

FORM
2A

Rev
04/01

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

400286400

Date Received:

06/07/2012

Oil and Gas Location Assessment

☐ New Location

☒ Amend Existing Location Location#: 335549

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 <http://colorado.gov/cogcc/> for all accompanying information pertinent to this Oil and Gas Location Assessment.

Location ID:

335549

Expiration Date:

07/25/2015

☒ This location assessment is included as part of a permit application.

1. CONSULTATION

☐ This location is included in a Comprehensive Drilling Plan. CDP # _____

☒ This location is in a sensitive wildlife habitat area.

☐ This location is in a wildlife restricted surface occupancy area.

☐ This location includes a Rule 306.d.(1)A.ii. variance request.

2. Operator

Operator Number: 10079

Name: ANTERO RESOURCES PICEANCE CORPORATION

Address: 1625 17TH ST STE 300

City: DENVER State: CO Zip: 80202

3. Contact Information

Name: Shauna Redican

Phone: (303) 357-6820

Fax: (303) 357-7315

email: sredican@anteroresources.com

4. Location Identification:

Name: Gentry

Number: B Pad

County: GARFIELD

QuarterQuarter: SENW Section: 17 Township: 6S Range: 92W Meridian: 6 Ground Elevation: 5626

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: 1995 feet FNL, from North or South section line, and 1602 feet FWL, from East or West section line.

Latitude: 39.528397 Longitude: -107.694308 PDOP Reading: 1.3 Date of Measurement: 12/15/2006

Instrument Operator's Name: Scott Aibner

5. Facilities (Indicate the number of each type of oil and gas facility planned on location):

Special Purpose Pits: <input type="text"/>	Drilling Pits: <input type="text"/>	Wells: <input type="text" value="20"/>	Production Pits: <input type="text"/>	Dehydrator Units: <input type="text"/>
Condensate Tanks: <input type="text" value="4"/>	Water Tanks: <input type="text" value="5"/>	Separators: <input type="text" value="6"/>	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"/>
Gas Compressors: <input type="text"/>	VOC Combustor: <input type="text" value="1"/>	Oil Tanks: <input type="text"/>	Fuel Tanks: <input type="text"/>	

Other: Note: See attached facilities list for details

6. Construction:

Date planned to commence construction: 06/29/2012 Size of disturbed area during construction in acres: 3.60
Estimated date that interim reclamation will begin: 12/29/2012 Size of location after interim reclamation in acres: 2.60
Estimated post-construction ground elevation: 5626 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 app; see comments

7. Surface Owner:

Name: _____ Phone: _____
Address: _____ Fax: _____
Address: _____ Email: _____
City: _____ State: _____ Zip: _____ Date of Rule 306 surface owner consultation: 06/12/2007
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: 2631, public road: 671, above ground utilit: 661
, railroad: 7060, property line: 177

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): See NRCS reports
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): See NRCS reports
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:

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: 11/15/2011

List individual species: Sagebrush and grasses. See attached NRCS Rangeland Productivity and Plant Composition List.

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): See previously approved NRCS reports

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: 573, water well: 972, depth to ground water: 13

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:

This pad is built, however since we are proposing to add 6 additional wells, as shown on the Construction Layout Drawing, we are submitting this Form 2A as required. Note: the pad size and design will not be modified from the previously approved Form 2A. The distance to nearest surface water was measured to a perennial stream south of the pad location. #14 Water Resources: The depth to ground water was determined by using static water level data of Permit# 42628/Receipt#9114078 which is approximately 388' E of location. The Reference Area is undisturbed ground immediately adjacent and to the North of the well pad, as shown in the "Looking North" location photo. #4 The Gentry B1 well was used as the reference point for well distance measurements. #6 Mud Disposal: Antero will bury cuttings onsite if disposal meets Table 910 and if there is a provision in SUA which allows for such operation. We have updated the location name to "Gentry B Pad". Please find attached the notification to public water supply systems within 15 miles per Rule 317B. The attached multi-well plan shows the additional 6 wells BHLs (measured in NAD 83) that we are proposing to add to the location as well as the undrilled well BHLs on the pad. Form 2 APDs for these wells will be submitted. Note: The BHLs for the B4 and B5 will be modified via sundry as shown on the multi well plan. The previously approved location photos, hydrology map, access road and topo map and NRCS map unit description have not changed.

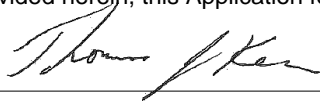
I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: _____ Date: 06/07/2012 Email: sredican@anteroresources.com

Print Name: Shauna Redican Title: Permit Representative

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: _____



Director of COGCC

Date: 7/26/2012

**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.

Attachment Check List

Att Doc Num	Name
1533272	MULTI-WELL PLAN
400286400	FORM 2A SUBMITTED
400293341	LOCATION DRAWING
400293342	NRCS MAP UNIT DESC
400293345	NRCS MAP UNIT DESC
400293346	CONST. LAYOUT DRAWINGS
400293586	MULTI-WELL PLAN
400293587	317B NOTIFICATION

Total Attach: 8 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Changed dist. to prop. line to 177' to agree w/ loc. drawing. No LGD or public comments. Final Review--passed.	7/19/2012 2:55:46 PM
Permit	Oper. submitted new multi-well plan that agrees w/ refile and sundry BHL's.	7/3/2012 10:44:27 AM
Permit	Added related APD's. Per oper. changed right to construct to oil and gas lease. Req'd new multi-well plan and sundries for changes to BHL's for B4 and B6	6/29/2012 11:16:44 AM
OGLA	Initiated/Completed OGLA Form 2A review on 06-14-12 by Dave Kubeczko; previously reviewed (400231814) and approved (01-20-12) 2A; same COAs will apply - fluid containment, spill/release BMPs, lined pit/closed loop, moisture content cuttings, tank berming, and flowback to tanks COAs; passed by CPW on 06-12-12/06-14-12 with BMPs and WMP acceptable; passed OGLA Form 2A review on 06-29-12 by Dave Kubeczko; fluid containment, spill/release BMPs, lined pit/closed loop, moisture content cuttings, tank berming, and flowback to tanks COAs.	6/14/2012 3:24:55 PM
DOW	This 2A is to add 6 wells to an existing site. The previous 2A for Doc 400231814 was approved by CPW on 30 Dec 2011. This well pad is located within the boundary of the Antero - CPW Wildlife Mitigation Plan. The BMPs and COAs were developed and agreed upon in consultation of the Willife Mitigation Plan. The BMPs and COAs of the WMP are applicable and appropriate for the site and species affected. Comments provided by Bill Buchholz on 12 June 2012.	6/12/2012 12:03:16 PM
LGD	Passed DB	6/12/2012 9:10:01 AM
Permit	No Access Road map, however, access roads are shown in Location Drawing	3/8/2012 1:07:28 PM

Total: 7 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Planning	<p>PLANNING INFRASTRUCTURE AND DEVELOPMENT ACTIVITIES:</p> <ul style="list-style-type: none"> • Directional drilling will be implemented to minimize habitat loss and habitat fragmentation • Remote monitoring using SCADA systems to reduce truck traffic, fugitive dust • Water pipeline infrastructure will be installed concurrently with the gas pipeline infrastructure where possible. • SPCC inspections will be conducted quarterly • Water used for well completions will be recycled as practicable • Baseline and post drilling/completion water well testing will be performed for permitted water wells within ½ mile of down-hole location • Annual planning meeting to be conducted with Rifle-Silt-New Castle Community
Storm Water/Erosion Control	<p>STORMWATER MANAGEMENT:</p> <ul style="list-style-type: none"> • Facilities will be operated with a Water Quality Control Division (WQCD) stormwater construction permit. • Stormwater BMPs in accordance with the Stormwater Management Plan will be implemented in a manner that minimizes erosion, transport of sediment offsite, and site degradation. • Inspections will be conducted every two weeks or monthly and in accordance with WQCD General Permit to confirm that applicable BMPs are in place, maintained and functioning properly.
General Housekeeping	<p>INVASIVE NON-NATIVE VEGETATION CONTROL:</p> <ul style="list-style-type: none"> • Weed management plan will be developed and implemented to monitor and control noxious and invasive weeds • Noxious weed control includes three treatments per year • Existing weed infestations will be mapped prior to the development of each pad, access road and pipeline when practicable • Reclamation/revegetation will be used as a weed management tool
Wildlife	<p>MITIGATION PLAN BEST MANAGEMENT PRACTICES:</p> <ul style="list-style-type: none"> • Closed loop (pitless) drilling system. • Participation in raptor and other birds (great blue heron) monitoring and surveying with protocol to be developed by CDOW and implemented by Antero when practicable. • Buried water and gas pipelines as means to reduce truck traffic. • Seasonal raptor RSOs for species not included in new COGCC rules will be considered where practicable. • Avoidance/seclusion area in the northeast corner of the CDP (Burning Mountain) unless lease expiration warrants development. • Restricted rig operation to less than 2 per section within the big game seclusion areas during the winter (to be determined in consultation with CDOW). • Maintaining a ¼ mile no surface occupancy buffer around active bald eagle nests. • New pad construction not to exceed 3 acres. • Pad density not to exceed 1 pad per 120 acres. • Bury all gas and water pipelines adjacent to roads whenever possible. • The mitigation opportunities/projects will be defined by the Mitigation Plan for each well pad. • The mitigation opportunities/projects will be determined cooperatively with the CDOW during the annual Antero Mitigation Plan Review. • CDOW Actions to Minimize Adverse Impacts to Wildlife Resources is attached to the March 22, 2010 Mitigation Plan

Drilling/Completion Operations	<p>DRILLING AND PRODUCTION:</p> <ul style="list-style-type: none"> • No reserve, drill cuttings or frac/flowback pits will be constructed • Well pads will be constructed with perimeter berm on downslope area • Well pads, access roads will be graveled to reduce fugitive dust, sediment run-off • Above-ground facilities will be located to minimize visual effects (e.g. production tanks will be low profile tanks and painted to mitigate visual impacts.) • Combustor controls will be used to mitigate odors from production tanks • Well completions will utilize flowback completion technologies and/or flares to reduce odors from plug drillout, and venting of salable and non-salable gas • High level alarms will be installed on production tanks • Production tank containment area will be lined with plastic
Site Specific	<p>PUBLIC WATER SYSTEM PROTECTION SECTION 317B:</p> <ul style="list-style-type: none"> • Best management practices will be implemented to contain any unintentional releases of fluids for locations within 500 feet of surface water • Locations within 500 feet of surface water will ensure 110 percent secondary containment for any volume of fluids contained at a well site during drilling and completion operations

Total: 6 comment(s)