

From: [Yu, Olivia, EMNRD](#)
To: ["Everhart, Harley"](#)
Cc: [Stahnke, Graham](#); [Billings, Bradford, EMNRD](#)
Subject: RE: 1RP4671_Rhombus Remediation Summary_5.2017_Response
Date: Friday, June 9, 2017 4:20:00 PM

Dear Mr. Everhart:

From the context of your responses regarding 1RP-4671, they seem to be related to process of delineation. NMOCD requires evidence that levels of contaminants (Benzene, BTEX, TPH, and chlorides) has decreased from the surface to the bottom, in order to determine the horizontal and vertical extent of the release. Thus, characterization of a release typically includes data from sample locations outside of the affected area (background), edges of the release (sidewalls), and release penetration (depth of sampling). Depending on the timeline between date of release and clean-up response, the contaminants may have traveled further down the soil profile than visible or through olfactory senses.

To specifically address your counterpoints:

1. These background samples are sufficient, but the point of this question is to determine whether the contaminant levels have decreased with depth. As presented, the chloride data indicate that vertical delineation are not complete at 3 ft. (Floor samples #1 and #5) and horizontal delineation is not complete at 2.5 ft. (Wall samples #2, #6, #10). Additional sample locations need to be establish laterally and in depth at these locations until permissible levels are obtained.
2. Permissible chloride level of 600 mg/kg is determined by concentration limits in contaminated soil to be accepted by a landfarm in NM and plant productivity in this region. Additional vertical sample depths are requested in order to verify the chloride plume and that a buffer above groundwater exists to protect humans, health, and the environment.
3. An outline of the release area on a scaled map is important to evaluate whether sample locations are representative of the potential pooling spots within the affected surface and at the perimeter.
4. According to a site visit on April 20, 2017, the release appears to have affected vegetation bordering the lease road. However, this visit was likely after some immediate remedial activities, so the distinction between road and pasture was not clearly defined.

If you have additional questions regarding the permissible chloride limit, please contact Bradford Billings. His email address is included.

Thanks,
Olivia

From: Everhart, Harley [mailto:heverhart@akaenergy.com]
Sent: Thursday, June 1, 2017 1:30 PM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>

Cc: Stahnke, Graham <gstahnke@sugf.com>

Subject: RE: 1RP4671_Rhombus Remediation Summary_5.2017_Response

Olivia,

If you do not mind I would like clarification on some of your concerns,

1. Were any field tests conducted? If so, please provide these data. The current report has insufficient data to determine a trend.
 - a. Page 37 and Page 16 are background samples taken near the remediation area at a depth of only 6 “bgs.
 - b. These background samples demonstrate the possibility of past leaks or spills not associated with this pipeline leak.
 - c. I would also like to mention that this well site does not belong to Frontier; therefore, we would not have any past sampling history.
2. Considering the depth to groundwater and distance to surface water sources, permissible chloride levels are 600 mg/kg obtained and maintained for a minimum of 5 ft. below. For example, if surface soil samples showed ≤ 600 mg/kg, these values need to be maintained at 5 ft. bgs. Based on tabulated data presented in pg. 20, vertical delineation is not complete. In particular, Sample #1, 2, 5, 6, and 10 require further vertical delineation. At any point the permissible level is exceeded, the additional 5 ft. recommences with some flexibility depending on the circumstances.
 - a. On page 12, the ground water locations exceed the radius of 2000 and 5000 Ft., to be exact the distance to the nearest water well is ~1.7 miles. .
 - b. The surface water is even at a greater distance at ~ 7.93 miles from the remediation site.
 - c. On page 18 there is no evidence of any ground water in Section 32, Township 18S, and Range 34E.
 - d. I must ask for more clarification on what is NMOCD requirement’s that set chloride limits? What regulation are you referencing that set these limits? Particularly when this remediation site does not pose any harm to human life, to animals, to plants or to any body of water of the US.
3. Please demarcate spill area on the map with sample locations.
 - a. Page 10, 11, and 14 demonstrates the Spill Area and Sample Locations. I am not sure what you are requesting.
4. Please be advised that a 20 mil liner is the minimum if used as part of a proposed remediation plan.
 - a. I understand, a 20 mil liner will be used instead of a 10 mil.
5. As this release occurred on State surface, like approval is required, along with any revegetation requirements.
 - a. The remediation area is on an existing road, see pages 10, 11, 14, 15, and page 16, to revegetate this area now would be futile.

From: Yu, Olivia, EMNRD [<mailto:Olivia.Yu@state.nm.us>]
Sent: Wednesday, May 31, 2017 8:18 AM
To: Everhart, Harley <heverhart@akaenergy.com>; agroves@slo.state.nm.us
Cc: Stahnke, Graham <gstahnke@sugf.com>
Subject: RE: 1RP4671_Rhombus Remediation Summary_5.2017

Good morning Mr. Everhart:

Please address these concerns regarding the delineation workplan for 1RP-4671:

1. Were any field tests conducted? If so, please provide these data. The current report has insufficient data to determine a trend.
2. Considering the depth to groundwater and distance to surface water sources, permissible chloride levels are 600 mg/kg obtained and maintained for a minimum of 5 ft. below. For example, if surface soil samples showed ≤ 600 mg/kg, these values need to be maintained at 5 ft. bgs. Based on tabulated data presented in pg. 20, vertical delineation is not complete. In particular, Sample #1, 2, 5, 6, and 10 require further vertical delineation. At any point the permissible level is exceeded, the additional 5 ft. recommences with some flexibility depending on the circumstances.
3. Please demarcate spill area on the map with sample locations.
4. Please be advised that a 20 mil liner is the minimum if used as part of a proposed remediation plan.
5. As this release occurred on State surface, like approval is required, along with any revegetation requirements.

Please confirm or let me know if you have questions/want clarification.

Thanks,
Olivia

From: Everhart, Harley [<mailto:heverhart@akaenergy.com>]
Sent: Tuesday, May 30, 2017 12:56 PM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>; agroves@slo.state.nm.us
Cc: Stahnke, Graham <gstahnke@sugf.com>
Subject: 1RP4671_Rhombus Remediation Summary_5.2017
Importance: High

Hello Olivia and Amber,

You will find attached the 1RP4671_Rhombus Remediation Summary_5.2017. For safety purposes and to avoid costly delays, Frontier is requesting to move forward on the completion of this remediation project.

Respectfully,

Harley Everhart

EH&S Compliance

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heverhart@akaenergy.com



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