

Hydrogen Sulfide Drilling Operations Plan

Fuggles 24 Federal Com 2H
Cimarex Energy Co. of Colorado
Unit C, Section 24
T25S-R32E; Lea County, NM

30-025-41597

HOBBS OCD

JAN 13 2014

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- 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
- 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 areas.
- 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 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 separator will be brought into service along with H₂S scavengers if necessary.

JAN 15 2014

H₂S Contingency Plan
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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 Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal 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

Fuggles 24 Federal Com 2H
Cimarex Energy Co. of Colorado
Unit C, Section 24
T25S-R32E; Lea County, NM

Company Office

Cimarex Energy Co. of Colorado	800-969-4789
Co. Office and After-Hours Menu	

Key Personnel

Name	Title	Office	Mobile
Larry Seigrist	Drilling Manager	432-620-1934	580-243-8285
Scott Lucas	Field Drilling Super		432-894-5572
Roy Shirley	Field Superintendent		432-634-2136

Artesia

Ambulance	911
State Police	575-746-2703
City Police	575-746-2703
Sheriff's Office	575-746-9888
Fire Department	575-746-2701
Local Emergency Planning Committee	575-746-2122
New Mexico Oil Conservation Division	575-748-1283

Carlsbad

Ambulance	911
State Police	575-885-3137
City Police	575-885-2111
Sheriff's Office	575-887-7551
Fire Department	575-887-6544
Local Emergency Planning Committee	575-887-6544
US Bureau of Land Management	575-887-6544

Santa Fe

New Mexico Emergency Response Commission (Santa Fe)	505-476-9600
New Mexico Emergency Response Commission (Santa Fe) 24 Hrs	505-827-9126
New Mexico State Emergency Operations Center	505-476-9635

National

National Emergency Response Center (Washington, D.C.)	800-424-8802
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Medical

Flight for Life - 4000 24th St.; Lubbock, TX	806-743-9911
Aerocare - R3, Box 49F; Lubbock, TX	806-747-8923
Med Flight Air Amb - 2301 Yale Blvd S.E., #D3; Albuquerque, NM	505-842-4433
SB Air Med Service - 2505 Clark Carr Loop S.E.; Albuquerque, NM	505-842-4949

Other

Boots & Coots IWC	800-256-9688	or	281-931-8884
Cudd Pressure Control	432-699-0139	or	432-563-3356
Halliburton	575-746-2757		
B.J. Services	575-746-3569		

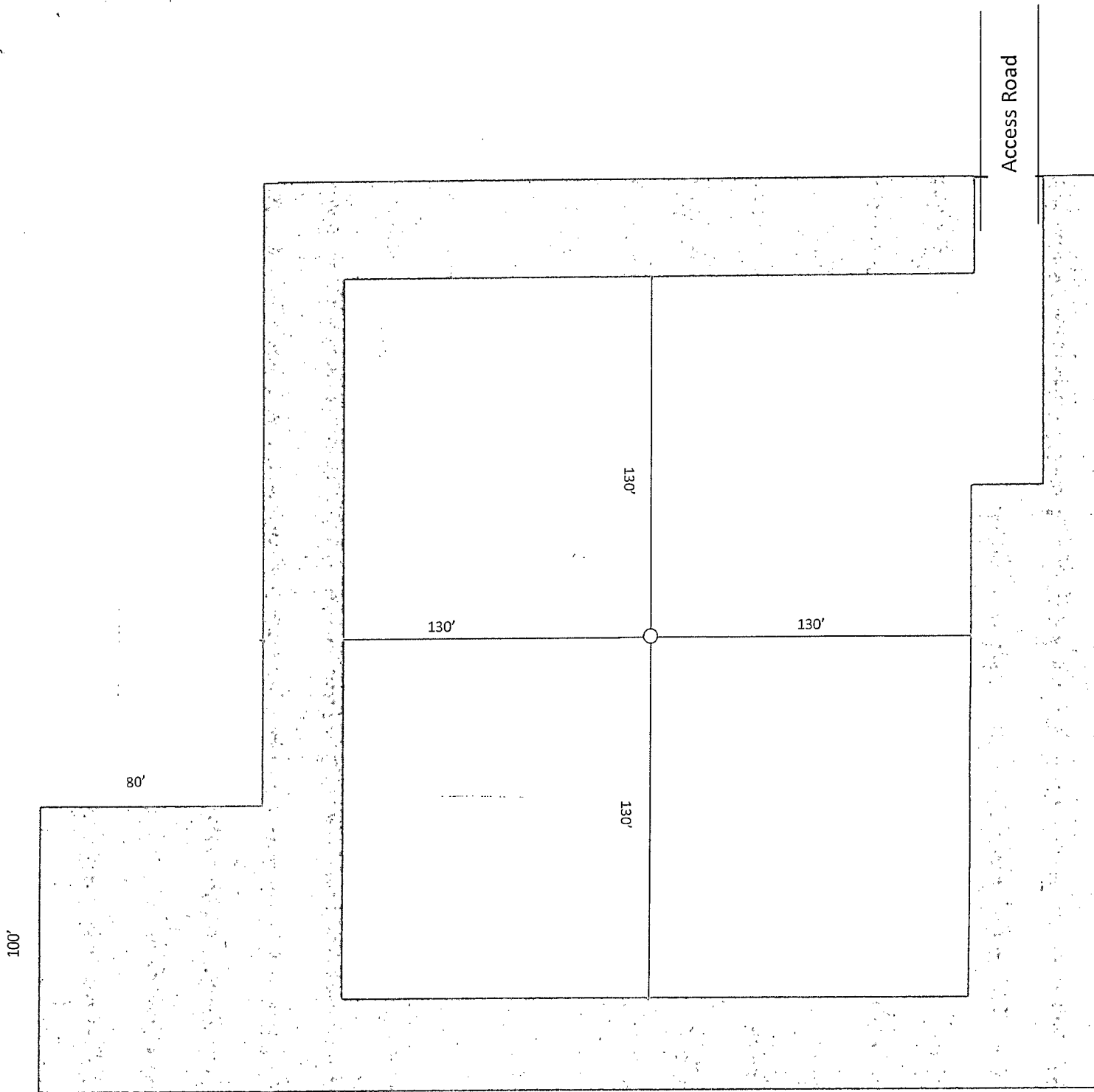
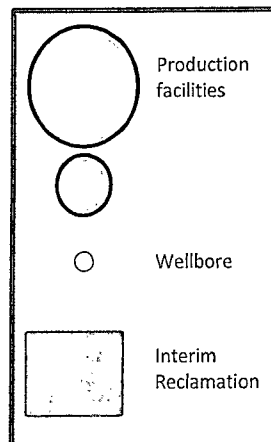


Exhibit D-1
 Production Facilities Layout Diagram
Fuggles 24 Federal No. 2H
 Cimarex Energy Co.
 24-25S-32E
 SHL 330 FNL & 1980 FWL
 BHL 330 FSL & 1980 FEL
 Lea County, NM



Surface Use Plan
Fuggles 24 Federal Com 2H
Cimarex Energy Co.
UL: C, Sec. 24, 25S, 32E
Co., NM

The following surface use plan of operations will be followed and carried out once the APD is approved. No other disturbance will be created other than what is submitted in this surface use plan without approval. If any other disturbance is needed after the APD is approved, a BLM approved sundry notice or right of way application will be submitted for approval prior to any new surface disturbance.

1.Existing Roads:

Area maps: Exhibit "B" - reproduction of Eddy Co. General Highway Map. Exhibit "C" - reproduction of a USGS Topographic Map. Exhibit "C-1" - well site layout map. Exhibits "C," "C-1" - existing roads map.

The maximum width of the driving surface will be 14.' The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1' deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.

Existing access road route to the proposed project is depicted on the public access point map if applicable. Improvements to the driving surface will be done where necessary. No new surface disturbance will be done, unless otherwise noted in the New or Reconstructed Access Roads section of the surface use plan.

At Junction of Orla and Cottonw Draw go east on Cotton Draw for 2.6 miles to lease road. on lease road go South 0.1 miles to proposed lease road.

If existing roads are used, the operator will improve or maintain existing roads in a condition the same as or better than before the operations began. The operator will repair pot holes, etc. All existing structures on the entire access route such as cattleguards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use.

The operator will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or other events.

2. New or Reconstructed Access Roads:

A new road will be constructed for this project.

Cimarex Energy plans to construct 945.6' of off-lease access road to service the well. The proposed access road does cross lease boundaries, a right of way grant will be submitted to and obtained from the BLM.

The maximum width of the driving surface will be 14'. The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1' deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.

New access road route to the proposed project is depicted on the public access point map and Exhibit C-1. Improvements to the driving surface will be done where necessary. No new surface disturbance will be done without prior approval from the BLM.

The operator will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or other events.

3. Planned Electric Line:

Cimarex Energy plans to construct a new on lease electric line to service the well.

Cimarex Energy plans to install an on lease overhead electric line from the proposed well to an existing overhead electric line at the Fuggles 24 Fed com #1 Bty. The proposed electric line will be 1600' in length. 4-40' poles, 480 volt, 4 wire, 3 phase. The electric line will exit off the West side of the well location and travel West for 1600' along the access road until it would intercept the existing electric line. The electric line will be routed on the south side of the access road and 10-20' from and parallel to the access road. Please see Exhibit C-1 for proposed route information.

4. Location of Existing Well in a One-Mile Radius -Exhibit A:

- Water Wells - None known
- Disposal Wells - None known
- Drilling Wells - None known
- Producing Wells - As shown on Exhibit A
- Abandoned Wells - As shown on Exhibit A