



Well: Perla Verde 31 State Well 2H
 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	10507.19	0.00	0.00	10507.19	0.00	0.00	0.00	0.00	0.00	KOP Begin 10°/100' build
3	11420.12	91.29	1.74	11080.00	585.62	17.76	10.00	1.74	585.89	Begin 91.29° lateral
4	15718.27	91.29	1.74	10983.00	4880.70	148.00	0.00	0.00	4882.94	PBHL/TD

RKB Elevation: RKB=3702+23 @ 3725.00usft (Nabors 730)
 US State Plane 1927 (Exact solution)
 New Mexico East 3001

Northing	Easting	Latitude	Longitude
586679.30	758371.40	32.61008301	-103.49427245

Total Correction (M => G) To convert a Magnetic Direction to a Grid Direction, Add 6.77°

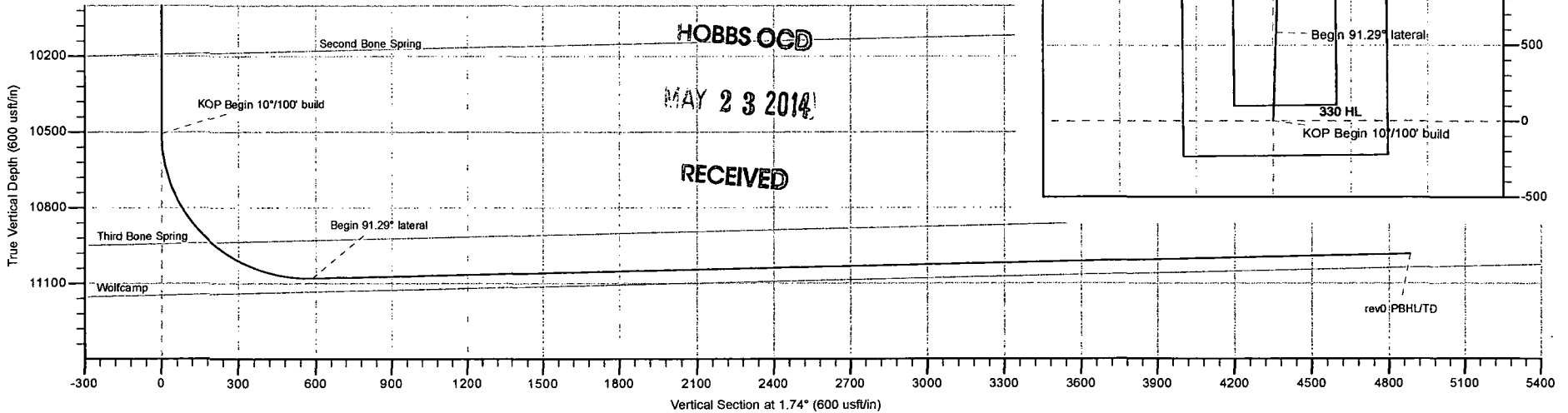
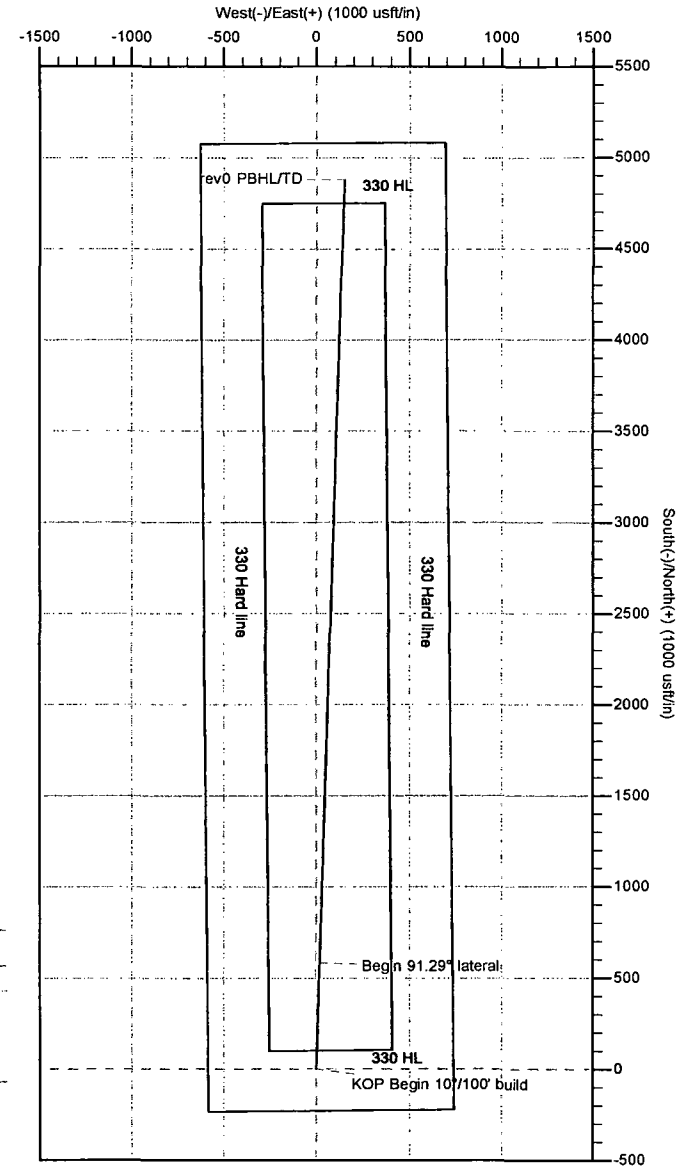


Azimuths to Grid North
 True North: -0.45°
 Magnetic North: 6.77°

Magnetic Field
 Strength: 48564.8nT
 Dip Angle: 60.48°
 Date: 5/7/2014
 Model: IGRF2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1786.00	1786.00	Rusler
1910.00	1910.00	Top Salt
3411.00	3411.00	Base Salt
3653.00	3653.00	Yates
4083.00	4083.00	Seven Rivers
4629.00	4629.00	Queen
5776.00	5776.00	Delaware
6649.00	6649.00	Brushy Canyon
8166.00	8166.00	Bone Spring
9601.00	9601.00	First Bone Spring
10193.00	10193.00	Second Bone Spring
10938.59	10995.64	Third Bone Spring



MAY 27 2014



Standard_report

Company:	XTO Energy, Inc	Local Co-ordinate Reference:	Well Perla Verde 31- State Well 2H
Project:	Lea County, New Mexico	TVD Reference:	RKB=3702+23 @ 3725.00usft (Nabors 730)
Site:	Perla Verde 31 State	MD Reference:	RKB=3702+23 @ 3725.00usft (Nabors 730)
Well:	Perla Verde 31 State Well 2H	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	Latitude:	32.60990689	
From:	Map	Easting:	755,501.80 usft	Longitude:	-103.50359282
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.45 °

Well:	Perla Verde 31 State Well 2H					
Well Position	+N/S	0.00 usft	Northing:	586,679.30 usft	Latitude:	32.61008301
	+E/W	0.00 usft	Easting:	758,371.40 usft	Longitude:	-103.49427245
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,702.00 usft

Wellbore:	Original hole				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	5/7/2014	7.22	60.48	48,565

Design:	rev0			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/S	+E/W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	1.74

Survey Tool Program	Date	5/7/2014		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
0.00	15,718.08	rev0 (Original hole)	MWD	MWD - Standard



Standard_report

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Site:	Perla Verde 31 State	MD Reference:	RKB=3702+23 @ 3725.00usft (Nabors 730)
Well:	Perla Verde 31 State Well 2H	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	586,679.30	758,371.40		
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
1,786.00	0.00	0.00	1,786.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
Rusiter											
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
1,910.00	0.00	0.00	1,910.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
Top Salt											
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		



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Well:	Perla Verde 31 State Well 2H	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	586,679.30	758,371.40		
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
3,411.00	0.00	0.00	3,411.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
Base Salt											
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
3,653.00	0.00	0.00	3,653.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
Yates											
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
4,083.00	0.00	0.00	4,083.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
Seven Rivers											
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40		



Standard_report

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Project:	Lea County, New Mexico	TVD Reference:	RKB=3702+23 @ 3725.00usft (Nabors 730)
Site:	Perla Verde 31 State	MD Reference:	RKB=3702+23 @ 3725.00usft (Nabors 730)
Well:	Perla Verde 31 State Well 2H	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)
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
4,629.00	0.00	0.00	4,629.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
Queen									
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
5,776.00	0.00	0.00	5,776.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
Delaware									
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
6,649.00	0.00	0.00	6,649.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
Brushy Canyon									



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Wellbore:	Original hole	Survey Calculation Method:	Minimum Curvature
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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	586,679.30	758,371.40	
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
8,166.00	0.00	0.00	8,166.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
Bone Spring										
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40	



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9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
9,601.00	0.00	0.00	9,601.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
First Bone Spring									
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
10,193.00	0.00	0.00	10,193.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
Second Bone Spring									
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
10,400.00	0.00	0.00	10,400.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
10,500.00	0.00	0.00	10,500.00	0.00	0.00	0.00	0.00	586,679.30	758,371.40
10,507.19	0.00	0.00	10,507.19	0.00	0.00	0.00	0.00	586,679.30	758,371.40
KOP Begin 10°/100' build									
10,600.00	9.28	1.74	10,599.59	7.50	0.23	10.00	7.50	586,686.80	758,371.63
10,700.00	19.28	1.74	10,696.38	32.12	0.97	10.00	32.14	586,711.42	758,372.37
10,800.00	29.28	1.74	10,787.42	73.17	2.22	10.00	73.21	586,752.47	758,373.62
10,900.00	39.28	1.74	10,869.94	129.40	3.92	10.00	129.46	586,808.70	758,375.32
10,995.64	48.85	1.74	10,938.59	195.81	5.94	10.00	195.90	586,875.11	758,377.34
Third Bone Spring									
11,000.00	49.28	1.74	10,941.44	199.10	6.04	10.00	199.19	586,878.40	758,377.44
11,100.00	59.28	1.74	10,999.75	280.15	8.50	10.00	280.28	586,959.45	758,379.90



Standard_report

Company:	XTO Energy Inc	Local Co-ordinate Reference:	Well Perla Verde 31 State Well 2H
Project:	Lea County, New Mexico	TVD Reference:	RKB=3702+23 @ 3725 00usft (Nabors 730)
Site:	Perla Verde 31 State	MD Reference:	RKB=3702+23 @ 3725 00usft (Nabors 730)
Well:	Perla Verde 31 State Well 2H	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)
11,200.00	69.28	1.74	11,043.09	370.08	11.22	10.00	370.25	587,049.38	758,382.62
11,300.00	79.28	1.74	11,070.15	466.18	14.14	10.00	466.39	587,145.48	758,385.54
11,400.00	89.28	1.74	11,080.10	565.51	17.15	10.00	565.77	587,244.81	758,388.55
11,420.12	91.29	1.74	11,080.00	585.62	17.76	10.00	585.89	587,264.92	758,389.16
Begin 91.29° lateral									
11,500.00	91.29	1.74	11,078.20	665.44	20.18	0.00	665.75	587,344.74	758,391.58
11,600.00	91.29	1.74	11,075.94	765.37	23.21	0.00	765.72	587,444.67	758,394.61
11,700.00	91.29	1.74	11,073.68	865.30	26.24	0.00	865.70	587,544.60	758,397.64
11,800.00	91.29	1.74	11,071.43	965.23	29.27	0.00	965.67	587,644.53	758,400.67
11,900.00	91.29	1.74	11,069.17	1,065.16	32.30	0.00	1,065.65	587,744.46	758,403.70
12,000.00	91.29	1.74	11,066.91	1,165.08	35.33	0.00	1,165.62	587,844.38	758,406.73
12,100.00	91.29	1.74	11,064.66	1,265.01	38.36	0.00	1,265.59	587,944.31	758,409.76
12,200.00	91.29	1.74	11,062.40	1,364.94	41.39	0.00	1,365.57	588,044.24	758,412.79
12,300.00	91.29	1.74	11,060.14	1,464.87	44.42	0.00	1,465.54	588,144.17	758,415.82
12,400.00	91.29	1.74	11,057.89	1,564.80	47.45	0.00	1,565.52	588,244.10	758,418.85
12,500.00	91.29	1.74	11,055.63	1,664.73	50.48	0.00	1,665.49	588,344.03	758,421.88
12,600.00	91.29	1.74	11,053.37	1,764.66	53.51	0.00	1,765.47	588,443.96	758,424.91
12,700.00	91.29	1.74	11,051.12	1,864.58	56.54	0.00	1,865.44	588,543.88	758,427.94
12,800.00	91.29	1.74	11,048.86	1,964.51	59.57	0.00	1,965.42	588,643.81	758,430.97
12,900.00	91.29	1.74	11,046.60	2,064.44	62.60	0.00	2,065.39	588,743.74	758,434.00
13,000.00	91.29	1.74	11,044.35	2,164.37	65.63	0.00	2,165.36	588,843.67	758,437.03
13,100.00	91.29	1.74	11,042.09	2,264.30	68.66	0.00	2,265.34	588,943.60	758,440.06
13,200.00	91.29	1.74	11,039.83	2,364.23	71.69	0.00	2,365.31	589,043.53	758,443.09
13,300.00	91.29	1.74	11,037.58	2,464.16	74.72	0.00	2,465.29	589,143.46	758,446.12
13,400.00	91.29	1.74	11,035.32	2,564.08	77.75	0.00	2,565.26	589,243.38	758,449.15
13,500.00	91.29	1.74	11,033.06	2,664.01	80.78	0.00	2,665.24	589,343.31	758,452.18
13,600.00	91.29	1.74	11,030.81	2,763.94	83.81	0.00	2,765.21	589,443.24	758,455.21



Standard_report

Company:	XTO Energy Inc	Local Co-ordinate Reference:	Well Perla Verde 31 State Well 2H
Project:	Lea County, New Mexico	TVD Reference:	RKB=3702+23 @ 3725.00usft (Nabors 730)
Site:	Perla Verde 31 State	MD Reference:	RKB=3702+23 @ 3725.00usft (Nabors 730)
Well:	Perla Verde 31 State Well 2H	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)
13,700.00	91.29	1.74	11,028.55	2,863.87	86.84	0.00	2,865.19	589,543.17	758,458.24
13,800.00	91.29	1.74	11,026.29	2,963.80	89.87	0.00	2,965.16	589,643.10	758,461.27
13,900.00	91.29	1.74	11,024.03	3,063.73	92.90	0.00	3,065.14	589,743.03	758,464.30
14,000.00	91.29	1.74	11,021.78	3,163.66	95.93	0.00	3,165.11	589,842.96	758,467.33
14,100.00	91.29	1.74	11,019.52	3,263.58	98.96	0.00	3,265.08	589,942.88	758,470.36
14,200.00	91.29	1.74	11,017.26	3,363.51	101.99	0.00	3,365.06	590,042.81	758,473.39
14,300.00	91.29	1.74	11,015.01	3,463.44	105.02	0.00	3,465.03	590,142.74	758,476.42
14,400.00	91.29	1.74	11,012.75	3,563.37	108.05	0.00	3,565.01	590,242.67	758,479.45
14,500.00	91.29	1.74	11,010.49	3,663.30	111.08	0.00	3,664.98	590,342.60	758,482.48
14,600.00	91.29	1.74	11,008.24	3,763.23	114.11	0.00	3,764.96	590,442.53	758,485.51
14,700.00	91.29	1.74	11,005.98	3,863.16	117.14	0.00	3,864.93	590,542.46	758,488.54
14,800.00	91.29	1.74	11,003.72	3,963.08	120.17	0.00	3,964.91	590,642.38	758,491.57
14,900.00	91.29	1.74	11,001.47	4,063.01	123.20	0.00	4,064.88	590,742.31	758,494.60
15,000.00	91.29	1.74	10,999.21	4,162.94	126.24	0.00	4,164.86	590,842.24	758,497.64
15,100.00	91.29	1.74	10,996.95	4,262.87	129.27	0.00	4,264.83	590,942.17	758,500.67
15,200.00	91.29	1.74	10,994.70	4,362.80	132.30	0.00	4,364.80	591,042.10	758,503.70
15,300.00	91.29	1.74	10,992.44	4,462.73	135.33	0.00	4,464.78	591,142.03	758,506.73
15,400.00	91.29	1.74	10,990.18	4,562.66	138.36	0.00	4,564.75	591,241.96	758,509.76
15,500.00	91.29	1.74	10,987.93	4,662.59	141.39	0.00	4,664.73	591,341.89	758,512.79
15,600.00	91.29	1.74	10,985.67	4,762.51	144.42	0.00	4,764.70	591,441.81	758,515.82
15,700.00	91.29	1.74	10,983.41	4,862.44	147.45	0.00	4,864.68	591,541.74	758,518.85
15,718.27	91.29	1.74	10,983.00	4,880.70	148.00	0.00	4,882.94	591,560.00	758,519.40

PBHL/TD



Standard_report

Company:	XTO Energy Inc	Local Co-ordinate Reference:	Well Perla Verde 31 State Well 2H
Project:	Lea County, New Mexico	TVD Reference:	RKB=3702+23 @ 3725.00usft (Nabors 730)
Site:	Perla Verde 31 State	MD Reference:	RKB=3702+23 @ 3725.00usft (Nabors 730)
Well:	Perla Verde 31 State Well 2H	North Reference:	Grid
Wellbore:	Original hole	Survey Calculation Method:	Minimum Curvature
Design:	rev0	Database:	EDM-5000.1 Ddatabase

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,786.00	1,786.00	Rusiter		-1.29	1.74	
1,910.00	1,910.00	Top Salt		-1.29	1.74	
3,411.00	3,411.00	Base Salt		-1.29	1.74	
3,653.00	3,653.00	Yates		-1.29	1.74	
4,083.00	4,083.00	Seven Rivers		-1.29	1.74	
4,629.00	4,629.00	Queen		-1.29	1.74	
5,776.00	5,776.00	Delaware		-1.29	1.74	
6,649.00	6,649.00	Brushy Canyon		-1.29	1.74	
8,166.00	8,166.00	Bone Spring		-1.29	1.74	
9,601.00	9,601.00	First Bone Spring		-1.29	1.74	
10,193.00	10,193.00	Second Bone Spring		-1.29	1.74	
10,995.64	10,943.00	Third Bone Spring		-1.29	1.74	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
10,507.19	10,507.19	0.00	0.00	KOP Begin 10°/100' build	
11,420.12	11,080.00	585.62	17.76	Begin 91.29° lateral	
15,718.27	10,983.00	4,880.70	148.00	PBHL/TD	