

**From:** [Yu, Olivia, EMNRD](#)  
**To:** ["Buddy Richardson"](#)  
**Cc:** [Billings, Bradford, EMNRD](#); [Darrell Pennington](#); [Matt Patterson](#)  
**Subject:** RE: RAM Energy - Yates State #2  
**Date:** Thursday, October 5, 2017 10:08:00 AM

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Mr. Richardson:

Thank you for your prompt response. To clarify your comment regarding chloride levels:

At the time 1RP-4587 was issued, NMOCD required chlorides to be delineated to 250 mg/kg and remediated to 600 mg/kg.

Olivia

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**From:** Buddy Richardson [mailto:Buddy.Richardson@eccgrp.com]  
**Sent:** Thursday, October 5, 2017 9:54 AM  
**To:** Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>  
**Cc:** Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Darrell Pennington <dpennington@ramenergy.net>; Matt Patterson <mpatterson@ramenergy.net>  
**Subject:** RAM Energy - Yates State #2

Ms. Yu,

In your email of October 2, you asked for RAM Energy to confirm their understanding of 8 issues you provided in your response to RAM's submittal of a document titled ***Release Characterization Report and Proposed Remediation Work Plan – Addendum for the Yates State #2 Tank Battery*** (NMOCD Case No. 1R-4587), Lea County, New Mexico. Please find these confirmations or comments below in **red font**. Thanks.

Buddy Richardson



George H. (Buddy) Richardson, P.G.  
Manager Hydrogeology | Enviro Clean Cardinal  
918.794.7828 office | 918.392.7843 direct | **918.210.8128 cell**  
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**From:** Yu, Olivia, EMNRD [mailto:Olivia.Yu@state.nm.us]  
**Sent:** Monday, October 02, 2017 3:02 PM  
**To:** Buddy Richardson <[Buddy.Richardson@eccgrp.com](mailto:Buddy.Richardson@eccgrp.com)>; Billings, Bradford, EMNRD <[Bradford.Billings@state.nm.us](mailto:Bradford.Billings@state.nm.us)>

**Cc:** Darrell Pennington <[dpennington@ramenergy.net](mailto:dpennington@ramenergy.net)>; Matt Patterson <[mpatterson@ramenergy.net](mailto:mpatterson@ramenergy.net)>

**Subject:** RE: RAM Energy - Yates State #2

Dear Mr. Richardson:

NMOCD approves of the proposed remediation plan and location of the proposed locations of the 2 temporary groundwater monitoring wells for 1RP-4587 with these stipulations.

1. If feasible, NMOCD prefers three bore volumes to be bailed out before sampling. **Confirmed.**
2. Due to the depth to groundwater and proximity of the playa, NMOCD requests that the groundwater be tested with the full list of constituents in Method 8260. **Confirmed.**
3. Provide the locations and the logs of the soil bores for the temporary monitoring wells in the subsequent report. **Confirmed.**
4. As the soil bores for the temporary groundwater monitoring wells can be used as a proxy to complete vertical delineation, laboratory analyses of chlorides in 5 ft. intervals of the soil bores are required until muddying up commences. **Confirmed.**
5. If feasible, NMOCD prefers 4 ft. excavation for the tank battery area before proper placement of a minimum 20 mil liner. If not, ensure that the liner is flushed up against the tanks. **Confirmed.**
6. Laboratory analyses (TPH extended, chlorides) of confirmation bottom and sidewalls samples are required of the excavated areas. Sample locations should be no greater than 50 ft. apart. **Confirmed.**
7. Permissible chloride levels for remediation is 600 mg/kg. **Previously the NMOCD had set this chloride remediation level at 250 mg/kg. Has this now been raised to 600 mg/kg?**
8. Provide a scaled map with the confirmation sample locations demarcated and areas with differing excavation depths outlined and annotated. **Confirmed.**

Please confirm or inform if clarification is required.

Thanks,

Olivia Yu  
Environmental Specialist  
NMOCD, District I  
[Olivia.yu@state.nm.us](mailto:Olivia.yu@state.nm.us)  
575-393-6161 x113

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:** Buddy Richardson [<mailto:Buddy.Richardson@eccgrp.com>]  
**Sent:** Tuesday, September 19, 2017 12:26 PM  
**To:** Yu, Olivia, EMNRD <[Olivia.Yu@state.nm.us](mailto:Olivia.Yu@state.nm.us)>  
**Cc:** Darrell Pennington <[dpennington@ramenergy.net](mailto:dpennington@ramenergy.net)>; Matt Patterson <[mpatterson@ramenergy.net](mailto:mpatterson@ramenergy.net)>  
**Subject:** RAM Energy - Yates State #2

Ms. Yu,

Please find attached a document titled ***Release Characterization Report and Proposed Remediation Work Plan – Addendum*** for the Yates State #2 Tank Battery (NMOCD Case No. 1R-4587), Lea County, New Mexico. Enviro Clean Cardinal, LLC (ECC) submits this document on behalf of our client, RAM Energy Resources in response to your comments of August 29 and 30, 2017, and our conference call of September 7, 2017.

During our conference call, Mr. Bradford Billings asked for an opportunity to approve the location of two temporary monitoring wells prior to their installation. We are providing a figure in this submittal that depicts the locations of both temporary wells and it is our hope that Mr. Billings can approve these locations from this figure. Please do not hesitate to contact me if you have questions. Thanks.

Buddy Richardson



George H. (Buddy) Richardson, P.G.  
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