



C O N C H O

30-025-4453

NORTHERN DELAWARE BASIN

LEA COUNTY, NM

BULLDOG

BASEBALL CAP FED COM #26H

OWB

Design: ACTUAL WELLPATH

Standard Survey Report

25 July, 2018

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #26H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Well:	BASEBALL CAP FED COM #26H	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	BASEBALL CAP FED COM #26H					
Well Position	+N/-S	0.0 usft	Northing:	431,084.20 usft	Latitude:	32° 10' 54.870 N
	+E/-W	0.0 usft	Easting:	780,910.50 usft	Longitude:	103° 25' 31.348 W
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft	Ground Level:	3,406.0 usft

Wellbore	OWB					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)	
	WMM2015	1/4/2017	6.95	60.04	47,964.92660757	

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	357.71	

Survey Program	Date 2/12/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	11,909.0	GYRO (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
12,045.0	23,024.0	MWD-CURVE/LATERAL (OWB)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

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	0.31	22.57	100.0	0.2	0.1	0.2	0.31	0.31	0.00
125.0	0.20	6.29	125.0	0.4	0.1	0.3	0.52	-0.44	-65.12
150.0	0.30	18.64	150.0	0.5	0.2	0.5	0.45	0.40	49.40
175.0	0.33	21.94	175.0	0.6	0.2	0.6	0.14	0.12	13.20
200.0	0.33	25.95	200.0	0.7	0.3	0.7	0.09	0.00	16.04
225.0	0.37	27.47	225.0	0.9	0.3	0.8	0.16	0.16	6.08
250.0	0.17	1.54	250.0	1.0	0.4	1.0	0.92	-0.80	-103.72
275.0	0.42	25.53	275.0	1.1	0.4	1.1	1.09	1.00	95.96
300.0	0.39	24.93	300.0	1.2	0.5	1.2	0.12	-0.12	-2.40

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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)
325.0	0.43	20.85	325.0	1.4	0.6	1.4	0.20	0.16	-16.32
350.0	0.38	26.70	350.0	1.6	0.6	1.5	0.26	-0.20	23.40
375.0	0.41	25.70	375.0	1.7	0.7	1.7	0.12	0.12	-4.00
400.0	0.36	21.75	400.0	1.9	0.8	1.8	0.23	-0.20	-15.80
425.0	0.36	20.23	425.0	2.0	0.8	2.0	0.04	0.00	-6.08
450.0	0.42	26.59	450.0	2.2	0.9	2.1	0.30	0.24	25.44
475.0	0.35	21.89	475.0	2.3	1.0	2.3	0.31	-0.28	-18.80
500.0	0.31	16.52	500.0	2.5	1.0	2.4	0.20	-0.16	-21.48
525.0	0.25	11.78	525.0	2.6	1.0	2.5	0.26	-0.24	-18.96
550.0	0.19	11.37	550.0	2.7	1.1	2.6	0.24	-0.24	-1.64
575.0	0.13	312.82	575.0	2.7	1.1	2.7	0.66	-0.24	-234.20
600.0	0.43	237.72	600.0	2.7	1.0	2.7	1.66	1.20	-300.40
625.0	0.81	228.58	625.0	2.5	0.7	2.5	1.57	1.52	-36.56
650.0	1.06	227.48	650.0	2.3	0.4	2.3	1.00	1.00	-4.40
675.0	1.22	226.38	675.0	1.9	0.1	1.9	0.65	0.64	-4.40
700.0	1.23	225.55	700.0	1.6	-0.3	1.6	0.08	0.04	-3.32
725.0	1.29	225.40	725.0	1.2	-0.7	1.2	0.24	0.24	-0.60
750.0	1.33	226.12	750.0	0.8	-1.1	0.8	0.17	0.16	2.88
775.0	1.40	226.02	775.0	0.4	-1.5	0.4	0.28	0.28	-0.40
800.0	1.42	226.44	799.9	-0.1	-2.0	0.0	0.09	0.08	1.68
825.0	1.49	226.95	824.9	-0.5	-2.4	-0.4	0.28	0.28	2.04
850.0	1.52	227.04	849.9	-0.9	-2.9	-0.8	0.12	0.12	0.36
875.0	1.58	226.04	874.9	-1.4	-3.4	-1.3	0.26	0.24	-4.00
900.0	1.68	226.85	899.9	-1.9	-3.9	-1.7	0.41	0.40	3.24
925.0	1.70	226.77	924.9	-2.4	-4.5	-2.2	0.08	0.08	-0.32
950.0	1.75	227.12	949.9	-2.9	-5.0	-2.7	0.20	0.20	1.40
975.0	1.73	227.46	974.9	-3.4	-5.6	-3.2	0.09	-0.08	1.36
1,000.0	1.78	227.57	999.9	-4.0	-6.1	-3.7	0.20	0.20	0.44
1,025.0	1.84	227.07	1,024.9	-4.5	-6.7	-4.2	0.25	0.24	-2.00
1,050.0	1.89	226.05	1,049.8	-5.0	-7.3	-4.7	0.24	0.20	-4.08
1,075.0	1.94	225.19	1,074.8	-5.6	-7.9	-5.3	0.23	0.20	-3.44
1,100.0	1.97	223.12	1,099.8	-6.2	-8.5	-5.9	0.31	0.12	-8.28
1,125.0	2.02	221.63	1,124.8	-6.9	-9.1	-6.5	0.29	0.20	-5.96
1,150.0	2.05	221.61	1,149.8	-7.5	-9.7	-7.2	0.12	0.12	-0.08
1,175.0	2.09	221.99	1,174.8	-8.2	-10.3	-7.8	0.17	0.16	1.52
1,200.0	2.07	221.68	1,199.7	-8.9	-10.9	-8.5	0.09	-0.08	-1.24
1,225.0	2.10	221.37	1,224.7	-9.6	-11.5	-9.1	0.13	0.12	-1.24
1,250.0	2.15	220.98	1,249.7	-10.3	-12.1	-9.8	0.21	0.20	-1.56
1,275.0	2.17	220.65	1,274.7	-11.0	-12.7	-10.5	0.09	0.08	-1.32
1,300.0	2.26	219.30	1,299.7	-11.7	-13.3	-11.2	0.42	0.36	-5.40
1,325.0	2.33	220.01	1,324.7	-12.5	-14.0	-11.9	0.30	0.28	2.84
1,350.0	2.33	220.54	1,349.6	-13.3	-14.6	-12.7	0.09	0.00	2.12
1,375.0	2.37	220.29	1,374.6	-14.1	-15.3	-13.4	0.17	0.16	-1.00

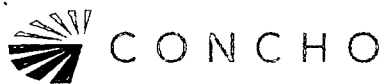


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Survey

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)
1,400.0	2.33	219.67	1,399.6	-14.8	-16.0	-14.2	0.19	-0.16	-2.48
1,425.0	2.36	220.40	1,424.6	-15.6	-16.6	-14.9	0.17	0.12	2.92
1,450.0	2.39	221.54	1,449.6	-16.4	-17.3	-15.7	0.22	0.12	4.56
1,475.0	2.38	220.72	1,474.5	-17.2	-18.0	-16.5	0.14	-0.04	-3.28
1,500.0	2.46	221.42	1,499.5	-18.0	-18.7	-17.2	0.34	0.32	2.80
1,525.0	2.54	220.83	1,524.5	-18.8	-19.4	-18.0	0.34	0.32	-2.36
1,550.0	2.60	221.11	1,549.5	-19.7	-20.1	-18.8	0.25	0.24	1.12
1,575.0	2.56	222.33	1,574.4	-20.5	-20.9	-19.6	0.27	-0.16	4.88
1,600.0	2.69	222.89	1,599.4	-21.3	-21.6	-20.5	0.53	0.52	2.24
1,625.0	2.74	222.63	1,624.4	-22.2	-22.5	-21.3	0.21	0.20	-1.04
1,650.0	2.72	222.53	1,649.4	-23.1	-23.3	-22.1	0.08	-0.08	-0.40
1,675.0	2.71	222.58	1,674.3	-24.0	-24.1	-23.0	0.04	-0.04	0.20
1,700.0	2.71	222.39	1,699.3	-24.8	-24.9	-23.8	0.04	0.00	-0.76
1,725.0	2.69	222.94	1,724.3	-25.7	-25.7	-24.6	0.13	-0.08	2.20
1,750.0	2.76	223.36	1,749.2	-26.6	-26.5	-25.5	0.29	0.28	1.68
1,775.0	2.76	222.49	1,774.2	-27.4	-27.3	-26.3	0.17	0.00	-3.48
1,800.0	2.79	222.99	1,799.2	-28.3	-28.1	-27.2	0.15	0.12	2.00
1,825.0	2.73	222.42	1,824.2	-29.2	-28.9	-28.0	0.26	-0.24	-2.28
1,850.0	2.68	222.66	1,849.1	-30.1	-29.7	-28.9	0.21	-0.20	0.96
1,875.0	2.63	222.74	1,874.1	-30.9	-30.5	-29.7	0.20	-0.20	0.32
1,900.0	2.74	222.64	1,899.1	-31.8	-31.3	-30.5	0.44	0.44	-0.40
1,925.0	2.62	222.05	1,924.0	-32.7	-32.1	-31.4	0.49	-0.48	-2.36
1,950.0	2.66	221.92	1,949.0	-33.5	-32.9	-32.2	0.16	0.16	-0.52
1,975.0	2.83	220.65	1,974.0	-34.4	-33.7	-33.0	0.72	0.68	-5.08
2,000.0	2.83	222.43	1,999.0	-35.3	-34.5	-33.9	0.35	0.00	7.12
2,025.0	2.80	222.29	2,023.9	-36.2	-35.3	-34.8	0.12	-0.12	-0.56
2,050.0	2.83	222.74	2,048.9	-37.2	-36.1	-35.7	0.15	0.12	1.80
2,075.0	2.81	223.07	2,073.9	-38.1	-37.0	-36.5	0.10	-0.08	1.32
2,100.0	2.87	224.29	2,098.8	-38.9	-37.8	-37.4	0.34	0.24	4.88
2,125.0	2.82	223.41	2,123.8	-39.8	-38.7	-38.3	0.27	-0.20	-3.52
2,150.0	2.83	224.05	2,148.8	-40.7	-39.5	-39.1	0.13	0.04	2.56
2,175.0	2.79	223.97	2,173.7	-41.6	-40.4	-40.0	0.16	-0.16	-0.32
2,200.0	2.87	223.84	2,198.7	-42.5	-41.2	-40.8	0.32	0.32	-0.52
2,225.0	2.83	223.35	2,223.7	-43.4	-42.1	-41.7	0.19	-0.16	-1.96
2,250.0	2.83	223.25	2,248.7	-44.3	-42.9	-42.6	0.02	0.00	-0.40
2,275.0	2.85	223.40	2,273.6	-45.2	-43.8	-43.4	0.09	0.08	0.60
2,300.0	2.88	223.97	2,298.6	-46.1	-44.7	-44.3	0.17	0.12	2.28
2,325.0	2.87	223.42	2,323.6	-47.0	-45.5	-45.2	0.12	-0.04	-2.20
2,350.0	2.87	223.69	2,348.5	-47.9	-46.4	-46.0	0.05	0.00	1.08
2,375.0	2.89	223.54	2,373.5	-48.8	-47.2	-46.9	0.09	0.08	-0.60
2,400.0	3.03	223.56	2,398.5	-49.8	-48.1	-47.8	0.56	0.56	0.08
2,425.0	3.12	224.42	2,423.4	-50.7	-49.1	-48.7	0.40	0.36	3.44
2,450.0	3.44	226.16	2,448.4	-51.7	-50.1	-49.7	1.34	1.28	6.96



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2,475.0	4.07	228.49	2,473.3	-52.8	-51.3	-50.8	2.59	2.52	9.32
2,500.0	3.98	226.60	2,498.3	-54.0	-52.6	-51.9	0.64	-0.36	-7.56
2,525.0	4.08	226.29	2,523.2	-55.2	-53.9	-53.0	0.41	0.40	-1.24
2,550.0	4.04	226.35	2,548.1	-56.5	-55.1	-54.2	0.16	-0.16	0.24
2,575.0	4.13	225.71	2,573.1	-57.7	-56.4	-55.4	0.40	0.36	-2.56
2,600.0	4.13	226.20	2,598.0	-58.9	-57.7	-56.6	0.14	0.00	1.96
2,625.0	4.13	225.61	2,623.0	-60.2	-59.0	-57.8	0.17	0.00	-2.36
2,650.0	4.17	225.33	2,647.9	-61.5	-60.3	-59.0	0.18	0.16	-1.12
2,675.0	4.15	224.66	2,672.8	-62.8	-61.6	-60.2	0.21	-0.08	-2.68
2,700.0	4.08	223.94	2,697.8	-64.0	-62.8	-61.5	0.35	-0.28	-2.88
2,725.0	4.14	223.87	2,722.7	-65.3	-64.1	-62.7	0.24	0.24	-0.28
2,750.0	4.11	223.02	2,747.6	-66.6	-65.3	-64.0	0.27	-0.12	-3.40
2,775.0	4.08	222.83	2,772.6	-67.9	-66.5	-65.2	0.13	-0.12	-0.76
2,800.0	4.11	222.50	2,797.5	-69.3	-67.7	-66.5	0.15	0.12	-1.32
2,825.0	4.11	221.88	2,822.4	-70.6	-68.9	-67.8	0.18	0.00	-2.48
2,850.0	4.07	220.85	2,847.4	-71.9	-70.1	-69.1	0.33	-0.16	-4.12
2,875.0	4.11	221.84	2,872.3	-73.3	-71.3	-70.4	0.32	0.16	3.96
2,900.0	4.10	221.31	2,897.2	-74.6	-72.5	-71.6	0.16	-0.04	-2.12
2,925.0	4.07	221.20	2,922.2	-75.9	-73.7	-72.9	0.12	-0.12	-0.44
2,950.0	4.02	219.35	2,947.1	-77.3	-74.8	-74.2	0.56	-0.20	-7.40
2,975.0	4.00	219.11	2,972.1	-78.6	-75.9	-75.5	0.10	-0.08	-0.96
3,000.0	3.95	219.49	2,997.0	-80.0	-77.0	-76.8	0.23	-0.20	1.52
3,025.0	3.93	218.47	3,021.9	-81.3	-78.1	-78.1	0.29	-0.08	-4.08
3,050.0	3.88	216.98	3,046.9	-82.7	-79.1	-79.4	0.45	-0.20	-5.96
3,075.0	3.92	217.31	3,071.8	-84.0	-80.2	-80.7	0.18	0.16	1.32
3,100.0	3.92	215.42	3,096.8	-85.4	-81.2	-82.1	0.52	0.00	-7.56
3,125.0	3.87	215.76	3,121.7	-86.8	-82.2	-83.4	0.22	-0.20	1.36
3,150.0	3.97	216.77	3,146.6	-88.1	-83.2	-84.8	0.49	0.40	4.04
3,175.0	3.91	216.57	3,171.6	-89.5	-84.2	-86.1	0.25	-0.24	-0.80
3,200.0	3.93	216.46	3,196.5	-90.9	-85.2	-87.4	0.09	0.08	-0.44
3,225.0	3.98	215.87	3,221.5	-92.3	-86.2	-88.8	0.26	0.20	-2.36
3,250.0	3.98	215.81	3,246.4	-93.7	-87.2	-90.1	0.02	0.00	-0.24
3,275.0	3.95	216.25	3,271.4	-95.1	-88.3	-91.5	0.17	-0.12	1.76
3,300.0	4.01	215.96	3,296.3	-96.5	-89.3	-92.9	0.25	0.24	-1.16
3,325.0	3.99	216.81	3,321.2	-97.9	-90.3	-94.2	0.25	-0.08	3.40
3,350.0	3.99	216.17	3,346.2	-99.3	-91.4	-95.6	0.18	0.00	-2.56
3,375.0	4.05	215.60	3,371.1	-100.7	-92.4	-97.0	0.29	0.24	-2.28
3,400.0	4.00	215.32	3,396.0	-102.2	-93.4	-98.3	0.21	-0.20	-1.12
3,425.0	3.95	214.74	3,421.0	-103.6	-94.4	-99.7	0.26	-0.20	-2.32
3,450.0	3.99	214.68	3,445.9	-105.0	-95.4	-101.1	0.16	0.16	-0.24
3,475.0	4.05	214.57	3,470.9	-106.4	-96.4	-102.5	0.24	0.24	-0.44
3,500.0	4.03	214.87	3,495.8	-107.9	-97.4	-103.9	0.12	-0.08	1.20
3,525.0	4.04	214.58	3,520.7	-109.3	-98.4	-105.3	0.09	0.04	-1.16
3,550.0	4.04	215.08	3,545.7	-110.8	-99.4	-106.7	0.14	0.00	2.00

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: BASEBALL CAP FED COM #26H
Wellbore: OWB
Design: ACTUAL WELLPATH

Local Co-ordinate Reference: Well BASEBALL CAP FED COM #26H
TVD Reference: RKB=3406+26 @ 3432.0usft (MCVAY 8)
MD Reference: RKB=3406+26 @ 3432.0usft (MCVAY 8)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
3,575.0	3.97	214.81	3,570.6	-112.2	-100.4	-108.1	0.29	-0.28	-1.08
3,600.0	4.02	217.01	3,595.6	-113.6	-101.4	-109.5	0.64	0.20	8.80
3,625.0	3.93	219.97	3,620.5	-115.0	-102.5	-110.8	0.90	-0.36	11.84
3,650.0	3.97	220.07	3,645.4	-116.3	-103.6	-112.1	0.16	0.16	0.40
3,675.0	3.90	221.50	3,670.4	-117.6	-104.7	-113.3	0.48	-0.28	5.72
3,700.0	3.86	221.39	3,695.3	-118.9	-105.8	-114.5	0.16	-0.16	-0.44
3,725.0	3.89	221.40	3,720.3	-120.1	-106.9	-115.8	0.12	0.12	0.04
3,750.0	4.08	222.27	3,745.2	-121.4	-108.1	-117.0	0.80	0.76	3.48
3,775.0	4.29	223.89	3,770.1	-122.8	-109.4	-118.3	0.96	0.84	6.48
3,800.0	3.88	221.40	3,795.1	-124.1	-110.6	-119.6	1.79	-1.64	-9.96
3,825.0	3.93	221.99	3,820.0	-125.3	-111.7	-120.8	0.26	0.20	2.36
3,850.0	4.07	224.70	3,845.0	-126.6	-112.9	-122.0	0.94	0.56	10.84
3,875.0	4.23	227.89	3,869.9	-127.8	-114.2	-123.2	1.12	0.64	12.76
3,900.0	4.35	231.04	3,894.8	-129.1	-115.6	-124.3	1.06	0.48	12.60
3,925.0	4.40	234.31	3,919.7	-130.2	-117.1	-125.4	1.02	0.20	13.08
3,950.0	4.46	233.87	3,944.7	-131.3	-118.7	-126.5	0.28	0.24	-1.76
3,975.0	4.50	233.59	3,969.6	-132.5	-120.3	-127.6	0.18	0.16	-1.12
4,000.0	4.50	233.95	3,994.5	-133.7	-121.9	-128.7	0.11	0.00	1.44
4,025.0	4.46	234.61	4,019.4	-134.8	-123.4	-129.8	0.26	-0.16	2.64
4,050.0	4.46	234.95	4,044.4	-135.9	-125.0	-130.8	0.11	0.00	1.36
4,075.0	4.48	234.15	4,069.3	-137.1	-126.6	-131.9	0.26	0.08	-3.20
4,100.0	4.51	234.03	4,094.2	-138.2	-128.2	-133.0	0.13	0.12	-0.48
4,125.0	4.54	234.39	4,119.1	-139.4	-129.8	-134.1	0.17	0.12	1.44
4,150.0	4.49	234.38	4,144.1	-140.5	-131.4	-135.2	0.20	-0.20	-0.04
4,175.0	4.40	234.46	4,169.0	-141.6	-133.0	-136.2	0.36	-0.36	0.32
4,200.0	4.45	234.52	4,193.9	-142.8	-134.6	-137.3	0.20	0.20	0.24
4,225.0	4.41	233.12	4,218.8	-143.9	-136.1	-138.3	0.46	-0.16	-5.60
4,250.0	4.50	233.09	4,243.8	-145.1	-137.7	-139.5	0.36	0.36	-0.12
4,275.0	4.49	233.22	4,268.7	-146.2	-139.2	-140.6	0.06	-0.04	0.52
4,300.0	4.46	233.29	4,293.6	-147.4	-140.8	-141.7	0.12	-0.12	0.28
4,325.0	4.47	232.31	4,318.5	-148.6	-142.3	-142.8	0.31	0.04	-3.92
4,350.0	4.39	232.00	4,343.5	-149.8	-143.9	-143.9	0.33	-0.32	-1.24
4,375.0	4.39	231.86	4,368.4	-150.9	-145.4	-145.0	0.04	0.00	-0.56
4,400.0	4.36	230.93	4,393.3	-152.1	-146.9	-146.2	0.31	-0.12	-3.72
4,425.0	4.39	230.16	4,418.2	-153.3	-148.3	-147.3	0.26	0.12	-3.08
4,450.0	4.39	227.69	4,443.2	-154.6	-149.8	-148.5	0.76	0.00	-9.88
4,475.0	4.45	226.14	4,468.1	-155.9	-151.2	-149.8	0.53	0.24	-6.20
4,500.0	4.34	223.84	4,493.0	-157.3	-152.5	-151.1	0.83	-0.44	-9.20
4,525.0	4.25	220.39	4,517.9	-158.7	-153.8	-152.4	1.09	-0.36	-13.80
4,550.0	4.24	217.83	4,542.9	-160.1	-155.0	-153.8	0.76	-0.04	-10.24
4,575.0	4.31	215.33	4,567.8	-161.6	-156.1	-155.2	0.80	0.28	-10.00
4,600.0	4.27	212.10	4,592.7	-163.1	-157.1	-156.7	0.98	-0.16	-12.92
4,625.0	4.19	209.38	4,617.7	-164.7	-158.1	-158.3	0.86	-0.32	-10.88

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: BASEBALL CAP FED COM #26H
Wellbore: OWB
Design: ACTUAL WELLPATH

Local Co-ordinate Reference: Well BASEBALL CAP FED COM #26H
TVD Reference: RKB=3406+26 @ 3432.0usft (MCVAY 8)
MD Reference: RKB=3406+26 @ 3432.0usft (MCVAY 8)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
4,650.0	4.15	204.88	4,642.6	-166.3	-158.9	-159.9	1.32	-0.16	-18.00
4,675.0	4.19	202.12	4,667.5	-168.0	-159.6	-161.5	0.82	0.16	-11.04
4,700.0	4.29	200.13	4,692.5	-169.7	-160.3	-163.2	0.71	0.40	-7.96
4,725.0	4.32	196.82	4,717.4	-171.5	-160.9	-165.0	1.00	0.12	-13.24
4,750.0	4.33	194.47	4,742.3	-173.3	-161.4	-166.8	0.71	0.04	-9.40
4,775.0	4.30	193.80	4,767.3	-175.2	-161.8	-168.6	0.23	-0.12	-2.68
4,800.0	4.35	193.31	4,792.2	-177.0	-162.3	-170.4	0.25	0.20	-1.96
4,825.0	4.38	192.95	4,817.1	-178.8	-162.7	-172.2	0.16	0.12	-1.44
4,850.0	4.38	192.74	4,842.0	-180.7	-163.1	-174.1	0.06	0.00	-0.84
4,875.0	4.43	194.03	4,867.0	-182.6	-163.6	-175.9	0.44	0.20	5.16
4,900.0	4.42	194.55	4,891.9	-184.4	-164.1	-177.7	0.17	-0.04	2.08
4,925.0	4.38	196.58	4,916.8	-186.3	-164.6	-179.6	0.64	-0.16	8.12
4,950.0	4.41	199.60	4,941.7	-188.1	-165.2	-181.4	0.93	0.12	12.08
4,975.0	4.38	201.49	4,966.7	-189.9	-165.8	-183.1	0.59	-0.12	7.56
5,000.0	4.32	201.89	4,991.6	-191.7	-166.5	-184.9	0.27	-0.24	1.60
5,025.0	4.22	203.60	5,016.5	-193.4	-167.3	-186.6	0.65	-0.40	6.84
5,050.0	4.19	204.48	5,041.5	-195.1	-168.0	-188.2	0.28	-0.12	3.52
5,075.0	4.12	206.76	5,066.4	-196.7	-168.8	-189.8	0.72	-0.28	9.12
5,100.0	4.01	211.05	5,091.3	-198.2	-169.6	-191.3	1.29	-0.44	17.16
5,125.0	4.00	218.37	5,116.3	-199.7	-170.6	-192.7	2.04	-0.04	29.28
5,150.0	3.95	222.37	5,141.2	-201.0	-171.8	-194.0	1.13	-0.20	16.00
5,175.0	3.99	225.53	5,166.1	-202.2	-173.0	-195.2	0.89	0.16	12.64
5,200.0	4.00	229.52	5,191.1	-203.4	-174.2	-196.3	1.11	0.04	15.96
5,225.0	4.05	233.78	5,216.0	-204.5	-175.6	-197.3	1.21	0.20	17.04
5,250.0	4.08	234.66	5,241.0	-205.5	-177.1	-198.3	0.28	0.12	3.52
5,275.0	4.03	234.76	5,265.9	-206.6	-178.5	-199.3	0.20	-0.20	0.40
5,300.0	3.95	236.06	5,290.8	-207.5	-179.9	-200.2	0.48	-0.32	5.20
5,325.0	3.84	235.96	5,315.8	-208.5	-181.3	-201.1	0.44	-0.44	-0.40
5,350.0	3.83	236.52	5,340.7	-209.4	-182.7	-202.0	0.16	-0.04	2.24
5,375.0	3.83	237.24	5,365.7	-210.3	-184.1	-202.8	0.19	0.00	2.88
5,400.0	3.85	236.64	5,390.6	-211.2	-185.5	-203.7	0.18	0.08	-2.40
5,425.0	3.91	236.68	5,415.6	-212.2	-186.9	-204.6	0.24	0.24	0.16
5,450.0	3.95	238.42	5,440.5	-213.1	-188.4	-205.4	0.50	0.16	6.96
5,475.0	4.09	242.67	5,465.4	-214.0	-189.9	-206.2	1.32	0.56	17.00
5,500.0	4.34	246.22	5,490.4	-214.7	-191.6	-206.9	1.44	1.00	14.20
5,525.0	4.38	247.51	5,515.3	-215.5	-193.3	-207.6	0.42	0.16	5.16
5,550.0	4.39	247.51	5,540.2	-216.2	-195.1	-208.3	0.04	0.04	0.00
5,575.0	4.52	247.01	5,565.1	-217.0	-196.9	-209.0	0.54	0.52	-2.00
5,600.0	4.43	247.53	5,590.1	-217.7	-198.7	-209.6	0.39	-0.36	2.08
5,625.0	4.41	247.04	5,615.0	-218.5	-200.4	-210.3	0.17	-0.08	-1.96
5,650.0	4.38	248.03	5,639.9	-219.2	-202.2	-211.0	0.33	-0.12	3.96
5,675.0	4.34	246.76	5,664.9	-219.9	-204.0	-211.6	0.42	-0.16	-5.08
5,700.0	4.42	246.99	5,689.8	-220.7	-205.7	-212.3	0.33	0.32	0.92



Survey Report

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: BASEBALL CAP FED COM #26H
Wellbore: OWB
Design: ACTUAL WELLPATH

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well BASEBALL CAP FED COM #26H
 RKB=3406+26 @ 3432.0usft (MCVAY 8)
 RKB=3406+26 @ 3432.0usft (MCVAY 8)
 Grid
 Minimum Curvature
 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)
5,725.0	4.38	246.72	5,714.7	-221.4	-207.5	-213.0	0.18	-0.16	-1.08
5,750.0	4.32	247.81	5,739.6	-222.2	-209.2	-213.7	0.41	-0.24	4.36
5,775.0	4.35	247.02	5,764.6	-222.9	-211.0	-214.3	0.27	0.12	-3.16
5,800.0	4.47	247.50	5,789.5	-223.6	-212.8	-215.0	0.50	0.48	1.92
5,825.0	4.42	247.36	5,814.4	-224.4	-214.5	-215.6	0.20	-0.20	-0.56
5,850.0	4.34	247.31	5,839.3	-225.1	-216.3	-216.3	0.32	-0.32	-0.20
5,875.0	4.36	247.86	5,864.3	-225.8	-218.1	-217.0	0.19	0.08	2.20
5,900.0	4.44	247.71	5,889.2	-226.6	-219.8	-217.6	0.32	0.32	-0.60
5,925.0	4.38	248.16	5,914.1	-227.3	-221.6	-218.3	0.28	-0.24	1.80
5,950.0	4.26	248.22	5,939.0	-228.0	-223.4	-218.9	0.48	-0.48	0.24
5,975.0	4.27	247.56	5,964.0	-228.7	-225.1	-219.5	0.20	0.04	-2.64
6,000.0	4.26	247.51	5,988.9	-229.4	-226.8	-220.2	0.04	-0.04	-0.20
6,025.0	4.37	248.07	6,013.8	-230.1	-228.6	-220.8	0.47	0.44	2.24
6,050.0	4.21	247.52	6,038.8	-230.8	-230.3	-221.5	0.66	-0.64	-2.20
6,075.0	4.19	246.48	6,063.7	-231.5	-232.0	-222.1	0.31	-0.08	-4.16
6,100.0	4.17	246.87	6,088.6	-232.3	-233.6	-222.8	0.14	-0.08	1.56
6,125.0	4.16	246.64	6,113.6	-233.0	-235.3	-223.4	0.08	-0.04	-0.92
6,150.0	4.18	246.35	6,138.5	-233.7	-237.0	-224.1	0.12	0.08	-1.16
6,175.0	4.21	246.55	6,163.4	-234.4	-238.7	-224.7	0.13	0.12	0.80
6,200.0	4.21	246.85	6,188.4	-235.2	-240.3	-225.4	0.09	0.00	1.20
6,225.0	4.18	245.66	6,213.3	-235.9	-242.0	-226.0	0.37	-0.12	-4.76
6,250.0	4.21	245.51	6,238.2	-236.6	-243.7	-226.7	0.13	0.12	-0.60
6,275.0	4.17	245.24	6,263.2	-237.4	-245.3	-227.4	0.18	-0.16	-1.08
6,300.0	4.17	245.54	6,288.1	-238.2	-247.0	-228.1	0.09	0.00	1.20
6,325.0	4.21	244.78	6,313.0	-238.9	-248.6	-228.8	0.27	0.16	-3.04
6,350.0	4.19	245.11	6,338.0	-239.7	-250.3	-229.5	0.13	-0.08	1.32
6,375.0	4.26	245.30	6,362.9	-240.5	-252.0	-230.2	0.29	0.28	0.76
6,400.0	4.34	244.66	6,387.8	-241.3	-253.7	-231.0	0.37	0.32	-2.56
6,425.0	4.43	243.59	6,412.8	-242.1	-255.4	-231.7	0.49	0.36	-4.28
6,450.0	4.43	243.59	6,437.7	-243.0	-257.1	-232.5	0.00	0.00	0.00
6,475.0	4.46	244.42	6,462.6	-243.8	-258.9	-233.3	0.28	0.12	3.32
6,500.0	4.44	244.60	6,487.5	-244.6	-260.6	-234.1	0.10	-0.08	0.72
6,525.0	4.48	243.18	6,512.5	-245.5	-262.4	-234.8	0.47	0.16	-5.68
6,550.0	4.51	243.41	6,537.4	-246.4	-264.1	-235.7	0.14	0.12	0.92
6,575.0	4.48	243.97	6,562.3	-247.3	-265.9	-236.5	0.21	-0.12	2.24
6,600.0	4.49	243.86	6,587.2	-248.1	-267.6	-237.2	0.05	0.04	-0.44
6,625.0	4.52	243.71	6,612.1	-249.0	-269.4	-238.0	0.13	0.12	-0.60
6,650.0	4.53	243.96	6,637.1	-249.8	-271.2	-238.8	0.09	0.04	1.00
6,675.0	4.57	243.38	6,662.0	-250.7	-272.9	-239.6	0.24	0.16	-2.32
6,700.0	4.60	243.55	6,686.9	-251.6	-274.7	-240.5	0.13	0.12	0.68
6,725.0	4.59	243.47	6,711.8	-252.5	-276.5	-241.3	0.05	-0.04	-0.32
6,750.0	4.58	244.04	6,736.8	-253.4	-278.3	-242.1	0.19	-0.04	2.28
6,775.0	4.61	243.48	6,761.7	-254.3	-280.1	-242.9	0.22	0.12	-2.24
6,800.0	4.62	243.27	6,786.6	-255.2	-281.9	-243.7	0.08	0.04	-0.84

Company: NORTHERN DELAWARE BASIN
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Wellbore: OWB
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Survey Calculation Method:
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Well BASEBALL CAP FED COM #26H
 RKB=3406+26 @ 3432.0usft (MCVAY 8)
 RKB=3406+26 @ 3432.0usft (MCVAY 8)
 Grid
 Minimum Curvature
 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)
6,825.0	4.62	243.54	6,811.5	-256.1	-283.7	-244.6	0.09	0.00	1.08
6,850.0	4.64	243.22	6,836.4	-257.0	-285.5	-245.4	0.13	0.08	-1.28
6,875.0	4.71	242.92	6,861.3	-257.9	-287.3	-246.3	0.30	0.28	-1.20
6,900.0	4.74	242.00	6,886.3	-258.9	-289.2	-247.1	0.33	0.12	-3.68
6,925.0	4.83	241.74	6,911.2	-259.9	-291.0	-248.0	0.37	0.36	-1.04
6,950.0	4.86	239.27	6,936.1	-260.9	-292.8	-249.0	0.84	0.12	-9.88
6,975.0	4.88	237.55	6,961.0	-262.0	-294.6	-250.0	0.59	0.08	-6.88
7,000.0	4.98	237.27	6,985.9	-263.2	-296.4	-251.1	0.41	0.40	-1.12
7,025.0	5.02	236.36	7,010.8	-264.4	-298.3	-252.2	0.36	0.16	-3.64
7,050.0	4.96	236.08	7,035.7	-265.6	-300.1	-253.4	0.26	-0.24	-1.12
7,075.0	4.91	234.71	7,060.6	-266.8	-301.8	-254.5	0.51	-0.20	-5.48
7,100.0	4.80	233.23	7,085.5	-268.0	-303.6	-255.7	0.67	-0.44	-5.92
7,125.0	4.70	232.03	7,110.4	-269.3	-305.2	-256.9	0.56	-0.40	-4.80
7,150.0	4.62	231.13	7,135.4	-270.5	-306.8	-258.1	0.43	-0.32	-3.60
7,175.0	4.54	230.04	7,160.3	-271.8	-308.3	-259.3	0.47	-0.32	-4.36
7,200.0	4.51	229.99	7,185.2	-273.1	-309.8	-260.5	0.12	-0.12	-0.20
7,225.0	4.53	229.55	7,210.1	-274.4	-311.4	-261.7	0.16	0.08	-1.76
7,250.0	4.49	228.86	7,235.0	-275.6	-312.8	-262.9	0.27	-0.16	-2.76
7,275.0	4.43	228.17	7,260.0	-276.9	-314.3	-264.2	0.32	-0.24	-2.76
7,300.0	4.20	225.84	7,284.9	-278.2	-315.7	-265.4	1.16	-0.92	-9.32
7,325.0	3.97	225.07	7,309.8	-279.5	-316.9	-266.6	0.95	-0.92	-3.08
7,350.0	3.88	224.77	7,334.8	-280.7	-318.2	-267.8	0.37	-0.36	-1.20
7,375.0	3.65	223.67	7,359.7	-281.8	-319.3	-268.9	0.96	-0.92	-4.40
7,400.0	3.47	222.77	7,384.7	-283.0	-320.4	-270.0	0.75	-0.72	-3.60
7,425.0	3.38	223.98	7,409.6	-284.1	-321.4	-271.0	0.46	-0.36	4.84
7,450.0	3.07	225.06	7,434.6	-285.1	-322.4	-272.0	1.26	-1.24	4.32
7,475.0	2.99	225.35	7,459.6	-286.0	-323.3	-272.9	0.33	-0.32	1.16
7,500.0	2.86	223.92	7,484.5	-286.9	-324.2	-273.7	0.60	-0.52	-5.72
7,525.0	2.83	225.86	7,509.5	-287.8	-325.1	-274.6	0.40	-0.12	7.76
7,550.0	2.73	225.52	7,534.5	-288.6	-325.9	-275.4	0.41	-0.40	-1.36
7,575.0	2.76	224.81	7,559.4	-289.5	-326.8	-276.2	0.18	0.12	-2.84
7,600.0	2.72	225.30	7,584.4	-290.3	-327.6	-277.0	0.19	-0.16	1.96
7,625.0	2.67	224.99	7,609.4	-291.1	-328.5	-277.8	0.21	-0.20	-1.24
7,650.0	2.63	224.09	7,634.4	-292.0	-329.3	-278.6	0.23	-0.16	-3.60
7,675.0	2.59	224.75	7,659.3	-292.8	-330.1	-279.4	0.20	-0.16	2.64
7,700.0	2.62	224.66	7,684.3	-293.6	-330.9	-280.2	0.12	0.12	-0.36
7,725.0	2.35	226.68	7,709.3	-294.3	-331.7	-280.9	1.14	-1.08	8.08
7,750.0	2.04	228.62	7,734.3	-295.0	-332.4	-281.5	1.27	-1.24	7.76
7,775.0	1.77	230.16	7,759.2	-295.5	-333.0	-282.0	1.10	-1.08	6.16
7,800.0	1.62	231.18	7,784.2	-296.0	-333.6	-282.5	0.61	-0.60	4.08
7,825.0	1.39	234.52	7,809.2	-296.4	-334.1	-282.8	0.98	-0.92	13.36
7,850.0	1.17	238.39	7,834.2	-296.7	-334.6	-283.1	0.95	-0.88	15.48
7,875.0	1.06	238.91	7,859.2	-297.0	-335.0	-283.4	0.44	-0.44	2.08

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: BASEBALL CAP FED COM #26H
Wellbore: OWB
Design: ACTUAL WELLPATH

Local Co-ordinate Reference: Well BASEBALL CAP FED COM #26H
TVD Reference: RKB=3406+26 @ 3432.0usft (MCVAY 8)
MD Reference: RKB=3406+26 @ 3432.0usft (MCVAY 8)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
7,900.0	1.02	239.31	7,884.2	-297.2	-335.4	-283.6	0.16	-0.16	1.60
7,925.0	1.08	236.96	7,909.2	-297.4	-335.7	-283.8	0.30	0.24	-9.40
7,950.0	1.08	240.63	7,934.2	-297.7	-336.2	-284.0	0.28	0.00	14.68
7,975.0	1.08	237.85	7,959.2	-297.9	-336.6	-284.3	0.21	0.00	-11.12
8,000.0	1.08	239.22	7,984.2	-298.2	-337.0	-284.5	0.10	0.00	5.48
8,025.0	1.06	238.13	8,009.2	-298.4	-337.4	-284.7	0.11	-0.08	-4.36
8,050.0	1.05	239.48	8,034.2	-298.6	-337.7	-284.9	0.11	-0.04	5.40
8,075.0	1.03	239.23	8,059.2	-298.9	-338.1	-285.2	0.08	-0.08	-1.00
8,100.0	0.96	241.09	8,084.2	-299.1	-338.5	-285.4	0.31	-0.28	7.44
8,125.0	0.79	248.25	8,109.2	-299.3	-338.9	-285.5	0.81	-0.68	28.64
8,150.0	0.61	268.65	8,134.2	-299.3	-339.2	-285.6	1.22	-0.72	81.60
8,175.0	0.56	270.66	8,159.2	-299.3	-339.4	-285.6	0.22	-0.20	8.04
8,200.0	0.62	266.55	8,184.2	-299.3	-339.7	-285.6	0.29	0.24	-16.44
8,225.0	0.60	269.61	8,209.2	-299.3	-339.9	-285.6	0.15	-0.08	12.24
8,250.0	0.59	269.69	8,234.2	-299.3	-340.2	-285.5	0.04	-0.04	0.32
8,275.0	0.52	275.66	8,259.2	-299.3	-340.4	-285.5	0.36	-0.28	23.88
8,300.0	0.44	297.33	8,284.2	-299.3	-340.6	-285.5	0.79	-0.32	86.68
8,325.0	0.39	305.06	8,309.2	-299.2	-340.8	-285.4	0.30	-0.20	30.92
8,350.0	0.40	310.59	8,334.2	-299.1	-340.9	-285.3	0.16	0.04	22.12
8,375.0	0.37	305.54	8,359.2	-299.0	-341.1	-285.1	0.18	-0.12	-20.20
8,400.0	0.42	296.31	8,384.2	-298.9	-341.2	-285.0	0.32	0.20	-36.92
8,425.0	0.35	295.12	8,409.2	-298.8	-341.4	-285.0	0.28	-0.28	-4.76
8,450.0	0.41	302.89	8,434.2	-298.7	-341.5	-284.9	0.32	0.24	31.08
8,475.0	0.42	297.98	8,459.2	-298.6	-341.7	-284.8	0.15	0.04	-19.64
8,500.0	0.41	306.85	8,484.2	-298.6	-341.8	-284.7	0.26	-0.04	35.48
8,525.0	0.40	308.96	8,509.2	-298.4	-341.9	-284.6	0.07	-0.04	8.44
8,550.0	0.39	302.81	8,534.2	-298.3	-342.1	-284.5	0.17	-0.04	-24.60
8,575.0	0.37	304.68	8,559.2	-298.2	-342.2	-284.4	0.09	-0.08	7.48
8,600.0	0.40	301.30	8,584.2	-298.2	-342.4	-284.3	0.15	0.12	-13.52
8,625.0	0.41	305.97	8,609.2	-298.1	-342.5	-284.2	0.14	0.04	18.68
8,650.0	0.39	299.46	8,634.2	-298.0	-342.7	-284.1	0.20	-0.08	-26.04
8,675.0	0.42	298.33	8,659.2	-297.9	-342.8	-284.0	0.12	0.12	-4.52
8,700.0	0.39	294.41	8,684.2	-297.8	-343.0	-283.9	0.16	-0.12	-15.68
8,725.0	0.39	299.64	8,709.2	-297.7	-343.1	-283.8	0.14	0.00	20.92
8,750.0	0.38	300.10	8,734.2	-297.6	-343.3	-283.7	0.04	-0.04	1.84
8,775.0	0.42	299.38	8,759.2	-297.6	-343.4	-283.6	0.16	0.16	-2.88
8,800.0	0.48	301.49	8,784.2	-297.5	-343.6	-283.5	0.25	0.24	8.44
8,825.0	0.49	304.93	8,809.2	-297.3	-343.8	-283.4	0.12	0.04	13.76
8,850.0	0.46	309.43	8,834.2	-297.2	-343.9	-283.3	0.19	-0.12	18.00
8,875.0	0.47	300.91	8,859.1	-297.1	-344.1	-283.1	0.28	0.04	-34.08
8,900.0	0.55	308.94	8,884.1	-297.0	-344.3	-283.0	0.43	0.32	32.12
8,925.0	0.63	309.88	8,909.1	-296.8	-344.5	-282.8	0.32	0.32	3.76
8,950.0	0.60	313.03	8,934.1	-296.6	-344.7	-282.6	0.18	-0.12	12.60

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: BASEBALL CAP FED COM #26H
Wellbore: OVB
Design: ACTUAL WELLPATH

Local Co-ordinate Reference: Well BASEBALL CAP FED COM #26H
TVD Reference: RKB=3406+26 @ 3432.0usft (MCVAY 8)
MD Reference: RKB=3406+26 @ 3432.0usft (MCVAY 8)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
8,975.0	0.62	308.58	8,959.1	-296.5	-344.9	-282.5	0.21	0.08	-17.80
9,000.0	0.65	307.55	8,984.1	-296.3	-345.1	-282.3	0.13	0.12	-4.12
9,025.0	0.68	315.13	9,009.1	-296.1	-345.3	-282.1	0.37	0.12	30.32
9,050.0	0.68	310.45	9,034.1	-295.9	-345.5	-281.9	0.22	0.00	-18.72
9,075.0	0.74	313.94	9,059.1	-295.7	-345.8	-281.7	0.30	0.24	13.96
9,100.0	0.76	314.92	9,084.1	-295.5	-346.0	-281.4	0.10	0.08	3.92
9,125.0	0.81	310.59	9,109.1	-295.2	-346.2	-281.2	0.31	0.20	-17.32
9,150.0	0.85	313.16	9,134.1	-295.0	-346.5	-280.9	0.22	0.16	10.28
9,175.0	0.84	313.76	9,159.1	-294.7	-346.8	-280.7	0.05	-0.04	2.40
9,200.0	0.88	313.31	9,184.1	-294.5	-347.1	-280.4	0.16	0.16	-1.80
9,225.0	0.87	314.16	9,209.1	-294.2	-347.3	-280.1	0.07	-0.04	3.40
9,250.0	0.86	313.96	9,234.1	-293.9	-347.6	-279.8	0.04	-0.04	-0.80
9,275.0	0.92	313.14	9,259.1	-293.7	-347.9	-279.6	0.25	0.24	-3.28
9,300.0	0.93	313.33	9,284.1	-293.4	-348.2	-279.3	0.04	0.04	0.76
9,325.0	0.99	314.90	9,309.1	-293.1	-348.5	-279.0	0.26	0.24	6.28
9,350.0	0.98	314.40	9,334.1	-292.8	-348.8	-278.7	0.05	-0.04	-2.00
9,375.0	1.04	313.55	9,359.1	-292.5	-349.1	-278.3	0.25	0.24	-3.40
9,400.0	1.03	313.21	9,384.1	-292.2	-349.4	-278.0	0.05	-0.04	-1.36
9,425.0	1.04	312.89	9,409.1	-291.9	-349.8	-277.7	0.05	0.04	-1.28
9,450.0	1.11	310.28	9,434.1	-291.6	-350.1	-277.4	0.34	0.28	-10.44
9,475.0	1.14	311.36	9,459.1	-291.2	-350.5	-277.0	0.15	0.12	4.32
9,500.0	1.13	311.97	9,484.1	-290.9	-350.8	-276.7	0.06	-0.04	2.44
9,525.0	1.20	311.02	9,509.1	-290.6	-351.2	-276.3	0.29	0.28	-3.80
9,550.0	1.24	311.50	9,534.1	-290.2	-351.6	-276.0	0.17	0.16	1.92
9,575.0	1.26	308.65	9,559.1	-289.9	-352.0	-275.6	0.26	0.08	-11.40
9,600.0	1.29	307.55	9,584.1	-289.5	-352.5	-275.2	0.15	0.12	-4.40
9,625.0	1.35	307.81	9,609.0	-289.2	-352.9	-274.9	0.24	0.24	1.04
9,650.0	1.30	307.43	9,634.0	-288.8	-353.4	-274.5	0.20	-0.20	-1.52
9,675.0	1.31	307.12	9,659.0	-288.5	-353.9	-274.1	0.05	0.04	-1.24
9,700.0	1.35	307.57	9,684.0	-288.1	-354.3	-273.8	0.17	0.16	1.80
9,725.0	1.32	306.99	9,709.0	-287.8	-354.8	-273.4	0.13	-0.12	-2.32
9,750.0	1.48	304.30	9,734.0	-287.4	-355.3	-273.0	0.69	0.64	-10.76
9,775.0	1.59	300.43	9,759.0	-287.1	-355.8	-272.6	0.60	0.44	-15.48
9,800.0	1.73	299.23	9,784.0	-286.7	-356.5	-272.3	0.58	0.56	-4.80
9,825.0	1.83	297.84	9,809.0	-286.3	-357.2	-271.9	0.44	0.40	-5.56
9,850.0	1.84	295.74	9,834.0	-286.0	-357.9	-271.5	0.27	0.04	-8.40
9,875.0	1.84	298.48	9,859.0	-285.6	-358.6	-271.1	0.35	0.00	10.96
9,900.0	1.86	297.66	9,883.9	-285.2	-359.3	-270.7	0.13	0.08	-3.28
9,925.0	1.86	297.96	9,908.9	-284.9	-360.0	-270.3	0.04	0.00	1.20
9,950.0	1.92	297.33	9,933.9	-284.5	-360.7	-269.9	0.25	0.24	-2.52
9,975.0	1.89	298.62	9,958.9	-284.1	-361.5	-269.4	0.21	-0.12	5.16
10,000.0	1.88	298.56	9,983.9	-283.7	-362.2	-269.0	0.04	-0.04	-0.24
10,025.0	1.94	298.70	10,008.9	-283.3	-362.9	-268.6	0.24	0.24	0.56
10,050.0	1.90	299.09	10,033.9	-282.9	-363.7	-268.2	0.17	-0.16	1.56

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #26H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Well:	BASEBALL CAP FED COM #26H	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)
10,075.0	1.92	297.95	10,058.8	-282.5	-364.4	-267.7	0.17	0.08	-4.56
10,100.0	1.96	297.42	10,083.8	-282.1	-365.1	-267.3	0.18	0.16	-2.12
10,125.0	1.92	298.44	10,108.8	-281.7	-365.9	-266.9	0.21	-0.16	4.08
10,150.0	1.95	297.77	10,133.8	-281.3	-366.6	-266.5	0.15	0.12	-2.68
10,175.0	1.89	299.45	10,158.8	-280.9	-367.4	-266.0	0.33	-0.24	6.72
10,200.0	1.81	295.71	10,183.8	-280.5	-368.1	-265.6	0.58	-0.32	-14.96
10,225.0	1.73	290.65	10,208.8	-280.2	-368.8	-265.3	0.70	-0.32	-20.24
10,250.0	1.66	289.15	10,233.8	-280.0	-369.5	-265.0	0.33	-0.28	-6.00
10,275.0	1.63	290.08	10,258.7	-279.7	-370.2	-264.7	0.16	-0.12	3.72
10,300.0	1.67	289.56	10,283.7	-279.5	-370.8	-264.5	0.17	0.16	-2.08
10,325.0	1.68	289.63	10,308.7	-279.2	-371.5	-264.2	0.04	0.04	0.28
10,350.0	1.66	289.97	10,333.7	-279.0	-372.2	-263.9	0.09	-0.08	1.36
10,375.0	1.65	286.88	10,358.7	-278.8	-372.9	-263.7	0.36	-0.04	-12.36
10,400.0	1.65	286.41	10,383.7	-278.6	-373.6	-263.4	0.05	0.00	-1.88
10,425.0	1.59	284.06	10,408.7	-278.4	-374.3	-263.2	0.36	-0.24	-9.40
10,450.0	1.26	279.43	10,433.7	-278.2	-374.9	-263.1	1.40	-1.32	-18.52
10,475.0	1.23	274.81	10,458.7	-278.2	-375.4	-263.0	0.42	-0.12	-18.48
10,500.0	1.17	277.31	10,483.7	-278.1	-375.9	-262.9	0.32	-0.24	10.00
10,525.0	1.19	272.72	10,508.7	-278.1	-376.5	-262.8	0.39	0.08	-18.36
10,550.0	1.26	274.40	10,533.7	-278.0	-377.0	-262.8	0.31	0.28	6.72
10,575.0	1.25	271.21	10,558.6	-278.0	-377.5	-262.7	0.28	-0.04	-12.76
10,600.0	1.34	272.64	10,583.6	-278.0	-378.1	-262.7	0.38	0.36	5.72
10,625.0	1.22	269.66	10,608.6	-278.0	-378.7	-262.7	0.55	-0.48	-11.92
10,650.0	1.35	271.69	10,633.6	-278.0	-379.2	-262.6	0.55	0.52	8.12
10,675.0	1.30	272.64	10,658.6	-278.0	-379.8	-262.6	0.22	-0.20	3.80
10,700.0	1.29	271.86	10,683.6	-277.9	-380.4	-262.5	0.08	-0.04	-3.12
10,725.0	0.86	269.89	10,708.6	-277.9	-380.8	-262.5	1.73	-1.72	-7.88
10,750.0	0.36	259.71	10,733.6	-277.9	-381.1	-262.5	2.04	-2.00	-40.72
10,775.0	0.21	247.49	10,758.6	-278.0	-381.2	-262.5	0.64	-0.60	-48.88
10,800.0	0.25	239.03	10,783.6	-278.0	-381.3	-262.6	0.21	0.16	-33.84
10,825.0	0.19	231.25	10,808.6	-278.1	-381.4	-262.6	0.27	-0.24	-31.12
10,850.0	0.38	129.45	10,833.6	-278.1	-381.3	-262.7	1.83	0.76	-407.20
10,875.0	0.85	117.53	10,858.6	-278.3	-381.1	-262.9	1.94	1.88	-47.68
10,900.0	0.95	117.01	10,883.6	-278.5	-380.8	-263.1	0.40	0.40	-2.08
10,925.0	1.06	119.05	10,908.6	-278.7	-380.4	-263.3	0.46	0.44	8.16
10,950.0	1.37	115.90	10,933.6	-278.9	-379.9	-263.5	1.27	1.24	-12.60
10,975.0	1.57	114.56	10,958.6	-279.2	-379.3	-263.8	0.81	0.80	-5.36
11,000.0	1.58	116.69	10,983.6	-279.5	-378.7	-264.2	0.24	0.04	8.52
11,025.0	1.57	114.00	11,008.6	-279.8	-378.1	-264.5	0.30	-0.04	-10.76
11,050.0	1.63	114.17	11,033.6	-280.1	-377.5	-264.8	0.24	0.24	0.68
11,075.0	1.72	115.37	11,058.5	-280.4	-376.8	-265.1	0.39	0.36	4.80
11,100.0	1.73	114.70	11,083.5	-280.7	-376.1	-265.5	0.09	0.04	-2.68
11,125.0	1.71	115.38	11,108.5	-281.0	-375.4	-265.8	0.11	-0.08	2.72



Company: NORTHERN DELAWARE BASIN
 Project: LEA COUNTY, NM
 Site: BULLDOG
 Well: BASEBALL CAP FED COM #26H
 Wellbore: OWB
 Design: ACTUAL WELLPATH

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:
 Database:

Well BASEBALL CAP FED COM #26H
 RKB=3406+26 @ 3432.0usft (MCVAY 8)
 RKB=3406+26 @ 3432.0usft (MCVAY 8)
 Grid
 Minimum Curvature
 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)
11,150.0	1.74	116.54	11,133.5	-281.3	-374.8	-266.2	0.18	0.12	4.64
11,175.0	1.75	115.04	11,158.5	-281.7	-374.1	-266.5	0.19	0.04	-6.00
11,200.0	1.77	120.49	11,183.5	-282.0	-373.4	-266.9	0.67	0.08	21.80
11,225.0	1.76	121.45	11,208.5	-282.4	-372.7	-267.3	0.12	-0.04	3.84
11,250.0	1.75	124.39	11,233.5	-282.8	-372.1	-267.8	0.36	-0.04	11.76
11,275.0	1.83	130.57	11,258.5	-283.3	-371.5	-268.3	0.84	0.32	24.72
11,300.0	1.74	133.74	11,283.4	-283.8	-370.9	-268.8	0.53	-0.36	12.68
11,325.0	1.84	138.39	11,308.4	-284.4	-370.3	-269.4	0.71	0.40	18.60
11,350.0	1.81	140.25	11,333.4	-285.0	-369.8	-270.0	0.27	-0.12	7.44
11,375.0	1.88	140.88	11,358.4	-285.6	-369.3	-270.7	0.29	0.28	2.52
11,400.0	1.89	143.15	11,383.4	-286.3	-368.8	-271.3	0.30	0.04	9.08
11,425.0	1.98	147.18	11,408.4	-287.0	-368.3	-272.0	0.65	0.36	16.12
11,450.0	2.11	151.85	11,433.4	-287.7	-367.9	-272.8	0.85	0.52	18.68
11,475.0	2.23	156.08	11,458.3	-288.6	-367.5	-273.7	0.80	0.48	16.92
11,500.0	2.24	159.23	11,483.3	-289.5	-367.1	-274.6	0.49	0.04	12.60
11,525.0	2.29	163.33	11,508.3	-290.4	-366.8	-275.6	0.68	0.20	16.40
11,550.0	2.29	168.70	11,533.3	-291.4	-366.5	-276.5	0.86	0.00	21.48
11,575.0	2.25	173.38	11,558.3	-292.4	-366.4	-277.5	0.76	-0.16	18.72
11,600.0	2.31	177.47	11,583.2	-293.4	-366.3	-278.5	0.69	0.24	16.36
11,625.0	2.26	180.35	11,608.2	-294.4	-366.3	-279.5	0.50	-0.20	11.52
11,650.0	2.27	179.63	11,633.2	-295.3	-366.3	-280.5	0.12	0.04	-2.88
11,675.0	2.37	181.74	11,658.2	-296.4	-366.3	-281.5	0.53	0.40	8.44
11,700.0	2.41	183.55	11,683.2	-297.4	-366.3	-282.5	0.34	0.16	7.24
11,725.0	2.44	185.59	11,708.1	-298.4	-366.4	-283.6	0.37	0.12	8.16
11,750.0	2.40	184.18	11,733.1	-299.5	-366.5	-284.6	0.29	-0.16	-5.64
11,775.0	2.16	181.33	11,758.1	-300.5	-366.6	-285.6	1.06	-0.96	-11.40
11,800.0	1.59	169.08	11,783.1	-301.3	-366.5	-286.4	2.77	-2.28	-49.00
11,825.0	1.43	161.11	11,808.1	-301.9	-366.3	-287.1	1.05	-0.64	-31.88
11,850.0	1.52	153.10	11,833.1	-302.5	-366.1	-287.7	0.90	0.36	-32.04
11,875.0	1.51	151.64	11,858.1	-303.1	-365.8	-288.3	0.16	-0.04	-5.84
11,900.0	1.69	156.42	11,883.0	-303.7	-365.5	-288.9	0.90	0.72	19.12
11,909.0	1.76	157.89	11,892.0	-304.0	-365.4	-289.2	0.92	0.78	16.33
12,045.0	1.40	169.21	12,028.0	-307.6	-364.3	-292.8	0.35	-0.26	8.32
12,137.0	1.14	193.16	12,120.0	-309.6	-364.3	-294.8	0.64	-0.28	26.03
12,199.0	0.30	135.56	12,182.0	-310.3	-364.3	-295.5	1.63	-1.35	-92.90
12,231.0	1.99	40.49	12,214.0	-309.9	-363.9	-295.1	6.37	5.28	-297.09
12,262.0	3.70	43.68	12,244.9	-308.8	-362.8	-294.1	5.54	5.52	10.29
12,294.0	4.19	35.60	12,276.8	-307.1	-361.5	-292.4	2.31	1.53	-25.25
12,326.0	4.93	32.21	12,308.7	-305.0	-360.0	-290.4	2.46	2.31	-10.59
12,357.0	6.77	21.72	12,339.6	-302.1	-358.7	-287.6	6.84	5.94	-33.84
12,388.0	10.53	10.34	12,370.2	-297.7	-357.5	-283.2	13.27	12.13	-36.71
12,420.0	15.74	2.54	12,401.4	-290.4	-356.8	-276.0	17.16	16.28	-24.38
12,451.0	19.61	357.62	12,430.9	-281.0	-356.8	-266.6	13.37	12.48	-15.87

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
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Wellbore: OWB
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Local Co-ordinate Reference:
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Survey Calculation Method:
Database:

Well BASEBALL CAP FED COM #26H
 RKB=3406+26 @ 3432.0usft (MCVAY 8)
 RKB=3406+26 @ 3432.0usft (MCVAY 8)
 Grid
 Minimum Curvature
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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)
12,482.0	22.53	356.55	12,459.8	-269.9	-357.4	-255.4	9.50	9.42	-3.45
12,514.0	23.65	358.14	12,489.3	-257.4	-357.9	-242.9	4.01	3.50	4.97
12,545.0	25.90	358.21	12,517.4	-244.4	-358.3	-229.9	7.26	7.26	0.23
12,577.0	29.85	355.55	12,545.7	-229.5	-359.2	-214.9	12.94	12.34	-8.31
12,608.0	31.57	356.88	12,572.4	-213.7	-360.2	-199.1	5.97	5.55	4.29
12,639.0	31.67	355.85	12,598.8	-197.4	-361.3	-182.9	1.77	0.32	-3.32
12,671.0	36.14	356.60	12,625.3	-179.6	-362.4	-165.0	14.03	13.97	2.34
12,702.0	40.41	356.49	12,649.6	-160.5	-363.6	-145.8	13.78	13.77	-0.35
12,733.0	43.74	356.36	12,672.6	-139.7	-364.9	-125.1	10.75	10.74	-0.42
12,765.0	46.56	356.34	12,695.2	-117.1	-366.3	-102.4	8.81	8.81	-0.06
12,796.0	48.05	359.26	12,716.2	-94.3	-367.2	-79.6	8.43	4.81	9.42
12,828.0	50.81	4.22	12,737.0	-70.1	-366.4	-55.4	14.59	8.63	15.50
12,859.0	53.49	5.05	12,756.1	-45.7	-364.4	-31.1	8.90	8.65	2.68
12,891.0	55.87	4.44	12,774.6	-19.6	-362.3	-5.2	7.60	7.44	-1.91
12,922.0	57.62	5.98	12,791.6	6.2	-359.9	20.5	7.01	5.65	4.97
12,954.0	60.75	6.19	12,808.0	33.5	-357.0	47.7	9.80	9.78	0.66
12,985.0	63.64	7.45	12,822.4	60.7	-353.8	74.8	9.99	9.32	4.06
13,017.0	66.14	6.01	12,836.0	89.5	-350.4	103.4	8.81	7.81	-4.50
13,048.0	70.30	4.58	12,847.5	118.1	-347.7	131.9	14.09	13.42	-4.61
13,079.0	72.33	2.59	12,857.4	147.5	-345.9	161.1	8.94	6.55	-6.42
13,111.0	74.33	2.03	12,866.6	178.1	-344.6	191.7	6.47	6.25	-1.75
13,142.0	77.26	2.61	12,874.2	208.1	-343.4	221.6	9.62	9.45	1.87
13,174.0	80.32	3.38	12,880.4	239.4	-341.8	252.9	9.85	9.56	2.41
13,205.0	83.43	2.76	12,884.8	270.1	-340.1	283.4	10.23	10.03	-2.00
13,238.0	87.15	1.40	12,887.5	302.9	-339.0	316.2	12.00	11.27	-4.12
13,269.0	88.83	0.12	12,888.6	333.9	-338.5	347.2	6.81	5.42	-4.13
13,301.0	89.49	0.34	12,889.1	365.9	-338.4	379.1	2.17	2.06	0.69
13,395.0	92.70	2.34	12,887.3	459.9	-336.2	472.9	4.02	3.41	2.13
13,489.0	92.37	3.47	12,883.1	553.6	-331.5	566.4	1.25	-0.35	1.20
13,583.0	90.41	3.33	12,880.8	647.4	-325.9	659.9	2.09	-2.09	-0.15
13,678.0	91.92	4.43	12,878.9	742.2	-319.5	754.4	1.97	1.59	1.16
13,772.0	88.47	0.20	12,878.6	836.1	-315.7	848.0	5.81	-3.67	-4.50
13,866.0	90.70	5.09	12,879.3	930.0	-311.3	941.6	5.72	2.37	5.20
13,960.0	89.28	0.72	12,879.3	1,023.8	-306.6	1,035.2	4.89	-1.51	-4.65
14,054.0	89.72	1.87	12,880.1	1,117.8	-304.4	1,129.0	1.31	0.47	1.22
14,148.0	89.88	2.97	12,880.4	1,211.7	-300.5	1,222.7	1.18	0.17	1.17
14,243.0	90.89	359.73	12,879.8	1,306.7	-298.2	1,317.5	3.57	1.06	-3.41
14,337.0	92.17	359.24	12,877.3	1,400.6	-299.1	1,411.4	1.46	1.36	-0.52
14,431.0	90.42	358.41	12,875.2	1,494.6	-301.0	1,505.4	2.06	-1.86	-0.88
14,526.0	90.67	357.56	12,874.3	1,589.5	-304.3	1,600.4	0.93	0.26	-0.89
14,620.0	90.62	356.29	12,873.2	1,683.4	-309.4	1,694.4	1.35	-0.05	-1.35
14,714.0	90.06	355.24	12,872.6	1,777.1	-316.3	1,788.3	1.27	-0.60	-1.12
14,746.0	89.96	354.81	12,872.6	1,809.0	-319.1	1,820.3	1.38	-0.31	-1.34
14,777.0	92.36	354.29	12,872.0	1,839.8	-322.0	1,851.2	7.92	7.74	-1.68

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: BASEBALL CAP FED COM #26H
Wellbore: OWB
Design: ACTUAL WELLPATH

Local Co-ordinate Reference: Well BASEBALL CAP FED COM #26H
TVD Reference: RKB=3406+26 @ 3432.0usft (MCVAY 8)
MD Reference: RKB=3406+26 @ 3432.0usft (MCVAY 8)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
14,809.0	94.75	354.20	12,870.0	1,871.6	-325.3	1,883.1	7.47	7.47	-0.28
14,840.0	96.58	354.57	12,867.0	1,902.3	-328.3	1,913.9	6.02	5.90	1.19
14,871.0	96.54	354.59	12,863.4	1,933.0	-331.2	1,944.6	0.14	-0.13	0.06
14,903.0	97.41	355.30	12,859.5	1,964.6	-334.0	1,976.4	3.50	2.72	2.22
14,934.0	97.50	356.17	12,855.5	1,995.3	-336.3	2,007.1	2.80	0.29	2.81
14,966.0	96.74	358.23	12,851.6	2,027.0	-337.8	2,038.8	6.82	-2.38	6.44
14,997.0	94.97	0.52	12,848.4	2,057.8	-338.1	2,069.6	9.31	-5.71	7.39
15,029.0	95.17	1.87	12,845.6	2,089.7	-337.5	2,101.5	4.25	0.63	4.22
15,060.0	95.26	1.89	12,842.7	2,120.5	-336.5	2,132.3	0.30	0.29	0.06
15,091.0	95.33	1.63	12,839.9	2,151.4	-335.5	2,163.0	0.87	0.23	-0.84
15,123.0	95.08	1.61	12,837.0	2,183.2	-334.6	2,194.8	0.78	-0.78	-0.06
15,154.0	94.73	1.41	12,834.3	2,214.1	-333.8	2,225.7	1.30	-1.13	-0.65
15,186.0	94.54	1.45	12,831.7	2,246.0	-333.0	2,257.5	0.61	-0.59	0.13
15,217.0	93.21	1.31	12,829.7	2,276.9	-332.3	2,288.4	4.31	-4.29	-0.45
15,249.0	92.95	1.74	12,827.9	2,308.9	-331.4	2,320.2	1.57	-0.81	1.34
15,280.0	93.05	1.92	12,826.3	2,339.8	-330.4	2,351.1	0.66	0.32	0.58
15,312.0	91.96	2.15	12,824.9	2,371.7	-329.3	2,383.0	3.48	-3.41	0.72
15,343.0	90.33	2.94	12,824.3	2,402.7	-327.9	2,413.9	5.84	-5.26	2.55
15,374.0	89.46	4.12	12,824.3	2,433.6	-326.0	2,444.7	4.73	-2.81	3.81
15,472.0	88.92	4.27	12,825.7	2,531.4	-318.8	2,542.1	0.57	-0.55	0.15
15,566.0	91.54	4.95	12,825.4	2,625.1	-311.3	2,635.4	2.88	2.79	0.72
15,660.0	89.17	3.59	12,824.8	2,718.8	-304.3	2,728.8	2.91	-2.52	-1.45
15,754.0	89.10	1.54	12,826.2	2,812.7	-300.1	2,822.4	2.18	-0.07	-2.18
15,849.0	88.85	0.70	12,827.9	2,907.6	-298.2	2,917.2	0.92	-0.26	-0.88
15,943.0	88.56	359.80	12,830.0	3,001.6	-297.8	3,011.1	1.01	-0.31	-0.96
16,037.0	89.50	358.43	12,831.6	3,095.6	-299.3	3,105.1	1.77	1.00	-1.46
16,132.0	90.00	357.99	12,832.0	3,190.5	-302.2	3,200.1	0.70	0.53	-0.46
16,226.0	89.61	357.07	12,832.3	3,284.5	-306.3	3,294.1	1.06	-0.41	-0.98
16,320.0	88.23	357.23	12,834.1	3,378.3	-311.0	3,388.0	1.48	-1.47	0.17
16,414.0	91.66	356.44	12,834.2	3,472.2	-316.1	3,482.0	3.74	3.65	-0.84
16,509.0	93.38	351.85	12,830.0	3,566.5	-325.8	3,576.7	5.16	1.81	-4.83
16,603.0	95.03	353.84	12,823.1	3,659.6	-337.5	3,670.1	2.75	1.76	2.12
16,697.0	92.60	354.24	12,816.9	3,752.8	-347.2	3,763.7	2.62	-2.59	0.43
16,791.0	92.55	359.88	12,812.7	3,846.6	-352.1	3,857.6	5.99	-0.05	6.00
16,885.0	91.01	3.10	12,809.7	3,940.5	-349.6	3,951.3	3.80	-1.64	3.43
16,979.0	93.63	6.30	12,805.9	4,034.1	-341.9	4,044.5	4.40	2.79	3.40
17,074.0	92.31	7.17	12,801.0	4,128.3	-330.8	4,138.2	1.66	-1.39	0.92
17,168.0	91.48	6.10	12,797.9	4,221.6	-319.9	4,231.0	1.44	-0.88	-1.14
17,262.0	93.93	6.77	12,793.5	4,314.9	-309.4	4,323.8	2.70	2.61	0.71
17,356.0	94.92	6.71	12,786.2	4,408.0	-298.4	4,416.4	1.06	1.05	-0.06
17,451.0	94.11	6.16	12,778.7	4,502.1	-287.8	4,510.0	1.03	-0.85	-0.58
17,545.0	90.12	3.01	12,775.3	4,595.7	-280.3	4,603.2	5.41	-4.24	-3.35
17,639.0	88.86	359.87	12,776.1	4,689.6	-277.9	4,697.0	3.60	-1.34	-3.34

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #26H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Well:	BASEBALL CAP FED COM #26H	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)
17,734.0	89.96	359.88	12,777.1	4,784.6	-278.1	4,791.9	1.16	1.16	0.01
17,828.0	86.31	358.12	12,780.1	4,878.5	-279.8	4,885.8	4.31	-3.68	-1.87
17,923.0	88.74	355.95	12,784.2	4,973.3	-284.7	4,980.7	3.43	2.56	-2.28
18,017.0	90.03	355.91	12,785.2	5,067.1	-291.4	5,074.7	1.37	1.37	-0.04
18,111.0	91.16	355.71	12,784.3	5,160.8	-298.2	5,168.6	1.22	1.20	-0.21
18,205.0	91.30	356.58	12,782.3	5,254.6	-304.5	5,262.5	0.94	0.15	0.93
18,299.0	90.31	358.14	12,780.9	5,348.5	-308.9	5,356.5	1.97	-1.05	1.66
18,393.0	91.00	358.42	12,779.9	5,442.4	-311.7	5,450.5	0.79	0.73	0.30
18,488.0	94.13	358.48	12,775.6	5,537.3	-314.3	5,545.4	3.30	3.29	0.06
18,582.0	92.81	358.70	12,769.9	5,631.1	-316.6	5,639.2	1.42	-1.40	0.23
18,675.0	90.58	359.45	12,767.2	5,724.0	-318.1	5,732.1	2.53	-2.40	0.81
18,769.0	90.63	359.00	12,766.2	5,818.0	-319.3	5,826.1	0.48	0.05	-0.48
18,864.0	90.87	358.79	12,764.9	5,913.0	-321.2	5,921.1	0.34	0.25	-0.22
18,957.0	92.48	359.67	12,762.2	6,005.9	-322.4	6,014.0	1.97	1.73	0.95
19,052.0	90.66	359.23	12,759.6	6,100.9	-323.3	6,108.9	1.97	-1.92	-0.46
19,146.0	89.64	359.53	12,759.4	6,194.9	-324.4	6,202.9	1.13	-1.09	0.32
19,240.0	89.64	359.21	12,760.0	6,288.9	-325.4	6,296.8	0.34	0.00	-0.34
19,334.0	89.96	358.92	12,760.3	6,382.8	-326.9	6,390.8	0.46	0.34	-0.31
19,429.0	90.15	359.00	12,760.2	6,477.8	-328.6	6,485.8	0.22	0.20	0.08
19,523.0	90.84	359.65	12,759.4	6,571.8	-329.8	6,579.7	1.01	0.73	0.69
19,617.0	91.67	0.11	12,757.3	6,665.8	-330.0	6,673.7	1.01	0.88	0.49
19,711.0	91.95	0.47	12,754.3	6,759.7	-329.5	6,767.5	0.49	0.30	0.38
19,805.0	91.46	359.92	12,751.6	6,853.7	-329.2	6,861.4	0.78	-0.52	-0.59
19,900.0	90.56	0.82	12,749.9	6,948.7	-328.5	6,956.3	1.34	-0.95	0.95
19,994.0	89.78	0.34	12,749.6	7,042.7	-327.6	7,050.1	0.97	-0.83	-0.51
20,088.0	89.47	359.93	12,750.2	7,136.7	-327.4	7,144.1	0.55	-0.33	-0.44
20,182.0	89.73	359.89	12,750.9	7,230.7	-327.5	7,238.0	0.28	0.28	-0.04
20,276.0	89.86	359.96	12,751.2	7,324.7	-327.6	7,331.9	0.16	0.14	0.07
20,370.0	90.00	0.25	12,751.3	7,418.7	-327.5	7,425.8	0.34	0.15	0.31
20,464.0	90.75	359.89	12,750.7	7,512.7	-327.4	7,519.7	0.89	0.80	-0.38
20,559.0	90.88	359.42	12,749.4	7,607.7	-327.9	7,614.7	0.51	0.14	-0.49
20,653.0	91.16	359.80	12,747.7	7,701.6	-328.6	7,708.6	0.50	0.30	0.40
20,747.0	90.33	358.81	12,746.5	7,795.6	-329.7	7,802.6	1.37	-0.88	-1.05
20,841.0	91.07	359.21	12,745.3	7,889.6	-331.3	7,896.5	0.89	0.79	0.43
20,936.0	90.23	359.09	12,744.2	7,984.6	-332.7	7,991.5	0.89	-0.88	-0.13
21,030.0	88.97	358.43	12,744.9	8,078.6	-334.8	8,085.5	1.51	-1.34	-0.70
21,128.0	89.92	358.74	12,745.8	8,176.5	-337.2	8,183.5	1.02	0.97	0.32
21,222.0	93.30	359.27	12,743.2	8,270.5	-338.8	8,277.4	3.64	3.60	0.56
21,316.0	95.31	359.24	12,736.1	8,364.2	-340.0	8,371.1	2.14	2.14	-0.03
21,411.0	94.84	358.57	12,727.7	8,458.8	-341.9	8,465.7	0.86	-0.49	-0.71
21,505.0	95.58	358.56	12,719.2	8,552.4	-344.2	8,559.3	0.79	0.79	-0.01
21,621.0	95.03	357.47	12,708.5	8,667.8	-348.2	8,674.8	1.05	-0.47	-0.94
21,693.0	94.32	357.00	12,702.6	8,739.5	-351.7	8,746.6	1.18	-0.99	-0.65

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: BASEBALL CAP FED COM #26H
Wellbore: OWB
Design: ACTUAL WELLPATH

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well: BASEBALL CAP FED COM #26H
 RKB=3406+26 @ 3432.0usft (MCVAY 8)
 RKB=3406+26 @ 3432.0usft (MCVAY 8)
 Grid
 Minimum Curvature
 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)
21,787.0	91.66	357.97	12,697.7	8,833.3	-355.8	8,840.4	3.01	-2.83	1.03
21,882.0	89.84	0.15	12,696.5	8,928.2	-357.3	8,935.4	2.99	-1.92	2.29
21,976.0	87.88	1.50	12,698.3	9,022.2	-356.0	9,029.2	2.53	-2.09	1.44
22,080.0	86.68	1.78	12,703.3	9,126.0	-353.0	9,132.8	1.18	-1.15	0.27
22,174.0	89.80	1.78	12,706.2	9,219.9	-350.1	9,226.5	3.32	3.32	0.00
22,269.0	89.27	0.99	12,706.9	9,314.9	-347.8	9,321.4	1.00	-0.56	-0.83
22,363.0	89.27	0.02	12,708.1	9,408.9	-347.0	9,415.2	1.03	0.00	-1.03
22,457.0	89.23	358.62	12,709.4	9,502.9	-348.1	9,509.2	1.49	-0.04	-1.49
22,551.0	90.51	358.79	12,709.6	9,596.8	-350.2	9,603.2	1.37	1.36	0.18
22,646.0	89.58	358.44	12,709.5	9,691.8	-352.5	9,698.2	1.05	-0.98	-0.37
22,740.0	88.92	358.00	12,710.7	9,785.8	-355.4	9,792.1	0.84	-0.70	-0.47
22,834.0	89.41	357.39	12,712.1	9,879.7	-359.2	9,886.1	0.83	0.52	-0.65
22,929.0	90.37	357.91	12,712.3	9,974.6	-363.1	9,981.1	1.15	1.01	0.55
22,989.0	90.33	357.65	12,711.9	10,034.5	-365.4	10,041.1	0.44	-0.07	-0.43
23,024.0	90.33	357.65	12,711.7	10,069.5	-366.9	10,076.1	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____