

Andrews - DNR, Doug <doug.andrews@state.co.us>

**RE: [EXTERNAL] :COGCC Form 2A review of PDC Energy's High Pointe LLC
5N67W10L pad - Doc #401030820**

7 messages

Kelsi Welch <Kelsi.Welch@pdce.com>

Mon, May 16, 2016 at 7:35 AM

To: "Andrews - DNR, Doug" <doug.andrews@state.co.us>

Hi Doug,

We do not want to amend the existing location to include the new proposed well and the existing facility. The well is tied to an existing production facility that is tied to 5 other wells and we would like to leave things as is.

Please go ahead and change the nearest downgradient surface water feature distance to 81 ft and change it to a sensitive area.

Our temp frac water tanks will be bermed the same as the permanent tank battery facilities and they will be onsite for 6-9 months. We do not believe we will need to control emissions for a 4 well pad, but in the unlikely event that there is any type of oil accumulation on top of the water in the tanks, it will immediately be skimmed off and moved to the oil tank.

Please let me know if you need anything else from me and how you would like to proceed.

Thank you!

Kelsi

From: Andrews - DNR, Doug [mailto:doug.andrews@state.co.us]

Sent: Friday, May 13, 2016 1:51 PM

To: Kelsi Welch <Kelsi.Welch@pdce.com>

Subject: [EXTERNAL] :COGCC Form 2A review of PDC Energy's High Pointe LLC 5N67W10L pad - Doc #401030820

Kelsi,

I have reviewed the referenced Form 2A Oil & Gas Location Assessment and have the following comments.

1) You have submitted this Form 2A as a New Location. However, your Location Drawing shows PDC's existing well B&B 10-14 to be part of this new well and production facility development. That existing well has Location ID #305283 assigned to it. Therefore, I would like to change the Form 2A to indicate PDC is amending that existing Location.

2) Because the existing PDC well B&B 10-14 is on this location, please provide me with the Location ID# for where this well produces to and I will add it to the Related Remote Location section of the 2A. If instead this well will produce to the new production facilities when they are built, please let me know and I will add a comment that indicates this.

3) Because the existing PDC well B&B 10-14 is on this location, I would like to update the Facilities section to indicate there will be a total of five wells here. Also, please send me a revised Multi-Well Plan that depicts the well bore trajectory and bottomhole location of the existing B&B 10-14 well.

4) A review of your Hydrology Map indicates the nearby ravine to the north is the nearest downgradient surface water feature. To be conservative, in the Water Resources section I would like to change the distance to the nearest downgradient surface water feature from 771 feet (the bottom of the ravine), to 81 feet (the top of the ravine) and also indicate YES, this location is in a sensitive area due to the ravine's proximity.

5) You have indicated there will be three 500-bbl temporary water tanks onsite during the high water production phase of the wells and that these tanks will be onsite until water production levels decrease. Will these temporary tanks be bermed the same as the permanent oil tank battery? If not, what measures will PDC take to mitigate a spill or release from these temporary tanks? Will there be vapor emissions and odor controls associated with these temporary tanks the same as the permanent oil tank battery? If not, how will PDC mitigate any vapor or odor emissions from these tanks should a petroleum sheen form?

6) The use of temporary water tanks onsite is a fairly recent development we are seeing on permits and we are curious about it. Will you provide us with what PDC considers to be the high water production phase and an estimate as to how long that is likely to occur?

Please respond to this correspondence by June 13, 2016. If you have any questions, please contact me. Thank you.

Doug Andrews

Oil & Gas Location Assessment Specialist - Northeast Area



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Denver, CO 80203

doug.andrews@state.co.us

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Andrews - DNR, Doug <doug.andrews@state.co.us>
To: Kelsi Welch <Kelsi.Welch@pdce.com>

Mon, May 16, 2016 at 11:10 AM

Kelsi,

Your Location Drawing and Facility Layout Drawing clearly show PDC's existing B&B 10-14 well will be included within the disturbed area for the four new wells and production facility. This is expanding an existing location. We do not wish to permit a new Oil & Gas Location on top of an operator's existing one. This leads to confusion and duplication in our database and well files. Please advise how PDC would like to proceed.

You referenced the "temp frac water tanks" as being onsite for 6-9 months. When I see "frac water tanks", I interpret that as the operator talking about tanks used to store frac water and flowback during well stimulation and completion activities. My question was about the three 500-bbl water tanks you say will be used during the **high water production phase**. How long does PDC anticipate the high water production phase to occur and will those temporary water tanks be bermed like the permanent tanks? Additionally, only skimming accumulated oil from these temporary water tanks is not adequate vapor emissions control. Regardless of the number of wells on this pad, adequate emissions control is required for all production related tanks regardless of whether they are temporary or permanent.

Doug Andrews

Oil & Gas Location Assessment Specialist - Northeast Area



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Kelsi Welch <Kelsi.Welch@pdce.com>
To: "Andrews - DNR, Doug" <doug.andrews@state.co.us>

Tue, May 17, 2016 at 2:03 PM

Hi Doug,

We will agree to amend the existing B&B 10-14 location as long as you can confirm that we can leave the well as is and not hook it to the newly proposed High Pointe facilities. The B&B 10-14 is tied to location #322843. I have also requested a revised multi-well plan and I will get it back to you ASAP.

I apologize for the confusion, I wasn't very clear in my explanation. The proposed temp frac water tanks replace the buried produced water vaults in the tank battery. They will be bermed the same as the permanent tank battery while on location. We anticipate the high water production phase will last for 6-9 months, after which the tanks will be removed from the location. We have chosen to use temp frac water tank instead of permanent buried produced water vaults because we are trying to keep the permanent surface disturbance as small as possible, increasing the usable land for the surface owner. Skimming the oil off the top of the water is what we would do normally for produced water vaults if an oil sheen appeared, so that is why we proposed to mitigate it that way. I was not aware that additional mitigation was required as this location is not in a buffer zone - How would you like to see us mitigate this differently?

Please let me know if you need any additional information.

Thanks!

Kelsi

From: Andrews - DNR, Doug [mailto:doug.andrews@state.co.us]

Sent: Monday, May 16, 2016 11:10 AM

To: Kelsi Welch <Kelsi.Welch@pdce.com>

Subject: Re: [EXTERNAL] :COGCC Form 2A review of PDC Energy's High Pointe LLC 5N67W10L pad - Doc #401030820

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Andrews - DNR, Doug <doug.andrews@state.co.us>

Wed, May 18, 2016 at 1:38 PM

To: Kelsi Welch <Kelsi.Welch@pdce.com>

Kelsi,

Having the existing B&B 10-14 well continue to produce to Location ID #322843 is not a problem. I apologize if I gave you the impression that it would now have to produce to the new tank battery. That was not my intention. I will add a Comment to this Form 2A that clearly indicates this existing well does not produce to the new tank battery, but Location ID #322843 approximately 1,500 feet to the north instead.

From your reply, do you wish me to remove the two buried produced water vaults that are indicated on the Facilities tab, or should they remain as they will handle produced water after

the temp tanks are removed?

Vapor emission controls on tanks are required regardless of whether a location is in a Buffer Zone or not. Skimming oil off the temp water tanks is fine, but is not an adequate vapor emissions control by itself. We don't want operators to be under the impression that vapor emission controls (and also berming/containment) are not required on production tanks that are onsite temporarily. Our Rules do not differentiate between permanent and temporary tanks. That's is why I'm asking for confirmation from PDC that these temporary produced water tanks will be both bermed and have vapor emissions control.

Doug Andrews

Oil & Gas Location Assessment Specialist - Northeast Area



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Kelsi Welch <Kelsi.Welch@pdce.com>

Wed, May 18, 2016 at 2:15 PM

To: "Andrews - DNR, Doug" <doug.andrews@state.co.us>

Hi Doug,

Ok, then amending the location works for us! I will get you the revised multi-well plan as soon as I have it in hand.

Yes, please go ahead and remove the two buried produced water vaults that are indicated on the facilities tab, I must've put them on there by mistake.

I apologize as I misunderstood what you were asking for with the berming and vapor control. I confirm that all temporary and permanent tanks will be bermed and vapor emission controlled in compliance with COGCC regulations.

I feel like I may have missed something, is there anything else you need from me on this?

Thank you for all of your help!

Kelsi

From: Andrews - DNR, Doug [mailto:doug.andrews@state.co.us]

Sent: Wednesday, May 18, 2016 1:38 PM

To: Kelsi Welch <Kelsi.Welch@pdce.com>

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Doug Andrews

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doug.andrews@state.co.us

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On Tue, May 17, 2016 at 2:03 PM, Kelsi Welch <Kelsi.Welch@pdce.com> wrote:

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Please let me know if you need any additional information.

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Kelsi

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Sent: Monday, May 16, 2016 11:10 AM

To: Kelsi Welch <Kelsi.Welch@pdce.com>

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Doug Andrews

Oil & Gas Location Assessment Specialist - Northeast Area

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Andrews - DNR, Doug <doug.andrews@state.co.us>

Wed, May 18, 2016 at 2:18 PM

To: Kelsi Welch <Kelsi.Welch@pdce.com>

Other than the revised Multi-Well Plan, I believe I have everything I asked about. If the buried produced water vaults are also not needed on the other High Pointe 2A, will you so indicate when you reply to that email? Thanks.

Doug Andrews

Oil & Gas Location Assessment Specialist - Northeast Area



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Kelsi Welch <Kelsi.Welch@pdce.com>

Thu, May 19, 2016 at 8:43 AM

To: "Andrews - DNR, Doug" <doug.andrews@state.co.us>

Good morning Doug,

Please see the revised multi-well plan attached.

Yes, I will address the buried water vaults in the other email.

Thank you!

Kelsi

From: Andrews - DNR, Doug [<mailto:doug.andrews@state.co.us>]

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MULTI WELL_HIGH POINTE LLC 5N67W10L PAD (2016-05-19).pdf

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