



October 2, 2001

DEVIATION REPORT

Well Name: ROSA UNIT #31B
Location: D SEC 17 T31N R5W
County, State: RIO ARriba COUNTY, NEW MEXICO
Formation: BLANCO MV

DEVIATION	DEPTH
1 3/4°	515'
1°	1024'
1 1/4°	1492'
1 1/4°	2000'
1 1/2°	2490'
1 1/2°	3020'
1°	3666'
1°	5331'
1/4°	7706'

Tracy Ross
Production Analyst

State of Oklahoma)
) ss:
County of Tulsa)

The foregoing instrument was acknowledged before me this 28th day of September, 2001, by Tracy Ross.

Susan A. Tyler

My Commission Expires:

Hydrogen Sulfide Drilling Operations Plan

I. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H_2S).

2. The proper use and maintenance of personal protective equipment and life support systems.

3. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.

4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H_2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.

2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.

3. The contents and requirements of the H_2S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500 feet) and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II. H_2S Safety Equipment and Systems

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above or three days prior to penetrating the first zone containing or reasonably expected to contain H_2S .

- A. Well control equipment:
 1. Choke manifold with a minimum of one remote choke.
 2. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
- B. Protective equipment for essential personnel:
 1. Mark II Survivor 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.