

Patterson, Heather, EMNRD

From: Ruth, Amy C. <ACRuth@BassPet.Com>
Sent: Monday, August 17, 2015 11:06 AM
To: Bratcher, Mike, EMNRD; Patterson, Heather, EMNRD
Cc: jamos@blm.gov
Subject: Initial C-141 BOPCO Indian Flats Bass Federal SWD leak 8-8-2015
Attachments: Initial C-141 Indian Flats Bass Federal SWD 8-8-15.pdf

Here is the initial report for the leak on 8-8-15. Another will follow for 8-14-15 (this one was not as large, but happened in the exact same spot!)



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Incident ID	nAB1523133089
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?	>100 (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 checked="" type="checkbox"/> Yes <input 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.

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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: _Garrett Green_____ Title: _Environmental Coordinator_____

Signature: _____ Date: ___11/23/2022_____

email: _garrett.green@exxonmobil.com_____ Telephone: ___575-200-0729_____

OCD Only

Received by: _____ Date: _____

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Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan.

- Detailed description of proposed remediation technique
- Scaled sitemap with GPS coordinates showing delineation points
- Estimated volume of material to be remediated
- Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- 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: Garrett Green Title: Environmental Coordinator

Signature: _____ Date: 11/23/2022

email: garrett.green@exxonmobil.com Telephone: 575-200-0729

OCD Only

Received by: Jocelyn Harimon Date: 12/23/2022

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature:  _____ Date: 12/23/2022

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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: Garrett Green Title: Environmental Coordinator

Signature: _____ Date: 10/07/2022

email: garrett.green@exxonmobil.com Telephone: 575-200-0729

OCD Only

Received by: Jocelyn Harimon Date: 12/23/2022

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: NOT APPROVED Date: 12/23/2022

Printed Name: Jocelyn Harimon Title: Environmental Specialist



November 23, 2022

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

**Re: Remediation Work Plan
Indian Flats Bass Federal
Incident Numbers nAB1523133089, nAB1520127947, nAB1523155412, nAB1614429643,
and nAB1526056410
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Remediation Work Plan* to address NMOCD's denial for deferral of five historical releases at the Indian Flats Bass Federal (Site). The following *Work Plan* proposes additional delineation activities to supplement corrective actions reported to the NMOCD over two years ago. The five historical releases were included in a Compliance Agreement for Remediation for Historical Releases (Compliance Agreement) between XTO and the New Mexico Oil Conservation Division (NMOCD), executed on November 13, 2018. The purpose of the Compliance Agreement was to ensure reportable releases that occurred prior to August 14, 2018, and where XTO is now responsible for the corrective action, comply with Title 19, Chapter 15, Part 29 (19.15.29) of the NMAC as amended on August 14, 2018. The releases were categorized as Tier IV in the Compliance Agreement meaning the releases occurred prior to August 14, 2018, the effective date of 19.15.29 NMAC; however, remediation was already occurring under different regulatory requirements.

SITE DESCRIPTION AND BACKGROUND

The Site is located in Unit J, Section 35, Township 21 South, Range 28 East, in Eddy County, New Mexico (32.433934°N, 104.056149°W) and is associated with oil and gas exploration and production operations on federal land managed by the Bureau of Land Management (BLM). The five releases are listed below, and additional details are included in reports previously submitted to the NMOCD. Since the releases occurred in the same general areas at the Site, corrective actions completed to date have been conducted to address all releases simultaneously.

Incident Number	Date of Release	Release Volume (barrels)	Type of Release
nAB1520127947	July 13, 2015	13	Produced water
nAB1523133089	August 8, 2015	145	Produced water
nAB1523155412	August 13, 2015	8	Produced water
nAB1526056410	September 3, 2015	7	Produced water
nAB1614429643	May 7, 2016	6.5	Produced water

Between December 27, 2017 and April 14, 2020, delineation and excavation activities were completed at the Site. XTO collected over 150 delineation samples ranging in depth from ground surface to 16 feet

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below ground surface (bgs) and excavated a total of approximately 3,415 cubic yards of impacted soil representing almost the entirety of the top four feet of ground surface in the impacted areas. This work was described in a *Variance with Closure and Deferral Request* submitted to the NMOCD on May 13, 2020 under the timeline specified in the Compliance Agreement. The report requested a variance for Closure Criteria based on ground truthing of potential receptors and deferral for an estimated 1,740 cubic yards of impacted soil remaining in place immediately adjacent to active production equipment and subsurface pipelines.

On September 23, 2022, over two years after the submittal of the *Variance with Closure and Deferral Request*, NMOCD denied the request for the following reasons:

- The OCD denies the request for closure as well as a variance for the above-mentioned releases [nAB1523133089, nAB1520127947, nAB1523155412, nAB1614429643, and nAB1526056410]. All soils affected by the release that are in areas immediately under or around production equipment such as production tanks, wellheads, and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration, and reclamation may be approved for deferral however the OCD requires that all other remediation must meet the most stringent standards of Table I of 19.15.29.12 NMAC.
- Please resubmit a revised closure report within 30 days 10/23/2022.

It should be noted that a sixth release (Incident Number NAB1519854325) was included in the *Variance with Closure and Deferral Request*, detailing delineation and excavation of 225 cubic yards of impacted soil. Laboratory analytical results for composite excavation soil samples indicated all samples were compliant with the applied Closure Criteria and closure was requested for this release. The NMOCD approved the Closure Request for Incident Number NAB1519854325 on September 21, 2022.

Because remediation to the most stringent standards of Table I Closure Criteria for the remaining five releases requires significant additional excavation and site work, XTO requested an extension to review the denied locations under different closure criteria, plan next phases, and execute new corrective actions. However, NMOCD denied this request, stating:

- The OCD Spill Rule states, "The responsible party must submit information characterizing the release to the appropriate division district office within 90 days of discovery of the release or characterize the release by submitting a final closure report within 90 days of discovery of the release in accordance with Subsection E of 19.15.29.12 NMAC. The responsible party may seek an extension of time to submit characterization information for good cause as determined by the division. A remediation plan was due for these incidents on 11/06/2015. Due to the request being outside the 90-day guideline, the OCD does not approve the request for a 90-day extension of this deadline until January 21, 2023. The OCD however does approve a 30-day extension for the deadline until November 23, 2022. This will be the final extension for this release. Please include this e-mail correspondence in the remediation and/or closure report.

These releases occurred under the operation of a previous owner. This Site was addressed under the Compliance Agreement between XTO and NMOCD and therefore subject to the timelines specified in the executed agreement. The Site was characterized in the previous report submittal to the NMOCD, and NMOCD approved the single closure request. Review and planning to address the other five historical releases in which corrective actions were completed over two years ago under different acceptable regulatory practices is complicated, and potential removal of significant volumes of clean overburden and subsurface soil requires coordination with operations and, potentially, NMOCD and BLM. Nevertheless, XTO is committed to closing these historical releases and submits this *Remediation Work Plan* referencing the original site characterization approved for Incident Number NAB1519854325,

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proposing additional delineation to the most stringent Closure Criteria, and requesting a meeting with NMOCD to share those results, review completed corrective actions, and revisit the condition to remediate soil deeper than 4 feet bgs to the most stringent of Table I Closure Criteria.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The *Variance with Closure and Deferral Request* described site characterization and identified the following:

- Depth to groundwater at the Site is greater than 100 feet bgs.
- Old Indian Draw appears in online databases to run through the Site; however, field observations indicated no watercourse correlating to the identified mapped feature. No feature with a bed and bank was identified within 300 feet of Site. Instead, erosional ruts and swales aligned with the topographic gradient were observed. There is no evidence of fluvial deposition within the erosional features, and they did not connect to other watercourses, instead splaying out onto the desert floor. Old Indian Draw does become apparent as a potential depositional feature over 600 feet southwest of the Site, and over 700 feet away from the nearest release extent.
- Half of the well pad is mapped within a Flood Zone A designation as determined by the Federal Emergency Management Agency's (FEMA's) Nation Flood Hazard Layer (NFHL) Viewer. According to FEMA, Flood Zone A is defined as areas subject to inundation by the 1 percent (%) annual flood event. Because detailed hydraulic analyses have not been performed, no base flood elevations or flood depths are assigned. No field verification was conducted for this designation. Currently, there is no evidence of flooding at and around the Site. There are no high-water marks on equipment, heavy erosional features, or noticeable standing water at any time throughout the year at or near the Site. Additionally, the development of the well pad included addition of fill material, grading, and surfacing to prevent flooding.

There were no other nearby receptors identified and full details, including photos and map references are provided in the previous report submittal.

PROPOSED REMEDIATION WORK PLAN

XTO believes the original site characterization was correctly presented and applied (with inferred concurrence from NMOCD after approval of one incident for closure). The application of Table I Closure Criteria is based on risk to human health and environment. Risk to the nearest receptors potentially triggering application of a stricter Closure Criteria (significant watercourse and Flood Zone A) was mitigated by removal of the top four feet of impacted material. These actions additionally mitigated risk to vegetation in the pasture areas, where reclamation has already been initiated.

XTO removed all of the top four feet of soil impacted by produced water and containing elevated chloride concentrations, except approximately 1,740 cubic yards of material at or below active production equipment. The residual chloride impacted soil in the top four feet will be addressed upon final reclamation or major facility deconstruction, whichever comes first. Some areas were excavated deeper (as much as 11 feet bgs) to remove all hydrocarbon impacts. Only chloride concentrations remain and the highest chloride concentration below four feet bgs in the excavated areas is 2,860 milligrams per kilogram (mg/kg) with most concentrations falling between 900 mg/kg and 1,500 mg/kg. Closer examination of delineation samples collected in the subsurface suggest there may be some influence of naturally occurring chloride concentrations, in particular in the deepest delineation samples near 15 feet bgs where concentrations fall below 600 mg/kg, then increase again with depth to 900 mg/kg.

Based on these complicating factors and, with an understanding of a different approach to closure currently in effect at NMOCD as compared to two years ago, XTO recognizes vertical and horizontal

XTO Energy, Inc.
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delineation to the strictest standard with better evaluation of potential background concentrations would provide a more comprehensive assessment of subsurface conditions. XTO proposes vertical delineation boreholes near PH01, PH07, and PH08, where 600 mg/kg chloride was not previously identified. XTO will collect samples every foot beginning at 4 feet bgs and advance the borings until 600 mg/kg chloride is documented in a terminal sample. Each sample will be submitted for laboratory analysis of chloride. Lateral delineation to the strictest Table I Closure Criteria was achieved in the top four feet through excavation sidewall sampling. XTO will advance an additional five borings north, east, and west of the existing potholes to better characterize deeper horizontal delineation and background chloride concentrations.

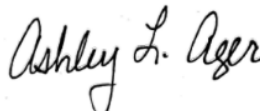
XTO proposes to conduct the sampling within 2 weeks of receipt of approval from NMOCD. XTO will request a meeting to share those results with NMOCD, along with a discussion of work completed and risk to nearby receptors within 2 weeks of receipt of analytical results. The meeting will provide XTO an opportunity to present a case for deferral or additional corrective actions and for NMOCD to ask questions and provide feedback for work completed and proposed measures.

XTO and Ensolum appreciate your consideration of this alternative proposal and looks forward to working with you on this complicated Site. If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC



Tacoma Morrissey, MS
Senior Geologist



Ashley Ager, PG, MS
Program Director

cc: Garrett Green, XTO
Shelby Pennington, XTO
New Mexico State Land Office

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 161215

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 161215
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	<ul style="list-style-type: none"> • The OCD can't approve a deferral for a spill off pad in the pasture. 19.15.29.12 • The Flood Zone A designation for this site requires that the releases must be remediated to the most stringent closure criteria • The samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Please make sure the edges/sidewalls and bottoms are delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH, defining the edge of the release. • All sample points, except the requested sample points for deferral, must have contaminated soil removed before a deferral request is uploaded to the payment portal. The only remediation that should remain are the sample points that are being requested for deferral. Use a hydrovac/shovel to safely remove the contaminated soil around equipment and pipelines. Only sample points that require a major facility deconstruction will be available for deferral. Most importantly, specify exactly which sample points you are asking for a deferral on 	12/23/2022