

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.5. Lease Serial No.
NMNM97151

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

SUBMIT IN TRIPLICATE - Other instructions on page 2**HOBBS OCD**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

NOV 28 2018

8. Well Name and No.
FLAGLER 8 FED 39H

2. Name of Operator

DEVON ENERGY PRODUCTION COMPANY

Contact: REBECCA DEAL

Email: Rebecca.Deal@devon.com

RECEIVED

9. API Well No.

30-025-45261-00-X1

3a. Address

333 WEST SHERIDAN AVENUE
OKLAHOMA CITY, OK 73102

3b. Phone No. (include area code)

Ph: 405-228-8429

10. Field and Pool or Exploratory Area
RED HILLS-BONE SPRINGS

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 8 T25S R33E SESW 380FSL 2570FWL
32.138901 N Lat, 103.594536 W Lon

11. County or Parish, State

LEA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original APD
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomple in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Devon Energy Production Company, L.P. respectfully requests the following changes to the original APD:

BHL move from 330' FNL & 2435' FWL to 20' FNL & 2435' FWL, both Sec. 8-25S-33E

Target change from 9375' TVD/13,852' MD to 9575' TVD/14,363' MD.

Please see attached revised C-102, Drilling Plan, Directional Plan & AC Plan.

Carlsbad Field Office
OCD Hobbs

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #442364 verified by the BLM Well Information System
For DEVON ENERGY PRODUCTION COMPANY, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 11/02/2018 (19PP0279SE)**

Name (Printed/Typed) REBECCA DEAL

Title REGULATORY COMPLIANCE PROFESSI

Signature (Electronic Submission)

Date 11/01/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USEApproved By MUSTAFA HAQUE

Title PETROLEUM ENGINEER

Date 11/27/2018

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Hobbs

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ******REQUIRE NTL****KZ**

WCDSC Permian NM

Lea County (NAD83 New Mexico East)

Sec 08-T25S-R33E

Flagler 8 Fed 39H

Wellbore #1

Permit Plan 2

Anticollision Report

31 October, 2018

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Flagler 8 Fed 39H
Project:	Lea County (NAD83 New Mexico East)	TVD Reference:	RKB @ 3471.80ft
Reference Site:	Sec 08-T25S-R33E	MD Reference:	RKB @ 3471.80ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Flagler 8 Fed 39H	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	Error Model:	ISCWSA
Interpolation Method:	MD Interval 50.00ft	Scan Method:	Closest Approach 3D
Depth Range:	Unlimited	Error Surface:	Pedal Curve
Results Limited by:	Maximum center-center distance of 1,500.00 ft	Casing Method:	Not applied
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	10/31/2018
From (ft)	To (ft)	Survey (Wellbore)
0.00	14,362.84	Permit Plan 2 (Wellbore #1)
		Tool Name
		MWD+IGRF
		Description
		OWSG MWD + IGRF or WMM

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec 08-T25S-R33E						
Flagler 8 Fed 12H - Wellbore #1 - Permit Plan 3	2,400.00	2,409.60	1,029.40	1,012.58	61.191	CC
Flagler 8 Fed 12H - Wellbore #1 - Permit Plan 3	2,450.00	2,440.40	1,029.55	1,012.45	60.191	ES
Flagler 8 Fed 12H - Wellbore #1 - Permit Plan 3	6,750.00	6,625.30	1,498.35	1,451.52	31.997	SF
Flagler 8 Fed 16H - Wellbore #1 - Permit Plan 1	2,400.00	2,391.80	979.83	963.07	58.466	CC
Flagler 8 Fed 16H - Wellbore #1 - Permit Plan 1	2,450.00	2,443.12	979.99	962.88	57.287	ES
Flagler 8 Fed 16H - Wellbore #1 - Permit Plan 1	9,450.00	9,403.87	1,195.52	1,129.67	18.156	SF
Flagler 8 Fed 17H - Wellbore #1 - Permit Plan 1						Out of range
Flagler 8 Fed 25H - Wellbore #1 - Permit Plan 2	2,400.00	2,400.30	29.99	13.20	1.786	Minor Risk, CC
Flagler 8 Fed 25H - Wellbore #1 - Permit Plan 2	2,450.00	2,449.70	30.17	13.04	1.761	Minor Risk, ES
Flagler 8 Fed 25H - Wellbore #1 - Permit Plan 2	2,500.00	2,500.31	30.72	13.23	1.757	Minor Risk, SF
Flagler 8 Fed 35H - Wellbore #1 - Permit Plan 1						Out of range
Flagler 8 Fed 38H - Wellbore #1 - Permit Plan 2	2,400.00	2,400.70	59.99	43.20	3.573	Alert, CC
Flagler 8 Fed 38H - Wellbore #1 - Permit Plan 2	2,650.00	2,648.14	60.77	42.31	3.292	Alert, ES
Flagler 8 Fed 38H - Wellbore #1 - Permit Plan 2	2,750.00	2,747.10	62.17	43.05	3.252	Alert, SF
Flagler 8 Fed 3H - Wellbore #1 - Permit Plan 1	5,883.52	5,887.60	149.08	107.71	3.604	Alert, CC
Flagler 8 Fed 3H - Wellbore #1 - Permit Plan 1	6,650.00	6,653.53	151.89	105.10	3.246	Alert, ES
Flagler 8 Fed 3H - Wellbore #1 - Permit Plan 1	8,450.00	8,452.24	178.07	118.54	2.991	Alert, SF
Flagler 8 Fed 40H - Wellbore #1 - Permit Plan 1	2,400.00	2,408.40	1,009.82	993.01	60.043	CC
Flagler 8 Fed 40H - Wellbore #1 - Permit Plan 1	2,450.00	2,441.60	1,010.01	992.90	59.033	ES
Flagler 8 Fed 40H - Wellbore #1 - Permit Plan 1	14,150.00	13,700.63	1,360.80	1,174.06	7.287	SF
Flagler 8 Fed 41H - Wellbore #1 - Permit Plan 1						Out of range
Flagler 8 Fed 4H - Wellbore #1 - Permit Plan 2	2,400.00	2,409.30	1,000.00	983.17	59.447	CC
Flagler 8 Fed 4H - Wellbore #1 - Permit Plan 2	2,450.00	2,440.70	1,000.15	983.04	58.468	ES
Flagler 8 Fed 4H - Wellbore #1 - Permit Plan 2	9,350.00	9,302.99	1,265.05	1,199.96	19.435	SF
Flagler 8 Fed 7H - Wellbore #1 - Permit Plan 1	5,654.92	5,659.50	131.42	91.66	3.305	Alert, CC
Flagler 8 Fed 7H - Wellbore #1 - Permit Plan 1	5,700.00	5,703.89	131.61	91.54	3.285	Alert, ES
Flagler 8 Fed 7H - Wellbore #1 - Permit Plan 1	5,750.00	5,752.95	132.30	91.91	3.275	Alert, SF
Flagler 8 Fed 8H - Wellbore #1 - Permit Plan 1	9,172.87	9,220.42	781.27	716.34	12.033	CC, ES
Flagler 8 Fed 8H - Wellbore #1 - Permit Plan 1	9,300.00	9,336.28	786.13	720.36	11.953	SF
Flagler 8 Fed Com 14H - Wellbore #1 - Permit Plan 1						Out of range
Flagler 8 Fed Com 2H - Wellbore #1 - Permit Plan 2						Out of range
Flagler 8 Fed Com 30H - Wellbore #1 - Permit Plan 1						Out of range
Flagler 8 Fed Com 36H - Wellbore #1 - Permit Plan 1						Out of range
Flagler 8 Fed Com 6H - Wellbore #1 - Permit Plan 1						Out of range
Flagler Fed #1 - Wellbore #1 - Wellbore #1	13,715.28	9,568.92	378.32	240.05	2.736	Alert, CC, ES, 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: Lea County (NAD83 New Mexico East)
 Reference Site: Sec 08-T25S-R33E
 Site Error: 0.00 ft
 Reference Well: Flagler 8 Fed 39H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
 MD Reference: RKB @ 3471.80ft
 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 08-T25S-R33E - Flagler 8 Fed 12H - Wellbore #1 - Permit Plan 3												Offset Site Error:	9.00 ft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0.50 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toothface (ft)	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	9.60	-9.60	0.50	0.50	100.83	-193.38	1,011.07	1,029.40				
50.00	50.00	40.40	40.40	0.50	0.50	100.83	-193.38	1,011.07	1,029.40	1,028.39	1.00	1,024.334	
100.00	100.00	109.80	90.40	0.52	0.53	100.83	-193.38	1,011.07	1,029.40	1,028.35	1.05	984.606	
150.00	150.00	140.40	140.40	0.59	0.57	100.83	-193.38	1,011.07	1,029.40	1,028.24	1.16	885.172	
200.00	200.00	209.60	190.40	0.70	0.73	100.83	-193.38	1,011.07	1,029.40	1,027.97	1.43	720.475	
250.00	250.00	240.40	240.40	0.84	0.81	100.83	-193.38	1,011.07	1,029.40	1,027.75	1.65	624.606	
300.00	300.00	309.60	290.40	0.99	1.02	100.83	-193.38	1,011.07	1,029.40	1,027.39	2.00	513.546	
350.00	350.00	340.40	340.40	1.15	1.11	100.83	-193.38	1,011.07	1,029.40	1,027.14	2.26	455.462	
400.00	400.00	409.60	390.40	1.31	1.34	100.83	-193.38	1,011.07	1,029.40	1,026.75	2.65	388.445	
450.00	450.00	440.40	440.40	1.48	1.44	100.83	-193.38	1,011.07	1,029.40	1,026.48	2.92	352.496	
500.00	500.00	509.60	490.40	1.65	1.68	100.83	-193.38	1,011.07	1,029.40	1,026.07	3.32	309.594	
550.00	550.00	540.40	540.40	1.82	1.78	100.83	-193.38	1,011.07	1,029.40	1,025.80	3.60	285.763	
600.00	600.00	609.60	590.40	1.99	2.02	100.83	-193.38	1,011.07	1,029.40	1,025.38	4.01	256.418	
650.00	650.00	640.40	640.40	2.16	2.13	100.83	-193.38	1,011.07	1,029.40	1,025.10	4.30	239.637	
700.00	700.00	709.60	690.40	2.34	2.37	100.83	-193.38	1,011.07	1,029.40	1,024.69	4.71	218.451	
750.00	750.00	740.40	740.40	2.51	2.48	100.83	-193.38	1,011.07	1,029.40	1,024.40	5.00	206.058	
800.00	800.00	809.60	790.40	2.69	2.72	100.83	-193.38	1,011.07	1,029.40	1,023.98	5.42	190.101	
850.00	850.00	840.40	840.40	2.87	2.83	100.83	-193.38	1,011.07	1,029.40	1,023.70	5.70	180.599	
900.00	900.00	909.60	890.40	3.04	3.08	100.83	-193.38	1,011.07	1,029.40	1,023.28	6.12	168.174	
950.00	950.00	940.40	940.40	3.22	3.19	100.83	-193.38	1,011.07	1,029.40	1,022.99	6.41	160.668	
1,000.00	1,000.00	1,009.60	990.40	3.40	3.43	100.83	-193.38	1,011.07	1,029.40	1,022.57	6.83	150.731	
1,050.00	1,050.00	1,040.40	1,040.40	3.58	3.54	100.83	-193.38	1,011.07	1,029.40	1,022.28	7.12	144.659	
1,100.00	1,100.00	1,109.60	1,090.40	3.75	3.79	100.83	-193.38	1,011.07	1,029.40	1,021.86	7.54	136.538	
1,150.00	1,150.00	1,140.40	1,140.40	3.93	3.90	100.83	-193.38	1,011.07	1,029.40	1,021.57	7.83	131.528	
1,200.00	1,200.00	1,209.60	1,190.40	4.11	4.14	100.83	-193.38	1,011.07	1,029.40	1,021.15	8.25	124.769	
1,250.00	1,250.00	1,240.40	1,240.40	4.29	4.25	100.83	-193.38	1,011.07	1,029.40	1,020.86	8.54	120.566	
1,300.00	1,300.00	1,309.60	1,290.40	4.46	4.50	100.83	-193.38	1,011.07	1,029.40	1,020.44	8.96	114.856	
1,350.00	1,350.00	1,340.40	1,340.40	4.64	4.61	100.83	-193.38	1,011.07	1,029.40	1,020.15	9.25	111.281	
1,400.00	1,400.00	1,409.60	1,390.40	4.82	4.85	100.83	-193.38	1,011.07	1,029.40	1,019.72	9.68	106.394	
1,450.00	1,450.00	1,440.40	1,440.40	5.00	4.96	100.83	-193.38	1,011.07	1,029.40	1,019.44	9.96	103.317	
1,500.00	1,500.00	1,509.60	1,490.40	5.18	5.21	100.83	-193.38	1,011.07	1,029.40	1,019.01	10.39	99.088	
1,550.00	1,550.00	1,540.40	1,540.40	5.36	5.32	100.83	-193.38	1,011.07	1,029.40	1,018.72	10.68	96.412	
1,600.00	1,600.00	1,609.60	1,590.40	5.53	5.57	100.83	-193.38	1,011.07	1,029.40	1,018.30	11.10	92.717	
1,650.00	1,650.00	1,640.40	1,640.40	5.71	5.68	100.83	-193.38	1,011.07	1,029.40	1,018.01	11.39	90.369	
1,700.00	1,700.00	1,709.60	1,690.40	5.89	5.93	100.83	-193.38	1,011.07	1,029.40	1,017.58	11.82	87.114	
1,750.00	1,750.00	1,740.40	1,740.40	6.07	6.04	100.83	-193.38	1,011.07	1,029.40	1,017.29	12.11	85.037	
1,800.00	1,800.00	1,809.60	1,790.40	6.25	6.28	100.83	-193.38	1,011.07	1,029.40	1,016.87	12.53	82.146	
1,850.00	1,850.00	1,840.40	1,840.40	6.43	6.39	100.83	-193.38	1,011.07	1,029.40	1,016.58	12.82	80.296	
1,900.00	1,900.00	1,909.60	1,890.40	6.61	6.64	100.83	-193.38	1,011.07	1,029.40	1,016.15	13.25	77.714	
1,950.00	1,950.00	1,940.40	1,940.40	6.78	6.75	100.83	-193.38	1,011.07	1,029.40	1,015.86	13.53	76.055	
2,000.00	2,000.00	2,009.60	1,990.40	6.96	7.00	100.83	-193.38	1,011.07	1,029.40	1,015.44	13.96	73.734	
2,050.00	2,050.00	2,040.40	2,040.40	7.14	7.11	100.83	-193.38	1,011.07	1,029.40	1,015.15	14.25	72.239	
2,100.00	2,100.00	2,109.60	2,090.40	7.32	7.36	100.83	-193.38	1,011.07	1,029.40	1,014.72	14.68	70.141	
2,150.00	2,150.00	2,140.40	2,140.40	7.50	7.47	100.83	-193.38	1,011.07	1,029.40	1,014.43	14.97	68.786	
2,200.00	2,200.00	2,209.60	2,190.40	7.68	7.71	100.83	-193.38	1,011.07	1,029.40	1,014.01	15.39	66.881	
2,250.00	2,250.00	2,240.40	2,240.40	7.86	7.82	100.83	-193.38	1,011.07	1,029.40	1,013.72	15.68	65.648	
2,300.00	2,300.00	2,309.60	2,290.40	8.04	8.07	100.83	-193.38	1,011.07	1,029.40	1,013.29	16.11	63.910	
2,350.00	2,350.00	2,340.40	2,340.40	8.22	8.18	100.83	-193.38	1,011.07	1,029.40	1,013.00	16.40	62.783	
2,400.00	2,400.00	2,409.60	2,390.40	8.39	8.43	100.83	-193.38	1,011.07	1,029.40	1,012.58	16.82	61.191 CC	
2,450.00	2,450.00	2,440.40	2,440.40	8.57	8.54	-135.49	-193.38	1,011.07	1,029.55	1,012.45	17.10	60.191 ES	
2,500.00	2,499.99	2,490.39	2,490.39	8.74	8.72	-135.51	-193.38	1,011.07	1,030.02	1,012.57	17.46	59.008	
2,550.00	2,549.98	2,534.23	2,534.23	8.90	8.87	-135.54	-193.40	1,011.17	1,030.92	1,013.15	17.77	58.002	

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 12H - Wellbore #1 - Permit Plan 3													Offset Site Error:	0.00 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		
2,600.00	2,599.96	2,576.57	2,576.56	9.07	9.02	-135.58	-193.47	1,011.58	1,032.49	1,014.41	18.09	57.090		
2,650.00	2,649.92	2,618.87	2,618.86	9.24	9.16	-135.63	-193.59	1,012.29	1,034.75	1,016.35	18.40	56.251		
2,700.00	2,699.87	2,661.12	2,661.10	9.40	9.31	-135.70	-193.77	1,013.30	1,037.57	1,018.87	18.70	55.480		
2,750.00	2,749.82	2,703.34	2,703.29	9.57	9.45	-135.78	-194.01	1,014.63	1,040.76	1,021.75	19.01	54.753		
2,800.00	2,799.77	2,745.51	2,745.44	9.74	9.59	-135.85	-194.29	1,016.25	1,044.32	1,025.01	19.31	54.072		
2,850.00	2,849.72	2,787.64	2,787.52	9.91	9.74	-135.92	-194.63	1,018.18	1,048.25	1,028.63	19.62	53.430		
2,900.00	2,899.67	2,829.72	2,829.53	10.08	9.88	-135.99	-195.02	1,020.41	1,052.55	1,032.63	19.92	52.830		
2,950.00	2,949.62	2,871.74	2,871.48	10.25	10.02	-136.07	-195.47	1,022.94	1,057.22	1,036.99	20.23	52.266		
3,000.00	2,999.57	2,913.70	2,913.34	10.42	10.17	-136.14	-195.87	1,025.78	1,062.25	1,041.72	20.53	51.739		
3,050.00	3,049.52	2,955.59	2,955.11	10.59	10.31	-136.21	-196.52	1,028.90	1,067.65	1,046.82	20.83	51.246		
3,100.00	3,099.47	3,001.36	3,000.72	10.76	10.47	-136.28	-197.17	1,032.61	1,073.37	1,052.21	21.15	50.740		
3,150.00	3,149.42	3,051.00	3,050.20	10.94	10.64	-136.37	-197.88	1,036.67	1,079.13	1,057.84	21.49	50.205		
3,200.00	3,199.37	3,100.65	3,099.67	11.11	10.82	-136.45	-198.59	1,040.73	1,084.90	1,063.07	21.84	49.686		
3,250.00	3,249.32	3,150.29	3,149.14	11.28	10.99	-136.53	-199.31	1,044.79	1,090.67	1,068.50	22.18	49.181		
3,300.00	3,299.27	3,200.07	3,198.61	11.45	11.16	-136.61	-200.02	1,048.85	1,096.44	1,073.92	22.52	48.690		
3,350.00	3,349.22	3,249.57	3,248.08	11.63	11.34	-136.68	-200.74	1,052.91	1,102.22	1,079.36	22.86	48.213		
3,400.00	3,399.17	3,300.78	3,297.55	11.80	11.52	-136.76	-201.45	1,056.97	1,107.99	1,084.78	23.21	47.739		
3,450.00	3,449.12	3,348.86	3,347.03	11.98	11.69	-136.84	-202.16	1,061.03	1,113.77	1,090.22	23.55	47.298		
3,500.00	3,499.07	3,401.50	3,396.50	12.15	11.87	-136.92	-202.88	1,065.09	1,119.55	1,095.65	23.90	46.838		
3,550.00	3,549.02	3,448.15	3,445.97	12.33	12.04	-136.99	-203.59	1,069.16	1,125.33	1,101.10	24.24	46.430		
3,600.00	3,598.97	3,502.21	3,495.44	12.50	12.23	-137.07	-204.31	1,073.22	1,131.12	1,106.52	24.60	45.985		
3,650.00	3,648.92	3,547.43	3,544.91	12.68	12.39	-137.14	-205.02	1,077.28	1,136.90	1,111.97	24.93	45.608		
3,700.00	3,698.87	3,597.08	3,594.38	12.85	12.57	-137.21	-205.73	1,081.34	1,142.69	1,117.42	25.27	45.213		
3,750.00	3,748.82	3,646.72	3,643.85	13.03	12.74	-137.28	-206.45	1,085.40	1,148.48	1,122.86	25.62	44.827		
3,800.00	3,798.77	3,703.64	3,693.33	13.20	12.95	-137.36	-207.16	1,089.46	1,154.27	1,128.28	25.99	44.408		
3,850.00	3,848.72	3,746.00	3,742.80	13.38	13.10	-137.43	-207.88	1,093.52	1,160.06	1,133.75	26.31	44.084		
3,900.00	3,898.67	3,804.35	3,792.27	13.56	13.31	-137.50	-208.59	1,097.58	1,165.86	1,139.16	26.69	43.677		
3,950.00	3,948.62	3,845.29	3,841.74	13.73	13.45	-137.57	-209.30	1,101.64	1,171.65	1,144.64	27.01	43.378		
4,000.00	3,998.57	3,905.07	3,891.21	13.91	13.67	-137.63	-210.02	1,105.70	1,177.45	1,150.06	27.39	42.982		
4,050.00	4,048.52	3,944.58	3,940.68	14.09	13.81	-137.70	-210.73	1,109.76	1,183.25	1,155.54	27.71	42.705		
4,100.00	4,098.47	4,005.78	3,990.15	14.26	14.03	-137.77	-211.45	1,113.82	1,189.05	1,160.95	28.10	42.319		
4,150.00	4,148.42	4,043.86	4,039.63	14.44	14.17	-137.84	-212.16	1,117.88	1,194.85	1,166.45	28.41	42.064		
4,200.00	4,198.37	4,106.49	4,089.10	14.62	14.39	-137.90	-212.87	1,121.94	1,200.66	1,171.86	28.80	41.688		
4,250.00	4,248.32	4,143.15	4,138.57	14.80	14.53	-137.97	-213.59	1,126.00	1,206.46	1,177.36	29.11	41.451		
4,300.00	4,298.27	4,192.79	4,188.04	14.97	14.71	-138.03	-214.30	1,130.07	1,212.27	1,182.82	29.46	41.156		
4,350.00	4,348.22	4,242.43	4,237.51	15.15	14.88	-138.10	-215.02	1,134.13	1,218.08	1,188.28	29.81	40.867		
4,400.00	4,398.17	4,307.92	4,286.98	15.33	15.12	-138.16	-215.73	1,138.19	1,223.89	1,193.68	30.21	40.509		
4,450.00	4,448.12	4,341.72	4,336.45	15.51	15.24	-138.22	-216.44	1,142.25	1,229.70	1,199.20	30.51	40.307		
4,500.00	4,498.07	4,408.64	4,385.93	15.69	15.49	-138.29	-217.16	1,146.31	1,235.52	1,204.60	30.92	39.958		
4,550.00	4,548.02	4,441.01	4,435.40	15.87	15.60	-138.35	-217.87	1,150.37	1,241.33	1,210.12	31.21	39.772		
4,600.00	4,597.97	4,509.35	4,484.87	16.05	15.85	-138.41	-218.58	1,154.43	1,247.15	1,215.52	31.63	39.431		
4,650.00	4,647.92	4,540.29	4,534.34	16.22	15.97	-138.47	-219.30	1,158.49	1,252.97	1,221.05	31.91	39.260		
4,700.00	4,697.87	4,589.93	4,583.81	16.40	16.15	-138.53	-220.01	1,162.55	1,258.78	1,226.52	32.27	39.012		
4,750.00	4,747.82	4,639.58	4,633.28	16.58	16.33	-138.59	-220.73	1,166.61	1,264.61	1,231.99	32.62	38.769		
4,800.00	4,797.77	4,689.22	4,682.75	16.76	16.51	-138.65	-221.44	1,170.67	1,270.43	1,237.46	32.97	38.531		
4,850.00	4,847.72	4,738.86	4,732.23	16.94	16.69	-138.71	-222.15	1,174.73	1,276.25	1,242.93	33.32	38.298		
4,900.00	4,897.67	4,788.51	4,781.70	17.12	16.87	-138.77	-222.87	1,178.79	1,282.07	1,248.40	33.68	38.070		
4,950.00	4,947.62	4,838.15	4,831.17	17.30	17.05	-138.82	-223.58	1,182.85	1,287.90	1,253.87	34.03	37.846		
5,000.00	4,997.57	4,887.79	4,880.64	17.48	17.23	-138.88	-224.30	1,186.91	1,293.73	1,259.34	34.38	37.626		
5,050.00	5,047.52	4,937.44	4,930.11	17.66	17.42	-138.94	-225.01	1,190.98	1,299.55	1,264.82	34.74	37.411		
5,100.00	5,097.47	4,987.08	4,979.58	17.84	17.60	-138.99	-225.72	1,195.04	1,305.38	1,270.29	35.09	37.200		
5,150.00	5,147.42	5,036.72	5,029.05	18.02	17.78	-139.05	-226.44	1,199.10	1,311.21	1,275.77	35.44	36.994		

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 Flagler 8 Fed 39H
Project:	Lea County (NAD83 New Mexico East)	TVD Reference:	RKB @ 3471.80ft
Reference Site:	Sec 08-T25S-R33E	MD Reference:	RKB @ 3471.80ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Flagler 8 Fed 39H	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 Sec 08-T25S-R33E - Flagler 8 Fed 12H - Wellbore #1 - Permit Plan 3													Offset Site Error:	0.00 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 Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,197.37	5,086.36	5,078.53	18.20	17.96	-139.10	-227.15	1,203.16	1,317.05	1,281.25	35.80	36.791		
5,250.00	5,247.32	5,136.01	5,128.00	18.38	18.14	-139.16	-227.87	1,207.22	1,322.88	1,286.73	36.15	36.592		
5,300.00	5,297.27	5,185.65	5,177.47	18.56	18.32	-139.21	-228.58	1,211.28	1,328.71	1,292.21	36.51	36.397		
5,350.00	5,347.22	5,235.29	5,226.94	18.74	18.51	-139.26	-229.29	1,215.34	1,334.55	1,297.69	36.86	36.205		
5,400.00	5,397.17	5,284.94	5,276.41	18.92	18.69	-139.32	-230.01	1,219.40	1,340.39	1,303.17	37.22	36.017		
5,450.00	5,447.12	5,334.58	5,325.88	19.10	18.87	-139.37	-230.72	1,223.46	1,346.22	1,308.65	37.57	35.832		
5,500.00	5,497.07	5,384.22	5,375.36	19.28	19.05	-139.42	-231.44	1,227.52	1,352.06	1,314.14	37.92	35.651		
5,550.00	5,547.02	5,433.87	5,424.83	19.46	19.24	-139.47	-232.15	1,231.58	1,357.90	1,319.62	38.28	35.473		
5,600.00	5,596.97	5,483.51	5,474.30	19.64	19.42	-139.53	-232.86	1,235.64	1,363.74	1,325.11	38.63	35.298		
5,650.00	5,646.92	5,533.15	5,523.77	19.82	19.60	-139.58	-233.58	1,239.70	1,369.58	1,330.59	38.99	35.127		
5,700.00	5,696.87	5,582.79	5,573.24	20.00	19.78	-139.63	-234.29	1,243.76	1,375.43	1,336.08	39.35	34.958		
5,750.00	5,746.82	5,632.44	5,622.71	20.19	19.97	-139.68	-235.00	1,247.82	1,381.27	1,341.57	39.70	34.792		
5,800.00	5,796.77	5,682.08	5,672.18	20.37	20.15	-139.73	-235.72	1,251.89	1,387.12	1,347.06	40.06	34.629		
5,850.00	5,846.72	5,731.72	5,721.66	20.55	20.33	-139.77	-236.43	1,255.95	1,392.96	1,352.55	40.41	34.469		
5,900.00	5,896.67	5,781.37	5,771.13	20.73	20.52	-139.82	-237.15	1,260.01	1,398.81	1,358.04	40.77	34.312		
5,950.00	5,946.62	5,831.01	5,820.60	20.91	20.70	-139.87	-237.86	1,264.07	1,404.66	1,363.53	41.12	34.157		
6,000.00	5,996.57	5,880.65	5,870.07	21.09	20.88	-139.92	-238.57	1,268.13	1,410.51	1,369.03	41.48	34.005		
6,050.00	6,046.52	5,930.30	5,919.54	21.27	21.07	-139.97	-239.29	1,272.19	1,416.36	1,374.52	41.84	33.856		
6,100.00	6,096.47	5,979.94	5,969.01	21.45	21.25	-140.01	-240.00	1,276.25	1,422.21	1,380.02	42.19	33.709		
6,150.00	6,146.42	6,029.58	6,018.48	21.64	21.43	-140.06	-240.72	1,280.31	1,428.06	1,385.51	42.55	33.564		
6,200.00	6,196.37	6,079.22	6,067.96	21.82	21.62	-140.11	-241.43	1,284.37	1,433.91	1,391.01	42.90	33.422		
6,250.00	6,246.32	6,128.87	6,117.43	22.00	21.80	-140.15	-242.14	1,288.43	1,439.77	1,396.51	43.26	33.282		
6,300.00	6,296.27	6,178.51	6,166.90	22.18	21.98	-140.20	-242.86	1,292.49	1,445.62	1,402.00	43.62	33.144		
6,350.00	6,346.22	6,228.15	6,216.37	22.36	22.17	-140.24	-243.57	1,296.55	1,451.48	1,407.50	43.97	33.008		
6,400.00	6,396.17	6,277.80	6,265.84	22.54	22.35	-140.29	-244.29	1,300.61	1,457.33	1,413.00	44.33	32.875		
6,450.00	6,446.12	6,327.44	6,315.31	22.72	22.54	-140.33	-245.00	1,304.67	1,463.19	1,418.50	44.69	32.744		
6,500.00	6,496.07	6,377.08	6,364.78	22.91	22.72	-140.38	-245.71	1,308.73	1,469.05	1,424.00	45.04	32.614		
6,550.00	6,546.02	6,426.72	6,414.26	23.09	22.90	-140.42	-246.43	1,312.80	1,474.91	1,429.51	45.40	32.487		
6,600.00	6,595.97	6,476.37	6,463.73	23.27	23.09	-140.46	-247.14	1,316.86	1,480.77	1,435.01	45.76	32.362		
6,650.00	6,645.92	6,526.01	6,513.20	23.45	23.27	-140.51	-247.86	1,320.92	1,486.63	1,440.51	46.11	32.238		
6,700.00	6,695.87	6,575.65	6,562.67	23.63	23.45	-140.55	-248.57	1,324.98	1,492.49	1,446.02	46.47	32.117		
6,750.00	6,745.82	6,625.30	6,612.14	23.82	23.64	-140.59	-249.28	1,329.04	1,498.35	1,451.52	46.83	31.997 SF		

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 Flagler 8 Fed 39H
Project:	Lea County (NAD83 New Mexico East)	TVD Reference:	RKB @ 3471.80ft
Reference Site:	Sec 08-T25S-R33E	MD Reference:	RKB @ 3471.80ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Flagler 8 Fed 39H	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 Sec 08-T25S-R33E - Flagler 8 Fed 16H - Wellbore #1 - Permit Plan 1													Offset Site Error: 0.00 ft
Survey Program: 0-MWD+IGRF													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 Toolface (°)	Offset Wellbore Centre (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	8.20	-8.20	0.50	0.50	89.63	6.38	979.81	979.83				
50.00	50.00	41.80	41.80	0.50	0.50	89.63	6.38	979.81	979.83	978.83	1.01	974.811	
100.00	100.00	108.20	91.80	0.52	0.53	89.63	6.38	979.81	979.83	978.79	1.04	938.619	
150.00	150.00	141.80	141.80	0.59	0.58	89.63	6.38	979.81	979.83	978.67	1.17	840.769	
200.00	200.00	208.20	191.80	0.70	0.72	89.63	6.38	979.81	979.83	978.41	1.43	687.532	
250.00	250.00	241.80	241.80	0.84	0.81	89.63	6.38	979.81	979.83	978.18	1.65	593.108	
300.00	300.00	308.20	291.80	0.99	1.01	89.63	6.38	979.81	979.83	977.83	2.00	489.885	
350.00	350.00	341.80	341.80	1.15	1.12	89.63	6.38	979.81	979.83	977.57	2.26	432.672	
400.00	400.00	408.20	391.80	1.31	1.34	89.63	6.38	979.81	979.83	977.19	2.65	370.392	
450.00	450.00	441.80	441.80	1.48	1.45	89.63	6.38	979.81	979.83	976.91	2.93	334.982	
500.00	500.00	508.20	491.80	1.65	1.67	89.63	6.38	979.81	979.83	976.51	3.32	295.112	
550.00	550.00	541.80	541.80	1.82	1.79	89.63	6.38	979.81	979.83	976.23	3.61	271.640	
600.00	600.00	608.20	591.80	1.99	2.02	89.63	6.38	979.81	979.83	975.82	4.01	244.367	
650.00	650.00	641.80	641.80	2.16	2.14	89.63	6.38	979.81	979.83	975.53	4.30	227.840	
700.00	700.00	708.20	691.80	2.34	2.37	89.63	6.38	979.81	979.83	975.13	4.71	208.149	
750.00	750.00	741.80	741.80	2.51	2.49	89.63	6.38	979.81	979.83	974.83	5.00	195.943	
800.00	800.00	808.20	791.80	2.69	2.72	89.63	6.38	979.81	979.83	974.42	5.41	181.113	
850.00	850.00	841.80	841.80	2.87	2.84	89.63	6.38	979.81	979.83	974.13	5.70	171.754	
900.00	900.00	908.20	891.80	3.04	3.07	89.63	6.38	979.81	979.83	973.72	6.12	160.205	
950.00	950.00	941.80	941.80	3.22	3.19	89.63	6.38	979.81	979.83	973.42	6.41	152.814	
1,000.00	1,000.00	1,008.20	991.80	3.40	3.43	89.63	6.38	979.81	979.83	973.01	6.82	143.578	
1,050.00	1,050.00	1,041.80	1,041.80	3.58	3.55	89.63	6.38	979.81	979.83	972.71	7.12	137.598	
1,100.00	1,100.00	1,108.20	1,091.80	3.75	3.78	89.63	6.38	979.81	979.83	972.30	7.53	130.049	
1,150.00	1,150.00	1,141.80	1,141.80	3.93	3.90	89.63	6.38	979.81	979.83	972.00	7.83	125.115	
1,200.00	1,200.00	1,208.20	1,191.80	4.11	4.14	89.63	6.38	979.81	979.83	971.59	8.25	118.833	
1,250.00	1,250.00	1,241.80	1,241.80	4.29	4.26	89.63	6.38	979.81	979.83	971.29	8.54	114.694	
1,300.00	1,300.00	1,308.20	1,291.80	4.46	4.49	89.63	6.38	979.81	979.83	970.88	8.96	109.386	
1,350.00	1,350.00	1,341.80	1,341.80	4.64	4.61	89.63	6.38	979.81	979.83	970.58	9.26	105.866	
1,400.00	1,400.00	1,408.20	1,391.80	4.82	4.85	89.63	6.38	979.81	979.83	970.16	9.67	101.323	
1,450.00	1,450.00	1,441.80	1,441.80	5.00	4.97	89.63	6.38	979.81	979.83	969.86	9.97	98.293	
1,500.00	1,500.00	1,508.20	1,491.80	5.18	5.21	89.63	6.38	979.81	979.83	969.45	10.38	94.362	
1,550.00	1,550.00	1,541.80	1,541.80	5.36	5.33	89.63	6.38	979.81	979.83	969.15	10.68	91.727	
1,600.00	1,600.00	1,608.20	1,591.80	5.53	5.56	89.63	6.38	979.81	979.83	968.74	11.10	88.293	
1,650.00	1,650.00	1,641.80	1,641.80	5.71	5.68	89.63	6.38	979.81	979.83	968.44	11.40	85.980	
1,700.00	1,700.00	1,708.20	1,691.80	5.89	5.92	89.63	6.38	979.81	979.83	968.02	11.81	82.954	
1,750.00	1,750.00	1,741.80	1,741.80	6.07	6.04	89.63	6.38	979.81	979.83	967.72	12.11	80.909	
1,800.00	1,800.00	1,808.20	1,791.80	6.25	6.28	89.63	6.38	979.81	979.83	967.31	12.53	78.222	
1,850.00	1,850.00	1,841.80	1,841.80	6.43	6.40	89.63	6.38	979.81	979.83	967.01	12.83	76.400	
1,900.00	1,900.00	1,908.20	1,891.80	6.61	6.64	89.63	6.38	979.81	979.83	966.59	13.24	74.000	
1,950.00	1,950.00	1,941.80	1,941.80	6.78	6.76	89.63	6.38	979.81	979.83	966.29	13.54	72.366	
2,000.00	2,000.00	2,008.20	1,991.80	6.96	6.99	89.63	6.38	979.81	979.83	965.88	13.96	70.209	
2,050.00	2,050.00	2,041.80	2,041.80	7.14	7.11	89.63	6.38	979.81	979.83	965.58	14.25	68.736	
2,100.00	2,100.00	2,108.20	2,091.80	7.32	7.35	89.63	6.38	979.81	979.83	965.16	14.67	66.786	
2,150.00	2,150.00	2,141.80	2,141.80	7.50	7.47	89.63	6.38	979.81	979.83	964.86	14.97	65.452	
2,200.00	2,200.00	2,208.20	2,191.80	7.68	7.71	89.63	6.38	979.81	979.83	964.45	15.39	63.681	
2,250.00	2,250.00	2,241.80	2,241.80	7.86	7.83	89.63	6.38	979.81	979.83	964.15	15.69	62.467	
2,300.00	2,300.00	2,308.20	2,291.80	8.04	8.07	89.63	6.38	979.81	979.83	963.73	16.10	60.851	
2,350.00	2,350.00	2,341.80	2,341.80	8.22	8.19	89.63	6.38	979.81	979.83	963.43	16.40	59.742	
2,400.00	2,400.00	2,391.80	2,391.80	8.39	8.36	89.63	6.38	979.81	979.83	963.07	16.76	58.466 CC	
2,450.00	2,450.00	2,443.12	2,443.12	8.57	8.54	-146.68	6.18	979.78	979.99	962.88	17.11	57.287 ES	
2,500.00	2,499.99	2,494.70	2,494.69	8.74	8.72	-146.65	5.41	979.68	980.43	962.97	17.45	56.174	
2,550.00	2,549.98	2,546.26	2,546.24	8.90	8.88	-146.61	4.07	979.49	981.15	963.36	17.79	55.164	

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 16H - Wellbore #1 - Permit Plan 1													Offset Site Error:
Survey Program: 0-MWD+IGRF													Offset Well Error:
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toeface (ft)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
2,600.00	2,599.96	2,603.79	2,596.16	9.07	9.07	-146.56	2.50	979.28	982.20	964.06	18.14	54.152	
2,650.00	2,649.92	2,646.18	2,646.11	9.24	9.21	-146.52	0.94	979.06	983.61	965.17	18.44	53.334	
2,700.00	2,699.87	2,703.84	2,696.06	9.40	9.40	-146.50	-0.63	978.84	985.25	966.46	18.80	52.415	
2,750.00	2,749.82	2,746.13	2,746.00	9.57	9.54	-146.48	-2.19	978.63	986.90	967.79	19.10	51.660	
2,800.00	2,799.77	2,803.90	2,795.95	9.74	9.73	-146.46	-3.76	978.41	988.54	969.08	19.46	50.796	
2,850.00	2,849.72	2,846.07	2,845.90	9.91	9.86	-146.44	-5.32	978.19	990.19	970.42	19.77	50.087	
2,900.00	2,899.67	2,903.96	2,895.84	10.08	10.06	-146.42	-6.89	977.98	991.83	971.70	20.13	49.272	
2,950.00	2,949.62	2,946.01	2,945.79	10.25	10.20	-146.41	-8.45	977.76	993.47	973.03	20.44	48.607	
3,000.00	2,999.57	3,004.01	2,995.74	10.42	10.39	-146.39	-10.02	977.54	995.12	974.32	20.80	47.838	
3,050.00	3,049.52	3,045.96	3,045.88	10.59	10.53	-146.37	-11.58	977.33	996.76	975.65	21.11	47.212	
3,100.00	3,099.47	3,104.07	3,095.63	10.76	10.73	-146.35	-13.15	977.11	998.41	976.93	21.48	46.486	
3,150.00	3,149.42	3,145.90	3,145.58	10.94	10.87	-146.33	-14.71	976.89	1,000.05	978.26	21.79	45.896	
3,200.00	3,199.37	3,204.13	3,195.52	11.11	11.06	-146.31	-16.28	976.68	1,001.70	979.54	22.16	45.209	
3,250.00	3,249.32	3,245.85	3,245.47	11.28	11.20	-146.29	-17.85	976.46	1,003.34	980.87	22.47	44.653	
3,300.00	3,299.27	3,304.18	3,295.42	11.45	11.40	-146.27	-19.41	976.24	1,004.98	982.15	22.84	44.003	
3,350.00	3,349.22	3,345.79	3,345.37	11.63	11.54	-146.26	-20.98	976.03	1,006.63	983.48	23.15	43.478	
3,400.00	3,399.17	3,404.24	3,395.31	11.80	11.74	-146.24	-22.54	975.81	1,008.27	984.75	23.52	42.862	
3,450.00	3,449.12	3,445.73	3,445.26	11.98	11.88	-146.22	-24.11	975.60	1,009.92	986.08	23.84	42.366	
3,500.00	3,499.07	3,504.29	3,495.21	12.15	12.08	-146.20	-25.67	975.38	1,011.56	987.35	24.21	41.781	
3,550.00	3,549.02	3,545.68	3,545.15	12.33	12.23	-146.18	-27.24	975.16	1,013.21	988.68	24.53	41.311	
3,600.00	3,598.97	3,604.35	3,595.10	12.50	12.43	-146.17	-28.80	974.95	1,014.86	989.95	24.90	40.756	
3,650.00	3,648.92	3,645.62	3,645.05	12.68	12.57	-146.15	-30.37	974.73	1,016.50	991.28	25.22	40.311	
3,700.00	3,698.87	3,704.41	3,694.99	12.85	12.77	-146.13	-31.93	974.51	1,018.15	992.55	25.59	39.783	
3,750.00	3,748.82	3,745.57	3,744.94	13.03	12.91	-146.11	-33.50	974.30	1,019.79	993.88	25.91	39.361	
3,800.00	3,798.77	3,804.46	3,794.89	13.20	13.12	-146.09	-35.06	974.08	1,021.44	995.15	26.29	38.859	
3,850.00	3,848.72	3,845.51	3,844.83	13.38	13.26	-146.08	-36.63	973.86	1,023.08	996.48	26.60	38.458	
3,900.00	3,898.67	3,904.52	3,894.78	13.56	13.46	-146.06	-38.19	973.65	1,024.73	997.75	26.98	37.979	
3,950.00	3,948.62	3,945.45	3,944.73	13.73	13.61	-146.04	-39.76	973.43	1,026.38	999.08	27.30	37.599	
4,000.00	3,998.57	4,004.58	3,994.68	13.91	13.81	-146.02	-41.33	973.21	1,028.02	1,000.34	27.68	37.142	
4,050.00	4,048.52	4,045.40	4,044.62	14.09	13.95	-146.00	-42.89	973.00	1,029.67	1,001.67	28.00	36.780	
4,100.00	4,098.47	4,104.63	4,094.57	14.26	14.16	-145.99	-44.46	972.78	1,031.31	1,002.94	28.38	36.343	
4,150.00	4,148.42	4,145.34	4,144.52	14.44	14.30	-145.97	-46.02	972.56	1,032.96	1,004.27	28.69	35.999	
4,200.00	4,198.37	4,204.69	4,194.46	14.62	14.51	-145.95	-47.59	972.35	1,034.61	1,005.53	29.08	35.582	
4,250.00	4,248.32	4,245.28	4,244.41	14.80	14.65	-145.93	-49.15	972.13	1,036.25	1,006.86	29.39	35.253	
4,300.00	4,298.27	4,304.74	4,294.36	14.97	14.86	-145.92	-50.72	971.91	1,037.90	1,008.12	29.78	34.854	
4,350.00	4,348.22	4,345.23	4,344.30	15.15	15.00	-145.90	-52.28	971.70	1,039.55	1,009.45	30.10	34.541	
4,400.00	4,398.17	4,404.80	4,394.25	15.33	15.21	-145.88	-53.85	971.48	1,041.19	1,010.71	30.48	34.159	
4,450.00	4,448.12	4,445.17	4,444.20	15.51	15.35	-145.87	-55.41	971.26	1,042.84	1,012.04	30.80	33.860	
4,500.00	4,498.07	4,504.86	4,494.14	15.69	15.56	-145.85	-56.98	971.05	1,044.49	1,013.30	31.18	33.494	
4,550.00	4,548.02	4,545.12	4,544.09	15.87	15.70	-145.83	-58.54	970.83	1,046.14	1,014.63	31.50	33.208	
4,600.00	4,597.97	4,604.91	4,594.04	16.05	15.91	-145.81	-60.11	970.62	1,047.78	1,015.89	31.89	32.857	
4,650.00	4,647.92	4,645.06	4,643.98	16.22	16.05	-145.80	-61.67	970.40	1,049.43	1,017.22	32.21	32.584	
4,700.00	4,697.87	4,704.97	4,693.93	16.40	16.27	-145.78	-63.24	970.18	1,051.08	1,018.48	32.60	32.247	
4,750.00	4,747.82	4,745.00	4,743.88	16.58	16.41	-145.76	-64.81	969.97	1,052.73	1,019.81	32.91	31.985	
4,800.00	4,797.77	4,805.03	4,793.83	16.76	16.62	-145.75	-66.37	969.75	1,054.37	1,021.07	33.30	31.661	
4,850.00	4,847.72	4,844.95	4,843.77	16.94	16.76	-145.73	-67.94	969.53	1,056.02	1,022.40	33.62	31.411	
4,900.00	4,897.67	4,905.08	4,893.72	17.12	16.97	-145.71	-69.50	969.32	1,057.67	1,023.66	34.01	31.099	
4,950.00	4,947.62	4,944.89	4,943.67	17.30	17.11	-145.70	-71.07	969.10	1,059.32	1,024.99	34.33	30.859	
5,000.00	4,997.57	5,005.14	4,993.61	17.48	17.33	-145.68	-72.63	968.88	1,060.96	1,026.25	34.72	30.560	
5,050.00	5,047.52	5,044.83	5,043.56	17.66	17.47	-145.66	-74.20	968.67	1,062.61	1,027.58	35.04	30.329	
5,100.00	5,097.47	5,105.19	5,093.51	17.84	17.68	-145.65	-75.76	968.45	1,064.26	1,028.83	35.43	30.041	
5,150.00	5,147.42	5,144.78	5,143.45	18.02	17.82	-145.63	-77.33	968.23	1,065.91	1,030.16	35.75	29.820	

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 Flagler 8 Fed 39H
Project:	Lea County (NAD83 New Mexico East)	TVD Reference:	RKB @ 3471.80ft
Reference Site:	Sec 08-T25S-R33E	MD Reference:	RKB @ 3471.80ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Flagler 8 Fed 39H	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 Sec 08-T25S-R33E - Flagler 8 Fed 16H - Wellbore #1 - Permit Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-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)	Offset Wellbore Centre E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,197.37	5,205.25	5,193.40	18.20	18.03	-145.61	-78.89	968.02	1,067.56	1,031.42	36.14	29.542		
5,250.00	5,247.32	5,244.72	5,243.35	18.38	18.17	-145.60	-80.46	967.80	1,069.21	1,032.75	36.45	29.330		
5,300.00	5,297.27	5,305.31	5,293.29	18.56	18.39	-145.58	-82.02	967.58	1,070.85	1,034.01	36.85	29.062		
5,350.00	5,347.22	5,344.67	5,343.24	18.74	18.53	-145.56	-83.59	967.37	1,072.50	1,035.34	37.17	28.858		
5,400.00	5,397.17	5,405.36	5,393.19	18.92	18.74	-145.55	-85.15	967.15	1,074.15	1,036.59	37.56	28.599		
5,450.00	5,447.12	5,444.61	5,443.14	19.10	18.88	-145.53	-86.72	966.93	1,075.80	1,037.92	37.88	28.403		
5,500.00	5,497.07	5,505.42	5,493.08	19.28	19.10	-145.52	-88.29	966.72	1,077.45	1,039.18	38.27	28.153		
5,550.00	5,547.02	5,544.55	5,543.03	19.46	19.24	-145.50	-89.85	966.50	1,079.10	1,040.51	38.59	27.964		
5,600.00	5,596.97	5,605.48	5,592.88	19.64	19.46	-145.48	-91.42	966.28	1,080.75	1,041.76	38.88	27.723		
5,650.00	5,646.92	5,644.50	5,642.92	19.82	19.60	-145.47	-92.98	966.07	1,082.40	1,043.10	39.30	27.541		
5,700.00	5,696.87	5,705.53	5,692.87	20.00	19.81	-145.45	-94.55	965.85	1,084.05	1,044.35	39.70	27.308		
5,750.00	5,746.82	5,744.44	5,742.82	20.19	19.95	-145.44	-96.11	965.64	1,085.70	1,045.68	40.01	27.133		
5,800.00	5,796.77	5,805.59	5,792.76	20.37	20.17	-145.42	-97.68	965.42	1,087.34	1,046.93	40.41	26.908		
5,850.00	5,846.72	5,844.38	5,842.71	20.55	20.31	-145.40	-99.24	965.20	1,088.99	1,048.27	40.73	26.739		
5,900.00	5,896.67	5,905.64	5,892.66	20.73	20.53	-145.39	-100.81	964.99	1,090.64	1,049.52	41.12	26.521		
5,950.00	5,946.62	5,944.33	5,942.60	20.91	20.66	-145.37	-102.37	964.77	1,092.29	1,050.85	41.44	26.358		
6,000.00	5,996.57	6,005.70	5,992.55	21.09	20.88	-145.36	-103.94	964.55	1,093.94	1,052.10	41.84	26.147		
6,050.00	6,046.52	6,044.27	6,042.50	21.27	21.02	-145.34	-105.50	964.34	1,095.59	1,053.44	42.16	25.989		
6,100.00	6,096.47	6,105.76	6,092.44	21.45	21.24	-145.33	-107.07	964.12	1,097.24	1,054.69	42.55	25.785		
6,150.00	6,146.42	6,144.22	6,142.39	21.64	21.38	-145.31	-108.63	963.90	1,098.89	1,056.02	42.87	25.633		
6,200.00	6,196.37	6,205.81	6,192.34	21.82	21.60	-145.30	-110.20	963.69	1,100.54	1,057.27	43.27	25.435		
6,250.00	6,246.32	6,244.16	6,242.29	22.00	21.74	-145.28	-111.77	963.47	1,102.19	1,058.61	43.59	25.288		
6,300.00	6,296.27	6,305.87	6,292.23	22.18	21.96	-145.26	-113.33	963.25	1,103.84	1,059.86	43.99	25.096		
6,350.00	6,346.22	6,344.10	6,342.18	22.36	22.09	-145.25	-114.90	963.04	1,105.49	1,061.19	44.30	24.954		
6,400.00	6,396.17	6,405.92	6,392.13	22.54	22.31	-145.23	-116.46	962.82	1,107.14	1,062.44	44.70	24.768		
6,450.00	6,446.12	6,444.05	6,442.07	22.72	22.45	-145.22	-118.03	962.60	1,108.79	1,063.78	45.02	24.631		
6,500.00	6,496.07	6,505.98	6,492.02	22.91	22.67	-145.20	-119.59	962.39	1,110.44	1,065.03	45.42	24.449		
6,550.00	6,546.02	6,543.99	6,541.97	23.09	22.81	-145.19	-121.16	962.17	1,112.10	1,066.38	45.73	24.317		
6,600.00	6,595.97	6,606.04	6,591.91	23.27	23.03	-145.17	-122.72	961.95	1,113.75	1,067.61	46.13	24.141		
6,650.00	6,645.92	6,643.93	6,641.86	23.45	23.17	-145.16	-124.29	961.74	1,115.40	1,068.95	46.45	24.013		
6,700.00	6,695.87	6,706.09	6,691.81	23.63	23.39	-145.14	-125.85	961.52	1,117.05	1,070.20	46.85	23.842		
6,750.00	6,745.82	6,743.88	6,741.75	23.82	23.53	-145.13	-127.42	961.31	1,118.70	1,071.53	47.17	23.718		
6,800.00	6,795.77	6,806.15	6,791.70	24.00	23.75	-145.11	-128.98	961.09	1,120.35	1,072.78	47.57	23.552		
6,850.00	6,845.72	6,843.82	6,841.65	24.18	23.88	-145.10	-130.55	960.87	1,122.00	1,074.12	47.88	23.431		
6,900.00	6,895.67	6,906.21	6,891.60	24.36	24.11	-145.08	-132.11	960.66	1,123.65	1,075.36	48.29	23.270		
6,950.00	6,945.62	6,943.77	6,941.54	24.54	24.24	-145.07	-133.68	960.44	1,125.30	1,076.70	48.60	23.153		
7,000.00	6,995.57	7,006.26	6,991.49	24.73	24.47	-145.05	-135.25	960.22	1,126.95	1,077.95	49.01	22.996		
7,050.00	7,045.52	7,043.71	7,041.44	24.91	24.60	-145.04	-136.81	960.01	1,128.61	1,079.29	49.32	22.883		
7,100.00	7,095.47	7,106.32	7,091.38	25.09	24.83	-145.03	-138.38	959.79	1,130.26	1,080.53	49.72	22.730		
7,150.00	7,145.42	7,143.65	7,141.33	25.27	24.96	-145.01	-139.94	959.57	1,131.91	1,081.87	50.04	22.621		
7,200.00	7,195.37	7,206.37	7,191.28	25.45	25.19	-145.00	-141.51	959.36	1,133.56	1,083.12	50.44	22.472		
7,250.00	7,245.32	7,243.60	7,241.22	25.64	25.32	-144.98	-143.07	959.14	1,135.21	1,084.45	50.76	22.366		
7,300.00	7,295.27	7,306.43	7,291.17	25.82	25.55	-144.97	-144.64	958.92	1,136.86	1,085.70	51.16	22.221		
7,350.00	7,345.21	7,343.54	7,341.12	26.00	25.68	-144.95	-146.20	958.71	1,138.52	1,087.04	51.48	22.117		
7,400.00	7,395.16	7,406.49	7,391.06	26.18	25.91	-144.94	-147.77	958.49	1,140.17	1,088.29	51.88	21.976		
7,450.00	7,445.11	7,443.48	7,441.01	26.37	26.04	-144.92	-149.33	958.27	1,141.82	1,089.62	52.19	21.876		
7,500.00	7,495.06	7,506.54	7,490.96	26.55	26.26	-144.91	-150.90	958.06	1,143.47	1,090.87	52.60	21.738		
7,550.00	7,545.01	7,543.43	7,540.90	26.73	26.40	-144.90	-152.46	957.84	1,145.12	1,092.21	52.91	21.641		
7,600.00	7,594.96	7,606.60	7,590.85	26.91	26.62	-144.88	-154.03	957.62	1,146.78	1,093.45	53.32	21.507		
7,650.00	7,644.91	7,643.37	7,640.80	27.10	26.76	-144.87	-155.59	957.41	1,148.43	1,094.79	53.63	21.412		
7,700.00	7,694.86	7,706.66	7,690.75	27.28	26.98	-144.85	-157.16	957.19	1,150.08	1,096.04	54.04	21.282		
7,750.00	7,744.81	7,743.32	7,740.69	27.46	27.12	-144.84	-158.73	956.97	1,151.73	1,097.38	54.35	21.190		

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 16H - Wellbore #1 - Permit Plan 1														Offset Site Error:	0.00 ft
Survey Program: 0-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 Footface (ft)	Offset Wellbore Centre +N/S (ft)	+E/W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
7,800.00	7,794.76	7,806.71	7,790.64	27.64	27.35	-144.82	-160.29	956.76	1,153.38	1,098.62	54.76	21.062			
7,850.00	7,844.71	7,843.26	7,840.59	27.83	27.48	-144.81	-161.86	956.54	1,155.04	1,099.96	55.07	20.973			
7,900.00	7,894.66	7,906.77	7,890.53	28.01	27.71	-144.80	-163.42	956.33	1,156.69	1,101.21	55.48	20.848			
7,950.00	7,944.61	7,943.20	7,940.48	28.19	27.84	-144.78	-164.99	956.11	1,158.34	1,102.55	55.79	20.761			
8,000.00	7,994.56	8,006.82	7,990.43	28.37	28.07	-144.77	-166.55	955.89	1,160.00	1,103.79	56.20	20.640			
8,050.00	8,044.51	8,043.15	8,040.37	28.56	28.20	-144.75	-168.12	955.68	1,161.65	1,105.13	56.51	20.555			
8,100.00	8,094.46	8,093.12	8,090.32	28.74	28.38	-144.74	-169.68	955.46	1,163.30	1,106.43	56.87	20.454			
8,150.00	8,144.41	8,143.09	8,140.27	28.92	28.56	-144.73	-171.25	955.24	1,164.95	1,107.72	57.23	20.354			
8,200.00	8,194.36	8,192.71	8,189.86	29.10	28.74	-144.71	-172.79	955.03	1,166.61	1,109.02	57.59	20.256			
8,250.00	8,244.31	8,241.05	8,238.19	29.29	28.90	-144.72	-173.87	954.88	1,168.31	1,110.37	57.94	20.164			
8,300.00	8,294.26	8,289.38	8,286.52	29.47	29.07	-144.76	-174.34	954.82	1,170.08	1,111.80	58.29	20.074			
8,350.00	8,344.21	8,338.88	8,336.01	29.65	29.24	-144.82	-174.36	954.81	1,171.91	1,113.27	58.64	19.986			
8,400.00	8,394.16	8,388.83	8,385.96	29.84	29.41	-144.88	-174.36	954.81	1,173.74	1,114.76	58.98	19.899			
8,450.00	8,444.11	8,438.78	8,435.91	30.02	29.58	-144.95	-174.36	954.81	1,175.57	1,116.24	59.33	19.813			
8,500.00	8,494.06	8,488.73	8,485.86	30.20	29.75	-145.01	-174.36	954.81	1,177.39	1,117.70	59.68	19.728			
8,550.00	8,544.03	8,538.70	8,535.83	30.38	29.91	-145.07	-174.36	954.81	1,178.81	1,118.78	60.03	19.638			
8,600.00	8,594.02	8,588.69	8,585.82	30.56	30.08	-145.11	-174.36	954.81	1,179.70	1,119.33	60.38	19.539			
8,650.00	8,644.02	8,638.68	8,635.82	30.73	30.25	-145.13	-174.36	954.81	1,180.06	1,119.34	60.72	19.435			
8,700.00	8,694.02	8,688.68	8,685.82	30.90	30.42	91.18	-174.36	954.81	1,180.06	1,119.01	61.06	19.327			
8,750.00	8,744.02	8,738.68	8,735.82	31.07	30.59	91.18	-174.36	954.81	1,180.06	1,118.67	61.40	19.220			
8,800.00	8,794.02	8,788.68	8,785.82	31.24	30.76	91.18	-174.36	954.81	1,180.06	1,118.33	61.74	19.114			
8,850.00	8,844.02	8,838.68	8,835.82	31.41	30.93	91.18	-174.36	954.81	1,180.06	1,117.99	62.08	19.009			
8,900.00	8,894.02	8,888.68	8,885.82	31.58	31.10	91.18	-174.36	954.81	1,180.06	1,117.65	62.42	18.906			
8,950.00	8,944.02	8,938.68	8,935.82	31.75	31.27	91.18	-174.36	954.81	1,180.06	1,117.30	62.76	18.803			
9,000.00	8,994.02	8,988.68	8,985.82	31.92	31.44	91.18	-174.36	954.81	1,180.06	1,116.96	63.10	18.702			
9,050.00	9,043.98	9,038.65	9,035.78	32.09	31.61	91.63	-174.36	954.81	1,180.11	1,116.67	63.44	18.602			
9,100.00	9,093.62	9,088.29	9,085.42	32.25	31.78	91.89	-174.36	954.81	1,180.29	1,116.52	63.77	18.508			
9,150.00	9,142.57	9,137.23	9,134.37	32.41	31.94	92.33	-174.36	954.81	1,180.67	1,116.57	64.10	18.421			
9,200.00	9,190.45	9,185.11	9,182.25	32.55	32.11	92.93	-174.36	954.81	1,181.36	1,116.95	64.41	18.341			
9,250.00	9,236.89	9,231.55	9,228.69	32.68	32.26	93.65	-174.36	954.81	1,182.50	1,117.79	64.71	18.273			
9,300.00	9,281.55	9,276.21	9,273.35	32.81	32.42	94.44	-174.36	954.81	1,184.28	1,119.27	65.01	18.218			
9,350.00	9,324.07	9,318.74	9,315.87	32.92	32.56	95.25	-174.36	954.81	1,186.89	1,121.80	65.29	18.179			
9,400.00	9,364.15	9,358.81	9,355.95	33.02	32.70	96.04	-174.36	954.81	1,190.57	1,125.00	65.56	18.160			
9,450.00	9,401.47	9,403.87	9,393.27	33.11	32.85	96.73	-174.36	954.81	1,195.52	1,129.67	65.85	18.156 SF			
9,500.00	9,435.75	9,430.42	9,427.55	33.19	32.94	97.28	-174.36	954.81	1,201.96	1,135.89	66.07	18.193			
9,550.00	9,466.73	9,461.40	9,458.53	33.26	33.05	97.62	-174.36	954.81	1,210.10	1,143.80	66.30	18.251			
9,600.00	9,494.18	9,488.84	9,485.98	33.42	33.14	97.70	-174.36	954.81	1,220.10	1,153.57	66.53	18.339			
9,650.00	9,517.88	9,512.54	9,509.68	33.59	33.22	97.48	-174.36	954.81	1,232.07	1,165.33	66.74	18.461			
9,700.00	9,537.65	9,532.31	9,529.45	33.78	33.29	96.89	-174.36	954.81	1,246.10	1,179.16	66.94	18.616			
9,750.00	9,553.35	9,548.01	9,545.15	33.98	33.34	95.92	-174.36	954.81	1,262.19	1,195.07	67.12	18.806			
9,800.00	9,564.85	9,559.51	9,556.65	34.19	33.38	94.52	-174.36	954.81	1,280.30	1,213.02	67.28	19.029			
9,850.00	9,572.06	9,566.73	9,563.86	34.41	33.41	92.68	-174.36	954.81	1,300.33	1,232.90	67.43	19.285			
9,900.00	9,574.94	9,569.61	9,566.74	34.65	33.42	90.41	-174.36	954.81	1,322.10	1,254.55	67.55	19.572			
9,950.00	9,575.00	9,569.66	9,566.80	34.91	33.42	90.00	-174.36	954.81	1,345.42	1,277.75	67.67	19.882			
10,000.00	9,575.00	9,569.66	9,566.80	35.18	33.42	90.00	-174.36	954.81	1,370.16	1,302.39	67.78	20.216			
10,050.00	9,575.00	9,569.66	9,566.80	35.48	33.42	90.00	-174.36	954.81	1,396.26	1,328.36	67.90	20.563			
10,100.00	9,575.00	9,569.66	9,566.80	35.79	33.42	90.00	-174.36	954.81	1,423.64	1,355.63	68.01	20.932			
10,150.00	9,575.00	9,569.66	9,566.80	36.15	33.42	90.00	-174.36	954.81	1,452.22	1,384.08	68.14	21.312			
10,200.00	9,575.00	9,569.66	9,566.80	36.50	33.42	90.00	-174.36	954.81	1,481.94	1,413.69	68.25	21.712			

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 25H - Wellbore #1 - Permit Plan 2														Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IGRF														Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis		Highside Toolface	Offset Wellbore Centre		Distance		Minimum Separation	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)					
0.00	0.00	0.30	-0.30	0.50	0.50	89.64	0.19	29.99	29.99						
50.00	50.00	49.70	49.70	0.50	0.50	89.64	0.19	29.99	29.99	28.98	1.01	29.799			
100.00	100.00	100.30	99.70	0.52	0.52	89.64	0.19	29.99	29.99	28.95	1.04	28.954			
150.00	150.00	149.70	149.70	0.59	0.59	89.64	0.19	29.99	29.99	28.81	1.18	25.418			
200.00	200.00	200.30	199.70	0.70	0.70	89.64	0.19	29.99	29.99	28.59	1.40	21.346			
250.00	250.00	249.70	249.70	0.84	0.84	89.64	0.19	29.99	29.99	28.32	1.67	17.910			
300.00	300.00	300.30	299.70	0.99	0.99	89.64	0.19	29.99	29.99	28.02	1.98	15.181			
350.00	350.00	349.70	349.70	1.15	1.14	89.64	0.19	29.99	29.99	27.70	2.29	13.096			
400.00	400.00	400.30	399.70	1.31	1.31	89.64	0.19	29.99	29.99	27.37	2.62	11.450			
450.00	450.00	449.70	449.70	1.48	1.48	89.64	0.19	29.99	29.99	27.04	2.95	10.161			
500.00	500.00	500.30	499.70	1.65	1.65	89.64	0.19	29.99	29.99	26.70	3.29	9.107			
550.00	550.00	549.70	549.70	1.82	1.82	89.64	0.19	29.99	29.99	26.36	3.63	8.252			
600.00	600.00	600.30	599.70	1.99	1.99	89.64	0.19	29.99	29.99	26.01	3.98	7.531			
650.00	650.00	649.70	649.70	2.16	2.16	89.64	0.19	29.99	29.99	25.66	4.33	6.829			
700.00	700.00	700.30	699.70	2.34	2.34	89.64	0.19	29.99	29.99	25.31	4.68	6.409			
750.00	750.00	749.70	749.70	2.51	2.51	89.64	0.19	29.99	29.99	24.96	5.03	5.964			
800.00	800.00	800.30	799.70	2.69	2.69	89.64	0.19	29.99	29.99	24.61	5.38	5.572			
850.00	850.00	849.70	849.70	2.87	2.87	89.64	0.19	29.99	29.99	24.26	5.73	5.231			
900.00	900.00	900.30	899.70	3.04	3.04	89.64	0.19	29.99	29.99	23.90	6.09	4.926 Alert			
950.00	950.00	949.70	949.70	3.22	3.22	89.64	0.19	29.99	29.99	23.55	6.44	4.657 Alert			
1,000.00	1,000.00	1,000.30	999.70	3.40	3.40	89.64	0.19	29.99	29.99	23.19	6.80	4.413 Alert			
1,050.00	1,050.00	1,049.70	1,049.70	3.58	3.57	89.64	0.19	29.99	29.99	22.84	7.15	4.195 Alert			
1,100.00	1,100.00	1,100.30	1,099.70	3.75	3.75	89.64	0.19	29.99	29.99	22.48	7.51	3.995 Alert			
1,150.00	1,150.00	1,149.70	1,149.70	3.93	3.93	89.64	0.19	29.99	29.99	22.13	7.86	3.816 Alert			
1,200.00	1,200.00	1,200.30	1,199.70	4.11	4.11	89.64	0.19	29.99	29.99	21.77	8.22	3.650 Alert			
1,250.00	1,250.00	1,249.70	1,249.70	4.29	4.29	89.64	0.19	29.99	29.99	21.42	8.57	3.499 Alert			
1,300.00	1,300.00	1,300.30	1,299.70	4.46	4.47	89.64	0.19	29.99	29.99	21.06	8.93	3.359 Alert			
1,350.00	1,350.00	1,349.70	1,349.70	4.64	4.64	89.64	0.19	29.99	29.99	20.71	9.28	3.231 Alert			
1,400.00	1,400.00	1,400.30	1,399.70	4.82	4.82	89.64	0.19	29.99	29.99	20.35	9.64	3.110 Alert			
1,450.00	1,450.00	1,449.70	1,449.70	5.00	5.00	89.64	0.19	29.99	29.99	19.99	10.00	3.000 Alert			
1,500.00	1,500.00	1,500.30	1,499.70	5.18	5.18	89.64	0.19	29.99	29.99	19.64	10.36	2.896 Alert			
1,550.00	1,550.00	1,549.70	1,549.70	5.36	5.35	89.64	0.19	29.99	29.99	19.28	10.71	2.800 Alert			
1,600.00	1,600.00	1,600.30	1,599.70	5.53	5.54	89.64	0.19	29.99	29.99	18.92	11.07	2.709 Alert			
1,650.00	1,650.00	1,649.70	1,649.70	5.71	5.71	89.64	0.19	29.99	29.99	18.57	11.42	2.625 Alert			
1,700.00	1,700.00	1,700.30	1,699.70	5.89	5.89	89.64	0.19	29.99	29.99	18.21	11.78	2.545 Alert			
1,750.00	1,750.00	1,749.70	1,749.70	6.07	6.07	89.64	0.19	29.99	29.99	17.85	12.14	2.471 Minor Risk			
1,800.00	1,800.00	1,800.30	1,799.70	6.25	6.25	89.64	0.19	29.99	29.99	17.49	12.50	2.400 Minor Risk			
1,850.00	1,850.00	1,849.70	1,849.70	6.43	6.43	89.64	0.19	29.99	29.99	17.14	12.85	2.333 Minor Risk			
1,900.00	1,900.00	1,900.30	1,899.70	6.61	6.61	89.64	0.19	29.99	29.99	16.78	13.21	2.270 Minor Risk			
1,950.00	1,950.00	1,949.70	1,949.70	6.78	6.78	89.64	0.19	29.99	29.99	16.42	13.57	2.210 Minor Risk			
2,000.00	2,000.00	2,000.30	1,999.70	6.96	6.96	89.64	0.19	29.99	29.99	16.06	13.93	2.153 Minor Risk			
2,050.00	2,050.00	2,049.70	2,049.70	7.14	7.14	89.64	0.19	29.99	29.99	15.71	14.28	2.100 Minor Risk			
2,100.00	2,100.00	2,100.30	2,099.70	7.32	7.32	89.64	0.19	29.99	29.99	15.35	14.64	2.048 Minor Risk			
2,150.00	2,150.00	2,149.70	2,149.70	7.50	7.50	89.64	0.19	29.99	29.99	14.99	15.00	2.000 Minor Risk			
2,200.00	2,200.00	2,200.30	2,199.70	7.68	7.68	89.64	0.19	29.99	29.99	14.63	15.36	1.953 Minor Risk			
2,250.00	2,250.00	2,249.70	2,249.70	7.86	7.86	89.64	0.19	29.99	29.99	14.28	15.71	1.909 Minor Risk			
2,300.00	2,300.00	2,300.30	2,299.70	8.04	8.04	89.64	0.19	29.99	29.99	13.92	16.07	1.866 Minor Risk			
2,350.00	2,350.00	2,349.70	2,349.70	8.22	8.21	89.64	0.19	29.99	29.99	13.56	16.43	1.825 Minor Risk			
2,400.00	2,400.00	2,400.30	2,399.70	8.39	8.40	89.64	0.19	29.99	29.99	13.20	16.79	1.786 Minor Risk, CC			
2,450.00	2,450.00	2,449.70	2,449.70	8.57	8.57	-146.90	0.19	29.99	30.17	13.04	17.14	1.761 Minor Risk, ES			
2,500.00	2,499.99	2,500.31	2,499.69	8.74	8.75	-147.56	0.19	29.99	30.72	13.23	17.49	1.757 Minor Risk, SF			
2,550.00	2,549.98	2,549.68	2,549.68	8.90	8.93	-148.62	0.19	29.99	31.65	13.82	17.83	1.775 Minor Risk			

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

Anticollision Report

Company: WCDSC Permian NM
 Project: Lea County (NAD83 New Mexico East)
 Reference Site: Sec 08-T25S-R33E
 Site Error: 0.00 ft
 Reference Well: Flagler 8 Fed 39H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
 MD Reference: RKB @ 3471.80ft
 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 08-T25S-R33E - Flagler 8 Fed 25H - Wellbore #1 - Permit Plan 2		Offset Site Error: 0.00 ft	
Survey Program: 0-MWD+IGRF													Offset Well Error: 0.50 ft			
Reference		Offset		Semi Major Axis		Highside Toolface (°)	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)						
2,600.00	2,599.96	2,600.34	2,599.66	9.07	9.11	-149.99	0.19	29.99	32.96	14.78	18.18	1.813 Minor Risk				
2,650.00	2,649.92	2,649.62	2,649.62	9.24	9.29	-151.61	0.19	29.99	34.68	16.15	18.52	1.872 Minor Risk				
2,700.00	2,699.87	2,699.57	2,699.57	9.40	9.47	-153.27	0.19	29.99	36.66	17.79	18.87	1.943 Minor Risk				
2,750.00	2,749.82	2,749.26	2,749.26	9.57	9.64	-154.55	0.08	30.17	38.84	19.63	19.21	2.022 Minor Risk				
2,800.00	2,799.77	2,798.92	2,798.92	9.74	9.81	-155.32	-0.24	30.73	41.37	21.82	19.54	2.117 Minor Risk				
2,850.00	2,849.72	2,848.55	2,848.54	9.91	9.97	-155.65	-0.78	31.65	44.23	24.36	19.87	2.228 Minor Risk				
2,900.00	2,899.67	2,898.14	2,898.10	10.08	10.14	-155.60	-1.53	32.95	47.44	27.23	20.20	2.348 Minor Risk				
2,950.00	2,949.62	2,947.69	2,947.61	10.25	10.30	-155.25	-2.50	34.62	50.98	30.44	20.53	2.482 Minor Risk				
3,000.00	2,999.57	2,997.18	2,997.05	10.42	10.47	-154.66	-3.68	36.65	54.85	33.99	20.86	2.629 Alert				
3,050.00	3,049.52	3,046.90	3,046.69	10.59	10.64	-153.96	-5.03	38.97	58.98	37.78	21.20	2.782 Alert				
3,100.00	3,099.47	3,103.28	3,096.44	10.76	10.83	-153.34	-6.39	41.31	63.13	41.58	21.56	2.929 Alert				
3,150.00	3,149.42	3,146.55	3,146.19	10.94	10.98	-152.80	-7.75	43.64	67.29	45.42	21.87	3.077 Alert				
3,200.00	3,199.37	3,203.63	3,195.94	11.11	11.17	-152.32	-9.11	45.98	71.46	49.22	22.24	3.214 Alert				
3,250.00	3,249.32	3,246.19	3,245.69	11.28	11.32	-151.89	-10.46	48.32	75.63	53.08	22.55	3.354 Alert				
3,300.00	3,299.27	3,303.99	3,295.44	11.45	11.51	-151.51	-11.82	50.65	79.80	56.88	22.92	3.482 Alert				
3,350.00	3,349.22	3,345.84	3,345.19	11.63	11.66	-151.16	-13.18	52.99	83.97	60.74	23.23	3.615 Alert				
3,400.00	3,399.17	3,404.34	3,394.94	11.80	11.86	-150.85	-14.54	55.33	88.15	64.55	23.60	3.735 Alert				
3,450.00	3,449.12	3,445.48	3,444.69	11.98	12.00	-150.57	-15.90	57.66	92.33	68.42	23.92	3.861 Alert				
3,500.00	3,499.07	3,504.69	3,494.44	12.15	12.21	-150.31	-17.26	60.00	96.52	72.23	24.29	3.974 Alert				
3,550.00	3,549.02	3,545.13	3,544.19	12.33	12.35	-150.07	-18.62	62.34	100.70	76.10	24.60	4.093 Alert				
3,600.00	3,598.97	3,605.05	3,593.94	12.50	12.55	-149.85	-19.97	64.67	104.89	79.91	24.98	4.199 Alert				
3,650.00	3,648.92	3,644.77	3,643.69	12.68	12.69	-149.65	-21.33	67.01	109.08	83.79	25.29	4.313 Alert				
3,700.00	3,698.87	3,705.40	3,693.44	12.85	12.90	-149.46	-22.69	69.35	113.26	87.59	25.67	4.412 Alert				
3,750.00	3,748.82	3,744.42	3,743.19	13.03	13.04	-149.29	-24.05	71.68	117.45	91.47	25.98	4.521 Alert				
3,800.00	3,798.77	3,805.76	3,792.94	13.20	13.26	-149.13	-25.41	74.02	121.65	95.28	26.36	4.614 Alert				
3,850.00	3,848.72	3,844.07	3,842.69	13.38	13.39	-148.98	-26.77	76.36	125.84	99.17	26.67	4.718 Alert				
3,900.00	3,898.67	3,906.11	3,892.44	13.56	13.61	-148.83	-28.13	78.69	130.03	102.97	27.06	4.805 Alert				
3,950.00	3,948.62	3,943.71	3,942.19	13.73	13.74	-148.70	-29.48	81.03	134.22	106.86	27.37	4.905 Alert				
4,000.00	3,998.57	4,006.47	3,991.94	13.91	13.96	-148.58	-30.84	83.37	138.42	110.66	27.76	4.987 Alert				
4,050.00	4,048.52	4,043.36	4,041.68	14.09	14.09	-148.46	-32.20	85.70	142.61	114.55	28.06	5.082				
4,100.00	4,098.47	4,106.82	4,091.43	14.26	14.32	-148.35	-33.56	88.04	146.81	118.35	28.46	5.159				
4,150.00	4,148.42	4,143.00	4,141.18	14.44	14.44	-148.25	-34.92	90.38	151.00	122.25	28.76	5.251				
4,200.00	4,198.37	4,207.17	4,190.93	14.62	14.67	-148.15	-36.28	92.71	155.20	126.04	29.16	5.323				
4,250.00	4,248.32	4,242.65	4,240.68	14.80	14.80	-148.05	-37.64	95.05	159.40	129.94	29.46	5.411				
4,300.00	4,298.27	4,307.53	4,290.43	14.97	15.03	-147.97	-39.00	97.39	163.59	133.74	29.86	5.479				
4,350.00	4,348.22	4,342.30	4,340.18	15.15	15.15	-147.88	-40.35	99.73	167.79	137.64	30.15	5.564				
4,400.00	4,398.17	4,407.88	4,389.93	15.33	15.39	-147.80	-41.71	102.06	171.99	141.43	30.56	5.628				
4,450.00	4,448.12	4,441.94	4,439.68	15.51	15.51	-147.73	-43.07	104.40	176.19	145.33	30.86	5.710				
4,500.00	4,498.07	4,508.24	4,489.43	15.69	15.74	-147.65	-44.43	106.74	180.39	149.12	31.26	5.770				
4,550.00	4,548.02	4,541.59	4,539.18	15.87	15.86	-147.58	-45.79	109.07	184.58	153.03	31.56	5.849				
4,600.00	4,597.97	4,608.59	4,588.93	16.05	16.10	-147.52	-47.15	111.41	188.78	156.81	31.97	5.905				
4,650.00	4,647.92	4,641.23	4,638.68	16.22	16.22	-147.45	-48.51	113.75	192.98	160.72	32.26	5.982				
4,700.00	4,697.87	4,708.94	4,688.43	16.40	16.46	-147.39	-49.86	116.08	197.18	164.51	32.68	6.035				
4,750.00	4,747.82	4,740.88	4,738.18	16.58	16.58	-147.33	-51.22	118.42	201.38	168.42	32.96	6.109				
4,800.00	4,797.77	4,809.30	4,787.93	16.76	16.82	-147.28	-52.58	120.76	205.58	172.20	33.38	6.158				
4,850.00	4,847.72	4,840.52	4,837.68	16.94	16.93	-147.23	-53.94	123.09	209.78	176.11	33.67	6.231				
4,900.00	4,897.67	4,890.35	4,887.43	17.12	17.11	-147.17	-55.30	125.43	213.98	179.96	34.02	6.290				
4,950.00	4,947.62	4,940.17	4,937.18	17.30	17.29	-147.12	-56.66	127.77	218.18	183.81	34.37	6.347				
5,000.00	4,997.57	4,989.99	4,986.93	17.48	17.47	-147.08	-58.02	130.10	222.38	187.65	34.73	6.404				
5,050.00	5,047.52	5,039.82	5,036.68	17.66	17.65	-147.03	-59.37	132.44	226.58	191.50	35.08	6.459				
5,100.00	5,097.47	5,089.64	5,086.42	17.84	17.83	-146.99	-60.73	134.78	230.78	195.35	35.43	6.513				
5,150.00	5,147.42	5,139.46	5,136.17	18.02	18.01	-146.94	-62.09	137.11	234.98	199.20	35.79	6.566				

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 Flagler 8 Fed 39H
Project:	Lea County (NAD83 New Mexico East)	TVD Reference:	RKB @ 3471.80ft
Reference Site:	Sec 08-T25S-R33E	MD Reference:	RKB @ 3471.80ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Flagler 8 Fed 39H	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: Sec 08-T25S-R33E - Flagler 8 Fed 25H - Wellbore #1 - Permit Plan 2														Offset Site Error:	0.00 ft
Survey Program: 0-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			
5,200.00	5,197.37	5,189.28	5,185.92	18.20	18.19	-146.90	-63.45	139.45	239.19	203.04	36.14	6.618			
5,250.00	5,247.32	5,239.11	5,235.67	18.38	18.37	-146.86	-64.81	141.79	243.39	206.89	36.50	6.669			
5,300.00	5,297.27	5,288.93	5,285.42	18.56	18.55	-146.83	-66.17	144.12	247.59	210.74	36.85	6.719			
5,350.00	5,347.22	5,338.75	5,335.17	18.74	18.73	-146.79	-67.53	146.46	251.79	214.58	37.20	6.768			
5,400.00	5,397.17	5,388.58	5,384.92	18.92	18.91	-146.75	-68.88	148.80	255.99	218.43	37.56	6.816			
5,450.00	5,447.12	5,438.40	5,434.67	19.10	19.09	-146.72	-70.24	151.13	260.19	222.28	37.91	6.863			
5,500.00	5,497.07	5,488.22	5,484.42	19.28	19.27	-146.68	-71.60	153.47	264.39	226.13	38.27	6.909			
5,550.00	5,547.02	5,538.05	5,534.17	19.46	19.45	-146.65	-72.96	155.81	268.60	229.97	38.62	6.954			
5,600.00	5,596.97	5,587.87	5,583.92	19.64	19.63	-146.62	-74.32	158.14	272.80	233.82	38.98	6.999			
5,650.00	5,646.92	5,637.69	5,633.67	19.82	19.82	-146.59	-75.68	160.48	277.00	237.67	39.33	7.042			
5,700.00	5,696.87	5,687.51	5,683.42	20.00	20.00	-146.56	-77.04	162.82	281.20	241.51	39.69	7.085			
5,750.00	5,746.82	5,737.34	5,733.17	20.19	20.18	-146.53	-78.39	165.15	285.40	245.36	40.04	7.127			
5,800.00	5,796.77	5,787.16	5,782.92	20.37	20.36	-146.50	-79.75	167.49	289.61	249.20	40.40	7.168			
5,850.00	5,846.72	5,836.98	5,832.67	20.55	20.54	-146.48	-81.11	169.83	293.81	253.05	40.76	7.209			
5,900.00	5,896.67	5,886.81	5,882.42	20.73	20.72	-146.45	-82.47	172.17	298.01	256.90	41.11	7.249			
5,950.00	5,946.62	5,936.63	5,932.17	20.91	20.90	-146.42	-83.83	174.50	302.21	260.74	41.47	7.288			
6,000.00	5,996.57	5,986.45	5,981.92	21.09	21.08	-146.40	-85.19	176.84	306.41	264.59	41.82	7.326			
6,050.00	6,046.52	6,036.27	6,031.67	21.27	21.27	-146.37	-86.55	179.18	310.62	268.44	42.18	7.364			
6,100.00	6,096.47	6,086.10	6,081.42	21.45	21.45	-146.35	-87.90	181.51	314.82	272.28	42.54	7.401			
6,150.00	6,146.42	6,135.92	6,131.17	21.64	21.63	-146.33	-89.26	183.85	319.02	276.13	42.89	7.438			
6,200.00	6,196.37	6,185.74	6,180.91	21.82	21.81	-146.31	-90.62	186.19	323.22	279.97	43.25	7.473			
6,250.00	6,246.32	6,235.57	6,230.66	22.00	21.99	-146.28	-91.98	188.52	327.43	283.82	43.61	7.509			
6,300.00	6,296.27	6,285.39	6,280.41	22.18	22.17	-146.26	-93.34	190.86	331.63	287.67	43.96	7.543			
6,350.00	6,346.22	6,335.21	6,330.16	22.36	22.36	-146.24	-94.70	193.20	335.83	291.51	44.32	7.577			
6,400.00	6,396.17	6,385.03	6,379.91	22.54	22.54	-146.22	-96.06	195.53	340.04	295.36	44.68	7.611			
6,450.00	6,446.12	6,434.86	6,429.66	22.72	22.72	-146.20	-97.41	197.87	344.24	299.20	45.03	7.644			
6,500.00	6,496.07	6,484.68	6,479.41	22.91	22.90	-146.18	-98.77	200.21	348.44	303.05	45.39	7.676			
6,550.00	6,546.02	6,534.50	6,529.16	23.09	23.08	-146.16	-100.13	202.54	352.64	306.90	45.75	7.708			
6,600.00	6,595.97	6,584.33	6,578.91	23.27	23.27	-146.15	-101.49	204.88	356.85	310.74	46.11	7.740			
6,650.00	6,645.92	6,634.15	6,628.66	23.45	23.45	-146.13	-102.85	207.22	361.05	314.59	46.46	7.771			
6,700.00	6,695.87	6,683.97	6,678.41	23.63	23.63	-146.11	-104.21	209.55	365.25	318.43	46.82	7.801			
6,750.00	6,745.82	6,733.80	6,728.16	23.82	23.81	-146.09	-105.57	211.89	369.46	322.28	47.18	7.831			
6,800.00	6,795.77	6,783.62	6,777.91	24.00	24.00	-146.08	-106.92	214.23	373.66	326.12	47.54	7.861			
6,850.00	6,845.72	6,833.44	6,827.66	24.18	24.18	-146.06	-108.28	216.56	377.86	329.97	47.89	7.890			
6,900.00	6,895.67	6,883.26	6,877.41	24.36	24.36	-146.04	-109.64	218.90	382.07	333.81	48.25	7.918			
6,950.00	6,945.62	6,933.09	6,927.16	24.54	24.54	-146.03	-111.00	221.24	386.27	337.66	48.61	7.946			
7,000.00	6,995.57	6,982.91	6,976.91	24.73	24.73	-146.01	-112.36	223.57	390.47	341.50	48.97	7.974			
7,050.00	7,045.52	7,032.73	7,026.66	24.91	24.91	-146.00	-113.72	225.91	394.67	345.35	49.33	8.001			
7,100.00	7,095.47	7,082.56	7,076.41	25.09	25.09	-145.98	-115.08	228.25	398.88	349.19	49.68	8.028			
7,150.00	7,145.42	7,132.38	7,126.16	25.27	25.28	-145.97	-116.43	230.58	403.08	353.04	50.04	8.055			
7,200.00	7,195.37	7,182.20	7,175.91	25.45	25.46	-145.95	-117.79	232.92	407.28	356.88	50.40	8.081			
7,250.00	7,245.32	7,232.02	7,225.65	25.64	25.64	-145.94	-119.15	235.26	411.49	360.73	50.76	8.107			
7,300.00	7,295.27	7,281.85	7,275.40	25.82	25.82	-145.93	-120.51	237.59	415.69	364.57	51.12	8.132			
7,350.00	7,345.21	7,331.67	7,325.15	26.00	26.01	-145.91	-121.87	239.93	419.89	368.42	51.47	8.157			
7,400.00	7,395.16	7,381.49	7,374.90	26.18	26.19	-145.90	-123.23	242.27	424.10	372.26	51.83	8.182			
7,450.00	7,445.11	7,431.32	7,424.65	26.37	26.37	-145.89	-124.59	244.61	428.30	376.11	52.19	8.206			
7,500.00	7,495.06	7,481.14	7,474.40	26.55	26.56	-145.88	-125.94	246.94	432.50	379.95	52.55	8.230			
7,550.00	7,545.01	7,530.96	7,524.15	26.73	26.74	-145.86	-127.30	249.28	436.71	383.80	52.91	8.254			
7,600.00	7,594.96	7,580.78	7,573.90	26.91	26.92	-145.85	-128.66	251.62	440.91	387.64	53.27	8.277			
7,650.00	7,644.91	7,630.61	7,623.65	27.10	27.11	-145.84	-130.02	253.95	445.11	391.49	53.63	8.300			
7,700.00	7,694.86	7,680.43	7,673.40	27.28	27.29	-145.83	-131.38	256.29	449.32	395.33	53.99	8.323			
7,750.00	7,744.81	7,730.25	7,723.15	27.46	27.47	-145.82	-132.74	258.63	453.52	399.18	54.34	8.345			

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 25H - Wellbore #1 - Permit Plan 2														Offset Site Error: 0.00 ft	
Survey Program: 0-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			
7,800.00	7,794.76	7,780.08	7,772.90	27.64	27.66	-145.81	-134.10	260.96	457.73	403.02	54.70	8.367			
7,850.00	7,844.71	7,829.90	7,822.65	27.83	27.84	-145.79	-135.45	263.30	461.93	406.87	55.06	8.389			
7,900.00	7,894.66	7,879.72	7,872.40	28.01	28.02	-145.78	-136.81	265.64	466.13	410.71	55.42	8.411			
7,950.00	7,944.61	7,929.54	7,922.15	28.19	28.21	-145.77	-138.17	267.97	470.34	414.56	55.78	8.432			
8,000.00	7,994.56	7,979.37	7,971.90	28.37	28.39	-145.76	-139.53	270.31	474.54	418.40	56.14	8.453			
8,050.00	8,044.51	8,029.19	8,021.65	28.56	28.57	-145.75	-140.89	272.65	478.74	422.24	56.50	8.473			
8,100.00	8,094.46	8,079.01	8,071.40	28.74	28.76	-145.74	-142.25	274.98	482.95	426.09	56.86	8.494			
8,150.00	8,144.41	8,128.84	8,121.15	28.92	28.94	-145.73	-143.61	277.32	487.15	429.93	57.22	8.514			
8,200.00	8,194.36	8,178.66	8,170.90	29.10	29.12	-145.72	-144.97	279.66	491.35	433.78	57.58	8.534			
8,250.00	8,244.31	8,228.48	8,220.65	29.29	29.31	-145.71	-146.32	281.99	495.56	437.62	57.94	8.554			
8,300.00	8,294.26	8,281.60	8,273.69	29.47	29.50	-145.71	-147.72	284.39	499.68	441.36	58.32	8.568			
8,350.00	8,344.21	8,337.89	8,329.94	29.65	29.71	-145.75	-148.83	286.30	503.23	444.51	58.72	8.570			
8,400.00	8,394.16	8,394.28	8,386.30	29.84	29.91	-145.83	-149.53	287.50	506.15	447.04	59.11	8.563			
8,450.00	8,444.11	8,450.72	8,442.75	30.02	30.11	-145.96	-149.80	287.98	508.43	448.94	59.49	8.546			
8,500.00	8,494.06	8,501.74	8,493.76	30.20	30.28	-146.11	-149.81	287.99	510.27	450.43	59.85	8.526			
8,550.00	8,544.03	8,551.71	8,543.73	30.38	30.45	-146.23	-149.81	287.99	511.72	451.52	60.20	8.501			
8,600.00	8,594.02	8,601.70	8,593.72	30.56	30.62	-146.30	-149.81	287.99	512.62	452.07	60.55	8.466			
8,650.00	8,644.02	8,651.69	8,643.72	30.73	30.79	-146.33	-149.81	287.99	512.98	452.09	60.90	8.424			
8,700.00	8,694.02	8,701.69	8,693.72	30.90	30.96	89.98	-149.81	287.99	512.99	451.75	61.24	8.377			
8,750.00	8,744.02	8,751.69	8,743.72	31.07	31.13	89.98	-149.81	287.99	512.99	451.41	61.58	8.330			
8,800.00	8,794.02	8,801.69	8,793.72	31.24	31.30	89.98	-149.81	287.99	512.99	451.07	61.92	8.284			
8,850.00	8,844.02	8,851.84	8,843.83	31.41	31.47	89.81	-148.28	287.98	512.98	450.72	62.26	8.239			
8,867.14	8,861.16	8,868.94	8,860.86	31.47	31.52	89.64	-146.78	287.97	512.98	450.60	62.38	8.224			
8,900.00	8,894.02	8,901.40	8,893.04	31.58	31.63	89.17	-142.54	287.94	513.00	450.40	62.60	8.195			
8,950.00	8,944.02	8,949.62	8,940.27	31.75	31.78	88.09	-132.89	287.88	513.18	450.26	62.92	8.157			
9,000.00	8,994.02	8,995.90	8,984.68	31.92	31.91	86.64	-119.92	287.80	513.76	450.54	63.22	8.127			
9,050.00	9,043.98	9,040.33	9,026.21	32.09	32.03	85.30	-104.14	287.70	514.92	451.43	63.50	8.110			
9,100.00	9,093.62	9,083.76	9,065.49	32.25	32.14	83.62	-85.65	287.59	516.54	452.81	63.74	8.104			
9,150.00	9,142.57	9,126.30	9,102.50	32.41	32.24	81.99	-64.71	287.46	518.56	454.83	63.94	8.111			
9,200.00	9,190.45	9,168.04	9,137.22	32.55	32.33	80.42	-41.54	287.31	520.91	456.82	64.09	8.128			
9,250.00	9,236.89	9,209.08	9,169.62	32.68	32.41	78.93	-16.36	287.15	523.51	459.31	64.20	8.155			
9,300.00	9,281.55	9,249.50	9,199.68	32.81	32.48	77.52	10.63	286.98	526.29	462.03	64.26	8.190			
9,350.00	9,324.07	9,289.35	9,227.39	32.92	32.54	76.20	39.27	286.80	529.18	464.90	64.28	8.232			
9,400.00	9,364.15	9,328.71	9,252.73	33.02	32.59	74.97	69.37	286.62	532.11	467.84	64.27	8.279			
9,450.00	9,401.47	9,367.64	9,275.71	33.11	32.64	73.85	100.78	286.42	535.00	470.75	64.25	8.329			
9,500.00	9,435.75	9,406.18	9,296.31	33.19	32.75	72.83	133.35	286.21	537.79	473.58	64.21	8.376			
9,550.00	9,466.73	9,444.40	9,314.53	33.26	32.88	71.91	166.94	286.00	540.42	476.25	64.18	8.421			
9,600.00	9,494.18	9,482.33	9,330.35	33.42	33.03	71.11	201.40	285.79	542.84	478.68	64.16	8.460			
9,650.00	9,517.88	9,520.03	9,343.79	33.59	33.17	70.43	236.62	285.57	545.00	480.81	64.18	8.491			
9,700.00	9,537.65	9,557.53	9,354.83	33.78	33.33	69.85	272.44	285.34	546.85	482.60	64.25	8.512			
9,750.00	9,553.35	9,594.87	9,363.47	33.98	33.49	69.40	308.76	285.11	548.36	483.99	64.37	8.519			
9,800.00	9,564.85	9,632.09	9,369.71	34.19	33.65	69.06	345.45	284.88	549.50	484.95	64.55	8.512			
9,850.00	9,572.06	9,669.22	9,373.55	34.41	33.83	68.84	382.38	284.65	550.26	485.44	64.81	8.490			
9,900.00	9,574.94	9,715.01	9,375.00	34.65	34.05	68.74	418.14	284.43	550.60	485.42	65.19	8.447			
9,950.00	9,575.00	9,755.02	9,375.00	34.91	34.26	68.74	468.14	284.11	550.64	485.02	65.62	8.391			
10,000.00	9,575.00	9,805.02	9,375.00	35.18	34.54	68.74	518.14	283.80	550.65	484.53	66.11	8.329			
10,050.00	9,575.00	9,855.02	9,375.00	35.48	34.85	68.74	568.14	283.49	550.66	483.97	66.69	8.257			
10,100.00	9,575.00	9,905.02	9,375.00	35.79	35.17	68.74	618.14	283.17	550.67	483.41	67.27	8.186			
10,150.00	9,575.00	9,955.02	9,375.00	36.15	35.52	68.74	668.14	282.86	550.69	482.76	67.93	8.107			
10,200.00	9,575.00	10,005.02	9,375.00	36.50	35.88	68.74	718.14	282.55	550.70	482.10	68.59	8.028			
10,250.00	9,575.00	10,055.02	9,375.00	36.90	36.28	68.74	768.14	282.23	550.71	481.37	69.34	7.942			
10,300.00	9,575.00	10,105.02	9,375.00	37.29	36.69	68.74	818.13	281.92	550.72	480.64	70.08	7.858			

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 25H - Wellbore #1 - Permit Plan 2		Offset Site Error: 0.00 ft	
Survey Program: 0-MWD+IGRF													Offset Well Error: 0.50 ft			
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		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)	Offset Wellbore Centre +E/W (ft)				Between Centres (ft)	Between Ellipses (ft)			
10,350.00	9,575.00	10,155.02	9,375.00	37.73	37.13	68.74	868.13	281.61	550.74	479.83	70.90	7.767				
10,400.00	9,575.00	10,205.02	9,375.00	38.16	37.57	68.74	918.13	281.29	550.75	479.02	71.73	7.679				
10,450.00	9,575.00	10,255.02	9,375.00	38.64	38.05	68.74	968.13	280.98	550.76	478.14	72.62	7.585				
10,500.00	9,575.00	10,305.02	9,375.00	39.11	38.53	68.74	1,018.13	280.67	550.77	477.26	73.51	7.493				
10,550.00	9,575.00	10,355.02	9,375.00	39.61	39.04	68.74	1,068.13	280.35	550.79	476.32	74.47	7.396				
10,600.00	9,575.00	10,405.02	9,375.00	40.12	39.55	68.74	1,118.13	280.04	550.80	475.37	75.43	7.303				
10,650.00	9,575.00	10,455.02	9,375.00	40.66	40.10	68.74	1,168.13	279.72	550.81	474.37	76.44	7.205				
10,700.00	9,575.00	10,505.02	9,375.00	41.20	40.64	68.74	1,218.13	279.41	550.82	473.36	77.46	7.111				
10,750.00	9,575.00	10,555.02	9,375.00	41.77	41.22	68.74	1,268.13	279.10	550.84	472.30	78.54	7.014				
10,800.00	9,575.00	10,605.02	9,375.00	42.34	41.79	68.74	1,318.12	278.78	550.85	471.23	79.61	6.919				
10,850.00	9,575.00	10,655.02	9,375.00	42.93	42.39	68.74	1,368.12	278.47	550.86	470.12	80.74	6.823				
10,900.00	9,575.00	10,705.02	9,375.00	43.53	43.00	68.75	1,418.12	278.16	550.87	469.00	81.87	6.729				
10,950.00	9,575.00	10,755.02	9,375.00	44.15	43.62	68.75	1,468.12	277.84	550.89	467.84	83.04	6.634				
11,000.00	9,575.00	10,805.02	9,375.00	44.77	44.25	68.75	1,518.12	277.53	550.90	466.68	84.22	6.541				
11,050.00	9,575.00	10,855.02	9,375.00	45.42	44.90	68.75	1,568.12	277.22	550.91	465.47	85.44	6.448				
11,100.00	9,575.00	10,905.02	9,375.00	46.06	45.55	68.75	1,618.12	276.90	550.92	464.26	86.66	6.357				
11,150.00	9,575.00	10,955.02	9,375.00	46.73	46.22	68.75	1,668.12	276.59	550.94	463.02	87.92	6.266				
11,200.00	9,575.00	11,005.02	9,375.00	47.39	46.90	68.75	1,718.12	276.28	550.95	461.77	89.18	6.178				
11,250.00	9,575.00	11,055.02	9,375.00	48.08	47.59	68.75	1,768.12	275.96	550.96	460.49	90.47	6.090				
11,300.00	9,575.00	11,105.02	9,375.00	48.76	48.28	68.75	1,818.11	275.65	550.97	459.20	91.77	6.004				
11,350.00	9,575.00	11,155.02	9,375.00	49.47	48.99	68.75	1,868.11	275.33	550.99	457.88	93.10	5.918				
11,400.00	9,575.00	11,205.02	9,375.00	50.17	49.70	68.75	1,918.11	275.02	551.00	456.56	94.43	5.835				
11,450.00	9,575.00	11,255.02	9,375.00	50.89	50.42	68.75	1,968.11	274.71	551.01	455.22	95.79	5.752				
11,500.00	9,575.00	11,305.02	9,375.00	51.61	51.15	68.75	2,018.11	274.39	551.02	453.87	97.16	5.671				
11,550.00	9,575.00	11,355.02	9,375.00	52.34	51.89	68.75	2,068.11	274.08	551.04	452.49	98.55	5.592				
11,600.00	9,575.00	11,405.02	9,375.00	53.08	52.63	68.75	2,118.11	273.77	551.05	451.11	99.94	5.514				
11,650.00	9,575.00	11,455.02	9,375.00	53.83	53.38	68.75	2,168.11	273.45	551.06	449.71	101.35	5.437				
11,700.00	9,575.00	11,505.02	9,375.00	54.58	54.13	68.75	2,218.11	273.14	551.07	448.30	102.77	5.362				
11,750.00	9,575.00	11,555.02	9,375.00	55.34	54.90	68.75	2,268.11	272.83	551.09	446.87	104.21	5.288				
11,800.00	9,575.00	11,605.02	9,375.00	56.10	55.67	68.75	2,318.10	272.51	551.10	445.45	105.65	5.216				
11,850.00	9,575.00	11,655.02	9,375.00	56.87	56.44	68.75	2,368.10	272.20	551.11	443.99	107.12	5.145				
11,900.00	9,575.00	11,705.02	9,375.00	57.65	57.22	68.76	2,418.10	271.89	551.12	442.54	108.58	5.076				
11,950.00	9,575.00	11,755.02	9,375.00	58.43	58.01	68.76	2,468.10	271.57	551.14	441.07	110.06	5.007				
12,000.00	9,575.00	11,805.02	9,375.00	59.22	58.80	68.76	2,518.10	271.26	551.15	439.60	111.55	4.941	Alert			
12,050.00	9,575.00	11,855.02	9,375.00	60.01	59.60	68.76	2,568.10	270.94	551.16	438.11	113.05	4.875	Alert			
12,100.00	9,575.00	11,905.02	9,375.00	60.81	60.40	68.76	2,618.10	270.63	551.17	436.62	114.55	4.812	Alert			
12,150.00	9,575.00	11,955.02	9,375.00	61.61	61.21	68.76	2,668.10	270.32	551.19	435.11	116.07	4.749	Alert			
12,200.00	9,575.00	12,005.02	9,375.00	62.41	62.01	68.76	2,718.10	270.00	551.20	433.60	117.59	4.687	Alert			
12,250.00	9,575.00	12,055.02	9,375.00	63.23	62.83	68.76	2,768.10	269.69	551.21	432.08	119.13	4.627	Alert			
12,300.00	9,575.00	12,105.02	9,375.00	64.04	63.65	68.76	2,818.10	269.38	551.22	430.56	120.67	4.568	Alert			
12,350.00	9,575.00	12,155.02	9,375.00	64.86	64.47	68.76	2,868.09	269.06	551.24	429.02	122.22	4.510	Alert			
12,400.00	9,575.00	12,205.02	9,375.00	65.68	65.30	68.76	2,918.09	268.75	551.25	427.48	123.77	4.454	Alert			
12,450.00	9,575.00	12,255.02	9,375.00	66.51	66.13	68.76	2,968.09	268.44	551.26	425.93	125.33	4.398	Alert			
12,500.00	9,575.00	12,305.02	9,375.00	67.33	66.96	68.76	3,018.09	268.12	551.27	424.37	126.90	4.344	Alert			
12,550.00	9,575.00	12,355.02	9,375.00	68.17	67.80	68.76	3,068.09	267.81	551.29	422.81	128.48	4.291	Alert			
12,600.00	9,575.00	12,405.02	9,375.00	69.00	68.63	68.76	3,118.09	267.50	551.30	421.24	130.06	4.239	Alert			
12,650.00	9,575.00	12,455.02	9,375.00	69.84	69.48	68.76	3,168.09	267.18	551.31	419.67	131.64	4.188	Alert			
12,700.00	9,575.00	12,505.02	9,375.00	70.69	70.32	68.76	3,218.09	266.87	551.32	418.09	133.24	4.138	Alert			
12,750.00	9,575.00	12,555.02	9,375.00	71.53	71.17	68.76	3,268.09	266.56	551.34	416.50	134.84	4.089	Alert			
12,800.00	9,575.00	12,605.02	9,375.00	72.38	72.02	68.76	3,318.09	266.24	551.35	414.91	136.44	4.041	Alert			
12,850.00	9,575.00	12,655.02	9,375.00	73.23	72.88	68.76	3,368.08	265.93	551.36	413.31	138.05	3.994	Alert			
12,900.00	9,575.00	12,705.02	9,375.00	74.08	73.73	68.77	3,418.08	265.61	551.37	411.71	139.66	3.948	Alert			

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 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
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Offset Design Sec 08-T25S-R33E - Flagler 8 Fed 25H - Wellbore #1 - Permit Plan 2											Offset Site Error: 0.00 ft	
Survey Program: 0-MWD+IGRF											Offset Well Error: 0.50 ft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance					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)	
12,950.00	9,575.00	12,755.02	9,375.00	74.94	74.59	68.77	3,468.08	265.30	551.39	410.11	141.28	3.903 Alert
13,000.00	9,575.00	12,805.02	9,375.00	75.80	75.46	68.77	3,518.08	264.99	551.40	408.50	142.90	3.859 Alert
13,050.00	9,575.00	12,855.02	9,375.00	76.66	76.32	68.77	3,568.08	264.67	551.41	406.88	144.53	3.815 Alert
13,100.00	9,575.00	12,905.02	9,375.00	77.52	77.19	68.77	3,618.08	264.36	551.42	405.26	146.16	3.773 Alert
13,150.00	9,575.00	12,955.02	9,375.00	78.39	78.06	68.77	3,668.08	264.05	551.44	403.64	147.80	3.731 Alert
13,200.00	9,575.00	13,005.02	9,375.00	79.26	78.93	68.77	3,718.08	263.73	551.45	402.01	149.44	3.690 Alert
13,250.00	9,575.00	13,055.02	9,375.00	80.13	79.80	68.77	3,768.08	263.42	551.46	400.38	151.09	3.650 Alert
13,300.00	9,575.00	13,105.02	9,375.00	81.00	80.67	68.77	3,818.08	263.11	551.47	398.74	152.73	3.611 Alert
13,350.00	9,575.00	13,155.02	9,375.00	81.87	81.55	68.77	3,868.07	262.79	551.49	397.10	154.39	3.572 Alert
13,400.00	9,575.00	13,205.02	9,375.00	82.75	82.43	68.77	3,918.07	262.48	551.50	395.46	156.04	3.534 Alert
13,450.00	9,575.00	13,255.02	9,375.00	83.63	83.31	68.77	3,968.07	262.17	551.51	393.81	157.70	3.497 Alert
13,500.00	9,575.00	13,305.02	9,375.00	84.51	84.19	68.77	4,018.07	261.85	551.52	392.16	159.36	3.461 Alert
13,550.00	9,575.00	13,355.02	9,375.00	85.39	85.07	68.77	4,068.07	261.54	551.54	390.51	161.03	3.425 Alert
13,600.00	9,575.00	13,405.02	9,375.00	86.27	85.96	68.77	4,118.07	261.22	551.55	388.85	162.70	3.390 Alert
13,650.00	9,575.00	13,455.02	9,375.00	87.16	86.85	68.77	4,168.07	260.91	551.56	387.19	164.37	3.356 Alert
13,700.00	9,575.00	13,505.02	9,375.00	88.04	87.73	68.77	4,218.07	260.60	551.57	385.53	166.04	3.322 Alert
13,750.00	9,575.00	13,555.02	9,375.00	88.93	88.62	68.77	4,268.07	260.28	551.59	383.86	167.72	3.289 Alert
13,800.00	9,575.00	13,605.02	9,375.00	89.82	89.51	68.77	4,318.07	259.97	551.60	382.20	169.40	3.256 Alert
13,850.00	9,575.00	13,655.02	9,375.00	90.71	90.41	68.78	4,368.06	259.66	551.61	380.53	171.09	3.224 Alert
13,900.00	9,575.00	13,705.02	9,375.00	91.60	91.30	68.78	4,418.06	259.34	551.62	378.85	172.77	3.193 Alert
13,950.00	9,575.00	13,755.02	9,375.00	92.49	92.20	68.78	4,468.06	259.03	551.64	377.18	174.46	3.162 Alert
14,000.00	9,575.00	13,805.02	9,375.00	93.39	93.09	68.78	4,518.06	258.72	551.65	375.50	176.15	3.132 Alert
14,050.00	9,575.00	13,855.02	9,375.00	94.29	93.99	68.78	4,568.06	258.40	551.66	373.82	177.84	3.102 Alert
14,100.00	9,575.00	13,905.02	9,375.00	95.18	94.89	68.78	4,618.06	258.09	551.67	372.14	179.54	3.073 Alert
14,150.00	9,575.00	13,955.02	9,375.00	96.08	95.79	68.78	4,668.06	257.78	551.69	370.45	181.24	3.044 Alert
14,200.00	9,575.00	14,005.02	9,375.00	96.98	96.69	68.78	4,718.06	257.46	551.70	368.76	182.94	3.016 Alert
14,250.00	9,575.00	14,055.02	9,375.00	97.88	97.60	68.78	4,768.06	257.15	551.71	367.07	184.64	2.988 Alert
14,300.00	9,575.00	14,105.02	9,375.00	98.78	98.50	68.78	4,818.06	256.83	551.72	365.38	186.34	2.961 Alert
14,350.00	9,575.00	14,155.02	9,375.00	99.69	99.40	68.78	4,868.05	256.52	551.74	363.69	188.05	2.934 Alert
14,362.84	9,575.00	14,167.86	9,375.00	99.92	99.64	68.78	4,880.90	256.44	551.74	363.25	188.49	2.927 Alert

Anticollision Report

Company: WCDSC Permian NM
 Project: Lea County (NAD83 New Mexico East)
 Reference Site: Sec 08-T25S-R33E
 Site Error: 0.00 ft
 Reference Well: Flagler 8 Fed 39H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
 MD Reference: RKB @ 3471.80ft
 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 08-T25S-R33E - Flagler 8 Fed 38H - Wellbore #1 - Permit Plan 2													Offset Site Error: 0.00 ft
Survey Program: 0-MWD+IGRF													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 Footface (ft)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.70	0.70	0.50	0.50	-90.36	-0.38	-59.99	59.99				
50.00	50.00	50.70	50.70	0.50	0.50	-90.36	-0.38	-59.99	59.99	58.98	1.01	59.596	
100.00	100.00	100.70	100.70	0.52	0.52	-90.36	-0.38	-59.99	59.99	58.96	1.04	57.897	
150.00	150.00	150.70	150.70	0.59	0.59	-90.36	-0.38	-59.99	59.99	58.81	1.18	50.762	
200.00	200.00	200.70	200.70	0.70	0.70	-90.36	-0.38	-59.99	59.99	58.59	1.41	42.669	
250.00	250.00	250.70	250.70	0.84	0.84	-90.36	-0.38	-59.99	59.99	58.31	1.68	35.764	
300.00	300.00	300.70	300.70	0.99	0.99	-90.36	-0.38	-59.99	59.99	58.01	1.98	30.347	
350.00	350.00	350.70	350.70	1.15	1.15	-90.36	-0.38	-59.99	59.99	57.70	2.29	26.160	
400.00	400.00	400.70	400.70	1.31	1.31	-90.36	-0.38	-59.99	59.99	57.37	2.62	22.893	
450.00	450.00	450.70	450.70	1.48	1.48	-90.36	-0.38	-59.99	59.99	57.04	2.96	20.302	
500.00	500.00	500.70	500.70	1.65	1.65	-90.36	-0.38	-59.99	59.99	56.70	3.29	18.209	
550.00	550.00	550.70	550.70	1.82	1.82	-90.36	-0.38	-59.99	59.99	56.35	3.64	16.491	
600.00	600.00	600.70	600.70	1.99	1.99	-90.36	-0.38	-59.99	59.99	56.01	3.98	15.059	
650.00	650.00	650.70	650.70	2.16	2.17	-90.36	-0.38	-59.99	59.99	55.66	4.33	13.850	
700.00	700.00	700.70	700.70	2.34	2.34	-90.36	-0.38	-59.99	59.99	55.31	4.68	12.816	
750.00	750.00	750.70	750.70	2.51	2.52	-90.36	-0.38	-59.99	59.99	54.96	5.03	11.922	
800.00	800.00	800.70	800.70	2.69	2.69	-90.36	-0.38	-59.99	59.99	54.61	5.38	11.143	
850.00	850.00	850.70	850.70	2.87	2.87	-90.36	-0.38	-59.99	59.99	54.26	5.74	10.458	
900.00	900.00	900.70	900.70	3.04	3.05	-90.36	-0.38	-59.99	59.99	53.90	6.09	9.851	
950.00	950.00	950.70	950.70	3.22	3.22	-90.36	-0.38	-59.99	59.99	53.55	6.44	9.310	
1,000.00	1,000.00	1,000.70	1,000.70	3.40	3.40	-90.36	-0.38	-59.99	59.99	53.19	6.80	8.825	
1,050.00	1,050.00	1,050.70	1,050.70	3.58	3.58	-90.36	-0.38	-59.99	59.99	52.84	7.15	8.387	
1,100.00	1,100.00	1,100.70	1,100.70	3.75	3.76	-90.36	-0.38	-59.99	59.99	52.48	7.51	7.991	
1,150.00	1,150.00	1,150.70	1,150.70	3.93	3.93	-90.36	-0.38	-59.99	59.99	52.13	7.86	7.629	
1,200.00	1,200.00	1,200.70	1,200.70	4.11	4.11	-90.36	-0.38	-59.99	59.99	51.77	8.22	7.299	
1,250.00	1,250.00	1,250.70	1,250.70	4.29	4.29	-90.36	-0.38	-59.99	59.99	51.42	8.57	6.996	
1,300.00	1,300.00	1,300.70	1,300.70	4.46	4.47	-90.36	-0.38	-59.99	59.99	51.06	8.93	6.717	
1,350.00	1,350.00	1,350.70	1,350.70	4.64	4.64	-90.36	-0.38	-59.99	59.99	50.70	9.29	6.460	
1,400.00	1,400.00	1,400.70	1,400.70	4.82	4.82	-90.36	-0.38	-59.99	59.99	50.35	9.64	6.221	
1,450.00	1,450.00	1,450.70	1,450.70	5.00	5.00	-90.36	-0.38	-59.99	59.99	49.99	10.00	5.999	
1,500.00	1,500.00	1,500.70	1,500.70	5.18	5.18	-90.36	-0.38	-59.99	59.99	49.63	10.36	5.792	
1,550.00	1,550.00	1,550.70	1,550.70	5.36	5.36	-90.36	-0.38	-59.99	59.99	49.28	10.71	5.599	
1,600.00	1,600.00	1,600.70	1,600.70	5.53	5.54	-90.36	-0.38	-59.99	59.99	48.92	11.07	5.419	
1,650.00	1,650.00	1,650.70	1,650.70	5.71	5.72	-90.36	-0.38	-59.99	59.99	48.56	11.43	5.250	
1,700.00	1,700.00	1,700.70	1,700.70	5.89	5.89	-90.36	-0.38	-59.99	59.99	48.21	11.78	5.091	
1,750.00	1,750.00	1,750.70	1,750.70	6.07	6.07	-90.36	-0.38	-59.99	59.99	47.85	12.14	4.941 Alert	
1,800.00	1,800.00	1,800.70	1,800.70	6.25	6.25	-90.36	-0.38	-59.99	59.99	47.49	12.50	4.800 Alert	
1,850.00	1,850.00	1,850.70	1,850.70	6.43	6.43	-90.36	-0.38	-59.99	59.99	47.13	12.86	4.666 Alert	
1,900.00	1,900.00	1,900.70	1,900.70	6.61	6.61	-90.36	-0.38	-59.99	59.99	46.78	13.21	4.540 Alert	
1,950.00	1,950.00	1,950.70	1,950.70	6.78	6.79	-90.36	-0.38	-59.99	59.99	46.42	13.57	4.420 Alert	
2,000.00	2,000.00	2,000.70	2,000.70	6.96	6.97	-90.36	-0.38	-59.99	59.99	46.06	13.93	4.307 Alert	
2,050.00	2,050.00	2,050.70	2,050.70	7.14	7.14	-90.36	-0.38	-59.99	59.99	45.70	14.29	4.199 Alert	
2,100.00	2,100.00	2,100.70	2,100.70	7.32	7.32	-90.36	-0.38	-59.99	59.99	45.35	14.64	4.097 Alert	
2,150.00	2,150.00	2,150.70	2,150.70	7.50	7.50	-90.36	-0.38	-59.99	59.99	44.99	15.00	3.999 Alert	
2,200.00	2,200.00	2,200.70	2,200.70	7.68	7.68	-90.36	-0.38	-59.99	59.99	44.63	15.36	3.906 Alert	
2,250.00	2,250.00	2,250.70	2,250.70	7.86	7.86	-90.36	-0.38	-59.99	59.99	44.27	15.72	3.817 Alert	
2,300.00	2,300.00	2,300.70	2,300.70	8.04	8.04	-90.36	-0.38	-59.99	59.99	43.92	16.08	3.732 Alert	
2,350.00	2,350.00	2,350.70	2,350.70	8.22	8.22	-90.36	-0.38	-59.99	59.99	43.56	16.43	3.651 Alert	
2,400.00	2,400.00	2,400.70	2,400.70	8.39	8.40	-90.36	-0.38	-59.99	59.99	43.20	16.79	3.573 Alert, CC	
2,450.00	2,450.00	2,450.19	2,450.19	8.57	8.57	33.40	-0.43	-60.20	60.03	42.89	17.13	3.503 Alert	
2,500.00	2,499.99	2,499.68	2,499.67	8.74	8.74	33.61	-0.57	-60.84	60.12	42.64	17.48	3.440 Alert	
2,550.00	2,549.98	2,549.17	2,549.15	8.90	8.91	33.95	-0.80	-61.89	60.27	42.47	17.81	3.385 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: Lea County (NAD83 New Mexico East)
 Reference Site: Sec 08-T25S-R33E
 Site Error: 0.00 ft
 Reference Well: Flagler 8 Fed 39H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
 MD Reference: RKB @ 3471.80ft
 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 08-T25S-R33E - Flagler 8 Fed 38H - Wellbore #1 - Permit Plan 2		Offset Site Error: 0.00 ft	
Survey Program: 0-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)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
2,600.00	2,599.96	2,598.66	2,598.62	9.07	9.07	34.44	-1.12	-63.35	60.49	42.35	18.13	3.336 Alert				
2,650.00	2,649.92	2,648.14	2,648.07	9.24	9.24	35.06	-1.54	-65.24	60.77	42.31	18.46	3.292 Alert, ES				
2,700.00	2,699.87	2,697.63	2,697.49	9.40	9.41	35.72	-2.05	-67.54	61.26	42.47	18.79	3.260 Alert				
2,750.00	2,749.82	2,747.10	2,746.89	9.57	9.58	36.27	-2.65	-70.25	62.17	43.05	19.12	3.252 Alert, SF				
2,800.00	2,799.77	2,796.56	2,796.24	9.74	9.75	36.70	-3.34	-73.38	63.50	44.05	19.45	3.265 Alert				
2,850.00	2,849.72	2,845.99	2,845.54	9.91	9.92	37.01	-4.12	-76.93	65.25	45.47	19.78	3.300 Alert				
2,900.00	2,899.67	2,895.39	2,894.77	10.08	10.09	37.20	-5.00	-80.89	67.41	47.31	20.10	3.354 Alert				
2,950.00	2,949.62	2,944.76	2,943.94	10.25	10.27	37.28	-5.96	-85.26	69.99	49.56	20.43	3.426 Alert				
3,000.00	2,999.57	2,994.08	2,993.01	10.42	10.44	37.26	-7.02	-90.04	72.99	52.23	20.75	3.517 Alert				
3,050.00	3,049.52	3,043.34	3,041.99	10.59	10.62	37.16	-8.17	-95.22	76.39	55.31	21.08	3.624 Alert				
3,100.00	3,099.47	3,092.55	3,090.86	10.76	10.79	36.98	-9.40	-100.81	80.21	58.81	21.40	3.748 Alert				
3,150.00	3,149.42	3,141.69	3,139.62	10.94	10.97	36.75	-10.72	-106.80	84.44	62.71	21.73	3.887 Alert				
3,200.00	3,199.37	3,190.75	3,188.25	11.11	11.15	36.46	-12.14	-113.19	89.08	67.04	22.05	4.041 Alert				
3,250.00	3,249.32	3,239.74	3,236.74	11.28	11.33	36.13	-13.64	-119.97	94.14	71.77	22.37	4.209 Alert				
3,300.00	3,299.27	3,288.64	3,285.08	11.45	11.51	35.78	-15.22	-127.14	99.61	76.92	22.69	4.391 Alert				
3,350.00	3,349.22	3,337.44	3,333.26	11.63	11.70	35.41	-16.89	-134.71	105.50	82.49	23.01	4.586 Alert				
3,400.00	3,399.17	3,386.52	3,381.66	11.80	11.89	35.02	-18.65	-142.68	111.76	88.43	23.33	4.790 Alert				
3,450.00	3,449.12	3,436.11	3,430.55	11.98	12.08	34.67	-20.45	-150.80	118.10	94.42	23.68	4.988 Alert				
3,500.00	3,499.07	3,485.70	3,479.44	12.15	12.27	34.35	-22.25	-158.93	124.44	100.42	24.02	5.180				
3,550.00	3,549.02	3,535.30	3,528.32	12.33	12.47	34.06	-24.04	-167.06	130.79	106.42	24.37	5.367				
3,600.00	3,598.97	3,584.89	3,577.21	12.50	12.66	33.80	-25.84	-175.18	137.14	112.42	24.72	5.549				
3,650.00	3,648.92	3,634.48	3,626.10	12.68	12.86	33.56	-27.63	-183.31	143.49	118.42	25.06	5.725				
3,700.00	3,698.87	3,684.07	3,674.99	12.85	13.06	33.35	-29.43	-191.43	149.84	124.43	25.41	5.897				
3,750.00	3,748.82	3,733.66	3,723.88	13.03	13.26	33.15	-31.22	-199.56	156.20	130.44	25.76	6.064				
3,800.00	3,798.77	3,783.25	3,772.77	13.20	13.46	32.96	-33.02	-207.68	162.55	136.45	26.11	6.226				
3,850.00	3,848.72	3,832.84	3,821.66	13.38	13.67	32.79	-34.81	-215.81	168.91	142.46	26.46	6.384				
3,900.00	3,898.67	3,882.44	3,870.54	13.56	13.87	32.63	-36.61	-223.93	175.27	148.47	26.81	6.538				
3,950.00	3,948.62	3,932.03	3,919.43	13.73	14.08	32.49	-38.41	-232.06	181.64	154.48	27.16	6.688				
4,000.00	3,998.57	3,981.62	3,968.32	13.91	14.28	32.35	-40.20	-240.18	188.00	160.49	27.51	6.834				
4,050.00	4,048.52	4,031.21	4,017.21	14.09	14.49	32.22	-42.00	-248.31	194.36	166.50	27.86	6.976				
4,100.00	4,098.47	4,080.80	4,066.10	14.26	14.70	32.10	-43.79	-256.44	200.73	172.51	28.21	7.115				
4,150.00	4,148.42	4,130.39	4,114.99	14.44	14.91	31.99	-45.59	-264.56	207.09	178.53	28.57	7.250				
4,200.00	4,198.37	4,179.99	4,163.87	14.62	15.12	31.88	-47.38	-272.69	213.46	184.54	28.92	7.381				
4,250.00	4,248.32	4,229.58	4,212.76	14.80	15.33	31.78	-49.18	-280.81	219.82	190.55	29.27	7.510				
4,300.00	4,298.27	4,279.17	4,261.65	14.97	15.54	31.69	-50.98	-288.94	226.19	196.57	29.63	7.635				
4,350.00	4,348.22	4,328.76	4,310.54	15.15	15.75	31.60	-52.77	-297.06	232.56	202.58	29.98	7.757				
4,400.00	4,398.17	4,378.35	4,359.43	15.33	15.96	31.52	-54.57	-305.19	238.93	208.59	30.33	7.876				
4,450.00	4,448.12	4,427.94	4,408.32	15.51	16.18	31.44	-56.36	-313.31	245.30	214.61	30.69	7.993				
4,500.00	4,498.07	4,477.54	4,457.20	15.69	16.39	31.36	-58.16	-321.44	251.67	220.62	31.04	8.107				
4,550.00	4,548.02	4,527.13	4,506.09	15.87	16.61	31.29	-59.95	-329.57	258.04	226.64	31.40	8.218				
4,600.00	4,597.97	4,576.72	4,554.98	16.05	16.82	31.22	-61.75	-337.69	264.41	232.65	31.76	8.326				
4,650.00	4,647.92	4,626.31	4,603.87	16.22	17.04	31.16	-63.55	-345.82	270.78	238.67	32.11	8.432				
4,700.00	4,697.87	4,675.90	4,652.76	16.40	17.26	31.09	-65.34	-353.94	277.15	244.68	32.47	8.536				
4,750.00	4,747.82	4,725.49	4,701.65	16.58	17.47	31.03	-67.14	-362.07	283.52	250.69	32.82	8.637				
4,800.00	4,797.77	4,775.08	4,750.53	16.76	17.69	30.98	-68.93	-370.19	289.89	256.71	33.18	8.737				
4,850.00	4,847.72	4,824.68	4,799.42	16.94	17.91	30.92	-70.73	-378.32	296.26	262.72	33.54	8.833				
4,900.00	4,897.67	4,874.27	4,848.31	17.12	18.13	30.87	-72.52	-386.44	302.63	268.74	33.90	8.928				
4,950.00	4,947.62	4,923.86	4,897.20	17.30	18.35	30.82	-74.32	-394.57	309.01	274.75	34.25	9.021				
5,000.00	4,997.57	4,973.45	4,946.09	17.48	18.57	30.77	-76.12	-402.69	315.38	280.77	34.61	9.112				
5,050.00	5,047.52	5,023.04	4,994.98	17.66	18.79	30.73	-77.91	-410.82	321.75	286.78	34.97	9.201				
5,100.00	5,097.47	5,072.63	5,043.87	17.84	19.01	30.68	-79.71	-418.95	328.12	292.80	35.33	9.288				
5,150.00	5,147.42	5,122.23	5,092.75	18.02	19.23	30.64	-81.50	-427.07	334.50	298.81	35.69	9.373				

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 Flagler 8 Fed 39H
Project:	Lea County (NAD83 New Mexico East)	TVD Reference:	RKB @ 3471.80ft
Reference Site:	Sec 08-T25S-R33E	MD Reference:	RKB @ 3471.80ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Flagler 8 Fed 39H	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 Sec 08-T25S-R33E - Flagler 8 Fed 38H - Wellbore #1 - Permit Plan 2													Offset Site Error:	0.00 ft
Survey Program: 0-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 Tooface (")	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,197.37	5,171.82	5,141.64	18.20	19.45	30.60	-83.30	-435.20	340.87	304.83	36.05	9.457		
5,250.00	5,247.32	5,221.41	5,190.53	18.38	19.68	30.56	-85.09	-443.32	347.24	310.84	36.40	9.539		
5,300.00	5,297.27	5,271.00	5,239.42	18.56	19.90	30.52	-86.89	-451.45	353.62	316.85	36.76	9.619		
5,350.00	5,347.22	5,320.59	5,288.31	18.74	20.12	30.48	-88.69	-459.57	359.99	322.87	37.12	9.697		
5,400.00	5,397.17	5,370.18	5,337.20	18.92	20.34	30.45	-90.48	-467.70	366.37	328.88	37.48	9.774		
5,450.00	5,447.12	5,419.78	5,386.08	19.10	20.57	30.41	-92.28	-475.82	372.74	334.90	37.84	9.850		
5,500.00	5,497.07	5,469.37	5,434.97	19.28	20.79	30.38	-94.07	-483.95	379.11	340.91	38.20	9.924		
5,550.00	5,547.02	5,518.96	5,483.86	19.46	21.01	30.35	-95.87	-492.08	385.49	346.93	38.56	9.997		
5,600.00	5,596.97	5,568.55	5,532.75	19.64	21.24	30.32	-97.66	-500.20	391.86	352.94	38.92	10.068		
5,650.00	5,646.92	5,618.14	5,581.64	19.82	21.46	30.29	-99.46	-508.33	398.24	358.95	39.28	10.138		
5,700.00	5,696.87	5,667.73	5,630.53	20.00	21.69	30.26	-101.26	-516.45	404.61	364.97	39.64	10.206		
5,750.00	5,746.82	5,717.32	5,679.41	20.19	21.91	30.23	-103.05	-524.58	410.99	370.98	40.00	10.274		
5,800.00	5,796.77	5,766.92	5,728.30	20.37	22.14	30.20	-104.85	-532.70	417.36	377.00	40.36	10.340		
5,850.00	5,846.72	5,816.51	5,777.19	20.55	22.37	30.18	-106.64	-540.83	423.74	383.01	40.73	10.405		
5,900.00	5,896.67	5,866.10	5,826.08	20.73	22.59	30.15	-108.44	-548.95	430.11	389.02	41.09	10.468		
5,950.00	5,946.62	5,915.69	5,874.97	20.91	22.82	30.13	-110.23	-557.08	436.49	395.04	41.45	10.531		
6,000.00	5,996.57	5,965.28	5,923.86	21.09	23.04	30.10	-112.03	-565.20	442.86	401.05	41.81	10.592		
6,050.00	6,046.52	6,014.87	5,972.75	21.27	23.27	30.08	-113.83	-573.33	449.24	407.06	42.17	10.653		
6,100.00	6,096.47	6,064.47	6,021.63	21.45	23.50	30.06	-115.62	-581.46	455.61	413.08	42.53	10.712		
6,150.00	6,146.42	6,114.06	6,070.52	21.64	23.73	30.03	-117.42	-589.58	461.99	419.09	42.89	10.770		
6,200.00	6,196.37	6,163.65	6,119.41	21.82	23.95	30.01	-119.21	-597.71	468.36	425.10	43.26	10.828		
6,250.00	6,246.32	6,213.24	6,168.30	22.00	24.18	29.99	-121.01	-605.83	474.74	431.12	43.62	10.884		
6,300.00	6,296.27	6,262.83	6,217.19	22.18	24.41	29.97	-122.80	-613.96	481.11	437.13	43.98	10.939		
6,350.00	6,346.22	6,312.42	6,266.08	22.36	24.64	29.95	-124.60	-622.08	487.49	443.14	44.34	10.994		
6,400.00	6,396.17	6,362.02	6,314.96	22.54	24.86	29.93	-126.40	-630.21	493.86	449.16	44.71	11.047		
6,450.00	6,446.12	6,411.61	6,363.85	22.72	25.09	29.91	-128.19	-638.33	500.24	455.17	45.07	11.100		
6,500.00	6,496.07	6,461.20	6,412.74	22.91	25.32	29.89	-129.99	-646.46	506.61	461.18	45.43	11.151		
6,550.00	6,546.02	6,510.79	6,461.63	23.09	25.55	29.88	-131.78	-654.58	512.99	467.20	45.79	11.202		
6,600.00	6,595.97	6,560.38	6,510.52	23.27	25.78	29.86	-133.58	-662.71	519.37	473.21	46.16	11.252		
6,650.00	6,645.92	6,609.97	6,559.41	23.45	26.01	29.84	-135.37	-670.84	525.74	479.22	46.52	11.302		
6,700.00	6,695.87	6,659.56	6,608.29	23.63	26.24	29.82	-137.17	-678.96	532.12	485.24	46.88	11.350		
6,750.00	6,745.82	6,709.16	6,657.18	23.82	26.47	29.81	-138.96	-687.09	538.49	491.25	47.25	11.398		
6,800.00	6,795.77	6,758.75	6,706.07	24.00	26.70	29.79	-140.76	-695.21	544.87	497.26	47.61	11.445		
6,850.00	6,845.72	6,808.34	6,754.96	24.18	26.93	29.78	-142.56	-703.34	551.25	503.27	47.97	11.491		
6,900.00	6,895.67	6,857.93	6,803.85	24.36	27.16	29.76	-144.35	-711.46	557.62	509.29	48.34	11.537		
6,950.00	6,945.62	6,907.52	6,852.74	24.54	27.39	29.75	-146.15	-719.59	564.00	515.30	48.70	11.581		
7,000.00	6,995.57	6,957.11	6,901.62	24.73	27.62	29.73	-147.94	-727.71	570.37	521.31	49.06	11.626		
7,050.00	7,045.52	7,006.71	6,950.51	24.91	27.85	29.72	-149.74	-735.84	576.75	527.32	49.43	11.669		
7,100.00	7,095.47	7,056.30	6,999.40	25.09	28.08	29.70	-151.53	-743.97	583.13	533.34	49.79	11.712		
7,150.00	7,145.42	7,105.89	7,048.29	25.27	28.31	29.69	-153.33	-752.09	589.50	539.35	50.15	11.754		
7,200.00	7,195.37	7,155.48	7,097.18	25.45	28.54	29.68	-155.13	-760.22	595.88	545.36	50.52	11.796		
7,250.00	7,245.32	7,205.07	7,146.07	25.64	28.77	29.66	-156.92	-768.34	602.26	551.37	50.88	11.837		
7,300.00	7,295.27	7,254.66	7,194.96	25.82	29.00	29.65	-158.72	-776.47	608.63	557.39	51.25	11.877		
7,350.00	7,345.21	7,304.26	7,243.84	26.00	29.23	29.64	-160.51	-784.59	615.01	563.40	51.61	11.917		
7,400.00	7,395.16	7,353.85	7,292.73	26.18	29.46	29.63	-162.31	-792.72	621.38	569.41	51.97	11.956		
7,450.00	7,445.11	7,403.44	7,341.62	26.37	29.69	29.61	-164.10	-800.84	627.76	575.42	52.34	11.994		
7,500.00	7,495.06	7,453.03	7,390.51	26.55	29.93	29.60	-165.90	-808.97	634.14	581.44	52.70	12.032		
7,550.00	7,545.01	7,502.62	7,439.40	26.73	30.16	29.59	-167.70	-817.09	640.51	587.45	53.07	12.070		
7,600.00	7,594.96	7,552.21	7,488.29	26.91	30.39	29.58	-169.49	-825.22	646.89	593.46	53.43	12.107		
7,650.00	7,644.91	7,601.80	7,537.17	27.10	30.62	29.57	-171.29	-833.35	653.27	599.47	53.80	12.144		
7,700.00	7,694.86	7,651.40	7,586.06	27.28	30.85	29.56	-173.08	-841.47	659.64	605.48	54.16	12.180		
7,750.00	7,744.81	7,700.99	7,634.95	27.46	31.08	29.55	-174.88	-849.60	666.02	611.50	54.52	12.215		

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 38H - Wellbore #1 - Permit Plan 2													Offset Site Error:	0.00 ft
Survey Program: 0-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		
7,800.00	7,794.76	7,750.58	7,683.84	27.64	31.32	29.54	-176.67	-857.72	672.40	617.51	54.89	12.250		
7,850.00	7,844.71	7,800.17	7,732.73	27.83	31.55	29.53	-178.47	-865.85	678.77	623.52	55.25	12.285		
7,900.00	7,894.66	7,849.76	7,781.62	28.01	31.78	29.52	-180.27	-873.97	685.15	629.53	55.62	12.319		
7,950.00	7,944.61	7,900.65	7,830.50	28.19	32.02	29.51	-182.06	-882.10	691.53	635.54	55.99	12.351		
8,000.00	7,994.56	7,948.95	7,879.39	28.37	32.24	29.50	-183.86	-890.22	697.90	641.55	56.35	12.385		
8,050.00	8,044.51	8,001.46	7,928.28	28.56	32.49	29.49	-185.65	-898.35	704.28	647.55	56.73	12.416		
8,100.00	8,094.46	8,048.13	7,977.17	28.74	32.71	29.48	-187.45	-906.48	710.66	653.58	57.08	12.450		
8,150.00	8,144.41	8,101.19	8,029.49	28.92	32.96	29.47	-189.36	-915.13	717.00	659.52	57.48	12.474		
8,200.00	8,194.36	8,162.25	8,089.81	29.10	33.23	29.47	-191.40	-924.37	722.74	664.79	57.95	12.473		
8,250.00	8,244.31	8,223.51	8,150.47	29.29	33.51	29.48	-193.24	-932.70	727.70	669.29	58.40	12.460		
8,300.00	8,294.26	8,284.95	8,211.44	29.47	33.77	29.50	-194.88	-940.10	731.86	673.01	58.85	12.436		
8,350.00	8,344.21	8,346.54	8,272.68	29.65	34.02	29.53	-196.31	-946.55	735.23	675.95	59.28	12.402		
8,400.00	8,394.16	8,408.25	8,334.12	29.84	34.27	29.57	-197.52	-952.05	737.81	678.10	59.70	12.358		
8,450.00	8,444.11	8,470.03	8,395.73	30.02	34.50	29.62	-198.52	-956.59	739.58	679.47	60.11	12.303		
8,500.00	8,494.06	8,531.87	8,457.46	30.20	34.72	29.69	-199.31	-960.15	740.58	680.07	60.51	12.239		
8,550.00	8,544.03	8,593.73	8,519.26	30.38	34.94	29.75	-199.88	-962.74	741.18	680.30	60.89	12.173		
8,600.00	8,594.02	8,655.60	8,581.11	30.56	35.14	29.78	-200.24	-964.35	741.56	680.31	61.25	12.106		
8,650.00	8,644.02	8,717.48	8,642.99	30.73	35.34	29.79	-200.38	-964.98	741.70	680.10	61.60	12.040		
8,700.00	8,694.02	8,769.21	8,694.72	30.90	35.49	-93.89	-200.38	-964.99	741.70	679.76	61.94	11.975		
8,750.00	8,744.02	8,819.21	8,744.72	31.07	35.64	-93.89	-200.38	-964.99	741.70	679.43	62.28	11.910		
8,800.00	8,794.02	8,869.21	8,794.72	31.24	35.80	-93.89	-200.38	-964.99	741.70	679.09	62.62	11.845		
8,850.00	8,844.02	8,919.21	8,844.72	31.41	35.95	-93.89	-200.38	-964.99	741.70	678.75	62.95	11.782		
8,900.00	8,894.02	8,969.21	8,894.72	31.58	36.10	-93.89	-200.38	-964.99	741.70	678.41	63.29	11.719		
8,950.00	8,944.02	9,019.21	8,944.72	31.75	36.25	-93.89	-200.38	-964.99	741.70	678.07	63.63	11.656		
9,000.00	8,994.02	9,069.21	8,994.72	31.92	36.40	-93.89	-200.38	-964.99	741.70	677.73	63.97	11.594		
9,050.00	9,043.98	9,122.90	9,048.35	32.09	36.56	-93.51	-198.51	-965.00	741.69	677.39	64.30	11.535		
9,100.00	9,093.62	9,177.17	9,102.16	32.25	36.71	-93.46	-191.56	-965.05	741.66	677.04	64.62	11.477		
9,150.00	9,142.57	9,231.36	9,154.89	32.41	36.85	-93.39	-179.59	-965.12	741.60	676.68	64.92	11.423		
9,200.00	9,190.45	9,285.43	9,206.34	32.55	36.98	-93.29	-162.72	-965.23	741.52	676.31	65.21	11.371		
9,250.00	9,236.89	9,339.34	9,255.72	32.68	37.10	-93.16	-141.16	-965.37	741.43	675.94	65.49	11.322		
9,300.00	9,281.55	9,393.05	9,302.70	32.81	37.20	-93.01	-115.16	-965.54	741.32	675.56	65.76	11.274		
9,350.00	9,324.07	9,446.53	9,346.85	32.92	37.28	-92.83	-85.01	-965.73	741.20	675.18	66.02	11.227		
9,400.00	9,364.15	9,499.75	9,387.81	33.02	37.36	-92.63	-51.06	-965.95	741.07	674.79	66.28	11.180		
9,450.00	9,401.47	9,552.69	9,425.25	33.11	37.42	-92.41	-13.66	-966.20	740.94	674.39	66.55	11.133		
9,500.00	9,435.75	9,605.32	9,458.90	33.19	37.48	-92.17	26.79	-966.46	740.82	673.99	66.83	11.085		
9,550.00	9,466.73	9,657.63	9,488.52	33.26	37.53	-91.91	69.88	-966.73	740.70	673.57	67.12	11.035		
9,600.00	9,494.18	9,709.61	9,513.94	33.42	37.59	-91.64	115.19	-967.03	740.58	673.15	67.43	10.983		
9,650.00	9,517.88	9,761.23	9,535.02	33.59	37.64	-91.36	162.30	-967.33	740.48	672.72	67.76	10.928		
9,700.00	9,537.65	9,812.50	9,551.68	33.78	37.71	-91.07	210.77	-967.64	740.40	672.28	68.11	10.870		
9,750.00	9,553.35	9,863.41	9,563.87	33.98	37.79	-90.77	260.18	-967.96	740.33	671.84	68.49	10.809		
9,800.00	9,564.85	9,913.97	9,571.59	34.19	37.89	-90.47	310.13	-968.28	740.28	671.38	68.90	10.744		
9,850.00	9,572.06	9,964.17	9,574.87	34.41	38.01	-90.16	360.20	-968.61	740.26	670.93	69.33	10.677		
9,900.00	9,574.94	10,014.12	9,575.00	34.65	38.16	-89.95	410.15	-968.93	740.25	670.46	69.79	10.606		
9,950.00	9,575.00	10,064.12	9,575.00	34.91	38.33	-89.95	460.15	-969.25	740.25	669.96	70.29	10.531		
10,000.00	9,575.00	10,114.12	9,575.00	35.18	38.53	-89.95	510.15	-969.58	740.24	669.44	70.80	10.455		
10,050.00	9,575.00	10,164.12	9,575.00	35.48	38.76	-89.95	560.14	-969.90	740.24	668.84	71.40	10.368		
10,100.00	9,575.00	10,214.12	9,575.00	35.79	39.01	-89.95	610.14	-970.22	740.23	668.23	72.00	10.280		
10,150.00	9,575.00	10,264.12	9,575.00	36.15	39.30	-89.95	660.14	-970.54	740.23	667.54	72.69	10.183		
10,200.00	9,575.00	10,314.12	9,575.00	36.50	39.60	-89.95	710.14	-970.87	740.23	666.84	73.39	10.087		
10,250.00	9,575.00	10,364.12	9,575.00	36.90	39.93	-89.95	760.14	-971.19	740.22	666.06	74.16	9.982		
10,300.00	9,575.00	10,414.12	9,575.00	37.29	40.28	-89.95	810.14	-971.51	740.22	665.28	74.94	9.877		
10,350.00	9,575.00	10,464.12	9,575.00	37.73	40.66	-89.95	860.14	-971.83	740.21	664.42	75.79	9.766		

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 38H - Wellbore #1 - Permit Plan 2													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		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)				Between Centres (ft)	Between Ellipses (ft)	
10,400.00	9,575.00	10,514.12	9,575.00	38.16	41.06	-89.95	910.14	-972.16	740.21	663.55	76.66	9.656		
10,450.00	9,575.00	10,564.12	9,575.00	38.64	41.48	-89.95	960.14	-972.48	740.20	662.62	77.58	9.541		
10,500.00	9,575.00	10,614.12	9,575.00	39.11	41.91	-89.95	1,010.13	-972.80	740.20	661.68	78.52	9.427		
10,550.00	9,575.00	10,664.12	9,575.00	39.61	42.37	-89.95	1,060.13	-973.12	740.19	660.68	79.52	9.308		
10,600.00	9,575.00	10,714.12	9,575.00	40.12	42.84	-89.95	1,110.13	-973.45	740.19	659.66	80.53	9.192		
10,650.00	9,575.00	10,764.12	9,575.00	40.66	43.33	-89.95	1,160.13	-973.77	740.19	658.60	81.59	9.072		
10,700.00	9,575.00	10,814.12	9,575.00	41.20	43.84	-89.95	1,210.13	-974.09	740.18	657.52	82.66	8.954		
10,750.00	9,575.00	10,864.12	9,575.00	41.77	44.36	-89.95	1,260.13	-974.42	740.18	656.39	83.79	8.834		
10,800.00	9,575.00	10,914.12	9,575.00	42.34	44.89	-89.95	1,310.13	-974.74	740.17	655.26	84.92	8.716		
10,850.00	9,575.00	10,964.12	9,575.00	42.93	45.45	-89.95	1,360.13	-975.06	740.17	654.07	86.10	8.597		
10,900.00	9,575.00	11,014.12	9,575.00	43.53	46.01	-89.95	1,410.13	-975.38	740.16	652.88	87.28	8.480		
10,950.00	9,575.00	11,064.12	9,575.00	44.15	46.59	-89.95	1,460.13	-975.71	740.16	651.65	88.51	8.362		
11,000.00	9,575.00	11,114.12	9,575.00	44.77	47.18	-89.95	1,510.12	-976.03	740.16	650.41	89.75	8.247		
11,050.00	9,575.00	11,164.12	9,575.00	45.42	47.79	-89.95	1,560.12	-976.35	740.15	649.12	91.03	8.131		
11,100.00	9,575.00	11,214.12	9,575.00	46.06	48.40	-89.95	1,610.12	-976.67	740.15	647.84	92.31	8.018		
11,150.00	9,575.00	11,264.12	9,575.00	46.73	49.03	-89.95	1,660.12	-977.00	740.14	646.51	93.63	7.905		
11,200.00	9,575.00	11,314.12	9,575.00	47.39	49.66	-89.95	1,710.12	-977.32	740.14	645.18	94.96	7.794		
11,250.00	9,575.00	11,364.12	9,575.00	48.08	50.31	-89.95	1,760.12	-977.64	740.13	643.81	96.32	7.684		
11,300.00	9,575.00	11,414.12	9,575.00	48.76	50.97	-89.95	1,810.12	-977.96	740.13	642.44	97.69	7.577		
11,350.00	9,575.00	11,464.12	9,575.00	49.47	51.63	-89.95	1,860.12	-978.29	740.13	641.04	99.08	7.470		
11,400.00	9,575.00	11,514.12	9,575.00	50.17	52.31	-89.95	1,910.12	-978.61	740.12	639.63	100.49	7.365		
11,450.00	9,575.00	11,564.12	9,575.00	50.89	53.00	-89.95	1,960.12	-978.93	740.12	638.20	101.92	7.262		
11,500.00	9,575.00	11,614.12	9,575.00	51.61	53.69	-89.95	2,010.11	-979.26	740.11	636.76	103.35	7.161		
11,550.00	9,575.00	11,664.12	9,575.00	52.34	54.39	-89.95	2,060.11	-979.58	740.11	635.29	104.82	7.061		
11,600.00	9,575.00	11,714.12	9,575.00	53.08	55.10	-89.95	2,110.11	-979.90	740.10	633.82	106.28	6.964		
11,650.00	9,575.00	11,764.12	9,575.00	53.83	55.81	-89.95	2,160.11	-980.22	740.10	632.33	107.77	6.867		
11,700.00	9,575.00	11,814.12	9,575.00	54.58	56.54	-89.95	2,210.11	-980.55	740.10	630.83	109.27	6.773		
11,750.00	9,575.00	11,864.12	9,575.00	55.34	57.27	-89.95	2,260.11	-980.87	740.09	629.31	110.78	6.681		
11,800.00	9,575.00	11,914.12	9,575.00	56.10	58.01	-89.95	2,310.11	-981.19	740.09	627.78	112.30	6.590		
11,850.00	9,575.00	11,964.12	9,575.00	56.87	58.75	-89.95	2,360.11	-981.51	740.08	626.24	113.84	6.501		
11,900.00	9,575.00	12,014.12	9,575.00	57.65	59.50	-89.95	2,410.11	-981.84	740.08	624.69	115.39	6.414		
11,950.00	9,575.00	12,064.12	9,575.00	58.43	60.26	-89.95	2,460.10	-982.16	740.07	623.12	116.95	6.328		
12,000.00	9,575.00	12,114.12	9,575.00	59.22	61.02	-89.95	2,510.10	-982.48	740.07	621.55	118.52	6.244		
12,050.00	9,575.00	12,164.12	9,575.00	60.01	61.78	-89.95	2,560.10	-982.80	740.07	619.97	120.10	6.162		
12,100.00	9,575.00	12,214.12	9,575.00	60.81	62.56	-89.95	2,610.10	-983.13	740.06	618.38	121.68	6.082		
12,150.00	9,575.00	12,264.12	9,575.00	61.61	63.33	-89.95	2,660.10	-983.45	740.06	616.77	123.29	6.003		
12,200.00	9,575.00	12,314.12	9,575.00	62.41	64.12	-89.95	2,710.10	-983.77	740.05	615.16	124.89	5.926		
12,250.00	9,575.00	12,364.12	9,575.00	63.23	64.90	-89.95	2,760.10	-984.10	740.05	613.54	126.51	5.850		
12,300.00	9,575.00	12,414.12	9,575.00	64.04	65.70	-89.95	2,810.10	-984.42	740.04	611.91	128.13	5.776		
12,350.00	9,575.00	12,464.12	9,575.00	64.86	66.49	-89.95	2,860.10	-984.74	740.04	610.27	129.77	5.703		
12,400.00	9,575.00	12,514.12	9,575.00	65.68	67.29	-89.95	2,910.10	-985.06	740.03	608.63	131.41	5.632		
12,450.00	9,575.00	12,564.12	9,575.00	66.51	68.10	-89.95	2,960.09	-985.39	740.03	606.97	133.06	5.562		
12,500.00	9,575.00	12,614.12	9,575.00	67.33	68.90	-89.95	3,010.09	-985.71	740.03	605.31	134.71	5.493		
12,550.00	9,575.00	12,664.12	9,575.00	68.17	69.72	-89.95	3,060.09	-986.03	740.02	603.65	136.38	5.426		
12,600.00	9,575.00	12,714.12	9,575.00	69.00	70.53	-89.95	3,110.09	-986.35	740.02	601.97	138.04	5.361		
12,650.00	9,575.00	12,764.12	9,575.00	69.84	71.35	-89.95	3,160.09	-986.68	740.01	600.29	139.72	5.296		
12,700.00	9,575.00	12,814.12	9,575.00	70.69	72.18	-89.95	3,210.09	-987.00	740.01	598.61	141.40	5.233		
12,750.00	9,575.00	12,864.12	9,575.00	71.53	73.00	-89.95	3,260.09	-987.32	740.00	596.91	143.09	5.172		
12,800.00	9,575.00	12,914.12	9,575.00	72.38	73.83	-89.95	3,310.09	-987.64	740.00	595.22	144.78	5.111		
12,850.00	9,575.00	12,964.12	9,575.00	73.23	74.67	-89.95	3,360.09	-987.97	740.00	593.51	146.48	5.052		
12,900.00	9,575.00	13,014.12	9,575.00	74.08	75.50	-89.95	3,410.08	-988.29	739.99	591.81	148.19	4.994 Alert		
12,950.00	9,575.00	13,064.12	9,575.00	74.94	76.34	-89.95	3,460.08	-988.61	739.99	590.09	149.90	4.937 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: Lea County (NAD83 New Mexico East)
 Reference Site: Sec 08-T25S-R33E
 Site Error: 0.00 ft
 Reference Well: Flagler 8 Fed 39H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
 MD Reference: RKB @ 3471.80ft
 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 08-T25S-R33E - Flagler 8 Fed 38H - Wellbore #1 - Permit Plan 2													Offset Site Error: 0.00 ft
Survey Program: 0-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
13,000.00	9,575.00	13,114.12	9,575.00	75.80	77.18	-89.95	3,510.08	-988.93	739.98	588.37	151.61	4.881	Alert
13,050.00	9,575.00	13,164.12	9,575.00	76.66	78.02	-89.95	3,560.08	-989.26	739.98	586.65	153.33	4.826	Alert
13,100.00	9,575.00	13,214.12	9,575.00	77.52	78.87	-89.95	3,610.08	-989.58	739.97	584.92	155.05	4.772	Alert
13,150.00	9,575.00	13,264.12	9,575.00	78.39	79.72	-89.95	3,660.08	-989.90	739.97	583.19	156.78	4.720	Alert
13,200.00	9,575.00	13,314.12	9,575.00	79.26	80.57	-89.95	3,710.08	-990.23	739.97	581.45	158.52	4.668	Alert
13,250.00	9,575.00	13,364.12	9,575.00	80.13	81.43	-89.95	3,760.08	-990.55	739.96	579.71	160.25	4.617	Alert
13,300.00	9,575.00	13,414.12	9,575.00	81.00	82.28	-89.95	3,810.08	-990.87	739.96	577.96	161.99	4.568	Alert
13,350.00	9,575.00	13,464.12	9,575.00	81.87	83.14	-89.95	3,860.08	-991.19	739.95	576.21	163.74	4.519	Alert
13,400.00	9,575.00	13,514.12	9,575.00	82.75	84.00	-89.95	3,910.07	-991.52	739.95	574.46	165.49	4.471	Alert
13,450.00	9,575.00	13,564.12	9,575.00	83.63	84.87	-89.95	3,960.07	-991.84	739.94	572.70	167.24	4.424	Alert
13,500.00	9,575.00	13,614.12	9,575.00	84.51	85.73	-89.95	4,010.07	-992.16	739.94	570.94	169.00	4.378	Alert
13,550.00	9,575.00	13,664.12	9,575.00	85.39	86.60	-89.95	4,060.07	-992.48	739.94	569.17	170.76	4.333	Alert
13,600.00	9,575.00	13,714.12	9,575.00	86.27	87.47	-89.95	4,110.07	-992.81	739.93	567.41	172.52	4.289	Alert
13,650.00	9,575.00	13,764.12	9,575.00	87.16	88.34	-89.95	4,160.07	-993.13	739.93	565.63	174.29	4.245	Alert
13,700.00	9,575.00	13,814.12	9,575.00	88.04	89.21	-89.95	4,210.07	-993.45	739.92	563.86	176.06	4.203	Alert
13,750.00	9,575.00	13,864.12	9,575.00	88.93	90.09	-89.95	4,260.07	-993.77	739.92	562.08	177.84	4.161	Alert
13,800.00	9,575.00	13,914.12	9,575.00	89.82	90.96	-89.95	4,310.07	-994.10	739.91	560.30	179.61	4.120	Alert
13,850.00	9,575.00	13,964.12	9,575.00	90.71	91.84	-89.95	4,360.07	-994.42	739.91	558.52	181.39	4.079	Alert
13,900.00	9,575.00	14,014.12	9,575.00	91.60	92.72	-89.95	4,410.06	-994.74	739.90	556.73	183.17	4.039	Alert
13,950.00	9,575.00	14,064.12	9,575.00	92.49	93.60	-89.95	4,460.06	-995.07	739.90	554.94	184.96	4.000	Alert
14,000.00	9,575.00	14,114.12	9,575.00	93.39	94.48	-89.95	4,510.06	-995.39	739.90	553.15	186.75	3.962	Alert
14,050.00	9,575.00	14,164.12	9,575.00	94.29	95.37	-89.95	4,560.06	-995.71	739.89	551.36	188.54	3.924	Alert
14,100.00	9,575.00	14,214.12	9,575.00	95.18	96.25	-89.95	4,610.06	-996.03	739.89	549.56	190.33	3.887	Alert
14,150.00	9,575.00	14,264.12	9,575.00	96.08	97.14	-89.95	4,660.06	-996.36	739.88	547.76	192.12	3.851	Alert
14,200.00	9,575.00	14,314.12	9,575.00	96.98	98.03	-89.95	4,710.06	-996.68	739.88	545.96	193.92	3.815	Alert
14,250.00	9,575.00	14,364.12	9,575.00	97.88	98.92	-89.95	4,760.06	-997.00	739.87	544.15	195.72	3.780	Alert
14,300.00	9,575.00	14,414.12	9,575.00	98.78	99.81	-89.95	4,810.06	-997.32	739.87	542.35	197.52	3.746	Alert
14,350.00	9,575.00	14,464.12	9,575.00	99.69	100.70	-89.95	4,860.05	-997.65	739.87	540.54	199.33	3.712	Alert
14,362.84	9,575.00	14,476.96	9,575.00	99.92	100.93	-89.95	4,872.90	-997.73	739.86	540.07	199.79	3.703	Alert

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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:	0.00 ft
Survey Program: O-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		
0.00	0.00	7.10	7.10	0.50	0.50	-171.85	-200.15	-28.67	202.19					
50.00	50.00	57.10	57.10	0.50	0.50	-171.85	-200.15	-28.67	202.19	201.19	1.01	200.823		
100.00	100.00	107.10	107.10	0.52	0.52	-171.85	-200.15	-28.67	202.19	201.15	1.04	194.602		
150.00	150.00	157.10	157.10	0.59	0.60	-171.85	-200.15	-28.67	202.19	201.01	1.19	170.277		
200.00	200.00	207.10	207.10	0.70	0.71	-171.85	-200.15	-28.67	202.19	200.78	1.41	143.062		
250.00	250.00	257.10	257.10	0.84	0.85	-171.85	-200.15	-28.67	202.19	200.51	1.69	119.938		
300.00	300.00	307.10	307.10	0.99	1.00	-171.85	-200.15	-28.67	202.19	200.21	1.99	101.819		
350.00	350.00	357.10	357.10	1.15	1.16	-171.85	-200.15	-28.67	202.19	199.89	2.30	87.811		
400.00	400.00	407.10	407.10	1.31	1.32	-171.85	-200.15	-28.67	202.19	199.56	2.63	76.876		
450.00	450.00	457.10	457.10	1.48	1.49	-171.85	-200.15	-28.67	202.19	199.23	2.96	68.198		
500.00	500.00	507.10	507.10	1.65	1.66	-171.85	-200.15	-28.67	202.19	198.89	3.30	61.188		
550.00	550.00	557.10	557.10	1.82	1.83	-171.85	-200.15	-28.67	202.19	198.55	3.65	55.430		
600.00	600.00	607.10	607.10	1.99	2.00	-171.85	-200.15	-28.67	202.19	198.20	3.99	50.628		
650.00	650.00	657.10	657.10	2.16	2.18	-171.85	-200.15	-28.67	202.19	197.85	4.34	46.570		
700.00	700.00	707.10	707.10	2.34	2.35	-171.85	-200.15	-28.67	202.19	197.50	4.69	43.100		
750.00	750.00	757.10	757.10	2.51	2.53	-171.85	-200.15	-28.67	202.19	197.15	5.04	40.101		
800.00	800.00	807.10	807.10	2.69	2.70	-171.85	-200.15	-28.67	202.19	196.80	5.39	37.486		
850.00	850.00	857.10	857.10	2.87	2.88	-171.85	-200.15	-28.67	202.19	196.45	5.75	35.185		
900.00	900.00	907.10	907.10	3.04	3.06	-171.85	-200.15	-28.67	202.19	196.09	6.10	33.147		
950.00	950.00	957.10	957.10	3.22	3.23	-171.85	-200.15	-28.67	202.19	195.74	6.45	31.330		
1,000.00	1,000.00	1,007.10	1,007.10	3.40	3.41	-171.85	-200.15	-28.67	202.19	195.39	6.81	29.699		
1,050.00	1,050.00	1,057.10	1,057.10	3.58	3.59	-171.85	-200.15	-28.67	202.19	195.03	7.16	28.228		
1,100.00	1,100.00	1,107.10	1,107.10	3.75	3.77	-171.85	-200.15	-28.67	202.19	194.68	7.52	26.895		
1,150.00	1,150.00	1,157.10	1,157.10	3.93	3.94	-171.85	-200.15	-28.67	202.19	194.32	7.87	25.680		
1,200.00	1,200.00	1,207.10	1,207.10	4.11	4.12	-171.85	-200.15	-28.67	202.19	193.96	8.23	24.570		
1,250.00	1,250.00	1,257.10	1,257.10	4.29	4.30	-171.85	-200.15	-28.67	202.19	193.61	8.59	23.552		
1,300.00	1,300.00	1,307.10	1,307.10	4.46	4.48	-171.85	-200.15	-28.67	202.19	193.25	8.94	22.614		
1,350.00	1,350.00	1,357.10	1,357.10	4.64	4.66	-171.85	-200.15	-28.67	202.19	192.90	9.30	21.747		
1,400.00	1,400.00	1,407.10	1,407.10	4.82	4.83	-171.85	-200.15	-28.67	202.19	192.54	9.65	20.944		
1,450.00	1,450.00	1,457.10	1,457.10	5.00	5.01	-171.85	-200.15	-28.67	202.19	192.18	10.01	20.198		
1,500.00	1,500.00	1,507.10	1,507.10	5.18	5.19	-171.85	-200.15	-28.67	202.19	191.83	10.37	19.503		
1,550.00	1,550.00	1,557.10	1,557.10	5.36	5.37	-171.85	-200.15	-28.67	202.19	191.47	10.72	18.854		
1,600.00	1,600.00	1,607.10	1,607.10	5.53	5.55	-171.85	-200.15	-28.67	202.19	191.11	11.08	18.247		
1,650.00	1,650.00	1,657.10	1,657.10	5.71	5.73	-171.85	-200.15	-28.67	202.19	190.76	11.44	17.677		
1,700.00	1,700.00	1,707.10	1,707.10	5.89	5.90	-171.85	-200.15	-28.67	202.19	190.40	11.80	17.142		
1,750.00	1,750.00	1,757.10	1,757.10	6.07	6.08	-171.85	-200.15	-28.67	202.19	190.04	12.15	16.638		
1,800.00	1,800.00	1,807.10	1,807.10	6.25	6.26	-171.85	-200.15	-28.67	202.19	189.68	12.51	16.163		
1,850.00	1,850.00	1,857.10	1,857.10	6.43	6.44	-171.85	-200.15	-28.67	202.19	189.33	12.87	15.714		
1,900.00	1,900.00	1,907.10	1,907.10	6.61	6.62	-171.85	-200.15	-28.67	202.19	188.97	13.22	15.289		
1,950.00	1,950.00	1,957.10	1,957.10	6.78	6.80	-171.85	-200.15	-28.67	202.19	188.61	13.58	14.887		
2,000.00	2,000.00	2,007.10	2,007.10	6.96	6.98	-171.85	-200.15	-28.67	202.19	188.25	13.94	14.505		
2,050.00	2,050.00	2,057.10	2,057.10	7.14	7.16	-171.85	-200.15	-28.67	202.19	187.90	14.30	14.142		
2,100.00	2,100.00	2,107.10	2,107.10	7.32	7.33	-171.85	-200.15	-28.67	202.19	187.54	14.65	13.797		
2,150.00	2,150.00	2,157.10	2,157.10	7.50	7.51	-171.85	-200.15	-28.67	202.19	187.18	15.01	13.468		
2,200.00	2,200.00	2,207.10	2,207.10	7.68	7.69	-171.85	-200.15	-28.67	202.19	186.82	15.37	13.155		
2,250.00	2,250.00	2,257.10	2,257.10	7.86	7.87	-171.85	-200.15	-28.67	202.19	186.47	15.73	12.856		
2,300.00	2,300.00	2,307.10	2,307.10	8.04	8.05	-171.85	-200.15	-28.67	202.19	186.11	16.09	12.570		
2,350.00	2,350.00	2,357.10	2,357.10	8.22	8.23	-171.85	-200.15	-28.67	202.19	185.75	16.44	12.296		
2,400.00	2,400.00	2,407.10	2,407.10	8.39	8.41	-171.85	-200.15	-28.67	202.19	185.39	16.80	12.034		
2,450.00	2,450.00	2,457.10	2,457.10	8.57	8.59	-48.21	-200.15	-28.67	202.05	184.90	17.15	11.780		
2,500.00	2,499.99	2,507.09	2,507.09	8.74	8.76	-48.35	-200.15	-28.67	201.61	184.11	17.50	11.519		
2,550.00	2,549.98	2,557.08	2,557.08	8.90	8.94	-48.59	-200.15	-28.67	200.89	183.04	17.85	11.256		

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 3H - Wellbore #1 - Permit Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-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		
2,600.00	2,599.96	2,607.06	2,607.06	9.07	9.12	-48.92	-200.15	-28.67	199.88	181.69	18.19	10.987		
2,650.00	2,649.92	2,657.02	2,657.02	9.24	9.30	-49.36	-200.15	-28.67	198.60	180.06	18.54	10.713		
2,700.00	2,699.87	2,706.97	2,706.97	9.40	9.48	-49.85	-200.15	-28.67	197.15	178.26	18.88	10.440		
2,750.00	2,749.82	2,756.92	2,756.92	9.57	9.66	-50.35	-200.15	-28.67	195.71	176.48	19.23	10.177		
2,800.00	2,799.77	2,806.87	2,806.87	9.74	9.84	-50.86	-200.15	-28.67	194.29	174.71	19.58	9.924		
2,850.00	2,849.72	2,856.82	2,856.82	9.91	10.02	-51.37	-200.15	-28.67	192.89	172.96	19.93	9.680		
2,900.00	2,899.67	2,906.77	2,906.77	10.08	10.20	-51.90	-200.15	-28.67	191.50	171.22	20.27	9.445		
2,950.00	2,949.62	2,956.72	2,956.72	10.25	10.37	-52.43	-200.15	-28.67	190.13	169.50	20.62	9.219		
3,000.00	2,999.57	3,006.67	3,006.67	10.42	10.55	-52.96	-200.15	-28.67	188.77	167.80	20.97	9.001		
3,050.00	3,049.52	3,056.62	3,056.62	10.59	10.73	-53.51	-200.15	-28.67	187.43	166.11	21.32	8.790		
3,100.00	3,099.47	3,106.57	3,106.57	10.76	10.91	-54.06	-200.15	-28.67	186.11	164.43	21.67	8.587		
3,150.00	3,149.42	3,156.52	3,156.52	10.94	11.09	-54.62	-200.15	-28.67	184.80	162.78	22.02	8.391		
3,200.00	3,199.37	3,206.47	3,206.47	11.11	11.27	-55.19	-200.15	-28.67	183.51	161.14	22.37	8.202		
3,250.00	3,249.32	3,256.42	3,256.42	11.28	11.45	-55.77	-200.15	-28.67	182.25	159.52	22.73	8.019		
3,300.00	3,299.27	3,306.37	3,306.37	11.45	11.63	-56.36	-200.15	-28.67	181.00	157.92	23.08	7.843		
3,350.00	3,349.22	3,356.32	3,356.32	11.63	11.81	-56.95	-200.15	-28.67	179.77	156.34	23.43	7.673		
3,400.00	3,399.17	3,406.27	3,406.27	11.80	11.98	-57.55	-200.15	-28.67	178.56	154.77	23.78	7.508		
3,450.00	3,449.12	3,456.22	3,456.22	11.98	12.16	-58.16	-200.15	-28.67	177.36	153.23	24.13	7.349		
3,500.00	3,499.07	3,506.17	3,506.17	12.15	12.34	-58.78	-200.15	-28.67	176.19	151.71	24.49	7.195		
3,550.00	3,549.02	3,556.12	3,556.12	12.33	12.52	-59.40	-200.15	-28.67	175.04	150.20	24.84	7.047		
3,600.00	3,598.97	3,606.07	3,606.07	12.50	12.70	-60.04	-200.15	-28.67	173.91	148.72	25.19	6.903		
3,650.00	3,648.92	3,656.02	3,656.02	12.68	12.88	-60.68	-200.15	-28.67	172.81	147.26	25.55	6.764		
3,700.00	3,698.87	3,705.97	3,705.97	12.85	13.06	-61.33	-200.15	-28.67	171.72	145.82	25.90	6.630		
3,750.00	3,748.82	3,755.92	3,755.92	13.03	13.24	-61.99	-200.15	-28.67	170.66	144.40	26.26	6.500		
3,800.00	3,798.77	3,805.87	3,805.87	13.20	13.42	-62.65	-200.15	-28.67	169.62	143.01	26.61	6.374		
3,850.00	3,848.72	3,855.82	3,855.82	13.38	13.59	-63.33	-200.15	-28.67	168.60	141.64	26.97	6.252		
3,900.00	3,898.67	3,905.77	3,905.77	13.56	13.77	-64.01	-200.15	-28.67	167.61	140.29	27.32	6.135		
3,950.00	3,948.62	3,955.72	3,955.72	13.73	13.95	-64.70	-200.15	-28.67	166.64	138.96	27.68	6.021		
4,000.00	3,998.57	4,005.67	4,005.67	13.91	14.13	-65.40	-200.15	-28.67	165.70	137.66	28.03	5.911		
4,050.00	4,048.52	4,055.62	4,055.62	14.09	14.31	-66.11	-200.15	-28.67	164.78	136.39	28.39	5.804		
4,100.00	4,098.47	4,105.57	4,105.57	14.26	14.49	-66.82	-200.15	-28.67	163.88	135.14	28.75	5.701		
4,150.00	4,148.42	4,155.52	4,155.52	14.44	14.67	-67.54	-200.15	-28.67	163.01	133.91	29.10	5.602		
4,200.00	4,198.37	4,205.47	4,205.47	14.62	14.85	-68.27	-200.15	-28.67	162.17	132.71	29.46	5.505		
4,250.00	4,248.32	4,255.42	4,255.42	14.80	15.03	-69.01	-200.15	-28.67	161.36	131.54	29.82	5.412		
4,300.00	4,298.27	4,305.37	4,305.37	14.97	15.21	-69.76	-200.15	-28.67	160.57	130.40	30.17	5.322		
4,350.00	4,348.22	4,355.32	4,355.32	15.15	15.38	-70.51	-200.15	-28.67	159.81	129.28	30.53	5.235		
4,400.00	4,398.17	4,405.27	4,405.27	15.33	15.56	-71.27	-200.15	-28.67	159.07	128.19	30.89	5.150		
4,450.00	4,448.12	4,455.22	4,455.22	15.51	15.74	-72.03	-200.15	-28.67	158.37	127.13	31.24	5.069		
4,500.00	4,498.07	4,505.17	4,505.17	15.69	15.92	-72.80	-200.15	-28.67	157.69	126.09	31.60	4.990 Alert		
4,550.00	4,548.02	4,555.12	4,555.12	15.87	16.10	-73.58	-200.15	-28.67	157.05	125.09	31.96	4.914 Alert		
4,600.00	4,597.97	4,605.07	4,605.07	16.05	16.28	-74.37	-200.15	-28.67	156.43	124.11	32.32	4.840 Alert		
4,650.00	4,647.92	4,655.02	4,655.02	16.22	16.46	-75.16	-200.15	-28.67	155.84	123.16	32.68	4.769 Alert		
4,700.00	4,697.87	4,704.97	4,704.97	16.40	16.64	-75.96	-200.15	-28.67	155.28	122.25	33.04	4.700 Alert		
4,750.00	4,747.82	4,754.92	4,754.92	16.58	16.82	-76.76	-200.15	-28.67	154.75	121.36	33.39	4.634 Alert		
4,800.00	4,797.77	4,804.87	4,804.87	16.76	16.99	-77.57	-200.15	-28.67	154.26	120.50	33.75	4.570 Alert		
4,850.00	4,847.72	4,854.82	4,854.82	16.94	17.17	-78.38	-200.15	-28.67	153.79	119.68	34.11	4.508 Alert		
4,900.00	4,897.67	4,904.77	4,904.77	17.12	17.35	-79.20	-200.15	-28.67	153.35	118.88	34.47	4.449 Alert		
4,950.00	4,947.62	4,954.72	4,954.72	17.30	17.53	-80.02	-200.15	-28.67	152.95	118.12	34.83	4.391 Alert		
5,000.00	4,997.57	5,004.67	5,004.67	17.48	17.71	-80.85	-200.15	-28.67	152.58	117.39	35.19	4.336 Alert		
5,050.00	5,047.52	5,054.60	5,054.60	17.66	17.88	-81.53	-200.32	-29.02	152.24	116.70	35.54	4.284 Alert		
5,100.00	5,097.47	5,104.57	5,104.57	17.84	18.05	-81.97	-200.77	-29.96	151.93	116.04	35.89	4.233 Alert		
5,150.00	5,147.42	5,154.56	5,154.52	18.02	18.22	-82.17	-201.51	-31.48	151.62	115.38	36.24	4.184 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: Lea County (NAD83 New Mexico East)
 Reference Site: Sec 08-T25S-R33E
 Site Error: 0.00 ft
 Reference Well: Flagler 8 Fed 39H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
 MD Reference: RKB @ 3471.80ft
 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 08-T25S-R33E - Flagler 8 Fed 3H - Wellbore #1 - Permit Plan 1												Offset Site Error: 0.00 ft	
Survey Program: 0-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
5,200.00	5,197.37	5,204.56	5,204.47	18.20	18.39	-82.12	-202.53	-33.60	151.31	114.73	36.59	4.136	Alert
5,250.00	5,247.32	5,254.55	5,254.36	18.38	18.56	-81.82	-203.84	-36.30	151.01	114.08	36.93	4.089	Alert
5,300.00	5,297.27	5,304.51	5,304.19	18.56	18.72	-81.27	-205.43	-39.59	150.72	113.44	37.28	4.043	Alert
5,350.00	5,347.22	5,354.47	5,353.98	18.74	18.89	-80.56	-207.21	-43.26	150.45	112.82	37.63	3.998	Alert
5,400.00	5,397.17	5,404.43	5,403.78	18.92	19.06	-79.84	-208.98	-46.93	150.21	112.23	37.98	3.955	Alert
5,450.00	5,447.12	5,454.40	5,453.57	19.10	19.23	-79.12	-210.76	-50.61	149.99	111.66	38.33	3.913	Alert
5,500.00	5,497.07	5,504.36	5,503.37	19.28	19.40	-78.40	-212.54	-54.28	149.79	111.12	38.67	3.873	Alert
5,550.00	5,547.02	5,554.33	5,553.17	19.46	19.57	-77.68	-214.31	-57.96	149.62	110.59	39.02	3.834	Alert
5,600.00	5,596.97	5,604.29	5,602.97	19.64	19.74	-76.96	-216.09	-61.63	149.47	110.09	39.37	3.796	Alert
5,650.00	5,646.92	5,654.25	5,652.76	19.82	19.91	-76.23	-217.87	-65.31	149.34	109.62	39.73	3.759	Alert
5,700.00	5,696.87	5,704.22	5,702.56	20.00	20.08	-75.50	-219.65	-68.98	149.24	109.17	40.08	3.724	Alert
5,750.00	5,746.82	5,754.18	5,752.36	20.19	20.26	-74.78	-221.42	-72.65	149.17	108.74	40.43	3.690	Alert
5,800.00	5,796.77	5,804.15	5,802.15	20.37	20.43	-74.05	-223.20	-76.33	149.12	108.34	40.78	3.657	Alert
5,850.00	5,846.72	5,854.11	5,851.95	20.55	20.60	-73.32	-224.98	-80.00	149.09	107.96	41.13	3.625	Alert
5,883.52	5,880.20	5,887.60	5,885.33	20.67	20.72	-72.83	-226.17	-82.47	149.08	107.71	41.37	3.604	Alert, CC
5,900.00	5,896.67	5,904.07	5,901.75	20.73	20.77	-72.59	-226.76	-83.68	149.08	107.60	41.48	3.594	Alert
5,950.00	5,946.62	5,954.04	5,951.54	20.91	20.95	-71.86	-228.53	-87.35	149.10	107.27	41.84	3.564	Alert
6,000.00	5,996.57	6,004.00	6,001.34	21.09	21.12	-71.14	-230.31	-91.03	149.15	106.96	42.19	3.535	Alert
6,050.00	6,046.52	6,053.97	6,051.14	21.27	21.30	-70.41	-232.09	-94.70	149.22	106.67	42.54	3.507	Alert
6,100.00	6,096.47	6,103.93	6,100.94	21.45	21.47	-69.68	-233.86	-98.38	149.31	106.41	42.89	3.481	Alert
6,150.00	6,146.42	6,153.89	6,150.73	21.64	21.65	-68.96	-235.64	-102.05	149.42	106.18	43.25	3.455	Alert
6,200.00	6,196.37	6,203.86	6,200.53	21.82	21.82	-68.23	-237.42	-105.73	149.56	105.96	43.60	3.430	Alert
6,250.00	6,246.32	6,253.82	6,250.33	22.00	22.00	-67.51	-239.20	-109.40	149.73	105.77	43.96	3.406	Alert
6,300.00	6,296.27	6,303.79	6,300.12	22.18	22.17	-66.79	-240.97	-113.08	149.92	105.61	44.31	3.383	Alert
6,350.00	6,346.22	6,353.75	6,349.92	22.36	22.35	-66.07	-242.75	-116.75	150.13	105.47	44.66	3.361	Alert
6,400.00	6,396.17	6,403.71	6,399.72	22.54	22.53	-65.35	-244.53	-120.42	150.36	105.35	45.02	3.340	Alert
6,450.00	6,446.12	6,453.68	6,449.51	22.72	22.70	-64.63	-246.30	-124.10	150.62	105.25	45.37	3.320	Alert
6,500.00	6,496.07	6,503.64	6,499.31	22.91	22.88	-63.92	-248.08	-127.77	150.91	105.18	45.73	3.300	Alert
6,550.00	6,546.02	6,553.61	6,549.11	23.09	23.06	-63.21	-249.86	-131.45	151.21	105.13	46.08	3.282	Alert
6,600.00	6,595.97	6,603.57	6,598.91	23.27	23.24	-62.51	-251.64	-135.12	151.54	105.11	46.43	3.264	Alert
6,650.00	6,645.92	6,653.53	6,648.70	23.45	23.41	-61.80	-253.41	-138.80	151.89	105.10	46.79	3.246	Alert, ES
6,700.00	6,695.87	6,703.50	6,698.50	23.63	23.59	-61.10	-255.19	-142.47	152.27	105.12	47.14	3.230	Alert
6,750.00	6,745.82	6,753.46	6,748.30	23.82	23.77	-60.40	-256.97	-146.15	152.66	105.17	47.50	3.214	Alert
6,800.00	6,795.77	6,803.43	6,798.09	24.00	23.95	-59.71	-258.74	-149.82	153.08	105.23	47.85	3.199	Alert
6,850.00	6,845.72	6,853.39	6,847.89	24.18	24.13	-59.02	-260.52	-153.50	153.53	105.32	48.21	3.185	Alert
6,900.00	6,895.67	6,903.35	6,897.69	24.36	24.31	-58.34	-262.30	-157.17	153.99	105.43	48.56	3.171	Alert
6,950.00	6,945.62	6,953.32	6,947.48	24.54	24.49	-57.66	-264.08	-160.84	154.48	105.56	48.92	3.158	Alert
7,000.00	6,995.57	7,003.28	6,997.28	24.73	24.67	-56.98	-265.85	-164.52	154.98	105.71	49.27	3.146	Alert
7,050.00	7,045.52	7,053.25	7,047.08	24.91	24.85	-56.31	-267.63	-168.19	155.51	105.89	49.62	3.134	Alert
7,100.00	7,095.47	7,103.21	7,096.88	25.09	25.03	-55.64	-269.41	-171.87	156.06	106.09	49.98	3.123	Alert
7,150.00	7,145.42	7,153.17	7,146.67	25.27	25.21	-54.98	-271.18	-175.54	156.64	106.30	50.33	3.112	Alert
7,200.00	7,195.37	7,203.14	7,196.47	25.45	25.39	-54.32	-272.96	-179.22	157.23	106.54	50.69	3.102	Alert
7,250.00	7,245.32	7,253.10	7,246.27	25.64	25.57	-53.67	-274.74	-182.89	157.84	106.80	51.04	3.092	Alert
7,300.00	7,295.27	7,303.07	7,296.06	25.82	25.75	-53.02	-276.52	-186.57	158.47	107.08	51.40	3.083	Alert
7,350.00	7,345.21	7,353.03	7,345.86	26.00	25.93	-52.38	-278.29	-190.24	159.13	107.38	51.75	3.075	Alert
7,400.00	7,395.16	7,402.99	7,395.66	26.18	26.11	-51.74	-280.07	-193.92	159.80	107.70	52.10	3.067	Alert
7,450.00	7,445.11	7,452.96	7,445.45	26.37	26.30	-51.11	-281.85	-197.59	160.49	108.04	52.46	3.059	Alert
7,500.00	7,495.06	7,502.92	7,495.25	26.55	26.48	-50.48	-283.63	-201.27	161.21	108.39	52.81	3.052	Alert
7,550.00	7,545.01	7,552.89	7,545.05	26.73	26.66	-49.86	-285.40	-204.94	161.94	108.77	53.17	3.046	Alert
7,600.00	7,594.96	7,602.85	7,594.85	26.91	26.84	-49.25	-287.18	-208.61	162.69	109.17	53.52	3.040	Alert
7,650.00	7,644.91	7,652.81	7,644.64	27.10	27.03	-48.64	-288.96	-212.29	163.46	109.58	53.87	3.034	Alert
7,700.00	7,694.86	7,702.78	7,694.44	27.28	27.21	-48.04	-290.73	-215.96	164.24	110.02	54.23	3.029	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: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 3H - Wellbore #1 - Permit Plan 1													Offset Site Error:
Survey Program: 0-MWD+IGRF													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	
7,750.00	7,744.81	7,752.74	7,744.24	27.46	27.39	-47.44	-292.51	-219.64	165.05	110.47	54.58	3.024 Alert	
7,800.00	7,794.76	7,802.71	7,794.03	27.64	27.57	-46.85	-294.29	-223.31	165.87	110.94	54.93	3.019 Alert	
7,850.00	7,844.71	7,852.67	7,843.83	27.83	27.76	-46.26	-296.07	-226.99	166.71	111.42	55.29	3.015 Alert	
7,900.00	7,894.66	7,902.63	7,893.63	28.01	27.94	-45.68	-297.84	-230.66	167.57	111.93	55.64	3.012 Alert	
7,950.00	7,944.61	7,952.60	7,943.42	28.19	28.12	-45.11	-299.62	-234.34	168.44	112.45	55.99	3.008 Alert	
8,000.00	7,994.56	8,002.56	7,993.22	28.37	28.31	-44.54	-301.40	-238.01	169.34	112.99	56.35	3.005 Alert	
8,050.00	8,044.51	8,052.53	8,043.02	28.56	28.49	-43.98	-303.17	-241.69	170.24	113.54	56.70	3.002 Alert	
8,100.00	8,094.46	8,102.49	8,092.82	28.74	28.68	-43.42	-304.95	-245.36	171.17	114.11	57.05	3.000 Alert	
8,150.00	8,144.41	8,152.45	8,142.61	28.92	28.86	-42.87	-306.73	-249.03	172.11	114.70	57.41	2.998 Alert	
8,200.00	8,194.36	8,202.42	8,192.41	29.10	29.04	-42.33	-308.51	-252.71	173.06	115.30	57.76	2.996 Alert	
8,250.00	8,244.31	8,252.38	8,242.21	29.29	29.23	-41.79	-310.28	-256.38	174.03	115.92	58.11	2.995 Alert	
8,300.00	8,294.26	8,302.35	8,292.00	29.47	29.41	-41.26	-312.06	-260.06	175.02	116.55	58.47	2.993 Alert	
8,350.00	8,344.21	8,352.31	8,341.80	29.65	29.60	-40.73	-313.84	-263.73	176.02	117.20	58.82	2.993 Alert	
8,400.00	8,394.16	8,402.27	8,391.60	29.84	29.78	-40.21	-315.61	-267.41	177.04	117.86	59.17	2.992 Alert	
8,450.00	8,444.11	8,452.24	8,441.39	30.02	29.97	-39.70	-317.39	-271.08	178.07	118.54	59.53	2.991 Alert, SF	
8,500.00	8,494.06	8,502.20	8,491.19	30.20	30.15	-39.19	-319.17	-274.76	179.13	119.25	59.88	2.992 Alert	
8,550.00	8,544.03	8,552.14	8,540.97	30.38	30.34	-38.60	-320.95	-278.43	180.58	120.35	60.23	2.998 Alert	
8,600.00	8,594.02	8,602.05	8,590.71	30.56	30.52	-37.90	-322.72	-282.10	182.56	121.98	60.58	3.014 Alert	
8,650.00	8,644.02	8,651.92	8,640.41	30.73	30.71	-37.10	-324.49	-285.77	185.09	124.17	60.92	3.038 Alert	
8,700.00	8,694.02	8,701.83	8,690.15	30.90	30.89	-159.92	-326.27	-289.44	188.00	126.74	61.26	3.069 Alert	
8,750.00	8,744.02	8,753.55	8,741.73	31.07	31.08	-159.11	-327.94	-292.90	190.69	129.08	61.62	3.095 Alert	
8,800.00	8,794.02	8,805.36	8,793.44	31.24	31.27	-158.47	-329.32	-295.74	192.92	130.95	61.97	3.113 Alert	
8,850.00	8,844.02	8,857.25	8,845.27	31.41	31.46	-157.98	-330.39	-297.95	194.66	132.34	62.33	3.123 Alert	
8,900.00	8,894.02	8,908.20	8,897.19	31.58	31.64	-157.64	-331.15	-299.52	195.92	133.24	62.68	3.126 Alert	
8,950.00	8,944.02	8,961.18	8,949.16	31.75	31.83	-157.43	-331.60	-300.47	196.67	133.65	63.02	3.121 Alert	
9,000.00	8,994.02	9,013.18	9,001.16	31.92	32.01	-157.37	-331.75	-300.77	196.91	133.55	63.37	3.108 Alert	
9,000.20	8,994.22	9,013.39	9,001.37	31.92	32.01	-157.37	-331.75	-300.77	196.91	133.54	63.37	3.107 Alert	
9,050.00	9,043.98	9,063.10	9,051.08	32.09	32.18	-157.11	-331.75	-300.77	198.33	134.61	63.72	3.113 Alert	
9,100.00	9,093.62	9,112.74	9,100.72	32.25	32.35	-157.54	-331.75	-300.77	203.71	139.64	64.07	3.180 Alert	
9,150.00	9,142.57	9,161.69	9,149.67	32.41	32.52	-158.23	-331.75	-300.77	213.13	148.71	64.42	3.308 Alert	
9,200.00	9,190.45	9,209.57	9,197.55	32.55	32.69	-159.07	-331.75	-300.77	226.58	161.81	64.78	3.498 Alert	
9,250.00	9,236.89	9,256.01	9,243.99	32.68	32.85	-159.98	-331.75	-300.77	244.05	178.93	65.12	3.748 Alert	
9,300.00	9,281.55	9,300.66	9,288.65	32.81	33.01	-160.86	-331.75	-300.77	265.45	200.01	65.44	4.056 Alert	
9,350.00	9,324.07	9,343.19	9,331.17	32.92	33.16	-161.64	-331.75	-300.77	290.69	224.94	65.75	4.421 Alert	
9,400.00	9,364.15	9,383.27	9,371.25	33.02	33.30	-162.25	-331.75	-300.77	319.59	253.55	66.04	4.840 Alert	
9,450.00	9,401.47	9,420.59	9,408.57	33.11	33.43	-162.64	-331.75	-300.77	351.95	285.65	66.30	5.309	
9,500.00	9,435.75	9,454.87	9,442.85	33.19	33.55	-162.77	-331.75	-300.77	387.53	321.00	66.53	5.825	
9,550.00	9,466.73	9,485.85	9,473.83	33.26	33.65	-162.57	-331.75	-300.77	426.04	359.30	66.74	6.384	
9,600.00	9,494.18	9,513.30	9,501.28	33.42	33.75	-161.94	-331.75	-300.77	467.19	400.28	66.92	6.982	
9,650.00	9,517.88	9,536.99	9,524.98	33.59	33.83	-160.70	-331.75	-300.77	510.65	443.58	67.07	7.614	
9,700.00	9,537.65	9,556.77	9,544.75	33.78	33.90	-158.52	-331.75	-300.77	556.08	488.89	67.19	8.276	
9,750.00	9,553.35	9,572.46	9,560.45	33.98	33.96	-154.71	-331.75	-300.77	603.11	535.83	67.29	8.963	
9,800.00	9,564.85	9,583.96	9,571.95	34.19	34.00	-147.59	-331.75	-300.77	651.39	584.03	67.36	9.670	
9,850.00	9,572.06	9,608.82	9,579.16	34.41	34.08	-132.45	-331.75	-300.77	700.53	633.06	67.47	10.383	
9,900.00	9,574.94	9,605.94	9,582.04	34.65	34.07	-97.73	-331.75	-300.77	750.15	682.67	67.47	11.118	
9,950.00	9,575.00	9,605.88	9,582.10	34.91	34.07	-90.00	-331.75	-300.77	799.90	732.41	67.49	11.853	
10,000.00	9,575.00	9,605.88	9,582.10	35.18	34.07	-90.00	-331.75	-300.77	849.88	782.18	67.50	12.588	
10,050.00	9,575.00	9,605.88	9,582.10	35.48	34.07	-90.00	-331.75	-300.77	899.49	831.98	67.51	13.324	
10,100.00	9,575.00	9,605.88	9,582.10	35.79	34.07	-90.00	-331.75	-300.77	949.31	881.80	67.52	14.060	
10,150.00	9,575.00	9,605.88	9,582.10	36.15	34.07	-90.00	-331.75	-300.77	999.16	931.63	67.53	14.797	
10,200.00	9,575.00	9,605.88	9,582.10	36.50	34.07	-90.00	-331.75	-300.77	1,049.01	981.48	67.54	15.533	
10,250.00	9,575.00	9,605.88	9,582.10	36.80	34.07	-90.00	-331.75	-300.77	1,098.89	1,031.34	67.54	16.269	

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 Flagler 8 Fed 39H
Project:	Lea County (NAD83 New Mexico East)	TVD Reference:	RKB @ 3471.80ft
Reference Site:	Sec 08-T25S-R33E	MD Reference:	RKB @ 3471.80ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Flagler 8 Fed 39H	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:	0.00 ft
Sec 08-T25S-R33E - Flagler 8 Fed 3H - Wellbore #1 - Permit Plan 1												Offset Well Error:	0.50 ft
Survey Program: 0-MWD+IGRF													
Reference		Offset		Semi Major Axis			Distance						
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation	Warning
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
10,300.00	9,575.00	9,605.88	9,582.10	37.29	34.07	-90.00	-331.75	-300.77	1,148.77	1,081.21	67.55	17.005	
10,350.00	9,575.00	9,605.88	9,582.10	37.73	34.07	-90.00	-331.75	-300.77	1,198.66	1,131.10	67.56	17.741	
10,400.00	9,575.00	9,605.88	9,582.10	38.16	34.07	-90.00	-331.75	-300.77	1,248.56	1,180.99	67.57	18.478	
10,450.00	9,575.00	9,605.88	9,582.10	38.64	34.07	-90.00	-331.75	-300.77	1,298.47	1,230.89	67.58	19.214	
10,500.00	9,575.00	9,605.88	9,582.10	39.11	34.07	-90.00	-331.75	-300.77	1,348.39	1,280.80	67.59	19.950	
10,550.00	9,575.00	9,605.88	9,582.10	39.61	34.07	-90.00	-331.75	-300.77	1,398.31	1,330.71	67.60	20.686	
10,600.00	9,575.00	9,605.88	9,582.10	40.12	34.07	-90.00	-331.75	-300.77	1,448.23	1,380.63	67.61	21.421	
10,650.00	9,575.00	9,605.88	9,582.10	40.66	34.07	-90.00	-331.75	-300.77	1,498.17	1,430.55	67.62	22.157	

Anticollision Report

Company: WCDSC Permian NM
 Project: Lea County (NAD83 New Mexico East)
 Reference Site: Sec 08-T25S-R33E
 Site Error: 0.00 ft
 Reference Well: Flagler 8 Fed 39H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
 MD Reference: RKB @ 3471.80ft
 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 08-T25S-R33E - Flagler 8 Fed 40H - Wellbore #1 - Permit Plan 1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IGRF												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 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	8.40	-8.40	0.50	0.50	89.63	6.58	1,009.80	1,009.82				
50.00	50.00	41.60	41.60	0.50	0.50	89.63	6.58	1,009.80	1,009.82	1,008.82	1.01	1,004.678	
100.00	100.00	108.40	91.60	0.52	0.53	89.63	6.58	1,009.80	1,009.82	1,008.78	1.04	967.141	
150.00	150.00	141.60	141.60	0.59	0.57	89.63	6.58	1,009.80	1,009.82	1,008.66	1.17	866.767	
200.00	200.00	208.40	191.60	0.70	0.72	89.63	6.58	1,009.80	1,009.82	1,008.40	1.43	708.318	
250.00	250.00	241.60	241.60	0.84	0.81	89.63	6.58	1,009.80	1,009.82	1,008.17	1.65	611.471	
300.00	300.00	308.40	291.60	0.99	1.01	89.63	6.58	1,009.80	1,009.82	1,007.82	2.00	504.722	
350.00	350.00	341.60	341.60	1.15	1.12	89.63	6.58	1,009.80	1,009.82	1,007.56	2.26	446.042	
400.00	400.00	408.40	391.60	1.31	1.34	89.63	6.58	1,009.80	1,009.82	1,007.18	2.65	381.633	
450.00	450.00	441.60	441.60	1.48	1.45	89.63	6.58	1,009.80	1,009.82	1,006.90	2.92	345.315	
500.00	500.00	508.40	491.60	1.65	1.67	89.63	6.58	1,009.80	1,009.82	1,006.50	3.32	304.082	
550.00	550.00	541.60	541.60	1.82	1.79	89.63	6.58	1,009.80	1,009.82	1,006.22	3.61	280.008	
600.00	600.00	608.40	591.60	1.99	2.02	89.63	6.58	1,009.80	1,009.82	1,005.81	4.01	251.803	
650.00	650.00	641.60	641.60	2.16	2.14	89.63	6.58	1,009.80	1,009.82	1,005.52	4.30	234.852	
700.00	700.00	708.40	691.60	2.34	2.37	89.63	6.58	1,009.80	1,009.82	1,005.12	4.71	214.488	
750.00	750.00	741.60	741.60	2.51	2.49	89.63	6.58	1,009.80	1,009.82	1,004.82	5.00	201.969	
800.00	800.00	808.40	791.60	2.69	2.72	89.63	6.58	1,009.80	1,009.82	1,004.41	5.41	186.632	
850.00	850.00	841.60	841.60	2.87	2.84	89.63	6.58	1,009.80	1,009.82	1,004.12	5.70	177.033	
900.00	900.00	908.40	891.60	3.04	3.07	89.63	6.58	1,009.80	1,009.82	1,003.71	6.12	165.090	
950.00	950.00	941.60	941.60	3.22	3.19	89.63	6.58	1,009.80	1,009.82	1,003.41	6.41	157.509	
1,000.00	1,000.00	1,008.40	991.60	3.40	3.43	89.63	6.58	1,009.80	1,009.82	1,003.00	6.83	147.957	
1,050.00	1,050.00	1,041.60	1,041.60	3.58	3.55	89.63	6.58	1,009.80	1,009.82	1,002.70	7.12	141.824	
1,100.00	1,100.00	1,108.40	1,091.60	3.75	3.78	89.63	6.58	1,009.80	1,009.82	1,002.29	7.54	134.017	
1,150.00	1,150.00	1,141.60	1,141.60	3.93	3.90	89.63	6.58	1,009.80	1,009.82	1,001.99	7.83	128.956	
1,200.00	1,200.00	1,208.40	1,191.60	4.11	4.14	89.63	6.58	1,009.80	1,009.82	1,001.58	8.25	122.459	
1,250.00	1,250.00	1,241.60	1,241.60	4.29	4.26	89.63	6.58	1,009.80	1,009.82	1,001.28	8.54	118.214	
1,300.00	1,300.00	1,308.40	1,291.60	4.46	4.49	89.63	6.58	1,009.80	1,009.82	1,000.87	8.96	112.725	
1,350.00	1,350.00	1,341.60	1,341.60	4.64	4.61	89.63	6.58	1,009.80	1,009.82	1,000.57	9.25	109.114	
1,400.00	1,400.00	1,408.40	1,391.60	4.82	4.85	89.63	6.58	1,009.80	1,009.82	1,000.15	9.67	104.417	
1,450.00	1,450.00	1,441.60	1,441.60	5.00	4.97	89.63	6.58	1,009.80	1,009.82	999.86	9.97	101.309	
1,500.00	1,500.00	1,508.40	1,491.60	5.18	5.21	89.63	6.58	1,009.80	1,009.82	999.44	10.38	97.244	
1,550.00	1,550.00	1,541.60	1,541.60	5.36	5.33	89.63	6.58	1,009.80	1,009.82	999.14	10.68	94.541	
1,600.00	1,600.00	1,608.40	1,591.60	5.53	5.56	89.63	6.58	1,009.80	1,009.82	998.73	11.10	90.989	
1,650.00	1,650.00	1,641.60	1,641.60	5.71	5.68	89.63	6.58	1,009.80	1,009.82	998.43	11.40	88.617	
1,700.00	1,700.00	1,708.40	1,691.60	5.89	5.92	89.63	6.58	1,009.80	1,009.82	998.01	11.81	85.488	
1,750.00	1,750.00	1,741.60	1,741.60	6.07	6.04	89.63	6.58	1,009.80	1,009.82	997.71	12.11	83.390	
1,800.00	1,800.00	1,808.40	1,791.60	6.25	6.28	89.63	6.58	1,009.80	1,009.82	997.30	12.53	80.612	
1,850.00	1,850.00	1,841.60	1,841.60	6.43	6.40	89.63	6.58	1,009.80	1,009.82	997.00	12.82	78.743	
1,900.00	1,900.00	1,908.40	1,891.60	6.61	6.64	89.63	6.58	1,009.80	1,009.82	996.58	13.24	76.261	
1,950.00	1,950.00	1,941.60	1,941.60	6.78	6.75	89.63	6.58	1,009.80	1,009.82	996.28	13.54	74.585	
2,000.00	2,000.00	2,008.40	1,991.60	6.96	6.99	89.63	6.58	1,009.80	1,009.82	995.87	13.96	72.354	
2,050.00	2,050.00	2,041.60	2,041.60	7.14	7.11	89.63	6.58	1,009.80	1,009.82	995.57	14.25	70.844	
2,100.00	2,100.00	2,108.40	2,091.60	7.32	7.35	89.63	6.58	1,009.80	1,009.82	995.15	14.67	68.827	
2,150.00	2,150.00	2,141.60	2,141.60	7.50	7.47	89.63	6.58	1,009.80	1,009.82	994.85	14.97	67.459	
2,200.00	2,200.00	2,208.40	2,191.60	7.68	7.71	89.63	6.58	1,009.80	1,009.82	994.44	15.39	65.627	
2,250.00	2,250.00	2,241.60	2,241.60	7.86	7.83	89.63	6.58	1,009.80	1,009.82	994.14	15.68	64.382	
2,300.00	2,300.00	2,308.40	2,291.60	8.04	8.07	89.63	6.58	1,009.80	1,009.82	993.72	16.10	62.711	
2,350.00	2,350.00	2,341.60	2,341.60	8.22	8.19	89.63	6.58	1,009.80	1,009.82	993.42	16.40	61.573	
2,400.00	2,400.00	2,408.40	2,391.60	8.39	8.42	89.63	6.58	1,009.80	1,009.82	993.01	16.82	60.043 CC	
2,450.00	2,450.00	2,441.60	2,441.60	8.57	8.54	-146.69	6.58	1,009.80	1,010.01	992.90	17.11	59.033 ES	
2,500.00	2,499.99	2,508.41	2,491.59	8.74	8.78	-146.71	6.58	1,009.80	1,010.55	993.03	17.52	57.680	
2,550.00	2,549.98	2,541.58	2,541.58	8.90	8.90	-146.74	6.58	1,009.80	1,011.46	993.66	17.80	56.810	

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 40H - Wellbore #1 - Permit Plan 1		Offset Site Error:		0.00 ft	
Survey Program: 0-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						
2,600.00	2,599.96	2,608.44	2,591.56	9.07	9.14	-146.78	6.58	1,009.80	1,012.74	994.53	18.21	55.617							
2,650.00	2,649.92	2,641.52	2,641.52	9.24	9.26	-146.83	6.58	1,009.80	1,014.38	995.89	18.49	54.850							
2,700.00	2,699.87	2,708.53	2,691.47	9.40	9.50	-146.90	6.58	1,009.80	1,016.26	997.36	18.90	53.769							
2,750.00	2,749.82	2,741.42	2,741.42	9.57	9.62	-146.96	6.58	1,009.80	1,018.13	998.95	19.19	53.067							
2,800.00	2,799.77	2,808.63	2,791.37	9.74	9.86	-147.03	6.58	1,009.80	1,020.01	1,000.41	19.59	52.058							
2,850.00	2,849.72	2,841.32	2,841.32	9.91	9.97	-147.10	6.58	1,009.80	1,021.89	1,002.01	19.88	51.405							
2,900.00	2,899.67	2,908.73	2,891.27	10.08	10.22	-147.17	6.58	1,009.80	1,023.76	1,003.48	20.29	50.460							
2,950.00	2,949.62	2,941.22	2,941.22	10.25	10.33	-147.24	6.58	1,009.80	1,025.65	1,005.07	20.57	49.851							
3,000.00	2,999.57	3,008.83	2,991.17	10.42	10.57	-147.30	6.58	1,009.80	1,027.53	1,006.54	20.99	48.963							
3,050.00	3,049.52	3,041.12	3,041.12	10.59	10.69	-147.37	6.58	1,009.80	1,029.41	1,008.14	21.27	48.394							
3,100.00	3,099.47	3,108.93	3,091.07	10.76	10.93	-147.44	6.58	1,009.80	1,031.30	1,009.61	21.68	47.560							
3,150.00	3,149.42	3,141.02	3,141.02	10.94	11.05	-147.50	6.58	1,009.80	1,033.18	1,011.21	21.97	47.027							
3,200.00	3,199.37	3,209.03	3,190.97	11.11	11.29	-147.57	6.58	1,009.80	1,035.07	1,012.69	22.38	46.241							
3,250.00	3,249.32	3,240.92	3,240.92	11.28	11.40	-147.64	6.58	1,009.80	1,036.96	1,014.29	22.67	45.742							
3,300.00	3,299.27	3,309.13	3,290.87	11.45	11.65	-147.70	6.58	1,009.80	1,038.85	1,015.77	23.09	45.000							
3,350.00	3,349.22	3,340.82	3,340.82	11.63	11.76	-147.77	6.58	1,009.80	1,040.74	1,017.37	23.37	44.531							
3,400.00	3,399.17	3,409.23	3,390.77	11.80	12.01	-147.83	6.58	1,009.80	1,042.64	1,018.85	23.79	43.830							
3,450.00	3,449.12	3,440.72	3,440.72	11.98	12.12	-147.90	6.58	1,009.80	1,044.53	1,020.46	24.07	43.390							
3,500.00	3,499.07	3,509.33	3,490.67	12.15	12.37	-147.97	6.58	1,009.80	1,046.43	1,021.94	24.49	42.726							
3,550.00	3,549.02	3,540.62	3,540.62	12.33	12.48	-148.03	6.58	1,009.80	1,048.33	1,023.55	24.78	42.311							
3,600.00	3,598.97	3,609.43	3,590.57	12.50	12.72	-148.09	6.58	1,009.80	1,050.22	1,025.03	25.20	41.682							
3,650.00	3,648.92	3,640.52	3,640.52	12.68	12.84	-148.16	6.58	1,009.80	1,052.12	1,026.64	25.48	41.291							
3,700.00	3,698.87	3,709.53	3,690.47	12.85	13.08	-148.22	6.58	1,009.80	1,054.03	1,028.12	25.90	40.693							
3,750.00	3,748.82	3,740.42	3,740.42	13.03	13.19	-148.29	6.58	1,009.80	1,055.93	1,029.74	26.19	40.324							
3,800.00	3,798.77	3,809.63	3,790.37	13.20	13.44	-148.35	6.58	1,009.80	1,057.83	1,031.23	26.61	39.756							
3,850.00	3,848.72	3,840.32	3,840.32	13.38	13.55	-148.41	6.58	1,009.80	1,059.74	1,032.85	26.89	39.407							
3,900.00	3,898.67	3,909.73	3,890.27	13.56	13.80	-148.48	6.58	1,009.80	1,061.65	1,034.33	27.31	38.867							
3,950.00	3,948.62	3,940.22	3,940.22	13.73	13.91	-148.54	6.58	1,009.80	1,063.55	1,035.95	27.60	38.536							
4,000.00	3,998.57	4,009.83	3,990.17	13.91	14.16	-148.60	6.58	1,009.80	1,065.46	1,037.44	28.02	38.021							
4,050.00	4,048.52	4,040.12	4,040.12	14.09	14.27	-148.67	6.58	1,009.80	1,067.37	1,039.07	28.31	37.708							
4,100.00	4,098.47	4,109.93	4,090.07	14.26	14.52	-148.73	6.58	1,009.80	1,069.28	1,040.55	28.73	37.217							
4,150.00	4,148.42	4,140.02	4,140.02	14.44	14.63	-148.79	6.58	1,009.80	1,071.20	1,042.18	29.01	36.920							
4,200.00	4,198.37	4,189.97	4,189.97	14.62	14.80	-148.85	6.58	1,009.80	1,073.11	1,043.74	29.37	36.540							
4,250.00	4,248.32	4,239.92	4,239.92	14.80	14.98	-148.91	6.58	1,009.80	1,075.03	1,045.30	29.72	36.168							
4,300.00	4,298.27	4,289.87	4,289.87	14.97	15.16	-148.97	6.58	1,009.80	1,076.94	1,046.87	30.08	35.806							
4,350.00	4,348.22	4,339.82	4,339.82	15.15	15.34	-149.04	6.58	1,009.80	1,078.86	1,048.43	30.43	35.452							
4,400.00	4,398.17	4,389.77	4,389.77	15.33	15.52	-149.10	6.58	1,009.80	1,080.78	1,050.00	30.79	35.105							
4,450.00	4,448.12	4,439.72	4,439.72	15.51	15.70	-149.16	6.58	1,009.80	1,082.70	1,051.56	31.14	34.767							
4,500.00	4,498.07	4,489.67	4,489.67	15.69	15.88	-149.22	6.58	1,009.80	1,084.62	1,053.13	31.50	34.436							
4,550.00	4,548.02	4,539.62	4,539.62	15.87	16.06	-149.28	6.58	1,009.80	1,086.55	1,054.70	31.85	34.113							
4,600.00	4,597.97	4,589.57	4,589.57	16.05	16.24	-149.34	6.58	1,009.80	1,088.47	1,056.26	32.21	33.796							
4,650.00	4,647.92	4,639.52	4,639.52	16.22	16.41	-149.40	6.58	1,009.80	1,090.40	1,057.83	32.56	33.486							
4,700.00	4,697.87	4,689.47	4,689.47	16.40	16.59	-149.46	6.58	1,009.80	1,092.32	1,059.41	32.92	33.183							
4,750.00	4,747.82	4,739.42	4,739.42	16.58	16.77	-149.52	6.58	1,009.80	1,094.25	1,060.98	33.27	32.887							
4,800.00	4,797.77	4,789.37	4,789.37	16.76	16.95	-149.58	6.58	1,009.80	1,096.18	1,062.55	33.63	32.596							
4,850.00	4,847.72	4,839.32	4,839.32	16.94	17.13	-149.64	6.58	1,009.80	1,098.11	1,064.12	33.98	32.312							
4,900.00	4,897.67	4,889.27	4,889.27	17.12	17.31	-149.70	6.58	1,009.80	1,100.04	1,065.70	34.34	32.033							
4,950.00	4,947.62	4,939.22	4,939.22	17.30	17.49	-149.75	6.58	1,009.80	1,101.97	1,067.28	34.70	31.760							
5,000.00	4,997.57	4,989.17	4,989.17	17.48	17.67	-149.81	6.58	1,009.80	1,103.91	1,068.85	35.05	31.493							
5,050.00	5,047.52	5,039.12	5,039.12	17.66	17.85	-149.87	6.58	1,009.80	1,105.84	1,070.43	35.41	31.231							
5,100.00	5,097.47	5,089.07	5,089.07	17.84	18.03	-149.93	6.58	1,009.80	1,107.78	1,072.01	35.76	30.974							
5,150.00	5,147.42	5,139.02	5,139.02	18.02	18.20	-149.99	6.58	1,009.80	1,109.71	1,073.59	36.12	30.722							

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

Anticollision Report

Company: WCDSC Permian NM
 Project: Lea County (NAD83 New Mexico East)
 Reference Site: Sec 08-T25S-R33E
 Site Error: 0.00 ft
 Reference Well: Flagler 8 Fed 39H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
 MD Reference: RKB @ 3471.80ft
 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 08-T25S-R33E - Flagler 8 Fed 40H - Wellbore #1 - Permit Plan 1													Offset Site Error: 0.00 ft
Survey Program: 0-MWD+IGRF													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)			
5,200.00	5,197.37	5,188.97	5,188.97	18.20	18.38	-150.04	6.58	1,009.80	1,111.65	1,075.18	36.48	30.475	
5,250.00	5,247.32	5,238.92	5,238.92	18.38	18.56	-150.10	6.58	1,009.80	1,113.59	1,076.76	36.83	30.233	
5,300.00	5,297.27	5,288.87	5,288.87	18.56	18.74	-150.16	6.58	1,009.80	1,115.53	1,078.34	37.19	29.996	
5,350.00	5,347.22	5,338.82	5,338.82	18.74	18.92	-150.22	6.58	1,009.80	1,117.47	1,079.93	37.55	29.763	
5,400.00	5,397.17	5,388.77	5,388.77	18.92	19.10	-150.27	6.58	1,009.80	1,119.42	1,081.51	37.90	29.534	
5,450.00	5,447.12	5,438.72	5,438.72	19.10	19.28	-150.33	6.58	1,009.80	1,121.36	1,083.10	38.26	29.309	
5,500.00	5,497.07	5,488.67	5,488.67	19.28	19.46	-150.39	6.58	1,009.80	1,123.30	1,084.69	38.62	29.089	
5,550.00	5,547.02	5,538.62	5,538.62	19.46	19.64	-150.44	6.58	1,009.80	1,125.25	1,086.28	38.97	28.873	
5,600.00	5,596.97	5,588.57	5,588.57	19.64	19.82	-150.50	6.58	1,009.80	1,127.20	1,087.87	39.33	28.660	
5,650.00	5,646.92	5,638.52	5,638.52	19.82	19.99	-150.55	6.58	1,009.80	1,129.14	1,089.46	39.69	28.452	
5,700.00	5,696.87	5,688.47	5,688.47	20.00	20.17	-150.61	6.58	1,009.80	1,131.09	1,091.05	40.04	28.247	
5,750.00	5,746.82	5,738.42	5,738.42	20.19	20.35	-150.67	6.58	1,009.80	1,133.04	1,092.64	40.40	28.045	
5,800.00	5,796.77	5,788.37	5,788.37	20.37	20.53	-150.72	6.58	1,009.80	1,134.99	1,094.24	40.76	27.848	
5,850.00	5,846.72	5,838.32	5,838.32	20.55	20.71	-150.78	6.58	1,009.80	1,136.95	1,095.83	41.11	27.653	
5,900.00	5,896.67	5,888.27	5,888.27	20.73	20.89	-150.83	6.58	1,009.80	1,138.90	1,097.43	41.47	27.462	
5,950.00	5,946.62	5,938.22	5,938.22	20.91	21.07	-150.89	6.58	1,009.80	1,140.85	1,099.03	41.83	27.275	
6,000.00	5,996.57	5,988.17	5,988.17	21.09	21.25	-150.94	6.58	1,009.80	1,142.81	1,100.62	42.19	27.090	
6,050.00	6,046.52	6,038.12	6,038.12	21.27	21.43	-150.99	6.58	1,009.80	1,144.77	1,102.22	42.54	26.909	
6,100.00	6,096.47	6,088.07	6,088.07	21.45	21.61	-151.05	6.58	1,009.80	1,146.72	1,103.82	42.90	26.730	
6,150.00	6,146.42	6,138.02	6,138.02	21.64	21.78	-151.10	6.58	1,009.80	1,148.68	1,105.42	43.26	26.555	
6,200.00	6,196.37	6,187.97	6,187.97	21.82	21.96	-151.16	6.58	1,009.80	1,150.64	1,107.03	43.61	26.382	
6,250.00	6,246.32	6,237.92	6,237.92	22.00	22.14	-151.21	6.58	1,009.80	1,152.60	1,108.63	43.97	26.212	
6,300.00	6,296.27	6,287.87	6,287.87	22.18	22.32	-151.26	6.58	1,009.80	1,154.56	1,110.23	44.33	26.045	
6,350.00	6,346.22	6,337.82	6,337.82	22.36	22.50	-151.32	6.58	1,009.80	1,156.52	1,111.84	44.69	25.881	
6,400.00	6,396.17	6,387.77	6,387.77	22.54	22.68	-151.37	6.58	1,009.80	1,158.49	1,113.44	45.04	25.719	
6,450.00	6,446.12	6,437.72	6,437.72	22.72	22.86	-151.42	6.58	1,009.80	1,160.45	1,115.05	45.40	25.560	
6,500.00	6,496.07	6,487.67	6,487.67	22.91	23.04	-151.48	6.58	1,009.80	1,162.42	1,116.66	45.76	25.403	
6,550.00	6,546.02	6,537.62	6,537.62	23.09	23.22	-151.53	6.58	1,009.80	1,164.38	1,118.27	46.12	25.248	
6,600.00	6,595.97	6,587.57	6,587.57	23.27	23.40	-151.58	6.58	1,009.80	1,166.35	1,119.88	46.47	25.097	
6,650.00	6,645.92	6,637.52	6,637.52	23.45	23.57	-151.63	6.58	1,009.80	1,168.32	1,121.49	46.83	24.947	
6,700.00	6,695.87	6,687.47	6,687.47	23.63	23.75	-151.68	6.58	1,009.80	1,170.29	1,123.10	47.19	24.800	
6,750.00	6,745.82	6,737.42	6,737.42	23.82	23.93	-151.74	6.58	1,009.80	1,172.26	1,124.71	47.55	24.654	
6,800.00	6,795.77	6,787.37	6,787.37	24.00	24.11	-151.79	6.58	1,009.80	1,174.23	1,126.33	47.91	24.511	
6,850.00	6,845.72	6,837.32	6,837.32	24.18	24.29	-151.84	6.58	1,009.80	1,176.20	1,127.94	48.26	24.371	
6,900.00	6,895.67	6,887.27	6,887.27	24.36	24.47	-151.89	6.58	1,009.80	1,178.18	1,129.55	48.62	24.232	
6,950.00	6,945.62	6,937.22	6,937.22	24.54	24.65	-151.94	6.58	1,009.80	1,180.15	1,131.17	48.98	24.095	
7,000.00	6,995.57	6,987.17	6,987.17	24.73	24.83	-151.99	6.58	1,009.80	1,182.12	1,132.79	49.34	23.960	
7,050.00	7,045.52	7,037.12	7,037.12	24.91	25.01	-152.04	6.58	1,009.80	1,184.10	1,134.41	49.69	23.828	
7,100.00	7,095.47	7,087.07	7,087.07	25.09	25.19	-152.09	6.58	1,009.80	1,186.08	1,136.02	50.05	23.697	
7,150.00	7,145.42	7,137.02	7,137.02	25.27	25.37	-152.15	6.58	1,009.80	1,188.06	1,137.64	50.41	23.568	
7,200.00	7,195.37	7,186.97	7,186.97	25.45	25.54	-152.20	6.58	1,009.80	1,190.03	1,139.27	50.77	23.441	
7,250.00	7,245.32	7,236.92	7,236.92	25.64	25.72	-152.25	6.58	1,009.80	1,192.01	1,140.89	51.13	23.315	
7,300.00	7,295.27	7,286.87	7,286.87	25.82	25.90	-152.30	6.58	1,009.80	1,193.99	1,142.51	51.48	23.191	
7,350.00	7,345.21	7,336.81	7,336.81	26.00	26.08	-152.35	6.58	1,009.80	1,195.98	1,144.13	51.84	23.070	
7,400.00	7,395.16	7,386.76	7,386.76	26.18	26.26	-152.40	6.58	1,009.80	1,197.96	1,145.76	52.20	22.949	
7,450.00	7,445.11	7,436.71	7,436.71	26.37	26.44	-152.44	6.58	1,009.80	1,199.94	1,147.38	52.56	22.831	
7,500.00	7,495.06	7,486.66	7,486.66	26.55	26.62	-152.49	6.58	1,009.80	1,201.92	1,149.01	52.92	22.714	
7,550.00	7,545.01	7,536.61	7,536.61	26.73	26.80	-152.54	6.58	1,009.80	1,203.91	1,150.64	53.27	22.598	
7,600.00	7,594.96	7,586.56	7,586.56	26.91	26.98	-152.59	6.58	1,009.80	1,205.90	1,152.26	53.63	22.484	
7,650.00	7,644.91	7,636.51	7,636.51	27.10	27.16	-152.64	6.58	1,009.80	1,207.88	1,153.89	53.99	22.372	
7,700.00	7,694.86	7,686.46	7,686.46	27.28	27.33	-152.69	6.58	1,009.80	1,209.87	1,155.52	54.35	22.261	
7,750.00	7,744.81	7,736.41	7,736.41	27.46	27.51	-152.74	6.58	1,009.80	1,211.86	1,157.15	54.71	22.152	

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 40H - Wellbore #1 - Permit Plan 1											Offset Site Error: 0.00 ft	
Survey Program: 0-MWD+IGRF											Offset Well Error: 0.50 ft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		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)				Between Centres (ft)
7,800.00	7,794.76	7,786.36	7,786.36	27.64	27.69	-152.79	6.58	1,009.80	1,213.85	1,158.78	55.07	22.044
7,850.00	7,844.71	7,836.31	7,836.31	27.83	27.87	-152.83	6.58	1,009.80	1,215.84	1,160.41	55.42	21.937
7,900.00	7,894.66	7,886.26	7,886.26	28.01	28.05	-152.88	6.58	1,009.80	1,217.83	1,162.05	55.78	21.832
7,950.00	7,944.61	7,936.21	7,936.21	28.19	28.23	-152.93	6.58	1,009.80	1,219.82	1,163.68	56.14	21.728
8,000.00	7,994.56	7,986.16	7,986.16	28.37	28.41	-152.98	6.58	1,009.80	1,221.81	1,165.32	56.50	21.626
8,050.00	8,044.51	8,036.11	8,036.11	28.56	28.59	-153.03	6.58	1,009.80	1,223.81	1,166.95	56.86	21.525
8,100.00	8,094.46	8,086.06	8,086.06	28.74	28.77	-153.07	6.58	1,009.80	1,225.80	1,168.59	57.21	21.425
8,150.00	8,144.41	8,136.01	8,136.01	28.92	28.95	-153.12	6.58	1,009.80	1,227.80	1,170.22	57.57	21.326
8,200.00	8,194.36	8,185.96	8,185.96	29.10	29.12	-153.17	6.58	1,009.80	1,229.79	1,171.86	57.93	21.229
8,250.00	8,244.31	8,235.91	8,235.91	29.29	29.30	-153.21	6.58	1,009.80	1,231.79	1,173.50	58.29	21.132
8,300.00	8,294.26	8,285.86	8,285.86	29.47	29.48	-153.26	6.58	1,009.80	1,233.79	1,175.14	58.65	21.037
8,350.00	8,344.21	8,335.81	8,335.81	29.65	29.66	-153.31	6.58	1,009.80	1,235.79	1,176.78	59.01	20.943
8,400.00	8,394.16	8,385.76	8,385.76	29.84	29.84	-153.35	6.58	1,009.80	1,237.79	1,178.42	59.36	20.851
8,450.00	8,444.11	8,435.71	8,435.71	30.02	30.02	-153.40	6.58	1,009.80	1,239.79	1,180.06	59.72	20.759
8,500.00	8,494.06	8,485.66	8,485.66	30.20	30.20	-153.45	6.58	1,009.80	1,241.77	1,181.69	60.08	20.668
8,550.00	8,544.03	8,535.63	8,535.63	30.38	30.38	-153.50	6.58	1,009.80	1,243.32	1,182.89	60.44	20.572
8,600.00	8,594.02	8,585.62	8,585.62	30.56	30.56	-153.53	6.58	1,009.80	1,244.30	1,183.50	60.80	20.467
8,650.00	8,644.02	8,635.62	8,635.62	30.73	30.74	-153.54	6.58	1,009.80	1,244.68	1,183.53	61.15	20.355
8,700.00	8,694.02	8,685.62	8,685.62	30.90	30.92	82.77	6.58	1,009.80	1,244.69	1,183.19	61.50	20.239
8,750.00	8,744.02	8,735.62	8,735.62	31.07	31.09	82.77	6.58	1,009.80	1,244.69	1,182.84	61.85	20.124
8,800.00	8,794.02	8,785.62	8,785.62	31.24	31.27	82.77	6.58	1,009.80	1,244.69	1,182.49	62.20	20.011
8,850.00	8,844.02	8,827.65	8,827.65	31.41	31.42	82.75	7.15	1,009.81	1,244.80	1,182.28	62.52	19.912
8,900.00	8,894.02	8,865.58	8,865.45	31.58	31.56	82.61	10.10	1,009.86	1,245.36	1,182.55	62.81	19.828
8,950.00	8,944.02	8,902.95	8,902.43	31.75	31.69	82.37	15.44	1,009.95	1,246.43	1,183.33	63.09	19.755
9,000.00	8,994.02	8,939.47	8,938.16	31.92	31.82	82.03	22.98	1,010.08	1,248.04	1,184.68	63.36	19.696
9,050.00	9,043.98	8,975.20	8,972.58	32.09	31.94	81.85	32.54	1,010.25	1,250.04	1,186.42	63.62	19.648
9,100.00	9,093.62	9,010.61	9,006.04	32.25	32.06	81.31	44.12	1,010.44	1,252.03	1,188.17	63.86	19.606
9,150.00	9,142.57	9,045.76	9,038.48	32.41	32.18	80.82	57.63	1,010.67	1,253.99	1,189.90	64.08	19.568
9,200.00	9,190.45	9,080.69	9,069.84	32.55	32.29	80.38	73.01	1,010.94	1,255.86	1,191.57	64.29	19.534
9,250.00	9,236.89	9,115.44	9,100.04	32.68	32.41	79.99	90.16	1,011.23	1,257.62	1,193.13	64.49	19.501
9,300.00	9,281.55	9,150.00	9,129.00	32.81	32.53	79.66	109.02	1,011.55	1,259.24	1,194.57	64.68	19.470
9,350.00	9,324.07	9,184.52	9,156.74	32.92	32.65	79.40	129.56	1,011.90	1,260.70	1,195.84	64.86	19.438
9,400.00	9,364.15	9,218.93	9,183.11	33.02	32.77	79.19	151.65	1,012.28	1,261.98	1,196.94	65.04	19.403
9,450.00	9,401.47	9,250.00	9,205.74	33.11	32.87	79.04	172.93	1,012.65	1,263.06	1,197.86	65.20	19.371
9,500.00	9,435.75	9,287.62	9,231.54	33.19	33.01	78.96	200.29	1,013.11	1,263.92	1,198.50	65.43	19.317
9,550.00	9,466.73	9,321.96	9,253.49	33.26	33.14	78.94	226.70	1,013.56	1,264.58	1,198.93	65.65	19.264
9,600.00	9,494.18	9,356.35	9,273.84	33.42	33.27	78.98	254.41	1,014.04	1,265.01	1,199.13	65.88	19.201
9,650.00	9,517.88	9,390.81	9,292.53	33.59	33.41	79.09	283.35	1,014.53	1,265.23	1,199.08	66.15	19.127
9,700.00	9,537.65	9,425.38	9,309.49	33.78	33.55	79.25	313.46	1,015.05	1,265.24	1,199.80	66.45	19.042
9,750.00	9,553.35	9,460.09	9,324.67	33.98	33.70	79.48	344.66	1,015.58	1,265.06	1,198.29	66.77	18.945
9,800.00	9,564.85	9,494.97	9,337.99	34.19	33.86	79.77	376.89	1,016.13	1,264.70	1,197.56	67.14	18.837
9,850.00	9,572.06	9,530.07	9,349.38	34.41	34.03	80.12	410.08	1,016.70	1,264.17	1,196.63	67.54	18.717
9,900.00	9,574.94	9,565.42	9,358.79	34.65	34.20	80.52	444.14	1,017.28	1,263.51	1,195.54	67.98	18.587
9,950.00	9,575.00	9,600.00	9,365.94	34.91	34.37	80.86	477.97	1,017.86	1,262.99	1,194.55	68.44	18.453
9,971.98	9,575.00	9,617.32	9,368.75	35.03	34.46	80.99	495.06	1,018.15	1,262.94	1,194.27	68.66	18.393
10,000.00	9,575.00	9,637.96	9,371.42	35.18	34.57	81.11	515.52	1,018.50	1,263.02	1,194.09	68.93	18.324
10,050.00	9,575.00	9,675.17	9,374.37	35.48	34.77	81.25	552.60	1,019.13	1,263.58	1,194.14	69.44	18.197
10,100.00	9,575.00	9,716.15	9,375.00	35.79	35.00	81.28	593.56	1,019.83	1,264.62	1,194.65	69.97	18.075
10,150.00	9,575.00	9,766.13	9,375.00	36.15	35.31	81.29	643.54	1,020.69	1,265.79	1,195.17	70.61	17.926
10,200.00	9,575.00	9,816.12	9,375.00	36.50	35.62	81.30	693.52	1,021.54	1,266.95	1,195.68	71.27	17.777
10,250.00	9,575.00	9,866.11	9,375.00	36.90	35.97	81.31	743.50	1,022.40	1,268.12	1,196.12	72.00	17.612
10,300.00	9,575.00	9,916.09	9,375.00	37.29	36.33	81.32	793.47	1,023.25	1,269.29	1,196.54	72.75	17.448

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

Anticollision Form

Company: WCDSC Permian NM
 Project: Lea County (NAD83 New Mexico East)
 Reference Site: Sec 08-T25S-R33E
 Site Error: 0.00 ft
 Reference Well: Flagler 8 Fed 39H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
 MD Reference: RKB @ 3471.80ft
 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 08-T25S-R33E - Flagler 8 Fed 40H - Wellbore #1 - Permit Plan 1													Offset Site Error: 0.00 ft
Survey Program: 0-MWD+IGRF													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)					
10,350.00	9,575.00	9,966.08	9,375.00	37.73	36.72	81.32	843.45	1,024.10	1,270.46	1,196.90	73.56	17.271	
10,400.00	9,575.00	10,016.06	9,375.00	38.16	37.13	81.33	893.43	1,024.96	1,271.62	1,197.24	74.39	17.094	
10,450.00	9,575.00	10,066.05	9,375.00	38.64	37.56	81.34	943.41	1,025.81	1,272.79	1,197.51	75.28	16.907	
10,500.00	9,575.00	10,116.04	9,375.00	39.11	38.00	81.35	993.39	1,026.67	1,273.96	1,197.78	76.18	16.722	
10,550.00	9,575.00	10,166.02	9,375.00	39.61	38.47	81.36	1,043.37	1,027.52	1,275.13	1,197.98	77.15	16.528	
10,600.00	9,575.00	10,216.01	9,375.00	40.12	38.95	81.36	1,093.35	1,028.38	1,276.30	1,198.17	78.12	16.337	
10,650.00	9,575.00	10,265.99	9,375.00	40.66	39.45	81.37	1,143.33	1,029.23	1,277.46	1,198.31	79.15	16.139	
10,700.00	9,575.00	10,315.98	9,375.00	41.20	39.97	81.38	1,193.30	1,030.08	1,278.63	1,198.44	80.20	15.944	
10,750.00	9,575.00	10,365.97	9,375.00	41.77	40.50	81.39	1,243.28	1,030.94	1,279.80	1,198.51	81.29	15.744	
10,800.00	9,575.00	10,415.95	9,375.00	42.34	41.05	81.40	1,293.26	1,031.79	1,280.97	1,198.58	82.39	15.547	
10,850.00	9,575.00	10,465.94	9,375.00	42.93	41.61	81.40	1,343.24	1,032.65	1,282.14	1,198.60	83.54	15.347	
10,900.00	9,575.00	10,515.92	9,375.00	43.53	42.19	81.41	1,393.22	1,033.50	1,283.30	1,198.60	84.70	15.151	
10,950.00	9,575.00	10,565.91	9,375.00	44.15	42.78	81.42	1,443.20	1,034.36	1,284.47	1,198.57	85.90	14.953	
11,000.00	9,575.00	10,615.90	9,375.00	44.77	43.38	81.43	1,493.18	1,035.21	1,285.64	1,198.53	87.11	14.758	
11,050.00	9,575.00	10,665.88	9,375.00	45.42	44.00	81.43	1,543.16	1,036.06	1,286.81	1,198.44	88.36	14.563	
11,100.00	9,575.00	10,715.87	9,375.00	46.06	44.63	81.44	1,593.13	1,036.92	1,287.98	1,198.35	89.62	14.371	
11,150.00	9,575.00	10,765.85	9,375.00	46.73	45.27	81.45	1,643.11	1,037.77	1,289.15	1,198.23	90.92	14.179	
11,200.00	9,575.00	10,815.84	9,375.00	47.39	45.92	81.46	1,693.09	1,038.63	1,290.31	1,198.09	92.22	13.992	
11,250.00	9,575.00	10,865.83	9,375.00	48.08	46.58	81.47	1,743.07	1,039.48	1,291.48	1,197.92	93.56	13.804	
11,300.00	9,575.00	10,915.81	9,375.00	48.76	47.25	81.47	1,793.05	1,040.33	1,292.65	1,197.75	94.90	13.621	
11,350.00	9,575.00	10,965.80	9,375.00	49.47	47.93	81.48	1,843.03	1,041.19	1,293.82	1,197.55	96.27	13.439	
11,400.00	9,575.00	11,015.79	9,375.00	50.17	48.62	81.49	1,893.01	1,042.04	1,294.99	1,197.33	97.65	13.261	
11,450.00	9,575.00	11,065.77	9,375.00	50.89	49.32	81.50	1,942.99	1,042.90	1,296.15	1,197.09	99.06	13.084	
11,500.00	9,575.00	11,115.76	9,375.00	51.61	50.02	81.50	1,992.96	1,043.75	1,297.32	1,196.85	100.47	12.912	
11,550.00	9,575.00	11,165.74	9,375.00	52.34	50.74	81.51	2,042.94	1,044.61	1,298.49	1,196.58	101.91	12.741	
11,600.00	9,575.00	11,215.73	9,375.00	53.08	51.46	81.52	2,092.92	1,045.46	1,299.66	1,196.30	103.36	12.574	
11,650.00	9,575.00	11,265.72	9,375.00	53.83	52.19	81.53	2,142.90	1,046.31	1,300.83	1,196.00	104.83	12.409	
11,700.00	9,575.00	11,315.70	9,375.00	54.58	52.93	81.54	2,192.88	1,047.17	1,302.00	1,195.70	106.30	12.248	
11,750.00	9,575.00	11,365.69	9,375.00	55.34	53.68	81.54	2,242.86	1,048.02	1,303.17	1,195.37	107.80	12.089	
11,800.00	9,575.00	11,415.67	9,375.00	56.10	54.43	81.55	2,292.84	1,048.88	1,304.33	1,195.04	109.30	11.934	
11,850.00	9,575.00	11,465.66	9,375.00	56.87	55.18	81.56	2,342.82	1,049.73	1,305.50	1,194.69	110.82	11.781	
11,900.00	9,575.00	11,515.65	9,375.00	57.65	55.95	81.57	2,392.79	1,050.58	1,306.67	1,194.33	112.34	11.632	
11,950.00	9,575.00	11,565.63	9,375.00	58.43	56.72	81.57	2,442.77	1,051.44	1,307.84	1,193.96	113.88	11.484	
12,000.00	9,575.00	11,615.62	9,375.00	59.22	57.49	81.58	2,492.75	1,052.29	1,309.01	1,193.58	115.43	11.341	
12,050.00	9,575.00	11,665.60	9,375.00	60.01	58.27	81.59	2,542.73	1,053.15	1,310.18	1,193.19	116.99	11.199	
12,100.00	9,575.00	11,715.59	9,375.00	60.81	59.06	81.60	2,592.71	1,054.00	1,311.35	1,192.79	118.56	11.061	
12,150.00	9,575.00	11,765.58	9,375.00	61.61	59.85	81.60	2,642.69	1,054.86	1,312.51	1,192.37	120.14	10.925	
12,200.00	9,575.00	11,815.56	9,375.00	62.41	60.64	81.61	2,692.67	1,055.71	1,313.68	1,191.96	121.73	10.792	
12,250.00	9,575.00	11,865.55	9,375.00	63.23	61.44	81.62	2,742.65	1,056.56	1,314.85	1,191.52	123.33	10.661	
12,300.00	9,575.00	11,915.53	9,375.00	64.04	62.25	81.63	2,792.62	1,057.42	1,316.02	1,191.09	124.93	10.534	
12,350.00	9,575.00	11,965.52	9,375.00	64.86	63.06	81.63	2,842.60	1,058.27	1,317.19	1,190.64	126.55	10.409	
12,400.00	9,575.00	12,015.51	9,375.00	65.68	63.87	81.64	2,892.58	1,059.13	1,318.36	1,190.19	128.17	10.286	
12,450.00	9,575.00	12,065.49	9,375.00	66.51	64.69	81.65	2,942.56	1,059.98	1,319.53	1,189.73	129.80	10.166	
12,500.00	9,575.00	12,115.48	9,375.00	67.33	65.50	81.66	2,992.54	1,060.83	1,320.70	1,189.26	131.43	10.048	
12,550.00	9,575.00	12,165.46	9,375.00	68.17	66.33	81.66	3,042.52	1,061.69	1,321.86	1,188.78	133.08	9.933	
12,600.00	9,575.00	12,215.45	9,375.00	69.00	67.16	81.67	3,092.50	1,062.54	1,323.03	1,188.30	134.73	9.820	
12,650.00	9,575.00	12,265.44	9,375.00	69.84	67.99	81.68	3,142.48	1,063.40	1,324.20	1,187.81	136.39	9.709	
12,700.00	9,575.00	12,315.42	9,375.00	70.69	68.82	81.69	3,192.45	1,064.25	1,325.37	1,187.32	138.05	9.601	
12,750.00	9,575.00	12,365.41	9,375.00	71.53	69.66	81.69	3,242.43	1,065.11	1,326.54	1,186.82	139.72	9.494	
12,800.00	9,575.00	12,415.39	9,375.00	72.38	70.50	81.70	3,292.41	1,065.96	1,327.71	1,186.31	141.40	9.390	
12,850.00	9,575.00	12,465.38	9,375.00	73.23	71.34	81.71	3,342.39	1,066.81	1,328.88	1,185.80	143.08	9.288	
12,900.00	9,575.00	12,515.37	9,375.00	74.08	72.19	81.72	3,392.37	1,067.67	1,330.05	1,185.28	144.77	9.188	

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 40H - Wellbore #1 - Permit Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-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		
12,950.00	9,575.00	12,565.35	9,375.00	74.94	73.04	81.72	3,442.35	1,068.52	1,331.22	1,184.76	146.46	9.089		
13,000.00	9,575.00	12,615.34	9,375.00	75.80	73.89	81.73	3,492.33	1,069.38	1,332.38	1,184.23	148.16	8.993		
13,050.00	9,575.00	12,665.32	9,375.00	76.66	74.74	81.74	3,542.31	1,070.23	1,333.55	1,183.69	149.86	8.899		
13,100.00	9,575.00	12,715.31	9,375.00	77.52	75.60	81.74	3,592.28	1,071.08	1,334.72	1,183.16	151.56	8.806		
13,150.00	9,575.00	12,765.30	9,375.00	78.39	76.46	81.75	3,642.26	1,071.94	1,335.89	1,182.61	153.28	8.715		
13,200.00	9,575.00	12,815.28	9,375.00	79.26	77.31	81.76	3,692.24	1,072.79	1,337.06	1,182.07	154.99	8.627		
13,250.00	9,575.00	12,865.27	9,375.00	80.13	78.18	81.77	3,742.22	1,073.65	1,338.23	1,181.52	156.71	8.539		
13,300.00	9,575.00	12,915.25	9,375.00	81.00	79.04	81.77	3,792.20	1,074.50	1,339.40	1,180.96	158.44	8.454		
13,350.00	9,575.00	12,965.24	9,375.00	81.87	79.91	81.78	3,842.18	1,075.36	1,340.57	1,180.40	160.17	8.370		
13,400.00	9,575.00	13,015.23	9,375.00	82.75	80.78	81.79	3,892.16	1,076.21	1,341.74	1,179.84	161.90	8.287		
13,450.00	9,575.00	13,065.21	9,375.00	83.63	81.65	81.80	3,942.14	1,077.06	1,342.91	1,179.27	163.64	8.207		
13,500.00	9,575.00	13,115.20	9,375.00	84.51	82.52	81.80	3,992.11	1,077.92	1,344.08	1,178.70	165.38	8.127		
13,550.00	9,575.00	13,165.19	9,375.00	85.39	83.40	81.81	4,042.09	1,078.77	1,345.25	1,178.13	167.12	8.050		
13,600.00	9,575.00	13,215.17	9,375.00	86.27	84.27	81.82	4,092.07	1,079.63	1,346.42	1,177.55	168.87	7.973		
13,650.00	9,575.00	13,265.16	9,375.00	87.16	85.15	81.82	4,142.05	1,080.48	1,347.58	1,176.97	170.62	7.898		
13,700.00	9,575.00	13,315.14	9,375.00	88.04	86.03	81.83	4,192.03	1,081.33	1,348.75	1,176.38	172.37	7.825		
13,750.00	9,575.00	13,365.13	9,375.00	88.93	86.91	81.84	4,242.01	1,082.19	1,349.92	1,175.80	174.13	7.752		
13,800.00	9,575.00	13,415.12	9,375.00	89.82	87.79	81.85	4,291.99	1,083.04	1,351.09	1,175.21	175.89	7.682		
13,850.00	9,575.00	13,465.10	9,375.00	90.71	88.68	81.85	4,341.97	1,083.90	1,352.26	1,174.61	177.65	7.612		
13,900.00	9,575.00	13,515.09	9,375.00	91.60	89.57	81.86	4,391.94	1,084.75	1,353.43	1,174.02	179.42	7.544		
13,950.00	9,575.00	13,565.07	9,375.00	92.49	90.45	81.87	4,441.92	1,085.61	1,354.60	1,173.42	181.18	7.476		
14,000.00	9,575.00	13,615.06	9,375.00	93.39	91.34	81.87	4,491.90	1,086.46	1,355.77	1,172.82	182.96	7.410		
14,050.00	9,575.00	13,665.05	9,375.00	94.29	92.23	81.88	4,541.88	1,087.31	1,356.94	1,172.21	184.73	7.346		
14,100.00	9,575.00	13,700.63	9,375.00	95.18	92.87	81.89	4,577.46	1,087.92	1,358.19	1,171.99	186.19	7.295		
14,150.00	9,575.00	13,700.63	9,375.00	96.08	92.87	81.89	4,577.46	1,087.92	1,360.80	1,174.06	186.75	7.287 SF		
14,200.00	9,575.00	13,700.63	9,375.00	96.98	92.87	81.89	4,577.46	1,087.92	1,365.25	1,178.17	187.08	7.298		
14,250.00	9,575.00	13,700.63	9,375.00	97.88	92.87	81.89	4,577.46	1,087.92	1,371.50	1,184.30	187.20	7.326		
14,300.00	9,575.00	13,700.63	9,375.00	98.78	92.87	81.89	4,577.46	1,087.92	1,379.54	1,192.44	187.11	7.373		
14,350.00	9,575.00	13,700.63	9,375.00	99.69	92.87	81.89	4,577.46	1,087.92	1,389.33	1,202.52	186.81	7.437		
14,362.84	9,575.00	13,700.63	9,375.00	99.92	92.87	81.89	4,577.46	1,087.92	1,392.13	1,205.43	186.70	7.456		

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 4H - Wellbore #1 - Permit Plan 2													Offset Site Error:	0.00 ft
Survey Program: 0-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)	Offset Wellbore Centre +E/W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	9.30	-9.30	0.50	0.50	101.16	-193.57	981.08	1,000.00					
50.00	50.00	40.70	40.70	0.50	0.50	101.16	-193.57	981.08	1,000.00	998.99	1.00	995.032		
100.00	100.00	109.30	90.70	0.52	0.53	101.16	-193.57	981.08	1,000.00	998.95	1.05	956.796		
150.00	150.00	140.70	140.70	0.59	0.57	101.16	-193.57	981.08	1,000.00	998.83	1.16	859.500		
200.00	200.00	209.30	190.70	0.70	0.73	101.16	-193.57	981.08	1,000.00	998.57	1.43	700.278		
250.00	250.00	240.70	240.70	0.84	0.81	101.16	-193.57	981.08	1,000.00	998.35	1.65	606.454		
300.00	300.00	309.30	290.70	0.99	1.02	101.16	-193.57	981.08	1,000.00	997.99	2.00	499.110		
350.00	350.00	340.70	340.70	1.15	1.12	101.16	-193.57	981.08	1,000.00	997.73	2.26	442.264		
400.00	400.00	409.30	390.70	1.31	1.34	101.16	-193.57	981.08	1,000.00	997.35	2.65	377.492		
450.00	450.00	440.70	440.70	1.48	1.45	101.16	-193.57	981.08	1,000.00	997.07	2.92	342.309		
500.00	500.00	509.30	490.70	1.65	1.68	101.16	-193.57	981.08	1,000.00	996.67	3.32	300.844		
550.00	550.00	540.70	540.70	1.82	1.79	101.16	-193.57	981.08	1,000.00	996.39	3.60	277.521		
600.00	600.00	609.30	590.70	1.99	2.02	101.16	-193.57	981.08	1,000.00	995.98	4.01	249.159		
650.00	650.00	640.70	640.70	2.16	2.13	101.16	-193.57	981.08	1,000.00	995.70	4.30	232.736		
700.00	700.00	709.30	690.70	2.34	2.37	101.16	-193.57	981.08	1,000.00	995.28	4.71	212.259		
750.00	750.00	740.70	740.70	2.51	2.48	101.16	-193.57	981.08	1,000.00	995.00	5.00	200.130		
800.00	800.00	809.30	790.70	2.69	2.72	101.16	-193.57	981.08	1,000.00	994.58	5.41	184.707		
850.00	850.00	840.70	840.70	2.87	2.83	101.16	-193.57	981.08	1,000.00	994.29	5.70	175.408		
900.00	900.00	909.30	890.70	3.04	3.08	101.16	-193.57	981.08	1,000.00	993.88	6.12	163.398		
950.00	950.00	940.70	940.70	3.22	3.19	101.16	-193.57	981.08	1,000.00	993.59	6.41	156.053		
1,000.00	1,000.00	1,009.30	990.70	3.40	3.43	101.16	-193.57	981.08	1,000.00	993.17	6.83	146.449		
1,050.00	1,050.00	1,040.70	1,040.70	3.58	3.54	101.16	-193.57	981.08	1,000.00	992.88	7.12	140.506		
1,100.00	1,100.00	1,109.30	1,090.70	3.75	3.79	101.16	-193.57	981.08	1,000.00	992.46	7.54	132.656		
1,150.00	1,150.00	1,140.70	1,140.70	3.93	3.90	101.16	-193.57	981.08	1,000.00	992.17	7.83	127.753		
1,200.00	1,200.00	1,209.30	1,190.70	4.11	4.14	101.16	-193.57	981.08	1,000.00	991.75	8.25	121.220		
1,250.00	1,250.00	1,240.70	1,240.70	4.29	4.25	101.16	-193.57	981.08	1,000.00	991.46	8.54	117.108		
1,300.00	1,300.00	1,309.30	1,290.70	4.46	4.50	101.16	-193.57	981.08	1,000.00	991.03	8.96	111.588		
1,350.00	1,350.00	1,340.70	1,340.70	4.64	4.61	101.16	-193.57	981.08	1,000.00	990.74	9.25	108.090		
1,400.00	1,400.00	1,409.30	1,390.70	4.82	4.85	101.16	-193.57	981.08	1,000.00	990.32	9.67	103.366		
1,450.00	1,450.00	1,440.70	1,440.70	5.00	4.97	101.16	-193.57	981.08	1,000.00	990.03	9.96	100.355		
1,500.00	1,500.00	1,509.30	1,490.70	5.18	5.21	101.16	-193.57	981.08	1,000.00	989.61	10.39	96.268		
1,550.00	1,550.00	1,540.70	1,540.70	5.36	5.32	101.16	-193.57	981.08	1,000.00	989.32	10.68	93.649		
1,600.00	1,600.00	1,609.30	1,590.70	5.53	5.57	101.16	-193.57	981.08	1,000.00	988.89	11.10	90.078		
1,650.00	1,650.00	1,640.70	1,640.70	5.71	5.68	101.16	-193.57	981.08	1,000.00	988.60	11.39	87.780		
1,700.00	1,700.00	1,709.30	1,690.70	5.89	5.92	101.16	-193.57	981.08	1,000.00	988.18	11.82	84.633		
1,750.00	1,750.00	1,740.70	1,740.70	6.07	6.04	101.16	-193.57	981.08	1,000.00	987.89	12.11	82.600		
1,800.00	1,800.00	1,809.30	1,790.70	6.25	6.28	101.16	-193.57	981.08	1,000.00	987.47	12.53	79.807		
1,850.00	1,850.00	1,840.70	1,840.70	6.43	6.39	101.16	-193.57	981.08	1,000.00	987.17	12.82	77.996		
1,900.00	1,900.00	1,909.30	1,890.70	6.61	6.64	101.16	-193.57	981.08	1,000.00	986.75	13.24	75.500		
1,950.00	1,950.00	1,940.70	1,940.70	6.78	6.75	101.16	-193.57	981.08	1,000.00	986.46	13.54	73.877		
2,000.00	2,000.00	2,009.30	1,990.70	6.96	7.00	101.16	-193.57	981.08	1,000.00	986.04	13.96	71.633		
2,050.00	2,050.00	2,040.70	2,040.70	7.14	7.11	101.16	-193.57	981.08	1,000.00	985.74	14.25	70.170		
2,100.00	2,100.00	2,109.30	2,090.70	7.32	7.35	101.16	-193.57	981.08	1,000.00	985.32	14.68	68.142		
2,150.00	2,150.00	2,140.70	2,140.70	7.50	7.47	101.16	-193.57	981.08	1,000.00	985.03	14.97	66.817		
2,200.00	2,200.00	2,209.30	2,190.70	7.68	7.71	101.16	-193.57	981.08	1,000.00	984.61	15.39	64.975		
2,250.00	2,250.00	2,240.70	2,240.70	7.86	7.82	101.16	-193.57	981.08	1,000.00	984.31	15.68	63.768		
2,300.00	2,300.00	2,309.30	2,290.70	8.04	8.07	101.16	-193.57	981.08	1,000.00	983.89	16.11	62.088		
2,350.00	2,350.00	2,340.70	2,340.70	8.22	8.18	101.16	-193.57	981.08	1,000.00	983.60	16.40	60.986		
2,400.00	2,400.00	2,409.30	2,390.70	8.39	8.43	101.16	-193.57	981.08	1,000.00	983.17	16.82	59.447 CC		
2,450.00	2,450.00	2,440.70	2,440.70	8.57	8.54	-135.16	-193.57	981.08	1,000.15	983.04	17.11	58.468 ES		
2,500.00	2,499.99	2,509.31	2,490.69	8.74	8.79	-135.18	-193.57	981.08	1,000.61	983.09	17.52	57.102		
2,550.00	2,549.98	2,540.68	2,540.68	8.90	8.90	-135.22	-193.57	981.08	1,001.39	983.59	17.80	56.255		

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 Flagler 8 Fed 39H
Project:	Lea County (NAD83 New Mexico East)	TVD Reference:	RKB @ 3471.80ft
Reference Site:	Sec 08-T25S-R33E	MD Reference:	RKB @ 3471.80ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Flagler 8 Fed 39H	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 Sec 08-T25S-R33E - Flagler 8 Fed 4H - Wellbore #1 - Permit Plan 2													Offset Site Error:	0.00 ft
Survey Program: 0-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		
2,600.00	2,599.96	2,609.34	2,590.66	9.07	9.14	-135.27	-193.57	981.08	1,002.47	984.26	18.21	55.044		
2,650.00	2,649.92	2,640.62	2,640.62	9.24	9.26	-135.34	-193.57	981.08	1,003.87	985.38	18.49	54.291		
2,700.00	2,699.87	2,709.43	2,690.57	9.40	9.50	-135.43	-193.57	981.08	1,005.46	986.56	18.90	53.188		
2,750.00	2,749.82	2,740.52	2,740.52	9.57	9.61	-135.52	-193.57	981.08	1,007.06	987.87	19.18	52.498		
2,800.00	2,799.77	2,809.53	2,790.47	9.74	9.86	-135.61	-193.57	981.08	1,008.65	989.06	19.60	51.469		
2,850.00	2,849.72	2,840.42	2,840.42	9.91	9.97	-135.70	-193.57	981.08	1,010.25	990.38	19.88	50.826		
2,900.00	2,899.67	2,909.63	2,890.37	10.08	10.22	-135.78	-193.57	981.08	1,011.86	991.56	20.29	49.862		
2,950.00	2,949.62	2,940.32	2,940.32	10.25	10.33	-135.87	-193.57	981.08	1,013.46	992.89	20.57	49.263		
3,000.00	2,999.57	3,009.73	2,990.27	10.42	10.58	-135.96	-193.57	981.08	1,015.07	994.08	20.99	48.358		
3,050.00	3,049.52	3,040.22	3,040.22	10.59	10.69	-136.05	-193.57	981.08	1,016.68	995.41	21.27	47.799		
3,100.00	3,099.47	3,109.83	3,090.17	10.76	10.94	-136.14	-193.57	981.08	1,018.29	996.60	21.69	46.948		
3,150.00	3,149.42	3,140.12	3,140.12	10.94	11.04	-136.22	-193.57	981.08	1,019.91	997.94	21.97	46.424		
3,200.00	3,199.37	3,209.93	3,190.07	11.11	11.29	-136.31	-193.57	981.08	1,021.52	999.13	22.39	45.623		
3,250.00	3,249.32	3,240.02	3,240.02	11.28	11.40	-136.40	-193.57	981.08	1,023.14	1,000.47	22.67	45.132		
3,300.00	3,299.27	3,289.97	3,289.97	11.45	11.58	-136.48	-193.57	981.08	1,024.76	1,001.74	23.02	44.515		
3,350.00	3,349.22	3,339.92	3,339.92	11.63	11.76	-136.57	-193.57	981.08	1,026.39	1,003.02	23.37	43.916		
3,400.00	3,399.17	3,389.87	3,389.87	11.80	11.94	-136.65	-193.57	981.08	1,028.02	1,004.29	23.72	43.334		
3,450.00	3,449.12	3,439.82	3,439.82	11.98	12.12	-136.74	-193.57	981.08	1,029.64	1,005.57	24.08	42.768		
3,500.00	3,499.07	3,489.77	3,489.77	12.15	12.30	-136.82	-193.57	981.08	1,031.27	1,006.85	24.43	42.219		
3,550.00	3,549.02	3,539.72	3,539.72	12.33	12.47	-136.91	-193.57	981.08	1,032.91	1,008.13	24.78	41.684		
3,600.00	3,598.97	3,589.67	3,589.67	12.50	12.65	-136.99	-193.57	981.08	1,034.54	1,009.41	25.13	41.165		
3,650.00	3,648.92	3,639.62	3,639.62	12.68	12.83	-137.08	-193.57	981.08	1,036.18	1,010.70	25.48	40.659		
3,700.00	3,698.87	3,689.57	3,689.57	12.85	13.01	-137.16	-193.57	981.08	1,037.82	1,011.98	25.84	40.167		
3,750.00	3,748.82	3,739.52	3,739.52	13.03	13.19	-137.25	-193.57	981.08	1,039.46	1,013.27	26.19	39.688		
3,800.00	3,798.77	3,789.47	3,789.47	13.20	13.37	-137.33	-193.57	981.08	1,041.11	1,014.56	26.54	39.222		
3,850.00	3,848.72	3,839.42	3,839.42	13.38	13.55	-137.41	-193.57	981.08	1,042.75	1,015.86	26.90	38.767		
3,900.00	3,898.67	3,889.37	3,889.37	13.56	13.73	-137.50	-193.57	981.08	1,044.40	1,017.15	27.25	38.325		
3,950.00	3,948.62	3,939.32	3,939.32	13.73	13.91	-137.58	-193.57	981.08	1,046.05	1,018.45	27.61	37.893		
4,000.00	3,998.57	3,989.27	3,989.27	13.91	14.09	-137.66	-193.57	981.08	1,047.71	1,019.75	27.96	37.472		
4,050.00	4,048.52	4,039.20	4,039.20	14.09	14.25	-137.73	-193.67	981.12	1,049.42	1,021.13	28.30	37.089		
4,100.00	4,098.47	4,089.13	4,089.13	14.26	14.40	-137.79	-194.11	981.30	1,051.34	1,022.71	28.63	36.728		
4,150.00	4,148.42	4,139.12	4,139.12	14.44	14.56	-137.82	-194.88	981.61	1,053.44	1,024.48	28.96	36.378		
4,200.00	4,198.37	4,189.15	4,189.14	14.62	14.72	-137.86	-195.75	981.95	1,055.57	1,026.27	29.30	36.031		
4,250.00	4,248.32	4,239.10	4,239.08	14.80	14.88	-137.90	-196.62	982.30	1,057.70	1,028.06	29.63	35.692		
4,300.00	4,298.27	4,289.05	4,289.02	14.97	15.05	-137.94	-197.49	982.65	1,059.83	1,029.85	29.97	35.360		
4,350.00	4,348.22	4,339.00	4,338.96	15.15	15.21	-137.97	-198.36	982.99	1,061.96	1,031.65	30.31	35.035		
4,400.00	4,398.17	4,388.95	4,388.90	15.33	15.37	-138.01	-199.23	983.34	1,064.09	1,033.44	30.65	34.716		
4,450.00	4,448.12	4,438.90	4,438.84	15.51	15.54	-138.05	-200.10	983.69	1,066.22	1,035.23	30.99	34.404		
4,500.00	4,498.07	4,488.85	4,488.78	15.69	15.70	-138.08	-200.97	984.03	1,068.35	1,037.02	31.33	34.098		
4,550.00	4,548.02	4,538.80	4,538.72	15.87	15.87	-138.12	-201.84	984.38	1,070.49	1,038.81	31.67	33.798		
4,600.00	4,597.97	4,588.75	4,588.66	16.05	16.03	-138.16	-202.71	984.73	1,072.62	1,040.60	32.01	33.504		
4,650.00	4,647.92	4,638.70	4,638.61	16.22	16.20	-138.19	-203.58	985.07	1,074.75	1,042.40	32.36	33.216		
4,700.00	4,697.87	4,688.65	4,688.55	16.40	16.36	-138.23	-204.45	985.42	1,076.89	1,044.19	32.70	32.933		
4,750.00	4,747.82	4,738.60	4,738.49	16.58	16.53	-138.26	-205.31	985.77	1,079.02	1,045.98	33.04	32.656		
4,800.00	4,797.77	4,788.55	4,788.43	16.76	16.69	-138.30	-206.18	986.11	1,081.16	1,047.77	33.39	32.384		
4,850.00	4,847.72	4,838.50	4,838.37	16.94	16.86	-138.34	-207.05	986.46	1,083.29	1,049.56	33.73	32.117		
4,900.00	4,897.67	4,888.45	4,888.31	17.12	17.03	-138.37	-207.92	986.81	1,085.43	1,051.35	34.07	31.856		
4,950.00	4,947.62	4,938.40	4,938.25	17.30	17.19	-138.41	-208.79	987.15	1,087.56	1,053.15	34.42	31.599		
5,000.00	4,997.57	4,988.35	4,988.19	17.48	17.36	-138.44	-209.66	987.50	1,089.70	1,054.94	34.76	31.347		
5,050.00	5,047.52	5,038.30	5,038.13	17.66	17.53	-138.48	-210.53	987.85	1,091.84	1,056.73	35.11	31.100		
5,100.00	5,097.47	5,078.25	5,078.08	17.84	17.69	-138.51	-211.40	988.19	1,093.97	1,058.52	35.45	30.857		
5,150.00	5,147.42	5,128.20	5,128.02	18.02	17.86	-138.55	-212.27	988.54	1,096.11	1,060.31	35.80	30.619		

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 4H - Wellbore #1 - Permit Plan 2													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IGRF													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)						
5,200.00	5,197.37	5,178.15	5,177.96	18.20	18.03	-138.58	-213.14	988.89	1,098.25	1,062.11	36.14	30.385		
5,250.00	5,247.32	5,228.10	5,227.90	18.38	18.20	-138.62	-214.01	989.23	1,100.39	1,063.90	36.49	30.155		
5,300.00	5,297.27	5,278.05	5,277.84	18.56	18.37	-138.65	-214.88	989.58	1,102.53	1,065.89	36.84	29.930		
5,350.00	5,347.22	5,328.00	5,327.78	18.74	18.54	-138.69	-215.74	989.93	1,104.67	1,067.48	37.18	29.708		
5,400.00	5,397.17	5,377.95	5,377.72	18.92	18.71	-138.72	-216.61	990.27	1,106.81	1,069.28	37.53	29.490		
5,450.00	5,447.12	5,427.90	5,427.66	19.10	18.87	-138.75	-217.48	990.62	1,108.95	1,071.07	37.88	29.276		
5,500.00	5,497.07	5,477.85	5,477.60	19.28	19.04	-138.79	-218.35	990.97	1,111.09	1,072.86	38.23	29.066		
5,550.00	5,547.02	5,527.80	5,527.55	19.46	19.21	-138.82	-219.22	991.31	1,113.23	1,074.65	38.57	28.859		
5,600.00	5,596.97	5,577.75	5,577.49	19.64	19.38	-138.86	-220.09	991.66	1,115.37	1,076.45	38.92	28.656		
5,650.00	5,646.92	5,627.70	5,627.43	19.82	19.55	-138.89	-220.96	992.01	1,117.51	1,078.24	39.27	28.456		
5,700.00	5,696.87	5,677.65	5,677.37	20.00	19.72	-138.92	-221.83	992.35	1,119.65	1,080.03	39.62	28.260		
5,750.00	5,746.82	5,727.60	5,727.31	20.19	19.89	-138.96	-222.70	992.70	1,121.80	1,081.83	39.97	28.067		
5,800.00	5,796.77	5,777.55	5,777.25	20.37	20.06	-138.99	-223.57	993.05	1,123.94	1,083.62	40.32	27.877		
5,850.00	5,846.72	5,827.50	5,827.19	20.55	20.23	-139.02	-224.44	993.39	1,126.08	1,085.42	40.67	27.690		
5,900.00	5,896.67	5,877.45	5,877.13	20.73	20.41	-139.05	-225.31	993.74	1,128.23	1,087.21	41.02	27.506		
5,950.00	5,946.62	5,927.40	5,927.07	20.91	20.58	-139.09	-226.17	994.09	1,130.37	1,089.00	41.37	27.326		
6,000.00	5,996.57	5,977.35	5,977.01	21.09	20.75	-139.12	-227.04	994.43	1,132.51	1,090.80	41.72	27.148		
6,050.00	6,046.52	6,027.30	6,026.96	21.27	20.92	-139.15	-227.91	994.78	1,134.66	1,092.59	42.07	26.973		
6,100.00	6,096.47	6,077.25	6,076.90	21.45	21.09	-139.18	-228.78	995.13	1,136.80	1,094.39	42.42	26.801		
6,150.00	6,146.42	6,127.20	6,126.84	21.64	21.26	-139.22	-229.65	995.47	1,138.95	1,096.18	42.77	26.631		
6,200.00	6,196.37	6,177.15	6,176.78	21.82	21.43	-139.25	-230.52	995.82	1,141.10	1,097.98	43.12	26.464		
6,250.00	6,246.32	6,227.10	6,226.72	22.00	21.61	-139.28	-231.39	996.17	1,143.24	1,099.77	43.47	26.300		
6,300.00	6,296.27	6,277.05	6,276.66	22.18	21.78	-139.31	-232.26	996.51	1,145.39	1,101.57	43.82	26.138		
6,350.00	6,346.22	6,327.00	6,326.60	22.36	21.95	-139.35	-233.13	996.86	1,147.54	1,103.36	44.17	25.979		
6,400.00	6,396.17	6,376.95	6,376.54	22.54	22.12	-139.38	-234.00	997.21	1,149.68	1,105.16	44.52	25.822		
6,450.00	6,446.12	6,426.90	6,426.48	22.72	22.29	-139.41	-234.87	997.55	1,151.83	1,106.95	44.88	25.668		
6,500.00	6,496.07	6,476.85	6,476.43	22.91	22.47	-139.44	-235.74	997.90	1,153.98	1,108.75	45.23	25.515		
6,550.00	6,546.02	6,526.80	6,526.37	23.09	22.64	-139.47	-236.60	998.25	1,156.13	1,110.55	45.58	25.365		
6,600.00	6,595.97	6,576.75	6,576.31	23.27	22.81	-139.50	-237.47	998.59	1,158.27	1,112.34	45.93	25.218		
6,650.00	6,645.92	6,626.70	6,626.25	23.45	22.99	-139.53	-238.34	998.94	1,160.42	1,114.14	46.28	25.072		
6,700.00	6,695.87	6,676.65	6,676.19	23.63	23.16	-139.56	-239.21	999.29	1,162.57	1,115.94	46.64	24.929		
6,750.00	6,745.82	6,726.60	6,726.13	23.82	23.33	-139.60	-240.08	999.63	1,164.72	1,117.73	46.99	24.788		
6,800.00	6,795.77	6,776.55	6,776.07	24.00	23.50	-139.63	-240.95	999.98	1,166.87	1,119.53	47.34	24.648		
6,850.00	6,845.72	6,826.50	6,826.01	24.18	23.68	-139.66	-241.82	1,000.33	1,169.02	1,121.33	47.69	24.511		
6,900.00	6,895.67	6,876.45	6,875.95	24.36	23.85	-139.69	-242.69	1,000.67	1,171.17	1,123.13	48.05	24.376		
6,950.00	6,945.62	6,926.40	6,925.90	24.54	24.02	-139.72	-243.56	1,001.02	1,173.32	1,124.92	48.40	24.243		
7,000.00	6,995.57	6,976.35	6,975.84	24.73	24.20	-139.75	-244.43	1,001.37	1,175.48	1,126.72	48.75	24.111		
7,050.00	7,045.52	7,026.30	7,025.78	24.91	24.37	-139.78	-245.30	1,001.71	1,177.63	1,128.52	49.11	23.981		
7,100.00	7,095.47	7,076.25	7,075.72	25.09	24.55	-139.81	-246.17	1,002.06	1,179.78	1,130.32	49.46	23.854		
7,150.00	7,145.42	7,126.20	7,125.66	25.27	24.72	-139.84	-247.03	1,002.41	1,181.93	1,132.12	49.81	23.728		
7,200.00	7,195.37	7,176.15	7,175.60	25.45	24.89	-139.87	-247.90	1,002.75	1,184.08	1,133.92	50.17	23.603		
7,250.00	7,245.32	7,226.10	7,225.54	25.64	25.07	-139.90	-248.77	1,003.10	1,186.24	1,135.72	50.52	23.481		
7,300.00	7,295.27	7,276.05	7,275.48	25.82	25.24	-139.93	-249.64	1,003.45	1,188.39	1,137.52	50.87	23.360		
7,350.00	7,345.21	7,326.00	7,325.42	26.00	25.42	-139.96	-250.51	1,003.79	1,190.54	1,139.32	51.23	23.240		
7,400.00	7,395.16	7,375.95	7,375.37	26.18	25.59	-139.99	-251.38	1,004.14	1,192.70	1,141.12	51.58	23.122		
7,450.00	7,445.11	7,425.89	7,425.31	26.37	25.76	-140.02	-252.25	1,004.49	1,194.85	1,142.91	51.94	23.006		
7,500.00	7,495.06	7,475.84	7,475.25	26.55	25.94	-140.04	-253.12	1,004.83	1,197.01	1,144.72	52.29	22.891		
7,550.00	7,545.01	7,525.79	7,525.19	26.73	26.11	-140.07	-253.99	1,005.18	1,199.16	1,146.52	52.64	22.778		
7,600.00	7,594.96	7,575.74	7,575.13	26.91	26.29	-140.10	-254.86	1,005.53	1,201.32	1,148.32	53.00	22.667		
7,650.00	7,644.91	7,625.69	7,625.07	27.10	26.46	-140.13	-255.73	1,005.87	1,203.47	1,150.12	53.35	22.556		
7,700.00	7,694.86	7,675.64	7,675.01	27.28	26.64	-140.16	-256.59	1,006.22	1,205.63	1,151.92	53.71	22.448		
7,750.00	7,744.81	7,725.59	7,724.95	27.46	26.81	-140.19	-257.46	1,006.57	1,207.78	1,153.72	54.06	22.340		

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

Anticollision Report

Company: WCDSC Permian NM
 Project: Lea County (NAD83 New Mexico East)
 Reference Site: Sec 08-T25S-R33E
 Site Error: 0.00 ft
 Reference Well: Flagler 8 Fed 39H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
 MD Reference: RKB @ 3471.80ft
 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 08-T25S-R33E - Flagler 8 Fed 4H - Wellbore #1 - Permit Plan 2													Offset Site Error: 0.00 ft
Survey Program: 0-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	
7,800.00	7,794.76	7,775.54	7,774.89	27.64	26.99	-140.22	-258.33	1,006.91	1,209.94	1,155.52	54.42	22.234	
7,850.00	7,844.71	7,825.49	7,824.83	27.83	27.16	-140.25	-259.20	1,007.26	1,212.10	1,157.32	54.77	22.129	
7,900.00	7,894.66	7,875.44	7,874.78	28.01	27.34	-140.27	-260.07	1,007.61	1,214.25	1,159.12	55.13	22.026	
7,950.00	7,944.61	7,925.39	7,924.72	28.19	27.51	-140.30	-260.94	1,007.95	1,216.41	1,160.93	55.48	21.924	
8,000.00	7,994.56	7,975.34	7,974.66	28.37	27.69	-140.33	-261.81	1,008.30	1,218.57	1,162.73	55.84	21.823	
8,050.00	8,044.51	8,025.29	8,024.60	28.56	27.86	-140.36	-262.68	1,008.65	1,220.72	1,164.53	56.19	21.723	
8,100.00	8,094.46	8,075.24	8,074.54	28.74	28.04	-140.39	-263.55	1,008.99	1,222.88	1,166.33	56.55	21.625	
8,150.00	8,144.41	8,125.19	8,124.48	28.92	28.21	-140.42	-264.42	1,009.34	1,225.04	1,168.14	56.90	21.528	
8,200.00	8,194.36	8,175.14	8,174.42	29.10	28.39	-140.44	-265.29	1,009.69	1,227.20	1,169.94	57.26	21.432	
8,250.00	8,244.31	8,225.09	8,224.36	29.29	28.56	-140.47	-266.16	1,010.03	1,229.36	1,171.74	57.62	21.337	
8,300.00	8,294.26	8,275.04	8,274.30	29.47	28.74	-140.50	-267.02	1,010.38	1,231.52	1,173.55	57.97	21.244	
8,350.00	8,344.21	8,324.99	8,324.25	29.65	28.92	-140.53	-267.89	1,010.73	1,233.68	1,175.35	58.33	21.151	
8,400.00	8,394.16	8,374.94	8,374.19	29.84	29.09	-140.55	-268.76	1,011.07	1,235.84	1,177.15	58.68	21.060	
8,450.00	8,444.11	8,424.89	8,424.13	30.02	29.27	-140.58	-269.63	1,011.42	1,238.00	1,178.96	59.04	20.969	
8,500.00	8,494.06	8,474.84	8,474.07	30.20	29.44	-140.61	-270.50	1,011.77	1,240.14	1,180.75	59.39	20.880	
8,550.00	8,544.03	8,524.81	8,524.03	30.38	29.62	-140.64	-271.37	1,012.11	1,242.29	1,182.17	59.75	20.785	
8,600.00	8,594.02	8,574.79	8,574.00	30.56	29.79	-140.65	-272.24	1,012.46	1,243.19	1,183.08	60.10	20.684	
8,650.00	8,644.02	8,624.78	8,623.98	30.73	29.97	-140.63	-273.11	1,012.81	1,243.95	1,183.50	60.45	20.577	
8,700.00	8,694.02	8,674.78	8,673.97	30.90	30.15	95.72	-273.98	1,013.15	1,244.39	1,183.59	60.80	20.466	
8,750.00	8,744.02	8,724.77	8,723.95	31.07	30.32	95.76	-274.85	1,013.50	1,244.82	1,183.68	61.15	20.357	
8,800.00	8,794.02	8,774.76	8,773.93	31.24	30.50	95.79	-275.72	1,013.85	1,245.26	1,183.76	61.49	20.250	
8,850.00	8,844.02	8,824.75	8,823.91	31.41	30.67	95.83	-276.59	1,014.19	1,245.69	1,183.85	61.84	20.143	
8,900.00	8,894.02	8,874.74	8,873.90	31.58	30.85	95.87	-277.46	1,014.54	1,246.12	1,183.94	62.19	20.038	
8,950.00	8,944.02	8,924.73	8,923.88	31.75	31.03	95.91	-278.33	1,014.89	1,246.56	1,184.02	62.54	19.934	
9,000.00	8,994.02	8,974.72	8,973.86	31.92	31.20	95.95	-279.20	1,015.23	1,246.99	1,184.11	62.88	19.830	
9,050.00	9,043.98	9,024.65	9,023.78	32.09	31.38	96.38	-280.07	1,015.58	1,247.60	1,184.37	63.23	19.732	
9,100.00	9,093.62	9,074.18	9,073.30	32.25	31.56	96.57	-280.93	1,015.93	1,248.70	1,185.14	63.57	19.644	
9,150.00	9,142.57	9,122.94	9,122.06	32.41	31.73	96.89	-281.78	1,016.26	1,250.37	1,186.48	63.89	19.570	
9,200.00	9,190.45	9,170.56	9,169.67	32.55	31.90	97.31	-282.61	1,016.59	1,252.70	1,188.49	64.21	19.509	
9,250.00	9,236.89	9,216.67	9,215.77	32.68	32.06	97.81	-283.41	1,016.91	1,255.82	1,191.30	64.52	19.465	
9,300.00	9,281.55	9,260.93	9,260.02	32.81	32.21	98.33	-284.18	1,017.22	1,259.88	1,195.07	64.81	19.440	
9,350.00	9,324.07	9,302.99	9,302.07	32.92	32.36	98.84	-284.91	1,017.51	1,265.05	1,199.96	65.09	19.435 SF	
9,400.00	9,364.15	9,342.54	9,341.61	33.02	32.50	99.28	-285.60	1,017.79	1,271.52	1,206.16	65.36	19.455	
9,450.00	9,401.47	9,379.27	9,378.34	33.11	32.63	99.60	-286.24	1,018.04	1,279.47	1,213.85	65.61	19.500	
9,500.00	9,435.75	9,412.91	9,411.98	33.19	32.75	99.75	-286.82	1,018.28	1,289.05	1,223.20	65.86	19.574	
9,550.00	9,466.73	9,443.21	9,442.26	33.26	32.86	99.68	-287.35	1,018.49	1,300.42	1,234.33	66.09	19.678	
9,600.00	9,494.18	9,469.92	9,468.97	33.42	32.95	99.33	-287.82	1,018.67	1,313.67	1,247.37	66.30	19.814	
9,650.00	9,517.88	9,507.16	9,491.89	33.59	33.09	98.67	-288.22	1,018.83	1,328.87	1,262.32	66.55	19.967	
9,700.00	9,537.65	9,511.81	9,510.86	33.78	33.10	97.65	-288.55	1,018.96	1,346.05	1,279.36	66.69	20.184	
9,750.00	9,553.35	9,526.68	9,525.72	33.98	33.15	96.24	-288.80	1,019.07	1,365.16	1,298.30	66.86	20.418	
9,800.00	9,564.85	9,537.33	9,536.37	34.19	33.19	94.42	-288.99	1,019.14	1,386.12	1,319.11	67.01	20.685	
9,850.00	9,572.06	9,543.68	9,542.72	34.41	33.21	92.17	-289.10	1,019.18	1,408.78	1,341.64	67.14	20.982	
9,900.00	9,574.94	9,545.69	9,544.73	34.65	33.22	89.50	-289.13	1,019.20	1,432.96	1,365.70	67.26	21.306	
9,950.00	9,575.00	9,544.87	9,543.91	34.91	33.22	89.00	-289.12	1,019.19	1,458.46	1,391.09	67.37	21.649	
10,000.00	9,575.00	9,544.00	9,543.04	35.18	33.22	88.96	-289.11	1,019.19	1,485.20	1,417.73	67.46	22.015	

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

Anticollision Report

Company: WCDSC Permian NM
 Project: Lea County (NAD83 New Mexico East)
 Reference Site: Sec 08-T25S-R33E
 Site Error: 0.00 ft
 Reference Well: Flagler 8 Fed 39H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
 MD Reference: RKB @ 3471.80ft
 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 08-T25S-R33E - Flagler 8 Fed 7H - Wellbore #1 - Permit Plan 1												Offset Site Error: 0.00 ft	
Survey Program: 0-MWD+IGRF												Offset Well Error: 0.50 ft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance				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)	Separation Factor
0.00	0.00	7.60	7.60	0.50	0.50	-163.68	-200.34	-58.66	208.75				
50.00	50.00	57.60	57.60	0.50	0.50	-163.68	-200.34	-58.66	208.75	207.74	1.01	207.320	
100.00	100.00	107.60	107.60	0.52	0.52	-163.68	-200.34	-58.66	208.75	207.71	1.04	200.816	
150.00	150.00	157.60	157.60	0.59	0.60	-163.68	-200.34	-58.66	208.75	207.56	1.19	175.655	
200.00	200.00	207.60	207.60	0.70	0.71	-163.68	-200.34	-58.66	208.75	207.34	1.41	147.569	
250.00	250.00	257.60	257.60	0.84	0.85	-163.68	-200.34	-58.66	208.75	207.06	1.69	123.722	
300.00	300.00	307.60	307.60	0.99	1.00	-163.68	-200.34	-58.66	208.75	206.76	1.99	105.039	
350.00	350.00	357.60	357.60	1.15	1.16	-163.68	-200.34	-58.66	208.75	206.45	2.30	90.595	
400.00	400.00	407.60	407.60	1.31	1.32	-163.68	-200.34	-58.66	208.75	206.12	2.63	79.320	
450.00	450.00	457.60	457.60	1.48	1.49	-163.68	-200.34	-58.66	208.75	205.79	2.97	70.370	
500.00	500.00	507.60	507.60	1.65	1.66	-163.68	-200.34	-58.66	208.75	205.45	3.31	63.140	
550.00	550.00	557.60	557.60	1.82	1.83	-163.68	-200.34	-58.66	208.75	205.10	3.65	57.200	
600.00	600.00	607.60	607.60	1.99	2.00	-163.68	-200.34	-58.66	208.75	204.76	4.00	52.248	
650.00	650.00	657.60	657.60	2.16	2.18	-163.68	-200.34	-58.66	208.75	204.41	4.34	48.062	
700.00	700.00	707.60	707.60	2.34	2.35	-163.68	-200.34	-58.66	208.75	204.06	4.69	44.482	
750.00	750.00	757.60	757.60	2.51	2.53	-163.68	-200.34	-58.66	208.75	203.71	5.04	41.388	
800.00	800.00	807.60	807.60	2.69	2.71	-163.68	-200.34	-58.66	208.75	203.36	5.40	38.689	
850.00	850.00	857.60	857.60	2.87	2.88	-163.68	-200.34	-58.66	208.75	203.00	5.75	36.316	
900.00	900.00	907.60	907.60	3.04	3.06	-163.68	-200.34	-58.66	208.75	202.65	6.10	34.213	
950.00	950.00	957.60	957.60	3.22	3.24	-163.68	-200.34	-58.66	208.75	202.30	6.46	32.337	
1,000.00	1,000.00	1,007.60	1,007.60	3.40	3.41	-163.68	-200.34	-58.66	208.75	201.94	6.81	30.654	
1,050.00	1,050.00	1,057.60	1,057.60	3.58	3.59	-163.68	-200.34	-58.66	208.75	201.59	7.16	29.136	
1,100.00	1,100.00	1,107.60	1,107.60	3.75	3.77	-163.68	-200.34	-58.66	208.75	201.23	7.52	27.760	
1,150.00	1,150.00	1,157.60	1,157.60	3.93	3.94	-163.68	-200.34	-58.66	208.75	200.88	7.88	26.507	
1,200.00	1,200.00	1,207.60	1,207.60	4.11	4.12	-163.68	-200.34	-58.66	208.75	200.52	8.23	25.362	
1,250.00	1,250.00	1,257.60	1,257.60	4.29	4.30	-163.68	-200.34	-58.66	208.75	200.16	8.59	24.311	
1,300.00	1,300.00	1,307.60	1,307.60	4.46	4.48	-163.68	-200.34	-58.66	208.75	199.81	8.94	23.343	
1,350.00	1,350.00	1,357.60	1,357.60	4.64	4.66	-163.68	-200.34	-58.66	208.75	199.45	9.30	22.448	
1,400.00	1,400.00	1,407.60	1,407.60	4.82	4.84	-163.68	-200.34	-58.66	208.75	199.10	9.66	21.619	
1,450.00	1,450.00	1,457.60	1,457.60	5.00	5.01	-163.68	-200.34	-58.66	208.75	198.74	10.01	20.849	
1,500.00	1,500.00	1,507.60	1,507.60	5.18	5.19	-163.68	-200.34	-58.66	208.75	198.38	10.37	20.132	
1,550.00	1,550.00	1,557.60	1,557.60	5.36	5.37	-163.68	-200.34	-58.66	208.75	198.03	10.73	19.462	
1,600.00	1,600.00	1,607.60	1,607.60	5.53	5.55	-163.68	-200.34	-58.66	208.75	197.67	11.08	18.835	
1,650.00	1,650.00	1,657.60	1,657.60	5.71	5.73	-163.68	-200.34	-58.66	208.75	197.31	11.44	18.248	
1,700.00	1,700.00	1,707.60	1,707.60	5.89	5.91	-163.68	-200.34	-58.66	208.75	196.95	11.80	17.695	
1,750.00	1,750.00	1,757.60	1,757.60	6.07	6.08	-163.68	-200.34	-58.66	208.75	196.60	12.15	17.175	
1,800.00	1,800.00	1,807.60	1,807.60	6.25	6.26	-163.68	-200.34	-58.66	208.75	196.24	12.51	16.685	
1,850.00	1,850.00	1,857.60	1,857.60	6.43	6.44	-163.68	-200.34	-58.66	208.75	195.88	12.87	16.221	
1,900.00	1,900.00	1,907.60	1,907.60	6.61	6.62	-163.68	-200.34	-58.66	208.75	195.53	13.23	15.783	
1,950.00	1,950.00	1,957.60	1,957.60	6.78	6.80	-163.68	-200.34	-58.66	208.75	195.17	13.58	15.368	
2,000.00	2,000.00	2,007.60	2,007.60	6.96	6.98	-163.68	-200.34	-58.66	208.75	194.81	13.94	14.974	
2,050.00	2,050.00	2,057.60	2,057.60	7.14	7.16	-163.68	-200.34	-58.66	208.75	194.45	14.30	14.599	
2,100.00	2,100.00	2,107.60	2,107.60	7.32	7.34	-163.68	-200.34	-58.66	208.75	194.10	14.66	14.243	
2,150.00	2,150.00	2,157.60	2,157.60	7.50	7.51	-163.68	-200.34	-58.66	208.75	193.74	15.01	13.904	
2,200.00	2,200.00	2,207.60	2,207.60	7.68	7.69	-163.68	-200.34	-58.66	208.75	193.38	15.37	13.580	
2,250.00	2,250.00	2,257.60	2,257.60	7.86	7.87	-163.68	-200.34	-58.66	208.75	193.02	15.73	13.271	
2,300.00	2,300.00	2,307.60	2,307.60	8.04	8.05	-163.68	-200.34	-58.66	208.75	192.66	16.09	12.976	
2,350.00	2,350.00	2,357.60	2,357.60	8.22	8.23	-163.68	-200.34	-58.66	208.75	192.31	16.45	12.694	
2,400.00	2,400.00	2,407.60	2,407.60	8.39	8.41	-163.68	-200.34	-58.66	208.75	191.95	16.80	12.423	
2,450.00	2,450.00	2,457.60	2,457.60	8.57	8.59	-40.03	-200.34	-58.66	208.58	191.43	17.15	12.160	
2,500.00	2,499.99	2,507.59	2,507.59	8.74	8.77	-40.15	-200.34	-58.66	208.08	190.58	17.50	11.887	
2,550.00	2,549.98	2,557.58	2,557.58	8.90	8.95	-40.35	-200.34	-58.66	207.25	189.40	17.85	11.611	

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 7H - Wellbore #1 - Permit Plan 1		Offset Site Error:	0.00 ft
Survey Program: 0-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				
2,600.00	2,599.96	2,607.56	2,607.56	9.07	9.12	-40.63	-200.34	-58.66	206.09	187.90	18.19	11.327				
2,650.00	2,649.92	2,657.52	2,657.52	9.24	9.30	-41.00	-200.34	-58.66	204.60	186.06	18.54	11.036				
2,700.00	2,699.87	2,707.47	2,707.47	9.40	9.48	-41.41	-200.34	-58.66	202.92	184.04	18.89	10.744				
2,750.00	2,749.82	2,757.42	2,757.42	9.57	9.66	-41.83	-200.34	-58.66	201.25	182.02	19.23	10.464				
2,800.00	2,799.77	2,807.37	2,807.37	9.74	9.84	-42.26	-200.34	-58.66	199.59	180.01	19.58	10.193				
2,850.00	2,849.72	2,857.32	2,857.32	9.91	10.02	-42.70	-200.34	-58.66	197.94	178.01	19.93	9.933				
2,900.00	2,899.67	2,907.27	2,907.27	10.08	10.20	-43.14	-200.34	-58.66	196.30	176.02	20.28	9.681				
2,950.00	2,949.62	2,957.22	2,957.22	10.25	10.38	-43.59	-200.34	-58.66	194.67	174.05	20.62	9.439				
3,000.00	2,999.57	3,007.17	3,007.17	10.42	10.56	-44.05	-200.34	-58.66	193.06	172.08	20.97	9.205				
3,050.00	3,049.52	3,057.12	3,057.12	10.59	10.73	-44.51	-200.34	-58.66	191.45	170.13	21.32	8.979				
3,100.00	3,099.47	3,107.07	3,107.07	10.76	10.91	-44.99	-200.34	-58.66	189.86	168.19	21.67	8.761				
3,150.00	3,149.42	3,157.02	3,157.02	10.94	11.09	-45.47	-200.34	-58.66	188.29	166.27	22.02	8.550				
3,200.00	3,199.37	3,206.97	3,206.97	11.11	11.27	-45.96	-200.34	-58.66	186.73	164.35	22.37	8.346				
3,250.00	3,249.32	3,256.92	3,256.92	11.28	11.45	-46.45	-200.34	-58.66	185.18	162.45	22.72	8.149				
3,300.00	3,299.27	3,306.87	3,306.87	11.45	11.63	-46.96	-200.34	-58.66	183.64	160.57	23.08	7.958				
3,350.00	3,349.22	3,356.82	3,356.82	11.63	11.81	-47.47	-200.34	-58.66	182.12	158.69	23.43	7.774				
3,400.00	3,399.17	3,406.77	3,406.77	11.80	11.99	-48.00	-200.34	-58.66	180.62	156.84	23.78	7.596				
3,450.00	3,449.12	3,456.72	3,456.72	11.98	12.17	-48.53	-200.34	-58.66	179.13	154.99	24.13	7.423				
3,500.00	3,499.07	3,506.67	3,506.67	12.15	12.34	-49.07	-200.34	-58.66	177.65	153.17	24.48	7.256				
3,550.00	3,549.02	3,556.62	3,556.62	12.33	12.52	-49.62	-200.34	-58.66	176.19	151.36	24.84	7.094				
3,600.00	3,598.97	3,606.57	3,606.57	12.50	12.70	-50.17	-200.34	-58.66	174.75	149.56	25.19	6.937				
3,650.00	3,648.92	3,656.52	3,656.52	12.68	12.88	-50.74	-200.34	-58.66	173.33	147.78	25.54	6.785				
3,700.00	3,698.87	3,706.47	3,706.47	12.85	13.06	-51.32	-200.34	-58.66	171.92	146.02	25.90	6.638				
3,750.00	3,748.82	3,756.42	3,756.42	13.03	13.24	-51.91	-200.34	-58.66	170.53	144.28	26.25	6.496				
3,800.00	3,798.77	3,806.37	3,806.37	13.20	13.42	-52.50	-200.34	-58.66	169.16	142.55	26.61	6.358				
3,850.00	3,848.72	3,856.32	3,856.32	13.38	13.60	-53.11	-200.34	-58.66	167.80	140.84	26.96	6.224				
3,900.00	3,898.67	3,906.27	3,906.27	13.56	13.78	-53.72	-200.34	-58.66	166.47	139.15	27.32	6.094				
3,950.00	3,948.62	3,956.22	3,956.22	13.73	13.95	-54.35	-200.34	-58.66	165.16	137.48	27.67	5.969				
4,000.00	3,998.57	4,006.17	4,006.17	13.91	14.13	-54.98	-200.34	-58.66	163.86	135.83	28.03	5.847				
4,050.00	4,048.52	4,056.12	4,056.12	14.09	14.31	-55.63	-200.34	-58.66	162.59	134.20	28.38	5.729				
4,100.00	4,098.47	4,106.07	4,106.07	14.26	14.49	-56.28	-200.34	-58.66	161.33	132.60	28.74	5.614				
4,150.00	4,148.42	4,156.02	4,156.02	14.44	14.67	-56.95	-200.34	-58.66	160.10	131.01	29.09	5.503				
4,200.00	4,198.37	4,205.97	4,205.97	14.62	14.85	-57.62	-200.34	-58.66	158.89	129.44	29.45	5.395				
4,250.00	4,248.32	4,255.92	4,255.92	14.80	15.03	-58.31	-200.34	-58.66	157.70	127.90	29.81	5.291				
4,300.00	4,298.27	4,305.87	4,305.87	14.97	15.21	-59.01	-200.34	-58.66	156.54	126.38	30.16	5.190				
4,350.00	4,348.22	4,355.82	4,355.82	15.15	15.39	-59.71	-200.34	-58.66	155.40	124.88	30.52	5.092				
4,400.00	4,398.17	4,405.77	4,405.77	15.33	15.56	-60.43	-200.34	-58.66	154.28	123.40	30.88	4.997 Alert				
4,450.00	4,448.12	4,455.72	4,455.72	15.51	15.74	-61.16	-200.34	-58.66	153.19	121.95	31.24	4.904 Alert				
4,500.00	4,498.07	4,505.67	4,505.67	15.69	15.92	-61.89	-200.34	-58.66	152.12	120.53	31.59	4.815 Alert				
4,550.00	4,548.02	4,555.62	4,555.62	15.87	16.10	-62.64	-200.34	-58.66	151.08	119.13	31.95	4.729 Alert				
4,600.00	4,597.97	4,605.57	4,605.57	16.05	16.28	-63.40	-200.34	-58.66	150.07	117.76	32.31	4.645 Alert				
4,650.00	4,647.92	4,655.52	4,655.52	16.22	16.46	-64.17	-200.34	-58.66	149.08	116.41	32.67	4.564 Alert				
4,700.00	4,697.87	4,705.47	4,705.47	16.40	16.64	-64.95	-200.34	-58.66	148.11	115.09	33.02	4.485 Alert				
4,750.00	4,747.82	4,755.42	4,755.42	16.58	16.82	-65.73	-200.34	-58.66	147.18	113.80	33.38	4.409 Alert				
4,800.00	4,797.77	4,805.37	4,805.37	16.76	17.00	-66.53	-200.34	-58.66	146.27	112.53	33.74	4.335 Alert				
4,850.00	4,847.72	4,855.32	4,855.32	16.94	17.18	-67.34	-200.34	-58.66	145.40	111.30	34.10	4.264 Alert				
4,900.00	4,897.67	4,905.27	4,905.27	17.12	17.35	-68.16	-200.34	-58.66	144.55	110.09	34.46	4.195 Alert				
4,950.00	4,947.62	4,955.22	4,955.22	17.30	17.53	-68.99	-200.34	-58.66	143.73	108.91	34.82	4.128 Alert				
5,000.00	4,997.57	5,005.18	5,005.18	17.48	17.71	-69.82	-200.34	-58.66	142.94	107.77	35.18	4.063 Alert				
5,050.00	5,047.52	5,055.32	5,055.31	17.66	17.89	-70.51	-200.40	-59.06	142.15	106.62	35.53	4.001 Alert				
5,100.00	5,097.47	5,105.48	5,105.47	17.84	18.06	-70.94	-200.56	-60.10	141.31	105.42	35.89	3.938 Alert				
5,150.00	5,147.42	5,155.66	5,155.62	18.02	18.23	-71.11	-200.82	-61.79	140.40	104.16	36.24	3.875 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: Lea County (NAD83 New Mexico East)
 Reference Site: Sec 08-T25S-R33E
 Site Error: 0.00 ft
 Reference Well: Flagler 8 Fed 39H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
 MD Reference: RKB @ 3471.80ft
 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 08-T25S-R33E - Flagler 8 Fed 7H - Wellbore #1 - Permit Plan 1														Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IGRF														Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis		Highside Toothface (")	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/-N (ft)							
5,200.00	5,197.37	5,205.85	5,205.75	18.20	18.40	-71.01	-201.18	-64.14	139.43	102.84	36.59	3.811	Alert		
5,250.00	5,247.32	5,256.01	5,255.82	18.38	18.57	-70.64	-201.64	-67.14	138.39	101.45	36.93	3.747	Alert		
5,300.00	5,297.27	5,306.14	5,305.81	18.56	18.74	-70.00	-202.20	-70.78	137.30	100.01	37.28	3.682	Alert		
5,350.00	5,347.22	5,356.22	5,355.70	18.74	18.91	-69.06	-202.86	-75.07	136.18	98.54	37.63	3.618	Alert		
5,400.00	5,397.17	5,406.23	5,405.46	18.92	19.09	-67.84	-203.62	-79.99	135.06	97.08	37.98	3.556	Alert		
5,450.00	5,447.12	5,456.15	5,455.07	19.10	19.26	-66.31	-204.47	-85.55	133.99	95.66	38.33	3.495	Alert		
5,500.00	5,497.07	5,505.97	5,504.49	19.28	19.43	-64.49	-205.42	-91.73	133.02	94.34	38.68	3.439	Alert		
5,550.00	5,547.02	5,555.67	5,553.71	19.46	19.61	-62.37	-206.47	-98.54	132.22	93.18	39.03	3.387	Alert		
5,600.00	5,596.97	5,605.23	5,602.70	19.64	19.78	-59.96	-207.61	-105.95	131.66	92.28	39.38	3.343	Alert		
5,650.00	5,646.92	5,654.65	5,651.45	19.82	19.96	-57.26	-208.84	-113.97	131.42	91.70	39.73	3.308	Alert		
5,654.92	5,651.83	5,659.50	5,656.22	19.84	19.98	-56.98	-208.97	-114.79	131.42	91.66	39.76	3.305	Alert, CC		
5,700.00	5,696.87	5,703.89	5,699.91	20.00	20.13	-54.30	-210.16	-122.58	131.61	91.54	40.06	3.285	Alert, ES		
5,750.00	5,746.82	5,752.95	5,748.09	20.19	20.31	-51.10	-211.58	-131.77	132.30	91.91	40.40	3.275	Alert, SF		
5,800.00	5,796.77	5,801.83	5,795.96	20.37	20.49	-47.70	-213.08	-141.54	133.62	92.89	40.72	3.281	Alert		
5,850.00	5,846.72	5,851.11	5,844.16	20.55	20.68	-44.24	-214.63	-151.67	135.51	94.47	41.05	3.302	Alert		
5,900.00	5,896.67	5,900.39	5,892.36	20.73	20.86	-40.88	-216.19	-161.80	137.91	96.54	41.37	3.334	Alert		
5,950.00	5,946.62	5,949.67	5,940.56	20.91	21.05	-37.64	-217.75	-171.93	140.77	99.08	41.68	3.377	Alert		
6,000.00	5,996.57	6,001.05	5,988.76	21.09	21.24	-34.54	-219.30	-182.07	144.07	102.06	42.01	3.429	Alert		
6,050.00	6,046.52	6,048.23	6,036.96	21.27	21.43	-31.58	-220.86	-192.20	147.78	105.46	42.32	3.492	Alert		
6,100.00	6,096.47	6,102.49	6,085.16	21.45	21.64	-28.77	-222.42	-202.33	151.87	109.22	42.65	3.561	Alert		
6,150.00	6,146.42	6,146.79	6,133.37	21.64	21.81	-26.11	-223.97	-212.46	156.32	113.37	42.95	3.639	Alert		
6,200.00	6,196.37	6,196.07	6,181.57	21.82	22.01	-23.60	-225.53	-222.59	161.08	117.82	43.27	3.723	Alert		
6,250.00	6,246.32	6,245.35	6,229.77	22.00	22.20	-21.24	-227.09	-232.72	166.14	122.56	43.59	3.812	Alert		
6,300.00	6,296.27	6,294.62	6,277.97	22.18	22.40	-19.01	-228.64	-242.86	171.47	127.57	43.91	3.905	Alert		
6,350.00	6,346.22	6,343.90	6,326.17	22.36	22.60	-16.92	-230.20	-252.99	177.05	132.82	44.23	4.003	Alert		
6,400.00	6,396.17	6,393.18	6,374.37	22.54	22.80	-14.96	-231.76	-263.12	182.84	138.29	44.55	4.104	Alert		
6,450.00	6,446.12	6,442.46	6,422.57	22.72	23.00	-13.12	-233.32	-273.25	188.84	143.96	44.88	4.208	Alert		
6,500.00	6,496.07	6,508.26	6,470.77	22.91	23.27	-11.40	-234.87	-283.38	195.01	149.75	45.26	4.308	Alert		
6,550.00	6,546.02	6,541.02	6,518.98	23.09	23.41	-9.78	-236.43	-293.52	201.36	155.83	45.53	4.423	Alert		
6,600.00	6,595.97	6,609.70	6,567.18	23.27	23.70	-8.25	-237.99	-303.65	207.85	161.92	45.93	4.525	Alert		
6,650.00	6,645.92	6,639.58	6,615.38	23.45	23.82	-6.82	-239.54	-313.78	214.48	168.29	46.19	4.643	Alert		
6,700.00	6,695.87	6,688.86	6,663.58	23.63	24.03	-5.48	-241.10	-323.91	221.24	174.72	46.52	4.755	Alert		
6,750.00	6,745.82	6,738.14	6,711.78	23.82	24.24	-4.22	-242.66	-334.04	228.11	181.25	46.86	4.869	Alert		
6,800.00	6,795.77	6,787.42	6,759.98	24.00	24.45	-3.03	-244.21	-344.17	235.08	187.89	47.19	4.981	Alert		
6,850.00	6,845.72	6,836.70	6,808.18	24.18	24.66	-1.90	-245.77	-354.31	242.15	194.62	47.53	5.095			
6,900.00	6,895.67	6,885.98	6,856.38	24.36	24.87	-0.84	-247.33	-364.44	249.31	201.44	47.87	5.208			
6,950.00	6,945.62	6,935.25	6,904.59	24.54	25.08	0.16	-248.88	-374.57	256.54	208.33	48.21	5.322			
7,000.00	6,995.57	6,984.53	6,952.79	24.73	25.30	1.10	-250.44	-384.70	263.85	215.30	48.55	5.435			
7,050.00	7,045.52	7,033.81	7,000.99	24.91	25.51	2.00	-252.00	-394.83	271.22	222.33	48.89	5.548			
7,100.00	7,095.47	7,083.09	7,049.19	25.09	25.73	2.84	-253.55	-404.97	278.66	229.43	49.23	5.660			
7,150.00	7,145.42	7,132.37	7,097.39	25.27	25.95	3.65	-255.11	-415.10	286.15	236.58	49.58	5.772			
7,200.00	7,195.37	7,181.65	7,145.59	25.45	26.16	4.41	-256.67	-425.23	293.70	243.78	49.92	5.883			
7,250.00	7,245.32	7,230.93	7,193.79	25.64	26.38	5.13	-258.23	-435.36	301.29	251.03	50.26	5.994			
7,300.00	7,295.27	7,280.21	7,241.99	25.82	26.60	5.82	-259.78	-445.49	308.93	258.32	50.61	6.104			
7,350.00	7,345.21	7,329.49	7,290.20	26.00	26.82	6.48	-261.34	-455.62	316.61	265.66	50.96	6.213			
7,400.00	7,395.16	7,378.77	7,338.40	26.18	27.04	7.10	-262.90	-465.76	324.33	273.03	51.30	6.322			
7,450.00	7,445.11	7,428.05	7,386.60	26.37	27.27	7.70	-264.45	-475.89	332.09	280.44	51.65	6.429			
7,500.00	7,495.06	7,477.33	7,434.80	26.55	27.49	8.27	-266.01	-486.02	339.88	287.88	52.00	6.536			
7,550.00	7,545.01	7,526.60	7,483.00	26.73	27.71	8.81	-267.57	-496.15	347.70	295.35	52.35	6.642			
7,600.00	7,594.96	7,575.88	7,531.20	26.91	27.94	9.33	-269.12	-506.28	355.55	302.85	52.70	6.747			
7,650.00	7,644.91	7,625.16	7,579.40	27.10	28.16	9.82	-270.68	-516.42	363.42	310.37	53.05	6.851			
7,700.00	7,694.86	7,674.44	7,627.61	27.28	28.39	10.30	-272.24	-526.55	371.33	317.93	53.40	6.954			

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 7H - Wellbore #1 - Permit Plan 1		Offset Site Error: 0.00 ft	
Survey Program: 0-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)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
7,750.00	7,744.81	7,723.72	7,675.81	27.46	28.61	10.76	-273.79	-536.68	379.25	325.50	53.75	7.056				
7,800.00	7,794.76	7,773.00	7,724.01	27.64	28.84	11.19	-275.35	-546.81	387.20	333.10	54.10	7.157				
7,850.00	7,844.71	7,822.28	7,772.21	27.83	29.07	11.61	-276.91	-556.94	395.17	340.72	54.45	7.257				
7,900.00	7,894.66	7,871.56	7,820.41	28.01	29.29	12.02	-278.46	-567.07	403.16	348.36	54.80	7.356				
7,950.00	7,944.61	7,920.84	7,868.61	28.19	29.52	12.40	-280.02	-577.21	411.17	356.01	55.16	7.455				
8,000.00	7,994.56	7,970.12	7,916.81	28.37	29.75	12.78	-281.58	-587.34	419.20	363.69	55.51	7.552				
8,050.00	8,044.51	8,019.40	7,965.01	28.56	29.98	13.14	-283.14	-597.47	427.24	371.38	55.86	7.648				
8,100.00	8,094.46	8,068.68	8,013.22	28.74	30.21	13.48	-284.69	-607.60	435.30	379.08	56.22	7.743				
8,150.00	8,144.41	8,117.96	8,061.42	28.92	30.44	13.82	-286.25	-617.73	443.37	386.80	56.57	7.837				
8,200.00	8,194.36	8,167.23	8,109.62	29.10	30.68	14.14	-287.81	-627.87	451.46	394.54	56.93	7.931				
8,250.00	8,244.31	8,216.51	8,157.82	29.29	30.91	14.45	-289.36	-638.00	459.56	402.28	57.28	8.023				
8,300.00	8,294.26	8,265.79	8,206.02	29.47	31.14	14.75	-290.92	-648.13	467.68	410.04	57.64	8.114				
8,350.00	8,344.21	8,315.07	8,254.22	29.65	31.37	15.03	-292.48	-658.26	475.80	417.81	57.99	8.205				
8,400.00	8,394.16	8,364.35	8,302.42	29.84	31.61	15.31	-294.03	-668.39	483.94	425.60	58.35	8.294				
8,450.00	8,444.11	8,413.63	8,350.62	30.02	31.84	15.58	-295.59	-678.52	492.09	433.39	58.70	8.383				
8,500.00	8,494.06	8,462.91	8,398.82	30.20	32.08	15.85	-297.15	-688.66	500.27	441.21	59.06	8.471				
8,550.00	8,544.03	8,512.11	8,446.95	30.38	32.31	16.13	-298.70	-698.77	508.91	449.49	59.41	8.565				
8,600.00	8,594.02	8,561.21	8,494.98	30.56	32.55	16.38	-300.25	-708.87	518.17	458.40	59.77	8.669				
8,650.00	8,644.02	8,610.20	8,542.89	30.73	32.78	16.60	-301.80	-718.94	528.06	467.94	60.12	8.783				
8,700.00	8,694.02	8,659.10	8,590.73	30.90	33.02	-106.92	-303.35	-728.99	538.35	477.88	60.47	8.903				
8,750.00	8,744.02	8,708.01	8,638.56	31.07	33.25	-106.77	-304.89	-739.05	548.65	487.83	60.82	9.021				
8,800.00	8,794.02	8,756.92	8,686.40	31.24	33.49	-106.62	-306.44	-749.10	558.96	497.79	61.17	9.138				
8,850.00	8,844.02	8,805.82	8,734.24	31.41	33.72	-106.48	-307.98	-759.16	569.27	507.75	61.51	9.254				
8,900.00	8,894.02	8,854.73	8,782.07	31.58	33.96	-106.34	-309.53	-769.21	579.58	517.71	61.86	9.369				
8,950.00	8,944.02	8,903.64	8,829.91	31.75	34.20	-106.20	-311.07	-779.27	589.89	527.68	62.21	9.482				
9,000.00	8,994.02	8,952.54	8,877.75	31.92	34.43	-106.07	-312.62	-789.32	600.21	537.65	62.56	9.594				
9,050.00	9,043.98	9,001.36	8,925.50	32.09	34.67	-104.82	-314.16	-799.36	610.93	548.02	62.91	9.711				
9,100.00	9,093.62	9,049.75	8,972.82	32.25	34.90	-104.05	-315.69	-809.31	622.73	559.47	63.26	9.844				
9,150.00	9,142.57	9,102.69	9,019.35	32.41	35.16	-103.53	-317.19	-819.09	635.63	572.01	63.62	9.990				
9,200.00	9,190.45	9,143.71	9,064.73	32.55	35.36	-103.20	-318.66	-828.63	649.69	585.74	63.95	10.160				
9,250.00	9,236.89	9,188.58	9,108.62	32.68	35.58	-103.00	-320.07	-837.85	665.00	600.71	64.29	10.343				
9,300.00	9,281.55	9,231.58	9,150.68	32.81	35.79	-102.85	-321.43	-846.69	681.71	617.07	64.64	10.546				
9,350.00	9,324.07	9,272.38	9,190.59	32.92	35.99	-102.69	-322.72	-855.08	699.97	634.97	65.00	10.769				
9,400.00	9,364.15	9,315.78	9,233.06	33.02	36.20	-102.67	-324.08	-863.91	719.84	654.42	65.43	11.002				
9,450.00	9,401.47	9,359.39	9,275.84	33.11	36.41	-102.70	-325.37	-872.32	741.18	675.28	65.89	11.248				
9,500.00	9,435.75	9,399.56	9,315.32	33.19	36.60	-102.50	-326.49	-879.64	764.14	697.79	66.35	11.516				
9,550.00	9,466.73	9,435.92	9,351.12	33.26	36.77	-101.98	-327.46	-885.92	788.90	722.10	66.80	11.810				
9,600.00	9,494.18	9,468.15	9,382.89	33.42	36.91	-101.03	-328.27	-891.19	815.55	748.31	67.23	12.130				
9,650.00	9,517.88	9,495.92	9,410.32	33.59	37.04	-99.56	-328.94	-895.53	844.12	776.47	67.65	12.478				
9,700.00	9,537.65	9,518.99	9,433.13	33.78	37.14	-97.47	-329.47	-898.98	874.59	806.55	68.04	12.854				
9,750.00	9,553.35	9,537.12	9,451.06	33.98	37.22	-94.69	-329.87	-901.60	906.83	838.43	68.40	13.257				
9,800.00	9,564.85	9,550.11	9,463.92	34.19	37.28	-91.15	-330.15	-903.42	940.67	871.93	68.74	13.685				
9,850.00	9,572.06	9,557.83	9,471.56	34.41	37.31	-86.83	-330.31	-904.49	975.87	906.83	69.03	14.136				
9,900.00	9,574.94	9,560.16	9,473.87	34.65	37.32	-81.79	-330.36	-904.80	1,012.12	942.83	69.29	14.607				
9,950.00	9,575.00	9,558.96	9,472.68	34.91	37.32	-80.83	-330.34	-904.64	1,049.28	979.75	69.52	15.093				
10,000.00	9,575.00	9,557.69	9,471.43	35.18	37.31	-80.72	-330.31	-904.47	1,087.46	1,017.72	69.74	15.593				
10,050.00	9,575.00	9,556.41	9,470.16	35.48	37.30	-80.62	-330.28	-904.29	1,126.56	1,056.61	69.95	16.105				
10,100.00	9,575.00	9,555.13	9,468.89	35.79	37.30	-80.51	-330.26	-904.12	1,166.50	1,096.35	70.14	16.630				
10,150.00	9,575.00	9,553.84	9,467.61	36.15	37.29	-80.40	-330.23	-903.94	1,207.18	1,136.85	70.33	17.164				
10,200.00	9,575.00	9,552.55	9,466.33	36.50	37.29	-80.30	-330.20	-903.76	1,248.54	1,178.04	70.50	17.709				
10,250.00	9,575.00	9,551.24	9,465.04	36.90	37.28	-80.19	-330.17	-903.58	1,290.51	1,219.84	70.67	18.261				
10,300.00	9,575.00	9,549.94	9,463.75	37.29	37.28	-80.08	-330.14	-903.40	1,333.04	1,262.22	70.82	18.822				

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 Flagler 8 Fed 39H
Project:	Lea County (NAD83 New Mexico East)	TVD Reference:	RKB @ 3471.80ft
Reference Site:	Sec 08-T25S-R33E	MD Reference:	RKB @ 3471.80ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Flagler 8 Fed 39H	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 Sec 08-T25S-R33E - Flagler 8 Fed 7H - Wellbore #1 - Permit Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-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		
10,350.00	9,575.00	9,548.62	9,462.44	37.73	37.27	-79.97	-330.12	-903.22	1,376.07	1,305.10	70.97	19.390		
10,400.00	9,575.00	9,547.30	9,461.14	38.16	37.26	-79.86	-330.09	-903.03	1,419.55	1,348.45	71.10	19.965		
10,450.00	9,575.00	9,545.97	9,459.82	38.64	37.26	-79.75	-330.06	-902.85	1,463.45	1,392.21	71.23	20.545		

Anticollision Report

Company: WCDSC Permian NM
 Project: Lea County (NAD83 New Mexico East)
 Reference Site: Sec 08-T25S-R33E
 Site Error: 0.00 ft
 Reference Well: Flagler 8 Fed 39H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
 MD Reference: RKB @ 3471.80ft
 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:	0.00 ft
Survey Program: O-MWD+IGRF												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)					
0.00	0.00	9.00	-9.00	0.50	0.50	101.52	-193.77	951.09	970.63				
50.00	50.00	41.00	41.00	0.50	0.50	101.52	-193.77	951.09	970.63	969.63	1.01	965.770	
100.00	100.00	109.00	91.00	0.52	0.53	101.52	-193.77	951.09	970.63	969.59	1.04	929.003	
150.00	150.00	141.00	141.00	0.59	0.57	101.52	-193.77	951.09	970.63	969.47	1.16	833.883	
200.00	200.00	209.00	191.00	0.70	0.73	101.52	-193.77	951.09	970.63	969.20	1.43	680.084	
250.00	250.00	241.00	241.00	0.84	0.81	101.52	-193.77	951.09	970.63	968.98	1.65	588.342	
300.00	300.00	309.00	291.00	0.99	1.02	101.52	-193.77	951.09	970.63	968.63	2.00	484.680	
350.00	350.00	341.00	341.00	1.15	1.12	101.52	-193.77	951.09	970.63	968.37	2.26	429.094	
400.00	400.00	409.00	391.00	1.31	1.34	101.52	-193.77	951.09	970.63	967.98	2.65	366.545	
450.00	450.00	441.00	441.00	1.48	1.45	101.52	-193.77	951.09	970.63	967.71	2.92	332.142	
500.00	500.00	509.00	491.00	1.65	1.68	101.52	-193.77	951.09	970.63	967.31	3.32	292.100	
550.00	550.00	541.00	541.00	1.82	1.79	101.52	-193.77	951.09	970.63	967.03	3.60	269.294	
600.00	600.00	609.00	591.00	1.99	2.02	101.52	-193.77	951.09	970.63	966.62	4.01	241.905	
650.00	650.00	641.00	641.00	2.16	2.13	101.52	-193.77	951.09	970.63	966.33	4.30	225.846	
700.00	700.00	709.00	691.00	2.34	2.37	101.52	-193.77	951.09	970.63	965.92	4.71	206.072	
750.00	750.00	741.00	741.00	2.51	2.48	101.52	-193.77	951.09	970.63	965.63	5.00	194.212	
800.00	800.00	809.00	791.00	2.69	2.72	101.52	-193.77	951.09	970.63	965.22	5.41	179.318	
850.00	850.00	841.00	841.00	2.87	2.84	101.52	-193.77	951.09	970.63	964.93	5.70	170.225	
900.00	900.00	909.00	891.00	3.04	3.08	101.52	-193.77	951.09	970.63	964.51	6.12	158.627	
950.00	950.00	941.00	941.00	3.22	3.19	101.52	-193.77	951.09	970.63	964.22	6.41	151.446	
1,000.00	1,000.00	1,009.00	991.00	3.40	3.43	101.52	-193.77	951.09	970.63	963.80	6.83	142.170	
1,050.00	1,050.00	1,041.00	1,041.00	3.58	3.54	101.52	-193.77	951.09	970.63	963.51	7.12	136.360	
1,100.00	1,100.00	1,109.00	1,091.00	3.75	3.78	101.52	-193.77	951.09	970.63	963.09	7.54	128.779	
1,150.00	1,150.00	1,141.00	1,141.00	3.93	3.90	101.52	-193.77	951.09	970.63	962.80	7.83	123.985	
1,200.00	1,200.00	1,209.00	1,191.00	4.11	4.14	101.52	-193.77	951.09	970.63	962.38	8.25	117.676	
1,250.00	1,250.00	1,241.00	1,241.00	4.29	4.25	101.52	-193.77	951.09	970.63	962.09	8.54	113.654	
1,300.00	1,300.00	1,309.00	1,291.00	4.46	4.50	101.52	-193.77	951.09	970.63	961.67	8.96	108.324	
1,350.00	1,350.00	1,341.00	1,341.00	4.64	4.61	101.52	-193.77	951.09	970.63	961.38	9.25	104.904	
1,400.00	1,400.00	1,409.00	1,391.00	4.82	4.85	101.52	-193.77	951.09	970.63	960.96	9.67	100.342	
1,450.00	1,450.00	1,441.00	1,441.00	5.00	4.97	101.52	-193.77	951.09	970.63	960.66	9.97	97.398	
1,500.00	1,500.00	1,509.00	1,491.00	5.18	5.21	101.52	-193.77	951.09	970.63	960.24	10.39	93.450	
1,550.00	1,550.00	1,541.00	1,541.00	5.36	5.32	101.52	-193.77	951.09	970.63	959.95	10.68	90.890	
1,600.00	1,600.00	1,609.00	1,591.00	5.53	5.57	101.52	-193.77	951.09	970.63	959.53	11.10	87.441	
1,650.00	1,650.00	1,641.00	1,641.00	5.71	5.68	101.52	-193.77	951.09	970.63	959.24	11.39	85.194	
1,700.00	1,700.00	1,709.00	1,691.00	5.89	5.92	101.52	-193.77	951.09	970.63	958.82	11.81	82.155	
1,750.00	1,750.00	1,741.00	1,741.00	6.07	6.04	101.52	-193.77	951.09	970.63	958.52	12.11	80.168	
1,800.00	1,800.00	1,809.00	1,791.00	6.25	6.28	101.52	-193.77	951.09	970.63	958.10	12.53	77.470	
1,850.00	1,850.00	1,841.00	1,841.00	6.43	6.39	101.52	-193.77	951.09	970.63	957.81	12.82	75.699	
1,900.00	1,900.00	1,909.00	1,891.00	6.61	6.64	101.52	-193.77	951.09	970.63	957.39	13.24	73.289	
1,950.00	1,950.00	1,941.00	1,941.00	6.78	6.75	101.52	-193.77	951.09	970.63	957.09	13.54	71.702	
2,000.00	2,000.00	2,009.00	1,991.00	6.96	7.00	101.52	-193.77	951.09	970.63	956.67	13.96	69.535	
2,050.00	2,050.00	2,041.00	2,041.00	7.14	7.11	101.52	-193.77	951.09	970.63	956.38	14.25	68.104	
2,100.00	2,100.00	2,109.00	2,091.00	7.32	7.35	101.52	-193.77	951.09	970.63	955.96	14.67	66.146	
2,150.00	2,150.00	2,141.00	2,141.00	7.50	7.47	101.52	-193.77	951.09	970.63	955.66	14.97	64.850	
2,200.00	2,200.00	2,209.00	2,191.00	7.68	7.71	101.52	-193.77	951.09	970.63	955.24	15.39	63.071	
2,250.00	2,250.00	2,241.00	2,241.00	7.86	7.83	101.52	-193.77	951.09	970.63	954.95	15.68	61.891	
2,300.00	2,300.00	2,309.00	2,291.00	8.04	8.07	101.52	-193.77	951.09	970.63	954.53	16.10	60.269	
2,350.00	2,350.00	2,341.00	2,341.00	8.22	8.18	101.52	-193.77	951.09	970.63	954.23	16.40	59.191	
2,400.00	2,400.00	2,409.00	2,391.00	8.39	8.43	101.52	-193.77	951.09	970.63	953.81	16.82	57.705	
2,450.00	2,450.00	2,441.00	2,441.00	8.57	8.54	-134.80	-193.77	951.09	970.78	953.68	17.11	56.748	
2,500.00	2,499.99	2,509.01	2,490.99	8.74	8.78	-134.83	-193.77	951.09	971.25	953.72	17.52	55.430	
2,550.00	2,549.98	2,540.98	2,540.98	8.90	8.90	-134.87	-193.77	951.09	972.01	954.21	17.80	54.601	

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

Anticollision Report

Company: WCDSC Permian NM
 Project: Lea County (NAD83 New Mexico East)
 Reference Site: Sec 08-T25S-R33E
 Site Error: 0.00 ft
 Reference Well: Flagler 8 Fed 39H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
 MD Reference: RKB @ 3471.80ft
 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:		0.00 ft
Survey Program: 0-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			
2,600.00	2,599.96	2,609.04	2,590.96	9.07	9.14	-134.92	-193.77	951.09	973.09	954.88	18.21	53.434			
2,650.00	2,649.92	2,640.92	2,640.92	9.24	9.26	-134.99	-193.77	951.09	974.48	955.99	18.49	52.698			
2,700.00	2,699.87	2,709.13	2,690.87	9.40	9.50	-135.09	-193.77	951.09	976.06	957.16	18.90	51.636			
2,750.00	2,749.82	2,740.82	2,740.82	9.57	9.61	-135.18	-193.77	951.09	977.65	958.46	19.18	50.962			
2,800.00	2,799.77	2,809.23	2,790.77	9.74	9.86	-135.27	-193.77	951.09	979.24	959.64	19.60	49.970			
2,850.00	2,849.72	2,840.72	2,840.72	9.91	9.97	-135.36	-193.77	951.09	980.83	960.95	19.88	49.343			
2,900.00	2,899.67	2,909.33	2,890.67	10.08	10.22	-135.45	-193.77	951.09	982.42	962.13	20.29	48.414			
2,950.00	2,949.62	2,940.62	2,940.62	10.25	10.33	-135.55	-193.77	951.09	984.02	963.44	20.57	47.829			
3,000.00	2,999.57	2,990.57	2,990.57	10.42	10.51	-135.64	-193.77	951.09	985.62	964.69	20.92	47.109			
3,050.00	3,049.52	3,048.11	3,048.11	10.59	10.71	-135.74	-193.82	950.90	987.06	965.77	21.29	46.357			
3,100.00	3,099.47	3,107.46	3,107.45	10.76	10.91	-135.83	-194.00	950.11	988.04	966.38	21.67	45.601			
3,150.00	3,149.42	3,166.83	3,166.81	10.94	11.11	-135.90	-194.32	948.73	988.55	966.52	22.03	44.865			
3,200.00	3,199.37	3,226.22	3,226.16	11.11	11.32	-135.96	-194.78	946.74	988.59	966.19	22.40	44.132			
3,250.00	3,249.32	3,285.61	3,285.49	11.28	11.52	-136.01	-195.39	944.16	988.15	965.38	22.77	43.404			
3,300.00	3,299.27	3,344.99	3,344.78	11.45	11.72	-136.04	-196.13	940.98	987.23	964.10	23.13	42.681			
3,350.00	3,349.22	3,404.35	3,404.02	11.63	11.92	-136.05	-197.01	937.20	985.84	962.35	23.49	41.961			
3,400.00	3,399.17	3,454.43	3,453.97	11.80	12.10	-136.06	-197.81	933.76	984.21	960.37	23.84	41.289			
3,450.00	3,449.12	3,504.40	3,503.82	11.98	12.27	-136.07	-198.61	930.32	982.58	958.40	24.18	40.635			
3,500.00	3,499.07	3,554.38	3,553.67	12.15	12.44	-136.08	-199.41	926.88	980.94	956.42	24.52	39.999			
3,550.00	3,549.02	3,604.35	3,603.52	12.33	12.62	-136.09	-200.21	923.44	979.31	954.44	24.87	39.379			
3,600.00	3,598.97	3,654.32	3,653.36	12.50	12.79	-136.10	-201.01	920.01	977.68	952.46	25.21	38.775			
3,650.00	3,648.92	3,704.30	3,703.21	12.68	12.96	-136.11	-201.81	916.57	976.05	950.49	25.56	38.187			
3,700.00	3,698.87	3,754.27	3,753.06	12.85	13.14	-136.12	-202.61	913.13	974.41	948.51	25.91	37.614			
3,750.00	3,748.82	3,804.24	3,802.91	13.03	13.31	-136.13	-203.41	909.69	972.78	946.53	26.25	37.055			
3,800.00	3,798.77	3,854.22	3,852.76	13.20	13.49	-136.13	-204.22	906.26	971.15	944.55	26.60	36.510			
3,850.00	3,848.72	3,904.19	3,902.60	13.38	13.67	-136.14	-205.02	902.82	969.52	942.57	26.95	35.978			
3,900.00	3,898.67	3,954.16	3,952.45	13.56	13.84	-136.15	-205.82	899.38	967.88	940.59	27.30	35.459			
3,950.00	3,948.62	4,004.13	4,002.30	13.73	14.02	-136.16	-206.62	895.94	966.25	938.61	27.64	34.953			
4,000.00	3,998.57	4,054.11	4,052.15	13.91	14.20	-136.17	-207.42	892.51	964.62	936.62	27.99	34.459			
4,050.00	4,048.52	4,104.08	4,102.00	14.09	14.38	-136.18	-208.22	889.07	962.99	934.64	28.34	33.977			
4,100.00	4,098.47	4,154.05	4,151.85	14.26	14.55	-136.19	-209.02	885.63	961.35	932.66	28.69	33.506			
4,150.00	4,148.42	4,204.03	4,201.69	14.44	14.73	-136.20	-209.82	882.19	959.72	930.68	29.04	33.045			
4,200.00	4,198.37	4,254.00	4,251.54	14.62	14.91	-136.21	-210.62	878.76	958.09	928.69	29.39	32.596			
4,250.00	4,248.32	4,303.97	4,301.39	14.80	15.09	-136.22	-211.42	875.32	956.46	926.71	29.74	32.156			
4,300.00	4,298.27	4,353.95	4,351.24	14.97	15.27	-136.23	-212.22	871.88	954.82	924.73	30.10	31.727			
4,350.00	4,348.22	4,403.92	4,401.09	15.15	15.45	-136.23	-213.02	868.44	953.19	922.74	30.45	31.307			
4,400.00	4,398.17	4,453.89	4,450.94	15.33	15.63	-136.24	-213.83	865.01	951.56	920.76	30.80	30.896			
4,450.00	4,448.12	4,503.87	4,500.78	15.51	15.81	-136.25	-214.63	861.57	949.93	918.77	31.15	30.495			
4,500.00	4,498.07	4,553.84	4,550.63	15.69	15.99	-136.26	-215.43	858.13	948.29	916.79	31.50	30.102			
4,550.00	4,548.02	4,603.81	4,600.48	15.87	16.17	-136.27	-216.23	854.69	946.66	914.81	31.86	29.717			
4,600.00	4,597.97	4,653.79	4,650.33	16.05	16.35	-136.28	-217.03	851.26	945.03	912.82	32.21	29.341			
4,650.00	4,647.92	4,703.76	4,700.18	16.22	16.53	-136.29	-217.83	847.82	943.40	910.83	32.56	28.972			
4,700.00	4,697.87	4,753.73	4,750.03	16.40	16.71	-136.30	-218.63	844.38	941.76	908.85	32.92	28.611			
4,750.00	4,747.82	4,803.70	4,799.87	16.58	16.90	-136.31	-219.43	840.94	940.13	906.86	33.27	28.258			
4,800.00	4,797.77	4,853.68	4,849.72	16.76	17.08	-136.32	-220.23	837.50	938.50	904.88	33.62	27.912			
4,850.00	4,847.72	4,903.65	4,899.57	16.94	17.26	-136.33	-221.03	834.07	936.87	902.89	33.98	27.573			
4,900.00	4,897.67	4,953.62	4,949.42	17.12	17.44	-136.34	-221.83	830.63	935.24	900.90	34.33	27.241			
4,950.00	4,947.62	5,003.60	4,999.27	17.30	17.62	-136.35	-222.63	827.19	933.60	898.92	34.69	26.915			
5,000.00	4,997.57	5,053.57	5,049.12	17.48	17.81	-136.36	-223.44	823.75	931.97	896.93	35.04	26.596			
5,050.00	5,047.52	5,103.54	5,098.96	17.66	17.99	-136.37	-224.24	820.32	930.34	894.94	35.40	26.283			
5,100.00	5,097.47	5,153.52	5,148.81	17.84	18.17	-136.38	-225.04	816.88	928.71	892.96	35.75	25.976			
5,150.00	5,147.42	5,203.49	5,198.66	18.02	18.36	-136.39	-225.84	813.44	927.08	890.97	36.11	25.675			

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler 8 Fed 8H - Wellbore #1 - Permit Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-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		
5,200.00	5,197.37	5,253.46	5,248.51	18.20	18.54	-136.40	-226.64	810.00	925.44	888.98	36.46	25.380		
5,250.00	5,247.32	5,303.44	5,298.36	18.38	18.72	-136.41	-227.44	806.57	923.81	886.99	36.82	25.090		
5,300.00	5,297.27	5,353.41	5,348.21	18.56	18.91	-136.42	-228.24	803.13	922.18	885.00	37.18	24.806		
5,350.00	5,347.22	5,403.38	5,398.05	18.74	19.09	-136.43	-229.04	799.69	920.55	883.02	37.53	24.527		
5,400.00	5,397.17	5,453.36	5,447.90	18.92	19.27	-136.44	-229.84	796.25	918.92	881.03	37.89	24.254		
5,450.00	5,447.12	5,503.33	5,497.75	19.10	19.46	-136.45	-230.64	792.82	917.28	879.04	38.24	23.985		
5,500.00	5,497.07	5,553.30	5,547.60	19.28	19.64	-136.46	-231.44	789.38	915.65	877.05	38.60	23.721		
5,550.00	5,547.02	5,603.27	5,597.45	19.46	19.83	-136.47	-232.25	785.94	914.02	875.06	38.96	23.462		
5,600.00	5,596.97	5,653.25	5,647.30	19.64	20.01	-136.48	-233.05	782.50	912.39	873.07	39.31	23.207		
5,650.00	5,646.92	5,703.22	5,697.14	19.82	20.20	-136.49	-233.85	779.07	910.76	871.08	39.67	22.957		
5,700.00	5,696.87	5,753.19	5,746.99	20.00	20.38	-136.50	-234.65	775.63	909.13	869.10	40.03	22.711		
5,750.00	5,746.82	5,803.17	5,796.84	20.19	20.56	-136.51	-235.45	772.19	907.49	867.11	40.39	22.470		
5,800.00	5,796.77	5,853.14	5,846.69	20.37	20.75	-136.52	-236.25	768.75	905.86	865.12	40.74	22.233		
5,850.00	5,846.72	5,903.11	5,896.54	20.55	20.93	-136.53	-237.05	765.32	904.23	863.13	41.10	22.000		
5,900.00	5,896.67	5,953.09	5,946.39	20.73	21.12	-136.54	-237.85	761.88	902.60	861.14	41.46	21.770		
5,950.00	5,946.62	6,003.06	5,996.23	20.91	21.30	-136.55	-238.65	758.44	900.97	859.15	41.82	21.545		
6,000.00	5,996.57	6,053.03	6,046.08	21.09	21.49	-136.56	-239.45	755.00	899.34	857.16	42.18	21.324		
6,050.00	6,046.52	6,103.01	6,095.93	21.27	21.68	-136.57	-240.25	751.57	897.70	855.17	42.53	21.106		
6,100.00	6,096.47	6,152.98	6,145.78	21.45	21.86	-136.58	-241.05	748.13	896.07	853.18	42.89	20.891		
6,150.00	6,146.42	6,202.95	6,195.63	21.64	22.05	-136.59	-241.86	744.69	894.44	851.19	43.25	20.680		
6,200.00	6,196.37	6,252.92	6,245.48	21.82	22.23	-136.60	-242.66	741.25	892.81	849.20	43.61	20.473		
6,250.00	6,246.32	6,302.90	6,295.32	22.00	22.42	-136.61	-243.46	737.82	891.18	847.21	43.97	20.269		
6,300.00	6,296.27	6,352.87	6,345.17	22.18	22.60	-136.62	-244.26	734.38	889.55	845.22	44.33	20.068		
6,350.00	6,346.22	6,402.84	6,395.02	22.36	22.79	-136.64	-245.06	730.94	887.92	843.23	44.69	19.871		
6,400.00	6,396.17	6,452.82	6,444.87	22.54	22.98	-136.65	-245.86	727.50	886.29	841.24	45.04	19.676		
6,450.00	6,446.12	6,502.79	6,494.72	22.72	23.16	-136.66	-246.66	724.06	884.65	839.25	45.40	19.484		
6,500.00	6,496.07	6,552.76	6,544.56	22.91	23.35	-136.67	-247.46	720.63	883.02	837.26	45.76	19.296		
6,550.00	6,546.02	6,602.74	6,594.41	23.09	23.53	-136.68	-248.26	717.19	881.39	835.27	46.12	19.110		
6,600.00	6,595.97	6,652.71	6,644.26	23.27	23.72	-136.69	-249.06	713.75	879.76	833.28	46.48	18.928		
6,650.00	6,645.92	6,702.68	6,694.11	23.45	23.91	-136.70	-249.86	710.31	878.13	831.29	46.84	18.748		
6,700.00	6,695.87	6,752.66	6,743.96	23.63	24.09	-136.71	-250.66	706.88	876.50	829.30	47.20	18.570		
6,750.00	6,745.82	6,802.63	6,793.81	23.82	24.28	-136.72	-251.47	703.44	874.87	827.31	47.56	18.396		
6,800.00	6,795.77	6,852.60	6,843.65	24.00	24.47	-136.73	-252.27	700.00	873.24	825.32	47.92	18.223		
6,850.00	6,845.72	6,902.58	6,893.50	24.18	24.65	-136.74	-253.07	696.56	871.61	823.33	48.28	18.054		
6,900.00	6,895.67	6,952.55	6,943.35	24.36	24.84	-136.76	-253.87	693.13	869.97	821.34	48.64	17.887		
6,950.00	6,945.62	7,002.52	6,993.20	24.54	25.03	-136.77	-254.67	689.69	868.34	819.35	49.00	17.722		
7,000.00	6,995.57	7,052.49	7,043.05	24.73	25.21	-136.78	-255.47	686.25	866.71	817.36	49.36	17.560		
7,050.00	7,045.52	7,102.47	7,092.90	24.91	25.40	-136.79	-256.27	682.81	865.08	815.36	49.72	17.400		
7,100.00	7,095.47	7,152.44	7,142.74	25.09	25.59	-136.80	-257.07	679.38	863.45	813.37	50.08	17.242		
7,150.00	7,145.42	7,202.41	7,192.59	25.27	25.78	-136.81	-257.87	675.94	861.82	811.38	50.44	17.087		
7,200.00	7,195.37	7,252.39	7,242.44	25.45	25.96	-136.82	-258.67	672.50	860.19	809.39	50.80	16.934		
7,250.00	7,245.32	7,302.36	7,292.29	25.64	26.15	-136.84	-259.47	669.06	858.56	807.40	51.16	16.783		
7,300.00	7,295.27	7,352.33	7,342.14	25.82	26.34	-136.85	-260.27	665.63	856.93	805.41	51.52	16.634		
7,350.00	7,345.21	7,402.31	7,391.99	26.00	26.52	-136.86	-261.08	662.19	855.30	803.42	51.88	16.487		
7,400.00	7,395.16	7,452.28	7,441.83	26.18	26.71	-136.87	-261.88	658.75	853.67	801.43	52.24	16.342		
7,450.00	7,445.11	7,502.25	7,491.68	26.37	26.90	-136.88	-262.68	655.31	852.04	799.44	52.60	16.199		
7,500.00	7,495.06	7,552.23	7,541.53	26.55	27.09	-136.89	-263.48	651.88	850.41	797.45	52.96	16.058		
7,550.00	7,545.01	7,602.20	7,591.38	26.73	27.27	-136.91	-264.28	648.44	848.78	795.46	53.32	15.919		
7,600.00	7,594.96	7,652.17	7,641.23	26.91	27.46	-136.92	-265.08	645.00	847.14	793.46	53.68	15.781		
7,650.00	7,644.91	7,702.14	7,691.08	27.10	27.65	-136.93	-265.88	641.56	845.51	791.47	54.04	15.646		
7,700.00	7,694.86	7,752.12	7,740.92	27.28	27.84	-136.94	-266.68	638.13	843.88	789.48	54.40	15.512		
7,750.00	7,744.81	7,802.09	7,790.77	27.46	28.02	-136.95	-267.48	634.69	842.25	787.49	54.76	15.380		

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

Anticollision Report

Company: WCDSC Permian NM
 Project: Lea County (NAD83 New Mexico East)
 Reference Site: Sec 08-T25S-R33E
 Site Error: 0.00 ft
 Reference Well: Flagler 8 Fed 39H
 Well Error: 0.50 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
 MD Reference: RKB @ 3471.80ft
 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 08-T25S-R33E - Flagler 8 Fed 8H - Wellbore #1 - Permit Plan 1													Offset Site Error:
Survey Program: 0-MWD+IGRF													Offset Well Error:
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
7,800.00	7,794.76	7,852.06	7,840.62	27.64	28.21	-136.96	-268.28	631.25	840.62	785.50	55.12	15.250	
7,850.00	7,844.71	7,902.04	7,890.47	27.83	28.40	-136.98	-269.08	627.81	838.99	783.51	55.48	15.121	
7,900.00	7,894.66	7,952.01	7,940.32	28.01	28.59	-136.99	-269.88	624.38	837.36	781.52	55.85	14.994	
7,950.00	7,944.61	8,001.98	7,990.17	28.19	28.78	-137.00	-270.69	620.94	835.73	779.53	56.21	14.869	
8,000.00	7,994.56	8,051.96	8,040.01	28.37	28.96	-137.01	-271.49	617.50	834.10	777.54	56.57	14.745	
8,050.00	8,044.51	8,101.93	8,089.86	28.56	29.15	-137.03	-272.29	614.06	832.47	775.54	56.93	14.623	
8,100.00	8,094.46	8,151.90	8,139.71	28.74	29.34	-137.04	-273.09	610.62	830.84	773.55	57.29	14.503	
8,150.00	8,144.41	8,201.88	8,189.56	28.92	29.53	-137.05	-273.89	607.19	829.21	771.56	57.65	14.383	
8,200.00	8,194.36	8,251.85	8,239.41	29.10	29.72	-137.06	-274.69	603.75	827.58	769.57	58.01	14.266	
8,250.00	8,244.31	8,301.82	8,289.26	29.29	29.90	-137.07	-275.49	600.31	825.95	767.58	58.37	14.150	
8,300.00	8,294.26	8,351.80	8,339.10	29.47	30.09	-137.09	-276.29	596.87	824.32	765.59	58.73	14.035	
8,350.00	8,344.21	8,401.77	8,388.95	29.65	30.28	-137.10	-277.09	593.44	822.69	763.60	59.10	13.921	
8,400.00	8,394.16	8,451.74	8,438.80	29.84	30.47	-137.11	-277.89	590.00	821.06	761.61	59.46	13.809	
8,450.00	8,444.11	8,501.71	8,488.65	30.02	30.66	-137.12	-278.69	586.56	819.43	759.61	59.82	13.699	
8,500.00	8,494.06	8,551.69	8,538.50	30.20	30.85	-137.13	-279.49	583.12	817.79	757.61	60.18	13.589	
8,550.00	8,544.03	8,601.65	8,588.33	30.38	31.03	-137.10	-280.30	579.69	815.79	755.25	60.54	13.475	
8,600.00	8,594.02	8,651.58	8,638.14	30.56	31.22	-137.03	-281.10	576.25	813.32	752.42	60.90	13.355	
8,650.00	8,644.02	8,701.48	8,687.92	30.73	31.41	-136.93	-281.90	572.82	810.37	749.11	61.26	13.229	
8,700.00	8,694.02	8,751.36	8,737.67	30.90	31.60	99.48	-282.69	569.39	807.11	745.51	61.61	13.101	
8,750.00	8,744.02	8,801.23	8,787.42	31.07	31.79	99.58	-283.49	565.96	803.85	741.89	61.96	12.973	
8,800.00	8,794.02	8,851.11	8,837.17	31.24	31.97	99.68	-284.29	562.53	800.60	738.28	62.31	12.848	
8,850.00	8,844.02	8,900.98	8,886.92	31.41	32.16	99.78	-285.09	559.10	797.34	734.67	62.67	12.724	
8,900.00	8,894.02	8,950.86	8,936.67	31.58	32.35	99.87	-285.89	555.67	794.09	731.07	63.02	12.601	
8,950.00	8,944.02	9,000.73	8,986.42	31.75	32.54	99.97	-286.69	552.23	790.84	727.46	63.37	12.479	
9,000.00	8,994.02	9,050.61	9,036.17	31.92	32.73	100.08	-287.49	548.80	787.59	723.86	63.72	12.359	
9,050.00	9,043.98	9,100.42	9,085.86	32.09	32.92	100.90	-288.29	545.38	784.63	720.55	64.08	12.245	
9,100.00	9,093.62	9,149.85	9,135.17	32.25	33.10	101.62	-289.08	541.98	782.51	718.09	64.43	12.146	
9,150.00	9,142.57	9,201.48	9,183.71	32.41	33.30	102.54	-289.86	538.63	781.40	716.62	64.78	12.062	
9,172.87	9,164.63	9,220.42	9,205.56	32.47	33.37	103.02	-290.21	537.12	781.27	716.34	64.93	12.033 CC, ES	
9,200.00	9,190.45	9,246.05	9,231.13	32.55	33.47	103.61	-290.62	535.36	781.46	716.35	65.11	12.002	
9,250.00	9,236.89	9,292.09	9,277.05	32.68	33.64	104.78	-291.36	532.19	782.95	717.50	65.44	11.964	
9,300.00	9,281.55	9,336.28	9,321.13	32.81	33.81	105.97	-292.07	529.15	786.13	720.36	65.77	11.953 SF	
9,350.00	9,324.07	9,378.30	9,363.04	32.92	33.97	107.11	-292.74	526.26	791.29	725.21	66.08	11.974	
9,400.00	9,364.15	9,417.81	9,402.45	33.02	34.11	108.13	-293.37	523.55	798.73	732.34	66.39	12.031	
9,450.00	9,401.47	9,454.52	9,439.07	33.11	34.25	108.93	-293.98	521.02	808.72	742.04	66.68	12.128	
9,500.00	9,435.75	9,488.15	9,472.62	33.19	34.38	109.43	-294.50	518.71	821.48	754.51	66.96	12.268	
9,550.00	9,466.73	9,518.44	9,502.83	33.26	34.50	109.57	-294.99	516.62	837.17	769.95	67.23	12.453	
9,600.00	9,494.18	9,545.16	9,529.49	33.42	34.60	109.26	-295.42	514.78	855.89	788.42	67.47	12.685	
9,650.00	9,517.88	9,568.12	9,552.39	33.59	34.68	108.42	-295.78	513.21	877.64	809.95	67.69	12.965	
9,700.00	9,537.65	9,587.13	9,571.35	33.78	34.75	106.98	-296.09	511.90	902.33	834.44	67.89	13.290	
9,750.00	9,553.35	9,602.04	9,586.23	33.98	34.81	104.86	-296.33	510.87	929.80	861.74	68.07	13.661	
9,800.00	9,564.85	9,612.76	9,596.92	34.19	34.85	101.99	-296.50	510.13	959.80	891.59	68.21	14.072	
9,850.00	9,572.06	9,619.19	9,603.33	34.41	34.88	98.33	-296.60	509.69	992.02	923.70	68.32	14.520	
9,900.00	9,574.94	9,621.28	9,605.42	34.65	34.88	93.86	-296.64	509.55	1,026.10	957.69	68.41	15.000	
9,950.00	9,575.00	9,620.56	9,604.70	34.91	34.88	93.02	-296.62	509.60	1,061.61	993.13	68.48	15.503	
10,000.00	9,575.00	9,619.78	9,603.92	35.18	34.88	92.96	-296.61	509.65	1,098.25	1,029.71	68.53	16.025	
10,050.00	9,575.00	9,619.00	9,603.15	35.48	34.88	92.90	-296.60	509.71	1,135.90	1,067.30	68.60	16.558	
10,100.00	9,575.00	9,618.22	9,602.37	35.79	34.87	92.84	-296.59	509.76	1,174.48	1,105.83	68.65	17.108	
10,150.00	9,575.00	9,617.45	9,601.59	36.15	34.87	92.78	-296.57	509.81	1,213.90	1,145.19	68.71	17.667	
10,200.00	9,575.00	9,616.67	9,600.82	36.50	34.87	92.72	-296.56	509.87	1,254.06	1,185.31	68.76	18.239	
10,250.00	9,575.00	9,615.89	9,600.04	36.90	34.86	92.66	-296.55	509.92	1,294.92	1,226.10	68.81	18.818	
10,300.00	9,575.00	9,615.11	9,599.26	37.29	34.86	92.59	-296.54	509.97	1,336.39	1,267.53	68.85	19.409	

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Flagler 8 Fed 39H
Project:	Lea County (NAD83 New Mexico East)	TVD Reference:	RKB @ 3471.80ft
Reference Site:	Sec 08-T25S-R33E	MD Reference:	RKB @ 3471.80ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Flagler 8 Fed 39H	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 Sec 08-T25S-R33E - Flagler 8 Fed 8H - Wellbore #1 - Permit Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-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		
10,350.00	9,575.00	9,614.33	9,598.49	37.73	34.86	92.53	-296.52	510.03	1,378.43	1,309.52	68.90	20.006		
10,400.00	9,575.00	9,613.55	9,597.71	38.16	34.85	92.47	-296.51	510.08	1,420.98	1,352.04	68.94	20.612		
10,450.00	9,575.00	9,612.77	9,596.93	38.64	34.85	92.41	-296.50	510.13	1,464.01	1,395.02	68.98	21.223		

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 08-T25S-R33E - Flagler Fed #1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 ft
Survey Program: 50-NS-Gyro-DP													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		
12,300.00	9,575.00	9,599.91	9,598.46	64.04	50.17	-94.42	4,226.98	-632.07	1,464.65	1,378.91	85.73	17.084		
12,350.00	9,575.00	9,598.80	9,597.35	64.86	50.16	-94.25	4,227.00	-632.07	1,416.41	1,330.43	85.98	16.474		
12,400.00	9,575.00	9,597.70	9,596.25	65.68	50.16	-94.09	4,227.02	-632.07	1,368.31	1,282.05	86.26	15.863		
12,450.00	9,575.00	9,596.59	9,595.14	66.51	50.15	-93.92	4,227.05	-632.06	1,320.34	1,233.77	86.57	15.252		
12,500.00	9,575.00	9,595.49	9,594.04	67.33	50.15	-93.76	4,227.07	-632.06	1,272.53	1,185.60	86.92	14.639		
12,550.00	9,575.00	9,594.38	9,592.93	68.17	50.14	-93.59	4,227.10	-632.05	1,224.89	1,137.56	87.33	14.026		
12,600.00	9,575.00	9,593.28	9,591.83	69.00	50.13	-93.42	4,227.12	-632.05	1,177.45	1,089.66	87.78	13.413		
12,650.00	9,575.00	9,592.18	9,590.73	69.84	50.13	-93.26	4,227.14	-632.04	1,130.22	1,041.92	88.30	12.799		
12,700.00	9,575.00	9,591.08	9,589.63	70.69	50.12	-93.09	4,227.17	-632.04	1,083.25	994.35	88.90	12.186		
12,750.00	9,575.00	9,589.98	9,588.53	71.53	50.12	-92.92	4,227.19	-632.03	1,036.55	946.98	89.57	11.572		
12,800.00	9,575.00	9,588.95	9,587.50	72.38	50.11	-92.77	4,227.21	-632.03	990.18	899.84	90.35	10.960		
12,850.00	9,575.00	9,587.92	9,586.47	73.23	50.11	-92.61	4,227.24	-632.02	944.18	852.95	91.23	10.349		
12,900.00	9,575.00	9,586.88	9,585.44	74.08	50.10	-92.46	4,227.26	-632.02	898.60	806.35	92.25	9.741		
12,950.00	9,575.00	9,585.85	9,584.40	74.94	50.10	-92.30	4,227.28	-632.02	853.52	760.10	93.42	9.136		
13,000.00	9,575.00	9,584.81	9,583.36	75.80	50.09	-92.14	4,227.30	-632.01	809.01	714.24	94.77	8.537		
13,050.00	9,575.00	9,583.76	9,582.32	76.66	50.08	-91.99	4,227.33	-632.01	765.19	668.86	96.32	7.944		
13,100.00	9,575.00	9,582.72	9,581.27	77.52	50.08	-91.83	4,227.35	-632.00	722.16	624.05	98.11	7.361		
13,150.00	9,575.00	9,581.67	9,580.22	78.39	50.07	-91.67	4,227.37	-632.00	680.08	579.92	100.16	6.790		
13,200.00	9,575.00	9,580.70	9,579.25	79.26	50.07	-91.52	4,227.39	-632.00	639.15	536.62	102.53	6.234		
13,250.00	9,575.00	9,579.51	9,578.06	80.13	50.06	-91.34	4,227.42	-631.99	599.59	494.36	105.23	5.698		
13,300.00	9,575.00	9,578.33	9,576.88	81.00	50.06	-91.16	4,227.45	-631.99	561.69	453.40	108.30	5.187		
13,350.00	9,575.00	9,577.15	9,575.71	81.87	50.05	-90.99	4,227.47	-631.98	525.82	414.08	111.75	4.705 Alert		
13,400.00	9,575.00	9,575.99	9,574.55	82.75	50.04	-90.81	4,227.50	-631.98	492.42	376.85	115.57	4.261 Alert		
13,450.00	9,575.00	9,574.84	9,573.39	83.63	50.04	-90.64	4,227.52	-631.98	462.02	342.32	119.71	3.860 Alert		
13,500.00	9,575.00	9,573.69	9,572.25	84.51	50.03	-90.46	4,227.55	-631.97	435.26	311.23	124.03	3.509 Alert		
13,550.00	9,575.00	9,572.56	9,571.11	85.39	50.03	-90.29	4,227.57	-631.97	412.83	284.51	128.32	3.217 Alert		
13,600.00	9,575.00	9,571.43	9,569.99	86.27	50.02	-90.12	4,227.60	-631.96	395.48	263.19	132.29	2.989 Alert		
13,650.00	9,575.00	9,570.31	9,568.87	87.16	50.01	-89.95	4,227.62	-631.96	383.91	248.33	135.57	2.832 Alert		
13,700.00	9,575.00	9,569.24	9,567.80	88.04	50.01	-89.79	4,227.64	-631.95	378.63	240.80	137.83	2.747 Alert		
13,715.28	9,575.00	9,568.92	9,567.48	88.31	50.01	-89.74	4,227.65	-631.95	378.32	240.05	138.27	2.736 Alert, CC, ES, SF		
13,750.00	9,575.00	9,568.19	9,566.75	88.93	50.00	-89.63	4,227.67	-631.95	379.91	241.08	138.82	2.737 Alert		
13,800.00	9,575.00	9,567.14	9,565.70	89.82	50.00	-89.47	4,227.69	-631.94	387.68	249.15	138.53	2.799 Alert		
13,850.00	9,575.00	9,566.10	9,564.65	90.71	49.99	-89.31	4,227.71	-631.94	401.58	264.47	137.11	2.829 Alert		
13,900.00	9,575.00	9,565.05	9,563.61	91.60	49.99	-89.15	4,227.73	-631.93	420.99	286.14	134.85	3.122 Alert		
13,950.00	9,575.00	9,564.00	9,562.56	92.49	49.98	-88.99	4,227.76	-631.93	445.19	313.13	132.06	3.371 Alert		
14,000.00	9,575.00	9,562.96	9,561.51	93.39	49.97	-88.84	4,227.78	-631.93	473.45	344.42	129.02	3.669 Alert		
14,050.00	9,575.00	9,561.91	9,560.47	94.29	49.97	-88.68	4,227.80	-631.92	505.08	379.14	125.95	4.010 Alert		
14,100.00	9,575.00	9,560.87	9,559.43	95.18	49.96	-88.52	4,227.82	-631.92	539.51	416.54	122.97	4.387 Alert		
14,150.00	9,575.00	9,559.83	9,558.39	96.08	49.96	-88.36	4,227.84	-631.91	576.21	456.05	120.16	4.795 Alert		
14,200.00	9,575.00	9,558.79	9,557.35	96.98	49.95	-88.21	4,227.87	-631.91	614.79	497.22	117.57	5.229		
14,250.00	9,575.00	9,557.76	9,556.32	97.88	49.95	-88.05	4,227.89	-631.90	654.92	539.71	115.21	5.685		
14,300.00	9,575.00	9,556.73	9,555.29	98.78	49.94	-87.89	4,227.91	-631.90	696.32	583.26	113.07	6.159		
14,350.00	9,575.00	9,555.71	9,554.27	99.69	49.94	-87.74	4,227.93	-631.90	738.79	627.66	111.13	6.648		
14,362.84	9,575.00	9,555.45	9,554.01	99.92	49.94	-87.70	4,227.94	-631.89	749.85	639.18	110.67	6.776		

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

Anticollision Report

Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

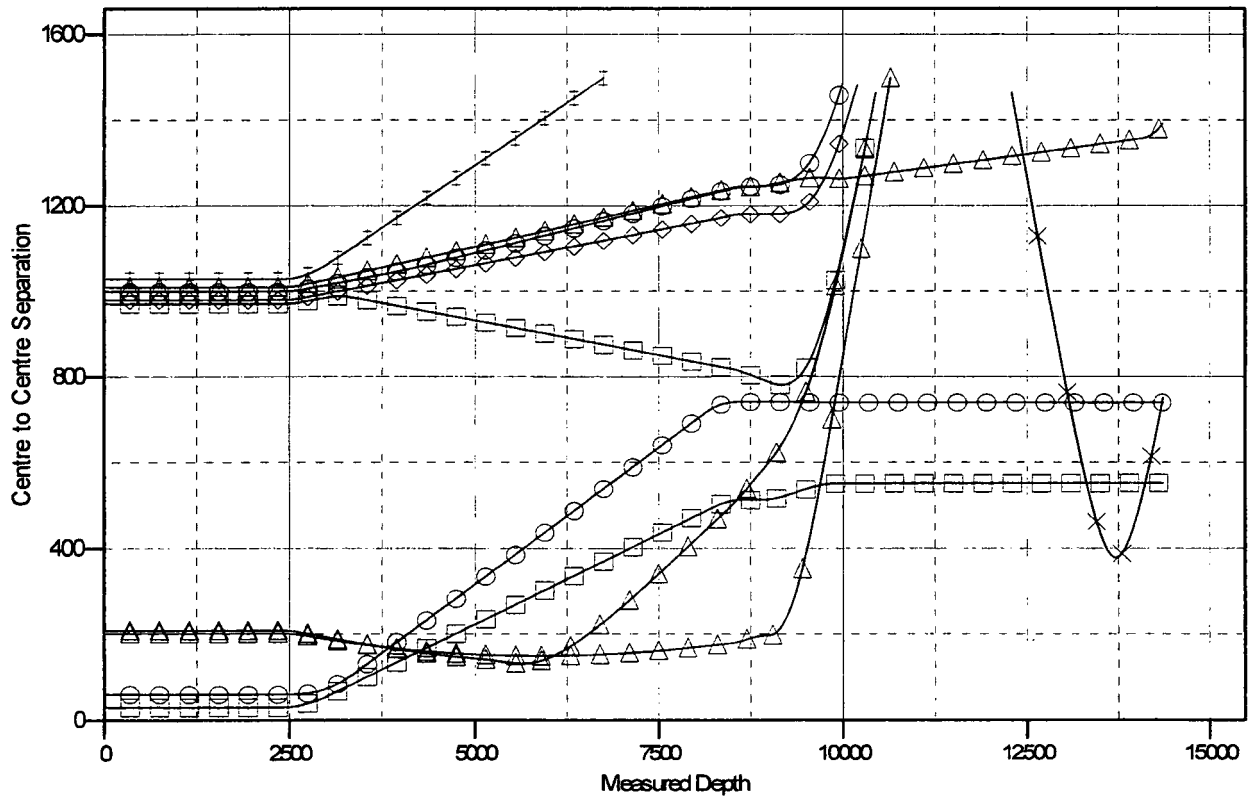
Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Output errors are at
Database:
Offset TVD Reference:

Well Flagler 8 Fed 39H
RKB @ 3471.80ft
RKB @ 3471.80ft
Grid
Minimum Curvature
2.00 sigma
EDM r5000.141_Prod US
Offset Datum

Reference Depths are relative to RKB @ 3471.80ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -104.333334

Coordinates are relative to: Flagler 8 Fed 39H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.39°

Ladder Plot



LEGEND

Flagler 8 Fed 40H, Wellbore #1, Permit Plan 1 VO
 Flagler 8 Fed 8H, Wellbore #1, Permit Plan 1 VO
 Flagler 8 Fed 4H, Wellbore #1, Permit Plan 2 VO
 Flagler 8 Fed 12H, Wellbore #1, Permit Plan 3 VO
 Flagler 8 Fed 3H, Wellbore #1, Permit Plan 1 VO
 Flagler 8 Fed 25H, Wellbore #1, Permit Plan 2 VO
 Flagler 8 Fed 35H, Wellbore #1, Permit Plan 2 VO
 Flagler 8 Fed 16H, Wellbore #1, Permit Plan 1 VO
 Flagler 8 Fed 7H, Wellbore #1, Permit Plan 1 VO
 Flagler Fed #1, Wellbore #1, Wellbore #1 VO

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

Anticollision Report

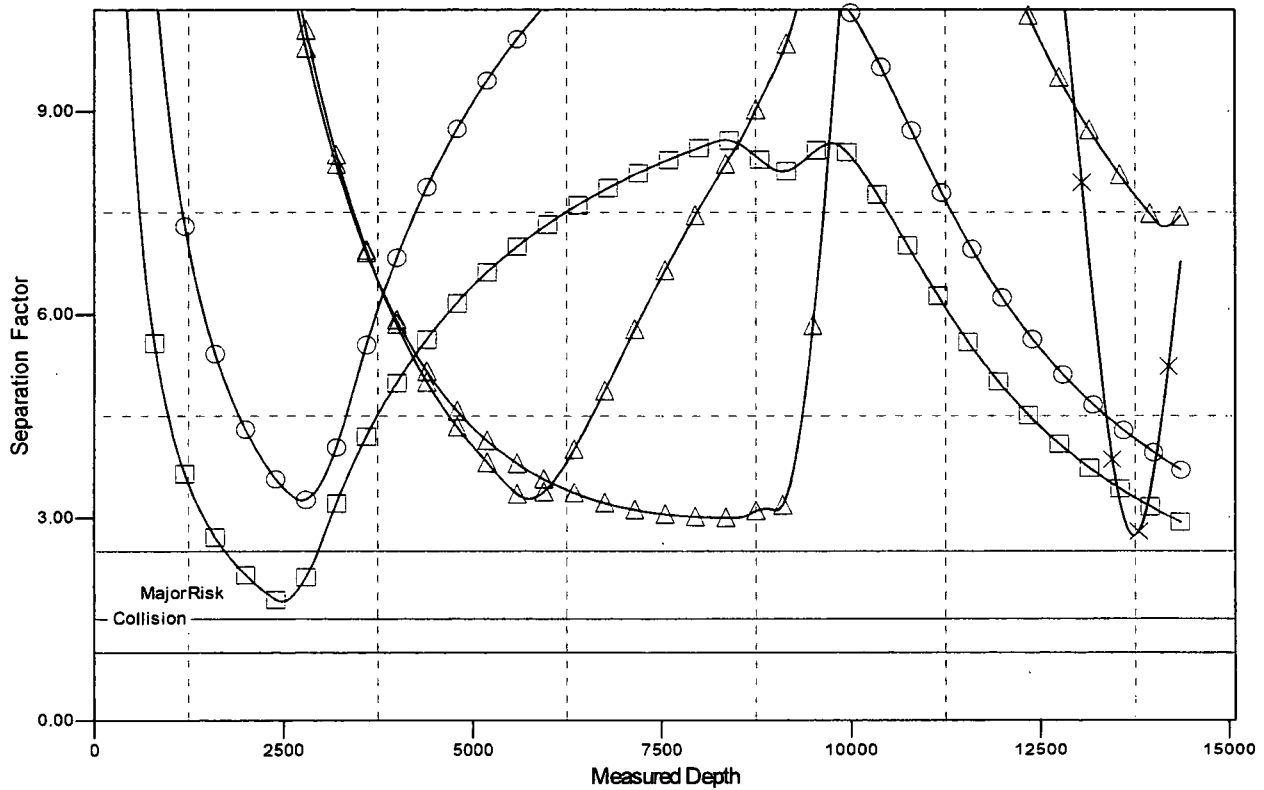
Company: WCDSC Permian NM
Project: Lea County (NAD83 New Mexico East)
Reference Site: Sec 08-T25S-R33E
Site Error: 0.00 ft
Reference Well: Flagler 8 Fed 39H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
TVD Reference: RKB @ 3471.80ft
MD Reference: RKB @ 3471.80ft
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 @ 3471.80ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -104.333334

Coordinates are relative to: Flagler 8 Fed 39H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.39°

Separation Factor Plot



LEGEND

Flagler 8 Fed 40H, Wellbore #1, Permit Plan 1 V0
 Flagler 8 Fed 8H, Wellbore #1, Permit Plan 1 V0
 Flagler 8 Fed 4H, Wellbore #1, Permit Plan 2 V0
 Flagler 8 Fed 12H, Wellbore #1, Permit Plan 3 V0
 Flagler 8 Fed 3H, Wellbore #1, Permit Plan 1 V0
 Flagler 8 Fed 25H, Wellbore #1, Permit Plan 2 V0
 Flagler 8 Fed 36H, Wellbore #1, Permit Plan 2 V0
 Flagler 8 Fed 16H, Wellbore #1, Permit Plan 1 V0
 Flagler 8 Fed 7H, Wellbore #1, Permit Plan 1 V0
 Flagler Fed #1, Wellbore #1, Wellbore #1 V0

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

WCDSC Permian NM

Lea County (NAD83 New Mexico East)

Sec 08-T25S-R33E

Flagler 8 Fed 39H

Wellbore #1

Plan: Permit Plan 2

Standard Planning Report - Geographic

31 October, 2018

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Flagler 8 Fed 39H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3471.80ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3471.80ft
Site:	Sec 08-T25S-R33E	North Reference:	Grid
Well:	Flagler 8 Fed 39H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 2		

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

Site	Sec 08-T25S-R33E			
Site Position:		Northing:	419,281.82 usft	Latitude: 32.150539
From:	Map	Easting:	769,381.69 usft	Longitude: -103.596481
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence: 0.39 °

Well	Flagler 8 Fed 39H			
Well Position	+N/-S	0.00 ft	Northing: 415,051.47 usft	Latitude: 32.138899
	+E/-W	0.00 ft	Easting: 770,012.60 usft	Longitude: -103.594537
Position Uncertainty		0.50 ft	Wellhead Elevation:	Ground Level: 3,446.80 ft

Wellbore	Wellbore #1					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength	
			(°)	(°)	(nT)	
	IGRF2015	2/27/2018	6.88	59.97	47,813.18451948	

Design	Permit Plan 2				
Audit Notes:					
Version:		Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:		Depth From (TVD)	+N/-S	+E/-W	Direction
		(ft)	(ft)	(ft)	(°)
		0.00	0.00	0.00	356.97

Plan Survey Tool Program	Date 10/31/2018				
Depth From	Depth To	Survey (Wellbore)	Tool Name	Remarks	
(ft)	(ft)				
1	0.00	14,362.84 Permit Plan 2 (Wellbore #1)	MWD+IGRF		
			OWSG MWD + IGRF or WMM		

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(ft)			(ft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,656.42	2.56	236.31	2,656.34	-3.18	-4.77	1.00	1.00	0.00	236.31	
8,487.03	2.56	236.31	8,481.11	-147.88	-221.82	0.00	0.00	0.00	0.00	
8,657.98	0.00	0.00	8,652.00	-150.00	-225.00	1.50	-1.50	0.00	180.00	
9,008.02	0.00	0.00	9,002.04	-150.00	-225.00	0.00	0.00	0.00	0.00	
9,908.02	90.00	359.63	9,575.00	422.95	-228.75	10.00	10.00	0.00	359.63	PBHL - Flagler Fed 39
14,362.84	90.00	359.63	9,575.00	4,877.67	-257.88	0.00	0.00	0.00	0.00	PBHL - Flagler Fed 39

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 Company: WCDSC Permian NM
 Project: Lea County (NAD83 New Mexico East)
 Site: Sec 08-T25S-R33E
 Well: Flagler 8 Fed 39H
 Wellbore: Wellbore #1
 Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
 TVD Reference: RKB @ 3471.80ft
 MD Reference: RKB @ 3471.80ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
100.00	0.00	0.00	100.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
200.00	0.00	0.00	200.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
300.00	0.00	0.00	300.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
400.00	0.00	0.00	400.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
500.00	0.00	0.00	500.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
600.00	0.00	0.00	600.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
700.00	0.00	0.00	700.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
800.00	0.00	0.00	800.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
900.00	0.00	0.00	900.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
1,000.00	0.00	0.00	1,000.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
1,100.00	0.00	0.00	1,100.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
1,200.00	0.00	0.00	1,200.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
1,300.00	0.00	0.00	1,300.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
1,400.00	0.00	0.00	1,400.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
1,500.00	0.00	0.00	1,500.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
1,600.00	0.00	0.00	1,600.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
1,700.00	0.00	0.00	1,700.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
1,800.00	0.00	0.00	1,800.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
1,900.00	0.00	0.00	1,900.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
2,000.00	0.00	0.00	2,000.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
2,100.00	0.00	0.00	2,100.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
2,200.00	0.00	0.00	2,200.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
2,300.00	0.00	0.00	2,300.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
2,400.00	0.00	0.00	2,400.00	0.00	0.00	415,051.47	770,012.60	32.138899	-103.594537
2,500.00	1.00	236.31	2,499.99	-0.48	-0.73	415,050.99	770,011.87	32.138898	-103.594539
2,600.00	2.00	236.31	2,599.96	-1.94	-2.90	415,049.53	770,009.69	32.138894	-103.594546
2,656.42	2.56	236.31	2,656.34	-3.18	-4.77	415,048.29	770,007.82	32.138891	-103.594552
2,700.00	2.56	236.31	2,699.87	-4.26	-6.40	415,047.21	770,006.20	32.138888	-103.594557
2,800.00	2.56	236.31	2,799.77	-6.75	-10.12	415,044.72	770,002.48	32.138881	-103.594569
2,900.00	2.56	236.31	2,899.67	-9.23	-13.84	415,042.24	769,998.76	32.138874	-103.594582
3,000.00	2.56	236.31	2,999.57	-11.71	-17.56	415,039.76	769,995.03	32.138867	-103.594594
3,100.00	2.56	236.31	3,099.47	-14.19	-21.29	415,037.28	769,991.31	32.138861	-103.594606
3,200.00	2.56	236.31	3,199.37	-16.67	-25.01	415,034.80	769,987.59	32.138854	-103.594618
3,300.00	2.56	236.31	3,299.27	-19.15	-28.73	415,032.32	769,983.87	32.138847	-103.594630
3,400.00	2.56	236.31	3,399.17	-21.64	-32.45	415,029.83	769,980.14	32.138840	-103.594642
3,500.00	2.56	236.31	3,499.07	-24.12	-36.18	415,027.35	769,976.42	32.138834	-103.594654
3,600.00	2.56	236.31	3,598.97	-26.60	-39.90	415,024.87	769,972.70	32.138827	-103.594666
3,700.00	2.56	236.31	3,698.87	-29.08	-43.62	415,022.39	769,968.98	32.138820	-103.594678
3,800.00	2.56	236.31	3,798.77	-31.56	-47.34	415,019.91	769,965.25	32.138813	-103.594690
3,900.00	2.56	236.31	3,898.67	-34.04	-51.07	415,017.43	769,961.53	32.138807	-103.594702
4,000.00	2.56	236.31	3,998.57	-36.53	-54.79	415,014.94	769,957.81	32.138800	-103.594714
4,100.00	2.56	236.31	4,098.47	-39.01	-58.51	415,012.46	769,954.09	32.138793	-103.594726
4,200.00	2.56	236.31	4,198.37	-41.49	-62.23	415,009.98	769,950.36	32.138786	-103.594739
4,300.00	2.56	236.31	4,298.27	-43.97	-65.96	415,007.50	769,946.64	32.138780	-103.594751
4,400.00	2.56	236.31	4,398.17	-46.45	-69.68	415,005.02	769,942.92	32.138773	-103.594763
4,500.00	2.56	236.31	4,498.07	-48.93	-73.40	415,002.54	769,939.20	32.138766	-103.594775
4,600.00	2.56	236.31	4,597.97	-51.42	-77.12	415,000.05	769,935.47	32.138759	-103.594787
4,700.00	2.56	236.31	4,697.87	-53.90	-80.85	414,997.57	769,931.75	32.138753	-103.594799
4,800.00	2.56	236.31	4,797.77	-56.38	-84.57	414,995.09	769,928.03	32.138746	-103.594811
4,900.00	2.56	236.31	4,897.67	-58.86	-88.29	414,992.61	769,924.31	32.138739	-103.594823
5,000.00	2.56	236.31	4,997.57	-61.34	-92.01	414,990.13	769,920.58	32.138732	-103.594835
5,100.00	2.56	236.31	5,097.47	-63.82	-95.74	414,987.65	769,916.86	32.138726	-103.594847
5,200.00	2.56	236.31	5,197.37	-66.31	-99.46	414,985.16	769,913.14	32.138719	-103.594859
5,300.00	2.56	236.31	5,297.27	-68.79	-103.18	414,982.68	769,909.42	32.138712	-103.594871

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Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,400.00	2.56	236.31	5,397.17	-71.27	-106.90	414,980.20	769,905.69	32.138705	-103.594884
5,500.00	2.56	236.31	5,497.07	-73.75	-110.63	414,977.72	769,901.97	32.138699	-103.594896
5,600.00	2.56	236.31	5,596.97	-76.23	-114.35	414,975.24	769,898.25	32.138692	-103.594908
5,700.00	2.56	236.31	5,696.87	-78.71	-118.07	414,972.76	769,894.53	32.138685	-103.594920
5,800.00	2.56	236.31	5,796.77	-81.20	-121.79	414,970.27	769,890.80	32.138678	-103.594932
5,900.00	2.56	236.31	5,896.67	-83.68	-125.52	414,967.79	769,887.08	32.138672	-103.594944
6,000.00	2.56	236.31	5,996.57	-86.16	-129.24	414,965.31	769,883.36	32.138665	-103.594956
6,100.00	2.56	236.31	6,096.47	-88.64	-132.96	414,962.83	769,879.64	32.138658	-103.594968
6,200.00	2.56	236.31	6,196.37	-91.12	-136.68	414,960.35	769,875.91	32.138651	-103.594980
6,300.00	2.56	236.31	6,296.27	-93.60	-140.41	414,957.87	769,872.19	32.138645	-103.594992
6,400.00	2.56	236.31	6,396.17	-96.09	-144.13	414,955.38	769,868.47	32.138638	-103.595004
6,500.00	2.56	236.31	6,496.07	-98.57	-147.85	414,952.90	769,864.75	32.138631	-103.595016
6,600.00	2.56	236.31	6,595.97	-101.05	-151.57	414,950.42	769,861.02	32.138624	-103.595028
6,700.00	2.56	236.31	6,695.87	-103.53	-155.30	414,947.94	769,857.30	32.138618	-103.595041
6,800.00	2.56	236.31	6,795.77	-106.01	-159.02	414,945.46	769,853.58	32.138611	-103.595053
6,900.00	2.56	236.31	6,895.67	-108.49	-162.74	414,942.98	769,849.86	32.138604	-103.595065
7,000.00	2.56	236.31	6,995.57	-110.98	-166.46	414,940.49	769,846.13	32.138597	-103.595077
7,100.00	2.56	236.31	7,095.47	-113.46	-170.19	414,938.01	769,842.41	32.138591	-103.595089
7,200.00	2.56	236.31	7,195.37	-115.94	-173.91	414,935.53	769,838.69	32.138584	-103.595101
7,300.00	2.56	236.31	7,295.27	-118.42	-177.63	414,933.05	769,834.97	32.138577	-103.595113
7,400.00	2.56	236.31	7,395.16	-120.90	-181.35	414,930.57	769,831.24	32.138570	-103.595125
7,500.00	2.56	236.31	7,495.06	-123.38	-185.08	414,928.09	769,827.52	32.138564	-103.595137
7,600.00	2.56	236.31	7,594.96	-125.87	-188.80	414,925.60	769,823.80	32.138557	-103.595149
7,700.00	2.56	236.31	7,694.86	-128.35	-192.52	414,923.12	769,820.08	32.138550	-103.595161
7,800.00	2.56	236.31	7,794.76	-130.83	-196.24	414,920.64	769,816.35	32.138543	-103.595173
7,900.00	2.56	236.31	7,894.66	-133.31	-199.97	414,918.16	769,812.63	32.138537	-103.595186
8,000.00	2.56	236.31	7,994.56	-135.79	-203.69	414,915.68	769,808.91	32.138530	-103.595198
8,100.00	2.56	236.31	8,094.46	-138.27	-207.41	414,913.20	769,805.19	32.138523	-103.595210
8,200.00	2.56	236.31	8,194.36	-140.76	-211.13	414,910.71	769,801.46	32.138516	-103.595222
8,300.00	2.56	236.31	8,294.26	-143.24	-214.86	414,908.23	769,797.74	32.138510	-103.595234
8,400.00	2.56	236.31	8,394.16	-145.72	-218.58	414,905.75	769,794.02	32.138503	-103.595246
8,487.03	2.56	236.31	8,481.11	-147.88	-221.82	414,903.59	769,790.78	32.138497	-103.595256
8,500.00	2.37	236.31	8,494.06	-148.19	-222.28	414,903.28	769,790.32	32.138496	-103.595258
8,600.00	0.87	236.31	8,594.02	-149.76	-224.63	414,901.71	769,787.96	32.138492	-103.595266
8,657.98	0.00	0.00	8,652.00	-150.00	-225.00	414,901.47	769,787.60	32.138491	-103.595267
8,700.00	0.00	0.00	8,694.02	-150.00	-225.00	414,901.47	769,787.60	32.138491	-103.595267
8,800.00	0.00	0.00	8,794.02	-150.00	-225.00	414,901.47	769,787.60	32.138491	-103.595267
8,900.00	0.00	0.00	8,894.02	-150.00	-225.00	414,901.47	769,787.60	32.138491	-103.595267
9,000.00	0.00	0.00	8,994.02	-150.00	-225.00	414,901.47	769,787.60	32.138491	-103.595267
9,008.02	0.00	0.00	9,002.04	-150.00	-225.00	414,901.47	769,787.60	32.138491	-103.595267
KOP & FTP @ 9008' MD, 230' FSL, 2345' FWL									
9,100.00	9.20	359.63	9,093.62	-142.63	-225.05	414,908.84	769,787.55	32.138511	-103.595267
9,200.00	19.20	359.63	9,190.45	-118.14	-225.21	414,933.33	769,787.39	32.138579	-103.595267
9,300.00	29.20	359.63	9,281.55	-77.20	-225.48	414,974.27	769,787.12	32.138691	-103.595267
9,400.00	39.20	359.63	9,364.15	-21.07	-225.84	415,030.40	769,786.75	32.138846	-103.595267
9,500.00	49.20	359.63	9,435.75	48.56	-226.30	415,100.02	769,786.30	32.139037	-103.595267
9,600.00	59.20	359.63	9,494.18	129.55	-226.83	415,181.02	769,785.77	32.139260	-103.595267
9,700.00	69.20	359.63	9,537.65	219.47	-227.42	415,270.94	769,785.18	32.139507	-103.595266
9,800.00	79.20	359.63	9,564.85	315.57	-228.04	415,367.03	769,784.55	32.139771	-103.595266
9,900.00	89.20	359.63	9,574.94	414.92	-228.69	415,466.39	769,783.90	32.140044	-103.595266
9,908.02	90.00	359.63	9,575.00	422.95	-228.75	415,474.42	769,783.85	32.140066	-103.595266
10,000.00	90.00	359.63	9,575.00	514.92	-229.35	415,566.39	769,783.25	32.140319	-103.595266
10,100.00	90.00	359.63	9,575.00	614.92	-230.00	415,666.39	769,782.60	32.140594	-103.595266
10,200.00	90.00	359.63	9,575.00	714.92	-230.66	415,766.39	769,781.94	32.140869	-103.595266

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 Wellbore: Wellbore #1
 Design: Permit Plan 2

Local Co-ordinate Reference: Well Flagler 8 Fed 39H
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 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,300.00	90.00	359.63	9,575.00	814.92	-231.31	415,866.38	769,781.29	32.141144	-103.595266
10,400.00	90.00	359.63	9,575.00	914.91	-231.96	415,966.38	769,780.63	32.141418	-103.595266
10,500.00	90.00	359.63	9,575.00	1,014.91	-232.62	416,066.38	769,779.98	32.141693	-103.595266
10,600.00	90.00	359.63	9,575.00	1,114.91	-233.27	416,166.38	769,779.33	32.141968	-103.595266
10,700.00	90.00	359.63	9,575.00	1,214.91	-233.93	416,266.37	769,778.67	32.142243	-103.595265
10,800.00	90.00	359.63	9,575.00	1,314.91	-234.58	416,366.37	769,778.02	32.142518	-103.595265
10,900.00	90.00	359.63	9,575.00	1,414.90	-235.23	416,466.37	769,777.36	32.142793	-103.595265
11,000.00	90.00	359.63	9,575.00	1,514.90	-235.89	416,566.37	769,776.71	32.143068	-103.595265
11,100.00	90.00	359.63	9,575.00	1,614.90	-236.54	416,666.36	769,776.06	32.143343	-103.595265
11,200.00	90.00	359.63	9,575.00	1,714.90	-237.20	416,766.36	769,775.40	32.143617	-103.595265
11,300.00	90.00	359.63	9,575.00	1,814.89	-237.85	416,866.36	769,774.75	32.143892	-103.595265
11,400.00	90.00	359.63	9,575.00	1,914.89	-238.50	416,966.36	769,774.09	32.144167	-103.595265
11,500.00	90.00	359.63	9,575.00	2,014.89	-239.16	417,066.36	769,773.44	32.144442	-103.595265
11,600.00	90.00	359.63	9,575.00	2,114.89	-239.81	417,166.35	769,772.79	32.144717	-103.595264
11,700.00	90.00	359.63	9,575.00	2,214.89	-240.47	417,266.35	769,772.13	32.144992	-103.595264
11,800.00	90.00	359.63	9,575.00	2,314.88	-241.12	417,366.35	769,771.48	32.145267	-103.595264
11,900.00	90.00	359.63	9,575.00	2,414.88	-241.77	417,466.35	769,770.82	32.145542	-103.595264
12,000.00	90.00	359.63	9,575.00	2,514.88	-242.43	417,566.34	769,770.17	32.145816	-103.595264
12,100.00	90.00	359.63	9,575.00	2,614.88	-243.08	417,666.34	769,769.52	32.146091	-103.595264
12,200.00	90.00	359.63	9,575.00	2,714.88	-243.74	417,766.34	769,768.86	32.146366	-103.595264
12,300.00	90.00	359.63	9,575.00	2,814.87	-244.39	417,866.34	769,768.21	32.146641	-103.595264
12,400.00	90.00	359.63	9,575.00	2,914.87	-245.04	417,966.33	769,767.55	32.146916	-103.595264
12,500.00	90.00	359.63	9,575.00	3,014.87	-245.70	418,066.33	769,766.90	32.147191	-103.595264
12,600.00	90.00	359.63	9,575.00	3,114.87	-246.35	418,166.33	769,766.25	32.147466	-103.595263
12,700.00	90.00	359.63	9,575.00	3,214.86	-247.01	418,266.33	769,765.59	32.147741	-103.595263
12,800.00	90.00	359.63	9,575.00	3,314.86	-247.66	418,366.33	769,764.94	32.148015	-103.595263
12,900.00	90.00	359.63	9,575.00	3,414.86	-248.31	418,466.32	769,764.28	32.148290	-103.595263
13,000.00	90.00	359.63	9,575.00	3,514.86	-248.97	418,566.32	769,763.63	32.148565	-103.595263
13,100.00	90.00	359.63	9,575.00	3,614.86	-249.62	418,666.32	769,762.98	32.148840	-103.595263
13,200.00	90.00	359.63	9,575.00	3,714.85	-250.28	418,766.32	769,762.32	32.149115	-103.595263
13,300.00	90.00	359.63	9,575.00	3,814.85	-250.93	418,866.31	769,761.67	32.149390	-103.595263
13,400.00	90.00	359.63	9,575.00	3,914.85	-251.58	418,966.31	769,761.01	32.149665	-103.595263
13,500.00	90.00	359.63	9,575.00	4,014.85	-252.24	419,066.31	769,760.36	32.149940	-103.595263
13,600.00	90.00	359.63	9,575.00	4,114.85	-252.89	419,166.31	769,759.71	32.150214	-103.595262
13,700.00	90.00	359.63	9,575.00	4,214.84	-253.55	419,266.30	769,759.05	32.150489	-103.595262
13,800.00	90.00	359.63	9,575.00	4,314.84	-254.20	419,366.30	769,758.40	32.150764	-103.595262
13,900.00	90.00	359.63	9,575.00	4,414.84	-254.85	419,466.30	769,757.74	32.151039	-103.595262
14,000.00	90.00	359.63	9,575.00	4,514.84	-255.51	419,566.30	769,757.09	32.151314	-103.595262
14,100.00	90.00	359.63	9,575.00	4,614.83	-256.16	419,666.29	769,756.44	32.151589	-103.595262
14,200.00	90.00	359.63	9,575.00	4,714.83	-256.82	419,766.29	769,755.78	32.151864	-103.595262
14,282.84	90.00	359.63	9,575.00	4,797.67	-257.36	419,849.13	769,755.24	32.152091	-103.595262
LTP @ 14282' MD, 100' FNL, 2345' FWL									
14,300.00	90.00	359.63	9,575.00	4,814.83	-257.47	419,866.29	769,755.13	32.152139	-103.595262
14,362.84	90.00	359.63	9,575.00	4,877.67	-257.88	419,929.13	769,754.72	32.152311	-103.595262
PBHL; 20' FNL, 2345' FWL									

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Flagler 8 Fed 39H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3471.80ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3471.80ft
Site:	Sec 08-T25S-R33E	North Reference:	Grid
Well:	Flagler 8 Fed 39H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 2		

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL - Flagler 8 Fed 39 - plan misses target center by 4580.33ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	4,573.07	257.79	419,624.53	770,270.38	32.151464	-103.593602
PBHL - Flagler Fed 39H - plan misses target center by 4884.48ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	4,877.67	-257.88	419,929.13	769,754.72	32.152311	-103.595262
PBHL - Flagler 39H (fool - plan misses target center by 4580.33ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	4,573.07	257.79	419,624.53	770,270.38	32.151464	-103.593602
Original VP - Flagler 39H - plan misses target center by 61.41ft at 8304.82ft MD (8299.07 TVD, -143.36 N, -215.03 E) - Point	0.00	0.00	8,300.00	-180.00	-165.77	414,871.47	769,846.83	32.138408	-103.595076
Vertical Point - Flagler 8 - plan misses target center by 501.68ft at 8287.96ft MD (8282.23 TVD, -142.94 N, -214.41 E) - Point	0.00	0.00	8,300.00	-177.95	285.73	414,873.52	770,298.33	32.138405	-103.593617
Flagler 8 Fed 39H - VP (- plan misses target center by 250.10ft at 8397.45ft MD (8391.62 TVD, -145.66 N, -218.48 E) - Point	0.00	0.00	8,400.00	-179.61	29.16	414,871.86	770,041.76	32.138405	-103.594446

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
9,008.02	9,002.04	-150.00	-225.00	KOP & FTP @ 9008' MD, 230' FSL, 2345' FWL
14,282.84	9,575.00	4,797.67	-257.36	LTP @ 14282' MD, 100' FNL, 2345' FWL
14,362.84	9,575.00	4,877.67	-257.88	PBHL; 20' FNL, 2345' FWL

WCDSC Permian NM

WELL DETAILS: Flagler 8 Fed 39H

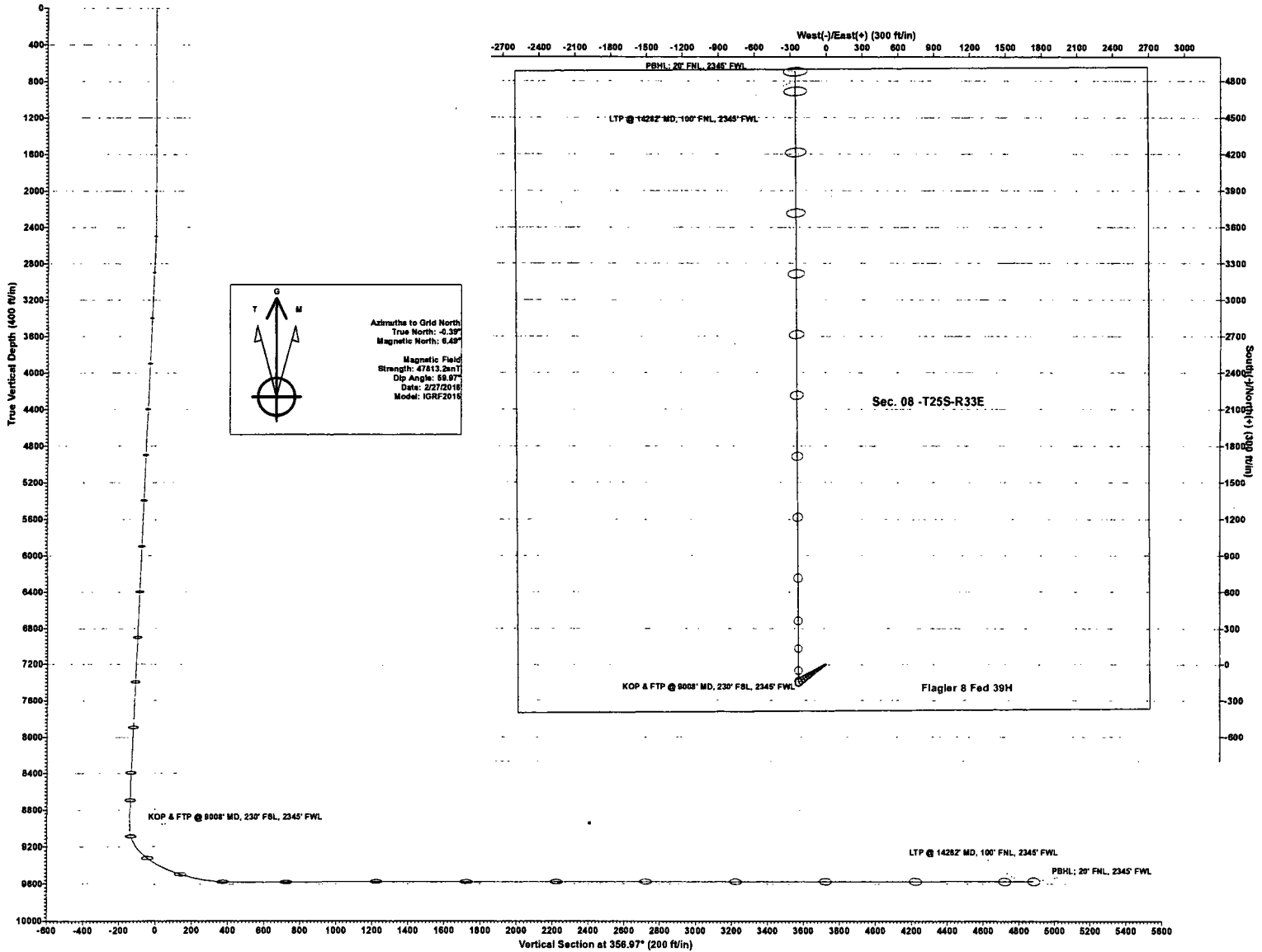
RKB @ 3471.80ft
3446.80

Northing 415051.47 Easting 770012.80 Latitude 32.138899 Longitude -103.594536

SECTION DETAILS Permit Plan 2

MD	Inc	Azi	TVD	+N-S	+E-W	Diag	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	
2856.42	2.56	236.31	2856.34	-3.18	-4.77	1.00	-2.93	
8487.03	2.56	236.31	8481.11	-147.88	-221.82	0.00	-135.06	
8657.98	0.00	0.00	8652.00	-150.00	-225.00	1.50	-137.91	
9008.02	0.00	0.00	9002.04	-150.00	-225.00	0.00	-137.91	KOP & FTP @ 9008' MD, 230' FSL, 2345' FWL
9908.02	90.00	359.63	9575.00	422.95	-228.75	10.00	434.43	
14362.84	90.00	359.63	9575.00	4877.67	-257.88	0.00	4884.48	PBHL: 20' FNL, 2345' FWL

devon



Devon Energy, Flagler 8 Fed 39H

1. Geologic Formations

TVD of target	9,575	Pilot hole depth	N/A
MD at TD:	14,362'	Deepest expected fresh water:	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
RUSTLER	1145		
TOP SALT	1508		
BASE OF SALT	5000		
BELL CANYON	5000		
CHERRY CANYON	6040		
BRUSHY CANYON	7690		
BONE SPRING	9110		
BONE SPRING 1ST	10016		
BONE SPRING 2ND	10610		

*H2S, water flows, loss of circulation, abnormal pressures, etc.

Devon Energy, Flagler 8 Fed 39H

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	1,150'	13.375"	48	H40	STC	1.125	1.25	1.6
12.25"	0	5,000'	9.625"	40	J55	LTC	1.125	1.25	1.6
8.75"	0	14,362'	5.5"	17	P110	BTC	1.125	1.25	1.6
BLM Minimum Safety Factor							1.125	1.25	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Devon Energy, Flagler 8 Fed 39H

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft ³ /sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	901	14.8	1.33	6.32	6	Lead: Class C Cement + 0.125 lbs/sack Poly-F-Flake
Inter.	511	10.3	3.65	22.06	24	Lead: (50:50) Poz (Silica) 3 lbm/sk Kol-Seal, .125 lbm/sk Poly-E-Flake
	306	14.8	1.33	6.32	6	Tail: Class C Cement + 0.125 lbs/sack Poly-F-Flake
Prod.	426	9	3.27	13.5	21	Lead: Tuned Light Cement
	1222	14.5	1.2	5.31	25	Tail: (50:50) Clas H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite

Casing String	TOC	% Excess
13-3/8" Surface	0'	50%
9-5/8" Intermediate	0'	30%
5-1/2" Production	4800'	25%

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
---	--

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	3M	Annular	x	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		
8-3/4"	13-5/8"	3M	Annular	x	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		
			Annular		
			Blind Ram		

Devon Energy, Flagler 8 Fed 39H

		Pipe Ram			
		Double Ram			
		Other *			

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
Y	Are anchors required by manufacturer?
Y	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. Devon proposes using a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi. - Wellhead will be installed by wellhead representatives. - If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal. - Wellhead representative will install the test plug for the initial BOP test. - Wellhead company will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the packoff, the pack-off and the lower flange will be tested to 3M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time.

Devon Energy, Flagler 8 Fed 39H

○ If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted. ○ Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating. ○ Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2. After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi. Low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2. After running the 9-5/8" intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 3M will already be installed on the wellhead. The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a Kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP. Devon's proposed wellhead manufactures will be EMC Technologies, Cactus Wellhead, or Cameron. The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	1150	FW Gel	8.5-9.0	28-34	N/C
1150	5,000	Saturated Brine	10.0-11.0	28-34	N/C
5,000	14,362	Cut Brine	8.5-9.3	28-34	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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6. Logging and Testing Procedures

Logging, Coring and Testing.	
X	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Additional logs planned	Interval
	Resistivity
	Density
X	CBL
X	Mud log
	PEX

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4720 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H ₂ S) monitors will be installed prior to drilling out the surface shoe. If H ₂ S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H ₂ S is present
Y	H ₂ S Plan attached

8. Other facets of operation

Is this a walking operation? No.

Will be pre-setting casing? No.

Attachments

 x Directional Plan

 Other, describe

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-45261		² Pool Code 97900	³ Pool Name RED HILLS; UPPER BONE SPRING SHALE
⁴ Property Code 322149	⁵ Property Name FLAGLER 8 FEDERAL		⁶ Well Number 39H
⁷ OGRID No. 6137	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.		⁹ Elevation 3446.8

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	8	25 S	33 E		380	SOUTH	2570	WEST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	8	25 S	33 E		20	NORTH	2345	WEST	LEA

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

N89°39'28"E 2646.90 FT 2345 NW CORNER SEC. 8 LAT. = 32.1523717°N LONG. = 103.6028369°W NMSP EAST (FT) N = 419935.12 E = 767410.07 W/4 CORNER SEC. 8 LAT. = 32.1451155°N LONG. = 103.6028369°W NMSP EAST (FT) N = 417295.40 E = 767427.98 SW CORNER SEC. 8 LAT. = 32.1378576°N LONG. = 103.6028383°W NMSP EAST (FT) N = 414655.05 E = 767445.46 000°23'19"W 2640.28 FT 000°22'46"W 2640.90 FT		N89°33'52"E 2647.55 FT N/4 CORNER SEC. 8 LAT. = 32.1523655°N LONG. = 103.5942861°W NMSP EAST (FT) N = 419950.93 E = 770056.42 NE CORNER SEC. 8 LAT. = 32.1523705°N LONG. = 103.5857333°W NMSP EAST (FT) N = 419971.05 E = 772703.39 E/4 CORNER SEC. 8 LAT. = 32.1451079°N LONG. = 103.5857466°W NMSP EAST (FT) N = 417328.96 E = 772717.63 500°18'31"E 2642.63 FT 500°21'55"E 2640.23 FT	
BOTTOM OF HOLE LTP 100' FNL 2435' FWL BOTTOM OF HOLE LAT. = 32.1523113°N LONG. = 103.5952614°W NMSP EAST (FT) N = 419929.13 E = 769754.72 NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE. ELEVATION VALUES ARE NAD83. FLAGLER 8 FEDERAL 39H ELEV. = 3446.8' LAT. = 32.1388991°N (NAD83) LONG. = 103.5945363°W NMSP EAST (FT) N = 415051.47 E = 770012.60 SURFACE LOCATION FTP 100' FSL 2435' FWL		LAST TAKE POINT 100' FNL, 2435' FWL LAT. = 32.1520914°N LONG. = 103.5952614°W FIRST TAKE POINT 100' FSL, 2435' FWL LAT. = 32.1381299°N LONG. = 103.5952639°W S/4 CORNER SEC. 8 LAT. = 32.1378547°N LONG. = 103.5942897°W NMSP EAST (FT) N = 414672.04 E = 770091.56 SE CORNER SEC. 8 LAT. = 32.1378519°N LONG. = 103.5857514°W NMSP EAST (FT) N = 414689.28 E = 772734.46	

¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or released mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: Rebecca Deal Date: 11/1/2018

Printed Name: Rebecca Deal, Regulatory Analyst

E-mail Address: rebecca.deal@dvn.com

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

OCTOBER 4, 2018

Date of Survey

Signature and Seal of Professional Surveyor

Certificate Number: FILIMON F. JARAMILLO, PLS 12797

SURVEY NO. 5846B

Intent ☒ As Drilled ☐

API # 30-025-45261			
Operator Name: DEVON ENERGY PRODUCTION COMPANY, L.P.		Property Name: FLAGLER 8 FEDERAL	Well Number 39H

Kick Off Point (KOP)

UL	Section 8	Township 25S	Range 33E	Lot	Feet 230	From N/S FSL	Feet 2345	From E/W FWL	County LEA
Latitude 32.138491					Longitude -103.595267				NAD 83

First Take Point (FTP)

UL N	Section 8	Township 25S	Range 33E	Lot	Feet 100	From N/S SOUTH	Feet 2435	From E/W WEST	County LEA
Latitude 32.1381299					Longitude 103.5952639				NAD 83

Last Take Point (LTP)

UL C	Section 8	Township 25S	Range 33E	Lot	Feet 100	From N/S NORTH	Feet 2435	From E/W WEST	County LEA
Latitude 32.1520914					Longitude 103.5952614				NAD 83

Is this well the defining well for the Horizontal Spacing Unit? ☐ N

Is this well an infill well? ☐ Y

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

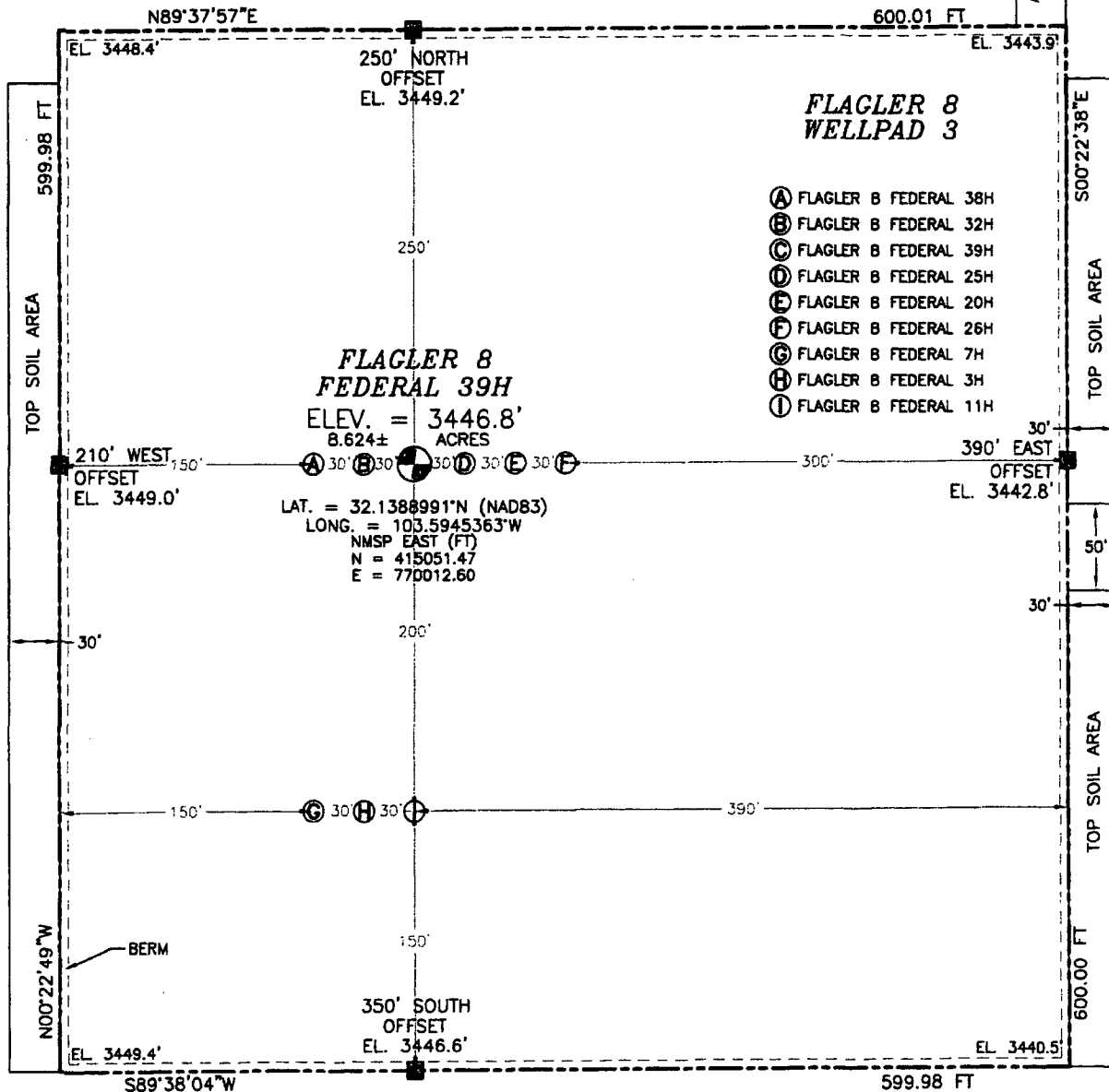
API # 30-025-45260			
Operator Name: DEVON ENERGY PRODUCTION CO., L.P.		Property Name: FLAGLER 8 FEDERAL	Well Number 38H

KZ 06/29/2018

SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE. ELEVATION VALUES ARE NAVD88.

PROPOSED 913 L.F.
ACCESS ROAD



010 50 100 200

SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF HWY. 128 & DIAMOND ROAD, GO SOUTH ON DIAMOND ROAD APPROX. 2.4 MILES WHERE PAVEMENT ENDS & RANCH HOUSE, CONTINUE SOUTH APPROX. 0.5 MILE TO A Y INTERSECTION, GO SOUTH APPROX. 0.8 MILE TO A CATTLE GUARD, CONTINUE SOUTH APPROX. 1.1 MILE TO A Y INTERSECTION, GO SOUTHWEST ON LEASE ROAD APPROX 0.8 MILE TO A LEASE ROAD ON RIGHT (WEST), TURN WEST (RIGHT) GO 1.0 MILE TO GATE, GO THROUGH GATE TO A PROPOSED ROAD SURVEY, FOLLOW PROPOSED ROAD SOUTH 625' TO A PROPOSED T INTERSECTION, GO WEST 0.34 MILE TO A PROPOSED Y INTERSECTION, GO SOUTHWEST 513' & SOUTH 400' TO THE NORTHEAST PAD CORNER FOR THIS LOCATION.

DEVON ENERGY PRODUCTION COMPANY, L.P.

FLAGLER 8 FEDERAL 39H

LOCATED 380 FT. FROM THE SOUTH LINE
AND 2570 FT. FROM THE WEST LINE OF
SECTION 8, TOWNSHIP 25 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

OCTOBER 4, 2018

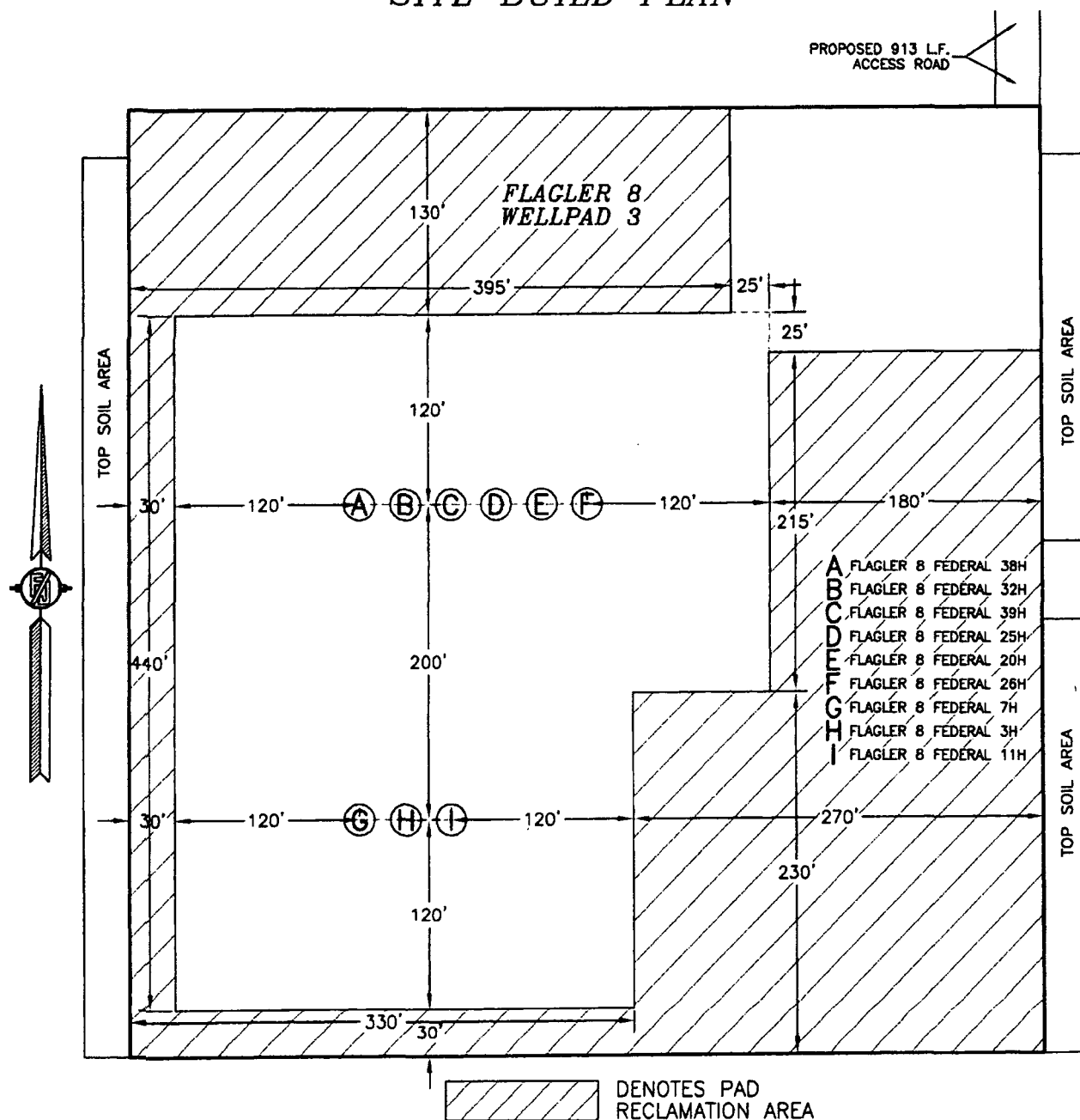
SURVEY NO. 5846B

MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
SITE BUILD PLAN

PROPOSED 913 L.F.
ACCESS ROAD



0 10 50 100 200
SCALE 1" = 100'

4.023± ACRES PAD RECLAMATION AREA
4.241± ACRES NON-RECLAIMED AREA
8.264± ACRES FLAGLER 8 WELLPAD 3

DEVON ENERGY PRODUCTION COMPANY, L.P.
FLAGLER 8 FEDERAL 39H

LOCATED 380 FT. FROM THE SOUTH LINE
AND 2570 FT. FROM THE WEST LINE OF
SECTION 8, TOWNSHIP 25 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

OCTOBER 4, 2018

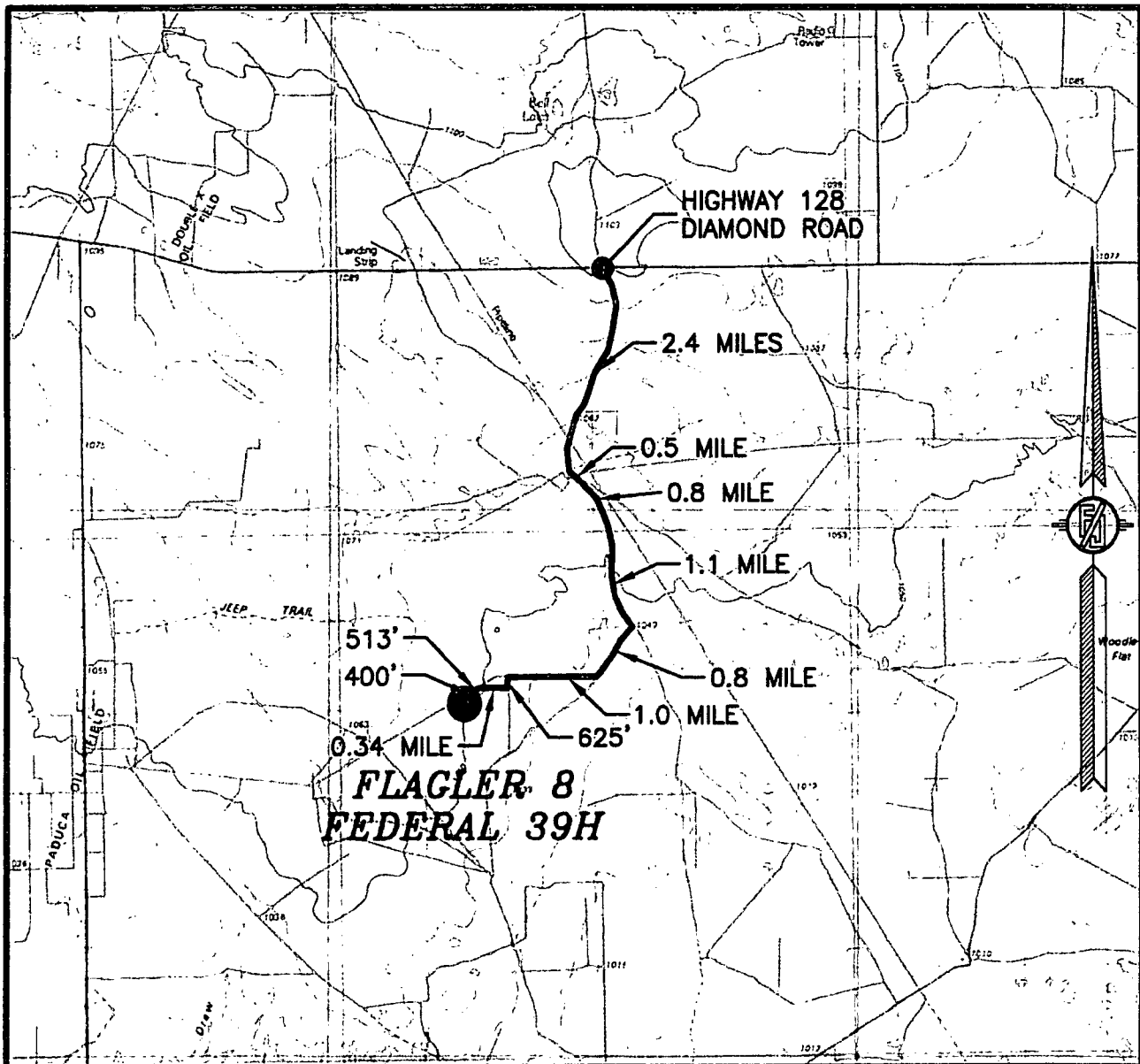
SURVEY NO. 5846B

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF HWY. 128 & DIAMOND ROAD, GO SOUTH ON DIAMOND ROAD APPROX. 2.4 MILES WHERE PAVEMENT ENDS & RANCH HOUSE, CONTINUE SOUTH APPROX. 0.5 MILE TO A "Y" INTERSECTION, GO SOUTH APPROX. 0.8 MILE TO A CATTLE GUARD, CONTINUE SOUTH APPROX. 1.1 MILE TO A "Y" INTERSECTION, GO SOUTHWEST ON LEASE ROAD APPROX 0.8 MILE TO A LEASE ROAD ON RIGHT (WEST), TURN WEST (RIGHT) GO 1.0 MILE TO GATE, GO THROUGH GATE TO A PROPOSED ROAD SURVEY, FOLLOW PROPOSED ROAD SOUTH 625' TO A PROPOSED "T" INTERSECTION, GO WEST 0.34 MILE TO A PROPOSED "Y" INTERSECTION, GO SOUTHWEST 513' AND SOUTH 400' TO THE NORTHEAST PAD CORNER FOR THIS LOCATION.

**DEVON ENERGY PRODUCTION COMPANY, L.P.
FLAGLER 8 FEDERAL 39H**

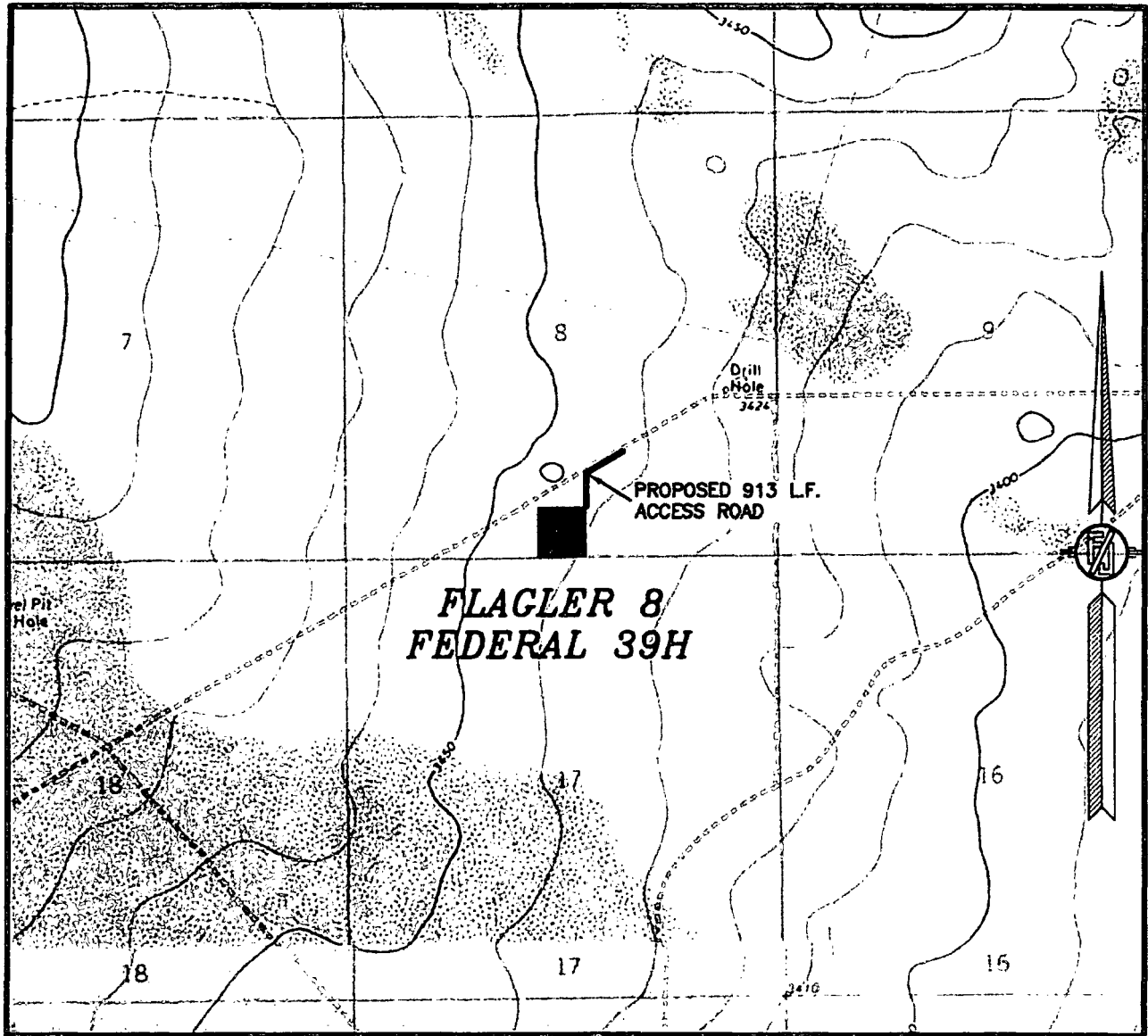
**LOCATED 380 FT. FROM THE SOUTH LINE
AND 2570 FT. FROM THE WEST LINE OF
SECTION 8, TOWNSHIP 25 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO**

OCTOBER 4, 2018

SURVEY NO. 5846B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
BELL LAKE

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.
FLAGLER 8 FEDERAL 39H

LOCATED 380 FT. FROM THE SOUTH LINE
AND 2570 FT. FROM THE WEST LINE OF
SECTION 8, TOWNSHIP 25 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

OCTOBER 4, 2018

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO SURVEY NO. 5846B

SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
NOV. 2017

DEVON ENERGY PRODUCTION COMPANY, L.P.
FLAGLER 8 FEDERAL 39H

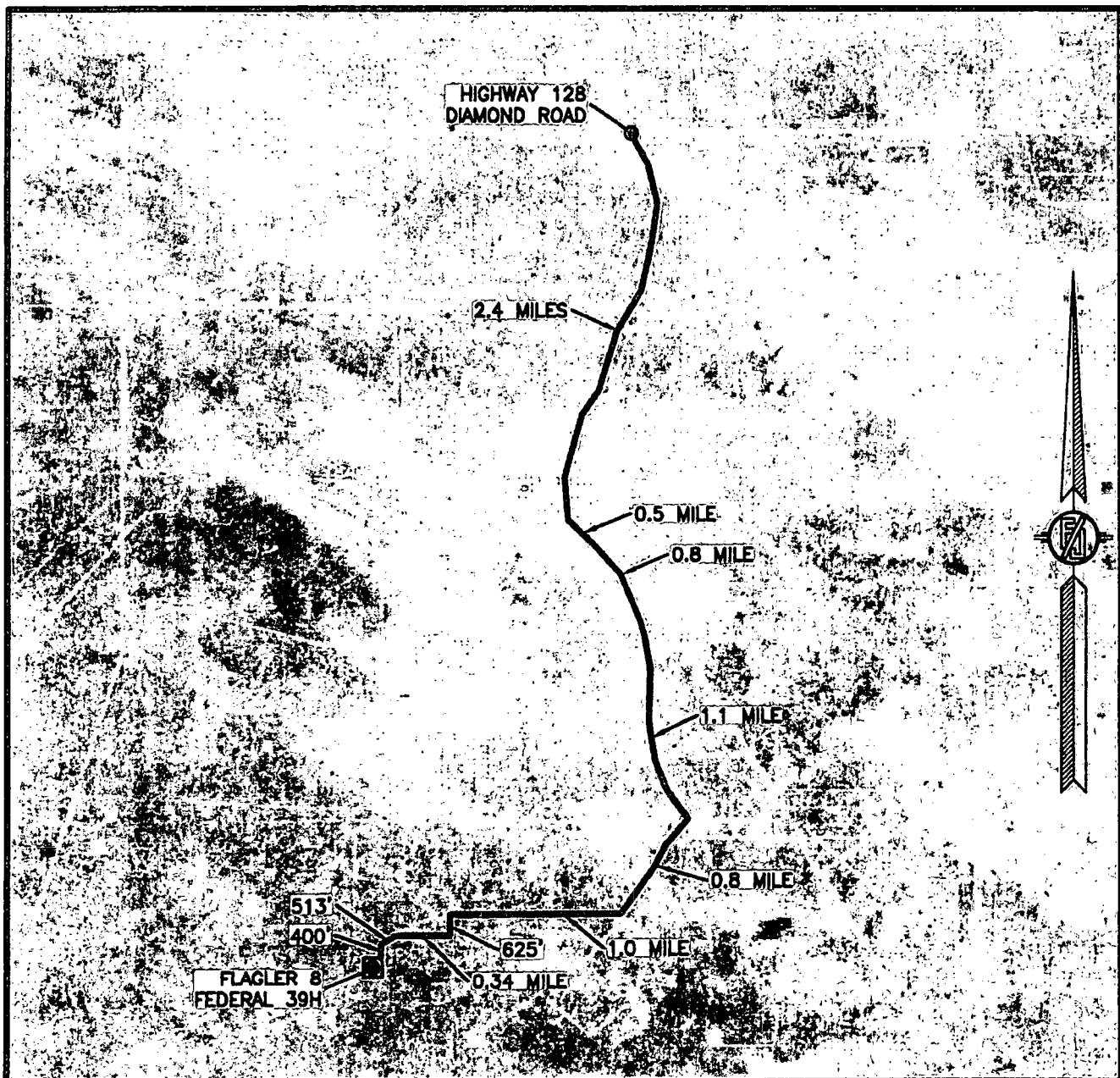
LOCATED 380 FT. FROM THE SOUTH LINE
AND 2570 FT. FROM THE WEST LINE OF
SECTION 8, TOWNSHIP 25 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

OCTOBER 4, 2018

SURVEY NO. 5846B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
AERIAL ACCESS ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
NOV. 2017

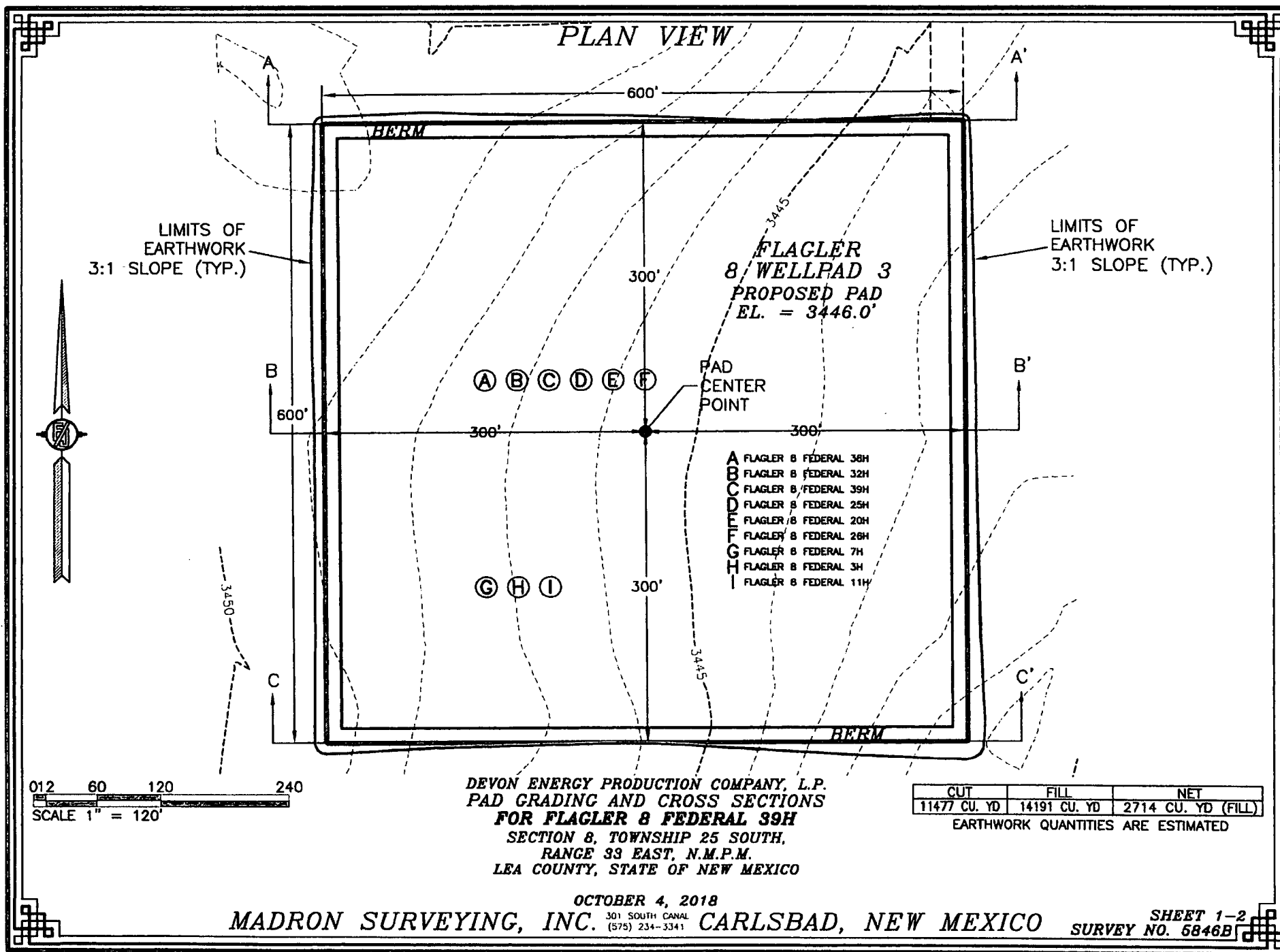
DEVON ENERGY PRODUCTION COMPANY, L.P.
FLAGLER 8 FEDERAL 39H

LOCATED 380 FT. FROM THE SOUTH LINE
AND 2570 FT. FROM THE WEST LINE OF
SECTION 8, TOWNSHIP 25 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

OCTOBER 4, 2018

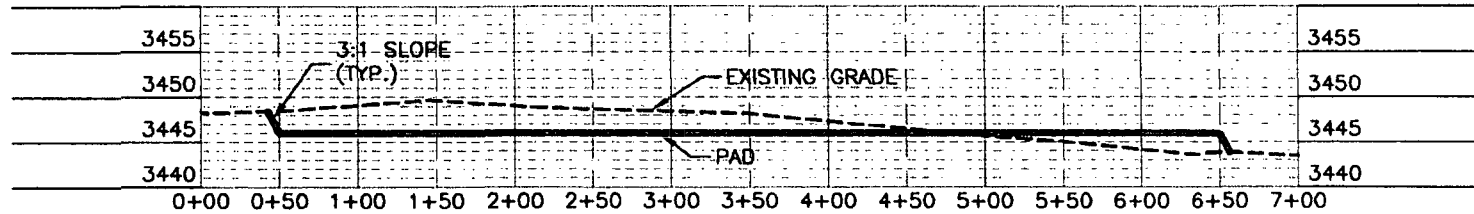
SURVEY NO. 5846B

MADRON SURVEYING, INC. 391 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

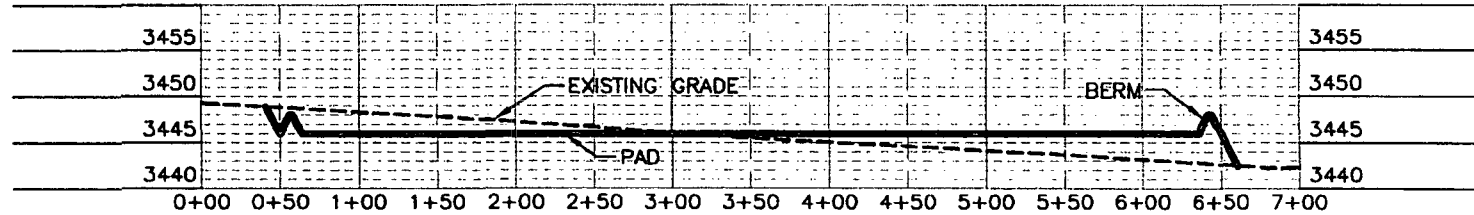


CROSS-SECTIONS

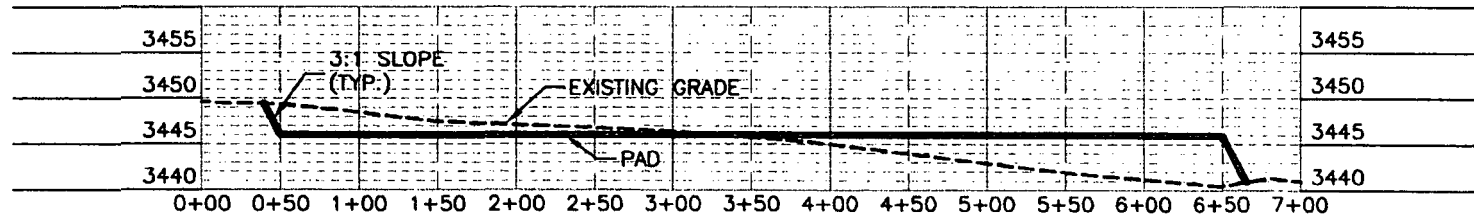
SECTION A-A'



SECTION B-B'



SECTION C-C'



012 60 120 240
SCALE 1" = 120' - 1" = 20' VER

DEVON ENERGY PRODUCTION COMPANY, L.P.
PAD GRADING AND CROSS SECTIONS
FOR FLAGLER & FEDERAL 39H
SECTION 8, TOWNSHIP 25 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

CUT	FILL	NET
11477 CU. YD	14191 CU. YD	2714 CU. YD (FILL)

EARTHWORK QUANTITIES ARE ESTIMATED

OCTOBER 4, 2018

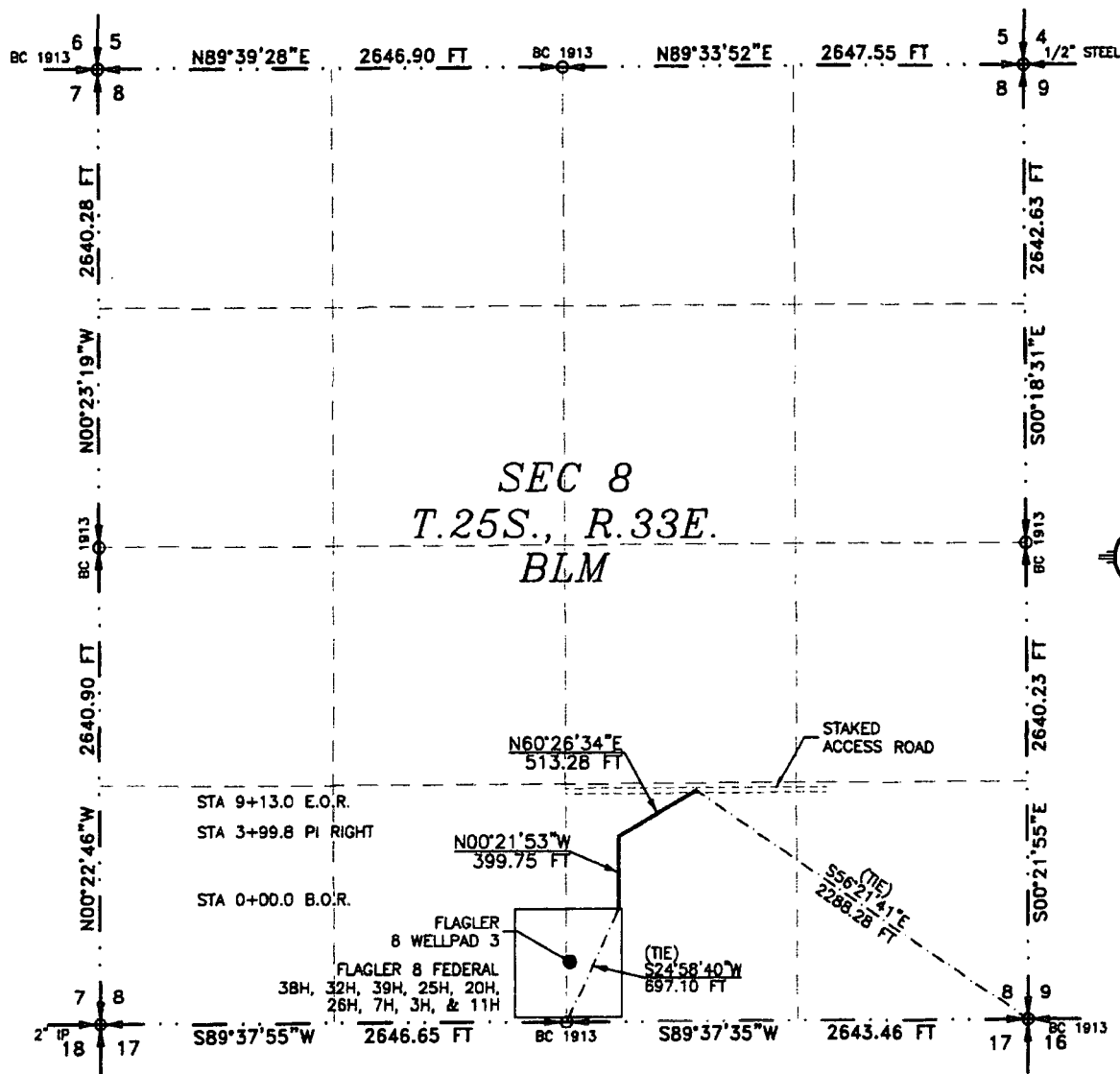
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-5341 CARLSBAD, NEW MEXICO

SHEET 2-2
SURVEY NO. 5846B

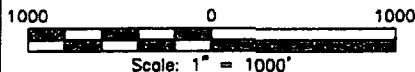
ACCESS ROAD PLAT

ACCESS ROAD FOR FLAGLER 8 WELLPAD 3
(FLAGLER 8 FEDERAL 38H, 32H, 39H, 25H, 20H, 26H, 7H, 3H, & 11H)

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
OCTOBER 4, 2018



SEE NEXT SHEET (2-2) FOR DESCRIPTION



GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 1-2

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD,

NEW MEXICO, THIS DAY OF FEBRUARY 2018

[Signature]
FILIMON F. JARAMILLO PLS. 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 86220
Phone (575) 234-3341

SURVEY NO. 5846B

ACCESS ROAD PLAT

ACCESS ROAD FOR FLAGLER 8 WELLPAD 3
(FLAGLER 8 FEDERAL 38H, 32H, 39H, 25H, 20H, 26H, 7H, 3H, & 11H)

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
OCTOBER 4, 2018

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M., LEA COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE SW/4 SE/4 OF SAID SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M., WHENCE THE SOUTH QUARTER CORNER OF SAID SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M. BEARS S24°58'40"W, A DISTANCE OF 697.10 FEET;
THENCE N00°21'53"W A DISTANCE OF 399.75 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N60°26'34"E A DISTANCE OF 513.28 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE SOUTHEAST CORNER OF SAID SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M. BEARS S56°21'41"E, A DISTANCE OF 2288.28 FEET;

SAID STRIP OF LAND BEING 913.03 FEET OR 55.34 RODS IN LENGTH, CONTAINING 0.629 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

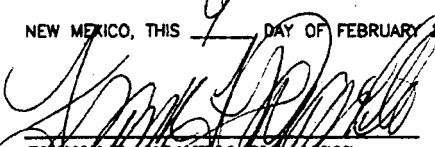
SW/4 SE/4 913.03 L.F. 55.34 RODS 0.629 ACRES

SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD,

NEW MEXICO, THIS _____ DAY OF FEBRUARY 2018


FILMON F. JARAMILLO, PLS. 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 2-2

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 234-3341

SURVEY NO. 5846B