

RECEIVED

Form 3160-3
(April 2004)

AUG 26 2010

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Farmington Field Office
Bureau of Land Management
Serial No. NMNM-013642

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		6. If Indian, Allottee 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. N/A
2. Name of Operator XTO Energy Inc.		8. Lease Name and Well No. Gardner C #5R
3a. Address 382 CR 3100 Aztec, NM 87410	3b. Phone No. (include area code) 505/ 333-3100	9. API Well No. 30-045- 35794
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1691' FSL x 1119' FWL At proposed prod. zone 670' FSL x 680' FWL		10. Field and Pool, or Exploratory BASIN FRUITLAND COAL
14. Distance in miles and direction from nearest town or post office* Approximately 16 miles NE of the Aztec P.O.		11. Sec., T. R. M. or Blk. and Survey or Area (L) Sec 26, T32N, R9W
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1119'	16. No. of acres in lease 2264.04	17. Spacing Unit dedicated to this well FC: S/2 320 322.24
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 109'	19. Proposed Depth 3919' MD/ 3700' TVD	20. BLM/BIA Bond No. on file UTB000138
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6581' Ground Elevation	22. Approximate date work will start* 09/06/2010	23. Estimated duration 2 Weeks

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall 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 shall 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 authorized officer.

25. Signature <i>Malia Villers</i>	Name (Printed/Typed) Malia Villers	Date 08/25/2010
---------------------------------------	---------------------------------------	--------------------

Title
Permitting Tech.

Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed) AFM	Date 10/18/2010
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 C-104 for isolation/PA study of the Gardner C#5

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".

NMOCD

NOV 18 2010

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

REV OCT 25 10
BLM OPS. DIV.
DIST. 3

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

AUG 26 2010

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35194	² Pool Code 71629	³ Pool Name Basin Fruitland Coal
⁴ Property Code 306456	⁵ Property Name GARDNER C	⁶ Well Number 5R
⁷ OGRID No. 5380	⁸ Operator Name XTO ENERGY INC.	⁹ Elevation 6581'

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
L	26	32-N	9-W	12	1691	SOUTH	1119	WEST	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
M	26	32-N	9-W	13	670	SOUTH	680	WEST	SAN JUAN

¹² Dedicated Acres 5/2 322.24 322.24	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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 B.H.L. FOOTAGES B.H.L. FOOTAGES ARE APPROXIMATE AND PROVIDED BY XTO ENERGY INC. CLIENT LOT 4 LOT 3 LOT 5 SURFACE: LAT: 36.95271° N. (NAD 83) LONG: 107.75489° W. (NAD 83) LAT: 36°57'09.75" N. (NAD 27) LONG: 107°45'17.59" W. (NAD 27) LOT 6 LOT 7 LOT 12 LOT 11 LOT 13 LOT 14 LOT 15 LOT 16 LOT 8 LOT 9 LOT 10 FD. 3 1/4" BC. 1966 B.L.M. N 03°14'44" E 2647.93' 1119' S.H.L. 670' N 88°19'02" E 2676.68' FD. 3 1/4" BC. 1966 B.L.M.	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. Malia Villers 8/25/10 Signature Date Malia 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 belief. AUGUST 27 2010 Date of Survey Signature and Seal of Professional Surveyor: AUGUST 27 2010 00389 PROFESSIONAL LAND SURVEYOR Certificate Number
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XTO ENERGY INC.

Gardner C #5R

APD Data

August 24, 2010

Location: 1691' FSL x 1119' FWL Sec 26, T32N, R09W County: San Juan

State: NM

Bottomhole Location: 670' FSL x 680' FWL Sec 26, T32N, R09W

GREATEST PROJECTED TD: 3919' MD, 3700' TVD
APPROX GR ELEV: 6581'

OBJECTIVE: Fruitland Coal
Est KB ELEV: 6593' (12' AGL)

Please note attached directional program.

1. MUD PROGRAM:

INTERVAL	0' to 250'	250' to 3919'
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 $\pm 250'$ 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 ($\pm 3919'$) 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'-3919'	3919'	17.0#	J-55	ST&C	4910	5320	229	4.892	4.767	2.61	2.84	3.43

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:

- 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.
- 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 $\pm 250'$ in 12-1/4" hole.

149 sx of Type III cement (or equivalent) typically containing accelerator and LCM, mixed at 14.5 ppg, 1.39 ft³/sk, & 6.70 gal wtr/sk.

Total slurry volume is 206 ft³, 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 $\pm 3919'$ in 7.875" hole.

LEAD:

± 390 sx of Premium Lite HS (Type III/Poz/Gel) or equivalent, with dispersant, fluid loss, accelerator, & LCM mixed at 12.5 ppg, 2.01 ft³/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 938 ft³.

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 (3919) to the bottom of the surface csg. Run Neutron/Lithodensity/Pe/GR/Cal from TD (3919') 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
Brian Henthorn	Project Geologist	817-885-2800	N/A

XTO Energy Inc.
Gardner C #5R

October 1, 2010

BOP's will be pressure tested to a high of 3000 psi and a low of 250 psi. Each of these tests will be performed for ten minutes.

We will have both an upper and lower Kelly cock valve with handles available.

There will be safety valves and subs to fit all sizes and threads of drill pipe used on this well.

XTO Energy Inc.

Planning Report

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well Gardner C #5R
Company:	XTO Energy	TVD Reference:	Rig KB @ 6593.0ft (Aztec 507)
Project:	San Juan Basin (NAD 83)	MD Reference:	Rig KB @ 6593.0ft (Aztec 507)
Site:	Gardner C #5R	North Reference:	True
Well:	Gardner C #5R	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gardner C #5R		
Design:	Permitted wellbore -- Gardner C #5R		

Project	San Juan Basin (NAD 83), San Juan Co., NM,		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site Gardner C #5R, T32N, R9W					
Site Position:		Northing:	660,236.39 m	Latitude:	36° 57' 9.756 N
From:	Lat/Long	Easting:	836,986.11 m	Longitude:	107° 45' 17.604 W
Position Uncertainty:	0.0 ft	Slot Radius:	in	Grid Convergence:	0.05 °

Well:	Gardner C #5R, S-well to top of FC					
Well Position	+N/-S	0.0 ft	Northing:	660,236.39 m	Latitude:	36° 57' 9.756 N
	+E/-W	0.0 ft	Easting:	836,986.11 m	Longitude:	107° 45' 17.604 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	6,581.0 ft	Ground Level:	6,581.0 ft

Wellbore	Gardner C #5R				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	10.08	63.70	51,031

Design	Permitted wellbore -- Gardner C #5R			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	205.58

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,133.3	25.00	205.58	1,107.1	-161.4	-77.3	3.00	3.00	0.00	205.58	
2,838.6	25.00	205.58	2,652.6	-811.4	-388.5	0.00	0.00	0.00	0.00	
3,338.6	10.00	205.58	3,128.1	-946.6	-453.2	3.00	-3.00	0.00	180.00	
3,919.3	10.00	205.58	3,700.0	-1,037.6	-496.7	0.00	0.00	0.00	0.00	Proposed BHL -- Garr

XTO Energy Inc.

Planning Report

Database: EDM 2003.21 Single User Db
 Company: XTO Energy
 Project: San Juan Basin (NAD 83)
 Site: Gardner C #5R
 Well: Gardner C #5R
 Wellbore: Gardner C #5R
 Design: Permitted wellbore -- Gardner C #5R

Local Co-ordinate Reference: Well Gardner C #5R
 TVD Reference: Rig KB @ 6593.0ft (Aztec 507)
 MD Reference: Rig KB @ 6593.0ft (Aztec 507)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	0.00
8 5/8"									
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	3.00	205.58	400.0	-2.4	-1.1	2.6	3.00	3.00	0.00
500.0	6.00	205.58	499.6	-9.4	-4.5	10.5	3.00	3.00	0.00
600.0	9.00	205.58	598.8	-21.2	-10.2	23.5	3.00	3.00	0.00
700.0	12.00	205.58	697.1	-37.6	-18.0	41.7	3.00	3.00	0.00
800.0	15.00	205.58	794.3	-58.7	-28.1	65.1	3.00	3.00	0.00
900.0	18.00	205.58	890.2	-84.3	-40.4	93.5	3.00	3.00	0.00
1,000.0	21.00	205.58	984.4	-114.4	-54.8	126.9	3.00	3.00	0.00
1,100.0	24.00	205.58	1,076.8	-148.9	-71.3	165.1	3.00	3.00	0.00
1,133.3	25.00	205.58	1,107.1	-161.4	-77.3	178.9	3.00	3.00	0.00
1,200.0	25.00	205.58	1,167.6	-186.8	-89.4	207.1	0.00	0.00	0.00
1,300.0	25.00	205.58	1,258.2	-224.9	-107.7	249.4	0.00	0.00	0.00
1,400.0	25.00	205.58	1,348.8	-263.0	-125.9	291.6	0.00	0.00	0.00
1,500.0	25.00	205.58	1,439.5	-301.2	-144.2	333.9	0.00	0.00	0.00
1,600.0	25.00	205.58	1,530.1	-339.3	-162.4	376.2	0.00	0.00	0.00
1,700.0	25.00	205.58	1,620.7	-377.4	-180.7	418.4	0.00	0.00	0.00
1,800.0	25.00	205.58	1,711.3	-415.5	-198.9	460.7	0.00	0.00	0.00
1,900.0	25.00	205.58	1,802.0	-453.6	-217.2	502.9	0.00	0.00	0.00
2,000.0	25.00	205.58	1,892.6	-491.8	-235.4	545.2	0.00	0.00	0.00
2,011.5	25.00	205.58	1,903.0	-496.1	-237.5	550.1	0.00	0.00	0.00
Ojo Alamo SS									
2,100.0	25.00	205.58	1,983.2	-529.9	-253.7	587.5	0.00	0.00	0.00
2,139.5	25.00	205.58	2,019.0	-544.9	-260.9	604.1	0.00	0.00	0.00
Kirtland Shale									
2,200.0	25.00	205.58	2,073.9	-568.0	-271.9	629.7	0.00	0.00	0.00
2,300.0	25.00	205.58	2,164.5	-606.1	-290.2	672.0	0.00	0.00	0.00
2,400.0	25.00	205.58	2,255.1	-644.2	-308.4	714.3	0.00	0.00	0.00
2,500.0	25.00	205.58	2,345.8	-682.4	-326.7	756.5	0.00	0.00	0.00
2,600.0	25.00	205.58	2,436.4	-720.5	-344.9	798.8	0.00	0.00	0.00
2,700.0	25.00	205.58	2,527.0	-758.6	-363.2	841.0	0.00	0.00	0.00
2,800.0	25.00	205.58	2,617.7	-796.7	-381.4	883.3	0.00	0.00	0.00
2,838.6	25.00	205.58	2,652.6	-811.4	-388.5	899.6	0.00	0.00	0.00
2,900.0	23.16	205.58	2,708.7	-834.0	-399.3	924.7	3.00	-3.00	0.00
3,000.0	20.16	205.58	2,801.6	-867.3	-415.2	961.6	3.00	-3.00	0.00
3,076.6	17.86	205.58	2,874.0	-889.8	-426.0	986.5	3.00	-3.00	0.00
Fruitland Formation									
3,100.0	17.16	205.58	2,896.4	-896.1	-429.0	993.6	3.00	-3.00	0.00
3,200.0	14.16	205.58	2,992.6	-920.5	-440.7	1,020.5	3.00	-3.00	0.00
3,253.8	12.54	205.58	3,045.0	-931.7	-446.0	1,033.0	3.00	-3.00	0.00
Upper Fruitland Coal									
3,300.0	11.16	205.58	3,090.2	-940.2	-450.1	1,042.4	3.00	-3.00	0.00
3,338.6	10.00	205.58	3,128.1	-946.6	-453.2	1,049.5	3.00	-3.00	0.00
3,360.8	10.00	205.58	3,150.0	-950.1	-454.9	1,053.4	0.00	0.00	0.00
Middle Fruitland Coal									
3,400.0	10.00	205.58	3,188.6	-956.3	-457.8	1,060.2	0.00	0.00	0.00
3,500.0	10.00	205.58	3,287.1	-971.9	-465.3	1,077.6	0.00	0.00	0.00
3,554.7	10.00	205.58	3,341.0	-980.5	-469.4	1,087.1	0.00	0.00	0.00
Lower Fruitland Coal									

XTO Energy Inc.

Planning Report

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well Gardner C #5R
Company:	XTO Energy	TVD Reference:	Rig KB @ 6593.0ft (Aztec 507)
Project:	San Juan Basin (NAD 83)	MD Reference:	Rig KB @ 6593.0ft (Aztec 507)
Site:	Gardner C #5R	North Reference:	True
Well:	Gardner C #5R	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gardner C #5R		
Design:	Permitted wellbore -- Gardner C #5R		

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)
3,600.0	10.00	205.58	3,385.6	-987.6	-472.8	1,094.9	0.00	0.00	0.00
3,648.2	10.00	205.58	3,433.0	-995.1	-476.4	1,103.3	0.00	0.00	0.00
Pictured Cliffs SS									
3,700.0	10.00	205.58	3,484.0	-1,003.2	-480.3	1,112.3	0.00	0.00	0.00
3,800.0	10.00	205.58	3,582.5	-1,018.9	-487.8	1,129.7	0.00	0.00	0.00
3,900.0	10.00	205.58	3,681.0	-1,034.6	-495.3	1,147.0	0.00	0.00	0.00
3,919.3	10.00	205.58	3,700.0	-1,037.6	-496.7	1,150.4	0.00	0.00	0.00
5 1/2"									

Design Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (m)	Easting (m)	Latitude
Proposed BHL -- Gardner C #5R	- plan hits target	0.00	0.00	3,700.0	-1,037.6	-496.7	659,920.01	836,834.97	36° 56' 59.496 N
	- Rectangle (sides W10.0 H10.0 D0.0)								107° 45' 23.724 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	
3,919.3	3,700.0	5 1/2"	5.500	7.875	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,011.5	1,903.0	Ojo Alamo SS		0.00		
2,139.5	2,019.0	Kirtland Shale		0.00		
3,076.6	2,874.0	Fruitland Formation		0.00		
3,253.8	3,045.0	Upper Fruitland Coal		0.00		
3,360.8	3,150.0	Middle Fruitland Coal		0.00		
3,554.7	3,341.0	Lower Fruitland Coal		0.00		
3,648.2	3,433.0	Pictured Cliffs SS		0.00		

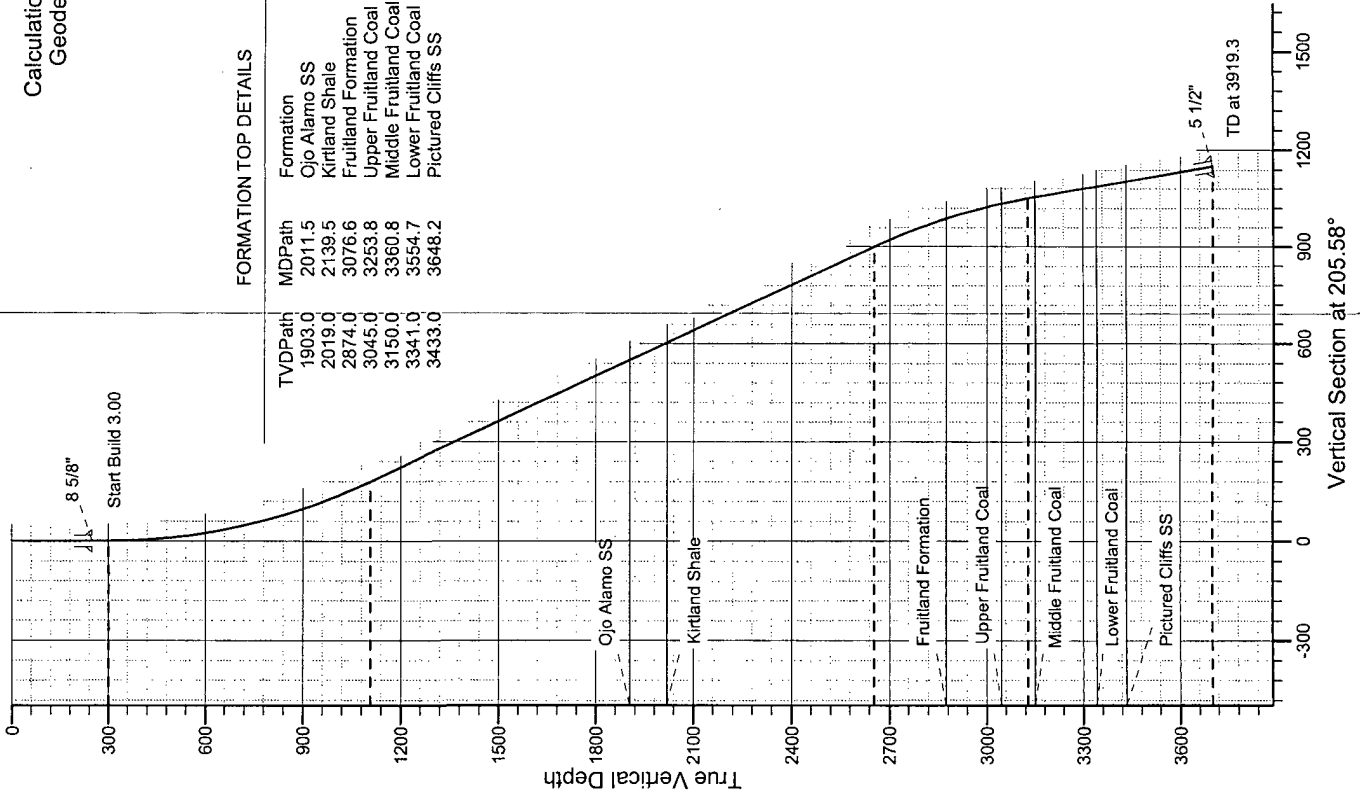
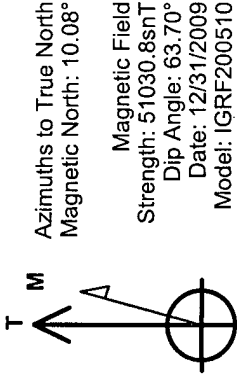


Well Name: Gardner C #5R

San Juan Division
Drilling Department

Calculation Method: Minimum Curvature
Geodetic Datum: North American Datum 1983

Lat: 36° 57' 9.756 N
Long: 107° 45' 17.604 W

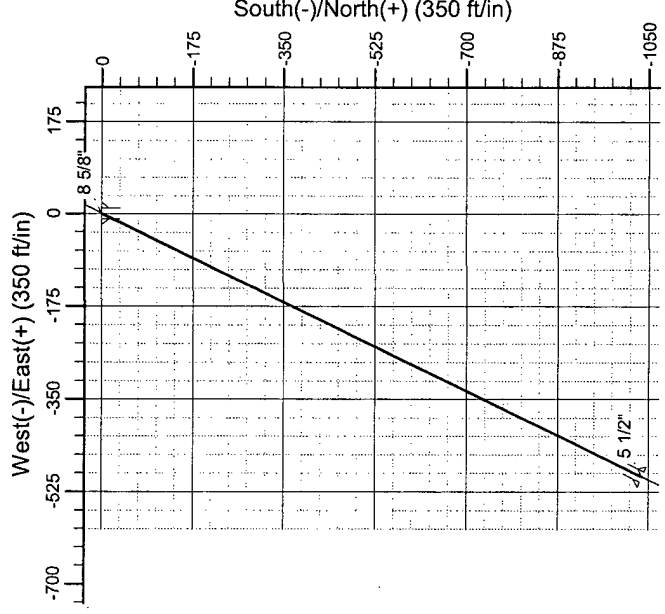
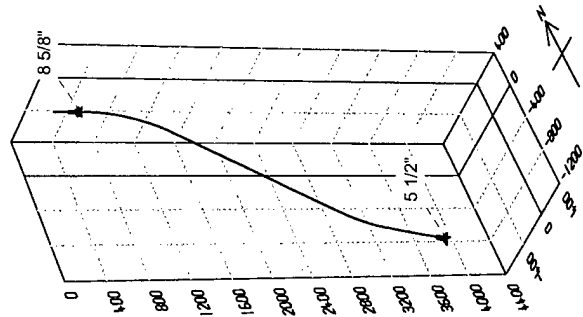


FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
1903.0	2011.5	Ojo Alamo SS
2019.0	2139.5	Kirtland Shale
2874.0	3076.6	Fruitland Formation
3045.0	3253.8	Upper Fruitland Coal
3150.0	3360.8	Middle Fruitland Coal
3341.0	3554.7	Lower Fruitland Coal
3433.0	3648.2	Pictured Cliffs SS

CASING DETAILS

TVD	MD	Name	Size
250.0	250.0	8 5/8"	8.625
3700.0	3919.3	5 1/2"	5.500

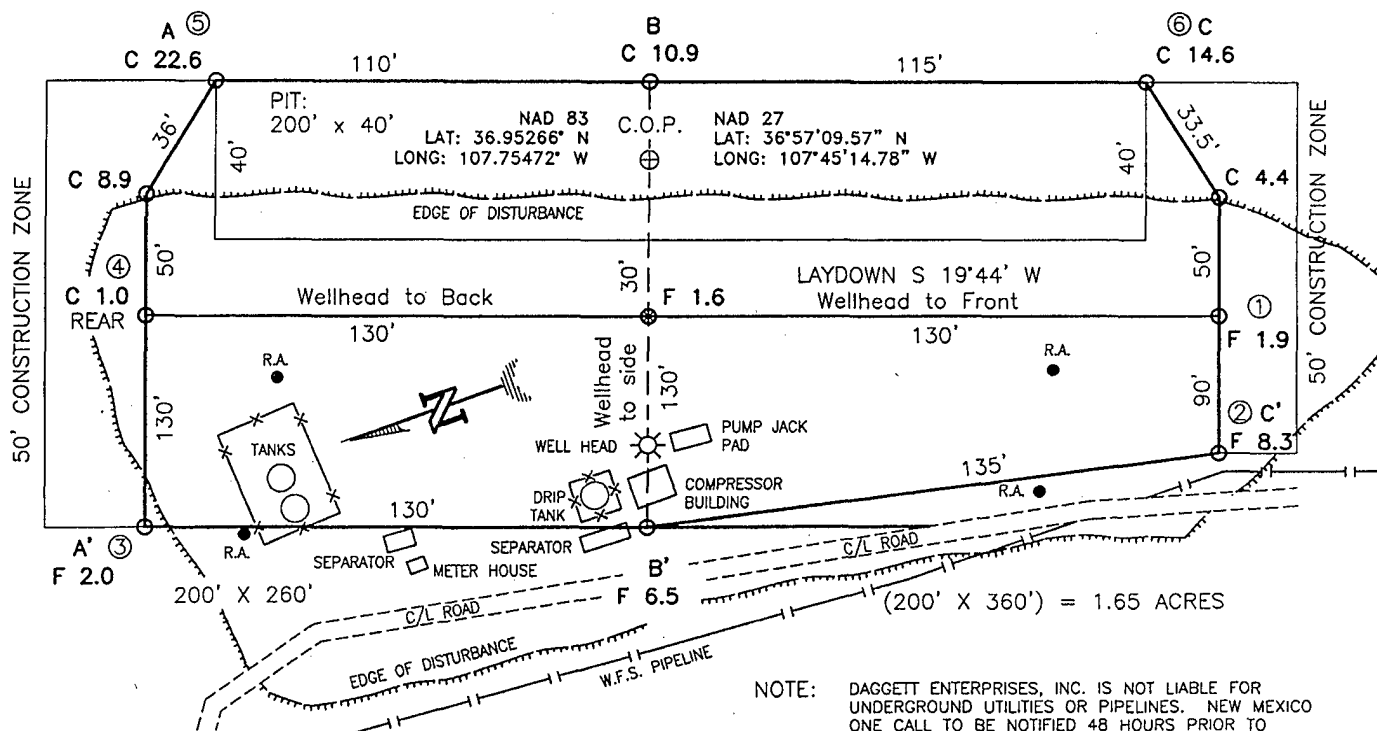


SECTION DETAILS

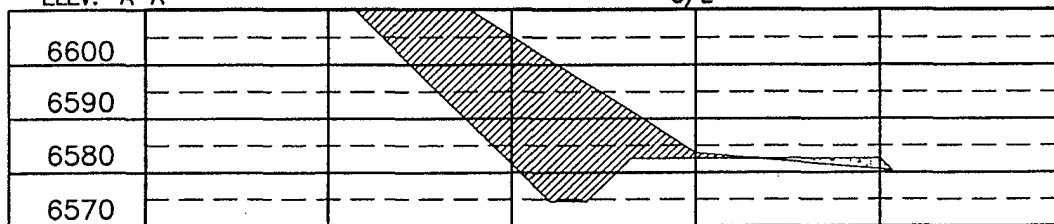
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	1133.3	25.00	205.58	1107.1	-161.4	-77.3	3.00	205.58	178.9	
4	2838.6	25.00	205.58	2652.6	-811.4	-388.5	0.00	0.00	899.6	
5	3338.6	10.00	205.58	3128.1	-946.6	-453.2	3.00	180.00	1049.5	
6	3919.3	10.00	205.58	3700.0	-1037.6	-496.7	0.00	0.00	1150.4	Proposed BHL -- Gardner C #5R

XTO ENERGY INC.
 GARDNER C No. 5R, 1691 FSL 1119 FWL
 SECTION 26, T32N, R9W, N.M.P.M., SAN JUAN COUNTY, N.M.
 GROUND ELEVATION: 6581' DATE: AUGUST 9, 2010

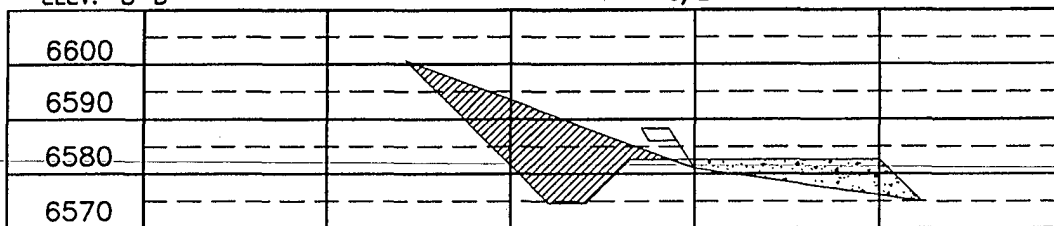
NAD 83
 LAT. = 36.95271° N
 LONG. = 107.75489° W
 NAD 27
 LAT. = 36°57'09.74" N
 LONG. = 107°45'15.36" W



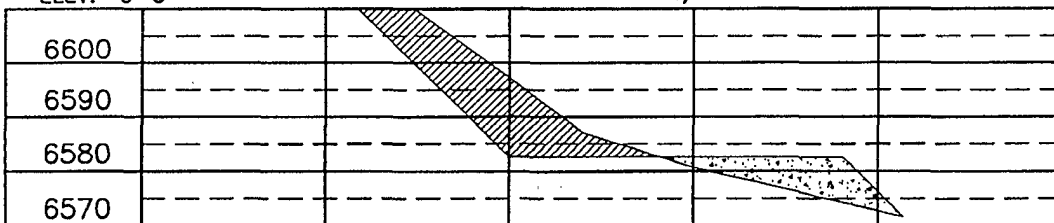
ELEV. A-A'



ELEV. B-B'



ELEV. C-C'



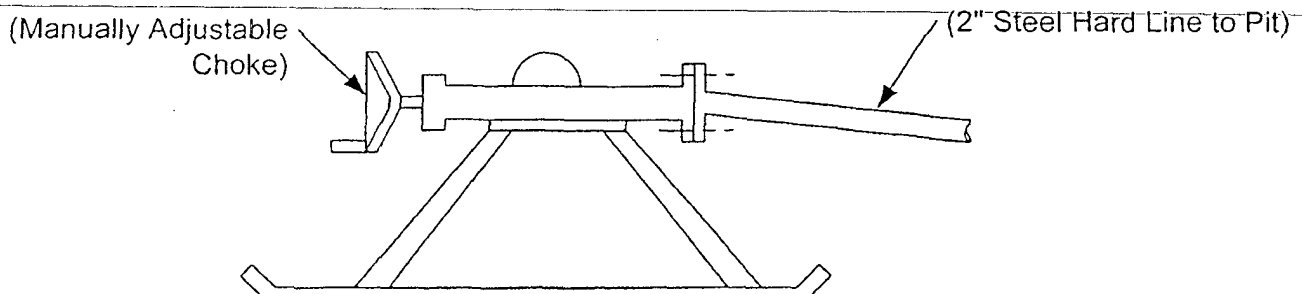
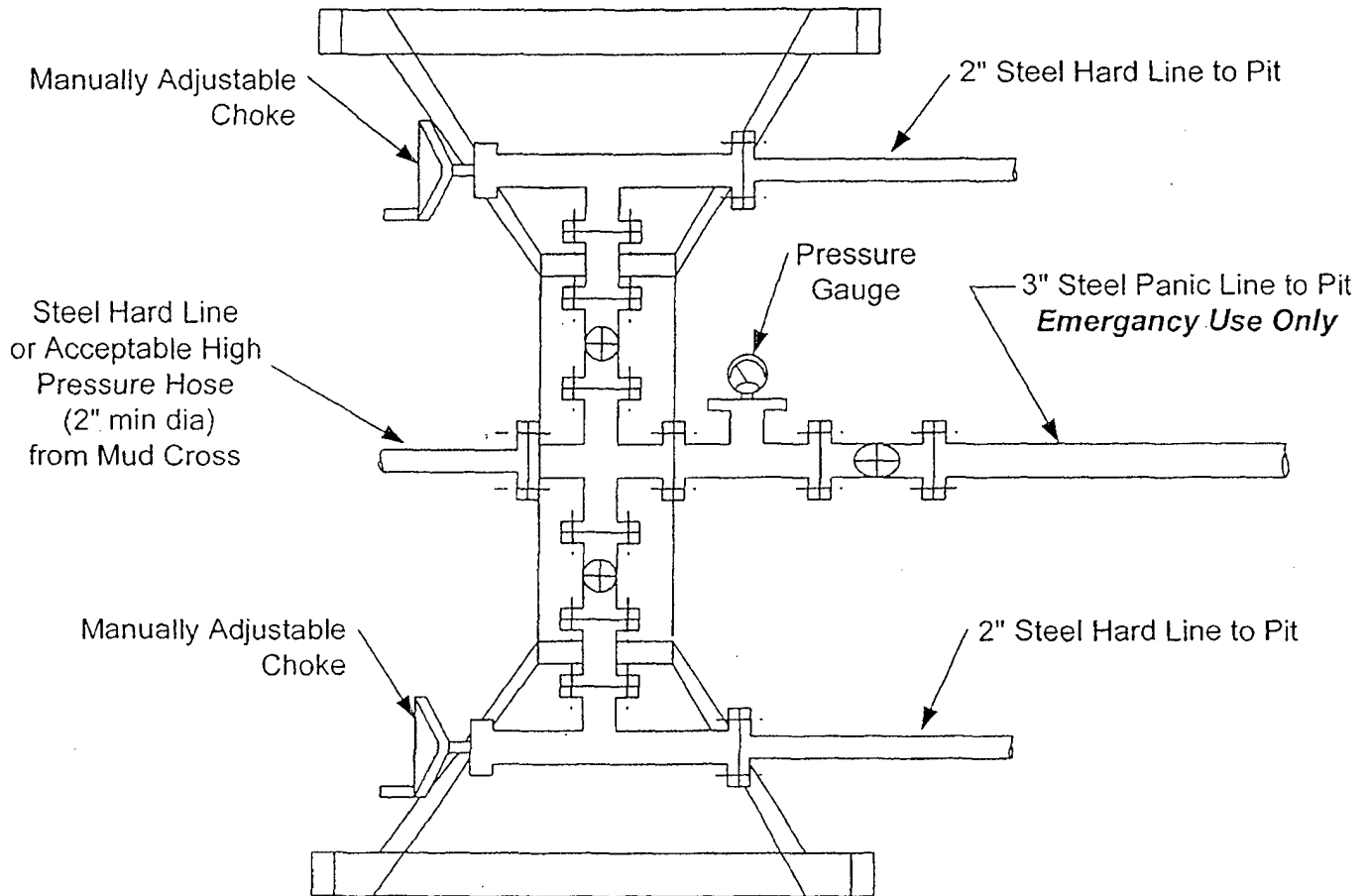
NOTE: CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

REVISION:	DATE:	BY:	REVISION:	DATE:	BY:
CUT/FILL VALUES CHANGED	8/10/10	G.V.			
Daggett Enterprises, Inc. Surveying and Oil Field Services P. O. Box 510 • Farmington, NM 87499 Phone (505) 326-1772 • Fax (505) 326-6019 NEW MEXICO L.S. No. 8894					
DRAWN BY: G.V.	CHECKED: CR1122_CFB	DATE: 6/16/10			
ROW#: CR1122					

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

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.

TESTING **PROCEDURE**



AWS 507

