

STATE OF  
COLORADO

Andrews - DNR, Doug &lt;doug.andrews@state.co.us&gt;

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**COGCC Form 2A review of PDC Energy's Klein 19MN-HZ Pad location - Doc #400562498**5 messages

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

Tue, Aug 19, 2014 at 2:26 PM

To: Julie Webb &lt;julie.webb@pdce.com&gt;

Cc: Sarah Freeman - DNR &lt;sarah.freeman@state.co.us&gt;, John Noto - DNR &lt;john.noto@state.co.us&gt;

Julie,

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

- 1) The Facility Layout Drawing shows 14 oil tanks, 1 ECD, and no buried produced water vaults. The Facilities section of the 2A lists 12 oil tanks, no ECDs, and 2 buried produced water vaults. The rest of the Facilities section matches what is shown on the Facility Layout Drawing. Will you confirm the count of Facilities that are planned for this proposed oil and gas location.
- 2) In the Cultural Distance section you have indicated the nearest Above Ground Utility is 323 feet. This appears to be the distance from the production facility as indicated on the Facility Layout Drawing. However, the Location Drawing indicates an overhead utility line 200 feet west of the Klein 19M-202 well. Therefore, I will change this distance to 200 feet.
- 3) During my review it appears this proposed oil and gas location will fall on the following NRCS Soil Map Units: 21-Dacono clay loam, 0-1 percent slopes and 1-Altvan loam, 0-1 percent slopes. Please send me the NRCS Map Unit Description for these two soil units and I will replace them on the Form 2A.
- 4) In the Water Resources section you have indicated the nearest water well is 3,270 feet from the proposed oil and gas location. However, your Location Drawing lists an irrigation pump shack 628 feet south. I suspect this is where the nearby water well permit #773-WCB is located. Therefore, I would like to change the distance to the nearest water well to 628 feet.
- 5) Because this proposed oil and gas location will have multiple wells, please send me the required Multi-Well Plan.
- 6) Because you will have indicated there will be buried produced water vaults on this proposed oil and gas location and the estimated depth to groundwater is 10 feet, please send me a BMP on how the construction and placement of these produced water vaults will be protective of shallow groundwater.
- 7) Please send me your mitigation measure BMP for Rule 604.c.(2)C Green Completions-Emission Control Systems.
- 8) Because this proposed oil and gas location is within an Exception Zone and the production facility is within 500 feet and upgradient of a surface water body, tertiary containment is required (Rule 604.c.(3)B). Therefore, send me your revised mitigation measure BMP for Berm Construction that includes tertiary containment.
- 9) Your 604.c.(2)W Site Specific Measure BMP for dust indicates 'dust mitigation will be provided as necessary.' This is unacceptable. The dust mitigation measure BMP must be more site specific.

Please send me a revised BMP for the mitigation of dust at this proposed oil and gas location.

10) You have indicated that Dennis Klein owns the Building Unit 200 feet to the north and is in agreement with the location of the facility. Our concern is that the resident tenant of that Building Unit has not been made aware of the pending oil and gas operations by Mr. Klein. Has PDC been in contact with the residents of that Building Unit or can they confirm whether Mr. Klein has notified them as required by COGCC Rule 305.c.(4).

Please respond to this correspondence by September 19, 2014. If you have any questions, please contact me. Thank you.

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*Doug Andrews*

Oil & Gas Location Assessment Specialist - Northeast Area



1120 Lincoln St., Suite 801  
Denver, CO 80203  
[doug.andrews@state.co.us](mailto:doug.andrews@state.co.us)  
303-894-2100 Ext. 5180

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**Julie Webb** <Julie.Webb@pdce.com>

Thu, Sep 4, 2014 at 12:50 PM

To: "Doug Andrews (Doug.Andrews@state.co.us)" <Doug.Andrews@state.co.us>

Good Afternoon Doug,

Please see the answers below. Let me know if you have any other questions.

Thank you,  
Julie

Julie Webb, Regulatory Analyst  
PDC Energy  
1775 Sherman Street, Suite 3000, Denver, CO 80203  
[303-831-3933](tel:303-831-3933) | [julie.webb@pdce.com](mailto:julie.webb@pdce.com)

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

**Sent:** Tuesday, August 19, 2014 4:26 PM

**To:** Julie Webb

**Cc:** Sarah Freeman - DNR; John Noto - DNR

**Subject:** COGCC Form 2A review of PDC Energy's Klein 19MN-HZ Pad location - Doc #400562498

Julie,

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

1) The Facility Layout Drawing shows 14 oil tanks, 1 ECD, and no buried produced water vaults. The Facilities section of the 2A lists 12 oil tanks, no ECDs, and 2 buried produced water vaults. The rest of the Facilities section

matches what is shown on the Facility Layout Drawing. Will you confirm the count of Facilities that are planned for this proposed oil and gas location.

The information in the facilities section is correct. I have attached a revised facility drawing.

2) In the Cultural Distance section you have indicated the nearest Above Ground Utility is 323 feet. This appears to be the distance from the production facility as indicated on the Facility Layout Drawing. However, the Location Drawing indicates an overhead utility line 200 feet west of the Klein 19M-202 well. Therefore, I will change this distance to 200 feet.

You have my permission to updated this to 200'.

3) During my review it appears this proposed oil and gas location will fall on the following NRCS Soil Map Units: 21-Dacono clay loam, 0-1 percent slopes and 1-Altvan loam, 0-1 percent slopes. Please send me the NRCS Map Unit Description for these two soil units and I will replace them on the Form 2A.

Attached

4) In the Water Resources section you have indicated the nearest water well is 3,270 feet from the proposed oil and gas location. However, your Location Drawing lists an irrigation pump shack 628 feet south. I suspect this is where the nearby water well permit #773-WCB is located. Therefore, I would like to change the distance to the nearest water well to 628 feet.

You have my permission to updated this to 628'

5) Because this proposed oil and gas location will have multiple wells, please send me the required Multi-Well Plan.

Attached

6) Because you will have indicated there will be buried produced water vaults on this proposed oil and gas location and the estimated depth to groundwater is 10 feet, please send me a BMP on how the construction and placement of these produced water vaults will be protective of shallow groundwater.

**Material Handling and Spill Prevention:** To prevent adverse impacts to shallow groundwater, buried produced water vault shall be installed above an impermeable synthetic or geosynthetic liner system which shall be tied back into the surface liner.

7) Please send me your mitigation measure BMP for Rule 604.c.(2)C Green Completions-Emission Control Systems.

604c.(2).C. Green Completions: Flowlines, 48" HLPs, sand traps all capable of supporting green completions as described in rule 805 shall be installed at any Oil and Gas location at which commercial quantities of gas and or oil are reasonable expected to be produced based on existing wells. All green flow back equipment will be able to handle more than 1.5 times the amount of any know volumes in the surrounding field. First sign of salable gas will be put into production equipment and turned down line.

8) Because this proposed oil and gas location is within an Exception Zone and the production facility is within 500 feet and upgradient of a surface water body,

tertiary containment is required (Rule 604.c.(3)B). Therefore, send me your revised mitigation measure BMP for Berm Construction that includes tertiary containment.

**Berm Construction:** Containment berms shall be constructed of steel rings with a geosynthetic liner, designed and installed to prevent leakage and resist degradation from erosion or routine operation. All berms will be visually checked periodically to ensure proper working condition. Secondary containment devices shall be sufficiently impervious to contain any spilled or released material. Due to a downgradient surface water body within 500', tertiary containment (such as an earthen berm or the like), will be installed around Production Facilities.

9) Your 604.c.(2)W Site Specific Measure BMP for dust indicates 'dust mitigation will be provided as necessary.' This is unacceptable. The dust mitigation measure BMP must be more site specific. Please send me a revised BMP for the mitigation of dust at this proposed oil and gas location.

**Odors and Dust:** Oil and gas facilities and equipment will operate in a manner that odors and dust do not constitute a nuisance or hazard to public welfare. **Odors:** Oil and gas operations will be in compliance with the Department of Public Health and Environment, Air Quality Control Commission, Regulation No. 2 Odor Emission, 5 C.C.R. 1001-4, Regulation No. 3 (5 C.C.R. 1001-5), and Regulation No. 7 Section XVII.B.1 (a-c) and Section XII. **Dust;** PDC will employ practices for control of fugitive dust caused by operations include but not limited to the use of speed restrictions, regular road maintenance, restriction of construction activity during high-wind days, and silica dust controls when handling sand used in hydraulic fracturing operations. When necessary, PDC coordinates dust mitigation with the county on gravel roads, places road base where allowed by surface owner around tanks and wellheads to minimize dust, and will water the roads and locations when dry. In addition, automation is used on all new wells to minimize truck traffic.

10) You have indicated that Dennis Klein owns the Building Unit 200 feet to the north and is in agreement with the location of the facility. Our concern is that the resident tenant of that Building Unit has not been made aware of the pending oil and gas operations by Mr. Klein. Has PDC been in contact with the residents of that Building Unit or can they confirm whether Mr. Klein has notified them as required by COGCC Rule 305.c.(4).

The resident of the building unit is Dennis Klein's son and he has notified him of our operations.

Please respond to this correspondence by September 19, 2014. If you have any questions, please contact me. Thank you.--

*Doug Andrews*

Oil & Gas Location Assessment Specialist - Northeast Area



1120 Lincoln St., Suite 801  
Denver, CO 80203  
[doug.andrews@state.co.us](mailto:doug.andrews@state.co.us)  
303-894-2100 Ext. 5180

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**3 attachments****NRCS Map unit.pdf**

234K

**MULTI\_WELL\_KLEIN\_19MN-HZ\_PAD\_(2014-03-10)[1].pdf**

525K

**SCALED FACILITY\_KLEIN 19MN-HZ PAD (2014-09-03).pdf**

233K

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**Andrews - DNR, Doug** <doug.andrews@state.co.us>  
To: Julie Webb <Julie.Webb@pdce.com>

Thu, Sep 4, 2014 at 1:42 PM

Julie,

Thanks for providing all the additional information. I need to get one more bit of information from you concerning this location. We are directed to present to the Commissioners a report of any and all Buildings that are 200 feet or less from an oil and gas location. For this location I see that there is a Building Unit (a house) 200 feet away and at least one Building (a garage) 181 feet to the northwest as identified on your Location Drawing. It also looks like there may be more than just these two buildings 200 feet or less from this proposed oil and gas location. If so, will you tell me specifically what type of Building they are?

Also, now that the Public Comment period has ended please send me a letter certifying PDC's compliance with COGCC Rule 306.e. Thank you.

[Quoted text hidden]

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**Julie Webb** <Julie.Webb@pdce.com>  
To: "Andrews - DNR, Doug" <doug.andrews@state.co.us>

Wed, Sep 10, 2014 at 6:45 AM

Attached is the 306.e certification letter. I am working on getting the buildings identified.

Thanks,

pdenergy.JPG

**Julie Webb, Regulatory Analyst**

PDC Energy

1775 Sherman Street, Suite 3000, Denver, CO 80203

303-831-3933 | [julie.webb@pdce.com](mailto:julie.webb@pdce.com)

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

**Sent:** Thursday, September 04, 2014 3:42 PM

**To:** Julie Webb

**Subject:** Re: COGCC Form 2A review of PDC Energy's Klein 19MN-HZ Pad location - Doc #400562498

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**306e Meeting Requirements Certification Letter to Director\_Klein 19MN-HZ.pdf**

93K

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**Julie Webb** <[Julie.Webb@pdce.com](mailto:Julie.Webb@pdce.com)>

Thu, Sep 18, 2014 at 1:40 PM

To: "Andrews - DNR, Doug" <[doug.andrews@state.co.us](mailto:doug.andrews@state.co.us)>

Hi Doug,

The buildings are garages/ sheds.

Thank you,

pdce\_energy.JPG

Julie Webb, Regulatory Analyst

PDC Energy

1775 Sherman Street, Suite 3000, Denver, CO 80203

303-831-3933 | [julie.webb@pdce.com](mailto:julie.webb@pdce.com)

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

**Sent:** Thursday, September 04, 2014 3:42 PM

**To:** Julie Webb

**Subject:** Re: COGCC Form 2A review of PDC Energy's Klein 19MN-HZ Pad location - Doc #400562498

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