

## Kubeczko, Dave

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**From:** Kubeczko, Dave  
**Sent:** Tuesday, May 17, 2011 5:27 PM  
**To:** Kubeczko, Dave  
**Subject:** FW: Southwestern Energy Ventures Company LLC, Thomas 5 Pad, Lot 20 Sec 4 T9S R104W, Mesa County, Form 2A (#400157324) Review

**Categories:** Orange Category

Scan No 2033826      CORRESPONDENCE      2A#400157324

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**From:** Will Vaughan [mailto:will@pinnacleland.biz]  
**Sent:** Thursday, May 12, 2011 10:08 AM  
**To:** Kubeczko, Dave  
**Subject:** RE: Southwestern Energy Ventures Company LLC, Thomas 5 Pad, Lot 20 Sec 4 T9S R104W, Mesa County, Form 2A (#400157324) Review

Dave,

I would appreciate you making the change concerning the distance to the nearest surface water as stated in 2 of your comments below.

Thank you,

Will Vaughan

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**From:** Kubeczko, Dave [mailto:Dave.Kubeczko@state.co.us]  
**Sent:** Wednesday, May 11, 2011 5:36 PM  
**To:** will@pinnacleland.biz  
**Subject:** Southwestern Energy Ventures Company LLC, Thomas 5 Pad, Lot 20 Sec 4 T9S R104W, Mesa County, Form 2A (#400157324) Review

Will,

I have been reviewing the Thomas 5 Pad **Form 2A** (#400157324). COGCC requests the following clarifications regarding the data Southwestern Energy Ventures has submitted on or attached to the Form 2A prior to passing the Oil and Gas Location Assessment (OGLA) review. In addition, COGCC would like to attach the following conditions of approval (COAs) to the Form 2A.

1. **Soils (Section 12):** Form 2A indicates that the primary soil type is Map #92 – Neiberger-Pariette complex, 3 to 20 percent slopes; however Map #71U – Abra-Barx complex, 3 to 12 percent slopes was attached to the Form 2A permit. COGCC's review indicates that the well pad actually straddles two other soil types; Map #69 – Leebench, warm-Avalon complex, 3 to 12 percent slopes and Map #87 – Persayo-Blackston complex, 6 to 45 percent slopes. extends onto a second soil type; Map #52 – Northwater-Adel complex, 5 to 30 percent slopes (COGCC has attached these reports). This information is very helpful to our reclamation inspectors during the interim reclamation period.
2. **Water Resources (Section 14):** Form 2A indicates the distance to the nearest surface water is 830 feet. COGCC's rules state that the distance to the nearest surface water should reflect intermittent (this includes ephemeral streams, irrigation ditches, drainages), as well as, perennial streams. COGCC's review indicates three intermittent streams located approximately 330 feet to the southwest, 560 feet to the south-southwest, and 490 feet to the north (shown on Hydrology Map). I can make the change if you send an email with this request. COGCC guidelines require designating all locations with close proximity to surface water (the exact

distance varies with the location and takes into consideration soil type, surface geology, initial grade/topographic slope, the grade/topographic slope adjacent to the location, vegetative cover, as well as other factors) a **sensitive area** and requiring the following condition of approval (COA):

**COA 23** - Operator must ensure 110 percent 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, and maintained in good condition.

**COA 5** - Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via temporary surface pipelines or buried permanent pipelines.

3. **Water Resources (Section 14):** Form 2A indicates the depth to groundwater to be 23 feet bgs for a well located 11600 feet from the proposed well pad. COGCC's review of water wells in this area indicate the potential for shallow groundwater; therefore the following condition of approval (COA) will apply:

**COA 1** - Location may be in a sensitive area due to shallow groundwater; therefore, any pit constructed to contain/hold fluids, must be lined.

4. **General:** The following conditions of approval (COAs) will also apply:

**COA 39** - No portion of any pit that will be used to hold liquids shall be constructed on fill material, unless the pit and fill slope are designed and certified by a professional engineer, subject to review and approval by the director prior to construction of the pit. The construction and lining of the pit shall be supervised by a professional engineer or their agent. The entire base of the pit must be in cut.

**COA 38** - The moisture content of any drill 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.

**COA 25** - Flowback and stimulation fluids must be sent to tanks to allow the sand to settle out before the fluids can be placed into any pipeline or pit located on the well pad. The flowback and stimulation fluid tanks must be placed on the well pad in an area with additional downgradient perimeter berming. The area where flowback fluids will be stored/reused must be constructed to be sufficiently impervious to contain any spilled or released material (per Rule 604.a.(4)).

**COA 46** - The surface soils and materials are fine-grained and highly unconsolidated; therefore the pad shall be constructed as quickly as possible and appropriate BMPs need to be in place both during, after well pad construction completion, as well as during all drilling and well completion operations. Standard stormwater BMPs must be implemented at this location to insure compliance with CDPHE and COGCC requirements and to prevent any stormwater run-on and /or stormwater runoff.

**COA 58** - Berms or other containment devices shall be constructed in compliance with Rule 604.a.(4) around crude oil, condensate, and produced water storage tanks.

COGCC would appreciate your concurrence with attaching these COAs (items 2, 3, and 4) to the Form 2A permit 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.

Dave

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

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