Carlsbad Field Office
OCD Artesia

Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM136870

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
CORRAL CANYON 3 FED COM 22H

2. Name of Operator
XTO ENERGY INCORPORATED
Contact: KELLY KARDOS
E-Mail: kelly_kardos@xtoenergy.com

9. API Well No.
30-015-46326-00-X1

3a. Address
6401 HOLIDAY HILL ROAD BLDG 5
MIDLAND, TX 79707

3b. Phone No. (include area code)
Ph: 432-620-4374

10. Field and Pool or Exploratory Area
CORRAL CANYON-BONE SPRING, S

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 10 T25S R29E NENW 500FNL 2440FWL
32.150574 N Lat, 103.972923 W Lon

11. 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 to Original A PD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ 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 recomplete 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.

XTO Energy, Inc lost returns during cement operations on the 7" casing job & received verbal approval from Dylan Rossmango, BLM to proceed as follows:

See attached drilling program....

1. The 9-5/8" intermediate casing was set at 3055', 113' below the base of salt, and cemented back to the surface.

2. The well was drilled to 8530' but the wellbore integrity was not sufficient to carry the drilling fluid density required to drill the well's objective zone (2nd Bone Springs).

3. 7" casing was run to 8,526', to allow the integrity need to drill to TD.

RECEIVED
JAN 09 2020
EMNRD-OCD ARTESIA

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

Electronic Submission #493423 verified by the BLM Well Information System
For XTO ENERGY INCORPORATED, sent to the Carlsbad
Committed to AFMSS for processing by DYLAN ROSSMANGO on 11/22/2019 (20BLM0002SE)

Name *(Printed/Typed)* KELLY KARDOS — Title REGULATORY COORDINATOR

Signature (Electronic Submission) — Date 11/22/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By DYLAN ROSSMANGO — Title PETROLEUM ENGINEER — Date 11/22/2019

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.

(Instructions on page 2)

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

Accepted 1/29/20 KS

Additional data for EC transaction #493423 that would not fit on the form

32. Additional remarks, continued

4. The well was circulated with 8.8 ppg mud at 6 bpm with full returns.

5. The cement job was pumped but returns were lost while displacing the cement job.

6. Although we did not have returns during the displacement, the annulus stayed full to the surface.

7. A temperature log was run, finding the top of cement at 3,300' (245' below the 9-5/8" casing shoe).

8. Planned future operations of:
a. set casing hanger packoff and test
b. pressure test the 7" casing to 3,000 psi,
c. drill out to 10' of new formation
d. perform a leak off test
e. drill a 6" hole as per the original directional plan
f. run a 4-1/2" production liner to TD, overlapped ~ 500' into the 7" casing, and cementing

9. Mr Rossmango was informed that the 9-5/8" x 7" annulus can be monitored through the wellhead casing outlet valve.

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

XTO Energy Inc.
Corral Canyon 3 Fed 22H
Projected TD: 14385' MD / 8867' TVD
SHL: 500' FNL & 2440' FWL , Section 10, T25S, R29E
BHL: 50' FNL & 1980' FEL , Section 3, T25S, 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	533'	Water
Top of Salt	716'	Water
Base of Salt	2922'	Water
Delaware	3100'	Water
Bone Spring	6838'	Water/Oil/Gas
1st Bone Spring Ss	7791'	Water/Oil/Gas
2nd Bone Spring Ss	8617'	Water/Oil/Gas
Target/Land Curve	8867'	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 @ 630' (86' above the salt) and circulating cement back to surface. The salt will be isolated by setting 9-5/8 inch casing at 3050' and circulating cement to surface. An 8-3/4 inch vertical and curve hole will be drilled and 7 inch casing run and cemented 200' into the 9-5/8 inch casing. A 6 inch curve and lateral hole will be drilled to MD/TD and 4-1/2 inch liner will be set at TD and cemented back 250' into the 7 inch casing shoe.

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' – 630'	13-3/8"	48	STC	H-40	New	1.86	2.70	10.65
12-1/4"	0' – 3050'	9-5/8"	36	LTC	J-55	New	1.71	2.14	4.13
8-3/4"	0' – 8526'	7"	32	BTC	P-110	New	1.31	2.74	3.29
6"	8526' – 14385' KOP	4-1/2"	13.5	BTC	P-110	New	1.31	4.50	2.83

500' tie-back

- XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.
- 9-5/8" & 4-1/2" Collapse analyzed using 50% evacuation based on regional experience.
- 4-1/2" tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

WELLHEAD:

A. Starting Head (RSH System): 13-3/8" SOW bottom x 13-5/8" 5M top flange
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 to per Onshore Order 2.
   - Wellhead manufacturer representative will not be present for BOP test plug installation

4. Cement Program

Surface Casing: 13-3/8", 48 New H-40, STC casing to be set at +/- 630'

Tail: 640 sxs Class C + 0.5% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.35 gal/sx water)
Compressives: 12-hr = 900 psi 24 hr = 1300 psi

Top od cement: Surface

Intermediate Casing: 9-5/8", 36 New J-55, LTC casing to be set at +/- 3050'

Lead: 890 sxs Class C (mixed at 13.5 ppg, 1.79 ft3/sx, 9.45 gal/sx water)

Tail: 230 sxs Class C (mixed at 14.8 ppg, 1.33 ft3/sx, 6.34 gal/sx water)
Compressives: 12-hr = 1300 psi 24 hr = 1800 psi

Top of cement: Surface

2nd Intermediate Casing: 7", 32 New P-110, BTC casing to be set at +/- 8526'

Lead: 470 sxs Beaded TXI LT WT (mixed at 10.5 ppg, 2.99 ft3/sx, 16.15 gal/sx water)

Tail: 150 sxs TXI LT WT (mixed at 13.0 ppg, 1.42 ft3/sx, 7.50 gal/sx water)
Compressives: 12-hr = 1300 psi 24 hr = 1900 psi

Top of cement: 200' inside previous casing

Production Casing: 4-1/2", 13.5 New P-110, BTC casing to be set at +/- 14385'

Tail: 660 sxs 35/65 Poz/H (mixed at 14.5 ppg, 1.23 ft3/sx, 5.29 gal/sx water)
Compressives: 12-hr = 1000 psi 24 hr = 2000 psi

Top of cement: Top of liner

5. Pressure Control Equipment

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. MASP should not exceed 2337 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 nippling up on the 13-5/8" 3M bradenhead and flange, the BOP test will be limited to 3000 psi. When the 9-5/8" and 7" casing is set, the packoff seals will be tested to a minimum of 3000 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.

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 630'	17-1/2"	FW/Native	8.4-8.8	35-40	NC
630' to 3050'	12-1/4"	Brine/Gel Sweeps	9.8-10.2	30-32	NC
3050' to 8526'	8-3/4"	FW / Cut Brine	8.5-9.2	29-32	NC - 20
8526' to 14385'	6"	Cut Brine	9-9.6	32-50	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) below intermediate casing.

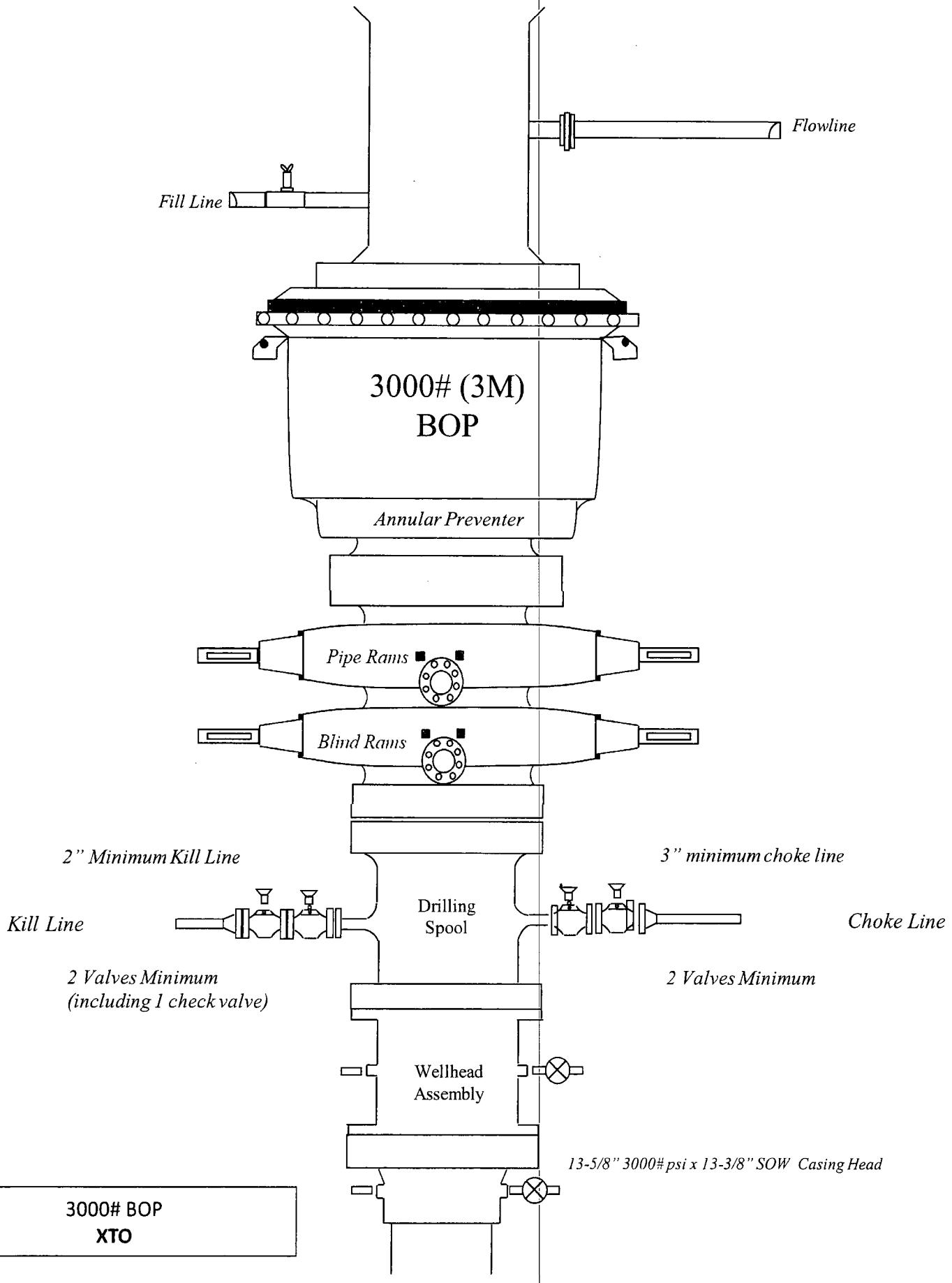
Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

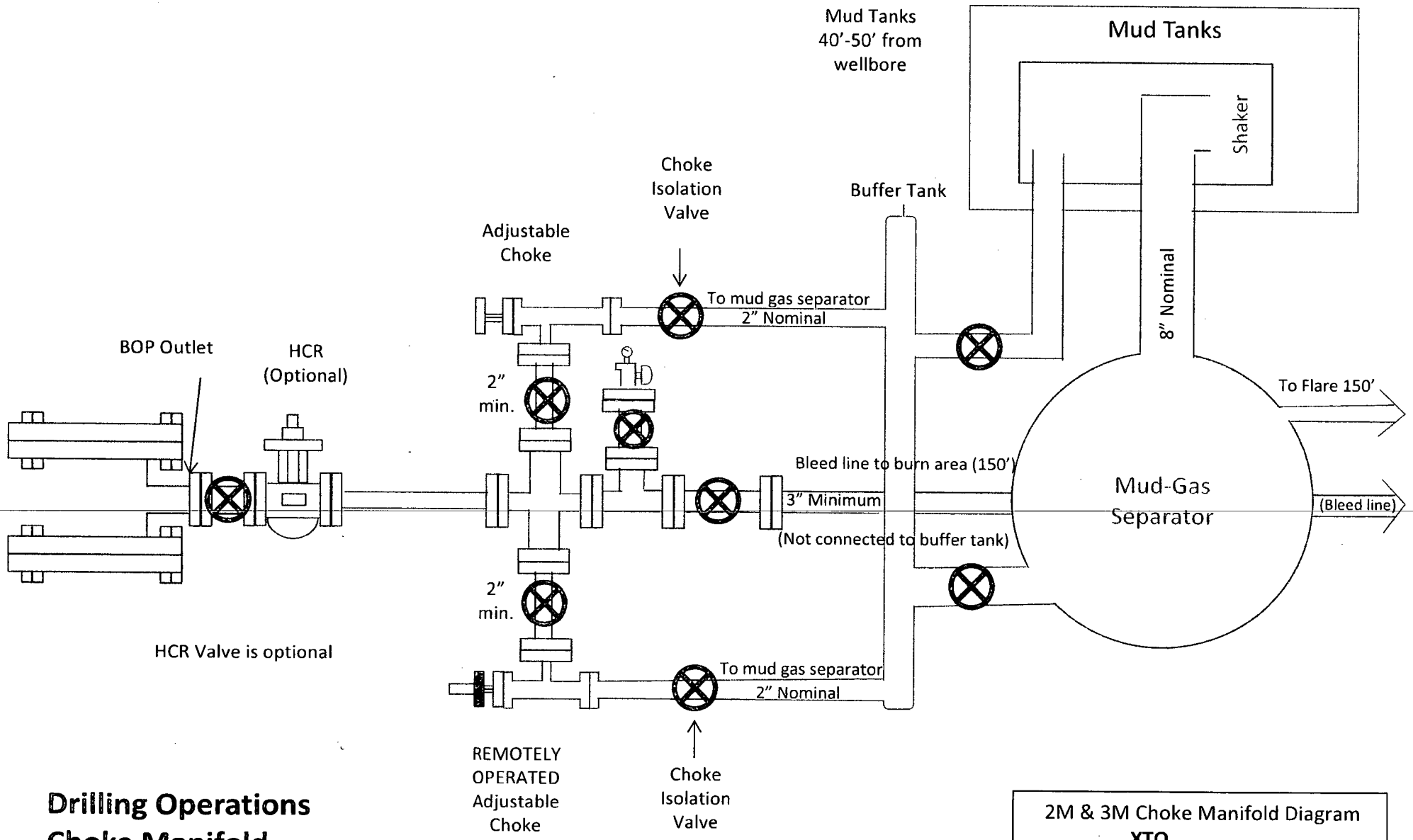
None Anticipated. BHT of 130 to 150 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. 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. The maximum anticipated bottom hole pressure for this well is 4288 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.


Flowline
Fill Line
3000# (3M)
BOP
Annular Preventer
Pipe Rams
Blind Rams
2" Minimum Kill Line
3" minimum choke line
Kill Line
Drilling
Spool
Choke Line
2 Valves Minimum
(including 1 check valve)
2 Valves Minimum
Wellhead
Assembly
13-5/8" 3000# psi x 13-3/8" SOW Casing Head

3000# BOP
XTO



Drilling Operations
Choke Manifold
2M & 3M Service

2M & 3M Choke Manifold Diagram
XTO

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

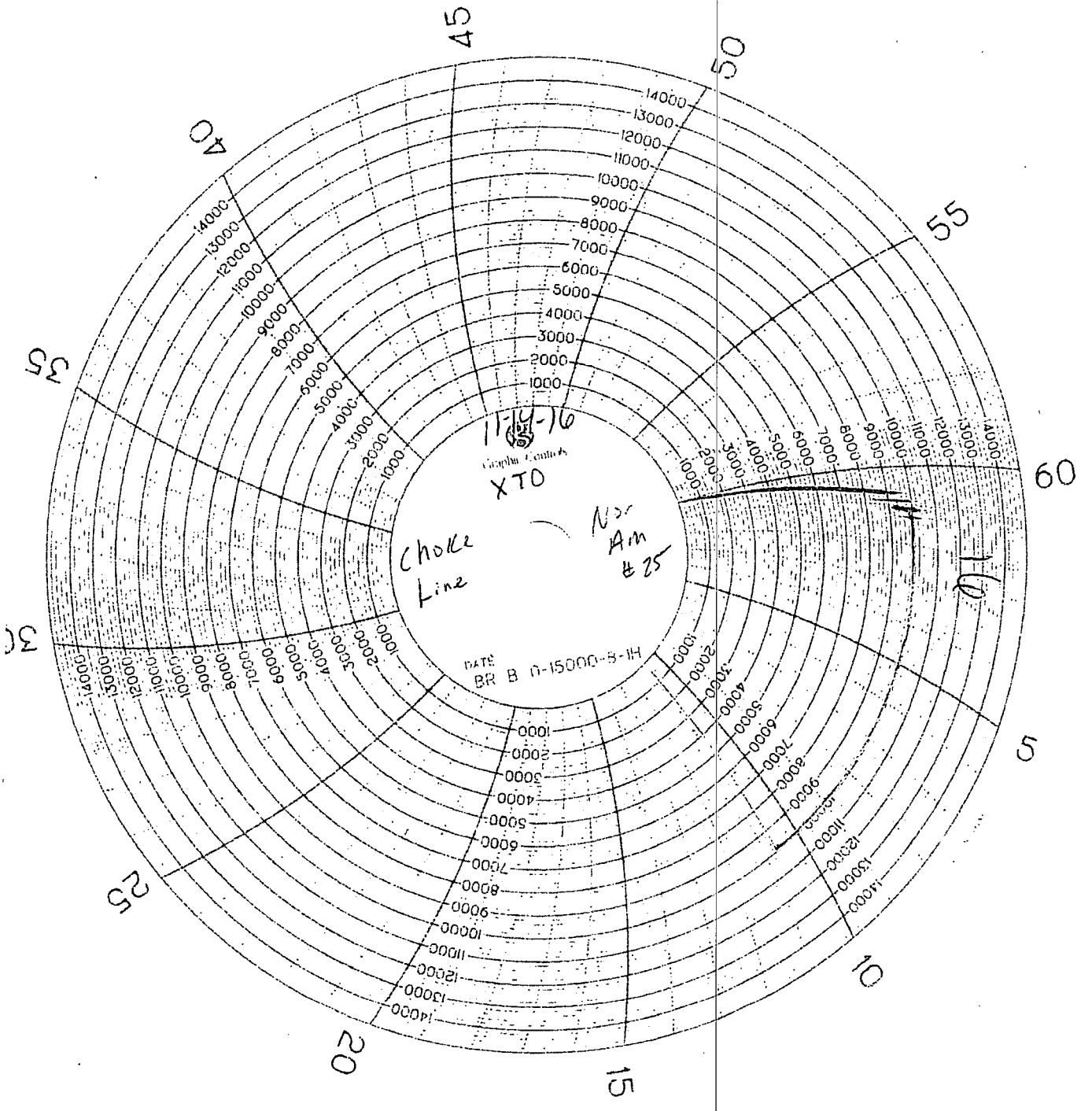
Customer :	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref. :	PENDING	Hose Serial No.:	D-060814-1
Invoice No. :	201709	Created By:	NORMA

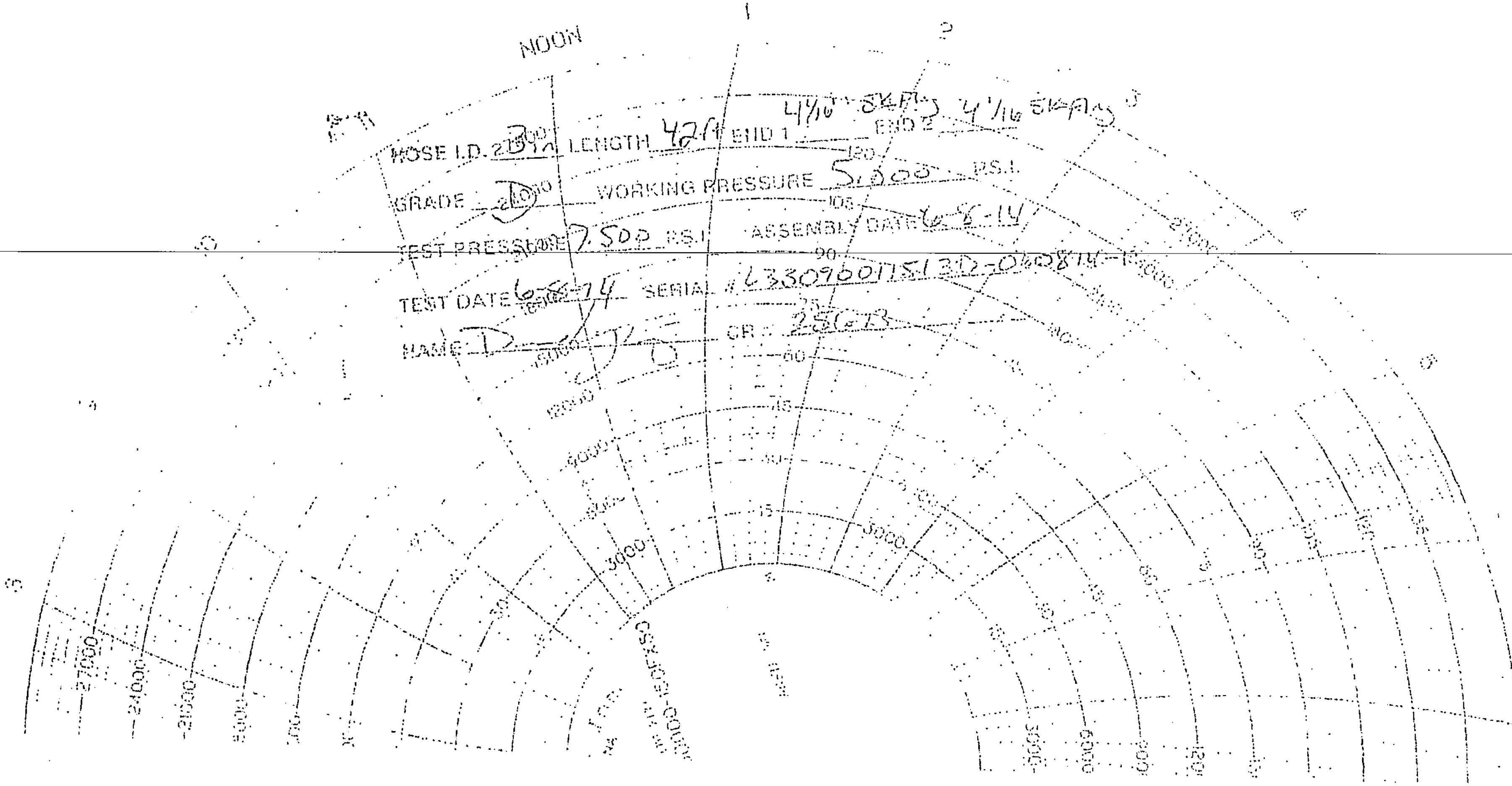
Product Description:	FD3.0-2.0R41/16.5KFLGE/E LE

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 :	


11-14-16
XTO
Choke Line
Nor Am #25
DATE
BR B 0-15000-S-IH


NOON
HOSE I.D.
LENGTH 42ft
END 1
END 2
GRADE D
WORKING PRESSURE 5,000 P.S.I.
TEST PRESSURE 7,500 P.S.I.
ASSEMBLY DATE 6-8-14
TEST DATE 6-8-14
SERIAL #
NAME
CR # 25673

PECOS DISTRICT
DRILLING OPERATIONS
EC493423 CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**XTO Energy Inc.**
LEASE NO.:	**NMNM136870**
WELL NAME & NO.:	**Corral Canyon 3 Fed 22H**
SURFACE HOLE FOOTAGE:	**500' FNL & 2440' FWL**
BOTTOM HOLE FOOTAGE	**50' FNL & 1980' FEL**
LOCATION:	**Section 10, T 25S, R 29E, NMPM**
COUNTY:	**Eddy County, New Mexico**

All other previous Conditions of Approval still apply.

1. The **7"** intermediate casing shall be cemented with at least 200' tie-back into the previous casing.
    a. As of 11/16, this casing was not cemented with sufficient tie-back. **Operator shall attempt a remedial job to get sufficient cement coverage prior to the completion of this well.**
        i. After the remediation is complete, a CBL shall be ran to confirm TOC and determine cement bond quality. If remedial work is not possible, a CBL will still be required.
2. The **4-1/2"** production liner shall be cemented with at least **500' tie-back** into the previous casing. Operator shall provide method of verification.

DR 11/22/2019