

November 27, 2018

Ms. Maria Pruitt New Mexico Oil Conservation Division 811 South First Street Artesia, New Mexico 88210

RE: Remediation Plan Nash Draw 8 Federal SWD Battery #1 XTO Energy, Inc. Remediation Permit Number 2RP-5007 Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), is submitting this summary of initial excavation activities and subsequent plan for additional excavation and closure sampling to confirm the remediation of impacted soil at the Nash Draw 8 Federal Salt Water Disposal (SWD) Battery #1 (Site). The Site is located in the northwest corner of the southwest corner, Section 8, Township 24 South, Range 30 East, in Eddy County, New Mexico (Figure 1).

On September 25, 2018, a failed joint on the fiberglass line at the Site caused a release of fluids to the lined containment and onto the well pad. Approximately 4 barrels (bbls) of crude oil and 281 bbls of produced water were released. The release impacted approximately 29,702 square feet on the well pad. Free-standing fluid was recovered using a vacuum truck; approximately 4 bbls of crude oil and 276 bbls of produced water were recovered from the Site. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on October 9, 2018 and was assigned Remediation Permit (RP) number 2RP-5007 (Attachment 1). XTO initiated remediation activities by excavating impacted soil at the Site in accordance with the New Mexico Administration Code (NMAC) Title 19, Chapter 15, Part 29 *Remediation and Closure Guidelines for Oil and Gas Releases* (19.15.29), dated August 14, 2018.

BACKGROUND

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well with depth to water data is C 02108, located less than or equal to 465 feet from the source of release on the south edge of the pad. The Water Right Summary for C 02108 states this water well is owned by Partnership M&M Cattle Co. and is used for livestock watering purposes. Depth to groundwater in the water well is 186 feet bgs and total depth is 200 feet bgs.





The Site is located greater than 300 feet from any continuously flowing watercourse, 200 feet from any lakebed, sinkhole, or playa lake, and greater than 300 feet to a permanent residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater spring. The Site is not within an unstable area, 100-year floodplain, or overlying a subsurface mine. However, the Site is located less than 500 feet from a private domestic fresh water well used by less than five households for domestic or stock watering purposes. Due to the Site being within 500 horizontal feet (465 feet) of groundwater well C 02108 that is used for livestock watering purposes, the following remediation action levels apply: 10 milligrams per kilogram (mg/kg) benzene; 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX); 100 mg/kg total petroleum hydrocarbons (TPH) for gasoline range organics (GRO), diesel range organics (DRO), and motor range organics (MRO); and 600 mg/kg chloride.

The release covered an area of approximately 29,702 square feet at the well pad and flowed from the release area in the northern portion of the Site to the southwestern portion of the Site (Figure 2). Free-standing fluid was recovered using a vacuum truck. As a result, approximately 4 bbls of crude oil and 276 bbls of produced water were recovered from the Site. Six initial surface soil samples (SS01 through SS06) were collected across the area of the release. The soil sample locations were selected based on visual indications of impacted soil from the release and on information provided on the initial C-141 Form. Based on the laboratory analytical results from initial soil sampling, excavation of impacted soil was initiated: one to the north where the initial release occurred, in the south area at the extent of the release, and in the central portion of the release area (Figure 2). As a result, approximately 760 cubic yards total of impacted material has been removed. XTO initially elected to apply a composite sampling protocol as indicated in 19.15.29.12.D where each is not representative of more than 200 square feet. However, this resulted in 76 samples for the existing excavations and will require an additional 200 for the estimated remaining excavation.

PROPOSED REMEDIATION AND SAMPLING PLAN

Based on the areal extent of the release area, initial soil sampling results, and confirmation soil sampling results, approximately 13,650 square feet of impacted area have not yet been excavated at this time. LTE proposes to continue excavating the remaining portions of impacted soil from the release areas to be compliant with the most stringent Table 1 action levels. Due to the size of the anticipated excavation and in referencing *Guidance on Choosing a Sampling Design for Environmental Data Collection for Use in Developing a Quality Assurance Project Plan*, United States Environmental Protection Agency (EPA) QA/G-5S, December 2002, LTE proposes to continue with a composite sampling protocol, but increase the representative area sampled. The composite sampling protocol will consist of dividing each 1,000 square foot area of the sidewalls and floor of the excavation into five equal areas. Five aliquots of equal volume will be collected from each area. The aliquots will be deposited into a one-gallon resealable bag, thoroughly homogenized by mixing, and placed into a laboratory-supplied 4-ounce sampling jar. Sidewall samples will not be collected if sidewalls are less than two feet deep. In those instances, floor





samples will represent excavation confirmation samples. Additional discrete soil samples will be collected if any visually stained or impacted material is observed. Remediation action levels on site will comply with NMOCD Table 1 with depth to groundwater less than or equal to 50 feet bgs. LTE will remediate the remaining impacted soil by excavating and transporting the material to a licensed disposal facility.

XTO proposes to complete all remediation activities and associated reporting with closure request within 60 days of approval of this remediation plan.

We look forward to your review of this report and subsequent approval of the remediation approach. If you have any questions or comments, please do not hesitate to contact Adrian Baker at (432) 887-1255 or <u>abaker@ltenv.com</u>.

Sincerely,

LT ENVIRONMENTAL, INC.

Iduin Baker

Adrian Baker Project Geologist

Ashley L. Ager

Ashley L. Ager, P.G. Senior Geologist

cc: Kyle Littrell, XTO Jim Amos, BLM Shelly Tucker, BLM

Attachments:Figure 1Site Location MapFigure 2Site MapAttachment 1Initial/Final NMOCD Form C-141



FIGURES







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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

Incident ID	NMAP1828465158
District RP	2 RP-5007
Facility ID	N/A
Application ID	pMAP1828464952

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID ₅₃₈₀
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # (assigned by OCD) NMAP1828465158
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.231539

Longitude _____

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Nash Draw 8 Federal SWD Battery #1	Site Type Bulk Storage Facility
Date Release Discovered 9/25/2018	API# (if applicable) 30-015-41351

Unit Letter	Section	Township	Range	County
L	8	24S	30E	Eddy

Surface Owner: State Sederal Tribal Private (Name: BLM

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) ₄	Volume Recovered (bbls) ₄
X Produced Water	Volume Released (bbls) ₂₈₁	Volume Recovered (bbls) 276
	Is the concentration of total dissolved solids (TDS)	Yes No
	in the produced water >10,000 mg/l?	
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

Produced water was discovered exiting a fiberglass line at the SWD. Glue holding the fiberglass slips failed and disconnected at the slip joint. Fluids were released to lined containment and the well pad. The block valve was closed to isolate incoming PW. Vacuum trucks recovered free standing fluids. The fiberglass line was repaired and the facility was returned to production. The lined containment is scheduled to be power washed.

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Incident ID	NMAP1828465158
District RP	2 RP-5007
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Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release? An unauthorized release of a volume of 25 barrels or more	
🕅 Yes 🗌 No		
If YES, was immediate n	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	
Notice provided Amy Rut 9/25/2018 by email	h to Maria Pruett, Mike Bratcher, Jim Griswold (NMOCD), Shelly Tucker and Jim Amos (BLM), on	
Initial Response		

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

 \mathbf{X} The source of the release has been stopped.

X 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:	Title: SH&E Coordinator
Signature:	Date: $10 - 9 - 18$
Kyle_Littrefl@xtoenergy.com	Telephone: $432-221-7331$
OCD Only Received by:	Date: 10/11/18

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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?	(ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 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)?	🗍 Yes 🛛 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 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?	🗙 Yes 🗌 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗙 Yes 🗌 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🗶 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🔀 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🛛 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No
Did the release impact areas not on an exploration, development, production, or storage site?	🔀 Yes 🗌 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 followin	g items must be included in the report.
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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 1/2-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.

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		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: Kyle Littrell Signature:	Title: $\frac{SH\&E \text{ Coordinator}}{Date: \sqrt{D-9-18}}$
email: Kyle Littrett@xfoenergy.com	Telephone:
OCD Only	
Received by:	Date:

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<u>Remediation Plan Checklist</u>: Each of the following items must be included in the plan.

Detailed description of proposed remediation technique

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District RP	
Facility ID	
Application ID	

Remediation Plan

Scaled sitemap with GPS coordinates showing delineation points X Estimated volume of material to be remediated X Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC X Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required) Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation. Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction. Extents of contamination must be fully delineated. Contamination does not cause an imminent risk to human health, the environment, or groundwater. 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: Kyle Littrell Title: SH&E Coordinator Date: 11/28/18 Signature: email: kyle_littrell@xtoenergy.com Telephone: 432-221-7331 OCD Only Received by: Date: Approved Approved with Attached Conditions of Approval Denied Deferral Approved Signature: Date: