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NORTHERN DELAWARE BASIN

LEA COUNTY, NM

BULLDOG

COACHMAN FEE #14H

OWB

Design: ACTUAL WELLPATH

Standard Survey Report

18 September, 2018

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well COACHMAN FEE #14H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Site:	BULLDOG	MD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Well:	COACHMAN FEE #14H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	Database:	EDM_Users

Project	LEA COUNTY, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	BULLDOG				
Site Position:		Northing:	398,637.10 usft	Latitude:	32° 5' 36.820 N
From:	Map	Easting:	741,887.40 usft	Longitude:	103° 33' 8.116 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.42 °

Well	COACHMAN FEE #14H					
Well Position	+N/-S	0.0 usft	Northing:	409,552.30 usft	Latitude:	32° 7' 20.501 N
	+E/-W	0.0 usft	Easting:	796,162.50 usft	Longitude:	103° 22' 36.123 W
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft	Ground Level:	3,238.7 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	WMM2015	7/17/2018	6.76	59.97	47,773.63739831

Design	ACTUAL WELLPATH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	186.69	

Survey Program	Date	9/18/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	10,100.0	GYRO (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
10,201.0	15,704.0	MWD-CURVE/LATERAL (OWB)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
100.0	0.20	177.13	100.0	-0.2	0.0	0.2	0.20	0.20	0.00	
125.0	0.06	167.49	125.0	-0.2	0.0	0.2	0.56	-0.56	-38.56	
150.0	0.04	158.53	150.0	-0.3	0.0	0.2	0.09	-0.08	-35.84	
175.0	0.05	69.17	175.0	-0.3	0.0	0.3	0.25	0.04	-357.44	
200.0	0.19	6.93	200.0	-0.2	0.0	0.2	0.69	0.56	-248.96	
225.0	0.22	356.80	225.0	-0.1	0.1	0.1	0.19	0.12	-40.52	
250.0	0.33	355.67	250.0	0.0	0.0	0.0	0.44	0.44	-4.52	

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Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	Database:	EDM_Users

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
275.0	0.24	330.88	275.0	0.1	0.0	-0.1	0.60	-0.36	-99.16	
300.0	0.26	321.33	300.0	0.2	0.0	-0.2	0.18	0.08	-38.20	
325.0	0.29	343.86	325.0	0.3	-0.1	-0.3	0.45	0.12	90.12	
350.0	0.29	335.10	350.0	0.4	-0.1	-0.4	0.18	0.00	-35.04	
375.0	0.30	347.05	375.0	0.5	-0.2	-0.5	0.25	0.04	47.80	
400.0	0.25	6.55	400.0	0.7	-0.2	-0.6	0.42	-0.20	78.00	
425.0	0.26	1.58	425.0	0.8	-0.2	-0.8	0.10	0.04	-19.88	
450.0	0.29	0.38	450.0	0.9	-0.2	-0.9	0.12	0.12	-4.80	
475.0	0.31	3.47	475.0	1.0	-0.2	-1.0	0.10	0.08	12.36	
500.0	0.39	8.23	500.0	1.2	-0.2	-1.2	0.34	0.32	19.04	
525.0	0.29	357.98	525.0	1.3	-0.2	-1.3	0.47	-0.40	-41.00	
550.0	0.38	4.30	550.0	1.5	-0.2	-1.4	0.39	0.36	25.28	
575.0	0.50	8.77	575.0	1.7	-0.1	-1.6	0.50	0.48	17.88	
600.0	0.59	9.61	600.0	1.9	-0.1	-1.9	0.36	0.36	3.36	
625.0	0.54	356.21	625.0	2.1	-0.1	-2.1	0.56	-0.20	-53.60	
650.0	0.71	358.36	650.0	2.4	-0.1	-2.4	0.69	0.68	8.60	
675.0	0.72	353.68	675.0	2.7	-0.1	-2.7	0.24	0.04	-18.72	
700.0	0.86	357.96	700.0	3.1	-0.1	-3.0	0.61	0.56	17.12	
725.0	0.81	357.13	725.0	3.4	-0.2	-3.4	0.21	-0.20	-3.32	
750.0	0.73	355.29	750.0	3.8	-0.2	-3.7	0.33	-0.32	-7.36	
775.0	0.76	355.75	775.0	4.1	-0.2	-4.0	0.12	0.12	1.84	
800.0	0.81	350.67	800.0	4.4	-0.2	-4.4	0.34	0.20	-20.32	
825.0	1.00	356.42	825.0	4.8	-0.3	-4.8	0.84	0.76	23.00	
850.0	0.83	353.25	850.0	5.2	-0.3	-5.2	0.71	-0.88	-12.68	
875.0	0.79	352.03	875.0	5.6	-0.4	-5.5	0.17	-0.16	-4.88	
900.0	0.93	354.00	900.0	5.9	-0.4	-5.9	0.57	0.56	7.88	
925.0	1.00	355.74	925.0	6.4	-0.4	-6.3	0.30	0.28	6.96	
950.0	0.94	353.59	950.0	6.8	-0.5	-6.7	0.28	-0.24	-8.60	
975.0	0.85	356.34	975.0	7.2	-0.5	-7.1	0.40	-0.36	11.00	
1,000.0	0.79	12.20	1,000.0	7.5	-0.5	-7.4	0.94	-0.24	63.44	
1,025.0	0.80	15.05	1,025.0	7.9	-0.4	-7.8	0.16	0.04	11.40	
1,050.0	0.74	16.63	1,049.9	8.2	-0.3	-8.1	0.25	-0.24	6.32	
1,075.0	0.86	22.90	1,074.9	8.5	-0.2	-8.4	0.59	0.48	25.08	
1,100.0	0.82	30.70	1,099.9	8.8	0.0	-8.8	0.48	-0.16	31.20	
1,125.0	0.80	42.96	1,124.9	9.1	0.2	-9.1	0.70	-0.08	49.04	
1,150.0	0.78	49.71	1,149.9	9.4	0.4	-9.3	0.38	-0.08	27.00	
1,175.0	0.94	45.44	1,174.9	9.6	0.7	-9.6	0.69	0.64	-17.08	
1,200.0	0.88	47.12	1,199.9	9.9	1.0	-9.9	0.26	-0.24	6.72	
1,225.0	0.78	50.08	1,224.9	10.1	1.3	-10.2	0.44	-0.40	11.84	
1,250.0	0.89	41.62	1,249.9	10.4	1.5	-10.5	0.66	0.44	-33.84	
1,275.0	0.85	41.37	1,274.9	10.7	1.8	-10.8	0.16	-0.16	-1.00	
1,300.0	0.84	45.84	1,299.9	10.9	2.0	-11.1	0.27	-0.04	17.88	

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Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,325.0	0.84	44.56	1,324.9	11.2	2.3	-11.4	0.08	0.00	-5.12
1,350.0	0.81	40.67	1,349.9	11.5	2.5	-11.7	0.25	-0.12	-15.56
1,375.0	0.72	32.81	1,374.9	11.7	2.7	-12.0	0.55	-0.36	-31.44
1,400.0	0.81	26.91	1,399.9	12.0	2.9	-12.3	0.48	0.36	-23.60
1,425.0	1.00	18.75	1,424.9	12.4	3.0	-12.6	0.92	0.76	-32.64
1,450.0	1.38	356.07	1,449.9	12.9	3.1	-13.2	2.39	1.52	-90.72
1,475.0	2.18	334.56	1,474.9	13.6	2.9	-13.9	4.12	3.20	-86.04
1,500.0	2.60	328.44	1,499.9	14.5	2.4	-14.7	1.96	1.68	-24.48
1,525.0	3.19	325.88	1,524.8	15.6	1.7	-15.7	2.42	2.36	-10.24
1,550.0	3.92	324.98	1,549.8	16.9	0.8	-16.8	2.93	2.92	-3.60
1,575.0	4.75	324.32	1,574.7	18.4	-0.3	-18.2	3.33	3.32	-2.64
1,600.0	5.48	321.70	1,599.6	20.2	-1.6	-19.9	3.07	2.92	-10.48
1,625.0	6.09	317.85	1,624.5	22.1	-3.3	-21.6	2.89	2.44	-15.40
1,650.0	6.47	318.29	1,649.3	24.1	-5.1	-23.4	1.53	1.52	1.76
1,675.0	6.54	318.00	1,674.2	26.2	-7.0	-25.3	0.31	0.28	-1.16
1,700.0	6.79	311.52	1,699.0	28.3	-9.0	-27.0	3.17	1.00	-25.92
1,725.0	7.09	306.08	1,723.8	30.2	-11.4	-28.6	2.89	1.20	-21.76
1,750.0	7.21	303.79	1,748.6	32.0	-14.0	-30.1	1.24	0.48	-9.16
1,775.0	7.31	300.69	1,773.4	33.6	-16.6	-31.5	1.62	0.40	-12.40
1,800.0	7.51	296.22	1,798.2	35.2	-19.5	-32.7	2.44	0.80	-17.88
1,825.0	7.63	293.08	1,823.0	36.5	-22.4	-33.7	1.72	0.48	-12.56
1,850.0	7.69	292.75	1,847.8	37.8	-25.5	-34.6	0.30	0.24	-1.32
1,875.0	7.33	289.99	1,872.6	39.0	-28.6	-35.4	2.04	-1.44	-11.04
1,900.0	6.96	287.64	1,897.4	40.0	-31.5	-36.1	1.89	-1.48	-9.40
1,925.0	6.57	284.35	1,922.2	40.9	-34.3	-36.6	2.20	-1.56	-13.16
1,950.0	6.40	282.99	1,947.0	41.5	-37.1	-36.9	0.92	-0.68	-5.44
1,975.0	6.28	277.51	1,971.9	42.0	-39.8	-37.1	2.47	-0.48	-21.92
2,000.0	6.39	272.95	1,996.7	42.3	-42.5	-37.0	2.06	0.44	-18.24
2,025.0	6.39	269.04	2,021.6	42.3	-45.3	-36.7	1.74	0.00	-15.64
2,050.0	6.62	267.90	2,046.4	42.2	-48.1	-36.3	1.06	0.92	-4.56
2,075.0	7.08	266.25	2,071.2	42.1	-51.1	-35.8	2.00	1.84	-6.60
2,100.0	7.34	265.74	2,096.0	41.9	-54.3	-35.3	1.07	1.04	-2.04
2,125.0	7.52	265.20	2,120.8	41.6	-57.5	-34.6	0.77	0.72	-2.16
2,150.0	7.57	265.59	2,145.6	41.3	-60.7	-34.0	0.29	0.20	1.56
2,175.0	7.53	265.72	2,170.4	41.1	-64.0	-33.4	0.17	-0.16	0.52
2,200.0	7.43	265.42	2,195.2	40.8	-67.3	-32.7	0.43	-0.40	-1.20
2,225.0	7.43	265.49	2,220.0	40.6	-70.5	-32.1	0.04	0.00	0.28
2,250.0	7.35	266.30	2,244.8	40.4	-73.7	-31.5	0.53	-0.32	3.24
2,275.0	7.02	267.54	2,269.6	40.2	-76.8	-31.0	1.46	-1.32	4.96
2,300.0	6.60	268.27	2,294.4	40.1	-79.8	-30.5	1.72	-1.68	2.92
2,325.0	6.48	269.14	2,319.2	40.0	-82.6	-30.1	0.62	-0.48	3.48
2,350.0	6.40	269.90	2,344.1	40.0	-85.4	-29.8	0.47	-0.32	3.04

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2,375.0	6.41	268.64	2,368.9	40.0	-88.2	-29.4	0.56	0.04	-5.04	
2,400.0	6.37	270.45	2,393.8	39.9	-91.0	-29.1	0.82	-0.16	7.24	
2,425.0	6.40	269.62	2,418.6	39.9	-93.8	-28.7	0.39	0.12	-3.32	
2,450.0	6.27	271.37	2,443.5	40.0	-96.5	-28.4	0.93	-0.52	7.00	
2,475.0	6.32	270.43	2,468.3	40.0	-99.3	-28.2	0.46	0.20	-3.76	
2,500.0	6.21	271.03	2,493.2	40.0	-102.0	-27.9	0.51	-0.44	2.40	
2,525.0	6.18	273.69	2,518.0	40.1	-104.7	-27.7	1.15	-0.12	10.64	
2,550.0	6.28	269.29	2,542.9	40.2	-107.4	-27.4	1.95	0.40	-17.60	
2,575.0	6.20	269.45	2,567.7	40.2	-110.1	-27.1	0.33	-0.32	0.64	
2,600.0	6.15	270.53	2,592.6	40.2	-112.8	-26.8	0.51	-0.20	4.32	
2,625.0	6.17	271.27	2,617.4	40.2	-115.5	-26.5	0.33	0.08	2.96	
2,650.0	6.19	271.42	2,642.3	40.3	-118.2	-26.2	0.10	0.08	0.60	
2,675.0	6.26	270.70	2,667.1	40.3	-120.9	-26.0	0.42	0.28	-2.88	
2,700.0	6.11	271.53	2,692.0	40.4	-123.6	-25.7	0.70	-0.60	3.32	
2,725.0	6.12	272.36	2,716.8	40.5	-126.3	-25.5	0.36	0.04	3.32	
2,750.0	6.05	271.89	2,741.7	40.6	-128.9	-25.3	0.34	-0.28	-1.88	
2,775.0	6.14	272.50	2,766.6	40.7	-131.6	-25.1	0.44	0.36	2.44	
2,800.0	6.08	272.27	2,791.4	40.8	-134.2	-24.9	0.26	-0.24	-0.92	
2,825.0	6.01	272.21	2,816.3	40.9	-136.8	-24.7	0.28	-0.28	-0.24	
2,850.0	6.06	272.75	2,841.1	41.0	-139.5	-24.5	0.30	0.20	2.16	
2,875.0	5.94	273.72	2,866.0	41.2	-142.1	-24.3	0.63	-0.48	3.88	
2,900.0	5.99	273.42	2,890.9	41.3	-144.7	-24.2	0.24	0.20	-1.20	
2,925.0	5.85	273.57	2,915.7	41.5	-147.2	-24.0	0.56	-0.56	0.60	
2,950.0	5.72	274.91	2,940.6	41.7	-149.8	-23.9	0.75	-0.52	5.36	
2,975.0	5.49	274.46	2,965.5	41.9	-152.2	-23.8	0.94	-0.92	-1.80	
3,000.0	5.48	277.01	2,990.4	42.1	-154.6	-23.8	0.98	-0.04	10.20	
3,025.0	5.44	275.80	3,015.3	42.4	-156.9	-23.8	0.49	-0.16	-4.84	
3,050.0	5.35	275.93	3,040.2	42.6	-159.3	-23.8	0.36	-0.36	0.52	
3,075.0	5.31	276.77	3,065.0	42.9	-161.6	-23.7	0.35	-0.16	3.36	
3,100.0	5.44	278.38	3,089.9	43.2	-163.9	-23.8	0.80	0.52	6.44	
3,125.0	5.34	280.97	3,114.8	43.6	-166.2	-23.9	1.05	-0.40	10.36	
3,150.0	5.41	279.69	3,139.7	44.0	-168.5	-24.0	0.56	0.28	-5.12	
3,175.0	5.42	279.07	3,164.6	44.4	-170.8	-24.2	0.24	0.04	-2.48	
3,200.0	5.43	279.51	3,189.5	44.8	-173.2	-24.3	0.17	0.04	1.76	
3,225.0	5.31	279.66	3,214.4	45.1	-175.5	-24.4	0.48	-0.48	0.60	
3,250.0	5.51	281.68	3,239.3	45.6	-177.8	-24.5	1.10	0.80	8.08	
3,275.0	5.49	281.65	3,264.2	46.1	-180.2	-24.8	0.08	-0.08	-0.12	
3,300.0	5.40	283.43	3,289.0	46.6	-182.5	-25.0	0.77	-0.36	7.12	
3,325.0	5.38	283.89	3,313.9	47.1	-184.7	-25.3	0.19	-0.08	1.84	
3,350.0	5.52	284.32	3,338.8	47.7	-187.1	-25.6	0.58	0.56	1.72	
3,375.0	5.50	285.24	3,363.7	48.3	-189.4	-25.9	0.36	-0.08	3.68	
3,400.0	5.47	285.32	3,388.6	49.0	-191.7	-26.3	0.12	-0.12	0.32	

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Project:	LEA COUNTY, NM	TVD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Site:	BULLDOG	MD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Well:	COACHMAN FEE #14H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	Database:	EDM_Users

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
3,425.0	5.46	285.57	3,413.5	49.6	-194.0	-26.6	0.10	-0.04	1.00	
3,450.0	5.42	285.26	3,438.4	50.2	-196.3	-27.0	0.20	-0.16	-1.24	
3,475.0	5.57	286.17	3,463.2	50.9	-198.6	-27.4	0.69	0.60	3.64	
3,500.0	5.41	286.38	3,488.1	51.5	-200.9	-27.8	0.65	-0.64	0.84	
3,525.0	5.40	285.84	3,513.0	52.2	-203.1	-28.2	0.21	-0.04	-2.16	
3,550.0	5.35	287.15	3,537.9	52.9	-205.4	-28.6	0.53	-0.20	5.24	
3,575.0	5.36	286.07	3,562.8	53.5	-207.6	-29.0	0.41	0.04	-4.32	
3,600.0	5.33	286.35	3,587.7	54.2	-209.8	-29.4	0.16	-0.12	1.12	
3,625.0	5.30	286.71	3,612.6	54.8	-212.1	-29.7	0.18	-0.12	1.44	
3,650.0	5.24	286.34	3,637.5	55.5	-214.3	-30.1	0.28	-0.24	-1.48	
3,675.0	5.26	286.13	3,662.4	56.1	-216.5	-30.5	0.11	0.08	-0.84	
3,700.0	5.33	286.08	3,687.3	56.8	-218.7	-30.9	0.28	0.28	-0.20	
3,725.0	5.37	286.54	3,712.2	57.4	-220.9	-31.3	0.23	0.16	1.84	
3,750.0	5.37	286.67	3,737.1	58.1	-223.2	-31.7	0.05	0.00	0.52	
3,775.0	5.29	286.60	3,761.9	58.7	-225.4	-32.1	0.32	-0.32	-0.28	
3,800.0	5.29	291.02	3,786.8	59.5	-227.6	-32.6	1.63	0.00	17.68	
3,825.0	5.36	285.12	3,811.7	60.2	-229.8	-33.0	2.21	0.28	-23.60	
3,850.0	5.46	284.16	3,836.6	60.8	-232.0	-33.4	0.54	0.40	-3.84	
3,875.0	5.35	284.78	3,861.5	61.4	-234.3	-33.7	0.50	-0.44	2.48	
3,900.0	5.37	284.29	3,886.4	62.0	-236.6	-34.0	0.20	0.08	-1.96	
3,925.0	5.38	283.69	3,911.3	62.5	-238.9	-34.3	0.23	0.04	-2.40	
3,950.0	5.33	283.34	3,936.2	63.1	-241.1	-34.6	0.24	-0.20	-1.40	
3,975.0	5.26	282.70	3,961.1	63.6	-243.4	-34.8	0.37	-0.28	-2.56	
4,000.0	5.38	282.75	3,986.0	64.1	-245.6	-35.1	0.48	0.48	0.20	
4,025.0	5.29	282.61	4,010.9	64.6	-247.9	-35.3	0.36	-0.36	-0.56	
4,050.0	5.28	280.91	4,035.7	65.1	-250.2	-35.5	0.63	-0.04	-6.80	
4,075.0	5.23	279.69	4,060.6	65.5	-252.4	-35.7	0.49	-0.20	-4.88	
4,100.0	5.35	280.19	4,085.5	65.9	-254.7	-35.8	0.51	0.48	2.00	
4,125.0	5.24	280.49	4,110.4	66.3	-256.9	-35.9	0.45	-0.44	1.20	
4,150.0	5.19	281.24	4,135.3	66.8	-259.2	-36.1	0.34	-0.20	3.00	
4,175.0	5.25	279.85	4,160.2	67.2	-261.4	-36.3	0.56	0.24	-5.56	
4,200.0	5.34	280.18	4,185.1	67.6	-263.7	-36.4	0.38	0.36	1.32	
4,225.0	5.51	280.13	4,210.0	68.0	-266.0	-36.5	0.68	0.68	-0.20	
4,250.0	5.56	282.03	4,234.9	68.4	-268.4	-36.7	0.76	0.20	7.60	
4,275.0	5.69	284.68	4,259.8	69.0	-270.8	-37.0	1.16	0.52	10.60	
4,300.0	5.81	286.04	4,284.6	69.7	-273.2	-37.4	0.73	0.48	5.44	
4,325.0	5.84	288.11	4,309.5	70.4	-275.6	-37.8	0.85	0.12	8.28	
4,350.0	5.80	287.95	4,334.4	71.2	-278.0	-38.3	0.17	-0.16	-0.64	
4,375.0	5.73	289.64	4,359.3	72.0	-280.4	-38.9	0.73	-0.28	6.76	
4,400.0	5.45	290.91	4,384.1	72.9	-282.7	-39.4	1.22	-1.12	5.08	
4,425.0	5.27	292.21	4,409.0	73.7	-284.8	-40.0	0.87	-0.72	5.20	
4,450.0	5.31	293.85	4,433.9	74.6	-287.0	-40.7	0.63	0.16	6.56	

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well COACHMAN FEE #14H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Site:	BULLDOG	MD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Well:	COACHMAN FEE #14H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	Database:	EDM_Users

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,475.0	5.00	294.68	4,458.8	75.5	-289.0	-41.4	1.28	-1.24	3.32
4,500.0	5.00	295.28	4,483.7	76.5	-291.0	-42.0	0.21	0.00	2.40
4,525.0	5.04	296.85	4,508.6	77.4	-293.0	-42.8	0.57	0.16	6.28
4,550.0	5.06	297.78	4,533.5	78.4	-294.9	-43.5	0.34	0.08	3.72
4,575.0	5.02	298.20	4,558.4	79.5	-296.8	-44.3	0.22	-0.16	1.68
4,600.0	5.21	299.60	4,583.3	80.5	-298.8	-45.2	0.91	0.76	5.60
4,625.0	5.63	301.06	4,608.2	81.7	-300.8	-46.1	1.77	1.68	5.84
4,650.0	5.88	302.01	4,633.1	83.0	-303.0	-47.2	1.07	1.00	3.80
4,675.0	5.98	302.83	4,658.0	84.4	-305.2	-48.3	0.52	0.40	3.28
4,700.0	5.96	302.82	4,682.8	85.8	-307.3	-49.4	0.08	-0.08	-0.04
4,725.0	6.01	304.76	4,707.7	87.3	-309.5	-50.6	0.83	0.20	7.76
4,750.0	5.89	304.26	4,732.6	88.8	-311.6	-51.8	0.52	-0.48	-2.00
4,775.0	5.65	303.76	4,757.4	90.2	-313.7	-53.0	0.98	-0.96	-2.00
4,800.0	5.45	304.99	4,782.3	91.5	-315.7	-54.1	0.93	-0.80	4.92
4,825.0	5.07	305.34	4,807.2	92.8	-317.6	-55.2	1.53	-1.52	1.40
4,850.0	4.96	303.89	4,832.1	94.1	-319.4	-56.2	0.67	-0.44	-5.80
4,875.0	4.89	303.19	4,857.0	95.3	-321.2	-57.2	0.37	-0.28	-2.80
4,900.0	4.87	303.41	4,881.9	96.4	-323.0	-58.2	0.11	-0.08	0.88
4,925.0	4.87	300.75	4,906.8	97.6	-324.8	-59.1	0.90	0.00	-10.64
4,950.0	5.02	297.49	4,931.7	98.6	-326.6	-59.9	1.27	0.60	-13.04
4,975.0	5.24	298.37	4,956.6	99.7	-328.6	-60.7	0.93	0.88	3.52
5,000.0	5.51	296.74	4,981.5	100.7	-330.7	-61.5	1.24	1.08	-6.52
5,025.0	5.91	297.39	5,006.4	101.9	-332.9	-62.4	1.62	1.60	2.60
5,050.0	6.24	297.96	5,031.3	103.1	-335.2	-63.3	1.34	1.32	2.28
5,075.0	6.19	297.94	5,056.1	104.4	-337.6	-64.3	0.20	-0.20	-0.08
5,100.0	6.05	296.10	5,081.0	105.6	-340.0	-65.3	0.96	-0.56	-7.36
5,125.0	5.99	297.51	5,105.8	106.8	-342.3	-66.2	0.64	-0.24	5.64
5,150.0	5.69	297.78	5,130.7	108.0	-344.6	-67.1	1.21	-1.20	1.08
5,175.0	5.69	297.46	5,155.6	109.1	-346.8	-67.9	0.13	0.00	-1.28
5,200.0	5.67	298.13	5,180.5	110.3	-349.0	-68.8	0.28	-0.08	2.68
5,225.0	5.49	297.19	5,205.4	111.4	-351.1	-69.7	0.81	-0.72	-3.76
5,250.0	5.46	296.81	5,230.2	112.5	-353.3	-70.5	0.19	-0.12	-1.52
5,275.0	5.35	296.83	5,255.1	113.5	-355.4	-71.3	0.44	-0.44	0.08
5,300.0	5.42	297.30	5,280.0	114.6	-357.5	-72.2	0.33	0.28	1.88
5,325.0	5.40	297.68	5,304.9	115.7	-359.5	-73.0	0.16	-0.08	1.52
5,350.0	5.24	296.94	5,329.8	116.7	-361.6	-73.8	0.70	-0.64	-2.96
5,375.0	5.39	294.47	5,354.7	117.8	-363.7	-74.6	1.09	0.60	-9.88
5,400.0	6.51	289.69	5,379.6	118.7	-366.1	-75.3	4.90	4.48	-19.12
5,425.0	7.18	288.28	5,404.4	119.7	-368.9	-75.9	2.76	2.68	-5.64
5,450.0	7.29	287.65	5,429.2	120.7	-371.9	-76.5	0.54	0.44	-2.52
5,475.0	8.39	286.92	5,453.9	121.7	-375.2	-77.1	4.42	4.40	-2.92
5,500.0	8.96	284.90	5,478.7	122.7	-378.8	-77.7	2.58	2.28	-8.08

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well COACHMAN FEE #14H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Site:	BULLDOG	MD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Well:	COACHMAN FEE #14H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	Database:	EDM_Users

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,525.0	9.13	284.70	5,503.3	123.7	-382.6	-78.3	0.69	0.68	-0.80
5,550.0	9.30	283.65	5,528.0	124.7	-386.5	-78.8	0.96	0.68	-4.20
5,575.0	9.29	283.98	5,552.7	125.6	-390.4	-79.3	0.22	-0.04	1.32
5,600.0	9.37	283.91	5,577.4	126.6	-394.3	-79.8	0.32	0.32	-0.28
5,625.0	9.30	283.39	5,602.0	127.6	-398.3	-80.3	0.44	-0.28	-2.08
5,650.0	9.11	282.67	5,626.7	128.5	-402.2	-80.7	0.89	-0.76	-2.88
5,675.0	8.38	281.47	5,651.4	129.3	-405.9	-81.1	3.01	-2.92	-4.80
5,700.0	8.36	280.44	5,676.2	130.0	-409.5	-81.4	0.61	-0.08	-4.12
5,725.0	8.32	281.76	5,700.9	130.7	-413.0	-81.7	0.78	-0.16	5.28
5,750.0	8.35	279.40	5,725.6	131.3	-416.6	-81.9	1.37	0.12	-9.44
5,775.0	8.45	281.03	5,750.4	132.0	-420.2	-82.1	1.03	0.40	6.52
5,800.0	8.19	280.77	5,775.1	132.7	-423.7	-82.4	1.05	-1.04	-1.04
5,825.0	8.21	281.25	5,799.8	133.3	-427.2	-82.7	0.29	0.08	1.92
5,850.0	7.83	282.99	5,824.6	134.1	-430.6	-83.0	1.80	-1.52	6.96
5,875.0	7.16	285.86	5,849.4	134.9	-433.8	-83.4	3.07	-2.68	11.48
5,900.0	7.01	286.39	5,874.2	135.7	-436.7	-83.9	0.65	-0.60	2.12
5,925.0	6.89	285.67	5,899.0	136.6	-439.7	-84.4	0.59	-0.48	-2.88
5,950.0	6.89	285.59	5,923.8	137.4	-442.5	-84.9	0.04	0.00	-0.32
5,975.0	6.96	285.90	5,948.6	138.2	-445.4	-85.4	0.32	0.28	1.24
6,000.0	6.88	284.99	5,973.5	139.0	-448.3	-85.8	0.54	-0.32	-3.64
6,025.0	6.91	285.02	5,998.3	139.8	-451.2	-86.3	0.12	0.12	0.12
6,050.0	6.78	284.25	6,023.1	140.5	-454.1	-86.7	0.64	-0.52	-3.08
6,075.0	6.76	284.22	6,047.9	141.3	-457.0	-87.1	0.08	-0.08	-0.12
6,100.0	6.78	284.60	6,072.8	142.0	-459.8	-87.4	0.20	0.08	1.52
6,125.0	6.71	283.30	6,097.6	142.7	-462.7	-87.8	0.67	-0.28	-5.20
6,150.0	6.29	281.86	6,122.4	143.3	-465.5	-88.1	1.80	-1.68	-5.76
6,175.0	6.37	281.95	6,147.3	143.9	-468.2	-88.4	0.32	0.32	0.36
6,200.0	6.33	281.29	6,172.1	144.4	-470.9	-88.6	0.33	-0.16	-2.64
6,225.0	6.13	281.58	6,197.0	145.0	-473.5	-88.8	0.81	-0.80	1.16
6,250.0	6.33	281.85	6,221.8	145.5	-476.2	-89.1	0.81	0.80	1.08
6,275.0	6.30	279.88	6,246.7	146.1	-478.9	-89.3	0.87	-0.12	-7.88
6,300.0	6.07	278.79	6,271.5	146.5	-481.5	-89.4	1.03	-0.92	-4.36
6,325.0	6.08	278.45	6,296.4	146.9	-484.1	-89.5	0.15	0.04	-1.36
6,350.0	6.04	279.31	6,321.2	147.3	-486.8	-89.6	0.40	-0.16	3.44
6,375.0	6.15	277.68	6,346.1	147.7	-489.4	-89.7	0.82	0.44	-6.52
6,400.0	6.02	277.20	6,371.0	148.0	-492.0	-89.7	0.56	-0.52	-1.92
6,425.0	6.04	278.31	6,395.8	148.4	-494.6	-89.7	0.47	0.08	4.44
6,450.0	6.03	278.03	6,420.7	148.8	-497.2	-89.8	0.12	-0.04	-1.12
6,475.0	6.07	276.89	6,445.5	149.1	-499.8	-89.8	0.51	0.16	-4.56
6,500.0	5.92	277.83	6,470.4	149.4	-502.4	-89.9	0.72	-0.60	3.76
6,525.0	6.01	277.35	6,495.3	149.8	-505.0	-89.9	0.41	0.36	-1.92
6,550.0	5.99	277.85	6,520.1	150.1	-507.6	-90.0	0.22	-0.08	2.00

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well COACHMAN FEE #14H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Site:	BULLDOG	MD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Well:	COACHMAN FEE #14H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	Database:	EDM_Users

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,575.0	5.95	277.34	6,545.0	150.5	-510.2	-90.0	0.27	-0.16	-2.04
6,600.0	6.05	278.86	6,569.9	150.8	-512.7	-90.1	0.75	0.40	6.08
6,625.0	6.03	278.00	6,594.7	151.2	-515.3	-90.1	0.37	-0.08	-3.44
6,650.0	5.95	277.04	6,619.6	151.6	-517.9	-90.2	0.51	-0.32	-3.84
6,675.0	5.97	277.69	6,644.5	151.9	-520.5	-90.2	0.28	0.08	2.60
6,700.0	6.08	277.92	6,669.3	152.2	-523.1	-90.3	0.45	0.44	0.92
6,725.0	6.11	277.77	6,694.2	152.6	-525.7	-90.3	0.14	0.12	-0.60
6,750.0	5.90	277.38	6,719.0	153.0	-528.3	-90.4	0.86	-0.84	-1.56
6,775.0	5.99	277.49	6,743.9	153.3	-530.9	-90.4	0.36	0.36	0.44
6,800.0	6.01	278.01	6,768.8	153.6	-533.5	-90.4	0.23	0.08	2.08
6,825.0	6.17	277.61	6,793.6	154.0	-536.1	-90.5	0.66	0.64	-1.60
6,850.0	6.03	277.05	6,818.5	154.3	-538.7	-90.5	0.61	-0.56	-2.24
6,875.0	5.97	277.20	6,843.3	154.7	-541.3	-90.5	0.25	-0.24	0.60
6,900.0	5.81	276.14	6,868.2	155.0	-543.9	-90.5	0.77	-0.64	-4.24
6,925.0	5.76	276.52	6,893.1	155.2	-546.4	-90.5	0.25	-0.20	1.52
6,950.0	5.87	276.48	6,918.0	155.5	-548.9	-90.5	0.44	0.44	-0.16
6,975.0	5.88	277.41	6,942.8	155.8	-551.5	-90.5	0.38	0.04	3.72
7,000.0	5.71	277.22	6,967.7	156.2	-554.0	-90.6	0.68	-0.68	-0.76
7,025.0	5.83	278.14	6,992.6	156.5	-556.4	-90.6	0.61	0.48	3.68
7,050.0	5.59	274.58	7,017.4	156.8	-558.9	-90.6	1.71	-0.96	-14.24
7,075.0	5.47	275.52	7,042.3	157.0	-561.3	-90.5	0.60	-0.48	3.76
7,100.0	5.55	275.95	7,067.2	157.2	-563.7	-90.5	0.36	0.32	1.72
7,125.0	5.45	275.03	7,092.1	157.5	-566.1	-90.4	0.53	-0.40	-3.68
7,150.0	5.35	273.05	7,117.0	157.6	-568.4	-90.3	0.85	-0.40	-7.92
7,175.0	5.42	274.35	7,141.9	157.8	-570.8	-90.2	0.56	0.28	5.20
7,200.0	5.40	275.25	7,166.8	158.0	-573.1	-90.1	0.35	-0.08	3.60
7,225.0	5.31	273.14	7,191.7	158.1	-575.5	-90.0	0.87	-0.36	-8.44
7,250.0	5.37	274.60	7,216.5	158.3	-577.8	-89.9	0.59	0.24	5.84
7,275.0	5.55	278.22	7,241.4	158.6	-580.1	-89.9	1.55	0.72	14.48
7,300.0	5.64	283.46	7,266.3	159.0	-582.5	-90.1	2.07	0.36	20.96
7,325.0	5.71	289.52	7,291.2	159.7	-584.9	-90.5	2.41	0.28	24.24
7,350.0	5.70	290.16	7,316.1	160.6	-587.2	-91.1	0.26	-0.04	2.56
7,375.0	5.60	289.63	7,341.0	161.4	-589.5	-91.6	0.45	-0.40	-2.12
7,400.0	5.79	289.05	7,365.8	162.2	-591.9	-92.2	0.79	0.76	-2.32
7,425.0	5.65	289.79	7,390.7	163.1	-594.2	-92.7	0.63	-0.56	2.96
7,450.0	5.59	290.21	7,415.6	163.9	-596.5	-93.3	0.29	-0.24	1.68
7,475.0	5.57	289.62	7,440.5	164.7	-598.8	-93.8	0.24	-0.08	-2.36
7,500.0	5.38	288.91	7,465.3	165.5	-601.1	-94.3	0.81	-0.76	-2.84
7,525.0	5.40	288.81	7,490.2	166.3	-603.3	-94.8	0.09	0.08	-0.40
7,550.0	5.22	288.68	7,515.1	167.0	-605.5	-95.3	0.72	-0.72	-0.52
7,575.0	4.99	287.23	7,540.0	167.7	-607.6	-95.8	1.05	-0.92	-5.80
7,600.0	4.90	286.98	7,564.9	168.3	-609.7	-96.1	0.37	-0.36	-1.00

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well COACHMAN FEE #14H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Site:	BULLDOG	MD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Well:	COACHMAN FEE #14H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	Database:	EDM_Users

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
7,625.0	4.89	284.97	7,589.8	168.9	-611.7	-96.5	0.69	-0.04	-8.04	
7,650.0	4.40	287.89	7,614.8	169.5	-613.7	-96.8	2.18	-1.96	11.68	
7,675.0	3.95	286.98	7,639.7	170.0	-615.4	-97.2	1.82	-1.80	-3.64	
7,700.0	3.51	283.91	7,664.6	170.5	-617.0	-97.4	1.93	-1.76	-12.28	
7,725.0	3.43	289.61	7,689.6	170.9	-618.4	-97.7	1.42	-0.32	22.80	
7,750.0	3.01	284.39	7,714.6	171.3	-619.7	-97.9	2.05	-1.68	-20.88	
7,775.0	2.47	287.46	7,739.5	171.6	-620.9	-98.1	2.24	-2.16	12.28	
7,800.0	2.13	288.58	7,764.5	172.0	-621.8	-98.3	1.37	-1.36	4.48	
7,825.0	1.99	290.23	7,789.5	172.3	-622.7	-98.5	0.61	-0.56	6.60	
7,850.0	1.29	299.94	7,814.5	172.5	-623.3	-98.7	3.00	-2.80	38.84	
7,875.0	0.81	313.37	7,839.5	172.8	-623.7	-99.0	2.14	-1.92	53.72	
7,900.0	0.54	336.05	7,864.5	173.0	-623.9	-99.2	1.50	-1.08	90.72	
7,925.0	0.38	343.34	7,889.5	173.2	-624.0	-99.3	0.68	-0.64	29.16	
7,950.0	0.38	333.40	7,914.5	173.4	-624.0	-99.5	0.26	0.00	-39.76	
7,975.0	0.49	332.05	7,939.5	173.5	-624.1	-99.6	0.44	0.44	-5.40	
8,000.0	0.56	333.99	7,964.5	173.7	-624.2	-99.8	0.29	0.28	7.76	
8,025.0	0.43	333.51	7,989.5	173.9	-624.3	-100.0	0.52	-0.52	-1.92	
8,050.0	0.51	332.76	8,014.5	174.1	-624.4	-100.2	0.32	0.32	-3.00	
8,075.0	0.44	339.45	8,039.5	174.3	-624.5	-100.4	0.36	-0.28	26.76	
8,100.0	0.42	342.64	8,064.5	174.5	-624.6	-100.5	0.12	-0.08	12.76	
8,125.0	0.40	343.63	8,089.5	174.7	-624.6	-100.7	0.08	-0.08	3.96	
8,150.0	0.42	338.94	8,114.5	174.8	-624.7	-100.9	0.16	0.08	-18.76	
8,175.0	0.44	343.37	8,139.5	175.0	-624.7	-101.0	0.16	0.08	17.72	
8,200.0	0.53	351.61	8,164.5	175.2	-624.8	-101.2	0.45	0.36	32.96	
8,225.0	0.47	355.93	8,189.5	175.4	-624.8	-101.4	0.28	-0.24	17.28	
8,250.0	0.67	346.80	8,214.5	175.7	-624.8	-101.7	0.88	0.80	-36.52	
8,275.0	0.52	346.09	8,239.5	175.9	-624.9	-101.9	0.60	-0.60	-2.84	
8,300.0	0.61	348.56	8,264.5	176.2	-624.9	-102.1	0.37	0.36	9.88	
8,325.0	0.62	346.29	8,289.5	176.4	-625.0	-102.4	0.11	0.04	-9.08	
8,350.0	0.55	343.09	8,314.5	176.7	-625.1	-102.6	0.31	-0.28	-12.80	
8,375.0	0.77	340.24	8,339.5	176.9	-625.2	-102.9	0.89	0.88	-11.40	
8,400.0	0.81	341.35	8,364.5	177.3	-625.3	-103.2	0.17	0.16	4.44	
8,425.0	0.71	340.58	8,389.5	177.6	-625.4	-103.5	0.40	-0.40	-3.08	
8,450.0	0.80	341.86	8,414.5	177.9	-625.5	-103.8	0.37	0.36	5.12	
8,475.0	0.67	339.08	8,439.5	178.2	-625.6	-104.1	0.54	-0.52	-11.12	
8,500.0	0.83	341.81	8,464.5	178.5	-625.7	-104.4	0.66	0.64	10.92	
8,525.0	0.70	332.93	8,489.4	178.8	-625.8	-104.7	0.70	-0.52	-35.52	
8,550.0	0.82	336.39	8,514.4	179.1	-626.0	-105.0	0.51	0.48	13.84	
8,575.0	0.85	338.72	8,539.4	179.5	-626.1	-105.3	0.18	0.12	9.32	
8,600.0	0.87	335.16	8,564.4	179.8	-626.3	-105.6	0.23	0.08	-14.24	
8,625.0	0.83	329.90	8,589.4	180.1	-626.4	-105.9	0.35	-0.16	-21.04	
8,650.0	0.92	328.49	8,614.4	180.5	-626.6	-106.2	0.37	0.36	-5.64	

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well COACHMAN FEE #14H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Site:	BULLDOG	MD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Well:	COACHMAN FEE #14H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	Database:	EDM_Users

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,675.0	0.99	333.91	8,639.4	180.8	-626.8	-106.6	0.46	0.28	21.68
8,700.0	0.99	326.27	8,664.4	181.2	-627.0	-106.9	0.53	0.00	-30.56
8,725.0	1.04	331.21	8,689.4	181.6	-627.3	-107.2	0.40	0.20	19.76
8,750.0	1.13	335.17	8,714.4	182.0	-627.5	-107.6	0.47	0.36	15.84
8,775.0	1.11	331.94	8,739.4	182.4	-627.7	-108.1	0.26	-0.08	-12.92
8,800.0	1.09	335.21	8,764.4	182.9	-627.9	-108.5	0.26	-0.08	13.08
8,825.0	1.05	325.63	8,789.4	183.3	-628.1	-108.8	0.73	-0.16	-38.32
8,850.0	1.09	333.88	8,814.4	183.7	-628.4	-109.2	0.64	0.16	33.00
8,875.0	0.62	352.56	8,839.4	184.0	-628.5	-109.5	2.16	-1.88	74.72
8,900.0	0.28	112.18	8,864.4	184.1	-628.5	-109.6	3.19	-1.36	478.48
8,925.0	0.20	59.43	8,889.4	184.1	-628.4	-109.7	0.90	-0.32	-211.00
8,950.0	0.16	45.12	8,914.4	184.2	-628.3	-109.7	0.24	-0.16	-57.24
8,975.0	0.17	139.31	8,939.4	184.2	-628.3	-109.7	0.97	0.04	376.76
9,000.0	0.20	102.11	8,964.4	184.1	-628.2	-109.7	0.49	0.12	-148.80
9,025.0	0.20	43.87	8,989.4	184.2	-628.1	-109.7	0.78	0.00	-232.96
9,050.0	0.37	34.11	9,014.4	184.3	-628.0	-109.8	0.70	0.68	-39.04
9,075.0	0.34	355.04	9,039.4	184.4	-628.0	-110.0	0.96	-0.12	-156.28
9,100.0	0.32	3.39	9,064.4	184.5	-628.0	-110.1	0.21	-0.08	33.40
9,125.0	0.39	359.49	9,089.4	184.7	-628.0	-110.3	0.30	0.28	-15.60
9,150.0	0.56	348.67	9,114.4	184.9	-628.0	-110.5	0.77	0.68	-43.28
9,175.0	0.79	339.95	9,139.4	185.2	-628.1	-110.7	1.01	0.92	-34.88
9,200.0	0.79	329.83	9,164.4	185.5	-628.3	-111.0	0.56	0.00	-40.48
9,225.0	0.95	338.47	9,189.4	185.8	-628.4	-111.3	0.83	0.64	34.56
9,250.0	1.38	332.42	9,214.4	186.3	-628.6	-111.8	1.79	1.72	-24.20
9,275.0	1.36	329.47	9,239.4	186.8	-628.9	-112.3	0.29	-0.08	-11.80
9,300.0	1.52	326.58	9,264.4	187.3	-629.3	-112.8	0.70	0.64	-11.56
9,325.0	1.29	327.65	9,289.4	187.9	-629.6	-113.2	0.93	-0.92	4.28
9,350.0	1.10	326.38	9,314.4	188.3	-629.9	-113.6	0.77	-0.76	-5.08
9,375.0	0.18	283.07	9,339.4	188.5	-630.0	-113.8	3.91	-3.68	-173.24
9,400.0	0.17	169.72	9,364.4	188.5	-630.1	-113.8	1.17	-0.04	-453.40
9,425.0	0.22	193.87	9,389.4	188.4	-630.1	-113.7	0.38	0.20	96.60
9,450.0	0.31	214.95	9,414.4	188.3	-630.1	-113.6	0.53	0.36	84.32
9,475.0	0.26	224.87	9,439.4	188.2	-630.2	-113.5	0.28	-0.20	39.68
9,500.0	0.33	236.26	9,464.4	188.1	-630.3	-113.4	0.36	0.28	45.56
9,525.0	0.33	234.17	9,489.4	188.0	-630.4	-113.3	0.05	0.00	-8.36
9,550.0	0.21	204.04	9,514.4	188.0	-630.5	-113.2	0.73	-0.48	-120.52
9,575.0	0.68	135.64	9,539.4	187.8	-630.4	-113.1	2.53	1.88	-273.60
9,600.0	0.78	117.90	9,564.3	187.6	-630.2	-112.9	0.98	0.40	-70.96
9,625.0	0.79	131.20	9,589.3	187.4	-629.9	-112.8	0.73	0.04	53.20
9,650.0	0.66	120.32	9,614.3	187.2	-629.6	-112.6	0.76	-0.52	-43.52
9,675.0	0.38	120.39	9,639.3	187.1	-629.4	-112.5	1.12	-1.12	0.28
9,700.0	0.11	56.21	9,664.3	187.1	-629.3	-112.5	1.39	-1.08	-256.72

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well COACHMAN FEE #14H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Site:	BULLDOG	MD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Well:	COACHMAN FEE #14H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	Database:	EDM_Users

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,725.0	0.24	355.36	9,689.3	187.2	-629.3	-112.6	0.84	0.52	-243.40
9,750.0	0.47	311.50	9,714.3	187.3	-629.4	-112.7	1.36	0.92	-175.44
9,775.0	0.55	308.19	9,739.3	187.4	-629.6	-112.8	0.34	0.32	-13.24
9,800.0	0.64	301.41	9,764.3	187.6	-629.8	-112.9	0.46	0.36	-27.12
9,825.0	0.49	242.66	9,789.3	187.6	-630.0	-112.9	2.28	-0.60	-235.00
9,850.0	1.11	185.37	9,814.3	187.3	-630.1	-112.6	3.76	2.48	-229.16
9,875.0	1.61	178.91	9,839.3	186.7	-630.1	-112.0	2.09	2.00	-25.84
9,900.0	2.00	174.56	9,864.3	185.9	-630.1	-111.2	1.65	1.56	-17.40
9,925.0	2.47	167.35	9,889.3	185.0	-629.9	-110.3	2.19	1.88	-28.84
9,950.0	3.12	162.03	9,914.3	183.8	-629.6	-109.2	2.80	2.60	-21.28
9,975.0	3.36	159.35	9,939.2	182.5	-629.1	-107.9	1.13	0.96	-10.72
10,000.0	3.49	161.06	9,964.2	181.1	-628.6	-106.6	0.66	0.52	6.84
10,025.0	3.41	163.97	9,989.1	179.6	-628.2	-105.2	0.77	-0.32	11.64
10,050.0	3.20	164.79	10,014.1	178.2	-627.8	-103.9	0.86	-0.84	3.28
10,075.0	3.40	167.04	10,039.1	176.8	-627.4	-102.5	0.95	0.80	9.00
10,100.0	3.29	169.01	10,064.0	175.4	-627.1	-101.1	0.64	-0.44	7.88
10,201.0	2.98	171.95	10,164.9	170.0	-626.2	-95.8	0.35	-0.31	2.91
10,295.0	2.81	178.85	10,258.7	165.2	-625.8	-91.2	0.41	-0.18	7.34
10,358.0	2.88	180.03	10,321.7	162.1	-625.8	-88.1	0.14	0.11	1.87
10,390.0	2.98	180.12	10,353.6	160.5	-625.8	-86.5	0.31	0.31	0.28
10,421.0	5.16	176.35	10,384.5	158.3	-625.7	-84.3	7.08	7.03	-12.16
10,453.0	8.91	180.64	10,416.3	154.4	-625.7	-80.4	11.83	11.72	13.41
10,484.0	12.17	184.77	10,446.8	148.7	-625.9	-74.8	10.79	10.52	13.32
10,516.0	16.11	182.06	10,477.8	140.9	-626.4	-67.0	12.48	12.31	-8.47
10,547.0	18.85	180.01	10,507.4	131.6	-626.5	-57.7	9.06	8.84	-6.61
10,579.0	21.25	178.60	10,537.4	120.6	-626.4	-46.8	7.65	7.50	-4.41
10,610.0	25.49	178.07	10,565.9	108.3	-626.0	-34.7	13.69	13.68	-1.71
10,642.0	29.63	178.21	10,594.2	93.6	-625.6	-20.0	12.94	12.94	0.44
10,673.0	31.44	179.26	10,620.9	77.8	-625.2	-4.4	6.09	5.84	3.39
10,704.0	34.12	179.89	10,647.0	61.0	-625.1	12.2	8.71	8.65	2.03
10,736.0	37.20	180.04	10,673.0	42.4	-625.1	30.8	9.63	9.63	0.47
10,767.0	39.12	180.96	10,697.4	23.2	-625.3	49.8	6.46	6.19	2.97
10,799.0	42.58	180.54	10,721.6	2.3	-625.5	70.6	10.85	10.81	-1.31
10,830.0	45.27	180.74	10,743.9	-19.2	-625.8	92.0	8.69	8.68	0.65
10,862.0	47.67	180.90	10,765.9	-42.4	-626.1	115.1	7.51	7.50	0.50
10,893.0	50.38	181.29	10,786.3	-65.8	-626.6	138.4	8.79	8.74	1.26
10,925.0	52.71	181.69	10,806.2	-90.9	-627.2	163.3	7.35	7.28	1.25
10,956.0	54.66	180.72	10,824.5	-115.8	-627.7	188.2	6.78	6.29	-3.13
10,987.0	58.50	178.90	10,841.6	-141.7	-627.6	213.9	13.32	12.39	-5.87
11,019.0	62.09	177.63	10,857.4	-169.5	-626.8	241.3	11.74	11.22	-3.97
11,050.0	64.91	177.49	10,871.3	-197.2	-625.6	268.7	9.11	9.10	-0.45
11,082.0	68.17	178.04	10,884.0	-226.5	-624.5	297.7	10.31	10.19	1.72

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well COACHMAN FEE #14H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Site:	BULLDOG	MD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Well:	COACHMAN FEE #14H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	Database:	EDM_Users

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
11,113.0	71.11	178.38	10,894.8	-255.6	-623.6	326.5	9.54	9.48	1.10	
11,145.0	72.74	178.74	10,904.7	-286.0	-622.8	356.6	5.20	5.09	1.13	
11,176.0	74.17	179.88	10,913.5	-315.7	-622.4	386.1	5.81	4.61	3.68	
11,208.0	77.57	180.57	10,921.4	-346.7	-622.6	416.9	10.83	10.63	2.16	
11,239.0	80.94	180.97	10,927.1	-377.2	-623.0	447.2	10.94	10.87	1.29	
11,271.0	86.44	180.25	10,930.7	-408.9	-623.3	478.8	17.33	17.19	-2.25	
11,364.0	93.40	178.97	10,930.8	-501.9	-622.7	571.0	7.61	7.48	-1.38	
11,458.0	93.04	179.31	10,925.5	-595.7	-621.3	664.1	0.53	-0.38	0.36	
11,553.0	90.55	177.76	10,922.5	-690.6	-618.8	758.0	3.09	-2.62	-1.63	
11,647.0	88.33	177.00	10,923.4	-784.5	-614.5	850.8	2.50	-2.36	-0.81	
11,741.0	89.58	177.30	10,925.2	-878.4	-609.9	943.5	1.37	1.33	0.32	
11,836.0	90.02	177.91	10,925.5	-973.3	-605.9	1,037.3	0.79	0.46	0.64	
11,930.0	89.50	179.88	10,925.9	-1,067.3	-604.1	1,130.4	2.17	-0.55	2.10	
12,024.0	90.78	180.67	10,925.7	-1,161.3	-604.5	1,223.8	1.60	1.36	0.84	
12,119.0	89.82	181.35	10,925.2	-1,256.3	-606.2	1,318.3	1.24	-1.01	0.72	
12,213.0	90.56	182.00	10,924.8	-1,350.2	-609.0	1,412.0	1.05	-0.79	0.69	
12,307.0	89.85	182.21	10,924.5	-1,444.2	-612.4	1,505.7	0.79	-0.76	0.22	
12,401.0	88.74	181.83	10,925.7	-1,538.1	-615.7	1,599.4	1.25	-1.18	-0.40	
12,495.0	88.21	181.42	10,928.2	-1,632.0	-618.4	1,693.0	0.71	-0.56	-0.44	
12,590.0	87.08	179.18	10,932.1	-1,726.9	-618.9	1,787.3	2.64	-1.19	-2.36	
12,684.0	88.05	179.09	10,936.1	-1,820.8	-617.5	1,880.4	1.04	1.03	-0.10	
12,778.0	87.97	179.35	10,939.3	-1,914.8	-616.2	1,973.5	0.29	-0.09	0.28	
12,872.0	87.45	177.69	10,943.1	-2,008.7	-613.8	2,066.5	1.85	-0.55	-1.77	
12,966.0	88.27	177.46	10,946.6	-2,102.5	-609.8	2,159.2	0.91	0.87	-0.24	
13,060.0	87.76	176.91	10,949.9	-2,196.3	-605.2	2,251.9	0.80	-0.54	-0.59	
13,155.0	88.47	176.78	10,953.0	-2,291.1	-599.9	2,345.4	0.76	0.75	-0.14	
13,249.0	87.82	177.08	10,956.0	-2,385.0	-594.9	2,438.0	0.76	-0.69	0.32	
13,343.0	87.70	177.08	10,959.7	-2,478.8	-590.1	2,530.6	0.13	-0.13	0.00	
13,437.0	88.76	177.37	10,962.6	-2,572.6	-585.6	2,623.3	1.17	1.13	0.31	
13,532.0	88.79	178.79	10,964.6	-2,667.5	-582.4	2,717.2	1.49	0.03	1.49	
13,626.0	88.93	180.06	10,966.5	-2,761.5	-581.5	2,810.4	1.36	0.15	1.35	
13,720.0	87.87	180.68	10,969.1	-2,855.5	-582.1	2,903.8	1.31	-1.13	0.66	
13,814.0	88.37	181.04	10,972.2	-2,949.4	-583.5	2,997.3	0.66	0.53	0.38	
13,908.0	89.78	181.50	10,973.7	-3,043.4	-585.6	3,090.9	1.58	1.50	0.49	
14,003.0	90.53	182.05	10,973.5	-3,138.3	-588.5	3,185.5	0.98	0.79	0.58	
14,097.0	89.75	180.75	10,973.2	-3,232.3	-590.8	3,279.1	1.61	-0.83	-1.38	
14,191.0	88.78	179.18	10,974.4	-3,326.3	-590.7	3,372.4	1.96	-1.03	-1.67	
14,286.0	87.45	177.85	10,977.6	-3,421.2	-588.3	3,466.4	1.98	-1.40	-1.40	
14,380.0	87.85	177.61	10,981.4	-3,515.0	-584.6	3,559.2	0.50	0.43	-0.26	
14,474.0	89.15	178.13	10,983.9	-3,608.9	-581.1	3,652.1	1.49	1.38	0.55	
14,568.0	90.24	178.48	10,984.4	-3,702.9	-578.3	3,745.0	1.22	1.16	0.37	
14,663.0	89.25	177.87	10,984.8	-3,797.8	-575.3	3,839.0	1.22	-1.04	-0.64	

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well COACHMAN FEE #14H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Site:	BULLDOG	MD Reference:	RKB=3238.7+30 @ 3268.7usft (SCANDRILL QUEST)
Well:	COACHMAN FEE #14H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	Database:	EDM_Users

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
14,757.0	88.45	178.71	10,986.7	-3,891.8	-572.5	3,932.0	1.23	-0.85	0.89	
14,851.0	87.65	179.85	10,989.9	-3,985.7	-571.3	4,025.1	1.48	-0.85	1.21	
14,945.0	88.16	180.56	10,993.3	-4,079.6	-571.6	4,118.5	0.93	0.54	0.76	
15,040.0	86.94	181.03	10,997.4	-4,174.6	-572.9	4,212.9	1.38	-1.28	0.49	
15,134.0	87.56	180.97	11,001.9	-4,268.4	-574.6	4,306.3	0.66	0.66	-0.06	
15,228.0	88.31	181.49	11,005.3	-4,362.3	-576.6	4,399.8	0.97	0.80	0.55	
15,323.0	89.41	182.19	11,007.2	-4,457.3	-579.6	4,494.5	1.37	1.16	0.74	
15,417.0	88.65	181.71	11,008.8	-4,551.2	-582.8	4,588.1	0.96	-0.81	-0.51	
15,511.0	86.65	180.96	11,012.6	-4,645.1	-585.0	4,681.6	2.27	-2.13	-0.80	
15,606.0	87.23	179.53	11,017.7	-4,740.0	-585.4	4,775.9	1.62	0.61	-1.51	
15,641.0	87.50	179.43	11,019.3	-4,774.9	-585.1	4,810.6	0.82	0.77	-0.29	
15,704.0	87.99	179.25	11,021.8	-4,837.9	-584.4	4,873.0	0.83	0.78	-0.29	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
- hit/miss target										
- Shape										
PBHL-Coachman Fee #	0.00	0.00	11,015.0	-4,853.5	-569.4	404,698.80	795,593.10	32° 6' 32.525 N		103° 22' 43.244 W
- actual wellpath misses target center by 22.7usft at 15704.0usft MD (11021.8 TVD, -4837.9 N, -584.4 E)										
- Point										

Checked By: _____ Approved By: _____ Date: _____

Coachman Fee #14H

<u>Perfs</u>	<u>15% Acid (Gal)</u>	<u>Sand (#)</u>	<u>Fluid (Gal)</u>
1	1554	442000	361746
2	3024	440065	379554
3	3012	442864	373662
4	3012	445220	377484
5	3024	444235	382956
6	3024	440611	377580
7	3012	444392	382020
8	3000	444707	383301
9	3000	442540	381210
10	3000	442406	366888
11	3000	444238	374896
12	3024	443268	378294
13	3024	442230	397656
14	3000	442127	380874
15	3000	442351	373776
16	3000	444922	371088
17	3012	440644	366396
18	3012	409152	348042
19	3012	443028	375384
20	3012	442864	364842
21	3012	443018	373494
22	3012	442425	386934
23	3000	437670	374070
24	3012	438685	408270
25	3012	419103	363496
Totals	73,801	8,790,381	9,403,909

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
	15,610	23	5	15,400	51	5	15,247	23	5	15,066	23	5	14,878	29	5
	15,587	22	5	15,380	20	5	15,225	23	5	15,043	22	5	14,882	23	5
	15,565	23	4	15,360	20	4	15,202	23	4	15,021	23	4	14,839	22	4
	15,542	23	4	15,340	20	4	15,179	22	4	14,998	23	4	14,817	23	4
	15,519	22	3	15,320	20	3	15,157		3	14,975	22	3	14,794	23	3
	15,497	23	3	15,300	15	3	15,134	23	3	14,953	23	3	14,771	22	3
	15,474	23	3	15,285	15	3	15,111	22	3	14,930	23	3	14,749	23	3
	15,451		3	15,270		3	15,089		3	14,907		3	14,726		3
	Plug to Plug	212	30	Plug to Plug	151	30	Plug to Plug	179	30	Plug to Plug	190	30	Plug to Plug	184	30
	Frac Plug	15,622	Total Shots	Frac Plug	15,410	Total Shots	Frac Plug	15,259	Total Shots	Frac Plug	15,080	Total Shots	Frac Plug	14,890	Total Shots

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
	14,694	32	5	14,516	29	5	14,341	23	5	14,154	28	5	13,978	23	5
	14,681	23	5	14,500	23	5	14,318	22	5	14,137	23	5	13,956	23	5
	14,658	23	4	14,477	23	4	14,296	23	4	14,114	22	4	13,933	23	4
	14,635	22	4	14,454	22	4	14,273	23	4	14,092	23	4	13,910	22	4
	14,613	23	3	14,432	23	3	14,250	22	3	14,069	23	3	13,888	23	3
	14,590	22	3	14,409	23	3	14,228	23	3	14,046	22	3	13,865	23	3
	14,568	23	3	14,386	22	3	14,205	23	3	14,024	23	3	13,842	22	3
	14,545		3	14,364		3	14,182		3	14,001		3	13,820		3
	Plug to Plug	180	30	Plug to Plug	180	30	Plug to Plug	180	30	Plug to Plug	174	30	Plug to Plug	184	30
	Frac Plug	14,706	Total Shots	Frac Plug	14,526	Total Shots	Frac Plug	14,346	Total Shots	Frac Plug	14,166	Total Shots	Frac Plug	13,992	Total Shots

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots	Stage 15	Distance Between Perfs	Shots
	13,797	23	5	13,613	25	5	13,434	28	5	13,253	27	5	13,072	26	5
	13,774	22	5	13,593	23	5	13,417	28	5	13,235	27	5	13,049	23	5
	13,752	23	4	13,570	22	4	13,389	28	4	13,208	21	4	13,026	17	4
	13,729	23	4	13,548	23	4	13,361	17	4	13,187	25	4	13,009	28	4
	13,706	22	3	13,525	23	3	13,344	19	3	13,162	19	3	12,981	26	3
	13,684	23	3	13,502	22	3	13,325	27	3	13,143	26	3	12,955	19	3
	13,661	23	3	13,480	18	3	13,298	18	3	13,117	19	3	12,936	19	3
	13,638		3	13,462		3	13,280		3	13,098		3	12,917		3
	Plug to Plug	184	30	Plug to Plug	180	30	Plug to Plug	180	30	Plug to Plug	181	30	Plug to Plug	181	30
	Frac Plug	13,808	Total Shots	Frac Plug	13,624	Total Shots	Frac Plug	13,444	Total Shots	Frac Plug	13,264	Total Shots	Frac Plug	13,083	Total Shots

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
	12,890	27	5	12,709	23	5	12,528	20	5	12,347	22	5	12,167	26	5
	12,868	23	5	12,682	18	5	12,505	22	5	12,320	19	5	12,149	29	5
	12,845	26	4	12,664	23	4	12,483	23	4	12,301	24	4	12,120	26	4
	12,819	19	4	12,641	23	4	12,460	23	4	12,277	21	4	12,094	19	4
	12,800	27	3	12,618	26	3	12,437	27	3	12,256	23	3	12,075	27	3
	12,773	19	3	12,592	19	3	12,410	18	3	12,233	22	3	12,048	19	3
	12,754	22	3	12,573	25	3	12,392	23	3	12,211	18	3	12,029	19	3
	12,732		3	12,548		3	12,369		3	12,193		3	12,010		3
	Plug to Plug	182	30	Plug to Plug	181	30	Plug to Plug	182	30	Plug to Plug	178	30	Plug to Plug	184	30
	Frac Plug	12,902	Total Shots	Frac Plug	12,720	Total Shots	Frac Plug	12,539	Total Shots	Frac Plug	12,357	Total Shots	Frac Plug	12,179	Total Shots

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
	11,984	26	5	11,803	22	5	11,621	23	5	11,441	22	5	11,260	21	5
	11,963	24	5	11,780	23	5	11,599	23	5	11,417	24	5	11,236	23	5
	11,939	27	4	11,757	22	4	11,576	23	4	11,393	21	4	11,213	22	4
	11,912	19	4	11,735	23	4	11,553	22	4	11,372	23	4	11,191	23	4
	11,893	27	3	11,712	23	3	11,531	23	3	11,349	22	3	11,168	23	3
	11,866	18	3	11,689	22	3	11,508	23	3	11,327	24	3	11,145	22	3
	11,848	23	3	11,667	23	3	11,485	22	3	11,303	22	3	11,123	23	3
	11,825		3	11,644		3	11,463		3	11,281		3	11,100		3
	Plug to Plug	181	30	Plug to Plug	181	30	Plug to Plug	182	30	Plug to Plug	179	30	Plug to Plug	81	30
	Frac Plug	11,995	Total Shots	Frac Plug	11,814	Total Shots	Frac Plug	11,633	Total Shots	Frac Plug	11,451	Total Shots	Frac Plug	11,272	Total Shots