

STATE OF
COLORADO

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

COGCC Form 2A review of Kerr McGee's PROWANT 4-18HZ PAD location - Doc #401810307

4 messages

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

Tue, Dec 18, 2018 at 2:27 PM

Lisa,

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

1) Kerr McGee has indicated these wells will produce to the location being permitted via Form 2A Doc #401801129. That proposed Oil & Gas Location is within a Buffer Zone. Therefore, the check boxes in the Cultural Setback Distance section that indicate this need to be check and a siting rational for the production facilities needs to be included on this Form 2A. See the attached screenshot.

FOR MULTI-WELL PADS AND PRODUCTION FACILITIES WITHIN DESIGNATED SETBACK LOCATIONS ONLY:

☒ Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (on- or offsite) and the Production Facilities are proposed to be located less than 1,000 feet from a Building Unit.

(Pursuant to Rule 604.c.(2)E.i., the operator must evaluate alternative locations for the Production Facilities that are farther from the Building Unit, and determine whether those alternative locations were technically feasible and economically practicable for the same proposed development.)

☒ By checking this box, I certify that no alternative placements for the Production Facilities, farther from the nearest Building Unit, were available based on the analysis conducted pursuant to Rule 604.c.(2)E.i.

In the space below, **explain rationale for siting the multi-well Production Facility(ies) that supports your Rule 604.c.(2)E.i determination.** Attach documentation that supports your determination to this Form 2A.

2) Kerr McGee has provided several BMPs that pertain to storage tanks. As no storage tanks are proposed on this Oil & Gas Location, I'd like to remove the 604.c.(2)R - Tank Specifications, 504.c.(2)O - Loadlines, 604.c.(2)F - Leak Detection Plan, and 604.c.(2)G - Berm Construction BMPs from this Form 2A.

3) Kerr McGee's 604.c.(2)S - Access Roads BMP indicates an existing lease access road from CR 12 will be utilized. The Access Road Map shows the pad will be accessed from Weld CR 13 / Larimer CR 1. Therefore I would like to revise this BMP to cite the correct County Road that this pad will be accessed from.

4) As this proposed Oil & Gas Location is within a Buffer Zone, the following additional 604.c.(2) mitigation measure BMPs are required to be addressed on the Form 2A:

604.c.(2)A - Noise

604.c.(2)B - Closed loop systems

604.c.(2)C - Green completions
604.c.(2)K - Pit level indicators
604.c.(2)U - Identification of plugged & abandoned wells
604.c.(2)V - Development from existing pads

Also please provide BMPs that address how Kerr McGee will mitigate nuisance Lights and nuisance Odors associated with the use of oil based drilling fluids.

5) Now that the Public Comment Period has ended, please send me a letter certifying Kerr McGee's compliance with COGCC Rule 306.e. If any meetings/consultations were requested, please also indicate their outcome.

Please respond to this correspondence by January 18, 2019. If you have questions, please contact me. Thank you.

Doug Andrews

Oil & Gas Location Assessment Specialist - Northeast Colorado

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1120 Lincoln St., Suite 801, Denver, CO 80203
doug.andrews@state.co.us | <http://cogcc.state.co.us/>



Andrews - DNR, Doug <doug.andrews@state.co.us>
To: Lisa.Schindler@anadarko.com

Wed, Dec 26, 2018 at 8:50 AM

Here ya go.

Doug Andrews

Oil & Gas Location Assessment Specialist - Northeast Colorado



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Schindler, Lisa <Lisa.Schindler@anadarko.com>
To: "Andrews - DNR, Doug" <doug.andrews@state.co.us>
Cc: "VanShura, Jayson" <Jayson.VanShura@anadarko.com>

Wed, Dec 26, 2018 at 11:52 AM

Hi Doug:

As you state, production facilities for the Prowant well pad are located on the Damore 5-18HZ pad (Doc 401801129). A specific rationale for the Damore 5-18HZ multi-pad facility was provided along with that 2A application, which is in process. For the Prowant pad, please update the facility rationale as follows:

In order to consolidate long term impacts, to minimize removing cropland from production, and to minimize long term impacts to adjacent building units, facilities for the Prowant 4-18HZ pad will be located in a consolidated production facility associated with the Damore 5-18HZ pad. Please review the 2A application for this location for additional detail on this facility siting rationale.

You are correct that Prowant 4-18HZ well pad will not have any flowback / produced water storage tanks. I appreciate your offer to remove extra BMPs; please do remove the BMPs for Rules 604.c.(2)R - Tank Specifications, 504.c.(2)O - Loadlines, 604.c.(2)F - Leak Detection Plan, and 604.c.(2)G - Berm Construction BMPs from this Form 2A. My apologies for the extra BMPs; they were an oversight on my part and were included in error.

Please also revise the county road access as you suggest below. Again, my apologies for this oversight. Your observation is correct.

We are working up a Rule 306.e letter and will send it over ASAP.

Regarding your requested BMPs below, please include the following BMPs in our 2A, some of which were included with the APDs for the Prowant wells. Thanks for adding these BMPs in, and my apologies for the omission:

604.c.(2)A Sound surveys have been conducted on each rig type and are utilized to anticipate any additional effective noise mitigation once a drilling rig is determined.

At a minimum, and pending a safety review after construction of the location, sound mitigation barriers (straw bales) will be placed along the northwest and southwest sides of the pad location to dampen noise and minimize impact to the nearby residences and to Weld County Road 13 / Larimer County Road 1 and Highway 34 during drilling and completions.

Should technological advancements allow for better noise mitigation at the time of drilling and completion operations on this location, Kerr-McGee will re-evaluate the most effective method at that time.

604.c.(2)B - Closed loop systems - KMG will use a closed loop or "pitless" system for drilling and fluid management and will not construct a reserve pit.

604.c.(2)C - Green completions - Test separators and associated flow lines, sand traps and emission control systems shall be installed on-site to accommodate green completions techniques. When commercial quantities of salable quality gas are achieved at each well, the gas shall be immediately directed to a sales line or shut in and conserved. If a sales line is unavailable or other conditions prevent placing the gas into a sales line, the operator shall not produce the wells without an approved variance per Rule 805.b. (3)C.

604.c.(2)K - Pit level indicators - All storage tanks used for active drilling operations (used in lieu of pits) contain pit level monitors with Electronic Drilling Recorders (EDR).

KMG uses EDRs with pit level monitor(s) and alarm(s) for production rigs. Basic level gauges are used on tanks utilized for the surface rig.

604.c.(2)U - Identification of plugged & abandoned wells - Pursuant to rule 319.a.(5)., once the well has been plugged and abandoned, KMG will identify the location of the wellbore with a permanent monument that will detail the well name and date of plugging.

604.c.(2)V - Development from existing pads - Drilling from an existing well pad was not feasible for the development of the wells on this proposed oil and gas location; however, this well pad will be considered for future well locations.

803. Lighting: To the extent practicable, site lighting shall be shielded and directed downward and inward toward operations to avoid glare on public roads and nearby Building Units.

805b. Odors: KMG will comply with the provisions of 805b as deemed applicable. Additional BMPs for the Prowant 4-18HZ location are: 1) the storage of excess drilling fluid (e.g., fluid not being used in the active mud system) in closed, upright tanks; and 2) the use of an odor neutralizer in the active mud system.

Thanks for your assistance with this 2A application. Please let me know if you have any further questions / comments or concerns. Please feel free to email me directly or call my desk phone at 720-929-3091. Thanks Doug!

-Lisa

From: Andrews - DNR, Doug <doug.andrews@state.co.us>
Sent: Wednesday, December 26, 2018 8:51 AM
To: Schindler, Lisa <Lisa.Schindler@anadarko.com>
Subject: Fwd: COGCC Form 2A review of Kerr McGee's PROWANT 4-18HZ PAD location - Doc #401810307

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Schindler, Lisa <Lisa.Schindler@anadarko.com>
To: "Andrews - DNR, Doug" <doug.andrews@state.co.us>
Cc: "VanShura, Jayson" <Jayson.VanShura@anadarko.com>

Thu, Dec 27, 2018 at 11:16 AM

Hi Doug – attached please find the Rule 306.e letter. Please let us know if anything else is required to complete your review of this 2A and remove the 'On Hold' status.

Thanks,

Lisa

From: Schindler, Lisa
Sent: Wednesday, December 26, 2018 11:53 AM
To: Andrews - DNR, Doug <doug.andrews@state.co.us>
Cc: VanShura, Jayson <Jayson.VanShura@anadarko.com>
Subject: RE: COGCC Form 2A review of Kerr McGee's PROWANT 4-18HZ PAD location - Doc #401810307

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 **PROWANT 4-18HZ 306.e and 306.b.(3) CERTIFICATION.pdf**
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