

# H<sub>2</sub>S Preparedness and Contingency Plan Summary



**Salado Draw 18 26 33 Fed 3H**

**Salado Draw 18 26 33 Fed 4H**

**Salado Draw 19 26 33 Fed 3H**

**Salado Draw 19 26 33 Fed 4H**

## Training

MCBU Drilling and Completions H<sub>2</sub>S training requirements are intended to define the minimum level of training required for employees, contractors and visitors to enter or perform work at MCBU Drilling and Completions locations that have known concentrations of H<sub>2</sub>S.

### Awareness Level

Employees and visitors to MCBU Drilling and Completions locations that have known concentrations of H<sub>2</sub>S, who are not required to perform work in H<sub>2</sub>S areas, will be provided with an awareness level of H<sub>2</sub>S training prior to entering any H<sub>2</sub>S areas. At a minimum, awareness level training will include:

1. Physical and chemical properties of H<sub>2</sub>S
2. Health hazards of H<sub>2</sub>S
3. Personal protective equipment
4. Information regarding potential sources of H<sub>2</sub>S
5. Alarms and emergency evacuation procedures

Awareness level training will be developed and conducted by personnel who are qualified either by specific training, educational experience and/or work-related background.

### Advanced Level H<sub>2</sub>S Training

Employees and contractors required to work in areas that may contain H<sub>2</sub>S will be provided with Advanced Level H<sub>2</sub>S training prior to initial assignment. In addition to the Awareness Level requirements, Advanced Level H<sub>2</sub>S training will include:

1. H<sub>2</sub>S safe work practice procedures;
2. Emergency contingency plan procedures;
3. Methods to detect the presence or release of H<sub>2</sub>S (e.g., alarms, monitoring equipment), including hands-on training with direct reading and personal monitoring H<sub>2</sub>S equipment.
4. Basic overview of respiratory protective equipment suitable for use in H<sub>2</sub>S environments. Note: Employees who work at sites that participate in the Chevron Respirator User program will require separate respirator training as required by the MCBU Respiratory Protection Program;
5. Basic overview of emergency rescue techniques, first aid, CPR and medical evaluation procedures. Employees who may be required to perform "standby" duties are required to receive additional first aid and CPR training, which is not covered in the Advanced Level H<sub>2</sub>S training;
6. Proficiency examination covering all course material.

Advanced H<sub>2</sub>S training courses will be instructed by personnel who have successfully completed an appropriate H<sub>2</sub>S train-the-trainer development course (ANSI/ASSE Z390.1-2006) or who possess significant past experience through educational or work-related background.



## H<sub>2</sub>S Training Certification

All employees and visitors will be issued an H<sub>2</sub>S training certification card (or certificate) upon successful completion of the appropriate H<sub>2</sub>S training course. Personnel working in an H<sub>2</sub>S environment will carry a current H<sub>2</sub>S training certification card as proof of having received the proper training on their person at all times.

## Briefing Area

A minimum of two briefing areas will be established in locations that at least one area will be upwind from the well at all times. Upon recognition of an emergency situation, all personnel should assemble at the designated upwind briefing areas for instructions.

## H<sub>2</sub>S Equipment

### Respiratory Protection

- a) Six 30 minute SCBAs – 2 at each briefing area and 2 in the Safety Trailer.
- b) Eight 5 minute EBAs – 5 in the dog house at the rig floor, 1 at the accumulator, 1 at the shale shakers and 1 at the mud pits.

### Visual Warning System

- a) One color code sign, displaying all possible conditions, will be placed at the entrance to the location with a flag displaying the current condition.
- b) Two windsocks will be on location, one on the dog house and one on the Drill Site Manager's Trailer.

## H<sub>2</sub>S Detection and Monitoring System

- a) H<sub>2</sub>S monitoring system (sensor head, warning light and siren) placed throughout rig.
  - Drilling Rig Locations: at a minimum, in the area of the Shale shaker, rig floor, and bell nipple.
  - Workover Rig Locations: at a minimum, in the area of the Cellar, rig floor and circulating tanks or shale shaker.



## Well Control Equipment

- a) Flare Line 150' from wellhead with igniter.
- b) Choke manifold with a remotely operated choke.
- c) Mud / gas separator

## Mud Program

In the event of drilling, completions, workover and well servicing operations involving a hydrogen sulfide concentration of 100 ppm or greater the following shall be considered:

- 1. Use of a degasser
- 2. Use of a zinc based mud treatment
- 3. Increasing mud weight

## Public Safety - Emergency Assistance

<u>Agency</u>	<u>Telephone Number</u>
Lea County Sheriff's Department	575-396-3611
Fire Department:	
Carlsbad	575-885-3125
Artesia	575-746-5050
Lea County Regional Medical Center	575-492-5000
Jal Community Hospital	505-395-2511
Lea County Emergency Management	575-396-8602
Poison Control Center	800-222-1222

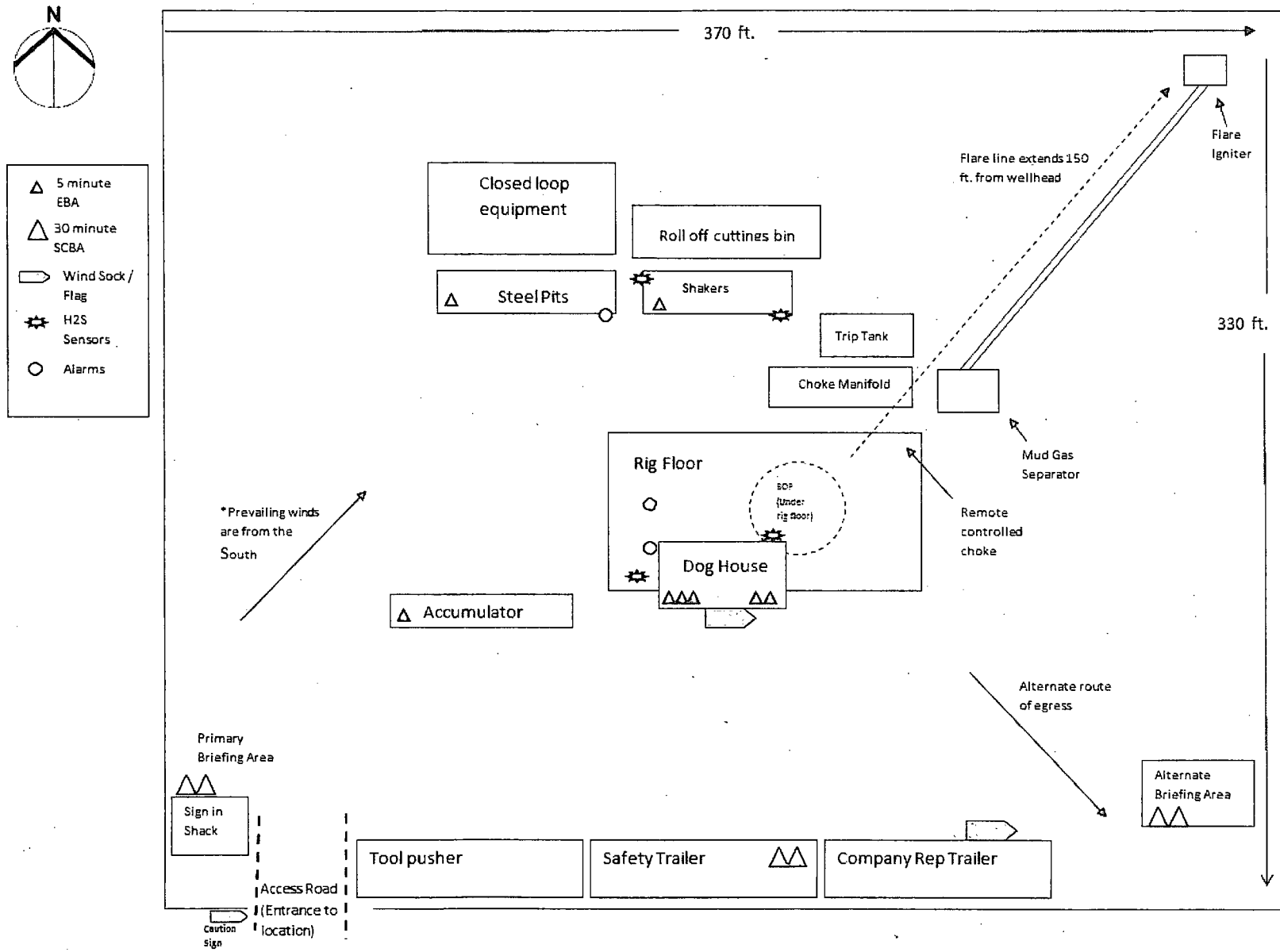
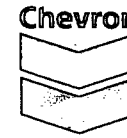


## Chevron MCBU D&C Emergency Notifications

Below are lists of contacts to be used in emergency situations.

	Name	Title	Office Number	Cell Phone
1.	Vicente Ruiz	Drilling Engineer	(713) 372-6181	(713) 898-5436
2.	Phil Clark	Superintendent	(713) 372-7588	(832) 741-4175
5.	Kim McHugh	Drilling Manager	(713) 372-7591	(713) 204- 8550
6.	Darrell Hammons	Operations Manager	(713) 372-5747	(281) 352 2302
7.	Andrea Calhoun	D&C HES	(713) 372-7586	(832) 588-0100
8.	Said Daher	Completion Engineer	(713) 372-0233	(832) 714-0724

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Salado Draw 19-26-33 Fed 3H, 4H

# EXHIBIT E

## NOTE:

Please be advised, that while reasonable efforts are made to locate and verify pipelines and anomalies using our standard pipeline locating equipment, it is impossible to be 100 % effective. As such, we advise using caution when performing work as there is a possibility that pipelines and other hazards, such as fiber optic cables, PVC pipelines, etc. may exist undetected on site.

## NOTE:

Many states maintain information centers that establish links between those who dig (excavators) and those who own and operate underground facilities (operators). It is advisable and in most states, law, for the contractor to contact the center for assistance in locating and marking underground utilities. For guidance: New Mexico OneCall - [www.nmonocall.org](http://www.nmonocall.org)

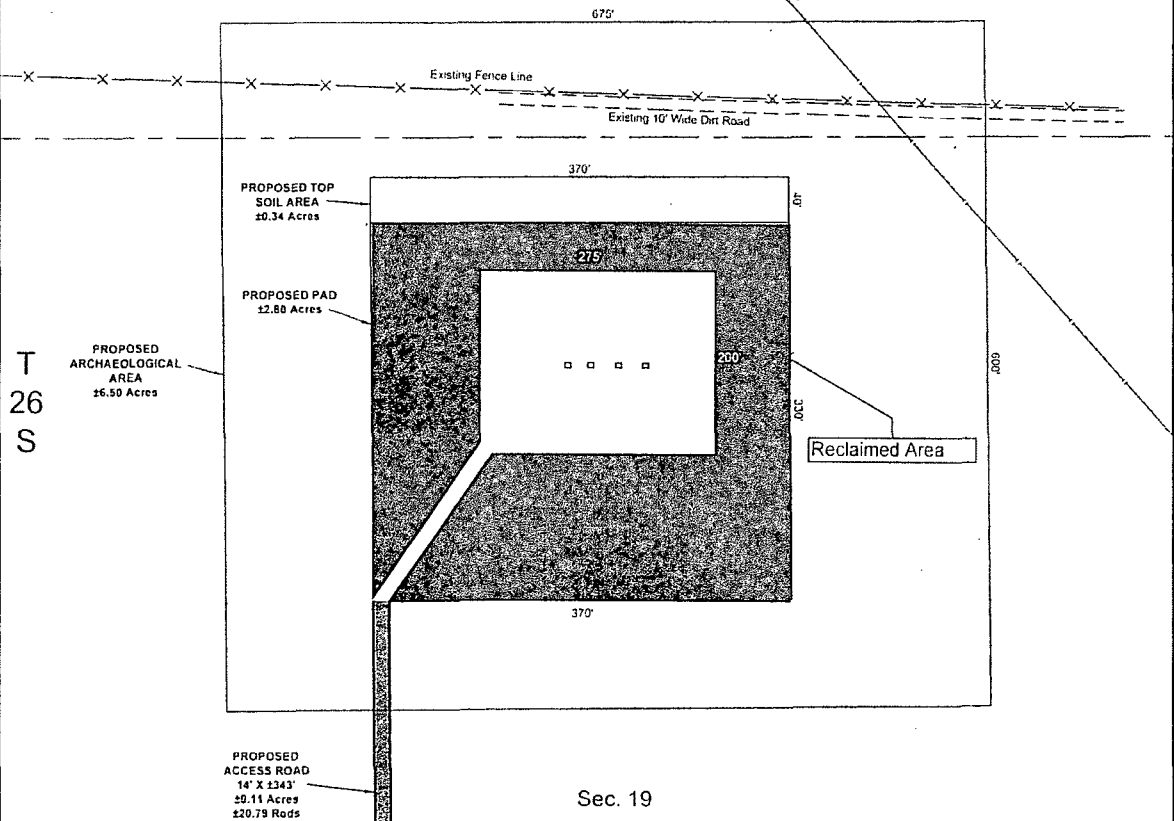
**DISCLAIMER:** At this time, C.H. Fenstermaker & Associates, LLC has not performed nor was asked to perform any type of engineering, hydrological modeling, flood plan, or "No Rise" certification analyses, including but not limited to determining whether the project will impact flood hazards in connection with federal/FEMA, state, and/or local laws, ordinances and regulations. Accordingly, Fenstermaker makes no warranty or representation of any kind as to the foregoing issues, and persons or entities using this information shall do so at their own risk.

NW ARCH. AREA CORNER	NE ARCH. AREA CORNER	SE ARCH. AREA CORNER	SW ARCH. AREA CORNER	SALADO DRAW 18 26 33 FED 3H WELL
X= 777.889 NAD 27 Y= 377.715	X= 773.564 NAD 27 Y= 377.721	X= 773.569 NAD 27 Y= 377.121	X= 772.894 NAD 27 Y= 377.115	X= 773.162 NAD 27 Y= 377.418
ELEVATION -3187 NAVD 88	ELEVATION -3192 NAVD 88	ELEVATION -3195 NAVD 88	ELEVATION -3189 NAVD 88	LAT 37 03 55.0 LONG 103 61 30.78
NW TOP SOIL AREA CORNER	NE TOP SOIL AREA CORNER	SE TOP SOIL AREA CORNER	SW TOP SOIL AREA CORNER	
X= 773.020 NAD 27 Y= 377.582	X= 773.560 NAD 27 Y= 377.584	X= 773.391 NAD 27 Y= 377.544	X= 773.021 NAD 27 Y= 377.542	X= 774.379 NAD 83 Y= 377.475
ELEVATION -3189 NAVD 88	ELEVATION -3190 NAVD 88	ELEVATION -3190 NAVD 88	ELEVATION -3187 NAVD 88	LAT 37 03 57.15 LONG 103 61 35.45
		SE PAD CORNER	SW PAD CORNER	ELEVATION -3187 NAVD 88
		X= 773.393 NAD 27 Y= 377.214	X= 773.023 NAD 27 Y= 377.212	
		ELEVATION -3192 NAVD 88	ELEVATION -3191 NAVD 88	

R 33 E

Sec. 18

Bureau of Land Management



Sec. 19

Bureau of Land Management



To Proposed Salado Draw 18 & 19 26 33 Fed 1H-2H Drillsite

LEGEND	
Section Line	---
Fence Line	-X-
Lease Right	---
Fencing Pipeline	---
Proposed R.O.W.	---

PROPOSED ACCESS ROAD  
14' X 2343'  
±2.49 Acres  
±269.82 Rods

Proposed Electric Line R.O.W.

Proposed Frac Ponds (As-Staked)

FOR THE EXCLUSIVE USE OF  
CHEVRON U.S.A. INC.  
I, WM. J. Daniel III, Registered Professional  
Land Surveyor, do hereby state this plat is true  
and correct to the best of my knowledge.



CHEVRON U.S.A. INC.  
PROPOSED PAD & ACCESS ROADS  
SALADO DRAW 18 26 33 FED 3H WELL  
SECTION 19, T26S-R33E  
LEA COUNTY, NEW MEXICO

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125 Regency Sq., Lafayette, LA 70508  
Ph. 337-237-2200 Fax. 337-232-3200  
[www.fenstermaker.com](http://www.fenstermaker.com)

Scale: 1"=100'  
100' 0 50' 100'

DRAWN BY: BMO		REVISIONS	
PROJ. MGR.: VHV	No. 1	DATE: 05/28/2014	REVISED BY: VHV
DATE: APRIL 23, 2014	No.	DATE:	REVISED BY:
FILENAME: T:\2014\2144695\DWG\Salado Draw 18 26 33 Fed 3H_SUP.dwg			