

Bratcher, Mike, EMNRD

From: Bratcher, Mike, EMNRD
Sent: Friday, May 11, 2018 3:32 PM
To: 'Fulks, Brett'
Cc: Shoemaker, Mike; Billings, Bradford, EMNRD
Subject: RE: [EXTERNAL] RE: Cotton Draw Unit 181 SWD_60BBL PW_9.5.2017

RE: Devon Energy * Cotton Draw Ut 181 SWD * 2RP-3990 * DOR: 11/3/16

Brett,

As discussed, OCD approves your proposal for remediation of the above referenced release with the following:

- Vertical delineation is to be performed at S5 and S6 prior to commencement of this proposal.
- Obtain and provide OCD analyses of water used in the project. If one water supply well is used, one set of samples, obtained directly from that well will be sufficient. If multiple sources are used, all source water must be tested. All water testing needs to include, at a minimum, TDS, sulfates, chloride, total alkalinity, calcium, magnesium, potassium, and sodium contents.
- If transports are used to ferry water to the site, they are to be cleaned prior to filling with fresh water. At least two sets of random samples of the water in the transports are to be obtained, directly from the transport, for analyses. All analytical results are to be provided to OCD upon receipt by Devon.
- Volume of all water utilized for the project is to be provided to OCD immediately after application, with date and method of application provided.
- OCD agrees with Devon's proposal to obtain quarterly soil samples, in one foot increments, to four feet bgs, at all sample points. Resulting data is to be provided to OCD upon receipt by Devon.
- After the first year of treatment, a full delineation at all sample points will be required. Results are to be provided to OCD for review. OCD will make a determination as to continuation of the project, closure of the project, request for an alternative remediation proposal, or monitoring schedule and requirements, dependent on analytical results.
- One year phase will commence upon first application of gypsum and water. Notify OCD once this application has been scheduled.
- In the event of a second release over any portion of this area, at any time in the future, immediate soil removal and disposal, to a minimum of 4' bgs, will be required (after appropriate notifications). Should a release affect any portion of the site during this remedial process, this remediation proposal will become void, and a new delineation/remediation process, will be required.
- OCD may request additional sampling at any time during or after this process.
- Devon agrees to satisfactorily resolve all open RP incidents associated with this well (with the exception of 2RP-3990), not later than 8/11/2018. This includes 2RP-3363, 2RP-3905, and 2RP-4407. There is also open, 1RP-4559. It was an Initial/Final inadvertently submitted to, and entered by, OCD District 1. OCD will agree to close that RP incident.

Please advise if Devon agrees with the conditions of approval as listed above.

Thank you,

Mike Bratcher
NMOCD District 2
811 South First Street
Artesia, NM 88210

575-748-1283 Ext 108

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: Fulks, Brett <Brett.Fulks@dvn.com>
Sent: Wednesday, May 9, 2018 2:40 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Cc: Shoemaker, Mike <Mike.Shoemaker@dvn.com>
Subject: FW: [EXTERNAL] RE: Cotton Draw Unit 181 SWD_60BBL PW_9.5.2017

Mike,

Thank you again for seeing us last week. I just wanted to follow up on the approval for this facility so that we could begin planning the work.

Thanks,

Brett Fulks
EHS Representative

Devon Energy Corporation
6488 Seven Rivers Highway
Artesia, New Mexico 88210
575 748 1844 Direct
432 301 3223 Mobile



From: Fulks, Brett
Sent: Tuesday, November 14, 2017 10:51 AM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; DeLaRosa, Dana <Dana.DeLaRosa@dvn.com>; agroves@slo.state.nm.us
Cc: Shoemaker, Mike <Mike.Shoemaker@dvn.com>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Frazier, Billy <Billy.Frazier@dvn.com>
Subject: RE: [EXTERNAL] RE: Cotton Draw Unit 181 SWD_60BBL PW_9.5.2017

Mike,

Thank you for the response. Below is a section from the off pad remediation plan submitted on 3/23/2017. As you can see the plan was to both apply additives as you referenced as well as flush the area, rather than rely on rain alone. If the language in this section is the primary concern, we could of course remove the precipitation language following it, and restructure the bullet point above to indicate that the flooding will be the primary driver of the chlorides. These are the

types of sticking points that we would like to have open dialogue about to understand what the Division would like to see to avoid a dig and haul plan. Further on in the proposed work plan on page 5 and continuing into page 6, is a monitoring regime that spells out exactly how we would proceed with monitoring the remediation to confirm it's efficacy. This monitoring plan spells out the entire time of the monitoring plan as well as the what is to be done once the goals are met and how we will proceed if they are not met, including a full delineation of vertical extent of chlorides left in place. As far as the multiple releases noted, the on pad portion of this remediation is complete, that job also closed out an existing open C-141, I wanted to get the off pad portion approved and executed so that a single completion report could be generated documenting both C-141's in the same document. I understand that this would have to occur after the holiday but I do agree that I think this meeting would be beneficial.

Proposed Remedial Actions

- Earthen berms will be constructed in the pasture to encompass the
- Gypsum (CaSO_4) will be worked into the top 0.5-feet of soil tons/acre (maximum recommended application rate) within the i order to replace sodium on the soil cation exchange complex.
- Following gypsum incorporation, the impacted area will be flo water in order to solubilize they gypsum and incorporate it furtl profile.
- The treated soil will then be left in-situ to allow for natural perco to occur following natural precipitation events.
- The impacted area will be contoured and left in a "rough approximate natural surface deviations, control erosion, promote 1 to hold water.

Thanks,

Brett Fulks
EHS Representative

Devon Energy Corporation

6488 Seven Rivers Highway
Artesia, New Mexico 88210
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432 301 3223 Mobile



From: Bratcher, Mike, EMNRD [<mailto:mike.bratcher@state.nm.us>]

Sent: Tuesday, November 14, 2017 10:25 AM

To: Fulks, Brett <Brett.Fulks@dvn.com>; Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; DeLaRosa, Dana <Dana.DeLaRosa@dvn.com>; agroves@slo.state.nm.us

Cc: Shoemaker, Mike <Mike.Shoemaker@dvn.com>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Frazier, Billy <Billy.Frazier@dvn.com>

Subject: RE: [EXTERNAL] RE: Cotton Draw Unit 181 SWD_60BBL PW_9.5.2017

Good Morning Brett,

I will weigh in a little on this one and hopefully give some reasoning behind the agency's reluctance to approve the proposal as submitted. I believe the proposal, basically, was to let rain naturally flush/attenuate the contaminant, and monitor for a number of, possibly, years. OCD does not want to have numerous projects that are open ended and in a monitoring phase for an unknown/unspecified period of time. OCD has concerns of multiple spills in the same area, naturally attenuated, possibly creating a large mass of salt or other contaminant. I believe this particular site was only drilled a relatively short time ago and already has several releases attributed to it. These are just a couple of concerns that come to mind right away. The "flushing" that has been approved in District 2, has been approved in an area where there is no protectable ground water at all, and even then, the flushing is done in a very controlled manner, with various additives applied in a somewhat engineered fashion. With these projects, OCD requests the delineation up front, and a follow up delineation to verify the effectiveness of the application/applications. OCD would consider a proposal that utilizes soil washing, or a controlled soil flushing as an alternative to dig and haul. The agency does acknowledge industry's dilemma and concerns when it comes to dig and haul, but has reservations with the natural attenuation proposal, relying on rain in a desert, along with the concerns mentioned.

OCD would absolutely accommodate a meeting to discuss the matter more in depth if you would like. At this time, it would have to be after the Thanksgiving Holiday, but a meeting may prove to be beneficial and productive for all.

Thank you,

Mike Bratcher
NMOC District 2
811 South First Street
Artesia, NM 88210
575-748-1283 Ext 108

From: Fulks, Brett [<mailto:Brett.Fulks@dvn.com>]

Sent: Tuesday, November 14, 2017 9:59 AM

To: Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; DeLaRosa, Dana <Dana.DeLaRosa@dvn.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; agroves@slo.state.nm.us

Cc: Shoemaker, Mike <Mike.Shoemaker@dvn.com>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Frazier, Billy <Billy.Frazier@dvn.com>

Subject: RE: [EXTERNAL] RE: Cotton Draw Unit 181 SWD_60BBL PW_9.5.2017

Crystal/Bradford,

Would it be possible for us to meet and discuss the denial of this plan? This plan was submitted many months ago and it would be nice for us to understand why the NMOCD will not let this plan go forward as it currently is.

Thanks,

Brett Fulks
EHS Representative

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From: Weaver, Crystal, EMNRD [<mailto:Crystal.Weaver@state.nm.us>]
Sent: Tuesday, October 24, 2017 12:05 PM
To: Fulks, Brett <Brett.Fulks@dvn.com>; DeLaRosa, Dana <Dana.DeLaRosa@dvn.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; agroves@slo.state.nm.us
Cc: Shoemaker, Mike <Mike.Shoemaker@dvn.com>
Subject: RE: [EXTERNAL] RE: Cotton Draw Unit 181 SWD_60BBL PW_9.5.2017

RE: Devon Energy * Cotton Draw Ut 181 * 30-015-41649 * 2RP-3990 * DOR: 11/3/16

Brett,

OCD has discussed this matter again internally with our Santa Fe office, and we have concluded that the proposal that applies to the area off the pad for case number 2RP-3990 (at the above mentioned location) is not approved. Before in the email on 10/12/17 OCD had asked for an alternative plan by 11/10/17, however, since after that request a discussion began, OCD will thus extend the due date for the requested alternative plan to be submitted electronically to OCD on or before 11/17/17.

Thank you,

Crystal Weaver
Environmental Specialist
OCD – Artesia District II
811 S. 1st Street
Artesia, NM 88210
Office: 575-748-1283 ext. 101
Cell: 575-840-5963
Fax: 575-748-9720

From: Fulks, Brett [<mailto:Brett.Fulks@dvn.com>]

Sent: Monday, October 16, 2017 3:03 PM

To: Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; DeLaRosa, Dana <Dana.DeLaRosa@dvn.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; agroves@slo.state.nm.us

Cc: Shoemaker, Mike <Mike.Shoemaker@dvn.com>

Subject: RE: [EXTERNAL] RE: Cotton Draw Unit 181 SWD_60BBL PW_9.5.2017

Crystal,

It was actually my understanding from our conversations, that the OCD was interested in approving the proposal of flushing, but that you all were still evaluating what conditions/stipulations to put around the closure to insure that the plan actually worked. Also in one early meeting with Jim Griswold on spills as a whole, Jim stated that the OCD was interested in alternative proposals to dig and haul remediation plans, which prompted this proposal in the first place. We have been awaiting an approval with conditions for the plan as approved and as such the impacted area off pad has unfortunately been left untouched. I see below that you mention the NMOCD has not changed its position on flushing, it is my understanding that numerous plans similar in nature have been authorized in the state, especially where protectable ground water is nonexistent or at great depths. In our most recent work plan request, we site ground water at 450', at approximately 2,681 meters away from our location, with the closest well being at 852' deep at approximately 1,996 meters away from the location, according to the New Mexico Office of the State Engineer site. We will work to supply you with the updates for 2RP-3905 and 2RP-3362 by 11/10 as requested, but would still like for the NMOCD to consider our work order as proposed for 2RP-3990.

Thanks,

Brett Fulks
EHS Representative

Devon Energy Corporation

6488 Seven Rivers Highway
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432 301 3223 Mobile



From: Weaver, Crystal, EMNRD [<mailto:Crystal.Weaver@state.nm.us>]

Sent: Monday, October 16, 2017 2:29 PM

To: Fulks, Brett <Brett.Fulks@dvn.com>; DeLaRosa, Dana <Dana.DeLaRosa@dvn.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; agroves@slo.state.nm.us

Cc: Shoemaker, Mike <Mike.Shoemaker@dvn.com>

Subject: RE: [EXTERNAL] RE: Cotton Draw Unit 181 SWD_60BBL PW_9.5.2017

Brett/Mike,

I recall where we left off on the proposal for 2RP-3990 and it is stagnated as you mentioned but OCD has not changed it's position much on requests for flushing especially for locations where protectable groundwater is present. With that

being said, Devon's best move forward with this project would be to reconsider their proposal and provide an alternative proposal which offers a different method of treatment for this location.

We look forward to seeing what else you have in mind. Please remit an alternative proposal for case 2RP-3990, as well as the closure reports for the other cases 2RP-3362 and 2RP-3905 by no later than 11/10/17.

Thank you,

Crystal Weaver

Environmental Specialist
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From: Fulks, Brett [<mailto:Brett.Fulks@dvn.com>]

Sent: Monday, October 16, 2017 1:26 PM

To: Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; DeLaRosa, Dana <Dana.DeLaRosa@dvn.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; agroves@slo.state.nm.us

Cc: Shoemaker, Mike <Mike.Shoemaker@dvn.com>

Subject: RE: [EXTERNAL] RE: Cotton Draw Unit 181 SWD_60BBL PW_9.5.2017

Crystal,

For 2RP-3990, what is the status of our most recent proposal? The last communication I had with you on this was that the NMOCD was looking at our proposal and would let us know how they decided to handle it. The document you have attached for this RP is the very first iteration of this, after we proposed a different off pad approach and haven't received anything from the NMOCD in writing since 3/31/2017 as attached, when Mike said that the OCD would need time to review and comment on the proposal. I know that you and I have spoken on the phone since then at least once and it was my understanding that the NMOCD was still determining how to handle remediation proposals such as this.

As far as 3P-3362, due to 2RP-3990's release being over the top of 3P-3362 and the delineation done there, this work has been completed, we just need to work with Talon to get you a closure report on this, I apologize for the oversight on this.

As far as 2RP-3905, we had Talon working on this and I'm not seeing where we got our initial work plan for that release submitted to you. This was all contained to a ROW with a ton of piping in it, Mike and I can follow up with Talon on this, thank you for bringing these to our attention.

Thanks,

Brett Fulks
EHS Representative

Devon Energy Corporation

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From: Weaver, Crystal, EMNRD [<mailto:Crystal.Weaver@state.nm.us>]
Sent: Thursday, October 12, 2017 12:53 PM
To: DeLaRosa, Dana <Dana.DeLaRosa@dmv.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; agroves@slo.state.nm.us
Cc: Shoemaker, Mike <Mike.Shoemaker@dmv.com>; Fulks, Brett <Brett.Fulks@dmv.com>
Subject: [EXTERNAL] RE: Cotton Draw Unit 181 SWD_60BBL PW_9.5.2017

RE: Devon * Cotton Draw Unit SWD #181 * 30-015-41649 * 2RP-4407

Dana,

I have included a scanned copy of the signed Initial C-141 Remediation Permit along with an attached Conditions of Approval. The OCD tracking number for this event is 2RP-4407. **Please remit a site characterization plan or advise OCD of plan of action by no later than 10/19/17.**

Please note: I was searching in our records for any other open cases on file for this API location and I located quite a few. **2RP-3362** is the oldest case on file and the last document we have on record for it is an approval of a work plan in 5/2016. Then we have **2RP-3905** with only an initial C-141 on file and nothing else done since and this release is from 9/2016. Also **2RP-3990** remains open, which I am thinking you may need to get with Brett Fulks regarding this one. **Please provide Devon's plan of action by no later than 10/31/17 on how they propose to move these projects forward.**

Thank you,

Crystal Weaver

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811 S. 1st Street
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From: DeLaRosa, Dana [<mailto:Dana.DeLaRosa@dvn.com>]

Sent: Tuesday, September 19, 2017 1:16 PM

To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; agroves@slo.state.nm.us

Cc: Shoemaker, Mike <Mike.Shoemaker@dvn.com>; Fulks, Brett <Brett.Fulks@dvn.com>

Subject: Cotton Draw Unit 181 SWD_60BBL PW_9.5.2017

Good Afternoon,

Attached is the Initial C141 and GIS Image for the 60BBL produced water release that occurred on 9-5-2017 at the Cotton Draw Unit 181 SWD. The red dot on the GIS Image represents the approximate origin of release.

Thank you and have a great day,

Dana DeLaRosa

Field Admin Support
Production
B-Schedule

Devon Energy Corporation
PO Box 250
Artesia, NM 88211
575 746 5594



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