

XTO Energy - Western Div. (NM, CO, UT)

LaPlata County (NAD83)

Huber Culhane #2-32

Huber Culhane #2-32

Huber Culhane 2-32 -- Lower Lat

Plan: Huber Culhane 2-32 -- Lower Lat

Standard Planning Report

14 June, 2013

XTO Energy, Inc.

Planning Report

Database:	LMRKPROD	Local Co-ordinate Reference:	Site Huber Culhane #2-32
Company:	XTO Energy - Western Div. (NM, CO, UT)	TVD Reference:	Rig KB @ 7031.00ft (Aztec 507)
Project:	LaPlata County (NAD83)	MD Reference:	Rig KB @ 7031.00ft (Aztec 507)
Site:	Huber Culhane #2-32	North Reference:	True
Well:	Huber Culhane #2-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Huber Culhane 2-32 -- Lower Lat		
Design:	Huber Culhane 2-32 -- Lower Lat		

Project	LaPlata County (NAD83), LaPlata County, Colorado, Directional Fruitland Coal Wells		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Southern Zone		

Site	Huber Culhane #2-32, T35N, R8W		
Site Position:		Northing:	1,224,717.13 usft
From:	Lat/Long	Easting:	2,340,735.41 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16"
		Latitude:	37° 15' 42.696000 N
		Longitude:	107° 45' 55.908000 W
		Grid Convergence:	-1.39 °

Well	Huber Culhane #2-32, Horizontal FC		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	7,019.00 ft
		Latitude:	37° 15' 42.695949 N
		Longitude:	107° 45' 55.908000 W
		Ground Level:	7,019.00 ft

Wellbore	Huber Culhane 2-32 -- Lower Lat				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	3/13/2013	9.73	63.89	50,897

Design	Huber Culhane 2-32 -- Lower Lat			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	1,476.97
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	285.96

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	(°)	
1,476.97	0.00	0.00	1,476.97	0.00	0.00	0.00	0.00	0.00	0.00	
1,491.97	2.00	295.00	1,491.97	0.11	-0.24	13.33	13.33	0.00	295.00	
1,496.97	2.00	295.00	1,496.96	0.18	-0.40	0.00	0.00	0.00	0.00	
2,083.77	90.00	285.92	1,865.77	106.85	-366.91	15.00	15.00	-1.55	-9.08	
4,734.55	90.00	285.92	1,866.00	833.98	-2,916.00	0.00	0.00	0.00	0.00	Huber Culhane 2-32 -

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Well:	Huber Culhane #2-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Huber Culhane 2-32 -- Lower Lat		
Design:	Huber Culhane 2-32 -- Lower Lat		

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,476.97	0.00	0.00	1,476.97	0.00	0.00	0.00	0.00	0.00	0.00
1,491.97	2.00	295.00	1,491.97	0.11	-0.24	0.26	13.33	13.33	0.00
1,496.97	2.00	295.00	1,496.96	0.18	-0.40	0.43	0.00	0.00	0.00
1,500.00	2.45	293.32	1,499.99	0.23	-0.50	0.55	15.00	14.85	-55.43
1,525.00	6.19	288.83	1,524.92	0.88	-2.27	2.42	15.00	14.95	-17.95
1,550.00	9.93	287.72	1,549.66	1.97	-5.60	5.93	15.00	14.99	-4.44
1,575.00	13.68	287.22	1,574.13	3.50	-10.48	11.04	15.00	14.99	-2.02
1,600.00	17.43	286.93	1,598.21	5.47	-16.89	17.74	15.00	15.00	-1.17
1,625.00	21.18	286.74	1,621.80	7.86	-24.80	26.00	15.00	15.00	-0.76
1,650.00	24.93	286.60	1,644.80	10.67	-34.18	35.79	15.00	15.00	-0.54
1,675.00	28.68	286.50	1,667.11	13.88	-44.98	47.06	15.00	15.00	-0.41
1,700.00	32.43	286.42	1,688.63	17.48	-57.17	59.77	15.00	15.00	-0.32
1,725.00	36.18	286.35	1,709.28	21.45	-70.68	73.86	15.00	15.00	-0.26
1,750.00	39.93	286.30	1,728.96	25.78	-85.47	89.26	15.00	15.00	-0.22
1,775.00	43.68	286.25	1,747.60	30.45	-101.46	105.93	15.00	15.00	-0.19
1,800.00	47.43	286.21	1,765.10	35.44	-118.60	123.77	15.00	15.00	-0.16
1,825.00	51.18	286.17	1,781.40	40.72	-136.80	142.72	15.00	15.00	-0.14
1,850.00	54.93	286.14	1,796.42	46.28	-155.99	162.70	15.00	15.00	-0.13
1,875.00	58.68	286.11	1,810.11	52.09	-176.08	183.62	15.00	15.00	-0.12
1,900.00	62.43	286.09	1,822.39	58.13	-196.99	205.38	15.00	15.00	-0.11
1,925.00	66.18	286.06	1,833.23	64.36	-218.64	227.91	15.00	15.00	-0.10
1,934.61	67.62	286.05	1,837.00	66.81	-227.13	236.74	15.00	15.00	-0.10
Lower Fruitland Coal Marker									
1,950.00	69.93	286.04	1,842.57	70.77	-240.92	251.09	15.00	15.00	-0.10
1,975.00	73.68	286.01	1,850.38	77.33	-263.74	274.84	15.00	15.00	-0.09
1,977.24	74.01	286.01	1,851.00	77.92	-265.81	276.99	15.00	15.00	-0.09
Target Interval 2									
2,000.00	77.43	285.99	1,856.61	84.00	-287.01	299.04	15.00	15.00	-0.09
2,025.00	81.18	285.97	1,861.25	90.76	-310.62	323.60	15.00	15.00	-0.09
2,050.00	84.93	285.95	1,864.27	97.58	-334.47	348.41	15.00	15.00	-0.08
2,075.00	88.68	285.93	1,865.67	104.44	-358.47	373.37	15.00	15.00	-0.08
2,083.77	90.00	285.92	1,865.77	106.85	-366.91	382.14	15.00	15.00	-0.08
2,100.00	90.00	285.92	1,865.77	111.30	-382.51	398.37	0.00	0.00	0.00
2,200.00	90.00	285.92	1,865.78	138.73	-478.68	498.37	0.00	0.00	0.00
2,300.00	90.00	285.92	1,865.79	166.16	-574.84	598.37	0.00	0.00	0.00
2,400.00	90.00	285.92	1,865.80	193.59	-671.00	698.37	0.00	0.00	0.00
2,500.00	90.00	285.92	1,865.81	221.02	-767.17	798.37	0.00	0.00	0.00
2,600.00	90.00	285.92	1,865.81	248.45	-863.33	898.37	0.00	0.00	0.00
2,700.00	90.00	285.92	1,865.82	275.88	-959.50	998.37	0.00	0.00	0.00

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Well:	Huber Culhane #2-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Huber Culhane 2-32 -- Lower Lat		
Design:	Huber Culhane 2-32 -- Lower Lat		

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)	
2,800.00	90.00	285.92	1,865.83	303.31	-1,055.66	1,098.37	0.00	0.00	0.00	
2,900.00	90.00	285.92	1,865.84	330.74	-1,151.82	1,198.37	0.00	0.00	0.00	
3,000.00	90.00	285.92	1,865.85	358.17	-1,247.99	1,298.37	0.00	0.00	0.00	
3,100.00	90.00	285.92	1,865.86	385.61	-1,344.15	1,398.37	0.00	0.00	0.00	
3,200.00	90.00	285.92	1,865.87	413.04	-1,440.32	1,498.37	0.00	0.00	0.00	
3,300.00	90.00	285.92	1,865.88	440.47	-1,536.48	1,598.37	0.00	0.00	0.00	
3,400.00	90.00	285.92	1,865.88	467.90	-1,632.65	1,698.37	0.00	0.00	0.00	
3,500.00	90.00	285.92	1,865.89	495.33	-1,728.81	1,798.37	0.00	0.00	0.00	
3,600.00	90.00	285.92	1,865.90	522.76	-1,824.97	1,898.37	0.00	0.00	0.00	
3,700.00	90.00	285.92	1,865.91	550.19	-1,921.14	1,998.37	0.00	0.00	0.00	
3,800.00	90.00	285.92	1,865.92	577.62	-2,017.30	2,098.37	0.00	0.00	0.00	
3,900.00	90.00	285.92	1,865.93	605.05	-2,113.47	2,198.37	0.00	0.00	0.00	
4,000.00	90.00	285.92	1,865.94	632.48	-2,209.63	2,298.37	0.00	0.00	0.00	
4,100.00	90.00	285.92	1,865.94	659.92	-2,305.79	2,398.37	0.00	0.00	0.00	
4,200.00	90.00	285.92	1,865.95	687.35	-2,401.96	2,498.37	0.00	0.00	0.00	
4,300.00	90.00	285.92	1,865.96	714.78	-2,498.12	2,598.37	0.00	0.00	0.00	
4,400.00	90.00	285.92	1,865.97	742.21	-2,594.29	2,698.37	0.00	0.00	0.00	
4,500.00	90.00	285.92	1,865.98	769.64	-2,690.45	2,798.37	0.00	0.00	0.00	
4,600.00	90.00	285.92	1,865.99	797.07	-2,786.62	2,898.37	0.00	0.00	0.00	
4,700.00	90.00	285.92	1,866.00	824.50	-2,882.78	2,998.37	0.00	0.00	0.00	
4,734.00	90.00	285.92	1,866.00	833.83	-2,915.48	3,032.37	0.00	0.00	0.00	
4 1/2"										
4,734.55	90.00	285.92	1,866.00	833.98	-2,916.00	3,032.92	0.00	0.00	0.00	
Target Interval 1										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Huber Culhane 2-32 -- L	0.00	0.00	1,866.00	833.98	-2,916.00	1,225,621.58	2,337,840.50	37° 15' 50.939949 N	107° 46' 31.980000 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
4,734.00	1,866.00	4 1/2"	4-1/2	6-1/4	

XTO Energy, Inc.

Planning Report

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Project:	LaPlata County (NAD83)	MD Reference:	Rig KB @ 7031.00ft (Aztec 507)
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Wellbore:	Huber Culhane 2-32 -- Lower Lat		
Design:	Huber Culhane 2-32 -- Lower Lat		

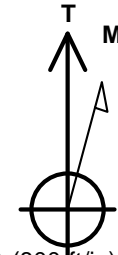
Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
516.00	516.00	Ojo Alamo SS		0.00		
566.00	566.00	Kirtland Shale		0.00		
1,396.00	1,396.00	Fruitland Coal		0.00		
1,934.61	1,837.00	Lower Fruitland Coal Marker		0.00		
1,977.24	1,851.00	Target Interval 2		0.00		
4,734.55	1,866.00	Target Interval 1		0.00		



Well Name: Huber Culhane #2-32

San Juan Division
Drilling Department

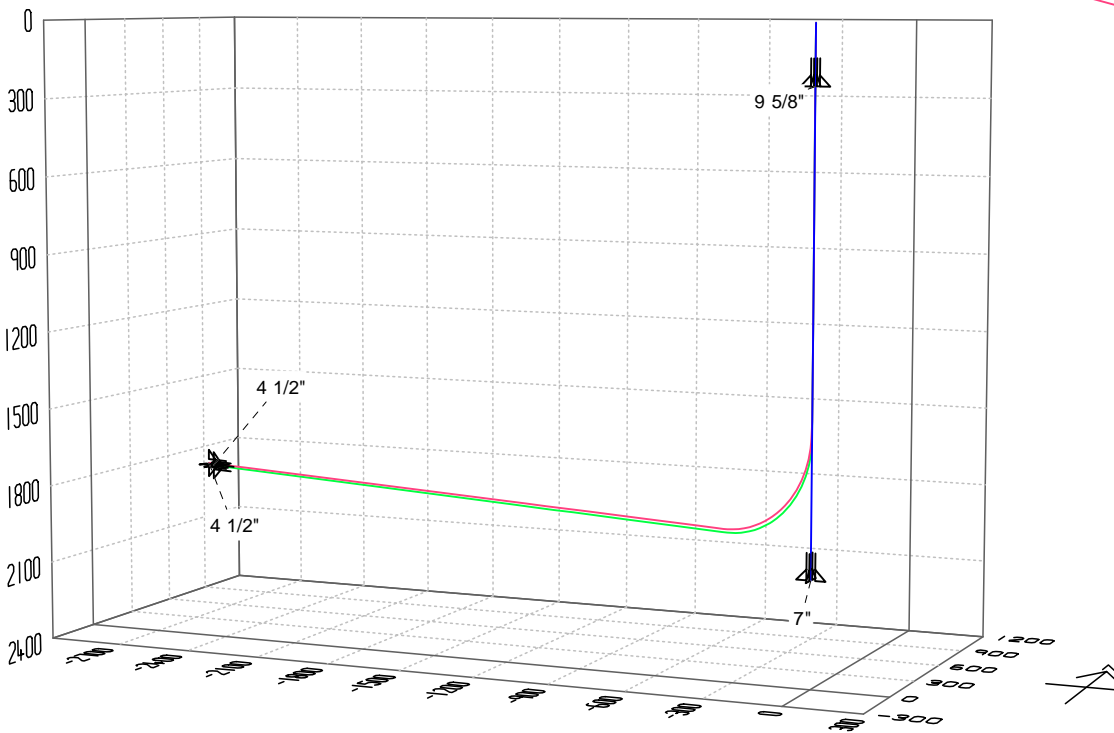
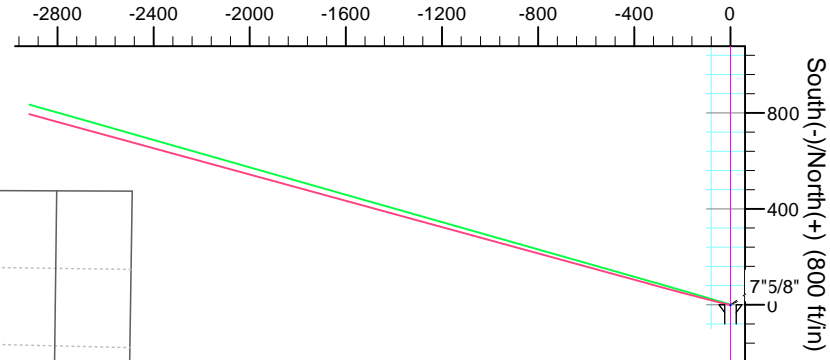
Calculation Method: Minimum Curvature
Geodetic Datum: North American Datum 1983
Lat: 37° 15' 42.696000 N
Long: 107° 45' 55.908000 W



Azimuths to True North
Magnetic North: 9.73°

Magnetic Field
Strength: 50897.1nT
Dip Angle: 63.89°
Date: 3/13/2013
Model: IGRF200510

West(-)/East(+) (800 ft/in)

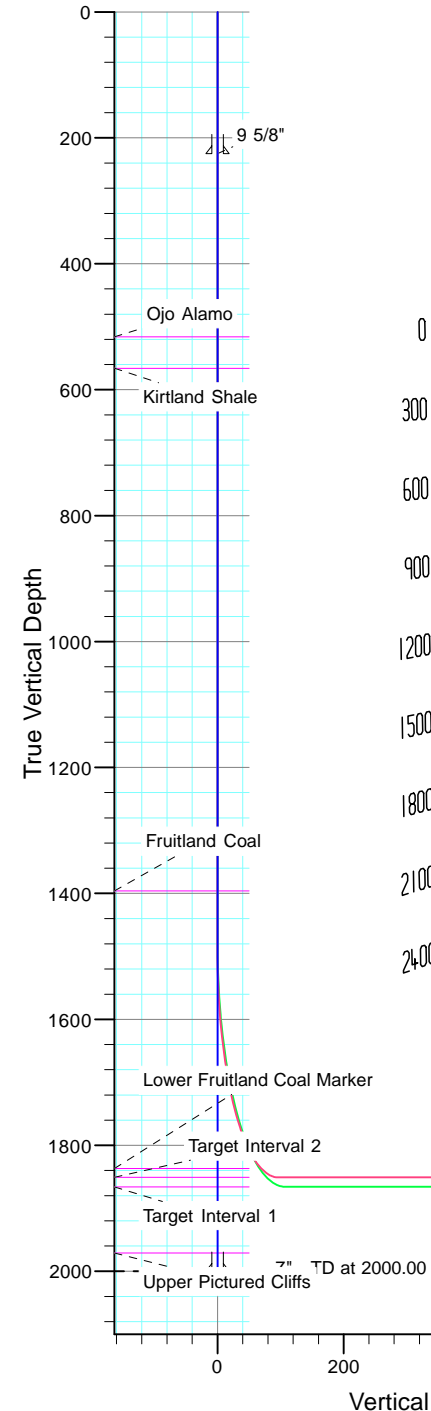


CASING DETAILS

TVD	MD	Name
225.00	225.00	9 5/8"
2000.00	2000.00	7"

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
516.00	516.00	Ojo Alamo
566.00	566.00	Kirtland Shale
1396.00	1396.00	Fruitland Coal
1837.00	1837.00	Lower Fruitland Coal Marker
1851.00	1851.00	Target Interval 2
1866.00	1866.00	Target Interval 1
1971.00	1971.00	Upper Pictured Cliffs



Vertical Section at 0.00°