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

NM OIL CONSERVATION
ARTESIA DISTRICT
SEP 23 2019
RECEIVED

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	[2] Pool Code	[3] Pool Name
30-015- 45465	40295	LOS MEDANOS; BONE SPRING

[4] Property Code	[5] Property Name	[6] Well Number
326259	JAMES RANCH UNIT DI 2	901H

[7] OGRID No.	[8] Operator Name	[9] Elevation
373075	XTO PERMIAN OPERATING, LLC.	3,344'

[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
K	25	22 S	30 E		2,600	SOUTH	1,990	WEST	EDDY

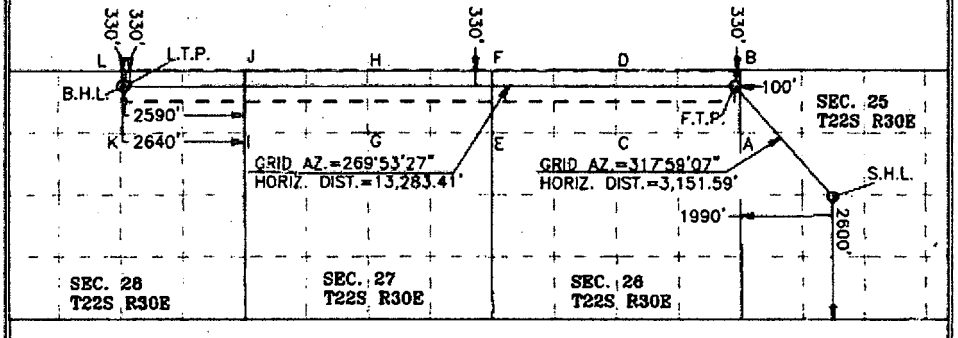
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	28	22 S	30 E		330	NORTH	2,640	EAST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
400			

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.

16



SURFACE LOCATION NAD 83 NME	LAST TAKE POINT NAD 83 NME	SURFACE LOCATION NAD 27 NME	LAST TAKE POINT NAD 27 NME
Y= 496,142.8	Y= 498,459.2	Y= 496,082.7	Y= 498,399.0
X= 694,741.3	X= 679,448.5	X= 653,559.3	X= 638,266.6
LAT.= 32.362988°N	LAT.= 32.369541°N	LAT.= 32.362866°N	LAT.= 32.369419°N
LONG.= 103.836499°W	LONG.= 103.885995°W	LONG.= 103.836007°W	LONG.= 103.885502°W

FIRST TAKE POINT NAD 83 NME	BOTTOM HOLE LOCATION NAD 83 NME	FIRST TAKE POINT NAD 27 NME	BOTTOM HOLE LOCATION NAD 27 NME
Y= 498,484.3	Y= 498,459.1	Y= 498,424.1	Y= 498,398.9
X= 692,631.8	X= 679,398.5	X= 651,449.8	X= 638,216.6
LAT.= 32.369451°N	LAT.= 32.369541°N	LAT.= 32.369329°N	LAT.= 32.369419°N
LONG.= 103.843296°W	LONG.= 103.886157°W	LONG.= 103.842803°W	LONG.= 103.885663°W

CORNER COORDINATES TABLE NAD 83 NME

A – Y= 497,495.1 N,	X= 692,739.9 E	
B – Y= 498,814.5 N,	X= 692,729.2 E	
C – Y= 497,489.4 N,	X= 690,059.6 E	
D – Y= 498,809.0 N,	X= 690,051.3 E	
E – Y= 497,484.2 N,	X= 687,379.4 E	
F – Y= 498,804.6 N,	X= 687,373.7 E	
G – Y= 497,478.3 N,	X= 684,709.6 E	
H – Y= 498,797.8 N,	X= 684,704.4 E	
I – Y= 497,473.7 N,	X= 682,041.3 E	
J – Y= 498,793.4 N,	X= 682,037.5 E	
K – Y= 497,469.5 N,	X= 679,360.6 E	
L – Y= 498,789.0 N,	X= 679,354.8 E	

CORNER COORDINATES TABLE NAD 27 NME

A – Y= 497,435.0 N,	X= 651,557.9 E	
B – Y= 498,754.3 N,	X= 651,547.3 E	
C – Y= 497,429.2 N,	X= 648,877.6 E	
D – Y= 498,748.8 N,	X= 648,869.4 E	
E – Y= 497,424.0 N,	X= 646,197.4 E	
F – Y= 498,744.4 N,	X= 646,191.8 E	
G – Y= 497,418.1 N,	X= 643,527.6 E	
H – Y= 498,737.6 N,	X= 643,522.5 E	
I – Y= 497,413.5 N,	X= 640,859.4 E	
J – Y= 498,733.2 N,	X= 640,855.6 E	
K – Y= 497,409.3 N,	X= 638,178.7 E	
L – Y= 498,728.8 N,	X= 638,172.9 E	

[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 — 8/22/19
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.

8-22-2019
Date of Survey

Signature and Seal of Professional Surveyor:

MARK DILLON HARP 23786
Certificate Number

RR/AI

2019051253

P:\PROJECTS\2019\2019051253-XTO-IRU DI 2 901H-EDDY\DWG\2019051253-XTO-IRU DI 2 901H C-102 UPDATED.dwg

RWP 10-30-19

NM OIL CONSERVATION
ARTESIA DISTRICT
SEP 23 2019
RECEIVED

Intent [X] As Drilled [ ]

API #
30-015-45465

Operator Name:	Property Name:	Well Number
XTO PERMIAN OPERATING, LLC	JAMES RANCH UNIT DI 2	901H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
K	25	22S	30E		2600	SOUTH	1990	WEST	Eddy

Latitude	Longitude	NAD
32.362988	-103.836499	83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
A	26	22S	30E		330	NORTH	100	EAST	Eddy

Latitude	Longitude	NAD
32.369451	-103.843296	83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
B	28	22S	30E		330	NORTH	2590	WEST	Eddy

Latitude	Longitude	NAD
32.369541	-103.885995	83

Is this well the defining well for the Horizontal Spacing Unit? [Y]

Is this well an infill well? [N]

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

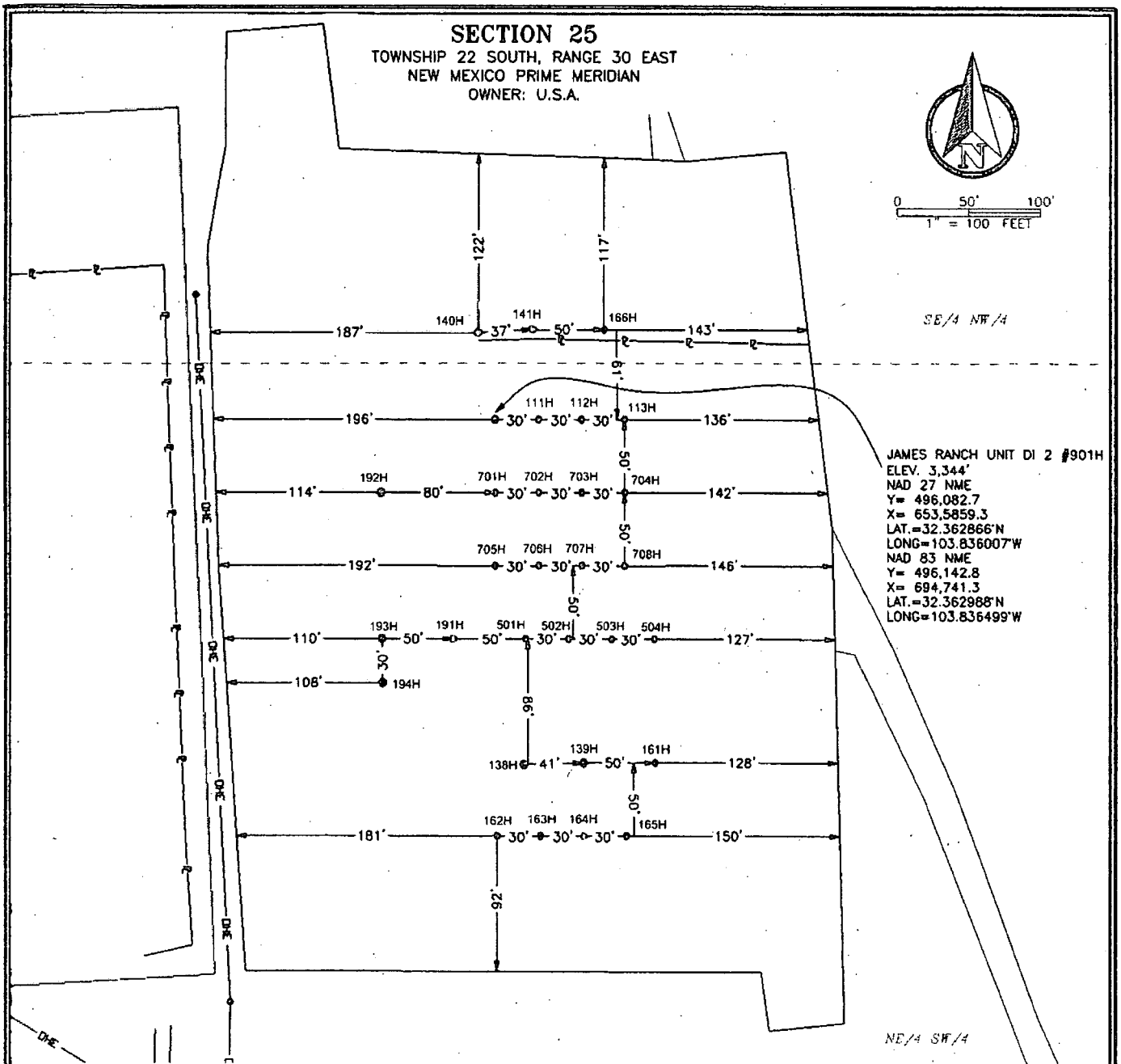
API #

Operator Name:	Property Name:	Well Number
XTO PERMIAN OPERATING, LLC		

KZ 06/29/2018

SECTION 25

TOWNSHIP 22 SOUTH, RANGE 30 EAST
NEW MEXICO PRIME MERIDIAN
OWNER: U.S.A.



JAMES RANCH UNIT DI 2 #901H
ELEV. 3,344'
NAD 27 NME
Y= 496,082.7
X= 653,5859.3
LAT.=32.362866°N
LONG=103.836007°W
NAD 83 NME
Y= 496,142.8
X= 694,741.3
LAT.=32.362988°N
LONG=103.836499°W

LEGEND

- EXISTING PAD
- DHE — EXISTING OVERHEAD ELECTRIC
- EXISTING ROAD
- EXISTING PIPELINE

NOTE:

1). SEE "TOPOGRAPHICAL AND ACCESS ROAD MAP" FOR PROPOSED ROAD LOCATION

DIRECTIONS TO THIS LOCATION:

FROM THE INTERSECTION OF HWY 128 (JAL HWY) AND CIMARRON RD. GO NORTH ON CIMARRON ROAD (GRAVEL) APPROX. 2.2 MILES. TURN RIGHT (EAST) ON LEASE ROAD (GRAVEL) APPROX. 1.3 MILES. THEN TURN RIGHT (SOUTHEAST) ON LEASE ROAD (GRAVEL) FOR APPROX. 0.2 MILES. THEN TURN LEFT (EAST) ON LEASE ROAD (GRAVEL) FOR APPROX. 0.8 MILES. THEN TURN LEFT (NORTH) ON LEASE ROAD (GRAVEL) FOR APPROX. 0.1 MILES UNTIL YOU ARRIVE AT PAD ON LEFT.

FSC INC
SURVEYORS+ENGINEERS
550 Bailey Ave., 205 · Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

XTO PERMIAN OPERATING, LLC.

WELL SITE PLAN

JAMES RANCH UNIT DI 2 #901H
LOCATED 1,990 FEET FROM THE WEST LINE AND 2,600 FEET FROM THE SOUTH LINE OF SECTION 25, TOWNSHIP 22 SOUTH, RANGE 30 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

DATE:	05/09/2019	PROJECT NO:	2019051353
DRAWN BY:	RR/LR	SCALE:	1" = 100'
CHECKED BY:	DH	SHEET:	1 OF 1
FIELD CREW:	RE	REVISION:	NO

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

XTO Energy Inc.
James Ranch Unit DI 2 901H
Projected TD: 26418' MD / 10878' TVD
SHL: 2600' FSL & 1990' FWL , Section 25, T22S, R30E
BHL: 330' FNL & 2640' FEL , Section 28, T22S, 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	366'	Water
Top of Salt	761'	Water
Base of Salt	3604'	Water
Delaware	3850'	Water
Bone Spring Lime	7701'	Water
1st Bone Spring Ss	8841'	Water/Oil/Gas
3rd Bone Spring Carb	9849'	Water/Oil/Gas
3rd Bone Spring Ss	10844'	Water/Oil/Gas
Target/Land Curve	10878'	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 18-5/8" inch casing @ 736' (25' above the salt) and circulating cement back to surface. The salt will be isolated by setting 13-3/8" inch casing at 3800' and circulating cement to surface. The second intermediate will isolate from the salt down to the next casing seat by setting 9-5/8" inch casing at 7901' and cemented back into the 13-3/8 inch casing shoe. A 8-3/4" inch curve and lateral hole will be drilled to MD/TD and 5-1/2 inch casing will be set at TD and cemented back up to 2nd intermediate (estimated TOC 7401 feet) per Potash regulations.

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
24"	0' – 736'	18-5/8"	87.5	STC	H-40	New	1.41	1.89	8.68
17-1/2"	0' – 3800'	13-3/8"	68	STC	J-55	New	1.69	1.66	2.61
12-1/4"	0' – 7901'	9-5/8"	40	LTC	HCL-80	New	1.86	2.57	2.30
8-3/4"	0' – 26418'	5-1/2"	17	BTC	P-110	New	1.12	1.36	1.91

- XTO requests to not utilize centralizers in the curve and lateral
- 18-5/8" Collapse analyzed using 75% evacuation. Casing to be filled while running.
- 13-3/8" Collapse analyzed using 50% evacuation based on regional experience.
- 9-5/8" Collapse analyzed using 33% 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
- Test on 2M Annular & Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less

Wellhead:

Temporary Wellhead

- 18-5/8" SOW bottom x 21-1/4" 2M top flange.

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: 18-5/8", 87.5 New H-40, STC casing to be set at +/- 736'

Lead: 580 sxs EconoCem-HLTRRC (mixed at 12.9 ppg, 1.87 ft3/sx, 10.13 gal/sx water)
Tail: 550 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

1st Intermediate Casing: 13-3/8", 68 New J-55, STC casing to be set at +/- 3800'

Lead: 2600 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

2nd Intermediate Casing: 9-5/8", 40 New HCL-80, LTC casing to be set at +/- 7901'
1st Stage

DV tool minimum 50' below previous shoe. 200' above current

Lead: 1180 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

2nd Stage

Lead: 1110 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

Production Casing: 5-1/2", 17 New P-110, BTC casing to be set at +/- 26418'

Tail: 3290 sxs VersaCem (mixed at 13.2 ppg, 1.61 ft3/sx, 8.38 gal/sx water) Top of Cement: 7401 feet
Compressives: 12-hr = 1375 psi 24 hr = 2285 psi

5. Pressure Control Equipment

The blow out preventer equipment (BOP) on surface casing temporary wellhead will consist of a 21-1/4" minimum 2M Hydril. MASP should not exceed 1160 psi.

Once the permanent WH is installed on the 13-3/8" casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 5M Double Ram BOP. MASP should not exceed 3094 psi In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

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 13-3/8", 5M bradenhead and flange, the BOP test will be limited to 5M psi. When nippling up on the 9-5/8", the BOP will be tested to a minimum of 5M 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' - 736'	24"	FW/Native	8.4-8.8	35-40	NC
736' - 3800'	17-1/2"	Brine	9.8-10.2	30-32	NC
3800' to 7901'	12-1/4"	FW / Cut Brine	8.7-9.4	30-32	NC
7901' to 26418'	8-3/4"	Cut Brine / Polymer	9.4 - 9.7	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 18-5/8" surface casing with brine solution. A 9.8 ppg -10.2 ppg 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.

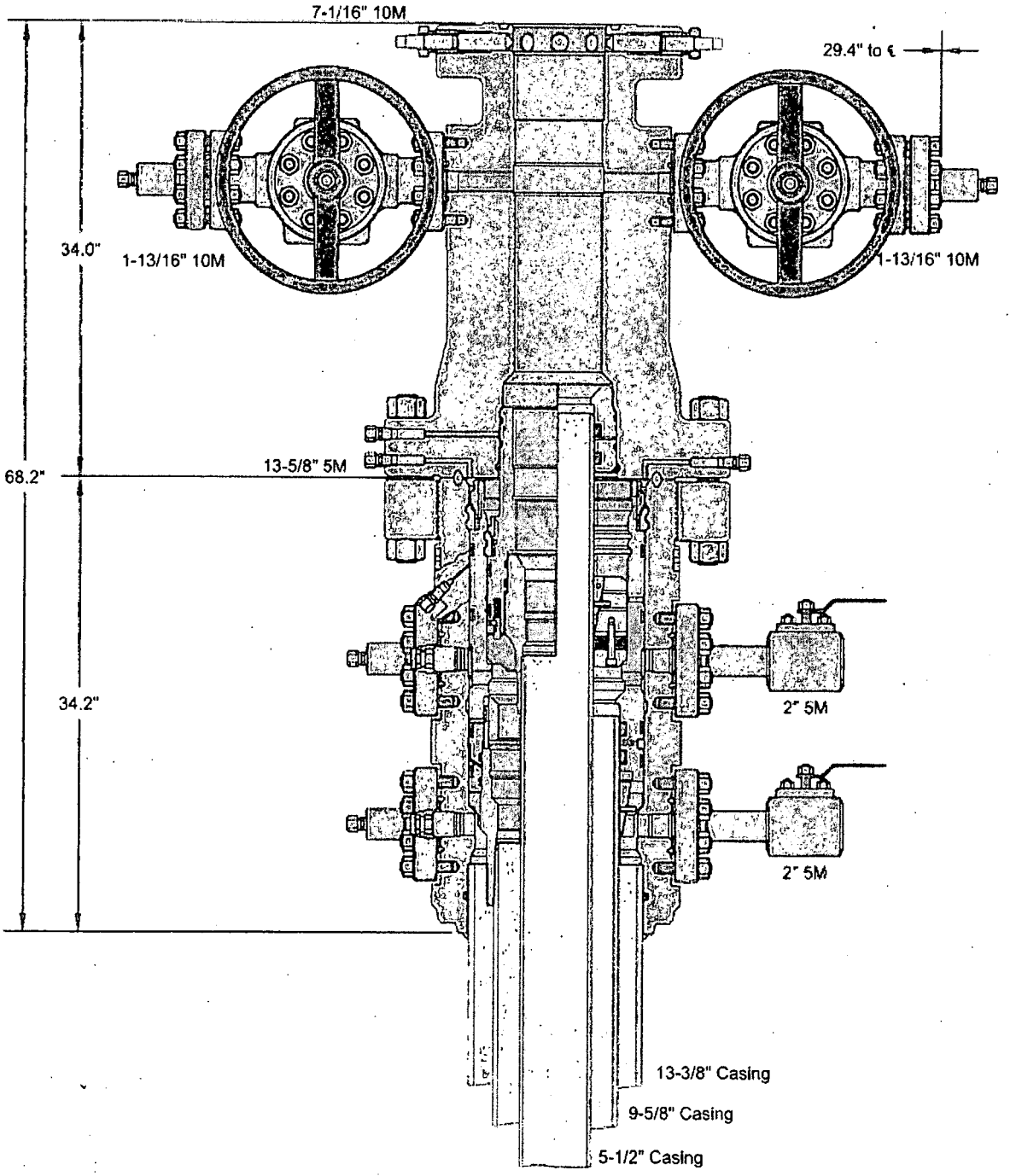
9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 175 to 195 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 5487 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.

GE Oil & Gas



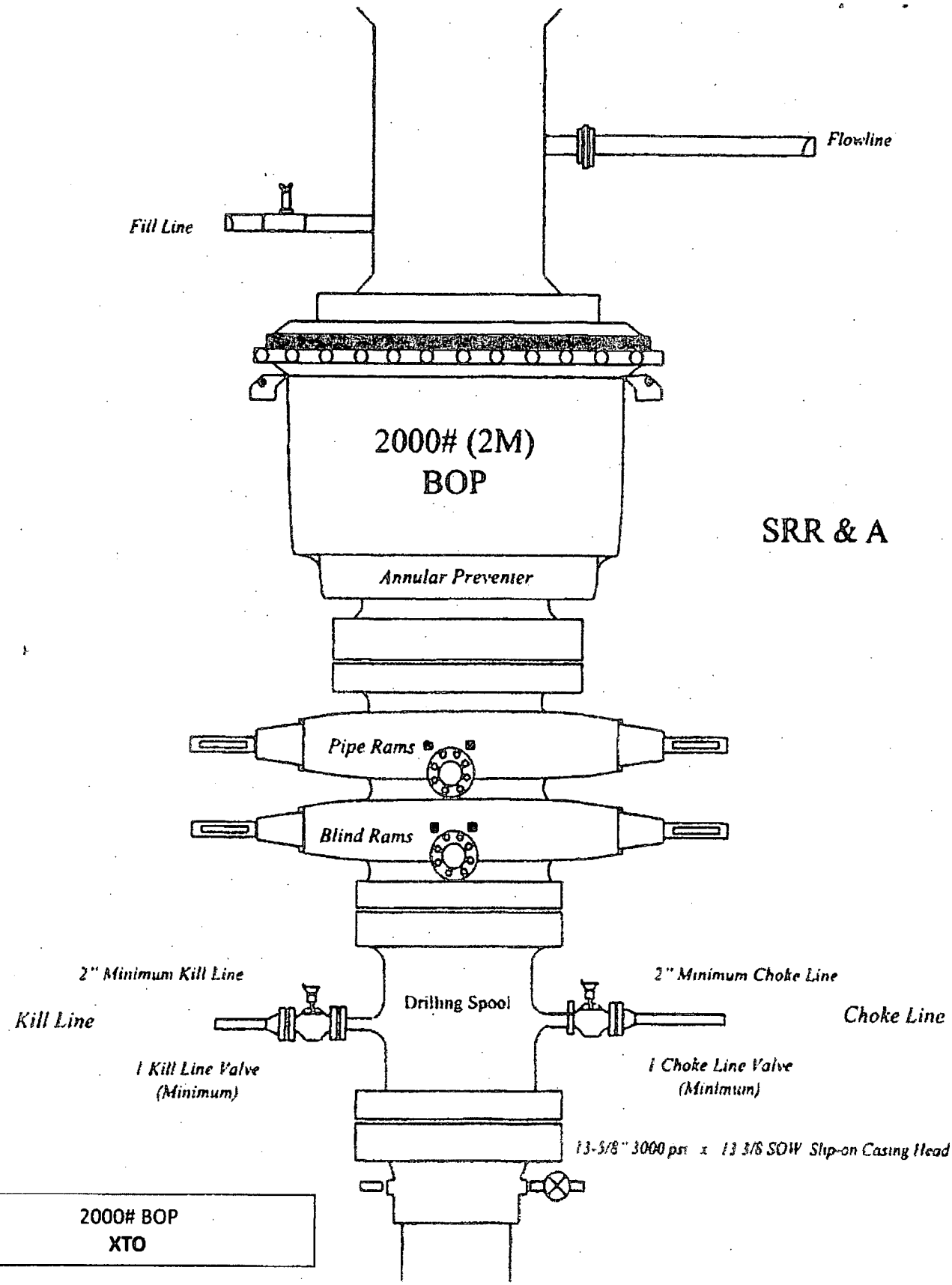
ALL DIMENSIONS ARE APPROXIMATE

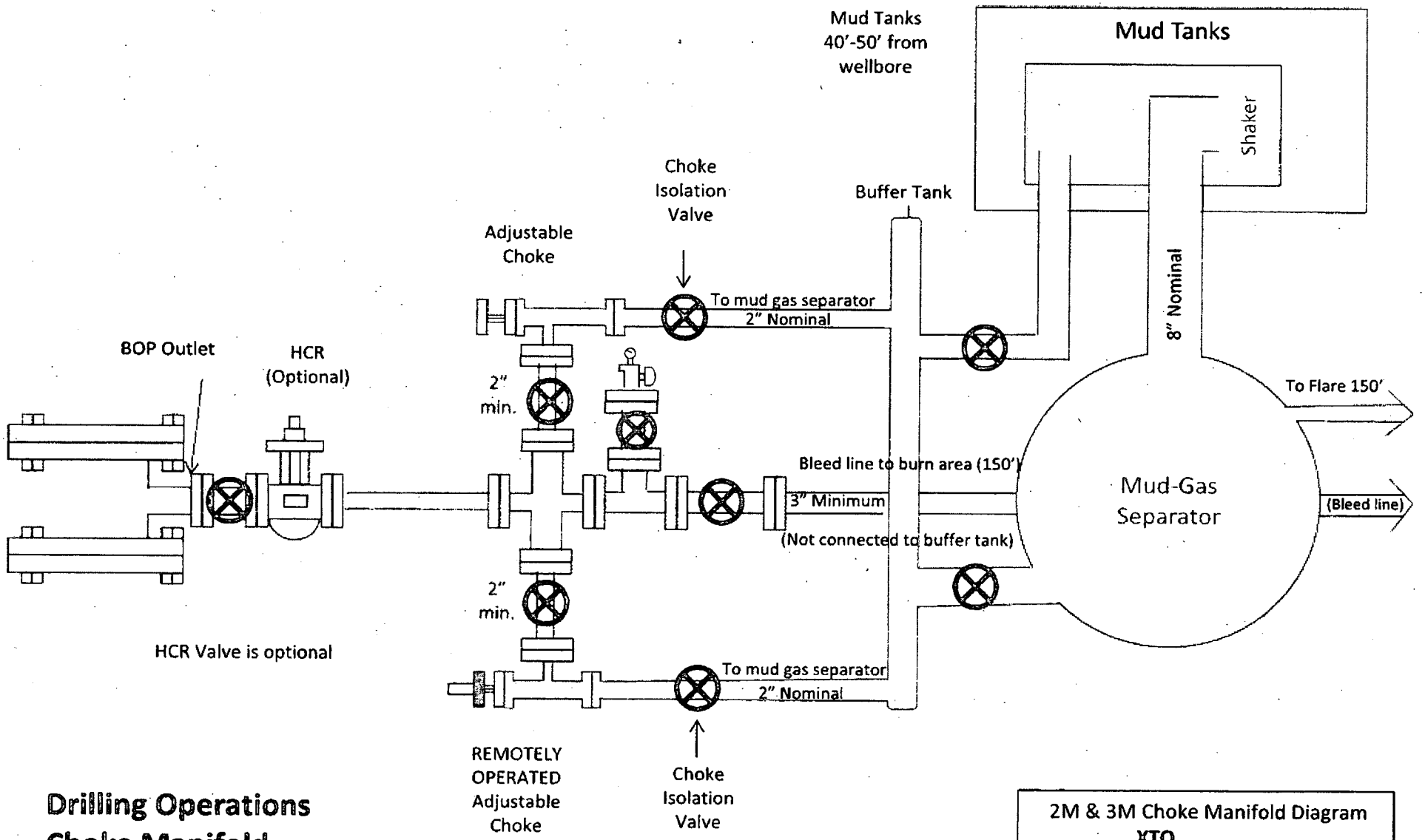
XTO ENERGY, INC.

13-3/8" x 9-5/8" x 5-1/2" 10M RSH-2 Wellhead Assembly, With T-EBS-F Tubing Head

DRAWN	VJK	16FEB17
APPRV	KN	16FEB17

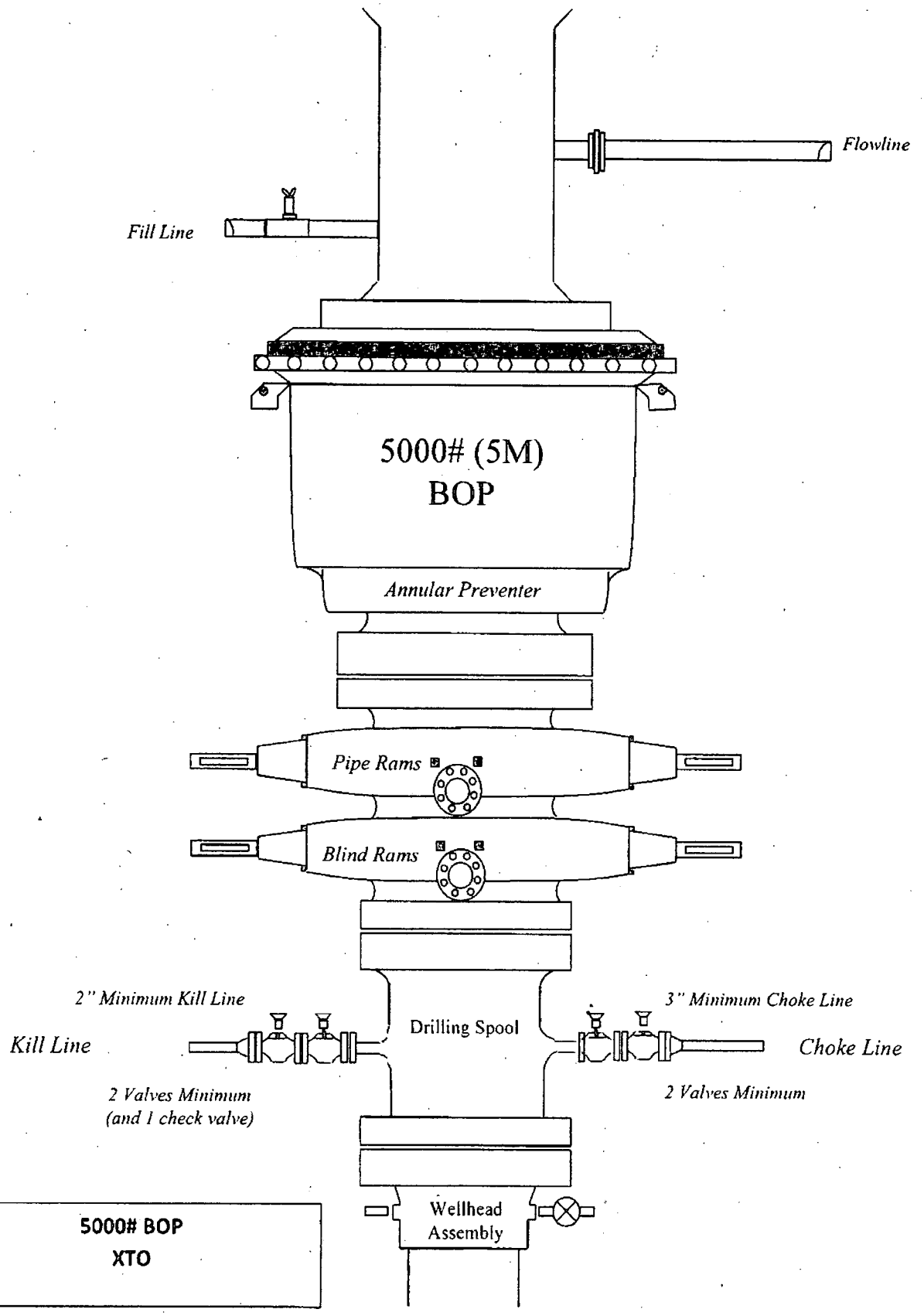
FOR REFERENCE ONLY
DRAWING NO. 10012842


Flowline
Fill Line
2000# (2M)
BOP
SRR & A
Annular Preventer
Pipe Rams
Blind Rams
2" Minimum Kill Line
2" Minimum Choke Line
Kill Line
Drilling Spool
Choke Line
1 Kill Line Valve
(Minimum)
1 Choke Line Valve
(Minimum)
13-5/8" 3000 psi x 13 3/8 SOW Slip-on Casing Head
2000# BOP
XTO



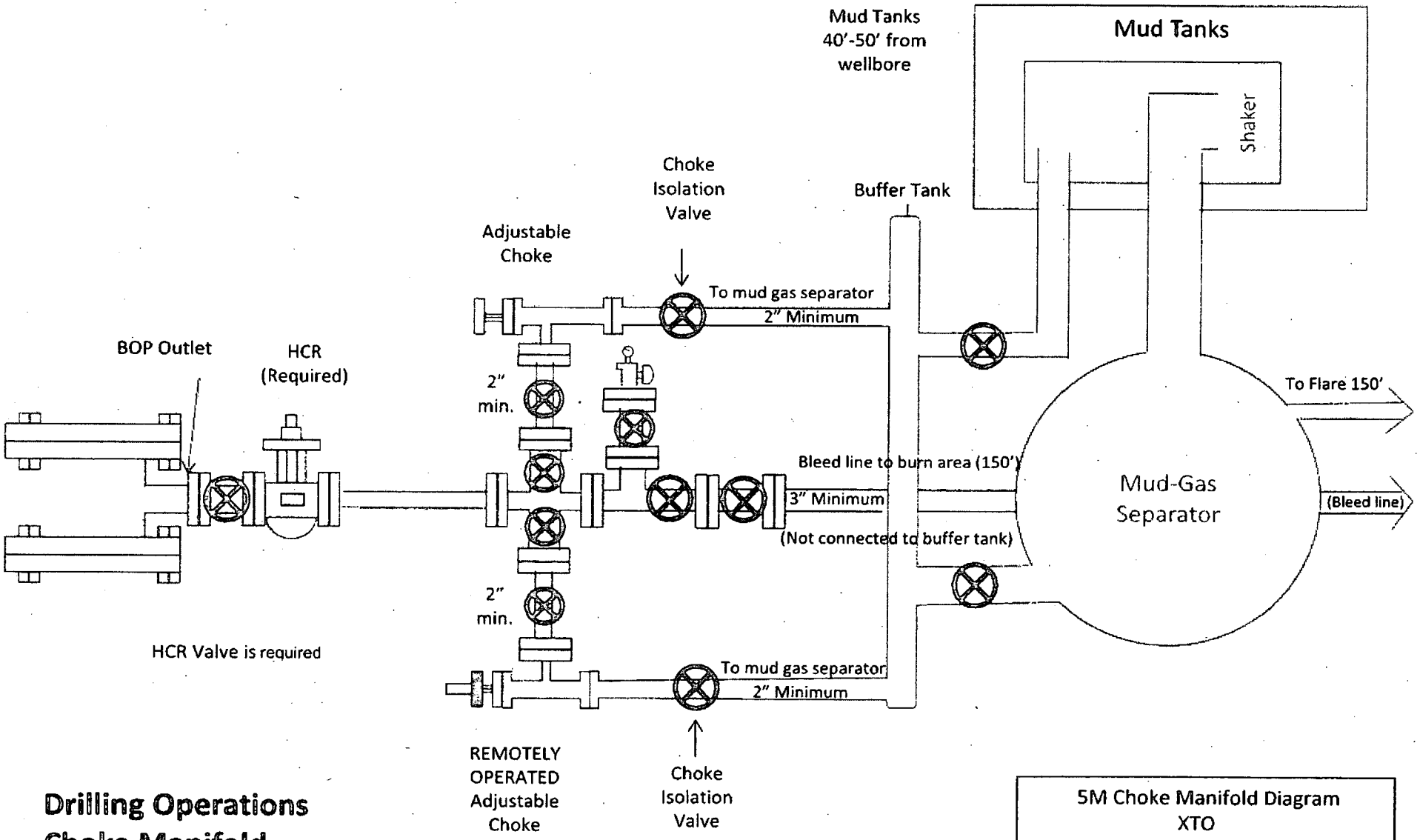
Drilling Operations
Choke Manifold
2M & 3M Service

2M & 3M Choke Manifold Diagram
XTO


Flowline
Fill Line
5000# (5M)
BOP
Annular Preventer
Pipe Rams
Blind Rams
2" Minimum Kill Line
3" Minimum Choke Line
Kill Line
Drilling Spool
Choke Line
2 Valves Minimum
(and 1 check valve)
2 Valves Minimum
Wellhead
Assembly

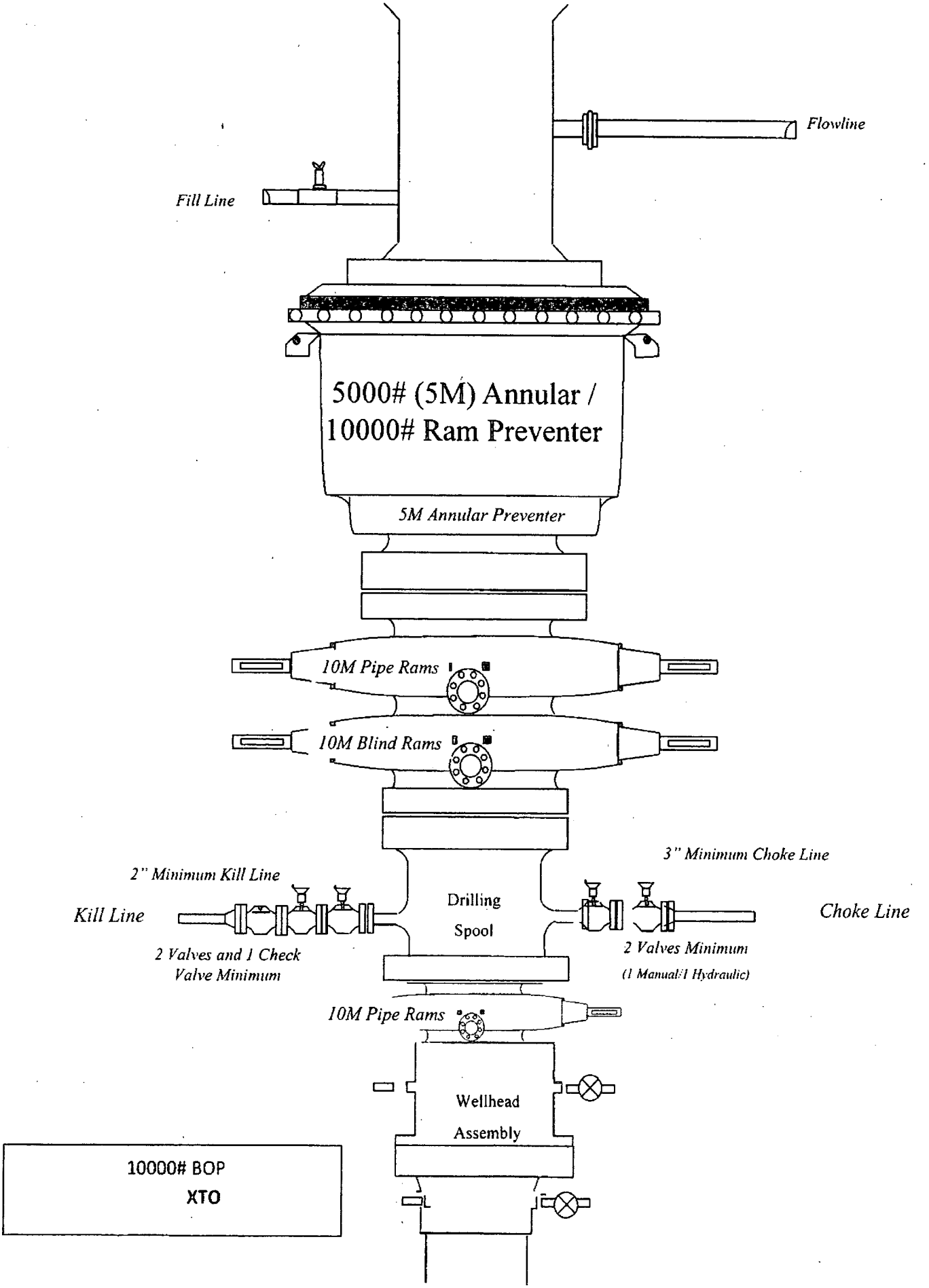
5000# BOP

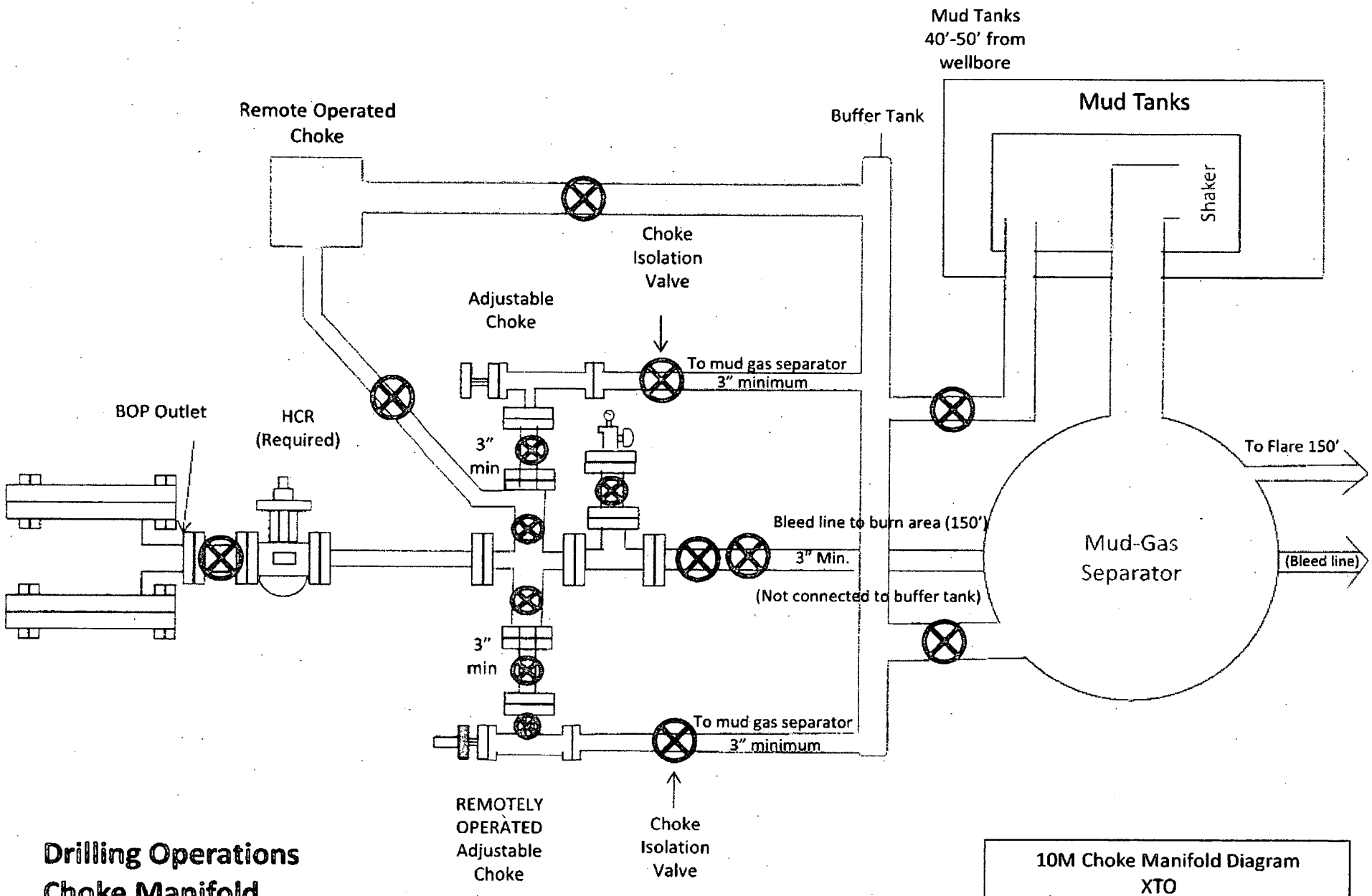
XTO



Drilling Operations
Choke Manifold
5M Service

5M Choke Manifold Diagram
XTO


Flowline
Fill Line
5000# (5M) Annular /
10000# Ram Preventer
5M Annular Preventer
10M Pipe Rams
10M Blind Rams
3" Minimum Choke Line
2" Minimum Kill Line
Kill Line
Drilling
Spool
Choke Line
2 Valves and 1 Check
Valve Minimum
2 Valves Minimum
(1 Manual/1 Hydraulic)
10M Pipe Rams
Wellhead
Assembly
10000# BOP
XTO



Drilling Operations
Choke Manifold
10M Service

10M Choke Manifold Diagram
XTO

10,000 PSI Annular BOP Variance Request

XTO Energy/XTO Permian Op. request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOPL).

1. Component and Preventer Compatibility Tables

The tables below outline the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

8-1/2" Production Hole Section 10M psi Requirement					
Component	**OD**	**Primary Preventer**	**RWP**	**Alternate Preventer(s)**	**RWP**
Drillpipe	5.000" or 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
Jars	6.500"	Annular	5M	-	-
DCs and MWD tools	6.500"-8.000"	Annular	5M	-	-
Mud Motor	6.750"-8.000"	Annular	5M	-	-
Production Casing	5-1/2"	Annular	5M	-	-
Open-Hole	-	Blind Rams	10M	-	-

2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the XTO Energy/Permian Operating drilling supervisor's office on location and on the rig floor. All BOP equipment will be tested as per Onshore O&G Order No. 2 with the exception of the 5000 psi annular which will be tested to 70% of its RWP.

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
    a. SIDPP & SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan

9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full-opening safety valve & close
3. Space out drill string
4. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
    a. SIDPP & SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Running Production Casing

1. Sound alarm (alert crew)
2. Stab crossover and full-opening safety valve and close
3. Space out string
4. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
    a. SIDPP & SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams (HCR & choke will already be in the closed position)
3. Confirm shut-in
4. Notify toolpusher/company representative
5. Read and record the following:
    a. SICP
    b. Pit gain
    c. Time
6. Regroup and identify forward plan

General Procedures While Pulling BHA Through Stack

1. PRIOR to pulling last joint of drillpipe through stack:
    a. Perform flow check. If flowing, continue to (b).
    b. Sound alarm (alert crew)
    c. Stab full-opening safety valve and close
    d. Space out drill string with tool joint just beneath the upper variable bore rams
    e. Shut-in using upper variable bore rams (HCR & choke will already be in the closed position)
    f. Confirm shut-in
    g. Notify toolpusher/company representative
    h. Read and record the following:
        i. SIDPP & SICP
        ii. Pit gain
        iii. Time
    i. Regroup and identify forward plan
2. With BHA in the stack and compatible ram preventer and pipe combination immediately available:
    a. Sound alarm (alert crew)
    b. Stab crossover and full-opening safety valve and close
    c. Space out drill string with upset just beneath the upper variable bore rams
    d. Shut-in using upper variable bore rams (HCR & choke will already be in the closed position)
    e. Confirm shut-in
    f. Notify toolpusher/company representative
    g. Read and record the following:
        i. SIDPP & SICP

ii. Pit gain
iii. Time

h. Regroup and identify forward plan

3. With BHA in the stack and NO compatible ram preventer and pipe combination immediately available:
   a. Sound alarm (alert crew)
   b. If possible, pull string clear of the stack and follow "Open Hole" procedure.
   c. If impossible to pull string clear of the stack:
   d. Stab crossover, make up one joint/stand of drillpipe and full-opening safety valve and close
   e. Space out drill string with tooljoint just beneath the upper variable bore ram
   f. Shut-in using upper variable bore ram (HCR & choke will already be in the closed position)
   g. Confirm shut-in
   h. Notify toolpusher/company representative
   i. Read and record the following:
      i. SIDPP & SICP
      ii. Pit gain
      iii. Time
   j. Regroup and identify forward plan

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

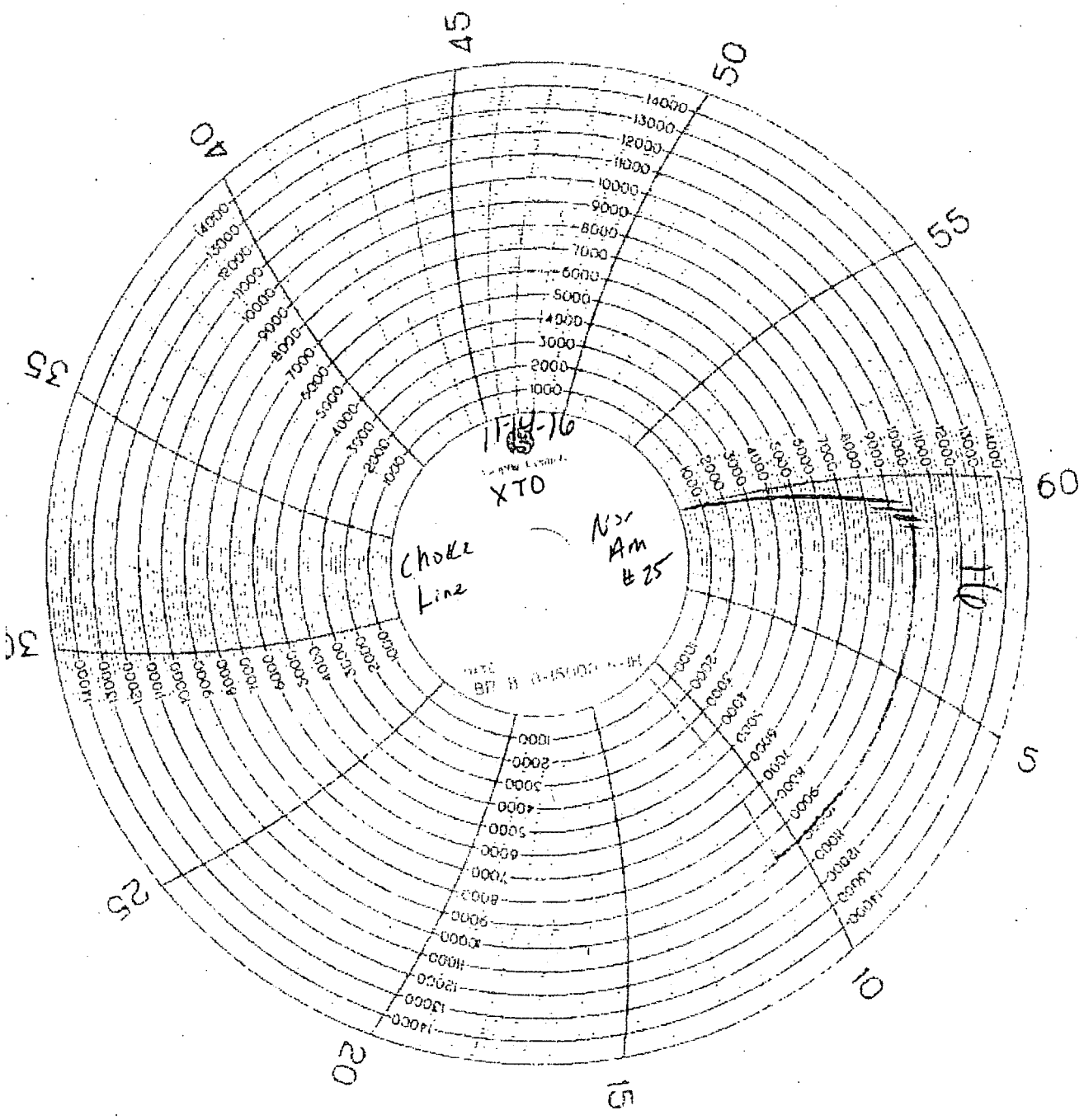
Product Description: FD3.0-42.0R41/16.5KFLGE/E LE

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 :	

Form PTC 01 Rev.0 2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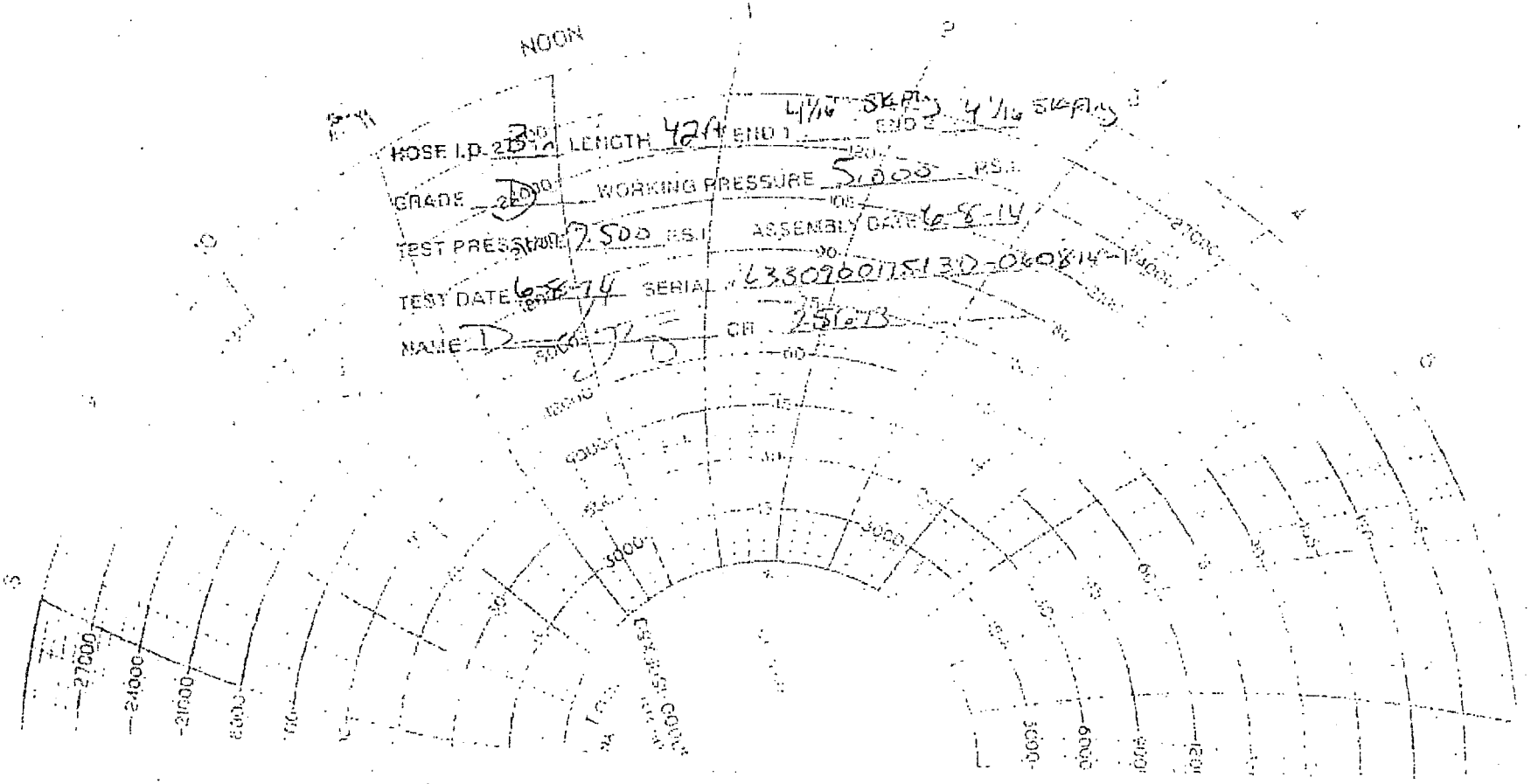
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HOSE I.P. 2SN
LENGTH 42"
END 1
4 1/16 SKRP
END 2
4 1/16 SKRP
GRADE D
WORKING PRESSURE 5,000 PSI
TEST PRESSURE 7,500 PSI
ASSEMBLY DATE 6-5-14
TEST DATE 6-5-14
SERIAL 633096017513D-060814-1
NAME DC
CR 25173

XTO ENERGY

5D Plan Report

XTO Energy

Field Name: *XTO NAD 27 NME*
Site Name: *James Ranch Unit DI 2 #901H,111H,112H,113H*
Well Name: *JRU DI 2 901H*
Plan: *P1:V2 (Current plan)*

13 August 2019

Weatherford®

Weatherford

XTO ENERGY

JRU DI 2 901H

Field Name: XTO NAD 27 NME

Map Units: US ft **Company Name:** XTO Energy

Vertical Reference Datum (VRD): Mean Sea Level

Projected Coordinate System: NAD27 / New Mexico East

Comment:

Site: James Ranch Unit DI 2 #901H,111H,11 2H,113H

Units: US ft **North Reference:** Grid **Convergence Angle:** 0.27

Position: **Northing:** 496082.70 US ft **Latitude:** 32° 21' 46.32"

Easting: 653559.30 US ft **Longitude:** -103° 50' 9.62"

Elevation above MSL: 3344.00 US ft

Comment: Eddy Co, NM

Slot: JRU DI 2 901H

Position (Relative to Site Centre)

+N/-S: 0.00 US ft **Northing:** 496082.70 US ft **Latitude:** 32° 21' 46.32"

+E/-W: 0.00 US ft **Easting:** 653559.30 US ft **Longitude:** -103° 50' 9.62"

Elevation above MSL: 3344.00 US ft

Comment:

Well: JRU DI 2 901H

Type: Main well **UWI:** **Plan:** P1:V2 (Current plan)

File Number: **Comment:**

Closure Distance: 15516.5US ft **Closure Azimuth:** 278.58°

Vertical Section: Position of Origin (Relative to Slot centre)

+N/-S: -0.00 US ft **+E/-W:** -0.00 US ft **Az:** 269.89°

Magnetic Parameters:

Model: Need IFR **Field Strength:** 47833.4nT **Declination:** 6.93° **Dip:** 60.06° **Date:** 25/Jun/2019

Drill floor: Plan: P1:V2 (Current plan)

Rig Height (Drill Floor): 25.00US ft **Elevation above MSL:** 3369.00US ft **Inclination:** 0.00° **Azimuth:** 0.00°

Target set: JRU DI 2 901H Comment:

Target Name:	TVD (US ft)	TVD (MSL) (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (USFt)	Easting (USFt)	C.Pt.Distance (US ft)	Comment
S Tgt	10304.80	6935.80	2344.74	0.00	498427.44	653559.30	0.00	
FTP	10874.00	7505.00	2341.50	-2059.40	498424.20	651499.90	1.29	
LTP	10829.00	7460.00	2316.30	-15292.70	498399.00	638266.60	0.17	
PBHL 901H	10829.00	7460.00	2316.20	-15342.70	498398.90	638216.60	0.00	

Tie Point:

MD: 0.00USFt **Inclination:** 0.00° **Azimuth:** 0.00° **TVD:** 0.00USFt **North Offset:** 0.00USFt **East Offset:** 0.00USFt

Survey Tool Ranges: (Using Anticipated Survey Programme)

Name	Start MD(USFt)	End MD(USFt)	Source Survey
MWD + IFR	0.00	10808.00	ASP
MWD + IFR + IMS	10808.00	24900.00	ASP
MWD	24900.00	26418.46	Default Tool

Wellpath created using minimum curvature.

Salient Points: (Relative to Slot centre)(TVD relative to Drill Floor)

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	TVD (MSL) (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	B.Rate (°/100US ft)	T.Rate (°/100US ft)	T.Face (°)	DLS (°/100US ft)	Comment
0.00	0.00	0.00	0.00	-3369.00	-0.00	-0.00	-0.00	0.00	0.00	0.00	0.00	
3000.00	0.00	0.00	3000.00	-369.00	-0.00	-0.00	-0.00	0.00	0.00	0.00	0.00	Nudge
4196.57	23.93	0.00	4162.08	793.08	-0.47	246.28	-0.00	2.00	0.00	0.00	2.00	Hold
8155.47	23.93	0.00	7780.64	4411.64	-3.56	1852.18	-0.00	0.00	0.00	0.00	0.00	Drop
10548.61	0.00	0.00	10104.80	6735.80	-4.50	2344.74	0.00	-1.00	0.00	180.00	1.00	Hold
10748.61	0.00	0.00	10304.80	6935.80	-4.50	2344.74	0.00	0.00	0.00	0.00	0.00	KOP
11650.50	90.19	269.89	10877.75	7508.75	570.35	2343.67	-574.85	10.00	0.00	269.89	10.00	LP
26418.46	90.19	269.89	10829.00	7460.00	15338.22	2316.20	-15342.70	0.00	0.00	0.00	0.00	PBHL 901H

Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	TVD (MSL) (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
0.00	0.00	0.00	0.00	-3369.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
100.00	0.00	0.00	100.00	-3269.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
200.00	0.00	0.00	200.00	-3169.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
300.00	0.00	0.00	300.00	-3069.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
400.00	0.00	0.00	400.00	-2969.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
500.00	0.00	0.00	500.00	-2869.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
600.00	0.00	0.00	600.00	-2769.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
700.00	0.00	0.00	700.00	-2669.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
800.00	0.00	0.00	800.00	-2569.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
900.00	0.00	0.00	900.00	-2469.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
1000.00	0.00	0.00	1000.00	-2369.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
1100.00	0.00	0.00	1100.00	-2269.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
1200.00	0.00	0.00	1200.00	-2169.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
1300.00	0.00	0.00	1300.00	-2069.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
1400.00	0.00	0.00	1400.00	-1969.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
1500.00	0.00	0.00	1500.00	-1869.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
1600.00	0.00	0.00	1600.00	-1769.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
1700.00	0.00	0.00	1700.00	-1669.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
1800.00	0.00	0.00	1800.00	-1569.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
1900.00	0.00	0.00	1900.00	-1469.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
2000.00	0.00	0.00	2000.00	-1369.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
2100.00	0.00	0.00	2100.00	-1269.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
2200.00	0.00	0.00	2200.00	-1169.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
2300.00	0.00	0.00	2300.00	-1069.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
2400.00	0.00	0.00	2400.00	-969.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
2500.00	0.00	0.00	2500.00	-869.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
2600.00	0.00	0.00	2600.00	-769.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
2700.00	0.00	0.00	2700.00	-669.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
2800.00	0.00	0.00	2800.00	-569.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
2900.00	0.00	0.00	2900.00	-469.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	
3000.00	0.00	0.00	3000.00	-369.00	-0.00	-0.00	-0.00	496082.70	653559.30	0.00	Nudge
3100.00	2.00	0.00	3099.98	-269.02	-0.00	1.75	-0.00	496084.45	653559.30	2.00	
3200.00	4.00	0.00	3199.84	-169.16	-0.01	6.98	-0.00	496089.68	653559.30	2.00	
3300.00	6.00	0.00	3299.45	-69.55	-0.03	15.69	-0.00	496098.39	653559.30	2.00	
3400.00	8.00	0.00	3398.70	29.70	-0.05	27.88	-0.00	496110.58	653559.30	2.00	
3500.00	10.00	0.00	3497.47	128.47	-0.08	43.52	-0.00	496126.22	653559.30	2.00	
3600.00	12.00	0.00	3595.62	226.62	-0.12	62.60	-0.00	496145.30	653559.30	2.00	

5D Plan Report

Interpolated Points: (Relative to Slot centre) (TVD relative to Drill Floor)

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	TVD (MSL) (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
3700.00	14.00	0.00	3693.06	324.06	-0.16	85.10	-0.00	496167.80	653559.30	2.00	
3800.00	16.00	0.00	3789.64	420.64	-0.21	110.98	-0.00	496193.68	653559.30	2.00	
3900.00	18.00	0.00	3885.27	516.27	-0.27	140.21	-0.00	496222.91	653559.30	2.00	
4000.00	20.00	0.00	3979.82	610.82	-0.33	172.77	-0.00	496255.47	653559.30	2.00	
4100.00	22.00	0.00	4073.17	704.17	-0.40	208.60	-0.00	496291.30	653559.30	2.00	
4196.57	23.93	0.00	4162.08	793.08	-0.47	246.28	-0.00	496328.98	653559.30	2.00	Hold
4200.00	23.93	0.00	4165.22	796.22	-0.48	247.67	-0.00	496330.37	653559.30	0.00	
4300.00	23.93	0.00	4256.62	887.62	-0.55	288.24	-0.00	496370.94	653559.30	0.00	
4400.00	23.93	0.00	4348.02	979.02	-0.63	328.80	-0.00	496411.50	653559.30	0.00	
4500.00	23.93	0.00	4439.43	1070.43	-0.71	369.36	-0.00	496452.06	653559.30	0.00	
4600.00	23.93	0.00	4530.83	1161.83	-0.79	409.93	-0.00	496492.63	653559.30	0.00	
4700.00	23.93	0.00	4622.23	1253.23	-0.86	450.49	-0.00	496533.19	653559.30	0.00	
4800.00	23.93	0.00	4713.63	1344.63	-0.94	491.06	-0.00	496573.76	653559.30	0.00	
4900.00	23.93	0.00	4805.04	1436.04	-1.02	531.62	-0.00	496614.32	653559.30	0.00	
5000.00	23.93	0.00	4896.44	1527.44	-1.10	572.19	-0.00	496654.89	653559.30	0.00	
5100.00	23.93	0.00	4987.84	1618.84	-1.18	612.75	-0.00	496695.45	653559.30	0.00	
5200.00	23.93	0.00	5079.25	1710.25	-1.25	653.31	-0.00	496736.01	653559.30	0.00	
5300.00	23.93	0.00	5170.65	1801.65	-1.33	693.88	-0.00	496776.58	653559.30	0.00	
5400.00	23.93	0.00	5262.05	1893.05	-1.41	734.44	-0.00	496817.14	653559.30	0.00	
5500.00	23.93	0.00	5353.46	1984.46	-1.49	775.01	-0.00	496857.71	653559.30	0.00	
5600.00	23.93	0.00	5444.86	2075.86	-1.57	815.57	-0.00	496898.27	653559.30	0.00	
5700.00	23.93	0.00	5536.26	2167.26	-1.64	856.14	-0.00	496938.84	653559.30	0.00	
5800.00	23.93	0.00	5627.67	2258.67	-1.72	896.70	-0.00	496979.40	653559.30	0.00	
5900.00	23.93	0.00	5719.07	2350.07	-1.80	937.26	-0.00	497019.96	653559.30	0.00	
6000.00	23.93	0.00	5810.47	2441.47	-1.88	977.83	-0.00	497060.53	653559.30	0.00	
6100.00	23.93	0.00	5901.88	2532.88	-1.96	1018.39	-0.00	497101.09	653559.30	0.00	
6200.00	23.93	0.00	5993.28	2624.28	-2.03	1058.96	-0.00	497141.66	653559.30	0.00	
6300.00	23.93	0.00	6084.68	2715.68	-2.11	1099.52	-0.00	497182.22	653559.30	0.00	
6400.00	23.93	0.00	6176.09	2807.09	-2.19	1140.09	-0.00	497222.79	653559.30	0.00	
6500.00	23.93	0.00	6267.49	2898.49	-2.27	1180.65	-0.00	497263.35	653559.30	0.00	
6600.00	23.93	0.00	6358.89	2989.89	-2.34	1221.21	-0.00	497303.91	653559.30	0.00	
6700.00	23.93	0.00	6450.29	3081.29	-2.42	1261.78	-0.00	497344.48	653559.30	0.00	
6800.00	23.93	0.00	6541.70	3172.70	-2.50	1302.34	-0.00	497385.04	653559.30	0.00	
6900.00	23.93	0.00	6633.10	3264.10	-2.58	1342.91	-0.00	497425.61	653559.30	0.00	
7000.00	23.93	0.00	6724.50	3355.50	-2.66	1383.47	-0.00	497466.17	653559.30	0.00	
7100.00	23.93	0.00	6815.91	3446.91	-2.73	1424.04	-0.00	497506.74	653559.30	0.00	
7200.00	23.93	0.00	6907.31	3538.31	-2.81	1464.60	-0.00	497547.30	653559.30	0.00	
7300.00	23.93	0.00	6998.71	3629.71	-2.89	1505.16	-0.00	497587.86	653559.30	0.00	
7400.00	23.93	0.00	7090.12	3721.12	-2.97	1545.73	-0.00	497628.43	653559.30	0.00	
7500.00	23.93	0.00	7181.52	3812.52	-3.05	1586.29	-0.00	497668.99	653559.30	0.00	
7600.00	23.93	0.00	7272.92	3903.92	-3.12	1626.86	-0.00	497709.56	653559.30	0.00	
7700.00	23.93	0.00	7364.33	3995.33	-3.20	1667.42	-0.00	497750.12	653559.30	0.00	
7800.00	23.93	0.00	7455.73	4086.73	-3.28	1707.99	-0.00	497790.69	653559.30	0.00	
7900.00	23.93	0.00	7547.13	4178.13	-3.36	1748.55	-0.00	497831.25	653559.30	0.00	
8000.00	23.93	0.00	7638.54	4269.54	-3.43	1789.11	-0.00	497871.81	653559.30	0.00	
8100.00	23.93	0.00	7729.94	4360.94	-3.51	1829.68	-0.00	497912.38	653559.30	0.00	
8155.47	23.93	0.00	7780.64	4411.64	-3.56	1852.18	-0.00	497934.88	653559.30	0.00	Drop
8200.00	23.49	0.00	7821.41	4452.41	-3.59	1870.08	-0.00	497952.78	653559.30	1.00	
8300.00	22.49	0.00	7913.47	4544.47	-3.67	1909.13	-0.00	497991.83	653559.30	1.00	
8400.00	21.49	0.00	8006.20	4637.20	-3.74	1946.57	-0.00	498029.27	653559.30	1.00	
8500.00	20.49	0.00	8099.56	4730.56	-3.81	1982.39	-0.00	498065.09	653559.30	1.00	
8600.00	19.49	0.00	8193.54	4824.54	-3.87	2016.56	-0.00	498099.26	653559.30	1.00	
8700.00	18.49	0.00	8288.10	4919.10	-3.93	2049.10	-0.00	498131.80	653559.30	1.00	
8800.00	17.49	0.00	8383.21	5014.21	-3.99	2079.98	-0.00	498162.68	653559.30	1.00	
8900.00	16.49	0.00	8478.85	5109.85	-4.05	2109.19	-0.00	498191.89	653559.30	1.00	
9000.00	15.49	0.00	8574.98	5205.98	-4.10	2136.73	-0.00	498219.43	653559.30	1.00	
9100.00	14.49	0.00	8671.58	5302.58	-4.15	2162.59	-0.00	498245.29	653559.30	1.00	
9200.00	13.49	0.00	8768.61	5399.61	-4.20	2186.76	-0.00	498269.46	653559.30	1.00	

5D Plan Report

Interpolated Points: (Relative to Slot centre) (TVD relative to Drill Floor)

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	TVD (MSL) (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
9300.00	12.49	0.00	8866.05	5497.05	-4.24	2209.23	-0.00	498291.93	653559.30	1.00	
9400.00	11.49	0.00	8963.87	5594.87	-4.28	2229.99	-0.00	498312.69	653559.30	1.00	
9500.00	10.49	0.00	9062.04	5693.04	-4.32	2249.05	-0.00	498331.75	653559.30	1.00	
9600.00	9.49	0.00	9160.52	5791.52	-4.35	2266.39	-0.00	498349.09	653559.30	1.00	
9700.00	8.49	0.00	9259.29	5890.29	-4.38	2282.01	-0.00	498364.71	653559.30	1.00	
9800.00	7.49	0.00	9358.32	5989.32	-4.41	2295.90	-0.00	498378.60	653559.30	1.00	
9900.00	6.49	0.00	9457.58	6088.58	-4.43	2308.07	-0.00	498390.77	653559.30	1.00	
10000.00	5.49	0.00	9557.03	6188.03	-4.45	2318.50	-0.00	498401.20	653559.30	1.00	
10100.00	4.49	0.00	9656.65	6287.65	-4.47	2327.19	-0.00	498409.89	653559.30	1.00	
10200.00	3.49	0.00	9756.41	6387.41	-4.48	2334.14	-0.00	498416.84	653559.30	1.00	
10300.00	2.49	0.00	9856.27	6487.27	-4.49	2339.35	-0.00	498422.05	653559.30	1.00	
10400.00	1.49	0.00	9956.21	6587.21	-4.50	2342.81	-0.00	498425.51	653559.30	1.00	
10500.00	0.49	0.00	10056.19	6687.19	-4.50	2344.53	-0.00	498427.23	653559.30	1.00	
10548.61	0.00	0.00	10104.80	6735.80	-4.50	2344.74	0.00	498427.44	653559.30	1.00	Hold
10600.00	0.00	0.00	10156.19	6787.19	-4.50	2344.74	0.00	498427.44	653559.30	0.00	
10700.00	0.00	0.00	10256.19	6887.19	-4.50	2344.74	0.00	498427.44	653559.30	0.00	
10748.61	0.00	0.00	10304.80	6935.80	-4.50	2344.74	0.00	498427.44	653559.30	0.00	KOP
10800.00	5.14	269.89	10356.12	6987.12	-2.20	2344.74	-2.30	498427.44	653557.00	10.00	
10900.00	15.14	269.89	10454.44	7085.44	15.38	2344.70	-19.88	498427.40	653539.42	10.00	
11000.00	25.14	269.89	10548.20	7179.20	49.77	2344.64	-54.27	498427.34	653505.03	10.00	
11100.00	35.14	269.89	10634.57	7265.57	99.92	2344.55	-104.42	498427.25	653454.88	10.00	
11200.00	45.14	269.89	10710.93	7341.93	164.30	2344.43	-168.80	498427.13	653390.50	10.00	
11300.00	55.14	269.89	10774.94	7405.94	240.96	2344.28	-245.46	498426.98	653313.84	10.00	
11400.00	65.14	269.89	10824.66	7455.66	327.58	2344.12	-332.08	498426.82	653227.22	10.00	
11500.00	75.14	269.89	10858.59	7489.59	421.51	2343.95	-426.01	498426.65	653133.29	10.00	
11600.00	85.14	269.89	10875.70	7506.70	519.91	2343.76	-524.41	498426.46	653034.89	10.00	
11650.50	90.19	269.89	10877.75	7508.75	570.35	2343.67	-574.85	498426.37	652984.45	10.00	LP
11700.00	90.19	269.89	10877.59	7508.59	619.85	2343.58	-624.35	498426.28	652934.95	0.00	
11800.00	90.19	269.89	10877.26	7508.26	719.85	2343.39	-724.35	498426.09	652834.95	0.00	
11900.00	90.19	269.89	10876.93	7507.93	819.85	2343.21	-824.35	498425.91	652734.95	0.00	
12000.00	90.19	269.89	10876.60	7507.60	919.85	2343.02	-924.35	498425.72	652634.95	0.00	
12100.00	90.19	269.89	10876.27	7507.27	1019.85	2342.83	-1024.35	498425.53	652534.95	0.00	
12200.00	90.19	269.89	10875.94	7506.94	1119.84	2342.65	-1124.34	498425.35	652434.96	0.00	
12300.00	90.19	269.89	10875.61	7506.61	1219.84	2342.46	-1224.34	498425.16	652334.96	0.00	
12400.00	90.19	269.89	10875.28	7506.28	1319.84	2342.28	-1324.34	498424.98	652234.96	0.00	
12500.00	90.19	269.89	10874.95	7505.95	1419.84	2342.09	-1424.34	498424.79	652134.96	0.00	
12600.00	90.19	269.89	10874.62	7505.62	1519.84	2341.90	-1524.34	498424.60	652034.96	0.00	
12700.00	90.19	269.89	10874.29	7505.29	1619.84	2341.72	-1624.34	498424.42	651934.96	0.00	
12800.00	90.19	269.89	10873.96	7504.96	1719.84	2341.53	-1724.34	498424.23	651834.96	0.00	
12900.00	90.19	269.89	10873.63	7504.63	1819.84	2341.35	-1824.34	498424.05	651734.96	0.00	
13000.00	90.19	269.89	10873.30	7504.30	1919.84	2341.16	-1924.34	498423.86	651634.96	0.00	
13100.00	90.19	269.89	10872.97	7503.97	2019.84	2340.97	-2024.34	498423.67	651534.96	0.00	
13200.00	90.19	269.89	10872.64	7503.64	2119.84	2340.79	-2124.34	498423.49	651434.96	0.00	
13300.00	90.19	269.89	10872.31	7503.31	2219.84	2340.60	-2224.34	498423.30	651334.96	0.00	
13400.00	90.19	269.89	10871.98	7502.98	2319.84	2340.42	-2324.34	498423.12	651234.96	0.00	
13500.00	90.19	269.89	10871.65	7502.65	2419.84	2340.23	-2424.34	498422.93	651134.96	0.00	
13600.00	90.19	269.89	10871.32	7502.32	2519.84	2340.04	-2524.33	498422.74	651034.97	0.00	
13700.00	90.19	269.89	10870.99	7501.99	2619.84	2339.86	-2624.33	498422.56	650934.97	0.00	
13800.00	90.19	269.89	10870.66	7501.66	2719.84	2339.67	-2724.33	498422.37	650834.97	0.00	
13900.00	90.19	269.89	10870.33	7501.33	2819.84	2339.49	-2824.33	498422.19	650734.97	0.00	
14000.00	90.19	269.89	10870.00	7501.00	2919.84	2339.30	-2924.33	498422.00	650634.97	0.00	
14100.00	90.19	269.89	10869.67	7500.67	3019.83	2339.11	-3024.33	498421.81	650534.97	0.00	
14200.00	90.19	269.89	10869.34	7500.34	3119.83	2338.93	-3124.33	498421.63	650434.97	0.00	
14300.00	90.19	269.89	10869.01	7500.01	3219.83	2338.74	-3224.33	498421.44	650334.97	0.00	
14400.00	90.19	269.89	10868.68	7499.68	3319.83	2338.56	-3324.33	498421.26	650234.97	0.00	
14500.00	90.19	269.89	10868.35	7499.35	3419.83	2338.37	-3424.33	498421.07	650134.97	0.00	
14600.00	90.19	269.89	10868.02	7499.02	3519.83	2338.18	-3524.33	498420.88	650034.97	0.00	
14700.00	90.19	269.89	10867.69	7498.69	3619.83	2338.00	-3624.33	498420.70	649934.97	0.00	

5D Plan Report

Interpolated Points: (Relative to Slot centre) (TVD relative to Drill Floor)

MD (US ft)	Inc (°)	Azi (°)	TVD (US ft)	TVD (MSL) (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
14800.00	90.19	269.89	10867.36	7498.36	3719.83	2337.81	-3724.33	498420.51	649834.97	0.00	
14900.00	90.19	269.89	10867.03	7498.03	3819.83	2337.63	-3824.33	498420.33	649734.97	0.00	
15000.00	90.19	269.89	10866.70	7497.70	3919.83	2337.44	-3924.32	498420.14	649634.98	0.00	
15100.00	90.19	269.89	10866.37	7497.37	4019.83	2337.25	-4024.32	498419.95	649534.98	0.00	
15200.00	90.19	269.89	10866.04	7497.04	4119.83	2337.07	-4124.32	498419.77	649434.98	0.00	
15300.00	90.19	269.89	10865.71	7496.71	4219.83	2336.88	-4224.32	498419.58	649334.98	0.00	
15400.00	90.19	269.89	10865.38	7496.38	4319.83	2336.70	-4324.32	498419.40	649234.98	0.00	
15500.00	90.19	269.89	10865.05	7496.05	4419.83	2336.51	-4424.32	498419.21	649134.98	0.00	
15600.00	90.19	269.89	10864.72	7495.72	4519.83	2336.32	-4524.32	498419.02	649034.98	0.00	
15700.00	90.19	269.89	10864.39	7495.39	4619.83	2336.14	-4624.32	498418.84	648934.98	0.00	
15800.00	90.19	269.89	10864.06	7495.06	4719.83	2335.95	-4724.32	498418.65	648834.98	0.00	
15900.00	90.19	269.89	10863.73	7494.73	4819.82	2335.77	-4824.32	498418.47	648734.98	0.00	
16000.00	90.19	269.89	10863.40	7494.40	4919.82	2335.58	-4924.32	498418.28	648634.98	0.00	
16100.00	90.19	269.89	10863.07	7494.07	5019.82	2335.39	-5024.32	498418.09	648534.98	0.00	
16200.00	90.19	269.89	10862.74	7493.74	5119.82	2335.21	-5124.32	498417.91	648434.98	0.00	
16300.00	90.19	269.89	10862.40	7493.40	5219.82	2335.02	-5224.32	498417.72	648334.98	0.00	
16400.00	90.19	269.89	10862.07	7493.07	5319.82	2334.84	-5324.31	498417.54	648234.99	0.00	
16500.00	90.19	269.89	10861.74	7492.74	5419.82	2334.65	-5424.31	498417.35	648134.99	0.00	
16600.00	90.19	269.89	10861.41	7492.41	5519.82	2334.46	-5524.31	498417.16	648034.99	0.00	
16700.00	90.19	269.89	10861.08	7492.08	5619.82	2334.28	-5624.31	498416.98	647934.99	0.00	
16800.00	90.19	269.89	10860.75	7491.75	5719.82	2334.09	-5724.31	498416.79	647834.99	0.00	
16900.00	90.19	269.89	10860.42	7491.42	5819.82	2333.91	-5824.31	498416.61	647734.99	0.00	
17000.00	90.19	269.89	10860.09	7491.09	5919.82	2333.72	-5924.31	498416.42	647634.99	0.00	
17100.00	90.19	269.89	10859.76	7490.76	6019.82	2333.53	-6024.31	498416.23	647534.99	0.00	
17200.00	90.19	269.89	10859.43	7490.43	6119.82	2333.35	-6124.31	498416.05	647434.99	0.00	
17300.00	90.19	269.89	10859.10	7490.10	6219.82	2333.16	-6224.31	498415.86	647334.99	0.00	
17400.00	90.19	269.89	10858.77	7489.77	6319.82	2332.98	-6324.31	498415.68	647234.99	0.00	
17500.00	90.19	269.89	10858.44	7489.44	6419.82	2332.79	-6424.31	498415.49	647134.99	0.00	
17600.00	90.19	269.89	10858.11	7489.11	6519.82	2332.60	-6524.31	498415.30	647034.99	0.00	
17700.00	90.19	269.89	10857.78	7488.78	6619.81	2332.42	-6624.31	498415.12	646934.99	0.00	
17800.00	90.19	269.89	10857.45	7488.45	6719.81	2332.23	-6724.30	498414.93	646835.00	0.00	
17900.00	90.19	269.89	10857.12	7488.12	6819.81	2332.05	-6824.30	498414.75	646735.00	0.00	
18000.00	90.19	269.89	10856.79	7487.79	6919.81	2331.86	-6924.30	498414.56	646635.00	0.00	
18100.00	90.19	269.89	10856.46	7487.46	7019.81	2331.67	-7024.30	498414.37	646535.00	0.00	
18200.00	90.19	269.89	10856.13	7487.13	7119.81	2331.49	-7124.30	498414.19	646435.00	0.00	
18300.00	90.19	269.89	10855.80	7486.80	7219.81	2331.30	-7224.30	498414.00	646335.00	0.00	
18400.00	90.19	269.89	10855.47	7486.47	7319.81	2331.12	-7324.30	498413.82	646235.00	0.00	
18500.00	90.19	269.89	10855.14	7486.14	7419.81	2330.93	-7424.30	498413.63	646135.00	0.00	
18600.00	90.19	269.89	10854.81	7485.81	7519.81	2330.74	-7524.30	498413.44	646035.00	0.00	
18700.00	90.19	269.89	10854.48	7485.48	7619.81	2330.56	-7624.30	498413.26	645935.00	0.00	
18800.00	90.19	269.89	10854.15	7485.15	7719.81	2330.37	-7724.30	498413.07	645835.00	0.00	
18900.00	90.19	269.89	10853.82	7484.82	7819.81	2330.19	-7824.30	498412.89	645735.00	0.00	
19000.00	90.19	269.89	10853.49	7484.49	7919.81	2330.00	-7924.30	498412.70	645635.00	0.00	
19100.00	90.19	269.89	10853.16	7484.16	8019.81	2329.81	-8024.29	498412.51	645535.01	0.00	
19200.00	90.19	269.89	10852.83	7483.83	8119.81	2329.63	-8124.29	498412.33	645435.01	0.00	
19300.00	90.19	269.89	10852.50	7483.50	8219.81	2329.44	-8224.29	498412.14	645335.01	0.00	
19400.00	90.19	269.89	10852.17	7483.17	8319.81	2329.26	-8324.29	498411.96	645235.01	0.00	
19500.00	90.19	269.89	10851.84	7482.84	8419.81	2329.07	-8424.29	498411.77	645135.01	0.00	
19600.00	90.19	269.89	10851.51	7482.51	8519.80	2328.88	-8524.29	498411.58	645035.01	0.00	
19700.00	90.19	269.89	10851.18	7482.18	8619.80	2328.70	-8624.29	498411.40	644935.01	0.00	
19800.00	90.19	269.89	10850.85	7481.85	8719.80	2328.51	-8724.29	498411.21	644835.01	0.00	
19900.00	90.19	269.89	10850.52	7481.52	8819.80	2328.33	-8824.29	498411.03	644735.01	0.00	
20000.00	90.19	269.89	10850.19	7481.19	8919.80	2328.14	-8924.29	498410.84	644635.01	0.00	
20100.00	90.19	269.89	10849.86	7480.86	9019.80	2327.95	-9024.29	498410.65	644535.01	0.00	
20200.00	90.19	269.89	10849.53	7480.53	9119.80	2327.77	-9124.29	498410.47	644435.01	0.00	
20300.00	90.19	269.89	10849.20	7480.20	9219.80	2327.58	-9224.29	498410.28	644335.01	0.00	
20400.00	90.19	269.89	10848.87	7479.87	9319.80	2327.40	-9324.29	498410.10	644235.01	0.00	
20500.00	90.19	269.89	10848.54	7479.54	9419.80	2327.21	-9424.28	498409.91	644135.02	0.00	

SD Plan Report

Interpolated Points: (Relative to Slot centre) (TVD relative to Drill Floor)

MD (US ft)	Inc (°)	Azi (°)	TVD (US ft)	TVD (HSL) (US ft)	VS (US ft)	N. Offset (US ft)	E. Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
20600.00	90.19	269.89	10848.21	7479.21	9519.80	2327.02	-9524.28	498409.72	644035.02	0.00	
20700.00	90.19	269.89	10847.88	7478.88	9619.80	2326.84	-9624.28	498409.54	643935.02	0.00	
20800.00	90.19	269.89	10847.55	7478.55	9719.80	2326.65	-9724.28	498409.35	643835.02	0.00	
20900.00	90.19	269.89	10847.22	7478.22	9819.80	2326.47	-9824.28	498409.17	643735.02	0.00	
21000.00	90.19	269.89	10846.89	7477.89	9919.80	2326.28	-9924.28	498408.98	643635.02	0.00	
21100.00	90.19	269.89	10846.56	7477.56	10019.80	2326.09	-10024.28	498408.79	643535.02	0.00	
21200.00	90.19	269.89	10846.23	7477.23	10119.80	2325.91	-10124.28	498408.61	643435.02	0.00	
21300.00	90.19	269.89	10845.90	7476.90	10219.80	2325.72	-10224.28	498408.42	643335.02	0.00	
21400.00	90.19	269.89	10845.57	7476.57	10319.79	2325.54	-10324.28	498408.24	643235.02	0.00	
21500.00	90.19	269.89	10845.24	7476.24	10419.79	2325.35	-10424.28	498408.05	643135.02	0.00	
21600.00	90.19	269.89	10844.91	7475.91	10519.79	2325.16	-10524.28	498407.86	643035.02	0.00	
21700.00	90.19	269.89	10844.58	7475.58	10619.79	2324.98	-10624.28	498407.68	642935.02	0.00	
21800.00	90.19	269.89	10844.25	7475.25	10719.79	2324.79	-10724.28	498407.49	642835.02	0.00	
21900.00	90.19	269.89	10843.92	7474.92	10819.79	2324.61	-10824.27	498407.31	642735.03	0.00	
22000.00	90.19	269.89	10843.59	7474.59	10919.79	2324.42	-10924.27	498407.12	642635.03	0.00	
22100.00	90.19	269.89	10843.26	7474.26	11019.79	2324.23	-11024.27	498406.93	642535.03	0.00	
22200.00	90.19	269.89	10842.93	7473.93	11119.79	2324.05	-11124.27	498406.75	642435.03	0.00	
22300.00	90.19	269.89	10842.60	7473.60	11219.79	2323.86	-11224.27	498406.56	642335.03	0.00	
22400.00	90.19	269.89	10842.27	7473.27	11319.79	2323.67	-11324.27	498406.37	642235.03	0.00	
22500.00	90.19	269.89	10841.94	7472.94	11419.79	2323.49	-11424.27	498406.19	642135.03	0.00	
22600.00	90.19	269.89	10841.61	7472.61	11519.79	2323.30	-11524.27	498406.00	642035.03	0.00	
22700.00	90.19	269.89	10841.28	7472.28	11619.79	2323.12	-11624.27	498405.82	641935.03	0.00	
22800.00	90.19	269.89	10840.95	7471.95	11719.79	2322.93	-11724.27	498405.63	641835.03	0.00	
22900.00	90.19	269.89	10840.62	7471.62	11819.79	2322.74	-11824.27	498405.44	641735.03	0.00	
23000.00	90.19	269.89	10840.29	7471.29	11919.79	2322.56	-11924.27	498405.26	641635.03	0.00	
23100.00	90.19	269.89	10839.96	7470.96	12019.79	2322.37	-12024.27	498405.07	641535.03	0.00	
23200.00	90.19	269.89	10839.63	7470.63	12119.78	2322.19	-12124.27	498404.89	641435.03	0.00	
23300.00	90.19	269.89	10839.30	7470.30	12219.78	2322.00	-12224.26	498404.70	641335.04	0.00	
23400.00	90.19	269.89	10838.97	7469.97	12319.78	2321.81	-12324.26	498404.51	641235.04	0.00	
23500.00	90.19	269.89	10838.63	7469.63	12419.78	2321.63	-12424.26	498404.33	641135.04	0.00	
23600.00	90.19	269.89	10838.30	7469.30	12519.78	2321.44	-12524.26	498404.14	641035.04	0.00	
23700.00	90.19	269.89	10837.97	7468.97	12619.78	2321.26	-12624.26	498403.96	640935.04	0.00	
23800.00	90.19	269.89	10837.64	7468.64	12719.78	2321.07	-12724.26	498403.77	640835.04	0.00	
23900.00	90.19	269.89	10837.31	7468.31	12819.78	2320.88	-12824.26	498403.58	640735.04	0.00	
24000.00	90.19	269.89	10836.98	7467.98	12919.78	2320.70	-12924.26	498403.40	640635.04	0.00	
24100.00	90.19	269.89	10836.65	7467.65	13019.78	2320.51	-13024.26	498403.21	640535.04	0.00	
24200.00	90.19	269.89	10836.32	7467.32	13119.78	2320.33	-13124.26	498403.03	640435.04	0.00	
24300.00	90.19	269.89	10835.99	7466.99	13219.78	2320.14	-13224.26	498402.84	640335.04	0.00	
24400.00	90.19	269.89	10835.66	7466.66	13319.78	2319.95	-13324.26	498402.65	640235.04	0.00	
24500.00	90.19	269.89	10835.33	7466.33	13419.78	2319.77	-13424.26	498402.47	640135.04	0.00	
24600.00	90.19	269.89	10835.00	7466.00	13519.78	2319.58	-13524.26	498402.28	640035.04	0.00	
24700.00	90.19	269.89	10834.67	7465.67	13619.78	2319.40	-13624.25	498402.10	639935.05	0.00	
24800.00	90.19	269.89	10834.34	7465.34	13719.78	2319.21	-13724.25	498401.91	639835.05	0.00	
24900.00	90.19	269.89	10834.01	7465.01	13819.78	2319.02	-13824.25	498401.72	639735.05	0.00	
25000.00	90.19	269.89	10833.68	7464.68	13919.78	2318.84	-13924.25	498401.54	639635.05	0.00	
25100.00	90.19	269.89	10833.35	7464.35	14019.77	2318.65	-14024.25	498401.35	639535.05	0.00	
25200.00	90.19	269.89	10833.02	7464.02	14119.77	2318.47	-14124.25	498401.17	639435.05	0.00	
25300.00	90.19	269.89	10832.69	7463.69	14219.77	2318.28	-14224.25	498400.98	639335.05	0.00	
25400.00	90.19	269.89	10832.36	7463.36	14319.77	2318.09	-14324.25	498400.79	639235.05	0.00	
25500.00	90.19	269.89	10832.03	7463.03	14419.77	2317.91	-14424.25	498400.61	639135.05	0.00	
25600.00	90.19	269.89	10831.70	7462.70	14519.77	2317.72	-14524.25	498400.42	639035.05	0.00	
25700.00	90.19	269.89	10831.37	7462.37	14619.77	2317.54	-14624.25	498400.24	638935.05	0.00	
25800.00	90.19	269.89	10831.04	7462.04	14719.77	2317.35	-14724.25	498400.05	638835.05	0.00	
25900.00	90.19	269.89	10830.71	7461.71	14819.77	2317.16	-14824.25	498399.86	638735.05	0.00	
26000.00	90.19	269.89	10830.38	7461.38	14919.77	2316.98	-14924.25	498399.68	638635.05	0.00	
26100.00	90.19	269.89	10830.05	7461.05	15019.77	2316.79	-15024.24	498399.49	638535.06	0.00	
26200.00	90.19	269.89	10829.72	7460.72	15119.77	2316.61	-15124.24	498399.31	638435.06	0.00	
26300.00	90.19	269.89	10829.39	7460.39	15219.77	2316.42	-15224.24	498399.12	638335.06	0.00	

SD Plan Report

Interpolated Points: (Relative to Slot centre) (TVD relative to Drill Floor)

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	TVD (MSL) (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
26400.00	90.19	269.89	10829.06	7460.06	15319.77	2316.23	-15324.24	498398.93	638235.06	0.00	
26418.46	90.19	269.89	10829.00	7460.00	15338.22	2316.20	-15342.70	498398.90	638216.60	0.00	PBHL 901H

Formation Points: (Relative to Slot centre) (TVD relative to Drill Floor)

Name	MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	TVD (MSL) (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Comment
Rustler	366.00	0.00	0.00	366.00	-3003.00	-0.00	-0.00	496082.70	653559.30	
Magenta Dolomite	426.00	0.00	0.00	426.00	-2943.00	-0.00	-0.00	496082.70	653559.30	
Salado	639.00	0.00	0.00	639.00	-2730.00	-0.00	-0.00	496082.70	653559.30	
Top of Salt	761.00	0.00	0.00	761.00	-2608.00	-0.00	-0.00	496082.70	653559.30	
Base Salt	3608.57	12.17	0.00	3604.00	235.00	64.40	-0.00	496147.10	653559.30	
Delaware/Lamar	3862.99	17.26	0.00	3850.00	481.00	129.00	-0.00	496211.70	653559.30	
Bell Canyon	3910.24	18.20	0.00	3895.00	526.00	143.39	-0.00	496226.09	653559.30	
Cherry Canyon	4887.92	23.93	0.00	4794.00	1425.00	526.72	-0.00	496609.42	653559.30	
Manzanita Marker	5056.41	23.93	0.00	4948.00	1579.00	595.07	-0.00	496677.77	653559.30	
Brushy Canyon Ss.	6257.68	23.93	0.00	6046.00	2677.00	1082.35	-0.00	497165.05	653559.30	
Basal Brushy Canyon Ss.	7774.04	23.93	0.00	7432.00	4063.00	1697.45	-0.00	497780.15	653559.30	
Bone Spring Lm.	8068.34	23.93	0.00	7701.00	4332.00	1816.83	-0.00	497899.53	653559.30	
Avalon Ss.	8211.54	23.37	0.00	7832.00	4463.00	1874.67	-0.00	497957.37	653559.30	
Upper Avalon Carb.	8257.21	22.91	0.00	7874.00	4505.00	1892.62	-0.00	497975.32	653559.30	
Upper Avalon Sh.	8470.55	20.78	0.00	8072.00	4703.00	1972.01	-0.00	498054.71	653559.30	
Lw. Avalon Carb.	8550.56	19.98	0.00	8147.00	4778.00	1999.87	-0.00	498082.57	653559.30	
Lw. Avalon Sh.	8735.71	18.13	0.00	8322.00	4953.00	2060.31	-0.00	498143.01	653559.30	
Bone Spring Carb.	8936.63	16.12	0.00	8514.00	5145.00	2119.47	-0.00	498202.17	653559.30	
First Bone Spring Ss.	9274.33	12.74	0.00	8841.00	5472.00	2203.62	-0.00	498286.32	653559.30	
Second Bone Spring Carb.	9677.46	8.71	0.00	9237.00	5868.00	2278.64	-0.00	498361.34	653559.30	
Top Second Bone Spring	10027.09	5.22	0.00	9584.00	6215.00	2321.02	-0.00	498403.72	653559.30	
Second Bone Spring A Ss.	10079.28	4.69	0.00	9636.00	6267.00	2325.53	-0.00	498408.23	653559.30	
Second Bone Spring A/B Carb.	10160.51	3.88	0.00	9717.00	6348.00	2331.60	-0.00	498414.30	653559.30	
Second Bone Spring B Ss.	10212.62	3.36	0.00	9769.00	6400.00	2334.89	-0.00	498417.59	653559.30	
Third Bone Spring Carb.	10292.72	2.56	0.00	9849.00	6480.00	2339.03	-0.00	498421.73	653559.30	
Top Third Bone Spring	10995.37	24.68	269.89	10544.00	7175.00	2344.64	-52.32	498427.34	653506.98	
Third Bone Spring War Wink Ss.	11356.72	60.81	269.89	10805.00	7436.00	2344.19	-293.53	498426.89	653265.77	
Third Bone Spring Red Hills Ss.	11450.95	70.23	269.89	10844.00	7475.00	2344.03	-379.19	498426.73	653180.11	

XTO ENERGY

KB:3369
GL:3344

JRU DI 2 901
Eddy Co, NM

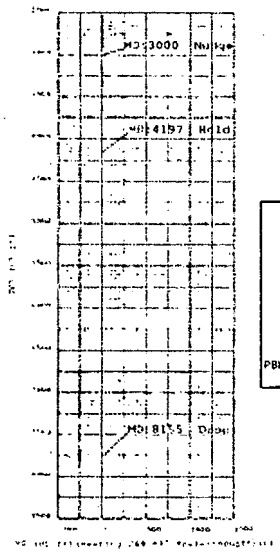
Weatherford

Drawing Checked By:

Plan Data for JRU DI 2 901H

Plan Point Information:

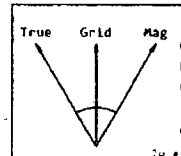
MD (USft)	Inc (°)	Dogleg Severity Unit: °/100.00ft Az (°)	TVD Elevation (USft)	+N/-S (USft)	Position offsets from Slot centre +E/-W (USft)	Northing (USft)	Easting (USft)	VSec (USft)	DLS (DLSU)	Comments
0.00	0.00	0.00	0.00	3369.00	-0.00	-0.00	496082.70	653559.30	0.00	0.00	
3000.00	0.00	0.00	3000.00	369.00	-0.00	-0.00	496082.70	653559.30	0.00	0.00	Nudge
4196.57	23.93	0.00	4162.08	-793.08	246.28	-0.00	496328.98	653559.30	-0.47	2.00	Hold
8155.47	23.93	0.00	7780.64	-4411.64	1852.18	-0.00	497934.88	653559.30	-3.56	0.00	Drop
10548.61	0.00	0.00	10104.80	-6735.80	2344.74	0.00	498427.44	653559.30	-4.50	1.00	Hold
10748.61	0.00	0.00	10304.80	-6935.80	2344.74	0.00	498427.44	653559.30	-4.50	0.00	KOP
11650.50	90.19	269.89	10877.75	-7508.75	2343.67	-574.85	498426.37	652984.45	570.35	10.00	LP
26418.46	90.19	269.89	10829.00	-7460.00	2316.20	-15342.70	498398.90	638216.60	15338.22	0.00	PBHL 901H



Plan Data for JRU DI 2 901H

Target Set Information:
Name: JRU DI 2 901H
Position offsets from Slot centre

Name	TVD Elevation (USft)	+N/-S (USft)	+E/-W (USft)	Northing (USft)	Easting (USft)
S Tgt	10304.80	-6935.80	2344.74	0.00	498427.44	653559.30
FTP	10874.00	-7505.00	2341.50	-2059.40	498424.20	651499.90
LTP	10829.00	-7460.00	2316.30	-15292.70	498399.00	638266.60
PBHL 901H	10829.00	-7460.00	2316.20	-15342.70	498398.90	638216.60



Grid Convergence: 0.27°
Mag Declination: 6.93°
Bearing:
True = Mag + 6.93°
Grid = True - 0.27°
To a Correction Need Mag or

Drawing By: RWJ Date: 13 August 2019
Office Name: Weatherford - Drilling Services
Address: 10000 West County Road 116
Midland, Texas 79711 USA
+1.432.561.8892 Main
Russell.Joyner@weatherford.com
Phone: Cell 713-303-5511

Plan Data for JRU DI 2 901H

Field: XTO NAD 27 NME
Map Unit: USFt Vertical Reference Datum (VRD): Mean Sea Level
Projected Coordinate System: NAD27 / New Mexico East

Site: James Ranch Unit DI 2 0901H,111H,112H,113H
Unit: USFeet TVD Reference:
Company Name: XTO Energy
Position: Northing: 496082.70USFt Latitude: 32.362866°
Easting: 653559.30USFt Longitude: -103.836006°
North Reference: Grid Grid Convergence: 0.27°
Elevation Above VRD: 3344.00USFt
Comment: Eddy Co, NM

Slot: JRU DI 2 901H
Position:
Offset is from Site centre
+N/-S: 0.00USFt Northing: 496082.70USFt Latitude: 32.362866°
+E/-W: 0.00USFt Easting: 653559.30USFt Longitude: -103.836006°
Elevation Above VRD: 3344.00USFt

Well: JRU DI 2 901H
Type: Main-Well
File Number:

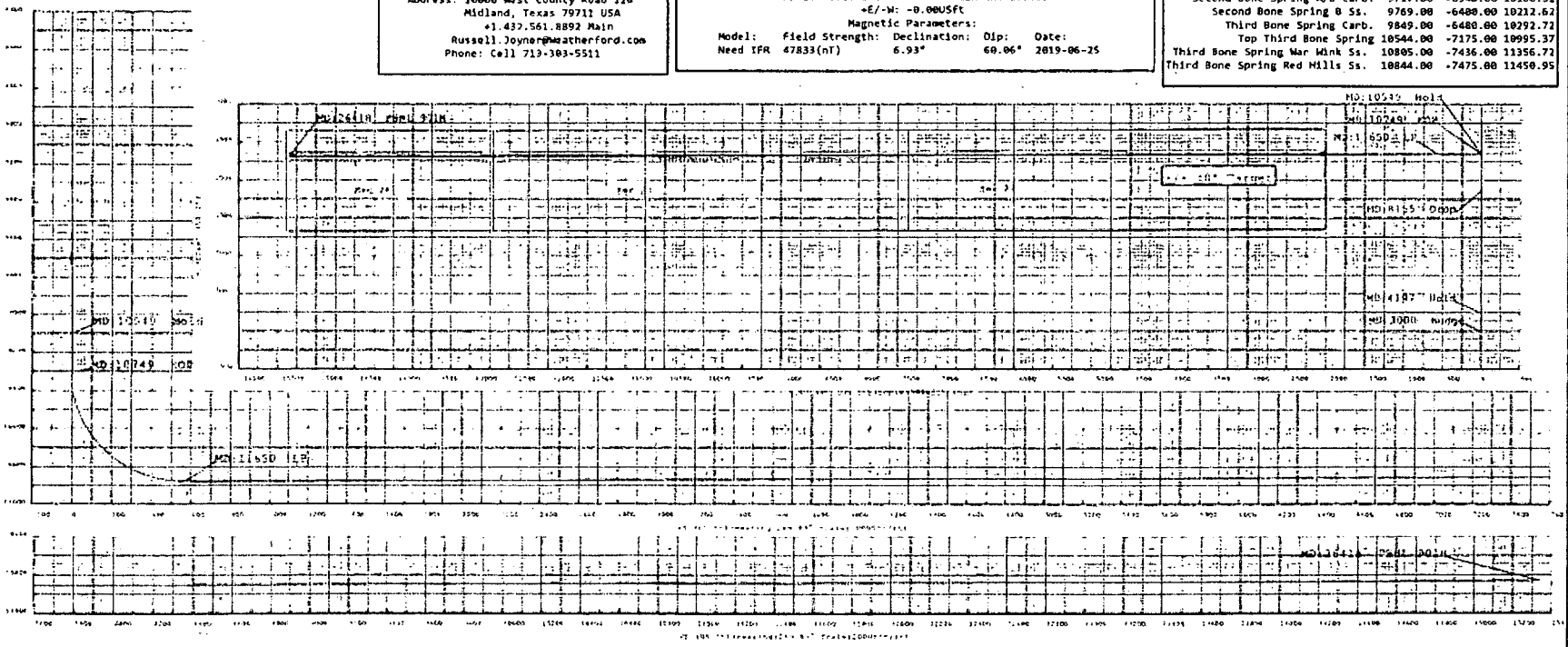
Plan Folder: P1 Plan: P1:V2
Vertical Section: Position offset of origin from Slot centre:
+N/-S: -0.00USFt Azimuth: 269.89°
+E/-W: -0.00USFt
Magnetic Parameters:

Model:	Field Strength:	Declination:	Dip:	Date:
Need IFR	47833(nT)	6.93°	60.06°	2019-06-25

Plan Data for JRU DI 2 901H

Formation Point Information:

Name	TVD Elevation (USft)	MD (USft)
Rustler	366.00	3003.00	366.00
Magenta Dolomite	426.00	2943.00	426.00
Salado	639.00	2730.00	639.00
Top of Salt	761.00	2608.00	761.00
Base Salt	3604.00	-235.00	3608.57
Delaware/Lamar	3850.00	-481.00	3862.99
Bell Canyon	3895.00	-526.00	3910.24
Cherry Canyon	4794.00	-1425.00	4887.92
Manzanita Marker	4948.00	-1579.00	5056.41
Brushy Canyon Ss.	6046.00	-2677.00	6257.68
Basal Brushy Canyon Ss.	7432.00	-4063.00	7774.04
Bone Spring Lm.	7701.00	-4332.00	8068.34
Avalon Ss.	7832.00	-4463.00	8211.54
Upper Avalon Carb.	7874.00	-4505.00	8257.21
Upper Avalon Sh.	8072.00	-4703.00	8470.55
Lw. Avalon Carb.	8147.00	-4778.00	8550.56
Lw. Avalon Sh.	8322.00	-4953.00	8735.71
Bone Spring Carb.	8514.00	-5145.00	8936.63
First Bone Spring Ss.	8841.00	-5472.00	9274.33
Second Bone Spring Carb.	9237.00	-5868.00	9677.46
Top Second Bone Spring	9584.00	-6215.00	10027.09
Second Bone Spring A Ss.	9636.00	-6267.00	10079.28
Second Bone Spring A/B Carb.	9717.00	-6348.00	10160.51
Second Bone Spring B Ss.	9769.00	-6400.00	10212.62
Third Bone Spring Carb.	9849.00	-6480.00	10292.72
Top Third Bone Spring	10544.00	-7175.00	10995.37
Third Bone Spring War Wink Ss.	10805.00	-7436.00	11356.72
Third Bone Spring Red Hills Ss.	10844.00	-7475.00	11450.95



PECOS DISTRICT DRILLING
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**XTO Permian Operating, LLC.**
LEASE NO.:	**NMLC-064827A**
WELL NAME & NO.:	**James Ranch Unit DI 2 901H**
SURFACE HOLE FOOTAGE:	**2600' FSL & 1990' FWL**
BOTTOM HOLE FOOTAGE	**0330' FNL & 2640' FEL Sec. 28, T. 22 S., R 30 E.**
LOCATION:	**Section 25, T. 22 S., R 30 E., NMPM**
COUNTY:	**Eddy County, New Mexico**

Commercial Well Determination
A commercial well determination shall be submitted after production has been established for at least six months.

Unit Wells
The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. **Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. 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 Potash Areas:
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 for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log.

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.

R-111-P-Potash
WIPP
Possibility of water flows in the Salado and Castile.
Possibility of lost circulation in the Red Beds, Rustler, and Delaware.
Abnormal pressure may be encountered within the 3rd Bone Spring Sand and all subsequent formations.

1. The **18-5/8** inch surface casing shall be set at approximately **736** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**

    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.

13-3/8 1st Intermediate casing shall be kept fluid filled while running into hole to meet BLM minimum collapse requirements.

2. The minimum required fill of cement behind the **13-3/8** inch 1st intermediate casing is:

    ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**

Formation below the 13-3/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

9-5/8 2nd Intermediate casing shall be kept fluid filled while running into hole to meet BLM minimum collapse requirements.

3. The minimum required fill of cement behind the **9-5/8** inch 2nd intermediate casing is:

DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

a. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool:

☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required through the curve and a minimum of one every other joint.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:

☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. **Excess calculates to 12% - Additional cement may be required**

5. 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.

6. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

C. 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 **2000 (2M)** psi

4. **Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 13-3/8 1st intermeidate casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 13-3/8" 1st intermeidate casing shoe shall be 5000 (5M) psi.**
    a. **Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.**
    b. **If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.**
    c. **Manufacturer representative shall install the test plug for the initial BOP test.**
    d. **Operator shall perform the 9-5/8" casing integrity tests to 70% of the casing burst. This will test the multi-bowl seals.**
    e. **If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.**

5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

   a. In potash areas, 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. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.

   b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.

   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.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

F. WIPP Requirements

The proposed well is located within 330' of the WIPP Land Withdrawal Area boundary. As a result, XTO Permian Operating, LLC is required to submit daily drilling reports, logs and deviation survey information to the Bureau of Land Management and the Department of Energy per requirements of the Joint Powers Agreement until a total vertical depth of 7,000 feet is reached. These reports will have at a minimum the rate of penetration and a clearly marked section showing the deviation for each 500 foot interval. Operator may be required to do more frequent deviation surveys based on the daily information submitted and may be required to take other corrective measures. Information from this well will be included in the Quarterly Drilling Report. Information will also be provided to the New Mexico Oil Conservation Division after drilling activities have been completed. Upon completion of the well, the operator shall submit a complete directional survey. Any future entry into the well for purposes of completing additional drilling will require supplemental information.

XTO Permian Operating, LLC can email the required information to Mr. Melvin Balderrama at Melvin.Balderama@wipp.ws or Mr. J. Neatherlin at Jimmy.Neatherlin@wipp.ws fax to his attention at 575-234-6062.

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