

Venegas, Victoria, EMNRD

From: Littrell, Kyle <Kyle_Littrell@xtoenergy.com>
Sent: Wednesday, July 29, 2020 8:53 AM
To: Venegas, Victoria, EMNRD; Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Eads, Cristina, EMNRD
Cc: CFO_Spill, BLM_NM; Ashley Ager; Baker, Adrian
Subject: [EXT] RE: NRM2006936118 SEVERUS TANK BATTERY @ O-30-20S-34E 0N 0E
Attachments: (C-141 Remediation Plan) NRM2006936118 SEVERUS TANK BATTERY @ O-30-20S-3....pdf; XTO_Deferral Request_Severus Tank Battery_NRM2006936118.pdf; 012920036_SL_RECEPTOR_2020.pdf

Good Morning Victoria,

In response to your denial, XTO provides the following additional information/clarification and requests you reconsider the deferral for approval. Reasons provided by you for denial are bulleted and our responses are listed below the bulleted item.

- The Depth to groundwater has been incorrectly assessed. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided. If XTO believes that groundwater is > 100', a borehole will need to be drilled onsite and a copy of the driller's log must be provided. Vertical delineation, which is driven by depth to water, is incomplete because the depth to groundwater has not been established.

The attached Figure 1 depicts water wells in the area surrounding the Site. The regional trend does not support shallow groundwater less than 50 feet deep at the Site. There are four water wells within a 2.8-mile radius that indicate regional depth to groundwater is greater than 100 feet bgs. In addition, there are no regional or Site-specific hydrological conditions, such as wetlands, surface water, or vegetation that suggest the Site is conducive to shallow groundwater.

The highest chloride concentration remaining in place is 67 mg/kg (well below the most stringent closure criteria). No produced water was released and based on the low chloride concentrations, no threat to groundwater quality by chloride exists as a result of this release. The remaining TPH impacts requested for deferral range from 2,500 mg/kg to 6,450 mg/kg. As demonstrated in the field screening results presented in borehole logs and soil sampling results, TPH concentrations decrease with depth and are below standards by 4 feet bgs. The lithology at the site is characterized by increasing clay content with depth. The less permeable clay likely restricted and will continue to restrict significant vertical migration of the TPH compounds. Finally, the TPH consists of predominantly the DRO constituent. The heavier chained hydrocarbons measured as DRO concentrations are less mobile than the lighter chained GRO constituents. The remaining TPH constituents are unlikely to impact groundwater due to the likely distance between the contaminant and groundwater of 100 feet, increasing clay content of the source lithology that impedes vertical migration through less permeable soil, and the fact that the remaining constituent is primarily a less mobile DRO component.

- The horizontal extent of the release has not been delineated. The edges -horizontal definition- of a liquid release must be determined. A visual footprint on the surface is not sufficient or adequate to assess the horizontal extent of the release. The only value for determination of horizontal impact are derived by either "background" value as determined appropriate to Rule 29, or, for chloride, 600 mg/Kg in soils.

As presented on Figure 3, five soil borings (BH04 through BH08) surround the release footprint. Two samples collected from each of these final lateral delineation borings are below 600 mg/kg for chloride. The release has

been defined laterally (horizontally) by those delineation soil samples, clean excavation confirmation samples, and by an adjacent lined containment to the south, not by visual footprint observations.

Only three samples (SW02, SW03, and FS03) with GRO/DRO and TPH concentrations exceeding the Closure Criteria were left in place. Further excavation in these areas would require major facility deconstruction.

- Sidewall sample SW02 is defined by delineation samples collected from boreholes BH01, BH03, BH07 and BH08, and excavation floor sample FS02. Impacted soil remains in place beneath/immediately adjacent to active production equipment.*
- Sidewall sample SW03 is defined by delineation samples collected from boreholes BH02, BH04, and BH06, excavation floor sample FS01, and excavation sidewall sample SW04. Impacted soil remains in place beneath/immediately adjacent to active production equipment.*
- Floor sample FS03 is defined by delineation samples collected from boreholes BH03 and BH07 and by the lined containment to the south. Hydro-excavation was conducted to remove as much impacted soil as possible. Impacted soil immediately north of the lined containment was left in place for compliance with XTO safety policy regarding soil-disturbing activities within 2 feet of active production equipment and would require major facility deconstruction.*

In summary, XTO requests the NMOCD reconsider denial of this deferral request. The majority of this release was contained in a lined containment. Only 0.6 bbls of crude oil were unrecovered. Impacted soil was excavated to the extent possible. Hydrovacuum excavation, manual removal, and heavy equipment were utilized to remove as much of the impacted soil as possible around an area with significant above and below-ground production equipment. The impacted soil left in place contains TPH in areas immediately under or around production equipment where remediation would require major facility deconstruction. The impacted soil left in place is vertically delineated and does not extend deeper than 4 feet below ground surface. The release and any remaining impacted soil are delineated by clean samples in surrounding boreholes, clean excavation confirmation samples, and the containment to the south. The site setting suggests potential impact to groundwater by the remaining TPH constituents is highly unlikely based on the regionally deep depth to groundwater and observed clayey lithology. This Site meets the NMOCD requirements for a deferral.

Based on this additional information and clarification, can you reconsider your denial of the deferral request for the Severus Tank Battery (Incident NRM2006936118)? Thanks. –Kyle

Kyle Littrell

Safety, Health & Environmental Supervisor
Permian Business Unit

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From: Venegas, Victoria, EMNRD [mailto:Victoria.Venegas@state.nm.us]

Sent: Thursday, July 9, 2020 4:53 PM

To: Littrell, Kyle <Kyle_Littrell@xtoenergy.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert,

EMNRD <Robert.Hamlet@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Cc: CFO_Spill, BLM_NM <blm_nm_cfo_spill@blm.gov>; Ashley Ager <aager@ltenv.com>; Baker, Adrian
<Adrian_Baker@xtoenergy.com>
Subject: NRM2006936118 SEVERUS TANK BATTERY @ O-30-20S-34E ON OE

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NRM2006936118 SEVERUS TANK BATTERY @ O-30-20S-34E ON OE

Mr. Littrell,

The OCD has denied the submitted Remediation Plan/Deferral Request C-141 for incident # NRM2006936118 SEVERUS TANK BATTERY @ O-30-20S-34E ON OE for the following reasons

- The Depth to groundwater has been incorrectly assessed. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided. If XTO believes that groundwater is > 100', a borehole will need to be drilled onsite and a copy of the driller's log must be provided. Vertical delineation, which is driven by depth to water, is incomplete because the depth to groundwater has not been established.
- The horizontal extent of the release has not been delineated. The edges -horizontal definition- of a liquid release must be determined. A visual footprint on the surface is not sufficient or adequate to assess the horizontal extent of the release. The only value for determination of horizontal impact are derived by either "background" value as determined appropriate to Rule 29, or, for chloride, 600 mg/Kg in soils.

The Denied C-141 can be found in the online image file. Please review and make the required correction prior to resubmitting through the fee portal.

Thank you,

Victoria Venegas
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Energy, Minerals, and Natural Resources
Oil Conservation Division
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OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.