

From: [Raley, Jim](#)
To: [Hamlet, Robert, EMNRD](#); [Hernandez, Joseph](#)
Cc: [Bratcher, Mike, EMNRD](#); [Billings, Bradford, EMNRD](#); [Hensley, Chad, EMNRD](#); [Moir, Dan](#); [Raup, Bob](#)
Subject: RE: [EXTERNAL] Follow-up after OCD and WPX meeting (3/11/2021)
Date: Thursday, August 19, 2021 3:22:30 PM
Attachments: [image001.png](#)
[image003.png](#)

Robert,

We will proceed with your request. A driller will be scheduled to come in and complete the work, and we will keep NMOCD informed of our progress.

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.rale@dm.com



From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Thursday, August 12, 2021 2:00 PM
To: Raley, Jim <Jim.Raley@dm.com>; Hernandez, Joseph <Joe.Hernandez@wsp.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>; Raup, Bob <bob.raup@wpenergy.com>; Moir, Dan <Dan.Moir@wsp.com>
Subject: RE: [EXTERNAL] Follow-up after OCD and WPX meeting (3/11/2021)

Jim,

A thorough investigation will need to be conducted in close proximity of MW02 to evaluate if it's disconnected from the groundwater bearing zone found in slightly deeper depths of MW01 and MW03. This includes 4 additional delineation boreholes east, west, north, and south of MW02. Soil sampling will need to take place in 5' increments during the drilling process of the boreholes. The OCD requests a detailed lithological log to be completed during the boring process. The OCD would like to see the southern borehole closer to MW02 (perhaps ½ the distance from MW02), which would put it closer to the possible impact area. The additional boreholes need to be drilled to a similar depth of 35' in correlation with MW01 and MW03. If fluid is discovered in any of the boreholes at shallower depths, set a temporary screen, pull samples and have groundwater analysis conducted. Groundwater samples should include general chemistry including major cations and anions. After groundwater samples are conducted at the shallower depth, seal off the shallow layer and finish drilling to approximate depth of 35' or next deeper water bearing zone. As fluid is encountered at the deeper depth, convert borehole to monitoring well. Construct by installing an 8'-10' screened casing across the groundwater interface (4'-5' above/below) and solid casing to the surface. It's suggested that monitoring wells be constructed with 2" inside diameter (ID) Schedule 40 polyvinyl chloride (PVC) casing and 0.010" slotted screen. After borings are converted to monitoring wells, groundwater samples will need to be collected on all wells.

Robert Hamlet • Environmental Specialist - Advanced
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From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Tuesday, August 10, 2021 2:40 PM
To: Hernandez, Joseph <Joe.Hernandez@wsp.com>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>; Raup, Bob <bob.raup@wpenergy.com>; Moir, Dan <Dan.Moir@wsp.com>
Subject: RE: [EXTERNAL] Follow-up after OCD and WPX meeting (3/11/2021)

RE: NAB1927155176

Robert,

We have completed the 3 borings that were requested by NMOCD. Attached is the water and soil analysis; as well as a request to install additional borings before a remediation plan is proposed. We are ready to schedule these additional borings with permission from NMOCD.

Please let me know if you need additional information.

Jim Raley | Environmental Professional - Permian Basin
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C: (575)689-7597 | jim.raley@dvn.com



From: Hernandez, Joseph <Joe.Hernandez@wsp.com>
Sent: Thursday, July 15, 2021 8:44 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>; Raup, Bob <bob.raup@wpenergy.com>; Moir, Dan <Dan.Moir@wsp.com>; Raley, Jim <Jim.Raley@dvn.com>
Subject: RE: [EXTERNAL] Follow-up after OCD and WPX meeting (3/11/2021)

Robert,

The Swearingen wells were safely drilled and purged per the requested scope. We will be collecting groundwater samples today for analysis and update your team once we received analytical data from the laboratory.

Thank you,

Joseph S. Hernandez
Associate Consultant, Geologist
M+ 1 281-702-2329



From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Wednesday, May 26, 2021 3:26 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>; Raup, Bob <bob.raup@wpenergy.com>; Hernandez, Joseph <Joe.Hernandez@wsp.com>
Subject: RE: [EXTERNAL] Follow-up after OCD and WPX meeting (3/11/2021)

Robert,

We are still working on this project. We have received landowner permission to proceed and permits to drill are approved by OSE. We have scheduled a rig to proceed with the NMOCD requested boring the week of July 12th. Will keep you updated if any changes and share results from sampling once completed.

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C: (575)689-7597 | jim.raley@dvn.com



From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Monday, March 29, 2021 1:23 PM
To: Raley, Jim <James.Raley@wpenergy.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>; Raup, Bob <Bob.Raup@wpenergy.com>; Joseph Hernandez <jhernandez@ltenv.com>
Subject: RE: [EXTERNAL] Follow-up after OCD and WPX meeting (3/11/2021)

James,

The 3 borings completed as temporary monitoring wells on the Swearingen #1 release will allow

WPX to verify that there was no groundwater impact. It is important that the OCD have the boring in the release area to compare to the "Up Gradient Boring Location" and the "Down Gradient Boring Location". The boring will need to be safely drilled and purged. Then, the groundwater interval sealed as per OSE regulations. Please complete the following:

- 3 borings completed as temporary monitoring wells.
 - a. "Up Gradient Boring Location" North-East of CH04
 - b. "Release Area Boring Location" Near PH02
 - c. "Down Gradient Boring Location" Southwest of PH09
- There may be some minor flexibility in boring locations as proposed by the OCD, but not a lot.
- Measure DTW from a surface mark before sampling, please purge well before sampling. Take soil samples at 3 ft increments on all 3 borings until groundwater depth is reached (3',6',9',12',15',18'). Please use lab methods specified in part 29 of Spill Rule.
- Install 5 foot of two inch Schd. 40 PVC, equal-spacing across air water interface for temp well casing. Follow OSE requirements throughout process.
- Also, please make sure the groundwater interval is sealed as per OSE Regulations.
- Let completed well sit for at least 24hours, or up to 72 hours.
- Groundwater samples should include general chemistry including major cations and anions.
- Please email groundwater sample results after laboratory analysis have been conducted and received.

Robert Hamlet • Environmental Specialist - Advanced

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From: Raley, Jim <James.Raley@wpxenergy.com>

Sent: Thursday, March 25, 2021 12:33 PM

To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>

Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>; Raup, Bob <Bob.Raup@wpxenergy.com>; Joseph Hernandez <jhernandez@ltenv.com>

Subject: [EXT] RE: [EXTERNAL] Follow-up after OCD and WPX meeting (3/11/2021)

Robert,

On March 12, 2021, WPX was notified of a drilling plan scope that included soil screening and groundwater sampling at the Site to verify that groundwater was not impacted from the August 23, 2019 release. WPX, NMOCD, and WSP met on March 11, 2021 to discuss the remediation work plan associated with Incident ID NAB1927155176. WPX has completed vertical delineation of chloride

impacts in soil within the release extent, which meets the Closure Criteria within the vadose zone, indicating groundwater has not been impacted from this release. WPX understands it is the position of NMOCD that vertical delineation is not sufficient, and the collection of groundwater samples will help NMOCD in coming to the same conclusion as WPX. NMOCD has requested the installation of three temporary monitoring wells and subsequent groundwater analysis as a course of action to determine the presence or absence of impacts in groundwater related to this release.

Based on the March 11, 2021 meeting and follow-up conditions provided by NMOCD, WPX would like to propose and confirm the following alternative scope that will still meet NMOCD's intended outcome.

DRILLING PLAN

WPX proposes installing only two temporary wells as discussed in the NMOCD scope vs. the three (includes incremental sampling, screening, and analysis):

- "Up Gradient Boring Location"
- "Down Gradient Boring Location"

WPX proposes to strike the proposed installation of a temporary monitoring well within the release area as discussed in the NMOCD scope:

- "Release Area Boring Location"

Advancing a borehole within this area to would increase of the risk activating or create a potential preferential pathway that would pose a threat to groundwater if reached. A representative soil sample (CH01) was collected from the deepest area within the release at 14 feet bgs. Laboratory analytical data indicates impacts having not migrated to the groundwater table, which was reported at 19.7 feet bgs. Migration of residual chloride concentrations has likely been restricted by the noted conglomerate layer discussed in the remediation work plan.

Laboratory analytical data will be collected from the two proposed wells listed above. If water chemistry from the two wells indicate groundwater regionally is non-protectable (TDS greater than 10,000 mg/L) and/or show similar chemistry indicating chloride had not leached into the groundwater table beneath the release, then WPX will not install any more temporary monitoring wells.

If groundwater does not appear to have been impacted by the release, WPX will proceed with the condition determined by NMOCD that only the top 4 feet of impacted soil associated with the release would need to be removed and liner be subsequently placed to prevent any future vertical migration of chloride within the vadose zone. WPX will promptly notify NMOCD of the laboratory analytical results and discuss the course of action at that time.

WPX will proceed with the proposed alternative scope following confirmation and approval from NMOCD.

Jim Raley | Environmental Specialist - Permian Basin
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From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Friday, March 12, 2021 1:36 PM
To: Raley, Jim <James.Raley@wpxenergy.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>
Subject: [EXTERNAL] Follow-up after OCD and WPX meeting (3/11/2021)

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Jim,

I am glad we had a chance to discuss the Swearingen #1 release. As we discussed in the meeting, this release is in a sensitive location near the Pecos River at shallow groundwater depth. With contaminants very close to groundwater depth, the OCD would like to have WPX conduct some groundwater sampling at the location to verify that groundwater was not impacted. Please, review the associated map and complete the following:

- 3 borings completed as temporary monitoring wells.
 - a. "Up Gradient Boring Location" North-East of CH04
 - b. "Release Area Boring Location" Near PH02
 - c. "Down Gradient Boring Location" Southwest of PH09
- There may be some minor flexibility in boring locations as proposed by the OCD, but not a lot.
- Measure DTW from a surface mark before sampling, please purge well before sampling. Take soil samples at 3 ft increments on all 3 borings until groundwater depth is reached (3', 6', 9', 12', 15', 18'). Please use lab methods specified in part 29 of Spill Rule.
- Install 5 foot of two inch Schd. 40 PVC, equal-spacing across air water interface for temp well casing. Follow OSE requirements throughout process. Let completed well sit for at least 24 hours, or up to 72 hours.
- Groundwater samples should include general chemistry including major cations and anions.
- Please email groundwater sample results after laboratory analysis have been conducted and received.

Regards,

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