

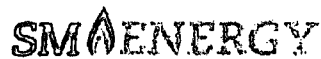
## Hydrogen Sulfide Drilling Operations Plan

AUG 31 2015

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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<sub>2</sub>S 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.

AUG 31 2015



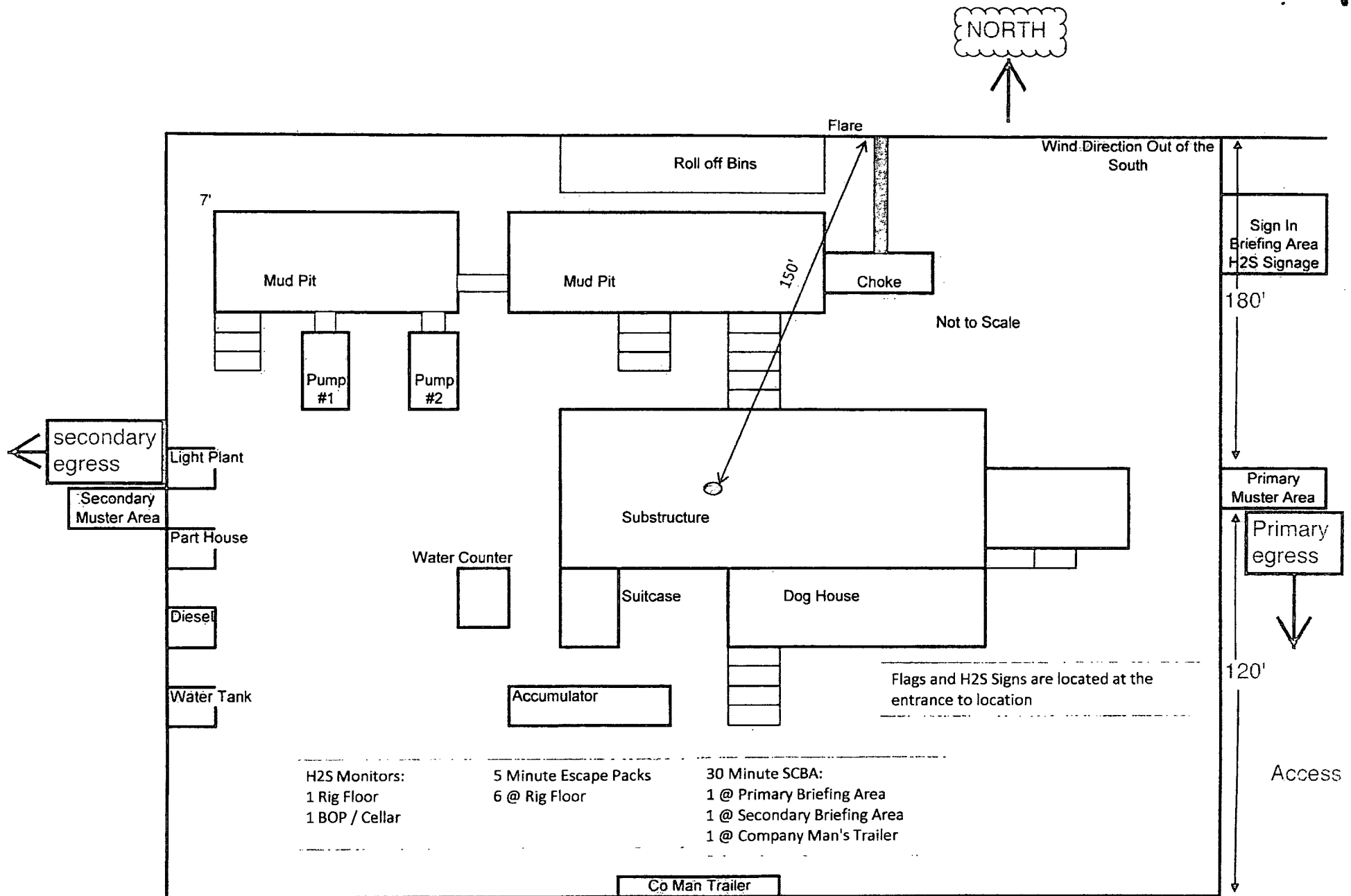
Company Contact List:

<u>New Mexico Operations:</u>	<u>Name:</u>	<u>Cellular:</u>	<u>Office:</u>
Drilling Superintendent	Chris Bryan	405-538-7458	432-653-1265
Drilling Superintendent	Duane Winkler	970-769-4187	432-653-1265
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

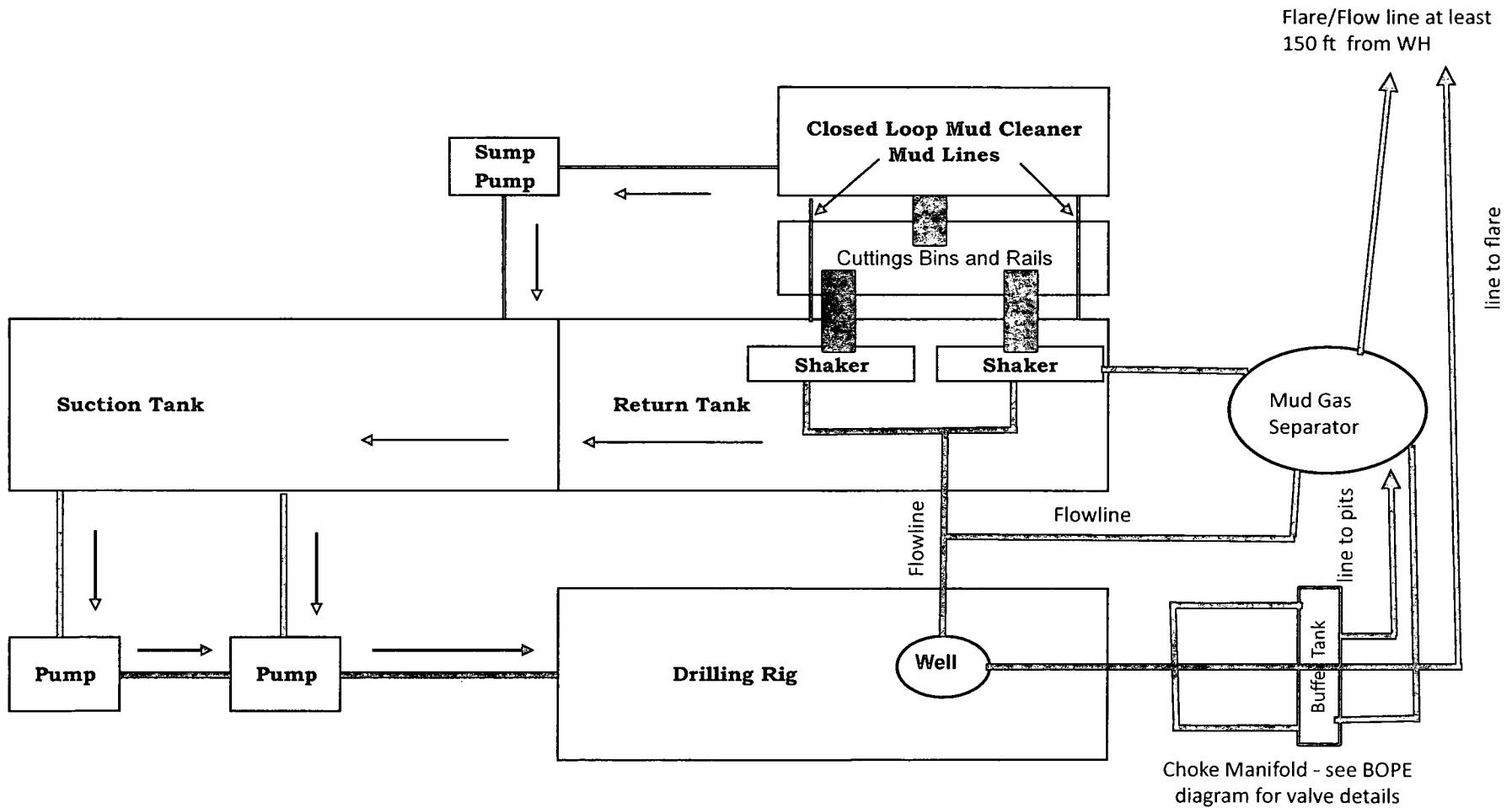
<u>Lea County (Hobbs):</u>	<u>Contact Number:</u>
State Police	575-392-5588
City Police	575-397-9265
Sheriff's Office	575-393-2515
Ambulance	911
Fire Department	575-397-9308
Local Emergency Planning Committee	575-393-2870
NMOCD	575-393-6161
US Bureau of Land Management	575-393-3612

<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



## Choke Manifold Schematic for Closed Loop System



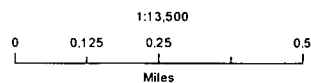


**ESDU #37**  
**H<sub>2</sub>S Contingency Plan:**  
**1 Mile Radius Map**

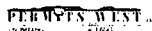
Section 18, Township 18S, Range 32E  
Lea County, New Mexico



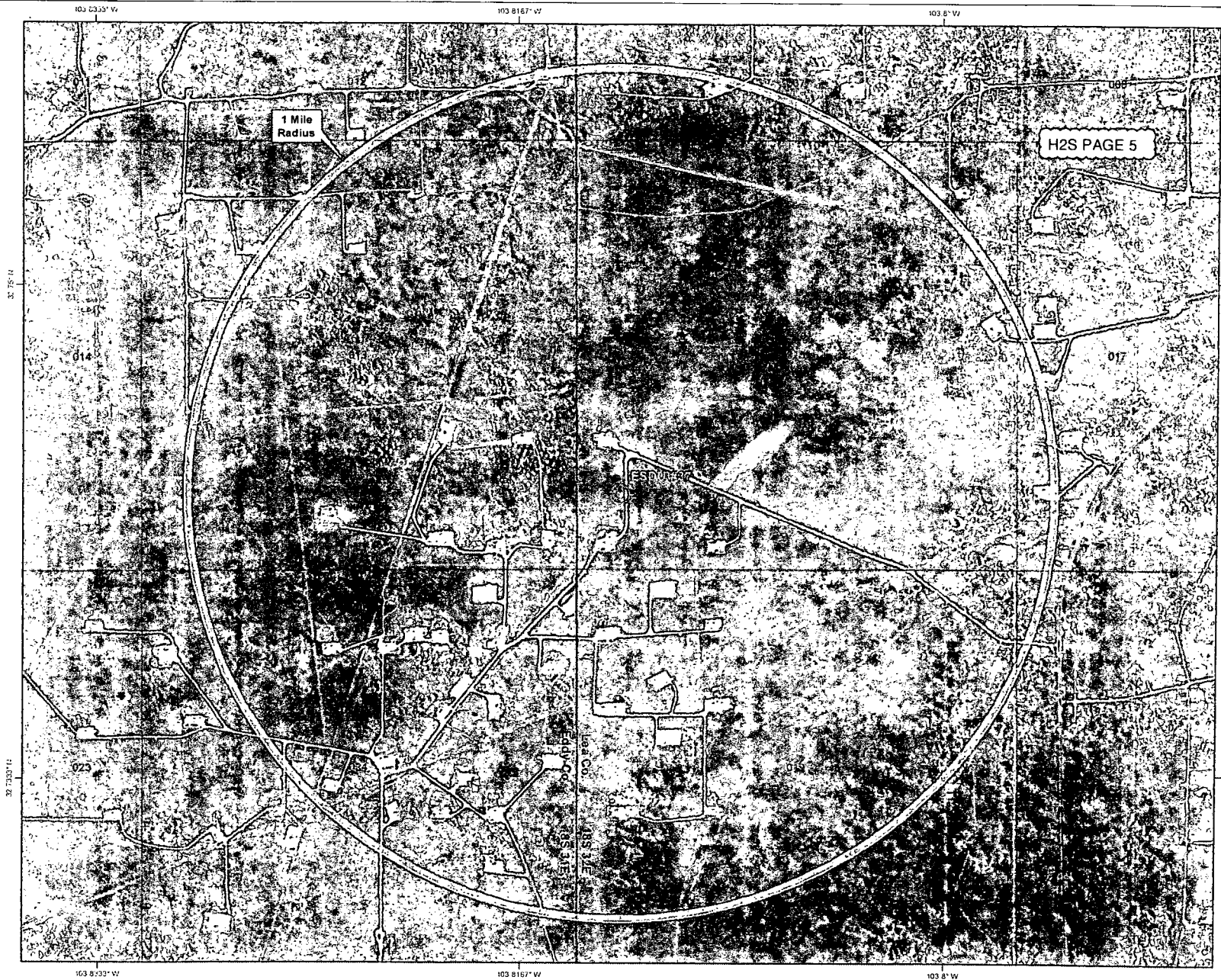
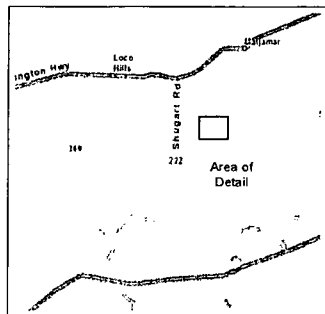
ESDU #37



NAD 1983 New Mexico State Plane East  
FIPS 3001 Feet



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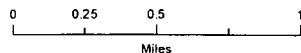


**ESDU #37**  
**H<sub>2</sub>S Contingency Plan:**  
**2 Mile Radius Map**

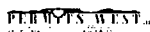
Section 18, Township 18S, Range 32E  
Lea County, New Mexico



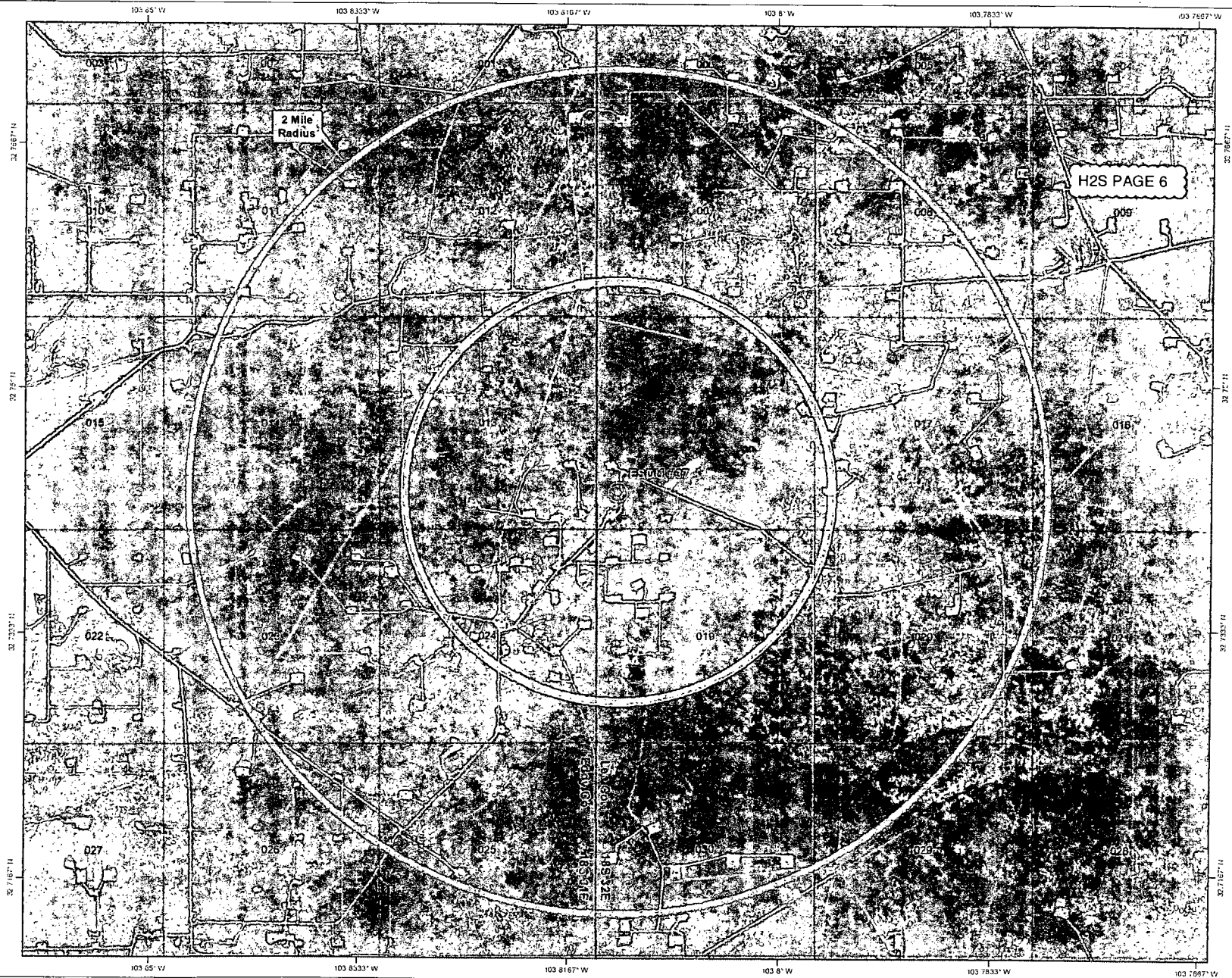
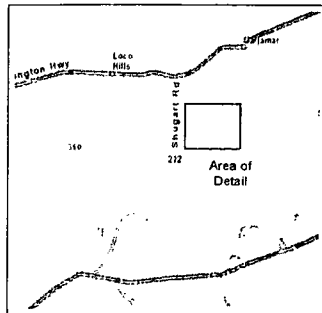
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NAD 1983 New Mexico State Plane East  
FIPS 3001 Feet

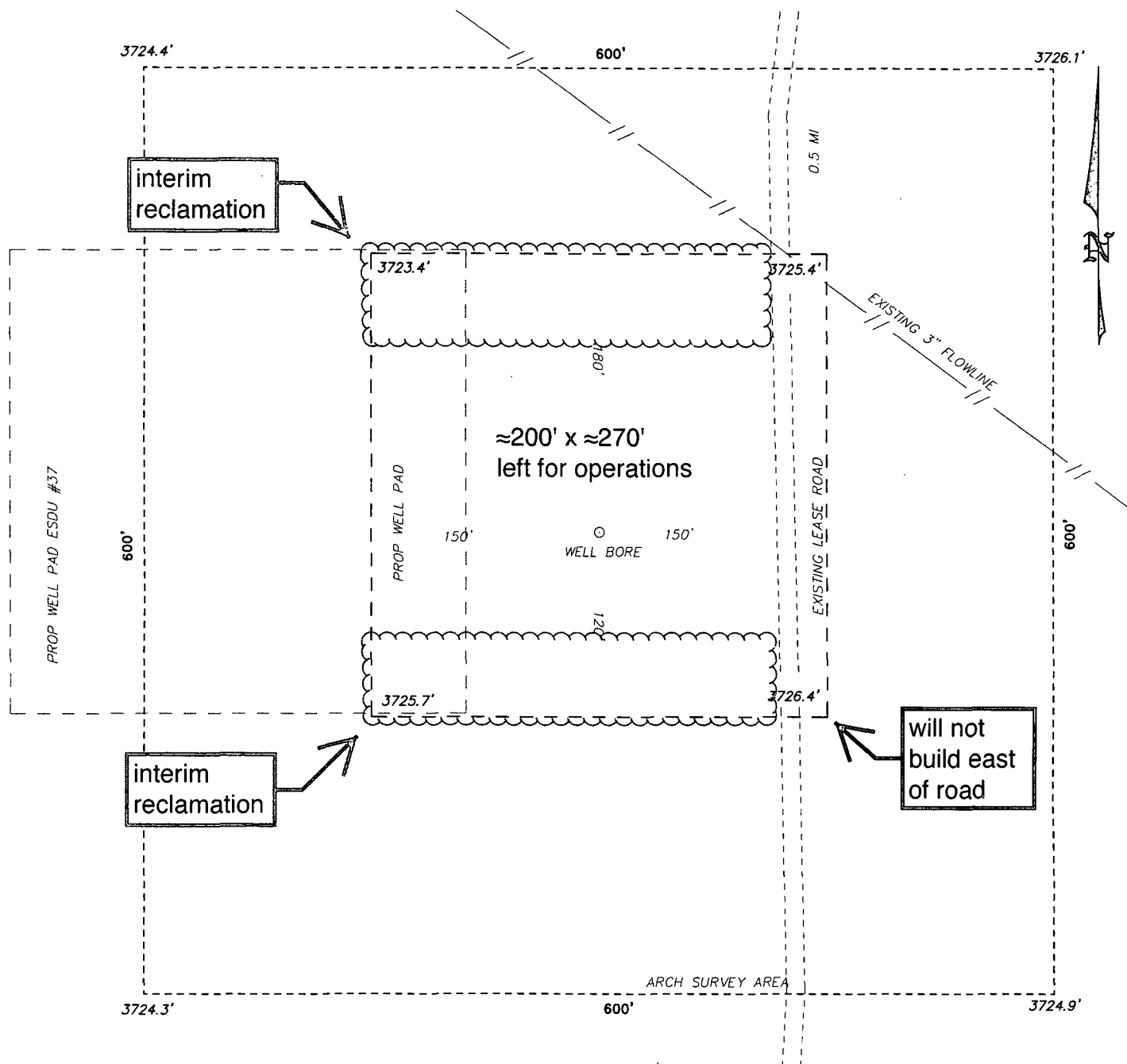


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SECTION 18, TOWNSHIP 18 SOUTH, RANGE 32 EAST. N.M.P.M.,  
LEA COUNTY, NEW MEXICO.

INTERIM RECLAMATION DIAGRAM



SCALE: 1" = 100'

**SM ENERGY**

REF: EAST SHUGART DELAWARE UNIT #37 / WELL PAD TOPO

THE EAST SHUGART DELAWARE UNIT #37 LOCATED 996' FROM  
THE SOUTH LINE AND 443' FROM THE WEST LINE OF  
SECTION 18, TOWNSHIP 18 SOUTH, RANGE 32 EAST.

N.M.P.M., LEA COUNTY, NEW MEXICO.

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W.O. Number: 30651

Drawn By: K. NORRIS

Date: 07-09-2014

Survey Date: 07-02-2014

Sheet 1 of 1 Sheets