30-015-38026

## Hydrogen Sulfide Drilling Operations Plan

- 1. Company and Contract personnel admitted on location should be trained by a qualified H<sub>2</sub>S safety instructor to the following:
  - A. Characteristics of H<sub>2</sub>S.
  - B. Physical Effects and Hazards.
  - C. Proper Use of Safety Equipment and Life Support Systems.
  - D. Principle and Operation of H<sub>2</sub>S Detectors, Warning System and Briefing.
  - E. Evacuation Procedure, Routes and First Aid.
  - F. Proper Use of 30 minute Pressure Demand Air Pack.
- 2. H<sub>2</sub>S Detection and Alarm Systems
  - A. H<sub>2</sub>S Detectors and Audio Alarm System to be Located at Bell Nipple, End of Blooie Line (mud pit) and on Derrick floor or doghouse.
- 3. Windsock and/or Wind Streamers
  - A. Windsock at Mud Pit Area Should be High Enough to be Visible.
  - B. Windsock at Briefing Area Should be High Enough to be Visible.
  - C. There Should be a Windsock at Entrance to Location.
- 4. Condition Flags and Signs
  - A. Warning Sign on Access Road to Location.
  - B. Flags to be Displayed on Sign at Entrance to Location.
    - 1. Green Flag, Normal Safe Condition.
    - 2. Yellow Flag, Indicates Potential Pressure and Danger.
    - 3. Red Flag, Danger H<sub>2</sub>S Present in Dangerous Concentration Only Emergency Personnel Admitted to Location.
- 5. Well Control Equipment
  - A. See Attached Diagram.
- 6. Communication
  - A. While Working Under Masks Chalkboards Will be Used for Communication.
  - B. Hand Signals will be Used Where Chalk Board is Inappropriate.
  - C. Two Way Radio or Cell Phone will be Used to Communicate off Location in Case of Available at Most Drilling Foreman's Trailer or Living Quarters.
- 7. Drillstem Testing
  - A. Exhausts will be Watered.
  - B. Flare Line will be Equipped with an Electric Igniter or a propane pilot light in case gas reaches the surface.
  - C. If Location is near any Dwelling a Closed DST will be Performed.
- 8. Drilling Contractor Supervisor will be Required to be Familiar with the Effects  $H_2S$  has on tubular goods and other mechanical equipment.
- 9. If H<sub>2</sub>S Encountered, Mud system will be Altered if Necessary to Maintain Control of Formation. A Mud Gas Separator will be Brought into Service Along with H<sub>2</sub>S Scavengers if Necessary.

## NADEL AND GUSSMAN PERMIAN, L.L.C.

601 N. Marienfeld, Suite 508 Midland, TX 79701 (432) 682-4429 (Office) (432) 682-4325 (Fax)

June 28, 2010

Ms. Jacqueta Reeves
District 2 Staff Specialist
New Mexico Oil Conservation Division
1301 W. Grand Avenue
Artesia, NM 88210

Re:

**H2S Contingency Letter** 

Grande State #2-H 660' FNL & 330' FEL

Unit Letter A, Sec. 32-T23S-R29E

Eddy Co., NM

Dear Ms. Reeves:

Nadel and Gussman Permian, L.L.C. has evaluated this well, and we do not expect to encounter hydrogen sulfide. However, we will employ a third party monitoring system. We will begin monitoring prior to drilling out intermediate and will continue monitoring the remainder of the well.

Please contact me if you have any additional questions.

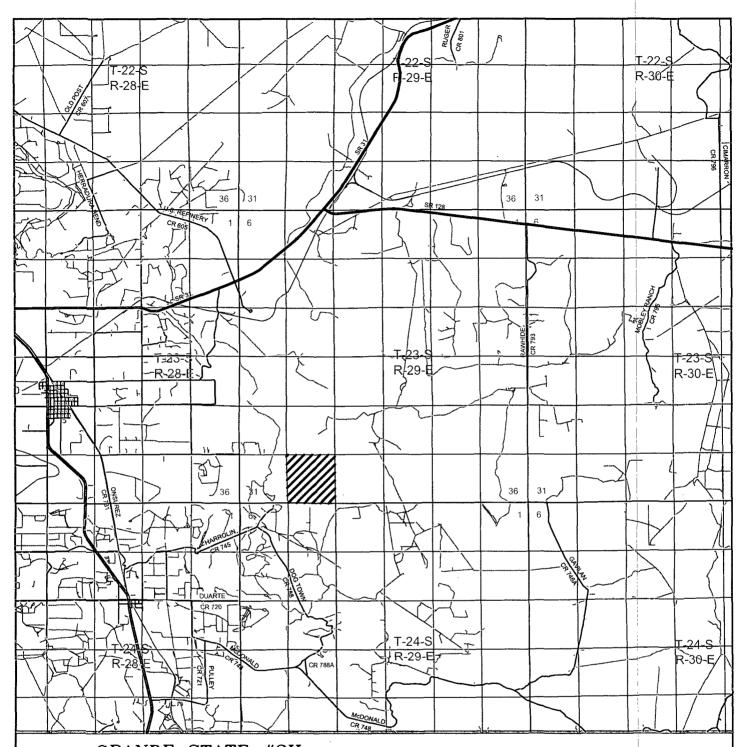
Sincerely,

**Brittany Hull** 

Land Technician

SECTION 32, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M., NEW MEXICO. EDDY COUNTY, 150' NORTH OFF SET 3025.1 PROPOSED LEASE ROAD 2965.1' NADEL & GUSSMAN PERMIAN GRANDE STATE #2H ELEV. - 3027 150' EAST

OFF SET 150' WEST OFF SET 🗆 0 Lat - N 32°16'00.35" Long - W 103°59'57'99" NMSPCE- N 460941.996 E 644539.424 3022.1' 3025.8' (NAD-83) ⊡ 150' SOUTH OFF SET 3021.5' 200 400 FEET 200 SCALE: 1" = 200' Directions to Location: NADEL & GUSSMAN PERMIAN FROM THE JUNCTION OF HARROLIN AND DOG TOWN, GO NORTH 200' TO LEASE ROAD, ON LEASE ROAD GO NORTHEASTERLY 1.0 MILES TO LEASE ROAD, ON GRANDE STATE #2H / WELL PAD TOPO LEASE ROAD GO EAST 0.4 MILES THENCE NORTH 0.1 MILES TO LEASE ROAD, ON LEASE ROAD GO THE GRANDE STATE #2H LOCATED 660' EASTERLY 0.9 MILES TO GRANDE #1 LOCATION AND PROPOSED LEASE ROAD FROM THE NORTH LINE AND 330' FROM THE EAST LINE OF SECTION 32, TOWNSHIP 23 SOUTH, RANGE 29 EAST, BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO N.M.P.M., EDDY COUNTY, NEW MEXICO. W.O. Number: 22842 Drawn By: J. SMALL Sheet Sheets 05-25-2010 Disk: JMS 22842 Survey Date: 05-24-2010 Date:



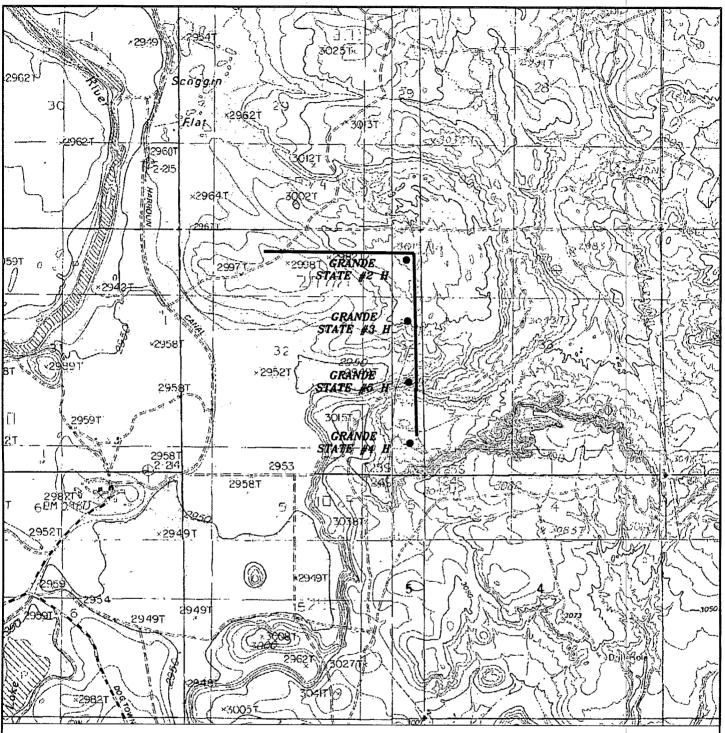
GRANDE STATE #2H Located 660' FNL and 330' FEL Section 32, Township 23 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (575) 393-7316 - Office (575) 392-2206 - Fax basinsurveys.com

W.O. Number: JMS 22842		Ī
Survey Date: 05-24-2010	\$	
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Date: 05-25-2010	4	

NADEL & GUSSMAN PERMIAN



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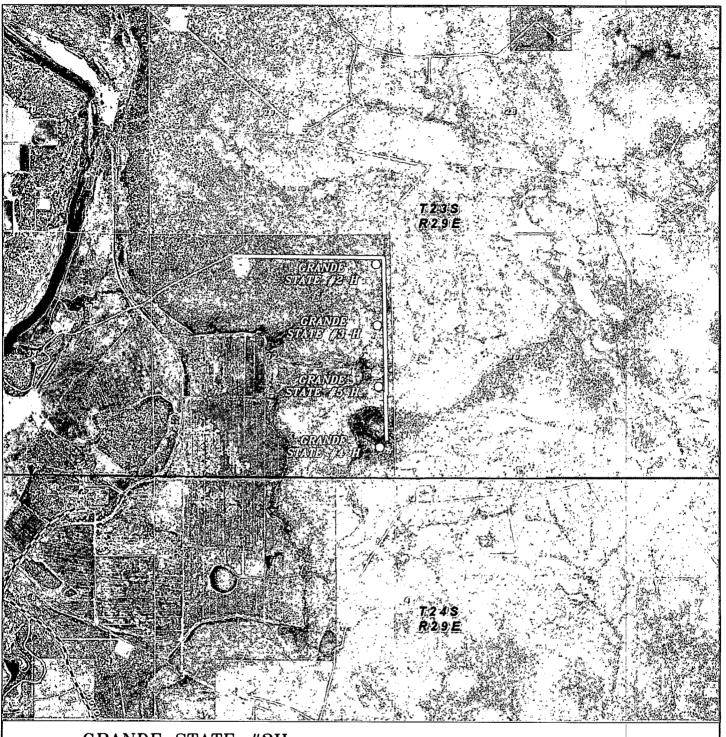
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Survey Date: 05-24-2010

Scale: 1" = 2000'

Date: 05-25-2010

NADEL & GUSSMAN PERMIAN



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YELLOW TINT — USA LAND BLUE TINT — STATE LAND NATURAL COLOR — FEE LAND NADEL & GUSSMAN PERMIAN

