

## Kubeczko, Dave

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**From:** Kubeczko, Dave  
**Sent:** Tuesday, August 24, 2010 4:53 PM  
**To:** Kubeczko, Dave  
**Subject:** FW: Antero Resources, Three Siblings A Pad, SENW 2 T6S R92W, Garfield County, Form 2A (#400080934) Review

Scan No 2033317      CORRESPONDENCE      2A#400080934

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**From:** Hannah Knopping [mailto:hknopping@anteroresources.com]  
**Sent:** Thursday, August 12, 2010 2:51 PM  
**To:** Kubeczko, Dave  
**Subject:** RE: Antero Resources, Three Siblings A Pad, SENW 2 T6S R92W, Garfield County, Form 2A (#400080934) Review

Hi Dave,

Antero does concur with the conditions of approval that you have listed below for the **Three Siblings A Pad**. Let me know if you need anything else.

Thanks!

*Hannah Knopping*  
**Permit Representative**  
**Antero Resources Corporation**  
1625 17th Street  
Denver, CO 80202  
Office: (303) 357-6412  
Cell: (720) 985-6647

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**From:** Kubeczko, Dave [mailto:Dave.Kubeczko@state.co.us]  
**Sent:** Thursday, August 12, 2010 1:26 PM  
**To:** Hannah Knopping  
**Subject:** Antero Resources, Three Siblings A Pad, SENW 2 T6S R92W, Garfield County, Form 2A (#400080934) Review

Hannah,

I have been reviewing the Three Siblings A Pad **Form 2A** (#400080934). COGCC requests the following clarifications regarding the data Antero has submitted on or attached to the Form 2A prior to passing the Oil and Gas Location Assessment (OGLA).

1. **Water Resources (Section 14):** Form 2A indicates that the distance to the nearest surface water is 235 feet. COGCC guidelines require designating all locations within close proximity to surface water a **sensitive area** (which BP has already indicated on the Form 2A). The following conditions of approval (COAs) will apply:  
**COA 4** - Location is in a sensitive area because of proximity to surface water (intermittent stream to the south); therefore, 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 sufficiently protective of nearby surface water.  
**COA 5** - Operator must implement best management practices to contain any unintentional release of drilling, completion, or produced fluids.

2. **Water Resources (Section 14):** Form 2A indicates the depth to groundwater to be 8 feet bgs for a well located 1760 feet from the proposed well pad. COGCC guidelines require designating all locations with shallow groundwater a *sensitive area*. The following condition of approval (COA) will apply:  
**COA 1** - Location is in a sensitive area because of shallow groundwater; therefore either a lined drilling pit or closed loop system (which has been indicated on the Form 2A by Antero) must be implemented.
3. **General:** The following condition of approval (COA) will also apply:  
**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.

COGCC would appreciate your concurrence with attaching these COAs 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**

Colorado Oil & Gas Conservation Commission  
Northwest Area Office  
707 Wapiti Court, Suite 204  
Rifle, CO 81650  
Phone: (970) 625-2497x5  
FAX: (970) 625-5682  
Cell: (970) 309-2514  
[dave.kubeczko@state.co.us](mailto:dave.kubeczko@state.co.us)



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