

From: [Yu, Olivia, EMNRD](#)
To: ["Bill Green"](#)
Cc: mpatterson@ramenergy.net; [Darrell Pennington](#)
Subject: RE: NMOCD Case No. 1RP-4599, RAM West Dollarhide Queen Sand Unit Satellite No 3 OCD Workplan
Date: Thursday, March 16, 2017 4:10:00 PM
Attachments: image001.png

Dear Mr. Green:

NMOCD requests that a modified delineation workplan for 1RP-4599 be submitted addressing the below concerns. Remediation actions proposed in the workplan will be discussed at a later stage.

- 1) According to the NMOSE water rights database, using a radius of 2000 m (approximate length of a section) around the release location, the average depth to water table is 86 ft. This changes the permissible levels of contaminants to 10 mg/kg Benzene, 50 mg/kg BTEX, 1000 mg/kg TPH. Permissible chloride levels are 600 mg/kg.
- 2) Provide the correct conversion units. mmhos/m used to report EM results are not standard electrical conductivity units. Although EM survey maps are typically reported in mmhos/cm, all values need to be in either mg/kg or ppm to facilitate interpretation and to comply with standards set forth in the regulations.
- 3) Provide the raw data, instrument parameters, and manual for the EM meter.
- 4) Tabulate the different soil types/changes in soil texture detected in the release area, if present, and their respective calibration coefficients.

Broadly, the delineation workplan needs to demonstrate complete vertical delineation across the release area until permissible level of chlorides (600 mg/kg) is obtained and maintained for an additional 10 ft. bgs. The same 600 mg/kg level is applied for horizontal delineation.

5. Based on the EM survey map, the northwestern edge of the release, yellow polygon bordering the pasture, indicates that horizontal delineation has not been completed.
6. Further vertical delineation is required at the point of release based on the orange color representing higher concentrations of chlorides present in the soil profile at 5m (depth of EM survey).
7. A few more chloride calibration sample locations are requested to fully capture the extent of the chloride plume. These additional locations are demarcated on page 12 of the reviewed attachment.
8. Background samples are collected typically outside of the release area. One suggested location is marked on page 12 to the west of the yellow edge of the release. However, the location of this background sample would be relocated, closer to the road, should the western edge of the release expands laterally.
9. Clarify that analytical samples for TPH and BTEX will be collected not only in the upper pool.

Please let me know if you have questions or would like to request a meeting.

Thanks,

Olivia Yu

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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 ground water, 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, local laws and/or regulations.

From: Bill Green [mailto:Bill.Green@eccgrp.com]
Sent: Friday, March 10, 2017 10:01 AM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Cc: mpatterson@ramenergy.net; Darrell Pennington <dpennington@ramenergy.net>
Subject: NMOCD Case No. 1RP-4599, RAM West Dollarhide Queen Sand Unit Satellite No 3 OCD Workplan

Good Morning Ms. Yu,

Attached please find the remediation workplan for the Satellite #3 release response. Please review the data and let us know your questions, comments, or concerns, if any, and approval to proceed with the activities.

Sincerely,



William "Bill" Green, PG 136, CPM
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