

HOBBS OCD
DEC 18 2018
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WCDSC Permian NM

Lea County (NAD83 New Mexico East)

Sec 19-T24S-R33E

Bell Lake 19-18 State Com 17H

Wellbore #1

Plan: Permit Plan 1

Standard Planning Report - Geographic

12 December, 2018

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 17H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3575.60ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3575.60ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 17H	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 17H			
Well Position	+N/-S	0.00 ft	Northing:	436,290.46 usft
	+E/-W	0.00 ft	Easting:	763,965.73 usft
Position Uncertainty		0.50 ft	Wellhead Elevation:	Ground Level: 3,550.60 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2015	12/10/2018	6.81	60.01	47,764.63171541

Design	Permit Plan 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	356.61

Plan Survey Tool Program	Date	12/12/2018		
Depth From	Depth To	Survey (Wellbore)	Tool Name	Remarks
(ft)	(ft)			
1	0.00	19,480.34 Permit Plan 1 (Wellbore #1)	MWD+HDGM	
			OWSG MWD + HDGM	

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(ft)			(ft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,750.00	0.00	0.00	2,750.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,458.33	7.08	237.67	3,456.52	-23.39	-36.95	1.00	1.00	0.00	237.67	
7,992.39	7.08	237.67	7,955.99	-322.41	-509.37	0.00	0.00	0.00	0.00	
8,464.61	0.00	0.00	8,427.00	-338.00	-534.00	1.50	-1.50	0.00	180.00	
8,814.65	0.00	0.00	8,777.04	-338.00	-534.00	0.00	0.00	0.00	0.00	
9,714.65	90.00	359.68	9,350.00	234.95	-537.23	10.00	10.00	0.00	359.68	PBHL - Bell Lake 19-
19,480.34	90.00	359.68	9,350.00	10,000.48	-592.34	0.00	0.00	0.00	0.00	PBHL - Bell Lake 19-

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Well:	Bell Lake 19-18 State Com 17H	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	436,290.46	763,965.73	32.197392	-103.613612
100.00	0.00	0.00	100.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
200.00	0.00	0.00	200.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
300.00	0.00	0.00	300.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
400.00	0.00	0.00	400.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
500.00	0.00	0.00	500.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
600.00	0.00	0.00	600.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
700.00	0.00	0.00	700.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
800.00	0.00	0.00	800.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
900.00	0.00	0.00	900.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
1,000.00	0.00	0.00	1,000.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
1,100.00	0.00	0.00	1,100.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
1,200.00	0.00	0.00	1,200.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
1,300.00	0.00	0.00	1,300.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
1,400.00	0.00	0.00	1,400.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
1,500.00	0.00	0.00	1,500.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
1,600.00	0.00	0.00	1,600.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
1,700.00	0.00	0.00	1,700.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
1,800.00	0.00	0.00	1,800.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
1,900.00	0.00	0.00	1,900.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
2,000.00	0.00	0.00	2,000.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
2,100.00	0.00	0.00	2,100.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
2,200.00	0.00	0.00	2,200.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
2,300.00	0.00	0.00	2,300.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
2,400.00	0.00	0.00	2,400.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
2,500.00	0.00	0.00	2,500.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
2,600.00	0.00	0.00	2,600.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
2,700.00	0.00	0.00	2,700.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
2,750.00	0.00	0.00	2,750.00	0.00	0.00	436,290.46	763,965.73	32.197392	-103.613612
2,800.00	0.50	237.67	2,800.00	-0.12	-0.18	436,290.34	763,965.54	32.197391	-103.613613
2,900.00	1.50	237.67	2,899.98	-1.05	-1.66	436,289.41	763,964.07	32.197389	-103.613618
3,000.00	2.50	237.67	2,999.92	-2.92	-4.61	436,287.54	763,961.12	32.197384	-103.613627
3,100.00	3.50	237.67	3,099.78	-5.72	-9.03	436,284.74	763,956.70	32.197376	-103.613642
3,200.00	4.50	237.67	3,199.54	-9.45	-14.92	436,281.01	763,950.80	32.197366	-103.613661
3,300.00	5.50	237.67	3,299.16	-14.11	-22.29	436,276.35	763,943.44	32.197353	-103.613685
3,400.00	6.50	237.67	3,398.61	-19.70	-31.12	436,270.76	763,934.61	32.197338	-103.613713
3,458.33	7.08	237.67	3,456.52	-23.39	-36.95	436,267.07	763,928.78	32.197328	-103.613732
3,500.00	7.08	237.67	3,497.88	-26.14	-41.29	436,264.32	763,924.44	32.197321	-103.613746
3,600.00	7.08	237.67	3,597.12	-32.73	-51.71	436,257.73	763,914.02	32.197303	-103.613780
3,700.00	7.08	237.67	3,696.35	-39.33	-62.13	436,251.13	763,903.60	32.197285	-103.613814
3,800.00	7.08	237.67	3,795.59	-45.92	-72.55	436,244.54	763,893.18	32.197267	-103.613848
3,900.00	7.08	237.67	3,894.83	-52.52	-82.97	436,237.94	763,882.76	32.197249	-103.613882
4,000.00	7.08	237.67	3,994.06	-59.11	-93.39	436,231.35	763,872.34	32.197231	-103.613916
4,100.00	7.08	237.67	4,093.30	-65.71	-103.81	436,224.75	763,861.92	32.197213	-103.613949
4,200.00	7.08	237.67	4,192.54	-72.30	-114.23	436,218.16	763,851.50	32.197195	-103.613983
4,300.00	7.08	237.67	4,291.77	-78.90	-124.65	436,211.56	763,841.08	32.197177	-103.614017
4,400.00	7.08	237.67	4,391.01	-85.49	-135.06	436,204.97	763,830.66	32.197159	-103.614051
4,500.00	7.08	237.67	4,490.25	-92.09	-145.48	436,198.37	763,820.24	32.197141	-103.614085
4,600.00	7.08	237.67	4,589.48	-98.68	-155.90	436,191.78	763,809.82	32.197123	-103.614119
4,700.00	7.08	237.67	4,688.72	-105.28	-166.32	436,185.18	763,799.40	32.197105	-103.614152
4,800.00	7.08	237.67	4,787.96	-111.87	-176.74	436,178.59	763,788.99	32.197087	-103.614186
4,900.00	7.08	237.67	4,887.19	-118.47	-187.16	436,171.99	763,778.57	32.197069	-103.614220
5,000.00	7.08	237.67	4,986.43	-125.06	-197.58	436,165.40	763,768.15	32.197051	-103.614254
5,100.00	7.08	237.67	5,085.67	-131.66	-208.00	436,158.80	763,757.73	32.197034	-103.614288
5,200.00	7.08	237.67	5,184.90	-138.25	-218.42	436,152.21	763,747.31	32.197016	-103.614321

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Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3575.60ft
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Well:	Bell Lake 19-18 State Com 17H	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
5,300.00	7.08	237.67	5,284.14	-144.85	-228.84	436,145.61	763,736.89	32.196998	-103.614355
5,400.00	7.08	237.67	5,383.38	-151.44	-239.26	436,139.02	763,726.47	32.196980	-103.614389
5,500.00	7.08	237.67	5,482.62	-158.04	-249.68	436,132.42	763,716.05	32.196962	-103.614423
5,600.00	7.08	237.67	5,581.85	-164.63	-260.10	436,125.83	763,705.63	32.196944	-103.614457
5,700.00	7.08	237.67	5,681.09	-171.23	-270.52	436,119.23	763,695.21	32.196926	-103.614491
5,800.00	7.08	237.67	5,780.33	-177.82	-280.94	436,112.64	763,684.79	32.196908	-103.614524
5,900.00	7.08	237.67	5,879.56	-184.42	-291.35	436,106.04	763,674.37	32.196890	-103.614558
6,000.00	7.08	237.67	5,978.80	-191.01	-301.77	436,099.45	763,663.95	32.196872	-103.614592
6,100.00	7.08	237.67	6,078.04	-197.61	-312.19	436,092.85	763,653.53	32.196854	-103.614626
6,200.00	7.08	237.67	6,177.27	-204.20	-322.61	436,086.26	763,643.12	32.196836	-103.614660
6,300.00	7.08	237.67	6,276.51	-210.80	-333.03	436,079.66	763,632.70	32.196818	-103.614694
6,400.00	7.08	237.67	6,375.75	-217.39	-343.45	436,073.07	763,622.28	32.196800	-103.614727
6,500.00	7.08	237.67	6,474.98	-223.99	-353.87	436,066.47	763,611.86	32.196782	-103.614761
6,600.00	7.08	237.67	6,574.22	-230.58	-364.29	436,059.88	763,601.44	32.196765	-103.614795
6,700.00	7.08	237.67	6,673.46	-237.18	-374.71	436,053.28	763,591.02	32.196747	-103.614829
6,800.00	7.08	237.67	6,772.69	-243.77	-385.13	436,046.69	763,580.60	32.196729	-103.614863
6,900.00	7.08	237.67	6,871.93	-250.37	-395.55	436,040.09	763,570.18	32.196711	-103.614896
7,000.00	7.08	237.67	6,971.17	-256.96	-405.97	436,033.50	763,559.76	32.196693	-103.614930
7,100.00	7.08	237.67	7,070.40	-263.56	-416.39	436,026.90	763,549.34	32.196675	-103.614964
7,200.00	7.08	237.67	7,169.64	-270.15	-426.81	436,020.31	763,538.92	32.196657	-103.614998
7,300.00	7.08	237.67	7,268.88	-276.75	-437.23	436,013.71	763,528.50	32.196639	-103.615032
7,400.00	7.08	237.67	7,368.11	-283.34	-447.64	436,007.12	763,518.08	32.196621	-103.615066
7,500.00	7.08	237.67	7,467.35	-289.94	-458.06	436,000.52	763,507.66	32.196603	-103.615099
7,600.00	7.08	237.67	7,566.59	-296.53	-468.48	435,993.93	763,497.24	32.196585	-103.615133
7,700.00	7.08	237.67	7,665.83	-303.13	-478.90	435,987.33	763,486.83	32.196567	-103.615167
7,800.00	7.08	237.67	7,765.06	-309.72	-489.32	435,980.74	763,476.41	32.196549	-103.615201
7,900.00	7.08	237.67	7,864.30	-316.32	-499.74	435,974.14	763,465.99	32.196531	-103.615235
7,992.39	7.08	237.67	7,955.99	-322.41	-509.37	435,968.05	763,456.36	32.196515	-103.615266
8,000.00	6.97	237.67	7,963.54	-322.91	-510.15	435,967.55	763,455.57	32.196513	-103.615269
8,100.00	5.47	237.67	8,062.95	-328.70	-519.31	435,961.76	763,446.42	32.196498	-103.615298
8,200.00	3.97	237.67	8,162.60	-333.10	-526.26	435,957.36	763,439.47	32.196486	-103.615321
8,300.00	2.47	237.67	8,262.44	-336.10	-531.00	435,954.36	763,434.72	32.196478	-103.615336
8,400.00	0.97	237.67	8,362.39	-337.71	-533.54	435,952.75	763,432.19	32.196473	-103.615344
8,464.61	0.00	0.00	8,427.00	-338.00	-534.00	435,952.46	763,431.73	32.196472	-103.615346
8,500.00	0.00	0.00	8,462.39	-338.00	-534.00	435,952.46	763,431.73	32.196472	-103.615346
8,600.00	0.00	0.00	8,562.39	-338.00	-534.00	435,952.46	763,431.73	32.196472	-103.615346
8,700.00	0.00	0.00	8,662.39	-338.00	-534.00	435,952.46	763,431.73	32.196472	-103.615346
8,800.00	0.00	0.00	8,762.39	-338.00	-534.00	435,952.46	763,431.73	32.196472	-103.615346
8,814.65	0.00	0.00	8,777.04	-338.00	-534.00	435,952.46	763,431.73	32.196472	-103.615346
KOP & FTP @ 8815' MD, 200' FSL, 1388' FWL									
8,900.00	8.54	359.68	8,862.08	-331.65	-534.04	435,958.81	763,431.69	32.196490	-103.615346
9,000.00	18.54	359.68	8,959.18	-308.28	-534.17	435,982.18	763,431.56	32.196554	-103.615346
9,100.00	28.54	359.68	9,050.74	-268.40	-534.39	436,022.06	763,431.34	32.196664	-103.615346
9,200.00	38.54	359.68	9,133.99	-213.23	-534.70	436,077.23	763,431.02	32.196815	-103.615346
9,300.00	48.54	359.68	9,206.39	-144.44	-535.09	436,146.02	763,430.64	32.197004	-103.615345
9,400.00	58.54	359.68	9,265.75	-64.12	-535.55	436,226.34	763,430.18	32.197225	-103.615345
9,500.00	68.54	359.68	9,310.26	25.29	-536.05	436,315.75	763,429.68	32.197471	-103.615345
9,600.00	78.53	359.68	9,338.57	121.06	-536.59	436,411.52	763,429.14	32.197734	-103.615344
9,700.00	88.53	359.68	9,349.81	220.30	-537.15	436,510.76	763,428.58	32.198007	-103.615344
9,714.65	90.00	359.68	9,350.00	234.95	-537.23	436,525.41	763,428.49	32.198047	-103.615344
9,800.00	90.00	359.68	9,350.00	320.30	-537.71	436,610.76	763,428.01	32.198282	-103.615344
9,900.00	90.00	359.68	9,350.00	420.30	-538.28	436,710.76	763,427.45	32.198557	-103.615343
10,000.00	90.00	359.68	9,350.00	520.29	-538.84	436,810.75	763,426.88	32.198832	-103.615343
10,100.00	90.00	359.68	9,350.00	620.29	-539.41	436,910.75	763,426.32	32.199107	-103.615343

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Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 17H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3575.60ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3575.60ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 17H	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
10,200.00	90.00	359.68	9,350.00	720.29	-539.97	437,010.75	763,425.76	32.199381	-103.615342
10,300.00	90.00	359.68	9,350.00	820.29	-540.54	437,110.75	763,425.19	32.199656	-103.615342
10,400.00	90.00	359.68	9,350.00	920.29	-541.10	437,210.75	763,424.63	32.199931	-103.615342
10,500.00	90.00	359.68	9,350.00	1,020.29	-541.66	437,310.74	763,424.06	32.200206	-103.615341
10,600.00	90.00	359.68	9,350.00	1,120.29	-542.23	437,410.74	763,423.50	32.200481	-103.615341
10,700.00	90.00	359.68	9,350.00	1,220.28	-542.79	437,510.74	763,422.93	32.200756	-103.615341
10,800.00	90.00	359.68	9,350.00	1,320.28	-543.36	437,610.74	763,422.37	32.201031	-103.615340
10,900.00	90.00	359.68	9,350.00	1,420.28	-543.92	437,710.74	763,421.81	32.201306	-103.615340
11,000.00	90.00	359.68	9,350.00	1,520.28	-544.49	437,810.74	763,421.24	32.201580	-103.615340
11,100.00	90.00	359.68	9,350.00	1,620.28	-545.05	437,910.73	763,420.68	32.201855	-103.615339
11,200.00	90.00	359.68	9,350.00	1,720.28	-545.62	438,010.73	763,420.11	32.202130	-103.615339
11,300.00	90.00	359.68	9,350.00	1,820.27	-546.18	438,110.73	763,419.55	32.202405	-103.615339
11,400.00	90.00	359.68	9,350.00	1,920.27	-546.74	438,210.73	763,418.98	32.202680	-103.615338
11,500.00	90.00	359.68	9,350.00	2,020.27	-547.31	438,310.73	763,418.42	32.202955	-103.615338
11,600.00	90.00	359.68	9,350.00	2,120.27	-547.87	438,410.72	763,417.86	32.203230	-103.615338
11,700.00	90.00	359.68	9,350.00	2,220.27	-548.44	438,510.72	763,417.29	32.203505	-103.615337
11,800.00	90.00	359.68	9,350.00	2,320.27	-549.00	438,610.72	763,416.73	32.203779	-103.615337
11,900.00	90.00	359.68	9,350.00	2,420.26	-549.57	438,710.72	763,416.16	32.204054	-103.615337
12,000.00	90.00	359.68	9,350.00	2,520.26	-550.13	438,810.72	763,415.60	32.204329	-103.615336
12,100.00	90.00	359.68	9,350.00	2,620.26	-550.69	438,910.72	763,415.03	32.204604	-103.615336
12,200.00	90.00	359.68	9,350.00	2,720.26	-551.26	439,010.71	763,414.47	32.204879	-103.615336
12,300.00	90.00	359.68	9,350.00	2,820.26	-551.82	439,110.71	763,413.91	32.205154	-103.615335
12,400.00	90.00	359.68	9,350.00	2,920.26	-552.39	439,210.71	763,413.34	32.205429	-103.615335
12,500.00	90.00	359.68	9,350.00	3,020.26	-552.95	439,310.71	763,412.78	32.205704	-103.615335
12,600.00	90.00	359.68	9,350.00	3,120.25	-553.52	439,410.71	763,412.21	32.205978	-103.615334
12,700.00	90.00	359.68	9,350.00	3,220.25	-554.08	439,510.71	763,411.65	32.206253	-103.615334
12,800.00	90.00	359.68	9,350.00	3,320.25	-554.64	439,610.70	763,411.08	32.206528	-103.615334
12,900.00	90.00	359.68	9,350.00	3,420.25	-555.21	439,710.70	763,410.52	32.206803	-103.615333
13,000.00	90.00	359.68	9,350.00	3,520.25	-555.77	439,810.70	763,409.96	32.207078	-103.615333
13,100.00	90.00	359.68	9,350.00	3,620.25	-556.34	439,910.70	763,409.39	32.207353	-103.615333
13,200.00	90.00	359.68	9,350.00	3,720.24	-556.90	440,010.70	763,408.83	32.207628	-103.615332
13,300.00	90.00	359.68	9,350.00	3,820.24	-557.47	440,110.69	763,408.26	32.207903	-103.615332
13,400.00	90.00	359.68	9,350.00	3,920.24	-558.03	440,210.69	763,407.70	32.208177	-103.615332
13,500.00	90.00	359.68	9,350.00	4,020.24	-558.59	440,310.69	763,407.13	32.208452	-103.615331
13,600.00	90.00	359.68	9,350.00	4,120.24	-559.16	440,410.69	763,406.57	32.208727	-103.615331
13,700.00	90.00	359.68	9,350.00	4,220.24	-559.72	440,510.69	763,406.01	32.209002	-103.615331
13,800.00	90.00	359.68	9,350.00	4,320.23	-560.29	440,610.69	763,405.44	32.209277	-103.615330
13,900.00	90.00	359.68	9,350.00	4,420.23	-560.85	440,710.68	763,404.88	32.209552	-103.615330
14,000.00	90.00	359.68	9,350.00	4,520.23	-561.42	440,810.68	763,404.31	32.209827	-103.615330
14,100.00	90.00	359.68	9,350.00	4,620.23	-561.98	440,910.68	763,403.75	32.210102	-103.615329
14,200.00	90.00	359.68	9,350.00	4,720.23	-562.54	441,010.68	763,403.18	32.210376	-103.615329
14,222.00	90.00	359.68	9,350.00	4,742.23	-562.67	441,032.68	763,403.06	32.210437	-103.615329
Cross Section @ 14222' MD, 0' FSL, 1388' FWL									
14,300.00	90.00	359.68	9,350.00	4,820.23	-563.11	441,110.68	763,402.62	32.210651	-103.615329
14,400.00	90.00	359.68	9,350.00	4,920.22	-563.67	441,210.67	763,402.06	32.210926	-103.615328
14,500.00	90.00	359.68	9,350.00	5,020.22	-564.24	441,310.67	763,401.49	32.211201	-103.615328
14,600.00	90.00	359.68	9,350.00	5,120.22	-564.80	441,410.67	763,400.93	32.211476	-103.615328
14,700.00	90.00	359.68	9,350.00	5,220.22	-565.37	441,510.67	763,400.36	32.211751	-103.615327
14,800.00	90.00	359.68	9,350.00	5,320.22	-565.93	441,610.67	763,399.80	32.212026	-103.615327
14,900.00	90.00	359.68	9,350.00	5,420.22	-566.49	441,710.67	763,399.23	32.212301	-103.615327
15,000.00	90.00	359.68	9,350.00	5,520.22	-567.06	441,810.66	763,398.67	32.212575	-103.615326
15,100.00	90.00	359.68	9,350.00	5,620.21	-567.62	441,910.66	763,398.11	32.212850	-103.615326
15,200.00	90.00	359.68	9,350.00	5,720.21	-568.19	442,010.66	763,397.54	32.213125	-103.615326
15,300.00	90.00	359.68	9,350.00	5,820.21	-568.75	442,110.66	763,396.98	32.213400	-103.615325

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 17H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3575.60ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3575.60ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 17H	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
15,400.00	90.00	359.68	9,350.00	5,920.21	-569.32	442,210.66	763,396.41	32.213675	-103.615325
15,500.00	90.00	359.68	9,350.00	6,020.21	-569.88	442,310.66	763,395.85	32.213950	-103.615325
15,600.00	90.00	359.68	9,350.00	6,120.21	-570.44	442,410.65	763,395.28	32.214225	-103.615324
15,700.00	90.00	359.68	9,350.00	6,220.20	-571.01	442,510.65	763,394.72	32.214500	-103.615324
15,800.00	90.00	359.68	9,350.00	6,320.20	-571.57	442,610.65	763,394.16	32.214774	-103.615324
15,900.00	90.00	359.68	9,350.00	6,420.20	-572.14	442,710.65	763,393.59	32.215049	-103.615323
16,000.00	90.00	359.68	9,350.00	6,520.20	-572.70	442,810.65	763,393.03	32.215324	-103.615323
16,100.00	90.00	359.68	9,350.00	6,620.20	-573.27	442,910.64	763,392.46	32.215599	-103.615323
16,200.00	90.00	359.68	9,350.00	6,720.20	-573.83	443,010.64	763,391.90	32.215874	-103.615322
16,300.00	90.00	359.68	9,350.00	6,820.19	-574.39	443,110.64	763,391.33	32.216149	-103.615322
16,400.00	90.00	359.68	9,350.00	6,920.19	-574.96	443,210.64	763,390.77	32.216424	-103.615322
16,500.00	90.00	359.68	9,350.00	7,020.19	-575.52	443,310.64	763,390.21	32.216699	-103.615321
16,600.00	90.00	359.68	9,350.00	7,120.19	-576.09	443,410.64	763,389.64	32.216973	-103.615321
16,700.00	90.00	359.68	9,350.00	7,220.19	-576.65	443,510.63	763,389.08	32.217248	-103.615321
16,800.00	90.00	359.68	9,350.00	7,320.19	-577.22	443,610.63	763,388.51	32.217523	-103.615320
16,900.00	90.00	359.68	9,350.00	7,420.19	-577.78	443,710.63	763,387.95	32.217798	-103.615320
17,000.00	90.00	359.68	9,350.00	7,520.18	-578.34	443,810.63	763,387.38	32.218073	-103.615320
17,100.00	90.00	359.68	9,350.00	7,620.18	-578.91	443,910.63	763,386.82	32.218348	-103.615319
17,200.00	90.00	359.68	9,350.00	7,720.18	-579.47	444,010.62	763,386.26	32.218623	-103.615319
17,300.00	90.00	359.68	9,350.00	7,820.18	-580.04	444,110.62	763,385.69	32.218898	-103.615319
17,400.00	90.00	359.68	9,350.00	7,920.18	-580.60	444,210.62	763,385.13	32.219172	-103.615318
17,500.00	90.00	359.68	9,350.00	8,020.18	-581.17	444,310.62	763,384.56	32.219447	-103.615318
17,600.00	90.00	359.68	9,350.00	8,120.17	-581.73	444,410.62	763,384.00	32.219722	-103.615318
17,700.00	90.00	359.68	9,350.00	8,220.17	-582.29	444,510.62	763,383.43	32.219997	-103.615317
17,800.00	90.00	359.68	9,350.00	8,320.17	-582.86	444,610.61	763,382.87	32.220272	-103.615317
17,900.00	90.00	359.68	9,350.00	8,420.17	-583.42	444,710.61	763,382.30	32.220547	-103.615317
18,000.00	90.00	359.68	9,350.00	8,520.17	-583.99	444,810.61	763,381.74	32.220822	-103.615316
18,100.00	90.00	359.68	9,350.00	8,620.17	-584.55	444,910.61	763,381.18	32.221097	-103.615316
18,200.00	90.00	359.68	9,350.00	8,720.16	-585.12	445,010.61	763,380.61	32.221371	-103.615316
18,300.00	90.00	359.68	9,350.00	8,820.16	-585.68	445,110.61	763,380.05	32.221646	-103.615315
18,400.00	90.00	359.68	9,350.00	8,920.16	-586.24	445,210.60	763,379.48	32.221921	-103.615315
18,500.00	90.00	359.68	9,350.00	9,020.16	-586.81	445,310.60	763,378.92	32.222196	-103.615315
18,600.00	90.00	359.68	9,350.00	9,120.16	-587.37	445,410.60	763,378.35	32.222471	-103.615314
18,700.00	90.00	359.68	9,350.00	9,220.16	-587.94	445,510.60	763,377.79	32.222746	-103.615314
18,800.00	90.00	359.68	9,350.00	9,320.15	-588.50	445,610.60	763,377.23	32.223021	-103.615314
18,900.00	90.00	359.68	9,350.00	9,420.15	-589.07	445,710.59	763,376.66	32.223296	-103.615313
19,000.00	90.00	359.68	9,350.00	9,520.15	-589.63	445,810.59	763,376.10	32.223570	-103.615313
19,100.00	90.00	359.68	9,350.00	9,620.15	-590.19	445,910.59	763,375.53	32.223845	-103.615313
19,200.00	90.00	359.68	9,350.00	9,720.15	-590.76	446,010.59	763,374.97	32.224120	-103.615312
19,300.00	90.00	359.68	9,350.00	9,820.15	-591.32	446,110.59	763,374.40	32.224395	-103.615312
19,400.00	90.00	359.68	9,350.00	9,920.15	-591.89	446,210.59	763,373.84	32.224670	-103.615312
19,400.33	90.00	359.68	9,350.00	9,920.48	-591.89	446,210.92	763,373.84	32.224671	-103.615312
LTP @ 19400' MD, 100' FNL, 1388' FWL									
19,480.33	90.00	359.68	9,350.00	10,000.47	-592.34	446,290.91	763,373.39	32.224891	-103.615311
PBHL; 20' FNL, 1388' FWL									
19,480.34	90.00	359.68	9,350.00	10,000.48	-592.34	446,290.92	763,373.39	32.224891	-103.615311

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Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3575.60ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 17H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Design Targets

Target Name

- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
PBHL - Bell Lake 19-18	0.00	0.00	0.00	10,000.48	-592.34	446,290.92	763,373.39	32.224891	-103.615311
- plan misses target center by 9350.00ft at 19480.34ft MD (9350.00 TVD, 10000.48 N, -592.34 E)									
- Point									

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
8,814.65	8,777.04	-338.00	-534.00	KOP & FTP @ 8815' MD, 200' FSL, 1388' FWL
14,222.00	9,350.00	4,742.23	-562.67	Cross Section @ 14222' MD, 0' FSL, 1388' FWL
19,400.33	9,350.00	9,920.48	-591.89	LTP @ 19400' MD, 100' FNL, 1388' FWL
19,480.33	9,350.00	10,000.47	-592.34	PBHL; 20' FNL, 1388' FWL