

PLUG AND ABANDONMENT PROCEDURE

10-26-99

Hughes "B" #18
Basin Fruitland Coal
1370' FNL and 1500' FEL, Section 21, T29N, R8W
San Juan County, New Mexico

Note: All cement volumes use 100% excess outside pipe and 50' excess inside pipe. The stabilizing wellbore fluid will be 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 Conoco safety rules and regulations. Conduct safety meeting for all personnel on location.
2. MOL and RU daylight pulling unit. NU relief line to blow well down. Kill with water as necessary. ND wellhead and NU BOP and stripping head; test BOP.
3. POH and tally 2-3/8" tubing (3005'); visually inspect the tubing. If necessary, LD tubing and PU 2" workstring. Round-trip 5-1/2" casing scraper or wireline gauge ring to 2960' or as deep as possible.
4. **Plug #1 (Fruitland Coal perforations and top, 2960' – 2570')**: Set 5-1/2" wireline CIBP or cement retainer at 2960'. TIH with open ended tubing and tag CIBP. Load casing with water and circulate clean. Load casing with water and pressure test to 500#. If casing does not test, then spot or tag subsequent plugs as appropriate. Mix 50 sxs Class B cement and spot a balanced plug above the CIBP to isolate the Fruitland Coal perforations and cover the top. PUH with tubing.
5. **Plug #2 (Kirtland and Ojo Alamo tops, 2290' – 1960')**: Mix 43 sxs Class B cement and spot a balanced plug inside the casing to cover through the Ojo Alamo top. PUH to 980'.
6. **Plug #3 (Nacimiento top, 980' – 880')**: Mix 17 sxs Class B cement and spot a balanced plug inside the casing to cover the Nacimiento top. PUH to 310'.
7. **Plug #4 (8-5/8" Casing shoe, 310' - Surface)**: Establish circulation out casing valve. Mix and pump approximately 35 sxs Class B cement and spot a balanced plug inside the casing from 310' to surface, circulate good cement out casing valve. Shut well in and WOC.
8. ND BOP and cut off well head below surface casing flange. Install P&A marker with cement to comply with regulations. RD, MOL and cut off anchors. Restore location per BLM stipulations.