

JAN 04 2013

Hydrogen Sulfide Drilling Operations Plan

1. Company and Contract personnel admitted on location should be trained **RECEIVED** qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S.
 - B. Physical Effects and Hazards.
 - C. Proper Use of Safety Equipment and Life Support Systems.
 - D. Principle and Operation of H₂S Detectors, Warning System and Briefing.
 - E. Evacuation Procedure, Routes and First Aid.
 - F. Proper Use of 30 minute Pressure Demand Air Pack.
2. H₂S Detection and Alarm Systems
 - A. H₂S 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 H₂S 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 H₂S has on tubular goods and other mechanical equipment.
9. If H₂S Encountered, Mud system will be Altered if Necessary to Maintain Control of Formation. A Mud Gas Separator will be Brought into Service Along with H₂S Scavengers if Necessary.



Company Contact List:

<u>New Mexico Operations:</u>	<u>Name:</u>	<u>Cellular:</u>	<u>Office:</u>
Drilling Superintendent	Howard Smith	903-262-0001	432-400-2395
Asst. Drilling Superintendent	Keith Pagett	806-317-5159	432-400-2395
Drilling Manager	Jonathan Nix	432-296-8956	432-688-3127
HSE Manager	David Carrillo	432-664-2095	432-688-3391
Project Manager	Malcolm Kintzing	432-212-2628	432-688-3125
Drilling Engineer	Michael Mataalii	432-271-2230	432-688-3392

<u>Lea County (Hobbs):</u>	<u>Contact Number:</u>
State Police	575-392-5588
City Police	575-397-9265
Sheriff's Office	575-393-2515
Ambulance	911
Fire Department	575-397-9308
Local Emergency Planning Committee	575-393-2870
NMOCD	575-393-6161
US Bureau of Land Management	575-393-3612

<u>Eddy County (Carlsbad)</u>	<u>Contact Number:</u>
State Police	575-885-3137
City Police	575-855-2111
Sheriff's Office	575-887-7551
Ambulance	911
Fire Department	575-885-2111
Local Emergency Planning Committee	575-887-3798
US Bureau of Land Management	575-887-6544

<u>Emergency Services</u>	<u>Contact Numbers:</u>
Boots & Coots IWC	1-800-256-9688 or 281-931-8884
Cudd Pressure Control	915-699-0139 or 915-563-3356
Halliburton	575-746-2757
B.J. Services	575-746-3569
Flight for Life Lubbock TX	806-743-9911
Aerocare Lubbock TX	806-747-8923
Med Flight Air Ambulance Albuquerque NM	575-842-4433
Lifeguard Air Med Albuquerque NM	575-272-3115

ESDU 27 Interim Reclamation Well Pad Layout



