RECEIVED

DEC 14 2009

Bureau of Land Management
Farmington Field Office

Form 3160-3
(April 2004)

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

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. NMNM 103503
	6. If Indian, Allotee or Tribe Name N/A
1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	7. If Unit or CA Agreement, Name and No. NMNM87178
2. Name of Operator XTO Energy Inc.	8. Lease Name and Well No. Grassy Canyon #8
3a. Address 382 CR 3100 Aztec, NM 87410 / 3b. Phone No. (include area code) 505/ 333-3100	9. API Well No. 30-045-35067
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 915' FNL x 2430' FEL At proposed prod. zone 2262' FSL x 2227 FEL	10. Field and Pool, or Exploratory Basin Fruitland Coal
	11. Sec., T. R. M. or Blk. and Survey or Area (B) Sec. 31-T32N-R7W
14. Distance in miles and direction from nearest town or post office* Approximately 22.5 miles NE of Aztec, NM P.O.	12. County or Parish San Juan / 13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 915' / 16. No. of acres in lease 1131.12 / 17. Spacing Unit dedicated to this well 309.74 FC: S/2 ~~275.65~~	RCVD APR 1'10 OIL CONS. DIV.
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 100' / 19. Proposed Depth 4475' / 20. BLM/BIA Bond No. on file UTB000138	DIST. 3
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6807' Ground Elevation / 22. Approximate date work will start* 04/30/2010 / 23. Estimated duration 2 Weeks

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

24. Attachments

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

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

25. Signature	Name (Printed/Typed)	Date
Malia Villers	Malia Villers	12/11/2009
Title: Permitting Tech.		
Approved by (Signature) /s/ Matthew Kresse	Name (Printed/Typed)	Date 3/31/2010
Title AFM	Office FFO	

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.

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

*(Instructions on page 2)

Hold C104 for Directional Survey and "As Drilled" plat

NOTIFY AZTEC ... 24 HRS.

PRIOR TO CASING & CEMENT

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

SEE ATTACHED FOR CONDITIONS OF APPROVAL

NMOCD 8/4/23

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

HOLD C104 FOR NSL

APR 28 2010

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 W. Grand Ave., Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-35067	71629	Basin Fruitland Coal

[4] Property Code	[5] Property Name	[6] Well Number
303846	GRASSY CANYON	8

[7] OGRID No.	[8] Operator Name	[9] Elevation
5380	XTO ENERGY INC.	6807'

[10] Surface Location

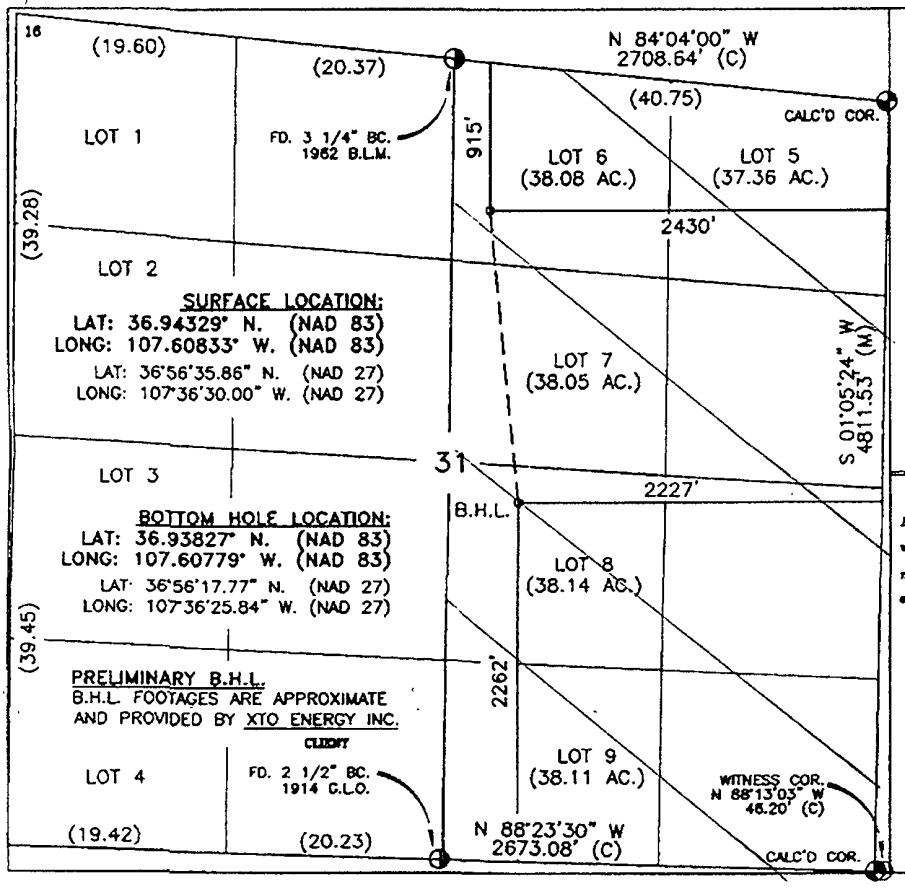
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	31	32-N	7-W	6	915	NORTH	2430	EAST	SAN JUAN

[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
J	31	32-N	7-W	8	2262	SOUTH	2227	EAST	SAN JUAN

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
E/2 309.74			

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



[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.

Malin Villers 4/9/10
Signature Date

Malin Villers
Printed Name

[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 knowledge and belief.

JULY 31, 2006
Date of Survey

Signature and Seal of Professional Surveyor:

NEW MEXICO
8894
REGISTERED PROFESSIONAL LAND SURVEYOR

11-09
8894

Certificate Number

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
APR 12 2010
Bureau of Land Management
Farmington Field Office

FORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.
NMNM 83503

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA/Agreement, Name and/or No
NMNM87178

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

8. Well Name and No.
GRASSY CANYON #8

2 Name of Operator
XTO ENERGY INC.

9. API Well No.
30-045-35067

3a. Address
382 RD 3100, AZTEC, NM 87410

3b. Phone No. *(include area code)*
505-333-3100

10. Field and Pool, or Exploratory Area
BASIN FRUITLAND COAL

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
SHL 915' FNL x 2430' FEL (B) Sec. 31, T32N, R7W
BHL 2262' FSL x 2227' FEL

11. County or Parish, State
SAN JUAN NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other REVISED C-102
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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

Please see revised C-102.

RCVD APR 20 '10
OIL CONS. DIV.
DIST. 3

Per NMOCD request: S/2 → E/2 dedication

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)* Malia Villers — Title Permitting Tech.

Signature Malia Villers — Date 4/9/2010

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Troy L. Salyers — Title Petroleum Engineer — Date 4/13/2010

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. — Office FFO

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes 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.

NMOCD

XTO ENERGY INC.

Grassy Canyon #8
APD Data
December 9, 2009

Location: 915' FNL x 2430' FEL Sec 31, T32N, R07W **County**: San Juan **State**: NM
Bottomhole Location: 2262' FSL x 2227' FEL Sec 31, T32N, R07W

GREATEST PROJECTED TD: 4475' MD, 3900' TVD OBJECTIVE: Fruitland Coal
APPROX GR ELEV: 6807' Est KB ELEV: 6819' (12' AGL)

Please note attached directional program.

1. MUD PROGRAM:

INTERVAL	0' to 250'	225' to 4475'
HOLE SIZE	12.25"	7.875"
MUD TYPE	FW/Spud Mud	FW/Polymer
WEIGHT	8.6-9.0	8.4-9.2
VISCOSITY	28-32	28-32
WATER LOSS	NC	NC

Remarks: Use fibrous materials as needed to control seepage and lost circulation. Pump high viscosity sweeps as needed for hole cleaning. Raise viscosity at TD for logging. Reduce viscosity after logging for cementing purposes.

2. CASING PROGRAM:

Surface Casing: 8.625" casing to be set at ± 250' in a 12-1/4" hole filled with 8.50 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-250'	250'	24.0#	J-55	ST&C	1370	2950	244	8.097	7.972	13.77	29.66	45.18

Production Casing: 5.5" casing to be set at TD (±4475') in 7-7/8" hole filled with 9.2 ppg mud.

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-4475	4475'	17.0#	J-55	ST&C	4910	5320	229	4.892	4.767	2.63	2.85	3.01

Note: Safety factors are calculated based on a 9.2 ppg mwe with no backup using measured depth assumed to be in a vertical wellbore.

3. WELLHEAD:

A. Casing Head: Larkin Fig 92 (or equivalent), 9" nominal, 2,000 psig WP (4,000 psig test) with 8-5/8" 8rnd thread on bottom and 11-3/4" 8rnd thread on top.
B. Tubing Head: Larkin Fig 612 (or equivalent), 6.456" nominal, 2,000 psig WP (4,000 psig test), 5-1/2" 8rnd female thread on bottom (or slip-on, weld-on), 8-5/8" 8rnd thread on top.

4. CEMENT PROGRAM (Slurry design may change slightly, but the plan is to circulate cement to surface on both casing strings):

A. Surface: 8.625", 24.0#, J-55, ST&C casing to be set at ± 250' in 12-1/4" hole.

134 sx of Type III cement (or equivalent) typically containing accelerator and LCM, mixed at 14.5 ppg, 1.39 ft^3/sk, & 6.70 gal wtr/sk.

Total slurry volume is 186 ft^3, 100% excess of calculated annular volume to 250'.

B. Production: 5.5", 17.0#, J-55 (or K-55), ST&C casing to be set at ±4475' in 7.875" hole.

LEAD:
±464 sx of Premium Lite HS (Type III/Poz/Gel) or equivalent, with dispersant, fluid loss, accelerator, & LCM mixed at 12.5 ppg, 2.01 ft^3/sk, 10.55 gal wtr/sx.

TAIL:
±100 sx Type III or equivalent cement with bonding additive, LCM, dispersant, & fluid loss mixed at 14.2 ppg, 1.54 cuft/sx, 8.00 gal/sx.

Total estimated slurry volume for the 5-1/2" production casing is 1086 ft^3.

Note: The slurry design may change slightly based upon actual conditions. Final cement volumes will be determined from the caliper logs plus 40%. It will be attempted to circulate cement to the surface.

5. LOGGING PROGRAM:

A. Mud Logger: If requested by Fort Worth Geology, the mud logger will come on at 1,500' and will remain on the hole until TD. The mud will be logged in 10' intervals.

B. Open Hole Logs as follows: Run Array Induction/SFL/GR/SP fr/TD (4475') to the bottom of the surface csg. Run Neutron/Lithodensity/Pe/GR/Cal from TD (4475') to the bottom of the surface csg.

6. FORMATION TOPS:

Please see directional plat for estimated formation tops. BHP anticipated to be less than 1,500 psi.

7. COMPANY PERSONNEL:

Name	Title	Office Phone	Home Phone
Justin Niederhofer	Drilling Engineer	505-333-3199	505-320-0158
Bobby Jackson	Drilling Superintendent	505-333-3224	505-486-4706
John Klutsch	Project Geologist	817-885-2800	N/A

JDN
12/9/09

Database:	EDM 2003.21 Single User Db	**Local Co-ordinate Reference:**	Well Grassy Canyon #8
Company:	XTO Energy	**TVD Reference:**	Rig KB @ 6819.0ft (Aztec 507)
Project:	San Juan Basin (NAD 83)	**MD Reference:**	Rig KB @ 6819.0ft (Aztec 507)
Site:	Grassy Canyon #8	**North Reference:**	True
Well:	Grassy Canyon #8	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Grassy Canyon #8		
Design:	Permitted Wellbore		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,000.0	10.00	175.06	3,431.9	-1,745.4	150.7	1,751.9	0.00	0.00	0.00
4,034.6	10.00	175.06	3,466.0	-1,751.4	151.2	1,757.9	0.00	0.00	0.00
Middle Fruitland Coal									
4,100.0	10.00	175.06	3,530.4	-1,762.7	152.2	1,769.2	0.00	0.00	0.00
4,171.7	10.00	175.06	3,601.0	-1,775.1	153.3	1,781.7	0.00	0.00	0.00
Pictured Cliffs Tounge									
4,200.0	10.00	175.06	3,628.9	-1,780.0	153.7	1,786.6	0.00	0.00	0.00
4,276.3	10.00	175.06	3,704.0	-1,793.2	154.8	1,799.9	0.00	0.00	0.00
Pictured Cliffs									
4,300.0	10.00	175.06	3,727.3	-1,797.3	155.2	1,804.0	0.00	0.00	0.00
4,379.9	10.00	175.06	3,806.0	-1,811.1	156.4	1,817.8	0.00	0.00	0.00
Base of Pictured Cliffs									
4,400.0	10.00	175.06	3,825.8	-1,814.6	156.7	1,821.3	0.00	0.00	0.00
4,475.3	10.00	175.06	3,900.0	-1,827.6	157.8	1,834.4	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (m)	Easting (m)	Latitude	Longitude
Proposed BHL--Grassy - plan hits target - Rectangle (sides W20.0 H20.0 D0.0)	0.00	0.00	3,900.0	-1,827.6	157.8	658,654.91	850,090.55	36° 56' 17.772 N	107° 36' 28.044 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
250.0	250.0	8 5/8"	8.625	12.250
4,475.3	3,900.0	5 1/2"	5.500	7.875

Formations

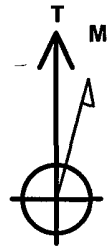
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,024.1	2,542.0	Ojo Alamo SS		0.00	
3,143.4	2,639.0	Kirtland Shale		0.00	
3,608.6	3,053.0	Fruitland Formation		0.00	
3,935.1	3,368.0	Upper Fruitland Coal		0.00	
4,034.6	3,466.0	Middle Fruitland Coal		0.00	
4,171.7	3,601.0	Pictured Cliffs Tounge		0.00	
4,276.3	3,704.0	Pictured Cliffs		0.00	
4,379.9	3,806.0	Base of Pictured Cliffs		0.00	

XTO ENERGY

Well Name: Grassy Canyon #8

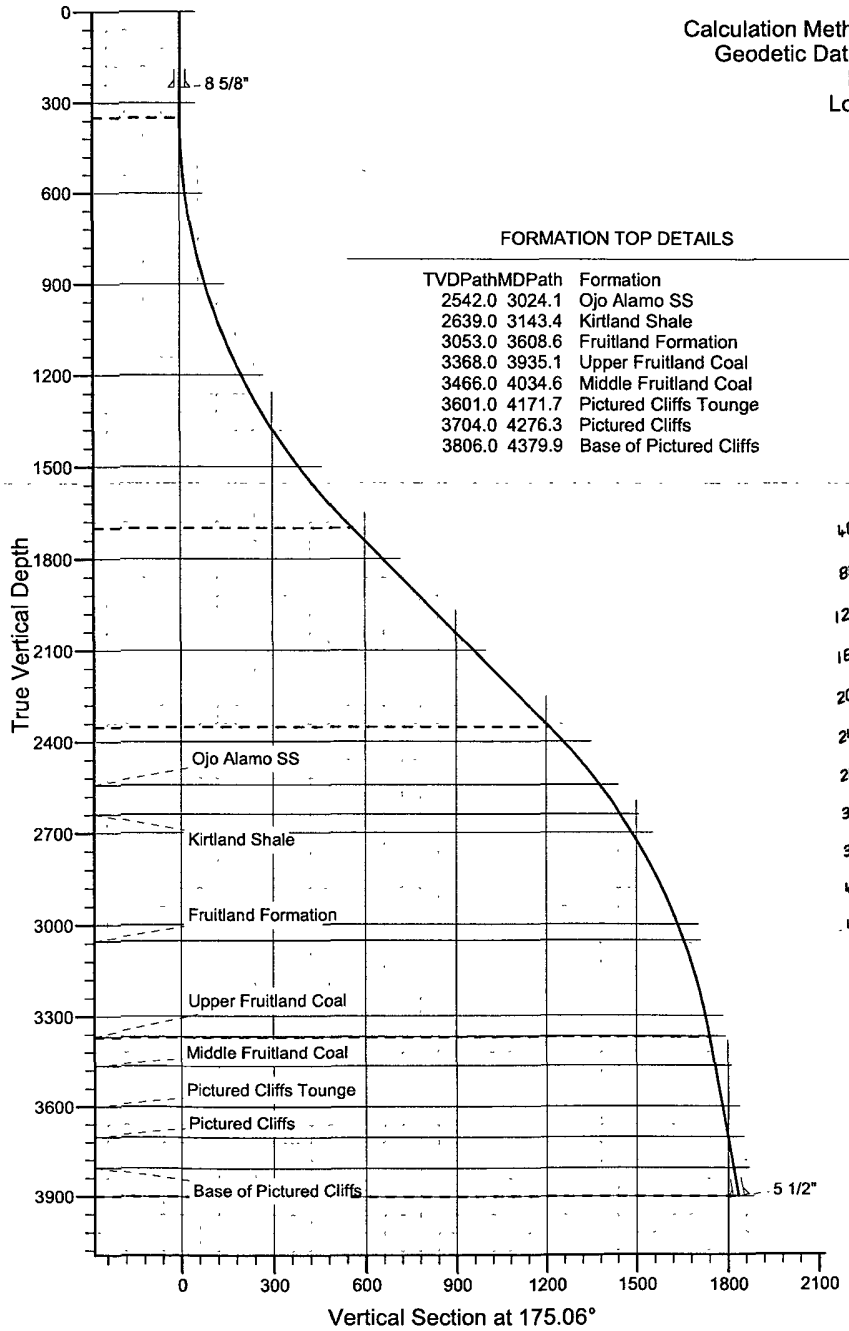
San Juan Division
Drilling Department

Calculation Method: Minimum Curvature
Geodetic Datum: North American Datum 1983
Lat: 36° 56' 35.844 N
Long: 107° 36' 29.988 W



Azimuths to True North
Magnetic North: 10.04°

Magnetic Field
Strength: 51058.9snT
Dip Angle: 63.72°
Date: 11/2/2009
Model: IGRF200510

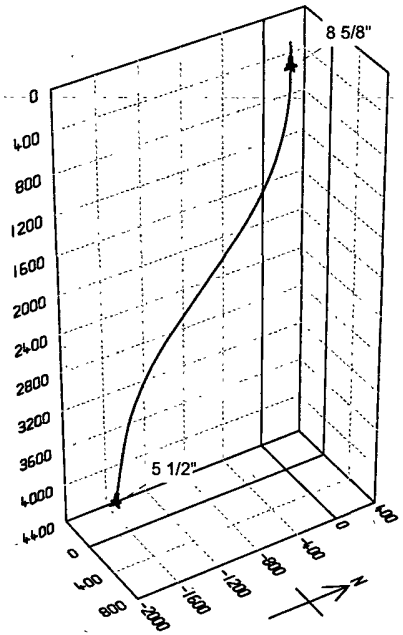


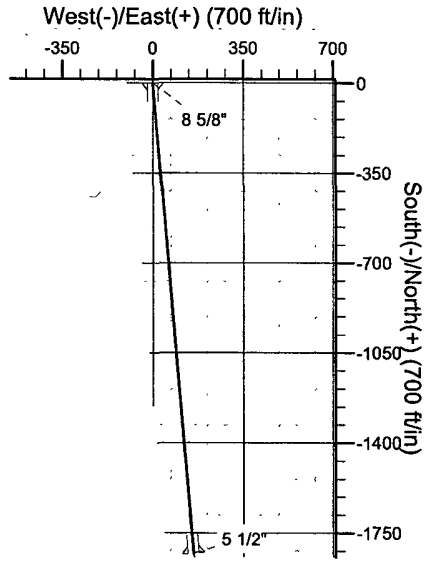
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2542.0	3024.1	Ojo Alamo SS
2639.0	3143.4	Kirtland Shale
3053.0	3608.6	Fruitland Formation
3368.0	3935.1	Upper Fruitland Coal
3466.0	4034.6	Middle Fruitland Coal
3601.0	4171.7	Pictured Cliffs Tounge
3704.0	4276.3	Pictured Cliffs
3806.0	4379.9	Base of Pictured Cliffs

CASING DETAILS

TVD	MD	Name	Size
250.0	250.0	8 5/8"	8.625
3900.0	4475.3	5 1/2"	5.500





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	350.0	0.00	0.00	350.0	0.0	0.0	0.00	0.00	0.0	
3	1850.0	45.00	175.06	1700.5	-557.3	48.1	3.00	175.06	559.4	
4	2771.1	45.00	175.06	2351.8	-1206.2	104.2	0.00	0.00	1210.7	
5	3937.8	10.00	175.06	3370.6	-1734.6	149.8	3.00	180.00	1741.1	
6	4475.3	10.00	175.06	3900.0	-1827.6	157.8	0.00	0.00	1834.4	Proposed BHL--Grassy Canyon #8

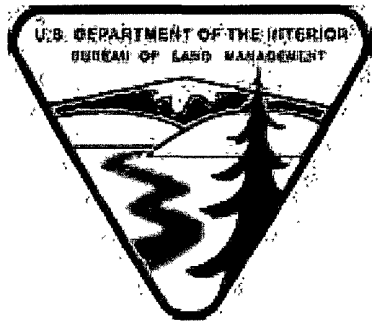
DRILLING CONDITIONS OF APPROVAL

Operator: XTO Energy
Lease No.: NMNM-83503
Well Name: Grassy Canyon #8
Well Location: Sec.31, T32N, R7W; 915' FNL & 2430' FEL

1) **Test the BOP and all components to a minimum of 1500 psi high for 10 minutes and 250 psi low for 10 minutes.**

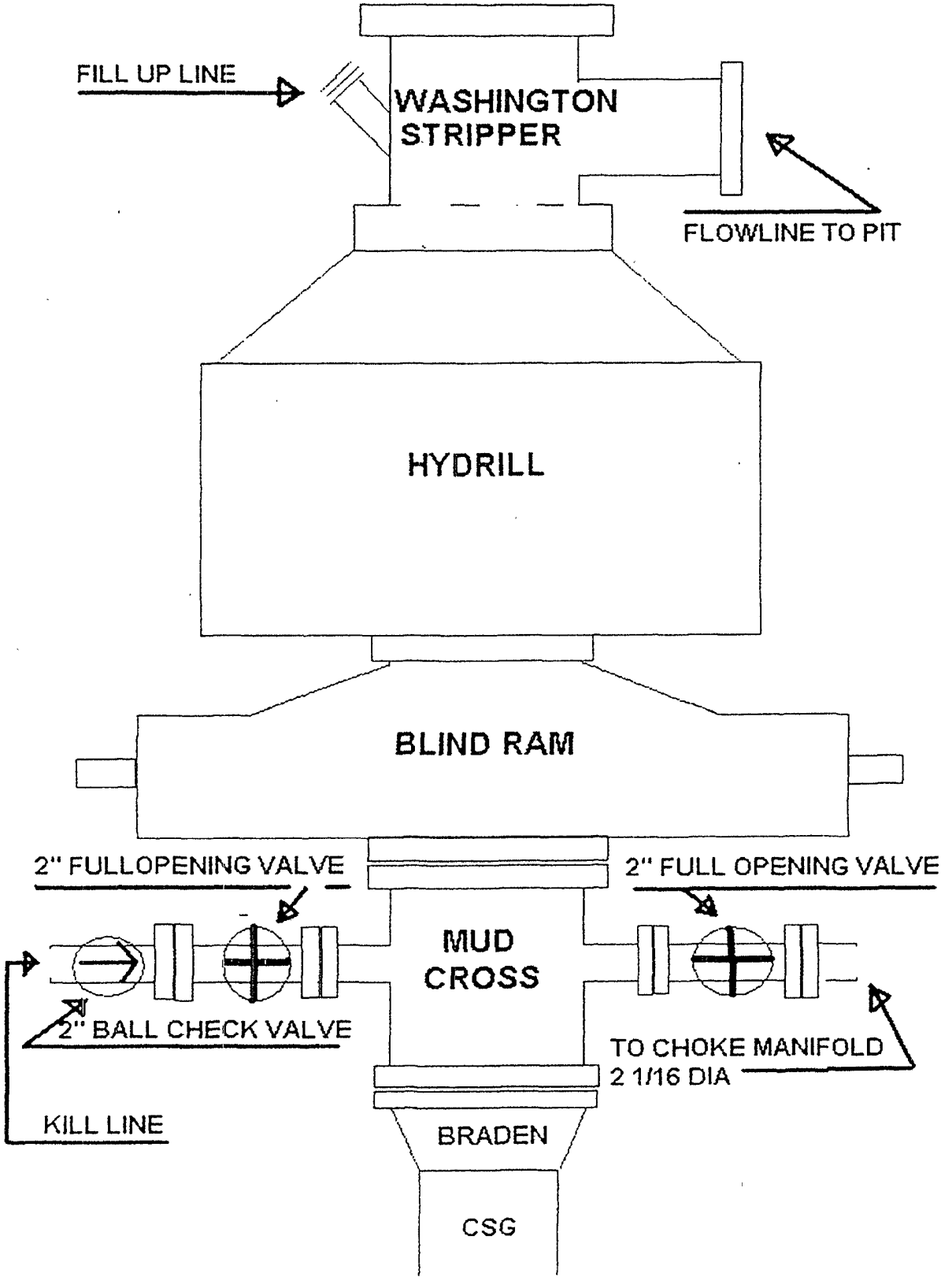
2) **Pressure test the surface casing to a minimum of 600 psi for 30 minutes.**

3) **Pressure test the 5.5" casing to minimum of 1500 psi for 30 minutes**.



After hour contact: Troy Salyers 505-360-9815

AWS 507


FILL UP LINE
WASHINGTON STRIPPER
FLOWLINE TO PIT
HYDRILL
BLIND RAM
2" FULLOPENING VALVE
2" FULL OPENING VALVE
MUD CROSS
2" BALL CHECK VALVE
TO CHOKE MANIFOLD
2 1/16 DIA
KILL LINE
BRADEN
CSG

CHOKE MANIFOLD
SCHEMATIC FOR DRILLING OPERATIONS
CLASS 1 (2M) NORMAL PRESSURE

TESTING PROCEDURE

1. Stake all lines from choke manifold to pit.
2. Pressure test choke manifold after installation.
3. Pressure test manifold at the same time with the BOP Stack. Test manifold to the same test pressures.