

**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:

400460088

Date Received:

07/31/2013

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:

435768

Expiration Date:

01/08/2017☒ 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: 10311

Name: SYNERGY RESOURCES CORPORATION

Address: 20203 HIGHWAY 60

City: PLATTEVILLE State: CO Zip: 80651

3. Contact Information

Name: Brianne Visconti

Phone: (970) 737-1073

Fax: (970) 737-1045

email: bvisconti@syrinfo.com

4. Location Identification:

Name: Gilbert Number: O-14-11NHZ

County: WELD

QuarterQuarter: NWSE Section: 14 Township: 5N Range: 66W Meridian: 6 Ground Elevation: 4835

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: 2483 feet FSL, from North or South section line, and 2267 feet FEL, from East or West section line.

Latitude: 40.399024 Longitude: -104.743099 PDOP Reading: 1.0 Date of Measurement: 07/16/2013

Instrument Operator's Name: Aaron Demo

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="16"/>	Production Pits: <input type="text"/>	Dehydrator Units: <input type="text"/>
Condensate Tanks: <input type="text" value="32"/>	Water Tanks: <input type="text" value="8"/>	Separators: <input type="text" value="16"/>	Electric Motors: <input type="text" value="1"/>	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" value="1"/>	Gas Pipeline: <input type="text" value="1"/>	Oil Pipeline: <input type="text"/>	Water Pipeline: <input type="text"/>	Flare: <input type="text"/>
Gas Compressors: <input type="text" value="1"/>	VOC Combustor: <input type="text" value="12"/>	Oil Tanks: <input type="text"/>	Fuel Tanks: <input type="text"/>	

Other: _____

6. Construction:

Date planned to commence construction: 04/01/2014 Size of disturbed area during construction in acres: 6.50
 Estimated date that interim reclamation will begin: 10/01/2014 Size of location after interim reclamation in acres: 2.88
 Estimated post-construction ground elevation: 4830 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: Synergy Resources Corp Phone: 970-737-1073
 Address: 20203 HWY 60 Fax: 970-737-1045
 Address: _____ Email: _____
 City: Platteville State: CO Zip: 80651 Date of Rule 306 surface owner consultation: 04/01/2013
 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: 20090043 ☐ 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: 345, public road: 244, above ground utility: 2326,
 railroad: 5280, property line: 244

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 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: Olney fine sandy loam, 1 to 3 percent slopes, map unit symbol 47

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: _____

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: 305 , water well: 1600 , depth to ground water: 32

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:

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

Signed: _____ Date: 07/31/2013 Email: crasmuson@syrinfo.com

Print Name: Craig Rasmuson Title: VP Operations

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: Matthew Lee Director of COGCC Date: 1/9/2014

**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.

Description

Synergy will comply with all mitigation measures listed in COGCC Rules 604.c. 802, 803, 804, and 805 adopted as of August 1, 2013.
Containment of silica dust: Synergy will use a state of the art vacuum system to contain silica dust during drilling and completion operations.
Fugitive emissions monitoring: Synergy will conduct emissions monitoring inspections using a forward-looking infrared (FLIR) camera on a monthly basis. Synergy will maintain a log of the inspections and will retain the FLIR camera video records in accordance with COGCC Rule 205.f. Synergy will remediate any equipment failure or upset conditions identified by the inspections in a timely fashion.
Synergy will also notify the COGCC via the Form 42 Notice of Notification a minimum of 48 hours prior to: 1) start of construction; 2) move in and rig up; 3) start of production; and 4) any of these same operations that occur after any 12 month or longer period of inactivity at the oil and gas location.
Noise suppression practices will be used to insure the best management of noise and light during drilling and completion operations. Synergy will install a thirty foot high temporary wall around eighty percent of the location, which will remain in place during drilling and completion operations. Synergy will provide a facility drawing to the COGCC that illustrates the layout of the temporary wall.
Total automation on site: Synergy will insure that all new equipment on site is automated. The automated equipment is the latest development in safety systems developed specifically for oil and gas industry equipment on the facility. No audible system or device will be on site. Automation will give Synergy the ability to monitor the location 24/7 remotely, and it will also insure in an event of any changes from the normal operations, the location will automatically shut itself in and notify Synergy personnel of the event. This automation will also allow Synergy to limit the number of times the thief hatches need to be opened on the production tanks, as the tank levels will be retrieved from the automated system. The hatches will only be needed to be opened during the pick-up of the oil.
Synergy will use emission control equipment at the oil and gas location with a design rating of 98% reduction efficiency and will provide the COGCC with documentation from the manufacturer stating the design rating.
Synergy will use dust abatement products to control dust created by the traffic on the road base access road and dirt operations location.

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1667828	CORRESPONDENCE
1667829	CORRESPONDENCE
1667830	LOCATION DRAWING
1667910	LGD CONSULTATION
1668035	CORRESPONDENCE
1668038	SURFACE PLAN
1668039	PROPOSED BMPs
2167328	EXCEPTION LOC WAIVERS
400460088	FORM 2A SUBMITTED
400460219	MULTI-WELL PLAN
400460221	HYDROLOGY MAP
400460225	LOCATION PICTURES
400460235	NRCS MAP UNIT DESC
400460236	OTHER
400460241	WASTE MANAGEMENT PLAN
400461583	EXCEPTION LOC REQUEST
400462105	ACCESS ROAD MAP

Total Attach: 17 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Complete.	1/6/2014 8:39:32 AM
OGLA	IN PROCESS - Operator provided a drawing showing the surface landscaping plan (visual mitigation) and also provided additional BMPs concerning their operations and access to the location that have been approved by City of Greeley and the local school district. OGLA task passed.	1/3/2014 8:04:20 AM
OGLA	Contacted Brad Mueller, LGD with City of Greeley, in late October to ask if he was aware of this proposed location and inquire if he had any concerns about it. Brad responded with an email on 11/4/13. See LGD Consultation attachment.	11/6/2013 11:55:55 AM
OGLA	Per Operator, changed size of disturbed are during construction and after interim reclamation. Changed distance to nearest building, public road, and property line. Per Operator, the 345 feet to the nearest building is from the edge of the disturbance, not the nearest production facility. Changed Current and Future Land Use. Changed distance to nearest surface water. Added Operator provided BMPs and Operator provided COAs. OGLA review complete.	10/9/2013 1:50:34 PM
Permit	Attached Exception location request for 318Aa, and corrected Surface & Minerals as per opr.	9/19/2013 1:20:30 PM
Permit	Waiver attached is a duplicate of the Exception Loc. request. S/B Fee/Fee Yes Yes	9/12/2013 11:51:26 AM
OGLA	Per operator, CDPHE consultation was mistakenly checked on the 2A but is not required for this location.	9/10/2013 2:02:27 PM
OGLA	Review of document deferred due to inadequate submittal and attachments	8/29/2013 10:50:19 AM
Permit	Passed completeness.	3/2/2013 8:54:34 AM
Permit	Access road map submitted.	3/2/2013 8:54:16 AM
Permit	Returned to draft. Requested access road map.	8/1/2013 10:44:27 AM

Total: 11 comment(s)

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	Prior to drilling operations, Operator will perform an anti-collision scan of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision scan will include definitive MWD or gyro surveys of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed wellpath with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottomhole location. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment. For the proposed well, upon conclusion of drilling operations, an as-constructed gyro survey will be submitted to COGCC with the Form 5.
2	Drilling/Completion Operations	Operator will comply with COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012.

Total: 2 comment(s)