

45940

RECEIVED

APR 26 2019

DISTRICT II-ARTESIA O.C.D.

WCDSC Permian NM

Eddy County (NAD 83 NM Eastern)

Sec. 36-T23S-R31E

Todd 36 State 715H

Wellbore #1

Plan: Permit Plan 1

Standard Planning Report - Geographic

22 April, 2019

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Todd 36 State 715H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3542.10ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3542.10ft
Site:	Sec. 36-T23S-R31E	North Reference:	Grid
Well:	Todd 36 State 715H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Project	Eddy County (NAD 83 NM Eastern)		
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. 36-T23S-R31E		
Site Position:		Northing:	461,801.03 usft
From:	Map	Easting:	724,712.45 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	32.268172
		Longitude:	-103.740050
		Grid Convergence:	0.32 °

Well	Todd 36 State 715H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.50 ft	Wellhead Elevation:	Ground Level:

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	4/18/2019	6.83
			Dip Angle
			60.04
			Field Strength
			47,749.05396966

Design	Permit Plan 1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			358.62

Plan Survey Tool Program	Date: 4/22/2019		
Depth From	Depth To	Survey (Wellbore)	Tool Name
(ft)	(ft)		
1	0.00	16,956.90 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	
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,132.49	1.32	216.16	4,132.48	-1.24	-0.90	1.00	1.00	0.00	216.16	
10,985.52	1.32	216.16	10,983.68	-129.18	-94.40	0.00	0.00	0.00	0.00	
11,073.85	0.00	0.00	11,072.00	-130.00	-95.00	1.50	-1.50	0.00	180.00	
11,423.89	0.00	0.00	11,422.04	-130.00	-95.00	0.00	0.00	0.00	0.00	
12,323.89	90.00	359.70	11,995.00	442.95	-97.96	10.00	10.00	0.00	359.70	PBHL = Todd 36 State
16,956.90	90.00	359.70	11,995.00	5,075.90	-121.85	0.00	0.00	0.00	0.00	PBHL = Todd 36 State

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Todd 36 State 715H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3542.10ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3542.10ft
Site:	Sec. 36-T23S-R31E	North Reference:	Grid
Well:	Todd 36 State 715H	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	456,707.09	725,164.40	32.254164	-103.738679
100.00	0.00	0.00	100.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
200.00	0.00	0.00	200.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
300.00	0.00	0.00	300.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
400.00	0.00	0.00	400.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
500.00	0.00	0.00	500.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
600.00	0.00	0.00	600.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
700.00	0.00	0.00	700.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
800.00	0.00	0.00	800.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
900.00	0.00	0.00	900.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
1,000.00	0.00	0.00	1,000.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
1,100.00	0.00	0.00	1,100.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
1,200.00	0.00	0.00	1,200.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
1,300.00	0.00	0.00	1,300.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
1,400.00	0.00	0.00	1,400.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
1,500.00	0.00	0.00	1,500.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
1,600.00	0.00	0.00	1,600.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
1,700.00	0.00	0.00	1,700.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
1,800.00	0.00	0.00	1,800.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
1,900.00	0.00	0.00	1,900.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
2,000.00	0.00	0.00	2,000.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
2,100.00	0.00	0.00	2,100.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
2,200.00	0.00	0.00	2,200.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
2,300.00	0.00	0.00	2,300.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
2,400.00	0.00	0.00	2,400.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
2,500.00	0.00	0.00	2,500.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
2,600.00	0.00	0.00	2,600.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
2,700.00	0.00	0.00	2,700.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
2,800.00	0.00	0.00	2,800.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
2,900.00	0.00	0.00	2,900.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
3,000.00	0.00	0.00	3,000.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
3,100.00	0.00	0.00	3,100.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
3,200.00	0.00	0.00	3,200.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
3,300.00	0.00	0.00	3,300.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
3,400.00	0.00	0.00	3,400.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
3,500.00	0.00	0.00	3,500.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
3,600.00	0.00	0.00	3,600.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
3,700.00	0.00	0.00	3,700.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
3,800.00	0.00	0.00	3,800.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
3,900.00	0.00	0.00	3,900.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
4,000.00	0.00	0.00	4,000.00	0.00	0.00	456,707.09	725,164.40	32.254164	-103.738679
4,100.00	1.00	216.16	4,100.00	-0.70	-0.51	456,706.39	725,163.88	32.254162	-103.738681
4,132.49	1.32	216.16	4,132.48	-1.24	-0.90	456,705.85	725,163.49	32.254160	-103.738682
4,200.00	1.32	216.16	4,199.97	-2.50	-1.82	456,704.59	725,162.57	32.254157	-103.738685
4,300.00	1.32	216.16	4,299.94	-4.36	-3.19	456,702.73	725,161.21	32.254152	-103.738690
4,400.00	1.32	216.16	4,399.92	-6.23	-4.55	456,700.86	725,159.84	32.254147	-103.738694
4,500.00	1.32	216.16	4,499.89	-8.10	-5.92	456,698.99	725,158.48	32.254141	-103.738698
4,600.00	1.32	216.16	4,599.86	-9.96	-7.28	456,697.13	725,157.11	32.254136	-103.738703
4,700.00	1.32	216.16	4,699.84	-11.83	-8.65	456,695.26	725,155.75	32.254131	-103.738707
4,800.00	1.32	216.16	4,799.81	-13.70	-10.01	456,693.39	725,154.39	32.254126	-103.738712
4,900.00	1.32	216.16	4,899.78	-15.57	-11.37	456,691.52	725,153.02	32.254121	-103.738716
5,000.00	1.32	216.16	4,999.76	-17.43	-12.74	456,689.66	725,151.66	32.254116	-103.738721
5,100.00	1.32	216.16	5,099.73	-19.30	-14.10	456,687.79	725,150.29	32.254111	-103.738725
5,200.00	1.32	216.16	5,199.70	-21.17	-15.47	456,685.92	725,148.93	32.254106	-103.738730
5,300.00	1.32	216.16	5,299.68	-23.03	-16.83	456,684.06	725,147.56	32.254101	-103.738734

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Todd 36 State 715H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3542.10ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3542.10ft
Site:	Sec. 36-T23S-R31E	North Reference:	Grid
Well:	Todd 36 State 715H	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	1.32	216.16	5,399.65	-24.90	-18.20	456,682.19	725,146.20	32.254095	-103.738738
5,500.00	1.32	216.16	5,499.62	-26.77	-19.56	456,680.32	725,144.84	32.254090	-103.738743
5,600.00	1.32	216.16	5,599.60	-28.63	-20.92	456,678.46	725,143.47	32.254085	-103.738747
5,700.00	1.32	216.16	5,699.57	-30.50	-22.29	456,676.59	725,142.11	32.254080	-103.738752
5,800.00	1.32	216.16	5,799.54	-32.37	-23.65	456,674.72	725,140.74	32.254075	-103.738756
5,900.00	1.32	216.16	5,899.52	-34.23	-25.02	456,672.86	725,139.38	32.254070	-103.738761
6,000.00	1.32	216.16	5,999.49	-36.10	-26.38	456,670.99	725,138.01	32.254065	-103.738765
6,100.00	1.32	216.16	6,099.46	-37.97	-27.75	456,669.12	725,136.65	32.254060	-103.738770
6,200.00	1.32	216.16	6,199.44	-39.83	-29.11	456,667.26	725,135.29	32.254055	-103.738774
6,300.00	1.32	216.16	6,299.41	-41.70	-30.47	456,665.39	725,133.92	32.254050	-103.738778
6,400.00	1.32	216.16	6,399.38	-43.57	-31.84	456,663.52	725,132.56	32.254044	-103.738783
6,500.00	1.32	216.16	6,499.36	-45.44	-33.20	456,661.65	725,131.19	32.254039	-103.738787
6,600.00	1.32	216.16	6,599.33	-47.30	-34.57	456,659.79	725,129.83	32.254034	-103.738792
6,700.00	1.32	216.16	6,699.30	-49.17	-35.93	456,657.92	725,128.46	32.254029	-103.738796
6,800.00	1.32	216.16	6,799.28	-51.04	-37.30	456,656.05	725,127.10	32.254024	-103.738801
6,900.00	1.32	216.16	6,899.25	-52.90	-38.66	456,654.19	725,125.74	32.254019	-103.738805
7,000.00	1.32	216.16	6,999.22	-54.77	-40.02	456,652.32	725,124.37	32.254014	-103.738810
7,100.00	1.32	216.16	7,099.19	-56.64	-41.39	456,650.45	725,123.01	32.254009	-103.738814
7,200.00	1.32	216.16	7,199.17	-58.50	-42.75	456,648.59	725,121.64	32.254004	-103.738818
7,300.00	1.32	216.16	7,299.14	-60.37	-44.12	456,646.72	725,120.28	32.253998	-103.738823
7,400.00	1.32	216.16	7,399.11	-62.24	-45.48	456,644.85	725,118.91	32.253993	-103.738827
7,500.00	1.32	216.16	7,499.09	-64.10	-46.85	456,642.99	725,117.55	32.253988	-103.738832
7,600.00	1.32	216.16	7,599.06	-65.97	-48.21	456,641.12	725,116.19	32.253983	-103.738836
7,700.00	1.32	216.16	7,699.03	-67.84	-49.57	456,639.25	725,114.82	32.253978	-103.738841
7,800.00	1.32	216.16	7,799.01	-69.71	-50.94	456,637.39	725,113.46	32.253973	-103.738845
7,900.00	1.32	216.16	7,898.98	-71.57	-52.30	456,635.52	725,112.09	32.253968	-103.738850
8,000.00	1.32	216.16	7,998.95	-73.44	-53.67	456,633.65	725,110.73	32.253963	-103.738854
8,100.00	1.32	216.16	8,098.93	-75.31	-55.03	456,631.78	725,109.37	32.253958	-103.738859
8,200.00	1.32	216.16	8,198.90	-77.17	-56.40	456,629.92	725,108.00	32.253952	-103.738863
8,300.00	1.32	216.16	8,298.87	-79.04	-57.76	456,628.05	725,106.64	32.253947	-103.738867
8,400.00	1.32	216.16	8,398.85	-80.91	-59.12	456,626.18	725,105.27	32.253942	-103.738872
8,500.00	1.32	216.16	8,498.82	-82.77	-60.49	456,624.32	725,103.91	32.253937	-103.738876
8,600.00	1.32	216.16	8,598.79	-84.64	-61.85	456,622.45	725,102.54	32.253932	-103.738881
8,700.00	1.32	216.16	8,698.77	-86.51	-63.22	456,620.58	725,101.18	32.253927	-103.738885
8,800.00	1.32	216.16	8,798.74	-88.37	-64.58	456,618.72	725,099.82	32.253922	-103.738890
8,900.00	1.32	216.16	8,898.71	-90.24	-65.95	456,616.85	725,098.45	32.253917	-103.738894
9,000.00	1.32	216.16	8,998.69	-92.11	-67.31	456,614.98	725,097.09	32.253912	-103.738899
9,100.00	1.32	216.16	9,098.66	-93.97	-68.67	456,613.12	725,095.72	32.253906	-103.738903
9,200.00	1.32	216.16	9,198.63	-95.84	-70.04	456,611.25	725,094.36	32.253901	-103.738907
9,300.00	1.32	216.16	9,298.61	-97.71	-71.40	456,609.38	725,092.99	32.253896	-103.738912
9,400.00	1.32	216.16	9,398.58	-99.58	-72.77	456,607.51	725,091.63	32.253891	-103.738916
9,500.00	1.32	216.16	9,498.55	-101.44	-74.13	456,605.65	725,090.27	32.253886	-103.738921
9,600.00	1.32	216.16	9,598.53	-103.31	-75.50	456,603.78	725,088.90	32.253881	-103.738925
9,700.00	1.32	216.16	9,698.50	-105.18	-76.86	456,601.91	725,087.54	32.253876	-103.738930
9,800.00	1.32	216.16	9,798.47	-107.04	-78.22	456,600.05	725,086.17	32.253871	-103.738934
9,900.00	1.32	216.16	9,898.45	-108.91	-79.59	456,598.18	725,084.81	32.253866	-103.738939
10,000.00	1.32	216.16	9,998.42	-110.78	-80.95	456,596.31	725,083.44	32.253860	-103.738943
10,100.00	1.32	216.16	10,098.39	-112.64	-82.32	456,594.45	725,082.08	32.253855	-103.738947
10,200.00	1.32	216.16	10,198.37	-114.51	-83.68	456,592.58	725,080.72	32.253850	-103.738952
10,300.00	1.32	216.16	10,298.34	-116.38	-85.05	456,590.71	725,079.35	32.253845	-103.738956
10,400.00	1.32	216.16	10,398.31	-118.24	-86.41	456,588.85	725,077.99	32.253840	-103.738961
10,500.00	1.32	216.16	10,498.29	-120.11	-87.77	456,586.98	725,076.62	32.253835	-103.738965
10,600.00	1.32	216.16	10,598.26	-121.98	-89.14	456,585.11	725,075.26	32.253830	-103.738970
10,700.00	1.32	216.16	10,698.23	-123.85	-90.50	456,583.25	725,073.89	32.253825	-103.738974
10,800.00	1.32	216.16	10,798.21	-125.71	-91.87	456,581.38	725,072.53	32.253820	-103.738979

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Todd 36 State 715H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3542.10ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3542.10ft
Site:	Sec. 36-T23S-R31E	North Reference:	Grid
Well:	Todd 36 State 715H	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	1.32	216.16	10,898.18	-127.58	-93.23	456,579.51	725,071.17	32.253814	-103.738983
10,985.52	1.32	216.16	10,983.68	-129.18	-94.40	456,577.92	725,070.00	32.253810	-103.738987
11,000.00	1.11	216.16	10,998.15	-129.42	-94.58	456,577.67	725,069.82	32.253809	-103.738987
11,073.85	0.00	0.00	11,072.00	-130.00	-95.00	456,577.09	725,069.40	32.253808	-103.738989
11,100.00	0.00	0.00	11,098.15	-130.00	-95.00	456,577.09	725,069.40	32.253808	-103.738989
11,200.00	0.00	0.00	11,198.15	-130.00	-95.00	456,577.09	725,069.40	32.253808	-103.738989
11,300.00	0.00	0.00	11,298.15	-130.00	-95.00	456,577.09	725,069.40	32.253808	-103.738989
11,400.00	0.00	0.00	11,398.15	-130.00	-95.00	456,577.09	725,069.40	32.253808	-103.738989
11,423.89	0.00	0.00	11,422.04	-130.00	-95.00	456,577.09	725,069.40	32.253808	-103.738989
KOP @ 11424' MD, 50' FSL, 330' FWL									
11,500.00	7.61	359.70	11,497.92	-124.95	-95.03	456,582.14	725,069.37	32.253822	-103.738989
11,600.00	17.61	359.70	11,595.39	-103.15	-95.14	456,603.94	725,069.26	32.253882	-103.738989
11,665.03	24.11	359.70	11,656.12	-80.00	-95.26	456,627.09	725,069.14	32.253945	-103.738989
FTP @ 11665' MD, 100' FSL, 330' FWL									
11,700.00	27.61	359.70	11,687.59	-64.75	-95.34	456,642.34	725,069.06	32.253987	-103.738989
11,800.00	37.61	359.70	11,771.71	-10.93	-95.61	456,696.16	725,068.78	32.254135	-103.738989
11,900.00	47.61	359.70	11,845.22	56.69	-95.96	456,763.78	725,068.43	32.254321	-103.738989
12,000.00	57.61	359.70	11,905.86	136.04	-96.37	456,843.13	725,068.02	32.254539	-103.738988
12,100.00	67.61	359.70	11,951.81	224.72	-96.83	456,931.80	725,067.57	32.254783	-103.738988
12,200.00	77.61	359.70	11,981.66	320.02	-97.32	457,027.11	725,067.08	32.255045	-103.738988
12,300.00	87.61	359.70	11,994.50	419.06	-97.83	457,126.15	725,066.56	32.255317	-103.738988
12,323.89	90.00	359.70	11,995.00	442.95	-97.96	457,150.04	725,066.44	32.255383	-103.738988
12,400.00	90.00	359.70	11,995.00	519.06	-98.35	457,226.15	725,066.05	32.255592	-103.738988
12,500.00	90.00	359.70	11,995.00	619.06	-98.86	457,326.14	725,065.53	32.255867	-103.738988
12,600.00	90.00	359.70	11,995.00	719.05	-99.38	457,426.14	725,065.02	32.256142	-103.738988
12,700.00	90.00	359.70	11,995.00	819.05	-99.89	457,526.14	725,064.50	32.256417	-103.738988
12,800.00	90.00	359.70	11,995.00	919.05	-100.41	457,626.14	725,063.99	32.256691	-103.738987
12,900.00	90.00	359.70	11,995.00	1,019.05	-100.93	457,726.14	725,063.47	32.256966	-103.738987
13,000.00	90.00	359.70	11,995.00	1,119.05	-101.44	457,826.14	725,062.95	32.257241	-103.738987
13,100.00	90.00	359.70	11,995.00	1,219.05	-101.96	457,926.14	725,062.44	32.257516	-103.738987
13,200.00	90.00	359.70	11,995.00	1,319.05	-102.47	458,026.13	725,061.92	32.257791	-103.738987
13,300.00	90.00	359.70	11,995.00	1,419.04	-102.99	458,126.13	725,061.41	32.258066	-103.738987
13,400.00	90.00	359.70	11,995.00	1,519.04	-103.51	458,226.13	725,060.89	32.258341	-103.738987
13,500.00	90.00	359.70	11,995.00	1,619.04	-104.02	458,326.13	725,060.38	32.258616	-103.738987
13,600.00	90.00	359.70	11,995.00	1,719.04	-104.54	458,426.13	725,059.86	32.258890	-103.738987
13,700.00	90.00	359.70	11,995.00	1,819.04	-105.05	458,526.13	725,059.34	32.259165	-103.738986
13,800.00	90.00	359.70	11,995.00	1,919.04	-105.57	458,626.12	725,058.83	32.259440	-103.738986
13,900.00	90.00	359.70	11,995.00	2,019.04	-106.08	458,726.12	725,058.31	32.259715	-103.738986
14,000.00	90.00	359.70	11,995.00	2,119.04	-106.60	458,826.12	725,057.80	32.259990	-103.738986
14,100.00	90.00	359.70	11,995.00	2,219.03	-107.12	458,926.12	725,057.28	32.260265	-103.738986
14,200.00	90.00	359.70	11,995.00	2,319.03	-107.63	459,026.12	725,056.77	32.260540	-103.738986
14,300.00	90.00	359.70	11,995.00	2,419.03	-108.15	459,126.12	725,056.25	32.260815	-103.738986
14,400.00	90.00	359.70	11,995.00	2,519.03	-108.66	459,226.12	725,055.73	32.261089	-103.738986
14,500.00	90.00	359.70	11,995.00	2,619.03	-109.18	459,326.11	725,055.22	32.261364	-103.738985
14,600.00	90.00	359.70	11,995.00	2,719.03	-109.69	459,426.11	725,054.70	32.261639	-103.738985
14,700.00	90.00	359.70	11,995.00	2,819.03	-110.21	459,526.11	725,054.19	32.261914	-103.738985
14,800.00	90.00	359.70	11,995.00	2,919.02	-110.73	459,626.11	725,053.67	32.262189	-103.738985
14,900.00	90.00	359.70	11,995.00	3,019.02	-111.24	459,726.11	725,053.15	32.262464	-103.738985
15,000.00	90.00	359.70	11,995.00	3,119.02	-111.76	459,826.11	725,052.64	32.262739	-103.738985
15,100.00	90.00	359.70	11,995.00	3,219.02	-112.27	459,926.10	725,052.12	32.263014	-103.738985
15,200.00	90.00	359.70	11,995.00	3,319.02	-112.79	460,026.10	725,051.61	32.263288	-103.738985
15,300.00	90.00	359.70	11,995.00	3,419.02	-113.30	460,126.10	725,051.09	32.263563	-103.738984
15,400.00	90.00	359.70	11,995.00	3,519.02	-113.82	460,226.10	725,050.58	32.263838	-103.738984
15,500.00	90.00	359.70	11,995.00	3,619.02	-114.34	460,326.10	725,050.06	32.264113	-103.738984

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Todd 36 State 715H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3542.10ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3542.10ft
Site:	Sec. 36-T23S-R31E	North Reference:	Grid
Well:	Todd 36 State 715H	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
15,600.00	90.00	359.70	11,995.00	3,719.01	-114.85	460,426.10	725,049.54	32.264388	-103.738984
15,700.00	90.00	359.70	11,995.00	3,819.01	-115.37	460,526.10	725,049.03	32.264663	-103.738984
15,800.00	90.00	359.70	11,995.00	3,919.01	-115.88	460,626.09	725,048.51	32.264938	-103.738984
15,900.00	90.00	359.70	11,995.00	4,019.01	-116.40	460,726.09	725,048.00	32.265213	-103.738984
16,000.00	90.00	359.70	11,995.00	4,119.01	-116.91	460,826.09	725,047.48	32.265488	-103.738984
16,100.00	90.00	359.70	11,995.00	4,219.01	-117.43	460,926.09	725,046.97	32.265762	-103.738983
16,200.00	90.00	359.70	11,995.00	4,319.01	-117.95	461,026.09	725,046.45	32.266037	-103.738983
16,300.00	90.00	359.70	11,995.00	4,419.00	-118.46	461,126.09	725,045.93	32.266312	-103.738983
16,400.00	90.00	359.70	11,995.00	4,519.00	-118.98	461,226.08	725,045.42	32.266587	-103.738983
16,500.00	90.00	359.70	11,995.00	4,619.00	-119.49	461,326.08	725,044.90	32.266862	-103.738983
16,600.00	90.00	359.70	11,995.00	4,719.00	-120.01	461,426.08	725,044.39	32.267137	-103.738983
16,700.00	90.00	359.70	11,995.00	4,819.00	-120.53	461,526.08	725,043.87	32.267412	-103.738983
16,800.00	90.00	359.70	11,995.00	4,919.00	-121.04	461,626.08	725,043.36	32.267687	-103.738983
16,876.90	90.00	359.70	11,995.00	4,995.90	-121.44	461,702.98	725,042.96	32.267898	-103.738982
LTP @ 16877' MD, 100' FNL, 330' FWL									
16,900.00	90.00	359.70	11,995.00	5,019.00	-121.56	461,726.08	725,042.84	32.267961	-103.738982
16,956.89	90.00	359.70	11,995.00	5,075.89	-121.85	461,782.97	725,042.55	32.268118	-103.738982
PBHL; 20' FNL, 330' FWL									
16,956.90	90.00	359.70	11,995.00	5,075.90	-121.85	461,782.98	725,042.55	32.268118	-103.738982

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 = Todd 36 State 7	0.00	0.00	0.00	5,075.90	-121.85	461,782.98	725,042.55	32.268118	-103.738982
- plan misses target center by 5077.36ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
11,423.89	11,422.04	-130.00	-95.00	KOP @ 11424' MD, 50' FSL, 330' FWL	
11,665.03	11,656.12	-80.00	-95.26	FTP @ 11665' MD, 100' FSL, 330' FWL	
16,876.90	11,995.00	4,995.90	-121.44	LTP @ 16877' MD, 100' FNL, 330' FWL	
16,956.89	11,995.00	5,075.89	-121.85	PBHL; 20' FNL, 330' FWL	