Hydrogen Sulfide Drilling Operations Plan 30 -025-40905

W. Bell Lake "26" Federal #1H

Cimarex Energy Co. of Colorado Unit M, Section 26 T23S-R33E; Lea County, NM

1 All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:

A. Characteristics of H₂S

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B. Physical effects and hazards

C. Proper use of safety equipment and life support systems.

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D. Principle and operation of H₂S detectors, warning system and briefing areas.

E. Evacuation procedure, routes and first aid.

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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 flow line (mud pit) and on derrick floor or doghouse.

3 Windsock and/or wind streamers:

- A. Windsock at mudpit area should be high enough to be visible.
- B. Windsock at briefing area should be high enough to be visible.

4 Condition Flags and Signs:

- A. Warning sign on access road to location.
- B. Flags to be displayed on sign at entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates danger (H₂S present in dangerous concentration). Only emergency personnel admitted to location.

5 Well control equipment:

A. See exhibit "E"

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 will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

7 Drillstem Testing:

No DSTs or cores are planned at this time.

- 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 is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H₂S scavengers if necessary.

H₂S Contingency Plan W. Bell Lake "26" Federal #1H Cimarex Energy Co. of Colorado Unit M, Section 26 T23S-R33E; Lea County, NM

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must:

- ★ Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- ★ Evacuate any public places encompassed by the 100 ppm ROE.
- ★ Be equipped with H₂S monitors and air packs in order to control the release.
- ★ Use the "buddy system" to ensure no injuries occur during the response.
- ★ Take precautions to avoid personal injury during this operation.
- ★ Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- ★ Have received training in the:
 - ♦ Detection of H₂S, and
 - Measures for protection against the gas,
 - Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

Characteristics of H₂S and SO₂

Common	Chemical	Specific	Threshold	Hazardous	Lethal
Name	Formula	Gravity	Limit	Limit	Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air=1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air=1	2 ppm	N/A	1000 ppm

Contacting Authorities

Cimarex Energy Co. of Colorado's personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Cimarex Energy Co. of Colorado's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

H₂S Contingency Plan Emergency Contacts

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Cimarex Energy Co. of Colorado Unit M, Section 26 T23S-R33E; Lea County, NM

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Company Office			
Cimarex Energy Co. of Colorado		800-969-4789	
Co. Office and After-Hours Mer	nu		
Key Personnel	!		
Name	Title	Office	Mobile
arry Seigrist	Drilling Manager	432-620-1934	580-243-8285
Scott Lucas	Field Drilling Super		432-894-5572
eff Lajoie	Field Drilling Super		432-257-9889
oy Shirley Field Super			432-634-2136
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Ambulance	İ	911	
State Police		575-746-2703	
City Police	i	575-746-2703	
Sheriff's Office	1	575-746-9888	
Fire Department		575-746-2701	
Local Emergency Planning Co	ommittee	575-746-2122	
New Mexico Oil Conservatio		575-748-1283	
<u>Carlsbad</u> Ambulance		911	
State Police		575-885-3137	
City Police	1	575-885-2111	
Sheriff's Office		575-887-7551	
Fire Department		575-887-6544	
Local Emergency Planning Co	ommittee	575-887-6544	
US Bureau of Land Managen	nent	575-887-6544	
<u>Santa Fe</u>	:		
New Mexico Emergency Res	ponse Commission (Santa Fe)	505-476-9600	
New Mexico Emergency Res	ponse Commission (Santa Fe) 24 Hrs	505-827-9126	
New Mexico State Emergeno	cy Operations Center	505-476-9635	
National			
National Emergency Respon	se Center (Washington, D.C.)	800-424-8802	
<u>Medical</u>	•		
	.; Lubbock, TX	806-743-9911	
Flight for Life - 4000 24th St.		806-743-9911 806-747-8923	
Flight for Life - 4000 24th St. Aerocare - R3, Box 49F; Lubb			
Flight for Life - 4000 24th St. Aerocare - R3, Box 49F; Lubb Med Flight Air Amb - 2301 Y	oock, TX	806-747-8923	
Flight for Life - 4000 24th St. Aerocare - R3, Box 49F; Lubb Med Flight Air Amb - 2301 Y	oock, TX ale Blvd S.E., #D3; Albuquerque, NM	806-747-8923 505-842-4433	
Flight for Life - 4000 24th St. Aerocare - R3, Box 49F; Lubk Med Flight Air Amb - 2301 Y SB Air Med Service - 2505 Cl Other	oock, TX ale Blvd S.E., #D3; Albuquerque, NM	806-747-8923 505-842-4433	or 281-931-8884
Flight for Life - 4000 24th St. Aerocare - R3, Box 49F; Lubb Med Flight Air Amb - 2301 Y SB Air Med Service - 2505 Cl Other Boots & Coots IWC	oock, TX ale Blvd S.E., #D3; Albuquerque, NM	806-747-8923 505-842-4433 505-842-4949	or 281-931-8884 or 432-563-3356
Flight for Life - 4000 24th St. Aerocare - R3, Box 49F; Lubb Med Flight Air Amb - 2301 Y SB Air Med Service - 2505 Cl	oock, TX ale Blvd S.E., #D3; Albuquerque, NM	806-747-8923 505-842-4433 505-842-4949 800-256-9688	





