

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:

400193159

PluggingBond SuretyID

APPLICATION FOR PERMIT TO:

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

2. TYPE OF WELL

OIL ☒ GAS ☐ COALBED ☐ OTHER Lateral  
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 Bergstrom Phone: (303)222-6347 Fax: (303)222-6258

Email: michael.bergstrom@shell.com

7. Well Name: Castor Gulch Well Number: 1-21

8. Unit Name (if appl): Williams Fork Unit Number: COC-74956X

9. Proposed Total Measured Depth: 6500

WELL LOCATION INFORMATION

10. QtrQtr: 2 Sec: 21 Twp: 5N Rng: 91W Meridian: 6

Latitude: 40.378550 Longitude: -107.606986

Footage at Surface: 599 feet FNL/FSL 1318 feet FEL/FWL FEL

11. Field Name: wildcat Field Number: 99999

12. Ground Elevation: 6425 13. County: MOFFAT

14. GPS Data:

Date of Measurement: 06/23/2011 PDOP Reading: 2.3 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 852 FNL 1604 FEL 1456 FNL 2055 FWL 1456 FNL 2055 FWL 1456  
Sec: 21 Twp: 5N Rng: 91W Sec: 21 Twp: 5N Rng: 91W

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: 72 ft

18. Distance to nearest property line: 12 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 4000 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 #: COC069715

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):

See attached lease description

25. Distance to Nearest Mineral Lease Line: 635

26. Total Acres in Lease: 315

### 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
SURF	12+1/4	9+5/8	36	0	543	230	543	0
1ST	8+3/4	7	23	0	4,193	70	4,193	2,773
2ND	6+1/4	2+7/8	6.5	0	6,500	0		

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

33. Comments Shell plans to drill a sidetrack horizontal well using the existing wellbore previously drilled by East Resources. Attachments include a drilling and completion plan. No cement is planned for this program. The 9-5/8" surface and 7" intermediate casings have already been cemented in place by East Resources in September 2009. The only casing string planned during the re-entry is 2-7/8" production tubing, which will not be cemented. Castor Gulch 1-21 is a part of the Williams Fork Federal Unit COC-74956X. The well will be located on federal surface; however, the pad is located on both federal and private surface.

34. Location ID: 414108

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 Bergstrom

Title: Senior Regulatory Advisor

Date: 8/17/2011

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. Nesline

Director of COGCC

Date: 11/6/2011

#### API NUMBER

05 081 07595 01

Permit Number: \_\_\_\_\_ Expiration Date: 11/5/2013

#### 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.

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.

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

(2) RESERVE PIT MUST BE LINED

(3) 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.

(4) 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 320 FEET DEEP.

### **Attachment Check List**

Att Doc Num	Name
2089502	LEASE MAP
2089522	LEASE MAP
2089523	LEGAL/LEASE DESCRIPTION
2089524	EXCEPTION LOC REQUEST
2089526	VARIANCE REQUEST
2089527	WAIVERS
400193159	FORM 2 SUBMITTED
400194200	TOPO MAP
400194203	WELL LOCATION PLAT
400195773	DEVIATED DRILLING PLAN

Total Attach: 10 Files

**General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
	No public or LGD comments Comprehensive Final Review status -- Passed	11/4/2011 2:14:09 PM
Permit	Attached variance request and county waiver Deleted exception request	11/4/2011 2:12:37 PM
Permit	Attached corrected lease map and description Attached exception location request	11/1/2011 11:06:36 AM
Engineer	just a note: fish in original borehole. drillpipe w/bit, from 5130' to 4435'.	10/21/2011 2:57:58 PM
Permit	ON HOLD - well head is less than 150' from Moffat County Road 93. Operator will request a road closure from the county on Oct. 25 and expects reply on Nov.1.	10/21/2011 1:59:56 PM
Permit	Changed distance to property line, mineral lease line, and lease size Added comments indicating both federal and fee surface and that lease description is attached	10/17/2011 3:53:52 PM
Permit	Missing road exception and property line exception Previous property line exception will be adequate for this sidetrack operation Property line distance discrepancy has not been clarified	10/6/2011 2:51:13 PM
Permit	BLM did not require a permit for this operation, work was approved on a sundry. Previously submitted Federal permit will meet requirements.	10/5/2011 11:26:14 AM
Permit	Attached lease map and description	9/30/2011 11:08:34 AM
Permit	Missing federal permit	9/21/2011 10:08:25 AM
Permit	Removed plugging bond information and added federal lease number, unit number was input in error Distance to property line of 599' does not match original filing	9/20/2011 2:42:10 PM

Total: 11 comment(s)

## **BMP**

<b><u>Type</u></b>	<b><u>Comment</u></b>
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 Castor Gulch 1-21 details Best Management Practices (BMPs) 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"><li>• Construction 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 trap</li><li>• Wattle</li><li>• Terrace</li><li>• Secondary containment berms</li><li>• Detention ponds</li></ul>

Total: 2 comment(s)