

Kubeczko, Dave

From: Kubeczko, Dave
Sent: Wednesday, April 27, 2011 12:35 PM
To: Kubeczko, Dave
Subject: FW: Resend of SWEPI LP, Herring Draw 1-9 Pad, NWSE Sec 9 T4N R90W, Moffat County, Form 2A #1638090 Review; revised information is highlighted black

Scan No 2033717 CORRESPONDENCE 2A#1638090

From: Michael.Bergstrom@shell.com [mailto:Michael.Bergstrom@shell.com]
Sent: Friday, April 22, 2011 6:50 PM
To: Kubeczko, Dave
Cc: abrown@norwestcorp.com
Subject: FW: Resend of SWEPI LP, Herring Draw 1-9 Pad, NWSE Sec 9 T4N R90W, Moffat County, Form 2A #1638090 Review; revised information is highlighted black

We have reviewed the COAs and agree with each of them.

From: Aleta A. Brown [mailto:abrown@norwestcorp.com]
Sent: Friday, April 22, 2011 1:27 PM
To: Bergstrom, Michael L SEPCO-UAS/E/USON
Subject: RE: Resend of SWEPI LP, Herring Draw 1-9 Pad, NWSE Sec 9 T4N R90W, Moffat County, Form 2A #1638090 Review; revised information is highlighted black

Mike, To forward to Dave. He is looking for confirmation that Shell is in agreement with the COAs. Please confirm.

Dave, We greatly appreciate your quick review of this application. As requested, we are providing information regarding the following:

- An updated equipment list to include additional items for Herring Draw 2-9

Facilities

Wells	2	Drilling Pits	1	Special Purpose Pits		Production Pits		Multi-Well Pits		Oil Tanks	3
Condensate Tanks	1	Water Tanks	3	Separators	2	LACT Unit		Dehydrator Units		Gas Compressors	2
Pump Jacks	2	Cavity Pumps	2	Electric Motors		Gas or Diesel Motors	1	Electric Generators	3	Fuel Tanks	2
Pigging Station		Gas Pipeline		Oil Pipeline		Water Pipeline		Flare	1	VOC Combustor	

- As detailed below, please change the depth to ground water at between 20 to 50 feet bgs.

Thanks again for your help. Please contact me or Aleta with any additional questions.

From: Kubeczko, Dave [mailto:Dave.Kubeczko@state.co.us]
Sent: Thursday, April 14, 2011 3:20 PM
To: michael.bergstrom@shell.com
Cc: Aleta A. Brown
Subject: Resend of SWEPI LP, Herring Draw 1-9 Pad, NWSE Sec 9 T4N R90W, Moffat County, Form 2A #1638090 Review; revised information is highlighted black

Michael,

I have been reviewing the Herring Draw 1-9 Pad **Form 2A** (#1638090). Since SWEPI has indicated that a second well will be drilled from this pad, I have updated the Location Drawing and Construction Layout Drawings, and have added the Plat Maps and Hydrology Map to the attachments. Since there is one plugged and abandoned well already at this location (East Resources, Ray Durham #1), this is not considered a New Location on the Form 2A, but rather an Amend Existing Location (Location ID#392134). I have made this change. COGCC requests the following clarifications regarding the data SWEPI LP 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. **Facilities (Section 5):** Since SWEPI has indicated that a second well will be drilled from this pad, can you send me an update equipment list to include any additional items required for the second well.
2. **Construction (Section 6):** The box answering the question will salt (>15,000 ppm TDS Cl) or oil based muds be used? has been marked **Yes**; therefore the following conditions of approval (COAs) will apply:
 - COA 11** - A closed loop system (which has been indicated by operator on the Form 2A) must be implemented during drilling.
3. **Water Resources (Section 14):** Form 2A indicates the distance to the nearest surface water is 542 feet. 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.
4. **Water Resources (Section 14):** Form 2A indicates the depth to groundwater to be 0 feet bgs for a well located 7960 feet from the proposed well pad. COGCC's review indicates there is a water well **(Permit No. 104040-Durham Livestock Company, domestic/stock well)** located approximately 7940 feet to the east-northeast, with a total depth of 50 feet bgs and a pumping rate of 15 gpm. I believe this is the well you located. Based on this information, the depth to groundwater is likely between 20 and 50 feet bgs. I can make the change if you send me an email with this request. COGCC guidelines require designating all locations with shallow groundwater a **sensitive area** and requiring the following condition of approval (COA):
 - COA 1** - Location is in a sensitive area due to shallow groundwater; therefore, any pit constructed to contain/hold fluids, must be lined.
 - 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.
5. **General:** The following conditions of approval (COAs) will also apply:
 - 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 44** - The access road will be constructed as to not allow any sediment to migrate from the access road to nearby surface water or any drainages leading to surface water.
 - 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, 4, and 5) to the Form 2A permit prior to passing the OGLA review. The other issues (Items 1 and 4) also need to be addressed prior to permit approval. 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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