

## State of New Mexico

## DISTRICT I

1825 N. FRENCH DR., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department

Form C-102

Revised JUNE 10, 2003

## DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

## OIL CONSERVATION DIVISION

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

## DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

1220 SOUTH ST. FRANCIS DR.

Santa Fe, New Mexico 87505

## DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

## WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 39360	Pool Name Livingston Ridge, Delaware
Property Code	Property Name NEFF 13 FEDERAL	Well Number 17
OGRID No. 4323	Operator Name CHEVRON U.S.A. INC	Elevation 3555'

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	13	22-S	31-E		660	SOUTH	330	WEST	EDDY

## Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<b>OPERATOR CERTIFICATION</b>  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.  <i>Denise Pinkerton</i> Signature Denise Pinkerton Printed Name Regulatory Specialist Title 11-15-05 Date
	<b>SURVEYOR CERTIFICATION</b>  I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.  JULY 14, 2005 Date Surveyed Signature & Seal of Professional Surveyor GARY EIDSON 05.11.1038 Certificate No. GARY EIDSON 12641

## **PROPOSED DRILLING PROGRAM**

**Neff 13 Federal #17**

**Section 13**

**Township 22 South**

**Range 31 East**

**Eddy County, New Mexico**

**Surface Location: 660' FSL, 330' FWL**

**Prepared By: Ray Matthews  
November 7, 2005**

**WBS Number: TBD**

**API Number: TBD**

**Chevno: TBD**

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## DIRECTIONS

TBD.

## PROPOSED WORK

### SURFACE HOLE:

1. Call the 1-800 dig number and notify BLM (505-234-5972) 3 working days prior to building location. Build location and cellar prior to moving in rotary tools. Have reserve pits lined and filled with water. A fresh water well should be located and utilized for fresh water as opposed to trucking. Set a 20" cemented conductor at  $\pm 40'$ .
2. Move in and rig up rotary tools. Install gas buster as flows in one of the offsets was encountered at 3305'. Conduct safety meeting with rig personnel. Post drilling permit and emergency response plan in the dog house. Notify the BLM and OCD of intent to spud.
3. Pick up a 17-1/2" bit, bit sub, shock sub, 6-8" collars, and 18-6" collars (slick BHA). Deviation is not expected to be a problem. Inclinations less than one degree are common.
4. Spud well utilizing fresh water as the drilling fluid. Circulate the reserve pit for solids control. It is imperative that brine, oil, or other contaminants not be introduced into the surface hole. The main purpose of this hole is to protect fresh water sands.
5. Drill a 17-1/2" hole to 800'. Possible air pockets in the lower portion of this hole section. Run 13-3/8" casing as follows:
  - a) Guide shoe
  - b) 1 joint 13-3/8", 48 ppf, H-40, STC casing
  - c) Insert float
  - d)  $\pm 760'$ , 13-3/8", 48 ppf, H-40, STC casing

Centralize the bottom three joints and every fourth joint thereafter.

Threadlock the field and mill ends of the bottom three joints and all float equipment.

Inspection: None

6. Circulate casing capacity or annular volume, whichever is greater. Cement in accordance with attached cementing summary. Displace cement with fresh water utilizing wiper plug. Displace to within  $\pm 40'$  of shoe. Check float. If

float fails, shut in for a minimum of four hours. If cement does not circulate, will need to run temperature survey, notify BLM and 1" back to surface.

7. Cut off casing. Install casing (starting) head. Test starting head to  $\pm 385$  psi (50% of collapse rating).
8. Nipple up BOP stack. Test BOPE to 250 psi low for 5 minutes, 1000 psi high for 30 minutes. Test casing to 1000 psi for 30 minutes. Test choke manifold to 250 psi low for 10 minutes, 3000 psi high for 10 minutes.
9. Install H<sub>2</sub>S detection equipment prior to drilling out. This equipment will remain on location until the rig is released. Equipment to include warning signs, windsocks, and detectors at the cellar, at the rotating head, at the flow line and on the floor.

#### **INTERMEDIATE HOLE:**

1. Trip in hole with an 11" bit, shock sub, 2-8" drill collars, IBS, 8" drill collar, IBS, 5-8" drill collars, and 24-6" drill collars. Tag cement.
2. Drill an 11" hole to a TD depth of 4450'. Brine water will be utilized as the drilling fluid, circulating the reserve pit for solids removal to this depth. Water flows with H<sub>2</sub>S are possible from 3300' to 4450'. Deviation increases are possible from 3600' – 4450'.
3. Take TOTCO surveys every 500' to 3300' then every 350' to 4450' (or adjust accordingly in an attempt to keep deviation below 3.0°). It is recommended that the WOB be reduced while drilling below 3100' until deviation is repeatedly kept below 3.0°.
4. Run casing as follows:
  - a) Guide shoe
  - b)  $\pm 45'$  (1 joint) 8-5/8", 32 ppf, J-55, LTC
  - c) Float collar
  - d)  $\pm 4405'$ , 8-5/8", 32 ppf, J-55, LTC

Centralize the bottom three joints. Threadlock the field and mill ends of the bottom three joints and all float equipment.

#### **Inspection:** BCI and drift

5. Circulate casing capacity or annular volume, whichever is greater. Cement in accordance with attached cementing summary. Displace cement with fresh water utilizing wiper plug. Displace to within  $\pm 40'$  of shoe. Check float. If

float fails, shut in for a minimum of four hours. If cement fails to circulate, will need to run temperature survey, notify BLM and 1" back to surface.

6. Cut off casing. Install B-Section casing head. Test head to  $\pm 1265$  psi (50% of collapse rating).
7. Nipple up BOP stack. Test BOPE to 250 psi low for 10 minutes, 3000 psi high for 10 minutes. Test annular to 250 psi low for 10 minutes, 1500 psi high for 10 minutes. Test casing to 2000 psi for 30 minutes.

### **PRODUCTION HOLE:**

1. Allow 24 hours of WOC following bumping the plug prior to drilling out. Trip in hole with a 7-7/8" bit, bit sub, 2-6" drill collars, IBS, 6" drill collar, IBS, and 28-6" drill collars. Tag cement. Rig up mud loggers to have ready when drilling out of shoe.
2. Drill a 7-7/8" hole to 8500'. Fresh water will be utilized as the drilling fluid. Water flows are possible in this section of the hole as well as lost circulation from 7200' – 8200'.
3. Condition hole and trip out and run open hole logs.
4. Trip in hole and condition for casing; trip out of hole laying down.
5. Run casing as follows (maximum over pull is 70,000 pounds):
  - a) Float shoe
  - b)  $\pm 45'$  (1 joint) 5-1/2", 17 ppf, J-55, LTC
  - c) Float collar
  - d)  $\pm 2155'$ , 5-1/2", 17 ppf, J-55, LTC
  - e)  $\pm 200'$ , 5-1/2", 15.5 ppf, J-55, LTC
  - f) DV tool at  $\pm 6100'$  from surface
  - g)  $\pm 2400'$ , 5-1/2", 15.5 ppf, J-55, LTC
  - h) DV tool at  $\pm 3700'$  from surface
  - i)  $\pm 1700'$ , 5-1/2", 15.5 ppf, J-55, LTC
  - j)  $\pm 2000'$ , 5-1/2", 17 ppf, J-55, LTC

Include short joint in the string at  $\pm 7000'$ . Centralize the bottom three joints and across any potential pay. Threadlock the field and mill ends of the bottom three joints and all float equipment.

### **Inspection:** BCI and drift

15. Cement in accordance with attached cementing summary.

16. Set slips with weight as cemented. Cut off casing. Install permanent 11" 3000 psi X 7-1/16" 3000 psi tubing head. Test seal to 50% of collapse rating.
17. Release rig. Rig down and move out rotary tools.

## **POTENTIAL PROBLEMS**

### **Surface Hole:**

Air blows possible around 600'.

### **Intermediate Hole:**

Air pockets may be encountered in the shallow portion of the hole below surface.

Possible strong water flows with sour gas at  $\pm 3300'$ .

Deviation at 3600' to 4450'.

### **Production Hole:**

Rig up H<sub>2</sub>S safety equipment prior to drilling out the 13-3/8" shoe. Maintain pH at 10+ and treat with H<sub>2</sub>S scavenger.

Possible water flows at  $\pm 6000'$ .

Possible lost circulation at 7200' to 8200'.

## **MUD PROGRAM**

<u>Interval</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Vis. (sec/qt)</u>	<u>Fluid Loss (cc)</u>	<u>Remarks</u>
Surf to 800'	Fresh Wtr.	8.6	32	No control	Circulate reserve
800' to 4450'	Brine	10	29	No control	Circulate reserve
4450' to 8500'	Fresh Wtr.	8.5-9.2	28 – 45	NC to 12	Circulate reserve

When circulating the reserve, it is a good practice to switch to the steel pits for one hour each tour to monitor gains/losses. Mud up to a starch/PAC system from 8000' to TD.

## EVALUATION PROGRAM

### Mud Logging:

A two man unit will be rigged up at 4450' and utilized to total depth.

### Open Hole Logs:

Platform Express Litho-Density/NGT, Induction log from TD to intermediate casing point.

Sidewall cores are a possibility.

## SURFACE CEMENTING PROGRAM

Cement with 950 sacks Class "C" with 2%  $\text{CaCl}_2$ .

Minimum waiting on cement time: 12 hours

### Cement properties:

Slurry weight: .....14.8 ppg

Slurry yield: ..... 1.34 ft<sup>3</sup> per sack

Cement must circulate to surface. If cement does not circulate, run a temperature survey six to eight hours after cementing. Contact the BLM and OCD and the Midland office for proper procedure to bring cement to surface. Normal procedure is to run one inch tubing down the annulus to top of cement, therefore one inch tubing should be on location or readily available.

Cement volume is based on 17-1/2" by 13-3/8" annular volume plus 135% excess.



## INTERMEDIATE CEMENTING PROGRAM

Cement with 1100 sacks 35/65 pozmix Class "H" with 6% gel, 5% salt, 1/4 lb. cellophane flakes followed by 200 sacks Class "H" neat.

Minimum waiting on cement time: 12 hours

### Cement properties:

Slurry weight: (lead).....12.8 ppg  
(tail)..... 15.6 ppg

Slurry yield: (lead).....1.94 ft<sup>3</sup> per sack  
(tail)..... 1.18 ft<sup>3</sup> per sack

Cement must circulate to surface. If cement does not circulate, run a temperature survey six to eight hours after cementing. Contact the BLM and OCD and the Midland office for proper procedure to bring cement to surface. Normal procedure is to run one inch tubing down the annulus to top of cement, therefore one inch tubing should be on location or readily available.

Cement volume is based on 11" by 8-5/8" annular volume plus 110% excess.

## PRODUCTION CEMENTING PROGRAM

Place bomb type DV tool at  $\pm 6100'$  and  $\pm 3700'$ .

Cement first stage with 20 bbl of CW100 followed by 625 sacks of 50/50 pozmix Class "H" with 2% gel, 5% salt, 0.2% retarder and 1/4 lb. cellophane flakes. Circulate four to six hours between stages unless it is determined that this would be non-productive time considering the lost circulation during drilling operations.

Cement second stage with 360 sacks of 35/65 pozmix Class "H" with 6% gel, 5% salt, 1/4 lb. cellophane flakes followed by 115 sacks of 50/50 pozmix Class "H" with 2% gel, 5% salt, 1/4 lb. cellophane flakes.

Cement third stage with 360 sacks of 35/65 pozmix Class "H" with 6% gel, 5% salt, 1/4 lb. cellophane flakes followed by 50 sacks of 50/50 pozmix Class "H" with 2% gel, 5% salt, 1/4 lb. cellophane flakes.

### Cement Properties:

<u>First Stage</u>	<u>All</u>	
Slurry Weight	14.2 ppg	
Slurry Yield	1.35 cu-ft/sx	
<u>Second and Third Stage</u>	<u>Lead</u>	<u>Tail</u>
Slurry Weight	12.4 ppg	14.2 ppg
Slurry Yield	2.17 cu-ft/sx	1.35 cu-ft/sx

**1<sup>st</sup> Stage:** Cement volume based on 7-7/8" open hole by 5-1/2" annular volume plus 100% excess. Do not adjust downward as this is the amount of cement needed to circulate off the DV tool in this area (if caliper plus 35% is yields more cement, adjust upward).

**2nd Stage:** Cement volume based on 7-7/8" open hole by 5-1/2" annular volume plus 125% excess. Adjust lead cement volumes to yield caliper plus 35% excess in open hole and 15% in cased hole.

**3rd Stage:** Cement volume based on 8-5/8" casing by 5-1/2" annular volume plus 30% excess.

Cement is designed to circulate to surface. If cement does not circulate, run a temperature survey to determine top of cement.

### CASING SUMMARY

#### **SURFACE:**

800', 13-3/8", 48 ppf, H-40, STC

#### **INTERMEDIATE:**

4450', 8-5/8", 32 ppf, J-55, LTC

#### **PRODUCTION:**

2000', 5-1/2", 17 ppf, J-55, LTC on top  
4300', 5-1/2", 15.5 ppf, J-55, LTC in middle  
2200', 5-1/2", 17 ppf, J-55, LTC on bottom  
DV tools @ 6100' and 3700'

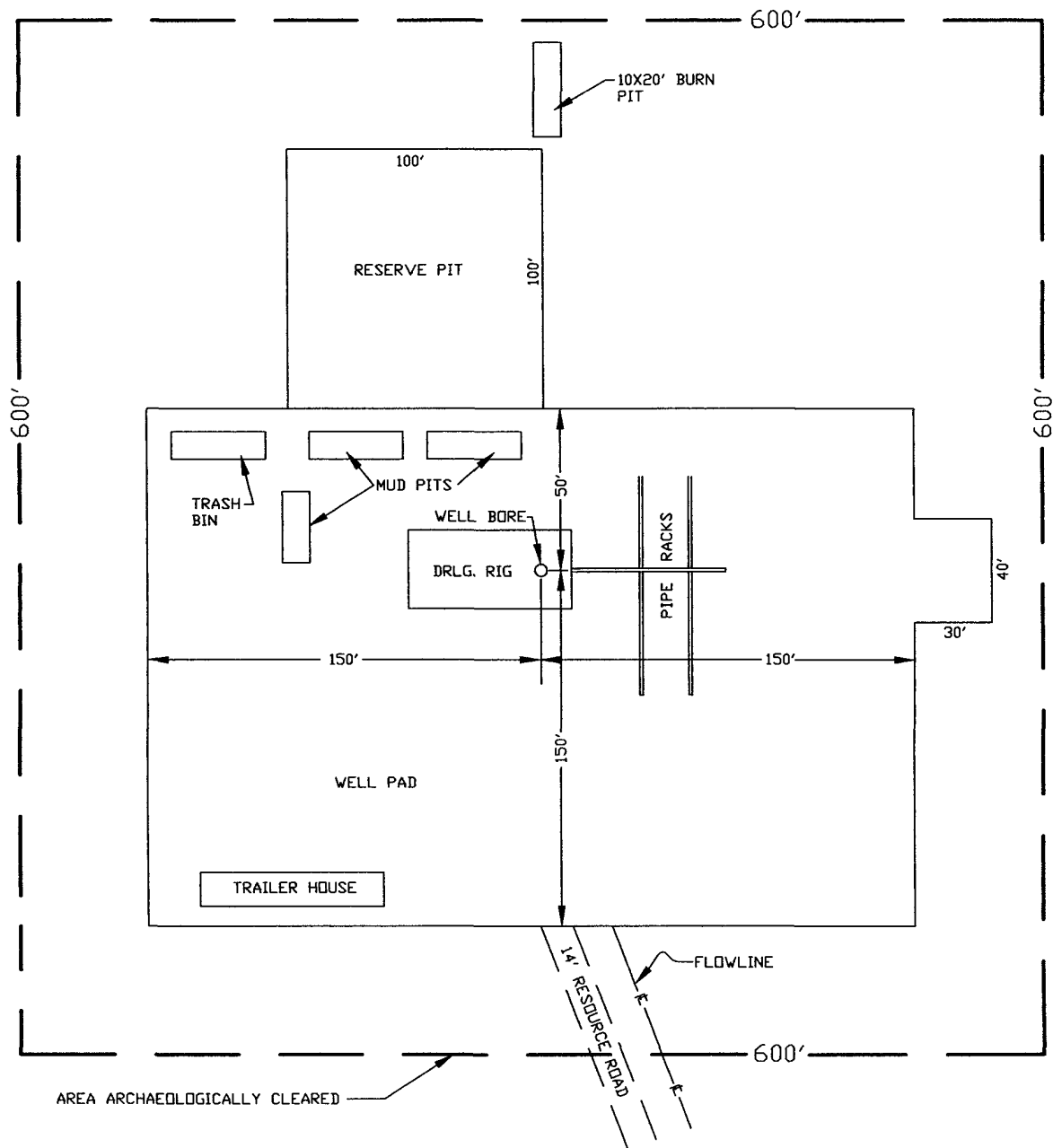
**TUBING:**

8400', 2-7/8", 6.5 ppf, J-55, EUE

**CASING PROPERTIES**

	BURST		COLLAPSE		Test Pressure
	<u>Rated</u>	<u>(80%)</u>	<u>Rated</u>	<u>(80%)</u>	
13-3/8", 48 ppf, H-40, STC	1730	1380	770	610	500
8-5/8", 32 ppf, J-55, LTC	3930	3140	2530	2020	1500
5-1/2", 17 ppf, J-55, LTC	5320	4255	4910	3925	2000
5-1/2", 15.5 ppf, J-55, LTC	4810	3845	4040	3230	2000
2-7/8", 6.5 ppf, J-55, EUE	7260	5808	7680	6144	

SECTION 13, TOWNSHIP 22 SOUTH, RANGE 31 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



CHEVRON U.S.A. INC.

EXHIBIT "B"  
DRILLING RIG LAYOUT  
CHEVRON U.S.A. INC.  
NEFF 13 FEDERAL #17  
660' FNL & 330' FWL SECTION 13  
T22S, R31E, NMPM., EDDY CO., NM.

Survey Date: 7/14/05

Sheet 1 of 1 Sheets

W.O. Number: 05.11.1574

Drawn By: L.A.

Date: 10/20/05

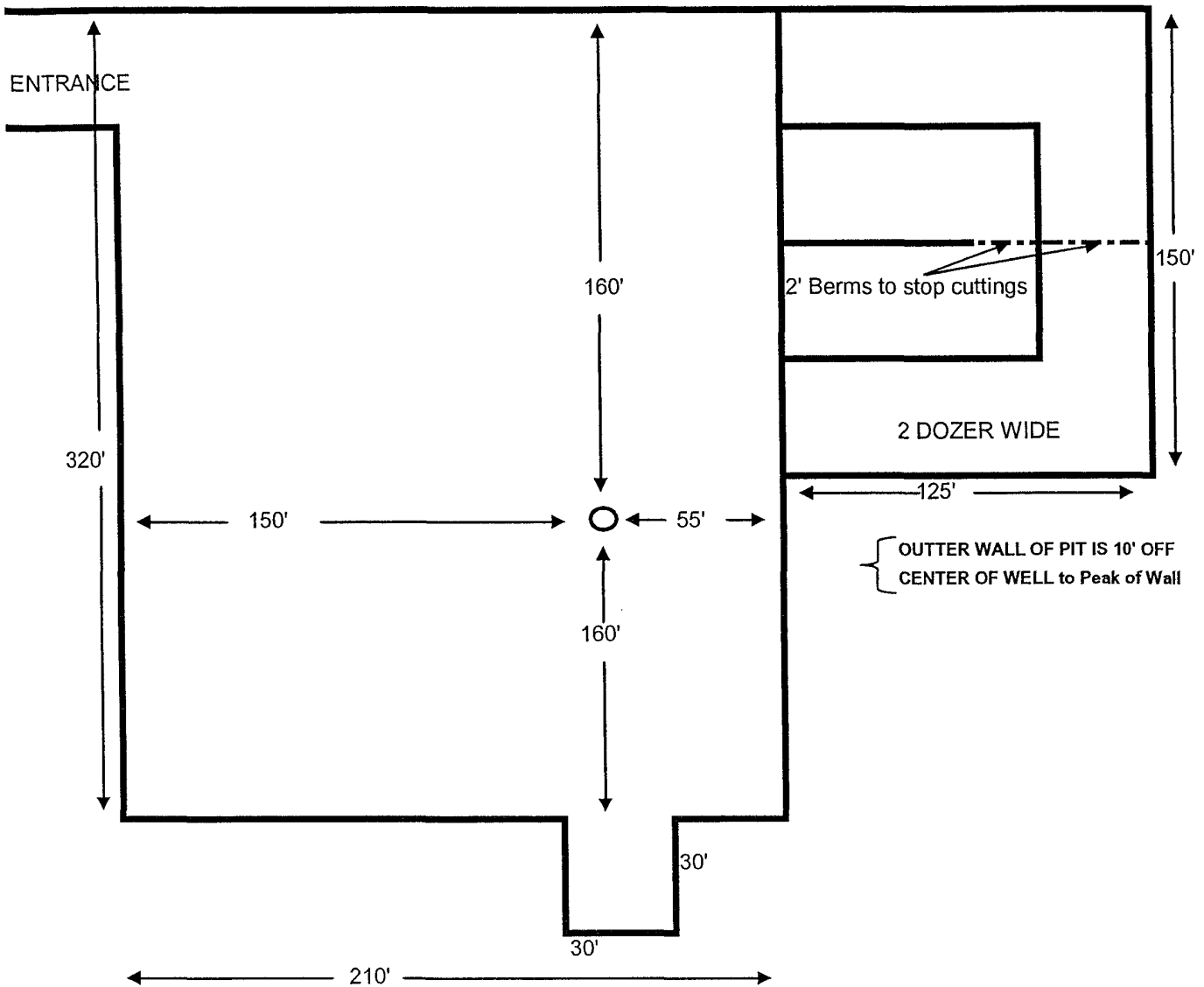
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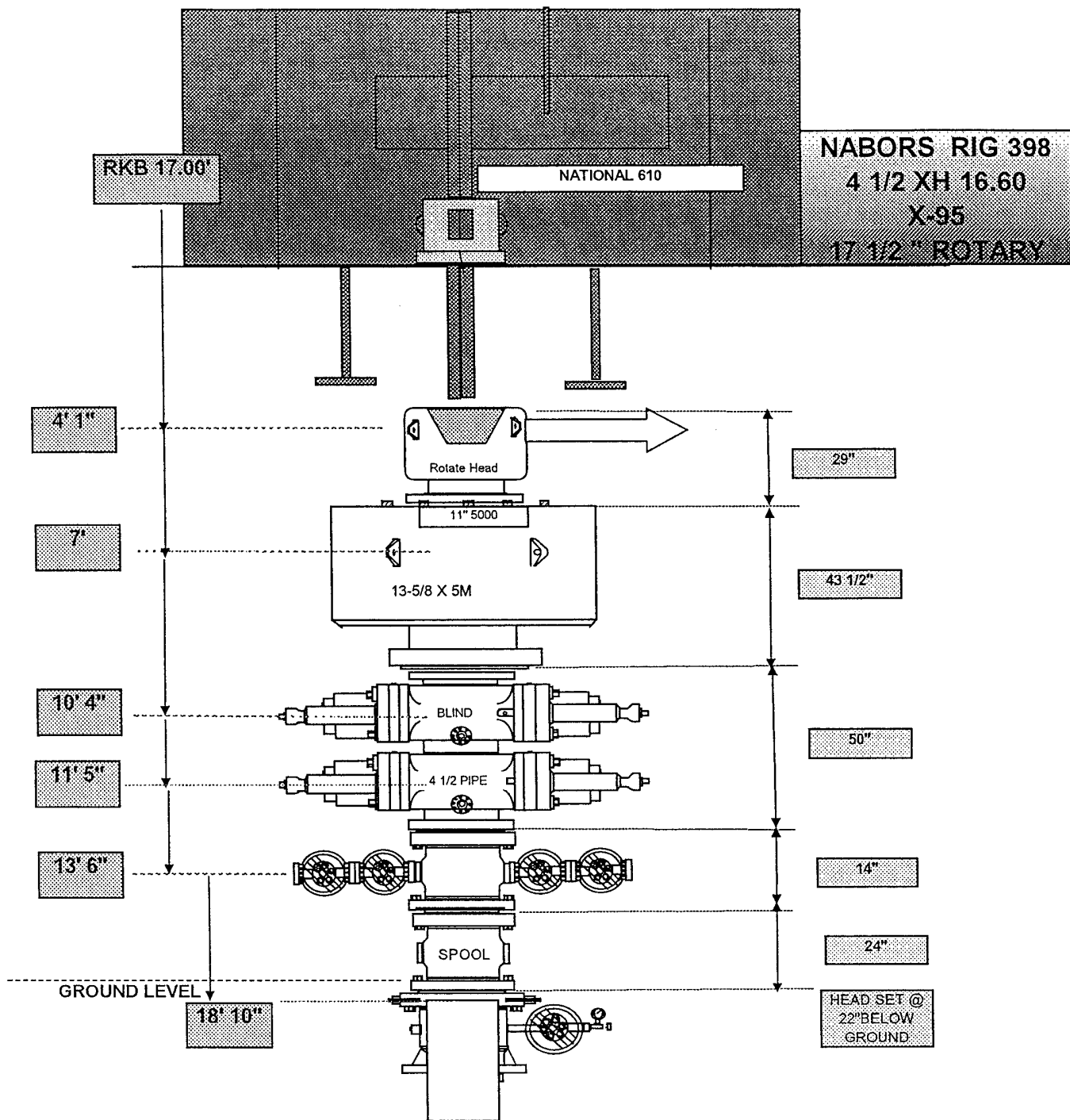
05111574

SCALE: NONE

# NABORS RIG NO. 398 DRILLING LOCATION PLAT

NORTH ↑

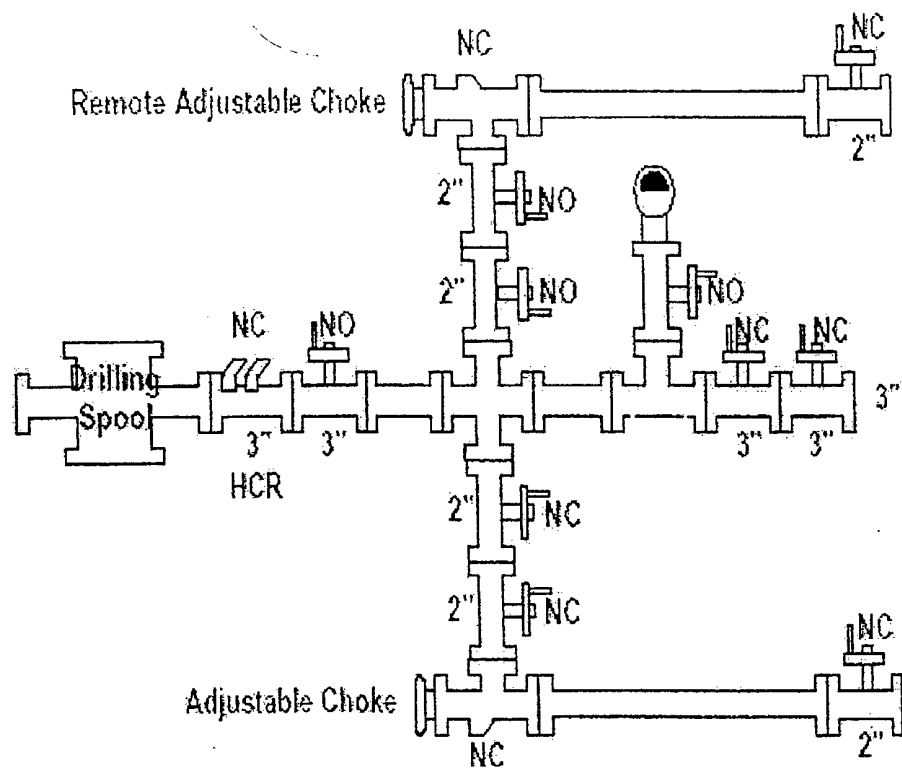




ANNULAR = HYDRIL 13 5/8" 5M
DOUBLE = SHAFFER 13 5/8" 5M
WELL HEAD = 13 5/8" 3M
KILL LINE VALVES = 2.1/16 5M
CHOKE LINE VALVE = 4 1/16 5M

5000 psi rated equipment

NO	Normally Open
NC	Normally Closed



## H2S DRILLING OPERATIONS PLAN

### I. HYDROGEN SULFIDE TRAINING

All contractors and subcontractors employed by Chevron U.S.A. Inc. will receive or have received training from a qualified instructor within the last twelve months in the following areas prior to commencing drilling operations on this well.

1. The hazards and characteristics of hydrogen sulfide (H2S)
2. Safety precautions
3. Operations of safety equipment and life support systems

In addition, Chevron supervisory personnel will be trained or prepared in the following areas:

1. The effect of H2S on metal components in the system. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-down procedures when drilling or working a well, blowout prevention and well control procedures, if the nature of work performed involves these items.
3. The contents and requirements of the contingency plan when such plan is required.

All personnel will be required to carry documentation of the above training on their person.

### II. H2S EQUIPMENT AND SYSTEMS

#### 1. Safety Equipment

The following safety equipment will be on location.

- A. Wind direction indicators as seen in attached diagram.
- B. Automatic H2S detection alarm equipment (both audio and visual).
- C. Clearly visible warning signs as seen on the attached diagram. Signs will use the words "POISON GAS" and "CAUTION" with a strong color contrast.
- D. Protective breathing equipment will be located in the dog house and at the briefing areas as seen in the attached diagram.



## 2. Well Control Systems

### A. Blowout Prevention Equipment

Equipment includes but is not limited to:

- a. pipe rams to accommodate all pipe sizes
- b. blind rams
- c. choke manifold
- d. closing unit

Auxiliary equipment added as appropriate includes:

- |                                     |            |
|-------------------------------------|------------|
| a. annular preventor                | <u>N/A</u> |
| b. rotating head                    | <u>N/A</u> |
| c. mud-gas separator                | <u>N/A</u> |
| d. flare line and means of ignition | <u>N/A</u> |
| e. remote operated choke            | <u>N/A</u> |

### B. Communication

The rig contractor will be required to have a two-way communication capability. Chevron U.S.A. Inc. will have either land-line or mobile telephone capabilities.

### C. Mud Program

The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to surface. Proper mud weight, safe drilling practices, and the use of H<sub>2</sub>S scavengers when appropriate will minimize hazards when penetrating H<sub>2</sub>S bearing formations.

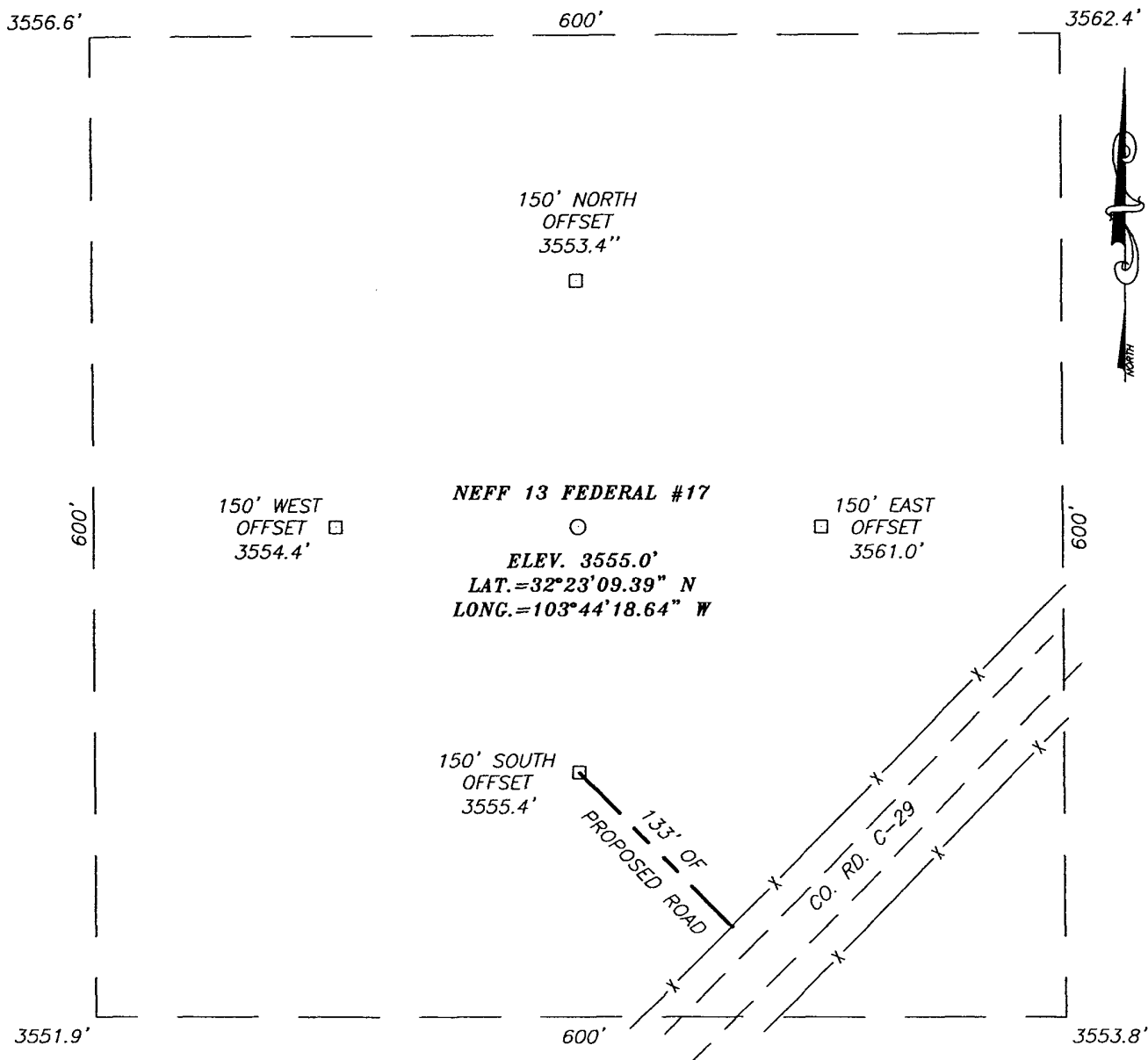
### D. No Drill Stem Tests are planned.

## III. WELL SITE DIAGRAM

A complete well site diagram including the following information is attached.

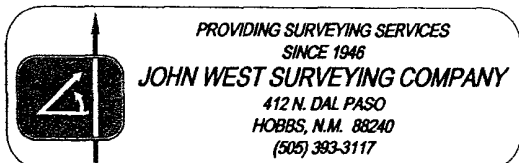
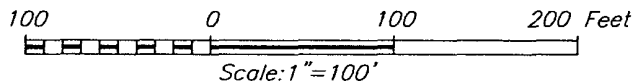
- 1. Rig orientation
- 2. Briefing areas
- 3. Ingress and egress
- 4. Pits and flare lines
- 5. Caution and danger signs
- 6. Wind indicators and prevailing wind direction

**SECTION 13, TOWNSHIP 22 SOUTH, RANGE 31 EAST, N.M.P.M.,**  
 EDDY COUNTY, NEW MEXICO



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF U.S. HWY #62-180 AND CO. RD. C-29 (CAMPBELL RD.) GO SOUTH-SW ON C.R. C-29 APPROX 12.9 MILES. TO A STAKED ROAD ON THE RIGHT. FOLLOW STAKED ROAD NORTHWEST APPROX. 133 FEET TO THIS LOCATION.



**CHEVRONTEXACO CORPORATION**

NEFF 13 FEDERAL #17 WELL  
 LOCATED 660 FEET FROM THE SOUTH LINE  
 AND 330 FEET FROM THE WEST LINE OF SECTION 13,  
 TOWNSHIP 22 SOUTH, RANGE 31 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.

Survey Date: 07/14/05	Sheet 1 of 1 Sheets		
W.O. Number: 05.11.1038	Dr By: GS	Rev 1:N/A	
Date: 07/21/05	Disk: CD#4	05111038	Scale: 1"=100'

SURFACE USE AND OPERATIONS PLAN FOR  
CHEVRON U.S.A. INC.

Neff 13 Federal #17  
660' FSL and 330' FWL,  
Section 13, Township 22 South, Range 31 East, N.M.P.M.  
Eddy County, New Mexico

LOCATED: 29 miles east of Carlsbad, New Mexico

FEDERAL LEASE NUMBER: NM 29233

LEASE ISSUED: February 1, 1997. Lease is in producing status.

ACRES IN LEASE: 1120

RECORD LESSEE: Pogo Producing, Inc.

SURFACE OWNERSHIP: U.S.A.

GRAZING PERMITTEE: Ken Smith Corporation  
P.O. Box 764  
Carlsbad, NM 88220

POOL: Livingston Ridge Delaware

POOL RULES: Field Rules are for no wells to be located closer than 330' to any quarter-quarter Section line, to be 330' from the Lease line and 330' from the nearest well.

EXHIBITS:

- A. Access Road and Facilities Map
- B. Drilling Rig Layout Diagram
- C. Well Location and Acreage Dedication Plat

## 1. EXISTING ACCESS ROADS

A. Exhibit "A" is a portion of a 7.5 minute U.S.G.S. topographic map at a scale of 1"=1000' showing the proposed well site and the existing roads in the area. Point "A" is the junction of the proposed resource road with Eddy County Road 798 (RED). This point is 12.1 miles Southerly along Lea County Road H-29 Campbell and Eddy County Road 798, from the intersection with U.S. Highway 62 & 180. This intersection is approximately 32 miles Northeasterly from Carlsbad, N.M. and 40 miles Southwesterly from Hobbs, N.M. along said U.S. Highway 62 & 180. Point "A" is also approximately 9.1 miles Northerly along Eddy County Road 798, from the intersection with State Highway 128, which is approximately 34 miles Westerly of Jal, N.M.

## 2. PLANNED RESOURCE ROAD

A. Length and Width: From Point "A" as shown on Exhibit "A", a new 14 foot wide Resource road will be constructed 133 feet Northwesterly (Shown in Blue on Exhibit "A") with access at the center of the south line of the proposed well pad, as shown on Exhibits "A" and "B".

B. Surfacing Material: Caliche material will be used to surface the proposed road. It will be watered, compacted and graded.

C. Maximum Grade: An approximate grade of one to two percent will be encountered ascending from Point "A" to the proposed well pad.

D. Turnouts: One required.

E. Drainage Design: The new road will be crowned at the center to direct drainage to ditches on both sides of the roadway with turnout ditches to be constructed as required.

F. Culverts: One under cattle guard required.

G. Cuts and Fills: A slight amount of leveling will be required.

H. Gates and Cattle Guards: One cattle guard required.

3. LOCATION OF EXISTING WELLS

A. Existing wells on the lease and in the immediate area are shown on Exhibit "A".

4. LOCATION OF EXISTING AND PROPOSED FACILITIES

A. The oil, gas and/or water that this well will produce will be transported by a 2 or 2-1/2" steel surface flowline (shown in Green on Exhibit "A") laying along the side of the proposed resource road and Northeasterly along Eddy County Road 798 and crossing 798 at the proposed resource road to the Neff "13" Federal #19, continuing Northeasterly along 798 to existing resource roads; then east & north to the Neff "13" Federal Battery located on the east side of the existing well No. 2 pad as shown on Exhibit "A".

B. No electric power line will be built to service this well at this time.

5. LOCATION AND TYPE OF WATER SUPPLY

A. It is not contemplated that a water well would be drilled. Water necessary for drilling operations will be purchased and trucked to the well site or will be transported to the well site by a temporary pipeline laid on the ground alongside existing and proposed roads.

6. SOURCE OF CONSTRUCTION MATERIALS

A. Caliche needed for the road and well pad will be taken from an existing pit in the SW/4, NW/4 of Section 1, T23S, R31E, Eddy County, New Mexico. It will be transported to the proposed road and well site by Eddy County Road 798 and the existing resource roads.

7. METHOD OF HANDLING WASTE DISPOSAL

A. Drill cuttings will be disposed of in the drilling pits.

B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.

C. Water produced during tests will be disposed of at commercial or company facilities.

D. Oil produced during tests will be stored in test tanks until sold.

E. Trash, waste paper, garbage and junk will be stored in a trash bin located on the drill site pad. It will be transported to an approved landfill for disposal within 30 days after completion of drilling and/or completion of operations. All waste material will be contained to prevent scattering by the wind. Location of trash bin is shown on Exhibit "B".

#### 8. ANCILLARY FACILITIES

A. None required.

#### 9. WELL SITE LAYOUT

A. Exhibit "B" shows the relative location and dimensions of the well pad, mud pits, borrow pit, and the location of the major rig components.

B. Cut and Fill requirements will be minor, but clearing and leveling of the well site will be necessary.

#### 10. PLANS FOR RECLAMATION OF THE SURFACE

A. After completion of drilling and/or completion of operations, all equipment and other material not necessary for operations will be removed. Pits will be filled and the location will be cleaned of all trash and junk to leave the well site in an as aesthetically pleasing condition as possible.

B. Any unguarded pits containing fluids will be fenced until the pits are dry.

C. After abandonment, all equipment, trash and junk will be removed and the well site will be cleaned. Any special reclamation and/or special re-vegetation requirements of the Surface Management Agency will be complied with and will be accomplished as rapidly as possible.

#### 11. OTHER INFORMATION

A. Topography: The land surface in the area of the well is relatively level with small and moderate sand dunes. Regionally, the land slopes to the Southwest with average slopes of less than one or two percent.

B. Soil: Top soil at the well site is a deep sandy loam.

C. Flora and Fauna: The vegetation cover is moderate and includes range grasses, weeds, scrub oak bushes and mesquite bush. Wildlife in the area is that typical of a semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, hawks, dove, quail and other small birds.

D. Ponds and Streams: There are no rivers, lakes, ponds or streams in the area.

E. Residences and Other Structures: There are no occupied dwellings or other structures within ¾ mile of the well site.

F. Archaeological, Historical or other Cultural Sites: None were observed in the area.

G. Land Use: Grazing, oil and gas production and wildlife habitat.

H. Surface Ownership: Federal

12. OPERATOR'S REPRESENTATIVE

Boyd Schaneman  
Drilling Superintendent  
15 Smith Road  
Midland, Texas 79705  
Office Phone: 432-687-7402

CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Chevron U.S.A. Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

11-15-05  
Date

Boyd Schaneman BWP  
Boyd Schaneman  
Drilling Superintendent  
Midland, Texas

Enclosures  
jls

JWS 05111574

# SPECIAL DRILLING STIPULATIONS

## THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name: Chevron USA, Inc. Well Name & #: Neff 13 Fed. #17  
 Location 660 F S L & 330 F W L; Sec. 13, T. 22 S., R. 31 E.  
 Lease #: NM-29233 County: Eddy State: New Mexico

The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CFR 3165.3 AND 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

### I. SPECIAL ENVIRONMENT REQUIREMENTS

- ( ☒ ) Lesser Prairie Chicken (stips attached) ( ☐ ) Flood plain (stips attached)  
 ( ☐ ) San Simon Swale (stips attached) ( ☐ ) Other

### II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

- ( ☒ ) The BLM will monitor construction of this drill site. Notify the ( ☒ ) Carlsbad Field Office at (505) 234-5972 ( ☐ ) Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.  
 ( ☒ ) Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche upon completion of well and it is determined to be a producer.  
 ( ☐ ) All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately \_\_\_\_\_ inches in depth. Approximately \_\_\_\_\_ cubic yards of topsoil material will be stockpiled for reclamation.  
 ( ☒ ) Other. **V-Door East (Reserve pits to the North).**

### III. WELL COMPLETION REQUIREMENTS

- ( ☐ ) A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.  
 ( ☒ ) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at depth of 1/2 inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre. If broadcasting, the seeding rate must be doubled.  

( <input type="checkbox"/> ) A. Seed Mixture 1 (Loamy Sites)	( <input checked="" type="checkbox"/> ) B. Seed Mixture 2 (Sandy Sites)
Side Oats Grama ( <i>Bouteloua curtipendula</i> ) 5.0	Sand Dropseed ( <i>Sporobolus cryptandrus</i> ) 1.0
Sand Dropseed ( <i>Sporobolus cryptandrus</i> ) 1.0	Sand Lovegrass ( <i>Eragrostis trichodes</i> ) 1.0
Plains lovegrass ( <i>Eragrostis intermedia</i> ) 0.5	Plains Bristlegrass ( <i>Setaria magrostachya</i> ) 2.0
( <input type="checkbox"/> ) C. Seed Mixture 3 (Shallow Sites)	( <input type="checkbox"/> ) D. Seed Mixture 4 (Gypsum Sites)
Side oats Grama ( <i>Bouteloua curtipendula</i> ) 5.0	Alkali Sacaton ( <i>Sporobolus airoides</i> ) 1.0
Green Spangletop ( <i>Leptochloa dubia</i> ) 2.0	Four-Wing Saltbush ( <i>Atriplex canescens</i> ) 5.0
Plains Bristlegrass ( <i>Setaria magrostachya</i> ) 1.0	

 ( ☐ ) OTHER SEE ATTACHED SEED MIXTURE

Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring to take advantage of available ground moisture.

- ( ☐ ) Other



#### RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6-mil plastic.

Mineral material extracted from within the boundary of the APD during construction of the well pad and reserve pits and be used for the construction of this well pad and its immediate access road only, as long as that portion of the access road it is use on remains on-lease. Removal of any additional material from this location for construction or improvement of other well pads and other access or lease roads must first be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

#### CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. *From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to process by BLM.*

#### TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

PRAIRIE CHICKENS

No surface use is allowed during the following time periods; unless otherwise specified, this stipulation does not apply to operation and maintenance of production facilities.

On the lands described below:

T. 22 S., R. 31 E  
Section 13:ALL

For the purpose of: Protecting Prairie Chickens:

Drilling for oil and gas, and 3-D geophysical exploration operations will not be allowed in Lesser Prairie Chicken Habitat during the period of March 15 through June 15, each year. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 a.m. and 9:00 a.m. The 3:00 a.m. and 9:00 a.m. restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during the period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

## CONDITIONS OF APPROVAL - DRILLING

Well Name & No. 17 Neff 13 Federal  
Operator's Name: Chevron U.S.A. Inc.  
Location: 0660FSL, 0330FWL, Section 13, T-22-S, R-31-E  
Lease: NM-29233

### I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5972 or (505) 361-2822 - for wells in Eddy County in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: 13-3/8 inch 8-5/8 inch 5-1/2 inch

C. BOP tests

2. A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan should be activated prior to drilling into the Delaware Formation. A copy of the plan shall be posted at the drilling site. **H<sub>2</sub>S has been reported in Sections 21, 23, 25, T-22-S, R-32-E measuring 500-1000 ppm in the gas streams and 100-2000 ppm in STVs. It has also been reported in Sections 24, 26, and 27 with no measurements given.**

3. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

6. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

7. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

### II. CASING:

1. The 13-3/8 inch surface casing shall be set **a minimum of 25 feet into the Rustler Anhydrite approximately 825 feet**, below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string. **Fresh water mud to be used to setting depth of surface casing.**

**Possible lost circulation in the Delaware and Bone Spring formations.**

**Possible water flows in the Salado and Castile groups.**

**High pressure gas is possible from the Wolfcamp formation and the Pennsylvanian system.**

2. The minimum required fill of cement behind the 8-5/8 inch salt protection casing is **circulate cement to the surface.**

3. The minimum required fill of cement behind the 5-1/2 inch production casing is **cement shall circulate to surface.**

4. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

### **III. PRESSURE CONTROL:**

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the surface and intermediate casing shall be 2M psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the 8-5/8 inch casing shall be 3M psi.
3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
  - A variance to test the BOP, BOPE, and surface casing to the reduced pressure of 1000 psi is approved.
  - The tests shall be done by an independent service company.
  - The results of the test shall be reported to the appropriate BLM office.
  - Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
  - Testing must be done in a safe workman-like manner. Hard line connections shall be required.
  - BOPE must be tested prior to drilling into the Wolfcamp Formation by an independent service company.

### **IV. DRILLING MUD:**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp Formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

1. Recording pit level indicator to indicate volume gains and losses.
2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
3. Flow-sensor on the flow line to warn of abnormal mud returns from the well.

**Engineer on call phone: 505-706-2779**

**WWI 110806**