

Venegas, Victoria, EMNRD

From: Bob Allen <ballen@sesi-nm.com>
Sent: Thursday, April 30, 2020 3:32 PM
To: Bynum, Tom (Contract); Venegas, Victoria, EMNRD; Hamlet, Robert, EMNRD; Bratcher, Mike, EMNRD; Eads, Cristina, EMNRD; Billings, Bradford, EMNRD
Cc: Kathy Purvis; Davis, Amanda; Robison, Jason; Mathews, Wesley; Carrasco, Lupe; DeHoyos, Kendra
Subject: [EXT] RE: [EXTERNAL] NRM2003159278 THISTLE UNIT #44H @ 30-025-41032
Attachments: Release facing Northeast (4).JPG; GOOGLE EARTH MAP FOR WP-1.pdf; 4-30-20.jpg; DJI_0039.JPG

Victoria,

NMOCD is requiring a target contamination level of either 600 mg/kg or “natural” (undisturbed by oil & gas operations) background taken more than 50 feet but not over 100 feet from spill area for horizontal extent sampling.

I have attached a sample map (Google Earth photo dated 11/2/17) of the Devon Thistle 44N location showing the track of the release and sample points and a ground photo taken 11-27-19 and an aerial photo taken yesterday (4-29-10) of the release area for your reference. The Thistle 44H is a very typical production location found in our area.

I feel that a great number of production locations will have deferred or unreportable release areas unrelated to the release being investigated. These areas most certainly have chloride contamination levels may exceed the 600 mg/kg target. If these areas are included or adjacent to the release being investigated, the location where 600 mg/kg concentrations are found may very well be a greater a distance from the release being investigated, thus yielding a false horizontal extent for the investigated release. Horizontal extent of a release is integral in the area calculation of the release area and in the volume calculations. In such cases, the results of the chloride sampling would not be useful in determining the horizontal extent for chloride contamination. This case will be most observable when the investigated release track is clearly visible as in the case of the Thistle 44H.

If the NMOCD will not accept the visual observation of horizontal extent and the target contaminate method may yield false results of the horizontal extent of chloride contamination, I would propose a alternative method of sampling to determine the horizontal extent of chloride contamination. Instead of chasing a target level (600 mg/kg or natural background), samples would be extracted just outside the visually observed horizontal extent and the results compared to the results from samples extracted from inside the release area. If the outside sample is lower than the inside, that would indicated the outside sample is outside the horizontal extent of chloride contamination for the release being investigated. The converse is also true and would require additional sampling to determine the horizontal extent of contamination. Field testing results should be used for the horizontal sampling so there is no waiting period for lab results. The horizontal sample points on the 4-30-20 file are colored black and the original sample points are colored red. Sample points 15,16,17,19,20, and 21 did not find the target of 600 mg/kg and a second sample 3-4 feet out was needed to reach the target. The information resulting from all horizontal sampling yields no usable information regarding the release being investigated. The extra time spent to extract the samples and run field chloride tests (approximately \$950.00) actually provides little or no useful information that was not known beforehand.

When all is said and done, the confirmation samples of the sides and bottom of the excavation prove or disprove that horizontal extent of contamination has been, in fact, determined and the contaminated material has been removed.

Thank you for your consideration.

Bob Allen CSP, CHMM
Office: (575) 397-0510
Cell (575) 390-7063



From: Bynum, Tom (Contract) <Tom.Bynum@dvn.com>
Sent: Monday, April 27, 2020 5:48 PM
To: Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Cc: Bob Allen <ballen@sesi-nm.com>; Kathy Purvis <office2@sesi-nm.com>; Davis, Amanda <Amanda.Davis@dvn.com>; Robison, Jason <Jason.Robison@dvn.com>; Mathews, Wesley <Wesley.Mathews@dvn.com>; Carrasco, Lupe <Lupe.Carrasco@dvn.com>; DeHoyos, Kendra <Kendra.DeHoyos@dvn.com>
Subject: RE: [EXTERNAL] NRM2003159278 THISTLE UNIT #44H @ 30-025-41032

Hey Victoria,
Thank you so much for your time and effort in trying to help us understand this better. We will reach out if any other questions come up. Have a great evening!

Thank you,

TOM BYNUM
EHS CONTRACTOR
580-748-1613

Devon - Internal

From: Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>
Sent: Monday, April 27, 2020 4:14 PM
To: Bynum, Tom (Contract) <Tom.Bynum@dvn.com>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Cc: Bob Allen <ballen@sesi-nm.com>; Kathy Purvis <office2@sesi-nm.com>; Davis, Amanda <Amanda.Davis@dvn.com>; Robison, Jason <Jason.Robison@dvn.com>; Mathews, Wesley <Wesley.Mathews@dvn.com>; Carrasco, Lupe <Lupe.Carrasco@dvn.com>; DeHoyos, Kendra <Kendra.DeHoyos@dvn.com>
Subject: RE: [EXTERNAL] NRM2003159278 THISTLE UNIT #44H @ 30-025-41032

Hi Mr. Bynum,
Please see the answer below, in blue.
Thank you,

Victoria Venegas
State of New Mexico
Energy, Minerals, and Natural Resources
Oil Conservation Division
811 S. First St., Artesia NM 88210

(575) 748-1283

Victoria.Venegas@state.nm.us

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.

From: Bynum, Tom (Contract) <Tom.Bynum@dvn.com>

Sent: Monday, April 27, 2020 2:32 PM

To: Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>

Cc: Bob Allen <ballen@sesi-nm.com>; Kathy Purvis <office2@sesi-nm.com>; Davis, Amanda <Amanda.Davis@dvn.com>; Robison, Jason <Jason.Robison@dvn.com>; Mathews, Wesley <Wesley.Mathews@dvn.com>; Carrasco, Lupe <Lupe.Carrasco@dvn.com>; DeHoyos, Kendra <Kendra.DeHoyos@dvn.com>

Subject: [EXT] RE: [EXTERNAL] NRM2003159278 THISTLE UNIT #44H @ 30-025-41032

Good afternoon Ms. Venegas,

I have read over the Title 19 statute a couple of times now, and cannot seem to find some of this information below. Could you please point me to this information within the 19.15.29 NMAC regulation?

Also, we normally achieve full horizontal delineation once we have started the remediation process, due to the fact that gathering sidewall samples during an excavation is simpler and more efficient. Is this not an approved practice anymore?

Any help you can give would be greatly appreciated, have a great day!

Thank you,

TOM BYNUM

EHS CONTRACTOR

580-748-1613

Devon - Internal

From: Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>

Sent: Monday, April 27, 2020 11:04 AM

To: Bynum, Tom (Contract) <Tom.Bynum@dvn.com>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>

Cc: Bob Allen <ballen@sesi-nm.com>; Kathy Purvis <office2@sesi-nm.com>

Subject: [EXTERNAL] NRM2003159278 THISTLE UNIT #44H @ 30-025-41032

NRM2003159278 THISTLE UNIT #44H @ 30-025-41032

Mr. Bynum,

The OCD has denied the submitted Remediation Plan C-141 for incident # NRM2003159278 THISTLE UNIT #44H @ 30-025-41032 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 Devon believes that groundwater is > 100', a borehole will need to be drilled onsite and a copy of the driller's log must be provided.
- If Devon chooses not to drill a borehole to confirm the depth to groundwater, the site must be remediated to meet the Closure Criteria in Table 1 for groundwater at a depth of 50 feet or less.
- **Cannot find this information in the 19.15.29 NMAC regulation.**
- **Please, see 19.15.29.11 SITE ASSESSMENT/CHARACTERIZATION: Depth to ground water. The responsible party must determine the depth to ground water where the release occurred. If the exact depth to ground water is unknown, the responsible party must provide a reasonable determination of probable ground water depth using data generated by numeric models, cathodic well lithology, water well data, published information or other tools as approved by the appropriate division district office. If the responsible party uses water well data, the responsible party must provide all pertinent well information.**
- 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. This is especially important for "on-pad" releases to ensure the release did not extend to the "off-pad"/pasture area.
- **This is normally done during the excavation, gathering sidewall samples while we excavate has proved to be an accurate and effective way to achieve this.**
- **Samples can be collected during the remediation process. In respect to horizontal delineation, it has not been completed. While vertical definition of contamination that may be acceptable is almost exclusively driven by depth to water, as determined, and as driven by Table I in the spill rule, horizontal definition is different. The edges (horizontal definition) of a liquid release must be determined as well. 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. Therefore, horizontal soils delineation for chloride should be 600 mg/kg (again, or background) for all liquid releases, either on or off production pad. It is conceivable that in determining the horizontal extent of chloride that the edge of the production pad may be encountered, if last sample taken on pad limit, samples(s) must be obtained off pad to determine extent of release. If horizontal delineation samples on pad eventually reach a mechanical barrier, (such as pipeline or battery) sample(s) should be obtained as near as possible on the linear opposite side of said barrier and as close as possible to the barrier.**
It is conceivable that a liquid release may occur with, for example, a surface soil chloride of 19,000 mg/Kg, and if it is reliably determined that groundwater is over 101 feet below ground surface, then that value may stand as a vertical definition, but nonetheless, the horizontal value(s) for lateral extent of liquid release would still, of Rule 29 necessity, be 600 mg/Kg chloride or less. This would be inclusive of both "on-pad" of "off-pad" release area. The above is laboratory data driven, not just reported visual extent of a liquid release or calculated and reported release volumes. As indicated in the spill rule, a scaled map with horizontal and vertical definition of actual laboratory values is required. Generally, the top one foot sample suffices for immediate horizontal evaluation and deeper contamination would likely be identified during actual remediation.

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
State of New Mexico

Energy, Minerals, and Natural Resources
Oil Conservation Division
811 S. First St., Artesia NM 88210
(575) 748-1283
Victoria.Venegas@state.nm.us

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.

Confidentiality Warning: This message and any attachments are only for the use of the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation or other use of all or any portion of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system. This message was sent by a contractor of Devon Energy Corporation or one of its affiliate or subsidiaries ("Devon") and does not convey that contractor has the actual, implied, or apparent authority to contract on behalf of Devon. No agreement with Devon shall be of any force or effect unless it is signed by a duly authorized representative of Devon.

Confidentiality Warning: This message and any attachments are intended only for the use of the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation or other use of all or any portion of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system.