

submitted in lieu of Form 3160-5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells - 5 PM 12:02

1. Type of Well
GAS

2. Name of Operator

**BURLINGTON
RESOURCES**

3. Address & Phone No. of Operator

PO Box 4289, Farmington, NM 87499 (505) 326-9700

4. Location of Well, Footage, Sec., T, R, M

990' FSL, 890' FWL, Section 3, T-30-N, R-7-W

070 Farmington, NM
Lease Number
SF-079001A

6. If Indian, All. or
Tribe Name

7. Unit Agreement Name

8. Well Name & Number

Howell B #3

9. API Well No.

10. Field and Pool
30-039-0706

Basin Fruitland Coal

11. County and State

Rio Arriba Co, NM

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

Type of Submission

Type of Action

<input checked="" type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Other -	

13. Describe Proposed or Completed Operations

It is intended to replug the subject well according to the attached procedure.



14. I hereby certify that the foregoing is true and correct.

Signed

[Signature]
(JR) Title Regulatory Supervisor

Date 5-2-00

(This space for Federal or State Office use)

APPROVED BY

Title

Date

7/11/00

CONDITION OF APPROVAL, if any:

NMOCD

Howell B #3

Plug and Abandonment (Re-Plug)

Fruitland Coal Formation, AIN: 5633901

990' FSL, 890' FWL

Unit M, Section 03, T-30-N, R-07-W

Latitude: 36° 50.2194', Longitude: 107° 33.80862'

Recommendation

The Howell B #3, a Wildcat Fruitland Coal well, was drilled in 1952 by EPNG. In 1953, the Fruitland Coal's water production increased to the extent that the producing zone was flooded off. The well was P&A'd.

In 1984, it was assumed that this wellbore had gases surfacing in Navajo Lake. The OCD's bradenhead tests in the area and the location of the leak indicated that the Howell B #3 P&A was the source. EPNG did an extensive study of this well and the status of other area wells. EPNG appealed the re-entering and plugging of the Howell B #3.

Recently, issues concerning the well's threatening condition on the environment has re-surfaced. The SJD Land and Legal Departments have taken responsibility of the re-plug and abandonment of this well with no further ongoing liability. In conclusion, it is recommended that the Howell B #3 wellbore be re-entered for plugging procedures.

Plug and Abandonment Procedure

H2S is likely to be encountered. Area well tested 1500 PPM @ 400'

Note: All cement volumes use 100% excess outside pipe and 50' excess inside pipe. The stabilizing wellbore fluid will be at 8.3 ppg, sufficient to balance all exposed formation pressures.

1. Install and test rig anchors. Prepare blow pit. Comply with all NMOCD, BLM and Burlington safety and environmental regulations.
2. MOL and RU rig. Conduct safety meeting for all personnel on location. NU wellhead. PU 5-1/2" casing with a 10' casing pup or inside spear. Land casing in 9-5/8" casing head slips. Cut 5-1/2" casing and install tubing head. NU two 2" steel relief lines to pit. NU BOP on tubing head and test to 500 psi.
3. RU drilling equipment and snubbing unit equipment for 3-1/8" drill collars. Hold safety meeting to discuss snubbing procedures when drilling out surface. PU 4-3/4" bit, bit sub with float and one 3-1/8" drill collar and drill out surface cement plug in the 5-1/2" casing. **(Note: May encounter high pressure under surface casing cement plug).** Clean out to 2000' then RD snubbing unit. Continue cleaning out to PBTD +/-2810'. Circ clean and TOOH with drill assembly.
4. RU wireline unit and run a CBL from PBTD to base of surface casing to determine TOC, and to see if cement stringers are present. Run a Noise log from PBTD to surface to determine if any zones may be involved in the cross flow of gas.

Modify the following plugging design as necessary to address cement top, possible stringers and flowing gas zones. If there are indication of gas movement from PBTD to 2400' behind the 5-1/2" casing, call Operation's Engineer for perforation cement squeeze design.

5. **Plug #1** – (Fruitland top: 2750' - 2650'). Perforate 5-1/2" casing with 3 HSC squeeze holes @ 2750'. TIH with tubing and set a 5-1/2" cement retainer @ 2700'. Pressure test tubing to 1000#. Establish rate below CR into squeeze holes. Mix 61 sxs Class B cement and squeeze 43 sxs outside the casing. Pump remaining 18 sxs inside casing to isolate the Fruitland top.
6. TOOH with tubing and LD setting tool. TIH with open ended tubing and land approx. 2000'. ND BOP and NU wellhead. RD and MOL.
7. Allow bradenhead, casing and tubing to vent to atmosphere until depleted. If H₂S is present, set up safety precautions through safety company.

After the gas from the charged zones has depleted, continue with plugging procedure.

8. MOL and RU rig. Conduct safety meeting. Blow well down; kill with water as necessary. ND wellhead and NU BOP and stripping head. Test BOP. Circ well clean with water. TOOH and inspect tubing. Round-trip 5-1/2" gauge ring to a minimum of 1900'.
9. **Plug #2** – (Kirtland and Ojo Alamo tops: 2350' - 1850'). Perforate 5-1/2" casing with 3 HSC squeeze holes @ 2350'. TIH with tubing and set 5-1/2" cement retainer at 1900'. Pressure test tubing to 1000#. Load casing and circulate clean. Pressure test casing to 500#. If casing does not test, spot or tag subsequent plug as appropriate. Establish rate below CR into squeeze holes. Mix 278 sxs Class B cement and squeeze 214 outside the casing, then pump 64 sxs cement inside casing to cover and isolate Kirtland and Ojo tops. TOOH with tubing.
10. **Plug #3** – (Nacimiento top: 800' - 700'). Perforate 3 HSC squeeze holes at 800'. Establish rate into squeeze holes. TIH and set 5-1/2" cement retainer @ 750'. Establish rate below CR and PT casing above. Mix 61 sxs Class B and squeeze 43 sxs outside casing and leave 18 sxs inside to cover and isolate Nacimiento top. TOOH and LD tubing.
11. **Plug #4** – (9-5/8" Surface casing, 186' - Surface). Perforate 3 squeeze holes at 186'. Establish circulation out bradenhead valve. Mix 80 sxs Class B cement and pump down casing. Circ good cement out bradenhead valve. SI well and WOC 8 hours.
12. ND BOP and cut below surface casing. Install P&A marker with cement to comply with regulations. RD, MOL, cut off anchors and restore location.

Recommended: _____
Operations Engineer

Approved: _____
Drilling Superintendent

Mike Haddenham
Office: 326-9577
Pager: 327-8427

MDH/amm