

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:

400427097

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:

434520

Expiration Date:

10/03/2016

☒ 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: 78110

Name: SWEPI LP

Address: 4582 S ULSTER ST PKWY #1400

City: DENVER State: CO Zip: 80237

3. Contact Information

Name: Steve Compton

Phone: (303) 305-4017

Fax: (303) 305-7554

email: C-Steven.Compton@shell.com

4. Location Identification:

Name: Dill Gulch Number: 1-22

County: ROUTT

QuarterQuarter: NWSW Section: 22 Township: 6N Range: 88W Meridian: 6 Ground Elevation: 6550

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: 2252 feet FSL, from North or South section line, and 325 feet FWL, from East or West section line.

Latitude: 40.462247 Longitude: -107.256208 PDOP Reading: 2.1 Date of Measurement: 09/05/2012

Instrument Operator's Name: G. McElroy

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

Other: _____

6. Construction:

Date planned to commence construction: 10/01/2013 Size of disturbed area during construction in acres: 6.03
 Estimated date that interim reclamation will begin: 07/01/2014 Size of location after interim reclamation in acres: 1.94
 Estimated post-construction ground elevation: 6546 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: 07/18/2012
 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: 20030028 ☐ 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: 2560, public road: 1754, above ground utility: 963,
 railroad: 12700, property line: 927

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: Yampatika silty clay, 12 to 25 percent slopes

NRCS Map Unit Name: Bulkley silty clay, 12 to 25 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: _____

List individual species: Western wheatgrass, Alkali sagebrush, Wyoming big sagebrush, Bluebrush wheatgrass,
Bottlebrush squirreltail, Letterman's needlegrass, miscellaneous perennial grasses, Saskatoon
serviceberry, miscellaneous perennial forbs, Mountain big sagebrush

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: 496, water well: 2867, depth to ground water: 20

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: a.baldrige@shell.com

Print Name: Anne Baldrige Title: Reg & Env Lead - Swan

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: 10/4/2013

**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

GROUNDWATER MONITORING COA:

Operator shall comply with Rule 609. STATEWIDE GROUNDWATER BASELINE SAMPLING AND MONITORING.

PIPELINE COAs:

Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface or permanent buried pipelines and following any reconfiguration of the pipeline network. Operator shall notify the 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 testing surface poly/steel or buried poly/steel pipelines.

Operator must implement best management practices to contain any unintentional release of fluids along all portions of the surface pipeline route where temporary pumps and other necessary equipment are located.

Operator must routinely inspect the entire length of the surface pipeline to ensure integrity. Operator shall conduct daily inspections of surface poly pipeline routes for leaks during active transfer of fluids. Inspections shall be conducted by viewing the length of the pipeline; operator will endeavor to minimize surface disturbance during pipeline monitoring. The operator shall maintain records of inspections, findings and repairs, if necessary, for the life of the pipelines.

Operator must ensure 110 percent secondary containment for any potential volume of fluids that may be released from the surface pipeline at all sensitive area crossings, including, but not limited to stream, intermittent stream, ditch, and drainage crossings.

Operator will utilize, to the extent practical, all existing access and other public roads, and/or existing pipeline right-of-ways, when placing/routing the surface pipelines. This will reduce surface disturbance and fragmentation of wildlife habitat in the area.

GENERAL SITE COAs:

Notify the COGCC 48 hours prior to start of pad construction, rig mobilization, spud, and start of hydraulic stimulation operations using Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).

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

Operator must ensure secondary containment for any volume of fluids contained at well site during drilling and completion operations (as described on the BMPs tab and shown on the Construction Layout Drawings and Location Drawing attachments); 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.

A closed loop system must be implemented during drilling (which operator has indicated on the Form 2A); or, if a closed loop system drilling rig is not used/available, then an amended Form 2A will need to be submitted/approved to include a drilling pit, and a Form 15 Earthen Pit Permit will also need to be submitted/approved prior to construction of the pit (the drilling pit will be required to be lined, fenced, and netted).

All cuttings generated during drilling with oil based muds or high chloride/TDS mud must be kept in containers, a lined/bermed portion of the well pad, or the lined drilling pit (if permitted and constructed) 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.

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

If the well is to be hydraulically stimulated, flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline, storage vessel, or lined pit (only if an amended Form 2A has been submitted/approved and a Form 15 Earthen Pit Permitted has been submitted/approved) 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.

Berms or other containment devices shall be constructed to be sufficiently impervious (preferably corrugated steel with poly liner) to contain any spilled or released material around crude oil, condensate, and produced water storage tanks.

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2106749	OTHER
2106750	CORRESPONDENCE
2157231	LOCATION DRAWING
2157232	CONST. LAYOUT DRAWING
400427097	FORM 2A SUBMITTED
400428853	LOCATION PICTURES
400428854	REFERENCE AREA PICTURES
400428855	REFERENCE AREA MAP
400428856	HYDROLOGY MAP A, TOPO
400428860	OTHER
400428862	ACCESS ROAD MAP
400433531	NRCS MAP UNIT DESC

Total Attach: 12 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed. LGD comments on the related form 2, CPW was on site.	10/2/2013 5:55:41 AM
Permit	Oper. submitted revised loc. drawing and const. layout drawing. Per oper. corrected size of disturbed area.	9/11/2013 2:14:02 PM
OGLA	Initiated/Completed OGLA Form 2A review on 09-10-13 by Dave Kubeczko; requested acknowledgement of notification, fluid containment, spill/release BMPs, tank berming, flowback to tanks, use of salt/oil based muds, closed loop and cuttings containment, Rule 609 GW sampling, and cuttings low moisture content COAs from operator on 09-10-13; received acknowledgement of COAs from operator on 09-12-13; changed disturbed area to 6.03 acres (pad only); onsite conducted by CPW/COGCC/Routt County in 2013; addressed Routt County LGD comments (dated 08-19-13) "text shown after all LGD's comments" on 09-23-13; passed by CPW on 08-02-13 with operator submitted BMPS acceptable; passed OGLA Form 2A review on 09-23-13 by Dave Kubeczko; notification, fluid containment, spill/release BMPs, tank berming, flowback to tanks, use of salt/oil based muds, closed loop and cuttings containment, Rule 609 GW sampling, and cuttings low moisture content COAs.	9/10/2013 1:24:39 PM
Permit	Req'd construction layout drawing.	9/10/2013 1:03:46 PM
LGD	<p>LGD Comments Shell/SWEPI Section 22-6-88 Dill Gulch 1-22 NWSW Sec 22 T6N R88W Form 2A#400427097; Form 2#400425092</p> <p>COGCC'S RESPONSE FOLLOWS THE COMMENTS IN "CAPITAL LETTERS"; Dated September 23, 2013</p> <p>1) Routt County has a permitting process for all oil/gas operations. The operator is aware that an application must be submitted to Routt County.</p> <p>2) Routt County has a review process for all county roads used for oil/gas operations. The operator must contact Routt County and comply with road review procedures before operations can be conducted.</p> <p>3) Routt County requests information from the COGCC after drilling operations are complete for the location of aquifers and showing that casing was completed per minimum requirements of the COGCC regulations to protect all aquifers.</p> <p>4) The site is located approximately 2.25 miles southwest of the Yampa Valley Regional Airport. The operator is required to file with the FAA an evaluation and receive approval for drilling operations.</p> <p>5) This site is proposed to be developed into a multiple well site. Routt County requests that the operator be required, at minimum to comply with Rule 609. The well site is located between two separate waterways, less than 0.5 miles and lower in elevation. Stokes Gulch is located to the north and Dry Creek located to the south. There are residences approximately 0.5+ miles north southeast of this site. With the permission of the land owner, testing should be completed for the water source of this residence. Routt County requests that a COA be added under Form 2A for the required testing of these waterways, nearby residences and locate and testing of springs within 0.5 miles.</p> <p>6) Any access will require a GE permit from Routt County. Due to the site being located between two drainages, any access roads and the well pad must have a comprehensive BMP Plan and continually monitored for protection of these water sources from erosion and contaminants.</p> <p>7) The US Army Corps of Engineers should be contacted to determine if any permits will be required.</p>	8/19/2013 12:13:22 PM

	<p>8) Continued best management practices should be used to test or monitor air quality. The COGCC should work with the CDPHE to develop monitoring system requirements and schedules for all operators. New technology should be used to prohibit emissions from tanks, equipment and flares on the onset of production.</p> <p>COGCC's RESPONSES TO ROUTT COUNTY LGD COMMENTS:</p> <p>"AS ROUTT COUNTY REQUIRES THEIR OWN SPECIAL USE PERMIT, COMMENT NOS. 1, 2, 4, 6, and 8 PERTAIN TO THAT PERMITTING PROCESS AND REQUIREMENTS (AND UNENFORCEABLE BY COGCC), AND THEREFORE, DO NOT REQUIRE COGCC RESPONSES.</p> <p>COMMENT NOS. 3, 5 (second sentence), and 7 RELATE TO EXISTING COGCC RULES, AND THEREFORE, DO NOT REQUIRE ADDITIONAL COGCC RESPONSES BECAUSE THEY HAVE BEEN ADDRESSED IN THE PREVIOUS AND CURRENT PERMIT REQUIREMENTS, OR BY COGCC SITE SPECIFIC COAs.</p> <p>COMMENT NO. 5 HAS BEEN ADDRESSED BY SWEPI WITH THE SUBMITTAL OF THEIR PROPOSED GROUNDWATER (GW) SAMPLING PLAN (SUBMITTED TO COGCC ON SEPTEMBER 12, 2013), WHICH MEETS RULE 609. COGCC HAS REVIEWED SWEPI'S PROPOSED GW SAMPLING PLAN FOR THIS LOCATION (WHICH SWEPI, BY RULE, DID NOT NEED TO SUBMIT OR PROVIDE), AND BELIEVES THAT THE TWO (2) WATER WELLS LOCATED/PROPOSED FOR SAMPLING ARE LOCATED PREDOMINANTLY DOWNGRADIENT/CROSSGRADIENT FROM THE WELL PAD LOCATION AND ARE ADEQUATE TO PROVIDE GW BASELINE DATA. THESE TWO (2) WATER WELLS SHOULD ALSO PROVIDE SUFFICIENT DATA (THE BASIS FOR RULE 609) TO EVALUATE IF THE UPPERMOST DRINKING WATER AQUIFER HAS BEEN IMPACTED BY ANY ONSITE OIL AND GAS OPERATIONS. IN ADDITION, THESE WATER WELLS ARE LOCATED ON THE DOWNGRADIENT SIDE OF DRY GULCH, LOCATED APPROXIMATELY 1400' CROSSGRADIENT OF THE PROPOSED WELL LOCATION. COGCC BELIEVES THAT THE PROPOSED GW SAMPLING PLAN IS SUFFICIENT FOR EVALUATING POTENTIAL SURFACE WATER IMPACTS FROM OPERATIONS. COGCC DOES NOT REQUIRE SAMPLING OF NEARBY SURFACE WATER, UNLESS THERE IS A MULTI-WELL OR PRODUCTION PIT PROPOSED FOR THE LOCATION, OR IF THE WELL PAD IS LOCATED SUCH THAT THERE IS A HIGH POTENTIAL FOR IMPACT FROM A SURFACE SPILL OR RELEASE. THEREFORE, COGCC WILL NOT REQUIRE SURFACE WATER SAMPLING AT EITHER DRY GULCH OR STOKES GULCH (WHICH IS LOCATED CROSSGRADIENT/UPGRADIENT OF THE PROPOSED WELL PAD LOCATION)."</p>		
DOW	<p>CPW staff along with SWEPI LP staff visited the site on May 9, 2013. The BMPs as submitted by the operator on the Form 2A are appropriate for the site.</p> <p>by Michael Warren on August 2, 2013 at 11:12 A.M.</p>	8/2/2013 11:08:41 AM	

Total: 6 comment(s)

Best Management Practices

No	BMP/COA Type	Description
1	Wildlife	<p>1. Establish company guidelines to minimize wildlife mortality from vehicle collisions on roads.</p> <p>2. Include a weed management plan and implement the plan as part of the reclamation.</p> <p>3. Reclaim habitats with native shrubs, grasses, and forbs appropriate to the ecological site disturbed.</p>
2	Storm Water/Erosion Control	<p>Storm Water management plans (SWMP) are in place to comply with both Colorado Department of Public Health and Environment (CDPHE) and Colorado Oil and Gas Conservation Commission (COGCC) storm water discharge permits. The construction layout for this location details Best Management Practices (BMP's) to be installed during the initial construction. Note that BMP's may be removed, altered, or replaced with the changing conditions in the field and the SWMP will be updated accordingly. The BMP's prescribed for the initial construction phase include, but are not limited to:</p> <ul style="list-style-type: none"> • Construct diversion ditch • Sediment Reservoirs • Check dams • Level spreaders • Stabilized construction entrance • Slash • Sediment Traps • Wattles • Terrace • Secondary containment berms • Detention ponds
3	Material Handling and Spill Prevention	<p>Spill Prevention Control and Countermeasure Plans (SPCC) are in place to address material releases and to prescribe materials handling BMP's for the facility. "Good Housekeeping" measures will be taken to ensure proper waste disposal.</p>

Total: 3 comment(s)