

## Kubeczko, Dave

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**From:** Kubeczko, Dave  
**Sent:** Tuesday, March 30, 2010 8:51 AM  
**To:** Kubeczko, Dave  
**Subject:** FW: Berry Petroleum, Oxy "O22 697" PAD 22-10D, SWSE Sec 22 T6S R97W, Garfield County, Form 2A #400014868 Review

Scan No 2033029

CORRESPONDENCE

2A#400014868

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**From:** Keidel, Jannette E. [mailto:JEK@bry.com]

**Sent:** Thursday, March 25, 2010 11:22 AM

**To:** Kubeczko, Dave

**Subject:** RE: Berry Petroleum, Oxy "O22 697" PAD 22-10D, SWSE Sec 22 T6S R97W, Garfield County, Form 2A #400014868 Review

Dave,

1. **Facilities (Section 5):** The construction layout drawings (Sheet 2 of 12) indicate that there will be a separate flare pit located northeast of the reserve pit. This flare pit needs to be marked as a special purpose pit on the Form 2A and a Form 15 (Earthen Pit Report/Permit) must be submitted. I can make the change if you send an email with this request. **Please make this change.**
2. **Water Resources (Section 14):** Form 2A indicates that the distance to the nearest surface water is 7917 feet. COGCC's rules state that the distance to the nearest surface water should reflect intermittent, as well as, perennial streams. COGCC's review indicates there is an intermittent stream located approximately 655 feet to the north. I can make the change if you send me an email with this request. **Please make this change.**
3. **Water Resources (Section 14):** Form 2A indicates that the distance to the nearest water well is 17512 feet with a depth to groundwater of 200 feet bgs. COGCC's review did find two water wells within this distance: one (Permit No. 35792-Tucker, domestic/stock well) located 1.60 miles (8448 feet) to south, with a total depth of 74 feet bgs, a depth to groundwater of 42 feet bgs, and a pumping rate of 15 gpm; the other one (Permit No. 271290-Pucket Land Company, other/monitoring well) located 1.87 miles (9874 feet) to the east-southeast, with a total depth of 500 feet bgs and a depth to groundwater of 260 feet bgs. I believe either of these two well are appropriate for defining groundwater conditions in this area. I can make the changes if you send an email with this request. **Please make this changes.**
4. **General:** COGCC's review indicates that the well pad location is within the current edge of the area defined in the notice to operators (NTO) for drilling wells on the Roan Plateau in Garfield County. Due to the highly fractured nature of the surface material in the area around the Roan Rim, the following conditions of approval (COAs) will apply:
  - COA 9** - Reserve pit must be lined.
  - COA 40** - The nearby hillside must be monitored for any day-lighting of drilling fluids throughout the drilling of the surface casing interval.
  - COA 23** - Operator must ensure 110 percent secondary containment for any volume of fluids contained at well site during drilling and completion operations. If fluids are conveyed via pipeline, operator must implement best management practices to contain any unintentional release of fluids.
  - 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 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.**Berry Petroleum Company will comply to the above COA's.**

5. **Notice to Operators (NTO) Drilling Wells on the Roan Plateau in Garfield County:** Comply with all provisions of the June 12, 2008 Notice to Operators (NTO) Drilling Wells Within ¾ Mile of the Rim of the Roan Plateau in Garfield County – Pit Design, Construction, and Monitoring Requirements. At a minimum, the following condition of approval (COA) will apply:

**COA 6** - All pits must be lined. **Berry Petroleum Company will comply to the above COA.**

Thank you,  
Janni

Janni Keidel  
Regulatory Agent  
Berry Petroleum Company  
1999 Broadway, Suite # 3700  
Denver, Colorado 80202  
303-999-4225 Direct line  
303-999-4325 Direct Fax line

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**From:** Kubeczko, Dave [mailto:Dave.Kubeczko@state.co.us]

**Sent:** Monday, March 15, 2010 8:35 PM

**To:** Keidel, Jannette E.

**Subject:** Berry Petroleum, Oxy "O22 697" PAD 22-10D, SWSE Sec 22 T6S R97W, Garfield County, Form 2A #400014868 Review

Janni,

I have been reviewing the Oxy O22 697 PAD 22-10D **Form 2A** (#400014868). COGCC requests the following clarifications regarding the data Berry Petroleum has submitted on or attached to the Form 2A prior to passing the Oil and Gas Location Assessment (OGLA).

6. **Facilities (Section 5):** The construction layout drawings (Sheet 2 of 12) indicate that there will be a separate flare pit located northeast of the reserve pit. This flare pit needs to be marked as a special purpose pit on the Form 2A and a Form 15 (Earthen Pit Report/Permit) must be submitted. I can make the change if you send an email with this request.
7. **Water Resources (Section 14):** Form 2A indicates that the distance to the nearest surface water is 7917 feet. COGCC's rules state that the distance to the nearest surface water should reflect intermittent, as well as, perennial streams. COGCC's review indicates there is an intermittent stream located approximately 655 feet to the north. I can make the change if you send me an email with this request.
8. **Water Resources (Section 14):** Form 2A indicates that the distance to the nearest water well is 17512 feet with a depth to groundwater of 200 feet bgs. COGCC's review did find two water wells within this distance: one (Permit No. 35792-Tucker, domestic/stock well) located 1.60 miles (8448 feet) to south, with a total depth of 74 feet bgs, a depth to groundwater of 42 feet bgs, and a pumping rate of 15 gpm; the other one (Permit No. 271290-Pucket Land Company, other/monitoring well) located 1.87 miles (9874 feet) to the east-southeast, with a total depth of 500 feet bgs and a depth to groundwater of 260 feet bgs. I believe either of these two well are appropriate for defining groundwater conditions in this area. I can make the changes if you send an email with this request.
9. **General:** COGCC's review indicates that the well pad location is within the current edge of the area defined in the notice to operators (NTO) for drilling wells on the Roan Plateau in Garfield County. Due to the highly fractured nature of the surface material in the area around the Roan Rim, the following conditions of approval (COAs) will apply:

**COA 9** - Reserve pit must be lined.

**COA 40** - The nearby hillside must be monitored for any day-lighting of drilling fluids throughout the drilling of the surface casing interval.

**COA 23** - Operator must ensure 110 percent secondary containment for any volume of fluids contained at well site during drilling and completion operations. If fluids are conveyed via pipeline, operator must implement best management practices to contain any unintentional release of fluids.

**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 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.

10. **Notice to Operators (NTO) Drilling Wells on the Roan Plateau in Garfield County:** Comply with all provisions of the June 12, 2008 Notice to Operators (NTO) Drilling Wells Within  $\frac{3}{4}$  Mile of the Rim of the Roan Plateau in Garfield County – Pit Design, Construction, and Monitoring Requirements. At a minimum, the following condition of approval (COA) will apply:

**COA 6** - All pits must be lined.

COGCC would appreciate your concurrence with attaching these COAs to the Form 2A permit prior to passing the OGLA review. The other issues also need to be addressed. If you have any questions, please do not hesitate to call me at (970) 625-2497 x5 (office) or (970) 309-2514 (cell), or email. Thanks.

Dave

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

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