

Dave Kubeczko - DNR

From: Dave Kubeczko - DNR
Sent: Wednesday, November 26, 2014 12:09 PM
To: dave.kubeczko@state.co.us
Subject: FW: Catamount Energy Partners LLC, Elsa 34-6-19 Pad, SESE Sec 19 T34N R6W, La Plata County, Form 2A #400670488 Review
Attachments: Elsa Co-Locate analysis.pdf
Categories: Operator Correspondence

Scan No 2107183

OPERATOR CO-LOCATION FEASIBILITY EVALUATION

2A#400670488

From: Nolan Redmond [mailto:nredmond@catamountep.com]
Sent: Thursday, October 23, 2014 4:37 PM
To: Dave Kubeczko - DNR
Subject: RE: Catamount Energy Partners LLC, Elsa 34-6-19 Pad, SESE Sec 19 T34N R6W, La Plata County, Form 2A #400670488 Review

Dave,

Attached is our feasibility evaluation for the Elsa 34-6-19 Pad. Also attached is a revised pad drawing and a multi well drawing.

Catamount concurs with the proposed COAs for the Elsa 34-6-19 pad.

Let me know if you have any questions.

Thanks,

Nolan Redmond
Catamount Energy Partners
1801 Broadway
Suite 1000
Denver CO 80202
nredmond@catamountep.com
720-484-2347 Office
303-909-3587 Cell



From: Dave Kubeczko - DNR [mailto:dave.kubeczko@state.co.us]
Sent: Wednesday, October 22, 2014 5:56 PM
To: Nolan Redmond
Subject: Catamount Energy Partners LLC, Elsa 34-6-19 Pad, SESE Sec 19 T34N R6W, La Plata County, Form 2A #400670488 Review

Nolan,

I have been reviewing the Elsa 34-6-19 Pad **Form 2A** (#400670488). COGCC requires a revised Facility Layout Drawing that does not show the topsoil storage area and a Multi-Well Plan that shows both the vertical well and the horizontal/directional well proposed. In response to CPW's concern about potential co-locating of facilities, Catamount shall prepare their feasibility evaluation for the Elsa location and submit to COGCC for inclusion to the Form 2A and Form 2s. COGCC would like to attach the following conditions of approval (COAs) based on the information and data Catamount has submitted on or attached to the Form 2A prior to passing the Oil and Gas Location Assessment (OGLA) review.

Rule 303.b.(3).J.iii:

303. REQUIREMENTS FOR FORM 2, APPLICATION FOR PERMIT-TO-DRILL, DEEPEN, RE-ENTER, OR RECOMPLETE, AND OPERATE; FORM 2A, OIL AND GAS LOCATION ASSESSMENT.

b. FORM 2A, OIL AND GAS LOCATION ASSESSMENT.

(3) **Information Requirements.** The Form 2A requires the attachment of the following information:

L. Multi-Well Plan. Where the proposed Oil and Gas Location is for multiple wells on a single pad, a drawing showing proposed wellbore trajectory with bottom-hole locations.

Planning: The following conditions of approval (COAs) will apply:

COA 91 - Notify the COGCC 48 hours prior to start of pad construction, rig mobilization, spud, start of hydraulic stimulation operations, start of flowback operations, and pipeline testing using Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).

In addition, this location has been designated a "sensitive area" due to proximity to downgradient surface water (172') and potential for shallow groundwater (16' below ground surface).

Construction: The following conditions of approval (COAs) will apply:

COA 23 - Operator must ensure secondary containment for any volume of fluids contained at well site during drilling and completion operations; including, but not limited to, construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures (i.e., best management practices (BMPs) associated with stormwater management) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals (at least every 14 days), and maintained in good condition.

COA 44 - The access road will be constructed and maintained as to not allow any sediment to migrate from the access road to nearby surface water or any drainages leading to surface water.

COA 76 - Strategically apply fugitive dust control measures, including enforcing established speed limits on the adjacent county road 523 and private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.

COA 58 - Berms or other containment devices shall be constructed to be sufficiently impervious (corrugated steel with poly liner) to contain any spilled or released material around permanent crude oil, condensate, and produced water storage tanks.

Drilling/Completions: The following conditions of approval (COAs) will apply:

COA 38 - The moisture content of any cuttings in a cuttings trench or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts.

COA 25 - Flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline or storage vessel located on the well pad; or into tanker trucks for offsite disposal. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment must be placed on the well pad in an area constructed to be sufficiently impervious to contain any spilled or released material.

COA 26 - Potential odors associated with the completions process and/or with long term production operations must be controlled/mitigated.

Material Handling and Spill Prevention: The following conditions of approval (COAs) will apply to the Form 2A Permit if any temporary surface pipelines (poly or steel) or buried (poly or steel) pipelines are used during operations at the well pad location or nearby well pads:

COA 45 - Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface or permanent buried pipelines and following any reconfiguration of the pipeline network.

COA 55 - Operator will utilize, to the extent practical, all existing access and other public roads, and/or existing pipeline right-of-ways, when placing/routing the surface pipelines. This will reduce surface disturbance.

COGCC would appreciate your concurrence with attaching these COGCC COAs to the Form 2A permit prior to passing the OGLA review. If you have any questions concerning the COAs or BMPs, please do not hesitate to call me at [\(970\) 309-2514](tel:9703092514) (cell), or email. Thanks.

Dave

David A. Kubeczko, PG
Oil and Gas Location Assessment Specialist
Western Colorado



Colorado Oil & Gas Conservation Commission
Northwest Area Office
796 Megan Avenue, Suite 201
Rifle, CO 81650
FAX: (970) 625-5682
Cell: (970) 309-2514
dave.kubeczko@state.co.us | www.colorado.gov/cogcc

 *Please consider the environment before printing this e-mail*



1801 Broadway, Suite 1000 P 720.484.2344
Denver, Colorado 80202 F 720.484.2363

David A Kubeczko
Colorado Oil & Gas Conservation Commission
Northwest Area Office
796 Megan Avenue, Suite 201
Rifle, CO 81650

RE: Catamount Energy Partners co-locating of the Elsa 34-6-19#1 Well Pad analysis.

Dear Dave,

Catamount's proposed pad for the Elsa 34-6-19 #1 well is located at 1303' FSL & 290' FEL of Section 19-T34N-R6W (S.U.L.). The well has a proposed bottom hole location of 840' FWL & 1967' FSL of Section 20-T34N-R6W (S.U.L.). Our wellbore must penetrate the Fruitland Formation inside the 660' setbacks of the south half of section 20. The proposed directional plan designed to meet these requirements results in an inclination of 32.40 degrees and an azimuth of 59.56 degrees. Total departure at TD will be 1310.65' (vertical section). Surface casing is designed to be set at 438' per review from Mark Weems, COGCC Engineer. The directional kick off point is planned just after drilling out of surface casing at 500'. Dogleg severity is planned 3 degrees per 100'.

An alternate location near the BP Boone #1 pad (API # 05-067-06996-0000) was reviewed several months before applying for our permit application and was deemed unusable due to directional drilling constraints and artificial lift limitations. We reviewed a potential location just north of the Boone pad at 1150' FSL & 1810' FEL of section 19-T34N-R6W. This location is 1527' southwest of our proposed location. The top of the Fruitland Coal is estimated to be at 2743' TVD at a legal location in Section 20. In order to drill from a location near the Boone pad our wellbore would require 70 degrees of inclination (more than double the proposed well location) and a total departure (vertical section) of 3443.33' at TD. A total departure of >3400' at a TVD of ~2750' TVD increases the drilling and completion risk significantly. Artificial lift is needed to produce water in coal gas wells in order to achieve maximum recovery efficiency and prevent waste and will be utilized in this project. Artificial lift in a wellbore with an inclination of 70 degrees is not viable and will lead to lower recovery efficiency, will result in reserve waste and could ultimately lead to a need for additional wells (and associated disturbance) to be drilled to develop reserves in section 20. A table is attached comparing the directional drilling parameters between our proposed location and the location we reviewed near the BP Boone pad.

While we are proposing an additional pad in Section 19, for which we have a signed Surface Use Agreement from the landowner, we believe the proposed location will ultimately be the only pad needed to develop the entire south half spacing unit for section 20-T34N-R6W (S.U.L.). We believe after initial testing of this well that the well could be a good candidate for horizontal drilling which would result in a horizontal re-entry that would allow for drainage further east in the south half (20) drilling and spacing unit. Utilizing Catamount's proposed well pad will result in less surface disturbance than any other plan to fully develop the south half of section 20.

