

**NM OIL CONSERVATION
ARTESIA DISTRICT**

JUN 27 2018

WCDSC Permian NM

RECEIVED

Eddy County (NAD 83 NM Eastern)

Sec 27-T19S-R29E

Coral PWU 28-27 12H

Wellbore #1

Permit Plan 2

30-015-44961

Anticollision Report

25 June, 2018

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 12H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 12H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Reference	Permit Plan 2
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method	MD Interval 50.00ft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 1,500.00 ft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program	Date	6/25/2018		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	17,037.70	Permit Plan 2 (Wellbore #1)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Summary						
Site Name	Reference Measure	Offset Measure	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation	Warning
Offset Well - Wellbore - Design						
Sec 27-T19S-R29E						
Coral PWU 28-27 11H - Wellbore #1 - Permit Plan 2	2,532.32	2,525.14	29.99	12.30	1.695	Minor Risk, CC
Coral PWU 28-27 11H - Wellbore #1 - Permit Plan 2	2,650.00	2,642.39	30.30	11.80	1.638	Minor Risk, ES
Coral PWU 28-27 11H - Wellbore #1 - Permit Plan 2	2,700.00	2,692.14	30.82	11.98	1.636	Minor Risk, SF
Coral PWU 28-27 62H - Wellbore #1 - Permit Plan 2	3,066.56	3,065.63	53.07	31.69	2.482	Minor Risk, CC
Coral PWU 28-27 62H - Wellbore #1 - Permit Plan 2	3,100.00	3,101.10	53.18	31.56	2.460	Minor Risk, ES
Coral PWU 28-27 62H - Wellbore #1 - Permit Plan 2	3,150.00	3,148.61	53.80	31.85	2.451	Minor Risk, SF
Parkway West Unit #20 (Active) - Wellbore #1 - Wellbor	12,567.29	9,143.26	202.31	119.13	2.432	Minor Risk, CC, ES, SF
Parkway West Unit 10 - Original Hole - Original Hole						Out of range
Parkway West Unit SWD - Wellbore #1 - Wellbore #1						Out of range
Turquoise PWU 27-10H - Wellbore #1 - Wellbore #1						Out of range
Turquoise PWU 27-4H - Wellbore #1 - Wellbore #1	13,363.70	8,770.57	1,141.50	1,087.98	21.330	CC
Turquoise PWU 27-4H - Wellbore #1 - Wellbore #1	16,250.00	11,647.53	1,182.05	1,055.36	9.331	ES
Turquoise PWU 27-4H - Wellbore #1 - Wellbore #1	17,037.70	12,359.08	1,239.06	1,084.05	7.993	SF
Turquoise PWU 27-5H - Wellbore #1 - Wellbore #1						Out of range
Turquoise PWU 27-1H - Pilot Wellbore - Pilot Wellbore						Out of range
Turquoise PWU 27-1H - Wellbore #1 - Wellbore #1						Out of range
Turquoise PWU 27-3H - Wellbore #1 - Wellbore #1						Out of range
Turquoise PWU 27-61H - Wellbore #1 - Design #1						Out of range
Turquoise PWU 27-7H - Wellbore #1 - Wellbore #1						Out of range
Turquoise PWU 27-8H - Wellbore #1 - Wellbore #1						Out of range
Turquoise PWU 27-9H - Wellbore #1 - Design #1						Out of range

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
 Project: Eddy County (NAD 83 NM Eastern)
 Reference Site: Sec 27-T19S-R29E
 Site Error: 5.00 ft
 Reference Well: Coral PWU 28-27 12H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
 TVD Reference: RKB @ 3333.00ft
 MD Reference: RKB @ 3333.00ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM r5000.141_Prod US
 Offset TVD Reference: Offset Datum

Summary

Site Name	Reference Measure	Offset Measure	Distance Between Centres	Distance Between Ellipses	Separation	Warning
Offset Well - Wellbore - Design						
Sec 28-T19S-R29E						
Coral PWU 28-3H - Wellbore #1 - Wellbore #1	6,475.52	6,461.24	1,180.62	1,123.36	20.617	CC
Coral PWU 28-3H - Wellbore #1 - Wellbore #1	6,600.00	6,576.80	1,181.09	1,122.75	20.246	ES
Coral PWU 28-3H - Wellbore #1 - Wellbore #1	7,500.00	7,419.19	1,213.09	1,147.43	18.476	SF
Coral PWU 28-4H - Wellbore #1 - Wellbore #1	11,074.41	8,156.73	1,282.80	1,242.52	31.847	CC
Coral PWU 28-4H - Wellbore #1 - Wellbore #1	11,100.00	8,167.00	1,283.16	1,242.47	31.533	ES
Coral PWU 28-4H - Wellbore #1 - Wellbore #1	11,800.00	8,185.81	1,472.88	1,420.58	28.159	SF
Coral PWU 28-7H - Wellbore #1 - Wellbore #1	6,843.80	9,515.96	1,432.31	1,323.12	13.117	CC
Coral PWU 28-7H - Wellbore #1 - Wellbore #1	6,850.00	9,516.60	1,432.32	1,323.03	13.105	ES
Coral PWU 28-7H - Wellbore #1 - Wellbore #1	7,000.00	9,531.83	1,440.70	1,329.37	12.942	SF
Onyx PWU 29-28 61H - Wellbore #1 - Wellbore #1						Out of range
Onyx PWU 29-28 62H - Wellbore #1 - Wellbore #1						Out of range
Onyx PWU 29-28 611H - Wellbore #1 - Wellbore #1						Out of range
Parkway #021 (Active) - Wellbore #1 - Wellbore #1	11,573.77	7,344.00	1,486.49	1,436.40	29.674	CC
Parkway #021 (Active) - Wellbore #1 - Wellbore #1	11,600.00	7,344.00	1,486.73	1,436.32	29.495	ES
Parkway #021 (Active) - Wellbore #1 - Wellbore #1	11,750.00	7,344.00	1,496.90	1,441.96	27.244	SF
Parkway Unit 16 (Active) - Wellbore #1 - Wellbore #1	707.01	685.05	602.31	585.39	35.593	CC
Parkway Unit 16 (Active) - Wellbore #1 - Wellbore #1	3,350.00	3,340.51	605.74	577.13	21.175	ES
Parkway Unit 16 (Active) - Wellbore #1 - Wellbore #1	9,856.00	9,147.27	735.84	668.26	10.888	SF
Parkway West Unit #3 - Wellbore #1 - Wellbore #1	6,125.17	6,046.55	1,310.18	1,196.94	11.570	CC
Parkway West Unit #3 - Wellbore #1 - Wellbore #1	6,750.00	6,659.53	1,315.77	1,191.13	10.557	ES
Parkway West Unit #3 - Wellbore #1 - Wellbore #1	8,800.00	8,687.11	1,370.90	1,208.78	8.456	SF
Turquoise PWU 27 10H - Original Hole - Actuals						Out of range
Turquoise PWU 27 10H - Original Hole - P3v1						Out of range
Turquoise PWU 27 10H - Original Hole - Plan 1						Out of range
Turquoise PWU 27 10H - Original Hole - PTL						Out of range
Turquoise PWU 27 10H - Original Hole - T&D						Out of range

Offset Design Sec 27-T19S-R29E - Coral PWU 28-27 11H - Wellbore #1 - Permit Plan 2													Offset Site Error:	5.00 ft
Survey Program: O-MWD+HDGM													Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	7.10	-7.10	0.50	0.50	-90.00	0.00	-30.00	30.00					
50.00	50.00	42.90	42.90	0.50	0.50	-90.00	0.00	-30.00	30.00	29.00	1.00	29.867		
100.00	100.00	107.10	92.90	0.52	0.52	-90.00	0.00	-30.00	30.00	28.96	1.04	28.855		
150.00	150.00	142.90	142.90	0.59	0.58	-90.00	0.00	-30.00	30.00	28.84	1.16	25.833		
200.00	200.00	207.10	192.90	0.70	0.72	-90.00	0.00	-30.00	30.00	28.59	1.41	21.215		
250.00	250.00	242.90	242.90	0.83	0.82	-90.00	0.00	-30.00	30.00	28.35	1.65	18.228		
300.00	300.00	307.10	292.90	0.98	1.01	-90.00	0.00	-30.00	30.00	28.01	1.99	15.101		
350.00	350.00	342.90	342.90	1.14	1.12	-90.00	0.00	-30.00	30.00	27.74	2.26	13.288		
400.00	400.00	407.10	392.90	1.30	1.33	-90.00	0.00	-30.00	30.00	27.37	2.63	11.403		
450.00	450.00	442.90	442.90	1.47	1.45	-90.00	0.00	-30.00	30.00	27.08	2.92	10.282		
500.00	500.00	507.10	492.90	1.64	1.67	-90.00	0.00	-30.00	30.00	26.69	3.31	9.076		
550.00	550.00	542.90	542.90	1.81	1.79	-90.00	0.00	-30.00	30.00	26.40	3.60	8.334		
600.00	600.00	607.10	592.90	1.98	2.01	-90.00	0.00	-30.00	30.00	26.01	3.99	7.510		
650.00	650.00	642.90	642.90	2.15	2.14	-90.00	0.00	-30.00	30.00	25.71	4.29	6.988		
700.00	700.00	707.10	692.90	2.33	2.36	-90.00	0.00	-30.00	30.00	25.31	4.69	6.394		
750.00	750.00	742.90	742.90	2.51	2.49	-90.00	0.00	-30.00	30.00	25.01	4.99	6.008		
800.00	800.00	807.10	792.90	2.68	2.71	-90.00	0.00	-30.00	30.00	24.61	5.39	5.561		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Company: WCDSC Permian NM
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Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 27-T19S-R29E - Coral PWU 28-27 11H - Wellbore #1 - Permit Plan 2													Offset Site Error:	5.00 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
850.00	850.00	842.90	842.90	2.86	2.84	-90.00	0.00	-30.00	30.00	24.30	5.70	5.266		
900.00	900.00	907.10	892.90	3.03	3.07	-90.00	0.00	-30.00	30.00	23.90	6.10	4.917 Alert		
950.00	950.00	942.90	942.90	3.21	3.19	-90.00	0.00	-30.00	30.00	23.60	6.40	4.684 Alert		
1,000.00	1,000.00	1,007.10	992.90	3.39	3.42	-90.00	0.00	-30.00	30.00	23.19	6.81	4.406 Alert		
1,050.00	1,050.00	1,042.90	1,042.90	3.57	3.55	-90.00	0.00	-30.00	30.00	22.89	7.11	4.217 Alert		
1,100.00	1,100.00	1,107.10	1,092.90	3.74	3.78	-90.00	0.00	-30.00	30.00	22.48	7.52	3.990 Alert		
1,150.00	1,150.00	1,142.90	1,142.90	3.92	3.90	-90.00	0.00	-30.00	30.00	22.18	7.82	3.834 Alert		
1,200.00	1,200.00	1,207.10	1,192.90	4.10	4.13	-90.00	0.00	-30.00	30.00	21.77	8.23	3.645 Alert		
1,250.00	1,250.00	1,242.90	1,242.90	4.28	4.26	-90.00	0.00	-30.00	30.00	21.46	8.54	3.515 Alert		
1,300.00	1,300.00	1,307.10	1,292.90	4.45	4.49	-90.00	0.00	-30.00	30.00	21.06	8.94	3.355 Alert		
1,350.00	1,350.00	1,342.90	1,342.90	4.63	4.62	-90.00	0.00	-30.00	30.00	20.75	9.25	3.244 Alert		
1,400.00	1,400.00	1,407.10	1,392.90	4.81	4.84	-90.00	0.00	-30.00	30.00	20.35	9.65	3.107 Alert		
1,450.00	1,450.00	1,442.90	1,442.90	4.99	4.97	-90.00	0.00	-30.00	30.00	20.04	9.96	3.012 Alert		
1,500.00	1,500.00	1,507.10	1,492.90	5.17	5.20	-90.00	0.00	-30.00	30.00	19.63	10.37	2.893 Alert		
1,550.00	1,550.00	1,542.90	1,542.90	5.35	5.33	-90.00	0.00	-30.00	30.00	19.33	10.67	2.810 Alert		
1,600.00	1,600.00	1,607.10	1,592.90	5.52	5.56	-90.00	0.00	-30.00	30.00	18.92	11.08	2.707 Alert		
1,650.00	1,650.00	1,642.90	1,642.90	5.70	5.69	-90.00	0.00	-30.00	30.00	18.61	11.39	2.634 Alert		
1,700.00	1,700.00	1,707.10	1,692.90	5.88	5.91	-90.00	0.00	-30.00	30.00	18.20	11.80	2.543 Alert		
1,750.00	1,750.00	1,742.90	1,742.90	6.06	6.04	-90.00	0.00	-30.00	30.00	17.90	12.10	2.479 Minor Risk		
1,800.00	1,800.00	1,807.10	1,792.90	6.24	6.27	-90.00	0.00	-30.00	30.00	17.49	12.51	2.398 Minor Risk		
1,850.00	1,850.00	1,842.90	1,842.90	6.42	6.40	-90.00	0.00	-30.00	30.00	17.18	12.82	2.341 Minor Risk		
1,900.00	1,900.00	1,907.10	1,892.90	6.60	6.63	-90.00	0.00	-30.00	30.00	16.77	13.23	2.268 Minor Risk		
1,950.00	1,950.00	1,942.90	1,942.90	6.77	6.76	-90.00	0.00	-30.00	30.00	16.47	13.53	2.217 Minor Risk		
2,000.00	2,000.00	2,007.10	1,992.90	6.95	6.99	-90.00	0.00	-30.00	30.00	16.06	13.94	2.152 Minor Risk		
2,050.00	2,050.00	2,042.90	2,042.90	7.13	7.11	-90.00	0.00	-30.00	30.00	15.75	14.25	2.106 Minor Risk		
2,100.00	2,100.00	2,107.10	2,092.90	7.31	7.34	-90.00	0.00	-30.00	30.00	15.34	14.66	2.047 Minor Risk		
2,150.00	2,150.00	2,142.90	2,142.90	7.49	7.47	-90.00	0.00	-30.00	30.00	15.04	14.96	2.005 Minor Risk		
2,200.00	2,200.00	2,207.10	2,192.90	7.67	7.70	-90.00	0.00	-30.00	30.00	14.63	15.37	1.952 Minor Risk		
2,250.00	2,250.00	2,242.90	2,242.90	7.85	7.83	-90.00	0.00	-30.00	30.00	14.32	15.68	1.914 Minor Risk		
2,300.00	2,300.00	2,307.10	2,292.90	8.03	8.06	-90.00	0.00	-30.00	30.00	13.91	16.09	1.865 Minor Risk		
2,350.00	2,350.00	2,342.90	2,342.90	8.21	8.19	-90.00	0.00	-30.00	30.00	13.61	16.39	1.830 Minor Risk		
2,400.00	2,400.00	2,407.10	2,392.90	8.38	8.42	-90.00	0.00	-30.00	30.00	13.20	16.80	1.785 Minor Risk		
2,450.00	2,450.00	2,442.90	2,442.90	8.56	8.55	-90.00	0.00	-30.00	30.00	12.89	17.11	1.753 Minor Risk		
2,500.00	2,500.00	2,492.90	2,492.90	8.74	8.72	-90.00	0.00	-30.00	30.00	12.53	17.47	1.718 Minor Risk		
2,532.32	2,532.32	2,525.14	2,525.14	8.85	8.84	62.43	0.04	-30.03	29.99	12.30	17.69	1.695 Minor Risk, CC		
2,550.00	2,550.00	2,542.77	2,542.77	8.91	8.90	62.81	0.13	-30.09	29.99	12.18	17.81	1.684 Minor Risk		
2,600.00	2,599.99	2,592.59	2,592.59	9.08	9.08	64.81	0.60	-30.44	30.07	11.91	18.16	1.656 Minor Risk		
2,650.00	2,649.98	2,642.39	2,642.38	9.25	9.26	68.17	1.43	-31.05	30.30	11.80	18.50	1.638 Minor Risk, ES		
2,700.00	2,699.96	2,692.14	2,692.10	9.41	9.43	72.79	2.60	-31.91	30.82	11.98	18.84	1.636 Minor Risk, SF		
2,750.00	2,749.92	2,741.83	2,741.76	9.57	9.61	78.47	4.11	-33.02	31.78	12.61	19.17	1.658 Minor Risk		
2,800.00	2,799.86	2,791.43	2,791.31	9.74	9.79	84.88	5.97	-34.38	33.36	13.86	19.50	1.710 Minor Risk		
2,850.00	2,849.78	2,840.94	2,840.74	9.90	9.96	91.62	8.18	-36.00	35.73	15.89	19.84	1.801 Minor Risk		
2,900.00	2,899.68	2,890.34	2,890.04	10.07	10.14	98.25	10.72	-37.86	39.00	18.84	20.16	1.934 Minor Risk		
2,950.00	2,949.54	2,939.61	2,939.18	10.23	10.31	104.45	13.59	-39.97	43.26	22.76	20.49	2.111 Minor Risk		
3,000.00	2,999.37	2,988.74	2,988.15	10.40	10.49	110.02	16.80	-42.32	48.50	27.68	20.82	2.330 Minor Risk		
3,050.00	3,049.16	3,037.72	3,036.93	10.56	10.66	114.87	20.33	-44.92	54.74	33.59	21.15	2.588 Alert		
3,100.00	3,098.90	3,086.51	3,085.49	10.73	10.84	119.01	24.18	-47.74	61.92	40.45	21.47	2.884 Alert		
3,150.00	3,148.61	3,135.12	3,133.82	10.90	11.01	122.53	28.35	-50.80	70.01	48.22	21.80	3.212 Alert		
3,200.00	3,198.26	3,183.53	3,181.91	11.07	11.19	125.49	32.83	-54.09	78.99	56.87	22.12	3.571 Alert		
3,250.00	3,247.86	3,231.73	3,229.74	11.23	11.36	128.00	37.62	-57.60	88.80	66.36	22.44	3.957 Alert		
3,300.00	3,297.40	3,279.69	3,277.28	11.40	11.54	130.11	42.71	-61.33	99.43	76.67	22.76	4.368 Alert		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 27-T19S-R29E - Coral PWU 28-27 11H - Wellbore #1 - Permit Plan 2													Offset Site Error: 5.00 ft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.50 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
3,350.00	3,346.89	3,327.71	3,324.84	11.57	11.71	131.92	48.10	-65.29	110.82	87.73	23.09	4.799 Alert	
3,400.00	3,396.30	3,376.17	3,372.81	11.74	11.89	133.52	53.61	-69.33	122.69	99.25	23.44	5.235	
3,450.00	3,445.65	3,424.53	3,420.69	11.91	12.06	134.97	59.11	-73.37	134.94	111.16	23.78	5.674	
3,500.00	3,494.93	3,472.79	3,468.47	12.08	12.24	136.27	64.59	-77.39	147.56	123.44	24.12	6.117	
3,550.00	3,544.13	3,520.96	3,516.15	12.25	12.42	137.47	70.07	-81.41	160.57	136.11	24.47	6.563	
3,600.00	3,593.26	3,569.01	3,563.73	12.42	12.60	138.57	75.53	-85.42	173.96	149.15	24.81	7.011	
3,650.00	3,642.31	3,616.98	3,611.22	12.59	12.77	139.63	80.99	-89.42	187.66	162.51	25.16	7.460	
3,700.00	3,691.36	3,664.95	3,658.71	12.77	12.95	140.58	86.44	-93.42	201.44	175.94	25.50	7.900	
3,750.00	3,740.42	3,712.91	3,706.19	12.94	13.13	141.40	91.89	-97.43	215.26	189.42	25.84	8.329	
3,800.00	3,789.47	3,760.88	3,753.68	13.11	13.31	142.13	97.35	-101.43	229.12	202.93	26.19	8.748	
3,850.00	3,838.52	3,808.84	3,801.16	13.29	13.49	142.78	102.80	-105.43	243.01	216.47	26.54	9.158	
3,900.00	3,887.57	3,856.81	3,848.65	13.46	13.67	143.35	108.25	-109.43	256.92	230.04	26.88	9.558	
3,950.00	3,936.62	3,904.77	3,896.13	13.64	13.85	143.87	113.70	-113.43	270.86	243.63	27.23	9.948	
4,000.00	3,985.68	3,952.73	3,943.62	13.81	14.03	144.33	119.16	-117.43	284.81	257.24	27.58	10.329	
4,050.00	4,034.73	4,000.70	3,991.10	13.99	14.21	144.76	124.61	-121.43	298.78	270.86	27.92	10.700	
4,100.00	4,083.78	4,048.66	4,038.59	14.16	14.39	145.14	130.06	-125.43	312.76	284.49	28.27	11.063	
4,150.00	4,132.83	4,103.37	4,086.07	14.34	14.60	145.49	135.52	-129.43	326.76	298.11	28.64	11.407	
4,200.00	4,181.88	4,144.59	4,133.56	14.52	14.76	145.82	140.97	-133.44	340.76	311.79	28.97	11.783	
4,250.00	4,230.94	4,207.44	4,181.04	14.70	15.00	146.11	146.42	-137.44	354.78	325.40	29.37	12.078	
4,300.00	4,279.99	4,240.52	4,228.53	14.87	15.12	146.39	151.88	-141.44	368.80	339.13	29.67	12.430	
4,350.00	4,329.04	4,288.49	4,276.01	15.05	15.31	146.64	157.33	-145.44	382.83	352.81	30.02	12.753	
4,400.00	4,378.09	4,336.45	4,323.50	15.23	15.49	146.88	162.78	-149.44	396.87	366.49	30.37	13.067	
4,450.00	4,427.14	4,384.41	4,370.98	15.41	15.67	147.10	168.24	-153.44	410.91	380.19	30.72	13.375	
4,500.00	4,476.20	4,432.38	4,418.47	15.59	15.86	147.31	173.69	-157.44	424.96	393.88	31.07	13.675	
4,550.00	4,525.25	4,480.34	4,465.95	15.77	16.04	147.50	179.14	-161.44	439.01	407.58	31.43	13.969	
4,600.00	4,574.30	4,528.31	4,513.44	15.95	16.22	147.68	184.59	-165.44	453.06	421.28	31.78	14.256	
4,650.00	4,623.35	4,576.27	4,560.92	16.13	16.41	147.85	190.05	-169.45	467.12	434.99	32.13	14.537	
4,700.00	4,672.40	4,624.24	4,608.41	16.31	16.59	148.01	195.50	-173.45	481.19	448.70	32.49	14.812	
4,750.00	4,721.46	4,672.20	4,655.89	16.49	16.78	148.16	200.95	-177.45	495.26	462.41	32.84	15.080	
4,800.00	4,770.51	4,720.17	4,703.38	16.67	16.96	148.30	206.41	-181.45	509.33	476.13	33.20	15.343	
4,850.00	4,819.56	4,768.13	4,750.86	16.85	17.15	148.44	211.86	-185.45	523.40	489.85	33.55	15.601	
4,900.00	4,868.61	4,816.09	4,798.35	17.04	17.34	148.57	217.31	-189.45	537.47	503.57	33.90	15.852	
4,950.00	4,917.66	4,864.06	4,845.83	17.22	17.52	148.69	222.77	-193.45	551.55	517.29	34.26	16.099	
5,000.00	4,966.72	4,912.02	4,893.32	17.40	17.71	148.80	228.22	-197.45	565.63	531.02	34.62	16.340	
5,050.00	5,015.77	4,959.99	4,940.81	17.58	17.89	148.91	233.67	-201.46	579.71	544.74	34.97	16.576	
5,100.00	5,064.82	5,007.95	4,988.29	17.77	18.08	149.02	239.13	-205.46	593.80	558.47	35.33	16.808	
5,150.00	5,113.87	5,055.92	5,035.78	17.95	18.27	149.12	244.58	-209.46	607.88	572.20	35.69	17.034	
5,200.00	5,162.92	5,103.88	5,083.26	18.13	18.45	149.21	250.03	-213.46	621.97	585.93	36.04	17.257	
5,250.00	5,211.98	5,151.85	5,130.75	18.32	18.64	149.31	255.48	-217.46	636.06	599.66	36.40	17.474	
5,300.00	5,261.03	5,200.19	5,178.23	18.50	18.83	149.39	260.94	-221.46	650.15	613.39	36.76	17.687	
5,350.00	5,310.08	5,247.77	5,225.72	18.68	19.01	149.48	266.39	-225.46	664.24	627.13	37.12	17.897	
5,400.00	5,359.13	5,304.26	5,273.20	18.87	19.23	149.56	271.84	-229.46	678.33	640.83	37.51	18.086	
5,450.00	5,408.18	5,343.70	5,320.69	19.05	19.39	149.63	277.30	-233.46	692.43	654.60	37.83	18.303	
5,500.00	5,457.24	5,408.33	5,368.17	19.23	19.64	149.71	282.75	-237.47	706.52	668.27	38.25	18.470	
5,550.00	5,506.29	5,439.63	5,415.66	19.42	19.76	149.78	288.20	-241.47	720.62	682.07	38.55	18.693	
5,600.00	5,555.34	5,487.60	5,463.14	19.60	19.95	149.84	293.66	-245.47	734.72	695.81	38.91	18.883	
5,650.00	5,604.39	5,535.56	5,510.63	19.79	20.14	149.91	299.11	-249.47	748.81	709.55	39.27	19.069	
5,700.00	5,653.44	5,583.53	5,558.11	19.97	20.33	149.97	304.56	-253.47	762.91	723.28	39.63	19.252	
5,750.00	5,702.50	5,631.49	5,605.60	20.16	20.51	150.03	310.02	-257.47	777.01	737.02	39.99	19.431	
5,800.00	5,751.55	5,679.45	5,653.08	20.34	20.70	150.09	315.47	-261.47	791.11	750.76	40.35	19.608	
5,850.00	5,800.60	5,727.42	5,700.57	20.53	20.89	150.15	320.92	-265.47	805.21	764.51	40.71	19.780	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
 Project: Eddy County (NAD 83 NM Eastern)
 Reference Site: Sec 27-T19S-R29E
 Site Error: 5.00 ft
 Reference Well: Coral PWU 28-27 12H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
 TVD Reference: RKB @ 3333.00ft
 MD Reference: RKB @ 3333.00ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM r5000.141_Prod US
 Offset TVD Reference: Offset Datum

Offset Design Sec 27-T19S-R29E - Coral PWU 28-27 11H - Wellbore #1 - Permit Plan 2														Offset Site Error:	5.00 ft
Survey Program: 0-MWD+HDGM														Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance				Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			Minimum Separation (ft)		
5,900.00	5,849.65	5,775.38	5,748.05	20.72	21.08	150.20	326.37	-269.47	819.32	778.25	41.07	19.950			
5,950.00	5,898.70	5,823.35	5,795.54	20.90	21.27	150.26	331.83	-273.48	833.42	791.99	41.43	20.117			
6,000.00	5,947.78	5,871.31	5,843.02	21.09	21.46	150.31	337.28	-277.48	847.52	805.73	41.79	20.281			
6,050.00	5,996.81	5,919.28	5,890.51	21.27	21.65	150.36	342.73	-281.48	861.62	819.47	42.15	20.441			
6,100.00	6,045.86	5,967.24	5,937.99	21.46	21.83	150.40	348.19	-285.48	875.73	833.22	42.51	20.599			
6,150.00	6,094.91	6,015.20	5,985.48	21.65	22.02	150.45	353.64	-289.48	889.83	846.96	42.87	20.755			
6,200.00	6,143.96	6,063.17	6,032.96	21.83	22.21	150.50	359.09	-293.48	903.94	860.70	43.24	20.907			
6,250.00	6,193.01	6,111.13	6,080.45	22.02	22.40	150.54	364.55	-297.48	918.04	874.45	43.60	21.057			
6,300.00	6,242.07	6,159.10	6,127.93	22.20	22.59	150.58	370.00	-301.48	932.15	888.19	43.96	21.205			
6,350.00	6,291.12	6,207.06	6,175.42	22.39	22.78	150.62	375.45	-305.49	946.26	901.94	44.32	21.350			
6,400.00	6,340.17	6,255.03	6,222.91	22.58	22.97	150.66	380.91	-309.49	960.36	915.68	44.68	21.482			
6,450.00	6,389.22	6,302.99	6,270.39	22.77	23.16	150.70	386.36	-313.49	974.47	929.43	45.05	21.632			
6,500.00	6,438.27	6,350.96	6,317.88	22.95	23.35	150.74	391.81	-317.49	988.58	943.17	45.41	21.770			
6,550.00	6,487.33	6,401.08	6,365.36	23.14	23.55	150.77	397.26	-321.49	1,002.69	956.91	45.78	21.902			
6,600.00	6,536.38	6,446.88	6,412.85	23.33	23.73	150.81	402.72	-325.49	1,016.80	970.66	46.14	22.039			
6,650.00	6,585.43	6,505.15	6,460.33	23.51	23.98	150.84	408.17	-329.49	1,030.91	984.37	46.54	22.152			
6,700.00	6,634.48	6,542.81	6,507.82	23.70	24.11	150.88	413.62	-333.49	1,045.02	998.15	46.86	22.300			
6,750.00	6,683.53	6,609.22	6,555.30	23.89	24.37	150.91	419.08	-337.49	1,059.13	1,011.83	47.30	22.394			
6,800.00	6,732.59	6,638.74	6,602.79	24.08	24.49	150.94	424.53	-341.50	1,073.24	1,025.65	47.59	22.552			
6,850.00	6,781.64	6,686.71	6,650.27	24.26	24.68	150.97	429.98	-345.50	1,087.35	1,039.39	47.95	22.675			
6,900.00	6,830.69	6,734.67	6,697.76	24.45	24.87	151.00	435.44	-349.50	1,101.46	1,053.14	48.32	22.796			
6,950.00	6,879.74	6,782.64	6,745.24	24.64	25.06	151.03	440.89	-353.50	1,115.57	1,068.89	48.68	22.918			
7,000.00	6,928.79	6,830.60	6,792.73	24.83	25.25	151.06	446.34	-357.50	1,129.68	1,080.63	49.05	23.033			
7,050.00	6,977.85	6,878.56	6,840.21	25.02	25.44	151.09	451.80	-361.50	1,143.79	1,094.38	49.41	23.149			
7,100.00	7,026.90	6,926.53	6,887.70	25.20	25.63	151.11	457.25	-365.50	1,157.90	1,108.13	49.77	23.263			
7,150.00	7,075.95	6,974.49	6,935.18	25.39	25.82	151.14	462.70	-369.50	1,172.01	1,121.87	50.14	23.375			
7,200.00	7,125.00	7,022.46	6,982.67	25.58	26.01	151.17	468.15	-373.50	1,186.13	1,135.62	50.50	23.486			
7,250.00	7,174.05	7,070.42	7,030.15	25.77	26.20	151.19	473.61	-377.51	1,200.24	1,149.37	50.87	23.595			
7,300.00	7,223.11	7,118.39	7,077.64	25.96	26.39	151.22	479.06	-381.51	1,214.35	1,163.12	51.23	23.702			
7,350.00	7,272.16	7,166.35	7,125.12	26.15	26.58	151.24	484.51	-385.51	1,228.46	1,176.86	51.60	23.808			
7,400.00	7,321.21	7,214.32	7,172.61	26.33	26.77	151.26	489.97	-389.51	1,242.58	1,190.61	51.96	23.912			
7,450.00	7,370.26	7,262.28	7,220.09	26.52	26.96	151.29	495.42	-393.51	1,256.69	1,204.36	52.33	24.015			
7,500.00	7,419.31	7,310.24	7,267.58	26.71	27.15	151.31	500.87	-397.51	1,270.80	1,218.11	52.70	24.116			
7,550.00	7,468.37	7,358.21	7,315.06	26.90	27.34	151.33	506.33	-401.51	1,284.92	1,231.85	53.08	24.216			
7,600.00	7,517.42	7,406.17	7,362.55	27.09	27.53	151.35	511.78	-405.51	1,299.03	1,245.60	53.43	24.314			
7,650.00	7,566.50	7,454.17	7,410.07	27.28	27.73	151.44	517.24	-409.52	1,313.03	1,259.24	53.79	24.409			
7,700.00	7,615.69	7,502.32	7,457.74	27.47	27.92	151.54	522.71	-413.53	1,326.51	1,272.35	54.16	24.493			
7,750.00	7,664.99	7,548.21	7,503.04	27.65	28.18	151.64	528.80	-417.73	1,339.14	1,284.48	54.66	24.500			
7,800.00	7,714.40	7,636.20	7,590.57	27.84	28.44	151.73	536.16	-423.40	1,350.52	1,295.36	55.16	24.482			
7,850.00	7,763.91	7,704.80	7,658.83	28.02	28.70	151.83	541.59	-427.39	1,360.63	1,304.97	55.66	24.445			
7,900.00	7,813.50	7,773.92	7,727.73	28.21	28.96	151.93	546.07	-430.67	1,369.47	1,313.32	56.15	24.390			
7,950.00	7,863.17	7,843.49	7,797.17	28.39	29.21	152.03	549.55	-433.23	1,377.01	1,320.39	56.62	24.319			
8,000.00	7,912.91	7,913.45	7,867.05	28.57	29.46	152.14	552.03	-435.05	1,383.26	1,326.17	57.09	24.229			
8,050.00	7,962.72	7,983.70	7,937.28	28.75	29.71	152.25	553.48	-436.12	1,388.19	1,330.65	57.54	24.125			
8,100.00	8,012.58	8,054.17	8,007.75	28.93	29.95	152.37	553.89	-436.42	1,391.81	1,333.83	57.98	24.004			
8,150.00	8,062.48	8,101.80	8,055.38	29.11	30.11	152.44	553.90	-436.42	1,394.57	1,336.25	58.32	23.911			
8,200.00	8,112.42	8,151.74	8,105.32	29.29	30.28	152.50	553.90	-436.42	1,396.75	1,338.08	58.67	23.805			
8,250.00	8,162.39	8,201.71	8,155.29	29.47	30.45	152.55	553.90	-436.42	1,398.35	1,339.33	59.02	23.692			
8,300.00	8,212.37	8,251.70	8,205.27	29.64	30.62	152.58	553.90	-436.42	1,399.37	1,340.00	59.37	23.570			
8,350.00	8,262.37	8,301.69	8,255.27	29.81	30.79	152.59	553.90	-436.42	1,399.81	1,340.09	59.71	23.442			
8,400.00	8,312.37	8,351.69	8,305.27	29.98	30.96	0.40	553.90	-436.42	1,399.82	1,339.77	60.05	23.310			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 27-T19S-R29E - Coral PWU 28-27 11H - Wellbore #1 - Permit Plan 2													Offset Site Error:	5.00 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
8,450.00	8,382.37	8,401.69	8,355.27	30.14	31.13	0.40	553.90	-436.42	1,399.82	1,339.43	60.39	23.179		
8,500.00	8,412.37	8,451.69	8,405.27	30.30	31.30	0.40	553.90	-436.42	1,399.82	1,339.09	60.73	23.050		
8,550.00	8,462.37	8,501.69	8,455.27	30.47	31.47	0.40	553.90	-436.42	1,399.82	1,338.75	61.07	22.922		
8,600.00	8,512.37	8,551.69	8,505.27	30.63	31.64	0.40	553.90	-436.42	1,399.82	1,338.42	61.41	22.795		
8,650.00	8,562.37	8,601.69	8,555.27	30.80	31.81	0.40	553.90	-436.42	1,399.82	1,338.08	61.75	22.670		
8,650.02	8,562.39	8,601.71	8,555.29	30.80	31.81	0.40	553.90	-436.42	1,399.82	1,338.08	61.75	22.670		
8,700.00	8,612.35	8,633.75	8,587.32	30.96	31.92	-90.02	553.97	-436.34	1,400.01	1,338.00	62.01	22.578		
8,750.00	8,662.05	8,650.00	8,603.57	31.12	31.97	-89.95	554.34	-435.91	1,401.22	1,339.05	62.17	22.537		
8,800.00	8,711.11	8,670.00	8,623.51	31.28	32.04	-89.83	555.24	-434.85	1,403.56	1,341.23	62.33	22.518		
8,850.00	8,759.15	8,700.00	8,653.31	31.43	32.14	-89.73	557.51	-432.17	1,407.18	1,344.66	62.53	22.506		
8,900.00	8,805.81	8,700.00	8,653.31	31.57	32.14	-89.28	557.51	-432.17	1,411.87	1,349.17	62.50	22.586		
8,950.00	8,850.72	8,723.08	8,676.05	31.70	32.21	-89.00	560.01	-429.23	1,417.35	1,354.73	62.61	22.636		
9,000.00	8,893.55	8,750.00	8,702.35	31.83	32.30	-88.73	563.75	-424.84	1,424.24	1,361.49	62.75	22.697		
9,050.00	8,933.97	8,750.00	8,702.35	31.94	32.30	-87.94	563.75	-424.84	1,432.06	1,369.41	62.65	22.857		
9,100.00	8,971.68	8,773.23	8,724.77	32.05	32.37	-87.48	567.67	-420.24	1,440.94	1,378.18	62.75	22.962		
9,150.00	9,006.38	8,800.00	8,750.26	32.14	32.46	-87.07	572.98	-413.99	1,450.98	1,388.09	62.89	23.072		
9,200.00	9,037.81	8,800.00	8,750.26	32.23	32.46	-85.96	572.98	-413.99	1,461.80	1,399.01	62.79	23.281		
9,250.00	9,065.74	8,818.90	8,767.98	32.31	32.52	-85.23	577.24	-408.99	1,473.63	1,410.75	62.88	23.437		
9,300.00	9,089.95	8,832.85	8,780.90	32.38	32.56	-84.30	580.64	-404.99	1,486.37	1,423.44	62.93	23.618		
9,350.00	9,110.25	8,850.00	8,796.59	32.45	32.61	-83.41	585.13	-399.71	1,499.97	1,436.92	63.04	23.792		

Anticollision Report

Company: WCDSC Permian NM
 Project: Eddy County (NAD 83 NM Eastern)
 Reference Site: Sec 27-T19S-R29E
 Site Error: 5.00 ft
 Reference Well: Coral PWU 28-27 12H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
 TVD Reference: RKB @ 3333.00ft
 MD Reference: RKB @ 3333.00ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM r5000.141_Prod US
 Offset TVD Reference: Offset Datum

Offset Design Sec 27-T19S-R29E - Coral PWU 28-27 62H - Wellbore #1 - Permit Plan 2													Offset Site Error: 5.00 ft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.50 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.50	0.50	-90.00	0.00	-60.00	60.00				
50.00	50.00	50.00	50.00	0.50	0.50	-90.00	0.00	-60.00	60.00	59.00	1.00	59.710	
100.00	100.00	100.00	100.00	0.52	0.51	-90.00	0.00	-60.00	60.00	58.97	1.03	58.269	
150.00	150.00	150.00	150.00	0.59	0.58	-90.00	0.00	-60.00	60.00	58.83	1.17	51.358	
200.00	200.00	200.00	200.00	0.70	0.69	-90.00	0.00	-60.00	60.00	58.61	1.39	43.229	
250.00	250.00	250.00	250.00	0.83	0.83	-90.00	0.00	-60.00	60.00	58.34	1.66	36.215	
300.00	300.00	300.00	300.00	0.98	0.98	-90.00	0.00	-60.00	60.00	58.05	1.95	30.697	
350.00	350.00	350.00	350.00	1.14	1.13	-90.00	0.00	-60.00	60.00	57.73	2.27	26.431	
400.00	400.00	400.00	400.00	1.30	1.30	-90.00	0.00	-60.00	60.00	57.40	2.60	23.107	
450.00	450.00	450.00	450.00	1.47	1.46	-90.00	0.00	-60.00	60.00	57.07	2.93	20.473	
500.00	500.00	500.00	500.00	1.64	1.63	-90.00	0.00	-60.00	60.00	56.73	3.27	18.349	
550.00	550.00	550.00	550.00	1.81	1.80	-90.00	0.00	-60.00	60.00	56.39	3.61	16.607	
600.00	600.00	600.00	600.00	1.98	1.98	-90.00	0.00	-60.00	60.00	56.04	3.96	15.157	
650.00	650.00	650.00	650.00	2.15	2.15	-90.00	0.00	-60.00	60.00	55.69	4.31	13.933	
700.00	700.00	700.00	700.00	2.33	2.33	-90.00	0.00	-60.00	60.00	55.34	4.66	12.887	
750.00	750.00	750.00	750.00	2.51	2.50	-90.00	0.00	-60.00	60.00	54.99	5.01	11.984	
800.00	800.00	800.00	800.00	2.68	2.68	-90.00	0.00	-60.00	60.00	54.64	5.36	11.198	
850.00	850.00	850.00	850.00	2.86	2.85	-90.00	0.00	-60.00	60.00	54.29	5.71	10.506	
900.00	900.00	900.00	900.00	3.03	3.03	-90.00	0.00	-60.00	60.00	53.94	6.06	9.894	
950.00	950.00	950.00	950.00	3.21	3.21	-90.00	0.00	-60.00	60.00	53.58	6.42	9.349	
1,000.00	1,000.00	1,000.00	1,000.00	3.39	3.38	-90.00	0.00	-60.00	60.00	53.23	6.77	8.860	
1,050.00	1,050.00	1,050.00	1,050.00	3.57	3.56	-90.00	0.00	-60.00	60.00	52.87	7.13	8.419	
1,100.00	1,100.00	1,100.00	1,100.00	3.74	3.74	-90.00	0.00	-60.00	60.00	52.52	7.48	8.019	
1,150.00	1,150.00	1,150.00	1,150.00	3.92	3.92	-90.00	0.00	-60.00	60.00	52.16	7.84	7.656	
1,200.00	1,200.00	1,200.00	1,200.00	4.10	4.09	-90.00	0.00	-60.00	60.00	51.81	8.19	7.323	
1,250.00	1,250.00	1,250.00	1,250.00	4.28	4.27	-90.00	0.00	-60.00	60.00	51.45	8.55	7.018	
1,300.00	1,300.00	1,300.00	1,300.00	4.45	4.45	-90.00	0.00	-60.00	60.00	51.09	8.91	6.738	
1,350.00	1,350.00	1,350.00	1,350.00	4.63	4.63	-90.00	0.00	-60.00	60.00	50.74	9.26	6.478	
1,400.00	1,400.00	1,400.00	1,400.00	4.81	4.81	-90.00	0.00	-60.00	60.00	50.38	9.62	6.238	
1,450.00	1,450.00	1,450.00	1,450.00	4.99	4.99	-90.00	0.00	-60.00	60.00	50.03	9.97	6.015	
1,500.00	1,500.00	1,500.00	1,500.00	5.17	5.16	-90.00	0.00	-60.00	60.00	49.67	10.33	5.808	
1,550.00	1,550.00	1,550.00	1,550.00	5.35	5.34	-90.00	0.00	-60.00	60.00	49.31	10.69	5.614	
1,600.00	1,600.00	1,600.00	1,600.00	5.52	5.52	-90.00	0.00	-60.00	60.00	48.96	11.05	5.432	
1,650.00	1,650.00	1,650.00	1,650.00	5.70	5.70	-90.00	0.00	-60.00	60.00	48.60	11.40	5.262	
1,700.00	1,700.00	1,700.00	1,700.00	5.88	5.88	-90.00	0.00	-60.00	60.00	48.24	11.76	5.102	
1,750.00	1,750.00	1,750.00	1,750.00	6.06	6.06	-90.00	0.00	-60.00	60.00	47.88	12.12	4.952 Alert	
1,800.00	1,800.00	1,800.00	1,800.00	6.24	6.24	-90.00	0.00	-60.00	60.00	47.53	12.47	4.810 Alert	
1,850.00	1,850.00	1,850.00	1,850.00	6.42	6.41	-90.00	0.00	-60.00	60.00	47.17	12.83	4.676 Alert	
1,900.00	1,900.00	1,900.00	1,900.00	6.60	6.59	-90.00	0.00	-60.00	60.00	46.81	13.19	4.549 Alert	
1,950.00	1,950.00	1,950.00	1,950.00	6.77	6.77	-90.00	0.00	-60.00	60.00	46.45	13.55	4.429 Alert	
2,000.00	2,000.00	2,000.00	2,000.00	6.95	6.95	-90.00	0.00	-60.00	60.00	46.10	13.90	4.315 Alert	
2,050.00	2,050.00	2,050.00	2,050.00	7.13	7.13	-90.00	0.00	-60.00	60.00	45.74	14.26	4.207 Alert	
2,100.00	2,100.00	2,100.00	2,100.00	7.31	7.31	-90.00	0.00	-60.00	60.00	45.38	14.62	4.104 Alert	
2,150.00	2,150.00	2,150.00	2,150.00	7.49	7.49	-90.00	0.00	-60.00	60.00	45.02	14.98	4.006 Alert	
2,200.00	2,200.00	2,200.00	2,200.00	7.67	7.67	-90.00	0.00	-60.00	60.00	44.67	15.33	3.913 Alert	
2,250.00	2,250.00	2,250.00	2,250.00	7.85	7.84	-90.00	0.00	-60.00	60.00	44.31	15.69	3.824 Alert	
2,300.00	2,300.00	2,300.00	2,300.00	8.03	8.02	-90.00	0.00	-60.00	60.00	43.95	16.05	3.738 Alert	
2,350.00	2,350.00	2,350.00	2,350.00	8.21	8.20	-90.00	0.00	-60.00	60.00	43.59	16.41	3.657 Alert	
2,400.00	2,400.00	2,400.00	2,400.00	8.38	8.38	-90.00	0.00	-60.00	60.00	43.24	16.77	3.579 Alert	
2,450.00	2,450.00	2,450.00	2,450.00	8.56	8.56	-90.00	0.00	-60.00	60.00	42.88	17.12	3.504 Alert	
2,500.00	2,500.00	2,500.00	2,500.00	8.74	8.74	-90.00	0.00	-60.00	60.00	42.52	17.48	3.432 Alert	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 27-T19S-R29E - Coral PWU 28-27 62H - Wellbore #1 - Permit Plan 2													Offset Site Error: 5.00 ft
Survey Program: O-MWD+HDGM													Offset Well Error: 0.50 ft
Reference		Offset		Semi Major Axis		Highside Tooface (')	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
2,550.00	2,550.00	2,550.00	2,550.00	8.91	8.92	62.38	0.00	-60.00	59.90	42.07	17.83	3.359 Alert	
2,600.00	2,599.99	2,600.01	2,599.99	9.08	9.10	62.94	0.00	-60.00	59.60	41.42	18.18	3.278 Alert	
2,650.00	2,649.98	2,649.98	2,649.98	9.25	9.28	63.89	0.00	-60.00	59.11	40.59	18.52	3.192 Alert	
2,700.00	2,699.96	2,700.04	2,699.96	9.41	9.45	65.23	0.00	-60.00	58.45	39.59	18.86	3.099 Alert	
2,750.00	2,749.92	2,749.92	2,749.92	9.57	9.63	67.01	0.00	-60.00	57.66	38.45	19.20	3.002 Alert	
2,800.00	2,799.86	2,800.14	2,799.86	9.74	9.81	69.25	0.00	-60.00	56.76	37.22	19.55	2.904 Alert	
2,850.00	2,849.78	2,849.78	2,849.78	9.90	9.99	71.98	0.00	-60.00	55.82	35.93	19.89	2.807 Alert	
2,900.00	2,899.68	2,900.32	2,899.68	10.07	10.17	75.22	0.00	-60.00	54.90	34.66	20.23	2.713 Alert	
2,950.00	2,949.54	2,949.54	2,949.54	10.23	10.35	79.02	0.00	-60.00	54.07	33.49	20.58	2.628 Alert	
3,000.00	2,999.37	3,000.63	2,999.37	10.40	10.53	83.38	0.00	-60.00	53.43	32.51	20.92	2.553 Alert	
3,050.00	3,049.16	3,049.16	3,049.16	10.56	10.70	88.27	0.00	-60.00	53.10	31.83	21.27	2.497 Minor Risk	
3,066.56	3,065.63	3,065.63	3,065.63	10.62	10.76	90.00	0.00	-60.00	53.07	31.69	21.38	2.482 Minor Risk, CC	
3,100.00	3,098.80	3,101.10	3,098.80	10.73	10.89	93.64	0.00	-60.00	53.18	31.56	21.62	2.460 Minor Risk, ES	
3,150.00	3,148.61	3,148.61	3,148.61	10.90	11.06	99.40	0.00	-60.00	53.80	31.85	21.96	2.451 Minor Risk, SF	
3,200.00	3,198.26	3,201.74	3,198.26	11.07	11.25	105.39	0.00	-60.00	55.08	32.76	22.31	2.468 Minor Risk	
3,250.00	3,247.86	3,247.86	3,247.86	11.23	11.42	111.45	0.00	-60.00	57.09	34.44	22.65	2.521 Alert	
3,300.00	3,297.40	3,302.60	3,297.40	11.40	11.61	117.39	0.00	-60.00	59.90	36.89	23.01	2.603 Alert	
3,350.00	3,346.89	3,346.89	3,346.89	11.57	11.77	123.07	0.00	-60.00	63.54	40.20	23.34	2.722 Alert	
3,400.00	3,396.30	3,403.70	3,396.30	11.74	11.97	128.38	0.00	-60.00	68.02	44.31	23.72	2.868 Alert	
3,450.00	3,445.65	3,445.65	3,445.65	11.91	12.12	133.23	0.00	-60.00	73.32	49.29	24.04	3.051 Alert	
3,500.00	3,494.93	3,505.07	3,494.93	12.08	12.34	137.62	0.00	-60.00	79.40	54.98	24.42	3.252 Alert	
3,550.00	3,544.13	3,544.13	3,544.13	12.25	12.48	141.54	0.00	-60.00	86.22	61.49	24.73	3.487 Alert	
3,600.00	3,593.26	3,606.75	3,593.26	12.42	12.70	145.02	0.00	-60.00	93.75	68.63	25.12	3.732 Alert	
3,650.00	3,642.31	3,642.31	3,642.31	12.59	12.83	148.11	0.00	-60.00	101.86	76.44	25.42	4.007 Alert	
3,700.00	3,691.36	3,708.64	3,691.36	12.77	13.07	150.76	0.00	-60.00	110.25	84.42	25.83	4.269 Alert	
3,750.00	3,740.42	3,740.42	3,740.42	12.94	13.18	153.03	0.00	-60.00	118.83	92.72	26.11	4.551 Alert	
3,800.00	3,789.47	3,789.47	3,789.47	13.11	13.36	155.00	0.00	-60.00	127.58	101.12	26.46	4.822 Alert	
3,850.00	3,838.52	3,838.52	3,838.52	13.29	13.53	156.72	0.00	-60.00	136.45	109.65	26.80	5.091	
3,900.00	3,887.57	3,887.57	3,887.57	13.46	13.71	158.22	0.00	-60.00	145.43	118.27	27.15	5.356	
3,950.00	3,936.62	3,936.62	3,936.62	13.64	13.88	159.55	0.00	-60.00	154.49	126.99	27.50	5.618	
4,000.00	3,985.68	3,985.68	3,985.68	13.81	14.06	160.73	0.00	-60.00	163.62	135.78	27.85	5.876	
4,050.00	4,034.73	4,035.04	4,035.04	13.99	14.23	161.75	-0.01	-60.13	172.79	144.59	28.19	6.129	
4,100.00	4,083.78	4,084.61	4,084.60	14.16	14.41	162.52	-0.05	-60.78	181.87	153.33	28.54	6.372	
4,150.00	4,132.83	4,134.27	4,134.25	14.34	14.58	163.05	-0.12	-61.96	190.85	161.97	28.89	6.607	
4,200.00	4,181.88	4,184.01	4,183.96	14.52	14.75	163.38	-0.23	-63.69	199.70	170.47	29.23	6.832	
4,250.00	4,230.94	4,233.82	4,233.72	14.70	14.92	163.54	-0.37	-65.95	208.42	178.85	29.58	7.047	
4,300.00	4,279.99	4,283.69	4,283.51	14.87	15.09	163.55	-0.55	-68.76	217.00	187.08	29.92	7.252	
4,350.00	4,329.04	4,333.60	4,333.30	15.05	15.26	163.42	-0.78	-72.11	225.44	195.17	30.27	7.447	
4,400.00	4,378.09	4,383.54	4,383.09	15.23	15.43	163.17	-1.00	-76.01	233.74	203.12	30.62	7.634	
4,450.00	4,427.14	4,433.50	4,432.86	15.41	15.60	162.81	-1.28	-80.44	241.91	210.94	30.97	7.811	
4,500.00	4,476.20	4,483.47	4,482.58	15.59	15.77	162.35	-1.59	-85.42	249.96	218.64	31.32	7.981	
4,550.00	4,525.25	4,533.44	4,532.24	15.77	15.95	161.80	-1.93	-90.95	257.90	226.23	31.67	8.143	
4,600.00	4,574.30	4,582.88	4,581.33	15.95	16.12	161.21	-2.30	-96.77	265.77	233.75	32.02	8.300	
4,650.00	4,623.35	4,632.18	4,630.29	16.13	16.29	160.66	-2.66	-102.59	273.67	241.30	32.37	8.454	
4,700.00	4,672.40	4,681.49	4,679.24	16.31	16.46	160.13	-3.02	-108.42	281.60	248.87	32.72	8.605	
4,750.00	4,721.46	4,730.79	4,728.20	16.49	16.64	159.64	-3.39	-114.24	289.54	256.46	33.08	8.754	
4,800.00	4,770.51	4,780.10	4,777.16	16.67	16.81	159.17	-3.75	-120.06	297.51	264.08	33.43	8.900	
4,850.00	4,819.56	4,829.40	4,826.12	16.85	16.99	158.72	-4.11	-125.88	305.49	271.71	33.78	9.043	
4,900.00	4,868.61	4,878.70	4,875.08	17.04	17.16	158.30	-4.48	-131.71	313.49	279.35	34.14	9.183	
4,950.00	4,917.66	4,928.01	4,924.04	17.22	17.34	157.90	-4.84	-137.53	321.50	287.01	34.49	9.321	
5,000.00	4,966.72	4,977.31	4,972.99	17.40	17.51	157.52	-5.20	-143.35	329.53	294.69	34.85	9.457	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 27-T19S-R29E - Coral PWU 28-27 62H - Wellbore #1 - Permit Plan 2													Offset Site Error:	5.00 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,050.00	5,015.77	5,026.62	5,021.95	17.58	17.69	157.15	-5.57	-149.18	337.58	302.38	35.20	9.590		
5,100.00	5,064.82	5,075.92	5,070.91	17.77	17.86	156.81	-5.93	-155.00	345.64	310.08	35.56	9.720		
5,150.00	5,113.87	5,125.23	5,119.87	17.95	18.04	156.48	-6.30	-160.82	353.70	317.79	35.92	9.848		
5,200.00	5,162.92	5,174.53	5,168.83	18.13	18.22	156.16	-6.66	-166.64	361.78	325.51	36.27	9.974		
5,250.00	5,211.98	5,223.84	5,217.78	18.32	18.40	155.86	-7.02	-172.47	369.87	333.24	36.63	10.097		
5,300.00	5,261.03	5,273.14	5,266.74	18.50	18.57	155.57	-7.39	-178.29	377.97	340.98	36.99	10.218		
5,350.00	5,310.08	5,322.44	5,315.70	18.68	18.75	155.29	-7.75	-184.11	386.08	348.73	37.35	10.337		
5,400.00	5,359.13	5,371.75	5,364.66	18.87	18.93	155.03	-8.11	-189.93	394.20	356.49	37.71	10.453		
5,450.00	5,408.18	5,421.05	5,413.62	19.05	19.11	154.77	-8.48	-195.76	402.32	364.25	38.07	10.568		
5,500.00	5,457.24	5,470.36	5,462.57	19.23	19.29	154.53	-8.84	-201.58	410.45	372.02	38.43	10.680		
5,550.00	5,506.29	5,519.66	5,511.53	19.42	19.47	154.29	-9.20	-207.40	418.59	379.80	38.79	10.791		
5,600.00	5,555.34	5,568.97	5,560.49	19.60	19.65	154.06	-9.57	-213.22	426.74	387.58	39.15	10.899		
5,650.00	5,604.39	5,618.27	5,609.45	19.79	19.83	153.85	-9.93	-219.05	434.89	395.37	39.52	11.005		
5,700.00	5,653.44	5,667.58	5,658.41	19.97	20.01	153.64	-10.29	-224.87	443.05	403.17	39.88	11.110		
5,750.00	5,702.50	5,716.88	5,707.36	20.16	20.19	153.43	-10.66	-230.69	451.21	410.97	40.24	11.213		
5,800.00	5,751.55	5,766.18	5,756.32	20.34	20.37	153.24	-11.02	-236.51	459.38	418.78	40.61	11.313		
5,850.00	5,800.60	5,815.49	5,805.28	20.53	20.55	153.05	-11.39	-242.34	467.55	426.59	40.97	11.412		
5,900.00	5,849.65	5,864.79	5,854.24	20.72	20.73	152.87	-11.75	-248.16	475.73	434.40	41.33	11.510		
5,950.00	5,898.70	5,914.10	5,903.20	20.90	20.91	152.69	-12.11	-253.98	483.92	442.22	41.70	11.605		
6,000.00	5,947.76	5,963.40	5,952.15	21.09	21.09	152.52	-12.48	-259.80	492.10	450.04	42.06	11.699		
6,050.00	5,996.81	6,012.71	6,001.11	21.27	21.28	152.36	-12.84	-265.63	500.30	457.87	42.43	11.792		
6,100.00	6,045.86	6,062.01	6,050.07	21.46	21.46	152.20	-13.20	-271.45	508.49	465.70	42.79	11.883		
6,150.00	6,094.91	6,111.32	6,099.03	21.65	21.64	152.05	-13.57	-277.27	516.69	473.53	43.16	11.972		
6,200.00	6,143.96	6,160.62	6,147.99	21.83	21.82	151.90	-13.93	-283.09	524.89	481.37	43.53	12.059		
6,250.00	6,193.01	6,209.92	6,196.94	22.02	22.01	151.75	-14.29	-288.92	533.10	489.21	43.89	12.146		
6,300.00	6,242.07	6,259.23	6,245.90	22.20	22.19	151.61	-14.66	-294.74	541.31	497.05	44.26	12.230		
6,350.00	6,291.12	6,308.53	6,294.88	22.39	22.37	151.48	-15.02	-300.56	549.52	504.89	44.63	12.314		
6,400.00	6,340.17	6,357.84	6,343.82	22.58	22.56	151.34	-15.38	-306.38	557.73	512.74	44.99	12.396		
6,450.00	6,389.22	6,407.14	6,392.78	22.77	22.74	151.22	-15.75	-312.21	565.95	520.59	45.36	12.477		
6,500.00	6,438.27	6,456.45	6,441.74	22.95	22.92	151.09	-16.11	-318.03	574.17	528.44	45.73	12.556		
6,550.00	6,487.33	6,505.75	6,490.69	23.14	23.11	150.97	-16.48	-323.85	582.40	536.30	46.10	12.634		
6,600.00	6,536.38	6,555.05	6,539.65	23.33	23.29	150.85	-16.84	-329.67	590.62	544.16	46.47	12.711		
6,650.00	6,585.43	6,604.36	6,588.61	23.51	23.48	150.74	-17.20	-335.50	598.85	552.01	46.84	12.788		
6,700.00	6,634.48	6,653.66	6,637.57	23.70	23.66	150.63	-17.57	-341.32	607.08	559.88	47.20	12.861		
6,750.00	6,683.53	6,702.97	6,686.53	23.89	23.85	150.52	-17.93	-347.14	615.31	567.74	47.57	12.934		
6,800.00	6,732.59	6,752.27	6,735.48	24.08	24.03	150.41	-18.29	-352.96	623.55	575.60	47.94	13.006		
6,850.00	6,781.64	6,801.58	6,784.44	24.26	24.22	150.31	-18.66	-358.79	631.78	583.47	48.31	13.077		
6,900.00	6,830.69	6,850.88	6,833.40	24.45	24.40	150.21	-19.02	-364.61	640.02	591.34	48.68	13.146		
6,950.00	6,879.74	6,900.19	6,882.36	24.64	24.59	150.11	-19.38	-370.43	648.26	599.21	49.05	13.215		
7,000.00	6,928.79	6,949.49	6,931.32	24.83	24.77	150.02	-19.75	-376.25	656.51	607.08	49.43	13.283		
7,050.00	6,977.85	7,001.21	6,980.27	25.02	24.97	149.92	-20.11	-382.08	664.75	614.94	49.80	13.347		
7,100.00	7,026.90	7,048.10	7,029.23	25.20	25.14	149.83	-20.47	-387.90	672.99	622.83	50.17	13.415		
7,150.00	7,075.95	7,102.60	7,078.19	25.39	25.35	149.75	-20.84	-393.72	681.24	630.68	50.56	13.474		
7,200.00	7,125.00	7,146.71	7,127.15	25.58	25.52	149.66	-21.20	-399.54	689.49	638.58	50.91	13.543		
7,250.00	7,174.05	7,203.99	7,178.11	25.77	25.73	149.57	-21.57	-405.37	697.74	646.43	51.31	13.598		
7,300.00	7,223.11	7,245.32	7,225.06	25.96	25.89	149.49	-21.93	-411.19	705.99	654.34	51.65	13.668		
7,350.00	7,272.16	7,305.38	7,274.02	26.15	26.12	149.41	-22.29	-417.01	714.24	662.18	52.07	13.718		
7,400.00	7,321.21	7,343.93	7,322.98	26.33	26.26	149.33	-22.66	-422.83	722.50	670.10	52.40	13.789		
7,450.00	7,370.26	7,406.77	7,371.94	26.52	26.50	149.26	-23.02	-428.68	730.75	677.93	52.82	13.834		
7,500.00	7,419.31	7,442.53	7,420.90	26.71	26.64	149.18	-23.38	-434.48	739.01	685.87	53.14	13.906		
7,550.00	7,468.37	7,491.84	7,469.85	26.90	26.82	149.11	-23.75	-440.30	747.27	693.75	53.52	13.963		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 27-T19S-R29E - Coral PWU 28-27 82H - Wellbore #1 - Permit Plan 2													Offset Site Error:	5.00 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis			Distance		Minimum Separation		Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (ft)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
7,600.00	7,517.42	7,541.14	7,518.81	27.09	27.01	149.04	-24.11	-446.12	755.53	701.64	53.89	14.020		
7,650.00	7,566.50	7,590.41	7,567.74	27.28	27.20	149.01	-24.47	-451.89	763.67	709.41	54.26	14.074		
7,700.00	7,615.69	7,639.68	7,616.73	27.47	27.38	149.01	-24.80	-457.14	771.31	716.68	54.63	14.118		
7,750.00	7,664.99	7,689.04	7,665.87	27.65	27.57	149.04	-25.09	-461.77	778.39	723.40	55.00	14.153		
7,800.00	7,714.40	7,738.48	7,715.15	27.84	27.75	149.08	-25.34	-465.76	784.94	729.57	55.37	14.177		
7,850.00	7,763.91	7,787.99	7,764.54	28.02	27.93	149.14	-25.55	-469.13	790.93	735.20	55.73	14.192		
7,900.00	7,813.50	7,837.55	7,814.03	28.21	28.11	149.22	-25.72	-471.86	796.37	740.28	56.09	14.198		
7,950.00	7,863.17	7,887.16	7,863.59	28.39	28.28	149.31	-25.85	-473.95	801.26	744.81	56.45	14.195		
8,000.00	7,912.91	7,936.80	7,913.21	28.57	28.46	149.43	-25.94	-475.40	805.60	748.80	56.80	14.183		
8,050.00	7,962.72	7,986.48	7,962.86	28.75	28.63	149.56	-25.99	-476.20	809.40	752.24	57.15	14.162		
8,100.00	8,012.58	8,036.18	8,012.58	28.93	28.81	149.70	-26.00	-476.38	812.64	755.13	57.51	14.132		
8,150.00	8,062.48	8,086.08	8,062.48	29.11	28.98	149.83	-26.00	-476.38	815.33	757.47	57.85	14.093		
8,200.00	8,112.42	8,136.02	8,112.42	29.29	29.15	149.94	-26.00	-476.38	817.45	759.25	58.20	14.045		
8,250.00	8,162.39	8,185.98	8,162.39	29.47	29.33	150.01	-26.00	-476.38	819.01	760.46	58.55	13.988		
8,300.00	8,212.37	8,235.97	8,212.37	29.64	29.50	150.06	-26.00	-476.38	820.00	761.11	58.90	13.922		
8,350.00	8,262.37	8,285.97	8,262.37	29.81	29.67	150.08	-26.00	-476.38	820.43	761.19	59.24	13.849		
8,400.00	8,312.37	8,335.97	8,312.37	29.98	29.85	-2.12	-26.00	-476.38	820.45	760.87	59.58	13.770		
8,450.00	8,362.37	8,385.97	8,362.37	30.14	30.02	-2.12	-26.00	-476.38	820.45	760.53	59.92	13.692		
8,500.00	8,412.37	8,435.97	8,412.37	30.30	30.19	-2.12	-26.00	-476.38	820.45	760.19	60.26	13.615		
8,550.00	8,462.37	8,485.97	8,462.37	30.47	30.37	-2.12	-26.00	-476.38	820.45	759.85	60.60	13.539		
8,600.00	8,512.37	8,535.97	8,512.37	30.63	30.54	-2.12	-26.00	-476.38	820.45	759.51	60.94	13.464		
8,650.00	8,562.37	8,585.97	8,562.37	30.80	30.72	-2.12	-26.00	-476.38	820.45	759.17	61.28	13.389		
8,700.00	8,612.35	8,637.93	8,614.31	30.96	30.89	-92.53	-26.00	-475.17	820.46	758.83	61.62	13.314		
8,750.00	8,662.05	8,690.70	8,666.73	31.12	31.06	-92.51	-26.00	-469.32	820.48	758.53	61.96	13.243		
8,800.00	8,711.11	8,743.42	8,718.35	31.28	31.21	-92.46	-26.00	-458.68	820.54	758.26	62.27	13.176		
8,850.00	8,759.15	8,796.08	8,768.71	31.43	31.36	-92.40	-26.00	-443.37	820.61	758.03	62.58	13.113		
8,900.00	8,805.81	8,848.64	8,817.37	31.57	31.51	-92.32	-26.00	-423.54	820.71	757.84	62.87	13.053		
8,950.00	8,850.72	8,901.10	8,863.92	31.70	31.65	-92.22	-25.99	-399.39	820.84	757.68	63.16	12.996		
9,000.00	8,893.55	8,953.42	8,907.95	31.83	31.80	-92.10	-25.99	-371.16	820.98	757.55	63.44	12.942		
9,050.00	8,933.97	9,005.59	8,949.11	31.94	31.95	-91.96	-25.99	-339.13	821.16	757.44	63.71	12.888		
9,100.00	8,971.68	9,057.59	8,987.07	32.05	32.11	-91.81	-25.99	-303.62	821.35	757.36	64.00	12.834		
9,150.00	9,006.38	9,109.41	9,021.54	32.14	32.30	-91.65	-25.98	-264.95	821.57	757.28	64.29	12.779		
9,200.00	9,037.81	9,161.03	9,052.26	32.23	32.51	-91.47	-25.98	-223.49	821.81	757.21	64.61	12.720		
9,250.00	9,065.74	9,212.44	9,079.03	32.31	32.76	-91.28	-25.98	-179.62	822.08	757.13	64.95	12.657		
9,300.00	9,089.95	9,263.64	9,101.68	32.38	33.05	-91.08	-25.97	-133.72	822.37	757.04	65.33	12.588		
9,350.00	9,110.25	9,314.61	9,120.06	32.45	33.38	-90.88	-25.97	-86.20	822.67	756.92	65.75	12.512		
9,400.00	9,126.50	9,365.35	9,134.10	32.51	33.76	-90.67	-25.97	-37.46	823.00	756.79	66.21	12.431		
9,450.00	9,138.56	9,415.85	9,143.74	32.57	34.18	-90.45	-25.96	12.10	823.34	756.63	66.71	12.343		
9,500.00	9,148.35	9,466.13	9,148.96	32.63	34.65	-90.23	-25.96	62.09	823.70	756.45	67.24	12.250		
9,550.00	9,149.81	9,516.17	9,150.00	32.69	35.16	-90.02	-25.95	112.11	824.06	756.24	67.82	12.151		
9,600.00	9,150.00	9,566.17	9,150.00	32.75	35.72	-90.00	-25.95	162.10	824.44	755.99	68.45	12.044		
9,650.00	9,150.00	9,616.17	9,150.00	32.83	36.31	-90.00	-25.95	212.10	824.81	755.69	69.12	11.932		
9,700.00	9,150.00	9,666.16	9,150.00	32.91	36.96	-90.00	-25.94	262.10	825.18	755.32	69.86	11.812		
9,750.00	9,150.00	9,716.16	9,150.00	33.01	37.64	-90.00	-25.94	312.10	825.56	754.91	70.65	11.688		
9,800.00	9,150.00	9,766.16	9,150.00	33.12	38.37	-90.00	-25.93	362.10	825.93	754.44	71.49	11.554		
9,850.00	9,150.00	9,816.16	9,150.00	33.24	39.13	-90.00	-25.93	412.10	826.31	753.94	72.37	11.418		
9,900.00	9,150.00	9,866.16	9,150.00	33.36	39.94	-90.00	-25.93	462.10	826.68	753.37	73.30	11.277		
9,950.00	9,150.00	9,916.16	9,150.00	33.50	40.78	-90.00	-25.92	512.09	827.05	752.78	74.28	11.135		
10,000.00	9,150.00	9,966.16	9,150.00	33.65	41.65	-90.00	-25.92	562.09	827.43	752.13	75.30	10.989		
10,050.00	9,150.00	10,016.15	9,150.00	33.81	42.55	-90.00	-25.91	612.09	827.80	751.45	76.35	10.842		
10,100.00	9,150.00	10,066.15	9,150.00	33.97	43.49	-90.00	-25.91	662.09	828.17	750.73	77.44	10.694		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 27-T19S-R29E - Coral PWU 28-27 62H - Wellbore #1 - Permit Plan 2													Offset Site Error:	5.00 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,150.00	9,150.00	10,116.15	9,150.00	34.14	44.44	-90.00	-25.91	712.09	828.55	749.98	78.57	10.545		
10,200.00	9,150.00	10,166.15	9,150.00	34.32	45.43	-90.00	-25.90	762.09	828.92	749.19	79.73	10.396		
10,250.00	9,150.00	10,216.15	9,150.00	34.51	46.43	-90.00	-25.90	812.09	829.29	748.37	80.93	10.248		
10,300.00	9,150.00	10,266.15	9,150.00	34.71	47.46	-90.00	-25.89	862.09	829.67	747.52	82.15	10.100		
10,350.00	9,150.00	10,316.15	9,150.00	34.91	48.51	-90.00	-25.89	912.08	830.04	746.64	83.40	9.953		
10,400.00	9,150.00	10,366.14	9,150.00	35.12	49.58	-90.00	-25.89	962.08	830.42	745.74	84.68	9.807		
10,450.00	9,150.00	10,416.14	9,150.00	35.35	50.66	-90.00	-25.88	1,012.08	830.79	744.81	85.98	9.662		
10,500.00	9,150.00	10,466.14	9,150.00	35.57	51.77	-90.00	-25.88	1,062.08	831.16	743.85	87.31	9.519		
10,550.00	9,150.00	10,516.14	9,150.00	35.81	52.88	-90.00	-25.87	1,112.08	831.54	742.87	88.66	9.378		
10,600.00	9,150.00	10,566.14	9,150.00	36.05	54.02	-90.00	-25.87	1,162.08	831.91	741.87	90.04	9.240		
10,650.00	9,150.00	10,616.14	9,150.00	36.30	55.17	-90.00	-25.87	1,212.08	832.28	740.85	91.43	9.103		
10,700.00	9,150.00	10,666.14	9,150.00	36.55	56.33	-90.00	-25.86	1,262.07	832.66	739.81	92.85	8.968		
10,750.00	9,150.00	10,716.13	9,150.00	36.82	57.50	-90.00	-25.86	1,312.07	833.03	738.75	94.28	8.835		
10,800.00	9,150.00	10,766.13	9,150.00	37.08	58.69	-90.00	-25.85	1,362.07	833.40	737.67	95.74	8.705		
10,850.00	9,150.00	10,816.13	9,150.00	37.36	59.88	-90.00	-25.85	1,412.07	833.78	736.57	97.21	8.577		
10,900.00	9,150.00	10,866.13	9,150.00	37.64	61.09	-90.00	-25.85	1,462.07	834.15	735.46	98.69	8.452		
10,950.00	9,150.00	10,916.13	9,150.00	37.93	62.31	-90.00	-25.84	1,512.07	834.52	734.33	100.20	8.329		
11,000.00	9,150.00	10,966.13	9,150.00	38.22	63.53	-90.00	-25.84	1,562.07	834.90	733.19	101.71	8.209		
11,050.00	9,150.00	11,016.13	9,150.00	38.52	64.76	-90.00	-25.83	1,612.06	835.27	732.03	103.24	8.090		
11,100.00	9,150.00	11,066.12	9,150.00	38.83	66.01	-90.00	-25.83	1,662.06	835.65	730.86	104.79	7.975		
11,150.00	9,150.00	11,116.12	9,150.00	39.14	67.26	-90.00	-25.83	1,712.06	836.02	729.67	106.35	7.861		
11,200.00	9,150.00	11,166.12	9,150.00	39.45	68.51	-90.00	-25.82	1,762.06	836.39	728.47	107.92	7.750		
11,250.00	9,150.00	11,216.12	9,150.00	39.78	69.78	-90.00	-25.82	1,812.06	836.77	727.26	109.51	7.641		
11,300.00	9,150.00	11,266.12	9,150.00	40.10	71.05	-90.00	-25.81	1,862.06	837.14	726.04	111.10	7.535		
11,350.00	9,150.00	11,316.12	9,150.00	40.43	72.32	-90.00	-25.81	1,912.06	837.51	724.80	112.71	7.431		
11,400.00	9,150.00	11,366.12	9,150.00	40.77	73.61	-90.00	-25.81	1,962.05	837.89	723.56	114.33	7.329		
11,450.00	9,150.00	11,416.12	9,150.00	41.11	74.89	-90.00	-25.80	2,012.05	838.26	722.30	115.96	7.229		
11,500.00	9,150.00	11,466.11	9,150.00	41.46	76.19	-90.00	-25.80	2,062.05	838.63	721.04	117.59	7.132		
11,550.00	9,150.00	11,516.11	9,150.00	41.81	77.48	-90.00	-25.79	2,112.05	839.01	719.77	119.24	7.036		
11,600.00	9,150.00	11,566.11	9,150.00	42.16	78.79	-90.00	-25.79	2,162.05	839.38	718.48	120.90	6.943		
11,650.00	9,150.00	11,616.11	9,150.00	42.52	80.09	-90.00	-25.79	2,212.05	839.76	717.19	122.57	6.851		
11,700.00	9,150.00	11,666.11	9,150.00	42.89	81.41	-90.00	-25.78	2,262.05	840.13	715.89	124.24	6.762		
11,750.00	9,150.00	11,716.11	9,150.00	43.26	82.72	-90.00	-25.78	2,312.04	840.50	714.58	125.92	6.675		
11,800.00	9,150.00	11,766.11	9,150.00	43.63	84.04	-90.00	-25.78	2,362.04	840.88	713.26	127.61	6.589		
11,850.00	9,150.00	11,816.10	9,150.00	44.00	85.36	-90.00	-25.77	2,412.04	841.25	711.94	129.31	6.505		
11,900.00	9,150.00	11,866.10	9,150.00	44.38	86.69	-90.00	-25.77	2,462.04	841.62	710.60	131.02	6.424		
11,950.00	9,150.00	11,916.10	9,150.00	44.77	88.02	-90.00	-25.76	2,512.04	842.00	709.28	132.73	6.344		
12,000.00	9,150.00	11,966.10	9,150.00	45.15	89.35	-90.00	-25.76	2,562.04	842.37	707.92	134.45	6.265		
12,050.00	9,150.00	12,016.10	9,150.00	45.54	90.69	-90.00	-25.76	2,612.04	842.74	706.56	136.18	6.188		
12,100.00	9,150.00	12,066.10	9,150.00	45.94	92.03	-90.00	-25.75	2,662.03	843.12	705.20	137.91	6.113		
12,150.00	9,150.00	12,116.10	9,150.00	46.34	93.37	-90.00	-25.75	2,712.03	843.49	703.84	139.65	6.040		
12,200.00	9,150.00	12,166.09	9,150.00	46.74	94.72	-90.00	-25.74	2,762.03	843.86	702.47	141.40	5.968		
12,250.00	9,150.00	12,216.09	9,150.00	47.14	96.06	-90.00	-25.74	2,812.03	844.24	701.09	143.15	5.898		
12,300.00	9,150.00	12,266.09	9,150.00	47.55	97.41	-90.00	-25.74	2,862.03	844.61	699.71	144.91	5.829		
12,350.00	9,150.00	12,316.09	9,150.00	47.96	98.77	-90.00	-25.73	2,912.03	844.99	698.32	146.67	5.761		
12,400.00	9,150.00	12,366.09	9,150.00	48.37	100.12	-90.00	-25.73	2,962.03	845.36	696.92	148.44	5.695		
12,450.00	9,150.00	12,416.09	9,150.00	48.79	101.48	-90.00	-25.72	3,012.03	845.73	695.52	150.21	5.630		
12,500.00	9,150.00	12,466.09	9,150.00	49.21	102.84	-90.00	-25.72	3,062.02	846.11	694.12	151.99	5.567		
12,550.00	9,150.00	12,516.08	9,150.00	49.63	104.20	-90.00	-25.72	3,112.02	846.48	692.71	153.77	5.505		
12,600.00	9,150.00	12,566.08	9,150.00	50.05	105.56	-90.00	-25.71	3,162.02	846.85	691.30	155.56	5.444		
12,650.00	9,150.00	12,616.08	9,150.00	50.48	106.93	-90.00	-25.71	3,212.02	847.23	689.88	157.35	5.384		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
 Project: Eddy County (NAD 83 NM Eastern)
 Reference Site: Sec 27-T19S-R29E
 Site Error: 5.00 ft
 Reference Well: Coral PWU 28-27 12H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:
 Output errors are at
 Database:
 Offset TVD Reference:

Well Coral PWU 28-27 12H
 RKB @ 3333.00ft
 RKB @ 3333.00ft
 Grid
 Minimum Curvature
 2.00 sigma
 EDM r5000.141_Prod US
 Offset Datum

Offset Design Sec 27-T19S-R29E - Coral PWU 28-27 82H - Wellbore #1 - Permit Plan 2													Offset Site Error:
Survey Program: 0-MWD+HDCM													Offset Well Error:
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
12,700.00	9,150.00	12,666.08	9,150.00	50.91	108.29	-90.00	-25.70	3,262.02	847.60	688.45	159.15	5.326	
12,750.00	9,150.00	12,716.08	9,150.00	51.34	109.66	-90.00	-25.70	3,312.02	847.97	687.03	160.95	5.269	
12,800.00	9,150.00	12,766.08	9,150.00	51.78	111.03	-90.00	-25.70	3,362.02	848.35	685.60	162.75	5.213	
12,850.00	9,150.00	12,816.08	9,150.00	52.21	112.40	-90.00	-25.69	3,412.01	848.72	684.16	164.56	5.158	
12,900.00	9,150.00	12,866.07	9,150.00	52.65	113.78	-90.00	-25.69	3,462.01	849.10	682.72	166.37	5.104	
12,950.00	9,150.00	12,916.07	9,150.00	53.09	115.15	-90.00	-25.68	3,512.01	849.47	681.28	168.19	5.051	
13,000.00	9,150.00	12,966.07	9,150.00	53.54	116.53	-90.00	-25.68	3,562.01	849.84	679.83	170.01	4.999	Alert
13,050.00	9,150.00	13,016.07	9,150.00	53.98	117.90	-90.00	-25.68	3,612.01	850.22	678.38	171.83	4.948	Alert
13,100.00	9,150.00	13,066.07	9,150.00	54.43	119.28	-90.00	-25.67	3,662.01	850.59	676.93	173.66	4.898	Alert
13,150.00	9,150.00	13,116.07	9,150.00	54.88	120.66	-90.00	-25.67	3,712.01	850.96	675.47	175.49	4.849	Alert
13,200.00	9,150.00	13,166.07	9,150.00	55.33	122.04	-90.00	-25.66	3,762.00	851.34	674.02	177.32	4.801	Alert
13,250.00	9,150.00	13,216.06	9,150.00	55.79	123.43	-90.00	-25.66	3,812.00	851.71	672.55	179.16	4.754	Alert
13,300.00	9,150.00	13,266.06	9,150.00	56.24	124.81	-90.00	-25.66	3,862.00	852.08	671.09	181.00	4.708	Alert
13,350.00	9,150.00	13,316.06	9,150.00	56.70	126.20	-90.00	-25.65	3,912.00	852.46	669.62	182.84	4.662	Alert
13,400.00	9,150.00	13,366.06	9,150.00	57.16	127.58	-90.00	-25.65	3,962.00	852.83	668.15	184.69	4.618	Alert
13,450.00	9,150.00	13,416.06	9,150.00	57.62	128.97	-90.00	-25.64	4,012.00	853.20	666.67	186.54	4.574	Alert
13,500.00	9,150.00	13,466.06	9,150.00	58.08	130.36	-90.00	-25.64	4,062.00	853.58	665.19	188.39	4.531	Alert
13,550.00	9,150.00	13,516.06	9,150.00	58.55	131.75	-90.00	-25.64	4,111.99	853.95	663.71	190.24	4.489	Alert
13,600.00	9,150.00	13,566.06	9,150.00	59.02	133.14	-90.00	-25.63	4,161.99	854.33	662.23	192.10	4.447	Alert
13,650.00	9,150.00	13,616.05	9,150.00	59.48	134.53	-90.00	-25.63	4,211.99	854.70	660.74	193.96	4.407	Alert
13,700.00	9,150.00	13,666.05	9,150.00	59.95	135.92	-90.00	-25.62	4,261.99	855.07	659.26	195.82	4.367	Alert
13,750.00	9,150.00	13,716.05	9,150.00	60.42	137.31	-90.00	-25.62	4,311.99	855.45	657.77	197.68	4.327	Alert
13,800.00	9,150.00	13,766.05	9,150.00	60.90	138.71	-90.00	-25.62	4,361.99	855.82	656.27	199.55	4.289	Alert
13,850.00	9,150.00	13,816.05	9,150.00	61.37	140.10	-90.00	-25.61	4,411.99	856.19	654.78	201.41	4.251	Alert
13,900.00	9,150.00	13,866.05	9,150.00	61.85	141.50	-90.00	-25.61	4,461.98	856.57	653.28	203.29	4.214	Alert
13,950.00	9,150.00	13,916.05	9,150.00	62.32	142.89	-90.00	-25.60	4,511.98	856.94	651.78	205.16	4.177	Alert
14,000.00	9,150.00	13,966.04	9,150.00	62.80	144.29	-90.00	-25.60	4,561.98	857.31	650.28	207.03	4.141	Alert
14,050.00	9,150.00	14,016.04	9,150.00	63.28	145.69	-90.00	-25.60	4,611.98	857.69	648.78	208.91	4.106	Alert
14,100.00	9,150.00	14,066.04	9,150.00	63.76	147.08	-90.00	-25.59	4,661.98	858.06	647.27	210.79	4.071	Alert
14,150.00	9,150.00	14,116.04	9,150.00	64.24	148.48	-90.00	-25.59	4,711.98	858.44	645.76	212.67	4.036	Alert
14,200.00	9,150.00	14,166.04	9,150.00	64.73	149.88	-90.00	-25.58	4,761.98	858.81	644.26	214.55	4.003	Alert
14,250.00	9,150.00	14,216.04	9,150.00	65.21	151.28	-90.00	-25.58	4,811.97	859.18	642.74	216.44	3.970	Alert
14,300.00	9,150.00	14,266.04	9,150.00	65.70	152.68	-90.00	-25.58	4,861.97	859.56	641.23	218.32	3.937	Alert
14,350.00	9,150.00	14,316.03	9,150.00	66.18	154.09	-90.00	-25.57	4,911.97	859.93	639.72	220.21	3.905	Alert
14,400.00	9,150.00	14,366.03	9,150.00	66.67	155.49	-90.00	-25.57	4,961.97	860.30	638.20	222.10	3.873	Alert
14,450.00	9,150.00	14,416.03	9,150.00	67.16	156.89	-90.00	-25.57	5,011.97	860.68	636.68	223.99	3.842	Alert
14,500.00	9,150.00	14,466.03	9,150.00	67.65	158.29	-90.00	-25.56	5,061.97	861.05	635.16	225.89	3.812	Alert
14,550.00	9,150.00	14,516.03	9,150.00	68.14	159.70	-90.00	-25.56	5,111.97	861.42	633.64	227.78	3.782	Alert
14,600.00	9,150.00	14,566.03	9,150.00	68.63	161.10	-90.00	-25.55	5,161.97	861.80	632.12	229.68	3.752	Alert
14,650.00	9,150.00	14,616.03	9,150.00	69.13	162.51	-90.00	-25.55	5,211.96	862.17	630.59	231.58	3.723	Alert
14,700.00	9,150.00	14,666.02	9,150.00	69.62	163.91	-90.00	-25.55	5,261.96	862.54	629.07	233.48	3.694	Alert
14,750.00	9,150.00	14,716.02	9,150.00	70.12	165.32	-90.00	-25.54	5,311.96	862.92	627.54	235.38	3.666	Alert
14,800.00	9,150.00	14,766.02	9,150.00	70.61	166.72	-90.00	-25.54	5,361.96	863.29	626.01	237.28	3.638	Alert
14,850.00	9,150.00	14,816.02	9,150.00	71.11	168.13	-90.00	-25.53	5,411.96	863.67	624.48	239.19	3.611	Alert
14,900.00	9,150.00	14,866.02	9,150.00	71.61	169.54	-90.00	-25.53	5,461.96	864.04	622.95	241.09	3.584	Alert
14,950.00	9,150.00	14,916.02	9,150.00	72.11	170.95	-90.00	-25.53	5,511.96	864.41	621.41	243.00	3.557	Alert
15,000.00	9,150.00	14,966.02	9,150.00	72.61	172.35	-90.00	-25.52	5,561.95	864.79	619.88	244.91	3.531	Alert
15,050.00	9,150.00	15,016.01	9,150.00	73.11	173.76	-90.00	-25.52	5,611.95	865.16	618.34	246.82	3.505	Alert
15,100.00	9,150.00	15,066.01	9,150.00	73.61	175.17	-90.00	-25.51	5,661.95	865.53	616.81	248.73	3.480	Alert
15,150.00	9,150.00	15,116.01	9,150.00	74.11	176.58	-90.00	-25.51	5,711.95	865.91	615.27	250.64	3.455	Alert
15,200.00	9,150.00	15,166.01	9,150.00	74.61	177.99	-90.00	-25.51	5,761.95	866.28	613.73	252.55	3.430	Alert

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 27-T19S-R29E - Coral PWU 28-27 62H - Wellbore #1 - Permit Plan 2													Offset Site Error: 5.00 ft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.50 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)					
15,250.00	9,150.00	15,216.01	9,150.00	75.12	179.40	-90.00	-25.50	5,811.95	868.65	612.19	254.47	3.406 Alert	
15,300.00	9,150.00	15,266.01	9,150.00	75.62	180.81	-90.00	-25.50	5,861.95	867.03	610.65	256.38	3.382 Alert	
15,350.00	9,150.00	15,316.01	9,150.00	76.13	182.22	-90.00	-25.49	5,911.94	867.40	609.10	258.30	3.358 Alert	
15,400.00	9,150.00	15,366.00	9,150.00	76.63	183.63	-90.00	-25.49	5,961.94	867.78	607.56	260.22	3.335 Alert	
15,450.00	9,150.00	15,416.00	9,150.00	77.14	185.05	-90.00	-25.49	6,011.94	868.15	606.01	262.13	3.312 Alert	
15,500.00	9,150.00	15,466.00	9,150.00	77.65	186.46	-90.00	-25.48	6,061.94	868.52	604.47	264.05	3.289 Alert	
15,550.00	9,150.00	15,516.00	9,150.00	78.16	187.87	-90.00	-25.48	6,111.94	868.90	602.92	265.98	3.267 Alert	
15,600.00	9,150.00	15,566.00	9,150.00	78.67	189.28	-90.00	-25.47	6,161.94	869.27	601.37	267.90	3.245 Alert	
15,650.00	9,150.00	15,616.00	9,150.00	79.18	190.70	-90.00	-25.47	6,211.94	869.64	599.82	269.82	3.223 Alert	
15,700.00	9,150.00	15,666.00	9,150.00	79.69	192.11	-90.00	-25.47	6,261.93	870.02	598.27	271.74	3.202 Alert	
15,750.00	9,150.00	15,716.00	9,150.00	80.20	193.52	-90.00	-25.46	6,311.93	870.39	596.72	273.67	3.180 Alert	
15,800.00	9,150.00	15,765.99	9,150.00	80.71	194.94	-90.00	-25.46	6,361.93	870.76	595.17	275.59	3.160 Alert	
15,850.00	9,150.00	15,815.99	9,150.00	81.22	196.35	-90.00	-25.45	6,411.93	871.14	593.62	277.52	3.139 Alert	
15,900.00	9,150.00	15,865.99	9,150.00	81.73	197.77	-90.00	-25.45	6,461.93	871.51	592.06	279.45	3.119 Alert	
15,950.00	9,150.00	15,915.99	9,150.00	82.25	199.18	-90.00	-25.45	6,511.93	871.88	590.51	281.38	3.099 Alert	
16,000.00	9,150.00	15,965.99	9,150.00	82.76	200.60	-90.00	-25.44	6,561.93	872.26	588.95	283.31	3.079 Alert	
16,050.00	9,150.00	16,015.99	9,150.00	83.28	202.01	-90.00	-25.44	6,611.92	872.63	587.39	285.24	3.059 Alert	
16,100.00	9,150.00	16,065.99	9,150.00	83.79	203.43	-90.00	-25.43	6,661.92	873.01	585.84	287.17	3.040 Alert	
16,150.00	9,150.00	16,115.98	9,150.00	84.31	204.84	-90.00	-25.43	6,711.92	873.38	584.28	289.10	3.021 Alert	
16,200.00	9,150.00	16,165.98	9,150.00	84.82	206.26	-90.00	-25.43	6,761.92	873.75	582.72	291.03	3.002 Alert	
16,250.00	9,150.00	16,215.98	9,150.00	85.34	207.68	-90.00	-25.42	6,811.92	874.13	581.16	292.97	2.984 Alert	
16,300.00	9,150.00	16,265.98	9,150.00	85.86	209.09	-90.00	-25.42	6,861.92	874.50	579.60	294.90	2.965 Alert	
16,350.00	9,150.00	16,315.98	9,150.00	86.38	210.51	-90.00	-25.41	6,911.92	874.87	578.04	296.84	2.947 Alert	
16,400.00	9,150.00	16,365.98	9,150.00	86.89	211.93	-90.00	-25.41	6,961.91	875.25	576.48	298.77	2.929 Alert	
16,450.00	9,150.00	16,415.98	9,150.00	87.41	213.35	-90.00	-25.41	7,011.91	875.62	574.91	300.71	2.912 Alert	
16,500.00	9,150.00	16,465.97	9,150.00	87.93	214.76	-90.00	-25.40	7,061.91	875.99	573.35	302.65	2.894 Alert	
16,550.00	9,150.00	16,515.97	9,150.00	88.45	216.18	-90.00	-25.40	7,111.91	876.37	571.78	304.58	2.877 Alert	
16,600.00	9,150.00	16,565.97	9,150.00	88.97	217.60	-90.00	-25.39	7,161.91	876.74	570.22	306.52	2.860 Alert	
16,650.00	9,150.00	16,615.97	9,150.00	89.49	219.02	-90.00	-25.39	7,211.91	877.12	568.65	308.46	2.844 Alert	
16,700.00	9,150.00	16,665.97	9,150.00	90.02	220.44	-90.00	-25.39	7,261.91	877.49	567.09	310.40	2.827 Alert	
16,750.00	9,150.00	16,715.97	9,150.00	90.54	221.85	-90.00	-25.38	7,311.91	877.86	565.52	312.34	2.811 Alert	
16,800.00	9,150.00	16,765.97	9,150.00	91.06	223.27	-90.00	-25.38	7,361.90	878.24	563.95	314.28	2.794 Alert	
16,850.00	9,150.00	16,815.96	9,150.00	91.58	224.69	-90.00	-25.37	7,411.90	878.61	562.38	316.23	2.778 Alert	
16,900.00	9,150.00	16,865.96	9,150.00	92.11	226.11	-90.00	-25.37	7,461.90	878.98	560.82	318.17	2.763 Alert	
16,950.00	9,150.00	16,915.96	9,150.00	92.63	227.53	-90.00	-25.37	7,511.90	879.36	559.25	320.11	2.747 Alert	
17,000.00	9,150.00	16,965.96	9,150.00	93.15	228.95	-90.00	-25.36	7,561.90	879.73	557.68	322.05	2.732 Alert	
17,037.70	9,150.00	17,003.66	9,150.00	93.55	230.02	-90.00	-25.36	7,599.60	880.01	556.49	323.52	2.720 Alert	

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 27-T19S-R29E - Parkway West Unit #20 (Active) - Wellbore #1 - Wellbore #1													Offset Site Error:	5.00 ft
Survey Program: 100-GYRO-NS-CT, 10110-INC-ONLY													Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
11,100.00	9,150.00	9,127.38	9,123.72	38.83	33.40	-86.81	-669.71	3,130.71	1,481.09	1,415.11	65.98	22.448		
11,150.00	9,150.00	9,127.90	9,124.24	39.14	33.40	-86.96	-669.72	3,130.71	1,431.58	1,365.56	66.02	21.685		
11,200.00	9,150.00	9,128.41	9,124.76	39.45	33.41	-87.11	-669.73	3,130.72	1,382.10	1,316.04	66.06	20.922		
11,250.00	9,150.00	9,128.94	9,125.28	39.78	33.41	-87.25	-669.74	3,130.72	1,332.66	1,266.56	66.10	20.160		
11,300.00	9,150.00	9,129.46	9,125.80	40.10	33.41	-87.40	-669.76	3,130.73	1,283.26	1,217.11	66.15	19.399		
11,350.00	9,150.00	9,129.98	9,126.32	40.43	33.41	-87.55	-669.77	3,130.73	1,233.92	1,167.71	66.21	18.638		
11,400.00	9,150.00	9,130.51	9,126.85	40.77	33.41	-87.70	-669.78	3,130.74	1,184.63	1,118.36	66.26	17.877		
11,450.00	9,150.00	9,131.03	9,127.37	41.11	33.41	-87.84	-669.79	3,130.75	1,135.40	1,069.07	66.33	17.117		
11,500.00	9,150.00	9,131.56	9,127.90	41.46	33.42	-87.99	-669.80	3,130.75	1,086.24	1,019.83	66.40	16.358		
11,550.00	9,150.00	9,132.09	9,128.43	41.81	33.42	-88.14	-669.81	3,130.76	1,037.16	970.67	66.49	15.600		
11,600.00	9,150.00	9,132.62	9,128.97	42.16	33.42	-88.29	-669.83	3,130.76	988.17	921.59	66.58	14.842		
11,650.00	9,150.00	9,133.16	9,129.50	42.52	33.42	-88.44	-669.84	3,130.77	939.28	872.60	66.69	14.085		
11,700.00	9,150.00	9,133.69	9,130.03	42.89	33.42	-88.60	-669.85	3,130.77	890.53	823.72	66.81	13.330		
11,750.00	9,150.00	9,134.23	9,130.57	43.26	33.43	-88.75	-669.86	3,130.78	841.91	774.97	66.95	12.576		
11,800.00	9,150.00	9,134.77	9,131.11	43.63	33.43	-88.90	-669.87	3,130.79	793.47	726.36	67.11	11.823		
11,850.00	9,150.00	9,135.31	9,131.65	44.00	33.43	-89.05	-669.89	3,130.79	745.24	677.93	67.30	11.073		
11,900.00	9,150.00	9,135.85	9,132.19	44.38	33.43	-89.21	-669.90	3,130.80	697.25	629.72	67.53	10.325		
11,950.00	9,150.00	9,136.40	9,132.74	44.77	33.43	-89.36	-669.91	3,130.80	649.57	581.76	67.81	9.580		
12,000.00	9,150.00	9,136.94	9,133.28	45.15	33.43	-89.51	-669.92	3,130.81	602.26	534.12	68.14	8.838		
12,050.00	9,150.00	9,137.49	9,133.83	45.54	33.44	-89.67	-669.94	3,130.81	555.42	486.87	68.55	8.102		
12,100.00	9,150.00	9,138.04	9,134.38	45.94	33.44	-89.82	-669.95	3,130.82	509.18	440.12	69.07	7.372		
12,150.00	9,150.00	9,138.59	9,134.93	46.34	33.44	-89.98	-669.96	3,130.83	463.73	394.01	69.72	6.652		
12,200.00	9,150.00	9,139.14	9,135.48	46.74	33.44	-90.14	-669.97	3,130.83	419.31	348.77	70.54	5.944		
12,250.00	9,150.00	9,139.70	9,136.03	47.14	33.44	-90.29	-669.99	3,130.84	376.29	304.68	71.61	5.255		
12,300.00	9,150.00	9,140.25	9,136.59	47.55	33.45	-90.45	-670.00	3,130.85	335.21	262.23	72.99	4.593 Alert		
12,350.00	9,150.00	9,140.81	9,137.15	47.96	33.45	-90.61	-670.01	3,130.85	296.89	222.14	74.75	3.972 Alert		
12,400.00	9,150.00	9,141.37	9,137.71	48.37	33.45	-90.77	-670.02	3,130.86	262.52	185.60	76.92	3.413 Alert		
12,450.00	9,150.00	9,141.93	9,138.27	48.79	33.45	-90.93	-670.04	3,130.86	233.85	154.47	79.38	2.946 Alert		
12,500.00	9,150.00	9,142.49	9,138.83	49.21	33.45	-91.09	-670.05	3,130.87	213.21	131.52	81.69	2.610 Alert		
12,550.00	9,150.00	9,143.06	9,139.40	49.63	33.46	-91.25	-670.06	3,130.88	203.05	119.99	83.06	2.445 Minor Risk		
12,567.29	9,150.00	9,143.26	9,139.59	49.78	33.46	-91.30	-670.07	3,130.88	202.31	119.13	83.18	2.432 Minor Risk, CC, ES, SF		
12,600.00	9,150.00	9,143.83	9,139.96	50.05	33.46	-91.41	-670.07	3,130.88	204.94	122.09	82.85	2.474 Minor Risk		
12,650.00	9,150.00	9,144.20	9,140.53	50.48	33.46	-91.57	-670.09	3,130.89	218.56	137.39	81.18	2.693 Alert		
12,700.00	9,150.00	9,144.77	9,141.10	50.91	33.46	-91.73	-670.10	3,130.90	241.95	163.14	78.81	3.070 Alert		
12,750.00	9,150.00	9,145.34	9,141.67	51.34	33.46	-91.89	-670.11	3,130.90	272.60	196.14	76.46	3.565 Alert		
12,800.00	9,150.00	9,145.91	9,142.25	51.78	33.46	-92.05	-670.13	3,130.91	308.34	233.80	74.44	4.142 Alert		
12,850.00	9,150.00	9,146.49	9,142.83	52.21	33.47	-92.22	-670.14	3,130.91	347.63	274.79	72.84	4.773 Alert		
12,900.00	9,150.00	9,147.07	9,143.40	52.65	33.47	-92.38	-670.15	3,130.92	389.37	317.78	71.59	5.439		
12,950.00	9,150.00	9,147.65	9,143.98	53.09	33.47	-92.54	-670.17	3,130.93	432.87	362.23	70.64	6.128		
13,000.00	9,150.00	9,148.23	9,144.56	53.54	33.47	-92.71	-670.18	3,130.93	477.64	407.74	69.80	6.834		
13,050.00	9,150.00	9,148.81	9,145.15	53.98	33.47	-92.87	-670.19	3,130.94	523.36	454.04	69.32	7.550		
13,100.00	9,150.00	9,149.40	9,145.73	54.43	33.48	-93.04	-670.21	3,130.95	569.80	500.93	68.87	8.273		
13,150.00	9,150.00	9,149.99	9,146.32	54.88	33.48	-93.21	-670.22	3,130.95	616.79	548.28	68.52	9.002		
13,200.00	9,150.00	9,150.58	9,146.91	55.33	33.48	-93.37	-670.23	3,130.96	664.23	596.00	68.23	9.735		
13,250.00	9,150.00	9,151.17	9,147.50	55.79	33.48	-93.54	-670.25	3,130.97	712.01	644.01	68.00	10.471		
13,300.00	9,150.00	9,151.76	9,148.10	56.24	33.48	-93.71	-670.26	3,130.97	760.08	692.26	67.81	11.208		
13,350.00	9,150.00	9,152.36	9,148.69	56.70	33.49	-93.88	-670.28	3,130.98	808.38	740.72	67.66	11.947		
13,400.00	9,150.00	9,152.95	9,149.29	57.16	33.49	-94.05	-670.29	3,130.99	856.88	789.34	67.54	12.688		
13,450.00	9,150.00	9,153.55	9,149.89	57.62	33.49	-94.21	-670.30	3,130.99	905.54	838.10	67.43	13.429		
13,500.00	9,150.00	9,154.16	9,150.49	58.08	33.49	-94.38	-670.32	3,131.00	954.34	886.99	67.35	14.170		
13,550.00	9,150.00	9,154.76	9,151.09	58.55	33.49	-94.56	-670.33	3,131.01	1,003.25	935.97	67.28	14.912		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design													Offset Site Error:	5.00 ft
Survey Program: 100-GYRO-NS-CT, 10110-INC-ONLY													Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
13,600.00	9,150.00	9,155.36	9,151.70	59.02	33.50	-94.73	-670.34	3,131.01	1,052.27	985.05	67.22	15.654		
13,650.00	9,150.00	9,155.97	9,152.30	59.48	33.50	-94.90	-670.36	3,131.02	1,101.38	1,034.20	67.17	16.396		
13,700.00	9,150.00	9,156.58	9,152.91	59.95	33.50	-95.07	-670.37	3,131.03	1,150.56	1,083.42	67.13	17.138		
13,750.00	9,150.00	9,157.19	9,153.53	60.42	33.50	-95.24	-670.39	3,131.04	1,199.81	1,132.70	67.10	17.880		
13,800.00	9,150.00	9,157.81	9,154.14	60.90	33.50	-95.41	-670.40	3,131.04	1,249.12	1,182.04	67.08	18.622		
13,850.00	9,150.00	9,158.42	9,154.75	61.37	33.51	-95.59	-670.42	3,131.05	1,298.48	1,231.42	67.06	19.363		
13,900.00	9,150.00	9,159.04	9,155.37	61.85	33.51	-95.76	-670.43	3,131.06	1,347.89	1,280.84	67.04	20.105		
13,950.00	9,150.00	9,159.66	9,155.99	62.32	33.51	-95.94	-670.44	3,131.06	1,397.34	1,330.30	67.03	20.845		
14,000.00	9,150.00	9,160.28	9,156.61	62.80	33.51	-96.11	-670.46	3,131.07	1,446.83	1,379.80	67.03	21.586		
14,050.00	9,150.00	9,160.91	9,157.24	63.28	33.51	-96.29	-670.47	3,131.08	1,496.35	1,429.32	67.02	22.326		

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 27-T19S-R29E - Turquoise PWU 27-4H - Wellbore #1 - Wellbore #1													Offset Site Error:	5.00 ft
Survey Program: 84-GYRO-NS-CT, 7413-MWD+IGRF													Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
11,800.00	9,150.00	7,983.00	7,886.43	43.63	26.62	-1.26	-844.94	3,166.15	1,491.53	1,448.59	44.94	33.192		
11,850.00	9,150.00	7,983.00	7,886.43	44.00	26.62	-1.26	-844.94	3,166.15	1,465.18	1,420.48	44.70	32.777		
11,900.00	9,150.00	8,000.76	7,895.49	44.38	26.73	-1.30	-844.37	3,181.41	1,439.77	1,395.10	44.68	32.228		
11,950.00	9,150.00	8,015.00	7,902.49	44.77	26.82	-1.34	-843.81	3,193.80	1,415.24	1,370.61	44.63	31.714		
12,000.00	9,150.00	8,032.23	7,910.66	45.15	26.93	-1.39	-843.04	3,208.95	1,391.57	1,346.95	44.62	31.187		
12,050.00	9,150.00	8,046.00	7,916.97	45.54	27.03	-1.43	-842.34	3,221.17	1,368.79	1,324.19	44.60	30.693		
12,100.00	9,150.00	8,069.56	7,927.36	45.94	27.22	-1.52	-840.90	3,242.27	1,346.83	1,302.15	44.68	30.142		
12,150.00	9,150.00	8,088.46	7,935.34	46.34	27.37	-1.60	-839.52	3,259.34	1,325.74	1,281.00	44.74	29.632		
12,200.00	9,150.00	8,109.00	7,943.61	46.74	27.55	-1.70	-837.91	3,278.07	1,305.59	1,260.76	44.83	29.124		
12,250.00	9,150.00	8,123.45	7,949.14	47.14	27.69	-1.77	-836.71	3,291.37	1,286.43	1,241.55	44.89	28.659		
12,300.00	9,150.00	8,141.00	7,955.49	47.55	27.86	-1.86	-835.17	3,307.66	1,268.36	1,223.37	44.99	28.190		
12,350.00	9,150.00	8,155.75	7,960.50	47.96	28.02	-1.94	-833.80	3,321.46	1,251.42	1,206.32	45.10	27.745		
12,400.00	9,150.00	8,172.00	7,965.64	48.37	28.19	-2.03	-832.23	3,336.80	1,235.68	1,190.43	45.25	27.306		
12,450.00	9,150.00	8,187.18	7,970.07	48.79	28.37	-2.12	-830.66	3,351.23	1,221.18	1,175.75	45.43	26.883		
12,500.00	9,150.00	8,204.00	7,974.55	49.21	28.56	-2.22	-828.78	3,367.33	1,207.95	1,162.31	45.64	26.469		
12,550.00	9,150.00	8,219.50	7,978.28	49.63	28.76	-2.32	-826.93	3,382.27	1,196.01	1,150.14	45.88	26.071		
12,600.00	9,150.00	8,236.00	7,981.85	50.05	28.97	-2.44	-824.87	3,398.24	1,185.39	1,139.24	46.15	25.685		
12,650.00	9,150.00	8,250.97	7,984.68	50.48	29.17	-2.55	-822.90	3,412.81	1,176.16	1,129.70	46.46	25.317		
12,700.00	9,150.00	8,267.00	7,987.24	50.91	29.39	-2.67	-820.67	3,428.47	1,168.37	1,121.57	46.80	24.964		
12,750.00	9,150.00	8,285.37	7,989.68	51.34	29.65	-2.81	-818.06	3,446.50	1,161.96	1,114.77	47.19	24.625		
12,800.00	9,150.00	8,298.00	7,991.11	51.78	29.83	-2.91	-816.30	3,458.92	1,156.89	1,109.29	47.60	24.304		
12,850.00	9,150.00	8,329.00	7,993.81	52.21	30.30	-3.14	-811.96	3,489.51	1,153.19	1,105.14	48.05	24.001		
12,900.00	9,150.00	8,349.98	7,994.70	52.65	30.64	-3.29	-809.08	3,510.26	1,150.68	1,102.16	48.52	23.716		
12,950.00	9,150.00	8,389.79	7,996.48	53.09	31.31	-3.58	-803.80	3,549.68	1,148.86	1,099.88	49.00	23.447		
13,000.00	9,150.00	8,430.55	7,998.01	53.54	32.02	-3.88	-798.04	3,590.00	1,147.45	1,097.97	49.49	23.187		
13,050.00	9,150.00	8,479.47	7,999.56	53.98	32.91	-4.27	-790.72	3,638.35	1,146.41	1,096.42	49.99	22.934		
13,100.00	9,150.00	8,542.24	8,002.03	54.43	34.11	-4.76	-781.65	3,700.41	1,145.03	1,094.53	50.50	22.674		
13,150.00	9,150.00	8,584.16	8,003.82	54.88	34.96	-5.07	-775.92	3,741.89	1,143.51	1,092.47	51.04	22.404		
13,200.00	9,150.00	8,622.79	8,005.09	55.33	35.76	-5.34	-770.91	3,780.18	1,142.49	1,090.90	51.59	22.144		
13,250.00	9,150.00	8,664.76	8,006.05	55.79	36.66	-5.61	-765.72	3,821.81	1,141.96	1,089.80	52.16	21.894		
13,300.00	9,150.00	8,711.56	8,006.98	56.24	37.69	-5.93	-759.76	3,868.22	1,141.65	1,088.91	52.74	21.645		
13,350.00	9,150.00	8,757.99	8,007.81	56.70	38.73	-6.26	-753.59	3,914.23	1,141.50	1,088.16	53.35	21.398		
13,363.70	9,150.00	8,770.57	8,008.01	56.83	39.02	-6.35	-751.91	3,926.70	1,141.50	1,087.98	53.51	21.330 CC		
13,400.00	9,150.00	8,803.92	8,008.50	57.18	39.79	-6.59	-747.44	3,959.74	1,141.55	1,087.58	53.97	21.153		
13,450.00	9,150.00	8,847.38	8,009.01	57.62	40.80	-6.90	-741.60	4,002.80	1,141.81	1,087.21	54.60	20.912		
13,500.00	9,150.00	8,885.61	8,009.16	58.08	41.72	-7.18	-736.19	4,040.65	1,142.53	1,087.28	55.25	20.679		
13,550.00	9,150.00	8,923.73	8,008.98	58.55	42.63	-7.48	-730.47	4,078.34	1,143.78	1,087.86	55.91	20.456		
13,600.00	9,150.00	8,973.22	8,008.54	59.02	43.84	-7.89	-722.55	4,127.19	1,145.36	1,088.74	56.62	20.227		
13,650.00	9,150.00	9,024.45	8,008.26	59.48	45.10	-8.34	-713.74	4,177.66	1,148.92	1,089.56	57.37	19.993		
13,700.00	9,150.00	9,090.27	8,008.52	59.95	46.76	-8.95	-701.91	4,242.40	1,148.16	1,089.96	58.20	19.728		
13,750.00	9,150.00	9,151.09	8,009.61	60.42	48.31	-9.53	-690.73	4,302.17	1,148.81	1,089.75	59.06	19.451		
13,800.00	9,150.00	9,208.00	8,011.12	60.90	49.77	-10.09	-680.01	4,358.04	1,149.18	1,089.23	59.95	19.169		
13,850.00	9,150.00	9,256.52	8,012.58	61.37	51.04	-10.57	-670.92	4,405.68	1,149.45	1,088.62	60.84	18.894		
13,900.00	9,150.00	9,304.22	8,013.87	61.85	52.29	-11.01	-662.42	4,452.81	1,149.87	1,088.13	61.73	18.627		
13,950.00	9,150.00	9,356.86	8,015.28	62.32	53.69	-11.49	-653.30	4,504.43	1,150.32	1,087.64	62.68	18.351		
14,000.00	9,150.00	9,410.01	8,016.90	62.80	55.11	-11.98	-644.05	4,556.74	1,150.68	1,087.01	63.67	18.074		
14,050.00	9,150.00	9,457.10	8,018.33	63.28	56.39	-12.40	-636.01	4,603.12	1,151.08	1,086.44	64.64	17.807		
14,100.00	9,150.00	9,504.92	8,019.68	63.76	57.69	-12.82	-628.12	4,650.26	1,151.61	1,085.97	65.63	17.546		
14,150.00	9,150.00	9,539.71	8,020.30	64.24	58.65	-13.10	-622.57	4,684.60	1,152.58	1,086.02	66.56	17.317		
14,200.00	9,150.00	9,576.02	8,020.52	64.73	59.65	-13.39	-616.96	4,720.47	1,154.16	1,086.67	67.49	17.101		
14,250.00	9,150.00	9,612.98	8,020.29	65.21	60.67	-13.67	-611.37	4,756.99	1,156.34	1,087.91	68.44	16.897		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 27-T19S-R29E - Turquoise PWU 27-4H - Wellbore #1 - Wellbore #1													Offset Site Error:	5.00 ft
Survey Program: 84-GYRO-NS-CT, 7413-MWD+IGRF													Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis			Distance				Minimum Separation	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
14,300.00	9,150.00	9,650.31	8,019.74	65.70	61.70	-13.97	-605.40	4,793.85	1,159.09	1,089.69	69.41	16.700		
14,350.00	9,150.00	9,688.00	8,018.88	66.18	62.75	-14.28	-598.98	4,830.98	1,162.41	1,092.01	70.40	16.512		
14,400.00	9,150.00	9,749.16	8,017.42	66.67	64.46	-14.76	-588.82	4,891.27	1,165.78	1,094.16	71.62	16.278		
14,450.00	9,150.00	9,832.09	8,016.44	67.16	66.80	-15.35	-578.75	4,973.31	1,168.46	1,095.45	73.01	16.005		
14,500.00	9,150.00	9,968.72	8,020.98	67.65	70.70	-16.18	-561.46	5,108.97	1,168.64	1,093.91	74.73	15.638		
14,550.00	9,150.00	10,030.27	8,025.10	68.14	72.48	-16.45	-557.38	5,170.23	1,166.45	1,090.60	75.88	15.377		
14,600.00	9,150.00	10,084.71	8,028.84	68.63	74.06	-16.64	-554.88	5,224.49	1,163.90	1,086.98	76.92	15.132		
14,650.00	9,150.00	10,130.79	8,032.04	69.13	75.40	-16.82	-552.53	5,270.40	1,161.41	1,083.44	77.97	14.896		
14,700.00	9,150.00	10,176.17	8,035.19	69.62	76.72	-17.01	-549.69	5,315.58	1,159.10	1,080.05	79.05	14.663		
14,750.00	9,150.00	10,220.16	8,038.20	70.12	78.00	-17.23	-546.40	5,359.34	1,157.03	1,078.66	80.16	14.433		
14,800.00	9,150.00	10,264.10	8,041.15	70.61	79.28	-17.47	-542.57	5,403.01	1,155.23	1,073.91	81.31	14.207		
14,850.00	9,150.00	10,308.12	8,043.99	71.11	80.57	-17.72	-538.38	5,446.75	1,153.70	1,071.20	82.50	13.985		
14,900.00	9,150.00	10,352.63	8,046.72	71.61	81.87	-18.00	-533.82	5,490.94	1,152.44	1,068.73	83.71	13.767		
14,950.00	9,150.00	10,407.50	8,050.17	72.11	83.48	-18.34	-528.01	5,545.39	1,151.21	1,066.17	85.04	13.537		
15,000.00	9,150.00	10,456.69	8,053.50	72.61	84.93	-18.66	-522.71	5,594.18	1,149.82	1,063.47	86.35	13.316		
15,050.00	9,150.00	10,493.72	8,055.75	73.11	86.02	-18.91	-518.62	5,630.91	1,148.83	1,061.26	87.57	13.119		
15,100.00	9,150.00	10,530.76	8,057.62	73.61	87.11	-19.15	-514.41	5,667.67	1,148.41	1,059.62	88.80	12.933		
15,112.02	9,150.00	10,540.00	8,058.03	73.73	87.38	-19.21	-513.34	5,676.83	1,148.40	1,059.30	89.09	12.890		
15,150.00	9,150.00	10,568.25	8,059.14	74.11	88.21	-19.39	-509.99	5,704.86	1,148.57	1,058.53	90.04	12.757		
15,200.00	9,150.00	10,605.85	8,060.33	74.61	89.32	-19.65	-505.31	5,742.15	1,149.28	1,057.99	91.29	12.589		
15,250.00	9,150.00	10,645.13	8,061.24	75.12	90.48	-19.92	-500.15	5,781.08	1,150.54	1,057.95	92.59	12.427		
15,300.00	9,150.00	10,689.54	8,062.12	75.62	91.79	-20.24	-493.98	5,825.05	1,152.14	1,058.17	93.97	12.260		
15,350.00	9,150.00	10,734.13	8,062.94	76.13	93.10	-20.57	-487.40	5,869.15	1,154.00	1,058.61	95.40	12.097		
15,400.00	9,150.00	10,781.83	8,063.77	76.63	94.51	-20.94	-480.09	5,916.27	1,156.05	1,059.15	96.90	11.930		
15,450.00	9,150.00	10,829.84	8,064.60	77.14	95.93	-21.32	-472.57	5,963.68	1,158.22	1,059.79	98.44	11.766		
15,500.00	9,150.00	10,880.65	8,065.49	77.65	97.43	-21.72	-464.63	6,013.87	1,160.44	1,060.40	100.04	11.600		
15,550.00	9,150.00	10,931.00	8,066.38	78.16	98.92	-22.11	-456.91	6,063.60	1,162.65	1,061.00	101.64	11.438		
15,600.00	9,150.00	10,979.79	8,067.18	78.67	100.37	-22.47	-449.58	6,111.84	1,164.91	1,061.67	103.23	11.284		
15,650.00	9,150.00	11,033.03	8,067.96	79.18	101.95	-22.86	-441.80	6,164.50	1,167.21	1,062.32	104.89	11.128		
15,700.00	9,150.00	11,096.70	8,069.20	79.69	103.85	-23.29	-433.24	6,227.58	1,169.11	1,062.41	106.69	10.958		
15,750.00	9,150.00	11,156.10	8,070.85	80.20	105.62	-23.68	-425.72	6,286.48	1,170.52	1,062.09	108.43	10.795		
15,800.00	9,150.00	11,214.32	8,073.10	80.71	107.36	-24.09	-418.00	6,344.14	1,171.59	1,061.38	110.21	10.630		
15,850.00	9,150.00	11,262.27	8,075.26	81.22	108.79	-24.45	-411.22	6,391.55	1,172.60	1,060.70	111.90	10.479		
15,900.00	9,150.00	11,312.33	8,077.76	81.73	110.28	-24.85	-403.67	6,440.98	1,173.65	1,059.96	113.68	10.324		
15,950.00	9,150.00	11,363.88	8,080.61	82.25	111.81	-25.29	-395.47	6,491.80	1,174.88	1,059.13	115.56	10.165		
16,000.00	9,150.00	11,414.24	8,083.64	82.76	113.31	-25.73	-387.15	6,541.37	1,175.70	1,058.24	117.46	10.009		
16,050.00	9,150.00	11,463.34	8,086.47	83.28	114.78	-26.15	-379.33	6,589.76	1,176.77	1,057.43	119.34	9.881		
16,100.00	9,150.00	11,512.82	8,089.14	83.79	116.25	-26.56	-371.80	6,638.59	1,177.91	1,056.70	121.20	9.718		
16,150.00	9,150.00	11,562.53	8,091.87	84.31	117.74	-26.96	-364.18	6,687.64	1,179.09	1,055.98	123.10	9.578		
16,200.00	9,150.00	11,608.89	8,094.33	84.82	119.07	-27.33	-357.26	6,731.39	1,180.37	1,055.45	124.93	9.449		
16,250.00	9,150.00	11,647.53	8,096.34	85.34	120.28	-27.67	-350.79	6,771.46	1,182.05	1,055.36	126.69	9.331 ES		
16,300.00	9,150.00	11,688.51	8,098.09	85.86	121.51	-28.00	-344.13	6,811.86	1,184.14	1,055.68	128.46	9.218		
16,350.00	9,150.00	11,730.54	8,099.55	86.38	122.77	-28.34	-337.38	6,853.31	1,186.61	1,056.37	130.24	9.111		
16,400.00	9,150.00	11,773.02	8,100.64	86.89	124.04	-28.66	-330.71	6,895.26	1,189.44	1,057.42	132.02	9.010		
16,450.00	9,150.00	11,841.08	8,102.74	87.41	126.08	-29.18	-320.14	6,962.45	1,192.05	1,057.69	134.37	8.872		
16,500.00	9,150.00	11,897.42	8,105.20	87.93	127.77	-29.61	-311.50	7,018.07	1,194.11	1,057.60	136.50	8.748		
16,550.00	9,150.00	11,947.20	8,107.15	88.45	129.27	-29.97	-304.43	7,067.31	1,196.14	1,057.69	138.45	8.639		
16,600.00	9,150.00	11,982.37	8,108.22	88.97	130.33	-30.20	-299.71	7,102.14	1,198.43	1,058.36	140.07	8.556		
16,650.00	9,150.00	12,012.44	8,108.63	89.49	131.24	-30.39	-295.56	7,131.93	1,201.53	1,059.99	141.55	8.489		
16,700.00	9,150.00	12,042.49	8,108.54	90.02	132.15	-30.57	-291.30	7,161.67	1,205.47	1,062.48	142.98	8.431		
16,750.00	9,150.00	12,081.22	8,107.82	90.54	133.31	-30.79	-285.75	7,199.99	1,210.13	1,065.55	144.58	8.370		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 12H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 12H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	5.00 ft
Sec 27-T19S-R29E - Turquoise PWU 27-4H - Wellbore #1 - Wellbore #1												Offset Well Error:	0.50 ft
Survey Program: 84-GYRO-NS-CT, 7413-MWD+IGRF													
Reference		Offset		Semi Major Axis		Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
16,800.00	9,150.00	12,127.20	8,106.50	91.06	134.70	-31.03	-279.56	7,245.53	1,215.03	1,068.75	148.28	8.306	
16,850.00	9,150.00	12,177.12	8,104.72	91.58	136.21	-31.26	-273.22	7,295.02	1,220.05	1,072.01	148.04	8.242	
16,900.00	9,150.00	12,230.41	8,103.29	92.11	137.82	-31.53	-265.96	7,347.79	1,224.97	1,075.03	149.94	8.170	
16,950.00	9,150.00	12,272.56	8,102.45	92.63	139.09	-31.77	-259.72	7,389.46	1,229.94	1,078.29	151.64	8.111	
17,000.00	9,150.00	12,321.89	8,101.44	93.15	140.58	-32.06	-252.09	7,438.19	1,235.13	1,081.56	153.56	8.043	
17,037.70	9,150.00	12,359.08	8,100.69	93.55	141.70	-32.28	-246.33	7,474.93	1,239.06	1,084.05	155.01	7.993 SF	

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 28-T19S-R29E - Coral PWU 28-3H - Wellbore #1 - Wellbore #1													Offset Site Error: 5.00 ft	
Survey Program: 100-NS-Gyro-DP, 7342-MWD+IGRF													Offset Well Error: 0.50 ft	
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	5.02	5.02	135.87	-892.87	866.23	1,244.08					
50.00	50.00	38.20	38.20	5.03	5.03	135.87	-892.87	866.21	1,244.00	1,233.95	10.05	123.772		
100.00	100.00	89.82	89.82	5.03	5.03	135.87	-892.85	866.11	1,243.92	1,233.86	10.06	123.705		
150.00	150.00	141.17	141.17	5.03	5.05	135.88	-892.85	865.90	1,243.78	1,233.70	10.08	123.394		
200.00	200.00	192.45	192.45	5.05	5.08	135.89	-892.91	865.55	1,243.58	1,233.46	10.13	122.791		
250.00	250.00	241.54	241.54	5.07	5.13	135.91	-893.04	865.13	1,243.38	1,233.18	10.20	121.958		
300.00	300.00	290.26	290.25	5.09	5.19	135.93	-893.24	864.70	1,243.22	1,232.94	10.28	120.909		
350.00	350.00	340.29	340.28	5.13	5.26	135.95	-893.47	864.29	1,243.09	1,232.70	10.39	119.630		
400.00	400.00	390.65	390.64	5.17	5.35	135.97	-893.58	863.96	1,242.95	1,232.43	10.52	118.149		
450.00	450.00	440.63	440.62	5.21	5.46	135.98	-893.63	863.71	1,242.81	1,232.14	10.67	116.501		
500.00	500.00	490.52	490.51	5.26	5.57	135.98	-893.66	863.46	1,242.66	1,231.83	10.83	114.711		
550.00	550.00	541.20	541.19	5.32	5.70	135.99	-893.66	863.24	1,242.51	1,231.50	11.01	112.808		
600.00	600.00	592.08	592.06	5.38	5.83	135.99	-893.57	863.07	1,242.33	1,231.11	11.21	110.809		
650.00	650.00	640.75	640.74	5.44	5.96	135.99	-893.38	863.00	1,242.14	1,230.74	11.41	108.896		
700.00	700.00	689.02	689.01	5.52	6.09	135.98	-893.10	863.13	1,242.03	1,230.42	11.61	106.971		
750.00	750.00	737.26	737.25	5.59	6.23	135.96	-892.74	863.44	1,241.98	1,230.18	11.82	105.064		
757.02	757.02	744.04	744.02	5.60	6.25	135.95	-892.68	863.50	1,241.98	1,230.13	11.85	104.796		
800.00	800.00	785.50	785.48	5.67	6.37	135.93	-892.31	863.82	1,242.01	1,229.97	12.04	103.154		
850.00	850.00	832.90	832.88	5.76	6.51	135.89	-891.83	864.56	1,242.11	1,229.85	12.27	101.239		
900.00	900.00	879.95	879.91	5.85	6.66	135.85	-891.35	865.37	1,242.34	1,229.83	12.51	99.332		
950.00	950.00	926.78	926.73	5.94	6.81	135.80	-890.87	866.32	1,242.69	1,229.93	12.75	97.432		
1,000.00	1,000.00	973.44	973.38	6.04	6.97	135.75	-890.48	867.37	1,243.17	1,230.16	13.01	95.549		
1,050.00	1,050.00	1,022.25	1,022.18	6.14	7.14	135.70	-890.16	868.53	1,243.76	1,230.48	13.28	93.626		
1,100.00	1,100.00	1,073.91	1,073.82	6.25	7.33	135.65	-889.81	869.72	1,244.33	1,230.75	13.58	91.639		
1,150.00	1,150.00	1,123.56	1,123.46	6.35	7.52	135.61	-889.46	870.81	1,244.84	1,230.97	13.87	89.724		
1,200.00	1,200.00	1,171.15	1,171.04	6.47	7.71	135.56	-889.18	871.91	1,245.44	1,231.27	14.17	87.892		
1,250.00	1,250.00	1,220.52	1,220.38	6.58	7.90	135.52	-888.95	873.09	1,246.11	1,231.63	14.48	86.053		
1,300.00	1,300.00	1,272.60	1,272.46	6.70	8.12	135.47	-888.69	874.28	1,246.74	1,231.93	14.81	84.178		
1,350.00	1,350.00	1,323.25	1,323.09	6.82	8.33	135.42	-888.41	875.37	1,247.29	1,232.15	15.14	82.375		
1,400.00	1,400.00	1,372.31	1,372.14	6.94	8.53	135.38	-888.21	876.38	1,247.87	1,232.40	15.47	80.652		
1,450.00	1,450.00	1,421.74	1,421.56	7.06	8.75	135.35	-888.10	877.35	1,248.48	1,232.67	15.81	78.965		
1,500.00	1,500.00	1,471.66	1,471.47	7.19	8.97	135.31	-888.01	878.32	1,249.10	1,232.94	16.16	77.313		
1,550.00	1,550.00	1,521.58	1,521.38	7.32	9.19	135.28	-887.95	879.26	1,249.72	1,233.22	16.51	75.706		
1,600.00	1,600.00	1,571.51	1,571.31	7.45	9.41	135.25	-887.93	880.18	1,250.35	1,233.49	16.86	74.144		
1,650.00	1,650.00	1,621.56	1,621.35	7.58	9.64	135.22	-887.93	881.07	1,250.98	1,233.75	17.23	72.624		
1,700.00	1,700.00	1,671.77	1,671.55	7.72	9.87	135.19	-887.94	881.95	1,251.60	1,234.01	17.59	71.145		
1,750.00	1,750.00	1,722.64	1,722.41	7.86	10.11	135.17	-887.93	882.82	1,252.21	1,234.24	17.97	69.697		
1,800.00	1,800.00	1,774.35	1,774.11	8.00	10.35	135.14	-887.94	883.62	1,252.75	1,234.41	18.35	68.275		
1,850.00	1,850.00	1,825.53	1,825.29	8.14	10.60	135.12	-887.96	884.30	1,253.24	1,234.51	18.73	66.904		
1,900.00	1,900.00	1,876.20	1,875.95	8.28	10.84	135.10	-888.03	884.89	1,253.69	1,234.58	19.12	65.583		
1,950.00	1,950.00	1,927.37	1,927.13	8.42	11.09	135.09	-888.14	885.39	1,254.12	1,234.61	19.51	64.295		
2,000.00	2,000.00	1,979.01	1,978.76	8.56	11.34	135.08	-888.22	885.84	1,254.48	1,234.58	19.90	63.036		
2,050.00	2,050.00	2,029.38	2,029.13	8.71	11.58	135.07	-888.28	886.22	1,254.79	1,234.49	20.29	61.834		
2,100.00	2,100.00	2,078.90	2,078.64	8.86	11.83	135.06	-888.34	886.61	1,255.11	1,234.43	20.68	60.681		
2,150.00	2,150.00	2,127.70	2,127.44	9.01	12.07	135.04	-888.41	887.03	1,255.46	1,234.39	21.07	59.577		
2,200.00	2,200.00	2,175.97	2,175.72	9.15	12.31	135.04	-888.55	887.46	1,255.88	1,234.42	21.46	58.518		
2,250.00	2,250.00	2,224.87	2,224.61	9.31	12.55	135.03	-888.75	887.91	1,256.35	1,234.50	21.85	57.487		
2,300.00	2,300.00	2,274.38	2,274.12	9.46	12.80	135.02	-888.99	888.38	1,256.86	1,234.60	22.25	56.482		
2,350.00	2,350.00	2,324.31	2,324.05	9.61	13.05	135.01	-889.26	888.84	1,257.37	1,234.72	22.65	55.503		
2,400.00	2,400.00	2,374.69	2,374.42	9.76	13.30	135.01	-889.52	889.31	1,257.88	1,234.82	23.06	54.547		
2,450.00	2,450.00	2,426.40	2,426.13	9.92	13.56	135.00	-889.75	889.77	1,258.36	1,234.88	23.48	53.601		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 28-T19S-R29E - Coral PWU 28-3H - Wellbore #1 - Wellbore #1										Offset Site Error:		5.00 ft	
Survey Program: 100-NS-Gyro-DP, 7342-MWD+IGRF										Offset Well Error:		0.50 ft	
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
2,500.00	2,500.00	2,479.45	2,479.18	10.07	13.83	134.99	-889.88	890.20	1,258.73	1,234.83	23.90	52.662	
2,550.00	2,550.00	2,531.71	2,531.44	10.22	14.10	-72.84	-889.90	890.57	1,258.93	1,234.61	24.32	51.768	
2,600.00	2,599.99	2,583.47	2,583.20	10.37	14.37	-72.88	-889.87	890.87	1,258.92	1,234.19	24.73	50.897	
2,650.00	2,649.98	2,635.30	2,635.02	10.51	14.63	-72.94	-889.81	891.09	1,258.71	1,233.57	25.14	50.061	
2,700.00	2,699.96	2,687.14	2,686.87	10.65	14.90	-73.01	-889.75	891.22	1,258.31	1,232.76	25.55	49.244	
2,750.00	2,749.92	2,736.10	2,735.83	10.80	15.15	-73.11	-889.68	891.30	1,257.75	1,231.80	25.95	48.469	
2,800.00	2,799.88	2,784.09	2,783.81	10.95	15.40	-73.22	-889.62	891.47	1,257.13	1,230.79	26.34	47.723	
2,850.00	2,849.78	2,832.68	2,832.41	11.09	15.65	-73.36	-889.58	891.72	1,256.47	1,229.73	26.74	46.985	
2,900.00	2,899.68	2,881.56	2,881.29	11.24	15.91	-73.52	-889.55	892.01	1,255.73	1,228.58	27.15	46.259	
2,950.00	2,949.54	2,931.85	2,931.57	11.39	16.17	-73.70	-889.55	892.31	1,254.90	1,227.34	27.56	45.536	
3,000.00	2,999.37	2,982.97	2,982.69	11.54	16.44	-73.90	-889.55	892.56	1,253.91	1,225.94	27.98	44.820	
3,050.00	3,049.16	3,033.76	3,033.48	11.69	16.71	-74.12	-889.54	892.75	1,252.77	1,224.38	28.39	44.120	
3,100.00	3,098.90	3,084.35	3,084.07	11.84	16.98	-74.36	-889.51	892.90	1,251.49	1,222.68	28.81	43.436	
3,150.00	3,148.61	3,133.53	3,133.25	11.99	17.23	-74.62	-889.48	893.03	1,250.11	1,220.89	29.22	42.781	
3,200.00	3,198.26	3,182.06	3,181.78	12.14	17.49	-74.88	-889.53	893.14	1,248.67	1,219.04	29.63	42.147	
3,250.00	3,247.86	3,232.41	3,232.13	12.30	17.74	-75.18	-889.65	893.22	1,247.17	1,217.13	30.03	41.529	
3,300.00	3,297.40	3,283.80	3,283.52	12.45	17.99	-75.50	-889.78	893.20	1,245.52	1,215.08	30.44	40.923	
3,350.00	3,346.89	3,334.52	3,334.24	12.61	18.23	-75.83	-889.92	893.08	1,243.73	1,212.90	30.83	40.342	
3,400.00	3,396.30	3,384.92	3,384.64	12.76	18.46	-76.18	-890.08	892.89	1,241.84	1,210.62	31.22	39.778	
3,450.00	3,445.65	3,432.74	3,432.46	12.92	18.69	-76.53	-890.27	892.67	1,239.88	1,208.28	31.60	39.235	
3,500.00	3,494.93	3,479.43	3,479.14	13.07	18.91	-76.90	-890.50	892.54	1,237.97	1,205.99	31.98	38.709	
3,550.00	3,544.13	3,527.33	3,527.05	13.23	19.14	-77.29	-890.77	892.50	1,236.10	1,203.73	32.37	38.183	
3,600.00	3,593.26	3,576.17	3,575.89	13.39	19.39	-77.71	-891.06	892.47	1,234.22	1,201.45	32.77	37.659	
3,650.00	3,642.31	3,625.40	3,625.12	13.55	19.63	-78.14	-891.35	892.46	1,232.35	1,199.17	33.18	37.144	
3,700.00	3,691.36	3,675.09	3,674.80	13.71	19.87	-78.56	-891.69	892.38	1,230.51	1,196.93	33.58	36.640	
3,750.00	3,740.42	3,724.57	3,724.28	13.87	20.12	-78.98	-892.09	892.23	1,228.73	1,194.74	33.99	36.151	
3,800.00	3,789.47	3,773.84	3,773.55	14.03	20.36	-79.40	-892.56	892.00	1,227.00	1,192.61	34.39	35.677	
3,850.00	3,838.52	3,824.07	3,823.78	14.20	20.61	-79.82	-893.13	891.69	1,225.33	1,190.53	34.80	35.209	
3,900.00	3,887.57	3,875.38	3,875.08	14.36	20.86	-80.24	-893.75	891.24	1,223.65	1,188.43	35.22	34.748	
3,950.00	3,936.62	3,924.39	3,924.08	14.52	21.10	-80.64	-894.38	890.70	1,221.96	1,186.34	35.62	34.306	
4,000.00	3,985.68	3,971.27	3,970.95	14.69	21.33	-81.02	-895.06	890.21	1,220.42	1,184.40	36.02	33.886	
4,050.00	4,034.73	4,019.48	4,019.16	14.85	21.57	-81.42	-895.85	889.75	1,219.02	1,182.60	36.42	33.472	
4,100.00	4,083.78	4,069.77	4,069.44	15.02	21.82	-81.83	-896.62	889.28	1,217.66	1,180.82	36.84	33.057	
4,150.00	4,132.83	4,121.30	4,120.96	15.19	22.07	-82.25	-897.31	888.81	1,216.31	1,179.05	37.26	32.647	
4,200.00	4,181.88	4,174.62	4,174.28	15.35	22.33	-82.71	-897.70	888.36	1,214.88	1,177.20	37.68	32.239	
4,250.00	4,230.94	4,225.74	4,225.39	15.52	22.58	-83.16	-897.75	887.96	1,213.38	1,175.28	38.10	31.847	
4,300.00	4,279.99	4,274.93	4,274.58	15.69	22.82	-83.60	-897.76	887.59	1,211.92	1,173.42	38.51	31.474	
4,350.00	4,329.04	4,325.10	4,324.75	15.86	23.06	-84.05	-897.76	887.19	1,210.53	1,171.61	38.92	31.105	
4,400.00	4,378.09	4,376.24	4,375.90	16.03	23.31	-84.51	-897.64	886.77	1,209.13	1,169.80	39.33	30.740	
4,450.00	4,427.14	4,426.26	4,425.91	16.20	23.55	-84.96	-897.44	886.33	1,207.74	1,167.99	39.75	30.385	
4,500.00	4,476.20	4,475.35	4,474.99	16.37	23.79	-85.40	-897.33	885.84	1,206.41	1,166.25	40.16	30.042	
4,550.00	4,525.25	4,524.15	4,523.79	16.54	24.03	-85.84	-897.30	885.29	1,205.16	1,164.59	40.57	29.707	
4,600.00	4,574.30	4,572.61	4,572.25	16.71	24.27	-86.27	-897.28	884.77	1,204.01	1,163.03	40.98	29.381	
4,650.00	4,623.35	4,622.42	4,622.05	16.89	24.51	-86.72	-897.26	884.25	1,202.94	1,161.54	41.40	29.059	
4,700.00	4,672.40	4,674.03	4,673.67	17.06	24.77	-87.18	-897.31	883.57	1,201.87	1,160.04	41.82	28.736	
4,750.00	4,721.46	4,725.61	4,725.23	17.23	25.03	-87.63	-897.43	882.73	1,200.76	1,158.51	42.25	28.419	
4,800.00	4,770.51	4,777.06	4,776.68	17.41	25.28	-88.09	-897.43	881.83	1,199.63	1,156.95	42.68	28.107	
4,850.00	4,819.56	4,828.13	4,827.74	17.58	25.54	-88.54	-897.30	880.91	1,198.47	1,155.37	43.11	27.802	
4,900.00	4,868.61	4,878.89	4,878.50	17.75	25.79	-89.00	-897.11	879.95	1,197.32	1,153.79	43.53	27.503	
4,950.00	4,917.66	4,929.13	4,928.72	17.93	26.04	-89.45	-896.87	878.95	1,196.19	1,152.23	43.96	27.211	
5,000.00	4,966.72	4,978.99	4,978.57	18.10	26.29	-89.90	-896.59	877.95	1,195.09	1,150.71	44.38	26.928	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 28-T19S-R29E - Coral PWU 28-3H - Wellbore #1 - Wellbore #1													Offset Site Error: 5.00 ft	
Survey Program: 100-NS-Gyro-DP, 7342-MWD+IGRF													Offset Well Error: 0.50 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,050.00	5,015.77	5,030.35	5,029.92	18.28	26.55	-90.37	-896.23	876.89	1,194.02	1,149.20	44.82	26.643		
5,100.00	5,064.82	5,082.75	5,082.30	18.46	26.81	-90.86	-895.63	875.77	1,192.89	1,147.84	45.25	26.361		
5,150.00	5,113.87	5,132.47	5,132.00	18.63	27.06	-91.33	-894.86	874.69	1,191.75	1,146.07	45.68	26.090		
5,200.00	5,162.92	5,180.87	5,180.39	18.81	27.31	-91.80	-894.06	873.70	1,190.70	1,144.60	46.10	25.829		
5,250.00	5,211.98	5,229.99	5,229.49	18.99	27.55	-92.28	-893.17	872.74	1,189.75	1,143.23	46.52	25.573		
5,300.00	5,261.03	5,279.59	5,279.07	19.16	27.81	-92.76	-892.23	871.77	1,188.86	1,141.91	46.95	25.321		
5,350.00	5,310.08	5,329.19	5,328.65	19.34	28.06	-93.24	-891.28	870.77	1,188.04	1,140.66	47.38	25.074		
5,400.00	5,359.13	5,378.85	5,378.29	19.52	28.31	-93.72	-890.44	869.69	1,187.27	1,139.46	47.81	24.833		
5,450.00	5,408.18	5,426.18	5,425.60	19.70	28.55	-94.17	-889.75	868.61	1,186.59	1,138.36	48.23	24.602		
5,500.00	5,457.24	5,471.76	5,471.17	19.87	28.78	-94.60	-889.17	867.66	1,186.11	1,137.47	48.64	24.383		
5,550.00	5,506.29	5,519.96	5,519.36	20.05	29.03	-95.06	-888.61	866.76	1,185.84	1,136.77	49.07	24.166		
5,600.00	5,555.34	5,572.37	5,571.75	20.23	29.30	-95.56	-887.86	865.75	1,185.56	1,136.04	49.52	23.943		
5,650.00	5,604.39	5,622.83	5,622.19	20.41	29.56	-96.06	-886.97	864.70	1,185.24	1,135.29	49.95	23.727		
5,700.00	5,653.44	5,671.17	5,670.52	20.59	29.81	-96.53	-886.11	863.71	1,185.02	1,134.64	50.38	23.521		
5,750.00	5,702.50	5,722.50	5,721.83	20.77	30.07	-97.03	-885.19	862.66	1,184.88	1,134.05	50.82	23.314		
5,800.00	5,751.55	5,778.14	5,777.43	20.95	30.36	-97.59	-883.79	861.40	1,184.60	1,133.32	51.28	23.099		
5,850.00	5,800.60	5,831.31	5,830.57	21.13	30.63	-98.13	-882.07	860.05	1,184.17	1,132.44	51.73	22.890		
5,900.00	5,849.65	5,882.97	5,882.17	21.31	30.90	-98.67	-880.34	858.62	1,183.71	1,131.53	52.18	22.686		
5,950.00	5,898.70	5,933.19	5,932.35	21.49	31.16	-99.19	-878.63	857.13	1,183.25	1,130.63	52.62	22.488		
6,000.00	5,947.76	5,982.73	5,981.83	21.67	31.42	-99.70	-876.97	855.62	1,182.85	1,129.80	53.05	22.295		
6,050.00	5,996.81	6,033.01	6,032.06	21.85	31.68	-100.22	-875.27	854.05	1,182.51	1,129.01	53.49	22.105		
6,100.00	6,045.86	6,083.62	6,082.61	22.03	31.94	-100.75	-873.37	852.45	1,182.19	1,128.26	53.94	21.918		
6,150.00	6,094.91	6,135.17	6,134.09	22.22	32.21	-101.30	-871.23	850.79	1,181.89	1,127.51	54.38	21.733		
6,200.00	6,143.96	6,187.15	6,185.98	22.40	32.48	-101.86	-868.88	849.03	1,181.56	1,126.73	54.83	21.549		
6,250.00	6,193.01	6,237.22	6,235.96	22.58	32.74	-102.40	-866.52	847.26	1,181.23	1,125.96	55.27	21.371		
6,300.00	6,242.07	6,286.72	6,285.39	22.76	33.00	-102.94	-864.28	845.43	1,180.98	1,125.26	55.71	21.197		
6,350.00	6,291.12	6,336.29	6,334.87	22.94	33.26	-103.47	-862.15	843.55	1,180.79	1,124.64	56.15	21.028		
6,400.00	6,340.17	6,385.90	6,384.40	23.13	33.52	-103.99	-860.12	841.59	1,180.68	1,124.08	56.60	20.862		
6,450.00	6,389.22	6,435.75	6,434.17	23.31	33.78	-104.51	-858.19	839.57	1,180.63	1,123.59	57.04	20.699		
6,475.52	6,414.26	6,461.24	6,459.62	23.40	33.91	-104.78	-857.22	838.51	1,180.62	1,123.36	57.26	20.617 CC		
6,500.00	6,438.27	6,485.71	6,484.05	23.49	34.04	-105.03	-856.30	837.48	1,180.63	1,123.14	57.48	20.539		
6,550.00	6,487.33	6,532.00	6,530.27	23.67	34.29	-105.51	-854.59	835.54	1,180.73	1,122.82	57.91	20.388		
6,600.00	6,536.38	6,576.80	6,575.00	23.86	34.52	-105.98	-852.91	833.82	1,181.09	1,122.75	58.34	20.246 ES		
6,650.00	6,585.43	6,622.78	6,620.93	24.04	34.76	-106.46	-851.17	832.20	1,181.70	1,122.94	58.77	20.109		
6,700.00	6,634.48	6,670.08	6,668.16	24.22	35.01	-106.95	-849.43	830.61	1,182.49	1,123.29	59.20	19.975		
6,750.00	6,683.53	6,718.51	6,716.53	24.41	35.27	-107.45	-847.71	829.02	1,183.43	1,123.79	59.64	19.843		
6,800.00	6,732.59	6,768.93	6,766.90	24.59	35.54	-107.96	-846.10	827.29	1,184.42	1,124.34	60.09	19.712		
6,850.00	6,781.64	6,816.66	6,814.59	24.77	35.79	-108.44	-844.73	825.58	1,185.47	1,124.94	60.52	19.587		
6,900.00	6,830.69	6,859.89	6,857.77	24.96	36.02	-108.88	-843.32	824.22	1,186.78	1,125.84	60.94	19.474		
6,950.00	6,879.74	6,903.55	6,901.38	25.14	36.25	-109.34	-841.63	823.10	1,188.42	1,127.06	61.36	19.368		
7,000.00	6,928.79	6,954.96	6,952.74	25.33	36.52	-109.87	-839.70	821.82	1,190.19	1,128.38	61.81	19.255		
7,050.00	6,977.85	7,006.54	7,004.28	25.51	36.79	-110.39	-838.11	820.37	1,191.96	1,129.69	62.27	19.142		
7,100.00	7,026.90	7,058.15	7,055.84	25.69	37.07	-110.89	-836.73	818.77	1,193.70	1,130.98	62.73	19.031		
7,150.00	7,075.95	7,109.83	7,107.48	25.88	37.34	-111.39	-835.47	817.03	1,195.42	1,132.24	63.18	18.920		
7,200.00	7,125.00	7,152.59	7,150.20	26.06	37.57	-111.80	-834.44	815.69	1,197.32	1,133.73	63.60	18.827		
7,250.00	7,174.05	7,196.75	7,194.33	26.25	37.81	-112.23	-833.36	814.48	1,199.50	1,135.48	64.02	18.737		
7,300.00	7,223.11	7,244.88	7,242.44	26.43	38.06	-112.68	-832.38	813.25	1,201.88	1,137.43	64.46	18.646		
7,350.00	7,272.16	7,293.51	7,291.05	26.62	38.32	-113.11	-831.87	811.99	1,204.36	1,139.46	64.90	18.557		
7,400.00	7,321.21	7,338.88	7,336.40	26.80	38.52	-113.50	-831.69	810.87	1,206.99	1,141.70	65.29	18.487		
7,450.00	7,370.26	7,383.75	7,381.26	26.99	38.53	-113.88	-831.55	809.85	1,209.80	1,144.32	65.48	18.476		
7,500.00	7,419.31	7,419.19	7,416.68	27.18	38.53	-114.23	-830.49	809.41	1,213.09	1,147.43	65.66	18.478 SF		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 28-T19S-R29E - Coral PWU 28-3H - Wellbore #1 - Wellbore #1													Offset Site Error: 5.00 ft
Survey Program: 100-NS-Gyro-DP, 7342-MWD+IGRF													Offset Well Error: 0.50 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
7,550.00	7,468.37	7,457.71	7,455.09	27.36	38.53	-114.68	-827.59	809.44	1,218.99	1,151.15	65.84	18.485	
7,600.00	7,517.42	7,505.23	7,502.11	27.55	38.54	-115.39	-820.86	809.77	1,221.22	1,155.20	66.02	18.498	
7,650.00	7,566.50	7,547.73	7,543.43	27.73	38.54	-116.22	-811.02	810.27	1,225.72	1,159.53	66.19	18.517	
7,700.00	7,615.69	7,593.42	7,586.90	27.92	38.55	-117.25	-796.96	810.86	1,230.31	1,163.94	66.37	18.537	
7,750.00	7,664.99	7,656.33	7,644.86	28.10	38.56	-118.84	-772.58	811.29	1,234.91	1,168.33	66.58	18.548	
7,800.00	7,714.40	7,732.11	7,710.91	28.28	38.59	-121.00	-735.61	809.45	1,238.49	1,171.68	66.81	18.539	
7,850.00	7,763.91	7,764.23	7,737.09	28.47	38.61	-122.05	-717.06	808.16	1,242.22	1,175.25	66.97	18.548	
7,900.00	7,813.50	7,788.00	7,755.75	28.65	38.63	-122.87	-702.36	807.31	1,246.83	1,179.74	67.09	18.583	
7,950.00	7,863.17	7,808.18	7,771.10	28.83	38.65	-123.61	-689.26	806.72	1,252.46	1,185.29	67.17	18.647	
8,000.00	7,912.91	7,828.63	7,786.15	29.01	38.67	-124.39	-675.44	806.27	1,259.14	1,191.95	67.19	18.739	
8,050.00	7,962.72	7,851.00	7,802.00	29.18	38.69	-125.26	-659.66	805.85	1,266.85	1,199.66	67.19	18.855	
8,100.00	8,012.58	7,872.15	7,816.41	29.36	38.72	-126.11	-644.19	805.49	1,275.55	1,208.42	67.14	19.000	
8,150.00	8,062.48	7,892.94	7,830.08	29.54	38.75	-126.96	-628.53	805.14	1,285.24	1,218.20	67.04	19.172	
8,200.00	8,112.42	7,915.00	7,843.92	29.71	38.79	-127.89	-611.35	804.76	1,295.94	1,229.04	66.90	19.371	
8,250.00	8,162.39	7,927.53	7,851.46	29.89	38.81	-128.49	-601.35	804.55	1,307.68	1,241.03	66.65	19.619	
8,300.00	8,212.37	7,947.00	7,862.76	30.06	38.85	-129.36	-585.49	804.30	1,320.53	1,254.11	66.41	19.884	
8,350.00	8,262.37	7,955.87	7,867.71	30.23	38.87	-129.85	-578.14	804.21	1,334.39	1,268.36	66.03	20.209	
8,400.00	8,312.37	7,969.07	7,874.87	30.39	38.89	-129.43	-567.05	804.09	1,349.42	1,283.78	65.64	20.558	
8,450.00	8,362.37	7,979.00	7,880.06	30.55	38.91	-129.06	-558.58	804.01	1,365.86	1,300.68	65.18	20.955	
8,500.00	8,412.37	7,995.14	7,888.24	30.71	38.95	-128.45	-544.66	803.90	1,383.65	1,318.90	64.75	21.369	
8,550.00	8,462.37	8,011.00	7,895.99	30.88	38.99	-127.85	-530.83	803.83	1,402.79	1,338.49	64.29	21.818	
8,600.00	8,512.37	8,019.88	7,900.22	31.04	39.01	-127.52	-523.03	803.81	1,423.20	1,359.46	63.74	22.328	
8,650.00	8,562.37	8,031.32	7,905.55	31.20	39.04	-127.08	-512.90	803.80	1,444.87	1,381.67	63.20	22.863	
8,700.00	8,612.35	8,043.00	7,910.85	31.36	39.07	-126.53	-502.50	803.82	1,466.81	1,404.18	62.63	23.421	
8,750.00	8,662.05	8,053.08	7,915.32	31.52	39.10	-125.95	-493.46	803.85	1,486.33	1,424.34	61.99	23.976	
9,450.00	9,138.56	8,122.74	7,942.75	32.96	39.33	-17.93	-429.46	804.22	1,483.72	1,435.47	48.25	30.752	
9,500.00	9,146.35	8,123.49	7,943.00	33.02	39.33	-18.61	-428.76	804.22	1,484.42	1,417.26	47.16	31.052	
9,550.00	9,149.81	8,123.84	7,943.12	33.07	39.33	-19.41	-428.42	804.23	1,442.77	1,396.66	46.11	31.291	
9,600.00	9,150.00	8,123.90	7,943.14	33.13	39.33	-19.67	-428.37	804.23	1,419.73	1,374.64	45.09	31.488	
9,650.00	9,150.00	8,123.94	7,943.16	33.21	39.33	-19.67	-428.33	804.23	1,397.94	1,353.87	44.08	31.716	
9,700.00	9,150.00	8,123.98	7,943.17	33.29	39.33	-19.67	-428.29	804.23	1,377.62	1,334.55	43.08	31.982	
9,750.00	9,150.00	8,124.03	7,943.18	33.39	39.33	-19.68	-428.25	804.23	1,358.84	1,316.73	42.12	32.263	
9,800.00	9,150.00	8,124.07	7,943.20	33.49	39.33	-19.68	-428.21	804.23	1,341.67	1,300.47	41.20	32.566	
9,850.00	9,150.00	8,124.11	7,943.21	33.61	39.33	-19.68	-428.17	804.23	1,326.15	1,285.80	40.35	32.865	
9,900.00	9,150.00	8,124.16	7,943.23	33.73	39.33	-19.68	-428.13	804.23	1,312.36	1,272.77	39.59	33.152	
9,950.00	9,150.00	8,124.20	7,943.24	33.87	39.33	-19.68	-428.09	804.23	1,300.34	1,261.42	38.93	33.405	
10,000.00	9,150.00	8,124.24	7,943.26	34.02	39.33	-19.69	-428.05	804.23	1,290.15	1,251.77	38.38	33.615	
10,050.00	9,150.00	8,124.28	7,943.27	34.17	39.33	-19.69	-428.01	804.23	1,281.84	1,243.86	37.98	33.752	
10,100.00	9,150.00	8,124.33	7,943.29	34.33	39.33	-19.69	-427.97	804.23	1,275.43	1,237.71	37.72	33.813	
10,150.00	9,150.00	8,124.37	7,943.30	34.51	39.33	-19.69	-427.92	804.23	1,270.95	1,233.32	37.63	33.774	
10,200.00	9,150.00	8,124.42	7,943.32	34.68	39.33	-19.69	-427.88	804.23	1,268.44	1,230.73	37.70	33.642	
10,238.92	9,150.00	8,124.45	7,943.33	34.83	39.33	-19.69	-427.85	804.23	1,267.84	1,229.95	37.88	33.466	
10,250.00	9,150.00	8,124.46	7,943.33	34.87	39.33	-19.70	-427.84	804.23	1,267.89	1,229.93	37.95	33.407	
10,300.00	9,150.00	8,124.50	7,943.35	35.06	39.33	-19.70	-427.80	804.23	1,269.31	1,230.95	38.36	33.088	
10,350.00	9,150.00	8,124.55	7,943.36	35.27	39.33	-19.70	-427.76	804.23	1,272.69	1,233.76	38.93	32.689	
10,400.00	9,150.00	8,124.59	7,943.38	35.48	39.33	-19.70	-427.72	804.24	1,278.03	1,238.39	39.64	32.240	
10,450.00	9,150.00	8,124.64	7,943.39	35.70	39.33	-19.70	-427.68	804.24	1,285.29	1,244.81	40.48	31.750	
10,500.00	9,150.00	8,124.68	7,943.41	35.92	39.33	-19.71	-427.63	804.24	1,294.44	1,253.02	41.42	31.249	
10,550.00	9,150.00	8,124.73	7,943.42	36.16	39.33	-19.71	-427.59	804.24	1,305.44	1,262.99	42.46	30.748	
10,600.00	9,150.00	8,124.77	7,943.44	36.39	39.33	-19.71	-427.55	804.24	1,318.25	1,274.70	43.55	30.269	
10,650.00	9,150.00	8,124.82	7,943.45	36.64	39.33	-19.71	-427.51	804.24	1,332.82	1,288.12	44.70	29.817	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design													Offset Site Error:	5.00 ft
Survey Program: 100-NS-Gyro-DP, 7342-MWD+IGRF													Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,700.00	9,150.00	8,124.86	7,943.47	36.89	39.33	-19.71	-427.46	804.24	1,349.08	1,303.20	45.87	29.409		
10,750.00	9,150.00	8,124.91	7,943.48	37.16	39.33	-19.72	-427.42	804.24	1,366.97	1,319.91	47.07	29.043		
10,800.00	9,150.00	8,124.95	7,943.50	37.42	39.33	-19.72	-427.38	804.24	1,386.44	1,338.18	48.26	28.730		
10,850.00	9,150.00	8,125.00	7,943.51	37.69	39.33	-19.72	-427.33	804.24	1,407.42	1,357.98	49.44	28.466		
10,900.00	9,150.00	8,125.04	7,943.53	37.97	39.33	-19.72	-427.29	804.24	1,429.84	1,379.23	50.60	28.255		
10,950.00	9,150.00	8,125.09	7,943.54	38.26	39.33	-19.72	-427.25	804.24	1,453.63	1,401.89	51.74	28.093		
11,000.00	9,150.00	8,125.14	7,943.56	38.55	39.33	-19.73	-427.20	804.24	1,478.73	1,425.89	52.85	27.982		

Anticollision Report

Company: WCDSC Permian NM
 Project: Eddy County (NAD 83 NM Eastern)
 Reference Site: Sec 27-T19S-R29E
 Site Error: 5.00 ft
 Reference Well: Coral PWU 28-27 12H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
 TVD Reference: RKB @ 3333.00ft
 MD Reference: RKB @ 3333.00ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM r5000.141_Prod US
 Offset TVD Reference: Offset Datum

Offset Design Sec 28-T19S-R29E - Coral PWU 28-4H - Wellbore #1 - Wellbore #1													Offset Site Error:	5.00 ft
Survey Program: 200-NSG-GYC_Drop, 7387-MWD+IGRF													Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	9,150.00	8,115.28	7,929.43	35.06	31.80	-19.03	-442.35	1,633.74	1,497.09	1,452.79	44.30	33.785		
10,350.00	9,150.00	8,118.65	7,930.80	35.27	31.92	-19.18	-439.31	1,634.28	1,472.04	1,428.37	43.67	33.709		
10,400.00	9,150.00	8,121.96	7,932.13	35.48	31.93	-19.32	-436.32	1,634.80	1,448.26	1,405.22	43.05	33.644		
10,450.00	9,150.00	8,125.20	7,933.42	35.70	31.95	-19.47	-433.40	1,635.30	1,425.83	1,383.38	42.45	33.589		
10,500.00	9,150.00	8,135.00	7,937.25	35.92	31.99	-19.90	-424.50	1,636.79	1,404.84	1,362.84	41.99	33.454		
10,550.00	9,150.00	8,135.00	7,937.25	36.16	31.99	-19.90	-424.50	1,636.79	1,385.25	1,343.84	41.41	33.454		
10,600.00	9,150.00	8,135.00	7,937.25	36.38	31.99	-19.90	-424.50	1,636.79	1,367.22	1,326.35	40.86	33.458		
10,650.00	9,150.00	8,135.00	7,937.25	36.64	31.99	-19.90	-424.50	1,636.79	1,350.79	1,310.41	40.38	33.451		
10,700.00	9,150.00	8,135.00	7,937.25	36.89	31.99	-19.90	-424.50	1,636.79	1,336.04	1,296.07	39.96	33.434		
10,750.00	9,150.00	8,135.00	7,937.25	37.16	31.99	-19.90	-424.50	1,636.79	1,323.01	1,283.38	39.62	33.390		
10,800.00	9,150.00	8,144.42	7,940.81	37.42	32.04	-20.31	-415.88	1,638.18	1,311.68	1,272.10	39.55	33.161		
10,850.00	9,150.00	8,146.76	7,941.67	37.69	32.05	-20.42	-413.74	1,638.52	1,302.17	1,262.72	39.45	33.010		
10,900.00	9,150.00	8,149.06	7,942.51	37.97	32.06	-20.52	-411.62	1,638.84	1,294.54	1,255.10	39.44	32.822		
10,950.00	9,150.00	8,151.31	7,943.33	38.26	32.07	-20.62	-409.55	1,639.16	1,288.79	1,249.24	39.55	32.589		
11,000.00	9,150.00	8,153.52	7,944.13	38.55	32.08	-20.72	-407.51	1,639.47	1,284.95	1,245.19	39.76	32.320		
11,050.00	9,150.00	8,155.69	7,944.90	38.85	32.10	-20.81	-405.51	1,639.77	1,283.04	1,242.95	40.08	32.009		
11,074.41	9,150.00	8,156.73	7,945.27	38.99	32.10	-20.86	-404.54	1,639.91	1,282.80	1,242.52	40.28	31.847 CC		
11,100.00	9,150.00	8,167.00	7,948.81	39.15	32.15	-21.31	-395.01	1,641.30	1,283.16	1,242.47	40.69	31.533 ES		
11,150.00	9,150.00	8,167.00	7,948.81	39.46	32.15	-21.31	-395.01	1,641.30	1,285.08	1,243.90	41.18	31.204		
11,200.00	9,150.00	8,167.00	7,948.81	39.77	32.15	-21.31	-395.01	1,641.30	1,288.94	1,247.17	41.76	30.862		
11,250.00	9,150.00	8,167.00	7,948.81	40.09	32.15	-21.31	-395.01	1,641.30	1,294.71	1,252.28	42.44	30.510		
11,300.00	9,150.00	8,167.00	7,948.81	40.41	32.15	-21.31	-395.01	1,641.30	1,302.39	1,259.21	43.18	30.164		
11,350.00	9,150.00	8,167.00	7,948.81	40.74	32.15	-21.31	-395.01	1,641.30	1,311.92	1,267.94	43.98	29.828		
11,400.00	9,150.00	8,167.00	7,948.81	41.07	32.15	-21.31	-395.01	1,641.30	1,323.28	1,278.45	44.83	29.515		
11,450.00	9,150.00	8,167.00	7,948.81	41.42	32.15	-21.31	-395.01	1,641.30	1,336.41	1,290.69	45.72	29.228		
11,500.00	9,150.00	8,167.00	7,948.81	41.76	32.15	-21.31	-395.01	1,641.30	1,351.27	1,304.63	46.63	28.976		
11,550.00	9,150.00	8,167.00	7,948.81	42.11	32.15	-21.31	-395.01	1,641.30	1,367.79	1,320.23	47.56	28.759		
11,600.00	9,150.00	8,177.90	7,952.40	42.46	32.21	-21.80	-384.82	1,642.73	1,385.79	1,337.14	48.64	28.489		
11,650.00	9,150.00	8,179.88	7,953.04	42.82	32.22	-21.88	-382.96	1,642.99	1,405.41	1,355.83	49.59	28.342		
11,700.00	9,150.00	8,181.86	7,953.66	43.18	32.23	-21.97	-381.10	1,643.25	1,426.51	1,376.00	50.52	28.239		
11,750.00	9,150.00	8,183.84	7,954.28	43.54	32.24	-22.06	-379.23	1,643.51	1,449.03	1,397.60	51.42	28.178		
11,800.00	9,150.00	8,185.81	7,954.89	43.91	32.25	-22.15	-377.38	1,643.76	1,472.88	1,420.58	52.31	28.159 SF		
11,850.00	9,150.00	8,187.78	7,955.50	44.29	32.26	-22.23	-375.52	1,644.02	1,498.02	1,444.86	53.16	28.179		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 28-T19S-R29E - Coral PWU 28-7H - Wellbore #1 - Wellbore #1													Offset Site Error:	5.00 ft
Survey Program: 0-NSG-GYC_Drop, 8525-MWD+IGRF													Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
6,400.00	6,340.17	9,463.41	7,017.35	23.13	84.34	155.25	761.49	-276.93	1,498.58	1,401.21	97.38	15.390		
6,450.00	6,389.22	9,470.30	7,017.62	23.31	84.54	154.97	761.48	-283.81	1,484.75	1,385.71	99.05	14.990		
6,500.00	6,438.27	9,477.13	7,017.88	23.49	84.74	154.70	761.48	-290.64	1,472.46	1,371.80	100.66	14.628		
6,550.00	6,487.33	9,483.91	7,018.13	23.67	84.94	154.43	761.47	-297.42	1,461.75	1,359.55	102.20	14.303		
6,600.00	6,536.38	9,490.64	7,018.37	23.86	85.14	154.17	761.46	-304.14	1,452.65	1,348.98	103.66	14.013		
6,650.00	6,585.43	9,497.31	7,018.61	24.04	85.34	153.90	761.45	-310.81	1,445.19	1,340.15	105.04	13.759		
6,700.00	6,634.48	9,500.82	7,018.74	24.22	85.45	153.76	761.47	-314.32	1,439.42	1,333.20	106.22	13.551		
6,750.00	6,683.53	9,506.14	7,018.92	24.41	85.60	153.55	761.47	-319.64	1,435.34	1,327.98	107.36	13.370		
6,800.00	6,732.59	9,511.40	7,019.10	24.59	85.76	153.34	761.49	-324.89	1,432.97	1,324.59	108.39	13.221		
6,843.80	6,775.56	9,515.96	7,019.25	24.75	85.89	153.16	761.50	-329.45	1,432.31	1,323.12	109.19	13.117 CC		
6,850.00	6,781.64	9,516.60	7,019.27	24.77	85.91	153.14	761.50	-330.09	1,432.32	1,323.03	109.30	13.105 ES		
6,900.00	6,830.69	9,521.74	7,019.44	24.96	86.07	152.93	761.52	-335.22	1,433.40	1,323.31	110.09	13.020		
6,950.00	6,879.74	9,526.81	7,019.61	25.14	86.22	152.73	761.54	-340.29	1,436.19	1,325.42	110.77	12.966		
7,000.00	6,928.79	9,531.83	7,019.77	25.33	86.37	152.53	761.57	-345.31	1,440.70	1,329.37	111.32	12.942 SF		
7,050.00	6,977.85	9,536.79	7,019.92	25.51	86.51	152.34	761.60	-350.26	1,446.90	1,335.14	111.76	12.947		
7,100.00	7,026.90	9,541.69	7,020.07	25.69	86.66	152.14	761.63	-355.16	1,454.77	1,342.70	112.07	12.981		
7,150.00	7,075.95	9,546.53	7,020.22	25.88	86.80	151.95	761.67	-360.00	1,464.28	1,352.02	112.27	13.043		
7,200.00	7,125.00	9,551.32	7,020.36	26.06	86.94	151.76	761.71	-364.79	1,475.42	1,363.06	112.35	13.132		
7,250.00	7,174.05	9,556.06	7,020.49	26.25	87.08	151.57	761.75	-369.53	1,488.13	1,375.79	112.33	13.248		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 28-T19S-R29E - Parkway #021 (Active) - Wellbore #1 - Wellbore #1													Offset Site Error: 5.00 ft	
Survey Program: 7344-INC-ONLY													Offset Well Error: 10.00 ft	
Reference				Offset			Semi Major Axis		Distance				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
11,400.00	9,150.00	7,344.00	7,342.51	41.07	110.42	0.14	-868.60	2,135.86	1,496.62	1,444.80	51.81	28.885		
11,450.00	9,150.00	7,344.00	7,342.51	41.42	110.42	0.14	-868.60	2,135.86	1,491.64	1,440.93	50.71	29.416		
11,500.00	9,150.00	7,344.00	7,342.51	41.76	110.42	0.14	-868.60	2,135.86	1,488.32	1,438.26	50.06	29.730		
11,550.00	9,150.00	7,344.00	7,342.51	42.11	110.42	0.14	-868.60	2,135.86	1,486.68	1,436.73	49.95	29.763		
11,573.77	9,150.00	7,344.00	7,342.51	42.27	110.42	0.14	-868.60	2,135.86	1,486.49	1,436.40	50.09	29.674 CC		
11,600.00	9,150.00	7,344.00	7,342.51	42.46	110.42	0.14	-868.60	2,135.86	1,486.73	1,436.32	50.41	29.495 ES		
11,650.00	9,150.00	7,344.00	7,342.51	42.82	110.42	0.14	-868.60	2,135.86	1,488.45	1,437.02	51.43	28.943		
11,700.00	9,150.00	7,344.00	7,342.51	43.18	110.42	0.14	-868.60	2,135.86	1,491.84	1,438.88	52.96	28.167		
11,750.00	9,150.00	7,344.00	7,342.51	43.54	110.42	0.14	-868.60	2,135.86	1,496.90	1,441.96	54.94	27.244 SF		

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 28-T19S-R29E - Parkway Unit 16 (Active) - Wellbore #1 - Wellbore #1													Offset Site Error: 5.00 ft
Survey Program: 100-GYRO-NS-CT, 9900-MWD+IGRF													Offset Well Error: 10.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	5.02	11.18	112.41	-231.84	562.22	608.54				
50.00	50.00	29.93	29.93	5.03	11.18	112.41	-231.83	562.17	608.10	591.89	16.21	37.524	
100.00	100.00	83.37	83.37	5.03	11.18	112.42	-231.77	561.85	607.80	591.59	16.21	37.502	
150.00	150.00	135.74	135.73	5.03	11.18	112.43	-231.64	561.28	607.25	591.03	16.22	37.446	
200.00	200.00	187.61	187.60	5.05	11.19	112.43	-231.41	560.57	606.53	590.30	16.24	37.357	
250.00	250.00	237.33	237.31	5.07	11.20	112.44	-231.18	559.80	605.73	589.47	16.27	37.241	
300.00	300.00	288.36	288.34	5.09	11.21	112.47	-231.17	559.03	605.00	588.70	16.30	37.110	
350.00	350.00	334.91	334.89	5.13	11.22	112.51	-231.33	558.30	604.37	588.02	16.35	36.965	
400.00	400.00	383.29	383.25	5.17	11.24	112.54	-231.52	557.70	603.86	587.46	16.40	36.810	
450.00	450.00	432.18	432.14	5.21	11.26	112.58	-231.71	557.21	603.48	587.01	16.47	36.645	
500.00	500.00	481.34	481.30	5.26	11.28	112.61	-231.91	556.80	603.17	586.63	16.54	36.467	
550.00	550.00	531.13	531.09	5.32	11.30	112.64	-232.08	556.45	602.92	586.30	16.62	36.275	
600.00	600.00	581.30	581.26	5.38	11.33	112.65	-232.09	556.16	602.66	585.95	16.71	36.068	
650.00	650.00	630.18	630.14	5.44	11.36	112.65	-231.98	555.95	602.41	585.61	16.80	35.848	
700.00	700.00	678.30	678.26	5.52	11.39	112.65	-231.88	555.84	602.31	585.40	16.91	35.625	
707.01	707.01	685.05	685.01	5.53	11.40	112.65	-231.99	555.84	602.31	585.39	16.92	35.593 CC	
750.00	750.00	728.09	728.05	5.59	11.42	112.66	-232.08	555.87	602.38	585.36	17.02	35.400	
800.00	800.00	773.61	773.56	5.67	11.46	112.66	-232.12	556.12	602.64	585.51	17.13	35.177	
850.00	850.00	820.35	820.31	5.76	11.50	112.64	-232.11	556.62	603.13	585.87	17.25	34.958	
900.00	900.00	866.14	866.09	5.85	11.54	112.60	-232.08	557.44	603.94	586.56	17.38	34.751	
950.00	950.00	913.01	912.94	5.94	11.58	112.56	-232.04	558.62	605.09	587.57	17.51	34.553	
1,000.00	1,000.00	963.01	962.92	6.04	11.63	112.51	-232.04	559.97	606.33	588.67	17.66	34.342	
1,050.00	1,050.00	1,012.95	1,012.85	6.14	11.68	112.47	-232.12	561.28	607.57	589.77	17.81	34.123	
1,100.00	1,100.00	1,062.73	1,062.61	6.25	11.73	112.43	-232.19	562.61	608.83	590.87	17.96	33.897	
1,150.00	1,150.00	1,112.67	1,112.53	6.35	11.78	112.38	-232.23	563.96	610.10	591.98	18.12	33.665	
1,200.00	1,200.00	1,163.10	1,162.94	6.47	11.84	112.34	-232.32	565.29	611.35	593.06	18.29	33.424	
1,250.00	1,250.00	1,213.30	1,213.12	6.58	11.90	112.31	-232.49	566.54	612.57	594.10	18.46	33.177	
1,300.00	1,300.00	1,262.86	1,262.67	6.70	11.96	112.28	-232.68	567.78	613.80	595.16	18.64	32.929	
1,350.00	1,350.00	1,312.47	1,312.27	6.82	12.02	112.26	-232.89	569.05	615.06	596.24	18.82	32.678	
1,400.00	1,400.00	1,362.27	1,362.05	6.94	12.09	112.23	-233.08	570.36	616.35	597.34	19.01	32.424	
1,450.00	1,450.00	1,412.20	1,411.96	7.06	12.16	112.20	-233.25	571.69	617.65	598.45	19.20	32.168	
1,500.00	1,500.00	1,462.54	1,462.28	7.19	12.23	112.17	-233.44	573.01	618.93	599.54	19.40	31.908	
1,550.00	1,550.00	1,513.49	1,513.21	7.32	12.31	112.14	-233.67	574.29	620.18	600.58	19.60	31.641	
1,600.00	1,600.00	1,566.19	1,565.90	7.45	12.38	112.12	-233.88	575.44	621.27	601.46	19.81	31.360	
1,650.00	1,650.00	1,618.55	1,618.26	7.58	12.46	112.10	-234.03	576.36	622.14	602.11	20.02	31.068	
1,700.00	1,700.00	1,670.32	1,670.01	7.72	12.55	112.08	-234.09	577.13	622.85	602.61	20.24	30.772	
1,750.00	1,750.00	1,722.60	1,722.29	7.86	12.63	112.05	-234.06	577.77	623.41	602.95	20.46	30.467	
1,800.00	1,800.00	1,775.57	1,775.26	8.00	12.72	112.03	-233.97	578.20	623.75	603.06	20.69	30.151	
1,850.00	1,850.00	1,827.36	1,827.05	8.14	12.80	112.01	-233.84	578.39	623.87	602.96	20.91	29.829	
1,900.00	1,900.00	1,878.13	1,877.82	8.28	12.89	112.00	-233.69	578.50	623.92	602.78	21.14	29.509	
1,950.00	1,950.00	1,929.47	1,929.16	8.42	12.98	111.98	-233.54	578.53	623.89	602.51	21.38	29.187	
2,000.00	2,000.00	1,981.24	1,980.93	8.56	13.07	111.97	-233.37	578.42	623.73	602.11	21.61	28.860	
2,050.00	2,050.00	2,032.48	2,032.15	8.71	13.16	111.96	-233.16	578.18	623.43	601.58	21.85	28.532	
2,100.00	2,100.00	2,083.37	2,083.06	8.86	13.26	111.95	-232.86	577.89	623.06	600.97	22.09	28.205	
2,150.00	2,150.00	2,134.95	2,134.63	9.01	13.36	111.93	-232.49	577.53	622.60	600.27	22.34	27.875	
2,200.00	2,200.00	2,186.84	2,186.52	9.15	13.46	111.92	-232.15	576.99	621.99	599.41	22.58	27.543	
2,250.00	2,250.00	2,238.27	2,237.95	9.31	13.56	111.91	-231.83	576.28	621.25	598.41	22.83	27.209	
2,300.00	2,300.00	2,289.54	2,289.21	9.46	13.66	111.91	-231.51	575.47	620.40	597.31	23.08	26.875	
2,350.00	2,350.00	2,340.58	2,340.24	9.61	13.76	111.92	-231.16	574.57	619.45	596.11	23.34	26.542	
2,400.00	2,400.00	2,391.57	2,391.21	9.76	13.87	111.92	-230.76	573.60	618.42	594.82	23.60	26.210	
2,450.00	2,450.00	2,442.00	2,441.64	9.92	13.97	111.92	-230.35	572.58	617.33	593.48	23.85	25.880	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 28-T19S-R29E - Parkway Unit 16 (Active) - Wellbore #1 - Wellbore #1													Offset Site Error:	5.00 ft
Survey Program: 100-GYRO-NS-CT, 9900-MWD+IGRF													Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (ft)	+E/W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
2,500.00	2,500.00	2,492.33	2,491.95	10.07	14.08	111.92	-230.00	571.51	616.21	592.10	24.11	25.555		
2,550.00	2,550.00	2,542.53	2,542.14	10.22	14.19	-95.90	-229.71	570.39	615.09	590.72	24.37	25.242		
2,600.00	2,599.99	2,592.70	2,592.30	10.37	14.30	-95.96	-229.45	569.24	614.00	589.38	24.62	24.934		
2,650.00	2,649.98	2,642.46	2,642.04	10.51	14.41	-96.05	-229.22	568.09	612.96	588.08	24.88	24.640		
2,700.00	2,699.96	2,692.13	2,691.70	10.65	14.52	-96.17	-229.04	566.95	611.98	586.86	25.13	24.354		
2,750.00	2,749.92	2,741.17	2,740.73	10.80	14.63	-96.34	-228.88	565.86	611.11	585.72	25.38	24.075		
2,800.00	2,799.86	2,790.08	2,789.63	10.95	14.74	-96.54	-228.73	564.87	610.37	584.73	25.64	23.805		
2,850.00	2,849.78	2,840.85	2,840.38	11.09	14.86	-96.80	-228.52	563.88	609.72	583.81	25.90	23.540		
2,900.00	2,899.68	2,892.05	2,891.57	11.24	14.98	-97.12	-228.14	562.83	609.02	582.86	26.17	23.276		
2,950.00	2,949.54	2,943.20	2,942.71	11.39	15.10	-97.49	-227.61	561.72	608.30	581.87	26.43	23.014		
3,000.00	2,999.37	2,994.30	2,993.80	11.54	15.22	-97.91	-227.00	560.53	607.55	580.85	26.70	22.756		
3,050.00	3,049.16	3,043.55	3,043.02	11.69	15.34	-98.36	-226.38	559.36	606.86	579.89	26.97	22.505		
3,100.00	3,098.90	3,092.53	3,091.99	11.84	15.46	-98.83	-225.84	558.22	606.33	579.09	27.23	22.264		
3,150.00	3,148.61	3,142.33	3,141.77	11.99	15.58	-99.35	-225.34	557.09	605.94	578.44	27.51	22.030		
3,200.00	3,198.26	3,192.22	3,191.65	12.14	15.71	-99.92	-224.81	555.93	605.66	577.89	27.78	21.803		
3,250.00	3,247.86	3,241.63	3,241.05	12.30	15.83	-100.51	-224.30	554.79	605.52	577.46	28.05	21.585		
3,268.43	3,266.13	3,259.81	3,259.22	12.35	15.88	-100.74	-224.12	554.37	605.51	577.35	28.15	21.506		
3,300.00	3,297.40	3,290.93	3,290.32	12.45	15.96	-101.14	-223.84	553.64	605.54	577.21	28.33	21.376		
3,350.00	3,346.89	3,340.51	3,339.89	12.61	16.08	-101.81	-223.40	552.50	605.74	577.13	28.61	21.175 ES		
3,400.00	3,396.30	3,390.09	3,389.46	12.76	16.21	-102.52	-222.90	551.36	606.10	577.21	28.89	20.982		
3,450.00	3,445.65	3,439.55	3,438.90	12.92	16.33	-103.26	-222.36	550.22	606.65	577.48	29.17	20.799		
3,500.00	3,494.93	3,488.94	3,488.27	13.07	16.46	-104.04	-221.88	549.06	607.40	577.95	29.45	20.625		
3,550.00	3,544.13	3,537.97	3,537.29	13.23	16.59	-104.84	-221.42	547.90	608.37	578.64	29.73	20.461		
3,600.00	3,593.26	3,586.82	3,586.13	13.39	16.72	-105.68	-220.91	546.78	609.62	579.60	30.02	20.308		
3,650.00	3,642.31	3,636.31	3,635.60	13.55	16.85	-106.57	-220.34	545.66	611.10	580.79	30.31	20.164		
3,700.00	3,691.36	3,686.06	3,685.33	13.71	16.98	-107.47	-219.75	544.48	612.69	582.09	30.60	20.026		
3,750.00	3,740.42	3,735.14	3,734.39	13.87	17.11	-108.35	-219.18	543.27	614.39	583.51	30.89	19.892		
3,800.00	3,789.47	3,783.97	3,783.21	14.03	17.24	-109.21	-218.65	542.08	616.26	585.08	31.18	19.767		
3,850.00	3,838.52	3,833.56	3,832.77	14.20	17.38	-110.09	-218.14	540.87	618.26	586.79	31.47	19.646		
3,900.00	3,887.57	3,883.48	3,882.68	14.36	17.51	-110.97	-217.54	539.59	620.35	588.58	31.77	19.528		
3,950.00	3,936.62	3,932.84	3,932.02	14.52	17.65	-111.83	-216.87	538.27	622.53	590.47	32.06	19.415		
4,000.00	3,985.68	3,981.92	3,981.07	14.69	17.78	-112.70	-216.19	536.96	624.85	592.49	32.36	19.308		
4,050.00	4,034.73	4,030.50	4,029.63	14.85	17.92	-113.54	-215.49	535.68	627.32	594.66	32.66	19.208		
4,100.00	4,083.78	4,078.81	4,077.91	15.02	18.05	-114.37	-214.84	534.45	629.98	597.02	32.96	19.114		
4,150.00	4,132.83	4,128.45	4,127.54	15.19	18.19	-115.22	-214.21	533.21	632.82	599.56	33.26	19.025		
4,200.00	4,181.88	4,179.18	4,178.25	15.35	18.33	-116.07	-213.61	531.93	635.68	602.11	33.57	18.937		
4,250.00	4,230.94	4,228.62	4,227.66	15.52	18.47	-116.89	-213.06	530.38	638.57	604.70	33.87	18.852		
4,300.00	4,279.99	4,277.11	4,276.13	15.69	18.61	-117.69	-212.47	528.99	641.62	607.44	34.18	18.773		
4,350.00	4,329.04	4,326.58	4,325.57	15.86	18.75	-118.50	-211.83	527.59	644.83	610.34	34.48	18.699		
4,400.00	4,378.09	4,376.96	4,375.93	16.03	18.90	-119.32	-211.22	526.08	648.08	613.29	34.80	18.626		
4,450.00	4,427.14	4,427.70	4,426.64	16.20	19.04	-120.13	-210.66	524.45	651.35	616.25	35.11	18.553		
4,500.00	4,476.20	4,478.72	4,477.63	16.37	19.19	-120.93	-210.09	522.66	654.61	619.19	35.42	18.480		
4,550.00	4,525.25	4,529.18	4,528.04	16.54	19.34	-121.72	-209.52	520.76	657.85	622.11	35.74	18.409		
4,600.00	4,574.30	4,579.22	4,578.04	16.71	19.49	-122.50	-208.95	518.79	661.14	625.09	36.05	18.339		
4,650.00	4,623.35	4,627.99	4,626.77	16.89	19.63	-123.25	-208.38	516.83	664.50	628.14	36.36	18.274		
4,700.00	4,672.40	4,675.83	4,674.57	17.06	19.77	-123.99	-207.80	514.98	668.06	631.38	36.68	18.216		
4,750.00	4,721.46	4,724.02	4,722.72	17.23	19.92	-124.72	-207.17	513.20	671.82	634.83	36.99	18.163		
4,800.00	4,770.51	4,772.56	4,771.22	17.41	20.06	-125.45	-206.47	511.43	675.74	638.44	37.30	18.114		
4,850.00	4,819.56	4,820.65	4,819.29	17.58	20.21	-126.18	-205.69	509.72	679.82	642.20	37.62	18.071		
4,900.00	4,868.61	4,868.13	4,866.72	17.75	20.35	-126.91	-204.67	508.08	684.12	646.18	37.93	18.034		
4,950.00	4,917.66	4,915.75	4,914.29	17.93	20.49	-127.65	-203.38	506.51	688.64	650.39	38.25	18.003		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 28-T19S-R29E - Parkway Unit 16 (Active) - Wellbore #1 - Wellbore #1													Offset Site Error:	5.00 ft
Survey Program: 100-GYRO-NS-CT, 9900-MWD+IGRF													Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,966.72	4,963.86	4,962.36	18.10	20.84	-128.40	-201.98	504.96	693.36	654.79	38.57	17.977		
5,050.00	5,015.77	5,012.03	5,010.49	18.28	20.78	-129.14	-200.54	503.46	698.26	659.37	38.89	17.956		
5,100.00	5,064.82	5,060.43	5,058.84	18.46	20.93	-129.88	-199.08	502.00	703.32	664.11	39.21	17.938		
5,150.00	5,113.87	5,108.91	5,107.28	18.63	21.07	-130.60	-197.60	500.56	708.54	669.00	39.53	17.924		
5,200.00	5,162.92	5,157.81	5,156.13	18.81	21.22	-131.33	-196.08	499.11	713.88	674.02	39.85	17.912		
5,250.00	5,211.98	5,206.75	5,205.02	18.99	21.37	-132.05	-194.50	497.64	719.33	679.15	40.18	17.903		
5,300.00	5,261.03	5,256.03	5,254.26	19.16	21.52	-132.77	-192.88	496.14	724.88	684.38	40.51	17.896		
5,350.00	5,310.08	5,305.31	5,303.48	19.34	21.68	-133.48	-191.22	494.60	730.52	689.69	40.83	17.890		
5,400.00	5,359.13	5,353.41	5,351.53	19.52	21.82	-134.16	-189.59	493.11	736.28	695.12	41.16	17.889		
5,450.00	5,408.18	5,401.65	5,399.72	19.70	21.97	-134.83	-187.95	491.65	742.19	700.71	41.48	17.891		
5,500.00	5,457.24	5,450.75	5,448.77	19.87	22.12	-135.51	-186.27	490.18	748.22	706.41	41.81	17.894		
5,550.00	5,506.29	5,499.85	5,497.82	20.05	22.28	-136.18	-184.60	488.69	754.34	712.19	42.14	17.899		
5,600.00	5,555.34	5,548.32	5,546.24	20.23	22.43	-136.83	-182.86	487.19	760.56	718.09	42.47	17.907		
5,650.00	5,604.39	5,596.71	5,594.57	20.41	22.58	-137.48	-180.96	485.68	766.90	724.10	42.80	17.918		
5,700.00	5,653.44	5,644.89	5,642.67	20.59	22.73	-138.14	-178.83	484.09	773.39	730.25	43.13	17.931		
5,750.00	5,702.50	5,692.93	5,690.62	20.77	22.88	-138.81	-176.41	482.45	780.01	736.55	43.46	17.947		
5,800.00	5,751.55	5,742.16	5,739.75	20.95	23.04	-139.50	-173.73	480.69	786.76	742.96	43.80	17.963		
5,850.00	5,800.60	5,791.61	5,789.09	21.13	23.20	-140.19	-171.00	478.86	793.57	749.44	44.14	17.980		
5,900.00	5,849.65	5,840.02	5,837.39	21.31	23.35	-140.85	-168.28	477.03	800.47	756.00	44.47	18.000		
5,950.00	5,898.70	5,888.19	5,885.44	21.49	23.51	-141.51	-165.49	475.19	807.51	762.70	44.81	18.022		
6,000.00	5,947.76	5,936.83	5,933.96	21.67	23.67	-142.16	-162.61	473.33	814.66	769.52	45.14	18.046		
6,050.00	5,996.81	5,985.63	5,982.64	21.85	23.83	-142.81	-159.71	471.44	821.92	776.43	45.48	18.071		
6,100.00	6,045.86	6,032.25	6,029.14	22.03	23.98	-143.42	-156.90	469.65	829.31	783.49	45.81	18.102		
6,150.00	6,094.91	6,077.92	6,074.69	22.22	24.13	-144.01	-154.04	468.01	836.96	790.82	46.14	18.140		
6,200.00	6,143.96	6,126.26	6,122.91	22.40	24.29	-144.63	-150.93	466.38	844.84	798.36	46.48	18.178		
6,250.00	6,193.01	6,177.25	6,173.77	22.58	24.45	-145.26	-147.84	464.64	852.71	805.88	46.83	18.210		
6,300.00	6,242.07	6,227.87	6,224.28	22.76	24.62	-145.86	-144.96	462.85	860.54	813.37	47.18	18.240		
6,350.00	6,291.12	6,278.15	6,274.45	22.94	24.78	-146.44	-142.17	461.00	868.37	820.84	47.53	18.271		
6,400.00	6,340.17	6,329.43	6,325.62	23.13	24.95	-147.03	-139.42	459.04	876.16	828.28	47.88	18.299		
6,450.00	6,389.22	6,381.56	6,377.63	23.31	25.13	-147.60	-136.85	456.95	883.86	835.62	48.24	18.322		
6,500.00	6,438.27	6,430.12	6,426.11	23.49	25.29	-148.12	-134.66	454.98	891.51	842.93	48.58	18.351		
6,550.00	6,487.33	6,476.70	6,472.62	23.67	25.44	-148.59	-132.64	453.25	899.33	850.42	48.91	18.387		
6,600.00	6,536.38	6,521.99	6,517.83	23.86	25.59	-149.03	-130.76	451.76	907.35	858.11	49.24	18.429		
6,650.00	6,585.43	6,565.92	6,561.71	24.04	25.73	-149.45	-128.92	450.56	915.67	866.12	49.55	18.479		
6,700.00	6,634.48	6,610.11	6,605.86	24.22	25.88	-149.85	-127.05	449.63	924.30	874.44	49.87	18.536		
6,750.00	6,683.53	6,655.35	6,651.05	24.41	26.02	-150.25	-125.20	448.93	933.19	883.01	50.18	18.595		
6,800.00	6,732.59	6,700.61	6,696.28	24.59	26.17	-150.62	-123.44	448.50	942.32	891.81	50.50	18.659		
6,850.00	6,781.64	6,747.52	6,743.15	24.77	26.31	-150.99	-121.74	448.28	951.62	900.79	50.83	18.723		
6,900.00	6,830.69	6,794.44	6,790.05	24.96	26.46	-151.34	-120.17	448.26	961.05	909.90	51.15	18.788		
6,950.00	6,879.74	6,843.04	6,838.62	25.14	26.62	-151.68	-118.64	448.37	970.57	919.09	51.49	18.851		
7,000.00	6,928.79	6,891.86	6,887.42	25.33	26.77	-152.02	-117.12	448.50	980.13	928.31	51.82	18.914		
7,050.00	6,977.85	6,939.43	6,934.96	25.51	26.92	-152.34	-115.64	448.64	989.74	937.59	52.15	18.979		
7,100.00	7,026.90	6,986.71	6,982.22	25.69	27.07	-152.66	-114.10	448.83	999.45	946.97	52.48	19.046		
7,150.00	7,075.95	7,036.29	7,031.77	25.88	27.22	-152.98	-112.48	449.04	1,009.22	956.40	52.82	19.108		
7,200.00	7,125.00	7,086.81	7,082.27	26.06	27.38	-153.30	-110.90	449.22	1,018.94	965.78	53.16	19.166		
7,250.00	7,174.05	7,137.51	7,132.94	26.25	27.54	-153.62	-109.41	449.36	1,028.61	975.09	53.51	19.222		
7,300.00	7,223.11	7,188.30	7,183.72	26.43	27.70	-153.92	-108.05	449.46	1,038.20	984.34	53.86	19.276		
7,350.00	7,272.16	7,240.19	7,235.60	26.62	27.87	-154.22	-106.83	449.55	1,047.71	993.50	54.22	19.325		
7,400.00	7,321.21	7,292.51	7,287.90	26.80	28.03	-154.50	-105.87	449.63	1,057.09	1,002.51	54.57	19.370		
7,450.00	7,370.26	7,341.97	7,337.35	26.99	28.19	-154.76	-105.12	449.70	1,066.38	1,011.47	54.91	19.419		
7,500.00	7,419.31	7,390.94	7,386.32	27.18	28.35	-155.01	-104.39	449.77	1,075.69	1,020.44	55.25	19.469		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 28-T19S-R29E - Parkway Unit 16 (Active) - Wellbore #1 - Wellbore #1													Offset Site Error:	5.00 ft
Survey Program: 100-GYRO-NS-CT, 9900-MWD+IGRF													Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
7,550.00	7,468.37	7,442.36	7,437.73	27.36	28.51	-155.26	-103.64	449.79	1,084.97	1,029.36	55.60	19.513		
7,600.00	7,517.42	7,494.38	7,489.75	27.55	28.68	-155.52	-102.96	449.69	1,094.13	1,038.17	55.96	19.552		
7,650.00	7,566.50	7,547.08	7,542.45	27.73	28.84	-155.81	-102.35	449.48	1,103.04	1,046.72	56.32	19.588		
7,700.00	7,615.69	7,600.05	7,595.41	27.92	29.01	-156.10	-101.85	449.06	1,111.24	1,054.57	56.68	19.606		
7,750.00	7,664.99	7,654.47	7,649.83	28.10	29.19	-156.37	-101.35	448.40	1,118.67	1,061.63	57.05	19.610		
7,800.00	7,714.40	7,709.04	7,704.39	28.28	29.37	-156.64	-100.81	447.37	1,125.30	1,067.89	57.41	19.600		
7,850.00	7,763.91	7,762.91	7,758.23	28.47	29.54	-156.89	-100.28	446.08	1,131.13	1,073.36	57.77	19.578		
7,900.00	7,813.50	7,815.93	7,811.23	28.65	29.72	-157.12	-99.79	444.56	1,138.19	1,078.06	58.13	19.545		
7,950.00	7,863.17	7,866.67	7,861.94	28.83	29.88	-157.33	-99.23	442.93	1,140.58	1,082.10	58.48	19.504		
8,000.00	7,912.91	7,917.06	7,912.30	29.01	30.05	-157.54	-98.57	441.17	1,144.34	1,085.51	58.83	19.453		
8,050.00	7,962.72	7,966.74	7,961.94	29.18	30.22	-157.72	-97.95	439.45	1,147.49	1,088.33	59.17	19.395		
8,100.00	8,012.58	8,016.50	8,011.68	29.36	30.38	-157.88	-97.41	437.80	1,150.06	1,090.55	59.51	19.327		
8,150.00	8,062.48	8,066.37	8,061.52	29.54	30.54	-158.01	-97.01	436.26	1,152.03	1,092.18	59.84	19.251		
8,200.00	8,112.42	8,116.67	8,111.80	29.71	30.71	-158.12	-96.75	434.84	1,153.39	1,093.21	60.18	19.165		
8,250.00	8,162.39	8,167.79	8,162.91	29.89	30.88	-158.20	-96.77	433.58	1,154.11	1,093.59	60.52	19.069		
8,300.00	8,212.37	8,219.81	8,214.91	30.06	31.04	-158.24	-97.10	432.48	1,154.17	1,093.30	60.87	18.963		
8,350.00	8,262.37	8,273.28	8,268.37	30.23	31.22	-158.25	-97.80	431.48	1,153.49	1,092.28	61.21	18.845		
8,400.00	8,312.37	8,323.96	8,319.03	30.39	31.38	-158.24	-98.79	430.65	1,152.25	1,090.71	61.53	18.725		
8,450.00	8,362.37	8,371.86	8,366.91	30.55	31.53	-158.24	-99.89	430.08	1,151.05	1,089.20	61.85	18.611		
8,500.00	8,412.37	8,419.79	8,414.82	30.71	31.69	-158.24	-101.09	429.71	1,149.94	1,087.78	62.16	18.499		
8,550.00	8,462.37	8,467.75	8,462.78	30.88	31.84	-158.24	-102.28	429.42	1,148.92	1,086.44	62.48	18.389		
8,600.00	8,512.37	8,515.83	8,510.84	31.04	32.00	-158.24	-103.34	429.16	1,147.99	1,085.20	62.79	18.282		
8,650.00	8,562.37	8,564.13	8,559.13	31.20	32.15	-158.24	-104.36	428.95	1,147.14	1,084.02	63.11	18.176		
8,700.00	8,612.35	8,613.53	8,608.52	31.36	32.31	-158.24	-105.34	428.76	1,145.52	1,082.09	63.43	18.059		
8,750.00	8,662.05	8,665.86	8,660.83	31.52	32.48	-158.24	-106.42	428.51	1,140.70	1,078.94	63.76	17.890		
8,800.00	8,711.11	8,716.96	8,711.92	31.67	32.65	-158.24	-107.56	428.18	1,132.53	1,068.45	64.08	17.674		
8,850.00	8,759.15	8,766.01	8,760.96	31.82	32.81	-158.24	-108.73	427.85	1,121.18	1,056.79	64.38	17.415		
8,900.00	8,805.81	8,813.18	8,808.11	31.96	32.96	-158.24	-109.89	427.51	1,106.80	1,042.14	64.67	17.116		
8,950.00	8,850.72	8,857.49	8,852.41	32.09	33.10	-158.24	-110.91	427.12	1,089.65	1,024.72	64.93	16.782		
9,000.00	8,893.55	8,899.60	8,894.51	32.22	33.24	-158.24	-111.76	426.67	1,069.99	1,004.82	65.18	16.417		
9,050.00	8,933.97	8,939.94	8,934.84	32.33	33.37	-158.24	-112.52	426.19	1,048.10	982.69	65.41	16.024		
9,100.00	8,971.68	8,977.49	8,972.38	32.43	33.49	-158.24	-113.22	425.73	1,024.30	958.68	65.62	15.609		
9,150.00	9,006.38	9,012.09	9,006.97	32.53	33.61	-158.24	-113.88	425.30	998.96	933.14	65.82	15.177		
9,200.00	9,037.81	9,043.56	9,038.43	32.61	33.71	-158.24	-114.49	424.90	972.51	906.50	66.01	14.733		
9,250.00	9,065.74	9,071.43	9,066.29	32.69	33.80	-158.24	-115.05	424.55	945.38	879.20	66.18	14.285		
9,300.00	9,089.95	9,095.49	9,090.34	32.76	33.88	-158.24	-115.55	424.24	918.08	851.74	66.34	13.839		
9,350.00	9,110.25	9,114.70	9,109.55	32.83	33.94	-158.24	-115.95	424.00	891.11	824.63	66.48	13.404		
9,400.00	9,126.50	9,129.77	9,124.61	32.89	33.99	-158.24	-116.25	423.81	865.01	798.39	66.61	12.985		
9,450.00	9,138.56	9,140.82	9,135.66	32.96	34.02	-158.24	-116.47	423.68	840.29	773.55	66.74	12.591		
9,500.00	9,146.35	9,147.77	9,142.61	33.02	34.05	-158.24	-116.60	423.60	817.44	750.59	66.86	12.227		
9,550.00	9,149.81	9,150.54	9,145.38	33.07	34.06	-158.24	-116.66	423.56	796.93	729.97	66.96	11.902		
9,600.00	9,150.00	9,150.16	9,145.00	33.13	34.05	-158.24	-116.65	423.57	779.09	712.04	67.05	11.619		
9,650.00	9,150.00	9,149.60	9,144.44	33.21	34.05	-158.24	-116.64	423.57	764.13	696.97	67.16	11.378		
9,700.00	9,150.00	9,149.03	9,143.87	33.29	34.05	-158.24	-116.63	423.58	752.19	684.93	67.26	11.184		
9,750.00	9,150.00	9,148.47	9,143.31	33.39	34.05	-158.24	-116.62	423.59	743.43	676.07	67.37	11.035		
9,800.00	9,150.00	9,147.90	9,142.74	33.49	34.05	-158.24	-116.61	423.59	737.97	670.50	67.47	10.938		
9,850.00	9,150.00	9,147.33	9,142.18	33.61	34.05	-158.24	-116.60	423.60	735.86	668.29	67.57	10.890		
9,856.00	9,150.00	9,147.27	9,142.11	33.63	34.04	-158.24	-116.59	423.60	735.84	668.26	67.58	10.888 SF		
9,900.00	9,150.00	9,146.77	9,141.61	33.73	34.04	-158.24	-116.59	423.61	737.15	669.50	67.66	10.895		
9,950.00	9,150.00	9,146.20	9,141.04	33.87	34.04	-158.24	-116.57	423.62	741.82	674.07	67.75	10.950		
10,000.00	9,150.00	9,145.63	9,140.47	34.02	34.04	-158.24	-116.56	423.62	749.80	681.98	67.81	11.057		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
 Project: Eddy County (NAD 83 NM Eastern)
 Reference Site: Sec 27-T19S-R29E
 Site Error: 5.00 ft
 Reference Well: Coral PWU 28-27 12H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
 TVD Reference: RKB @ 3333.00ft
 MD Reference: RKB @ 3333.00ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM r5000.141_Prod US
 Offset TVD Reference: Offset Datum

Offset Design Sec 28-T19S-R29E - Parkway Unit 16 (Active) - Wellbore #1 - Wellbore #1													Offset Site Error: 5.00 ft
Survey Program: 100-GYRO-NS-CT, 9900-MWD+IGRF													Offset Well Error: 10.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,050.00	9,150.00	9,145.06	9,139.90	34.17	34.04	-90.93	-116.55	423.83	760.98	693.10	67.88	11.211	
10,100.00	9,150.00	9,144.49	9,139.33	34.33	34.04	-90.88	-116.54	423.84	775.23	707.32	67.92	11.414	
10,150.00	9,150.00	9,143.91	9,138.76	34.51	34.03	-90.84	-116.53	423.84	792.39	724.43	67.96	11.680	
10,200.00	9,150.00	9,143.34	9,138.18	34.68	34.03	-90.79	-116.52	423.85	812.27	744.29	67.98	11.949	
10,250.00	9,150.00	9,142.76	9,137.61	34.87	34.03	-90.75	-116.51	423.86	834.67	766.68	67.99	12.276	
10,300.00	9,150.00	9,142.19	9,137.03	35.06	34.03	-90.70	-116.50	423.86	859.40	791.41	67.99	12.639	
10,350.00	9,150.00	9,141.61	9,136.45	35.27	34.03	-90.66	-116.49	423.87	886.26	818.27	67.99	13.034	
10,400.00	9,150.00	9,141.03	9,135.88	35.48	34.02	-90.61	-116.48	423.88	915.07	847.09	67.98	13.460	
10,450.00	9,150.00	9,140.45	9,135.30	35.70	34.02	-90.57	-116.46	423.88	945.65	877.67	67.97	13.912	
10,500.00	9,150.00	9,139.87	9,134.72	35.92	34.02	-90.52	-116.45	423.89	977.82	909.87	67.95	14.390	
10,550.00	9,150.00	9,139.29	9,134.14	36.16	34.02	-90.48	-116.44	423.70	1,011.45	943.51	67.94	14.888	
10,600.00	9,150.00	9,138.71	9,133.56	36.39	34.02	-90.43	-116.43	423.70	1,046.38	978.47	67.91	15.408	
10,650.00	9,150.00	9,138.13	9,132.97	36.64	34.02	-90.39	-116.42	423.71	1,082.50	1,014.61	67.89	15.945	
10,700.00	9,150.00	9,137.54	9,132.39	36.89	34.01	-90.34	-116.41	423.72	1,119.69	1,051.82	67.87	16.498	
10,750.00	9,150.00	9,136.96	9,131.80	37.16	34.01	-90.30	-116.40	423.73	1,157.84	1,089.99	67.85	17.066	
10,800.00	9,150.00	9,136.37	9,131.22	37.42	34.01	-90.25	-116.38	423.73	1,196.86	1,129.04	67.82	17.647	
10,850.00	9,150.00	9,135.79	9,130.63	37.69	34.01	-90.20	-116.37	423.74	1,236.67	1,168.87	67.80	18.240	
10,900.00	9,150.00	9,135.20	9,130.04	37.97	34.01	-90.16	-116.36	423.75	1,277.20	1,209.42	67.78	18.844	
10,950.00	9,150.00	9,134.61	9,129.45	38.26	34.00	-90.11	-116.35	423.75	1,318.38	1,250.62	67.76	19.457	
11,000.00	9,150.00	9,134.02	9,128.86	38.55	34.00	-90.07	-116.34	423.76	1,360.15	1,292.41	67.74	20.079	
11,050.00	9,150.00	9,133.43	9,128.27	38.85	34.00	-90.02	-116.33	423.77	1,402.48	1,334.74	67.72	20.709	
11,100.00	9,150.00	9,132.83	9,127.68	39.15	34.00	-89.98	-116.32	423.78	1,445.26	1,377.58	67.70	21.347	
11,150.00	9,150.00	9,132.24	9,127.09	39.46	34.00	-89.93	-116.30	423.78	1,488.51	1,420.82	67.69	21.990	

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 28-T19S-R29E - Parkway West Unit #3 - Wellbore #1 - Wellbore #1													Offset Site Error: 5.00 ft
Survey Program: 10-INC-ONLY													Offset Well Error: 10.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	5.02	11.18	-86.61	85.19	-1,436.29	1,439.01				
50.00	50.00	26.00	26.00	5.03	11.18	-86.61	85.19	-1,436.29	1,438.81	1,422.60	16.21	88.772	
100.00	100.00	76.00	76.00	5.03	11.22	-86.61	85.19	-1,436.29	1,438.81	1,422.56	16.25	88.540	
150.00	150.00	126.00	126.00	5.03	11.31	-86.61	85.19	-1,436.29	1,438.81	1,422.46	16.35	88.008	
200.00	200.00	176.00	176.00	5.05	11.45	-86.61	85.19	-1,436.29	1,438.81	1,422.31	16.50	87.192	
250.00	250.00	226.00	226.00	5.07	11.64	-86.61	85.19	-1,436.29	1,438.81	1,422.10	16.71	86.118	
300.00	300.00	276.00	276.00	5.09	11.87	-86.61	85.19	-1,436.29	1,438.81	1,421.85	16.96	84.815	
350.00	350.00	326.00	326.00	5.13	12.14	-86.61	85.19	-1,436.29	1,438.81	1,421.54	17.27	83.319	
400.00	400.00	376.00	376.00	5.17	12.45	-86.61	85.19	-1,436.29	1,438.81	1,421.19	17.62	81.665	
450.00	450.00	426.00	426.00	5.21	12.80	-86.61	85.19	-1,436.29	1,438.81	1,420.80	18.01	79.888	
500.00	500.00	476.00	476.00	5.26	13.18	-86.61	85.19	-1,436.29	1,438.81	1,420.37	18.44	78.020	
550.00	550.00	526.00	526.00	5.32	13.59	-86.61	85.19	-1,436.29	1,438.81	1,419.90	18.91	76.091	
600.00	600.00	576.00	576.00	5.38	14.03	-86.61	85.19	-1,436.29	1,438.81	1,419.40	19.41	74.128	
650.00	650.00	626.00	626.00	5.44	14.50	-86.61	85.19	-1,436.29	1,438.81	1,418.87	19.94	72.153	
700.00	700.00	676.00	676.00	5.52	14.98	-86.61	85.19	-1,436.29	1,438.81	1,418.31	20.50	70.185	
750.00	750.00	726.00	726.00	5.59	15.49	-86.61	85.19	-1,436.29	1,438.81	1,417.73	21.09	68.237	
800.00	800.00	776.00	776.00	5.67	16.02	-86.61	85.19	-1,436.29	1,438.81	1,417.12	21.69	66.323	
850.00	850.00	826.00	826.00	5.76	16.57	-86.61	85.19	-1,436.29	1,438.81	1,416.49	22.32	64.451	
900.00	900.00	876.00	876.00	5.85	17.13	-86.61	85.19	-1,436.29	1,438.81	1,415.84	22.97	62.628	
950.00	950.00	926.00	926.00	5.94	17.70	-86.61	85.19	-1,436.29	1,438.81	1,415.17	23.64	60.859	
1,000.00	1,000.00	976.00	976.00	6.04	18.29	-86.61	85.19	-1,436.29	1,438.81	1,414.49	24.33	59.147	
1,050.00	1,050.00	1,026.00	1,026.00	6.14	18.89	-86.61	85.19	-1,436.29	1,438.81	1,413.79	25.03	57.494	
1,100.00	1,100.00	1,076.00	1,076.00	6.25	19.49	-86.61	85.19	-1,436.29	1,438.81	1,413.07	25.74	55.900	
1,150.00	1,150.00	1,126.00	1,126.00	6.35	20.11	-86.61	85.19	-1,436.29	1,438.81	1,412.35	26.47	54.368	
1,200.00	1,200.00	1,176.00	1,176.00	6.47	20.74	-86.61	85.19	-1,436.29	1,438.81	1,411.61	27.20	52.891	
1,250.00	1,250.00	1,226.00	1,226.00	6.58	21.37	-86.61	85.19	-1,436.29	1,438.81	1,410.86	27.95	51.474	
1,300.00	1,300.00	1,276.00	1,276.00	6.70	22.02	-86.61	85.19	-1,436.29	1,438.81	1,410.10	28.71	50.114	
1,350.00	1,350.00	1,326.00	1,326.00	6.82	22.66	-86.61	85.19	-1,436.29	1,438.81	1,409.33	29.48	48.808	
1,400.00	1,400.00	1,376.00	1,376.00	6.94	23.32	-86.61	85.19	-1,436.29	1,438.81	1,408.56	30.26	47.555	
1,450.00	1,450.00	1,426.00	1,426.00	7.06	23.98	-86.61	85.19	-1,436.29	1,438.81	1,407.77	31.04	46.352	
1,500.00	1,500.00	1,476.00	1,476.00	7.19	24.64	-86.61	85.19	-1,436.29	1,438.81	1,406.98	31.83	45.199	
1,550.00	1,550.00	1,526.00	1,526.00	7.32	25.31	-86.61	85.19	-1,436.29	1,438.81	1,406.18	32.63	44.092	
1,600.00	1,600.00	1,576.00	1,576.00	7.45	25.99	-86.61	85.19	-1,436.29	1,438.81	1,405.37	33.44	43.030	
1,650.00	1,650.00	1,626.00	1,626.00	7.58	26.67	-86.61	85.19	-1,436.29	1,438.81	1,404.56	34.25	42.011	
1,700.00	1,700.00	1,676.00	1,676.00	7.72	27.35	-86.61	85.19	-1,436.29	1,438.81	1,403.75	35.07	41.032	
1,750.00	1,750.00	1,726.00	1,726.00	7.86	28.03	-86.61	85.19	-1,436.29	1,438.81	1,402.92	35.89	40.092	
1,800.00	1,800.00	1,776.00	1,776.00	8.00	28.72	-86.61	85.19	-1,436.29	1,438.81	1,402.10	36.71	39.189	
1,850.00	1,850.00	1,826.00	1,826.00	8.14	29.41	-86.61	85.19	-1,436.29	1,438.81	1,401.27	37.55	38.321	
1,900.00	1,900.00	1,876.00	1,876.00	8.28	30.11	-86.61	85.19	-1,436.29	1,438.81	1,400.43	38.38	37.487	
1,950.00	1,950.00	1,926.00	1,926.00	8.42	30.80	-86.61	85.19	-1,436.29	1,438.81	1,399.59	39.22	36.684	
2,000.00	2,000.00	1,976.00	1,976.00	8.56	31.50	-86.61	85.19	-1,436.29	1,438.81	1,398.75	40.07	35.912	
2,050.00	2,050.00	2,026.00	2,026.00	8.71	32.20	-86.61	85.19	-1,436.29	1,438.81	1,397.90	40.91	35.168	
2,100.00	2,100.00	2,076.00	2,076.00	8.86	32.91	-86.61	85.19	-1,436.29	1,438.81	1,397.05	41.76	34.452	
2,150.00	2,150.00	2,126.00	2,126.00	9.01	33.61	-86.61	85.19	-1,436.29	1,438.81	1,396.20	42.62	33.762	
2,200.00	2,200.00	2,176.00	2,176.00	9.15	34.32	-86.61	85.19	-1,436.29	1,438.81	1,395.34	43.47	33.097	
2,250.00	2,250.00	2,226.00	2,226.00	9.31	35.03	-86.61	85.19	-1,436.29	1,438.81	1,394.48	44.33	32.455	
2,300.00	2,300.00	2,276.00	2,276.00	9.46	35.74	-86.61	85.19	-1,436.29	1,438.81	1,393.62	45.19	31.836	
2,350.00	2,350.00	2,326.00	2,326.00	9.61	36.45	-86.61	85.19	-1,436.29	1,438.81	1,392.75	46.06	31.239	
2,400.00	2,400.00	2,376.00	2,376.00	9.76	37.16	-86.61	85.19	-1,436.29	1,438.81	1,391.89	46.93	30.662	
2,450.00	2,450.00	2,426.00	2,426.00	9.92	37.88	-86.61	85.19	-1,436.29	1,438.81	1,391.02	47.79	30.104	
2,500.00	2,500.00	2,476.00	2,476.00	10.07	38.60	-86.61	85.19	-1,436.29	1,438.81	1,390.15	48.67	29.565	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design Sec 28-T19S-R29E - Parkway West Unit #3 - Wellbore #1 - Wellbore #1												Offset Site Error: 5.00 ft	
Survey Program: 10-INC-ONLY												Offset Well Error: 10.00 ft	
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor
2,550.00	2,550.00	2,526.00	2,526.00	10.22	39.31	65.60	85.19	-1,436.29	1,438.72	1,389.19	49.53	29.047	
2,600.00	2,599.99	2,575.99	2,575.99	10.37	40.03	65.62	85.19	-1,436.29	1,438.45	1,388.05	50.40	28.541	
2,650.00	2,649.98	2,625.98	2,625.98	10.51	40.75	65.67	85.19	-1,436.29	1,438.00	1,386.74	51.26	28.053	
2,700.00	2,699.96	2,675.96	2,675.96	10.65	41.47	65.73	85.19	-1,436.29	1,437.37	1,385.25	52.12	27.576	
2,750.00	2,749.92	2,725.92	2,725.92	10.80	42.19	65.81	85.19	-1,436.29	1,436.57	1,383.58	52.99	27.110	
2,800.00	2,799.88	2,775.86	2,775.88	10.95	42.92	65.90	85.19	-1,436.29	1,435.58	1,381.73	53.86	26.655	
2,850.00	2,849.78	2,825.78	2,825.78	11.09	43.64	66.02	85.19	-1,436.29	1,434.43	1,379.70	54.73	26.211	
2,900.00	2,899.68	2,875.68	2,875.68	11.24	44.36	66.15	85.19	-1,436.29	1,433.10	1,377.50	55.60	25.777	
2,950.00	2,949.54	2,925.54	2,925.54	11.39	45.08	66.30	85.19	-1,436.29	1,431.60	1,375.14	56.47	25.353	
3,000.00	2,999.37	2,975.37	2,975.37	11.54	45.81	66.46	85.19	-1,436.29	1,429.94	1,372.60	57.34	24.938	
3,050.00	3,049.18	3,025.16	3,025.16	11.69	46.53	66.65	85.19	-1,436.29	1,428.11	1,369.90	58.21	24.533	
3,100.00	3,098.90	3,074.90	3,074.90	11.84	47.25	66.85	85.19	-1,436.29	1,426.13	1,367.04	59.09	24.136	
3,150.00	3,148.61	3,124.61	3,124.61	11.99	47.98	67.07	85.19	-1,436.29	1,423.99	1,364.02	59.96	23.748	
3,200.00	3,198.26	3,174.26	3,174.26	12.14	48.70	67.31	85.19	-1,436.29	1,421.69	1,360.86	60.84	23.369	
3,250.00	3,247.86	3,223.86	3,223.86	12.30	49.43	67.56	85.19	-1,436.29	1,419.26	1,357.54	61.71	22.997	
3,300.00	3,297.40	3,273.40	3,273.40	12.45	50.15	67.84	85.19	-1,436.29	1,416.68	1,354.09	62.59	22.634	
3,350.00	3,346.89	3,322.89	3,322.89	12.61	50.87	68.13	85.19	-1,436.29	1,413.96	1,350.50	63.47	22.279	
3,400.00	3,396.30	3,372.30	3,372.30	12.76	51.59	68.44	85.19	-1,436.29	1,411.12	1,346.78	64.34	21.931	
3,450.00	3,445.65	3,421.65	3,421.65	12.92	52.32	68.77	85.19	-1,436.29	1,408.16	1,342.93	65.22	21.590	
3,500.00	3,494.93	3,470.93	3,470.93	13.07	53.04	69.12	85.19	-1,436.29	1,405.08	1,338.97	66.10	21.257	
3,550.00	3,544.13	3,520.13	3,520.13	13.23	53.76	69.48	85.19	-1,436.29	1,401.89	1,334.91	66.98	20.930	
3,600.00	3,593.26	3,569.26	3,569.26	13.39	54.48	69.86	85.19	-1,436.29	1,398.60	1,330.74	67.86	20.611	
3,650.00	3,642.31	3,618.31	3,618.31	13.55	55.20	70.24	85.19	-1,436.29	1,395.24	1,326.51	68.74	20.299	
3,700.00	3,691.36	3,667.36	3,667.36	13.71	55.92	70.61	85.19	-1,436.29	1,391.94	1,322.33	69.62	19.995	
3,750.00	3,740.42	3,716.42	3,716.42	13.87	56.64	70.98	85.19	-1,436.29	1,388.70	1,318.20	70.50	19.699	
3,800.00	3,789.47	3,765.47	3,765.47	14.03	57.36	71.35	85.19	-1,436.29	1,385.52	1,314.14	71.38	19.411	
3,850.00	3,838.52	3,814.52	3,814.52	14.20	58.08	71.73	85.19	-1,436.29	1,382.40	1,310.13	72.26	19.130	
3,900.00	3,887.57	3,863.57	3,863.57	14.36	58.80	72.10	85.19	-1,436.29	1,379.34	1,306.19	73.15	18.857	
3,950.00	3,936.62	3,912.62	3,912.62	14.52	59.52	72.48	85.19	-1,436.29	1,376.34	1,302.30	74.03	18.591	
4,000.00	3,985.68	3,961.68	3,961.68	14.69	60.24	72.86	85.19	-1,436.29	1,373.40	1,298.48	74.92	18.332	
4,050.00	4,034.73	4,010.73	4,010.73	14.85	60.97	73.24	85.19	-1,436.29	1,370.52	1,294.72	75.81	18.079	
4,100.00	4,083.78	4,059.78	4,059.78	15.02	61.69	73.62	85.19	-1,436.29	1,367.71	1,291.02	76.69	17.833	
4,150.00	4,132.83	4,108.83	4,108.83	15.19	62.41	74.01	85.19	-1,436.29	1,364.96	1,287.38	77.58	17.593	
4,200.00	4,181.88	4,157.88	4,157.88	15.35	63.13	74.39	85.19	-1,436.29	1,362.28	1,283.80	78.47	17.359	
4,250.00	4,230.94	4,206.94	4,206.94	15.52	63.86	74.78	85.19	-1,436.29	1,359.65	1,280.29	79.37	17.131	
4,300.00	4,279.99	4,255.99	4,255.99	15.69	64.58	75.16	85.19	-1,436.29	1,357.10	1,276.84	80.26	16.909	
4,350.00	4,329.04	4,305.04	4,305.04	15.86	65.30	75.55	85.19	-1,436.29	1,354.60	1,273.45	81.15	16.692	
4,400.00	4,378.09	4,354.09	4,354.09	16.03	66.03	75.94	85.19	-1,436.29	1,352.17	1,270.13	82.05	16.481	
4,450.00	4,427.14	4,403.14	4,403.14	16.20	66.75	76.34	85.19	-1,436.29	1,349.81	1,266.87	82.94	16.274	
4,500.00	4,476.20	4,452.20	4,452.20	16.37	67.48	76.73	85.19	-1,436.29	1,347.51	1,263.68	83.84	16.073	
4,550.00	4,525.25	4,501.25	4,501.25	16.54	68.20	77.12	85.19	-1,436.29	1,345.28	1,260.55	84.73	15.877	
4,600.00	4,574.30	4,550.30	4,550.30	16.71	68.93	77.52	85.19	-1,436.29	1,343.11	1,257.49	85.63	15.685	
4,650.00	4,623.35	4,599.35	4,599.35	16.89	69.65	77.92	85.19	-1,436.29	1,341.02	1,254.49	86.53	15.498	
4,700.00	4,672.40	4,648.40	4,648.40	17.06	70.38	78.31	85.19	-1,436.29	1,338.98	1,251.56	87.43	15.316	
4,750.00	4,721.46	4,697.46	4,697.46	17.23	71.10	78.71	85.19	-1,436.29	1,337.02	1,248.69	88.32	15.138	
4,800.00	4,770.51	4,746.51	4,746.51	17.41	71.83	79.11	85.19	-1,436.29	1,335.12	1,245.90	89.22	14.964	
4,850.00	4,819.56	4,795.56	4,795.56	17.58	72.56	79.52	85.19	-1,436.29	1,333.29	1,243.17	90.12	14.794	
4,900.00	4,868.61	4,844.61	4,844.61	17.75	73.28	79.92	85.19	-1,436.29	1,331.53	1,240.50	91.02	14.628	
4,950.00	4,917.66	4,893.66	4,893.66	17.93	74.01	80.32	85.19	-1,436.29	1,329.83	1,237.91	91.93	14.466	
5,000.00	4,966.72	4,942.72	4,942.72	18.10	74.73	80.73	85.19	-1,436.29	1,328.21	1,235.38	92.83	14.308	
5,050.00	5,015.77	4,991.77	4,991.77	18.28	75.46	81.13	85.19	-1,436.29	1,326.65	1,232.92	93.73	14.154	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Offset Design													Offset Site Error: 5.00 ft	
Sec 28-T19S-R29E - Parkway West Unit #3 - Wellbore #1 - Wellbore #1														
Survey Program: 10-INC-ONLY													Offset Well Error: 10.00 ft	
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5,100.00	5,064.82	5,040.82	5,040.82	18.46	76.19	81.54	85.19	-1,436.29	1,325.16	1,230.53	94.63	14.003		
5,150.00	5,113.87	5,089.87	5,089.87	18.63	76.91	81.95	85.19	-1,436.29	1,323.75	1,228.21	95.54	13.856		
5,200.00	5,162.92	5,138.92	5,138.92	18.81	77.64	82.35	85.19	-1,436.29	1,322.40	1,225.96	96.44	13.712		
5,250.00	5,211.98	5,187.98	5,187.98	18.99	78.37	82.76	85.19	-1,436.29	1,321.12	1,223.77	97.35	13.571		
5,300.00	5,261.03	5,237.03	5,237.03	19.16	79.10	83.17	85.19	-1,436.29	1,319.91	1,221.66	98.25	13.434		
5,350.00	5,310.08	5,286.08	5,286.08	19.34	79.82	83.58	85.19	-1,436.29	1,318.77	1,219.61	99.16	13.300		
5,400.00	5,359.13	5,335.13	5,335.13	19.52	80.55	83.99	85.19	-1,436.29	1,317.70	1,217.64	100.06	13.169		
5,450.00	5,408.18	5,384.18	5,384.18	19.70	81.28	84.40	85.19	-1,436.29	1,316.70	1,215.73	100.97	13.041		
5,500.00	5,457.24	5,433.24	5,433.24	19.87	82.01	84.82	85.19	-1,436.29	1,315.77	1,213.90	101.87	12.916		
5,550.00	5,506.29	5,482.29	5,482.29	20.05	82.73	85.23	85.19	-1,436.29	1,314.92	1,212.14	102.78	12.793		
5,600.00	5,555.34	5,531.34	5,531.34	20.23	83.46	85.64	85.19	-1,436.29	1,314.13	1,210.44	103.69	12.674		
5,650.00	5,604.39	5,580.39	5,580.39	20.41	84.19	86.06	85.19	-1,436.29	1,313.42	1,208.82	104.60	12.557		
5,700.00	5,653.44	5,629.44	5,629.44	20.59	84.92	86.47	85.19	-1,436.29	1,312.77	1,207.27	105.50	12.443		
5,750.00	5,702.50	5,678.50	5,678.50	20.77	85.65	86.88	85.19	-1,436.29	1,312.20	1,205.79	106.41	12.331		
5,800.00	5,751.55	5,727.55	5,727.55	20.95	86.38	87.30	85.19	-1,436.29	1,311.70	1,204.38	107.32	12.222		
5,850.00	5,800.60	5,776.60	5,776.60	21.13	87.11	87.71	85.19	-1,436.29	1,311.27	1,203.04	108.23	12.115		
5,900.00	5,849.65	5,825.65	5,825.65	21.31	87.83	88.13	85.19	-1,436.29	1,310.91	1,201.77	109.14	12.011		
5,950.00	5,898.70	5,874.70	5,874.70	21.49	88.56	88.54	85.19	-1,436.29	1,310.62	1,200.57	110.05	11.909		
6,000.00	5,947.76	5,923.76	5,923.76	21.67	89.29	88.96	85.19	-1,436.29	1,310.41	1,199.45	110.96	11.810		
6,050.00	5,996.81	5,972.81	5,972.81	21.85	90.02	89.37	85.19	-1,436.29	1,310.27	1,198.39	111.87	11.712		
6,100.00	6,045.86	6,021.86	6,021.86	22.03	90.75	89.79	85.19	-1,436.29	1,310.19	1,197.41	112.78	11.617		
6,125.17	6,070.55	6,046.55	6,046.55	22.13	91.12	90.00	85.19	-1,436.29	1,310.18	1,196.94	113.24	11.570 CC		
6,150.00	6,094.91	6,070.91	6,070.91	22.22	91.48	90.21	85.19	-1,436.29	1,310.19	1,196.50	113.69	11.524		
6,200.00	6,143.96	6,119.96	6,119.96	22.40	92.21	90.62	85.19	-1,436.29	1,310.26	1,195.86	114.60	11.433		
6,250.00	6,193.01	6,169.01	6,169.01	22.58	92.94	91.04	85.19	-1,436.29	1,310.41	1,194.89	115.51	11.344		
6,300.00	6,242.07	6,218.07	6,218.07	22.76	93.67	91.45	85.19	-1,436.29	1,310.62	1,194.20	116.43	11.257		
6,350.00	6,291.12	6,267.12	6,267.12	22.94	94.40	91.87	85.19	-1,436.29	1,310.91	1,193.57	117.34	11.172		
6,400.00	6,340.17	6,316.17	6,316.17	23.13	95.13	92.28	85.19	-1,436.29	1,311.27	1,193.02	118.25	11.089		
6,450.00	6,389.22	6,365.22	6,365.22	23.31	95.86	92.70	85.19	-1,436.29	1,311.70	1,192.53	119.16	11.008		
6,500.00	6,438.27	6,414.27	6,414.27	23.49	96.59	93.11	85.19	-1,436.29	1,312.20	1,192.12	120.07	10.928		
6,550.00	6,487.33	6,463.33	6,463.33	23.67	97.32	93.53	85.19	-1,436.29	1,312.77	1,191.78	120.99	10.850		
6,600.00	6,536.38	6,512.38	6,512.38	23.86	98.05	93.94	85.19	-1,436.29	1,313.41	1,191.51	121.90	10.775		
6,650.00	6,585.43	6,561.43	6,561.43	24.04	98.78	94.36	85.19	-1,436.29	1,314.13	1,191.31	122.81	10.700		
6,700.00	6,634.48	6,610.48	6,610.48	24.22	99.51	94.77	85.19	-1,436.29	1,314.91	1,191.19	123.73	10.628		
6,750.00	6,683.53	6,659.53	6,659.53	24.41	100.24	95.18	85.19	-1,436.29	1,315.77	1,191.13	124.64	10.557 ES		
6,800.00	6,732.59	6,708.59	6,708.59	24.59	100.97	95.59	85.19	-1,436.29	1,316.70	1,191.14	125.55	10.487		
6,850.00	6,781.64	6,757.64	6,757.64	24.77	101.70	96.00	85.19	-1,436.29	1,317.69	1,191.23	126.47	10.419		
6,900.00	6,830.69	6,806.69	6,806.69	24.96	102.43	96.42	85.19	-1,436.29	1,318.76	1,191.38	127.38	10.353		
6,950.00	6,879.74	6,855.74	6,855.74	25.14	103.16	96.83	85.19	-1,436.29	1,319.90	1,191.61	128.30	10.288		
7,000.00	6,928.79	6,904.79	6,904.79	25.33	103.89	97.24	85.19	-1,436.29	1,321.11	1,191.90	129.21	10.225		
7,050.00	6,977.85	6,953.85	6,953.85	25.51	104.62	97.64	85.19	-1,436.29	1,322.39	1,192.26	130.12	10.163		
7,100.00	7,026.90	7,002.90	7,002.90	25.69	105.35	98.05	85.19	-1,436.29	1,323.74	1,192.70	131.04	10.102		
7,150.00	7,075.95	7,051.95	7,051.95	25.88	106.08	98.46	85.19	-1,436.29	1,325.15	1,193.20	131.95	10.043		
7,200.00	7,125.00	7,101.00	7,101.00	26.06	106.81	98.87	85.19	-1,436.29	1,326.64	1,193.77	132.87	9.985		
7,250.00	7,174.05	7,150.05	7,150.05	26.25	107.54	99.27	85.19	-1,436.29	1,328.20	1,194.41	133.78	9.928		
7,300.00	7,223.11	7,199.11	7,199.11	26.43	108.27	99.68	85.19	-1,436.29	1,329.82	1,195.12	134.70	9.873		
7,350.00	7,272.16	7,248.16	7,248.16	26.62	109.00	100.08	85.19	-1,436.29	1,331.52	1,195.90	135.61	9.818		
7,400.00	7,321.21	7,297.21	7,297.21	26.80	109.73	100.48	85.19	-1,436.29	1,333.28	1,196.75	136.53	9.768		
7,450.00	7,370.26	7,346.26	7,346.26	26.99	110.47	100.88	85.19	-1,436.29	1,335.11	1,197.66	137.44	9.714		
7,500.00	7,419.31	7,395.31	7,395.31	27.18	111.20	101.28	85.19	-1,436.29	1,337.00	1,198.64	138.36	9.663		
7,550.00	7,468.37	7,444.37	7,444.37	27.36	111.93	101.68	85.19	-1,436.29	1,338.97	1,199.69	139.27	9.614		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: WCDSC Permian NM
 Project: Eddy County (NAD 83 NM Eastern)
 Reference Site: Sec 27-T19S-R29E
 Site Error: 5.00 ft
 Reference Well: Coral PWU 28-27 12H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
 TVD Reference: RKB @ 3333.00ft
 MD Reference: RKB @ 3333.00ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM r5000.141_Prod US
 Offset TVD Reference: Offset Datum

Offset Design Sec 28-T19S-R29E - Parkway West Unit #3 - Wellbore #1 - Wellbore #1													Offset Site Error: 5.00 ft
Survey Program: 10-INC-ONLY													Offset Well Error: 10.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
7,600.00	7,517.42	7,493.42	7,493.42	27.55	112.66	102.08	85.19	-1,436.29	1,341.00	1,200.81	140.19	9.566	
7,650.00	7,566.50	7,542.50	7,542.50	27.73	113.39	102.49	85.19	-1,436.29	1,343.07	1,201.96	141.11	9.518	
7,700.00	7,615.69	7,591.69	7,591.69	27.92	114.12	102.89	85.19	-1,436.29	1,345.07	1,203.04	142.02	9.471	
7,750.00	7,664.99	7,640.99	7,640.99	28.10	114.86	103.26	85.19	-1,436.29	1,346.97	1,204.03	142.94	9.423	
7,800.00	7,714.40	7,690.40	7,690.40	28.28	115.60	103.59	85.19	-1,436.29	1,348.77	1,204.91	143.86	9.376	
7,850.00	7,763.91	7,739.91	7,739.91	28.47	116.33	103.91	85.19	-1,436.29	1,350.45	1,205.67	144.78	9.328	
7,900.00	7,813.50	7,789.50	7,789.50	28.65	117.07	104.19	85.19	-1,436.29	1,352.01	1,206.31	145.70	9.279	
7,950.00	7,863.17	7,839.17	7,839.17	28.83	117.81	104.44	85.19	-1,436.29	1,353.43	1,206.81	146.62	9.231	
8,000.00	7,912.91	7,888.91	7,888.91	29.01	118.56	104.67	85.19	-1,436.29	1,354.71	1,207.17	147.54	9.182	
8,050.00	7,962.72	7,938.72	7,938.72	29.18	119.30	104.86	85.19	-1,436.29	1,355.84	1,207.38	148.46	9.133	
8,100.00	8,012.58	7,988.58	7,988.58	29.36	120.04	105.03	85.19	-1,436.29	1,356.81	1,207.43	149.38	9.083	
8,150.00	8,062.48	8,038.48	8,038.48	29.54	120.79	105.17	85.19	-1,436.29	1,357.62	1,207.33	150.30	9.033	
8,200.00	8,112.42	8,088.42	8,088.42	29.71	121.53	105.28	85.19	-1,436.29	1,358.27	1,207.05	151.22	8.982	
8,250.00	8,162.39	8,138.39	8,138.39	29.89	122.28	105.36	85.19	-1,436.29	1,358.75	1,206.61	152.14	8.931	
8,300.00	8,212.37	8,188.37	8,188.37	30.06	123.02	105.41	85.19	-1,436.29	1,359.05	1,205.99	153.06	8.879	
8,350.00	8,262.37	8,238.37	8,238.37	30.23	123.77	105.43	85.19	-1,436.29	1,359.18	1,205.21	153.97	8.828	
8,400.00	8,312.37	8,288.37	8,288.37	30.39	124.51	-46.76	85.19	-1,436.29	1,359.19	1,204.31	154.88	8.776	
8,450.00	8,362.37	8,338.37	8,338.37	30.55	125.26	-46.76	85.19	-1,436.29	1,359.19	1,203.40	155.79	8.725	
8,500.00	8,412.37	8,388.37	8,388.37	30.71	126.01	-46.76	85.19	-1,436.29	1,359.19	1,202.49	156.69	8.674	
8,550.00	8,462.37	8,438.37	8,438.37	30.88	126.75	-46.76	85.19	-1,436.29	1,359.19	1,201.58	157.60	8.624	
8,600.00	8,512.37	8,488.37	8,488.37	31.04	127.50	-46.76	85.19	-1,436.29	1,359.19	1,200.68	158.51	8.575	
8,650.00	8,562.37	8,538.37	8,538.37	31.20	128.24	-46.76	85.19	-1,436.29	1,359.19	1,199.77	159.42	8.526	
8,700.00	8,612.35	8,588.35	8,588.35	31.36	128.99	-137.16	85.19	-1,436.29	1,359.99	1,199.66	160.33	8.483	
8,750.00	8,662.05	8,638.05	8,638.05	31.52	129.73	-137.05	85.19	-1,436.29	1,363.85	1,202.62	161.23	8.459	
8,800.00	8,711.11	8,687.11	8,687.11	31.67	130.46	-136.83	85.19	-1,436.29	1,370.90	1,208.78	162.12	8.456 SF	
8,850.00	8,759.15	8,735.15	8,735.15	31.82	131.18	-136.50	85.19	-1,436.29	1,381.13	1,218.15	162.99	8.474	
8,900.00	8,805.81	8,781.81	8,781.81	31.96	131.88	-136.04	85.19	-1,436.29	1,394.52	1,230.69	163.83	8.512	
8,950.00	8,850.72	8,826.72	8,826.72	32.09	132.55	-135.41	85.19	-1,436.29	1,411.03	1,246.40	164.63	8.571	
9,000.00	8,893.55	8,869.55	8,869.55	32.22	133.19	-134.59	85.19	-1,436.29	1,430.61	1,265.21	165.40	8.649	
9,050.00	8,933.97	8,909.97	8,909.97	32.33	133.79	-133.53	85.19	-1,436.29	1,453.18	1,287.06	166.12	8.748	
9,100.00	8,971.68	8,947.68	8,947.68	32.43	134.35	-132.18	85.19	-1,436.29	1,478.66	1,311.88	166.78	8.866	

Anticollision Report

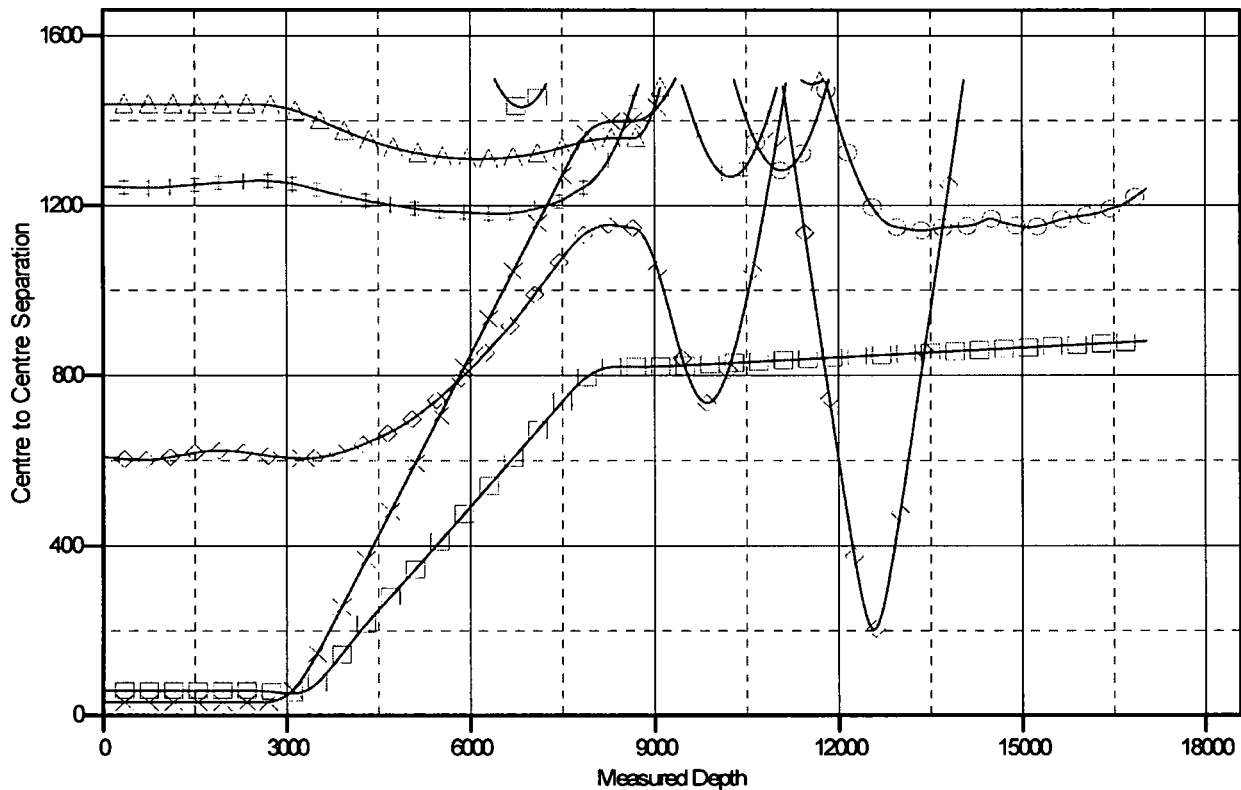
Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Reference Depths are relative to RKB @ 3333.00ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -104.333334

Coordinates are relative to: Coral PWU 28-27 12H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.14"

Ladder Plot



LEGEND

Coral PWU 28-27 11H, Wellbore #1, Permit Plan 2 V0 Coral PWU 28-27 62H, Wellbore #1, Permit Plan 2 V0 Parkway West Unit #20 (Active), Wellbore #1, Wellbore #1 V0 Turquoise PWU 27-4H, Wellbore #1, Wellbore #1 V0	Coral PWU 28-24H, Wellbore #1, Wellbore #1 V0 Coral PWU 28-4H, Wellbore #1, Wellbore #1 V0 Coral PWU 28-7H, Wellbore #1, Wellbore #1 V0 Parkway 5021 (Active), Wellbore #1, Wellbore #1 V0	Parkway Unit 18 (Active), Wellbore #1, Wellbore #1 V0 Parkway West Unit #3, Wellbore #1, Wellbore #1 V0
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CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

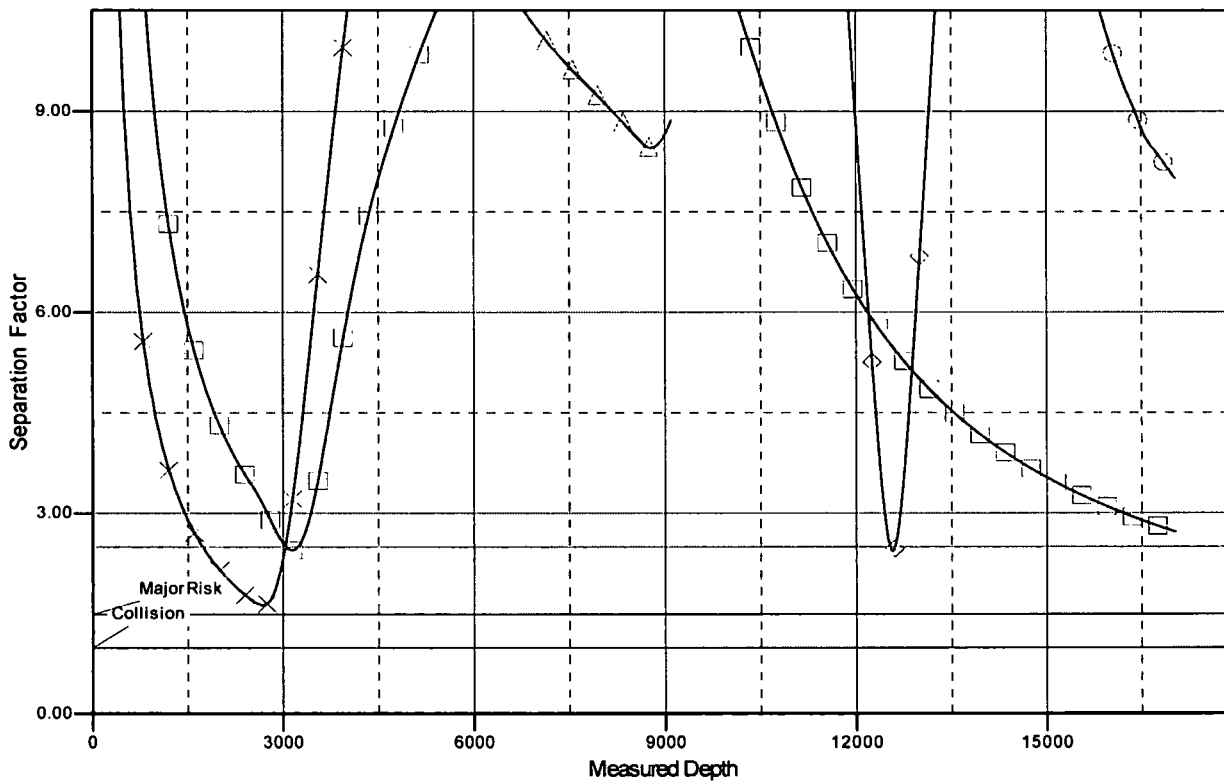
Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 12H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Coral PWU 28-27 12H
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Reference Depths are relative to RKB @ 3333.00ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -104.333334

Coordinates are relative to: Coral PWU 28-27 12H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.14°

Separation Factor Plot



LEGEND

 Coral PWU 28-27 11H, Wellbore #1, Permit Plan 2 V0	 Coral PWU 28-27 12H, Wellbore #1, Wellbore #1 V0	 Parkway Unit 16 (Active), Wellbore #1, Wellbore #1 V0
 Coral PWU 28-27 62H, Wellbore #1, Permit Plan 2 V0	 Coral PWU 28-27 4H, Wellbore #1, Wellbore #1 V0	 Parkway West Unit #3, Wellbore #1, Wellbore #1 V0
 Parkway West Unit #20 (Active), Wellbore #1, Wellbore #1 V0	 Coral PWU 28-27 7H, Wellbore #1, Wellbore #1 V0	
 Turquoise PWU 27-41, Wellbore #1, Wellbore #1 V0	 Parkway 5021 (Active), Wellbore #1, Wellbore #1 V0	

WCDSC Permian NM

WELL DETAILS: Coral PWU 28-27 12H

RKB @ 3333.00ft
3302.50
Northing 592241.10 Easting 619465.50 Latitude 32.627864 Longitude -104.079554

SECTION DETAILS Permit Plan 2

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	
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	
3617.51	11.18	207.81	3610.44	-96.09	-50.68	1.00	-38.95	
7617.62	11.18	207.81	7534.71	-781.83	-412.32	0.00	-316.93	
8362.93	0.00	0.00	8275.00	-845.89	-446.10	1.50	-342.90	
8664.87	0.00	0.00	8577.04	-845.89	-446.10	0.00	-342.90	KOP @ 8665' MD, 374' FSL, 2987' FEL
9584.67	90.00	90.42	9150.00	-850.13	126.84	10.00	226.52	
17037.70	90.00	90.42	9150.00	-905.37	7599.67	0.00	7653.41	PBHL: 330' FSL, 230' FEL

