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HOBBS OCD

JAN 17 2012

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# HYDROGEN SULFIDE (H<sub>2</sub>S) OPERATIONS

Contingency Plan  
For  
Permian Drilling Operations

ConocoPhillips Company  
Mid-Continent Business Unit  
Permian Asset Area

JAN 1 / 2012

## **I. PURPOSE**

The purpose of this Contingency Plan is to provide an organized plan of action for alerting and protecting the public following the release of a potentially hazardous volume of hydrogen sulfide. This plan prescribes mandatory safety procedures to be followed in the event of a release of H<sub>2</sub>S into the atmosphere from exploration and production operations included in the scope of this plan. The extent of action taken will be determined by the supervisor and will depend on the severity and extent of H<sub>2</sub>S release. Release of H<sub>2</sub>S must be reported to the Drilling Superintendent and documented on the IADC and in Wellview.

## **II. SCOPE**

This Contingency plan shall cover the West Texas and Southeastern New Mexico areas, which contain H<sub>2</sub>S gas and could result in a release where the R.O.E. is greater than 100 ppm at 50' and less than 3000' and does not include a public area and 500 ppm R.O.E. does not include a public road. Radius of exposure is defined as the maximum distance from the source of release that a specified calculated average concentration of H<sub>2</sub>S could exist under specific weather conditions.

### III. PROCEDURES

#### First Employee on Scene

\_\_\_\_\_ Assess the incident and ensure your own safety.

Note the following:

- \_\_\_\_\_ Location of the incident.
- \_\_\_\_\_ Nature of the incident.
- \_\_\_\_\_ Wind direction and weather conditions.
- \_\_\_\_\_ Other assistance that may be needed.

\_\_\_\_\_ Call local supervisory personnel (refer to Section V: Emergency Call List) until personal contact is made with a person on the list.

\_\_\_\_\_ Perform emergency assessment and response as needed. The response may include rescue and/or evacuation of personnel, shutting in a system and/or notification of nearby residents/public (refer to Section VII: Public Notification/Evacuation).

\_\_\_\_\_ Secure the site.

\_\_\_\_\_ Follow the direction of the On-scene Incident Commander (first ConocoPhillips supervisor arriving on-scene).

#### First Supervisor on Scene (ConocoPhillips On-scene Incident Commander)

\_\_\_\_\_ Becomes ConocoPhillips' On-scene Incident Commander upon arrival to location.

\_\_\_\_\_ Follow the principles of the **D.E.C.I.D.E.** process below to assess the incident. (Note wind direction and weather conditions and ensure everyone's safety).

**DETECT** the problem

**ESTIMATE** likely harm without intervention

**CHOOSE** response objectives

**IDENTIFY** action options

**DO** the best option

**EVALUATE** the progress

\_\_\_\_\_ Complete the Preliminary Emergency Information Sheet (refer to Section VIII: Forms/Reports).

\_\_\_\_\_ Call your supervisor (refer to Section V: Emergency Call List).

- Perform emergency response as necessary. (This may include notification & evacuation of all personnel and/or nearby residents/public (refer to Section VII: Public Notification/Evacuation), requesting assistance from ConocoPhillips personnel or outside agencies (refer to Section V: Emergency Call List) and obtaining any safety equipment that may be required (refer to Section IV: Emergency Equipment and Maintenance).
- Notify appropriate local emergency response agencies of the incident as needed. Also notify the appropriate regulatory agencies. (refer to Section V: Emergency Call List).
- Ensure site security.
  - Set barricades and /or warning signs at or beyond the calculated 100 ppm H<sub>2</sub>S radius of exposure (ROE). All manned barricades must be equipped with an H<sub>2</sub>S monitor and a 2-way radio.
  - Set roadblocks and staging area as determined.
- Establish the Incident Command Structure by designating appropriate on-scene response personnel as follows:
 

|                            |       |
|----------------------------|-------|
| Recording Secretary        | _____ |
| Public Information Officer | _____ |
| Safety/Medical Officer     | _____ |
| Decontamination Officer    | _____ |
- Have the “Recording Secretary” begin documenting the incident on the “Incident Log” (refer to Section VIII: Forms/Reports).
- If needed, request radio silence on all channels that use your radio tower stating that, until further notice, the channels should be used for emergency communications only.
- Perform a Site Characterization and designate the following:
 

|           |    |                                    |
|-----------|----|------------------------------------|
| Hot Zone  | -- | Hazardous Area                     |
| Warm Zone | -- | Preparation & Decontamination Area |
| Cold Zone | -- | Safe Area                          |

AND

|                                |             |
|--------------------------------|-------------|
| On-Scene Incident Command Post | (Cold Zone) |
| Public Relations Briefing Area | (Cold Zone) |
| Staging Area                   | (Cold Zone) |
| Triage Area                    | (Cold Zone) |
| Decontamination Area           | (Warm Zone) |

\_\_\_\_\_ Refer all media personnel to ConocoPhillips' On-Scene Public Information Officer (refer to Section VI: Public Media Relations).

\_\_\_\_\_ Coordinate the attempt to stop the release of H<sub>2</sub>S. You should consider closing upstream and downstream valves to shut-off gas supply sources, and/or plugging or clamping leaks. Igniting escaping gas to reduce the toxicity hazard should be used **ONLY AS A LAST RESORT**. (It must first be determined if the gas can be safely ignited, taking into consideration if there is a possibility of a widespread flammable atmosphere.)

\_\_\_\_\_ Once the emergency is over, return the situation to normal by:

Confirming the absence of H<sub>2</sub>S and combustible gas throughout the area,

Discontinuing the radio silence on all channels, stating that the emergency incident is over,

Removing all barricades and warning signs,

Allowing evacuees to return to the area, and

Advising all parties previously notified that the emergency has ended.

\_\_\_\_\_ Ensure the proper regulatory authorities/agencies are notified of the incident (refer to Section V: Emergency Call List).

\_\_\_\_\_ Clean up the site. (Be sure all contractor crews have had appropriate HAZWOPER training.)

\_\_\_\_\_ Report completion of the cleanup to the Asset Environmentalist.  
(Environmentalist will report this to the proper State and/or Federal agencies.)

\_\_\_\_\_ Fill out all required incident reports and send originals to the Safety Department.  
(Keep a copy for your records.)

- Company employee receiving occupational injury or illnesses.
- Company employee involved in a vehicle accident while driving a company vehicle.
- Company property that is damaged or lost.
- Accident involving the public or a contractor; includes personal injuries, vehicle accidents, and property damage. Also includes any situation, which could result in a claim against the Company.
- Hazardous Material Spill/Release Report Form
- Emergency Drill Report

\_\_\_\_\_ Assist the Safety Department in the investigation of the incident. Review the factors that caused or allowed the incident to occur, and modify operating, maintenance, and/or surveillance procedures as needed. Make appropriate repairs and train or retrain employees in the use and operation of the system.

\_\_\_\_\_ If this incident was simulated for practice in emergency response, complete the Emergency Drill Report found in Section VIII: Forms/Reports and submit a copy to the Drilling Manager. (Keep one copy in area files to document exercising of the plan.)

## **Emergency Procedures**

### **Responsibility**

In the event of a release of potentially hazardous amounts of H<sub>2</sub>S, all personnel will immediately proceed upwind/ crosswind to the nearest designated briefing area. The COPC Drilling Rep. will immediately, upon assessing the situation, set this into action by taking the proper procedures to contain the gas and notify appropriate people and agencies.

1. In an emergency situation, the Drilling Rep. on duty will have complete responsibility and will take whatever action is deemed necessary in an emergency situation to insure the personnel's safety, to protect the well and to prevent property damage.
2. The Toolpusher will assume all responsibilities of the Drilling Rep. in an emergency situation in the event the Drilling Rep. becomes incapacitated.
3. Advise each contractor, service company, and all others entering the site that H<sub>2</sub>S may be encountered and the potential hazards that may exist.
4. Authorize the evacuation of local residents if H<sub>2</sub>S threatens their safety.
5. Keep the number of persons on location to a minimum during hazardous operations.
6. Direct corrective actions to control the flow of gas.
7. Has full responsibility for igniting escaping gas to reduce the toxicity hazard.  
This should be used **ONLY AS A LAST RESORT**.

## **IV. EMERGENCY EQUIPMENT and MAINTENANCE**

### **Emergency Equipment Suppliers**

#### **Safety International – Odessa, Tx.**

H<sub>2</sub>S monitors

432.580.3770

Breathing air includes cascade systems

First aid and medical supplies

Safety equipment

H<sub>2</sub>S Specialist

#### **Total Safety US Odessa, Tx/ Hobs, NM**

H<sub>2</sub>S monitors

432.561.5049 Odessa, Tx.

Breathing air includes cascade systems

575.392.2973 Hobbs, NM

Fire fighting equipment

First aid and medical supplies

Safety equipment

#### **Indian Fire & Safety – Hobbs, NM**

575.393.3093

H<sub>2</sub>S monitors

Breathing air including cascade systems trailer mounted

30 minute air packs

Safety Equipment

## **Emergency Equipment and Maintenance (continued)**

### **General Information**

Materials used for repair should be suitable for use where H<sub>2</sub>S concentrations exceed 100 ppm. In general, carbon steels having low-yield strengths and a hardness below RC-22 are suitable. The engineering staff should be consulted if any doubt exists on material specifications.

Appropriate signs should be maintained in good condition at location entrance and other locations as specified in Texas Rule 36 and NMOCD Rule 118.

All notification lists should be kept current with changes in names, telephone numbers, etc.

All shutdown devices, alarms, monitors, breathing air systems, etc., should be maintained in accordance with applicable regulations.

All personnel working in H<sub>2</sub>S areas shall have received training on the hazards, characteristics, and properties of H<sub>2</sub>S, and on procedures and safety equipment applicable for use in H<sub>2</sub>S areas.

## **H2S Safety Equipment and Monitoring Systems**

An H2S emergency response package will be maintained at locations requiring H2S monitoring. The package will contain at a minimum the following:

3 – Fixed H2S sensors located as follows:

- 1 – on the rig floor
- 1 – at the Bell Nipple
- 1 – at the Shale Shaker or Flowline

1 – Entrance Warning Sign located at the main entrance to the location, with warning signs and colored flags to determine the current status for entry into the location.

2 – Windssocks that are clearly visible.

1 – Audible warning system located on rig floor

2 – Visual warning systems (Beacon Lights)

- 1 – located at the rig floor
- 1 – located in the mud mixing room

**Note: All alarms (audible and visual) should be set to alarm at 10 ppm.**

2 - Briefing areas clearly marked

- 2 - SCBA's at each briefing area
- 1- SCBA located at the Drilling Reps office

**Note:**

- 1. All SCBA's must be positive pressure type only!!!**
- 2. All SCBA's must either be Scott or Drager brand.**
- 3. All SCBA's face pieces should be size large, unless otherwise specified by the Drilling Supervisor.**

5 – Emergency Escape Paks located at Top Doghouse.

Note: Ensure provisions are included for any personnel working above rig floor in derrick.

1 – Tri or Quad gas monitor located at the Drilling Reps office. This will be used to determine if the work area is safe to re-enter prior to returning to work following any alarm.

## **V. EMERGENCY CALL LIST:**

The following is a priority list of personnel to contact in an emergency situation:

| <b>Supervisory Personnel</b>                              | <b>Office No.</b> | <b>Home</b>  | <b>Cellular</b> |
|-----------------------------------------------------------|-------------------|--------------|-----------------|
| <b>R.W. "Cottton" Hair</b><br>Permian Drilling Supt.      | 432.368.1302      | 432.563.9467 | 432.556.9116    |
| <b>Dennis Paschall</b><br>Permian Drilling Field Supt.    | 432.368.1517      | 432.683.9400 | 432.238.3150    |
| <b>Tom Samarripa</b><br>WSER                              | 423.368.1263      | 432.367.4961 | 432.556.9113    |
| <b>Ty Maxey</b><br>Permian Asset Operations Manager       | 432.368.1100      |              | 281.217.8492    |
| <b>Leo Gatson</b><br>Safety and Environmental Coordinator | 432.368.1248      |              | 432.631.066     |
| <b>Lynn Dooley</b><br>Drilling Mngr.                      | 832.486.2567      | 281.225.8063 | 281.435.3517    |

### **EMERGENCY CALL LIST: State Officials**

#### **Regulatory Agencies**

##### **New Mexico Oil Conservation Commission**

P. O. Box 1980  
Hobbs, New Mexico 88240-1980

Office: 575.393.6161

##### **Bureau of Land Mngt.**

Carlsbad Field Office  
620 E. Greene St.  
Carlsbad, NM 88220

Office: 575.234.5972

Fax: 575.885.9264

### **EMERGENCY CALL LIST: Local Officials**

#### **Refer to the Location Information Sheet**

**Note: The LIS should include any area residents (i.e. rancher's house, etc)**

## **ConocoPhillips Emergency Call List and Location Information Sheet**

**ConocoPhillips-** 281-293-3600

|                         |                |                                            |
|-------------------------|----------------|--------------------------------------------|
| Drilling Superintendent | Cotton Hair    | Office: 432-368-1302<br>Cell: 432-556-9116 |
| Safety (WSER)           | Tom Samarripa  | Office: 432-368-1263<br>Cell: 432-556-9113 |
| Drilling Engineer       | Steve Moore    | Office: 832-486-2459<br>Cell: 281-467-7596 |
| Regulatory Contact      | Brian Maiorino | Office: 432-688-6913<br>Cell: 432-210-7097 |

### **Emergency Numbers**

Hospital: Lea Co. Regional Medical Center (Hobbs) .....575-492-5000  
Ambulance: Hobbs Fire Dept. ....575-397-9308  
Air Ambulance: Care Star .....888-624-3571  
                    Aero Star .....800-627-2376  
Fire Dept. (Hobbs) .....575-397-9308  
                    (Maljamar non-emerg) .....575-676-4100  
State Police (Artesia) .....575-748-9718  
                    (Hobbs) .....575-392-5580  
Sheriff (Lovington)..... 575-396-3611  
Police (Lovington) .....575-396-5166  
NMOCD .....575-393-6161  
                    (Emerg) .....575-3707106  
BLM .....575-393-3612  
New Mexico Emergency Response Comm (Santa Fe) .....505-476-9600  
New Mexico State Emerg Ops Ctr .....505-476-9635  
National Emerg Response Center .....800-424-8802

**Number of Residences within 1 mile of Well:** There are no residences within one mile of the well to be drilled.

BUCK FEDERAL CTB



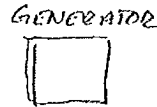
Flow Line  
From Buck Fed 17 #24

← 400' →

400' ↑



HEADER



HEADER



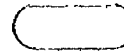
TEST FWKO



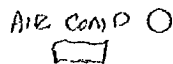
TEST FWKO



FWKO



FWKO



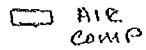
TEST TREATER



PRODUCTION TREATER



TEST TREATER



PRODUCTION TREATER

VRU



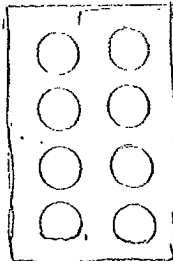
LACT

VRU



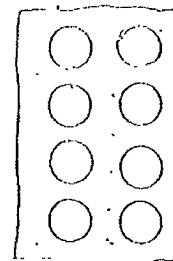
LACT

SW  
PUMP  
SW  
PUMP  
SW  
PUMP



TANKS

SW  
PUMP  
SW  
PUMP  
SW  
PUMP



TANKS

EXISTING ROADWAY

— E — E — E — E — E — E — E — E — E — E

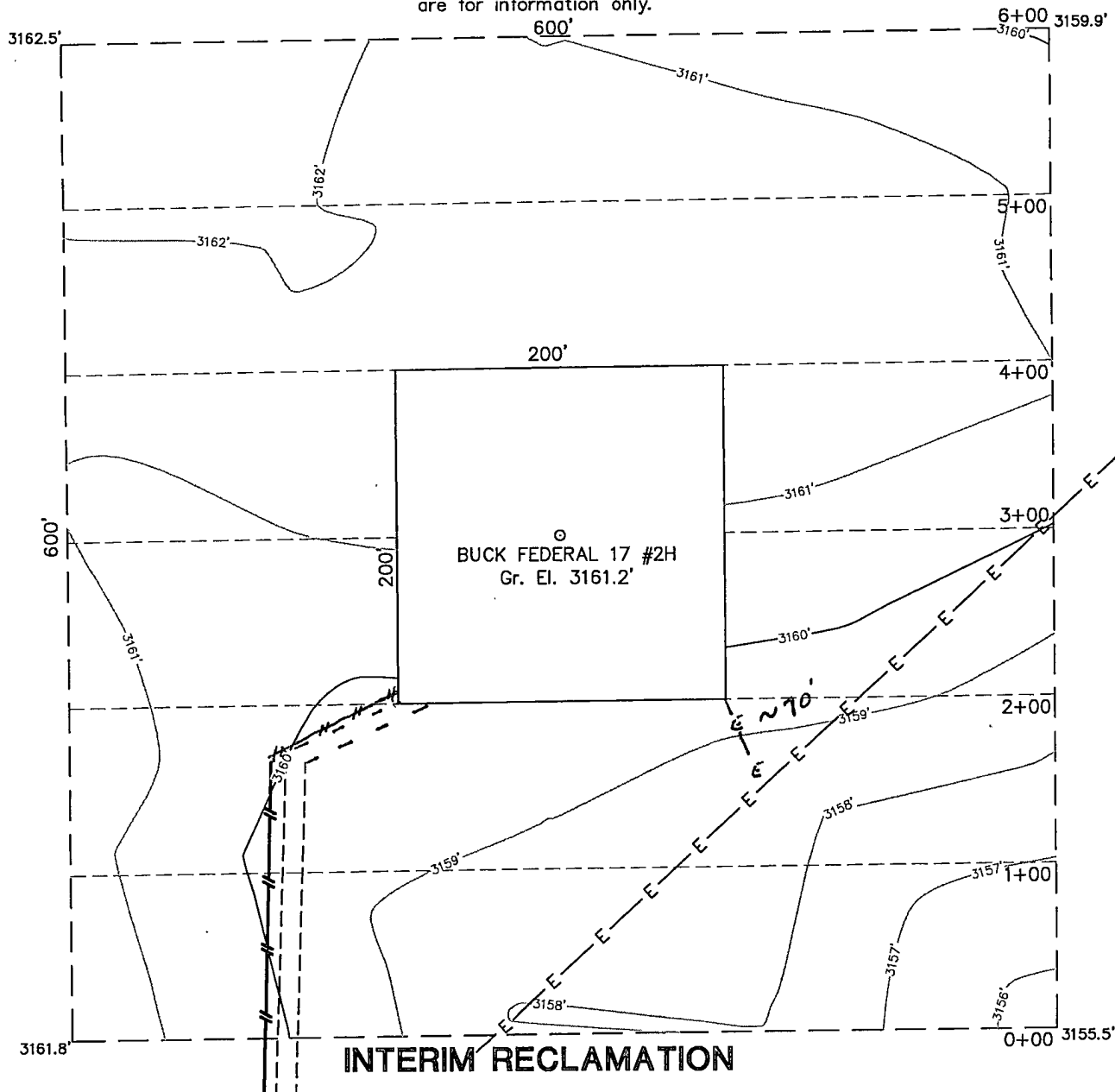
~ 600'

# SECTION 17, TOWNSHIP 26 SOUTH, RANGE 32 EAST, N.M.P.M.

LEA COUNTY

NEW MEXICO

THIS IS NOT A BOUNDARY SURVEY  
Apparent property corners and property lines, if shown,  
are for information only.



100 0 100 200  
Graphic Scale in Feet

I HEREBY CERTIFY THAT THIS PLAT WAS MADE FROM  
AN ACTUAL SURVEY MADE BY ME OR UNDER MY DIRECT  
SUPERVISION AND THAT THE SAME IS TRUE AND CORRECT  
TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*[Signature]*

MACON McDONALD

12185

PLS NO. 12185

REGISTERED PROFESSIONAL LAND SURVEYOR

**WEST**  
**COMPANY**  
of Midland, Inc.

110 W. LOUISIANA, STE. 110  
MIDLAND TEXAS, 79701  
(432) 687-0865 - (432) 687-0868 FAX

**ConocoPhillips**

Topographic Map

**BUCK FEDERAL 17 #2H**

Located 1105' FSL & 1650' FEL, Section 17  
Township 26 South, Range 32 East, N.M.P.M.  
Lea County, New Mexico

Drawn By: JCC

Date: November 3, 2011

Scale: 1" = 100'

Field Book: 534 / 21-22

Sheet 3 of 3

Quadrangle: Paduca Breaks West

W.O. No: 2011-1437

Dwg. No.: L-2011-1437-C

L-2011-1437-C