

FORM
2

Rev
12/05

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



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Document Number:

400186450

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: Michael L. Bergstrom Phone: (303)222-6347 Fax: (303)222-6258

Email: Michael.Bergstrom@shell.com

7. Well Name: Gnat Hill Well Number: 1-29

8. Unit Name (if appl): NA Unit Number: _____

9. Proposed Total Measured Depth: 10000

WELL LOCATION INFORMATION

10. QtrQtr: NESE Sec: 29 Twp: 6N Rng: 89W Meridian: 6

Latitude: 40.445739 Longitude: -107.392506

Footage at Surface: 2374 feet FNL/FSL 360 feet FEL/FWL FEL

11. Field Name: Buck Peak Field Number: 7675

12. Ground Elevation: 6656 13. County: ROUTT

14. GPS Data:

Date of Measurement: 06/28/2011 PDOP Reading: 2.1 Instrument Operator's Name: B. Hunting

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

Footage at Top of Prod Zone: FNL/FSL 530 FSL 1563 FEL 1011 FNL 2461 FEL
Sec: 29 Twp: 6N Rng: 89W Sec: 32 Twp: 6N Rng: 89W

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: 260 ft

18. Distance to nearest property line: 2272 ft 19. Distance to nearest well permitted/completed in the same formation: 10160 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 Shale	NBRR			

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

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

23. Is the Surface Owner also the Mineral Owner? ☐ Yes ☒ No Surface Surety ID#: 20030020

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):

The mineral lease area is one drill spacing unit of 160-220 acres containing an ellipsoid containing parts of Section 29: L9, 15 and 16 and Section 31: L1, 2, 6 and 7. Please see attachments with Mineral Lease Description and Map.

25. Distance to Nearest Mineral Lease Line: 0 ft

26. Total Acres in Lease: 1360

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	13+1/2	10+3/4	40.5	0	1,000	454	1,000	0
1ST	9+7/8	7+5/8	29.7	0	6,000	116	6,000	5,000
2ND	6+3/4	5+1/2	17	0	9,634	0		

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

33. Comments A Form 15 pit permit is being submitted concurrently with the Form 2 & 2A for Gnat Hill 1-29. Attachments include a drilling and completion plan.

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: Michael L Bergstrom

Title: Senior Regulatory Advisor

Date: 8/5/2011

Email: Michael.Bergstrom@shell.com

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 S. Noshin

Director of COGCC

Date: 9/8/2011

API NUMBER

05 107 06243 00

Permit Number: _____ Expiration Date: 9/7/2013

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.

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

(2) CEMENT ON PRODUCTION CASING MUST BE AT LEAST 200' ABOVE TOP OF FT. UNION AND COMPLY WITH RULES 209 AND 317.I. SEGREGATE OIL, GAS, AND FRESH-WATER-BEARING ZONES AND PROTECT COAL SEAMS. VERIFY TOP WITH CBL.

(3) RESERVE PIT MUST BE LINED.

(4) OPERATOR MUST ENSURE 110 PERCENT SECONDARY CONTAINMENT FOR ANY VOLUME OF FLUIDS CONTAINED AT WELL-SITE DURING DRILLING AND COMPLETION OPERATIONS. IF FLUIDS ARE CONVEYED VIA PIPELINE, OPERATOR MUST IMPLEMENT BEST-MANAGEMENT-PRACTICES TO CONTAIN ANY UNINTENTIONAL RELEASE OF FLUIDS.

(5) THE 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 00 FEET DEEP.

Before placing oil/salt based muds in the pit, operator must file and receive prior approval of a Pit Permit, Form 15. COGCC regulations regarding pit permits can be found in Rule 903.a.(3). PIT PERMITTING/REPORTING REQUIREMENTS.

Attachment Check List

Att Doc Num	Name
400186450	FORM 2 SUBMITTED
400190755	WELL LOCATION PLAT
400190756	TOPO MAP
400191383	DEVIATED DRILLING PLAN
400192026	LEASE MAP

Total Attach: 5 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Added field as Buck Ridge and changed distance to surface feature to match OGLA Directional plan is ~140' from Well Location Plat bhl, this will not result in a change in QQ and will not affect the legality of the permit Changed distance to lease line to zero.	8/29/2011 3:37:23 PM
LGD	This site is located off of CR 65 which is classified as a remote/minimal maintenance road. There is no winter maintenance (closed) and access is not recommended and at times not possible in wet conditions This road will have to be constructed to standards acceptable Routt County before any drilling operations are to occur. Routt County will not maintain this road and a winter access/maintenance permit will be required along with an access permit and GE permits. Continued maintenance of the road will be the responsibility of the operator during the life of operations. This site has wildlife concerns for severe elk winter range; Sage GRouse and Columbian Sharpe-tailed Grouse lekking and brooding areas. Drilling restrictions from Dec 1st - July 30th and access restrictions after drilling should be adhered to.	8/11/2011 10:23:44 AM
Permit	Returned to draft. No answer to question 25.	8/5/2011 10:40:13 AM

Total: 3 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Material Handling and Spill Prevention	Spill Prevention Control & Countermeasure Plans (SPCC) are in place to address material releases and to prescribe materials handling BMPs for the facility. "Good house-keeping" measures will be taken to ensure proper waste disposal.
Storm Water/Erosion Control	<p>Stormwater 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) stormwater discharge permits. The construction layout for Gnat Hill 1-29 details Best Management Practices (BMP) to be installed during initial construction. Note that BMPs may be removed, altered, or replaced with changing conditions in the field and the SWMP will be updated accordingly. The BMPs prescribed for the initial construction phase include, but are not limited to</p> <ul style="list-style-type: none"> • Construction diversion ditch • Sediment reservoirs • Check dams • Level spreaders • Stabilized construction entrance • Slash • Sediment trap • Wattle • Terrace • Secondary containment berms • Detention ponds
Wildlife	<p>See Wildlife BMPs attachment for complete email with BMPs from Colorado Division of Parks & Wildlife.</p> <ol style="list-style-type: none"> 1) Pad construction and drilling will occur outside of the greater sage-grouse and sharp-tailed breeding and nesting period (March 1 – July 30). 2) Shell agrees to conduct drilling activities – re entry for additional wells outside the period of March 1 to July 30. 3) Conduct post-development well site visitations to between the hours of 10:00 a.m. and 3:00 p.m. and reduce well site visitations between March 1 and July 30. 4) Shell will use hospital grade mufflers for compressors, pump jacks or other motors necessary to run operations at the site as applicable – if compressors, pump jacks, etc. are necessary. Mufflers will be pointed upward to dissipate potential vibration. 5) Conduct post-development well site visitations to between the hours of 10:00 a.m. and 3:00 p.m. and reduce well site visitations between December 1 and April 15 in elk winter concentration areas. 6) CDOW is open to the idea of flexibility/amending the elk winter concentration timing stipulations in order to protect sage and sharp-tailed grouse habitat and lekking activities. On-going and future discussions between CDOW and Shell will be necessary to determine if the elk timing stipulation can be amended for this site. 7) Ingress, egress and all oil and gas traffic for this site will be taken from Moffat County Road 394 on to Routt County Road 65 to the pad. 8) The scheduled time for drilling this well is still undetermined.

Total: 3 comment(s)