

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:

400281942

Date Received:

05/18/2012

Oil and Gas Location Assessment

New Location Amend Existing Location Location#: _____

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:

429647

Expiration Date:

07/22/2015

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: 10335
 Name: AXIA ENERGY LLC
 Address: 1430 LARIMER STREET #400
 City: DENVER State: CO Zip: 80202

3. Contact Information

Name: Lisa Smith
 Phone: (303) 857-9999
 Fax: (303) 450-9200
 email: lispermitco@aol.com

4. Location Identification:

Name: Bulldog Number: 5-14H-789
 County: MOFFAT
 Quarter: LOT 17 Section: 5 Township: 7N Range: 89W Meridian: 6 Ground Elevation: 6767

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: 592 feet FSL, from North or South section line, and 520 feet FWL, from East or West section line.
 Latitude: 40.587281 Longitude: -107.408206 PDOP Reading: 1.4 Date of Measurement: 03/06/2012
 Instrument Operator's Name: Greg Olsen

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

Special Purpose Pits: <input type="checkbox"/>	Drilling Pits: <input type="checkbox"/> <u>2</u>	Wells: <input type="checkbox"/> <u>1</u>	Production Pits: <input type="checkbox"/>	Dehydrator Units: <input type="checkbox"/>
Condensate Tanks: <input type="checkbox"/>	Water Tanks: <input type="checkbox"/> <u>3</u>	Separators: <input type="checkbox"/> <u>1</u>	Electric Motors: <input type="checkbox"/>	Multi-Well Pits: <input type="checkbox"/>
Gas or Diesel Motors: <input type="checkbox"/>	Cavity Pumps: <input type="checkbox"/>	LACT Unit: <input type="checkbox"/>	Pump Jacks: <input type="checkbox"/>	Pigging Station: <input type="checkbox"/>
Electric Generators: <input type="checkbox"/>	Gas Pipeline: <input type="checkbox"/> <u>1</u>	Oil Pipeline: <input type="checkbox"/>	Water Pipeline: <input type="checkbox"/> <u>1</u>	Flare: <input type="checkbox"/>
Gas Compressors: <input type="checkbox"/>	VOC Combustor: <input type="checkbox"/>	Oil Tanks: <input type="checkbox"/> <u>5</u>	Fuel Tanks: <input type="checkbox"/>	

Other: _____

6. Construction:

Date planned to commence construction: 06/01/2012 Size of disturbed area during construction in acres: 12.40
Estimated date that interim reclamation will begin: 06/01/2013 Size of location after interim reclamation in acres: 1.40
Estimated post-construction ground elevation: 6763 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: _____

7. Surface Owner:

Name: _____ Phone: _____
Address: _____ Fax: _____
Address: _____ Email: _____
City: _____ State: _____ Zip: _____ Date of Rule 306 surface owner consultation: 05/15/2012
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: 20100083 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: 4505, public road: 750, above ground utilit: 4554
, railroad: 5280, property line: 592

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: 134; Morapos Loam; 3-12%

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: 03/06/2012
List individual species: _____

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.

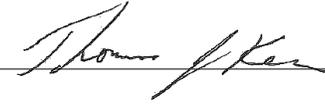
Is this a sensitive area: No Yes Was a Rule 901.e. Sensitive Areas Determination performed: No Yes
Distance (in feet) to nearest surface water: 874, water well: 1294, depth to ground water: 197
Is the location in a riparian area: No Yes Was an Army Corps of Engineers Section 404 permit filed No Yes
Is 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:

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

Signed: _____ Date: 05/18/2012 Email: LSPermitco@aol.com
Print Name: Lisa Smith Title: Authorized Agent

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: 7/23/2012

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.

SITE SPECIFIC COAs:

A closed loop system must be implemented during drilling (which operator has indicated on the Form 2A); or, if a drilling pit is constructed, it must be lined. All cuttings generated during drilling with oil based muds or high chloride/TDS mud must be kept in the lined drilling pit, or placed either in containers or on a lined/bermed portion of the well pad; prior to offsite disposal. 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.

Operator must ensure 110 percent secondary containment for any volume of fluids (excluding freshwater) 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.

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

The access road will be constructed as to not allow any sediment to migrate from the access road to nearby surface water or any drainages leading to surface water.

The location is in an area of moderate to high run off/run-on potential; therefore the pad shall be constructed to prevent any stormwater run-on and/or stormwater runoff. 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.

The moisture content of any freshwater generated 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, if the freshwater generated drill cuttings are to be left onsite, they must also meet the applicable standards of table 910-1.

A form 15 Earthen Pit Permit must be submitted and approved prior to construction/use of the completions pit.

Any pit constructed to hold oil based muds or salt based fluids and/or cuttings must be lined.

Notify 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 start of construction of the well pad, start of construction of the pit (if different), pit liner installation, and start of fracing operations (via Form 42).

FORM 15 PIT PERMIT COAs:

Notify 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 start of construction of the well pad, start of construction of the pit (if different), pit liner installation, and start of fracing operations (via Form 42).

The completions pit must be double-lined. The pit will also require a leak detection system (Rule 904.e).

Delivery and vacuum truck hoses will not be allowed to be placed directly onto the pit liner. Operator will construct a loading/unloading station located next to the pit, to deliver fluids to or remove fluids from the pit by truck. The loading/unloading station shall be designed and utilized to prevent hoses from being dropped into the pits and dragged over the liner, which could lead to liner damage. The loading/unloading station will be the only permitted access for manual fluids transfers to or from the pit. Vehicles will not be allowed to approach the pit any closer than the loading/unloading station. Each station will have a catch basin in case a leak occurs while operations personnel are connecting or disconnecting hoses. Signs clearly marking the truck loading/unloading station shall be provided and maintained by the operator.

Operator must submit as-built drawings (plan view and cross-sections) of the completion pit within 14 calendar days of construction.

Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface pipelines or configuration of the permanent pipeline network.

After installation of the uppermost liner and prior to operating the pit, the synthetic liner(s) shall be tested by filling the pit with at least 70 percent of operating capacity of water, measured from the base of the pit (not to exceed the 2-foot freeboard requirement). The operator shall monitor the pit for leaks for a period of 72 hours prior to draining the pit and commencing operations. The leak detection system must also be monitored during the entire test. Operator shall notify the COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) 48 hours prior to start of the hydrotest. Hydrotest monitoring results must be maintained by the operator for the life of the pit and provided to COGCC prior to using the pit.

In lieu of conducting an initial hydrostatic test of the pit, the operator can monitor fluid levels in the pit continuously using a minimum of two pressure transducers located at the upgradient and downgradient ends of the pit (based on the original topographic profile). These pressure transducers should be linked to the operator's SCADA system such that they can be remotely monitored. In addition, the pit liner will be marked at the two foot freeboard depth line so that operations personnel (as well as COGCC inspectors) can easily verify that the required fluid free board is being maintained. The electronically collected water level measurement data shall be used to confirm changes in pit inflow and outflow during operations based on estimates from truck and/or pipeline delivery or removal activities. Any abnormalities that are noticed during operations will be reported to the operator's field supervisor immediately so that any necessary follow-up can be scheduled.

Flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline or pit located on the well pad or into tanker trucks for offsite disposal. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment 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.

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.

For pits containing fluids other than freshwater only; the pit must be fenced. If the pit is not drained, or closure has not begun within 30 days after last use for well completion, the pit must be netted. The operator must maintain the fencing and netting until the pit is closed.

Submit additional disposal facilities (wells, pits, etc.), if necessary (i.e., if original disposal option changes), for pit liquid contents to COGCC via a Form 4 Sundry prior to disposal.

Pits used exclusively for drilling shall be closed in accordance with the 1000-Series Rules. Any pit(s) used for purposes other than drilling shall be closed in accordance with Rule 905. Closure of Pits, and Buried or Partially Buried Produced Water Vessels; with an approved Site Investigation and Remediation Workplan, Form 27.

At the time of pit closure, operator must submit disposal information for solids, if necessary, via a Form 4 Sundry Notice to the COGCC Location Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us). The disposal method will need to be approved prior to operator starting pit closure.

At the time of pit closure, operator must submit disposal information via a Form 4 Sundry Notice to Dave Kubeczko (Dave Kubeczko; email dave.kubeczko@state.co.us). The disposal method will need to be approved prior to operator starting pit closure.

Attachment Check List

Att Doc Num	Name
2034424	PROPOSED BMPs
2034425	CORRESPONDENCE
400281942	FORM 2A SUBMITTED
400285935	ACCESS ROAD MAP
400285942	CONST. LAYOUT DRAWINGS
400285944	HYDROLOGY MAP
400285950	LOCATION DRAWING
400285951	LOCATION PICTURES
400285952	NRCS MAP UNIT DESC
400285953	REFERENCE AREA MAP
400285954	REFERENCE AREA PICTURES

Total Attach: 11 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	No LGD or public comments. Final Review--passed.	7/16/2012 2:36:10 PM
Permit	Per oper. changed right to construct to oil & gas lease. Oper. has mineral lease at SHL.	7/10/2012 1:50:40 PM

DOW	<p>Parks and Wildlife concerns: The proposed pad location is within Elk winter concentration area, greater sage-grouse production area, and greater sage-grouse preliminary priority habitat. The proposed location is 2.78 miles from an active greater sage-grouse lek, and 1.45 miles from Elkhead State Park.</p> <p>The operator has agreed to the following BMPs:</p> <ol style="list-style-type: none"> 1. Where oil and gas activities must occur within 4 miles of greater sage-grouse leks or within other mapped greater sage-grouse breeding or summer habitat, conduct these activities outside the period between March 1 and June 30. 2. Where oil and gas activities must occur within elk winter concentration areas, conduct these activities outside the time period from December 1 through April 15. Drilling and operations activities during the Dec 1 through April 15 time period may be possible if agreement is reached with CPW of an appropriate offsite mitigation project or phased development approach. 3. Restrict post-development well site visitations to portions of the day between 9:00 a.m. and 4:00 p.m. from December 1 to May 15, to lessen impacts to elk in their winter concentration areas, and greater sage-grouse during their breeding and production period. 4. Fence and net pits to exclude wildlife, with wildlife appropriate fencing and netting materials. 5. Construct 4:1 escape ramps in completion pits with a chain link fence or other appropriate covering for traction. Escape ramp should extend from the edge of the pit to below the surface of the water. Escape ramps should be installed on each side of the completion pit (4 ramps per pit), and be 4 to 5 feet in width. 6. Muffle sound from compressors, pump jacks or other motors necessary to run operations at the site. (If mufflers are used, point upward to dissipate sound and vibration.) 7. Reclaim site (interim and final) to match existing vegetation. 8. Participate in the Colorado Oil and Gas Association's voluntary baseline groundwater quality sampling program. 9. Inform CPW of any and all spills that occur on-site, or en-route to pad and pit locations. 10. Install and utilize bear-proof dumpsters and trash receptacles for all food-related trash on location following COGCC Rule 1204 a-1. <p>Jacob Davidson, 6-27-2012, 15:38</p>	6/27/2012 3:38:52 PM
OGLA	<p>Initiated/Completed OGLA Form 2A review on 06-08-12 by Dave Kubeczko; requested acknowledgement of fluid containment, spill/release BMPs, moisture content/containment cuttings, sediment control, stormwater BMPs, lined pit/closed loop, no pit in fill, Form 15, pit fencing/netting, and flowback to tanks COAs from operator on 06-08-12; received acknowledgement of COAs from operator on 06-08-12; location was onsite on 06-05-12; passed by CPW on 06-27-12 with operator agreed to BMPs (operator agreed on 06-27-12 with the understanding that "if activity should be requested between March 1 – June 30, that the CPW will openly and fairly discuss options and/or an exemption to the timing limitation.") acceptable; passed OGLA Form 2A review on 06-28-12 by Dave Kubeczko; fluid containment, spill/release BMPs, moisture content/containment cuttings, sediment control, stormwater BMPs, lined pit/closed loop, no pit in fill, Form 15, pit fencing/netting, and flowback to tanks COAs.</p>	3/8/2012 2:33:23 PM
Permit	Pass completeness per permitter.	5/21/2012 10:12:48 AM

Permit	Returned to draft. Invalid surface and minerals information.	5/21/2012 6:49:46 AM
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Total: 6 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Wildlife	<p>1. Where oil and gas activities must occur within 4 miles of greater sage-grouse leks or within other mapped greater sage-grouse breeding or summer habitat, conduct these activities outside the period between March 1 and June 30 (Axia Energy agrees to this BMP' with the understanding that if activity should be requested between March 1 – June 30, that the CPW will openly and fairly discuss options and/or an exemption to the timing limitation).</p> <p>2. Where oil and gas activities must occur within elk winter concentration areas, conduct these activities outside the time period from December 1 through April 15. Drilling and operations activities during the Dec 1 through April 15 time period may be possible if agreement is reached with CPW of an appropriate offsite mitigation project or phased development approach.</p> <p>3. Restrict post-development well site visitations to portions of the day between 9:00 a.m. and 4:00 p.m. from December 1 to May 15, to lessen impacts to elk in their winter concentration areas, and greater sage-grouse during their breeding and production period.</p> <p>4. Fence and net pits to exclude wildlife, with wildlife appropriate fencing and netting materials.</p> <p>5. Construct 4:1 escape ramps in completion pits with a chain link fence or other appropriate covering for traction. Escape ramp should extend from the edge of the pit to below the surface of the water. Escape ramps should be installed on each side of the completion pit (4 ramps per pit), and be 4 to 5 feet in width.</p> <p>6. Muffle sound from compressors, pump jacks or other motors necessary to run operations at the site.(If mufflers are used, point upward to dissipate sound and vibration.)</p> <p>7. Reclaim site (interim and final) to match existing vegetation.</p> <p>8. Participate in the Colorado Oil and Gas Association's voluntary baseline groundwater quality sampling program.</p> <p>9. Inform CPW of any and all spills that occur on-site, or en-route to pad and pit locations.</p> <p>10. Install and utilize bear-proof dumpsters and trash receptacles for all food-related trash on location following COGCC Rule 1204 a-1.1. Where oil and gas activities must occur within 4 miles of greater sage-grouse leks or within other mapped greater sage-grouse breeding or summer habitat, conduct these activities outside the period between March 1 and June 30 (Axia Energy agrees to this BMP' with the understanding that if activity should be requested between March 1 – June 30, that the CPW will openly and fairly discuss options and/or an exemption to the timing limitation).</p> <p>2. Where oil and gas activities must occur within elk winter concentration areas, conduct these activities outside the time period from December 1 through April 15. Drilling and operations activities during the Dec 1 through April 15 time period may be possible if agreement is reached with CPW of an appropriate offsite mitigation project or phased development approach.</p> <p>3. Restrict post-development well site visitations to portions of the day between 9:00 a.m. and 4:00 p.m. from December 1 to May 15, to lessen impacts to elk in their winter concentration areas, and greater sage-grouse during their breeding and production period.</p>

4. Fence and net pits to exclude wildlife, with wildlife appropriate fencing and netting materials.
5. Construct 4:1 escape ramps in completion pits with a chain link fence or other appropriate covering for traction. Escape ramp should extend from the edge of the pit to below the surface of the water. Escape ramps should be installed on each side of the completion pit (4 ramps per pit), and be 4 to 5 feet in width.
6. Muffle sound from compressors, pump jacks or other motors necessary to run operations at the site.(If mufflers are used, point upward to dissipate sound and vibration.)
7. Reclaim site (interim and final) to match existing vegetation.
8. Participate in the Colorado Oil and Gas Association's voluntary baseline groundwater quality sampling program.
9. Inform CPW of any and all spills that occur on-site, or en-route to pad and pit locations.
10. Install and utilize bear-proof dumpsters and trash receptacles for all food-related trash on location following COGCC Rule 1204 a-1.

Total: 1 comment(s)