

FORM  
2

Rev  
12/05

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:

400434040

Date Received:

07/30/2013

PluggingBond SuretyID

20030028

APPLICATION FOR PERMIT TO:

1. ☒ Drill, ☐ Deepen, ☐ Re-enter, ☐ Recomplete and Operate

2. TYPE OF WELL

OIL ☒ GAS ☐ COALBED ☐ OTHER \_\_\_\_\_  
SINGLE ZONE ☒ MULTIPLE ☐ COMMINGLE ☐

Refiling ☐

Sidetrack ☐

3. Name of Operator: SWEPI LP 4. COGCC Operator Number: 78110

5. Address: 4582 S ULSTER ST PKWY #1400

City: DENVER State: CO Zip: 80237

6. Contact Name: Steve Compton Phone: (303)305-4017 Fax: (303)305-7554

Email: c-steven.compton@shell.com

7. Well Name: 20 Mile Sheep Well Number: 1-29

8. Unit Name (if appl): Hayden State Unit Number: 123

9. Proposed Total Measured Depth: 8950

WELL LOCATION INFORMATION

10. QtrQtr: NWNE Sec: 29 Twp: 6N Rng: 87W Meridian: 6

Latitude: 40.454861 Longitude: -107.167625

Footage at Surface: 374 feet FNL 1369 feet FEL

11. Field Name: Wildcat Field Number: 99999

12. Ground Elevation: 6571 13. County: ROUTT

14. GPS Data:

Date of Measurement: 05/09/2013 PDOP Reading: 1.8 Instrument Operator's Name: G. McElroy

15. If well is ☐ Directional ☐ Horizontal (highly deviated) **submit deviated drilling plan.**

Footage at Top of Prod Zone: FNL/FSL FEL/FWL Bottom Hole: FNL/FSL FEL/FWL

Sec: \_\_\_\_\_ Twp: \_\_\_\_\_ Rng: \_\_\_\_\_ Sec: \_\_\_\_\_ Twp: \_\_\_\_\_ Rng: \_\_\_\_\_

16. Is location in a high density area? (Rule 603b)? ☐ Yes ☒ No

17. Distance to the nearest building, public road, above ground utility or railroad: 306 ft

18. Distance to nearest property line: 374 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 5280 ft

20. LEASE, SPACING AND POOLING INFORMATION

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIOBRARA	NBRR			

21. Mineral Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian Lease #: CO91840.00

22. Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian

23. Is the Surface Owner also the Mineral Owner? ☒ Yes ☐ No Surface Surety ID#:

23a. If 23 is Yes: Is the Surface Owner(s) signature on the lease? ☒ Yes ☐ No

23b. If 23 is No: ☐ Surface Owners Agreement Attached or ☐ \$25,000 Blanket Surface Bond ☐ \$2,000 Surface Bond ☐ \$5,000 Surface Bond

24. Using standard QtrQtr, Sec, Twp, Rng format enter entire mineral lease description upon which this proposed wellsite is located (attach separate sheet/map if you prefer):

Please see the attached mineral lease description

25. Distance to Nearest Mineral Lease Line: 374 ft

26. Total Acres in Lease: 200

### DRILLING PLANS AND PROCEDURES

27. Is H2S anticipated? ☐ Yes ☒ No If Yes, attach contingency plan.

28. Will salt sections be encountered during drilling? ☐ Yes ☒ No

29. Will salt (>15,000 ppm TDS CL) or oil based muds be used during drilling? ☒ Yes ☐ No

30. If questions 28 or 29 are yes, is this location in a sensitive area (Rule 901.e)? ☐ Yes ☒ No

31. Mud disposal: ☒ Offsite ☐ Onsite

If 28, 29, or 30 are "Yes" a pit permit may be required.

Method: ☐ Land Farming ☐ Land Spreading ☒ Disposal Facility Other: \_\_\_\_\_

Note: The use of an earthen pit for Recompletion fluids requires a pit permit (Rule 905b). If air/gas drilling, notify local fire officials.

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	30	20	52.78	0	90	48	90	0
SURF	12+1/4	9+5/8	36	0	800	381	800	0
1ST	8+1/2	7	29	0	5900	379	5900	600
OPEN HOLE	6			5900	8950			

32. BOP Equipment Type: ☐ Annular Preventer ☒ Double Ram ☐ Rotating Head ☐ None

33. Comments \_\_\_\_\_

34. Location ID: \_\_\_\_\_

35. Is this application in a Comprehensive Drilling Plan ? ☐ Yes ☒ No

36. Is this application part of submitted Oil and Gas Location Assessment ? ☒ Yes ☐ No

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

Signed: \_\_\_\_\_

Print Name: Steve Compton

Title: Environmental Engineer

Date: 7/30/2013

Email: C-Steven.Compton@Shell.com

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

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: 9/26/2013

#### API NUMBER

05 107 06259 00

Permit Number: \_\_\_\_\_

Expiration Date: 9/25/2015

#### CONDITIONS OF APPROVAL, IF ANY:

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

**Description**

(1) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE NORTHWEST COLORADO NOTIFICATION POLICY IS REQUIRED.

(2) INTERMEDIATE CASING CEMENT MUST PROVIDE COVERAGE OF ALL CRETACEOUS FORMATIONS PENETRATED BY THE INTERMEDIATE HOLE, INCLUDING ANY PORTION OF THE MESAVERDE GROUP THAT IS PRESENT BELOW THE SURFACE CASING SHOE. INTERMEDIATE CEMENT SHALL LAP 200' INTO THE SURFACE CASING. INTERMEDIATE CASING CEMENT COVERAGE VERIFICATION BY CBL IS REQUIRED.

**Applicable Policies and Notices to Operators**

NW Colorado Notification Policy.

Notice Concerning Operating Requirements for Wildlife Protection.

**Attachment Check List**

<b><u>Att Doc Num</u></b>	<b><u>Name</u></b>
2055847	WELLBORE DIAGRAM
2055848	DRILLING PLAN
400434040	FORM 2 SUBMITTED
400435874	WELL LOCATION PLAT
400435875	TOPO MAP
400445908	LEGAL/LEASE DESCRIPTION

Total Attach: 6 Files

**General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
Permit	LGD comments same as for related 2A#400435911. Comments addressed on 2A by OGLA. No public comments. Final Review--passed.	9/24/2013 8:41:59 AM
Engineer	Casing and cement design modified by COGCC engineering staff per SWEPI's request after discussion of drilling challenges in the Lewis Shale and potential well control and geologic isolation concerns in the Mesaverde Group. Changed surface casing setting depth from 2,298' to 800' and changed surface casing cement volume from 1,042 sacks to 381 sacks. Changed intermediate (1st string) casing cement top from 5,100' to 600' (200' lap into the surface casing) and changed intermediate (1st string) casing cement volume from 57 sacks to 379 sacks. Replaced Drilling Plan and Wellbore Diagram attachments to this Form 2 with revised attachments that reflect these changes.	9/17/2013 11:23:54 AM
Engineer	THE PROPOSED SURFACE CASING IS MORE THAN 50' BELOW THE DEPTH OF THE DEEPEST WATER WELL WITHIN 1-MILE OF THE SURFACE LOCATION WHEN CORRECTED FOR ELEVATION DIFFERENCES. THE DEEPEST WATER WELL WITHIN 1-MILE IS 600 FEET DEEP.	9/17/2013 11:12:38 AM

LGD	<p>LGD Comments – Routt County</p> <p>Shell – Well Site: 20 Mile Sheep 1-29</p> <p>Sec 29-6-87</p> <p>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>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>Routt County requests information from the COGCC after drilling operations are complete for the located of aquifers and showing that casing was completed per minimum requirements of the COGCC regulations to protect all aquifers.</p> <p>The site is located approximately 2.2 miles southeast 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>There is a waterbody located south the proposed well pad. 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>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>This area is mapped for Elk Severe Winter Range and Greater Sage Grouse Production area. The Greater Sage Grouse are concentrated in this area due to loss of habitat in the surrounding areas. If disturbance from oil and gas operations upset this environment there is no other place for the grouse to move and these operations could eliminate Greater Sage Grouse in this area.</p> <p>There is a dwelling unit approx 940 feet northwest of the proposed site. The operator shall work with the surface owner to protect the health, safety and welfare of the residents in this area.</p> <p>There are approximately 8 wells located within one mile of the well site with the closest being 815' to the northwest. Routt County is concerned with oil and gas operations affecting the water wells of adjoining properties. Rule 609 should be amended and a COA applied to all wells located within one mile of this location.</p> <p>The US Army Corps of Engineers should be contacted to determine if any permits may be required.</p> <p>This site has many negative impacts such as: wildlife concerns for Greater Sage Grouse, location of waterbodies in the area and possible impacts to domestic water wells and nearby residents. This site is proposed for multiply wells, which will increase the level of negative impacts and continued drilling operations.</p>	<p>8/19/2013 11:59:07 AM</p>
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Total: 4 comment(s)

## Best Management Practices

No	BMP/COA Type	Description
1	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"><li>• Construct diversion ditch</li><li>• Sediment Reservoirs</li><li>• Check dams</li><li>• Level spreaders</li><li>• Stabilized construction entrance</li><li>• Slash</li><li>• Sediment Traps</li><li>• Wattles</li><li>• Terrace</li><li>• Secondary containment berms</li><li>• Detention ponds</li></ul>
2	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: 2 comment(s)