



Well: Perla Verde 31 State Well 4H
 Site: Perla Verde 31 State
 Project: Lea County, New Mexico
 Design: rev0
 Rig: Nabors 730

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	10500.18	0.00	0.00	10500.18	0.00	0.00	0.00	0.00	0.00	KOP Begin 10°/100' build
3	11412.69	91.25	359.45	11073.00	585.44	-5.65	10.00	359.45	585.47	Begin 91.25° lateral
4	15763.59	91.25	359.45	10978.00	4935.10	-47.60	0.00	0.00	4935.33	PBHL/TD

RKB Elevation: RKB=3700+23 @ 3723.00usft (Nabors 730)
 US State Plane 1927 (Exact solution)
 New Mexico East 3001
 Northing: 586635.20 Easting: 760101.60 Latitude: 32.60992414 Longitude: -103.48965529
 Total Correction (M => G) To convert a Magnetic Direction to a Grid Direction, Add 6.76°



Azimuths to Grid North
 True North: -0.46°
 Magnetic North: 6.76°

Magnetic Field
 Strength: 48565.1nT
 Dip Angle: 60.48°
 Date: 5/8/2014
 Model: IGRF2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1784.00	1784.00	Rustler
1908.00	1908.00	Top Salt
3382.00	3382.00	Base Salt
3642.00	3642.00	Yates
4063.00	4063.00	Seven Rivers
4621.00	4621.00	Queen
5774.00	5774.00	Delaware
6626.00	6626.00	Brushy Canyon
8161.00	8161.00	Bone Spring
9577.00	9577.00	First Bone Spring
10171.00	10171.00	Second Bone Spring
10934.65	10993.32	Third Bone Spring

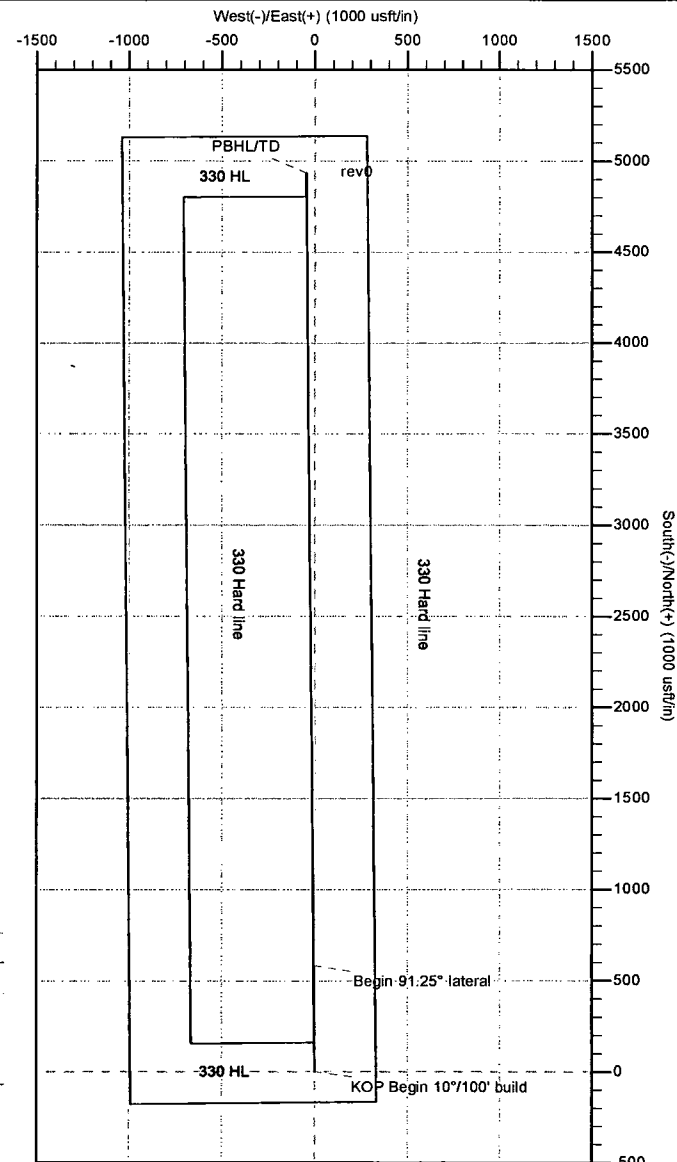
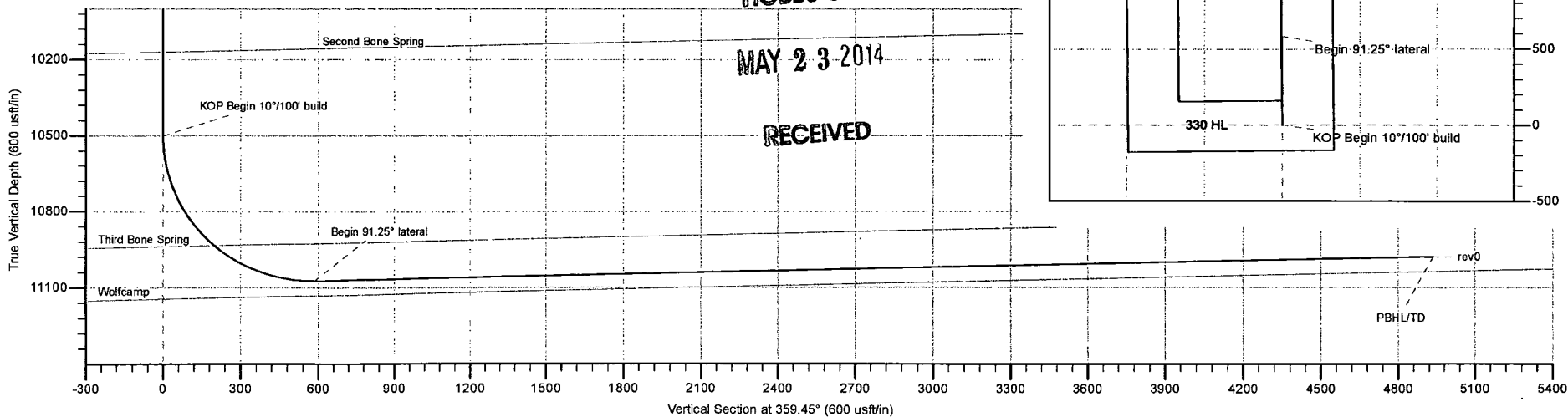


PRODIRECTIONAL

HOBBS OCD

MAY 23 2014

RECEIVED



MAY 27 2014



Standard_report

Company:	XTO Energy Inc	Local Co-ordinate Reference:	Well Perla Verde 31' State Well 4H
Project:	Lea County, New Mexico	TVD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Site:	Perla Verde 31' State	MD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Well:	Perla Verde 31' State Well 4H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	rev0	Database:	EDM 5000.1 Ddatabase

Project	Lea County, New Mexico		
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	Perla Verde 31' State		
Site Position:		Northing:	586,592.70 usft
From:	Map	Easting:	755,501.80 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.60990689
		Longitude:	-103.50359282
		Grid Convergence:	0.45 °

Well	Perla Verde 31' State Well 4H		
Well Position	+N/-S	0.00 usft	Northing: 586,635.20 usft
	+E/-W	0.00 usft	Easting: 760,101.60 usft
Position Uncertainty	0.00 usft		Wellhead Elevation: usft
			Latitude: 32.60992414
			Longitude: -103.48865529
			Ground Level: 3,700.00 usft

Wellbore	Original Hole		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	5/8/2014	(°)
			7.22
			Dip Angle
			(°)
			60.48
			Field Strength
			(nT)
			48,565

Design	rev0		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			359.45

Survey Tool Program	Date	5/8/2014		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
0.00	15,763.59	rev0 (Original Hole)	MWD	MWD - Standard



Standard_report

Company:	XTO Energy Inc	Local Co-ordinate Reference:	Well Perla Verde 31 State Well 4H
Project:	Lea County New Mexico	TVD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Site:	Perla Verde 31 State	MD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Well:	Perla Verde 31 State Well 4H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	rev0	Database:	EDM 5000.1 Ddatabase

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)		TVD (usft)	N/S (usft)		E/W (usft)	DLeg (°/100ft)	V. Sec (usft)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
100.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
200.00	0.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
300.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
400.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
500.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
600.00	0.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
700.00	0.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
800.00	0.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
900.00	0.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
1,000.00	0.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
1,100.00	0.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
1,200.00	0.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
1,300.00	0.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
1,400.00	0.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
1,500.00	0.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
1,600.00	0.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
1,700.00	0.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
1,784.00	0.00	0.00	0.00	1,784.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
Rustler											
1,800.00	0.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
1,900.00	0.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
1,908.00	0.00	0.00	0.00	1,908.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
Top Salt											
2,000.00	0.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
2,100.00	0.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
2,200.00	0.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60



Standard_report

Company:	XTO Energy Inc	Local Co-ordinate Reference:	Well Perla Verde 31 State Well 4H
Project:	Lea County, New Mexico	TVD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Site:	Perla Verde 31 State	MD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Well:	Perla Verde 31 State Well 4H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	rev0	Database:	EDM 5000.1 Ddatabase

Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100ft)	V. Sec (usft)	Northing (usft)	Easting (usft)	
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
3,382.00	0.00	0.00	3,382.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
Base Salt										
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
3,642.00	0.00	0.00	3,642.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
Yates										
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
4,063.00	0.00	0.00	4,063.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
Seven Rivers										
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60	



Standard_report

Company:	XTO Energy Inc	Local Co-ordinate Reference:	Well Perla Verde 31 State Well 4H
Project:	Lea County, New Mexico	TVD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Site:	Perla Verde 31 State	MD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Well:	Perla Verde 31 State Well 4H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	rev0	Database:	EDM 5000.1 Database

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100ft)	V. Sec (usft)	Northing (usft)	Easting (usft)
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
4,621.00	0.00	0.00	4,621.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
Queen									
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
5,774.00	0.00	0.00	5,774.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
Delaware									
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
6,626.00	0.00	0.00	6,626.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
Brushy Canyon									



Standard_report

Company:	XTO Energy Inc	Local Co-ordinate Reference:	Well Perla Verde 31 State Well 4H
Project:	Lea County New Mexico	TVD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Site:	Perla Verde 31 State	MD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Well:	Perla Verde 31 State Well 4H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	rev0	Database:	EDM 5000.1 Database

Planned Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100ft)	V. Sec (usft)	Northing (usft)	Easting (usft)
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
8,161.00	0.00	0.00	8,161.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
Bone Spring									
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60



Standard_report

Company:	XTO Energy Inc	Local Co-ordinate Reference:	Well Perla Verde 31 State Well 4H
Project:	Lea County, New Mexico	TVD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Site:	Perla Verde 31 State	MD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Well:	Perla Verde 31 State Well 4H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	rev0	Database:	EDM 5000.1 Ddatabase

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100ft)	V. Sec (usft)	Northing (usft)	Easting (usft)
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
9,577.00	0.00	0.00	9,577.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
First Bone Spring									
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
10,171.00	0.00	0.00	10,171.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
Second Bone Spring									
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
10,400.00	0.00	0.00	10,400.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
10,500.00	0.00	0.00	10,500.00	0.00	0.00	0.00	0.00	586,635.20	760,101.60
10,500.18	0.00	0.00	10,500.18	0.00	0.00	0.00	0.00	586,635.20	760,101.60
KOP Begin 10°/100' build									
10,600.00	9.98	359.45	10,599.50	8.67	-0.08	10.00	8.67	586,643.87	760,101.52
10,700.00	19.98	359.45	10,695.97	34.49	-0.33	10.00	34.49	586,669.69	760,101.27
10,800.00	29.98	359.45	10,786.50	76.67	-0.74	10.00	76.67	586,711.87	760,100.86
10,900.00	39.98	359.45	10,868.33	133.92	-1.29	10.00	133.93	586,769.12	760,100.31
10,993.32	49.31	359.45	10,934.65	199.43	-1.92	10.00	199.44	586,834.63	760,099.68
Third Bone Spring									
11,000.00	49.98	359.45	10,938.98	204.52	-1.97	10.00	204.53	586,839.72	760,099.63
11,100.00	59.98	359.45	10,996.29	286.31	-2.76	10.00	286.32	586,921.51	760,098.84



Standard_report

Company:	XTO Energy Inc	Local Co-ordinate Reference:	Well Perla Verde 31 State Well 4H
Project:	Lea County New Mexico	TVD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Site:	Perla Verde 31 State	MD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Well:	Perla Verde 31 State Well 4H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	rev0	Database:	EDM 5000.1 Database

Planned Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100ft)	V. Sec (usft)	Northing (usft)	Easting (usft)
11,200.00	69.98	359.45	11,038.52	376.81	-3.63	10.00	376.83	587,012.01	760,097.97
11,300.00	79.98	359.45	11,064.40	473.27	-4.56	10.00	473.29	587,108.47	760,097.04
11,400.00	89.98	359.45	11,073.14	572.75	-5.52	10.00	572.78	587,207.95	760,096.08
11,412.69	91.25	359.45	11,073.00	585.44	-5.65	10.00	585.47	587,220.64	760,095.95
Begin 91.26° lateral									
11,500.00	91.25	359.45	11,071.09	672.73	-6.49	0.00	672.76	587,307.93	760,095.11
11,600.00	91.25	359.45	11,068.91	772.70	-7.45	0.00	772.73	587,407.90	760,094.15
11,700.00	91.25	359.45	11,066.73	872.67	-8.42	0.00	872.71	587,507.87	760,093.18
11,800.00	91.25	359.45	11,064.54	972.64	-9.38	0.00	972.69	587,607.84	760,092.22
11,900.00	91.25	359.45	11,062.36	1,072.61	-10.35	0.00	1,072.66	587,707.81	760,091.25
12,000.00	91.25	359.45	11,060.18	1,172.58	-11.31	0.00	1,172.64	587,807.78	760,090.29
12,100.00	91.25	359.45	11,057.99	1,272.55	-12.27	0.00	1,272.61	587,907.75	760,089.33
12,200.00	91.25	359.45	11,055.81	1,372.53	-13.24	0.00	1,372.59	588,007.73	760,088.36
12,300.00	91.25	359.45	11,053.63	1,472.50	-14.20	0.00	1,472.57	588,107.70	760,087.40
12,400.00	91.25	359.45	11,051.44	1,572.47	-15.17	0.00	1,572.54	588,207.67	760,086.43
12,500.00	91.25	359.45	11,049.26	1,672.44	-16.13	0.00	1,672.52	588,307.64	760,085.47
12,600.00	91.25	359.45	11,047.08	1,772.41	-17.10	0.00	1,772.49	588,407.61	760,084.50
12,700.00	91.25	359.45	11,044.89	1,872.38	-18.06	0.00	1,872.47	588,507.58	760,083.54
12,800.00	91.25	359.45	11,042.71	1,972.35	-19.02	0.00	1,972.45	588,607.55	760,082.58
12,900.00	91.25	359.45	11,040.53	2,072.33	-19.99	0.00	2,072.42	588,707.53	760,081.61
13,000.00	91.25	359.45	11,038.34	2,172.30	-20.95	0.00	2,172.40	588,807.50	760,080.65
13,100.00	91.25	359.45	11,036.16	2,272.27	-21.92	0.00	2,272.38	588,907.47	760,079.68
13,200.00	91.25	359.45	11,033.97	2,372.24	-22.88	0.00	2,372.35	589,007.44	760,078.72
13,300.00	91.25	359.45	11,031.79	2,472.21	-23.84	0.00	2,472.33	589,107.41	760,077.76
13,400.00	91.25	359.45	11,029.61	2,572.18	-24.81	0.00	2,572.30	589,207.38	760,076.79
13,500.00	91.25	359.45	11,027.42	2,672.16	-25.77	0.00	2,672.28	589,307.36	760,075.83
13,600.00	91.25	359.45	11,025.24	2,772.13	-26.74	0.00	2,772.26	589,407.33	760,074.86



Standard_report

Company:	XTO Energy Inc	Local Co-ordinate Reference:	Well Perla Verde 31 State Well 4H
Project:	Lea County New Mexico	TVD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Site:	Perla Verde 31 State	MD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Well:	Perla Verde 31 State Well 4H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	rev0	Database:	EDM 5000.1 Database

Planned Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100ft)	V. Sec (usft)	Northing (usft)	Easting (usft)
13,700.00	91.25	359.45	11,023.06	2,872.10	-27.70	0.00	2,872.23	589,507.30	760,073.90
13,800.00	91.25	359.45	11,020.87	2,972.07	-28.67	0.00	2,972.21	589,607.27	760,072.93
13,900.00	91.25	359.45	11,018.69	3,072.04	-29.63	0.00	3,072.18	589,707.24	760,071.97
14,000.00	91.25	359.45	11,016.51	3,172.01	-30.59	0.00	3,172.16	589,807.21	760,071.01
14,100.00	91.25	359.45	11,014.32	3,271.98	-31.56	0.00	3,272.14	589,907.18	760,070.04
14,200.00	91.25	359.45	11,012.14	3,371.96	-32.52	0.00	3,372.11	590,007.16	760,069.08
14,300.00	91.25	359.45	11,009.96	3,471.93	-33.49	0.00	3,472.09	590,107.13	760,068.11
14,400.00	91.25	359.45	11,007.77	3,571.90	-34.45	0.00	3,572.07	590,207.10	760,067.15
14,500.00	91.25	359.45	11,005.59	3,671.87	-35.42	0.00	3,672.04	590,307.07	760,066.18
14,600.00	91.25	359.45	11,003.41	3,771.84	-36.38	0.00	3,772.02	590,407.04	760,065.22
14,700.00	91.25	359.45	11,001.22	3,871.81	-37.34	0.00	3,871.99	590,507.01	760,064.26
14,800.00	91.25	359.45	10,999.04	3,971.79	-38.31	0.00	3,971.97	590,606.99	760,063.29
14,900.00	91.25	359.45	10,996.86	4,071.76	-39.27	0.00	4,071.95	590,706.96	760,062.33
15,000.00	91.25	359.45	10,994.67	4,171.73	-40.24	0.00	4,171.92	590,806.93	760,061.36
15,100.00	91.25	359.45	10,992.49	4,271.70	-41.20	0.00	4,271.90	590,906.90	760,060.40
15,200.00	91.25	359.45	10,990.31	4,371.67	-42.17	0.00	4,371.87	591,006.87	760,059.43
15,300.00	91.25	359.45	10,988.12	4,471.64	-43.13	0.00	4,471.85	591,106.84	760,058.47
15,400.00	91.25	359.45	10,985.94	4,571.61	-44.09	0.00	4,571.83	591,206.81	760,057.51
15,500.00	91.25	359.45	10,983.76	4,671.59	-45.06	0.00	4,671.80	591,306.79	760,056.54
15,600.00	91.25	359.45	10,981.57	4,771.56	-46.02	0.00	4,771.78	591,406.76	760,055.58
15,700.00	91.25	359.45	10,979.39	4,871.53	-46.99	0.00	4,871.76	591,506.73	760,054.61
15,763.59	91.25	359.45	10,978.00	4,935.10	-47.60	0.00	4,935.33	591,570.30	760,054.00
PBHL/TD									



Standard_report

Company:	XTO Energy Inc	Local Co-ordinate Reference:	Well Perla Verde 31 State Well 4H
Project:	Lea County New Mexico	TVD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Site:	Perla Verde 31 State	MD Reference:	RKB=3700+23 @ 3723.00usft (Nabors 730)
Well:	Perla Verde 31 State Well 4H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	rev0	Database:	EDM 5000.1 Database

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,784.00	1,784.00	Rustler		-1.25	359.45
1,908.00	1,908.00	Top Salt		-1.25	359.45
3,382.00	3,382.00	Base Salt		-1.25	359.45
3,642.00	3,642.00	Yates		-1.25	359.45
4,063.00	4,063.00	Seven Rivers		-1.25	359.45
4,621.00	4,621.00	Queen		-1.25	359.45
5,774.00	5,774.00	Delaware		-1.25	359.45
6,626.00	6,626.00	Brushy Canyon		-1.25	359.45
8,161.00	8,161.00	Bone Spring		-1.25	359.45
9,577.00	9,577.00	First Bone Spring		-1.25	359.45
10,171.00	10,171.00	Second Bone Spring		-1.25	359.45
10,993.32	10,939.00	Third Bone Spring		-1.25	359.45

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,500.18	10,500.18	0.00	0.00	KOP Begin 10°/100' build
11,412.69	11,073.00	585.44	-5.65	Begin 91.25° lateral
15,763.59	10,978.00	4,935.10	-47.60	PBHL/TD