



DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES  
 Minerals & Mining Program  
 2050 West Main, Suite #1, Rapid City, SD 57702-2493  
 Telephone: 605-773-4201, FAX: 605-394-5317

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FORM 2  
 JUN 22 2015

DEPT OF ENVIRONMENT & NATURAL  
 RESOURCES - RAPID CITY

State of South Dakota  
 Department of Environment  
 and Natural Resources

APPLICATION FOR PERMIT TO DRILL

Type of work:  Drill New Well  Reenter Well  Drill Directional Well  Other: \_\_\_\_\_

Type of well:  Oil Well  Gas Well  Injection  Other: \_\_\_\_\_

Name and Address of Operator: Luff Exploration Company 1580 Lincoln Street, Suite 850, Denver, CO 80203 Telephone: 303-861-2468

Name and Address of Surface Owner: Gilbert Cattle Co., 10101 Eagles Nest Road, Ludlow, SD 57755

Name and Address of Drilling Contractor and Rig Number: Cyclone Drilling, Inc., 5800 Mohan Road, Gillette, WY 82718; Rig #11

Surface Location of well: Qtr-Qtr, Sec, Twp, Rge, County, feet from nearest lines of section, and latitude and longitude (if available): SWSW, Sec. 3, T22N, R6E, Harding Co., 180' FSL & 340' FWL, Lat: 45° 53' 34.05" N, Long: 103° 22' 31.74" W

If Directional, top of pay and bottom hole location from nearest lines of section:  
 ST-1 (N) TOP: 655' FSL & 595' FWL, SWSW, Sec. 3, T22N, R6E BHL: 660' FNL & 660' FWL, NWNW, Sec. 3, T22N, R6E  
 ST-2 (E) TOP: 571' FSL & 549' FWL, SWSW, Sec. 3, T22N, R6E BHL: 900' FSL & 900' FEL, SESE, Sec. 3, T22N, R6E

Acres in Spacing (Drilling) Unit: 640 Description of Spacing Unit: All Of Sec. 3, T22N, R6E

Well Name and Number:	Elevation:	Field and Pool, or Wildcat:	Proposed Depth and Formation:
Fowler 1-3H	2890'GL & 2906'KB	Pete's Creek	ST-1(N) 13279' MD, ST-2(E) 13478' MD, RR B

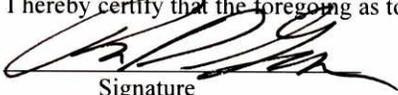
Size of Hole:	Size of Casing:	Weight per Foot:	Depth:	Cementing Program (amount, type, yield, additives)	Depth:
1) 13 1/2"	9 5/8"	36#	1475'	680 sks Lite & Premium	Surface 1940'
2) 8 3/4"	7"	23, 26, 29#	9121'	655 sks Lite & Premium	
3) 6 1/8"	None		14775'		
4)					

Describe Proposed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). Use additional page(s) if appropriate.

This is a producing oil well in Pete's Creek Field. Original Permit # 1838 issued to Continental Resources, Inc on 5/23/07. Original API # 40 063 20627. Drill two 6-1/8" horizontal lateral sidetracks off the original lateral: ST-1 (N) from 9274' MD to 13279' MD (8888' TVD) with a BHL 660' FNL & 660' FWL Sec 3-T22N-R6E; ST-2 (E) from 9179' MD to 13478' MD (8888' TVD) with a BHL 900' FSL & 900' FEL Sec 3-T22N-R6E. Commingle production from new laterals with original lateral. Estimated start date for location construction is 7/20/15. Estimated start date for drilling is 8/17/15.

Pit Liner Specifications: All drilling fluids and cuttings will be contained in a pit lined with a 12 mil plastic liner

I hereby certify that the foregoing as to any work or operation performed is a true and correct report of such work or operation.

 Signature Richard D. George Name (Print) Manager of Engineering Title 6/19/15 Date

FOR OFFICE USE ONLY

Approved By: Robert Tarnal Title: Administrative Minerals Mining Program

Permit No.: 2065 API No.: 40 063 20627 .01 Date Issued: 7/6/15

Conditions, if any, on attached page.



**DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES**

PMB 2020  
JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182  
[www.state.sd.us/denr](http://www.state.sd.us/denr)

**PERMIT CONDITIONS**

Luff: Fowler 1-3H  
22N-6E-3 SWSW, Harding County

Permit: 2065  
API: 40 063 20627.01

Approval has been granted to drill this location as detailed on the attached Application for Permit to Drill (Form #2) with the following additional conditions:

1. This permit is conditioned on compliance with all applicable requirements of South Dakota Codified Laws 45-9 and Administrative Rules of South Dakota 74-12.
2. If drilling does not commence within one year from the issuance date, this permit will expire.
3. A 12-mil woven, reinforced high-density polyethylene liner must be used on all pits.
4. Surface runoff must be diverted around the drill site.
5. If abandoned, a plugging plan must be submitted to the department for review and approval. The plugging plan should address all requirements found in Administrative Rules of South Dakota 74:12:03.
  - A. If production casing is left in the wellbore, a mechanical integrity test must be conducted to verify the integrity of the casing as required by rule 74:12:03:02(4)(b)(ii).
  - B. The casing string must be cut off at least three feet below the final ground surface contour. A plate with the name of the operator, well name and number, and legal location by quarter-quarter section, township and range must be welded to the casing stub. The location of the abandoned well must be surveyed with high resolution global positioning system equipment or other appropriate survey methods sufficient to accurately locate the well. Survey coordinates must be included in the final abandonment report.
6. Surface reclamation of the site must be completed within one year of plugging and abandoning the well.
7. A washed set of sample cuttings (or cores, if cut) must be shipped, free of charge, to:

Derric Iles  
Geological Survey Program  
Akeley-Lawrence Science Center  
University of South Dakota  
414 E. Clark Street  
Vermillion, SD 57069-2390

8. Please notify this office at least 72 hours prior to plugging or MIT so a witness can be on location. If plugging or MIT will occur after regular business hours, call Jeff Klenner at (605) 929-1414.