

PLUGGING SPECIFICATIONS

SUBJECT WELL

Grenora-Madison Unit #05
SW SW Sec. 28-T159N-R103W
Williams County, ND
Well File #3082

INTRODUCTION

The objective of this project is to plug the above referenced well, in compliance with requirements of Chapter 43-02-03 of the North Dakota Administrative Code.

WELL DATA

9.625" surface casing @ 612' 5.5" casing @ 7909' was cemented with 385 sacks. CBL on file. TOC @ 5918' Madison perfs @ 7776'-7789'. Casing collapse @7090'. No tubing in the well bore.

SPECIFICATIONS

- A. The contractor must be prepared to, and shall, control any blow/flow from the well in order to minimize surface damage and to limit liabilities.
- B. Contractor shall arrange for all tools, equipment, products, fluids and any other items required to properly plug this well. A backup pump is required. Contractor is responsible for disposal of all fluids.
- C. The North Dakota Industrial Commission (Commission) holds title to all equipment on the site as well as tubulars and other down-hole equipment.
- D. Once plugging procedures begin, these specifications are subject to change with approval of the NDIC Oil & Gas Division field inspector if down-hole conditions warrant.

E. Plugging Procedure:

Note: All cement must be API class G or Premium, 15.8 ppg.

1. Test deadmen anchors, MIRU, make sure well is dead, unflange wellhead, NU BOPs. PU work string, Make bit and scraper run to 7050'. TIH and set CICR at 7000'. Circulate well bore with clean heavy salt water. Pressure test casing to 1000 psi.
 2. Establish injection rate, mix and pump 90 sks cement below CICR, unsting and leave 10 sks cement on top of CICR. If injection rate cannot be established balance 25 sks on top of retainer.
 3. Balance 25 sk cement plug at 6320'.
 4. Perf 4 hole squeeze shot @ 2000' and 2 hole squeeze shot @ 60'.
 5. Set CICR @ 1900', mix and pump 90 sks cement below CICR, unsting and leave 10 sks cement on top of CICR.
 6. Close BOP blind rams, establish circulation out surface casing, mix and pump cement plug 60' to surface inside and outside 5.5" casing.
 7. Cut off wellhead 4' below surface and weld on cap.
- H. Certain information from NDIC files concerning the well is represented in the WELL DATA paragraph. The information represents, to the best of the Commission's knowledge, the well bore and well site conditions of the well to be plugged. Actual conditions may be different. The complete well file may be examined at the Bismarck office of the NDIC Oil & Gas Division, 1016 East Calgary Avenue, Bismarck, ND.
- I. Contractor shall notify the Commission 48 hours before commencing the plugging operations.
- J. Contractor guarantees, against defects and workmanship, all work performed under the contract for a period of one year from the date of the Commission's final acceptance of the plugging. Contractor shall bear the entire cost and expense of all repairs that may, from any imperfection in work or material, be necessary within that time. Contractor shall not be liable for equipment, material, or workmanship supplied by the Commission.