



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

SD WE 23 Fed P25 1H **HOBBS OCD** SD WE 23 Fed P25 2H

SD WE 23 Fed P25 3H **OCT 27 2016** SD WE 23 Fed P25 4H

## Training

**RECEIVED**

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 Preparedness and Contingency Plan Summary



## 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.



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



## 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

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

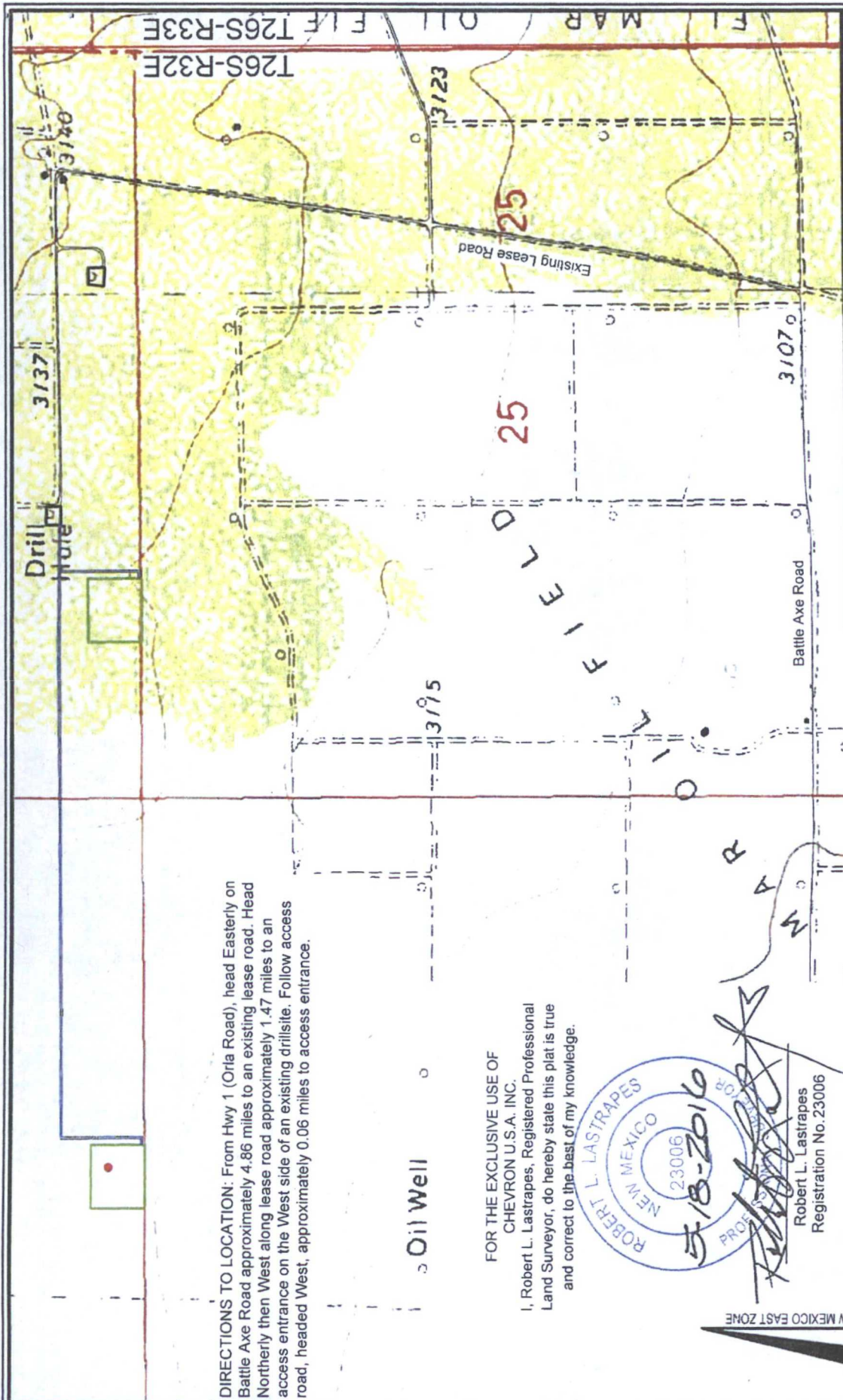


## Chevron MCBU D&C Emergency Notifications

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

	Name	Title	Office Number	Cell Phone
1.	Kenneth Hodges	Drilling Engineer	(713) 372-2154	(832) 470-3579
2.	Elmo Cecchetti	Superintendent	(713) 372-1235	(412) 719-7885
5.	Ikenna Chukwumaeze	Drilling Manager	(713) 372-7591	(281) 615-0701
6.	Scott Nash	Operations Manager	(713) 372-5747	(281) 814-9713
7.	Belle Davis	D&C HES	(432) 687-7477	(432) 234-8713
8.	Brendan Gustus	Completion Engineer	(713) 372-1309	(432) 530-6158





**DIRECTIONS TO LOCATION:** From Hwy 1 (Orla Road), head Easterly on Battle Axe Road approximately 4.86 miles to an existing lease road. Head Northerly then West along lease road approximately 1.47 miles to an access entrance on the West side of an existing drillsite. Follow access road, headed West, approximately 0.06 miles to access entrance.

Oil Well

FOR THE EXCLUSIVE USE OF  
CHEVRON U.S.A. INC.

I, Robert L. Lastrapes, Registered Professional  
Land Surveyor, do hereby state this plat is true  
and correct to the best of my knowledge.



5/18-2016

Robert L. Lastrapes  
Registration No. 23006

NAD 27 NEW MEXICO EAST ZONE



C. H. Fenstermaker & Associates, L.L.C.  
135 Regency Sq. Lafayette, LA 70508  
Ph. 337-237-2200 Fax. 337-232-3299  
[www.fenstermaker.com](http://www.fenstermaker.com)

**LEGEND**

- Proposed Well
- Proposed Access Road
- Proposed Drillsite
- Existing Road
- Section Line
- Existing Facility

**CHEVRON U.S.A. INC.**

SD WE 23 FED P25 NO. 4H WELL  
LOCATED 260' FSL & 2678' FWL

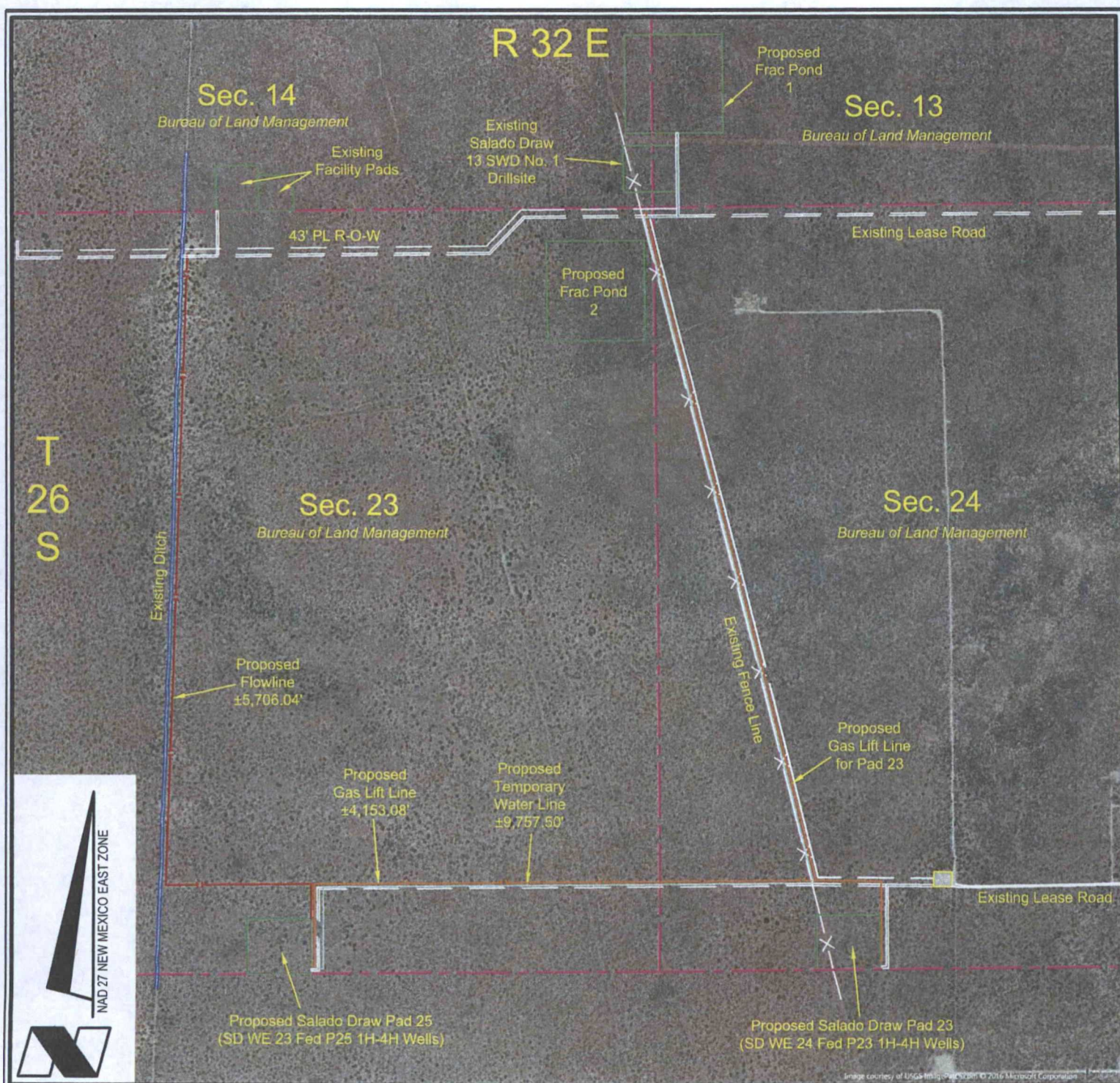
SECTION 23, T26S-R32E  
LEA COUNTY, NEW MEXICO

REVISIONS			
DRAWN BY: BOR	No.	DATE:	REVISED BY:
PROJ. MGR.: VHV	No.	DATE:	REVISED BY:
DATE: 03/23/2016	No.	DATE:	REVISED BY:
FILENAME: T:\2016\2163840\DWG\SD WE 23 FED P25 4H_APD.dwg			









DETAIL

Scale: 1" = 1000'

1000' 0 500' 1000'

**CHEVRON U.S.A. INC.**  
 WORK AREA DETAIL FOR THE  
 SD WE 23 FED P25 1H-4H WELLS  
 SECTIONS 23 & 24, T26S-R32E  
 LEA COUNTY, NEW MEXICO



C. H. Fenstermaker & Associates, L.L.C.  
 135 Regency Sq. Lafayette, LA 70508  
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DRAWN BY: VHV		REVISIONS	
PROJ. MGR.: VHV	No. 1	DATE: 07/05/2016	REVISED BY: VHV
DATE: MAY 20, 2016	No. #	DATE:	REVISED BY:
FILENAME: T:\2016\2163837\DWG\SD WE 23 FED P25 1H-4H _AerialDetail.dwg			



R 32 E

Sec. 14

Bureau of Land Management

LEGEND	
	Section Line
	Proposed Flowlines
	Proposed Utility Line
	Existing Pipeline
	Existing Ditch
	Pipeline R-O-W
	Existing Drillsite/ Access Road
	Found Monument

Point of  
Commencement/  
Fnd. 1 1/2" Iron Pipe  
w/Cap

Existing  
Drillsite

S 82° 03' 27" E 2,027.02'

43' Pipeline R-O-W

POINT OF BEGINNING  
(NAD 27)  
X= 712,601.97  
Y= 377,016.37

Proposed Utility Line

Existing Pipeline

T  
26  
S

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

Sec. 23

Bureau of Land Management

NAD 27 NEW MEXICO EAST ZONE



Robert L. Lastrapes  
Registration No. 23006

PROPOSED  
FLOWLINES  
±5,706.04'  
±345.82 Rods

MATCH LINE

Scale: 1" = 300'

300' 0 150' 300'

SURFACE USE PLAT

CHEVRON U.S.A. INC.  
PROPOSED FLOWLINES  
SD WE 23 FED P25 1H-4H FLOWLINES  
SECTION 23, T26S-R32E  
LEA COUNTY, NEW MEXICO

DRAWN BY: BOR

REVISIONS

PROJ. MGR.: VHV

No.

DATE:

REVISED BY:

DATE: MAY 18, 2016

No.

DATE:

REVISED BY:

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www.fenstermaker.com



LEGEND	
	Proposed Flowlines
	Existing Fence Line
	Existing Ditch

MATCH LINE

R 32 E

T  
26  
S

Sec. 23

Bureau of Land Management

Existing  
Fence Line

PROPOSED  
FLOWLINES  
±5,706.04'  
±345.82 Rods

Existing Ditch

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I, Robert L. Lastrapes, Registered Professional  
Land Surveyor, do hereby state this plat is true  
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Robert L. Lastrapes  
Registration No. 23006

MATCH LINE

SURFACE USE PLAT

Scale: 1" = 300'

300' 0 150' 300'

Page 2 of 4

CHEVRON U.S.A. INC.

PROPOSED FLOWLINES  
SD WE 23 FED P25 1H-4H FLOWLINES  
SECTION 23, T26S-R32E  
LEA COUNTY, NEW MEXICO

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PROJ. MGR.: VHV

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REVISED BY:

DATE: MAY 18, 2016

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REVISED BY:

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MATCH LINE R 32 E

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Sec. 23

Bureau of Land Management

T  
26  
S

PROPOSED  
FLOWLINES  
±5,706.04'  
±345.82 Rods

Existing Ditch

Proposed  
SD WE 23 FED P21  
1H-4H Drillsite & Access Road

POINT OF ENDING  
(NAD 27)  
X= 713,470.94  
Y= 372,348.48

Proposed  
SD WE 23 FED P25  
1H-4H Drillsite & Access Road

Sec. 26

Bureau of Land Management

LEGEND

	Section Line
	Proposed Flowlines
	Existing Ditch
	Existing Drillsite/ Access Road

SURFACE USE PLAT

Scale: 1" = 300'

300' 0 150' 300'

Page 3 of 4

CHEVRON U.S.A. INC.  
PROPOSED FLOWLINES  
SD WE 23 FED P25 1H-4H FLOWLINES  
SECTION 23, T26S-R32E  
LEA COUNTY, NEW MEXICO



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DATE:

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FILENAME: T:\2016\2163837\DWG\SD WE 23 FED P25 1H-4H FL\_SUP.dwg



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 One Call - [www.nmonecall.org](http://www.nmonecall.org)

DISCLAIMER: At this time, C. H. Fenstermaker & Associates, L.L.C. has not performed nor was asked to perform any type of engineering, hydrological modeling, flood plain, 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.

**METES AND BOUNDS DESCRIPTION OF  
PROPOSED FLOWLINES  
SECTION 23, T26S-R32E  
LEA COUNTY, NEW MEXICO**

**SD WE 24 FED P25 1H-4H FLOWLINES**

Survey of proposed flowlines 5,706.04 feet or 345.82 rods in length crossing Bureau of Land Management land in Section 23 of Township 26 South Range 32 East, N.M.P.M Lea County, New Mexico.

**COMMENCING** at the Northwest corner of said Section 23 of Township 26 South Range 32 East at a Found 1 1/2" Iron Pipe with Cap; **THENCE** South 82 degrees 03 minutes 27 seconds East 2,027.02 feet to the **POINT OF BEGINNING** having the following coordinates: X= 712,601.97 and Y= 377,016.37 (New Mexico State Plane Coordinate System, East Zone, NAD 27);

**Thence** South 02 degrees 17 minutes 56 seconds West 1,529.02 feet;

**Thence** South 01 degrees 57 minutes 24 seconds West 1,595.50 feet;

**Thence** South 01 degrees 57 minutes 32 seconds West 1,310.61 feet;

**Thence** North 89 degrees 35 minutes 55 seconds East 1,028.01 feet;

**Thence** South 00 degrees 22 minutes 30 seconds East 242.90 feet to the **POINT OF ENDING** having the following coordinates: X= 713,470.94 and Y= 372,348.48 (New Mexico State Plane Coordinate System, East Zone, NAD 27);


The bearings recited hereon are oriented to NAD 27 New Mexico East Zone.

This description represents a survey of proposed flowlines and is intended solely for that purpose.

This description does not represent a boundary survey.

PROPOSED FLOWLINES		
COURSE	BEARING	DISTANCE
1	S 02° 17' 56" W	1529.02'
2	S 01° 57' 24" W	1595.50'
3	S 01° 57' 32" W	1310.61'
4	N 89° 35' 55" E	1028.01'
5	S 00° 22' 30" E	242.90'

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

  
Robert L. Lastrapes  
Registration No. 23006

**SURFACE USE PLAT**

**CHEVRON U.S.A. INC.  
PROPOSED FLOWLINES  
SD WE 23 FED P25 1H-4H FLOWLINES  
SECTION 23, T26S-R32E  
LEA COUNTY, NEW MEXICO**



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DATE: MAY 18, 2016	No.	DATE:	REVISED BY:
FILENAME: T:\2016\2163837\DWG\SD WE 23 FED P25 1H-4H FL_SUP.dwg			