

Devon Energy

WELL DETAILS: Bell Lake 19-18 State Com 31H

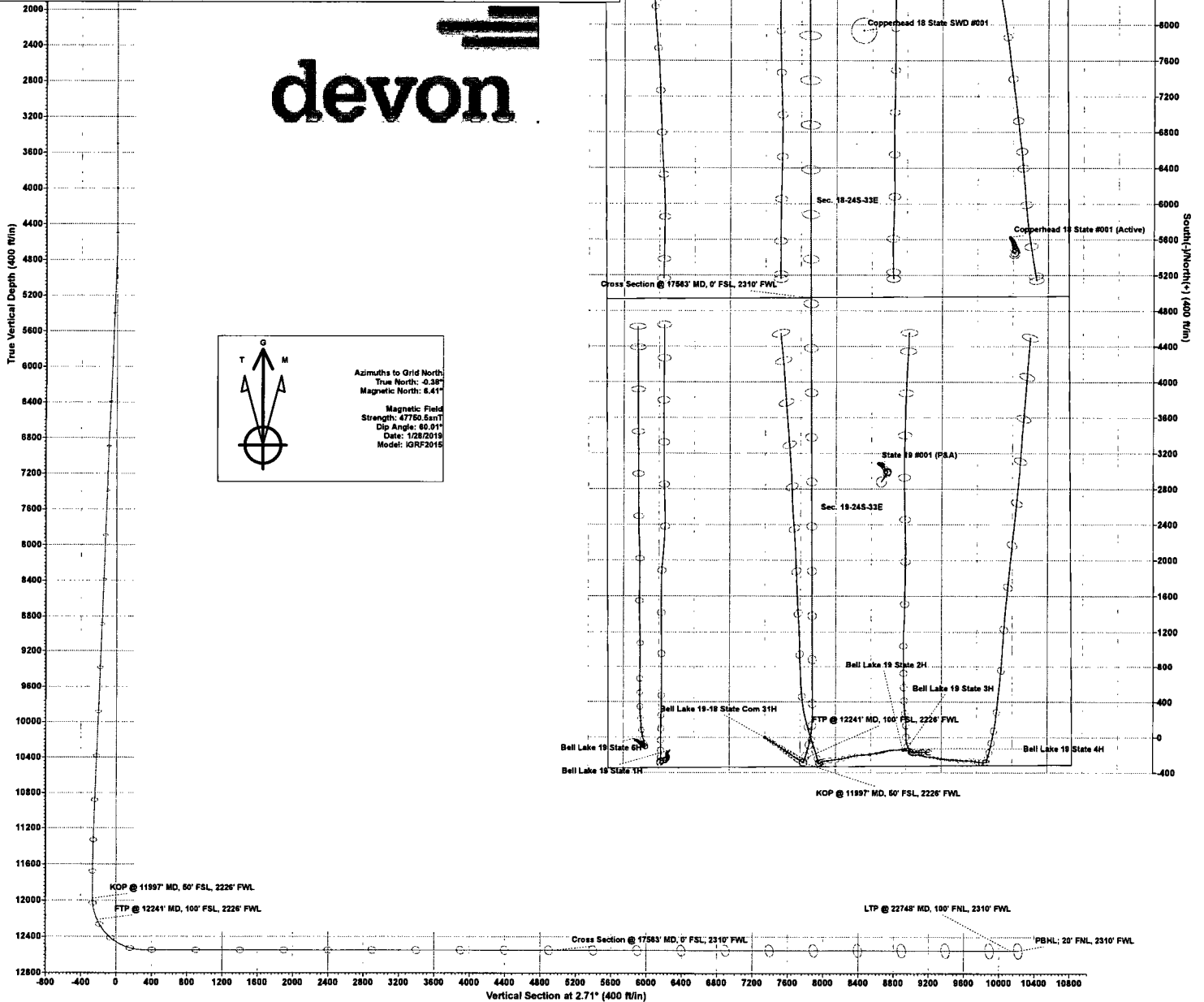
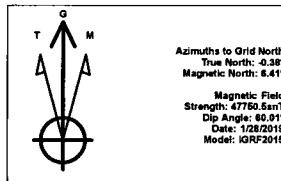
RKB @ 3574.10R
3549.10

Northing 436089.47 Easting 763816.84 Latitude 32.196842 Longitude -103.614098

SECTION DETAILS Permit Plan 1

	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect	Annotation
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	4500.00	0.00	0.00	4500.00	0.00	0.00	0.00	0.00	
	4852.46	4.41	123.33	4852.11	-7.44	11.32	1.25	-6.90	
	11353.13	4.41	123.33	11333.57	-281.80	428.57	0.00	-261.24	
5	11646.85	0.00	0.00	11627.00	-288.00	438.00	1.50	-266.99	
6	11996.99	0.00	0.00	11977.04	-288.00	438.00	0.00	-266.99	KOP @ 11997' MD, 50' FSL, 2226' FWL
7	12440.78	45.24	17.27	12376.23	-129.17	487.37	10.19	-106.00	
8	12905.87	90.00	359.68	12550.00	264.95	538.00	10.19	310.04	
9	22827.98	90.00	359.68	12550.00	10206.90	482.58	0.00	10218.30	PBHL: 20' FNL, 2310' FWL

devon



WCDSC Permian NM

Lea County (NAD83 New Mexico East)

Sec 19-T24S-R33E

Bell Lake 19-18 State Com 31H

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 31H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3574.10ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3574.10ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 31H	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 31H			
Well Position	+N/-S	0.00 ft	Northing:	436,089.47 usft
	+E/-W	0.00 ft	Easting:	763,816.84 usft
Position Uncertainty		0.50 ft	Wellhead Elevation:	Ground Level: 3,549.10 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/28/2019	6.80	60.01	47,750.47403340

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	2.71

Plan Survey Tool Program	Date 1/29/2019				
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	22,827.98 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	
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,852.46	4.41	123.33	4,852.11	-7.44	11.32	1.25	1.25	0.00	123.33	
11,353.13	4.41	123.33	11,333.58	-281.80	428.57	0.00	0.00	0.00	0.00	
11,646.85	0.00	0.00	11,627.00	-288.00	438.00	1.50	-1.50	0.00	180.00	
11,996.89	0.00	0.00	11,977.04	-288.00	438.00	0.00	0.00	0.00	0.00	
12,440.78	45.24	17.27	12,376.23	-129.17	487.37	10.19	10.19	0.00	17.27	
12,905.87	90.00	359.68	12,550.00	284.95	538.00	10.19	9.62	-3.78	-24.23	
22,827.98	90.00	359.68	12,550.00	10,206.90	482.58	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 31H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3574.10ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3574.10ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 31H	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	436,089.47	763,816.84	32.196842	-103.614098
100.00	0.00	0.00	100.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
200.00	0.00	0.00	200.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
300.00	0.00	0.00	300.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
400.00	0.00	0.00	400.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
500.00	0.00	0.00	500.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
600.00	0.00	0.00	600.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
700.00	0.00	0.00	700.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
800.00	0.00	0.00	800.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
900.00	0.00	0.00	900.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
1,000.00	0.00	0.00	1,000.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
1,100.00	0.00	0.00	1,100.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
1,200.00	0.00	0.00	1,200.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
1,300.00	0.00	0.00	1,300.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
1,400.00	0.00	0.00	1,400.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
1,500.00	0.00	0.00	1,500.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
1,600.00	0.00	0.00	1,600.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
1,700.00	0.00	0.00	1,700.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
1,800.00	0.00	0.00	1,800.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
1,900.00	0.00	0.00	1,900.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
2,000.00	0.00	0.00	2,000.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
2,100.00	0.00	0.00	2,100.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
2,200.00	0.00	0.00	2,200.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
2,300.00	0.00	0.00	2,300.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
2,400.00	0.00	0.00	2,400.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
2,500.00	0.00	0.00	2,500.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
2,600.00	0.00	0.00	2,600.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
2,700.00	0.00	0.00	2,700.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
2,800.00	0.00	0.00	2,800.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
2,900.00	0.00	0.00	2,900.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
3,000.00	0.00	0.00	3,000.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
3,100.00	0.00	0.00	3,100.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
3,200.00	0.00	0.00	3,200.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
3,300.00	0.00	0.00	3,300.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
3,400.00	0.00	0.00	3,400.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
3,500.00	0.00	0.00	3,500.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
3,600.00	0.00	0.00	3,600.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
3,700.00	0.00	0.00	3,700.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
3,800.00	0.00	0.00	3,800.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
3,900.00	0.00	0.00	3,900.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
4,000.00	0.00	0.00	4,000.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
4,100.00	0.00	0.00	4,100.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
4,200.00	0.00	0.00	4,200.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
4,300.00	0.00	0.00	4,300.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
4,400.00	0.00	0.00	4,400.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
4,500.00	0.00	0.00	4,500.00	0.00	0.00	436,089.47	763,816.84	32.196842	-103.614098
4,600.00	1.25	123.33	4,599.99	-0.60	0.91	436,088.87	763,817.75	32.196840	-103.614095
4,700.00	2.50	123.33	4,699.94	-2.40	3.65	436,087.07	763,820.48	32.196835	-103.614086
4,800.00	3.75	123.33	4,799.79	-5.39	8.20	436,084.08	763,825.04	32.196827	-103.614072
4,852.46	4.41	123.33	4,852.11	-7.44	11.32	436,082.03	763,828.15	32.196821	-103.614062
4,900.00	4.41	123.33	4,899.51	-9.45	14.37	436,080.02	763,831.21	32.196816	-103.614052
5,000.00	4.41	123.33	4,999.22	-13.67	20.79	436,075.80	763,837.62	32.196804	-103.614031
5,100.00	4.41	123.33	5,098.92	-17.89	27.21	436,071.58	763,844.04	32.196792	-103.614011
5,200.00	4.41	123.33	5,198.63	-22.11	33.62	436,067.36	763,850.46	32.196780	-103.613990
5,300.00	4.41	123.33	5,298.33	-26.33	40.04	436,063.14	763,856.88	32.196769	-103.613969

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 31H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3574.10ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3574.10ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 31H	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	4.41	123.33	5,398.03	-30.55	46.46	436,058.92	763,863.30	32.196757	-103.613949
5,500.00	4.41	123.33	5,497.74	-34.77	52.88	436,054.70	763,869.72	32.196745	-103.613928
5,600.00	4.41	123.33	5,597.44	-38.99	59.30	436,050.48	763,876.14	32.196734	-103.613907
5,700.00	4.41	123.33	5,697.15	-43.21	65.72	436,046.26	763,882.55	32.196722	-103.613887
5,800.00	4.41	123.33	5,796.85	-47.43	72.14	436,042.04	763,888.97	32.196710	-103.613866
5,900.00	4.41	123.33	5,896.56	-51.65	78.55	436,037.82	763,895.39	32.196698	-103.613845
6,000.00	4.41	123.33	5,996.26	-55.87	84.97	436,033.60	763,901.81	32.196687	-103.613825
6,100.00	4.41	123.33	6,095.97	-60.09	91.39	436,029.38	763,908.23	32.196675	-103.613804
6,200.00	4.41	123.33	6,195.67	-64.31	97.81	436,025.16	763,914.65	32.196663	-103.613783
6,300.00	4.41	123.33	6,295.38	-68.53	104.23	436,020.94	763,921.07	32.196652	-103.613763
6,400.00	4.41	123.33	6,395.08	-72.75	110.65	436,016.72	763,927.48	32.196640	-103.613742
6,500.00	4.41	123.33	6,494.78	-76.98	117.07	436,012.49	763,933.90	32.196628	-103.613721
6,600.00	4.41	123.33	6,594.49	-81.20	123.48	436,008.27	763,940.32	32.196616	-103.613701
6,700.00	4.41	123.33	6,694.19	-85.42	129.90	436,004.05	763,946.74	32.196605	-103.613680
6,800.00	4.41	123.33	6,793.90	-89.64	136.32	435,999.83	763,953.16	32.196593	-103.613659
6,900.00	4.41	123.33	6,893.60	-93.86	142.74	435,995.61	763,959.58	32.196581	-103.613639
7,000.00	4.41	123.33	6,993.31	-98.08	149.16	435,991.39	763,966.00	32.196570	-103.613618
7,100.00	4.41	123.33	7,093.01	-102.30	155.58	435,987.17	763,972.41	32.196558	-103.613597
7,200.00	4.41	123.33	7,192.72	-106.52	162.00	435,982.95	763,978.83	32.196546	-103.613577
7,300.00	4.41	123.33	7,292.42	-110.74	168.41	435,978.73	763,985.25	32.196534	-103.613556
7,400.00	4.41	123.33	7,392.13	-114.96	174.83	435,974.51	763,991.67	32.196523	-103.613535
7,500.00	4.41	123.33	7,491.83	-119.18	181.25	435,970.29	763,998.09	32.196511	-103.613515
7,600.00	4.41	123.33	7,591.53	-123.40	187.67	435,966.07	764,004.51	32.196499	-103.613494
7,700.00	4.41	123.33	7,691.24	-127.62	194.09	435,961.85	764,010.93	32.196488	-103.613473
7,800.00	4.41	123.33	7,790.94	-131.84	200.51	435,957.63	764,017.34	32.196476	-103.613453
7,900.00	4.41	123.33	7,890.65	-136.06	206.93	435,953.41	764,023.76	32.196464	-103.613432
8,000.00	4.41	123.33	7,990.35	-140.28	213.35	435,949.19	764,030.18	32.196452	-103.613411
8,100.00	4.41	123.33	8,090.06	-144.50	219.76	435,944.97	764,036.60	32.196441	-103.613391
8,200.00	4.41	123.33	8,189.76	-148.72	226.18	435,940.75	764,043.02	32.196429	-103.613370
8,300.00	4.41	123.33	8,289.47	-152.94	232.60	435,936.53	764,049.44	32.196417	-103.613349
8,400.00	4.41	123.33	8,389.17	-157.16	239.02	435,932.31	764,055.86	32.196405	-103.613329
8,500.00	4.41	123.33	8,488.87	-161.38	245.44	435,928.09	764,062.27	32.196394	-103.613308
8,600.00	4.41	123.33	8,588.58	-165.60	251.86	435,923.87	764,068.69	32.196382	-103.613287
8,700.00	4.41	123.33	8,688.28	-169.82	258.28	435,919.65	764,075.11	32.196370	-103.613267
8,800.00	4.41	123.33	8,787.99	-174.05	264.69	435,915.42	764,081.53	32.196359	-103.613246
8,900.00	4.41	123.33	8,887.69	-178.27	271.11	435,911.20	764,087.95	32.196347	-103.613226
9,000.00	4.41	123.33	8,987.40	-182.49	277.53	435,906.98	764,094.37	32.196335	-103.613205
9,100.00	4.41	123.33	9,087.10	-186.71	283.95	435,902.76	764,100.79	32.196323	-103.613184
9,200.00	4.41	123.33	9,186.81	-190.93	290.37	435,898.54	764,107.20	32.196312	-103.613164
9,300.00	4.41	123.33	9,286.51	-195.15	296.79	435,894.32	764,113.62	32.196300	-103.613143
9,400.00	4.41	123.33	9,386.22	-199.37	303.21	435,890.10	764,120.04	32.196288	-103.613122
9,500.00	4.41	123.33	9,485.92	-203.59	309.62	435,885.88	764,126.46	32.196277	-103.613102
9,600.00	4.41	123.33	9,585.62	-207.81	316.04	435,881.66	764,132.88	32.196265	-103.613081
9,700.00	4.41	123.33	9,685.33	-212.03	322.46	435,877.44	764,139.30	32.196253	-103.613060
9,800.00	4.41	123.33	9,785.03	-216.25	328.88	435,873.22	764,145.72	32.196241	-103.613040
9,900.00	4.41	123.33	9,884.74	-220.47	335.30	435,869.00	764,152.13	32.196230	-103.613019
10,000.00	4.41	123.33	9,984.44	-224.69	341.72	435,864.78	764,158.55	32.196218	-103.612998
10,100.00	4.41	123.33	10,084.15	-228.91	348.14	435,860.56	764,164.97	32.196206	-103.612978
10,200.00	4.41	123.33	10,183.85	-233.13	354.55	435,856.34	764,171.39	32.196195	-103.612957
10,300.00	4.41	123.33	10,283.56	-237.35	360.97	435,852.12	764,177.81	32.196183	-103.612936
10,400.00	4.41	123.33	10,383.26	-241.57	367.39	435,847.90	764,184.23	32.196171	-103.612916
10,500.00	4.41	123.33	10,482.97	-245.79	373.81	435,843.68	764,190.65	32.196159	-103.612895
10,600.00	4.41	123.33	10,582.67	-250.01	380.23	435,839.46	764,197.07	32.196148	-103.612874
10,700.00	4.41	123.33	10,682.37	-254.23	386.65	435,835.24	764,203.48	32.196136	-103.612854
10,800.00	4.41	123.33	10,782.08	-258.45	393.07	435,831.02	764,209.90	32.196124	-103.612833

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 31H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3574.10ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3574.10ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 31H	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	4.41	123.33	10,881.78	-262.67	399.48	435,826.80	764,216.32	32.196113	-103.612812
11,000.00	4.41	123.33	10,981.49	-266.90	405.90	435,822.58	764,222.74	32.196101	-103.612792
11,100.00	4.41	123.33	11,081.19	-271.12	412.32	435,818.35	764,229.16	32.196089	-103.612771
11,200.00	4.41	123.33	11,180.90	-275.34	418.74	435,814.13	764,235.58	32.196077	-103.612750
11,300.00	4.41	123.33	11,280.60	-279.56	425.16	435,809.91	764,242.00	32.196066	-103.612730
11,353.13	4.41	123.33	11,333.58	-281.80	428.57	435,807.67	764,245.41	32.196059	-103.612719
11,400.00	3.70	123.33	11,380.33	-283.62	431.34	435,805.85	764,248.17	32.196054	-103.612710
11,500.00	2.20	123.33	11,480.19	-286.45	435.64	435,803.02	764,252.48	32.196046	-103.612696
11,600.00	0.70	123.33	11,580.16	-287.84	437.76	435,801.63	764,254.60	32.196043	-103.612689
11,646.85	0.00	0.00	11,627.00	-288.00	438.00	435,801.47	764,254.84	32.196042	-103.612688
11,700.00	0.00	0.00	11,680.15	-288.00	438.00	435,801.47	764,254.84	32.196042	-103.612688
11,800.00	0.00	0.00	11,780.15	-288.00	438.00	435,801.47	764,254.84	32.196042	-103.612688
11,900.00	0.00	0.00	11,880.15	-288.00	438.00	435,801.47	764,254.84	32.196042	-103.612688
11,996.89	0.00	0.00	11,977.04	-288.00	438.00	435,801.47	764,254.84	32.196042	-103.612688
KOP @ 11997' MD, 50' FSL, 2226' FWL									
12,000.00	0.32	17.27	11,980.15	-287.99	438.00	435,801.48	764,254.84	32.196042	-103.612688
12,100.00	10.51	17.27	12,079.58	-279.00	440.80	435,810.48	764,257.64	32.196067	-103.612679
12,200.00	20.70	17.27	12,175.76	-253.34	448.77	435,836.13	764,265.61	32.196137	-103.612653
12,241.44	24.92	17.27	12,213.95	-238.00	453.54	435,851.47	764,270.38	32.196179	-103.612637
FTP @ 12241' MD, 100' FSL, 2226' FWL									
12,300.00	30.89	17.27	12,265.68	-211.84	461.67	435,877.63	764,278.51	32.196251	-103.612610
12,400.00	41.08	17.27	12,346.49	-155.80	479.09	435,933.67	764,295.93	32.196405	-103.612553
12,440.78	45.24	17.27	12,376.23	-129.17	487.37	435,960.30	764,304.20	32.196478	-103.612525
12,500.00	50.79	14.07	12,415.83	-86.80	499.20	436,002.67	764,316.03	32.196594	-103.612486
12,600.00	60.32	9.68	12,472.35	-6.18	515.97	436,083.29	764,332.80	32.196815	-103.612430
12,700.00	69.97	6.06	12,514.34	83.59	528.26	436,173.06	764,345.10	32.197062	-103.612389
12,800.00	79.68	2.86	12,540.49	179.69	535.69	436,269.16	764,352.53	32.197326	-103.612362
12,900.00	89.43	359.85	12,549.97	279.08	538.02	436,368.54	764,354.86	32.197599	-103.612353
12,905.87	90.00	359.68	12,550.00	284.95	538.00	436,374.42	764,354.84	32.197615	-103.612353
13,000.00	90.00	359.68	12,550.00	379.07	537.47	436,468.54	764,354.31	32.197874	-103.612352
13,100.00	90.00	359.68	12,550.00	479.07	536.92	436,568.54	764,353.75	32.198149	-103.612352
13,200.00	90.00	359.68	12,550.00	579.07	536.36	436,668.54	764,353.19	32.198424	-103.612352
13,300.00	90.00	359.68	12,550.00	679.07	535.80	436,768.54	764,352.63	32.198699	-103.612351
13,400.00	90.00	359.68	12,550.00	779.07	535.24	436,868.54	764,352.08	32.198973	-103.612351
13,500.00	90.00	359.68	12,550.00	879.07	534.68	436,968.53	764,351.52	32.199248	-103.612351
13,600.00	90.00	359.68	12,550.00	979.06	534.12	437,068.53	764,350.96	32.199523	-103.612350
13,700.00	90.00	359.68	12,550.00	1,079.06	533.56	437,168.53	764,350.40	32.199798	-103.612350
13,800.00	90.00	359.68	12,550.00	1,179.06	533.01	437,268.53	764,349.84	32.200073	-103.612350
13,900.00	90.00	359.68	12,550.00	1,279.06	532.45	437,368.53	764,349.28	32.200348	-103.612349
14,000.00	90.00	359.68	12,550.00	1,379.06	531.89	437,468.53	764,348.73	32.200623	-103.612349
14,100.00	90.00	359.68	12,550.00	1,479.06	531.33	437,568.52	764,348.17	32.200898	-103.612348
14,200.00	90.00	359.68	12,550.00	1,579.06	530.77	437,668.52	764,347.61	32.201172	-103.612348
14,300.00	90.00	359.68	12,550.00	1,679.05	530.21	437,768.52	764,347.05	32.201447	-103.612348
14,400.00	90.00	359.68	12,550.00	1,779.05	529.66	437,868.52	764,346.49	32.201722	-103.612347
14,500.00	90.00	359.68	12,550.00	1,879.05	529.10	437,968.52	764,345.93	32.201997	-103.612347
14,600.00	90.00	359.68	12,550.00	1,979.05	528.54	438,068.51	764,345.37	32.202272	-103.612347
14,700.00	90.00	359.68	12,550.00	2,079.05	527.98	438,168.51	764,344.82	32.202547	-103.612346
14,800.00	90.00	359.68	12,550.00	2,179.05	527.42	438,268.51	764,344.26	32.202822	-103.612346
14,900.00	90.00	359.68	12,550.00	2,279.04	526.86	438,368.51	764,343.70	32.203097	-103.612346
15,000.00	90.00	359.68	12,550.00	2,379.04	526.30	438,468.51	764,343.14	32.203371	-103.612345
15,100.00	90.00	359.68	12,550.00	2,479.04	525.75	438,568.51	764,342.58	32.203646	-103.612345
15,200.00	90.00	359.68	12,550.00	2,579.04	525.19	438,668.50	764,342.02	32.203921	-103.612344
15,300.00	90.00	359.68	12,550.00	2,679.04	524.63	438,768.50	764,341.46	32.204196	-103.612344
15,400.00	90.00	359.68	12,550.00	2,779.04	524.07	438,868.50	764,340.91	32.204471	-103.612344

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 31H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3574.10ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3574.10ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 31H	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
15,500.00	90.00	359.68	12,550.00	2,879.04	523.51	438,968.50	764,340.35	32.204746	-103.612343
15,600.00	90.00	359.68	12,550.00	2,979.03	522.95	439,068.50	764,339.79	32.205021	-103.612343
15,700.00	90.00	359.68	12,550.00	3,079.03	522.39	439,168.50	764,339.23	32.205296	-103.612343
15,800.00	90.00	359.68	12,550.00	3,179.03	521.84	439,268.49	764,338.67	32.205570	-103.612342
15,900.00	90.00	359.68	12,550.00	3,279.03	521.28	439,368.49	764,338.11	32.205845	-103.612342
16,000.00	90.00	359.68	12,550.00	3,379.03	520.72	439,468.49	764,337.56	32.206120	-103.612342
16,100.00	90.00	359.68	12,550.00	3,479.03	520.16	439,568.49	764,337.00	32.206395	-103.612341
16,200.00	90.00	359.68	12,550.00	3,579.02	519.60	439,668.49	764,336.44	32.206670	-103.612341
16,300.00	90.00	359.68	12,550.00	3,679.02	519.04	439,768.49	764,335.88	32.206945	-103.612340
16,400.00	90.00	359.68	12,550.00	3,779.02	518.49	439,868.48	764,335.32	32.207220	-103.612340
16,500.00	90.00	359.68	12,550.00	3,879.02	517.93	439,968.48	764,334.76	32.207495	-103.612340
16,600.00	90.00	359.68	12,550.00	3,979.02	517.37	440,068.48	764,334.20	32.207769	-103.612339
16,700.00	90.00	359.68	12,550.00	4,079.02	516.81	440,168.48	764,333.65	32.208044	-103.612339
16,800.00	90.00	359.68	12,550.00	4,179.01	516.25	440,268.48	764,333.09	32.208319	-103.612339
16,900.00	90.00	359.68	12,550.00	4,279.01	515.69	440,368.47	764,332.53	32.208594	-103.612338
17,000.00	90.00	359.68	12,550.00	4,379.01	515.13	440,468.47	764,331.97	32.208869	-103.612338
17,100.00	90.00	359.68	12,550.00	4,479.01	514.58	440,568.47	764,331.41	32.209144	-103.612338
17,200.00	90.00	359.68	12,550.00	4,579.01	514.02	440,668.47	764,330.85	32.209419	-103.612337
17,300.00	90.00	359.68	12,550.00	4,679.01	513.46	440,768.47	764,330.29	32.209694	-103.612337
17,400.00	90.00	359.68	12,550.00	4,779.01	512.90	440,868.47	764,329.74	32.209968	-103.612336
17,500.00	90.00	359.68	12,550.00	4,879.00	512.34	440,968.46	764,329.18	32.210243	-103.612336
17,563.00	90.00	359.68	12,550.00	4,942.00	511.99	441,031.46	764,328.83	32.210416	-103.612336
Cross Section @ 17563' MD, 0' FSL, 2310' FWL									
17,600.00	90.00	359.68	12,550.00	4,979.00	511.78	441,068.46	764,328.62	32.210518	-103.612336
17,700.00	90.00	359.68	12,550.00	5,079.00	511.22	441,168.46	764,328.06	32.210793	-103.612335
17,800.00	90.00	359.68	12,550.00	5,179.00	510.67	441,268.46	764,327.50	32.211068	-103.612335
17,900.00	90.00	359.68	12,550.00	5,279.00	510.11	441,368.46	764,326.94	32.211343	-103.612335
18,000.00	90.00	359.68	12,550.00	5,379.00	509.55	441,468.46	764,326.39	32.211618	-103.612334
18,100.00	90.00	359.68	12,550.00	5,478.99	508.99	441,568.45	764,325.83	32.211893	-103.612334
18,200.00	90.00	359.68	12,550.00	5,578.99	508.43	441,668.45	764,325.27	32.212167	-103.612334
18,300.00	90.00	359.68	12,550.00	5,678.99	507.87	441,768.45	764,324.71	32.212442	-103.612333
18,400.00	90.00	359.68	12,550.00	5,778.99	507.32	441,868.45	764,324.15	32.212717	-103.612333
18,500.00	90.00	359.68	12,550.00	5,878.99	506.76	441,968.45	764,323.59	32.212992	-103.612332
18,600.00	90.00	359.68	12,550.00	5,978.99	506.20	442,068.44	764,323.03	32.213267	-103.612332
18,700.00	90.00	359.68	12,550.00	6,078.99	505.64	442,168.44	764,322.48	32.213542	-103.612332
18,800.00	90.00	359.68	12,550.00	6,178.98	505.08	442,268.44	764,321.92	32.213817	-103.612331
18,900.00	90.00	359.68	12,550.00	6,278.98	504.52	442,368.44	764,321.36	32.214092	-103.612331
19,000.00	90.00	359.68	12,550.00	6,378.98	503.96	442,468.44	764,320.80	32.214366	-103.612331
19,100.00	90.00	359.68	12,550.00	6,478.98	503.41	442,568.44	764,320.24	32.214641	-103.612330
19,200.00	90.00	359.68	12,550.00	6,578.98	502.85	442,668.43	764,319.68	32.214916	-103.612330
19,300.00	90.00	359.68	12,550.00	6,678.98	502.29	442,768.43	764,319.12	32.215191	-103.612330
19,400.00	90.00	359.68	12,550.00	6,778.97	501.73	442,868.43	764,318.57	32.215466	-103.612329
19,500.00	90.00	359.68	12,550.00	6,878.97	501.17	442,968.43	764,318.01	32.215741	-103.612329
19,600.00	90.00	359.68	12,550.00	6,978.97	500.61	443,068.43	764,317.45	32.216016	-103.612328
19,700.00	90.00	359.68	12,550.00	7,078.97	500.05	443,168.43	764,316.89	32.216291	-103.612328
19,800.00	90.00	359.68	12,550.00	7,178.97	499.50	443,268.42	764,316.33	32.216565	-103.612328
19,900.00	90.00	359.68	12,550.00	7,278.97	498.94	443,368.42	764,315.77	32.216840	-103.612327
20,000.00	90.00	359.68	12,550.00	7,378.97	498.38	443,468.42	764,315.22	32.217115	-103.612327
20,100.00	90.00	359.68	12,550.00	7,478.96	497.82	443,568.42	764,314.66	32.217390	-103.612327
20,200.00	90.00	359.68	12,550.00	7,578.96	497.26	443,668.42	764,314.10	32.217665	-103.612326
20,300.00	90.00	359.68	12,550.00	7,678.96	496.70	443,768.41	764,313.54	32.217940	-103.612326
20,400.00	90.00	359.68	12,550.00	7,778.96	496.15	443,868.41	764,312.98	32.218215	-103.612326
20,500.00	90.00	359.68	12,550.00	7,878.96	495.59	443,968.41	764,312.42	32.218490	-103.612325
20,600.00	90.00	359.68	12,550.00	7,978.96	495.03	444,068.41	764,311.86	32.218764	-103.612325

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 31H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3574.10ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3574.10ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 31H	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
20,700.00	90.00	359.68	12,550.00	8,078.95	494.47	444,168.41	764,311.31	32.219039	-103.612324
20,800.00	90.00	359.68	12,550.00	8,178.95	493.91	444,268.41	764,310.75	32.219314	-103.612324
20,900.00	90.00	359.68	12,550.00	8,278.95	493.35	444,368.40	764,310.19	32.219589	-103.612324
21,000.00	90.00	359.68	12,550.00	8,378.95	492.79	444,468.40	764,309.63	32.219864	-103.612323
21,100.00	90.00	359.68	12,550.00	8,478.95	492.24	444,568.40	764,309.07	32.220139	-103.612323
21,200.00	90.00	359.68	12,550.00	8,578.95	491.68	444,668.40	764,308.51	32.220414	-103.612323
21,300.00	90.00	359.68	12,550.00	8,678.94	491.12	444,768.40	764,307.95	32.220689	-103.612322
21,400.00	90.00	359.68	12,550.00	8,778.94	490.56	444,868.40	764,307.40	32.220963	-103.612322
21,500.00	90.00	359.68	12,550.00	8,878.94	490.00	444,968.39	764,306.84	32.221238	-103.612322
21,600.00	90.00	359.68	12,550.00	8,978.94	489.44	445,068.39	764,306.28	32.221513	-103.612321
21,700.00	90.00	359.68	12,550.00	9,078.94	488.88	445,168.39	764,305.72	32.221788	-103.612321
21,800.00	90.00	359.68	12,550.00	9,178.94	488.33	445,268.39	764,305.16	32.222063	-103.612320
21,900.00	90.00	359.68	12,550.00	9,278.94	487.77	445,368.39	764,304.60	32.222338	-103.612320
22,000.00	90.00	359.68	12,550.00	9,378.93	487.21	445,468.38	764,304.05	32.222613	-103.612320
22,100.00	90.00	359.68	12,550.00	9,478.93	486.65	445,568.38	764,303.49	32.222888	-103.612319
22,200.00	90.00	359.68	12,550.00	9,578.93	486.09	445,668.38	764,302.93	32.223162	-103.612319
22,300.00	90.00	359.68	12,550.00	9,678.93	485.53	445,768.38	764,302.37	32.223437	-103.612319
22,400.00	90.00	359.68	12,550.00	9,778.93	484.98	445,868.38	764,301.81	32.223712	-103.612318
22,500.00	90.00	359.68	12,550.00	9,878.93	484.42	445,968.38	764,301.25	32.223987	-103.612318
22,600.00	90.00	359.68	12,550.00	9,978.92	483.86	446,068.37	764,300.69	32.224262	-103.612318
22,700.00	90.00	359.68	12,550.00	10,078.92	483.30	446,168.37	764,300.14	32.224537	-103.612317
22,747.97	90.00	359.68	12,550.00	10,126.89	483.03	446,216.34	764,299.87	32.224669	-103.612317
LTP @ 22748' MD, 100' FNL, 2310' FWL									
22,800.00	90.00	359.68	12,550.00	10,178.92	482.74	446,268.37	764,299.58	32.224812	-103.612317
22,827.97	90.00	359.68	12,550.00	10,206.89	482.58	446,296.34	764,299.42	32.224889	-103.612317
PBHL; 20' FNL, 2310' FWL									
22,827.98	90.00	359.68	12,550.00	10,206.90	482.58	446,296.35	764,299.42	32.224889	-103.612317

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	0.00	0.00	10,207.09	478.54	446,296.54	764,295.38	32.224889	-103.612330
- plan misses target center by 10218.30ft 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)	
11,996.89	11,977.04	-288.00	438.00	KOP @ 11997' MD, 50' FSL, 2226' FWL
12,241.44	12,213.95	-238.00	453.54	FTP @ 12241' MD, 100' FSL, 2226' FWL
17,563.00	12,550.00	4,942.00	511.99	Cross Section @ 17563' MD, 0' FSL, 2310' FWL
22,747.97	12,550.00	10,126.89	483.03	LTP @ 22748' MD, 100' FNL, 2310' FWL
22,827.97	12,550.00	10,206.89	482.58	PBHL; 20' FNL, 2310' FWL