

From: [Yu, Olivia, EMNRD](#)
To: [Mark Larson](#)
Subject: RE: Salado Draw
Date: Thursday, October 12, 2017 7:09:00 AM
Attachments: image001.png

Good morning Mark:

Thank you for the explanation.

Olivia

From: Mark Larson [mailto:Mark@laenvironmental.com]
Sent: Wednesday, October 11, 2017 5:13 PM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Subject: RE: Salado Draw

Olivia,

Due to the narrow width of the spill, approximately 3 to 5 feet, the EM-38 survey was performed in two (2) liner transects: one transect on the north side of the lease road between the lease road and a berm for a buried gas pipeline and the 16 inch lay flat line and on the south side of the lease road between the lease road and a poly flow line. The spill was very narrow and so the liner transects were used to identify locations where elevated conductivity reading were observed in the vertical (deeper) profile due to pooling from produced water. We monitored the instrument readout while walking the transect and identified four (4) locations on the north side of the lease road with vertical dipole readings from about 12.87 (S-2) to 18.45 (S-3) times over background. The reading at S-5 was collected where the spill crossed over the lease road. This reading was about 7.69 time over background. We stepped out to the south at S-6 for lateral delineation where the EM-38 vertical dipole reading was less than background. Background was measured southwest of the location. The reading shown as v77.5 (S-3) represents the vertical dipole measurement at the sampled location. It was not possible to contour the drawings since the EM readings were collected along the liner transect. We were not able to collect samples with the Terraprobe on the north side of the buried pipeline due to the barrier provided by the berm overlying the buried gas pipeline and the 16 inch lay flat line which was inflated to 16 inches. The location of S-2 is where the spill originated and where we were able to probe to about 12 feet and achieve vertical delineation.

Mark

From: Yu, Olivia, EMNRD [mailto:Olivia.Yu@state.nm.us]
Sent: Wednesday, October 11, 2017 5:32 PM
To: Mark Larson
Subject: RE: Salado Draw

Mark:

Unless I am looking at another version, I do not see the EM38 data (color gradient) on Figure 3.

Thanks,

Olivia

From: Mark Larson [<mailto:Mark@laenvironmental.com>]
Sent: Wednesday, October 11, 2017 4:18 PM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Subject: RE: Salado Draw

Richard,

It may not be possible to collect additional soil samples tomorrow since a one call notification for the first spill was not made however I discussed the initial samples with Carson Hughes and he stated the reason for discontinuing sample collection at SP-1 and SP-4 was due to caliche in the subsurface. OCD has been consistent under the new guideline requiring chloride delineation to 600 mg/Kg for groundwater depth greater than 100 feet. Given the delineation limit of 600 mg/Kg and chloride concentrations of 657 mg/Kg (SP-1, 5-6 ft) and 788 mg/Kg (SP-4, 5-6 ft) we will have to collect soil samples at 10, 15 and 20 feet to demonstrate vertical delineation. This will require mobilizing a drilling rig to accomplish. In regards the EM-38 data requested by OCD the data is presented on Figure 3. Please let me know how you would like to proceed.

Mark

From: Yu, Olivia, EMNRD [<mailto:Olivia.Yu@state.nm.us>]
Sent: Thursday, October 05, 2017 1:10 PM
To: DeLeon, Josepha; Tucker, Shelly; jamos@blm.gov
Cc: Grubbs, Richard T; Debeysey, Svetlana; Mark Larson
Subject: RE: Salado Draw

Dear Ms. DeLeon:

NMOCD does not accept the final C-141 for 1RP-4715. Please address these concerns regarding the delineation report.

- NMOCD does not consider vertical delineation to be completed at S-1 and S-4. Permissible chloride levels of 600 mg/kg must be obtained and maintained for a minimum of 5 ft. further in depth. Some flexibility for the additional depth may be granted.
- Provide the EM-38 data which were used to determine the soil sampling locations.
- Permissible chloride levels for remediation is 600 mg/kg. Please revise the proposed remediation plan.

Thanks,

Olivia Yu
Environmental Specialist
NMOCD, District I
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: DeLeon, Josepha [<mailto:JDxD@chevron.com>]
Sent: Monday, August 14, 2017 1:43 PM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>; Brown, Maxey G, EMNRD <MaxeyG.Brown@state.nm.us>; Tucker, Shelly <stucker@blm.gov>; jamoss@blm.gov
Cc: Grubbs, Richard T <rtgrubbs@chevron.com>; Debeysey, Svetlana <LDebeysey@chevron.com>
Subject: Salado Draw

Attached is the signed, final delineation report and final C-141 for the spill that occurred at Salado Draw.

*Josie DeLeon, HES Specialist -
Compliance Support - Environmental*

**Chevron - MCBU
(New Mexico, East Texas and Ft. Stockton Areas)**

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