

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

oed Hobbs

FORM APPROVED  
OMB NO. 1004-0137  
Expires March 31, 2007

14-743

APPLICATION FOR PERMIT TO DRILL OR REENTER

|                                                                                                                                                                                                               |                                                   |                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------|
| 1a. Type of Work<br><input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER                                                                                                                |                                                   | 5. Lease Serial No.<br>SH:NMNM0381550C /EH:NMNM026395                      |
| 1b. Type of Well<br><input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone |                                                   | 6. If Indian, Allottee or Tribe Name                                       |
| 2. Name of Operator<br>XTO Energy Inc. (5380)                                                                                                                                                                 |                                                   | 7. Unit or CA Agreement Name and No.                                       |
| 3a. Address<br>200 LORRAINE STE. 800 MIDLAND, TX 79701                                                                                                                                                        | 3b. Phone No. (include area code)<br>432-620-6714 | 8. Lease Name and Well No.<br>Perla Negra Fed Com 2H (39834)               |
| 4. Location of Well (Report location clearly and in accordance with any State requirements)*<br>At surface 440 FSL & 2060 FWL (N)<br>At proposed prod. zone 200 FNL & 1890 FWL (C)                            |                                                   | 9. API Well No.<br>30-025-42709                                            |
| 14. Distance in miles and direction from nearest town or post office*<br>18 Miles West/Southwest of Hobbs, NM                                                                                                 |                                                   | 10. Field and Pool, or Exploratory<br>Lea; Bone Spring (37570)             |
| 15. Distance from proposed* location to nearest property or lease line, ft.<br>(Also to nearest drg. unit line, if any)<br>440'                                                                               |                                                   | 11. Sec., T., R., M., or Blk. and Survey or Area<br>Section 24, T19S, R34E |
| 16. No. of Acres in lease<br>SH:320, EH:480                                                                                                                                                                   |                                                   | 12. County or Parish<br>Lea                                                |
| 17. Spacing Unit dedicated to this well<br>160                                                                                                                                                                |                                                   | 13. State<br>NM                                                            |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.<br>SH: 1220'                                                                                       |                                                   | 19. Proposed Depth<br>MD: 15287'                                           |
| 20. BLM/BIA Bond No. on file<br>UTB000138                                                                                                                                                                     |                                                   | 21. Estimated duration<br>45 Days                                          |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br>3787' GL                                                                                                                                               |                                                   | 22. Approximate date work will start*<br>ASAP                              |
| 23. Estimated duration                                                                                                                                                                                        |                                                   |                                                                            |

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- |                                                                                                                                                 |                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1. Well plat certified by a registered surveyor.                                                                                                | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan                                                                                                                              | 5. Operator certification.                                                                         |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

|                                         |                                           |                     |
|-----------------------------------------|-------------------------------------------|---------------------|
| 25. Signature<br>Stephanie Rabadue      | Name (Printed/Typed)<br>Stephanie Rabadue | Date<br>03/10/2014  |
| Title<br>Regulatory Analyst             |                                           |                     |
| Approved by (Signature)<br>Steve Caffey | Name (Printed/Typed)                      | Date<br>JUL 28 2015 |
| Title<br>FIELD MANAGER                  |                                           |                     |
| Office<br>CARLSBAD FIELD OFFICE         |                                           |                     |

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

Capitan Controlled Water Basin

Approval Subject to General Requirements  
& Special Stipulations Attached

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

JUL 31 2015

DRILLING PLAN: BLM COMPLIANCE  
(Supplement to BLM 3160-3)

HOBBS OC

JUL 30 20

RECEIVED

XTO Energy Inc.  
Perla Negra Federal COM 2H  
Projected TD: 15287' MD / 10824' TVD  
SHL: 440' FSL & 2060' FWL, SECTION 24, T19S, R34E  
BHL: 200' FNL & 1890' FWL, SECTION 24, T19S, R34E  
Lea County, NM

1. GEOLOGIC NAME OF SURFACE FORMATION:

A. Quaternary

2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

| Formation                      | Well Depth (TVD) | Water / Oil / Gas |
|--------------------------------|------------------|-------------------|
| Rustler                        | 1806'            | Water             |
| Top of Salt                    | 1974'            |                   |
| Base of Salt                   | 3284'            |                   |
| Yates                          | 3478'            | Water/Oil/Gas     |
| Seven Rivers                   | 4046'            | Water/Oil/Gas     |
| Queen                          | 4716'            | Water/Oil/Gas     |
| Brushy Canyon                  | 6656'            | Water/Oil/Gas     |
| Bone Spring                    | 8196'            | Water/Oil/Gas     |
| 1 <sup>st</sup> Bone Spring Ss | 9541'            | Water/Oil/Gas     |
| 2 <sup>nd</sup> Bone Spring Ss | 10069'           | Water/Oil/Gas     |
| 3 <sup>rd</sup> Bone Spring Ss | 10699'           | Water/Oil/Gas     |
| Target/Land Curve              | 10886'           | Water/Oil/Gas     |

\*\*\* Hydrocarbons @ Brushy Canyon

\*\*\* Groundwater depth 180'.

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13-3/8" casing @ 1900' above the salt and circulating cement back to surface. The salt will be isolated by setting 9-5/8" casing at 3800' and circulating cement to surface. A 8-3/4" curve and lateral hole will be drilled to MD/TD and 5-1/2" casing with sliding frac sleeves will be set at TD and cemented back up to the 9-5/8" casing shoe.

3. CASING PROGRAM:

See COA

| Hole Size | Depth       | OD Csg  | Weight | Collar | Grade   | New/Used | SF Burst | SF Collapse | SF Tension |
|-----------|-------------|---------|--------|--------|---------|----------|----------|-------------|------------|
| 17-1/2"   | 0' - 1900'  | 13-3/8" | 54.5#  | STC    | J-55    | New      | 4.01     | 1.30        | 4.96       |
| 12-1/4"   | 0' - 3800'  | 9-5/8"  | 40#    | LTC    | J-55    | New      | 2.39     | 1.28        | 3.42       |
| 8-3/4"    | 0' - 15287' | 5-1/2"  | 17#    | BTC    | HCP-110 | New      | 1.12     | 1.47        | 2.19       |

9/12/2014

## WELLHEAD:

- A. Starting Head: 13-5/8" 3000 psi top flange x 13-3/8" SOW bottom
- B. 'B' Section/ Drilling Spool: 13-5/8" 3000psi bottom flange x 11" 5M top flange
- C. Tubing Head: 11" 5000psi bottom flange x 7-1/16" 10,000psi top flange

## 4. CEMENT PROGRAM:

- A. Surface Casing: 13-3/8", 54.5#, NEW J-55, STC casing to be set at  $\pm 1900'$ .

Lead: 20 bbls FW, then 1250 sx ExtendaCem-CZ (mixed at 13.7 ppg, 1.68 ft<sup>3</sup>/sk, 8.72 gal/sx wtr) Compr Strengths 12 hr – 470 psi 24 hr – 1055 psi

Tail: 440 sx HalCem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/sk, 6.39 gal/sx wtr)

Compr Strengths: 12 hr – 900 psi 24 hr – 1500 psi

\*\*\*All volumes 100% excess in open hole. Cement to surface.

- B. Intermediate Casing: 9-5/8", 40#, NEW J-55, LTC casing to be set at  $\pm 3800'$ .

Lead: 20 bbls FW, then 900 sx EconoCem-HLC + 5% salt + 5 lbm/sk Kol-Seal (mixed at 12.9 ppg, 1.88 ft<sup>3</sup>/sk, 9.61 gal/sx wtr) Compr Strengths 12 hr – 320 psi 24 hr – 623 psi

Tail: 250 sx HalCem-C (mixed at 14.8 ppg, 1.33 ft<sup>3</sup>/sk, 6.34 gal/sx wtr)

Compr Strengths: 12 hr – 900 psi 24 hr – 1500 psi

\*\*\*All volumes 100% excess in open hole. Cement to surface.

- C. Production Casing: 5-1/2", 17#, NEW HCP-110, BTC casing to be set at  $\pm 15287'$ . Casing will be cemented and will include sliding sleeves for the completion.

Lead: 20 bbls FW, then 730 sx Tuned Light + 0.5 lbm/sk CFR-3 + 1.5 lbm/sk salt + 0.1% HR601 (mixed at 10.5 ppg, 2.69 ft<sup>3</sup>/sk, 12.26 gal/sx wtr) Compr Strengths 12 hr – 126 psi 16 hr – 500 psi 48 hr – 1106 psi

Tail: 1250 sx VersaCem PBHS2 + 0.5% LAP-2 + 0.25 lbm/sk D-air 5000 + 0.2% HR 601 (mixed at 13.2 ppg, 1.59 ft<sup>3</sup>/sk, 8.29 gal/sx wtr) Compr Strengths: 12 hr – 1375 psi 24 hr – 2285 psi

\*\*\*All volumes 30% excess in open hole. Planned top of cement 500' into intermediate casing shoe

## 5. PRESSURE CONTROL EQUIPMENT: See COA

The blow out preventer equipment (BOP) for this well consists of a 13-5/8" 3M Hydril and a 13-5/8" 5M Double Ram BOP.

All BOP testing will be done by an independent service company. When nipping up on the 13-5/8" 3M bradenhead and flange, pressure testing BOP will be limited to 3000psi. When nipping up on the 9-5/8", pressure testing BOP will be limited to 5000psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagram is attached.

## 6. PROPOSED MUD CIRCULATION SYSTEM:

| INTERVAL        | Hole Size | Mud Type                     | MW (ppg) | Viscosity (sec/qt) | Fluid Loss (cc) |
|-----------------|-----------|------------------------------|----------|--------------------|-----------------|
| 0' to 1900'     | 17-1/2"   | FW/Native                    | 8.5-8.8  | 35-40              | NC              |
| 1900' to 3800'  | 12-1/4"   | Brine/Gel Sweeps             | 9.8-10.2 | 30-32              | NC              |
| 3800' to 15287' | 8-3/4"    | FW / Cut Brine / Poly-Sweeps | 8.6-8.8  | 29-32              | NC - 20         |

The necessary mud products for weight addition and fluid loss control will be on location at all times.

Spud with fresh water/native mud. Drill out from under 13-3/8" surface casing with brine solution. A 9.8ppg-10.2ppg brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

## 7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- A. A Kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
- C. H2S monitors will be on location when drilling below the 13-3/8" casing.

## 8. LOGGING, CORING AND TESTING PROGRAM:

Mud Logger: Mud Logging Unit (2 man) on @ 3800'.

Catch 20' samples from 3800' to landing point

Catch 30' samples from landing point to TD/MD.

Send 1 set of dry samples to Midland Sample Library.

Open hole logging to include Density/Neutron/PE/Dual Laterlog/Spectral Gamma from kick-off point to intermediate casing shoe.

## 9. ABNORMAL PRESSURES AND TEMPERATURES / POTENTIAL HAZARDS:

None anticipated. Max bottom hole pressure should not exceed 4870 psi. BHT of 150 F is anticipated.

No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid.

## 10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

Road and location construction will begin after Santa Fe and BLM have approved the APD. Anticipated spud date will be as soon after Santa Fe and BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 40 days. If production casing is run, an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

## 11. SPECIAL INSTRUCTIONS:

- A. Reports should be filled out on the XTO Drilling Report form, and the Casing/Cementing Detail Forms provided. *See COA*
- B. ~~WOC~~ a minimum of 24 hours before drilling out shoe joint on surface and intermediate casing strings. Use minimal WOB and RPM until drill collars are below the shoe joints.
- C. Function test BOP blind rams each trip and pipe rams each day. Strap out of hole for logging and/or casing jobs.
- D. A trash trailer will be provided on each location. Keep trash picked up and the location as clean as possible. All drilling line, oil filters, etc. should be hauled away at the Drilling Contractor's expense. At the conclusion of drilling operations, the contents of the trash trailer will be disposed of into a commercial sanitary landfill.
- E. The reserve pits should be lined with a plastic liner in order to contain the drill cuttings and drilling fluids. At the conclusion of the drilling operations, all re-usable drilling fluid should be moved to the next well in the drilling order.



# XTO Energy Inc.

**HALLIBURTON**

Sperry Drilling

Project: Lea County, NM (NAD27)  
Site: Perla Negra Federal Com  
Well: Perla Negra Federal Com 2H  
Wellbore: Wellbore #1  
Plan: Plan #1  
Rig: Pioneer 33

## SURFACE LOCATION

US State Plane 1927 (Exact solution)  
New Mexico East 3001  
Elevation: GL 3787' + KB 17" @ 3804.00usft (Pioneer 33)  
Northing Easting Latitude Longitude  
597390.80 751854.80 32° 38' 22.789 N 103° 30' 54.596 W

## WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

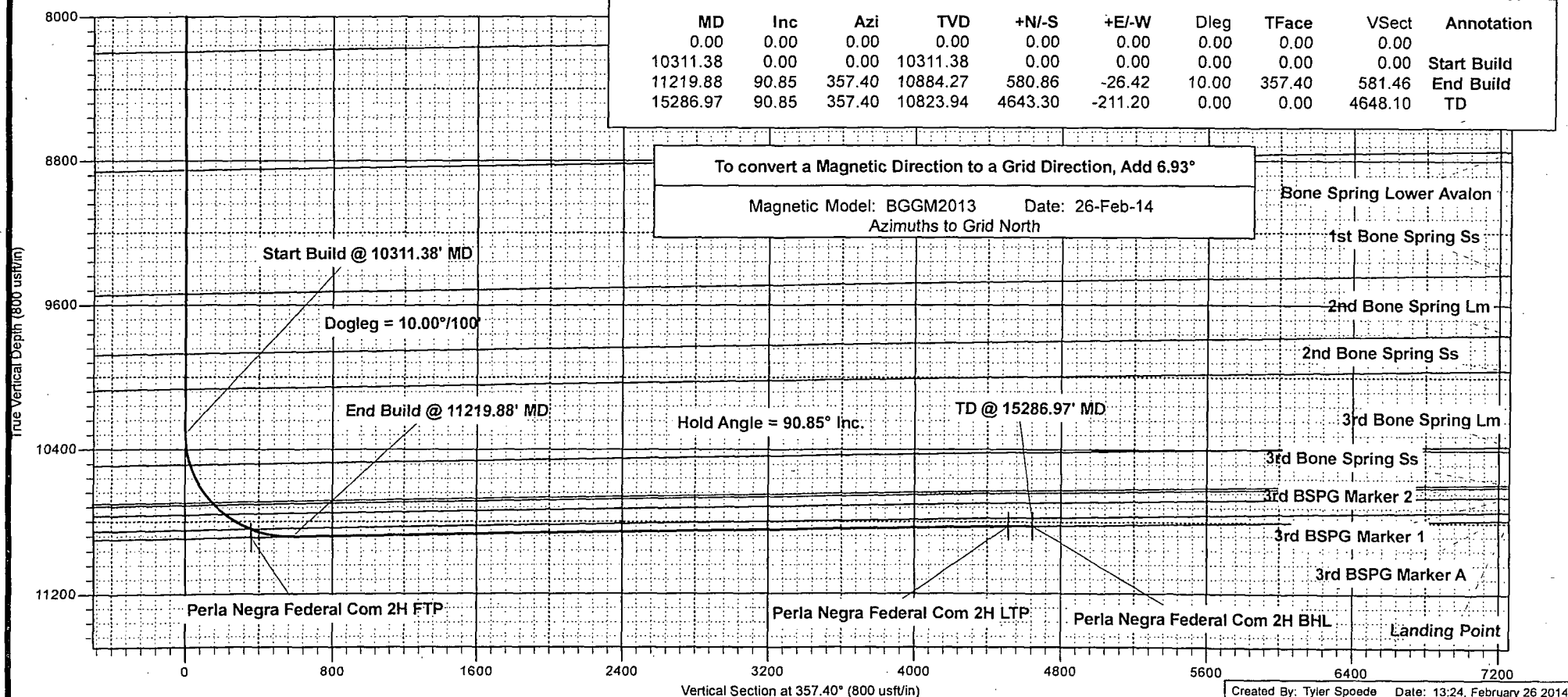
| Name                           | TVD      | +N/-S   | +E/-W   | Northing  | Easting   | Latitude         | Longitude         |
|--------------------------------|----------|---------|---------|-----------|-----------|------------------|-------------------|
| Perla Negra Federal Com 2H BHL | 10823.94 | 4643.30 | -211.20 | 602034.10 | 751643.60 | 32° 39' 8.749 N  | 103° 30' 56.647 W |
| Perla Negra Federal Com 2H LTP | 10825.87 | 4513.40 | -205.30 | 601904.20 | 751649.50 | 32° 39' 7.463 N  | 103° 30' 56.590 W |
| Perla Negra Federal Com 2H FTP | 10887.56 | 359.70  | -16.40  | 597750.50 | 751838.40 | 32° 38' 26.349 N | 103° 30' 54.755 W |

## SECTION DETAILS

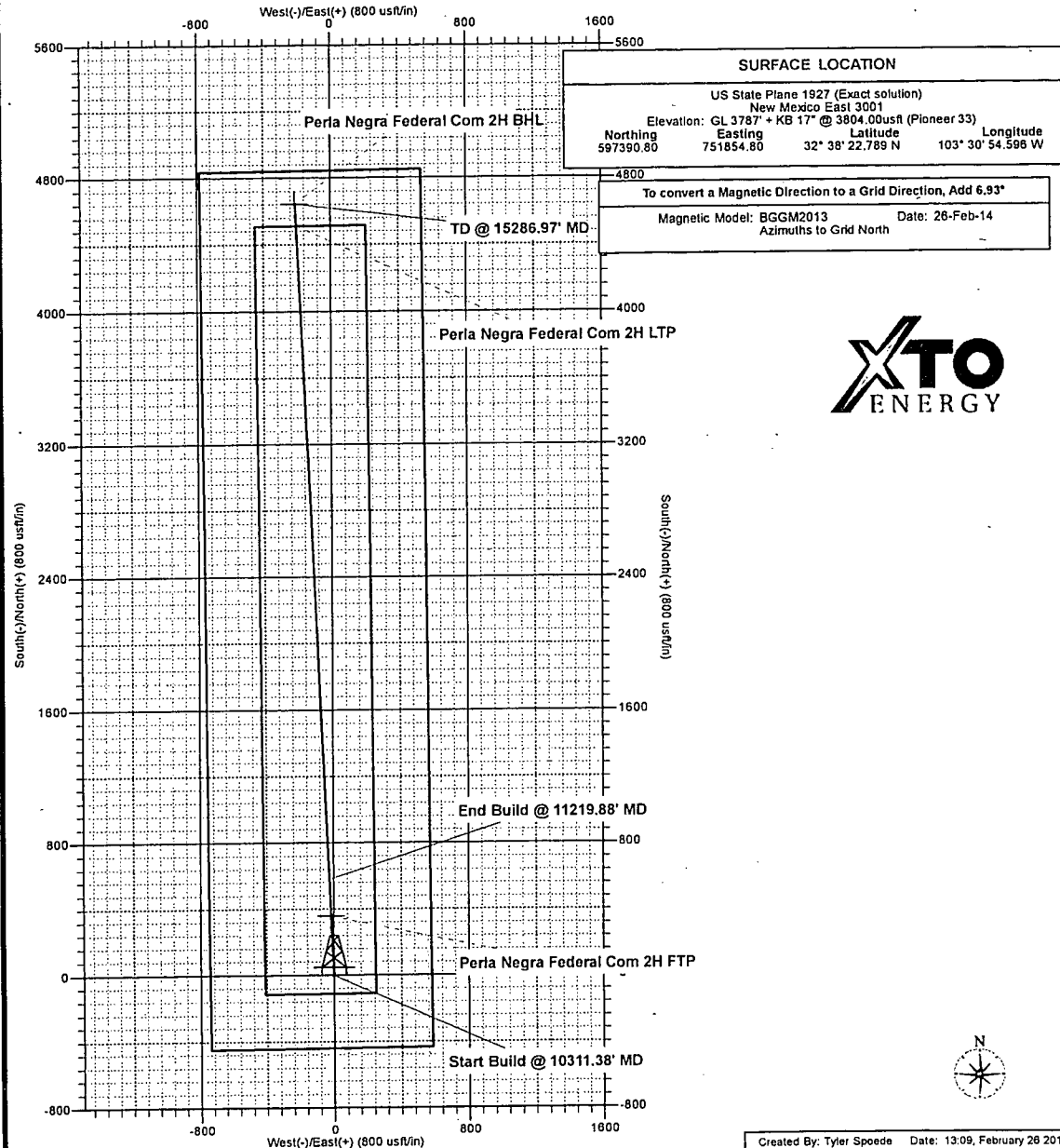
| MD       | Inc   | Azi    | TVD      | +N/-S   | +E/-W   | Dleg  | TFace  | Vsect   | Annotation  |
|----------|-------|--------|----------|---------|---------|-------|--------|---------|-------------|
| 0.00     | 0.00  | 0.00   | 0.00     | 0.00    | 0.00    | 0.00  | 0.00   | 0.00    |             |
| 10311.38 | 0.00  | 0.00   | 10311.38 | 0.00    | 0.00    | 0.00  | 0.00   | 0.00    | Start Build |
| 11219.88 | 90.85 | 357.40 | 10884.27 | 580.86  | -26.42  | 10.00 | 357.40 | 581.46  | End Build   |
| 15286.97 | 90.85 | 357.40 | 10823.94 | 4643.30 | -211.20 | 0.00  | 0.00   | 4648.10 | TD          |

To convert a Magnetic Direction to a Grid Direction, Add 6.93°

Magnetic Model: BGGM2013 Date: 26-Feb-14  
Azimuths to Grid North



Project: Lea County, NM (NAD27)  
 Site: Perla Negra Federal Com  
 Well: Perla Negra Federal Com 2H  
 Wellbore: Wellbore #1  
 Plan: Plan #1  
 Rig: Pioneer 33



# **XTO Energy Inc.**

Lea County, NM (NAD27)  
Perla Negra Federal Com  
Perla Negra Federal Com 2H

Wellbore #1

Plan: Plan #1

## **Sperry Drilling Services Proposal Report**

26 February, 2014

Well Coordinates: 597,390.80 N, 751,854.80 E (32° 38' 22.79" N, 103° 30' 54.60" W)  
Ground Level: 3,787.00 usft

|                          |                                              |
|--------------------------|----------------------------------------------|
| Local Coordinate Origin: | Centered on Well Perla Negra Federal Com 2H  |
| Viewing Datum:           | GL 3787' + KB 17" @ 3804.00usft (Pioneer 33) |
| TVDs to System:          | N                                            |
| North Reference:         | Grid                                         |
| Unit System:             | API - US Survey Feet                         |

Version: 5000.1 Build: 65

**HALLIBURTON**

## Plan Report for Perla Negra Federal Com 2H - Plan #1

| Measured Depth (usft) | Inclination (") | Azimuth (") | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate ("/100usft) | Build Rate ("/100usft) | Turn Rate ("/100usft) | Toolface Azimuth (") |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|----------------------|
| 0.00                  | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 100.00                | 0.00            | 0.00        | 100.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 200.00                | 0.00            | 0.00        | 200.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 300.00                | 0.00            | 0.00        | 300.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 400.00                | 0.00            | 0.00        | 400.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 500.00                | 0.00            | 0.00        | 500.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 600.00                | 0.00            | 0.00        | 600.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 700.00                | 0.00            | 0.00        | 700.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 800.00                | 0.00            | 0.00        | 800.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 900.00                | 0.00            | 0.00        | 900.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 1,000.00              | 0.00            | 0.00        | 1,000.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 1,100.00              | 0.00            | 0.00        | 1,100.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 1,200.00              | 0.00            | 0.00        | 1,200.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 1,300.00              | 0.00            | 0.00        | 1,300.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 1,400.00              | 0.00            | 0.00        | 1,400.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 1,500.00              | 0.00            | 0.00        | 1,500.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 1,600.00              | 0.00            | 0.00        | 1,600.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 1,700.00              | 0.00            | 0.00        | 1,700.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 1,800.00              | 0.00            | 0.00        | 1,800.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 1,900.00              | 0.00            | 0.00        | 1,900.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 2,000.00              | 0.00            | 0.00        | 2,000.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 2,100.00              | 0.00            | 0.00        | 2,100.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 2,200.00              | 0.00            | 0.00        | 2,200.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 2,300.00              | 0.00            | 0.00        | 2,300.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 2,400.00              | 0.00            | 0.00        | 2,400.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 2,500.00              | 0.00            | 0.00        | 2,500.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 2,600.00              | 0.00            | 0.00        | 2,600.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 2,700.00              | 0.00            | 0.00        | 2,700.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 2,800.00              | 0.00            | 0.00        | 2,800.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 2,900.00              | 0.00            | 0.00        | 2,900.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 3,000.00              | 0.00            | 0.00        | 3,000.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 3,100.00              | 0.00            | 0.00        | 3,100.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 3,200.00              | 0.00            | 0.00        | 3,200.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 3,300.00              | 0.00            | 0.00        | 3,300.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 3,400.00              | 0.00            | 0.00        | 3,400.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 3,500.00              | 0.00            | 0.00        | 3,500.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 3,600.00              | 0.00            | 0.00        | 3,600.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 3,700.00              | 0.00            | 0.00        | 3,700.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 3,800.00              | 0.00            | 0.00        | 3,800.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 3,900.00              | 0.00            | 0.00        | 3,900.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 4,000.00              | 0.00            | 0.00        | 4,000.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 4,100.00              | 0.00            | 0.00        | 4,100.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 4,200.00              | 0.00            | 0.00        | 4,200.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 4,300.00              | 0.00            | 0.00        | 4,300.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 4,400.00              | 0.00            | 0.00        | 4,400.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 4,500.00              | 0.00            | 0.00        | 4,500.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 4,600.00              | 0.00            | 0.00        | 4,600.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 4,700.00              | 0.00            | 0.00        | 4,700.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 4,800.00              | 0.00            | 0.00        | 4,800.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 4,900.00              | 0.00            | 0.00        | 4,900.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 5,000.00              | 0.00            | 0.00        | 5,000.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 5,100.00              | 0.00            | 0.00        | 5,100.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 5,200.00              | 0.00            | 0.00        | 5,200.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 5,264.00              | 0.00            | 0.00        | 5,264.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| Capitan               |                 |             |                       |              |              |                         |                         |                        |                       |                      |
| 5,300.00              | 0.00            | 0.00        | 5,300.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 5,400.00              | 0.00            | 0.00        | 5,400.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 5,500.00              | 0.00            | 0.00        | 5,500.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |

# HALLIBURTON

## Plan Report for Perla Negra Federal Com 2H - Plan #1

| Measured<br>Depth<br>(usft)     | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Bulld<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) | Toolface<br>Azimuth<br>(°) |
|---------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|----------------------------|
| 5,600.00                        | 0.00               | 0.00           | 5,600.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 5,700.00                        | 0.00               | 0.00           | 5,700.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 5,800.00                        | 0.00               | 0.00           | 5,800.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 5,900.00                        | 0.00               | 0.00           | 5,900.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 6,000.00                        | 0.00               | 0.00           | 6,000.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 6,100.00                        | 0.00               | 0.00           | 6,100.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 6,200.00                        | 0.00               | 0.00           | 6,200.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 6,300.00                        | 0.00               | 0.00           | 6,300.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 6,400.00                        | 0.00               | 0.00           | 6,400.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 6,500.00                        | 0.00               | 0.00           | 6,500.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 6,600.00                        | 0.00               | 0.00           | 6,600.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 6,654.00                        | 0.00               | 0.00           | 6,654.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| <b>Brushy Canyon</b>            |                    |                |                             |                 |                 |                               |                               |                              |                             |                            |
| 6,700.00                        | 0.00               | 0.00           | 6,700.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 6,800.00                        | 0.00               | 0.00           | 6,800.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 6,900.00                        | 0.00               | 0.00           | 6,900.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 7,000.00                        | 0.00               | 0.00           | 7,000.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 7,100.00                        | 0.00               | 0.00           | 7,100.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 7,200.00                        | 0.00               | 0.00           | 7,200.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 7,300.00                        | 0.00               | 0.00           | 7,300.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 7,400.00                        | 0.00               | 0.00           | 7,400.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 7,500.00                        | 0.00               | 0.00           | 7,500.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 7,600.00                        | 0.00               | 0.00           | 7,600.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 7,700.00                        | 0.00               | 0.00           | 7,700.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 7,800.00                        | 0.00               | 0.00           | 7,800.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 7,900.00                        | 0.00               | 0.00           | 7,900.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 8,000.00                        | 0.00               | 0.00           | 8,000.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 8,100.00                        | 0.00               | 0.00           | 8,100.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 8,194.00                        | 0.00               | 0.00           | 8,194.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| <b>Bone Spring</b>              |                    |                |                             |                 |                 |                               |                               |                              |                             |                            |
| 8,200.00                        | 0.00               | 0.00           | 8,200.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 8,300.00                        | 0.00               | 0.00           | 8,300.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 8,400.00                        | 0.00               | 0.00           | 8,400.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 8,500.00                        | 0.00               | 0.00           | 8,500.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 8,600.00                        | 0.00               | 0.00           | 8,600.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 8,700.00                        | 0.00               | 0.00           | 8,700.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 8,800.00                        | 0.00               | 0.00           | 8,800.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 8,854.00                        | 0.00               | 0.00           | 8,854.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| <b>Bone Spring Lower Avalon</b> |                    |                |                             |                 |                 |                               |                               |                              |                             |                            |
| 8,900.00                        | 0.00               | 0.00           | 8,900.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 9,000.00                        | 0.00               | 0.00           | 9,000.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 9,100.00                        | 0.00               | 0.00           | 9,100.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 9,200.00                        | 0.00               | 0.00           | 9,200.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 9,300.00                        | 0.00               | 0.00           | 9,300.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 9,400.00                        | 0.00               | 0.00           | 9,400.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 9,500.00                        | 0.00               | 0.00           | 9,500.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 9,539.00                        | 0.00               | 0.00           | 9,539.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| <b>1st Bone Spring Ss</b>       |                    |                |                             |                 |                 |                               |                               |                              |                             |                            |
| 9,600.00                        | 0.00               | 0.00           | 9,600.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 9,700.00                        | 0.00               | 0.00           | 9,700.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 9,800.00                        | 0.00               | 0.00           | 9,800.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 9,871.00                        | 0.00               | 0.00           | 9,871.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| <b>2nd Bone Spring Lm</b>       |                    |                |                             |                 |                 |                               |                               |                              |                             |                            |
| 9,900.00                        | 0.00               | 0.00           | 9,900.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 10,000.00                       | 0.00               | 0.00           | 10,000.00                   | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 10,067.00                       | 0.00               | 0.00           | 10,067.00                   | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| <b>2nd Bone Spring Ss</b>       |                    |                |                             |                 |                 |                               |                               |                              |                             |                            |
| 10,100.00                       | 0.00               | 0.00           | 10,100.00                   | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |
| 10,200.00                       | 0.00               | 0.00           | 10,200.00                   | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        | 0.00                       |

# HALLIBURTON

## Plan Report for Perla Negra Federal Com 2H - Plan #1

| Measured Depth (usft)                               | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | Toolface Azimuth (°) |
|-----------------------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|----------------------|
| 10,300.00                                           | 0.00            | 0.00        | 10,300.00             | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 10,311.38                                           | 0.00            | 0.00        | 10,311.38             | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| Start Build @ 10311.38' MD - Dogleg = 10.00°/100'   |                 |             |                       |              |              |                         |                         |                        |                       |                      |
| 10,350.00                                           | 3.86            | 357.40      | 10,349.97             | 1.30         | -0.06        | 1.30                    | 10.00                   | 10.00                  | 0.00                  | 357.40               |
| 10,400.00                                           | 8.86            | 357.40      | 10,399.65             | 6.83         | -0.31        | 6.84                    | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 10,450.00                                           | 13.86           | 357.40      | 10,448.65             | 16.67        | -0.76        | 16.69                   | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 10,488.40                                           | 17.70           | 357.40      | 10,485.60             | 27.10        | -1.23        | 27.13                   | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 3rd Bone Spring Lm                                  |                 |             |                       |              |              |                         |                         |                        |                       |                      |
| 10,500.00                                           | 18.86           | 357.40      | 10,496.61             | 30.74        | -1.40        | 30.77                   | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 10,550.00                                           | 23.86           | 357.40      | 10,543.16             | 48.92        | -2.23        | 48.98                   | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 10,600.00                                           | 28.86           | 357.40      | 10,587.95             | 71.10        | -3.23        | 71.17                   | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 10,650.00                                           | 33.86           | 357.40      | 10,630.63             | 97.08        | -4.42        | 97.18                   | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 10,700.00                                           | 38.86           | 357.40      | 10,670.88             | 126.69       | -5.76        | 126.82                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 10,731.45                                           | 42.01           | 357.40      | 10,694.82             | 147.06       | -6.69        | 147.21                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 3rd Bone Spring Ss                                  |                 |             |                       |              |              |                         |                         |                        |                       |                      |
| 10,748.95                                           | 43.76           | 357.40      | 10,707.64             | 158.96       | -7.23        | 159.12                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 3rd BSPG Marker 2                                   |                 |             |                       |              |              |                         |                         |                        |                       |                      |
| 10,750.00                                           | 43.86           | 357.40      | 10,708.40             | 159.68       | -7.26        | 159.85                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 10,800.00                                           | 48.86           | 357.40      | 10,742.89             | 195.82       | -8.91        | 196.02                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 10,827.98                                           | 51.66           | 357.40      | 10,760.77             | 217.31       | -9.88        | 217.53                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 3rd BSPG Marker 1                                   |                 |             |                       |              |              |                         |                         |                        |                       |                      |
| 10,850.00                                           | 53.86           | 357.40      | 10,774.10             | 234.82       | -10.68       | 235.07                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 10,900.00                                           | 58.86           | 357.40      | 10,801.79             | 276.40       | -12.57       | 276.68                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 10,950.00                                           | 63.86           | 357.40      | 10,825.74             | 320.22       | -14.57       | 320.55                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 10,988.99                                           | 67.76           | 357.40      | 10,841.72             | 355.74       | -16.18       | 356.11                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 3rd BSPG Marker A                                   |                 |             |                       |              |              |                         |                         |                        |                       |                      |
| 11,000.00                                           | 68.86           | 357.40      | 10,845.79             | 365.96       | -16.65       | 366.34                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 11,007.41                                           | 69.60           | 357.40      | 10,848.41             | 372.89       | -16.96       | 373.27                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| Perla Negra Federal Com 2H FTP                      |                 |             |                       |              |              |                         |                         |                        |                       |                      |
| 11,050.00                                           | 73.86           | 357.40      | 10,861.76             | 413.28       | -18.80       | 413.70                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 11,100.00                                           | 78.86           | 357.40      | 10,873.55             | 461.80       | -21.00       | 462.28                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 11,150.00                                           | 83.86           | 357.40      | 10,881.05             | 511.17       | -23.25       | 511.70                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 11,200.00                                           | 88.86           | 357.40      | 10,884.22             | 561.00       | -25.52       | 561.58                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| 11,218.80                                           | 90.74           | 357.40      | 10,884.29             | 579.78       | -26.37       | 580.38                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| Landing Point                                       |                 |             |                       |              |              |                         |                         |                        |                       |                      |
| 11,219.88                                           | 90.85           | 357.40      | 10,884.27             | 580.86       | -26.42       | 581.46                  | 10.00                   | 10.00                  | 0.00                  | 0.00                 |
| End Build @ 11219.88' MD - Hold Angle = 90.85° Inc. |                 |             |                       |              |              |                         |                         |                        |                       |                      |
| 11,300.00                                           | 90.85           | 357.40      | 10,883.09             | 660.89       | -30.06       | 661.57                  | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 11,400.00                                           | 90.85           | 357.40      | 10,881.60             | 760.77       | -34.60       | 761.56                  | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 11,500.00                                           | 90.85           | 357.40      | 10,880.12             | 860.66       | -39.15       | 861.55                  | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 11,600.00                                           | 90.85           | 357.40      | 10,878.64             | 960.54       | -43.69       | 961.54                  | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 11,700.00                                           | 90.85           | 357.40      | 10,877.15             | 1,060.43     | -48.23       | 1,061.53                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 11,800.00                                           | 90.85           | 357.40      | 10,875.67             | 1,160.31     | -52.78       | 1,161.51                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 11,900.00                                           | 90.85           | 357.40      | 10,874.18             | 1,260.20     | -57.32       | 1,261.50                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 12,000.00                                           | 90.85           | 357.40      | 10,872.70             | 1,360.09     | -61.86       | 1,361.49                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 12,100.00                                           | 90.85           | 357.40      | 10,871.22             | 1,459.97     | -66.41       | 1,461.48                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 12,200.00                                           | 90.85           | 357.40      | 10,869.73             | 1,559.86     | -70.95       | 1,561.47                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 12,300.00                                           | 90.85           | 357.40      | 10,868.25             | 1,659.74     | -75.49       | 1,661.46                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 12,400.00                                           | 90.85           | 357.40      | 10,866.77             | 1,759.63     | -80.04       | 1,761.45                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 12,500.00                                           | 90.85           | 357.40      | 10,865.28             | 1,859.51     | -84.58       | 1,861.44                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 12,600.00                                           | 90.85           | 357.40      | 10,863.80             | 1,959.40     | -89.12       | 1,961.43                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 12,700.00                                           | 90.85           | 357.40      | 10,862.32             | 2,059.29     | -93.67       | 2,061.42                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 12,800.00                                           | 90.85           | 357.40      | 10,860.83             | 2,159.17     | -98.21       | 2,161.40                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 12,900.00                                           | 90.85           | 357.40      | 10,859.35             | 2,259.06     | -102.75      | 2,261.39                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 13,000.00                                           | 90.85           | 357.40      | 10,857.87             | 2,358.94     | -107.30      | 2,361.38                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 13,100.00                                           | 90.85           | 357.40      | 10,856.38             | 2,458.83     | -111.84      | 2,461.37                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 13,200.00                                           | 90.85           | 357.40      | 10,854.90             | 2,558.71     | -116.38      | 2,561.36                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 13,300.00                                           | 90.85           | 357.40      | 10,853.42             | 2,658.60     | -120.93      | 2,661.35                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 13,400.00                                           | 90.85           | 357.40      | 10,851.93             | 2,758.49     | -125.47      | 2,761.34                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |

## Plan Report for Perla Negra Federal Com 2H - Plan #1

| Measured Depth (usft)                              | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | Toolface Azimuth (°) |
|----------------------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|----------------------|
| 13,500.00                                          | 90.85           | 357.40      | 10,850.45             | 2,858.37     | -130.01      | 2,861.33                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 13,600.00                                          | 90.85           | 357.40      | 10,848.97             | 2,958.26     | -134.56      | 2,961.32                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 13,700.00                                          | 90.85           | 357.40      | 10,847.48             | 3,058.14     | -139.10      | 3,061.31                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 13,800.00                                          | 90.85           | 357.40      | 10,846.00             | 3,158.03     | -143.64      | 3,161.29                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 13,900.00                                          | 90.85           | 357.40      | 10,844.52             | 3,257.91     | -148.19      | 3,261.28                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 14,000.00                                          | 90.85           | 357.40      | 10,843.03             | 3,357.80     | -152.73      | 3,361.27                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 14,100.00                                          | 90.85           | 357.40      | 10,841.55             | 3,457.69     | -157.27      | 3,461.26                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 14,200.00                                          | 90.85           | 357.40      | 10,840.06             | 3,557.57     | -161.82      | 3,561.25                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 14,300.00                                          | 90.85           | 357.40      | 10,838.58             | 3,657.46     | -166.36      | 3,661.24                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 14,400.00                                          | 90.85           | 357.40      | 10,837.10             | 3,757.34     | -170.90      | 3,761.23                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 14,500.00                                          | 90.85           | 357.40      | 10,835.61             | 3,857.23     | -175.45      | 3,861.22                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 14,600.00                                          | 90.85           | 357.40      | 10,834.13             | 3,957.11     | -179.99      | 3,961.21                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 14,700.00                                          | 90.85           | 357.40      | 10,832.65             | 4,057.00     | -184.53      | 4,061.19                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 14,800.00                                          | 90.85           | 357.40      | 10,831.16             | 4,156.89     | -189.08      | 4,161.18                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 14,900.00                                          | 90.85           | 357.40      | 10,829.68             | 4,256.77     | -193.62      | 4,261.17                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 15,000.00                                          | 90.85           | 357.40      | 10,828.20             | 4,356.66     | -198.16      | 4,361.16                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 15,100.00                                          | 90.85           | 357.40      | 10,826.71             | 4,456.54     | -202.71      | 4,461.15                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 15,156.92                                          | 90.85           | 357.40      | 10,825.87             | 4,513.40     | -205.29      | 4,518.07                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| Perla Negra Federal Com 2H LTP                     |                 |             |                       |              |              |                         |                         |                        |                       |                      |
| 15,200.00                                          | 90.85           | 357.40      | 10,825.23             | 4,556.43     | -207.25      | 4,561.14                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| 15,286.97                                          | 90.85           | 357.40      | 10,823.94             | 4,643.30     | -211.20      | 4,648.10                | 0.00                    | 0.00                   | 0.00                  | 0.00                 |
| TD @ 15286.97' MD - Perla Negra Federal Com 2H BHL |                 |             |                       |              |              |                         |                         |                        |                       |                      |

Plan Annotations

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                    |
|-----------------------|-----------------------|-------------------|--------------|----------------------------|
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                            |
| 10,311.38             | 10,311.38             | 0.00              | 0.00         | Start Build @ 10311.38' MD |
| 10,311.38             | 10,311.38             | 0.00              | 0.00         | Dogleg = 10.00°/100'       |
| 11,219.88             | 10,884.27             | 580.86            | -26.42       | End Build @ 11219.88' MD   |
| 11,219.88             | 10,884.27             | 580.86            | -26.42       | Hold Angle = 90.85° Inc.   |
| 15,286.97             | 10,823.94             | 4,643.30          | -211.20      | TD @ 15286.97' MD          |

Vertical Section Information

| Angle Type | Target               | Azimuth (°) | Origin Type | +N/-S (usft) | +E/-W (usft) | Start TVD (usft) |
|------------|----------------------|-------------|-------------|--------------|--------------|------------------|
| TD         | No Target (Freehand) | 357.40      | Slot        | 0.00         | 0.00         | 0.00             |

Survey tool program

| From (usft) | To (usft) | Survey/Plan | Survey Tool |
|-------------|-----------|-------------|-------------|
| 0.00        | 15,286.97 | Plan #1     | MWD         |

# HALLIBURTON

## Plan Report for Perla Negra Federal Com 2H - Plan #1

### Formation Details

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Name                     | Lithology | Dip<br>(°) | Dip<br>Direction<br>(°) |
|-----------------------------|-----------------------------|--------------------------|-----------|------------|-------------------------|
| 5,264.00                    | 5,264.00                    | Capitan                  |           | -0.85      | 357.40                  |
| 6,654.00                    | 6,654.00                    | Brushy Canyon            |           | -0.85      | 357.40                  |
| 8,194.00                    | 8,194.00                    | Bone Spring              |           | -0.85      | 357.40                  |
| 8,854.00                    | 8,854.00                    | Bone Spring Lower Avalon |           | -0.85      | 357.40                  |
| 9,539.00                    | 9,539.00                    | 1st Bone Spring Ss       |           | -0.85      | 357.40                  |
| 9,871.00                    | 9,871.00                    | 2nd Bone Spring Lm       |           | -0.85      | 357.40                  |
| 10,067.00                   | 10,067.00                   | 2nd Bone Spring Ss       |           | -0.85      | 357.40                  |
| 10,488.40                   | 10,486.00                   | 3rd Bone Spring Lm       |           | -0.85      | 357.40                  |
| 10,731.45                   | 10,697.00                   | 3rd Bone Spring Ss       |           | -0.85      | 357.40                  |
| 10,748.95                   | 10,710.00                   | 3rd BSPG Marker 2        |           | -0.85      | 357.40                  |
| 10,827.98                   | 10,764.00                   | 3rd BSPG Marker 1        |           | -0.85      | 357.40                  |
| 10,988.99                   | 10,847.00                   | 3rd BSPG Marker A        |           | -0.85      | 357.40                  |
| 11,218.80                   | 10,892.90                   | Landing Point            |           | -0.85      | 357.40                  |

### *Targets associated with this wellbore*

| Target Name                    | TVD<br>(usft) | +N-S<br>(usft) | +E-W<br>(usft) | Shape |
|--------------------------------|---------------|----------------|----------------|-------|
| Perla Negra Federal Com 2H FTP | 10,887.56     | 359.70         | -16.40         | Point |
| Perla Negra Federal Com 2H LTP | 10,825.87     | 4,513.40       | -205.30        | Point |
| Perla Negra Federal Com 2H BHL | 10,823.94     | 4,643.30       | -211.20        | Point |

## HALLIBURTON

### North Reference Sheet for Perla Negra Federal Com - Perla Negra Federal Com 2H - Wellbore #1

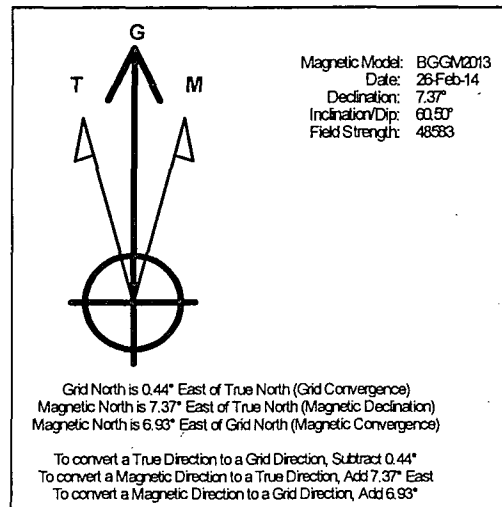
All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.  
Vertical Depths are relative to GL 3787' + KB 17" @ 3804.00usft (Pioneer 33). Northing and Easting are relative to Perla Negra Federal Com 2H  
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 3001 using datum NAD 1927 (NADCON CONUS), ellipsoid Clarke 1866

Projection method is Transverse Mercator (Gauss-Kruger)  
Central Meridian is -104.33°, Longitude Origin: 0° 0' 0.000 E°, Latitude Origin: 0° 0' 0.000 N°  
False Easting: 500,000.00usft, False Northing: 0.00usft, Scale Reduction: 0.99998173

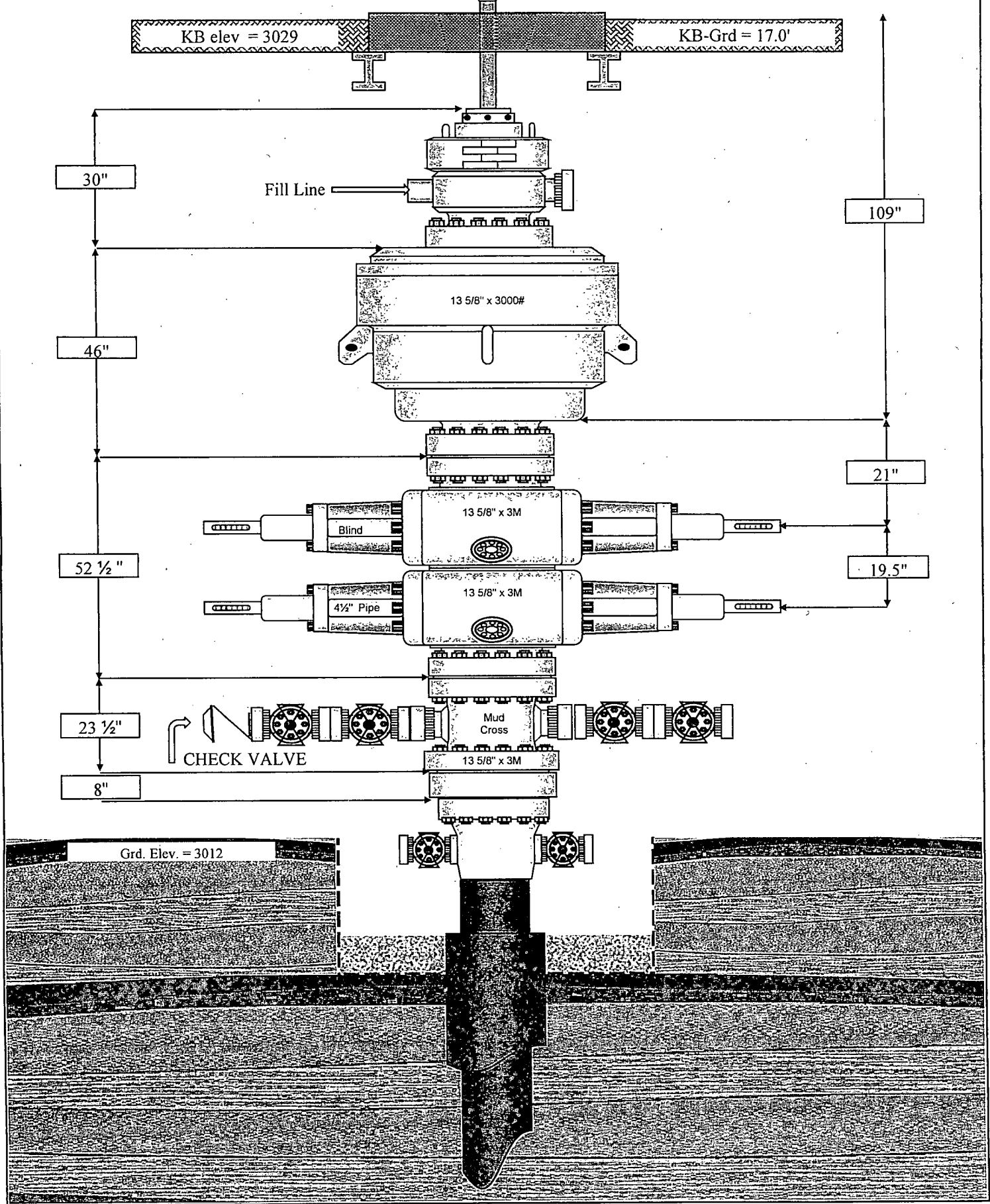
Grid Coordinates of Well: 597,390.80 usft N, 751,854.80 usft E  
Geographical Coordinates of Well: 32° 38' 22.79" N, 103° 30' 54.60" W  
Grid Convergence at Surface is: 0.44°

Based upon Minimum Curvature type calculations, at a Measured Depth of 15,286.97usft  
the Bottom Hole Displacement is 4,648.10usft in the Direction of 357.40° (Grid).

Magnetic Convergence at surface is: -6.93° (26 February 2014, , BGGM2013)

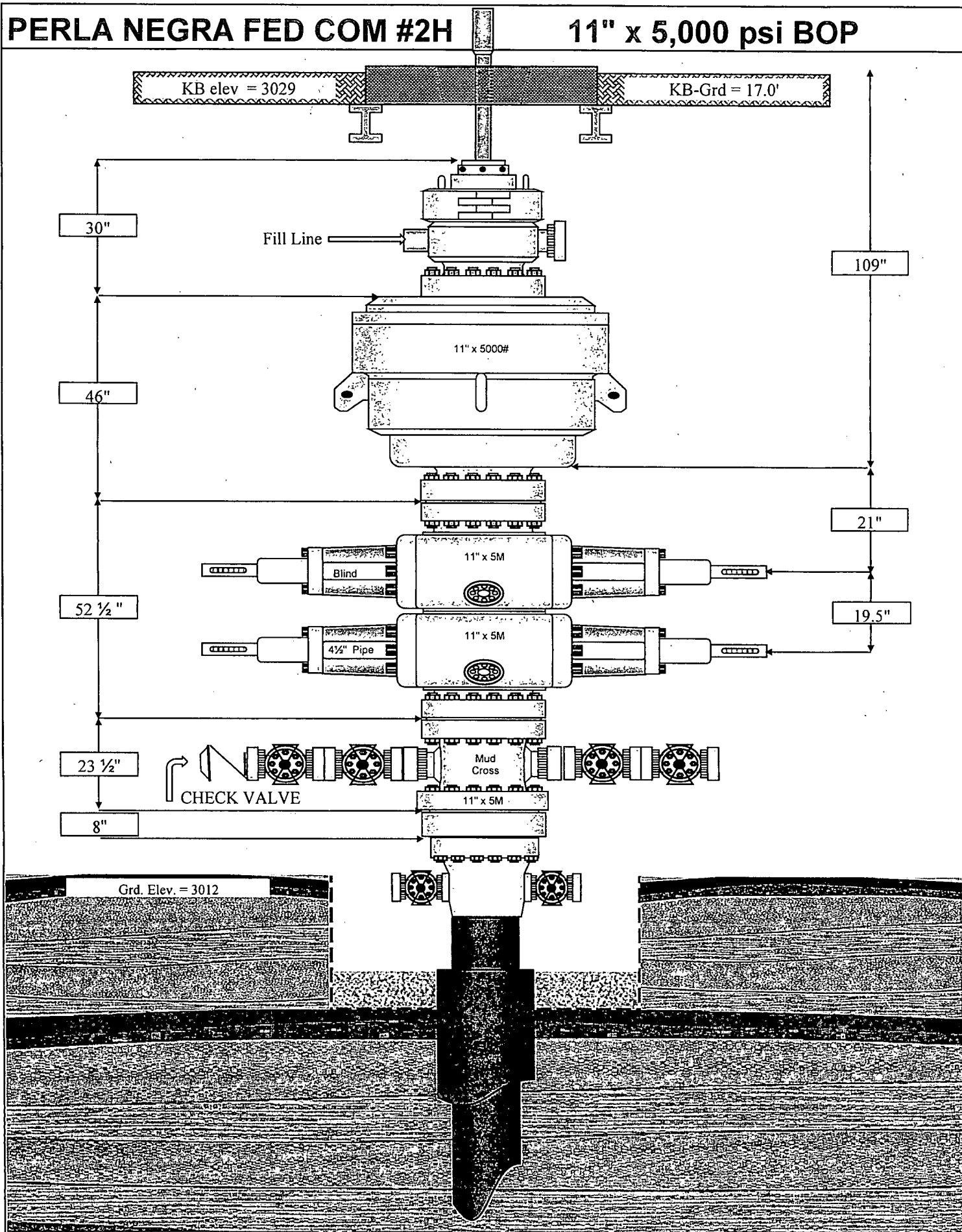


PERLA NEGRA FED COM #2H 13-5/8" x 3,000 psi BOP



# PERLA NEGRA FED COM #2H

11" x 5,000 psi BOP



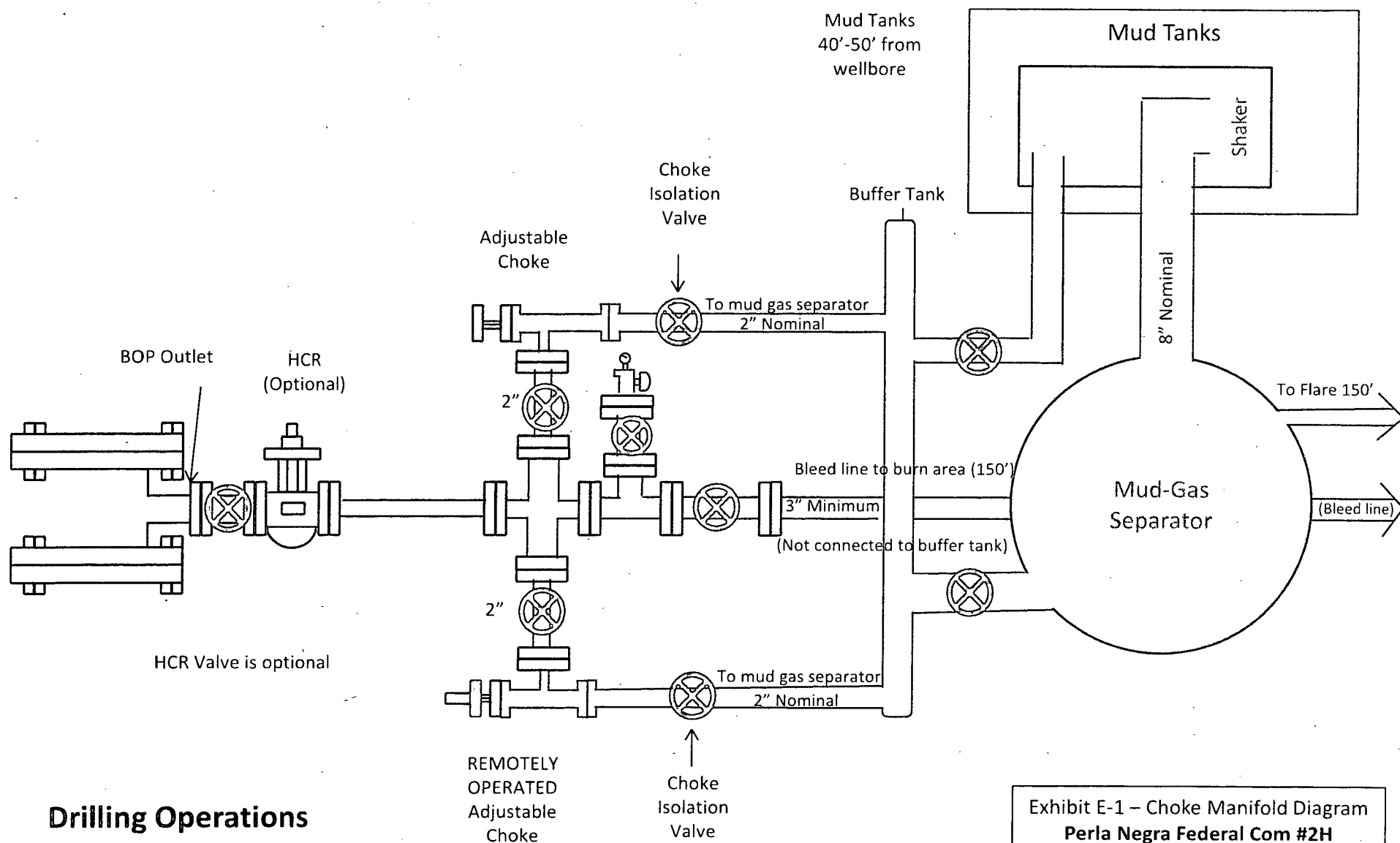
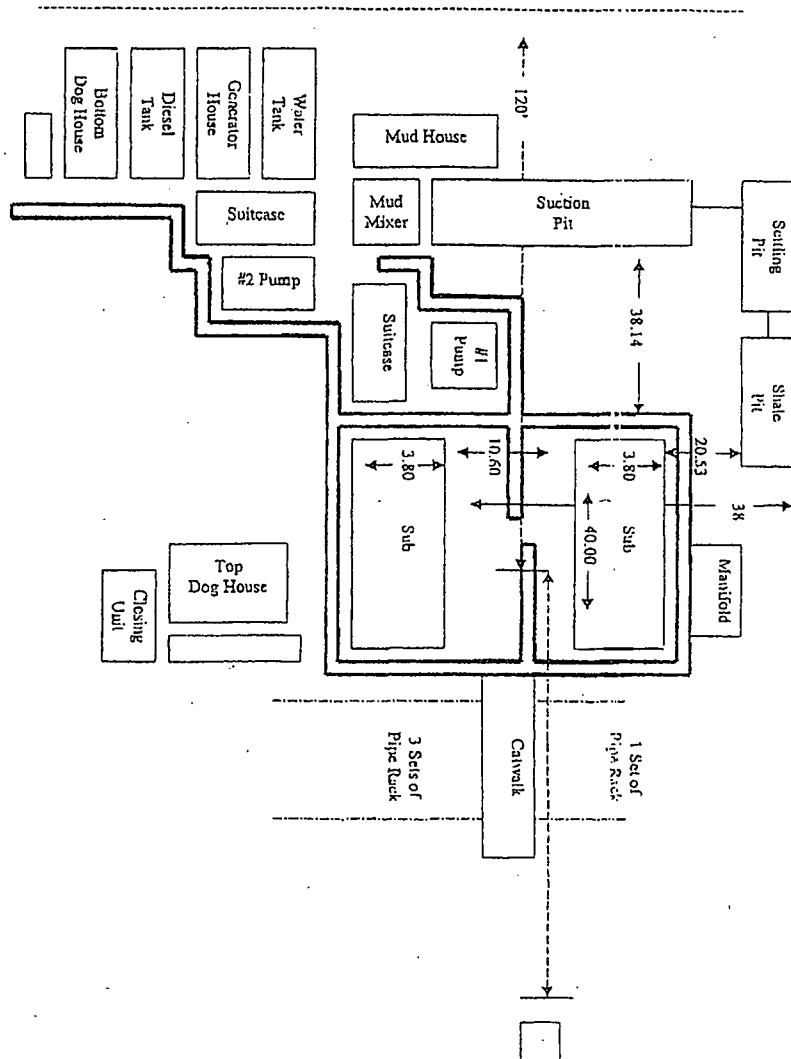


Exhibit E-1 – Choke Manifold Diagram  
 Perla Negra Federal Com #2H  
 XTO Energy, Inc..

**Drilling Operations**  
**Choke Manifold**  
**3M Service**

# Plat for Closed Loop System

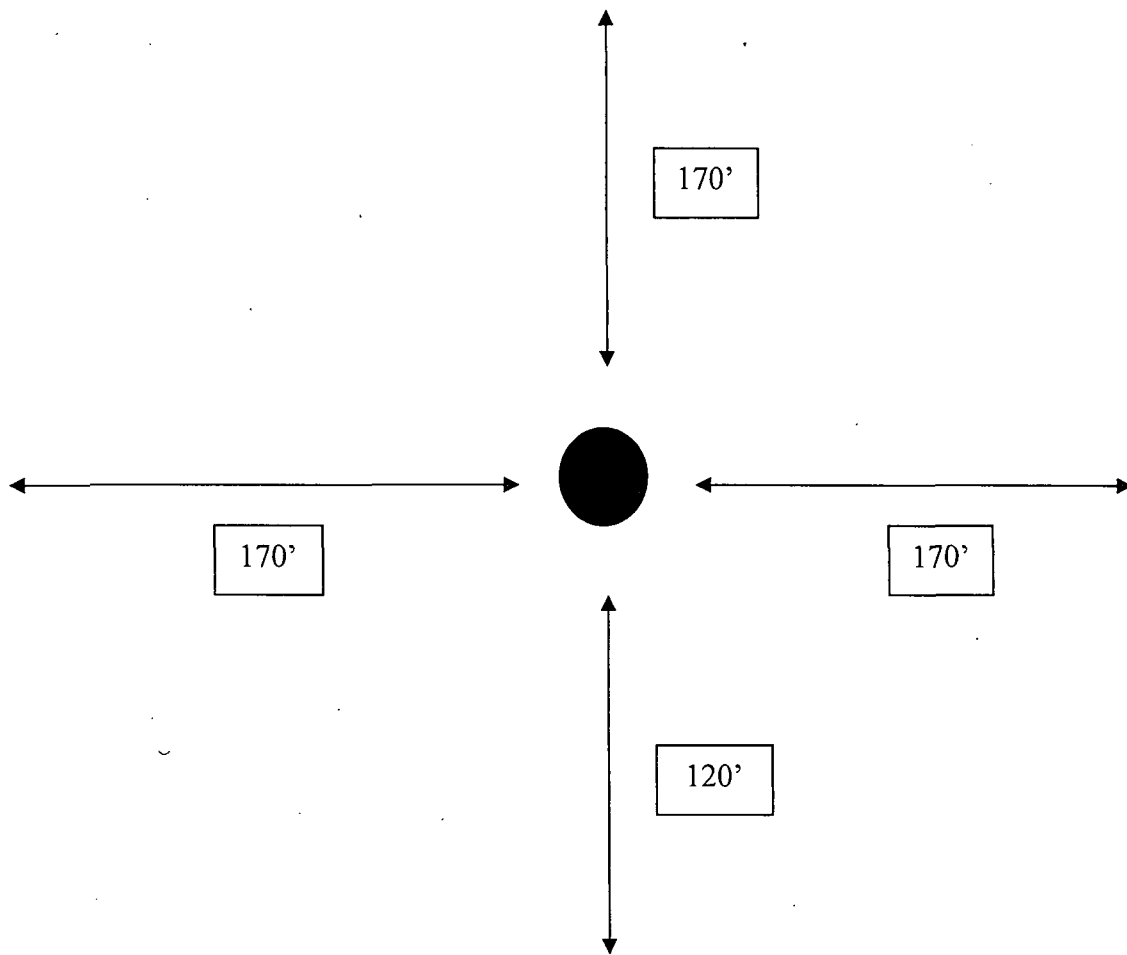


**EXHIBIT D**

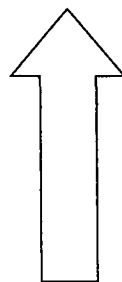
**Rig Plat Only  
PERLA NEGRA FED COM #2H  
V-DOOR WEST**

NORTH

14'



14'



N  
O  
R  
T  
H