

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Carlsbad Field Office

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**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.5. Lease Serial No.
NMNM120898

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 27. If Unit or CA/Agreement, Name and/or No.
NMNM071016X8. Well Name and No. **321293**
POKER LAKE UNIT 18 BRUSHY DRAW 12H9. API Well No.
30-015-4489310. Field and Pool or Exploratory Area
PURPLE SAGE; WOLFCAMP11. County or Parish, State
EDDY COUNTY, NM**12. CHECK THE 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	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original APD
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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 recompleat 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

BOPCO, L.P. requests permission to make the following changes to the approved APD:

1. Change well name fr/Poker Lake Unit 18 Brushy Draw 121H to Poker Lake Unit 18 BD 121H. -322451-266-10-17-2018
2. Change well location fr/2310'FNL & 570'FWL to 2310'FNL & 540'FWL. No surface disturbance will occur with this change.
3. Drilling Program
4. Directional Program

In addition, BOPCO requests a variance to be able to batch drill the 121H (30-015-44893), 101H (30-015-44899) & 161H (30-015-44897) wells if necessary. See attached drilling program for details. *Same Con is APD. No New Surface Disturbance*

Attachments:

DOI- BLM NM-PDZ-2018-0280-0

Engineering Good. See Attached COA 2S 10/17/18 OK Per Bol Ballard 10.17.2018

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

Electronic Submission #435962 verified by the BLM Well Information System
For BOPCO, L.P., sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 09/19/2018 ()

Name (Printed/Typed) KELLY KARDOS

Title REGULATORY COORDINATOR

Signature (Electronic Submission)

Date 09/19/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USEApproved By *Bol Ballard*Title *SUPERVISOR Natural Resource Specialist*Date *10.17.2018*

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

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)

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED *****Ruf 10-25-18*

Additional data for EC transaction #435962 that would not fit on the form

32. Additional remarks, continued

1. C-102 & Supplement
2. Drilling Program
3. Directional Survey
4. BOP/CM/FH

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505
RECEIVED
OCT 25 2018
DISTRICT II-ARTESIA O.C.D.

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

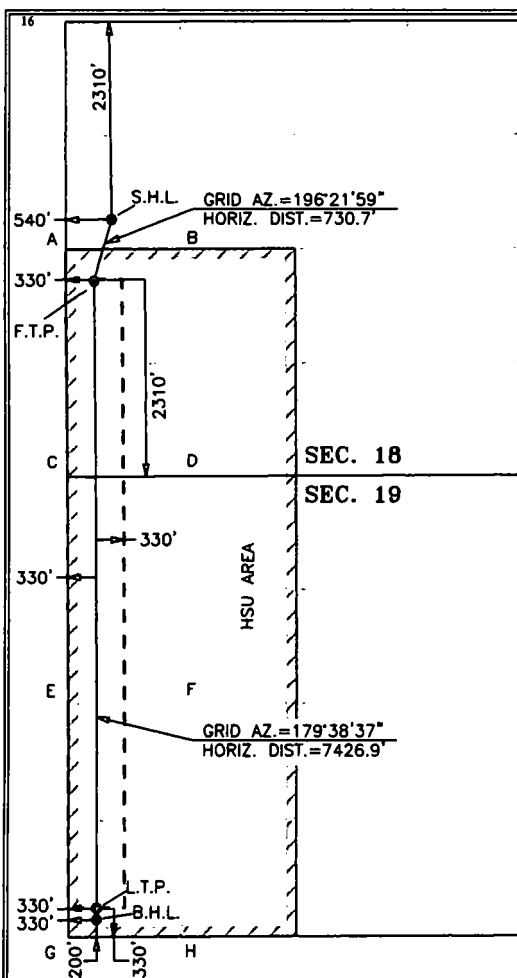
¹ API Number 30-015-44893		² Pool Code 98220		³ Pool Name PURPLE SAGE; WOLFCAMP	
⁴ Property Code 324273 322451		⁵ Property Name POKER LAKE UNIT 18 BD			⁶ Well Number 121H
⁷ OGRID No. 260737		⁸ Operator Name BOPCO, L.P.			⁹ Elevation 3163'

¹⁰ Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	18	25 S	30 E		2,310	NORTH	540	WEST	EDDY

¹¹ Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	19	25 S	30 E		200	SOUTH	330	WEST	EDDY

¹² Dedicated Acres 482.62	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
---	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y= 411,606.8 X= 625,726.9 LAT.= 32.130972°N LONG.= 103.927179°W FIRST TAKE POINT NAD 27 NME Y= 410,905.8 X= 625,521.0 LAT.= 32.129047°N LONG.= 103.927853°W CORNER COORDINATES TABLE NAD 27 NME A - Y= 411,254.3 N, X= 625,189.0 E B - Y= 411,260.5 N, X= 626,533.3 E C - Y= 408,594.2 N, X= 625,204.2 E D - Y= 408,601.2 N, X= 626,548.3 E E - Y= 405,935.1 N, X= 625,221.5 E F - Y= 405,943.0 N, X= 626,563.0 E G - Y= 403,277.4 N, X= 625,238.2 E H - Y= 403,285.0 N, X= 626,577.4 E CORNER COORDINATES TABLE NAD 83 NME A - Y= 411,312.6 N, X= 666,373.6 E B - Y= 411,318.8 N, X= 667,717.9 E C - Y= 408,652.4 N, X= 666,388.9 E D - Y= 408,659.4 N, X= 667,733.0 E E - Y= 405,993.3 N, X= 666,406.3 E F - Y= 406,001.2 N, X= 667,747.8 E G - Y= 403,335.5 N, X= 666,423.1 E H - Y= 403,343.1 N, X= 667,762.3 E LAST TAKE POINT NAD 27 NME Y= 403,609.3 X= 625,566.1 LAT.= 32.108989°N LONG.= 103.927795°W BOTTOM HOLE LOCATION NAD 27 NME Y= 403,479.3 X= 625,566.9 LAT.= 32.108631°N LONG.= 103.927794°W	GEODETIC COORDINATES NAD 83 NME SURFACE LOCATION Y= 411,665.1 X= 666,911.5 LAT.= 32.131096°N LONG.= 103.927664°W FIRST TAKE POINT NAD 83 NME Y= 410,964.1 X= 666,705.6 LAT.= 32.129171°N LONG.= 103.928337°W CORNER COORDINATES TABLE NAD 83 NME A - Y= 411,312.6 N, X= 666,373.6 E B - Y= 411,318.8 N, X= 667,717.9 E C - Y= 408,652.4 N, X= 666,388.9 E D - Y= 408,659.4 N, X= 667,733.0 E E - Y= 405,993.3 N, X= 666,406.3 E F - Y= 406,001.2 N, X= 667,747.8 E G - Y= 403,335.5 N, X= 666,423.1 E H - Y= 403,343.1 N, X= 667,762.3 E LAST TAKE POINT NAD 83 NME Y= 403,667.4 X= 666,751.0 LAT.= 32.109113°N LONG.= 103.928279°W BOTTOM HOLE LOCATION NAD 83 NME Y= 403,537.4 X= 666,751.8 LAT.= 32.108756°N LONG.= 103.928278°W
--	--

¹⁷ OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Kelly Kardos 09/19/18
Signature Date
Kelly Kardos
Printed Name
kelly_kardos@xtoenergy.com
E-mail Address

¹⁸ SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

7-26-2018
Date of Survey
Signature and Seal of Professional Surveyor:
MARK DILLON HARP 23786
Certificate Number
A1/JC 2017050631

Dup Location
RW 10-25-18

Intent ☒ As Drilled ☐

**NM OIL CONSERVATION
ARTESIA DISTRICT**

API #
30-015-44893

Operator Name: BOPCO, L.P.	Property Name: Poker Lake Unit 18 BD	OCT 25 2018 RECEIVED	Well Number 121H
-------------------------------	---	--------------------------------	---------------------

Kick Off Point (KOP)

UL	Section 18	Township 25S	Range 30E	Lot 2	Feet 2310	From N/S North	Feet 510	From E/W West	County Eddy
Latitude 32.131096					Longitude -103.927664			NAD NAD83	

First Take Point (FTP)

UL	Section 18	Township 25S	Range 30E	Lot 3	Feet 2310	From N/S South	Feet 330	From E/W West	County Eddy
Latitude 32.129171					Longitude -103.928337			NAD NAD83	

Last Take Point (LTP)

UL	Section 19	Township 25S	Range 30E	Lot 4	Feet 330	From N/S South	Feet 330	From E/W West	County Eddy
Latitude 32.109113					Longitude -103.928279			NAD NAD83	

Is this well the defining well for the Horizontal Spacing Unit? ☐ N

Is this well an infill well? ☐ Y

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API # 30-015-44891	Operator Name: BOPCO, L.P.	Property Name: Poker Lake Unit 18 BD	Well Number 103H
-----------------------	-------------------------------	---	---------------------

KZ 06/29/2018

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

XTO Energy Inc.
PLU 18 Drushy Draw 121H
Projected TD: 18712' MD / 10808' TVD
SHL: 2310' FNL & 540' FWL , Section 18, T25S, R30E
BHL: 200' FSL & 330' FWL , Section 19, T25S, R30E
Eddy 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	706'	Water
Top of Salt	1019'	Water
Base of Salt	3267'	Water
Delaware	3460'	Water
Bone Spring	7216'	Water/Oil/Gas
1st Bone Spring Ss	8216'	Water/Oil/Gas
2nd Bone Spring Ss	9023'	Water/Oil/Gas
3rd Bone Spring Ss	10103'	Water/Oil/Gas
Wolfcamp A	10632'	Water/Oil/Gas
Target/Land Curve	10808'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon

*** Groundwater depth 40' (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 inch casing @ 969' and circulating cement back to surface. The salt will be isolated by setting 9-5/8 inch casing at 10050' with a DV tool @ 1044', and cement will be circulated to surface. An 8-3/4 inch curve and lateral hole will be drilled to TD, where 5-1/2 inch casing will be set and cemented 500 feet into the previous casing.

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' – 969'	13-3/8"	54.5	STC	J-55	New	1.10	2.55	16.15
12-1/4"	0' – 10050'	9-5/8"	40	BTC	HCL-80	New	1.63	1.67	2.08
8-3/4"	0' – 18712'	5-1/2"	20	BTC	P-110	New	1.33	1.88	1.83

- XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.
- 9-5/8" Collapse analyzed using 50% evacuation based on regional experience.
- 5-1/2" tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

WELLHEAD:

Permanent Wellhead – GE RSH Multibowl System

A. Starting Head: 13-5/8" 5M top flange x 13-3/8" SOW bottom

B. Tubing Head: 13-5/8" 5M bottom flange x 7-1/16" 10M top flange

- Wellhead will be installed by manufacturer's representatives.
- Manufacturer will monitor welding process to ensure appropriate temperature of seal.
- Operator will test the 9-5/8" casing per BLM Onshore Order 2
- Wellhead Manufacturer representative will not be present for BOP test plug installation

4. Cement Program

Surface Casing: 13-3/8", 54.5 New J-55, STC casing to be set at +/- 969'

Lead: 490 sxs EconoCem-HLTRRC (mixed at 12.9 ppg, 1.87 ft³/sx, 10.13 gal/sx water)

Tail: 300 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft³/sx, 6.39 gal/sx water)

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

Intermediate Casing: 9-5/8", 40 New HCL-80, BTC casing to be set at +/- 10050'

First Stage

Lead: 2820 sxs Halcem-C + 2% CaCl (mixed at 12.9 ppg, 1.88 ft³/sx, 9.61 gal/sx water)

Tail: 230 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft³/sx, 6.39 gal/sx water)

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

If losses are severe, a DV tool will be set @ 1044' (100' below the surface shoe).

Second Stage

Lead: 220 sxs Halcem-C + 2% CaCl (mixed at 12.9 ppg, 1.88 ft³/sx, 9.61 gal/sx water)

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

Production Casing: 5-1/2", 20 New P-110, BTC casing to be set at +/- 18712'

Lead: 10 sxs NeoCem (mixed at 10.5 ppg, 2.69 ft³/sx, 12.26 gal/sx water)

Tail: 1830 sxs VersaCem (mixed at 13.2 ppg, 1.61 ft³/sx, 8.38 gal/sx water)

Compressives: 12-hr = 1375 psi 24 hr = 2285 psi

XTO requests a variance to be able to batch drill these wells if necessary. In doing so, XTO will set 9-5/8" intermediate casing and ensure that the well is cemented properly and the well is dead. With floats holding, no pressure on the intermediate csg annulus, and the installation of a TA cap as per GE recommendations, XTO will contact the BLM to skid the rig to drill the surface and intermediate for the remaining wells on the pad. Once surface and intermediate are all completed, XTO will begin drilling the production hole on each of the wells.

5. Pressure Control Equipment

The blow out preventer equipment (BOP) for this well consists of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 5M Double Ram BOP. MASP should not exceed 3523 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" 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When nipping up on the 9-5/8", the BOP will be tested to a minimum of 5000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

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 969'	17-1/2"	FW/Native	8.4-8.8	35-40	NC
969' to 10050'	12-1/4"	FW / Native / OBM	8.4-9.2	30-32	NC

10050' to 18712'	8-3/4"	FW / Cut Brine / Polymer	10.1 - 10.8	28-40	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 Oil based mud. A 8.4ppg-9.2ppg Oil based mud may 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.

XTO requests a variance to use OBM in intermediate: 8.4-9.2#, 28-45 Viscosity, and API Fluid Loss <22

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) in surface section

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 150 to 170 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. The maximum anticipated bottom hole pressure for this well is 5901 psi.

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.



**NM OIL CONSERVATION
ARTESIA DISTRICT**

OCT 25 2018

RECEIVED

XTO ENERGY, INC.

Eddy County, NM

Sec 18, T25S, R30E

Poker Lake Unit 18 Brushy Draw #121H

Wellbore #1

Plan: Design #1

QES Well Planning Report

14 September, 2018





Well Planning Report



Database: EDM 5000.1 Single User Db
Company: XTO ENERGY, INC.
Project: Eddy County, NM
Site: Sec 18, T25S, R30E
Well: Poker Lake Unit 18 Brushy Draw #121H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Poker Lake Unit 18 Brushy Draw #121H
TVD Reference: WELL @ 3184.5usft (Akita #22)
MD Reference: WELL @ 3184.5usft (Akita #22)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project	Eddy County, NM		
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		

Site	Sec 18, T25S, R30E		
Site Position:		Northing:	411,610.00 usft
From:	Map	Easting:	626,551.90 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 7' 51.500 N
		Longitude:	103° 55' 28.249 W
		Grid Convergence:	0.22 °

Well	Poker Lake Unit 18 Brushy Draw #121H		
Well Position	+N/-S	-0.1 usft	Northing: 411,606.80 usft
	+E/-W	-815.0 usft	Easting: 625,736.90 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 32° 7' 51.499 N
			Longitude: 103° 55' 37.728 W
			Ground Level: 3,163.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/14/2018	6.98	59.90	47,719.43105936

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	181.41

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
10,191.9	0.00	0.00	10,191.9	0.0	0.0	0.00	0.00	0.00	0.00	
10,641.9	45.00	215.46	10,597.0	-136.7	-97.4	10.00	10.00	0.00	215.46	
11,190.9	90.00	179.86	10,807.5	-605.8	-218.8	10.00	8.20	-6.48	-45.36	
18,712.0	90.00	179.86	10,807.5	-8,126.8	-200.6	0.00	0.00	0.00	0.00	PLU 18 BD 121H - PE



Well Planning Report



Database: EDM 5000.1 Single User Db
Company: XTO ENERGY, INC.
Project: Eddy County, NM
Site: Sec 18, T25S, R30E
Well: Poker Lake Unit 18 Brushy Draw #121H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Poker Lake Unit 18 Brushy Draw #121H
TVD Reference: WELL @ 3184.5usft (Akita #22)
MD Reference: WELL @ 3184.5usft (Akita #22)
North Reference: True
Survey Calculation Method: Minimum Curvature

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
705.5	0.00	0.00	705.5	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
Salado (Top of Salt)									
1,018.5	0.00	0.00	1,018.5	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
Base of Salt									
3,266.5	0.00	0.00	3,266.5	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
Delaware (Bell Canyon)									
3,459.5	0.00	0.00	3,459.5	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
Cherry Canyon									
4,351.5	0.00	0.00	4,351.5	0.0	0.0	0.0	0.00	0.00	0.00



Well Planning Report



Database: EDM 5000.1 Single User Db
Company: XTO ENERGY, INC.
Project: Eddy County, NM
Site: Sec 18, T25S, R30E
Well: Poker Lake Unit 18 Brushy Draw #121H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Poker Lake Unit 18 Brushy Draw #121H
TVD Reference: WELL @ 3184.5usft (Akita #22)
MD Reference: WELL @ 3184.5usft (Akita #22)
North Reference: True
Survey Calculation Method: Minimum Curvature

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)
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
Brushy Canyon									
5,985.5	0.00	0.00	5,985.5	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
Bone Spring Lime									
7,215.5	0.00	0.00	7,215.5	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1st Bone Spring Sand									
8,215.5	0.00	0.00	8,215.5	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2nd Bone Spring Lime									
8,598.5	0.00	0.00	8,598.5	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00



Well Planning Report



Database: EDM 5000.1 Single User Db
Company: XTO ENERGY, INC.
Project: Eddy County, NM
Site: Sec 18, T25S, R30E
Well: Poker Lake Unit 18 Brushy Draw #121H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Poker Lake Unit 18 Brushy Draw #121H
TVD Reference: WELL @ 3184.5usft (Akita #22)
MD Reference: WELL @ 3184.5usft (Akita #22)
North Reference: True
Survey Calculation Method: Minimum Curvature

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)
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2nd Bone Spring Sand									
9,022.5	0.00	0.00	9,022.5	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3rd Bone Spring Lime									
9,281.5	0.00	0.00	9,281.5	0.0	0.0	0.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.00	0.00	0.00
Harkey sand									
9,645.5	0.00	0.00	9,645.5	0.0	0.0	0.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,800.0	0.0	0.0	0.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,900.0	0.0	0.0	0.0	0.00	0.00	0.00
Lower 3rd Bone Spring Lime									
9,901.5	0.00	0.00	9,901.5	0.0	0.0	0.0	0.00	0.00	0.00
Lower 3rd Bone Spring Shale									
9,954.5	0.00	0.00	9,954.5	0.0	0.0	0.0	0.00	0.00	0.00
10,000.0	0.00	0.00	10,000.0	0.0	0.0	0.0	0.00	0.00	0.00
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3rd Bone Spring Sand									
10,102.5	0.00	0.00	10,102.5	0.0	0.0	0.0	0.00	0.00	0.00
Build 10°/100									
10,191.9	0.00	0.00	10,191.9	0.0	0.0	0.0	0.00	0.00	0.00
10,200.0	0.81	215.46	10,200.0	0.0	0.0	0.0	10.00	10.00	0.00
10,250.0	5.81	215.46	10,249.9	-2.4	-1.7	2.4	10.00	10.00	0.00
10,300.0	10.81	215.46	10,299.4	-8.3	-5.9	8.4	10.00	10.00	0.00
10,350.0	15.81	215.46	10,348.0	-17.7	-12.6	18.0	10.00	10.00	0.00
10,400.0	20.81	215.46	10,395.5	-30.4	-21.7	31.0	10.00	10.00	0.00
10,450.0	25.81	215.46	10,441.4	-46.6	-33.2	47.4	10.00	10.00	0.00
10,500.0	30.81	215.46	10,485.4	-65.9	-46.9	67.0	10.00	10.00	0.00
Wolfcamp									
10,521.4	32.95	215.46	10,503.5	-75.1	-53.5	76.4	10.00	10.00	0.00
10,550.0	35.81	215.46	10,527.1	-88.2	-62.8	89.8	10.00	10.00	0.00
10,600.0	40.81	215.46	10,566.4	-113.5	-80.8	115.4	10.00	10.00	0.00
Build 10°/100									
10,641.9	45.00	215.46	10,597.0	-136.7	-97.4	139.0	10.00	10.00	0.00
10,650.0	45.57	214.66	10,602.7	-141.4	-100.7	143.8	10.00	7.06	-9.96
Wolfcamp A									
10,692.3	48.64	210.69	10,631.5	-167.5	-117.4	170.3	10.00	7.26	-9.38
10,700.0	49.22	210.00	10,636.6	-172.5	-120.3	175.4	10.00	7.45	-8.85
10,750.0	53.03	205.85	10,668.0	-206.9	-138.5	210.3	10.00	7.63	-8.31
10,800.0	56.98	202.10	10,696.6	-244.3	-155.1	248.1	10.00	7.89	-7.51
10,850.0	61.02	198.67	10,722.4	-284.5	-170.0	288.6	10.00	8.09	-6.85
10,900.0	65.15	195.50	10,745.0	-327.1	-183.1	331.5	10.00	8.25	-6.33
10,950.0	69.34	192.54	10,764.4	-371.8	-194.2	376.5	10.00	8.38	-5.92
11,000.0	73.58	189.74	10,780.3	-418.3	-203.4	423.2	10.00	8.47	-5.60
11,050.0	77.85	187.06	10,792.6	-466.2	-210.4	471.3	10.00	8.55	-5.36
11,100.0	82.15	184.47	10,801.3	-515.2	-215.4	520.4	10.00	8.60	-5.19



Well Planning Report



Database: EDM 5000.1 Single User Db
Company: XTO ENERGY, INC.
Project: Eddy County, NM
Site: Sec 18, T25S, R30E
Well: Poker Lake Unit 18 Brushy Draw #121H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Poker Lake Unit 18 Brushy Draw #121H
TVD Reference: WELL @ 3184.5usft (Akita #22)
MD Reference: WELL @ 3184.5usft (Akita #22)
North Reference: True
Survey Calculation Method: Minimum Curvature

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)
11,150.0	86.46	181.92	10,806.2	-564.9	-218.1	570.1	10.00	8.63	-5.08
EOC @ 90.00° Inc. / 179.86° AZM. 10807.5' TVD									
11,190.9	90.00	179.86	10,807.5	-605.8	-218.8	611.0	10.00	8.64	-5.04
11,200.0	90.00	179.86	10,807.5	-614.8	-218.7	620.0	0.00	0.00	0.00
11,300.0	90.00	179.86	10,807.5	-714.8	-218.5	720.0	0.00	0.00	0.00
11,400.0	90.00	179.86	10,807.5	-814.8	-218.3	820.0	0.00	0.00	0.00
11,500.0	90.00	179.86	10,807.5	-914.8	-218.0	919.9	0.00	0.00	0.00
11,600.0	90.00	179.86	10,807.5	-1,014.8	-217.8	1,019.9	0.00	0.00	0.00
11,700.0	90.00	179.86	10,807.5	-1,114.8	-217.5	1,119.9	0.00	0.00	0.00
11,800.0	90.00	179.86	10,807.5	-1,214.8	-217.3	1,219.8	0.00	0.00	0.00
11,900.0	90.00	179.86	10,807.5	-1,314.8	-217.1	1,319.8	0.00	0.00	0.00
12,000.0	90.00	179.86	10,807.5	-1,414.8	-216.8	1,419.8	0.00	0.00	0.00
12,100.0	90.00	179.86	10,807.5	-1,514.8	-216.6	1,519.7	0.00	0.00	0.00
12,200.0	90.00	179.86	10,807.5	-1,614.8	-216.3	1,619.7	0.00	0.00	0.00
12,300.0	90.00	179.86	10,807.5	-1,714.8	-216.1	1,719.6	0.00	0.00	0.00
12,400.0	90.00	179.86	10,807.5	-1,814.8	-215.9	1,819.6	0.00	0.00	0.00
12,500.0	90.00	179.86	10,807.5	-1,914.8	-215.6	1,919.6	0.00	0.00	0.00
12,600.0	90.00	179.86	10,807.5	-2,014.8	-215.4	2,019.5	0.00	0.00	0.00
12,700.0	90.00	179.86	10,807.5	-2,114.8	-215.1	2,119.5	0.00	0.00	0.00
12,800.0	90.00	179.86	10,807.5	-2,214.8	-214.9	2,219.5	0.00	0.00	0.00
12,900.0	90.00	179.86	10,807.5	-2,314.8	-214.7	2,319.4	0.00	0.00	0.00
13,000.0	90.00	179.86	10,807.5	-2,414.8	-214.4	2,419.4	0.00	0.00	0.00
13,100.0	90.00	179.86	10,807.5	-2,514.8	-214.2	2,519.4	0.00	0.00	0.00
13,200.0	90.00	179.86	10,807.5	-2,614.8	-213.9	2,619.3	0.00	0.00	0.00
13,300.0	90.00	179.86	10,807.5	-2,714.8	-213.7	2,719.3	0.00	0.00	0.00
13,400.0	90.00	179.86	10,807.5	-2,814.8	-213.4	2,819.2	0.00	0.00	0.00
13,500.0	90.00	179.86	10,807.5	-2,914.8	-213.2	2,919.2	0.00	0.00	0.00
13,600.0	90.00	179.86	10,807.5	-3,014.8	-213.0	3,019.2	0.00	0.00	0.00
13,700.0	90.00	179.86	10,807.5	-3,114.8	-212.7	3,119.1	0.00	0.00	0.00
13,800.0	90.00	179.86	10,807.5	-3,214.8	-212.5	3,219.1	0.00	0.00	0.00
13,900.0	90.00	179.86	10,807.5	-3,314.8	-212.2	3,319.1	0.00	0.00	0.00
14,000.0	90.00	179.86	10,807.5	-3,414.8	-212.0	3,419.0	0.00	0.00	0.00
14,100.0	90.00	179.86	10,807.5	-3,514.8	-211.8	3,519.0	0.00	0.00	0.00
14,200.0	90.00	179.86	10,807.5	-3,614.8	-211.5	3,618.9	0.00	0.00	0.00
14,300.0	90.00	179.86	10,807.5	-3,714.8	-211.3	3,718.9	0.00	0.00	0.00
14,400.0	90.00	179.86	10,807.5	-3,814.8	-211.0	3,818.9	0.00	0.00	0.00
14,500.0	90.00	179.86	10,807.5	-3,914.8	-210.8	3,918.8	0.00	0.00	0.00
14,600.0	90.00	179.86	10,807.5	-4,014.8	-210.6	4,018.8	0.00	0.00	0.00
14,700.0	90.00	179.86	10,807.5	-4,114.8	-210.3	4,118.8	0.00	0.00	0.00
14,800.0	90.00	179.86	10,807.5	-4,214.8	-210.1	4,218.7	0.00	0.00	0.00
14,900.0	90.00	179.86	10,807.5	-4,314.8	-209.8	4,318.7	0.00	0.00	0.00
15,000.0	90.00	179.86	10,807.5	-4,414.8	-209.6	4,418.7	0.00	0.00	0.00
15,100.0	90.00	179.86	10,807.5	-4,514.8	-209.3	4,518.6	0.00	0.00	0.00
15,200.0	90.00	179.86	10,807.5	-4,614.8	-209.1	4,618.6	0.00	0.00	0.00
15,300.0	90.00	179.86	10,807.5	-4,714.8	-208.9	4,718.5	0.00	0.00	0.00
15,400.0	90.00	179.86	10,807.5	-4,814.8	-208.6	4,818.5	0.00	0.00	0.00
15,500.0	90.00	179.86	10,807.5	-4,914.8	-208.4	4,918.5	0.00	0.00	0.00
15,600.0	90.00	179.86	10,807.5	-5,014.8	-208.1	5,018.4	0.00	0.00	0.00
15,700.0	90.00	179.86	10,807.5	-5,114.8	-207.9	5,118.4	0.00	0.00	0.00
15,800.0	90.00	179.86	10,807.5	-5,214.8	-207.7	5,218.4	0.00	0.00	0.00
15,900.0	90.00	179.86	10,807.5	-5,314.8	-207.4	5,318.3	0.00	0.00	0.00
16,000.0	90.00	179.86	10,807.5	-5,414.8	-207.2	5,418.3	0.00	0.00	0.00
16,100.0	90.00	179.86	10,807.5	-5,514.8	-206.9	5,518.3	0.00	0.00	0.00
16,200.0	90.00	179.86	10,807.5	-5,614.8	-206.7	5,618.2	0.00	0.00	0.00



Well Planning Report



Database: EDM 5000.1 Single User Db
Company: XTO ENERGY, INC.
Project: Eddy County, NM
Site: Sec 18, T25S, R30E
Well: Poker Lake Unit 18 Brushy Draw #121H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Poker Lake Unit 18 Brushy Draw #121H
TVD Reference: WELL @ 3184.5usft (Akita #22)
MD Reference: WELL @ 3184.5usft (Akita #22)
North Reference: True
Survey Calculation Method: Minimum Curvature

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)
16,300.0	90.00	179.86	10,807.5	-5,714.8	-206.5	5,718.2	0.00	0.00	0.00
16,400.0	90.00	179.86	10,807.5	-5,814.8	-206.2	5,818.1	0.00	0.00	0.00
16,500.0	90.00	179.86	10,807.5	-5,914.8	-206.0	5,918.1	0.00	0.00	0.00
16,600.0	90.00	179.86	10,807.5	-6,014.8	-205.7	6,018.1	0.00	0.00	0.00
16,700.0	90.00	179.86	10,807.5	-6,114.8	-205.5	6,118.0	0.00	0.00	0.00
16,800.0	90.00	179.86	10,807.5	-6,214.8	-205.3	6,218.0	0.00	0.00	0.00
16,900.0	90.00	179.86	10,807.5	-6,314.8	-205.0	6,318.0	0.00	0.00	0.00
17,000.0	90.00	179.86	10,807.5	-6,414.8	-204.8	6,417.9	0.00	0.00	0.00
17,100.0	90.00	179.86	10,807.5	-6,514.8	-204.5	6,517.9	0.00	0.00	0.00
17,200.0	90.00	179.86	10,807.5	-6,614.8	-204.3	6,617.8	0.00	0.00	0.00
17,300.0	90.00	179.86	10,807.5	-6,714.8	-204.0	6,717.8	0.00	0.00	0.00
17,400.0	90.00	179.86	10,807.5	-6,814.8	-203.8	6,817.8	0.00	0.00	0.00
17,500.0	90.00	179.86	10,807.5	-6,914.8	-203.6	6,917.7	0.00	0.00	0.00
17,600.0	90.00	179.86	10,807.5	-7,014.8	-203.3	7,017.7	0.00	0.00	0.00
17,700.0	90.00	179.86	10,807.5	-7,114.8	-203.1	7,117.7	0.00	0.00	0.00
17,800.0	90.00	179.86	10,807.5	-7,214.8	-202.8	7,217.6	0.00	0.00	0.00
17,900.0	90.00	179.86	10,807.5	-7,314.8	-202.6	7,317.6	0.00	0.00	0.00
18,000.0	90.00	179.86	10,807.5	-7,414.8	-202.4	7,417.6	0.00	0.00	0.00
18,100.0	90.00	179.86	10,807.5	-7,514.8	-202.1	7,517.5	0.00	0.00	0.00
18,200.0	90.00	179.86	10,807.5	-7,614.8	-201.9	7,617.5	0.00	0.00	0.00
18,300.0	90.00	179.86	10,807.5	-7,714.8	-201.6	7,717.4	0.00	0.00	0.00
18,400.0	90.00	179.86	10,807.5	-7,814.8	-201.4	7,817.4	0.00	0.00	0.00
18,500.0	90.00	179.86	10,807.5	-7,914.8	-201.2	7,917.4	0.00	0.00	0.00
18,600.0	90.00	179.86	10,807.5	-8,014.8	-200.9	8,017.3	0.00	0.00	0.00
18,700.0	90.00	179.86	10,807.5	-8,114.8	-200.7	8,117.3	0.00	0.00	0.00
TD @ 18712.0 'MD / 10807.5' TVD									
18,712.0	90.00	179.86	10,807.5	-8,126.8	-200.6	8,129.3	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PLU 18 BD 121H - EOC - plan hits target center - Point	0.00	0.00	10,807.5	-605.8	-218.8	411,000.21	625,520.42	32° 7' 45.504 N	103° 55' 40.272 W
PLU 18 BD 121H - PBHI - plan hits target center - Point	0.00	0.00	10,807.5	-8,126.8	-200.6	403,479.30	625,566.90	32° 6' 31.073 N	103° 55' 40.060 W
PLU 18 BD 121H - FTP - plan hits target center - Point	0.00	0.00	10,807.5	-700.2	-218.5	410,905.80	625,521.00	32° 7' 44.570 N	103° 55' 40.269 W
PLU 18 BD 121H - LTP - plan hits target center - Point	0.00	0.00	10,807.5	-7,996.8	-201.0	403,609.30	625,566.10	32° 6' 32.360 N	103° 55' 40.064 W



Well Planning Report



Database: EDM 5000.1 Single User Db
Company: XTO ENERGY, INC.
Project: Eddy County, NM
Site: Sec 18, T25S, R30E
Well: Poker Lake Unit 18 Brushy Draw #121H
Wellbore: Wellbore #1
Design: Design #1

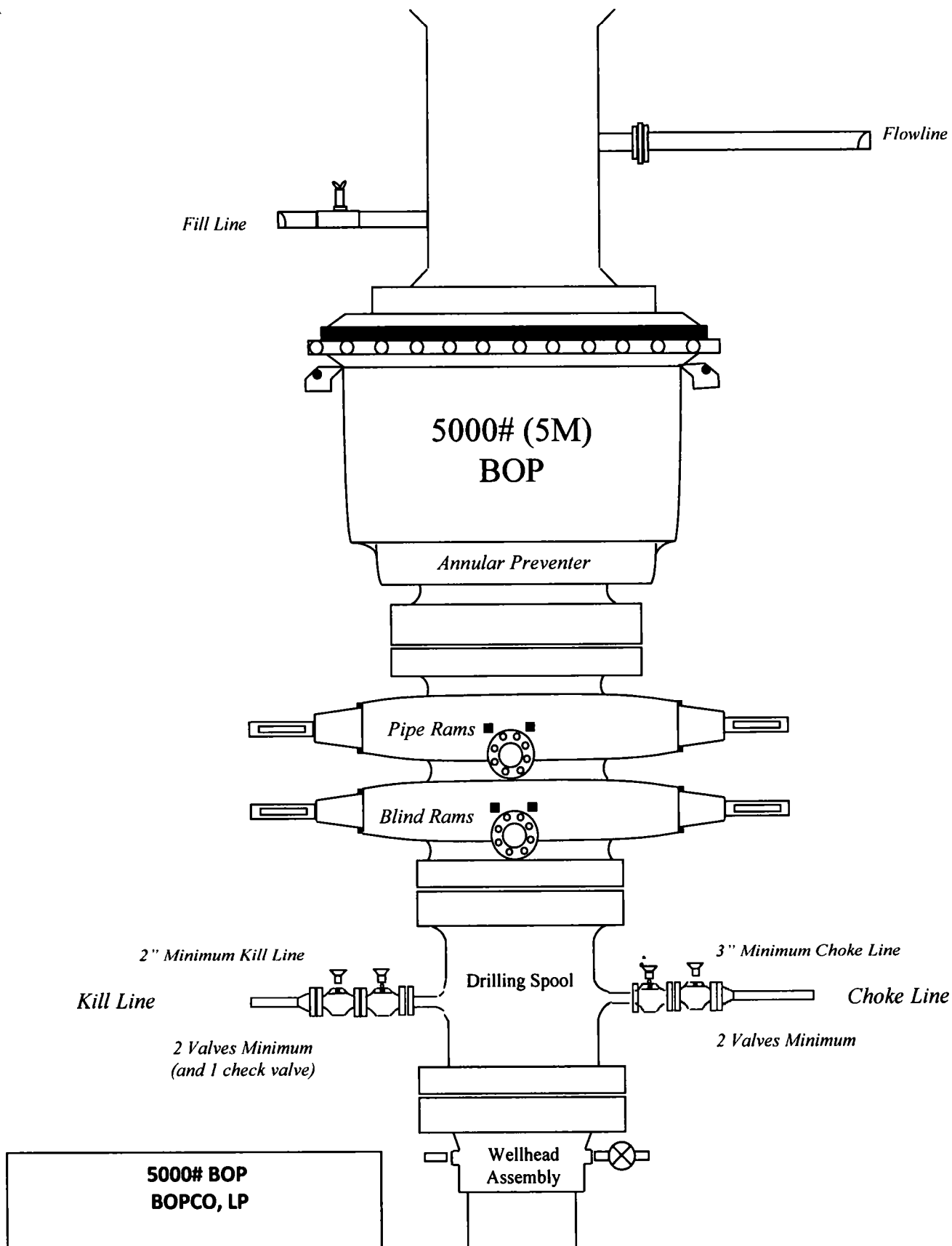
Local Co-ordinate Reference: Well Poker Lake Unit 18 Brushy Draw #121H
TVD Reference: WELL @ 3184.5usft (Akita #22)
MD Reference: WELL @ 3184.5usft (Akita #22)
North Reference: True
Survey Calculation Method: Minimum Curvature

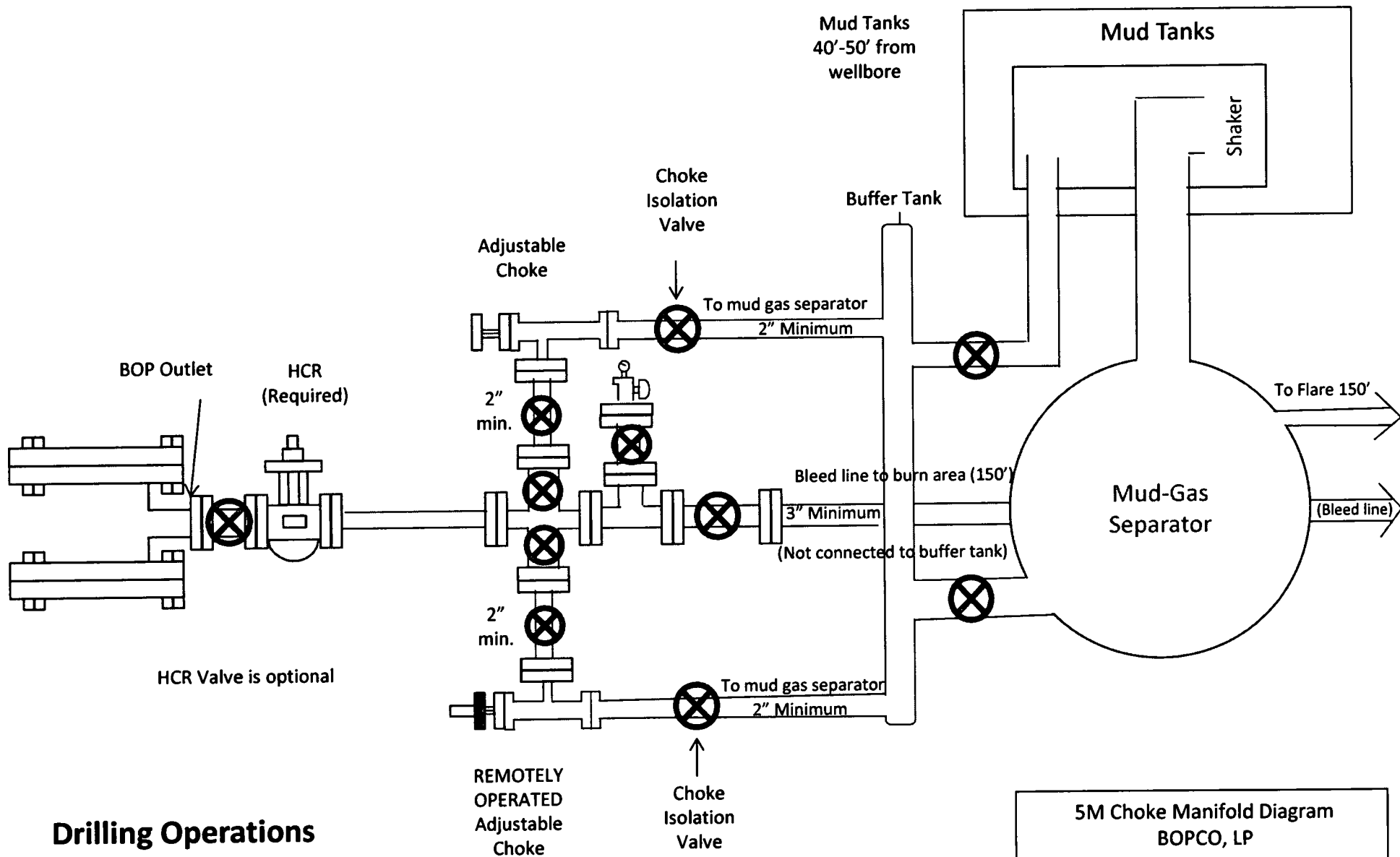
Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
705.5	705.5	Rustler		0.00	
1,018.5	1,018.5	Salado (Top of Salt)		0.00	
3,266.5	3,266.5	Base of Salt		0.00	
3,459.5	3,459.5	Delaware (Bell Canyon)		0.00	
4,351.5	4,351.5	Cherry Canyon		0.00	
5,985.5	5,985.5	Brushy Canyon		0.00	
7,215.5	7,215.5	Bone Spring Lime		0.00	
8,215.5	8,215.5	1st Bone Spring Sand		0.00	
8,598.5	8,598.5	2nd Bone Spring Lime		0.00	
9,022.5	9,022.5	2nd Bone Spring Sand		0.00	
9,281.5	9,281.5	3rd Bone Spring Lime		0.00	
9,645.5	9,645.5	Harkey sand		0.00	
9,901.5	9,901.5	Lower 3rd Bone Spring Lime		0.00	
9,954.5	9,954.5	Lower 3rd Bone Spring Shale		0.00	
10,102.5	10,102.5	3rd Bone Spring Sand		0.00	
10,521.4	10,503.5	Wolfcamp		0.00	
10,692.3	10,631.5	Wolfcamp A		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,191.9	10,191.9	0.0	0.0	Build 10°/100
10,641.9	10,597.0	-136.7	-97.4	Build 10°/100
11,190.9	10,807.5	-605.8	-218.8	EOC @ 90.00° Inc. / 179.86° AZM. 10807.5' TVD
18,712.0	10,807.5	-8,126.8	-200.6	TD @ 18712.0' MD / 10807.5' TVD

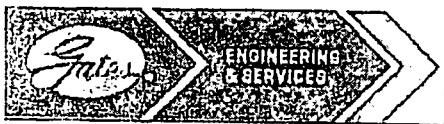




Drilling Operations **Choke Manifold** **5M Service**

5M Choke Manifold Diagram
BOPCO, LP

BEU 29 Federal SWD #1



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 :
Customer Ref. :
Invoice No. :

AUSTIN DISTRIBUTING
PENDING
201709

Test Date:
Hose Serial No.:
Created By:

6/8/2014
D-060814-1
NORMA

Product Description:

FD3.0x2.0R41/16.5KFLGE/E LE

End Fitting 1 :
Gates Part No. :
Working Pressure :

4 1/16 in.5K FLG
4774-6001
5,000 PSI

End Fitting 2 :
Assembly Code :
Test Pressure :

4 1/16 in.5K FLG
L33090011513D-060814-1
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:
Date :
Signature :

QUALITY
6/8/2014
<i>[Signature]</i>

Technical Supervisor :
Date :
Signature :

PRODUCTION
6/8/2014
<i>[Signature]</i>

