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: Devon Energy	Bill To	Lab Use Only				TAT				EPA Program					
Project: Cotton Draw Unit 114H Battery	Attention: Dale Woodall	Lab WO#	Job Number			1D	2D	3D	Standard	CWA	SDWA				
Project Manager: Ashley Giovengo	Address: 5315 Buena Vista Dr	E.311177	01058-0007						X						
Address: 3122 National Parks Hwy	City, State, Zip: Carlsbad NM, 88220	Analysis and Method								RCRA					
City, State, Zip: Carlsbad NM, 88220	Phone: (575)689-7597	W/DRO/DRO by 8021 4260 010 300.0 NM TX								State					
Phone: 575-988-0055	Email: Dale.woodall@dvn.com									NM	CO	UT	AZ	TX	
Email: agiovengo@ensolum.com										X					
Report due by:															

[illegible]

Additional Instructions: Please CC: cburton@ensulum.com, agiovengo@ensulum.com, Dale.woodall@dyn.com, chamilton@ensulum.com, ehaft@ensulum.com - kept on ice

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.						Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.					
Sampled by: Ethan Haft											
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	<div>Lab Use Only</div> <div>Received on ice: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N</div> <div>T1 _____ T2 _____ T3 _____</div> <div>AVG Temp °C <u>4</u></div>			
		11/20/23	0700			11/20/23	1000				
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time				
		11/20/23	1730			11/20/23	2420				
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time				
		11/20/23	1840			11/21/23	7:30				
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other						Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA					

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Envirotech Analytical Laboratory

Printed: 11/21/2023 10:55:53AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Devon Energy - Carlsbad	Date Received:	11/21/23 07:30	Work Order ID:	E311177
Phone:	(505) 382-1211	Date Logged In:	11/20/23 15:13	Logged In By:	Alexa Michaels
Email:	ashley.giovengo@wescominc.com	Due Date:	11/30/23 17:00 (5 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.



APPENDIX E

Email Correspondence

From: [Wells, Shelly, EMNRD](#)
To: [Ashley Giovengo](#); [Morgan, Crisha A](#); [Woodall, Dale](#)
Cc: [Cole Burton](#); [Ethan Haft](#); [Chad Hamilton](#); [Hamlet, Robert, EMNRD](#); [Bratcher, Michael, EMNRD](#)
Subject: RE: [EXTERNAL] 48-hour Liner Inspection Notification - Devon Energy Production Company - Cotton Draw Unit 114H Battery - Incident Number nAPP2330654822
Date: Monday, November 13, 2023 9:22:18 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

[**EXTERNAL EMAIL**]

Hi Ashley,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

[Shelly Wells](#) * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive | Santa Fe, NM 87505
(505)469-7520 | Shelly.Wells@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>

From: Ashley Giovengo <agiovengo@ensolum.com>
Sent: Friday, November 10, 2023 8:55 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Morgan, Crisha A <camorgan@blm.gov>; Woodall, Dale <dale.woodall@dvn.com>
Cc: Cole Burton <cburton@ensolum.com>; Ethan Haft <ehaft@ensolum.com>; Chad Hamilton <chamilton@ensolum.com>
Subject: [EXTERNAL] 48-hour Liner Inspection Notification - Devon Energy Production Company - Cotton Draw Unit 114H Battery - Incident Number nAPP2330654822

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Hello,

We intend to perform a liner integrity inspection at Devon Energy Production Company's Cotton Draw Unit 114H Battery (nAPP2330654822) on Tuesday, November 14, 2023, at 09:00 am MST.

Please let us know if you plan to be onsite to oversee the inspection.

Thanks,



Ashley Giovengo

Senior Engineer

575-988-0055

Ensolum, LLC

in f 

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 299508

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:	6137
	Action Number:	299508
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2330654822
Incident Name	NAPP2330654822 COTTON DRAW UNIT 114H BATTERY @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Facility	[fAPP2130733894] COTTON DRAW UNIT 114H BATTERY

Location of Release Source	
Please answer all the questions in this group.	
Site Name	COTTON DRAW UNIT 114H BATTERY
Date Release Discovered	11/02/2023
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Production Tank Produced Water Released: 81 BBL Recovered: 80 BBL Lost: 1 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Lease Operator found water in the lined containment. The cone bottom tank was leaking due to a pinhole. Tank was isolated to stop leak. 80.5 bbls released. 80 bbls recovered.

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS, Page 2

Action 299508

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:	6137
	Action Number:	299508
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dmv.com Date: 01/03/2024
--	--

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS, Page 3

Action 299508

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:	6137
	Action Number:	299508
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS**Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	Yes
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	11/14/2023
On what date will (or did) the final sampling or liner inspection occur	11/14/2023
On what date will (or was) the remediation complete(d)	11/14/2023
What is the estimated surface area (in square feet) that will be remediated	0
What is the estimated volume (in cubic yards) that will be remediated	0
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS, Page 4

Action 299508

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 299508
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
Is (or was) there affected material present needing to be removed	No
Is (or was) there a power wash of the lined containment area (to be) performed	Yes
OTHER (Non-listed remedial process)	No
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dmn.com Date: 01/03/2024
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS, Page 6

Action 299508

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:	6137
	Action Number:	299508
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Liner Inspection Information	
Last liner inspection notification (C-141L) recorded	299530
Liner inspection date pursuant to Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC	11/17/2023
Was all the impacted materials removed from the liner	Yes
What was the liner inspection surface area in square feet	3637

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	Yes
What was the total surface area (in square feet) remediated	0
What was the total volume (cubic yards) remediated	0
Summarize any additional remediation activities not included by answers (above)	n/a

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dmn.com Date: 01/03/2024
--	--

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 299508

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 299508
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
crystal.walker	Liner Integrity Inspection and Closure Approved.	3/12/2024