

Dave Kubeczko - DNR

From: Dave Kubeczko - DNR
Sent: Wednesday, June 22, 2016 1:44 PM
To: dave.kubeczko@state.co.us
Subject: FW: <EXTERNAL> SandRidge Exploration & Production LLC, Evans 0780 21 Pad, NWNE Sec 21 T7N R80W, Jackson County, Form 2A#401011921 Review

Categories: Operator Correspondence

Scan No. 217876

OPERATOR CORRESPONDENCE

2A#401011921

From: Spence Laird [mailto:slaird@sandridgeenergy.com]
Sent: Wednesday, June 15, 2016 9:37 AM
To: Dave Kubeczko (dave.kubeczko@state.co.us)
Subject: FW: <EXTERNAL> SandRidge Exploration & Production LLC, Evans 0780 21 Pad, NWNE Sec 21 T7N R80W, Jackson County, Form 2A#401011921 Review

Dave, here are our thoughts on the COA's and BMP's for this well.

I think this one is ok, the COA's and BMP's. The only thing I have a little problem or question with is under Wildlife. We will use electric pumping units, so we will not need hospital mufflers (electric pumping units are quiet). Can we say something like:

- Use hospital grade mufflers for compressors, pump jacks or other motors necessary to run operations at the site (unless electric equipment used). Mufflers will be pointed upward to dissipate potential vibration.
- I also highlighted one line below with some updated language.

Thank you!

Spence Laird



From: Dave Kubeczko - DNR [mailto:dave.kubeczko@state.co.us]
Sent: Friday, June 10, 2016 1:08 PM
To: Spence Laird
Cc: Laci Bevans
Subject: <EXTERNAL> SandRidge Exploration & Production LLC, Evans 0780 21 Pad, NWNE Sec 21 T7N R80W, Jackson County, Form 2A#401011921 Review

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Spence and Laci,
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I have been reviewing the SandRidge Exploration & Production LLC (SandRidge), Evans 0780 21 Pad **Form 2A##401011921**. The following Conditions of Approval (COAs) from the previously submitted and approved 07-24-14) Form 2A#400619678, EE3 LLC, Evans 2-21H Pad; OGCC Facility ID#438250 will either **Apply**, or **Not Apply**, as indicated, and will be placed on this Form 2A:
??

Planning:?? The following condition of approval (COA) will apply:

COA 91??-Notify the COGCC 48 hours prior to start of pad construction, rig mobilization, spud, pipeline testing, start of hydraulic stimulation operations, and start of flowback operations using Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).?? **Does Not Apply (see revised COA 91 listed below)**

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 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.?? **Does Not Apply (see revised COA 23 listed below)**

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.?? **Does Apply**

COA 76??- Strategically apply fugitive dust control measures, including enforcing established speed limits on private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.?? **Does Not Apply (see revised COA 76 listed below)**

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

COA 38 -??The moisture content of any cuttings??in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts.?? At the time of closure, the drill cuttings must also meet the applicable standards of table 910-1.?? **Does Not Apply (see new COA 11 and COA 12 listed below)**

COA 25???? If the wells are be hydraulically stimulated, 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. ????**Does Not Apply (see revised COA 25 listed below)**

Material Handling and Spill Prevention:?? The following condition of approval (COA) will apply:

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. ??**Does Apply**

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COGCC would appreciate SandRidge reviewing the following Best Management Practices (BMPs) from the previously submitted and approved 07-24-14) Form 2A#400619678, EE3 LLC, Evans 2-21H Pad; OGCC Facility ID#438250.?? The Wildlife BMPs will automatically be placed on this amended Form 2A#401011921 and will also be enforceable for this location (OGCC ID#438250)..?? ??The other BMPs should be reviewed by SandRidge and either be agreed to (so COGCC can place them on this amended Form 2A) or revised, edited, or removed.

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Planning:?? The following BMPs will apply:

A multi-well site will be used for directional drilling to reduce cumulative impacts and adverse impacts on wildlife resources.

Pits are not planned for this location.

General Housekeeping:?? The following BMPs will apply:

Fence the well site after drilling to restrict public and wildlife access.

Keep well site location, road and the pipeline easement free of noxious weeds, litter and debris.

Spray for noxious weeds and implement dust control, as needed.

Construct and maintain gates where any roads used by operator, its employees, or contractors cross through fences on the leased premises.

Where oil and gas activities must occur within the greater sage grouse leks or within other mapped greater sage grouse breeding or summer habitat, Operator will conduct these activities outside the period between March 1 and June 30.?? **Does Apply**

Use hospital grade mufflers for compressors, pump jacks or other motors necessary to run operations at the site. Mufflers will be pointed upward to dissipate potential vibration.?? **Does Apply**

Install and utilize bear-proof dumpsters and trash receptacles for all food-related trash on location, following COGCC Rule 1204.a.(1).?? **Does Apply**

Implement and maintain BMPs to control storm water runoff in a manner that minimizes erosion, transport of sediment offsite, and site degradation.

Remove only the minimum amount of vegetation necessary for the construction of roads and facilities.

No construction or routine maintenance activities will be performed during periods when the soil is too wet to adequately support construction equipment.

A closed-loop drilling mud system will be used to preclude the use of an earthen reserve pit when available.

Utilize only such area around each producing well as is reasonably necessary.

All reseeding shall be done with grasses consistent with the Rocky Mountain native mix or other grasses reasonably requested by surface owner and during planting period suggested by Owner.

All reseeding shall be done with grasses consistent with the Rocky Mountain native mix or other grasses reasonably requested by surface owner and during planting period suggested by Owner.

COGCC requests that SandRidge review the attached policy (**NOTICE TO OPERATORS, Rule 912. VENTING OR FLARING PRODUCED NATURAL GAS - STATEWIDE, January 12, 2016**) and the following rule about venting and flaring:

a. The unnecessary or excessive venting or flaring of natural gas produced from a well is prohibited.

- b. Except for gas flared or vented during an upset condition, well maintenance, well stimulation flowback, purging operations, or a productivity test, gas from a well shall be flared or vented only after notice has been given and approval obtained from the Director on a Sundry Notice, Form 4, stating the estimated volume and content of the gas. The notice shall indicate whether the gas contains more than one (1) ppm of hydrogen sulfide. If necessary to protect the public health, safety or welfare, the Director may require the flaring of gas.
- c. Gas flared, vented or used on the lease shall be estimated based on a gas-oil ratio test or other equivalent test approved by the Director, and reported on Operator's Monthly Report of Operations, Form 7.
- d. Flared gas that is subject to Sundry Notice, Form 4, shall be directed to a controlled flare in accordance with Rule 903.b.(2) or other combustion device operated as efficiently as possible to provide maximum reduction of air contaminants where practicable and without endangering the safety of the well site personnel and the public.
- e. Operators shall notify the local emergency dispatch or the local governmental designee of any natural gas flaring. Notice shall be given prior to flaring when flaring can be reasonably anticipated, or as soon as possible, but in no event more than two (2) hours after the flaring occurs.

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In addition, COGCC would like to attach to the Form 2A the following COAs based on the information and data SandRidge??has submitted on or attached to the Form 2A prior to passing the Oil and Gas Location Assessment (OGLA) review. ??

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

COA 91??-??In addition to the notifications required by COGCC listed in the **Northwest Notification Policy (Notice of Intent to construct a new location, Notice of Intent to install a pit liner, Notice of Intent to spud surface casing, and Notice of Intent to commence hydraulic fracturing operations)** and **Rule 316C. COGCC Form 42. FIELD OPERATIONS NOTICE (a. Notice of Intent to Conduct Hydraulic Fracturing Treatment; b. Notice of Spud; and c. Notice of Construction or Major Change)**; operator shall notify the COGCC 48 hours prior to pipeline testing (flowlines from wellheads to separators to tanks; and/or any temporary surface lines used for hydraulic stimulation and/or flowback operations) using the Form 42 (as described in **Rule 316C.m. Notice of Completion of Form 2/2A Permit Conditions**).?? The appropriate COGCC individuals will automatically be email notified.

Corrected distances from Production Facility to Property Line from 1' to 175' and from Production Facility to Above Ground Utility Line from 10' to 205' based on COGCC's review of the Location Drawing, Facility Layout Drawing, COGCC's Online GIS Map, and per operator on 06-10-16.

Corrected size of location after interim reclamation from 3.11 acres to 1.51 acres, corrected estimated post-construction ground elevation from 8223??? to 8235??? based on COGCC???'s review of the Construction Layout Drawings and the Well Location Plats, and per operator on 06-10-16.

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

COA 23??-??Operator must ensure secondary containment for any volume of fluids contained at the 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 fluid containment/control as well as stormwater management for the control of run-on and run-off) sufficiently protective of nearby surface water.?? Any berm constructed at the well pad location will be stabilized, inspected at regular intervals as required by CDPHE (at least every 14 days and after precipitation events), and maintained in good condition.?? The design/build of any perimeter berm shall be sized, constructed, and compacted sufficiently to contain fluids during drilling operations, as well as all fluids contained in temporary frac tanks during completion operations.

COA 76??- Strategically apply fugitive dust control measures, including encouraging established speed limits on private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.

COA 48 - Operator shall submit a scaled as-built drawing (plan view with distances) of the Evans 0780 21 well pad location (showing wellheads, pumping jacks, onsite flowlines, offsite pipelines, and production facilities and the nearby well pad and tank battery location (showing wellheads, onsite flowlines, offsite pipelines, pumping jacks, oil and produced water storage tanks, and other production facilities) within 30 calendar days of construction of the production equipment on each location.

Drilling/Completions:?? The following condition of approval (COA) will apply:

COA 11??- A closed loop system must be implemented during drilling (as indicated on the Form 2 and Form 2A).?? All cuttings generated during drilling with oil based mud (OBM) must be segregated from water/bentonite based mud-(WBM-) generated drill cuttings and placed separately on the well pad.?? All OBM-generated drill cuttings must be kept in tanks/containers, or placed on a lined/bermed portion of the well pad; prior to disposition. The moisture content of any OBM-generated drill cuttings in a tank, cuttings containment area, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts.?? The operator has indicated that ???Cuttings Disposal??? will be ???OFFSITE??? and that the ???Cuttings Disposal Method??? will be ???COMMERCIAL DISPOSAL??? (as shown in the ???DRILLING WASTE MANAGEMENT PROGRAM SECTION??? of the Form 2A#401011921; OGCC ID#438250).?? All liners associated with oil-based drilling mud and OBM-generated drill cuttings must be disposed of offsite per CDPHE rules and regulations.?? Any changes to drill cuttings management and disposal at this location will require submittal (via a Form 4 Sundry Notice) and approval of a Waste Management Plan detailing the changes (specifying cuttings characterization methods, cuttings management, amendment, and onsite disposal location[s]).??

COA 12??- The moisture content of water/bentonite-based mud (WBM) generated cuttings managed onsite shall be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts. After drilling and completion operations have been completed, any of the WBM drill cuttings that will remain on the well pad location (cuttings management area, the cut portion of the pad, cuttings trench, dry cuttings drilling pit), must meet the applicable standards of Table 910-1.?? No offsite disposal of cuttings to another oil and gas location shall occur without prior approval of a Waste Management Plan (submitted via a Form 4 Sundry Notice) specifying disposal location and waste characterization method.?? Operator has indicated that commercial disposal of drill cuttings will be the method of disposal for all cuttings.

COA 25??- Flowback and stimulation fluids must be sent to enclosed tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline storage vessel, or other open top containment located on the well pad; or into tanker trucks for offsite disposal. No open top tanks can be used for initial flowback fluids containment.?? 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.?? No additional downgradient berming is required if operator constructs a sufficiently sized perimeter berm.??

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

COA 33??- Operator shall follow all requirements of COGCC??s current policy - **NOTICE TO OPERATORS, Rule 912. VENTING OR FLARING PRODUCED NATURAL GAS ??? STATEWIDE, dated January 12, 2016**; and to **Rule 912. VENTING OR FLARING NATURAL GAS. a. thru e.** in regards to venting and flaring.

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Please respond to this email indicating that you have read the policy and rules concerning venting and flaring and will adhere to both.?? COGCC would also appreciate your concurrence with attaching the applicable previously attached COAs and BMPs, or revisions to the BMPs as appropriate; as well as the additional COAs to the Form 2A prior to passing the OGLA??review.?? If you have any questions, please do not hesitate to call me at??(970) 309-2514??(cell), or email.?? ??Thanks.

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Dave

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

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Colorado Oil & Gas Conservation Commission

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