


<b>FORM</b> <b>2A</b> Rev 04/01	<b>State of Colorado</b> <b>Oil and Gas Conservation Commission</b> 1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">DE</td> <td style="width: 25%;">ET</td> <td style="width: 25%;">OE</td> <td style="width: 25%;">ES</td> </tr> </table> <p>Document Number:  400097171</p>	DE	ET	OE	ES																					
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<b>Oil and Gas Location Assessment</b>			<p>Location ID: <b>422286</b></p> <p>Expiration Date: <b>03/24/2014</b></p>																									
<p> <input checked="" type="checkbox"/> New Location           <input type="checkbox"/> Amend Existing Location           Location#: _____         </p> <p>           Submit original plus one copy. This form is to be submitted to the COGCC prior to any ground disturbance activity associated with oil and gas development operations. This Assessment may be approved as a standalone application or submitted as an informational report accompanying an Application for Permit-To-Drill, Form 2. Approval of this Assessment will allow for the construction of the below specified location; however, it does not supersede any land use rules applied by the local land use authority. This form may serve as notice to land owners and other interested parties, please see the COGCC web site at <a href="http://colorado.gov/cogcc/">http://colorado.gov/cogcc/</a> for all accompanying information pertinent to this Oil and Gas Location Assessment.         </p> <p> <input checked="" type="checkbox"/> This location assessment is included as part of a permit application.         </p>																												
<b>1. CONSULTATION</b> <p> <input type="checkbox"/> This location is included in a Comprehensive Drilling Plan. CDP # _____  <input checked="" type="checkbox"/> This location is in a sensitive wildlife habitat area.  <input type="checkbox"/> This location is in a wildlife restricted surface occupancy area.  <input type="checkbox"/> This location includes a Rule 306.d.(1)A.ii. variance request.         </p>																												
<b>2. Operator</b> Operator Number: <u>10079</u> Name: <u>ANTERO RESOURCES PICEANCE CORPORATION</u> Address: <u>1625 17TH ST STE 300</u> City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80202</u>		<b>3. Contact Information</b> Name: <u>Hannah Knopping</u> Phone: <u>(303) 357-6412</u> Fax: <u>(303) 357-7315</u> email: <u>hknopping@anteroresources.com</u>																										
<b>4. Location Identification:</b> Name: <u>Monument Ridge Pad</u> Number: _____ County: <u>GARFIELD</u> QuarterQuarter: <u>SESE</u> Section: <u>18</u> Township: <u>7S</u> Range: <u>95W</u> Meridian: <u>6</u> Ground Elevation: <u>5441</u> Define a single point as a location reference for the facility location. This point should be used as the point of measurement in the drawings to be submitted with this application. When the location is to be used as a well site then the point shall be a well location. Footage at surface: <u>283</u> feet <u>FSL</u> , from North or South section line, and <u>824</u> feet <u>FEL</u> , from East or West section line. Latitude: <u>39.431202</u> Longitude: <u>-108.033248</u> PDOP Reading: <u>3.0</u> Date of Measurement: <u>09/17/2010</u> Instrument Operator's Name: <u>Elwood Barry Giles</u>																												
<b>5. Facilities (Indicate the number of each type of oil and gas facility planned on location):</b> <table style="width: 100%; border: none;"> <tr> <td>Special Purpose Pits: <input type="text"/></td> <td>Drilling Pits: <input type="text"/></td> <td>Wells: <input type="text" value="19"/></td> <td>Production Pits: <input type="text"/></td> <td>Dehydrator Units: <input type="text"/></td> </tr> <tr> <td>Condensate Tanks: <input type="text" value="2"/></td> <td>Water Tanks: <input type="text" value="4"/></td> <td>Separators: <input type="text" value="20"/></td> <td>Electric Motors: <input type="text"/></td> <td>Multi-Well Pits: <input type="text"/></td> </tr> <tr> <td>Gas or Diesel Motors: <input type="text"/></td> <td>Cavity Pumps: <input type="text"/></td> <td>LACT Unit: <input type="text"/></td> <td>Pump Jacks: <input type="text"/></td> <td>Pigging Station: <input type="text" value="1"/></td> </tr> <tr> <td>Electric Generators: <input type="text"/></td> <td>Gas Pipeline: <input type="text" value="1"/></td> <td>Oil Pipeline: <input type="text" value="1"/></td> <td>Water Pipeline: <input type="text" value="1"/></td> <td>Flare: <input type="text" value="1"/></td> </tr> <tr> <td>Gas Compressors: <input type="text"/></td> <td>VOC Combustor: <input type="text" value="1"/></td> <td>Oil Tanks: <input type="text"/></td> <td>Fuel Tanks: <input type="text"/></td> <td></td> </tr> </table> <p>Other: Note: Gas, oil and water pipelines are planned to be constructed along the proposed access road; See attached List of Facilities for details.</p>				Special Purpose Pits: <input type="text"/>	Drilling Pits: <input type="text"/>	Wells: <input type="text" value="19"/>	Production Pits: <input type="text"/>	Dehydrator Units: <input type="text"/>	Condensate Tanks: <input type="text" value="2"/>	Water Tanks: <input type="text" value="4"/>	Separators: <input type="text" value="20"/>	Electric Motors: <input type="text"/>	Multi-Well Pits: <input type="text"/>	Gas or Diesel Motors: <input type="text"/>	Cavity Pumps: <input type="text"/>	LACT Unit: <input type="text"/>	Pump Jacks: <input type="text"/>	Pigging Station: <input type="text" value="1"/>	Electric Generators: <input type="text"/>	Gas Pipeline: <input type="text" value="1"/>	Oil Pipeline: <input type="text" value="1"/>	Water Pipeline: <input type="text" value="1"/>	Flare: <input type="text" value="1"/>	Gas Compressors: <input type="text"/>	VOC Combustor: <input type="text" value="1"/>	Oil Tanks: <input type="text"/>	Fuel Tanks: <input type="text"/>	
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6. Construction:

Date planned to commence construction: 03/01/2011 Size of disturbed area during construction in acres: 3.05  
Estimated date that interim reclamation will begin: 09/01/2011 Size of location after interim reclamation in acres: 2.00  
Estimated post-construction ground elevation: 5441 Will a closed loop system be used for drilling fluids: Yes ☒  
Will salt sections be encountered during drilling: Yes ☐ No ☒ Is H2S anticipated? Yes ☐ No ☒  
Will salt (>15,000 ppm TDS Cl) or oil based muds be used: Yes ☐ No ☒  
Mud disposal: Offsite ☐ Onsite ☒ Method: Land Farming ☐ Land Spreading ☐ Disposal Facility ☐  
Other: Onsite if meet Tbl 910

7. Surface Owner:

Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
Address: \_\_\_\_\_ Fax: \_\_\_\_\_  
Address: \_\_\_\_\_ Email: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Date of Rule 306 surface owner consultation: \_\_\_\_\_  
Surface Owner: ☒ Fee ☐ State ☐ Federal ☐ Indian  
Mineral Owner: ☒ Fee ☐ State ☐ Federal ☐ Indian  
The surface owner is: ☒ the mineral owner ☒ committed to an oil and gas lease  
☒ is the executer of the oil and gas lease ☒ the applicant  
The right to construct the location is granted by: ☐ oil and gas lease ☐ Surface Use Agreement ☐ Right of Way  
☒ applicant is owner  
Surface damage assurance if no agreement is in place: ☐ \$2000 ☐ \$5000 ☐ Blanket Surety ID \_\_\_\_\_

8. Reclamation Financial Assurance:

☒ Well Surety ID: 20040071 ☐ Gas Facility Surety ID: \_\_\_\_\_ ☐ Waste Mgnt. Surety ID: \_\_\_\_\_

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes ☒ No ☐  
Distance, in feet, to nearest building: 688 , public road: 497 , above ground utilit: 380  
 , railroad: 8648 , property line: 497

10. Current Land Use (Check all that apply):

Crop Land: ☒ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP  
Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe): \_\_\_\_\_  
Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

11. Future Land Use (Check all that apply):

Crop Land: ☒ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP  
Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe): \_\_\_\_\_  
Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

12. Soils:

List all soil map units that occur within the proposed location. Attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.gov/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: 55: Potts loam, 3 to 6 percent slopes

NRCS Map Unit Name: 56: Potts loam, 6 to 12 percent slopes

NRCS Map Unit Name: \_\_\_\_\_

### 13. Plant Community:

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes ☐ No ☒

Plant species from: ☒ NRCS or, ☒ field observation Date of observation: 09/17/2010

List individual species: See attached NRCS Rangeland Productivity and Plant Composition report

Check all plant communities that exist in the disturbed area.

- ☐ Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
- ☒ Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- ☒ Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
- ☐ Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- ☐ Mountain Riparian (Cottonwood, Willow, Blue Spruce)
- ☐ Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
- ☐ Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
- ☐ Alpine (above timberline)
- ☐ Other (describe): \_\_\_\_\_

### 14. Water Resources:

Rule 901.e. may require a sensitive area determination be performed. If this determination is performed the data is to be submitted with the Form 2A.

Is this a sensitive area: ☐ No ☒ Yes Was a Rule 901.e. Sensitive Areas Determination performed: ☒ No ☐ Yes

Distance (in feet) to nearest surface water: 568, water well: 595, depth to ground water: 77

Is the location in a riparian area: ☒ No ☐ Yes Was an Army Corps of Engineers Section 404 permit filed ☒ No ☐ Yes

Is the location within a Rule 317B Surface Water Supply Area buffer zone:

☒ No ☐ 0-300 ft. zone ☐ 301-500 ft. zone ☐ 501-2640 ft. zone

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified: ☐ No ☐ Yes

### 15. Comments:

#1 Consultation: This location is in a "Sensitive Wildlife Habitat Area" and is subject to the Wildlife Mitigation Plan that Antero negotiated with CDOW (see attached Proposed BMP List which includes a summary of WMP). #4- The proposed BAT 33D-18-07-95 well location was used as the reference point for well distance measurements. #14 - Depth to ground water determined by using static water level data of nearest active water well shown on the attached Hydrology Map, Permit # 57705-F/Receipt #0491311F. Our reference area is undisturbed ground immediately adjacent and to the northeast of the well pad, as shown in the "North" and "East" location photos.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: \_\_\_\_\_ Date: 10/27/2010 Email: hknopping@anteroresources.com

Print Name: Hannah Knopping Title: Permit Representative

**IMPORTANT: SOME DATA FIELDS HAVE BEEN MODIFIED.**

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: \_\_\_\_\_

*David S. Nesline*

Director of COGCC

Date: 3/25/2011

**CONDITIONS OF APPROVAL, IF ANY:**

**All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.**

**GENERAL SITE COAs:**

Notify COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us; phone 970-309-2514) 48 hours prior to start of construction.

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)). In addition, operator must implement odor controls during fracing operations.

Notify COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us; phone 970-309-2514) 48 hours prior to start of fracing operations.

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.

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.

If fluids are conveyed via pipeline, operator must implement best management practices to contain any unintentional release of fluids.

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.

**RESIDENTIAL AND HIGH DENSITY AREA COAs:**

COA R1 - Operator will implement sufficient public notification of proposed oil and gas activities, including: (1) provide 30 day advance notice and community awareness to neighborhood that the monthly Battlement Mesa Oil and Gas Committee meetings will be the forum for communications regarding schedule and activities; (2) schedule changes will be communicated to the community at aforementioned meetings via attendance or emails to the Committee (3) notify local emergency response agencies (Fire/Police) of schedule changes; and (4) notify all homes within a ¼-mile radius and local emergency responders (Fire/Police) 7 days prior to mobilization in, rig up (MIRU).

COA R2 - Notify the local emergency responders (Fire/Police), COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us), and the COGCC Field Inspection Supervisor for Northwest Colorado (Shaun Kellerby; email shaun.kellerby@state.co.us) 48 hours prior to location construction and 24 hours prior to MIRU.

COA R3 - Operator will review local governmental requirements for access from public roads. At a minimum the following traffic requirements will apply: (1) operator will work with the Garfield County Road and Bridge Department to develop and implement a traffic control plan that, at a minimum: a) establishes designated haul routes, b) designates haul routes to avoid school zones and schedules heavy equipment movement to avoid school bus operation hours, c) provides for additional signage on major and/or local roads to be employed during heavy activity periods warning of increased truck traffic, d) restricts all oil and gas related construction, drilling, and operational traffic to access the location from a single point, e) provides for flaggers and/or pilot vehicles as necessary, and f) schedules work to avoid peak traffic flow. In addition, the operator will require safe driving training for employees and contractors.

COA R4 - Operator will prepare a job specific Emergency Management/Response Plan that will be developed with input from the local emergency responders (Fire/Police). Operator will provide temporary engineering controls to prevent uncontrolled public access during drilling and completion activities. Site security shall include, but not be limited to, appointing a Health and Safety Officer that will insure the Emergency Management/Response Plan is adhered to and who is authorized to shut down operations at any time when health and safety risk is present.

COA R5 - Temporary perimeter sound walls (consisting of earthen berms, stacked hay bales, and/or metal, synthetic, or wood sheeting) shall be used on the west, north, and east perimeters of the location during drilling and completion activities to provide noise relief to nearby residents. Operator shall conduct noise monitoring as described in 802.c. at a minimum once during each phase of activity (pad construction, drilling, completion and production), and submit the results to the COGCC. The COGCC may require additional noise mitigation if measures taken are deemed insufficient.

COA R6 - Operator will take aggressive action to establish vegetation on cut and fill slopes to prevent storm water erosion and the generation of fugitive dust. Operator shall install and maintain native vegetative visual buffering on the west and east sides in conjunction with site stabilization. Visual mitigation shall also include the use of low profile tanks.

COA R7 - Lighting abatement measures beyond the requirements of Rule 803. shall be implemented, including the following, at a minimum: (1) rig oriented to direct light away from nearby residents; (2) install lighting shield devices on all of the more conspicuous lights; (3) low density sodium lighting; and (4) rig shrouded on the west and east sides.

COA R9 - Flares (such as TCI's portable flare with high combustion rate, low noise, and low visibility flare) will be utilized and will have appropriate emissions controls to prevent VOCs from impacting nearby residents in harmful concentrations.

COA R10 - Emissions from condensate, crude oil, and produced water tanks and from glycol dehydrators shall be controlled as described in Rule 805.b.(2), notwithstanding the exceptions for production facilities emitting less than five tons per year (TPY) of volatile organic compounds (VOC).

COA R11 - Access roads to well sites, completion staging sites and production facilities shall be constructed to meet the requirements of emergency responders, including all weather surface.

COA R12 - Land-farming of E&P waste is prohibited on the location. This shall not preclude onsite disposal of E&P waste in accordance with COGCC Rules and permit conditions.

**SENSITIVE AREA (CLOSE PROXIMITY TO SURFACE WATER AND SHALLOW GROUNDWATER) COAs:**

Location is in a sensitive area because of its proximity to surface water; 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 (i.e., BMPs associated with stormwater management) sufficiently protective of nearby surface water.

Location is in a sensitive area because of proximity to a domestic water well and potential for shallow groundwater; therefore either the reserve pit (if constructed) must be lined or a closed loop system (which has already been indicated by Antero on the Form 2A) must be implemented during drilling; Antero will be using a closed loop drilling system, therefore, a reserve pit will not be constructed.

**WATER RESOURCES (WATER QUALITY TESTING PROGRAM) COA:**

Water Testing: Prior to drilling operator shall sample the two (2) closest domestic water wells, springs, or surface water features within a one (1) mile radius of the proposed oil and gas location. Testing preference shall be given to domestic water wells and springs over surface water. Testing of surface water features shall only be conducted if two (2) water wells or springs do not exist within a one (1) mile radius of the selected oil and gas location. If possible, the water wells or springs selected should be on opposite sides of the oil and gas location not exceeding a one (1) mile radius. If water wells or springs on opposite sides of the oil and gas location cannot be identified, then the two (2) closest wells or springs within a one (1) mile radius of the oil and gas location shall be sampled. The sample location shall be surveyed in accordance with Rule 215.

Initial baseline testing shall include laboratory analysis of all major cations and anions, total dissolved solids, iron and manganese, nutrients (nitrates, nitrites, selenium), dissolved methane, pH, specific conductance, and benzene, toluene, ethylbenzene, and xylenes ("BTEX"). Sampling shall be performed by qualified individuals using methods consistent with commonly accepted environmental sampling procedures. Field observations such as pH, temperature, specific conductance, odor, water color, sediment, bubbles, and effervescence shall also be included.

After 90 days, but less than 180 days of completion of the first proposed well a "post-completion" test shall be performed for the same analytical parameters listed above and repeated one (1), three (3) and six (6) years thereafter. If no significant changes from the baseline have been identified after the third test (i.e. the six-year test), no further testing shall be required. Additional "post-completion" test(s) may be required if changes in water quality are identified during follow-up testing. The Director may require further water well sampling at any time in response to complaints from water well owners.

If free gas or a methane concentration level greater than 1 mg/l is detected in a water quality testing well, gas compositional analysis, and stable isotopes of both the carbon and hydrogen isotopes of methane shall be performed to determine gas type (thermogenic, biogenic or a mixture).

Copies of all analytical data described above shall be provided to the Director and the landowner where the water quality testing well is located within three (3) months of collecting the samples used for the test. The analytical data and surveyed well locations shall also be submitted to the Director in an electronic data deliverable format. Operator will furnish to the Director any analytical results from groundwater or surface water monitoring activities conducted associated with this location in a timely manner.



### Attachment Check List

Att Doc Num	Name
2033496	CORRESPONDENCE
2033647	CORRESPONDENCE
400097171	FORM 2A SUBMITTED
400097305	CONST. LAYOUT DRAWINGS
400097306	HYDROLOGY MAP
400097309	LOCATION PICTURES
400101822	NRCS MAP UNIT DESC
400101823	MULTI-WELL PLAN
400101871	LOCATION DRAWING
400102688	ACCESS ROAD MAP
400102714	EQUIPMENT LIST
400102716	PROPOSED BMPs
400103314	NRCS MAP UNIT DESC

Total Attach: 13 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	Put back IN PROCESS for task completion and final approval.	3/25/2011 7:59:54 AM
OGLA	Initiated/Completed OGLA Form 2A re-review on 12-20-10 by Dave Kubeczko; requested clarifications and acknowledgement of additional residential and water quality COAs from operator on 12-20-10; received clarifications and acknowledgement of COAs from operator on 02-22-11 and 03-15-11; passed by CDOW on 12-06-10 with operator submitted BMPs (with permit application) acceptable; passed OGLA Form 2A review on 03-25-11 by Dave Kubeczko; close SW fluid containment, spill/release BMPs, lined pits/closed loop, cuttings low moisture content, no pit in fill, flowback to tanks only, residential, water quality, and stormwater BMP COAs.	12/20/2010 5:20:39 PM
DOW	The BMPs as submitted by the operator are applicable to the site.  by Michael Warren on Monday, December 6, 2010 at 2:10 P.M.	12/6/2010 2:14:39 PM

Public	<p>Dear COGCC Director/Board Members:</p> <p>Thank you for the opportunity to respond to the news we received from Antero Resources regarding permit to drill within 500 feet of our property. This well pad will directly affect our house at 0174 Rosewood Way (SESE, Sec 18, T7S, R95W, SUB: Monument Creek Village Sec 1, BLK2 Lot 1).</p> <p>The rear windows, back yard, and deck of the house at 0174 Rosewood Way all face the field in which the well will be drilled. It is home to two teachers who serve in the Parachute schools. We take pride in providing a fine home at fair rent for these critical community members. They love their home and their health; they care about their students as</p> <p>well as the health of the community.</p> <p>We are husband and wife with two children; and we chose to invest in, repair, and manage a property in Battlement Mesa. We each earn less than \$15.01 per hour at our jobs, and Ruth is attending college. The rental payments we</p> <p>receive are critical to our survival; and at this time, in this economy, rent received covers the mortgage and provides no profit. Without that rental payment, we will be in trouble.</p> <p>The rental home we own in Battlement Mesa is also our business. This pad location will have a direct negative impact on our business. An industrial application like drilling of a natural gas well is entirely inappropriate so near to a high density residential area--especially a school! We worry that our rental property will be uninhabitable during the drilling</p> <p>phase and that we'll have no way to pay the mortgage. If our teacher tenants move out and we cannot find tenants willing to submit to the air, water, light and noise pollution, we will suffer financially, and the community will suffer from the decision to grant this drilling permit.</p> <p>We are frightened of the consequences of drilling so close to the Parachute Middle School for health and quality of life issues. We urge the COGCC to do its job: prevent the adverse impacts to public welfare, health, and safety that this well</p> <p>pad will have on the Battlement Mesa community.</p> <p>Sincerely,</p> <p>Ruth Tom Trowbridge</p>	11/22/2010 7:41:23 PM
Public	<p>We are very concerned about this location. Seems like Antero does not care what bad effects the drilling has on local people. We have smelled the bad odors from their Watson Ranch pad, felt sick when walking, and headaches just from going out in the yard, and they expect us to believe that it is nothing. Give us a break!</p>	11/22/2010 10:49:08 AM



**IMPORTANT: SOME DATA FIELDS HAVE BEEN MODIFIED.**

OGLA	<p>G. Deranleau received the following comment via e-mail.</p> <p>I am writing in reference to Antero's proposed well site near Monument Creek Village- Doc. 400097171. We are very much against moving this well pad anywhere nearer County Road 300! We already have a well pad in our back yard- Watson well pad- we don't need another one in our front yard! There are no houses that face East across Stone Quarry Road so there would be no sight issues with this pad. It will be clearly visible out our front windows and all the houses along CR. 300. Our feelings are, along with everyone who lives on County Road 300, is we have put up with one well that will lower our property values, so we don't need another one nearby that will lower them even further!! The proposed site will have little, if any, effect on the property values across Stone Quarry Road.</p>	11/22/2010 7:57:21 AM
Public	<p>As a property owner and home builder in the public-advertised Retirement Community of Battlement Mesa in 1994, and as a World War II veteran and as a former delegate to the Battlement Mesa Service Association for Monument Creek Village, and as a retired registered professional engineer in Colorado; I strongly object to the subject drilling plans on the grounds of noise, air and water pollution, possible leaking of hazardous waste, pipelines close to homes and electric transmission lines, and disruption of our streets and parkways.</p>	11/19/2010 8:45:29 PM
Public	<p>As a resident of Battlement Mesa, I am very concerned about the proposed Antero drilling site at Monument Ridge (Doc. 400097171). The location is very close (688 ft) to houses and less than 500 ft from the road.</p> <p>We have already experienced very unpleasant odors from another Antero site which is right outside our PUD boundaries. There is also the consideration of constant noise, bright glaring lights at night and additional truck traffic. We don't need anymore dirt blowing around either as a result of construction and the slow rate of growth in reclamation.</p> <p>Please don't let Antero drill so close to our community. It is a public hazard and a nuisance.</p>	11/19/2010 8:31:39 PM

**IMPORTANT: SOME DATA FIELDS HAVE BEEN MODIFIED.**

Public	<p>The proposed new pad is located too close to houses in Battlement Mesa.</p> <p>COGCC issued a notice of alleged violation to Antero on 7-14-10 because their Watson Ranch pad leaked fumes which stung resident's eyes. The Watson Ranch pad is located about 1/2 mile from Battlement Mesa housing, per the Battlement Mesa Health Impact Assessment report (draft, part one, page 22): The odor complaints occurred during flow back operations at Antero's Watson Ranch pad located on the southeast border of the PUD, within approximately 1/2 mile of several residences, and resulted in COGCC issuing a notice of alleged violation on 7/14/10,</p> <p>The proposed new pad (Doc. 400097171) is located only 497 feet from Stone Quarry Road and 688 feet from the nearest house in the Monument Creek section of Battlement Mesa.</p> <p>If the Watson Ranch pad made residents sick from 1/2 mile away, how sick do you think they will get being only 688 feet away?</p> <p>It is important that wells be placed no less the one mile from residences.</p>	11/17/2010 3:51:30 PM
OGLA	Placed on hold pending review of public comment & response to air monitoring information request.	11/17/2010 9:15:09 AM
Public	I object to the drilling of gas wells per Doc. 400097171 near the intersection of Stone Quarry Road and Monument Trail. These wells will be very close to homes in the area and will present a health risk to many people. Also, these wells will damage the Real Estate values in the area without compensation to the property owners.	11/17/2010 3:42:00 AM
Public	<p>Antero's desire to drill this close to the PUD of Battlement Mesa, with no regard for the fact that health effects of drilling within the PUD are still being studied shows absolutely no regard for our community. The PUD has no impermeable shield around it!</p> <p>If there is any concern on the part of Antero, as a corporate citizen, for the health and well being of neighbors, the fact that these wells would be outside our borders should not make them any less concerned for people in close proximity.</p> <p>Your responsibility for public health should compel you to defer approval of this permit until the study has been completed and evaluated.</p>	11/16/2010 8:21:46 PM
Public	<p>We live in Monument Creek Village in Battlement Mesa Colorado, very near the site of a proposed well pad by Antero Resources.</p> <p>This summer the well pad Antero placed outside the planned unit development of Battlement Mesa, about a mile from our home, fouled the air. We were awakened in the middle of the night on many occasions with a strong chemical smell streaming in the windows.</p> <p>Please do not approve well pad so close to neighborhoods.</p>	11/16/2010 8:00:19 PM

**IMPORTANT: SOME DATA FIELDS HAVE BEEN MODIFIED.**

Public	<p>As a resident of the Battlement Mesa PUD, and a potentially impacted land owner, I wish to protest the location of the proposed Antero Resources Monument Ridge Pad, Doc ID 400097171, Form 2A.</p> <p>This proposed location is too near major residential areas in Battlement Mesa and the St. Johns Elementary School;thereby posing unacceptable health and safety risks to those residents. The CDPHE and the COGCC should more thoroughly consider the cumulative impactsof all the oil and gas development presently occurring and proposed in close proximity to the Battlement Mesa PUD on nearby residential areas.</p> <p>Although it does not pertain to this proposed operation, the recently completed Health Impact Assessment by the Colorado School of Public Health identifies many issues of concerns that would apply to all oil and gas operations in and around Battlement Mesa, and should be thoroughly considered when evaluating this application.</p> <p>The CDPHE needs to take a stronger role in protecting public health from the many adverse impacts of oil and gas development, and the COGCC needs to more carefully consider the recommendations of the CDPHE before approving any applications near residential areas.</p>	11/16/2010 7:40:41 PM
OGLA	<p>Initiated/Completed OGLA Form 2A review on 10-30-10 by Dave Kubeczko; requested clarifications and acknowledgement of close SW fluid containment, spill/release BMPs, close water well/shallow GW lined pits/closed loop, cuttings low moisture content, no pit in fill, stormwater BMP COAs from operator on 10-30-10; received clarifications and acknowledgement of COAs from operator on 11-03-10; passed by CDOW on 12-06-10 with operator submitted BMPs (with permit application) acceptable; conducted additional Form 2A review in december 2010.</p>	11/1/2010 1:57:31 PM

Total: 15 comment(s)

## BMP

<u>Type</u>	<u>Comment</u>
Site Specific	<p>BMP WQ2 - Water Quality Testing:</p> <p>a. Prior to drilling, operator shall test all water wells within ½ mile radius of the surface-hole location from each well on a well pad location and will consider testing springs within ½ mile radius upon landowner request. Within one year or after all wells have been drilled and completed on a well pad location, a post/follow-up test will be performed on all water wells/springs that were tested prior to drilling.</p> <p>b. Initial baseline testing shall include laboratory analysis of all major cations and anions, total dissolved solids, iron and manganese, nutrients (nitrates, nitrites, selenium), dissolved methane, pH, specific conductance, and benzene, toluene, ethylbenzene, and xylenes ("BTEX"). Sampling shall be performed by qualified individuals using methods consistent with commonly accepted environmental sampling procedures. Field observations such as pH, temperature, specific conductance, odor, water color, sediment, bubbles, and effervescence shall also be included. Copies of all analytical data described above shall be provided to the landowner where the water quality testing well is located. In addition, the analytical data and surveyed well locations will be available to the COGCC upon request in an electronic data deliverable format.</p>
Drilling/Completion Operations	<p>BMP R8 - Air quality and odor controls will be implemented and will include the following: (1) Emissions from production tank venting will be routed to a VOC combustor and VOC combustors will operate with an auto-igniter; (2) a low emissions flowback process will be used which includes routing the flowback stream to a separator (green completion skid); from this vessel, salable gas will be routed to a gas sales line and the non-salable gas, when practicable, will be routed to a flare equipped with an automatic igniter; (3) frac/flowback storage tank hatches will be closed and latched until the tanks are prepared to receive flowback water, then the hatches will be closed but unlatched when receiving flowback fluids; (4) frac/flowback storage tanks will be equipped with hydrocarbon absorbing blankets when full to control odors; and (5) maintain a portable meteorological weather station during well drilling and completion operations, that includes a data logger to archive wind speed, wind direction, and temperature, and make related data available to the COGCC upon request.</p>

Total: 2 comment(s)