

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

Carlsbad Field Office
OCD ArtesiaSerial No.
NM35607

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.

ROSS DRAW 25 31H

2. Name of Operator

XTO ENERGY INCORPORATED

Contact: STEPHANIE RABADUE

E-Mail: stephanie_rabadue@xtoenergy.com

9. API Well No.

30-015-43579-00-X1

3a. Address

500 W ILLINOIS STREET SUITE 100
MIDLAND, TX 79701

3b. Phone No. (include area code)

Ph: 432-620-6714

10. Field and Pool, or Exploratory

WC-0151 G-03 S262925D; BS

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 25 T26S R29E NWNW 170FNL 410FWL

11. County or Parish, and State

EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomple in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

XTO Energy, Inc respectfully requests to change the following of the original APD on the referenced well:

1. Well number from 4H to 31H
2. Change the well from a Wolfcamp to Bone Spring target.
2. Extend the lateral length.

A new plat, drilling plan and directional drill survey are updated and attached for reference.

SEE ATTACHED FOR
CONDITIONS OF APPROVALNM OIL CONSERVATION
ARTESIA DISTRICT

NOV 09 2016

RECEIVED

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #352902 verified by the BLM Well Information System
For XTO ENERGY INCORPORATED, sent to the Carlsbad
Committed to AFMSS for processing by DEBORAH MCKINNEY on 10/04/2016 (17DLM0008SE)

Name (Printed/Typed) STEPHANIE RABADUE

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 09/28/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By MUSTAFA HAQUE

Title PETROLEUM ENGINEER

Date 11/03/2016

Conditions of approval, if any, are attached. Approval of this notice 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.

Office Carlsbad

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

**PECOS DISTRICT
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	XTO Energy Inc
LEASE NO.:	NM35607
WELL NAME & NO.:	31H-Ross Draw 25
SURFACE HOLE FOOTAGE:	170'/N & 410'/W
BOTTOM HOLE FOOTAGE:	200'/S & 466'/W
LOCATION:	Section 25, T. 26 S., R. 29 E., NMPM
COUNTY:	Eddy County, New Mexico

All previous COAs still apply except for the following:

A. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Water Basin:

After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE.

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Risks:

Medium Cave/ Karst Occurrence

Possibility of water flows in the Castile and in the Salado.

Possibility of lost circulation in the Rustler, in the Delaware and Delaware.

1. The 13 3/8 inch surface casing shall be set at approximately 350 feet (**in a competent bedrock; if salt is encountered, set casing at least 25 feet above the salt**) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 9 5/8 inch intermediate casing is:
☒ Cement to surface. If cement does not circulate see A.1.a, c-d above.

If cement does not circulate to surface on the intermediate casing, the cement on the production casing must come to surface.

Centralizers required through the curve and a minimum of one every other joint.
3. The minimum required fill of cement behind the 5 1/2 inch production casing is:
☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.
4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 53.
2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall

have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

- d. The results of the test shall be reported to the appropriate BLM office.
- e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
- f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

MHH 11032016

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

XTO Energy Inc.

Ross Draw 25 4H (Changing to 31H)

Projected TD: 15393' MD / 8816' TVD

SHL: 170' FNL & 410' FWL, SECTION 25, T26S, R29E

1st Take Point: 870' FNL & 410' FWL, 25-T26S-R29E

2nd Take Point: 330' FSL & 461' FWL, 36-T26S-R29E

BHL: 200' FSL & 466' FWL, SECTION 36, T26S, R29E

Eddy County, NM

1. GEOLOGIC NAME OF SURFACE FORMATION:

A. Permian

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

Formation	Well Depth (TVD)	Water / Oil / Gas
Rustler	198'	Water
Top of Salt	781'	
Base of Salt	3052'	
Delaware	3102'	Water
Cherry Canyon	3972'	Water
Brushy Canyon	5637'	Water/Oil/Gas
Bone Spring	6822'	Water/Oil/Gas
1 st Bone Spring	7762'	Water/Oil/Gas
2 nd Bone Spring	8588'	Water/Oil/Gas
Target/Land Curve	8844'	Water/Oil/Gas
3 rd Bone Spring	9672'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon

*** Groundwater depth 100' (per NM State Engineers Office).

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 @ 350' above the salt and circulating cement back to surface. The salt will be isolated by setting 9-5/8" casing at 3100' and circulating cement to surface. An 8-3/4" vertical and curve hole will be drilled to TD of the curve, where an 8-1/2" lateral hole will be drilled to TD. 5-1/2" casing will be run and cemented 500' into the 9-5/8" casing.

3. CASING PROGRAM:

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' - 350'	13-3/8"	48#	STC	H-40	New	6.92	4.62	19.17
12-1/4"	0' - 3100'	9-5/8"	36#	LTC	J-55	New	2.61	1.23	4.06
8-3/4"	0' - 15393'	5-1/2"	17#	BTC	CYP-110	New	1.12	1.71	2.09

WELLHEAD:

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

4. CEMENT PROGRAM:

- A. **Surface Casing:** 13-3/8", 48#, NEW H-40, STC casing to be set at $\pm 350'$.

20bbls FW, then 360 sx HalCem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft³/sk, 6.39 gal/sx wtr)

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

- B. **Intermediate Casing:** 9-5/8", 36#, NEW J-55, LTC casing to be set at $\pm 3100'$.

Lead: 20 bbls FW, then 650 sx EconoCem-C + 3 lbm/sk Kol-Seal + 0.25 lbm D-air 5000 (mixed at 11.9 ppg, 2.49 ft³/sk, 14.18 gal/sx wtr)

Tail: 250 sx HalCem-C (mixed at 14.8 ppg, 1.33 ft³/sk, 6.34 gal/sx wtr)

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

- C. **Production Casing:** 5-1/2", 17#, NEW CYP-110, BTC casing to be set at $\pm 15393'$.

Lead: 20 bbls FW, then 639 sx Tuned Light + 2 lbm/sk Kol-Seal + 0.3 lbm/sk CFR-3 (mixed at 10.8 ppg, 2.77 ft³/sk, 15.3 gal/sx wtr)

Tail: 2343 sx VersaCem - H + 3 lbm/sk Kol-Seal + 0.4% Halad 344 + 0.3% CFR-3 + 0.3% Super CBL + 0.25 lbm/sk D-air 5000 (mixed at 14.5 ppg, 1.22 ft³/sk, 5.33 gal/sx wtr)

***Lead planned with 50% excess in open hole, tail planned with 50% 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" minimum 3M Hydril and a 13-5/8" minimum 3M Double Ram BOP. Max bottom hole pressure should not exceed 4370 psi.

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nipping up on the 13-5/8" 3M bradenhead and flange, the BOP test will be limited to 2500 psi. When nipping up on the 9-5/8", the BOP will be tested to a minimum of 2500 psi. All BOP tests will include a low pressure test as per BLM regulations. The 3M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

SEE COA
A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors.

6. PROPOSED MUD CIRCULATION SYSTEM:

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' to 350'	17-1/2"	FW/Native	8.4 - 8.8	35 - 40	NC
350' to 3100'	12-1/4"	Brine/Gel Sweeps	9.8 - 10.2	30 - 32	NC
3100' to 15393'	8-3/4" & 8-1/2"	FW / Cut Brine	8.6 - 9.5	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. Cut brine will be used to drill the 8-3/4" x 8-1/2" section. 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. Solids control equipment will be used 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 below intermediate casing.

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. BHT of 185 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.



Company: XTO Energy
Site: Ross Draw 25
Well: 4H
Project: Eddy County, New Mexico (NAD 27)
Rig: Noram 25

MS Energy Services
WWW.MSENERGYSERVICES.COM



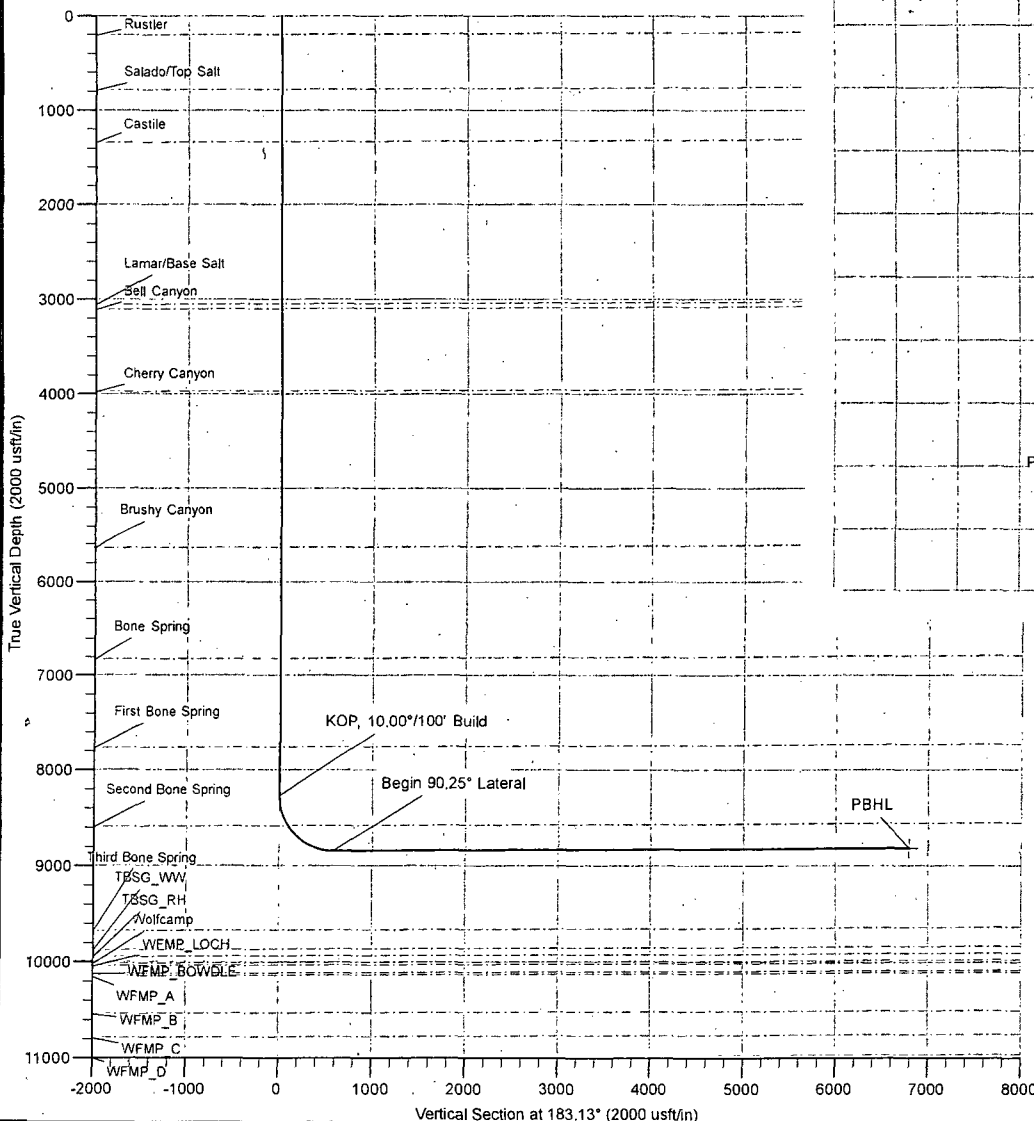
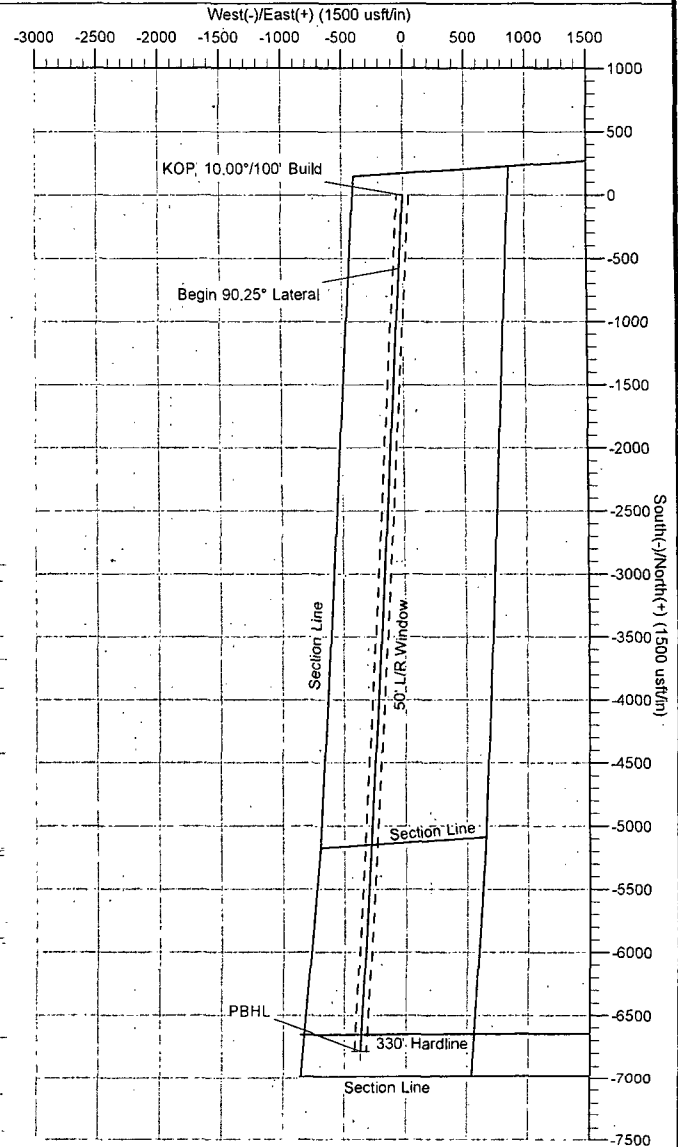
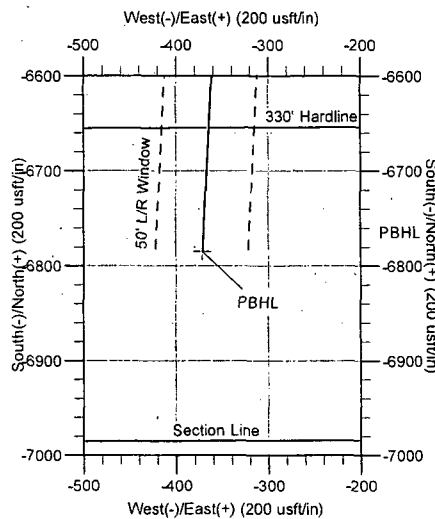
Azimuths to Grid North
True North: -0.21°
Magnetic North: 7.06°
Magnetic Field
Strength: 47928.0snT
Dip Angle: 59.81°
Date: 8/22/2016
Model: BGGM2016

US State Plane 1927 (Exact solution)
New Mexico East 3001

Created By: VLS
Date: 10:54, August 22 2016
Plan: Design #1

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
8271.05	0.00	0.00	8271.05	0.00	0.00	0.00	0.00	KOP, 10.00°/100' Build
9173.55	90.25	183.13	8844.00	-574.60	-31.45	575.46	575.46	Begin 90.25° Lateral
15393.10	90.25	183.13	8816.86	-6784.80	-371.40	6794.96	6794.96	PBHL



Landing Point
X: 620673.45 Y: 370347.30

PBHL
X: 620333.5 Y: 364137.1

The customer should only rely on this document after independently verifying all paths, targets, coordinates, lease and hard lines represented.
Any decisions made or wells drilled utilizing this or any other information supplied by MS Energy are at the sole risk and responsibility of the customer. MS Energy is not responsible for the accuracy of this schematic or the information contained herein.



XTO Energy

Eddy County, New Mexico (NAD 27)

Ross Draw 25

4H

Wellbore #1

Plan: Design #1

Standard Planning Report

22 August, 2016



MS Energy Services
Planning Report



Database: Conroe Server
Company: XTO Energy
Project: Eddy County, New Mexico (NAD 27)
Site: Ross Draw 25
Well: 4H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well 4H
TVD Reference: Rig @ 2952.00usft (Noram 25)
MD Reference: Rig @ 2952.00usft (Noram 25)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project:	Eddy County, New Mexico (NAD 27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Well: 4H
Well Position: +N-S 370,921.90 usft Northing: 370,921.90 usft Latitude: 32° 1' 9.050 N
+E-W 620,704.90 usft Easting: 620,704.90 usft Longitude: 103° 56' 37.954 W
Position Uncertainty: 0.00 usft Wellhead Elevation: Ground Level: 2,927.00 usft

Wellbore: Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2016	8/22/2016	7.26	59.81	47,928

Design: Design #1

Audit Notes:

Version: Phase: PROTOTYPE Tie On Depth: 0.00

Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
	0.00	0.00	0.00	183.13

Plan Survey Tool Program Date: 8/22/2016

Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	15,393.10 Design #1 (Wellbore #1)	MWD	
OWSG MWD - Standard				

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,271.05	0.00	0.00	8,271.05	0.00	0.00	0.00	0.00	0.00	0.00	
9,173.55	90.25	183.13	8,844.00	-574.60	-31.45	10.00	10.00	0.00	183.13	
15,393.10	90.25	183.13	8,816.86	-6,784.80	-371.40	0.00	0.00	0.00	0.00	Ross Draw 25 4H



MS Energy Services
Planning Report



Database:	Conroe Server	Local Co-ordinate Reference:	Well 4H
Company:	XTO Energy	TVD Reference:	Rig @ 2952.00usft (Noram 25)
Project:	Eddy County, New Mexico (NAD 27)	MD Reference:	Rig @ 2952.00usft (Noram 25)
Site:	Ross Draw 25	North Reference:	Grid
Well:	4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
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)	
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	
198.00	0.00	0.00	198.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rustler										
200.00	0.00	0.00	200.00	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	
400.00	0.00	0.00	400.00	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	
600.00	0.00	0.00	600.00	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	
781.00	0.00	0.00	781.00	0.00	0.00	0.00	0.00	0.00	0.00	
Salado/Top Salt										
800.00	0.00	0.00	800.00	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	
1,000.00	0.00	0.00	1,000.00	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	
1,200.00	0.00	0.00	1,200.00	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	
1,334.00	0.00	0.00	1,334.00	0.00	0.00	0.00	0.00	0.00	0.00	
Castile										
1,400.00	0.00	0.00	1,400.00	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	
1,600.00	0.00	0.00	1,600.00	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	
1,800.00	0.00	0.00	1,800.00	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	
2,000.00	0.00	0.00	2,000.00	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	
2,200.00	0.00	0.00	2,200.00	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	
2,400.00	0.00	0.00	2,400.00	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	
2,600.00	0.00	0.00	2,600.00	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	
2,800.00	0.00	0.00	2,800.00	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	
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,052.00	0.00	0.00	3,052.00	0.00	0.00	0.00	0.00	0.00	0.00	
Lamar/Base Salt										
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,102.00	0.00	0.00	3,102.00	0.00	0.00	0.00	0.00	0.00	0.00	
Bell Canyon										
3,200.00	0.00	0.00	3,200.00	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	
3,400.00	0.00	0.00	3,400.00	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	
3,600.00	0.00	0.00	3,600.00	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	
3,800.00	0.00	0.00	3,800.00	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	
3,972.00	0.00	0.00	3,972.00	0.00	0.00	0.00	0.00	0.00	0.00	
Cherry Canyon										
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	



MS Energy Services
Planning Report



Database:	Conroe Server	Local Co-ordinate Reference:	Well 4H
Company:	XTO Energy	TVD Reference:	Rig @ 2952.00usft (Noram 25)
Project:	Eddy County, New Mexico (NAD 27)	MD Reference:	Rig @ 2952.00usft (Noram 25)
Site:	Ross Draw 25	North Reference:	Grid
Well:	4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
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)
4,100.00	0.00	0.00	4,100.00	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
4,300.00	0.00	0.00	4,300.00	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
4,500.00	0.00	0.00	4,500.00	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
4,700.00	0.00	0.00	4,700.00	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
4,900.00	0.00	0.00	4,900.00	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
5,100.00	0.00	0.00	5,100.00	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
5,300.00	0.00	0.00	5,300.00	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
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,637.00	0.00	0.00	5,637.00	0.00	0.00	0.00	0.00	0.00	0.00
Brushy Canyon									
5,700.00	0.00	0.00	5,700.00	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
5,900.00	0.00	0.00	5,900.00	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
6,100.00	0.00	0.00	6,100.00	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
6,300.00	0.00	0.00	6,300.00	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
6,500.00	0.00	0.00	6,500.00	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
6,700.00	0.00	0.00	6,700.00	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
6,822.00	0.00	0.00	6,822.00	0.00	0.00	0.00	0.00	0.00	0.00
Bone Spring									
6,900.00	0.00	0.00	6,900.00	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
7,100.00	0.00	0.00	7,100.00	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
7,300.00	0.00	0.00	7,300.00	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
7,500.00	0.00	0.00	7,500.00	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
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,762.00	0.00	0.00	7,762.00	0.00	0.00	0.00	0.00	0.00	0.00
First Bone Spring									
7,800.00	0.00	0.00	7,800.00	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
8,000.00	0.00	0.00	8,000.00	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
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,271.05	0.00	0.00	8,271.05	0.00	0.00	0.00	0.00	0.00	0.00
KOP, 10.00°/100' Build									
8,300.00	2.90	183.13	8,299.99	-0.73	-0.04	0.73	10.00	10.00	0.00
8,350.00	7.90	183.13	8,349.75	-5.42	-0.30	5.43	10.00	10.00	0.00
8,400.00	12.90	183.13	8,398.91	-14.43	-0.79	14.45	10.00	10.00	0.00



MS Energy Services
Planning Report



Database:	Conroe Server	Local Co-ordinate Reference:	Well 4H
Company:	XTO Energy	TVD Reference:	Rig @ 2952.00usft (Noram 25)
Project:	Eddy County, New Mexico (NAD 27)	MD Reference:	Rig @ 2952.00usft (Noram 25)
Site:	Ross Draw 25	North Reference:	Grid
Well:	4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

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)
8,450.00	17.90	183.13	8,447.10	-27.68	-1.52	27.72	10.00	10.00	0.00
8,500.00	22.90	183.13	8,493.96	-45.07	-2.47	45.14	10.00	10.00	0.00
8,550.00	27.90	183.13	8,539.11	-66.48	-3.64	66.58	10.00	10.00	0.00
8,600.00	32.90	183.13	8,582.22	-91.73	-5.02	91.87	10.00	10.00	0.00
8,606.41	33.54	183.13	8,587.58	-95.23	-5.21	95.38	10.00	10.00	0.00
Second Bone Spring									
8,650.00	37.90	183.13	8,622.97	-120.64	-6.60	120.82	10.00	10.00	0.00
8,700.00	42.90	183.13	8,661.04	-152.98	-8.37	153.21	10.00	10.00	0.00
8,750.00	47.90	183.13	8,696.14	-188.52	-10.32	188.80	10.00	10.00	0.00
8,800.00	52.90	183.13	8,728.00	-226.97	-12.42	227.31	10.00	10.00	0.00
8,850.00	57.90	183.13	8,756.39	-268.05	-14.67	268.45	10.00	10.00	0.00
8,900.00	62.90	183.13	8,781.08	-311.44	-17.05	311.91	10.00	10.00	0.00
8,950.00	67.90	183.13	8,801.89	-356.82	-19.53	357.36	10.00	10.00	0.00
9,000.00	72.90	183.13	8,818.66	-403.84	-22.11	404.44	10.00	10.00	0.00
9,050.00	77.90	183.13	8,831.26	-452.13	-24.75	452.81	10.00	10.00	0.00
9,100.00	82.90	183.13	8,839.60	-501.34	-27.44	502.09	10.00	10.00	0.00
9,150.00	87.90	183.13	8,843.62	-551.09	-30.17	551.92	10.00	10.00	0.00
9,173.55	90.25	183.13	8,844.00	-574.60	-31.45	575.46	10.00	10.00	0.00
Begin 90.25° Lateral									
9,200.00	90.25	183.13	8,843.88	-601.01	-32.90	601.91	0.00	0.00	0.00
9,300.00	90.25	183.13	8,843.45	-700.86	-38.37	701.91	0.00	0.00	0.00
9,400.00	90.25	183.13	8,843.01	-800.71	-43.83	801.91	0.00	0.00	0.00
9,500.00	90.25	183.13	8,842.57	-900.56	-49.30	901.91	0.00	0.00	0.00
9,600.00	90.25	183.13	8,842.14	-1,000.41	-54.76	1,001.91	0.00	0.00	0.00
9,700.00	90.25	183.13	8,841.70	-1,100.26	-60.23	1,101.91	0.00	0.00	0.00
9,800.00	90.25	183.13	8,841.26	-1,200.11	-65.69	1,201.91	0.00	0.00	0.00
9,900.00	90.25	183.13	8,840.83	-1,299.96	-71.16	1,301.91	0.00	0.00	0.00
10,000.00	90.25	183.13	8,840.39	-1,399.81	-76.63	1,401.90	0.00	0.00	0.00
10,100.00	90.25	183.13	8,839.96	-1,499.66	-82.09	1,501.90	0.00	0.00	0.00
10,200.00	90.25	183.13	8,839.52	-1,599.51	-87.56	1,601.90	0.00	0.00	0.00
10,300.00	90.25	183.13	8,839.08	-1,699.36	-93.02	1,701.90	0.00	0.00	0.00
10,400.00	90.25	183.13	8,838.65	-1,799.21	-98.49	1,801.90	0.00	0.00	0.00
10,500.00	90.25	183.13	8,838.21	-1,899.06	-103.95	1,901.90	0.00	0.00	0.00
10,600.00	90.25	183.13	8,837.77	-1,998.91	-109.42	2,001.90	0.00	0.00	0.00
10,700.00	90.25	183.13	8,837.34	-2,098.76	-114.89	2,101.90	0.00	0.00	0.00
10,800.00	90.25	183.13	8,836.90	-2,198.61	-120.35	2,201.90	0.00	0.00	0.00
10,900.00	90.25	183.13	8,836.47	-2,298.45	-125.82	2,301.90	0.00	0.00	0.00
11,000.00	90.25	183.13	8,836.03	-2,398.30	-131.28	2,401.89	0.00	0.00	0.00
11,100.00	90.25	183.13	8,835.59	-2,498.15	-136.75	2,501.89	0.00	0.00	0.00
11,200.00	90.25	183.13	8,835.16	-2,598.00	-142.21	2,601.89	0.00	0.00	0.00
11,300.00	90.25	183.13	8,834.72	-2,697.85	-147.68	2,701.89	0.00	0.00	0.00
11,400.00	90.25	183.13	8,834.28	-2,797.70	-153.15	2,801.89	0.00	0.00	0.00
11,500.00	90.25	183.13	8,833.85	-2,897.55	-158.61	2,901.89	0.00	0.00	0.00
11,600.00	90.25	183.13	8,833.41	-2,997.40	-164.08	3,001.89	0.00	0.00	0.00
11,700.00	90.25	183.13	8,832.97	-3,097.25	-169.54	3,101.89	0.00	0.00	0.00
11,800.00	90.25	183.13	8,832.54	-3,197.10	-175.01	3,201.89	0.00	0.00	0.00
11,900.00	90.25	183.13	8,832.10	-3,296.95	-180.48	3,301.89	0.00	0.00	0.00
12,000.00	90.25	183.13	8,831.67	-3,396.80	-185.94	3,401.89	0.00	0.00	0.00
12,100.00	90.25	183.13	8,831.23	-3,496.65	-191.41	3,501.88	0.00	0.00	0.00
12,200.00	90.25	183.13	8,830.79	-3,596.50	-196.87	3,601.88	0.00	0.00	0.00
12,300.00	90.25	183.13	8,830.36	-3,696.35	-202.34	3,701.88	0.00	0.00	0.00
12,400.00	90.25	183.13	8,829.92	-3,796.20	-207.80	3,801.88	0.00	0.00	0.00
12,500.00	90.25	183.13	8,829.48	-3,896.05	-213.27	3,901.88	0.00	0.00	0.00
12,600.00	90.25	183.13	8,829.05	-3,995.90	-218.74	4,001.88	0.00	0.00	0.00



MS Energy Services
Planning Report



Database:	Conroe Server	Local Co-ordinate Reference:	Well 4H
Company:	XTO Energy	TVD Reference:	Rig @ 2952.00usft (Noram 25)
Project:	Eddy County, New Mexico (NAD 27)	MD Reference:	Rig @ 2952.00usft (Noram 25)
Site:	Ross Draw 25	North Reference:	Grid
Well:	4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
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)	
12,700.00	90.25	183.13	8,828.61	-4,095.75	-224.20	4,101.88	0.00	0.00	0.00	
12,800.00	90.25	183.13	8,828.17	-4,195.60	-229.67	4,201.88	0.00	0.00	0.00	
12,900.00	90.25	183.13	8,827.74	-4,295.45	-235.13	4,301.88	0.00	0.00	0.00	
13,000.00	90.25	183.13	8,827.30	-4,395.30	-240.60	4,401.88	0.00	0.00	0.00	
13,100.00	90.25	183.13	8,826.87	-4,495.15	-246.06	4,501.87	0.00	0.00	0.00	
13,200.00	90.25	183.13	8,826.43	-4,594.99	-251.53	4,601.87	0.00	0.00	0.00	
13,300.00	90.25	183.13	8,825.99	-4,694.84	-257.00	4,701.87	0.00	0.00	0.00	
13,400.00	90.25	183.13	8,825.56	-4,794.69	-262.46	4,801.87	0.00	0.00	0.00	
13,500.00	90.25	183.13	8,825.12	-4,894.54	-267.93	4,901.87	0.00	0.00	0.00	
13,600.00	90.25	183.13	8,824.68	-4,994.39	-273.39	5,001.87	0.00	0.00	0.00	
13,700.00	90.25	183.13	8,824.25	-5,094.24	-278.86	5,101.87	0.00	0.00	0.00	
13,800.00	90.25	183.13	8,823.81	-5,194.09	-284.32	5,201.87	0.00	0.00	0.00	
13,900.00	90.25	183.13	8,823.38	-5,293.94	-289.79	5,301.87	0.00	0.00	0.00	
14,000.00	90.25	183.13	8,822.94	-5,393.79	-295.26	5,401.87	0.00	0.00	0.00	
14,100.00	90.25	183.13	8,822.50	-5,493.64	-300.72	5,501.87	0.00	0.00	0.00	
14,200.00	90.25	183.13	8,822.07	-5,593.49	-306.19	5,601.86	0.00	0.00	0.00	
14,300.00	90.25	183.13	8,821.63	-5,693.34	-311.65	5,701.86	0.00	0.00	0.00	
14,400.00	90.25	183.13	8,821.19	-5,793.19	-317.12	5,801.86	0.00	0.00	0.00	
14,500.00	90.25	183.13	8,820.76	-5,893.04	-322.59	5,901.86	0.00	0.00	0.00	
14,600.00	90.25	183.13	8,820.32	-5,992.89	-328.05	6,001.86	0.00	0.00	0.00	
14,700.00	90.25	183.13	8,819.88	-6,092.74	-333.52	6,101.86	0.00	0.00	0.00	
14,800.00	90.25	183.13	8,819.45	-6,192.59	-338.98	6,201.86	0.00	0.00	0.00	
14,900.00	90.25	183.13	8,819.01	-6,292.44	-344.45	6,301.86	0.00	0.00	0.00	
15,000.00	90.25	183.13	8,818.58	-6,392.29	-349.91	6,401.86	0.00	0.00	0.00	
15,100.00	90.25	183.13	8,818.14	-6,492.14	-355.38	6,501.86	0.00	0.00	0.00	
15,200.00	90.25	183.13	8,817.70	-6,591.99	-360.85	6,601.86	0.00	0.00	0.00	
15,300.00	90.25	183.13	8,817.27	-6,691.84	-366.31	6,701.85	0.00	0.00	0.00	
15,393.10	90.25	183.13	8,816.86	-6,784.80	-371.40	6,794.96	0.00	0.00	0.00	
PBHL										

Design Targets										
Target Name	hit/miss target	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Ross Draw 25 4H	- hit/miss target	0.00	0.00	8,816.86	-6,784.80	-371.40	364,137.10	620,333.50	32° 0' 1.917 N	103° 56' 42.551 W
	- plan hits target center									
	- Point									



MS Energy Services
Planning Report



Database:	Conroe Server	Local Co-ordinate Reference:	Well 4H
Company:	XTO Energy	TVD Reference:	Rig @ 2952.00usft (Noram 25)
Project:	Eddy County, New Mexico (NAD 27)	MD Reference:	Rig @ 2952.00usft (Noram 25)
Site:	Ross Draw 25	North Reference:	Grid
Well:	4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
198.00	198.00	Rustler		-0.25	183.13
781.00	781.00	Salado/Top Salt		-0.25	183.13
1,334.00	1,334.00	Castile		-0.25	183.13
3,052.00	3,052.00	Lamar/Base Salt		-0.25	183.13
3,102.00	3,102.00	Bell Canyon		-0.25	183.13
3,972.00	3,972.00	Cherry Canyon		-0.25	183.13
5,637.00	5,637.00	Brushy Canyon		-0.25	183.13
6,822.00	6,822.00	Bone Spring		-0.25	183.13
7,762.00	7,762.00	First Bone Spring		-0.25	183.13
8,606.41	8,587.58	Second Bone Spring		-0.25	183.13

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
8,271.05	8,271.05	0.00	0.00	KOP, 10.00°/100' Build
9,173.55	8,844.00	-574.60	-31.45	Begin 90.25° Lateral
15,393.10	8,816.86	-6,784.80	-371.40	PBHL

Fill Line

Flowline

3000# (3M)
BOP

Annular Preventer

Pipe Rams

Blind Rams

2" Minimum Kill Line

Kill Line

2 Valves Minimum
(including 1 check valve)

Drilling Spool

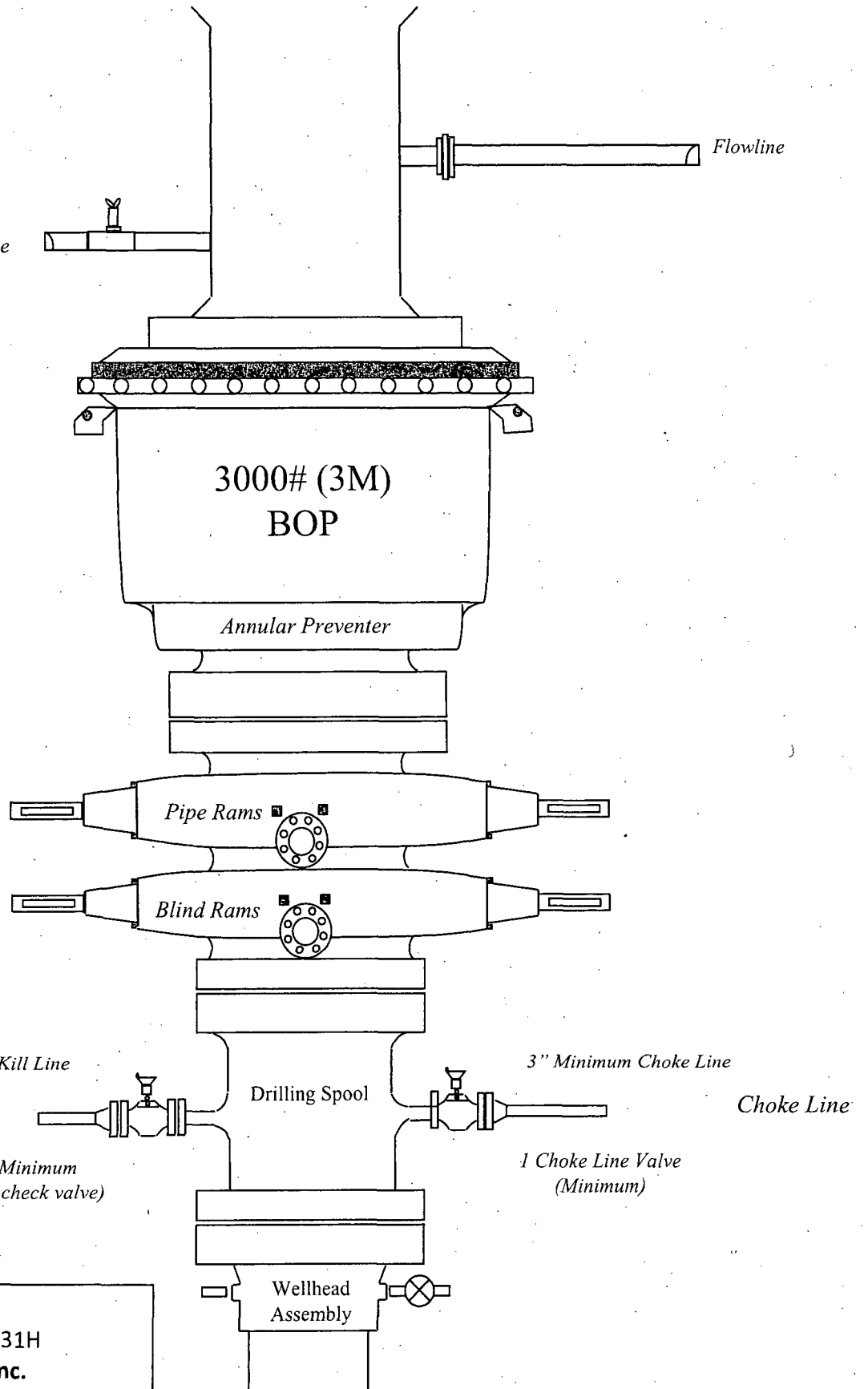
3" Minimum Choke Line

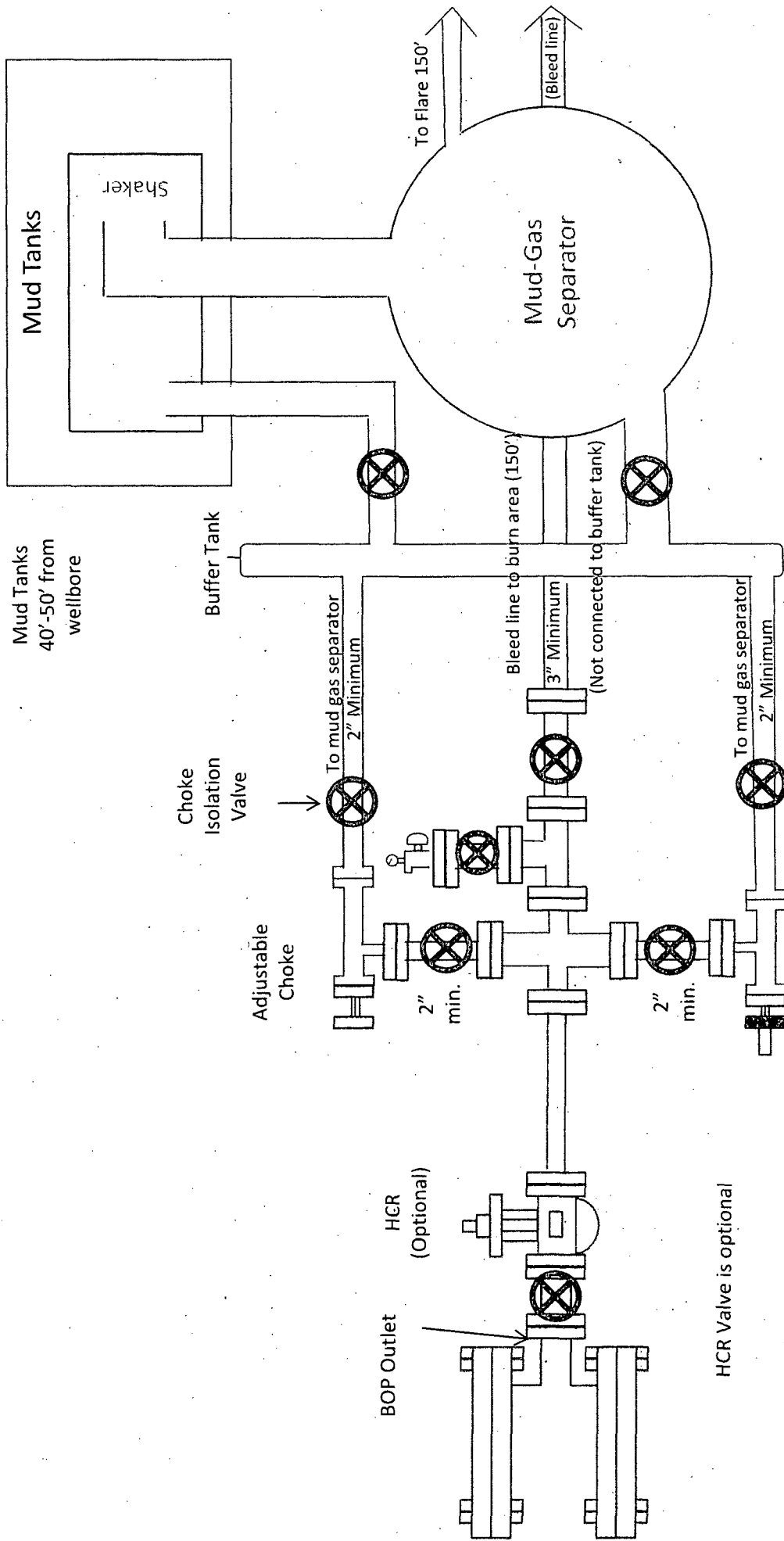
Choke Line

1 Choke Line Valve
(Minimum)

Wellhead
Assembly

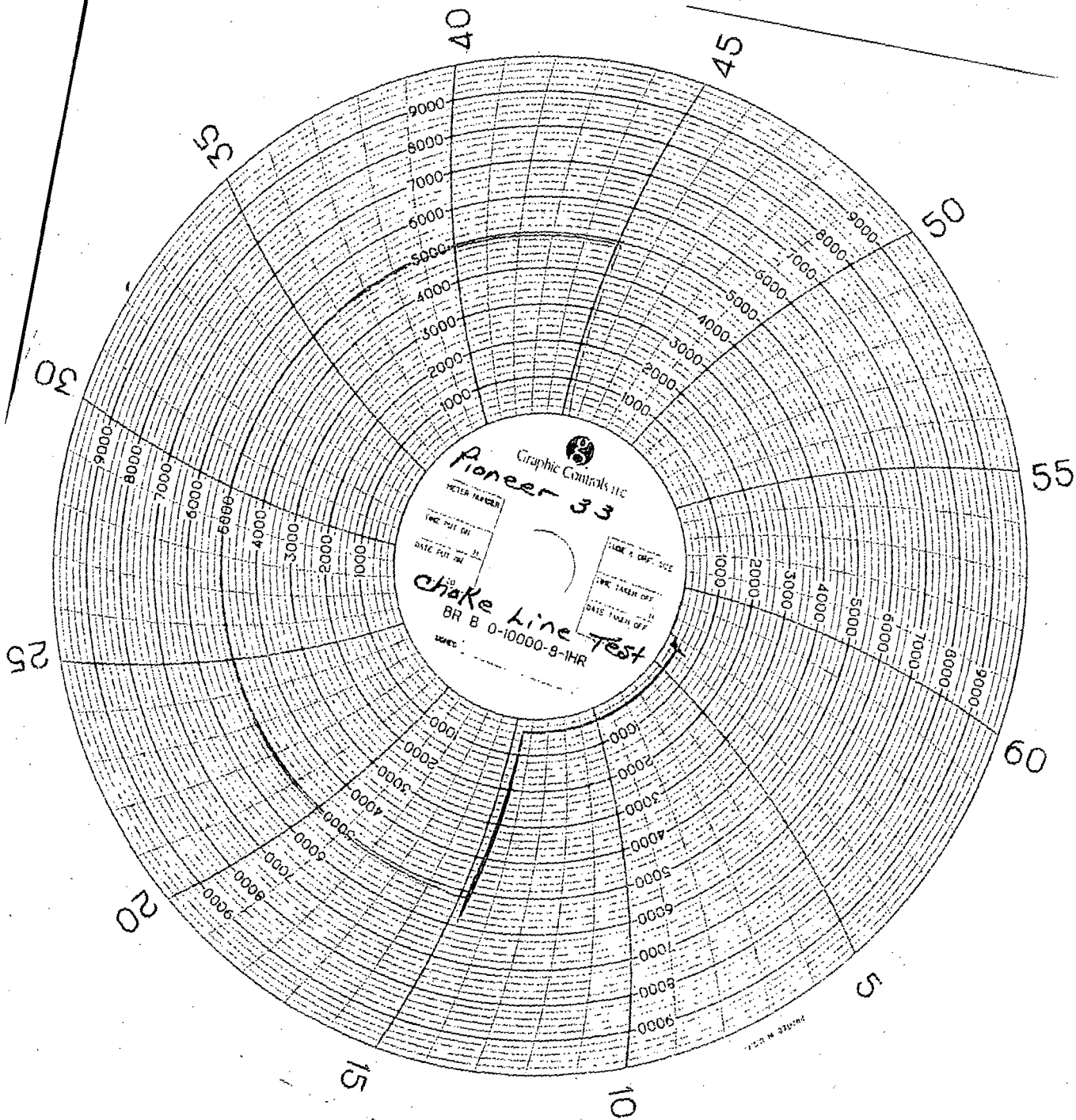
3000# BOP
Ross Draw 25 #31H
XTO Energy, Inc.

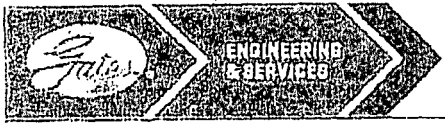




Choke Manifold Diagram
 Ross Draw 25 #31H
 XTO Energy, Inc..

Drilling Operations Choke Manifold





GATES E & S NORTH AMERICA, INC
DU-TEX
134 44TH STREET
CORPUS CHRISTI, TEXAS 78405

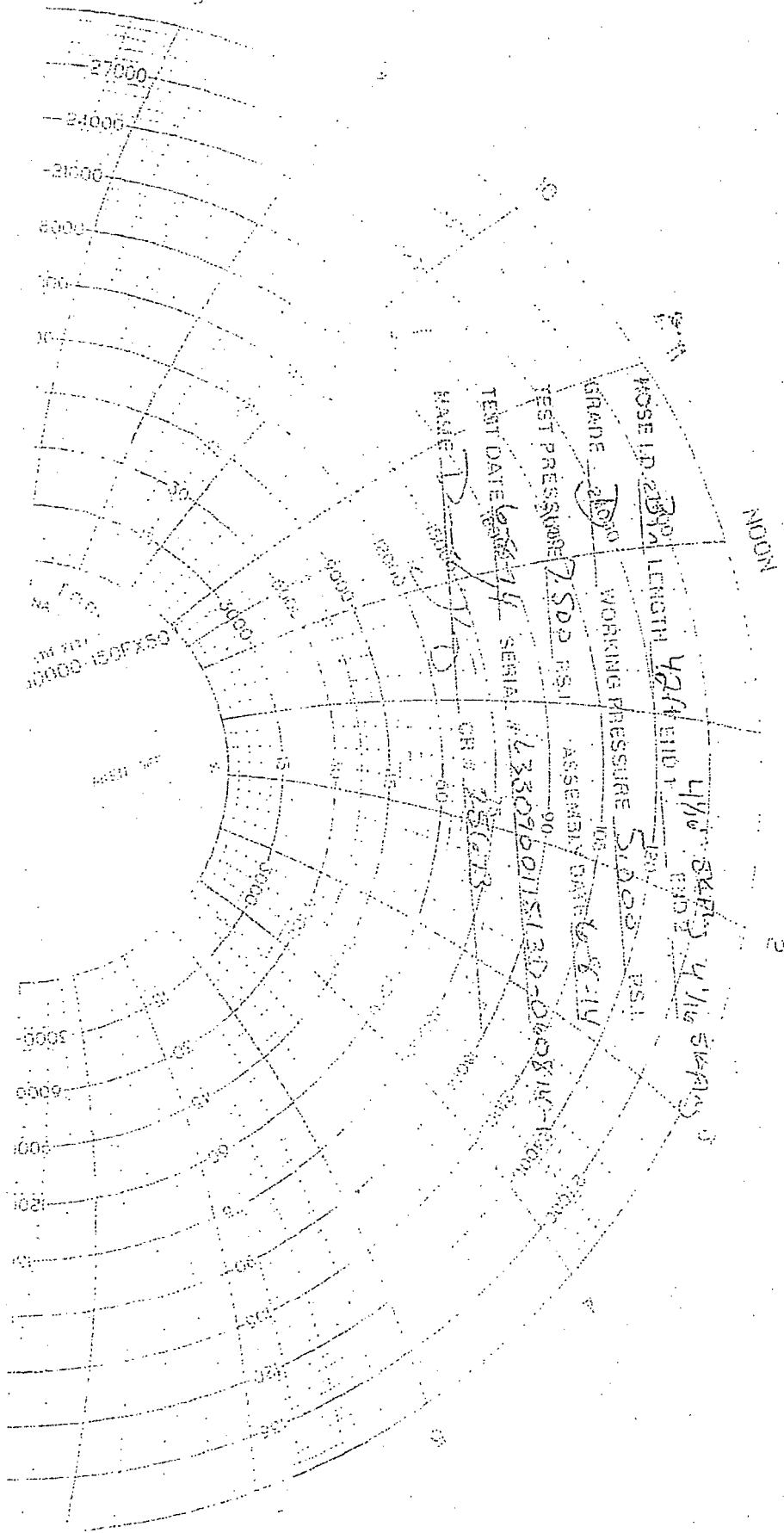
PHONE: 361-887-9807
FAX: 361-887-0812
EMAIL: crpe@s@gates.com
WEB: www.gates.com

GRADE D PRESSURE TEST CERTIFICATE

Customer :	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref. :	PENDING	Hose Serial No.:	D-060814-1
Invoice No. :	201709	Created By:	NORI-IA
Product-Description:	FD3.042.0R41/16.5KFLGE/E LE		
End Fitting 1 :	4 1/16 in.5K FLG	End Fitting 2 :	4 1/16 in.5K FLG
Gates Part No. :	4774-6001	Assembly Code :	L33090011513D-060814-1
Working Pressure :	5,000 PSI	Test Pressure :	7,500 PSI

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 7,500 psi in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.

Quality:	QUALITY	Technical Supervisor :	PRODUCTION
Date :	6/8/2014	Date :	6/8/2014
Signature :		Signature :	





Haque, Mustafa <mhaque@blm.gov>

ASAP Request: Sundry Approval

Rabadue, Stephanie <Stephanie_Rabadue@xtoenergy.com>
To: "Haque, Mustafa" <mhaque@blm.gov>

Thu, Nov 3, 2016 at 12:25 PM

Hello again!

The casing specs for 5-1/2" 17# BTC CYP-110 are as follows:

Inside Diameter: 4.892

Collapse Resistance: 7,460

Internal Yield Psi: 10,640

Joint Strength: 620

If there's more that's needed, please let me know!

Thank you!

Stephanie Rabadue

Regulatory Analyst – Permian Division

432-620-6714

stephanie_rabadue@xtoenergy.com

From: Haque, Mustafa [mailto:mhaque@blm.gov]
Sent: Thursday, November 03, 2016 1:16 PM
To: Rabadue, Stephanie
Subject: Re: FW: ASAP Request: Sundry Approval

Also, can you please email me the casing spec for 5 1/2" 17# BTC CYP-110

[Quoted text hidden]



Haque, Mustafa <mhaque@blm.gov>

ASAP Request: Sundry Approval

Rabadue, Stephanie <Stephanie_Rabadue@xtoenergy.com>
To: "Haque, Mustafa" <mhaque@blm.gov>

Thu, Nov 3, 2016 at 12:34 PM

OD of the Coupling: 6.050

Yield Strength: 546

I'm sorry! My usual engineer over this is in Irving today so I'm having one that is unfamiliar with BLM standards give me the information!

I appreciate it, Mustafa!

Stephanie Rabadue

Regulatory Analyst – Permian Division

432-620-6714

stephanie_rabadue@xtoenergy.com

From: Haque, Mustafa [mailto:mhaque@blm.gov]

Sent: Thursday, November 03, 2016 1:30 PM

[Quoted text hidden]

[Quoted text hidden]