State of New Mexico
Oil Conservation Division

Incident ID	NAB181435227
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: Env. Professional

Signature: Dale Woodall Date: 11/1/2022

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: _____

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NAB181435227
District RP	
Facility ID	
Application ID	

Closure

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Printed Name: Dale Woodall Title: Env. Professional

Signature: Dale Woodall Date: 11/1/2022

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

OCD Only

Received by: Robert Hamlet Date: 1/27/2023

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: Robert Hamlet Date: 1/27/2023

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

M & M EXCAVATING, INC.
PO Box 1120
Carlsbad, New Mexico 88221
Phone (575) 236-6600

January 27, 2020

NMOCD District 2
Mr. Robert Hamlet
811 S. First Street
Artesia, New Mexico 88210

Dear Mr. Hamlet:

M&M Excavating, Inc. (MMX) has prepared this Remediation Closure Report for Devon Energy Production Company that describes the remediation of a release of liquids at the Cotton Draw Unit #219H (2RP-4769 (NAB1814352277) & 2RP-5374 (NAB1911942690)). The site is in Unit Letter P, Section 02, Township 25S, Range 31E, Latitude 32.15250, Longitude -103.74424, Eddy County, New Mexico, on State Land. Figure 1 provides the vicinity and site location on an USGS 7.5-minute quadrangle map.

Site Information and Closure Criteria

The Cotton Draw Unit #219H is located approximately twenty-three (23) miles southeast of Loving, New Mexico on State land at an elevation of approximately 3,454 feet above mean sea level (amsl).

Based upon well water data. (Appendix B), depth to groundwater in the area is estimated to be 390 feet below grade surface (bgs). There are three known water wells within ½ mile of the location, according to the New Mexico Office of the State Engineer (NMOSE) and the United State Geological Survey (USGS). The nearest significant watercourse is a freshwater pond 1200 feet to the southeast.

The site has been restored to meet the standards of Table I of 19.15.29.12 NMAC for applicable NMOCD Closure Criteria of groundwater greater than 100 feet bgs.

Table 2 demonstrates the Closure Criteria applicable to this location. Pertinent well data is attached in Appendix B.

Release Information and Closure Criteria			
Name	Cotton Draw Unit #219		
API Number	30-015-41363		
Incident Number	2RP-4769 & 2RP-5374		
Source of Release	Discharge Line of Water Transfer Pump		
Released Material	Produced Water	Released Volume	2RP-4769: 13 BBLS 2RP-5374:10 BBLS
Recovered Volume	2RP-4769: 5 BBLS 2RP-5374: 3 BBLS	Net Release	2RP-4769: 8 BBLS 2RP-5374: 7 BBLS
NMOCD Closure Criteria	>100 feet to groundwater		

Release Information

2RP-4769

On May 8, 2018, a leak was identified on the clamp on the water line which resulted in the release of 13 bbls of produced water. Initial response activities were conducted by the operator and included source elimination and site containment, which recovered approximately 5 bbls of produced water via a vac truck.

2RP-5374

On November 26, 2018, another leak was identified on the check valve on the discharge line of the water transfer pump, which resulted in the release of approximately 10 bbls of produced water. Initial response activities were conducted by the operator and included source elimination and site containment, which recovered approximately 3 bbls of produced water via a vac truck.

Figures 1 and 2 illustrate the vicinity and site location. The C-141 forms are included in Appendix A.

Release Characterization and Remediation Activities

As little was known about the release area other than the points of release, an electromagnetic (EM) survey was conducted on October 8, 2019, by Vertex. The survey was conducted across the southwest corner of the Cotton Draw Unit #219H pad where the source of both releases as located. The full EM report is included in Appendix D.

Using the EM survey to determine areas of potential impact, MMX personnel mobilized to the location on October 31 to collect initial soil samples around the identified areas of potential impact, including the source of each release. Figure 3 shows the sample locations georeferenced over the EM survey.

A total of three (3) sample locations (L1-L3) were established and nine (9) samples at depths to four feet bgs were collected for laboratory analysis including total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Laboratories in Albuquerque, New Mexico (Appendix C).

As summarized in Table 3, sample location L3 exceeded Closure Criteria for chloride at the surface. On December 3, 2019, MMX personnel returned to the location to oversee and guide the excavation of the identified impacted area by hand. Confirmation samples were collected from the walls (SW1 and SW2) and base (BH) of the excavation.

Confirmation samples were comprised of five-point composites. The samples were analyzed using the methods listed above. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Laboratories in Albuquerque, New Mexico (Appendix C).

Final Laboratory results are summarized in Table 3. All Laboratory reports are included in Appendix C.

Contaminated soils were removed and replaced with clean backfill material to return the surface to previous contours. The contaminated soil was transported and disposed of at an NMOCD permitted disposal facility. Georeferenced photos are included in Appendix E.

On behalf of Devon Energy, MMX requests closure for the releases associated with 2RP-4769 & 2RP-5374.

Submitted by:
M&M Excavating, Inc.

Parker Kimbley

Parker Kimbley

ATTACHMENTS:

Figures:

Figure 1: Vicinity and Well Head Protection Map
Figure 2: Surface Water Radius Map
Figure 3: Site and Sample Location Map

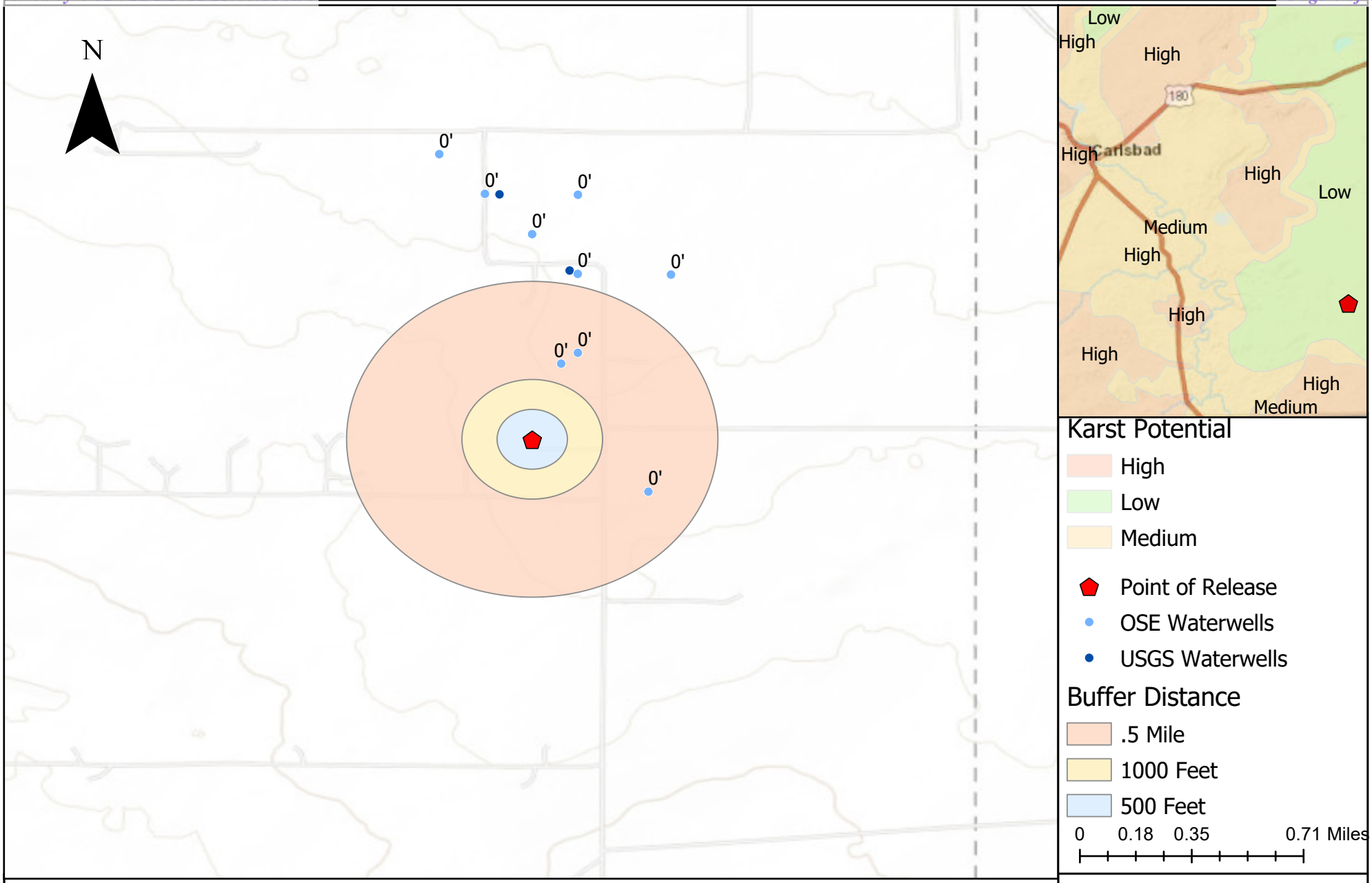
Tables:

Table 2: NMOCD Closure Criteria Justification
Table 3: Summary of Sample Results

Appendices:

Appendix A: C141 Forms
Appendix B: Water Well Data
Appendix C: Laboratory Analytical Reports
Appendix D: Vertex Electromagnetic Survey Results & Interpretation
Appendix E: Excavation Photo

Figures



Regional Vicinity & Wellhead Protection Map
Cotton Draw Unit 219H - Devon Energy
Sec 2 T25S R31E Eddy County, New Mexico

Figure 1

Revisions
By:_____ Date:_____ Descr:_____
By:_____ Date:_____ Descr:_____

Date Saved: 7/18/2019

Drawn LC
Date 7/18/2019
Checked
Approved

M&M EXCAVATING, INC.

78 Roberson Rd
Carlsbad, NM 88220
(575) 230-6600

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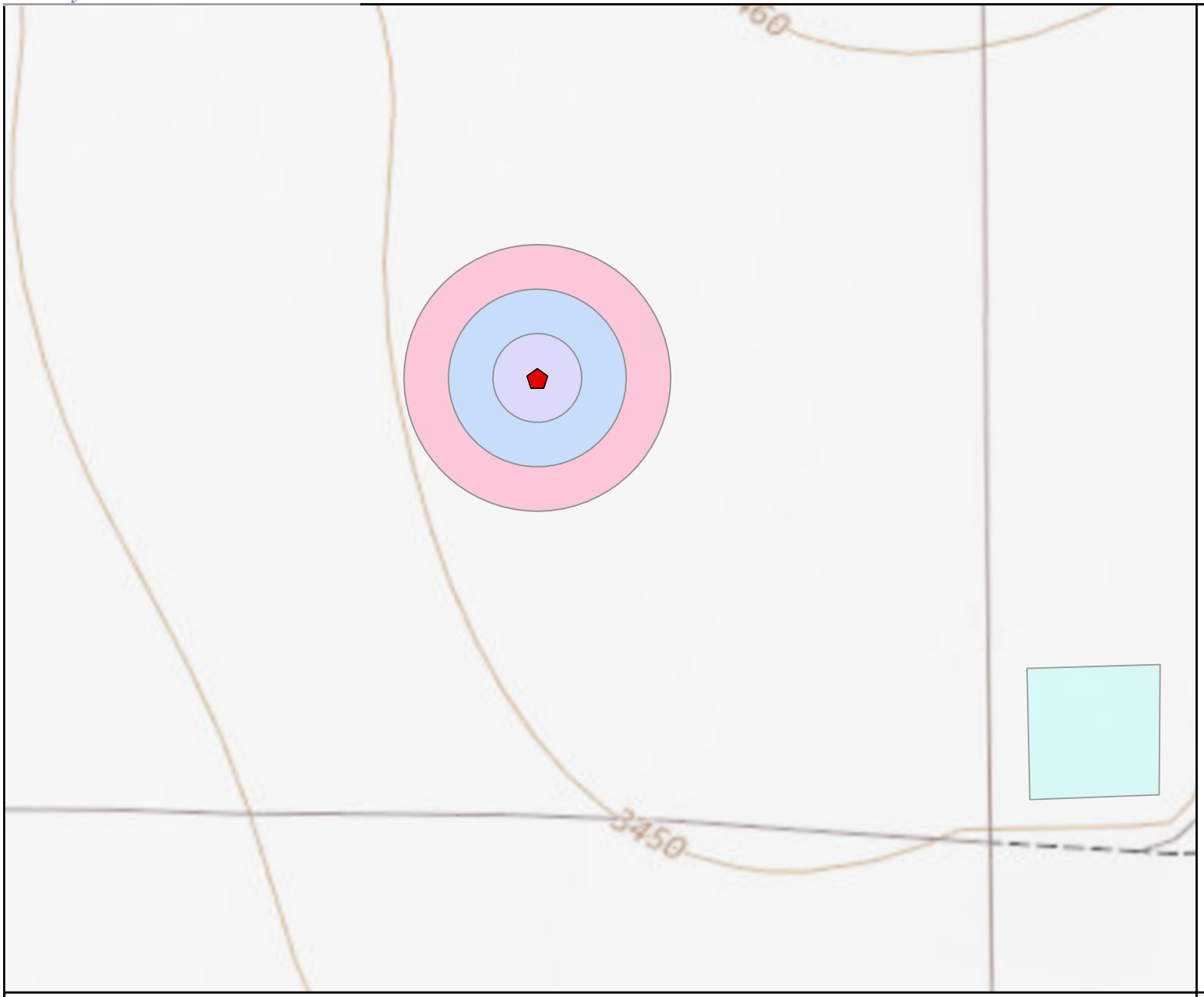

Point of Release
Springs Seeps
Streams Canals
Rivers
NM Wetlands
Lakes Playas
FEMA Flood Zones 2011

Buffer Distance
100 Feet
200 Feet
300 Feet
Release Area

N

0 425 850 1,700 Feet

Surface Water Protection Map
Cotton Draw Unit #219 - Devon Energy
Sec 2 T25S R31E Eddy County, New Mexico

Figure 2

Revisions
By: Date: Descr:
By: Date: Descr:

Date Saved: 7/18/2019

Drawn LC
Date 7/18/2019
Checked
Approved

M&M EXCAVATING, INC.

78 Roberson Rd
Carlsbad, NM 88220
(575) 236-6600

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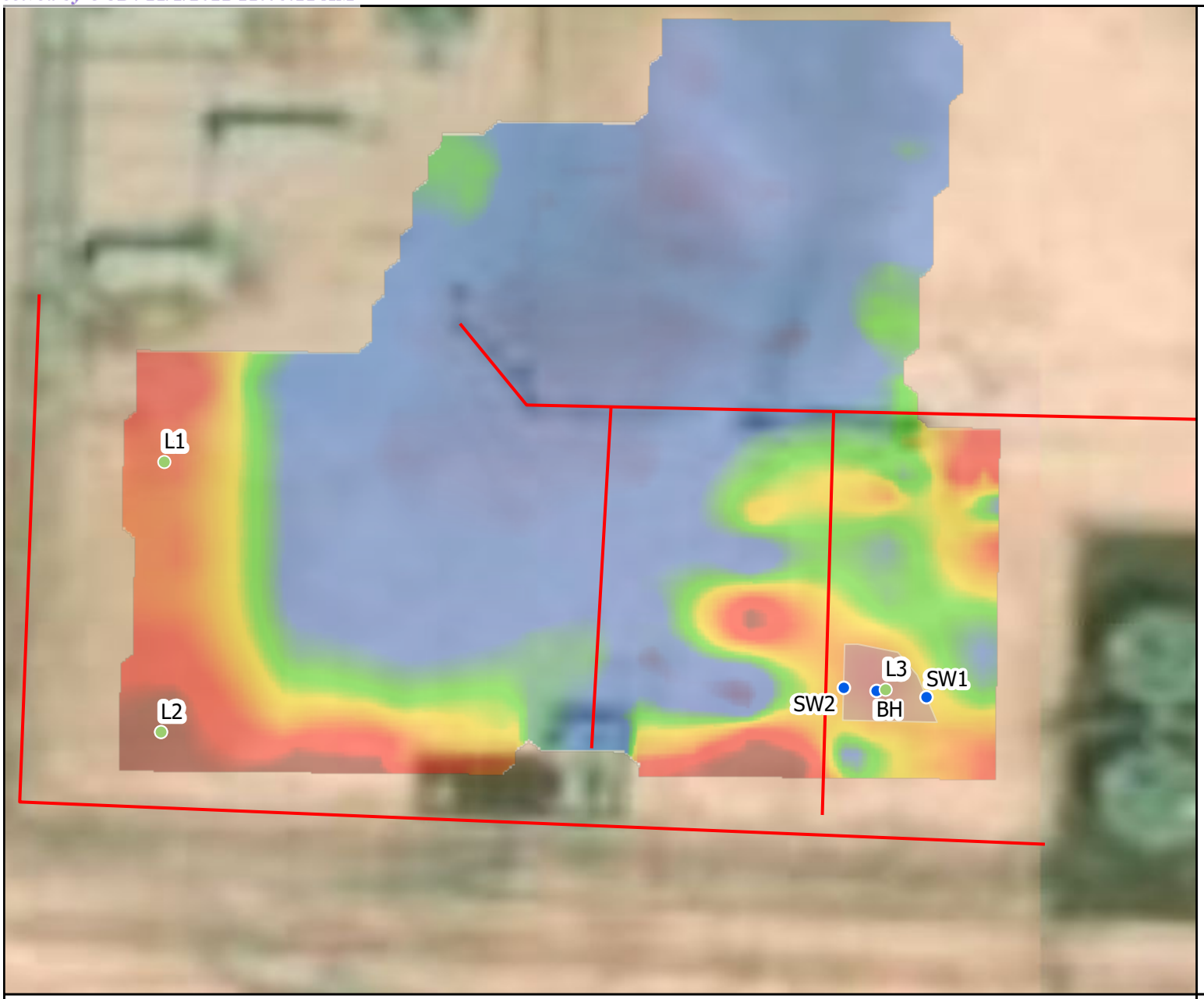


2' Excavation
Pipelines
Closure Sample Locations
Sample Locations

N

33
Feet

Site & Sample Locations
Mile Marker 5 SWD #001 - Devon Energy
Eddy County, New Mexico

Figure 3

\\192.168.22.10\Projects\5-MM Excavating (5128335)\GIS\ARCGIS\MMX_MIT.aprx

Date Saved: 1/25/2020

Revisions
By: Date: Descr:
By: Date: Descr:

Drawn LC
Date 1/25/2020
Checked
Approved

M&M EXCAVATING, INC.

78 Roberson Rd
Carlsbad, NM 88220
(575) 236-6600

Tables

Table 2: NMOCD Closure Criteria

Cotton Draw Unit #219H

Devon Energy Production Company

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)			Source/Notes
Depth to Groundwater (feet bgs)		390	USGS (Appendix B)
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)		--	3 NMOSE Wells (see appendix B)
Hortizontal Distance to Nearest Significant Watercourse (ft)		1200	Freshwater Pond to the southeast

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)							
Depth to Groundwater			Closure Criteria (units in mg/kg)				
			Chloride *numerical limit or background, whichever is greater	TPH	GRO + DRO	BTEX	Benzene
Less than 50' BGS			600	100		50	10
51' to 100'			10000	2500	1000	50	10
Greater than 100'	x		20000	2500	1000	50	10
Surface Water	Yes	No	if yes, then				
Less than 300' from continuously flowing watercourse or other significant watercourse?		x	600	100		50	10
Less than 200' from lakebed, sinkhole or playa lake?		x					
Water Well or Water Source							
Less than 500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?		x					
Less than 1000' from fresh water well or spring?		x					
Human and Other Areas							
Less than 300' from an occupied permanent residence, school, hospital, institution or church?		x					
Within incorporated municipal boundaries or within a defined municipal fresh water well field?		x					
Less than 100' from wetland?		x					
Within area overlying a subsurface mine		x					
Within an unstable area?		x					
Within a 100-year floodplain?		x					

M & M EXCAVATING, INC.

Table 3: Summary of Sample Results

Cotton Draw Unit #219H

Devon Energy Production Company

Sample ID	Sample Date	Depth (feet bgs)	BTEX	Benzene	GRO	DRO	MRO	Total TPH	Cl-
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Closure Criteria			50	10	1000			2,500	20,000
L1	10/31/2019	surface	<0.300	<0.050	<10.0	<10.0	<10.0	<30.0	448
		1	--	--	--	--	--	--	80
		2	--	--	--	--	--	--	48
L2	10/31/2019	surface	<0.300	<0.050	<10.0	<10.0	<10.0	<30.0	688
		1	--	--	--	--	--	--	32
		2	--	--	--	--	--	--	208
L3	10/31/2019	surface	<0.300	<0.050	<10.0	<10.0	<10.0	<30.0	41200
		2	--	--	--	--	--	--	592
		4	--	--	--	--	--	--	640
BH	12/3/2019	2	<0.212	<0.024	<4.7	<8.7	<44	<57.4	560
SW1		0-2	<0.212	<0.024	<4.7	<9.5	<48	<62.2	330
SW2		0-2	<0.219	<0.024	<4.9	<9.4	<47	<61.3	590

M & M EXCAVATING, INC.

Appendix A: C141 Forms

RECEIVED

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

MAY 22 2018

DISTRICT II-ARTESIA O.C.D.

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

nAB1814352277

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Devon Energy Production Company 6137	Contact Wesley Ryan, Production Foreman
Address 6488 Seven Rivers Hwy Artesia, NM 88210	Telephone No. 575-748-3371
Facility Name Cotton Draw Unit 219H	Facility Type Oil

Surface Owner State	Mineral Owner State	API No. 30-015-41363

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	2	25S	31E					Eddy

Latitude_32.15250_ **Longitude**_103.74424_ NAD83

NATURE OF RELEASE

Type of Release Produced Water (PW)	Volume of Release 13.15 BBLS	Volume Recovered 5 BBLS
Source of Release Clamp on water line	Date and Hour of Occurrence May 8, 2018 @ 3:00 PM MST	Date and Hour of Discovery May 8, 2018 @ 3:00 PM MST
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD-Mike Bratcher NMSLO-Ryan Mann	
By Whom? Mike Shoemaker	Date and Hour May 9, 2018 @ 3:00 PM MST	
Was a Watercourse Reached? ☐ Yes ☒ 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.*
A leak was identified at the 3" vic clamp on the water line. The line was isolated and repairs were made.

Describe Area Affected and Cleanup Action Taken.*
Approximately 13.15bbls of pw was released onto the location. Approximately 5bbls of pw was recovered via the dispatched vacuum truck. The total size of the affected area was 78' x 25'. All fluid stayed on location. An environmental contractor will be contacted to assist with delineation and remediation efforts.

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 Approved by Environmental Specialist: Signed By Mike Bratcher	
Printed Name: Dana DeLaRosa		
Title: Field Admin Support	Approval Date: 5/23/18	Expiration Date: N/A
E-mail Address: Dana.Delarosa@dvn.com	Conditions of Approval: See attached	Attached ☐ 2RP-4769
Date: 5/22/2018 Phone: 575.746.5594		

* Attach Additional Sheets If Necessary

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 5/22/2018 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4710 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 2 office in ARTESIA on or before 6/22/2018. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- **Vertical delineation of soil impacts.** Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

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	NAB1911942690
District RP	2RP-5374
Facility ID	
Application ID	pAB1911942439

Release Notification

Responsible Party

Responsible Party Devon Energy Production Company	OGRID 6137
Contact Name Amanda T. Davis	Contact Telephone 575-748-0176
Contact email amanda.davis@dvn.com	Incident # *(assigned by OCD)* NAB1911942690
Contact mailing address 6488 Seven Rivers Hwy	

Location of Release Source

Latitude 32.1526337 Longitude -103.74327286
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Cotton Draw Unit #219H	Site Type Oil
Date Release Discovered 11/26/2018	API# *(if applicable)* 3001541363

Unit Letter	Section	Township	Range	County
P	02	25S	31E	Eddy

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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
■ Produced Water	Volume Released (bbls) 10.20	Volume Recovered (bbls) 3
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: 4" check valve on discharge line of water transfer pump leaked. Spill area 24'x3'x0.042', 69'x48'x0.042', 39'x72'x0.042', 165'x15'x0.042' Release is on edge of location and ran into pasture.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAB1911942690
District RP	2RP-5374
Facility ID	
Application ID	pAB1911942439

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ■ 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

- ■ The source of the release has been stopped.
- ■ The impacted area has been secured to protect human health and the environment.
- ■ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ■ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not 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: Kendra DeHoyos
Title: EHS Associate

Signature: Kendra DeHoyos
Digitally signed by Kendra DeHoyos
DN: cn=Kendra DeHoyos, o, ou, email=kendra.dehoyos@dvn.com, c=US
Date: 2018.12.04 10:07:00 -07'00'

Date: 12/4/2018

email: kendra.dehoyos@dvn.com
Telephone: 575-748-3371

OCD Only

Received by: Amalia Barrameda
Date: 4/29/2019

Appendix B: Water Well 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	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03830 POD1		CUB	ED	4	2	4	02	25S	31E	618632	3558432	405	450		
C 02570		CUB	ED	4	2	4	02	25S	31E	618704	3558489*	482	895		
C 02569		CUB	ED	4	4	2	02	25S	31E	618699	3558891*	865	1016		
C 02568		CUB	ED	4	3	1	01	25S	31E	619103	3558892*	1031	1025		
C 02573		CUB	ED	1	4	2	02	25S	31E	618499	3559091*	1045			
C 02572		CUB	ED	4	2	2	02	25S	31E	618695	3559294*	1261	852		
C 02571		CUB	ED	4	1	2	02	25S	31E	618292	3559294*	1267	860		
C 02574		CUB	ED	1	1	2	02	25S	31E	618092	3559494*	1507			
C 02250		CUB	ED	3	1	4	21	25S	31E	614912	3553620*	5705	400	390	10

Average Depth to Water: **390 feet**
Minimum Depth: **390 feet**
Maximum Depth: **390 feet**

Record Count: 9

UTMNAD83 Radius Search (in meters):

Easting (X): 618512 **Northing (Y):** 3558046 **Radius:** 7000

***UTM location was derived from PLSS - see Help**

7/18/19 2:12 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

National Water Information System: Web Interface

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 320932103443801

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

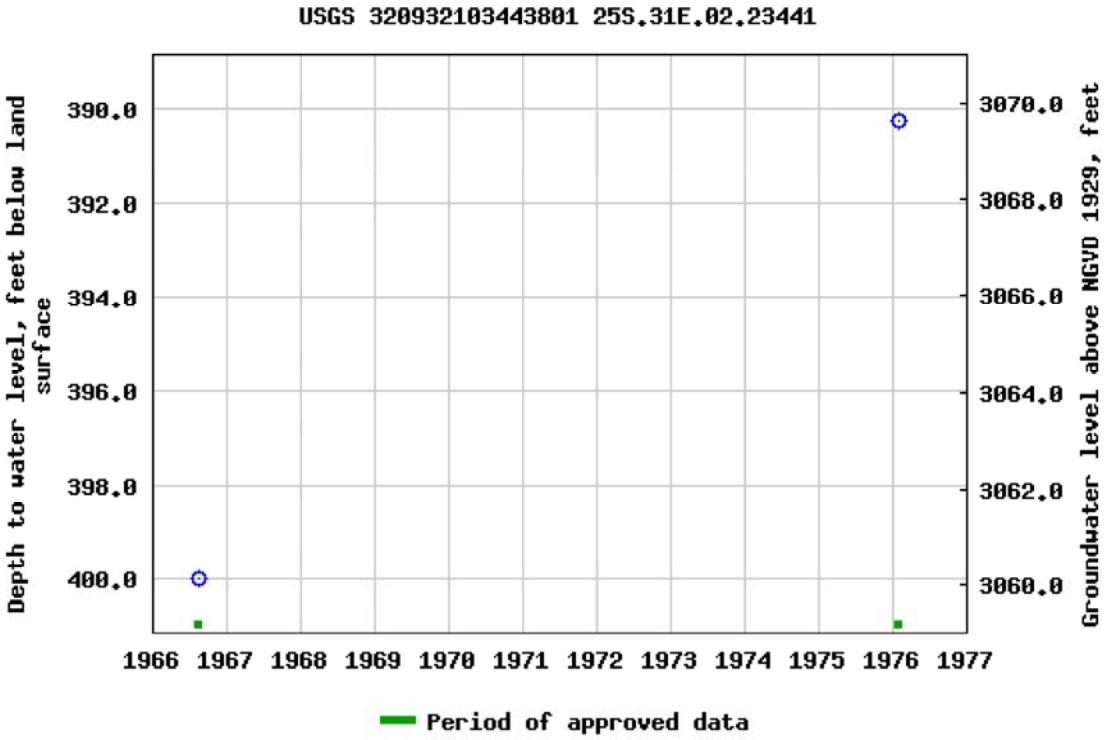
USGS 320932103443801 25S.31E.02.23441

Available data for this site Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13070001
Latitude 32°09'37.4", Longitude 103°44'29.6" NAD83
Land-surface elevation 3,460.00 feet above NGVD29
The depth of the well is 1,016 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-07-18 14:51:17 EDT
1.07 1.03 nadww01

National Water Information System: Web Interface

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 320952103444401

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

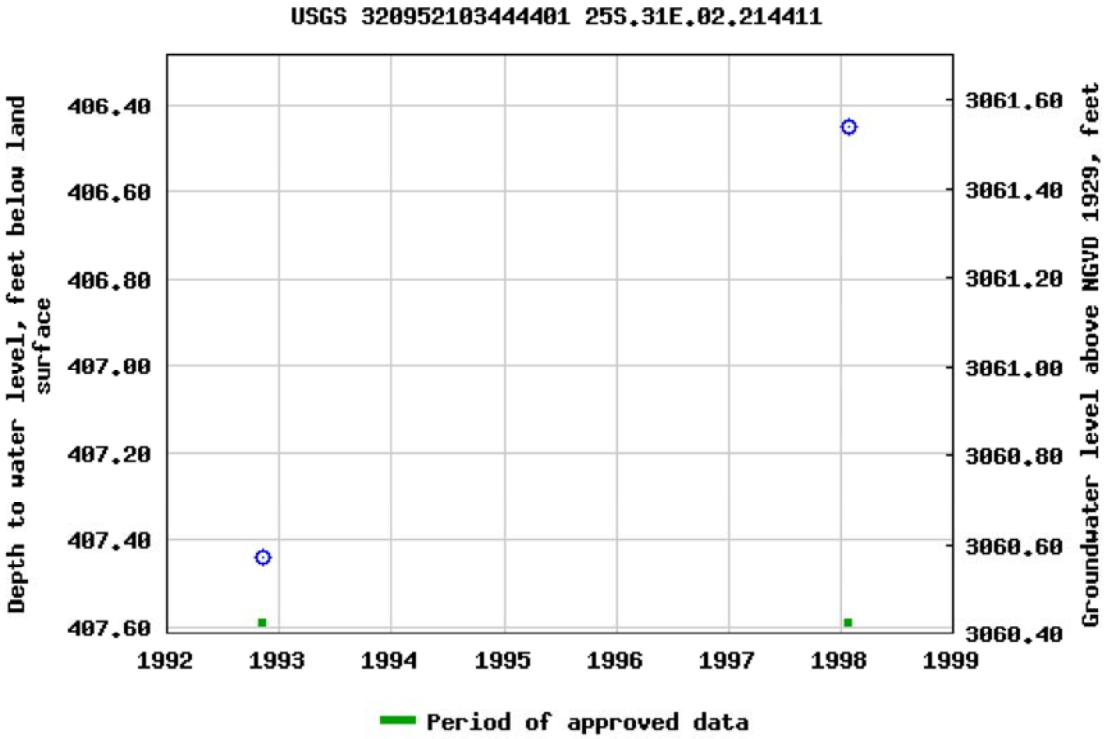
USGS 320952103444401 25S.31E.02.214411

Available data for this site Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13070001
Latitude 32°09'50.0", Longitude 103°44'41.2" NAD83
Land-surface elevation 3,468.0 feet above NGVD29
This well is completed in the Azotea Tongue of Seven Rivers Formation (313AZOT) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-07-18 15:51:15 EDT
0.95 0.9 nadww01

Appendix C: Laboratory Analytical Reports

CARDINAL Laboratories

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

November 05, 2019

MELODIE SANJARI

MMX

2737 PECOS HWY

CARLSBAD, NM 88220

RE: 219 H

Enclosed are the results of analyses for samples received by the laboratory on 11/04/19 10:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

MMX
MELODIE SANJARI
2737 PECOS HWY
CARLSBAD NM, 88220
Fax To: (575) 236-6201

Received:	11/04/2019	Sampling Date:	10/31/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	219 H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MMX		

Sample ID: L 1 - SURFACE (H903746-01)

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	11/05/2019	ND	1.97	98.4	2.00	4.52	
Toluene*	<0.050	0.050	11/05/2019	ND	1.65	82.6	2.00	2.64	
Ethylbenzene*	<0.050	0.050	11/05/2019	ND	1.74	87.0	2.00	0.291	
Total Xylenes*	<0.150	0.150	11/05/2019	ND	5.23	87.1	6.00	1.94	
Total BTEX	<0.300	0.300	11/05/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.3 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**448**	16.0	11/05/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2019	ND	226	113	200	0.366	
DRO >C10-C28*	<10.0	10.0	11/04/2019	ND	225	113	200	2.40	
EXT DRO >C28-C36	<10.0	10.0	11/04/2019	ND					

Surrogate: 1-Chlorooctane *97.9 %* *41-142*

Surrogate: 1-Chlorooctadecane *101 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

MMX
MELODIE SANJARI
2737 PECOS HWY
CARLSBAD NM, 88220
Fax To: (575) 236-6201

Received:	11/04/2019	Sampling Date:	10/31/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	219 H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MMX		

Sample ID: L 1 - 1' (H903746-02)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	11/05/2019	ND	416	104	400	0.00	

Sample ID: L 1 - 2' (H903746-03)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	11/05/2019	ND	416	104	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

MMX
MELODIE SANJARI
2737 PECOS HWY
CARLSBAD NM, 88220
Fax To: (575) 236-6201

Received:	11/04/2019	Sampling Date:	10/31/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	219 H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MMX		

Sample ID: L 2 - SURFACE (H903746-04)

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	11/05/2019	ND	1.97	98.4	2.00	4.52	
Toluene*	<0.050	0.050	11/05/2019	ND	1.65	82.6	2.00	2.64	
Ethylbenzene*	<0.050	0.050	11/05/2019	ND	1.74	87.0	2.00	0.291	
Total Xylenes*	<0.150	0.150	11/05/2019	ND	5.23	87.1	6.00	1.94	
Total BTEX	<0.300	0.300	11/05/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**688**	16.0	11/05/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2019	ND	226	113	200	0.366	
DRO >C10-C28*	<10.0	10.0	11/04/2019	ND	225	113	200	2.40	
EXT DRO >C28-C36	<10.0	10.0	11/04/2019	ND					

Surrogate: 1-Chlorooctane *94.0 %* *41-142*

Surrogate: 1-Chlorooctadecane *98.0 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

MMX
MELODIE SANJARI
2737 PECOS HWY
CARLSBAD NM, 88220
Fax To: (575) 236-6201

Received:	11/04/2019	Sampling Date:	10/31/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	219 H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MMX		

Sample ID: L 2 - 1' (H903746-05)

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	11/05/2019	ND	416	104	400	0.00	

Sample ID: L 2 - 2' (H903746-06)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**208**	16.0	11/05/2019	ND	416	104	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

MMX
MELODIE SANJARI
2737 PECOS HWY
CARLSBAD NM, 88220
Fax To: (575) 236-6201

Received:	11/04/2019	Sampling Date:	10/31/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	219 H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MMX		

Sample ID: L 3 - SURFACE (H903746-07)

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	11/05/2019	ND	1.97	98.4	2.00	4.52	
Toluene*	<0.050	0.050	11/05/2019	ND	1.65	82.6	2.00	2.64	
Ethylbenzene*	<0.050	0.050	11/05/2019	ND	1.74	87.0	2.00	0.291	
Total Xylenes*	<0.150	0.150	11/05/2019	ND	5.23	87.1	6.00	1.94	
Total BTEX	<0.300	0.300	11/05/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**41200**	16.0	11/05/2019	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2019	ND	226	113	200	0.366	
DRO >C10-C28*	<10.0	10.0	11/04/2019	ND	225	113	200	2.40	
EXT DRO >C28-C36	<10.0	10.0	11/04/2019	ND					

Surrogate: 1-Chlorooctane *102 %* *41-142*

Surrogate: 1-Chlorooctadecane *108 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

MMX
MELODIE SANJARI
2737 PECOS HWY
CARLSBAD NM, 88220
Fax To: (575) 236-6201

Received:	11/04/2019	Sampling Date:	10/31/2019
Reported:	11/05/2019	Sampling Type:	Soil
Project Name:	219 H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MMX		

Sample ID: L 3 - 2' (H903746-08)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**592**	16.0	11/05/2019	ND	416	104	400	0.00	

Sample ID: L 3 - 4' (H903746-09)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**640**	16.0	11/05/2019	ND	416	104	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: MMX	**BILL TO**
Project Manager: Melodie Sanjan	P.O. #:
Address:	Company: MMX
City: State: Zip:	Attn: Lupe Carasco
Phone #: Fax #:	Address:
Project #: Project Owner:	City:
Project Name: 219 H	State: Zip:
Project Location:	Phone #:
Sampler Name: MRS/MJP	Fax #:

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	BTEX	TPH	Cl-
H903746																	
1	L1 surface	G				X							10/31/19	10:50	✓	✓	✓
2	L1-1'	↓				↓								10:55			✓
3	L1-2'													11:00			✓
4	L2-Surface													11:10	✓	✓	✓
5	L2-1'													11:15			✓
6	L2-2'													11:20			✓
7	L3-Surface													11:30	✓	✓	✓
8	L3-2'													11:40			✓
9	L3-4'													12:05			✓

Relinquished By: M Sanjan
Date: 11-4-19
Time: 10:30
Received By: Tamara Oldaker

Relinquished By:
Date:
Time:
Received By:

Delivered By: (Circle One) 2.4° #97
Sampler - UPS - Bus - Other: Corrected 2.8°

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

CHECKED BY: (Initials) TO

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS: email results to Melodie.Sanjan@soudermiller.com

Appendix D: Vertex Electromagnetic Survey Results & Interpretation

October 18, 2019 Vertex Project #: 19E-03534

Devon Energy Corporation
6488 7 Rivers Highway
Artesia, New Mexico 88210

Attention: Amanda Davis

Re: Electromagnetic Survey Results and Interpretation for Cottonwood Draw Unit #219H

Ms. Davis,

Devon Energy Corporation (Devon) retained Vertex Resource Services Inc. (Vertex) to conduct an electromagnetic (EM) survey at Cottonwood Draw Unit #219H (hereafter referred to as the "site"). The site is located approximately 34 miles southeast of Carlsbad, New Mexico. Vertex personnel conducted the EM survey on October 8, 2019. This letter reviews the results of the EM survey at the site and discusses the apparent conductivity anomalies that were observed.

Method

The fixed-frequency EM method was used to map variations in ground conductivity to identify anomalously conductive soils and infer changes in the soil characteristics and composition. This method uses portable instrumentation consisting of a transmitter coil and a receiver coil. A primary magnetic field from the transmitter coil induces subsurface eddy currents, which in turn generate a secondary magnetic field that is intercepted by the receiver coil. The ratio of the primary and secondary magnetic fields is related to ground conductivity.

Ground conductivity is influenced by the following:

- Concentration of total dissolved solids (TDS) within the groundwater
- Type of substrate
- Soil grain size (fine-grained clay is more electrically conductive than coarse-grained material such as sand or gravel)
- Soil temperature (conductivity decreases as soil temperature approaches freezing)

Ground conductivity measurements were acquired using the Geonics EM31 Terrain Conductivity Meter. Data were collected continuously along transects spaced approximately 5 yards across the site. Data were logged using a Juniper Systems Archer2 Data Logger with an integrated global positioning system (GPS).

The effective depth of investigation for the EM31, as operated during this investigation, is approximately 16 feet. The conductivity values are not specific values from discrete depths; they are weighted averages of conductivity

between the surface and the depth of exploration of the EM field, and are termed 'apparent conductivities'. The apparent conductivity values obtained are in units of millisiemens per metre (mS/m).

Interpretation

The results of the EM31 survey are presented as an apparent conductivity contour map on Figure 1. Pertinent features and anomalies are identified and discussed in the table below.

Anomaly	Conductivity Range (mS/m)	Description
A	10 – 30	Low conductivity regions (blue contours) possibly representative of background conditions.
B	100 – >200	Elevated conductivity region (yellow to red contours) in the southwest corner of the site, coincident with pipes and metal infrastructure. May be attributable to metal influence.
C	Oscillating Values	Anomalies within the dashed black outline are possibly attributable to surface and/or subsurface metal influence.

If it is determined that the elevated conductivity anomalies are coincident with elevated chlorides, an electrical resistivity tomography (ERT) investigation is recommended to determine the vertical extent of the anomalies.

Any subsequent investigations should include areas of apparent background conductivity, as well as potentially impacted areas.

Should you have any questions or concerns, please do not hesitate to contact the undersigned at 587.316.1793 or lpankratow@vertex.ca.

Sincerely,

PROFESSIONAL GEOPHYSICIST LAURIE PANKRATOW ALBERTA

18-Oct-2019

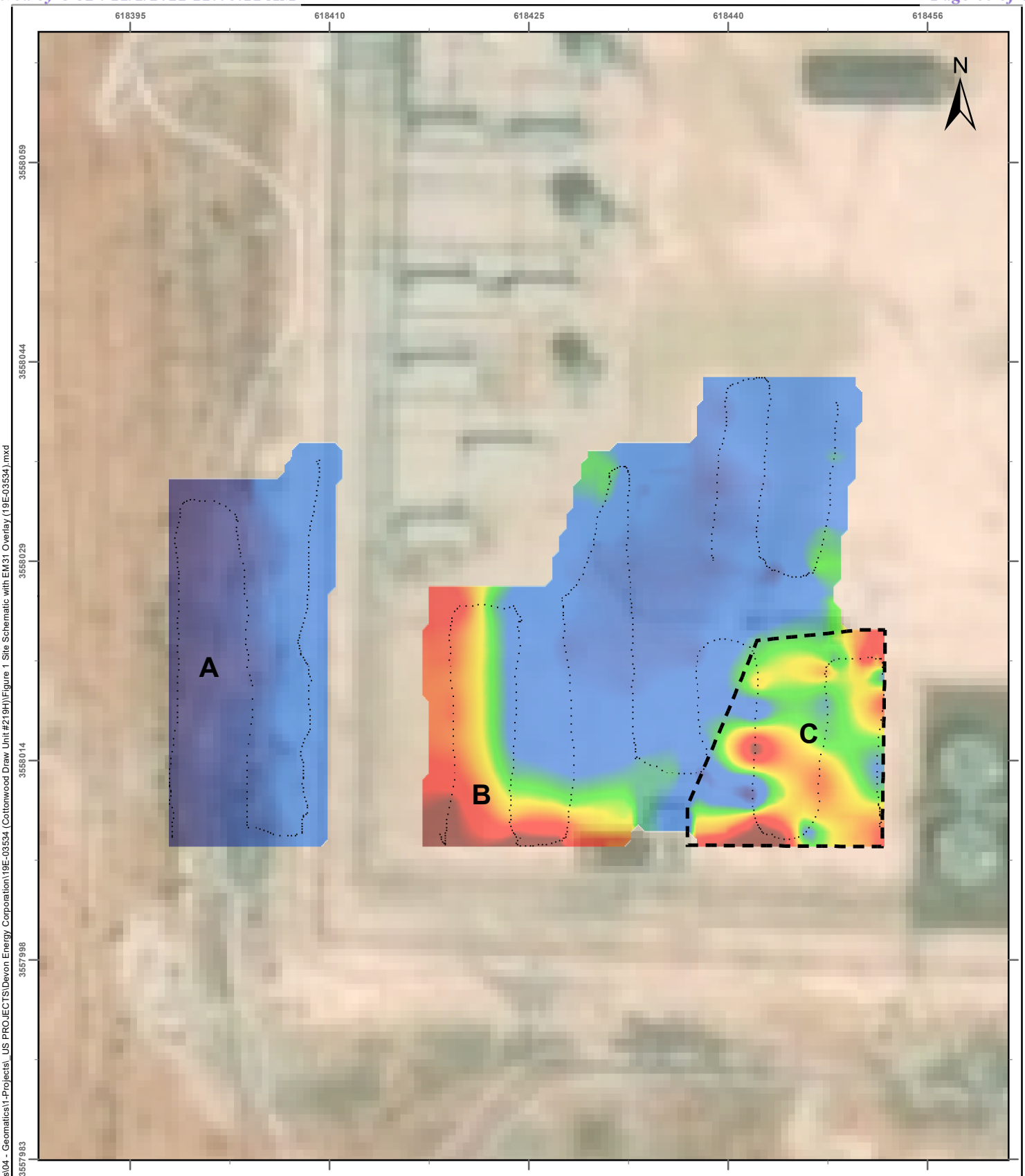
Laurie Pankratow, B.Sc., P.Geoph.
GEOPHYSICIST
APEGA PERMIT TO PRACTICE #10647

List of Figures

Limitations

This report has been prepared for the sole benefit of Devon Energy Corporation (Devon). This document may not be used by any other person or entity without the express written consent of Vertex Resource Services Inc. (Vertex) and Devon. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted scientific practices current at the time the work was performed. The conclusions and recommendations presented represent the best judgement of Vertex based on the data collected during the assessment. Due to the nature of the assessment and the data available, Vertex cannot warrant against undiscovered environmental liabilities. Conclusions and recommendations presented in this report should not be considered legal advice.



Legend

A Anomaly

------ Survey Track

10 30 50 70 90 110 130 150 170 190

Apparent Conductivity (mS/m)
(16 ft Depth of Exploration)

0 10 20 40 Ft

SCALE 1:400
NAD 83 UTM Zone 13N

Notes: Aerial Image from ESRI Digital Globe 2017

devon

Site Schematic with EM31
Apparent Conductivity Overlay
Cottonwood Draw Unit #219H

VERTEX

DRAWN:	LP	FIGURE: 1
APPROVED:	NG	
DATE:	OCT 18/19	

VERSATILITY. EXPERTISE.

Document Path: \\vtx-s-fs01.corp.internal\shared\vps\04 - Geomatics\1-Projects_US PROJECTS\Devon Energy Corporation\19E-03534 (Cottonwood Draw Unit #219H)\Figure 1 Site Schematic with EM31 Overlay (19E-03534).mxd

Appendix E: Excavation Photo

Photo of excavation taken 12/3/2019

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 155256

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 155256
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAB1814352277 COTTON DRAW UNIT #219H, thank you. This closure is approved.	1/27/2023