

## Dave Kubeczko - DNR

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**From:** Dave Kubeczko - DNR  
**Sent:** Tuesday, November 17, 2015 6:02 PM  
**To:** dave.kubeczko@state.co.us  
**Subject:** SWN Production Company LLC, Flanders 7-88 1-34 Pad, NWSW Sec 34 T7N R88W, Routt County, Form 2A#400801433 Review\_Response to Surface Owner Comments

**Categories:** Other

Scan No 2107699

COGCC's Response to LGD and Surface Owner Comments

2A#400801433

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### LGD Comment Review and COGCC Response:

LGD Comments  
SWN Production Co  
Flanders 7-88 1-34H  
Doc #400801433 2A and #400803417 2

**1** - Routt County has a permitting process for all oil/gas operations. The operator is aware that an application must be submitted to Routt County.

**COGCC Response:** Comment is a statement about Routt County's permitting requirements. Not applicable to COGCC's Form 2A permit review process.

**SWN: Routt County Process, not applicable to Form 2A, pertains to Routt County Special Use Permit.**

**2** - Routt County has a review process for all county roads used for oil/gas operations. The operator is working with Routt County to complete this process.

**COGCC Response:** Comment is a statement about Routt County's permitting requirements. Not applicable to COGCC's Form 2A permit review process.

**SWN: Routt County Process, not applicable to Form 2A, pertains to Routt County Special Use Permit.**

**3** - Routt County requests information from the COGCC after drilling operations are complete for the located of aquifers and showing that casing was completed per minimum requirements of the COGCC regulations to protect all aquifers.

**COGCC Response:** Form 5's are reviewed after-the-fact to verify compliance with the drilling and cementing rules. The county can review forms and logs on their own after approval, and if the operator does not submit data and forms per Rule 308A in a timely manner, then the county can file a complaint. In addition, Rules 317.i. and 317.j. apply if unanticipated aquifers are encountered while drilling the production hole:

#### **317. GENERAL DRILLING RULES;**

**i. Surface and intermediate casing cementing.** The operator shall ensure that all surface and intermediate casing cement required under this rule shall be of adequate quality to achieve a minimum compressive strength of three hundred (300) psi after twenty-four (24) hours and eight hundred (800) psi after seventy-two (72) hours measured at ninety-five degrees Fahrenheit (95 °F) and at eight hundred (800) psi confining pressure. All surface casing shall be cemented with a continuous column from the bottom of the casing to the surface. After thorough circulation of the wellbore, cement shall be pumped behind the intermediate casing to at least two hundred (200) feet above the top of the shallowest known production horizon and as required in 317.g. Cement placed behind the surface and intermediate casing shall be allowed to set a minimum of eight (8) hours, or until three hundred (300) psi calculated compressive strength is developed, whichever occurs first, prior to commencing drilling operations. If the surface casing cement level falls below the surface, to the extent safety or aquifer protection is compromised, remedial cementing operations shall be performed.

**j. Production casing cementing.** The operator shall ensure that all cement required under this rule placed behind production casing shall be of adequate quality to achieve a minimum compressive strength of at least three hundred (300) psi after twenty-four (24) hours and of at least eight hundred (800) psi after seventy-two (72) hours both measured at eight hundred (800) psi at either ninety-five degrees Fahrenheit

(95 °F) or at the minimum expected downhole temperature. After thorough circulation of a wellbore, cement shall be pumped behind the production casing (200) feet above the top of the shallowest uncovered known producing horizon. All fresh water aquifers which are exposed below the surface casing shall be cemented behind the production casing. All such cementing around an aquifer shall consist of a continuous cement column extending from at least fifty (50) feet below the bottom of the fresh water aquifer which is being protected to at least fifty (50) feet above the top of said fresh water aquifer. Cement placed behind the production casing shall be allowed to set seventy-two (72) hours, or until eight hundred (800) psi calculated compressive strength is developed, whichever occurs first, prior to the undertaking of any completion operation.

**SWN: All documents will be filed as per COGCC requirements.**

**4 -** The site is located approximately 2.4 miles north of the Yampa Valley Regional Airport. The operator is required to file with the FAA an evaluation and receive approval for drilling operations.

**COGCC Response:** Comment is a statement about FAA requirements for the nearby Yampa Valley Regional Airport. Not applicable to COGCC's Form 2A permit review process.

**SWN: Routt County Process, not applicable to Form 2A, pertains to Routt County Special Use Permit.**

**5 -** There is a drainage east of the proposed well pad and access road which drains into the Yampa River located approximately .44 mi to the south. The access roads and the well pad must have a comprehensive BMP plan and continually monitored for protection of these water sources from erosion and contaminants.

**COGCC Response:** SWN has a field wide Stormwater Management Plan in place that adheres to the requirements of the Colorado Department of Public Health and Environment (CDPHE) rules and regulations. In addition, COGCC has placed the following COAs on the Form 2A:

**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 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 encouraging established speed limits on private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.

**SWN: Agrees**

**6 -** Continued best management practices should be used to test or monitor air quality. The COGCC should work with the CDPHE to develop monitoring system requirements and schedules for all operators. The newest technology should be used to prohibit emissions from tanks, equipment and flares on the onset of production.

**COGCC Response:** Garfield County, in conjunction with Colorado State University and Oil and Gas Operators has initiated a long-term air quality monitoring program that will be conducted from Fall 2012 through Fall 2015. The initial criteria presented by Garfield County at the Northwest Forum meeting of September 6, 2012 should be more than sufficient to evaluate the need for air monitoring requirements at future well pad locations. Currently, air monitoring is regulated by the Colorado Department of Public Health and Environment (CDPHE). COGCC cannot "prohibit" emissions or flares. Operators are required to comply with CDPHE rules incorporated by reference in COGCC **Rule 805.b.(1)** regarding odor emissions. Operators are required to seek approval for long-term production venting or flaring on a Sundry Notice, per **Rule 912.b**. COGCC will approve production flaring (production venting is not encouraged) if costs for pipeline construction are prohibitive based on an economic analysis submitted with the Sundry Notice. Flaring is required if hydrogen sulfide is present in the gas. Flared or vented gas must be reported monthly on Form 7, per **Rule 912.c**. Flared gas subject to **Rule 912.b**. approval must be directed to a controlled device operated efficiently to provide maximum reduction of air contaminants where practicable and without endangering the safety of the well site personnel and the public, per **Rule 912.d**. Operators shall notify the local emergency dispatch or the local governmental designee of any natural gas flaring with reasonable notice timeframes specified in **Rule 912.e**.

When production flaring is approved per **Rule 912.b.**, COGCC requires annual updates (requests to flare) on Sundry Notices, which discuss whether or not any new gathering systems or increased development of the field have changed pipeline economics such that installation of a new pipeline would be an economically viable option in lieu of continued flaring. COGCC encourages operators to use a portion of the gas flow for lease operations, if possible. COGCC also encourages other innovative approaches, in lieu of flaring (e.g., on-site gas turbine electric generation or re-injection into offset wells for pressure maintenance [UIC approval would be required for gas injection]).

#### **805. ODORS AND DUST**

**a. General.** Oil and gas facilities and equipment shall be operated in such a manner that odors and dust do not constitute a nuisance or hazard to public welfare.

##### **b. Odors.**

##### **(1) Compliance.**

**A.** Oil and gas operations shall 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.

**B.** No violation of Rule 805.b.(1) shall be cited by the Commission, provided that the practices identified in Rule 805.b.(2) are used.

#### **912. VENTING OR FLARING NATURAL GAS**

**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.

**7 -** There are mapped wildlife concerns for Columbian Sharp-tailed Grouse and Greater Sage Grouse Production areas; Mule Deer winter range and Elk Severe winter range. All wildlife restrictions should be adhered to and drilling should not occur March 15- July 30 for CSG with restricted well site visitation to portions of the day between 9 a.m. – 4 p.m. and drilling should not occur March 1 – June 30 for GSG with the same day time hour restrictions after drilling is completed. Drilling should not occur Dec 1 – April 15 due to elk winter concerns unless the DPW determines that elk will not be affected. If elk or deer are in the area during winter restrictions post drilling operations, restricted visitation hours of 10 – 3 a.m. shall be met. Noise mitigation should be strictly adhered to and there be no visible flare. This site is within mapped area for a Bald Eagle nest site. The operator shall consult with the CPW to determine if surface occupancy or drilling operations during wildlife restrictions can be conducted.

**COGCC Response:** COGCC relies on CPW for consultation and recommendations at oil and gas locations within sensitive wildlife habitat (SWH) areas and restricted surface occupancy (RSO) areas. COGCC, CPW, Routt County LGD, SWN, and the surface owners were present at this proposed well pad location on 06-02-15 for the purpose of conducting a wildlife onsite consultation and a surface owner onsite consultation. CPW discussed wildlife issues and then placed a comment on the Form 2A recommending 4 wildlife BMPs. These will be reviewed by the operator and those BMPs that are appropriate for this location will be attached to the Form 2A.

**8 -** Farming operations are adjacent to the access and well pad area. The operator must work with the land owner to mitigate any Agriculture concerns. Interim reclamation should be completed within the COGCC requirements. Dust mitigation should be closely monitored to avoid destruction of crops; this includes construction of the access road and well pad, drilling/workover operations and daily monitoring of the site. All disturbed areas including the access road should be monitored for weeds and control measures completed to eliminate weeds through the life of the project.

**COGCC Response:** COGCC has received revised drawings/attachments that have taken into account the surface owners concerns and issues in relation to farming/cultivated fields. COGCC has updated the Form 2A#400801433 to reflect these revisions/updates.

COGCC has placed the following COA on the Form 2A#400801433:

**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.

**COGCC Rules 1003.e. and 1004.f.** address weed control and management:

**1003. INTERIM RECLAMATION**

f. **Weed control.** During drilling, production, and reclamation operations, all disturbed areas shall be kept as free of all undesirable plant species designated to be noxious weeds as practicable. Weed control measures shall be conducted in compliance with the Colorado Noxious Weed Act, C.R.S. §35-5.5-115 and the current rules pertaining to the administration and enforcement of the Colorado Noxious Weed Act. It is recommended that the operator consult with the local weed control agency or other weed control authority when weed infestation occurs. It is the responsibility of the operator to monitor affected and reclaimed lands for noxious weed infestations. If applicable, the Director may require a weed control plan.

**1004. FINAL RECLAMATION OF WELL SITES AND ASSOCIATED PRODUCTION FACILITIES**

e. **Weed control.** All areas being reclaimed shall be kept as free as practicable of all undesirable plant species designated to be noxious weeds. Weed control measures shall be conducted in compliance with the Colorado Noxious Weed Act, C.R.S. §35-5.5-115 and the current rules pertaining to the administration and enforcement of the Colorado Noxious Weed Act. It is recommended that the operator consult with the local weed control agency or other weed control authority when weed infestation occurs. It is the responsibility of the operator to monitor affected and reclaimed lands for noxious weed infestations. If applicable, the Director may require a weed control plan.

**9** - Hunting operations are conducted on this property and are a source of income to the surface owner. The operator should work with the owner to establish a construction and development plan for the access and well pad and for drilling operations. Daily monitoring hours should also be determined to avoid hunters and hunting operations.

**COGCC Response:** COGCC cannot place timing limitations for hunting on Form 2As. That is a civil issue between the operator and the surface owners and should be covered in the 'Surface Use Agreement'.

**SWN: Surface Use Agreement with land owner dated September 19, 2015 attached Form 2A.**

**10** - During the site visit it was discussed that a Surface Use Agreement has not been completed. The owner expressed frustration with the operator in development of a plan that is designed to preserve or mitigate agriculture and hunting operations. Options were discussed and SWN employees in attendance noted the concerns. A SUA should be developed before the COGCC approves this well site.

**COGCC Response:** COGCC has received (and placed on the Form 2A as an attachment) a signed and executed 'Surface Use Agreement' dated 09-19-2015 between **Flanders Ranch, LLC ("Owner")**, whose address is P.O. Box 211, Hayden, Colorado 81639, the owner of the surface estate described below (the "Property") and being more particularly described in that certain Oil and Gas Lease (the "Lease") recorded as Document No. 633299, in the Official Records of Moffat County, Colorado, and **SWN Production Company, LLC ("Company")**, whose address is 10000 Energy Drive, Spring, Texas 77032 (together "Parties"), with respect to the following described property (hereinafter, "Property"), and further identified in Exhibit "A" attached hereto and made a part hereof:

**Township 7 North - Range 88 West - Section 34: SE4NW4SW4, which corresponds to the Flanders 7-88 1-34 Pad, Form 2A#400801433.**

**SWN: Surface Use Agreement with land owner dated September 19, 2015 attached Form 2A.**

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## Public Comment Review and COGCC Response:

Please review and consider the following comments of Flanders Ranch, the fee surface owner of the land to be impacted by SWN's development proposed in the Form 2A Oil and Gas Assessment.

**Comment #1:** SWN's Form 2A Oil and Gas Assessment contains several errors that should be addressed and corrected. First, on Page 3 of 7 on Form 2A, SWN has indicated that the "Current Land Use" is "Non-Crop Land: Rangeland." That statement is not accurate. The "Current Land Use" is "Crop Land." The surface is currently used as both "Improved Pasture" and "Hay Meadow" and produces approximately 1.5 tons of alfalfa/acre per year. SWN's proposed operations will impact roughly 9 acres of cultivated alfalfa field, resulting in approximately \$3,780 in lost alfalfa production per year (9 acres x 1.5 tons of alfalfa/acre X \$280 per ton = \$3,780). These impacts should be properly documented and considered in SWN's Form 2A.

**COGCC Response:** The "Land Use" Tab for the 'Current Land Use' section on the Form 2A has been updated to include "Non-Crop Land: Rangeland", "Crop Land: Improved Pasture" and "Non-Crop Land Hay Meadow".

Likewise, on Page 3 of 7 on Form 2A, SWN has improperly indicated that the "Future Land Use" is "Non-Crop Land: Rangeland." That statement is not accurate. The "Future Land Use" is "Crop Land," both "Improved Pasture" and "Hay Meadow." Alfalfa production will be resumed on the surface after SWN completes reclamation. In addition, the "Future Land Use" should also be recognized as conservation easement, as the surface owner is currently negotiating a conservation easement for the surface. These changes should be properly documented and considered in SWN's Form 2A.

**COGCC Response:** The "Land Use" Tab for the 'Future Land Use' section on the Form 2A has been updated to include "Non-Crop Land: Rangeland", "Crop Land: Improved Pasture" and "Non-Crop Land: Hay Meadow". It is COGCC's understanding that the conservation easement is no longer being pursued by the surface owner; and therefore, will not be included in the 'Future Land Use' section.

Finally, on Page 5 of 7 on Form 2A, SWN indicates that the "plant communities that exist in the disturbed area" include only "Native Grassland." That statement is not accurate. The "plant communities that exist in the disturbed area" also include "Shrub Land," including "Sage," and other important habitat for grouse. These changes should be properly documented and considered in SWN's Form 2A.

**COGCC Response:** The "Soil & Plant Community" Tab for the 'PLANT COMMUNITY' section on the Form 2A has been updated to include "Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)".

**Comment #2:** SWN has not consulted in good faith with the surface owner, Flanders Ranch, in locating roads, production facilities, and well sites, or other oil and gas operations. Instead, SWN has used bad faith tactics to confuse and burden the surface owner. For example, SWN has provided a series of proposed surface use agreements to the surface owner, spelling out terms and conditions of SWN's use. Each time such an agreement has been provided, the surface owner has in good faith spent time and money to review and consider the agreement and to provide constructive comments on the agreement to promote SWN's development, while protecting the surface owner's crops and wildlife in the area, among other interests. SWN has never considered such comments, and instead, has rejected those comments outright and responded with more impactful plans for surface development and repeated new proposed surface use agreements. SWN's "take it or leave it" approach, and its unwillingness to consider and/or minimize impacts to the surface, have not been constructive nor consistent with the consultation and meeting procedures outlined by COGCC rules.

Because of the lack of good faith consultation to date by SWN, the surface owner does not waive any of its rights to consultation and requests that the COGCC compel consultation concerning preferred locations for wells and associated production facilities, the preferred timing of oil and gas operations, and mitigation measures or Best Management Practices to be used during Oil and Gas Operations.

**COGCC Response:** COGCC has received (and placed on the Form 2A as an attachment) a signed and executed 'Surface Use Agreement' dated 09-19-2015 between **Flanders Ranch, LLC ("Owner")**, whose address is P.O. Box 211, Hayden, Colorado 81639, the owner of the surface estate described below (the "Property") and being more particularly described in that certain Oil and Gas Lease (the "Lease") recorded as Document No. 633299, in the Official Records of Moffat County, Colorado, and **SWN Production Company, LLC ("Company")**, whose address is 10000 Energy Drive, Spring, Texas 77032 (together "Parties"), with respect to the following described property (hereinafter, "Property"), and further identified in Exhibit "A" attached hereto and made a part hereof:

**Township 7 North - Range 88 West - Section 34: SE4NW4SW4, which corresponds to the Flanders 7-88 1-34 Pad, Form 2A#400801433.**

**Comment #3:** In addition, the surface owner requests that the COGCC, Local Government Designee, Colorado Parks and Wildlife, and Colorado Department of Public Health and Environment, consult with the surface owner and SWN to the maximum extent possible under COGCC rules. In particular, and because SWN's proposed development is located in



sensitive wildlife habitat area, the surface owner requests that conditions of approval be placed on SWN's development to minimize adverse impacts to wildlife resources.

SWN's development is proposed in an important elk and grouse production area. The area is also important winter game range for elk, deer and antelope, and is known corridor for game migration to and from the Yampa River valley. In addition, numerous other species inhabit the area. The potential impacts of SWN's development on wildlife resources are likely to be significant and are anticipated to drastically and adversely impact hunting at Flanders Ranch as well as the ability for Flanders Ranch to seek a conservation easement on the property to benefit wildlife resources. Conditions of approval should place timing restrictions on development to avoid impacts to hunting seasons, game migrations, winter game range, and elk and grouse production, among other considerations. In addition, SWN should adhere to COGCC operating requirements in sensitive wildlife habitat, and be required to minimize access, traffic, noise, and other disturbances on the surface to reduce impacts to wildlife resources. The surface owner seeks review and the ability to consent of proposed conditions of approval and operating requirements.

**COGCC Response:** COGCC relies on CPW for consultation and recommendations at oil and gas locations within sensitive wildlife habitat (SWH) areas and restricted surface occupancy (RSO) areas. COGCC, CPW, Routt County LGD, SWN, and the surface owners were present at this proposed well pad location on 06-02-15 for the purpose of conducting a wildlife onsite consultation and a surface owner onsite consultation. CPW discussed wildlife issues and then placed a comment on the Form 2A recommending 4 wildlife BMPs. These will be reviewed by the operator and those BMPs that are appropriate for this location will be attached to the Form 2A.

**Comment #4:** The surface owner also requests that the COGCC place the following conditions of approval on SWN's development to minimize impacts to the surface as a result of SWN's operations:

**A -** Require orientation of the proposed surface well site and access road to minimize impacts to the cultivated field, including the surface owner's ability to plow the field. The current orientation reduces the number of plow-able acres of the cultivated field. Likewise, the access road could be oriented to avoid impacts to the cultivated field.

**COGCC Response:** COGCC has received revised drawings/attachments that have taken into account the surface owners concerns and issues. COGCC has updated the Form 2A#400801433 to reflect these revisions/updates.

**B -** Minimize the size of the surface well site and access road to avoid disturbance to the cultivated field and important elk and grouse habitat. SWN's development is over-sized compared to what is necessary to achieve drilling operations.

**COGCC Response:** COGCC has received revised drawings/attachments that have taken into account the surface owners concerns and issues. SWN's current pad layout is consistent with other locations within Moffat and Routt Counties.

**C -** Require minimization of noise impacts by requiring installation of electric motors; muffling, locating or orienting motors or compressors to reduce noise; installing insulated buildings or sound barriers to reduce noise; and/or other noise-reduction techniques. Likewise, access to the well site should be minimized to reduce noise and disturbance of wildlife in the area.

**COGCC Response:** Operator is required to meet the noise levels in Rule 802. NOISE ABATEMENT. b. Oil and gas operations at any well site, production facility, or gas facility shall comply with the following maximum permissible noise levels. Residential/Agricultural/Rural Zones of 55 db(A) between 7:00 AM to 7:00 PM; and 50 db(A) between 7:00 PM to 7:00 AM.

**D -** Minimize dust impacts by watering roads as necessary to control dust during operations.

**COGCC Response:** COGCC has place the following COA on the Form 2A#400801433:

**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.

**E -** Avoid and/or limit drilling, completion and other operations during fall hunting seasons, winter game range usage, and other seasonal time periods where wildlife is sensitive to SWN's operations.

**COGCC Response:** COGCC cannot place timing limitations for hunting on Form 2As. That is a civil issue between the operator and the surface owners and should be covered in the 'Surface Use Agreement'.

If you have any questions, please do not hesitate to call me at (970) 309-2514 (cell), or email. Thanks.

Dave

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