

HOBBS OCD

FEB 26 2019

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Devon Energy

WELL DETAILS: Bell Lake 19-18 State Com 36H

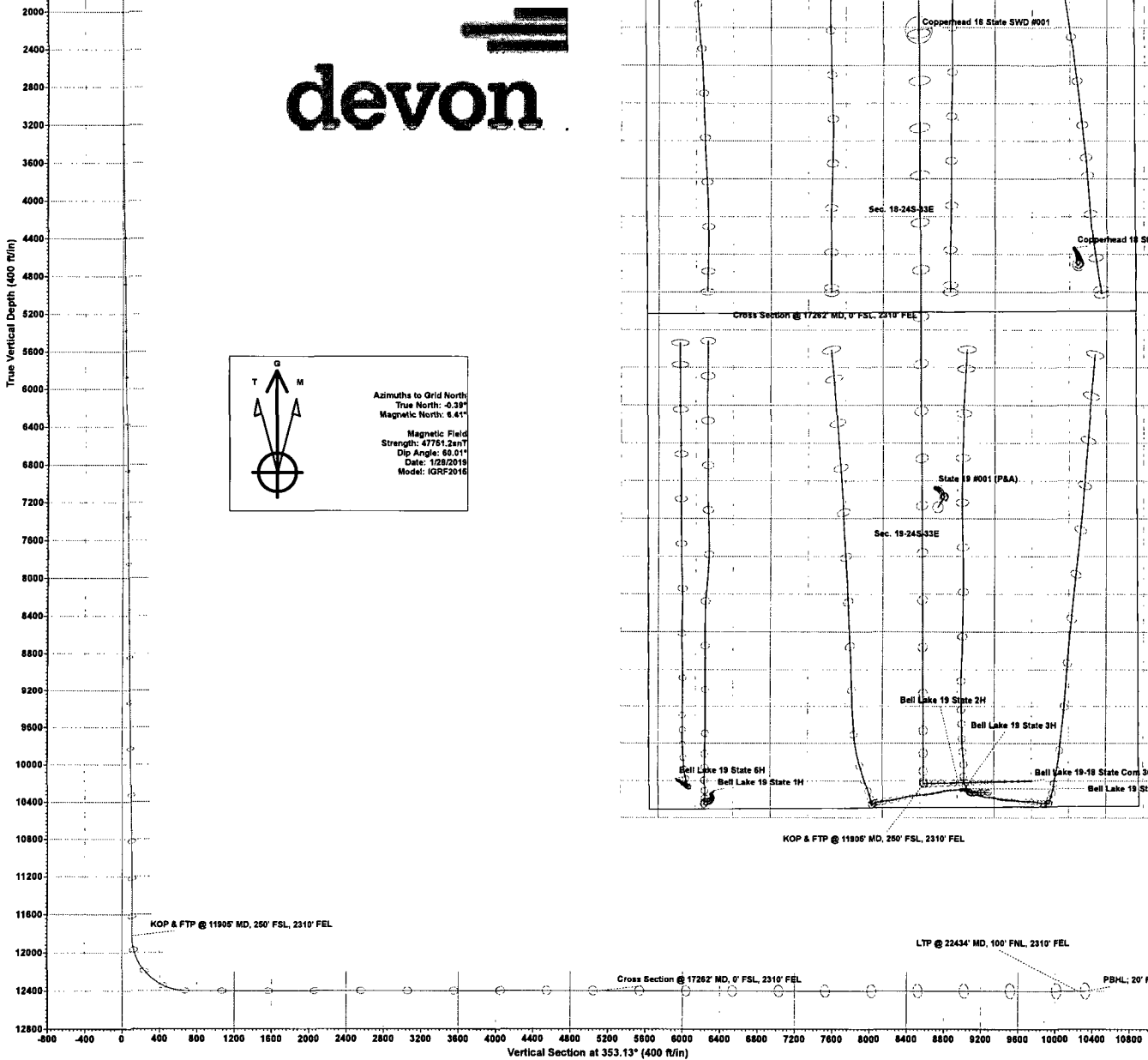
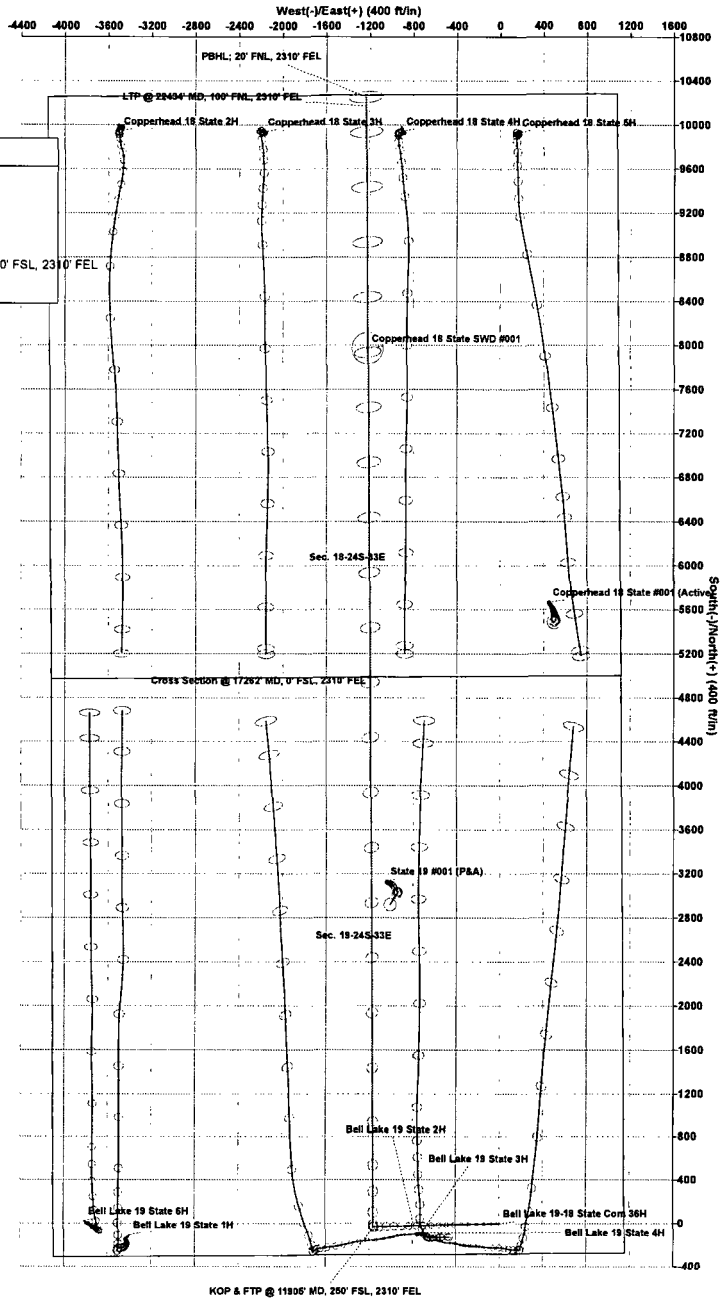
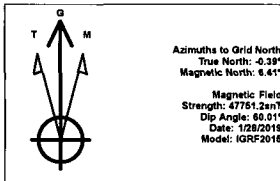
RKB @ 3565.60R
3540.60

Northing 436049.51 Easting 766141.54 Latitude 32.196689 Longitude -103.606584

SECTION DETAILS Permit Plan 1

MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	
3293.12	7.93	268.47	3290.59	-1.47	-54.79	1.00	5.10	
11026.44	7.93	268.47	10949.94	-30.02	-1121.48	0.00	104.39	
11555.19	0.00	0.00	11477.00	-31.00	-1158.00	1.50	107.78	
11905.23	0.00	0.00	11627.04	-31.00	-1158.00	0.00	107.78	KOP & FTP @ 11905' MD, 250' FSL, 2310' FEL
12805.23	90.00	359.87	12400.00	541.94	-1182.32	10.00	677.13	
22514.30	90.00	359.87	12400.00	10250.73	-1235.44	0.00	10324.91	PBHL; 20' FNL, 2310' FEL

devon



WCDSC Permian NM

Lea County (NAD83 New Mexico East)

Sec 19-T24S-R33E

Bell Lake 19-18 State Com 36H

Wellbore #1

Plan: Permit Plan 1

Standard Planning Report - Geographic

29 January, 2019

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 36H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3565.60ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3565.60ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 36H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Project	Lea County (NAD83 New Mexico East)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Sec 19-T24S-R33E			
Site Position:		Northing:	435,739.64 usft	Latitude:	32.195913
From:	Map	Easting:	762,046.84 usft	Longitude:	-103.619827
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.38 °

Well	Bell Lake 19-18 State Com 36H					
Well Position	+N/-S	0.00 ft	Northing:	436,049.51 usft	Latitude:	32.196689
	+E/-W	0.00 ft	Easting:	766,141.54 usft	Longitude:	-103.606584
Position Uncertainty		0.50 ft	Wellhead Elevation:		Ground Level:	3,540.60 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/28/2019	6.79	60.01	47,751.22998591

Design	Permit Plan 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	353.13

Plan Survey Tool Program	Date	1/29/2019		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	22,514.30 Permit Plan 1 (Wellbore #1)	MWD+HDGM OWSG MWD + HDGM	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,293.12	7.93	268.47	3,290.59	-1.47	-54.79	1.00	1.00	0.00	268.47	
11,026.44	7.93	268.47	10,949.94	-30.02	-1,121.48	0.00	0.00	0.00	0.00	
11,555.19	0.00	0.00	11,477.00	-31.00	-1,158.00	1.50	-1.50	0.00	180.00	
11,905.23	0.00	0.00	11,827.04	-31.00	-1,158.00	0.00	0.00	0.00	0.00	
12,805.23	90.00	359.57	12,400.00	541.94	-1,162.32	10.00	10.00	0.00	359.57 PBHL - Bell Lake 19-1	
22,514.30	90.00	359.57	12,400.00	10,250.73	-1,235.44	0.00	0.00	0.00	0.00 PBHL - Bell Lake 19-1	

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 36H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3565.60ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3565.60ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 36H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
100.00	0.00	0.00	100.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
200.00	0.00	0.00	200.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
300.00	0.00	0.00	300.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
400.00	0.00	0.00	400.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
500.00	0.00	0.00	500.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
600.00	0.00	0.00	600.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
700.00	0.00	0.00	700.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
800.00	0.00	0.00	800.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
900.00	0.00	0.00	900.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
1,000.00	0.00	0.00	1,000.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
1,100.00	0.00	0.00	1,100.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
1,200.00	0.00	0.00	1,200.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
1,300.00	0.00	0.00	1,300.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
1,400.00	0.00	0.00	1,400.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
1,500.00	0.00	0.00	1,500.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
1,600.00	0.00	0.00	1,600.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
1,700.00	0.00	0.00	1,700.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
1,800.00	0.00	0.00	1,800.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
1,900.00	0.00	0.00	1,900.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
2,000.00	0.00	0.00	2,000.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
2,100.00	0.00	0.00	2,100.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
2,200.00	0.00	0.00	2,200.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
2,300.00	0.00	0.00	2,300.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
2,400.00	0.00	0.00	2,400.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
2,500.00	0.00	0.00	2,500.00	0.00	0.00	436,049.51	766,141.54	32.196689	-103.606584
2,600.00	1.00	268.47	2,599.99	-0.02	-0.87	436,049.49	766,140.66	32.196689	-103.606587
2,700.00	2.00	268.47	2,699.96	-0.09	-3.49	436,049.42	766,138.05	32.196689	-103.606595
2,800.00	3.00	268.47	2,799.86	-0.21	-7.85	436,049.30	766,133.69	32.196689	-103.606609
2,900.00	4.00	268.47	2,899.68	-0.37	-13.95	436,049.14	766,127.59	32.196688	-103.606629
3,000.00	5.00	268.47	2,999.37	-0.58	-21.79	436,048.93	766,119.74	32.196688	-103.606655
3,100.00	6.00	268.47	3,098.90	-0.84	-31.38	436,048.67	766,110.16	32.196687	-103.606686
3,200.00	7.00	268.47	3,198.26	-1.14	-42.69	436,048.37	766,098.85	32.196687	-103.606722
3,293.12	7.93	268.47	3,290.59	-1.47	-54.79	436,048.04	766,086.75	32.196686	-103.606761
3,300.00	7.93	268.47	3,297.40	-1.49	-55.74	436,048.02	766,085.80	32.196686	-103.606764
3,400.00	7.93	268.47	3,396.45	-1.86	-69.53	436,047.65	766,072.01	32.196685	-103.606809
3,500.00	7.93	268.47	3,495.49	-2.23	-83.32	436,047.28	766,058.21	32.196684	-103.606854
3,600.00	7.93	268.47	3,594.53	-2.60	-97.12	436,046.91	766,044.42	32.196684	-103.606898
3,700.00	7.93	268.47	3,693.58	-2.97	-110.91	436,046.54	766,030.63	32.196683	-103.606943
3,800.00	7.93	268.47	3,792.62	-3.34	-124.70	436,046.17	766,016.83	32.196682	-103.606987
3,900.00	7.93	268.47	3,891.66	-3.71	-138.50	436,045.80	766,003.04	32.196681	-103.607032
4,000.00	7.93	268.47	3,990.71	-4.08	-152.29	436,045.43	765,989.25	32.196681	-103.607076
4,100.00	7.93	268.47	4,089.75	-4.45	-166.08	436,045.06	765,975.45	32.196680	-103.607121
4,200.00	7.93	268.47	4,188.79	-4.82	-179.88	436,044.69	765,961.66	32.196679	-103.607166
4,300.00	7.93	268.47	4,287.84	-5.18	-193.67	436,044.33	765,947.87	32.196678	-103.607210
4,400.00	7.93	268.47	4,386.88	-5.55	-207.46	436,043.96	765,934.07	32.196678	-103.607255
4,500.00	7.93	268.47	4,485.93	-5.92	-221.26	436,043.59	765,920.28	32.196677	-103.607299
4,600.00	7.93	268.47	4,584.97	-6.29	-235.05	436,043.22	765,906.49	32.196676	-103.607344
4,700.00	7.93	268.47	4,684.01	-6.66	-248.84	436,042.85	765,892.69	32.196675	-103.607389
4,800.00	7.93	268.47	4,783.06	-7.03	-262.64	436,042.48	765,878.90	32.196675	-103.607433
4,900.00	7.93	268.47	4,882.10	-7.40	-276.43	436,042.11	765,865.11	32.196674	-103.607478
5,000.00	7.93	268.47	4,981.14	-7.77	-290.22	436,041.74	765,851.31	32.196673	-103.607522
5,100.00	7.93	268.47	5,080.19	-8.14	-304.02	436,041.37	765,837.52	32.196672	-103.607567
5,200.00	7.93	268.47	5,179.23	-8.51	-317.81	436,041.00	765,823.73	32.196672	-103.607612
5,300.00	7.93	268.47	5,278.27	-8.88	-331.60	436,040.63	765,809.93	32.196671	-103.607656

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 36H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3565.60ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3565.60ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 36H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,400.00	7.93	268.47	5,377.32	-9.25	-345.40	436,040.26	765,796.14	32.196670	-103.607701	
5,500.00	7.93	268.47	5,476.36	-9.62	-359.19	436,039.89	765,782.35	32.196669	-103.607745	
5,600.00	7.93	268.47	5,575.40	-9.98	-372.98	436,039.52	765,768.55	32.196669	-103.607790	
5,700.00	7.93	268.47	5,674.45	-10.35	-386.78	436,039.16	765,754.76	32.196668	-103.607835	
5,800.00	7.93	268.47	5,773.49	-10.72	-400.57	436,038.79	765,740.97	32.196667	-103.607879	
5,900.00	7.93	268.47	5,872.53	-11.09	-414.36	436,038.42	765,727.17	32.196666	-103.607924	
6,000.00	7.93	268.47	5,971.58	-11.46	-428.16	436,038.05	765,713.38	32.196666	-103.607968	
6,100.00	7.93	268.47	6,070.62	-11.83	-441.95	436,037.68	765,699.59	32.196665	-103.608013	
6,200.00	7.93	268.47	6,169.66	-12.20	-455.74	436,037.31	765,685.79	32.196664	-103.608058	
6,300.00	7.93	268.47	6,268.71	-12.57	-469.54	436,036.94	765,672.00	32.196663	-103.608102	
6,400.00	7.93	268.47	6,367.75	-12.94	-483.33	436,036.57	765,658.21	32.196662	-103.608147	
6,500.00	7.93	268.47	6,466.79	-13.31	-497.12	436,036.20	765,644.41	32.196662	-103.608191	
6,600.00	7.93	268.47	6,565.84	-13.68	-510.92	436,035.83	765,630.62	32.196661	-103.608236	
6,700.00	7.93	268.47	6,664.88	-14.05	-524.71	436,035.46	765,616.83	32.196660	-103.608281	
6,800.00	7.93	268.47	6,763.92	-14.42	-538.50	436,035.09	765,603.03	32.196659	-103.608325	
6,900.00	7.93	268.47	6,862.97	-14.79	-552.30	436,034.72	765,589.24	32.196659	-103.608370	
7,000.00	7.93	268.47	6,962.01	-15.15	-566.09	436,034.36	765,575.45	32.196658	-103.608414	
7,100.00	7.93	268.47	7,061.06	-15.52	-579.89	436,033.99	765,561.65	32.196657	-103.608459	
7,200.00	7.93	268.47	7,160.10	-15.89	-593.68	436,033.62	765,547.86	32.196656	-103.608504	
7,300.00	7.93	268.47	7,259.14	-16.26	-607.47	436,033.25	765,534.07	32.196656	-103.608548	
7,400.00	7.93	268.47	7,358.19	-16.63	-621.27	436,032.88	765,520.27	32.196655	-103.608593	
7,500.00	7.93	268.47	7,457.23	-17.00	-635.06	436,032.51	765,506.48	32.196654	-103.608637	
7,600.00	7.93	268.47	7,556.27	-17.37	-648.85	436,032.14	765,492.69	32.196653	-103.608682	
7,700.00	7.93	268.47	7,655.32	-17.74	-662.65	436,031.77	765,478.89	32.196653	-103.608727	
7,800.00	7.93	268.47	7,754.36	-18.11	-676.44	436,031.40	765,465.10	32.196652	-103.608771	
7,900.00	7.93	268.47	7,853.40	-18.48	-690.23	436,031.03	765,451.31	32.196651	-103.608816	
8,000.00	7.93	268.47	7,952.45	-18.85	-704.03	436,030.66	765,437.51	32.196650	-103.608860	
8,100.00	7.93	268.47	8,051.49	-19.22	-717.82	436,030.29	765,423.72	32.196650	-103.608905	
8,200.00	7.93	268.47	8,150.53	-19.59	-731.61	436,029.92	765,409.93	32.196649	-103.608950	
8,300.00	7.93	268.47	8,249.58	-19.95	-745.41	436,029.56	765,396.13	32.196648	-103.608994	
8,400.00	7.93	268.47	8,348.62	-20.32	-759.20	436,029.19	765,382.34	32.196647	-103.609039	
8,500.00	7.93	268.47	8,447.66	-20.69	-772.99	436,028.82	765,368.55	32.196647	-103.609083	
8,600.00	7.93	268.47	8,546.71	-21.06	-786.79	436,028.45	765,354.75	32.196646	-103.609128	
8,700.00	7.93	268.47	8,645.75	-21.43	-800.58	436,028.08	765,340.96	32.196645	-103.609173	
8,800.00	7.93	268.47	8,744.79	-21.80	-814.37	436,027.71	765,327.17	32.196644	-103.609217	
8,900.00	7.93	268.47	8,843.84	-22.17	-828.17	436,027.34	765,313.37	32.196643	-103.609262	
9,000.00	7.93	268.47	8,942.88	-22.54	-841.96	436,026.97	765,299.58	32.196643	-103.609306	
9,100.00	7.93	268.47	9,041.92	-22.91	-855.75	436,026.60	765,285.79	32.196642	-103.609351	
9,200.00	7.93	268.47	9,140.97	-23.28	-869.55	436,026.23	765,271.99	32.196641	-103.609396	
9,300.00	7.93	268.47	9,240.01	-23.65	-883.34	436,025.86	765,258.20	32.196640	-103.609440	
9,400.00	7.93	268.47	9,339.05	-24.02	-897.13	436,025.49	765,244.41	32.196640	-103.609485	
9,500.00	7.93	268.47	9,438.10	-24.39	-910.93	436,025.12	765,230.61	32.196639	-103.609529	
9,600.00	7.93	268.47	9,537.14	-24.76	-924.72	436,024.75	765,216.82	32.196638	-103.609574	
9,700.00	7.93	268.47	9,636.18	-25.12	-938.51	436,024.39	765,203.03	32.196637	-103.609618	
9,800.00	7.93	268.47	9,735.23	-25.49	-952.31	436,024.02	765,189.23	32.196637	-103.609663	
9,900.00	7.93	268.47	9,834.27	-25.86	-966.10	436,023.65	765,175.44	32.196636	-103.609708	
10,000.00	7.93	268.47	9,933.32	-26.23	-979.89	436,023.28	765,161.65	32.196635	-103.609752	
10,100.00	7.93	268.47	10,032.36	-26.60	-993.69	436,022.91	765,147.85	32.196634	-103.609797	
10,200.00	7.93	268.47	10,131.40	-26.97	-1,007.48	436,022.54	765,134.06	32.196634	-103.609841	
10,300.00	7.93	268.47	10,230.45	-27.34	-1,021.27	436,022.17	765,120.26	32.196633	-103.609886	
10,400.00	7.93	268.47	10,329.49	-27.71	-1,035.07	436,021.80	765,106.47	32.196632	-103.609931	
10,500.00	7.93	268.47	10,428.53	-28.08	-1,048.86	436,021.43	765,092.68	32.196631	-103.609975	
10,600.00	7.93	268.47	10,527.58	-28.45	-1,062.65	436,021.06	765,078.88	32.196631	-103.610020	
10,700.00	7.93	268.47	10,626.62	-28.82	-1,076.45	436,020.69	765,065.09	32.196630	-103.610064	
10,800.00	7.93	268.47	10,725.66	-29.19	-1,090.24	436,020.32	765,051.30	32.196629	-103.610109	

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 36H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3565.60ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3565.60ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 36H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,900.00	7.93	268.47	10,824.71	-29.56	-1,104.03	436,019.95	765,037.50	32.196628	-103.610154
11,000.00	7.93	268.47	10,923.75	-29.92	-1,117.83	436,019.59	765,023.71	32.196628	-103.610198
11,026.44	7.93	268.47	10,949.94	-30.02	-1,121.48	436,019.49	765,020.06	32.196627	-103.610210
11,100.00	6.83	268.47	11,022.89	-30.28	-1,130.92	436,019.23	765,010.62	32.196627	-103.610241
11,200.00	5.33	268.47	11,122.32	-30.56	-1,141.50	436,018.95	765,000.04	32.196626	-103.610275
11,300.00	3.83	268.47	11,222.00	-30.77	-1,149.48	436,018.74	764,992.06	32.196626	-103.610301
11,400.00	2.33	268.47	11,321.85	-30.92	-1,154.85	436,018.59	764,986.69	32.196625	-103.610318
11,500.00	0.83	268.47	11,421.81	-30.99	-1,157.60	436,018.52	764,983.94	32.196625	-103.610327
11,555.19	0.00	0.00	11,477.00	-31.00	-1,158.00	436,018.51	764,983.54	32.196625	-103.610328
11,600.00	0.00	0.00	11,521.81	-31.00	-1,158.00	436,018.51	764,983.54	32.196625	-103.610328
11,700.00	0.00	0.00	11,621.81	-31.00	-1,158.00	436,018.51	764,983.54	32.196625	-103.610328
11,800.00	0.00	0.00	11,721.81	-31.00	-1,158.00	436,018.51	764,983.54	32.196625	-103.610328
11,900.00	0.00	0.00	11,821.81	-31.00	-1,158.00	436,018.51	764,983.54	32.196625	-103.610328
11,905.23	0.00	0.00	11,827.04	-31.00	-1,158.00	436,018.51	764,983.54	32.196625	-103.610328
KOP & FTP @ 11905' MD, 250' FSL, 2310' FEL									
12,000.00	9.48	359.57	11,921.38	-23.18	-1,158.06	436,026.33	764,983.48	32.196647	-103.610328
12,100.00	19.48	359.57	12,018.08	1.79	-1,158.25	436,051.30	764,983.29	32.196715	-103.610328
12,200.00	29.48	359.57	12,108.98	43.17	-1,158.56	436,092.67	764,982.98	32.196829	-103.610328
12,300.00	39.48	359.57	12,191.31	99.70	-1,158.98	436,149.21	764,982.55	32.196985	-103.610328
12,400.00	49.48	359.57	12,262.57	169.67	-1,159.51	436,219.18	764,982.03	32.197177	-103.610329
12,500.00	59.48	359.57	12,320.60	250.95	-1,160.12	436,300.46	764,981.42	32.197400	-103.610329
12,600.00	69.48	359.57	12,363.63	341.08	-1,160.80	436,390.59	764,980.74	32.197648	-103.610329
12,700.00	79.48	359.57	12,390.36	437.30	-1,161.53	436,486.81	764,980.01	32.197913	-103.610329
12,800.00	89.48	359.57	12,399.98	536.71	-1,162.28	436,586.22	764,979.26	32.198186	-103.610330
12,805.23	90.00	359.57	12,400.00	541.94	-1,162.32	436,591.45	764,979.22	32.198200	-103.610330
12,900.00	90.00	359.57	12,400.00	636.71	-1,163.03	436,686.22	764,978.51	32.198461	-103.610330
13,000.00	90.00	359.57	12,400.00	736.71	-1,163.78	436,786.21	764,977.76	32.198736	-103.610330
13,100.00	90.00	359.57	12,400.00	836.70	-1,164.54	436,886.21	764,977.00	32.199010	-103.610330
13,200.00	90.00	359.57	12,400.00	936.70	-1,165.29	436,986.21	764,976.25	32.199285	-103.610331
13,300.00	90.00	359.57	12,400.00	1,036.70	-1,166.04	437,086.20	764,975.50	32.199560	-103.610331
13,400.00	90.00	359.57	12,400.00	1,136.69	-1,166.80	437,186.20	764,974.74	32.199835	-103.610331
13,500.00	90.00	359.57	12,400.00	1,236.69	-1,167.55	437,286.20	764,973.99	32.200110	-103.610331
13,600.00	90.00	359.57	12,400.00	1,336.69	-1,168.30	437,386.20	764,973.24	32.200385	-103.610332
13,700.00	90.00	359.57	12,400.00	1,436.69	-1,169.05	437,486.19	764,972.48	32.200660	-103.610332
13,800.00	90.00	359.57	12,400.00	1,536.68	-1,169.81	437,586.19	764,971.73	32.200935	-103.610332
13,900.00	90.00	359.57	12,400.00	1,636.68	-1,170.56	437,686.19	764,970.98	32.201209	-103.610332
14,000.00	90.00	359.57	12,400.00	1,736.68	-1,171.31	437,786.18	764,970.23	32.201484	-103.610333
14,100.00	90.00	359.57	12,400.00	1,836.67	-1,172.07	437,886.18	764,969.47	32.201759	-103.610333
14,200.00	90.00	359.57	12,400.00	1,936.67	-1,172.82	437,986.18	764,968.72	32.202034	-103.610333
14,300.00	90.00	359.57	12,400.00	2,036.67	-1,173.57	438,086.17	764,967.97	32.202309	-103.610334
14,400.00	90.00	359.57	12,400.00	2,136.67	-1,174.33	438,186.17	764,967.21	32.202584	-103.610334
14,500.00	90.00	359.57	12,400.00	2,236.66	-1,175.08	438,286.17	764,966.46	32.202859	-103.610334
14,600.00	90.00	359.57	12,400.00	2,336.66	-1,175.83	438,386.16	764,965.71	32.203134	-103.610334
14,700.00	90.00	359.57	12,400.00	2,436.66	-1,176.59	438,486.16	764,964.95	32.203408	-103.610335
14,800.00	90.00	359.57	12,400.00	2,536.65	-1,177.34	438,586.16	764,964.20	32.203683	-103.610335
14,900.00	90.00	359.57	12,400.00	2,636.65	-1,178.09	438,686.16	764,963.45	32.203958	-103.610335
15,000.00	90.00	359.57	12,400.00	2,736.65	-1,178.85	438,786.15	764,962.69	32.204233	-103.610335
15,100.00	90.00	359.57	12,400.00	2,836.65	-1,179.60	438,886.15	764,961.94	32.204508	-103.610336
15,200.00	90.00	359.57	12,400.00	2,936.64	-1,180.35	438,986.15	764,961.19	32.204783	-103.610336
15,300.00	90.00	359.57	12,400.00	3,036.64	-1,181.11	439,086.14	764,960.43	32.205058	-103.610336
15,400.00	90.00	359.57	12,400.00	3,136.64	-1,181.86	439,186.14	764,959.68	32.205333	-103.610336
15,500.00	90.00	359.57	12,400.00	3,236.63	-1,182.61	439,286.14	764,958.93	32.205607	-103.610337
15,600.00	90.00	359.57	12,400.00	3,336.63	-1,183.37	439,386.13	764,958.17	32.205882	-103.610337
15,700.00	90.00	359.57	12,400.00	3,436.63	-1,184.12	439,486.13	764,957.42	32.206157	-103.610337

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 36H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3565.60ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3565.60ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 36H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,800.00	90.00	359.57	12,400.00	3,536.63	-1,184.87	439,586.13	764,956.67	32.206432	-103.610337
15,900.00	90.00	359.57	12,400.00	3,636.62	-1,185.62	439,686.13	764,955.91	32.206707	-103.610338
16,000.00	90.00	359.57	12,400.00	3,736.62	-1,186.38	439,786.12	764,955.16	32.206982	-103.610338
16,100.00	90.00	359.57	12,400.00	3,836.62	-1,187.13	439,886.12	764,954.41	32.207257	-103.610338
16,200.00	90.00	359.57	12,400.00	3,936.61	-1,187.88	439,986.12	764,953.66	32.207532	-103.610338
16,300.00	90.00	359.57	12,400.00	4,036.61	-1,188.64	440,086.11	764,952.90	32.207806	-103.610339
16,400.00	90.00	359.57	12,400.00	4,136.61	-1,189.39	440,186.11	764,952.15	32.208081	-103.610339
16,500.00	90.00	359.57	12,400.00	4,236.61	-1,190.14	440,286.11	764,951.40	32.208356	-103.610339
16,600.00	90.00	359.57	12,400.00	4,336.60	-1,190.90	440,386.10	764,950.64	32.208631	-103.610340
16,700.00	90.00	359.57	12,400.00	4,436.60	-1,191.65	440,486.10	764,949.89	32.208906	-103.610340
16,800.00	90.00	359.57	12,400.00	4,536.60	-1,192.40	440,586.10	764,949.14	32.209181	-103.610340
16,900.00	90.00	359.57	12,400.00	4,636.59	-1,193.16	440,686.09	764,948.38	32.209456	-103.610340
17,000.00	90.00	359.57	12,400.00	4,736.59	-1,193.91	440,786.09	764,947.63	32.209731	-103.610341
17,100.00	90.00	359.57	12,400.00	4,836.59	-1,194.66	440,886.09	764,946.88	32.210005	-103.610341
17,200.00	90.00	359.57	12,400.00	4,936.59	-1,195.42	440,986.09	764,946.12	32.210280	-103.610341
17,262.00	90.00	359.57	12,400.00	4,998.58	-1,195.88	441,048.08	764,945.66	32.210451	-103.610341
Cross Section @ 17262' MD, 0' FSL, 2310' FEL									
17,300.00	90.00	359.57	12,400.00	5,036.58	-1,196.17	441,086.08	764,945.37	32.210555	-103.610341
17,400.00	90.00	359.57	12,400.00	5,136.58	-1,196.92	441,186.08	764,944.62	32.210830	-103.610342
17,500.00	90.00	359.57	12,400.00	5,236.58	-1,197.68	441,286.08	764,943.86	32.211105	-103.610342
17,600.00	90.00	359.57	12,400.00	5,336.57	-1,198.43	441,386.07	764,943.11	32.211380	-103.610342
17,700.00	90.00	359.57	12,400.00	5,436.57	-1,199.18	441,486.07	764,942.36	32.211655	-103.610342
17,800.00	90.00	359.57	12,400.00	5,536.57	-1,199.94	441,586.07	764,941.60	32.211930	-103.610343
17,900.00	90.00	359.57	12,400.00	5,636.57	-1,200.69	441,686.06	764,940.85	32.212204	-103.610343
18,000.00	90.00	359.57	12,400.00	5,736.56	-1,201.44	441,786.06	764,940.10	32.212479	-103.610343
18,100.00	90.00	359.57	12,400.00	5,836.56	-1,202.19	441,886.06	764,939.34	32.212754	-103.610343
18,200.00	90.00	359.57	12,400.00	5,936.56	-1,202.95	441,986.06	764,938.59	32.213029	-103.610344
18,300.00	90.00	359.57	12,400.00	6,036.55	-1,203.70	442,086.05	764,937.84	32.213304	-103.610344
18,400.00	90.00	359.57	12,400.00	6,136.55	-1,204.45	442,186.05	764,937.09	32.213579	-103.610344
18,500.00	90.00	359.57	12,400.00	6,236.55	-1,205.21	442,286.05	764,936.33	32.213854	-103.610344
18,600.00	90.00	359.57	12,400.00	6,336.55	-1,205.96	442,386.04	764,935.58	32.214129	-103.610345
18,700.00	90.00	359.57	12,400.00	6,436.54	-1,206.71	442,486.04	764,934.83	32.214403	-103.610345
18,800.00	90.00	359.57	12,400.00	6,536.54	-1,207.47	442,586.04	764,934.07	32.214678	-103.610345
18,900.00	90.00	359.57	12,400.00	6,636.54	-1,208.22	442,686.03	764,933.32	32.214953	-103.610346
19,000.00	90.00	359.57	12,400.00	6,736.53	-1,208.97	442,786.03	764,932.57	32.215228	-103.610346
19,100.00	90.00	359.57	12,400.00	6,836.53	-1,209.73	442,886.03	764,931.81	32.215503	-103.610346
19,200.00	90.00	359.57	12,400.00	6,936.53	-1,210.48	442,986.03	764,931.06	32.215778	-103.610346
19,300.00	90.00	359.57	12,400.00	7,036.53	-1,211.23	443,086.02	764,930.31	32.216053	-103.610347
19,400.00	90.00	359.57	12,400.00	7,136.52	-1,211.99	443,186.02	764,929.55	32.216328	-103.610347
19,500.00	90.00	359.57	12,400.00	7,236.52	-1,212.74	443,286.02	764,928.80	32.216602	-103.610347
19,600.00	90.00	359.57	12,400.00	7,336.52	-1,213.49	443,386.01	764,928.05	32.216877	-103.610347
19,700.00	90.00	359.57	12,400.00	7,436.52	-1,214.25	443,486.01	764,927.29	32.217152	-103.610348
19,800.00	90.00	359.57	12,400.00	7,536.51	-1,215.00	443,586.01	764,926.54	32.217427	-103.610348
19,900.00	90.00	359.57	12,400.00	7,636.51	-1,215.75	443,686.00	764,925.79	32.217702	-103.610348
20,000.00	90.00	359.57	12,400.00	7,736.51	-1,216.51	443,786.00	764,925.03	32.217977	-103.610348
20,100.00	90.00	359.57	12,400.00	7,836.50	-1,217.26	443,886.00	764,924.28	32.218252	-103.610349
20,200.00	90.00	359.57	12,400.00	7,936.50	-1,218.01	443,985.99	764,923.53	32.218527	-103.610349
20,300.00	90.00	359.57	12,400.00	8,036.50	-1,218.76	444,085.99	764,922.77	32.218801	-103.610349
20,400.00	90.00	359.57	12,400.00	8,136.50	-1,219.52	444,185.99	764,922.02	32.219076	-103.610349
20,500.00	90.00	359.57	12,400.00	8,236.49	-1,220.27	444,285.99	764,921.27	32.219351	-103.610350
20,600.00	90.00	359.57	12,400.00	8,336.49	-1,221.02	444,385.98	764,920.52	32.219626	-103.610350
20,700.00	90.00	359.57	12,400.00	8,436.49	-1,221.78	444,485.98	764,919.76	32.219901	-103.610350
20,800.00	90.00	359.57	12,400.00	8,536.48	-1,222.53	444,585.98	764,919.01	32.220176	-103.610350
20,900.00	90.00	359.57	12,400.00	8,636.48	-1,223.28	444,685.97	764,918.26	32.220451	-103.610351

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 36H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3565.60ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3565.60ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 36H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
21,000.00	90.00	359.57	12,400.00	8,736.48	-1,224.04	444,785.97	764,917.50	32.220726	-103.610351
21,100.00	90.00	359.57	12,400.00	8,836.48	-1,224.79	444,885.97	764,916.75	32.221000	-103.610351
21,200.00	90.00	359.57	12,400.00	8,936.47	-1,225.54	444,985.96	764,916.00	32.221275	-103.610351
21,300.00	90.00	359.57	12,400.00	9,036.47	-1,226.30	445,085.96	764,915.24	32.221550	-103.610352
21,400.00	90.00	359.57	12,400.00	9,136.47	-1,227.05	445,185.96	764,914.49	32.221825	-103.610352
21,500.00	90.00	359.57	12,400.00	9,236.46	-1,227.80	445,285.96	764,913.74	32.222100	-103.610352
21,600.00	90.00	359.57	12,400.00	9,336.46	-1,228.56	445,385.95	764,912.98	32.222375	-103.610353
21,700.00	90.00	359.57	12,400.00	9,436.46	-1,229.31	445,485.95	764,912.23	32.222650	-103.610353
21,800.00	90.00	359.57	12,400.00	9,536.46	-1,230.06	445,585.95	764,911.48	32.222925	-103.610353
21,900.00	90.00	359.57	12,400.00	9,636.45	-1,230.82	445,685.94	764,910.72	32.223199	-103.610353
22,000.00	90.00	359.57	12,400.00	9,736.45	-1,231.57	445,785.94	764,909.97	32.223474	-103.610354
22,100.00	90.00	359.57	12,400.00	9,836.45	-1,232.32	445,885.94	764,909.22	32.223749	-103.610354
22,200.00	90.00	359.57	12,400.00	9,936.44	-1,233.08	445,985.93	764,908.46	32.224024	-103.610354
22,300.00	90.00	359.57	12,400.00	10,036.44	-1,233.83	446,085.93	764,907.71	32.224299	-103.610354
22,400.00	90.00	359.57	12,400.00	10,136.44	-1,234.58	446,185.93	764,906.96	32.224574	-103.610355
22,434.30	90.00	359.57	12,400.00	10,170.74	-1,234.84	446,220.23	764,906.70	32.224668	-103.610355
LTP @ 22434' MD, 100' FNL, 2310' FEL									
22,500.00	90.00	359.57	12,400.00	10,236.44	-1,235.33	446,285.93	764,906.20	32.224849	-103.610355
22,514.29	90.00	359.57	12,400.00	10,250.73	-1,235.44	446,300.21	764,906.10	32.224888	-103.610355
PBHL; 20' FNL, 2310' FEL									
22,514.30	90.00	359.57	12,400.00	10,250.73	-1,235.44	446,300.22	764,906.10	32.224888	-103.610355

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									
PBHL - Bell Lake 19-18	0.00	0.01	0.00	10,250.73	-1,235.44	446,300.22	764,906.10	32.224888	-103.610355
- plan misses target center by 10324.91ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
11,905.23	11,827.04	-31.00	-1,158.00	KOP & FTP @ 11905' MD, 250' FSL, 2310' FEL
17,262.00	12,400.00	4,998.58	-1,195.88	Cross Section @ 17262' MD, 0' FSL, 2310' FEL
22,434.30	12,400.00	10,170.74	-1,234.84	LTP @ 22434' MD, 100' FNL, 2310' FEL
22,514.29	12,400.00	10,250.73	-1,235.44	PBHL; 20' FNL, 2310' FEL