APPLICATION FOR PERMIT TO DRILL

Well Name and Number: SBRRU 32-32H
Elevation: 3118
Field and Pool, or Wildcat: Buffalo
Proposed Depth and Formation: 11,568' MD Red River "B"  

Size of Hole  
1) 13 1/2  
2) 8 3/4  
3)  
4)  
Size of Casing  
9 5/8  
7  
Weight per Foot  
36  
23-29  
Depth  
1440  
8820  
Cementing Program (amount, type, additives)  
657 sks Type 3; Type III Celloflake  
922 sks 60/40 Type III; Class "G"  

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.

The SBRRU 32-32H well is a horizontal Red River "B" test located in section 32 T21N R4E, Harding County, South Dakota. The well will be drilled vertically to approximately the top of the Silurian Interlake formation before drilling a medium radius build section to the northwest and a 7" casing set a foot or so above the Red River "B" porosity zone. The lateral will then be drilled to the bottom hole as shown on the attached maps.

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

Terry L. Olson  
Signature

Reg. Compliance Title  
02/20/2012 Date

FOR OFFICE USE ONLY

Approved By: Title:

Permit No. 2008 API No. 4006320731
Date Issued: 3/7/2012
PERMIT CONDITIONS

CRI: 32-32H SBRRU
21N-4E-32 SWNE, Harding County

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. A 12-mil woven, reinforced high-density polyethylene liner must be used on all pits.
3. Surface runoff must be diverted around the drill site.
4. The surface hole must be drilled with fresh water.
5. Cement must be circulated to the ground surface on the surface casing.
6. If horizontally drilled:
   A. The coordinates of the production casing shoe and the well terminus must be filed with the department.
   B. The azimuth of the horizontal segment of the well must be filed with the department along with the results of periodic down hole surveys.
7. If production casing (long string) is set:
   A. Sufficient cement must be circulated on the long string to cover any fresh water aquifer not covered by the surface casing. Freshwater resources at this site include: Madison, Minnelusa, Minnekahta, Canyon Springs, and Inyan Kara.
   B. A cement bond log must be run and filed with the department.
8. If abandoned:
   A. With long string, sufficient cement must be circulated to install:
      1. A 100-foot cement plug immediately above the KOP, if horizontally drilled.
      2. A 100-foot cement plug, half in and half out of the top of the casing stub after the retrievable part of the production casing has been removed.
      3. A 100-foot cement plug, half in and half out of the top of any fresh water aquifer between the top of the casing stub and the base of the surface casing. Freshwater resources at this site include: Madison, Minnelusa, Minnekahta, Canyon Springs, and Inyan Kara.
      4. A 100-foot plug, half in and half out of the base of the surface casing.
   B. Without long string, sufficient cement must be circulated to set:
      1. A 100-foot cement plug immediately above the KOP, if horizontally drilled.
      2. 100-foot cement plugs, half in and half out of the top of the following formations:
         Red River, Interlake, Madison, Minnelusa, Minnekahta, Canyon Springs, and Inyan Kara.
      3. A 100-foot cement plug, half in and half out of the base of the surface casing.
      4. A 25-foot cement plug at the top of the surface casing.
   C. Heavy, mud-laden fluid must be used between all plugs.
   D. 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.
9. Surface reclamation of the site must be completed within one year of plugging and abandoning the well.
10. A washed set of sample cuttings (or cores, if cut) must be shipped, free of charge, to:

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

11. Please notify this office prior to plugging so a witness can be on location. If plugging will occur after regular business hours, call Lucy Dahl at 605-773-6257.