

FORM 2A Rev 04/01

State of Colorado Oil and Gas Conservation Commission 1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



Table with columns DE, ET, OE, ES

Document Number: 400143228

Oil and Gas Location Assessment

New Location Amend Existing Location Location#: 334765

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.

Location ID: 334765 Expiration Date: 05/05/2014

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: 96850 Name: WILLIAMS PRODUCTION RMT COMPANY LLC Address: 1001 17TH STREET - SUITE #1200 City: DENVER State: CO Zip: 80202

3. Contact Information

Name: Howard Harris Phone: (303) 606-4086 Fax: (303) 629-8268 email: howard.harris@williams.com

4. Location Identification:

Name: Federal Number: PA 23-12 County: GARFIELD Quarter: NESW Section: 12 Township: 7S Range: 95W Meridian: 6 Ground Elevation: 6507 Define a single point as a location reference for the facility location. Footage at surface: 2586 feet FSL, from North or South section line, and 1723 feet FWL, from East or West section line. Latitude: 39.452078 Longitude: -107.950015 PDOP Reading: 1.4 Date of Measurement: 04/26/2010 Instrument Operator's Name: J. Kirkpatrick

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

Special Purpose Pits: Drilling Pits: Wells: 16 Production Pits: Dehydrator Units:
Condensate Tanks: Water Tanks: 2 Separators: 16 Electric Motors: Multi-Well Pits:
Gas or Diesel Motors: Cavity Pumps: LACT Unit: Pump Jacks: Pigging Station:
Electric Generators: Gas Pipeline: 1 Oil Pipeline: 1 Water Pipeline: 1 Flare:
Gas Compressors: VOC Combustor: Oil Tanks: Fuel Tanks:

Other:

6. Construction:

Date planned to commence construction: 07/01/2011 Size of disturbed area during construction in acres: 7.95  
Estimated date that interim reclamation will begin: 08/01/2012 Size of location after interim reclamation in acres: 0.97  
Estimated post-construction ground elevation: 6507 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: Re-Use, Evap & Backfill

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: \_\_\_\_\_  Gas Facility Surety ID: \_\_\_\_\_  Waste Mgmt. Surety ID: \_\_\_\_\_

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes  No   
Distance, in feet, to nearest building: 2027, public road: 1429, above ground utilit: 1472  
, railroad: 11473, property line: 1723

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): Existing Well Pad  
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 used when segregating topsoil.

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

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: 58 Potts-Idefonso Complex, 12 to 25 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: 07/25/2010

List individual species: Canadian Thistle

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: 504, water well: 2845, depth to ground water: 175

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 Suppl 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 location assessment is for the construction of the PA 23-12 well pad. The current existing pad has 2 wells. An additional 14 wells are being permitted at this time for a total of 16 wells when drilled out. Both surface and minerals are owned by the Federal Government. The location reference point for this pad is the PA 313-12 well head from which all measurements were taken.

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

Signed: \_\_\_\_\_ Date: 04/13/2011 Email: howard.harris@williams.com

Print Name: Howard Harris Title: Sr. Regulatory Specialist

**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 G. Neslin*

Director of COGCC

Date: 5/6/2011

**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.**

Initiated/Completed OGLA Form 2A review on 04-14-11 by Dave Kubeczko; requested acknowledgement of fluid containment, spill/release BMPs, tank berming, and Project Rulison COAs from operator on 04-14-11; received acknowledgement of COAs from operator on 04-14-11; passed by CDOW on 04-18-11 with operator submitted BMPs (with permit application) and WMP acceptable; passed OGLA Form 2A review on 05-06-11 by Dave Kubeczko; fluid containment, spill/release BMPs, tank berming, and Project Rulison COAs.

**PROJECT RULISON COAs:**

Comply with all DOE Office of Legacy Management requests for sampling and analysis of natural gas and other materials associated with drilling and production.

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 (at least every 14 days), and maintained in good condition.

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)). Submit a secondary and tertiary containment plan via sundry notice Form 4 for the tanks to Dave Kubeczko via email (dave.kubeczko@state.co.us) and the Project Rulison COGCC mailbox (rulison.submittal@state.co.us) and obtain approval of the plan prior to flowback.

Produced water from this location may not be transported to or re-used at another location without specific written approval from COGCC and only after analysis confirms compliance with the Rulison Sampling and Analysis Plan (SAP).

Drill solids and cuttings from this location may not be transported to, disposed of or re-used at another location without specific written approval from COGCC and only after analysis confirms compliance with the Rulison Sampling and Analysis Plan (SAP).

A closed loop mud system shall be utilized to ensure containment of all materials that have been in contact with downhole strata and fluids. All cuttings and fresh make up water storage pits shall be lined to ensure containment. Contour features, french drains and other stormwater BMPs as necessary shall be employed to ensure site integrity.

No individual operator shall utilize more than one rig within one mile of the Project Rulison blast site at any given time and no individual operator shall utilize more than two rigs within a three mile radius of the site at any given time. The total number of rigs allowed by all operators within three miles of the site shall be limited to five at any given time.

Operator shall comply with all provisions of the most recent COGCC approved revision of the Rulison Sampling and Analysis Plan (SAP). In addition to the produced water sampling and analysis outlined in section 5.8 of the plan the operators shall also obtain and analyze produced water samples on wells described in the plan for constituents listed in the plan using the specified method where applicable.

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.

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.

**GENERAL SITE COAs:**

Notify the COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us), the COGCC Field Inspection Supervisor for Northwest Colorado (Shaun Kellerby; email shaun.kellerby@state.co.us); and the Project Rulison COGCC mailbox (rulison.submittal@state.co.us) 48 hours prior to start of construction.

Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via temporary surface pipelines.

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

Berms or other containment devices shall be constructed in compliance with Rule 604.a.(4) around crude oil, condensate, and produced water storage tanks.

Operator will conduct regular inspections of equipment for leaks and equipment problems with appropriate documentation retained in the operator's office. All equipment deficiencies shall be corrected. Monitoring should end approximately 30 days after well completion and/or after production has been stabilized; however, timely inspections should continue during the production phase.

Operator will use adequately sized containment devices for all chemicals and/or hazardous materials stored or used on location.

Four (each of the cardinal directions) color photographs taken during the growing season of the reference area are required within 12 months of the Form 2A permit application date (04/13/2011).

**Attachment Check List**

Att Doc Num	Name
2033712	CORRESPONDENCE
400143228	FORM 2A SUBMITTED
400150813	ACCESS ROAD MAP
400150814	PROPOSED BMPs
400150815	CONST. LAYOUT DRAWINGS
400150816	HYDROLOGY MAP
400150817	LOCATION DRAWING
400150819	LOCATION PICTURES
400150820	MULTI-WELL PLAN
400150821	NRCS MAP UNIT DESC
400150822	REFERENCE AREA MAP
400150823	SENSITIVE AREA DATA

Total Attach: 12 Files

**General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
DOW	This well pad is located within the boundary of a signed, approved Williams-CDOW Wildlife Mitigation Plan. The BMPs as submitted by the operator are applicable to the site and species impacted. Additionally, CDOW affirms that the lease stipulations and conditions of approval assigned to the permit by BLM suffice to address wildlife habitat mitigation concerns.  by Michael Warren on Monday, April 18, 2011 at 10:20 A.M.	4/18/2011 10:23:07 AM
Permit	Added surface owner is committed to and executer of a oil and gas lease	4/14/2011 9:22:59 AM
Permit	Back to draft for BMP's to be added to tab. sf	4/13/2011 8:46:53 AM

Total: 3 comment(s)

**BMP**

<b><u>Type</u></b>	<b><u>Comment</u></b>
Pre-Construction	<ul style="list-style-type: none"> <li>• Close and reclaim roads not necessary for development, including removing all bridges and culverts and recontouring/reclaiming all stream crossings.</li> <li>• Structures for perennial or intermittent stream channel crossings should be constructed using appropriately sized bridges or culverts</li> <li>• Design road crossings of streams to allow fish passage at all flows and to minimize the generation of sediment.</li> <li>• Design road crossings of streams at right angles to all riparian corridors and streams to minimize the area of disturbance to the extent possible.</li> </ul>
Drilling/Completion Operations	<ul style="list-style-type: none"> <li>• Use centralized hydraulic fracturing operations.</li> <li>• Install and maintain adequate measures to exclude all types of wildlife (e.g., big game, birds, and small rodents) from all fluid pits (e.g., fencing, netting, and other appropriate exclusion measures).</li> <li>• Conduct well completions with drilling operations to limit the number of rig moves and traffic.</li> </ul>
Interim Reclamation	<ul style="list-style-type: none"> <li>• Utilize staked soil retention blankets for erosion control and reclamation of large surface areas with 1.5:1 or steeper slopes. Avoid use of plastic blanket materials.</li> <li>• Restore both form and function of impacted wetlands and riparian areas and mitigate erosion.</li> <li>• Remove well pad and road surface materials that are incompatible with post-production land use and re-vegetation requirements</li> <li>• Use only certified weed-free native seed in seed mixes, except for non-native plants that benefit wildlife</li> <li>• Williams will use certified, weed free grass hay, straw, hay or other mulch materials used for the reseeding and reclamation of disturbed areas.</li> <li>• Install exclusionary devices to prevent bird and other wildlife access to equipment stacks, vents and openings.</li> <li>• Reduce visits to well-sites through remote monitoring (i.e. SCADA) and the use of multi-function contractors.</li> <li>• Avoid dust suppression activities within 300 feet of the ordinary high water mark of any reservoir, lake, wetland, or natural perennial or seasonally flowing stream or river where possible.</li> <li>• Bore pipelines that cross perennial streams</li> </ul>

Planning

- Share/consolidate corridors for pipeline ROWs to the maximum extent possible.
- Maximize the utility of surface facilities by developing multiple wells from a single pad (directional drilling), and by co-locating multipurpose facilities (for example, well pads and compressors) to avoid unnecessary habitat fragmentation and disturbance of additional geographic areas.
- Minimize newly planned activities and operations within 300 feet of the ordinary high water mark of any reservoir, lake, wetland, or natural perennial or seasonally flowing stream or river.
- Locate roads outside of drainages where possible and outside of riparian habitat.
- Avoid constructing any road segment in the channel of an intermittent or perennial stream.
- Avoid new surface disturbance and placing new facilities in key wildlife habitats in consultation with CDOW.
- Minimize the number, length, and footprint of oil and gas development roads;
- Use existing roads where possible
- Combine utility infrastructure (gas, electric, and water) planning with roadway planning to avoid separate utility corridors
- Combine and share roads to minimize habitat fragmentation
- Where possible, consolidate pipeline and existing roadways, or roadways that are planned for development
- Place roads to avoid obstructions to migratory routes for wildlife, and to avoid displacement of wildlife from public to private lands.
- Design roads with visual and auditory buffers or screens (e.g., topographic barriers, vegetation, and distance).
- Accelerate development under a “clustered-development concept” on a site-specific basis where Williams has a 100% mineral interest or control of mineral development
- Maximize the use of directional drilling to minimize habitat loss/fragmentation
- Maximize use of remote completion/frac operations to minimize traffic
- Maximize use of remote telemetry for well monitoring to minimize traffic
- Phase and concentrate development activities, so that large areas of undisturbed habitat for wildlife remain.
- Maintain undeveloped areas within development boundaries sufficient to allow wildlife to persist within development boundaries during all phases of construction, drilling, and production.
- Minimize the duration of development and avoid repeated or chronic disturbance of developed areas. Complete all anticipated drilling within a phased, concentrated, development area during a single, uninterrupted time period.
- Restrict oil and gas activities as practical during critical seasonal periods

Total: 4 comment(s)