

Form 3160-3
(March 2012)

FEB 13 2013

OCD Hobbs

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

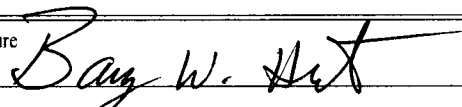
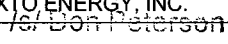
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NM-18848	
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator XTO ENERGY, INC.		7. If Unit or CA Agreement, Name and No.	
3a. Address 200 N. LORAIN, SUITE 800 MIDLAND, TX. 79701		8. Lease Name and Well No. SDE 18 FED 8H <39721>	
3b. Phone No. (include area code) 432-620-4323 (CHIP AMROCK)		9. API Well No. 30-025-40992	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 350 FSL & 660 FWL At proposed prod. zone 350 FNL & 660 FWL		10. Field and Pool, or Exploratory Sand Dunes, Bure Spring <53800>	
14. Distance in miles and direction from nearest town or post office* 21 MILES NORTHEAST OF MALAGA, NM		11. Sec., T. R. M. or Blk. and Survey or Area SECTION 18, T. 23 S., R. 32 E.	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease 1954.13	17. Spacing Unit dedicated to this well 160' 184.28	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth TVD: 8409' MD: 12,738'	20. BLM/BIA Bond No. on file UTB000138	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3565' GL	22. Approximate date work will start*	23. Estimated duration 30 DAYS	

24. Attachments

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

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

25. Signature 	Name (Printed/Typed) BARRY W. HUNT	Date 8/17/12
Title PERMIT AGENT FOR XTO ENERGY, INC.		
Approved by (Signature) 	Name (Printed/Typed) Don Peterson	Date FEB 13 2013
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

FEB 14 2013

FEB 14 2013

HOBBS OCD

FEB 13 2013

XTO ENERGY, INC.
DRILLING PLAN

RECEIVED

SDE 18 Federal 8H
SHL: 350 FSL & 660 FWL
Unit "M" Section 18, T. 23 S., R. 32 E.
BHL: 350 FNL & 660 FWL
Unit "D" Section 18, T. 23 S., R. 32 E.
Lea County, NM

1. The elevation of the unprepared ground is 3565' feet above sea level.
2. The geologic name of the surface formation is Quaternary - Alluvium.
3. A rotary rig will be utilized to drill the well to 12738'MD and run casing. This equipment will then be rigged down and the well will be completed with a workover rig.
4. Proposed total depth is MD: 12738'/TVD: 8,409'.
5. Estimated tops of important geologic markers:

Quaternary – Alluvium	Surface*
Rustler	969'
Top of Salt	1287'
Base of Salt	4361'
Base Castile	4598'
Bell Canyon	4623'
Cherry Canyon	5509'
Brushy Canyon	7193'
Basal Brushy Canyon	8162'
Brushy Canyon E3	8263'
Brushy Canyon E5	8364'
TVD	8409' (150 degree F)

*Water at 180 ft.

6. Estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered:

Bell Canyon	Oil (2,034 psi)
Cherry Canyon	Oil (2,424 psi)
Brushy Canyon	Oil (3,165 psi)
TVD	Oil (3,700 psi)

7. CASING PROGRAM:

Hole Size	Depth	OD Csg.	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' - 4000' 1020	13-3/8"	48#	STC	H-40	New	3.3	1.41	4.87
12-1/4"	0' - 4650' 1550	9-5/8"	40#	LTC	HCL-80	New	2.11	1.56	3.26
8-3/4"	0' - 9000'	7"	26#	LTC	HCP-110	New	2.25	1.76	2.18
6-1/8"	8500' - 12738'	4-1/2"	11.6#	LTC	P-110	New	2.42	1.71	1.98

8. CEMENT PROGRAM: (Note yields and DV tool depths if multiple stages)

i. Surface Cement:

Lead Slurry: Lead with 580 sks ExtendaCem - CZ (13.7 ppg, 1.68 cu ft/sk, 8.72 gal wtr/sk)

Tail Slurry: Tail-in with 340 sks HalCem - C, 2 % Calcium Chloride - Flake (Accelerator) (14.8 ppg, 1.35 cu ft/sk, 6.39 gal wtr/sk)

100% excess. Cement to surface.

ii. Intermediate Cement:

Lead Slurry: Lead with 1255 sks, EconoCem - HLC, 5 % Salt (Salt), 5 lbm/sk Kol-Seal (Lost Circulation Additive) (12.9 ppg, 1.88 ft³/sk, 9.61 gal wtr/sk)

Tail Slurry: Tail-in with 250 sks, HalCem - C (14.8 ppg, 1.33 cu ft/sk, 6.34 gal wtr/sk)

100% excess. Cement to surface.

iii. Production Cement:

1st stage: Lead Slurry: Lead with 140 sks, CorrosaCem - H, 0.4 % CFR-3 (Dispersant), 5 lbm/sk, Kol-Seal (Lost Circulation Additive), 0.25 lbm/sk D-AIR 5000 (Defoamer), 0.1 % H R-800 (Retarder) (14.4 ppg, 1.23 ft³/sk, 5.09 gal wtr/sk)

Tail Slurry: Tail-in with 255 sks, HalCem - H, 0.5 % LAP-1 (Low Fluid Loss Control), 0.25 % CFR-3 (Dispersant), 5 lbm/sk Kol-Seal (Lost Circulation Additive), 0.25 lbm/sk D-AIR 5000 (Defoamer), 0.1 % HR-800 (Retarder) (15.8 ppg, 1.18 ft³/sk, 4.8 gal/sx wtr)

1st DV tool - 6650'.

2nd Stage: Lead Slurry: 205 sks EconoCem – H, 0.1 % HR-601 (Retarder) (12.90 ppg, yield: 1.86 ft³/sk, 9.96 Gal/sk wtr)

Tail Slurry: Tail-in with 100 sks HalCem – H (15.6 ppg, 1.19 ft³/sk, 5.39 gal/sx wtr)
50% excess. Cement tie back 200 feet inside 9-5/8" casing.

iv. Liner Cement:

Halliburton swell packers will be installed on the 4-1/2" casing

9. PRESSURE CONTROL EQUIPMENT:

The blow out preventer equipment (BOP) diagram is attached to this Drilling Plan. The blowout preventer stack for the intermediate and production hole will consist of a double ram blowout preventer and annular preventer rated to 5000 psi working pressure. All BOP's and accessory equipment will be tested according to Onshore Order #2 before drilling out. A hydraulic closing unit will be a part of this equipment and will be function tested daily.

10. PROPOSED MUD CIRCULATION SYSTEM:

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' to 1000' 1020	17-1/2"	FW/Native	8.8 – 9.3	35-40	NC
1000' to 4650' 4550	12-1/4"	Brine/ Gel Sweeps	9.8 – 10.0	30-32	NC
4650' to 9000'	8-3/4"	FW/Polymer Sweeps	8.8-9.4	29-32	NC-20
9000'-12738'	6-1/8"	FW/Polymer Sweeps	8.8-9.4	29-32	NC-20

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

Spud with fresh water/native mud. Drill out from under 13-3/8" surface casing with brine solution. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. 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.

11. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- A kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
- Hydrogen sulfide detection equipment and breathing equipment will be in operation from drilling out the 9-5/8" casing shoe until the 7" casing is cemented.

12. LOGGING, CORING AND TESTING PROGRAM: *see COA*

- A. Potential drill stem tests will be based on geological sample shows.
- B. No coring is anticipated.
- C. Mudlogger unit will be on and working from 4650' to TD.
- D. Open hole logging to include Density/Neutron/PE/Dual Laterlog/Spectral Gamma from TD to intermediate casing, with Neutron/Gamma continuing to surface.

13. ABNORMAL PRESSURES AND TEMPERATURES / POTENTIAL HAZARDS:

No abnormal pressures are anticipated. Max bottom hole pressure should not exceed 3700 psi. BHT of 150° F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. An H2S contingency plan has also been submitted with this application. 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. Should any abnormal or hazardous circumstances be encountered personnel on location will take necessary steps to ensure safety of all personnel and environment. BHP=3700. BHT=150 degrees.

14. SPECIAL INSTRUCTIONS:

- A. Reports will be filled out on the XTO Drilling Report form, and the Casing/Cementing Detail Forms provided.
- B. Deviation:
 - Surface Hole: Maximum of 1° and not more than 1° change per 100'.
 - Production Hole: Maximum of 4° and not more than 1.5° change per 100'.
 - Note: Maximum distance between surveys is 500'.**
- C. WOC a minimum of 18 hours or before cement gains compressive strength of 500 psi, whichever is greater, before drilling out shoe joint on surface casing string. Use minimal WOB and RPM until drill collars are below the shoe joints.
- D. Check BOP blind rams each trip and pipe rams each day. Strap out of hole for logging and/or casing jobs.
- E. A trash trailer will be provided on each location. Keep trash picked up and the location as clean as possible. All drilling line, oil filters, etc. should be hauled away at the Drilling Contractor's expense. At the conclusion of drilling operations, the contents of the trash trailer will be disposed of into a commercial sanitary landfill.



Project: Lea County
Site: SDE Federal
Well: #8H
Wellbore: OH
Plan: Plan #1 (#8H/OH)

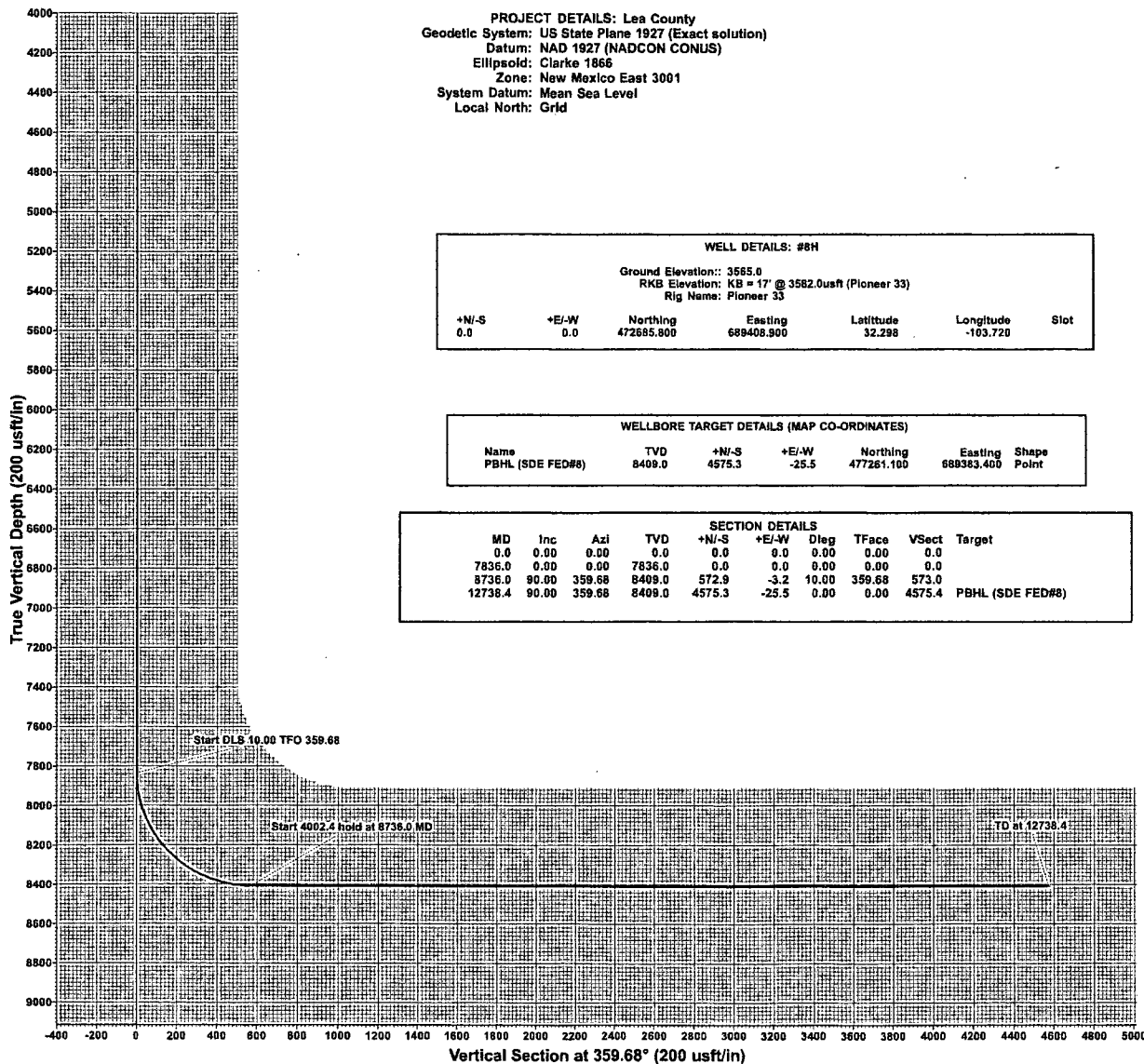


Azimuths to Grid North
True North: -0.33°
Magnetic North: 7.19°

Magnetic Field
Strength: 48574.0nT
Dip Angle: 60.23°
Date: 7/23/2012
Model: IGRF200510

PATHFINDER®
A Schlumberger Company

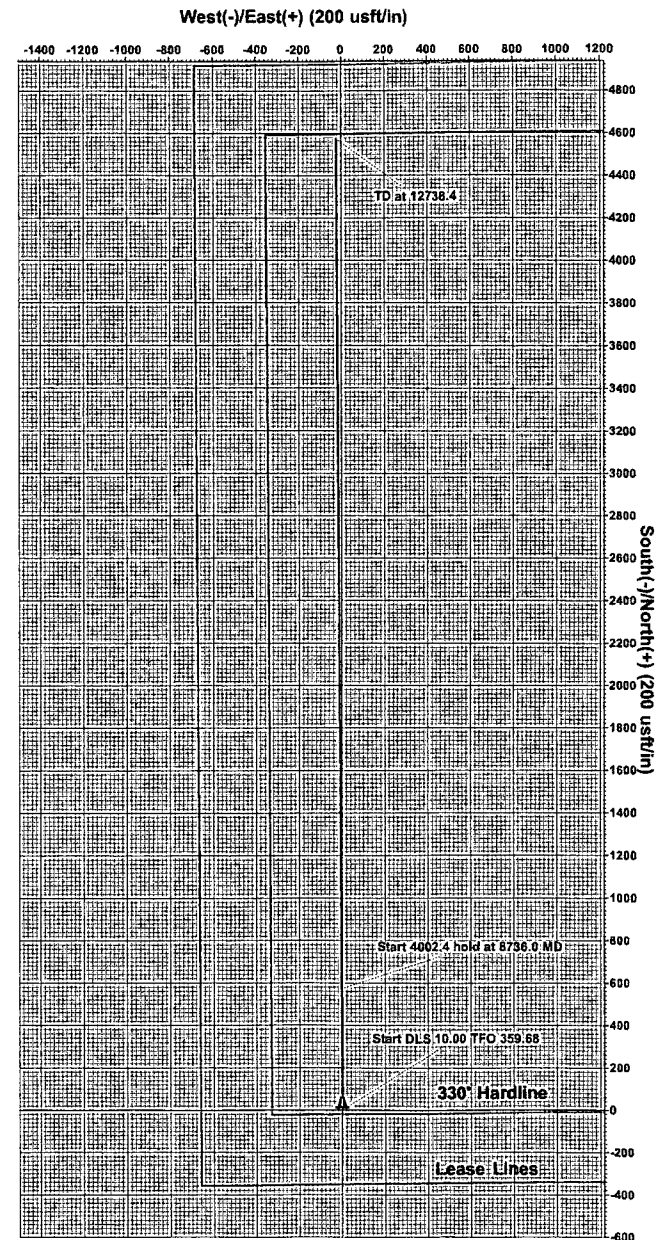
PROJECT DETAILS: Lea County
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid



WELL DETAILS: #8H						
Ground Elevation: 3565.0						
RKB Elevation: KB = 17' @ 3562.0usft (Pioneer 33)						
Rig Name: Pioneer 33						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	47265.800	689408.900	32.298	-103.720	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape Point
PBHL (SDE FED#8)	8409.0	4575.3	-25.5	477261.100	689383.400	

SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
7836.0	0.00	0.00	7836.0	0.0	0.0	0.00	0.00	0.0		
8736.0	90.00	359.68	8409.0	572.9	-3.2	10.00	359.68	573.0		
12736.4	90.00	359.68	8409.0	4575.3	-25.5	0.00	0.00	4575.4	PBHL (SDE FED#8)	





XTO Energy Co

**Lea County
SDE Federal
#8H
OH**

Plan: Plan #1

PathfinderX & Y Report

27 July, 2012



A Schlumberger Company



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	XTO Energy Co	Local Co-ordinate Reference:	Well #8H
Project:	Lea County	TVD Reference:	KB = 17' @ 3582.0usft (Pioneer 33)
Site:	SDE Federal	MD Reference:	KB = 17' @ 3582.0usft (Pioneer 33)
Well:	#8H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

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

Site		SDE Federal			
Site Position:		Northing:	472,685.800 usft	Latitude:	32.298
From:	Map	Easting:	689,408.900 usft	Longitude:	-103.720
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.33 °

Well:	#8H					
Well Position	+N/-S	0.0 usft	Northing:	472,685.800 usft	Latitude:	32.298
	+E/-W	0.0 usft	Easting:	689,408.900 usft	Longitude:	-103.720
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,565.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	7/23/2012	7.52	60.23	48,574

Design		Plan #1		
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	359.68



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	XTO Energy Co	Local Co-ordinate Reference:	Well #8H
Project:	Lea County	TVD Reference:	KB = 17' @ 3582.0usft (Pioneer 33)
Site:	SDE Federal	MD Reference:	KB = 17' @ 3582.0usft (Pioneer 33)
Well:	#8H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Survey Tool Program		Date 7/23/2012		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	7,832.0	Plan #1 (OH)	Gyro	GYRO
7,832.0	12,738.4	Plan #1 (OH)	MWD	MWD - Standard

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg. (°/100usft)	Northing (usft)	Easting (usft)	
0.0	0.00	0.00	0.0	-3,582.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
100.0	0.00	0.00	100.0	-3,482.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
200.0	0.00	0.00	200.0	-3,382.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
300.0	0.00	0.00	300.0	-3,282.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
400.0	0.00	0.00	400.0	-3,182.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
500.0	0.00	0.00	500.0	-3,082.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
600.0	0.00	0.00	600.0	-2,982.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
700.0	0.00	0.00	700.0	-2,882.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
800.0	0.00	0.00	800.0	-2,782.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
900.0	0.00	0.00	900.0	-2,682.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
1,000.0	0.00	0.00	1,000.0	-2,582.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
1,100.0	0.00	0.00	1,100.0	-2,482.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
1,200.0	0.00	0.00	1,200.0	-2,382.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
1,300.0	0.00	0.00	1,300.0	-2,282.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
1,400.0	0.00	0.00	1,400.0	-2,182.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
1,500.0	0.00	0.00	1,500.0	-2,082.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
1,600.0	0.00	0.00	1,600.0	-1,982.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
1,700.0	0.00	0.00	1,700.0	-1,882.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
1,800.0	0.00	0.00	1,800.0	-1,782.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
1,900.0	0.00	0.00	1,900.0	-1,682.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
2,000.0	0.00	0.00	2,000.0	-1,582.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company: XTO Energy Co
Project: Lea County
Site: SDE Federal
Well: #8H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #8H
TVD Reference: KB = 17' @ 3582.0usft (Pioneer 33)
MD Reference: KB = 17' @ 3582.0usft (Pioneer 33)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
2,100.0	0.00	0.00	2,100.0	-1,482.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
2,200.0	0.00	0.00	2,200.0	-1,382.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
2,300.0	0.00	0.00	2,300.0	-1,282.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
2,400.0	0.00	0.00	2,400.0	-1,182.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
2,500.0	0.00	0.00	2,500.0	-1,082.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
2,600.0	0.00	0.00	2,600.0	-982.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
2,700.0	0.00	0.00	2,700.0	-882.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
2,800.0	0.00	0.00	2,800.0	-782.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
2,900.0	0.00	0.00	2,900.0	-682.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
3,000.0	0.00	0.00	3,000.0	-582.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
3,100.0	0.00	0.00	3,100.0	-482.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
3,200.0	0.00	0.00	3,200.0	-382.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
3,300.0	0.00	0.00	3,300.0	-282.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
3,400.0	0.00	0.00	3,400.0	-182.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
3,500.0	0.00	0.00	3,500.0	-82.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
3,600.0	0.00	0.00	3,600.0	18.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
3,700.0	0.00	0.00	3,700.0	118.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
3,800.0	0.00	0.00	3,800.0	218.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
3,900.0	0.00	0.00	3,900.0	318.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
4,000.0	0.00	0.00	4,000.0	418.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
4,100.0	0.00	0.00	4,100.0	518.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
4,200.0	0.00	0.00	4,200.0	618.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
4,300.0	0.00	0.00	4,300.0	718.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
4,400.0	0.00	0.00	4,400.0	818.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
4,500.0	0.00	0.00	4,500.0	918.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
4,600.0	0.00	0.00	4,600.0	1,018.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	
4,700.0	0.00	0.00	4,700.0	1,118.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90	



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company: XTO Energy Co
Project: Lea County
Site: SDE Federal
Well: #8H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #8H
TVD Reference: KB = 17' @ 3582.0usft (Pioneer 33)
MD Reference: KB = 17' @ 3582.0usft (Pioneer 33)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (")	Azi (azimuth) (")	TVD _{DB} (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLog ("/100usft)	Northing (usft)	Easting (usft)
4,800.0	0.00	0.00	4,800.0	1,218.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
4,900.0	0.00	0.00	4,900.0	1,318.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
5,000.0	0.00	0.00	5,000.0	1,418.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
5,100.0	0.00	0.00	5,100.0	1,518.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
5,200.0	0.00	0.00	5,200.0	1,618.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
5,300.0	0.00	0.00	5,300.0	1,718.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
5,400.0	0.00	0.00	5,400.0	1,818.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
5,500.0	0.00	0.00	5,500.0	1,918.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
5,600.0	0.00	0.00	5,600.0	2,018.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
5,700.0	0.00	0.00	5,700.0	2,118.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
5,800.0	0.00	0.00	5,800.0	2,218.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
5,900.0	0.00	0.00	5,900.0	2,318.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
6,000.0	0.00	0.00	6,000.0	2,418.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
6,100.0	0.00	0.00	6,100.0	2,518.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
6,200.0	0.00	0.00	6,200.0	2,618.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
6,300.0	0.00	0.00	6,300.0	2,718.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
6,400.0	0.00	0.00	6,400.0	2,818.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
6,500.0	0.00	0.00	6,500.0	2,918.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
6,600.0	0.00	0.00	6,600.0	3,018.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
6,700.0	0.00	0.00	6,700.0	3,118.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
6,800.0	0.00	0.00	6,800.0	3,218.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
6,900.0	0.00	0.00	6,900.0	3,318.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
7,000.0	0.00	0.00	7,000.0	3,418.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
7,100.0	0.00	0.00	7,100.0	3,518.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
7,200.0	0.00	0.00	7,200.0	3,618.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
7,300.0	0.00	0.00	7,300.0	3,718.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90
7,400.0	0.00	0.00	7,400.0	3,818.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90



Pathfinder PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company: XTO Energy Co
Project: Lea County
Site: SDE Federal
Well: #8H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #8H
TVD Reference: KB = 17' @ 3582.0usft (Pioneer 33)
MD Reference: KB = 17' @ 3582.0usft (Pioneer 33)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey												
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northings (usft)	Easting (usft)		
7,500.0	0.00	0.00	7,500.0	3,918.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90		
7,600.0	0.00	0.00	7,600.0	4,018.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90		
7,700.0	0.00	0.00	7,700.0	4,118.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90		
7,800.0	0.00	0.00	7,800.0	4,218.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90		
7,836.0	0.00	0.00	7,836.0	4,254.0	0.0	0.0	0.0	0.00	472,685.80	689,408.90		
7,850.0	1.40	359.68	7,850.0	4,268.0	0.2	0.0	0.2	10.00	472,685.97	689,408.90		
7,900.0	6.40	359.68	7,899.9	4,317.9	3.6	0.0	3.6	10.00	472,689.37	689,408.88		
7,950.0	11.40	359.68	7,949.2	4,367.2	11.3	-0.1	11.3	10.00	472,697.10	689,408.84		
8,000.0	16.40	359.68	7,997.8	4,415.8	23.3	-0.1	23.3	10.00	472,709.11	689,408.77		
8,050.0	21.40	359.68	8,045.1	4,463.1	39.5	-0.2	39.5	10.00	472,725.30	689,408.68		
8,100.0	26.40	359.68	8,090.8	4,508.8	59.8	-0.3	59.8	10.00	472,745.55	689,408.57		
8,150.0	31.40	359.68	8,134.5	4,552.5	83.9	-0.5	83.9	10.00	472,769.71	689,408.43		
8,200.0	36.40	359.68	8,176.0	4,594.0	111.8	-0.6	111.8	10.00	472,797.59	689,408.28		
8,250.0	41.40	359.68	8,214.9	4,632.9	143.2	-0.8	143.2	10.00	472,828.97	689,408.10		
8,300.0	46.40	359.68	8,250.9	4,668.9	177.8	-1.0	177.8	10.00	472,863.63	689,407.91		
8,350.0	51.40	359.68	8,283.8	4,701.8	215.5	-1.2	215.5	10.00	472,901.30	689,407.70		
8,400.0	56.40	359.68	8,313.2	4,731.2	255.9	-1.4	255.9	10.00	472,941.68	689,407.47		
8,450.0	61.40	359.68	8,339.0	4,757.0	298.7	-1.7	298.7	10.00	472,984.48	689,407.24		
8,500.0	66.40	359.68	8,361.0	4,779.0	343.6	-1.9	343.6	10.00	473,029.37	689,406.99		
8,550.0	71.40	359.68	8,379.0	4,797.0	390.2	-2.2	390.2	10.00	473,076.00	689,406.73		
8,600.0	76.40	359.68	8,392.9	4,810.9	438.2	-2.4	438.2	10.00	473,124.02	689,406.46		
8,650.0	81.40	359.68	8,402.5	4,820.5	487.3	-2.7	487.3	10.00	473,173.07	689,406.18		
8,700.0	86.40	359.68	8,407.8	4,825.8	537.0	-3.0	537.0	10.00	473,222.77	689,405.91		
8,736.0	90.00	359.68	8,409.0	4,827.0	572.9	-3.2	573.0	10.00	473,258.74	689,405.71		
8,800.0	90.00	359.68	8,409.0	4,827.0	636.9	-3.5	637.0	0.00	473,322.75	689,405.35		
8,900.0	90.00	359.68	8,409.0	4,827.0	736.9	-4.1	737.0	0.00	473,422.75	689,404.79		
9,000.0	90.00	359.68	8,409.0	4,827.0	836.9	-4.7	837.0	0.00	473,522.74	689,404.24		



Pathfinder
PathfinderX & Y Report



Company:	XTO Energy Co	Local Co-ordinate Reference:	Well #8H
Project:	Lea County	TVD Reference:	KB = 17' @ 3582.0usft (Pioneer 33)
Site:	SDE Federal	MD Reference:	KB = 17' @ 3582.0usft (Pioneer 33)
Well:	#8H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM-5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
9,100.0	90.00	359.68	8,409.0	4,827.0	936.9	-5.2	937.0	0.00	473,622.74	689,403.68	
9,200.0	90.00	359.68	8,409.0	4,827.0	1,036.9	-5.8	1,037.0	0.00	473,722.74	689,403.12	
9,300.0	90.00	359.68	8,409.0	4,827.0	1,136.9	-6.3	1,137.0	0.00	473,822.74	689,402.56	
9,400.0	90.00	359.68	8,409.0	4,827.0	1,236.9	-6.9	1,237.0	0.00	473,922.74	689,402.01	
9,500.0	90.00	359.68	8,409.0	4,827.0	1,336.9	-7.5	1,337.0	0.00	474,022.74	689,401.45	
9,600.0	90.00	359.68	8,409.0	4,827.0	1,436.9	-8.0	1,437.0	0.00	474,122.74	689,400.89	
9,700.0	90.00	359.68	8,409.0	4,827.0	1,536.9	-8.6	1,537.0	0.00	474,222.73	689,400.33	
9,800.0	90.00	359.68	8,409.0	4,827.0	1,636.9	-9.1	1,637.0	0.00	474,322.73	689,399.78	
9,900.0	90.00	359.68	8,409.0	4,827.0	1,736.9	-9.7	1,737.0	0.00	474,422.73	689,399.22	
10,000.0	90.00	359.68	8,409.0	4,827.0	1,836.9	-10.2	1,837.0	0.00	474,522.73	689,398.66	
10,100.0	90.00	359.68	8,409.0	4,827.0	1,936.9	-10.8	1,937.0	0.00	474,622.73	689,398.10	
10,200.0	90.00	359.68	8,409.0	4,827.0	2,036.9	-11.4	2,037.0	0.00	474,722.73	689,397.55	
10,300.0	90.00	359.68	8,409.0	4,827.0	2,136.9	-11.9	2,137.0	0.00	474,822.72	689,396.99	
10,400.0	90.00	359.68	8,409.0	4,827.0	2,236.9	-12.5	2,237.0	0.00	474,922.72	689,396.43	
10,500.0	90.00	359.68	8,409.0	4,827.0	2,336.9	-13.0	2,337.0	0.00	475,022.72	689,395.88	
10,600.0	90.00	359.68	8,409.0	4,827.0	2,436.9	-13.6	2,437.0	0.00	475,122.72	689,395.32	
10,700.0	90.00	359.68	8,409.0	4,827.0	2,536.9	-14.1	2,537.0	0.00	475,222.72	689,394.76	
10,800.0	90.00	359.68	8,409.0	4,827.0	2,636.9	-14.7	2,637.0	0.00	475,322.72	689,394.20	
10,900.0	90.00	359.68	8,409.0	4,827.0	2,736.9	-15.3	2,737.0	0.00	475,422.72	689,393.65	
11,000.0	90.00	359.68	8,409.0	4,827.0	2,836.9	-15.8	2,837.0	0.00	475,522.71	689,393.09	
11,100.0	90.00	359.68	8,409.0	4,827.0	2,936.9	-16.4	2,937.0	0.00	475,622.71	689,392.53	
11,200.0	90.00	359.68	8,409.0	4,827.0	3,036.9	-16.9	3,037.0	0.00	475,722.71	689,391.97	
11,300.0	90.00	359.68	8,409.0	4,827.0	3,136.9	-17.5	3,137.0	0.00	475,822.71	689,391.42	
11,400.0	90.00	359.68	8,409.0	4,827.0	3,236.9	-18.0	3,237.0	0.00	475,922.71	689,390.86	
11,500.0	90.00	359.68	8,409.0	4,827.0	3,336.9	-18.6	3,337.0	0.00	476,022.71	689,390.30	
11,600.0	90.00	359.68	8,409.0	4,827.0	3,436.9	-19.2	3,437.0	0.00	476,122.70	689,389.74	
11,700.0	90.00	359.68	8,409.0	4,827.0	3,536.9	-19.7	3,537.0	0.00	476,222.70	689,389.19	



Pathfinder
PathfinderX & Y Report

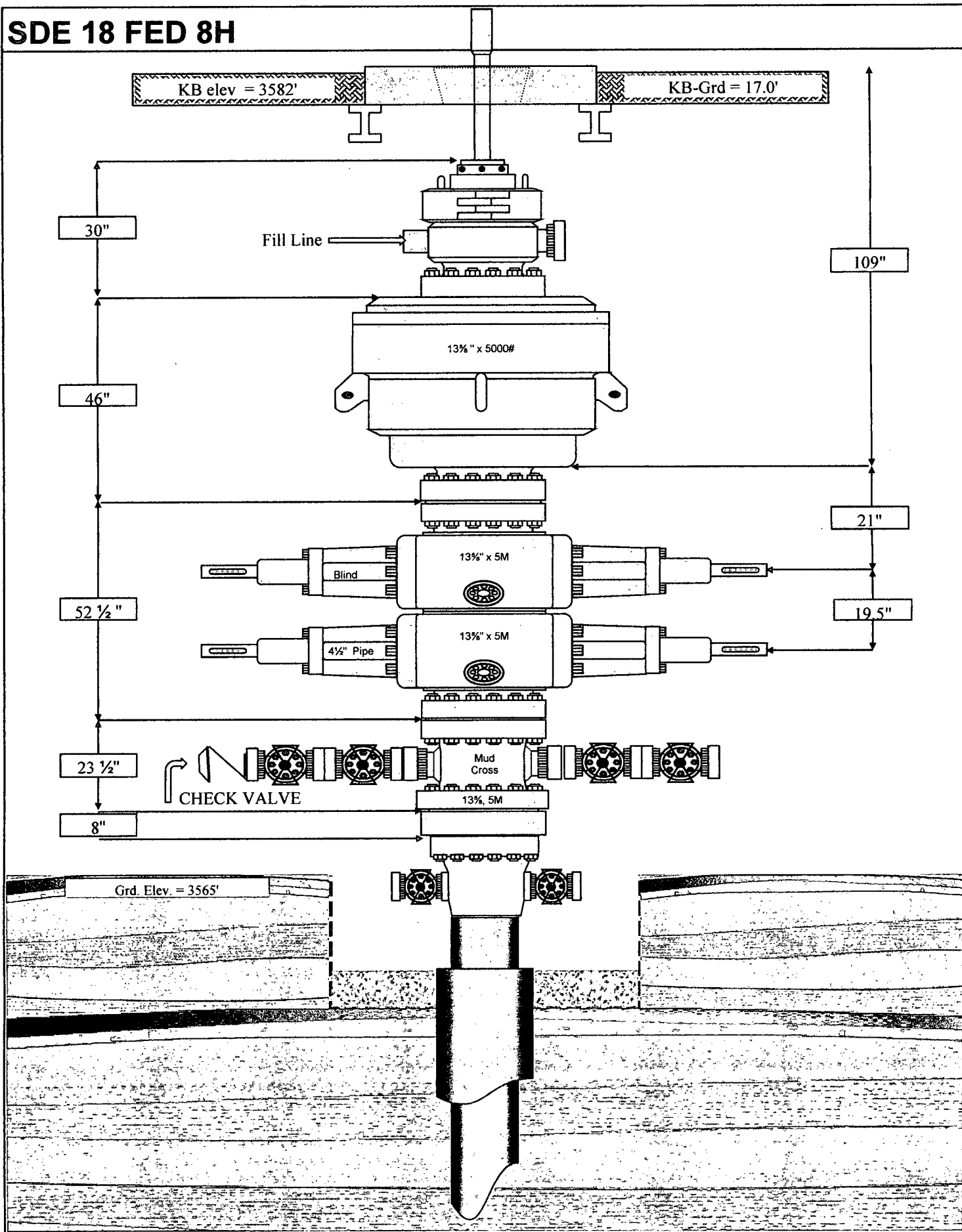


Company:	XTO Energy Co	Local Co-ordinate Reference:	Well #8H
Project:	Lea County	TVD Reference:	KB = 17' @ 3582.0usft (Pioneer 33)
Site:	SDE Federal	MD Reference:	KB = 17' @ 3582.0usft (Pioneer 33)
Well:	#8H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
11,800.0	90.00	359.68	8,409.0	4,827.0	3,636.9	-20.3	3,637.0	0.00	476,322.70	689,388.63	
11,900.0	90.00	359.68	8,409.0	4,827.0	3,736.9	-20.8	3,737.0	0.00	476,422.70	689,388.07	
12,000.0	90.00	359.68	8,409.0	4,827.0	3,836.9	-21.4	3,837.0	0.00	476,522.70	689,387.52	
12,100.0	90.00	359.68	8,409.0	4,827.0	3,936.9	-21.9	3,937.0	0.00	476,622.70	689,386.96	
12,200.0	90.00	359.68	8,409.0	4,827.0	4,036.9	-22.5	4,037.0	0.00	476,722.70	689,386.40	
12,300.0	90.00	359.68	8,409.0	4,827.0	4,136.9	-23.1	4,137.0	0.00	476,822.69	689,385.84	
12,400.0	90.00	359.68	8,409.0	4,827.0	4,236.9	-23.6	4,237.0	0.00	476,922.69	689,385.29	
12,500.0	90.00	359.68	8,409.0	4,827.0	4,336.9	-24.2	4,337.0	0.00	477,022.69	689,384.73	
12,600.0	90.00	359.68	8,409.0	4,827.0	4,436.9	-24.7	4,437.0	0.00	477,122.69	689,384.17	
12,700.0	90.00	359.68	8,409.0	4,827.0	4,536.9	-25.3	4,537.0	0.00	477,222.69	689,383.61	
12,738.4	90.00	359.68	8,409.0	4,827.0	4,575.3	-25.5	4,575.4	0.00	477,261.10	689,383.40	

Checked By: _____	Approved By: _____	Date: _____
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SDE 18 FED 8H



Drilling Operations
Choke Manifold
5M Service

Exhibit E-1 – Choke Manifold Diagram

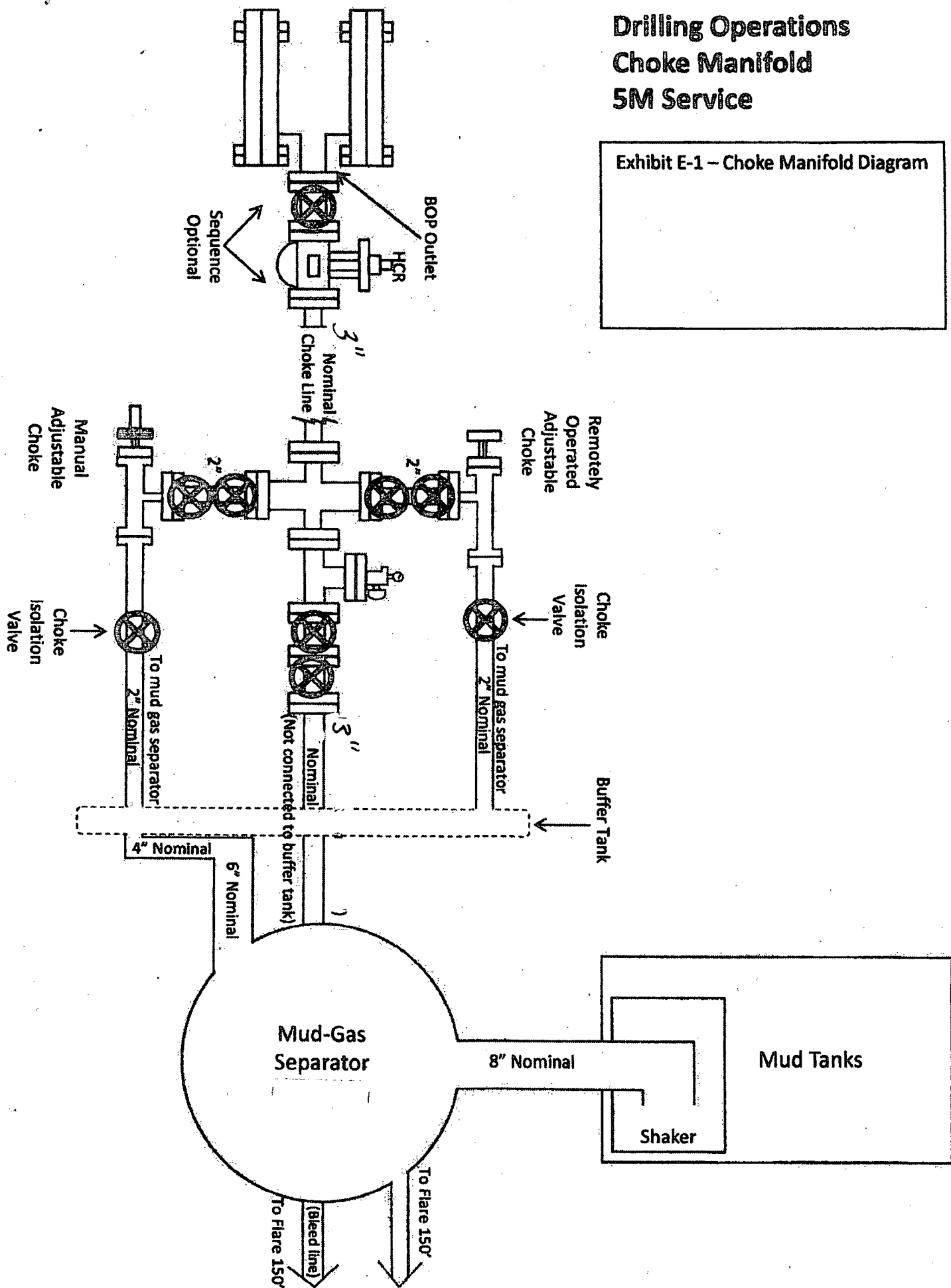
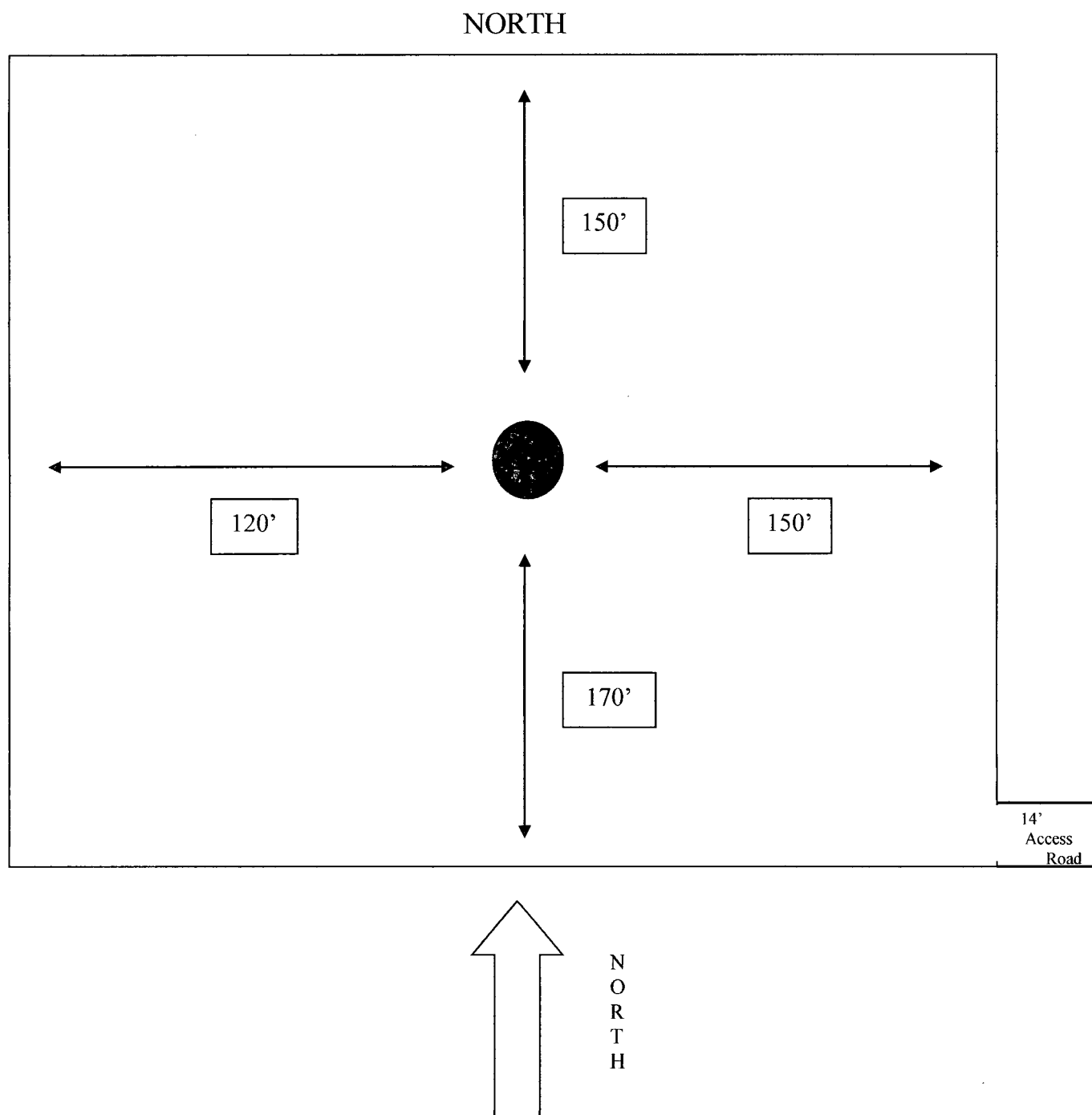
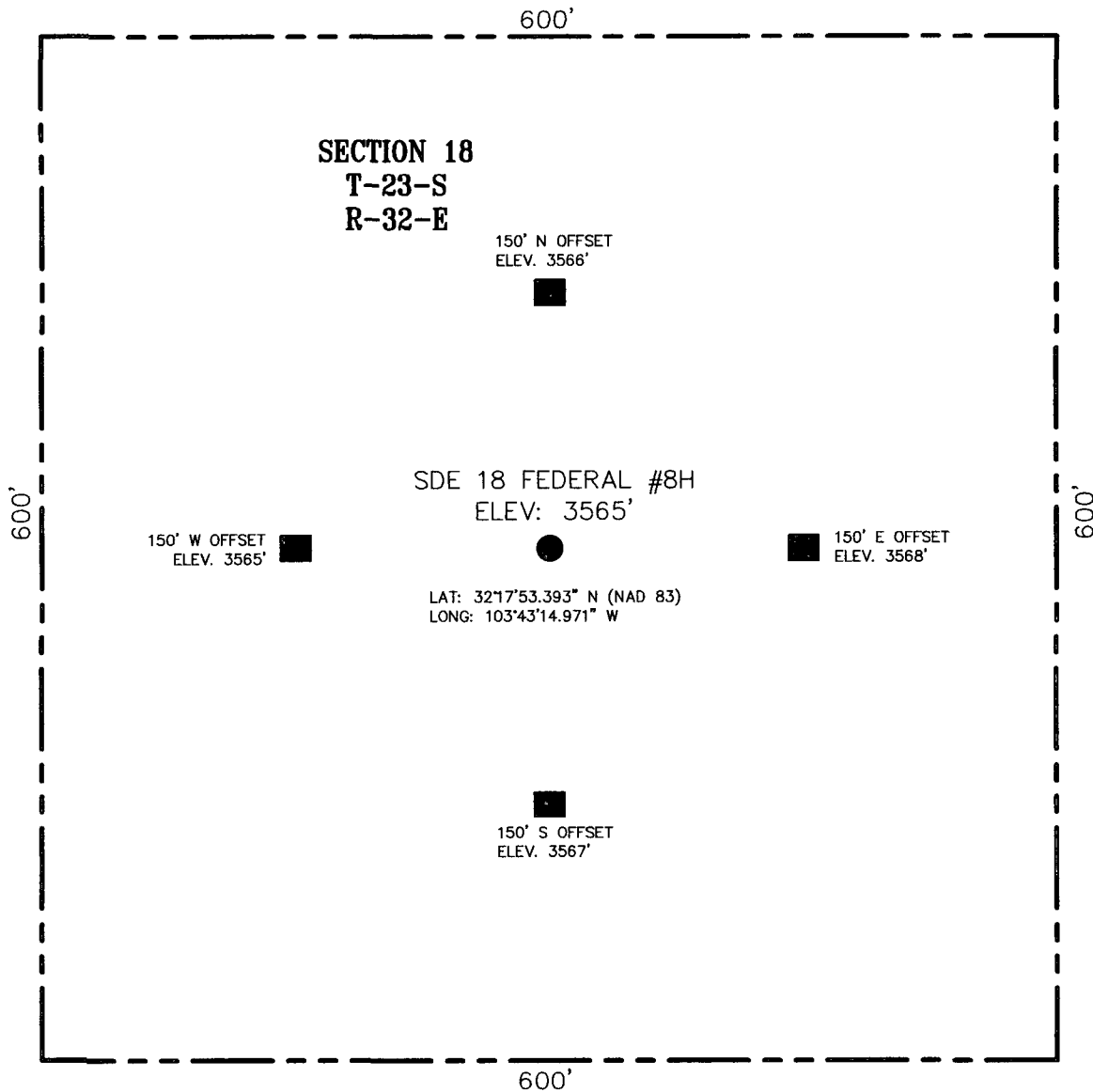


EXHIBIT D

**Rig Plat Only
SDE 18 FED 8H
V-DOOR NORTH**



LEA COUNTY, NEW MEXICO
SECTION 18, TOWNSHIP 23 SOUTH, RANGE 32 EAST
NEW MEXICO PRINCIPAL MERIDIAN

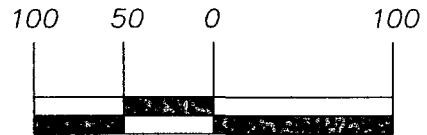


DIRECTIONS TO LOCATION
BEGINNING AT THE INTERSECTION OF US HIGHWAY 128 (JAL HIGHWAY)
AND A CALICHE ROAD (RED ROAD).

THENCE NORTH ALONG SAID RED ROAD A DISTANCE OF 1.7 MILES TO
A CALICHE ROAD,

THENCE EAST-SOUTHEAST ALONG SAID ROAD A DISTANCE OF 1.1
MILES TO A CALICHE ROAD,

THENCE NORTH ALONG SAID ROAD A DISTANCE OF 1.8 MILES TO A
POINT, SDE 18 FEDERAL #8H IS 350 FEET WEST.



SCALE 1" = 100'
GRID

John F. Watson & Company

LAND & DEVELOPMENT SERVICES
PROFESSIONAL LAND SURVEYORS

200 N. Loraine, Suite 220
Midland, Texas 79701
jwatson@windearthwater.com

off. (432) 520-2400
fax. (432) 520-2404
mob. (432) 528-0074

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**Watson
Professional
Group Inc**



P.O. DRAWER 11186
MIDLAND, TEXAS
79702
(432) 520-9200
FAX (432)
520-9212
w@watson@wpg-usa.com

CONSULTING ENGINEERS, LAND SURVEYORS & PLANNERS

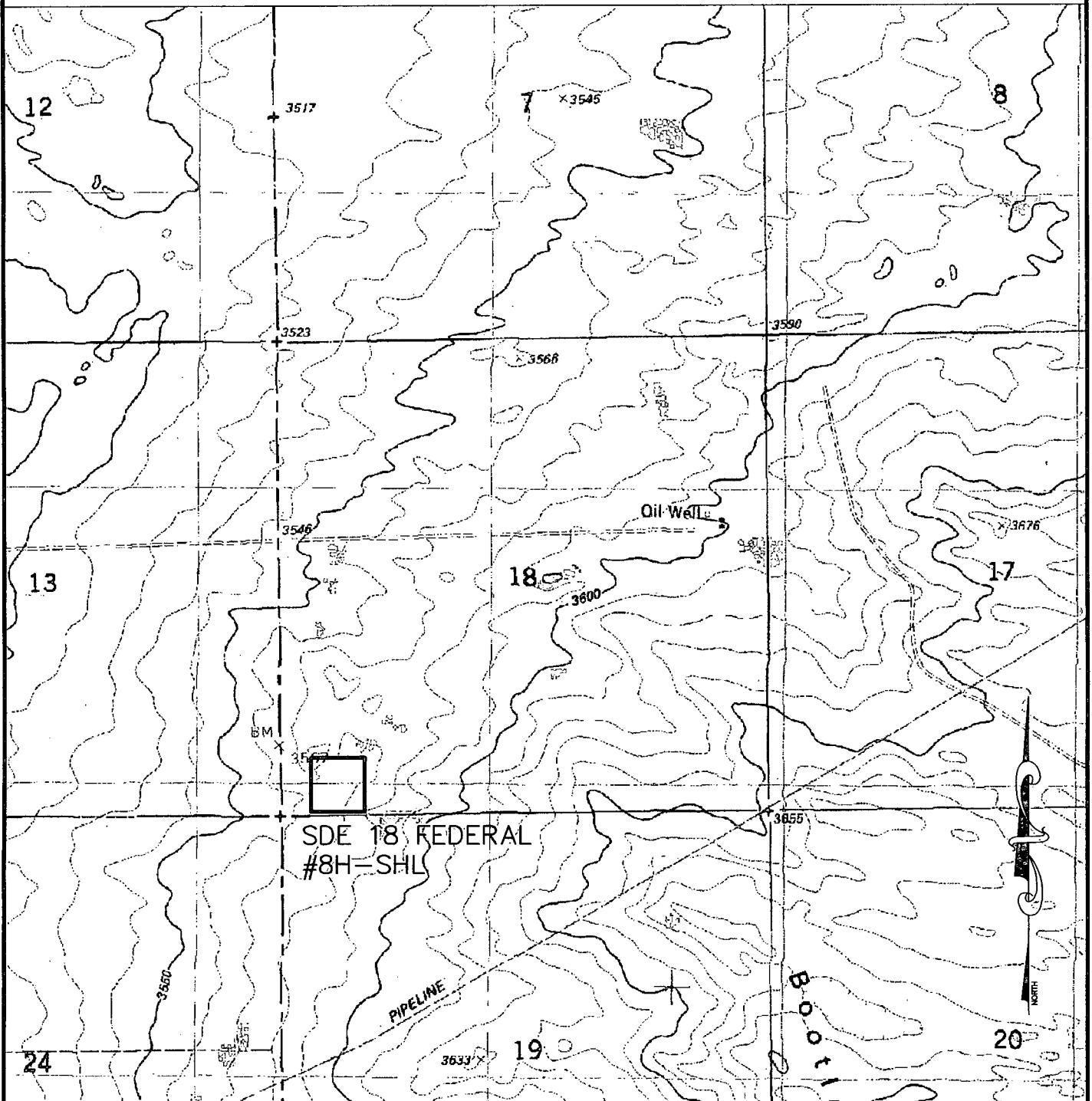
XTO ENERGY, INC.
SDE 18 FEDERAL #8H
660' FWL & 350' FSL
SECTION 18
T-23-S,
R-32-E,
LEA COUNTY,
NEW MEXICO

DATE: 06/19/2012
JOB No.: 12-0114
FIELD BOOK: JC 105/39
DRAWN BY: KP
CHKD BY: JFW/KP
FILE: S:\2012\LEA CO.\
T-23-S, R-32-E LEA CO.

PAGE 1 OF 1

LOCATION VERIFICATION MAP

LEA COUNTY, NEW MEXICO
SECTION 18, TOWNSHIP 23 SOUTH, RANGE 32 EAST
NEW MEXICO PRINCIPAL MERIDIAN



USGS QUAD MAP:
MALJAMAR

NOT TO SCALE

John F. Watson & Company

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PROFESSIONAL LAND SURVEYORS

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Professional
Group Inc**



P.O. DRAWER 11186
MIDLAND, TEXAS
79702
(432) 520-9200
FAX (432)
520-9212
wdwatson@wpg-us.com

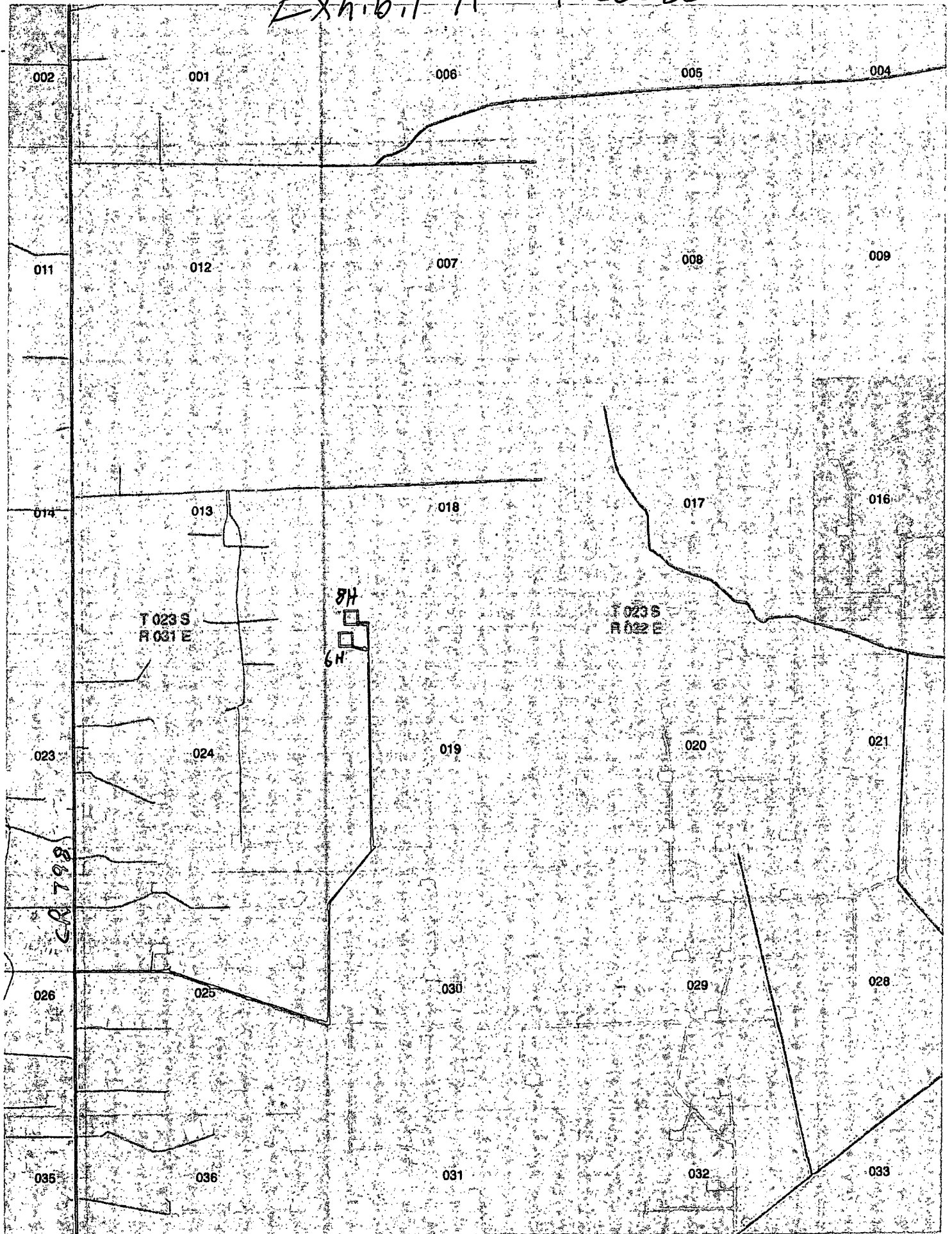
CONSULTING ENGINEERS, LAND SURVEYORS & PLANNERS

XTO ENERGY, INC.
SDE FEDERAL #8H
660' FWL & 350' FSL
SECTION 18
T-23-S,
R-32-E,
LEA COUNTY,
NEW MEXICO

DATE: 08/19/2012
JOB No.: 12-0114
FIELD BOOK: JC 108/39
DRAWN BY: KP
CHKD BY: JFW/KP
FILE: S:\2012\LEA CO.\
T-23-S, R-32-E LEA CO.

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Exhibit A Access



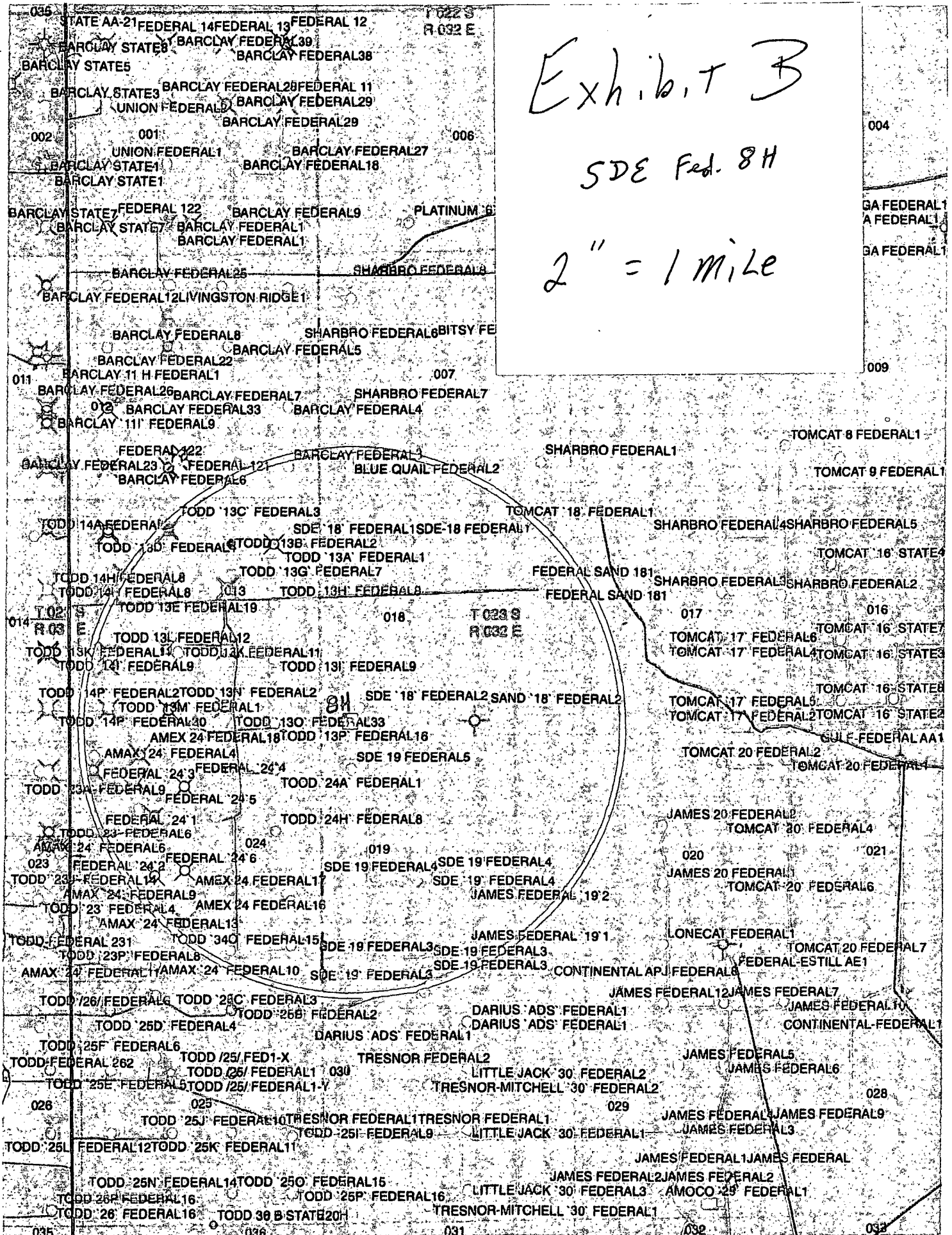


Exhibit B

SDE Fed. 8H

2" = 1 mile