



15 Burnett Court
DURANGO, CO 81301
(970) 247-4874
TTY (970) 385-1257



USDI Bureau of Land Management
San Juan Field Office

FAX (970) 385-1375

USDA Forest Service
San Juan-Rio Grande
NF
FAX (970) 385-1243

In Reply Refer To: BLM: 3162.5
Date: February 22, 2000

**Notice to Lessees and Operators of
Oil and Gas leases within
the Ignacio-Blanco Field
Southwestern Colorado
Final
NTL-MDO-91-1, Change 2
February 22, 2000**

This change notice is issued pursuant to the authority delegated to the Authorized Officer (AO) under 43 CFR 3161.2 and 43 CFR 3164.2 to implement oil and gas operating regulations pursuant to 43 CFR 3160 and the terms of the Federal and Indian oil and gas leases. In accordance with the regulatory guidelines referenced above, lessees and operators shall conduct operations in a manner which protects the health, safety, and welfare of the public in addition to protecting natural resources and the environment. Operations shall also be conducted in a manner which results in maximum economic recovery of the oil and gas resources with a minimum amount of loss.

I. BACKGROUND

On July 23, 1991, the Bureau of Land Management (BLM) issued NTL-MDO-91-1 (Bradenhead Testing). This notice was issued in response to evidence of methane contamination in groundwater as documented in water quality analyses of domestic water wells. Between 1991 and 1998, the BLM aggressively implemented the terms and conditions of NTL-MDO-91-1.

Based on nine years of data, the BLM has determined that methane contamination and loss of the hydrocarbon resource is more likely to occur at older conventional gas wells than in newer Fruitland Formation coalgas wells. This fact is a function of improved primary cementing requirements including circulation of cement through well-bore annuli from the producing horizon to the surface, thereby maximizing the potential for zonal isolation between the gas producing horizon and shallow aquifers.

NTL-MDO-91-1, Change 1 was implemented April 14, 1998. Change 1 decreased the required frequency of bradenhead testing to a biennial schedule (odd-numbered years) for Fruitland Coalgas wells with no history of aberrant bradenhead pressures.

As a result of monitoring to date, many gas wells exhibiting mechanical integrity problems identifiable by this process have been isolated and remediated or mitigated. These measures have reduced the potential for contamination of shallow groundwater aquifers and losses of hydrocarbon resources associated with natural gas production. The overall number of gas wells continuing to exhibit bradenhead pressure in excess of established thresholds has been significantly reduced. Test data suggest that similar continued monitoring can provide adequate control to assess changes.

II. DEFINITIONS

- 1) **Authorized Officer (AO)** shall pertain to the San Juan Field Office Manager.
- 2) **A conventional gas well** refers to a gas well completed in any sandstone reservoir, namely the sands of the Dakota, Mesaverde, and Pictured Cliffs horizons, or a gas well originally completed in one of these horizons and later re-completed in the Fruitland coal beds.
- 3) **A Fruitland CBM well** refers to a gas well originally completed in the coal seams of the Fruitland Formation.
- 4) **Critical Areas** were defined in 1994 as areas in which concentrations of methane equaled or exceeded 1.0 milligram per liter in groundwater drawn from domestic water well(s).

III. REQUIREMENTS

Change 2 to the Notice to Lessees-MDO-91-1 redefines the pressure threshold requirement for bradenhead sampling and analysis in the Ignacio-Blanco Field in Southwest Colorado (replacing Change 1) as follows:

- 1) **Annual bradenhead testing** is required for (1) all conventional gas wells, (2) all conventional gas wells re-completed as Fruitland Formation coal gas wells, (3) all gas wells with remediation conditions of approval stipulating annual bradenhead tests.
- 2) **Testing of all gas wells originally completed in the Fruitland Coal** must be completed in the year drilled and in odd years thereafter (2001, 2003, 2005 etc).
- 3) **Samples will be required for analysis of bradenhead gas when the gas volume is sufficient to allow a minimum of 10 purges of the collection cylinder when pressures equal or exceed 5 psig in designated critical areas or 25 psig outside of designated critical areas.**
- 4) **Intermediate casing gas samples** will be required only when specifically requested by the authorized officer.

