

CONCHO

BASEBALL CAP FEDERAL COM #705H

NABORS 893

7/2/2019

This survey is correct to the best of my knowledge and is supported by actual field data.

JAKE ELGER

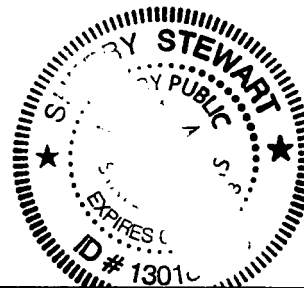
Notarized this date 12TH of SEPTEMBER, 2019.

Sherry Stewart

Notary Signature

County of Midland

State of Texas



Scientific Drilling

The Ultimate Partner In Wellbore Placement

SURVEY REPORT

BASEBALL CAP FEDERAL COM #705H

KEEPER GYRO SURVEY

CUSTOMER **Concho**
PROJECT **Baseball Cap Federal Com #705H**
FIELD **Bone Springs**

SDI JOB NO. **OP019624**
SDI DISTRICT **Midland**
SDI KIT/UNIT

SITE INFORMATION

Site Name **New Mexico**
Lat/Long **32.182181° N, 103.422734° W**
Northing
Easting

Section **24**
Township **24-S**
Range **34-E**

MAP INFORMATION

North Reference **Grid North**
Grid Correction **0.49 deg**
System **US State Plane 1927**
Datum **North American Datum 1927 (Clarke 1866)**
Map Zone **New Mexico East: 3001**

**WELL INFORMATION**

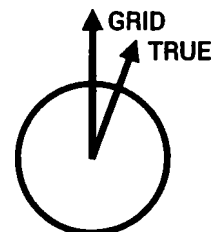
Lat/Long **32.18218° N, 103.42273° W**
Northing
Easting
UWI **30-025-45789**

DEPTH AND ELEVATION REFERENCE

Ground Level **3387 ft above Mean Sea Level**
Reference Datum **KB**
Reference Height **27 ft above G.L.**
Reference Elevation **3414 ft**

VERTICAL SECTION REFERENCE

+N/-S **0 ft**
+E/-W **0 ft**
Proposal Direction **355.99°**
Calculation Method **Minimum Curvature**

**LOCAL GRAVITY REFERENCE INFORMATION**

Local Gravity **998.498 mG [computed]**
True to Grid **add 0.49°**

WELL NOTES

Keeper Gyro Survey

OPERATORS

J Mendoza

SDI Operator Name (Printed)

SIGNATURE

DATE

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	"/100ft	ft	deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid	0.00	0.00
100.00	0.43	240.09	100.00	-0.16	-0.19	-0.32	0.43	0.37	240.09
125.00	0.65	245.34	125.00	-0.25	-0.29	-0.53	0.90	0.61	241.31
150.00	0.48	243.92	150.00	-0.34	-0.40	-0.76	0.69	0.85	242.29
175.00	0.53	245.86	175.00	-0.42	-0.49	-0.95	0.22	1.07	242.83
200.00	0.49	247.46	199.99	-0.50	-0.58	-1.16	0.16	1.29	243.48
225.00	0.56	249.49	224.99	-0.56	-0.66	-1.37	0.29	1.52	244.24
250.00	0.60	248.96	249.99	-0.64	-0.75	-1.61	0.17	1.77	244.95
275.00	0.57	247.65	274.99	-0.71	-0.85	-1.84	0.15	2.03	245.38
300.00	0.56	246.98	299.99	-0.79	-0.94	-2.07	0.03	2.28	245.59
325.00	0.57	241.85	324.99	-0.88	-1.05	-2.29	0.20	2.52	245.47
350.00	0.58	242.36	349.99	-0.99	-1.16	-2.52	0.05	2.77	245.17
375.00	0.61	240.07	374.99	-1.10	-1.29	-2.74	0.15	3.03	244.82
400.00	0.59	231.96	399.98	-1.23	-1.44	-2.96	0.35	3.29	244.13
425.00	0.62	223.04	424.98	-1.39	-1.61	-3.16	0.40	3.54	242.90
450.00	0.55	222.87	449.98	-1.56	-1.80	-3.33	0.31	3.79	241.59
475.00	0.60	218.32	474.98	-1.74	-1.99	-3.49	0.27	4.02	240.31
500.00	0.64	221.04	499.98	-1.94	-2.20	-3.66	0.22	4.27	239.03
525.00	0.58	216.05	524.98	-2.13	-2.41	-3.83	0.33	4.52	237.86
550.00	0.54	215.85	549.98	-2.32	-2.61	-3.97	0.14	4.75	236.76
575.00	0.52	219.63	574.98	-2.49	-2.79	-4.12	0.18	4.97	235.88
600.00	0.55	221.94	599.97	-2.66	-2.97	-4.27	0.17	5.20	235.22
625.00	0.51	225.57	624.97	-2.82	-3.13	-4.43	0.22	5.42	234.73
650.00	0.54	228.33	649.97	-2.96	-3.29	-4.60	0.15	5.65	234.41
675.00	0.52	227.49	674.97	-3.10	-3.44	-4.77	0.07	5.88	234.16
700.00	0.44	227.25	699.97	-3.23	-3.59	-4.92	0.33	6.09	233.93
725.00	0.34	230.89	724.97	-3.34	-3.70	-5.05	0.41	6.26	233.79
750.00	0.36	226.23	749.97	-3.43	-3.80	-5.17	0.13	6.41	233.66
775.00	0.33	225.09	774.97	-3.53	-3.90	-5.27	0.10	6.56	233.48
800.00	0.33	217.45	799.97	-3.63	-4.01	-5.37	0.18	6.70	233.22
825.00	0.41	218.10	824.97	-3.75	-4.14	-5.47	0.33	6.86	232.86
850.00	0.42	216.67	849.97	-3.89	-4.29	-5.58	0.05	7.03	232.46

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	"/100ft	ft	deg
875.00	0.36	213.43	874.97	-4.02	-4.42	-5.68	0.25	7.20	232.06
900.00	0.27	207.20	899.97	-4.13	-4.54	-5.75	0.39	7.32	231.67
925.00	0.13	219.59	924.97	-4.20	-4.62	-5.79	0.58	7.41	231.44
950.00	0.05	319.53	949.97	-4.21	-4.63	-5.82	0.58	7.43	231.47
975.00	0.12	340.90	974.97	-4.18	-4.60	-5.83	0.32	7.43	231.74
1000.00	0.19	19.29	999.97	-4.12	-4.53	-5.83	0.48	7.38	232.10
1025.00	0.18	9.57	1024.97	-4.04	-4.46	-5.81	0.13	7.32	232.48
1050.00	0.14	345.08	1049.97	-3.97	-4.39	-5.81	0.31	7.28	232.90
1075.00	0.19	39.65	1074.97	-3.92	-4.33	-5.79	0.62	7.23	233.19
1100.00	0.54	68.08	1099.97	-3.85	-4.26	-5.65	1.56	7.08	233.03
1125.00	0.54	76.65	1124.96	-3.79	-4.18	-5.43	0.32	6.85	232.38
1150.00	0.76	80.67	1149.96	-3.76	-4.13	-5.15	0.91	6.60	231.28
1175.00	0.77	89.77	1174.96	-3.76	-4.10	-4.82	0.49	6.33	229.60
1200.00	0.88	90.82	1199.96	-3.78	-4.11	-4.46	0.47	6.06	227.37
1225.00	0.91	89.66	1224.95	-3.81	-4.11	-4.07	0.13	5.78	224.73
1250.00	0.77	95.53	1249.95	-3.85	-4.12	-3.70	0.66	5.54	221.93
1275.00	0.83	93.35	1274.95	-3.90	-4.15	-3.35	0.26	5.34	218.96
1300.00	0.86	95.28	1299.95	-3.96	-4.18	-2.99	0.17	5.14	215.58
1325.00	0.87	92.26	1324.94	-4.01	-4.20	-2.61	0.19	4.95	211.86
1350.00	0.94	92.87	1349.94	-4.05	-4.22	-2.22	0.28	4.77	207.71
1375.00	0.81	93.94	1374.94	-4.10	-4.24	-1.84	0.55	4.62	203.40
1400.00	0.92	90.20	1399.94	-4.14	-4.25	-1.46	0.50	4.50	198.94
1425.00	0.78	94.16	1424.93	-4.18	-4.27	-1.09	0.59	4.40	194.33
1450.00	1.01	89.12	1449.93	-4.22	-4.28	-0.70	0.97	4.33	189.29
1475.00	0.84	93.24	1474.93	-4.25	-4.28	-0.30	0.74	4.29	183.97
1500.00	0.98	89.74	1499.92	-4.29	-4.29	0.10	0.61	4.29	178.68
1525.00	0.83	95.61	1524.92	-4.33	-4.31	0.49	0.70	4.34	173.48
1550.00	0.94	90.26	1549.92	-4.38	-4.33	0.88	0.56	4.42	168.52
1575.00	0.88	92.18	1574.91	-4.41	-4.34	1.28	0.28	4.52	163.60
1600.00	0.87	94.41	1599.91	-4.46	-4.36	1.66	0.14	4.66	159.18
1625.00	0.99	88.18	1624.91	-4.50	-4.37	2.06	0.63	4.83	154.70
1650.00	0.85	94.69	1649.90	-4.54	-4.37	2.47	0.70	5.02	150.60

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
1675.00	0.96	88.09	1674.90	-4.57	-4.38	2.86	0.60	5.23	146.87
1700.00	0.87	92.22	1699.90	-4.60	-4.38	3.26	0.46	5.46	143.38
1725.00	0.85	93.05	1724.90	-4.64	-4.40	3.63	0.07	5.71	140.46
1750.00	0.80	92.55	1749.89	-4.69	-4.42	3.99	0.21	5.96	137.88
1775.00	0.82	94.66	1774.89	-4.73	-4.44	4.35	0.14	6.21	135.60
1800.00	0.85	94.10	1799.89	-4.79	-4.47	4.71	0.12	6.49	133.48
1825.00	0.84	93.75	1824.88	-4.84	-4.49	5.08	0.03	6.78	131.50
1850.00	0.87	89.05	1849.88	-4.87	-4.50	5.45	0.29	7.07	129.55
1875.00	0.90	90.87	1874.88	-4.90	-4.50	5.84	0.18	7.37	127.64
1900.00	0.81	93.46	1899.88	-4.94	-4.52	6.21	0.38	7.68	126.02
1925.00	0.85	93.30	1924.87	-4.99	-4.54	6.57	0.16	7.99	124.61
1950.00	0.85	93.30	1949.87	-5.03	-4.56	6.94	0.02	8.31	123.28
1975.00	0.88	85.04	1974.87	-5.05	-4.55	7.32	0.52	8.62	121.88
2000.00	0.91	96.15	1999.86	-5.08	-4.56	7.71	0.70	8.95	120.59
2025.00	0.83	100.28	2024.86	-5.16	-4.61	8.08	0.39	9.31	119.70
2050.00	0.72	111.69	2049.86	-5.28	-4.70	8.41	0.77	9.63	119.21
2075.00	0.71	149.68	2074.86	-5.49	-4.89	8.63	1.87	9.92	119.55
2100.00	1.05	182.67	2099.85	-5.85	-5.26	8.70	2.39	10.17	121.14
2125.00	1.35	190.90	2124.85	-6.37	-5.78	8.64	1.36	10.39	123.78
2150.00	1.37	193.88	2149.84	-6.93	-6.35	8.51	0.29	10.62	126.75
2175.00	1.30	195.15	2174.84	-7.48	-6.92	8.36	0.31	10.85	129.59
2200.00	1.38	194.93	2199.83	-8.04	-7.48	8.21	0.33	11.11	132.33
2225.00	1.44	194.91	2224.82	-8.62	-8.07	8.05	0.23	11.40	135.07
2250.00	1.44	194.31	2249.81	-9.21	-8.68	7.89	0.06	11.73	137.71
2275.00	1.35	195.26	2274.81	-9.79	-9.27	7.74	0.34	12.07	140.14
2300.00	1.36	192.38	2299.80	-10.35	-9.84	7.60	0.27	12.43	142.33
2325.00	1.39	193.55	2324.79	-10.92	-10.43	7.46	0.16	12.82	144.40
2350.00	1.40	193.89	2349.78	-11.50	-11.02	7.32	0.05	13.23	146.40
2375.00	1.40	196.12	2374.78	-12.08	-11.61	7.16	0.22	13.64	148.32
2400.00	1.46	195.41	2399.77	-12.67	-12.21	6.99	0.26	14.07	150.19
2425.00	1.49	194.77	2424.76	-13.27	-12.83	6.82	0.13	14.53	151.99
2450.00	1.39	195.97	2449.75	-13.87	-13.43	6.66	0.42	14.99	153.63

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
2475.00	1.38	194.58	2474.75	-14.44	-14.02	6.50	0.14	15.45	155.12
2500.00	1.38	194.42	2499.74	-15.01	-14.60	6.35	0.02	15.92	156.50
2525.00	1.47	194.58	2524.73	-15.60	-15.20	6.19	0.38	16.41	157.83
2550.00	1.41	194.81	2549.72	-16.19	-15.81	6.03	0.25	16.92	159.11
2575.00	1.41	195.14	2574.72	-16.78	-16.41	5.87	0.04	17.43	160.30
2600.00	1.36	197.79	2599.71	-17.34	-16.98	5.70	0.31	17.92	161.44
2625.00	0.93	214.83	2624.70	-17.78	-17.43	5.50	2.19	18.28	162.50
2650.00	0.66	248.65	2649.70	-17.98	-17.65	5.25	2.12	18.42	163.44
2675.00	0.71	335.01	2674.70	-17.87	-17.56	5.05	3.73	18.28	163.96
2700.00	0.81	334.72	2699.70	-17.57	-17.27	4.91	0.41	17.95	164.13
2725.00	0.90	318.39	2724.69	-17.25	-16.96	4.70	1.03	17.60	164.50
2750.00	0.92	312.44	2749.69	-16.95	-16.68	4.43	0.39	17.25	165.14
2775.00	0.91	313.49	2774.69	-16.65	-16.40	4.13	0.07	16.92	165.86
2800.00	0.93	316.03	2799.68	-16.35	-16.12	3.85	0.18	16.57	166.58
2825.00	0.92	314.27	2824.68	-16.05	-15.84	3.56	0.13	16.23	167.32
2850.00	0.90	319.14	2849.68	-15.74	-15.55	3.29	0.31	15.89	168.05
2875.00	0.94	316.35	2874.68	-15.42	-15.25	3.02	0.22	15.55	168.79
2900.00	0.95	315.33	2899.67	-15.11	-14.95	2.73	0.09	15.20	169.64
2925.00	0.95	316.89	2924.67	-14.79	-14.65	2.45	0.10	14.86	170.53
2950.00	0.93	319.20	2949.67	-14.47	-14.35	2.17	0.18	14.51	171.39
2975.00	0.92	317.47	2974.66	-14.15	-14.05	1.90	0.11	14.18	172.28
3000.00	0.96	318.95	2999.66	-13.82	-13.74	1.63	0.18	13.84	173.23
3025.00	0.97	319.05	3024.65	-13.49	-13.43	1.35	0.05	13.49	174.24
3050.00	0.91	320.43	3049.65	-13.16	-13.11	1.09	0.26	13.16	175.25
3075.00	0.91	319.81	3074.65	-12.84	-12.81	0.84	0.04	12.84	176.27
3100.00	0.90	318.84	3099.65	-12.52	-12.51	0.58	0.07	12.52	177.35
3125.00	0.89	319.80	3124.64	-12.21	-12.21	0.32	0.06	12.22	178.48
3150.00	0.89	320.01	3149.64	-11.89	-11.92	0.07	0.01	11.92	179.65
3175.00	0.85	320.50	3174.64	-11.58	-11.62	-0.17	0.17	11.62	180.84
3200.00	0.85	323.20	3199.63	-11.27	-11.33	-0.40	0.16	11.34	182.02
3225.00	0.88	320.80	3224.63	-10.96	-11.03	-0.63	0.18	11.05	183.29
3250.00	0.84	324.81	3249.63	-10.65	-10.73	-0.86	0.30	10.77	184.59

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
3275.00	0.72	327.87	3274.63	-10.35	-10.45	-1.05	0.52	10.50	185.74
3300.00	0.67	333.03	3299.62	-10.08	-10.19	-1.20	0.31	10.26	186.72
3325.00	0.68	331.05	3324.62	-9.81	-9.93	-1.34	0.10	10.02	187.68
3350.00	0.60	337.25	3349.62	-9.55	-9.68	-1.46	0.43	9.79	188.58
3375.00	0.59	343.03	3374.62	-9.30	-9.43	-1.55	0.24	9.56	189.32
3400.00	0.58	336.28	3399.62	-9.06	-9.20	-1.64	0.28	9.34	190.09
3425.00	0.54	358.42	3424.62	-8.82	-8.96	-1.69	0.88	9.12	190.68
3450.00	0.66	13.80	3449.62	-8.57	-8.70	-1.66	0.80	8.86	190.80
3475.00	0.56	347.89	3474.61	-8.31	-8.44	-1.65	1.17	8.60	191.06
3500.00	0.49	354.62	3499.61	-8.08	-8.22	-1.69	0.37	8.39	191.60
3525.00	0.55	355.61	3524.61	-7.85	-7.99	-1.71	0.25	8.17	192.05
3550.00	0.51	5.80	3549.61	-7.62	-7.76	-1.70	0.42	7.94	192.39
3575.00	0.50	7.26	3574.61	-7.40	-7.54	-1.68	0.06	7.72	192.55
3600.00	0.48	19.13	3599.61	-7.20	-7.33	-1.63	0.42	7.51	192.54
3625.00	0.53	19.05	3624.61	-7.00	-7.12	-1.56	0.23	7.29	192.34
3650.00	0.59	25.60	3649.61	-6.78	-6.90	-1.47	0.33	7.05	191.99
3675.00	0.53	29.52	3674.61	-6.57	-6.68	-1.35	0.26	6.82	191.44
3700.00	0.57	27.18	3699.60	-6.37	-6.47	-1.24	0.19	6.59	190.83
3725.00	0.56	29.64	3724.60	-6.16	-6.25	-1.12	0.11	6.35	190.16
3750.00	0.59	34.81	3749.60	-5.96	-6.04	-0.99	0.23	6.12	189.27
3775.00	0.61	34.79	3774.60	-5.75	-5.82	-0.84	0.10	5.88	188.18
3800.00	0.73	44.95	3799.60	-5.54	-5.60	-0.65	0.68	5.64	186.59
3825.00	0.65	49.93	3824.60	-5.35	-5.40	-0.43	0.40	5.41	184.51
3850.00	0.67	49.84	3849.60	-5.18	-5.21	-0.20	0.06	5.21	182.25
3875.00	0.72	56.48	3874.59	-5.02	-5.03	0.04	0.37	5.03	179.58
3900.00	0.75	57.23	3899.59	-4.86	-4.85	0.31	0.16	4.86	176.40
3925.00	0.72	65.40	3924.59	-4.73	-4.70	0.59	0.44	4.74	172.89
3950.00	0.84	68.84	3949.59	-4.62	-4.57	0.90	0.50	4.66	168.87
3975.00	0.82	71.68	3974.58	-4.52	-4.45	1.24	0.17	4.62	164.42
4000.00	0.84	74.88	3999.58	-4.44	-4.34	1.59	0.20	4.62	159.92
4025.00	0.84	75.37	4024.58	-4.37	-4.25	1.94	0.04	4.67	155.43
4050.00	0.84	72.72	4049.58	-4.30	-4.15	2.30	0.16	4.74	151.04

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
4075.00	0.80	73.72	4074.57	-4.22	-4.04	2.64	0.16	4.83	146.89
4100.00	0.84	76.36	4099.57	-4.15	-3.95	2.98	0.23	4.95	142.95
4125.00	0.92	74.34	4124.57	-4.08	-3.85	3.35	0.33	5.11	138.96
4150.00	0.83	73.36	4149.57	-4.00	-3.75	3.72	0.35	5.28	135.21
4175.00	1.51	70.36	4174.56	-3.87	-3.59	4.21	2.73	5.53	130.45
4200.00	0.82	76.89	4199.55	-3.75	-3.43	4.69	2.80	5.81	126.21
4225.00	0.85	75.59	4224.55	-3.69	-3.35	5.04	0.13	6.05	123.57
4250.00	0.87	79.70	4249.55	-3.64	-3.27	5.41	0.27	6.32	121.13
4275.00	0.89	78.69	4274.55	-3.59	-3.20	5.79	0.09	6.61	118.90
4300.00	0.81	77.94	4299.54	-3.54	-3.12	6.15	0.30	6.90	116.89
4325.00	0.86	81.46	4324.54	-3.50	-3.06	6.51	0.26	7.19	115.14
4350.00	0.91	83.10	4349.54	-3.48	-3.00	6.89	0.23	7.52	113.55
4375.00	0.85	79.95	4374.53	-3.45	-2.95	7.27	0.29	7.85	112.07
4400.00	0.89	83.38	4399.53	-3.42	-2.89	7.65	0.25	8.18	110.72
4425.00	0.81	81.20	4424.53	-3.40	-2.84	8.01	0.34	8.50	109.54
4450.00	0.91	80.70	4449.53	-3.36	-2.78	8.38	0.41	8.83	108.37
4475.00	0.92	80.57	4474.52	-3.33	-2.72	8.78	0.04	9.19	107.21
4500.00	1.00	82.74	4499.52	-3.30	-2.66	9.19	0.34	9.57	106.13
4525.00	0.94	81.10	4524.52	-3.27	-2.60	9.61	0.26	9.96	105.14
4550.00	1.00	80.61	4549.51	-3.23	-2.53	10.03	0.26	10.34	104.17
4575.00	1.06	80.28	4574.51	-3.18	-2.46	10.47	0.24	10.76	103.21
4600.00	1.17	79.16	4599.50	-3.13	-2.37	10.95	0.45	11.21	102.21
4625.00	1.18	82.91	4624.50	-3.09	-2.29	11.46	0.31	11.68	101.30
4650.00	1.39	93.28	4649.49	-3.11	-2.28	12.02	1.25	12.23	100.73
4675.00	1.67	96.92	4674.48	-3.22	-2.34	12.68	1.20	12.89	100.44
4700.00	1.86	98.42	4699.47	-3.38	-2.44	13.44	0.78	13.66	100.29
4725.00	1.82	101.71	4724.46	-3.57	-2.58	14.23	0.46	14.47	100.28
4750.00	1.70	102.86	4749.45	-3.79	-2.74	14.98	0.49	15.23	100.38
4775.00	1.82	103.00	4774.43	-4.01	-2.92	15.73	0.49	16.00	100.50
4800.00	1.69	108.35	4799.42	-4.27	-3.12	16.47	0.83	16.76	100.73
4825.00	1.29	157.76	4824.42	-4.67	-3.50	16.93	5.20	17.29	101.67
4850.00	1.52	191.22	4849.41	-5.26	-4.08	16.97	3.34	17.45	103.52

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
4875.00	1.83	199.97	4874.40	-5.94	-4.78	16.77	1.61	17.44	105.91
4900.00	1.89	204.33	4899.38	-6.67	-5.53	16.46	0.62	17.37	108.57
4925.00	1.85	203.25	4924.37	-7.39	-6.28	16.13	0.21	17.31	111.26
4950.00	1.85	197.34	4949.36	-8.12	-7.03	15.86	0.76	17.34	113.92
4975.00	2.00	189.90	4974.34	-8.92	-7.85	15.66	1.16	17.52	116.61
5000.00	2.15	178.42	4999.33	-9.81	-8.74	15.60	1.76	17.88	119.28
5025.00	2.27	173.15	5024.31	-10.78	-9.70	15.67	0.94	18.43	121.77
5050.00	2.34	176.43	5049.29	-11.78	-10.70	15.76	0.60	19.05	124.18
5075.00	2.54	180.10	5074.27	-12.84	-11.77	15.79	1.00	19.69	126.69
5100.00	3.04	189.42	5099.24	-14.04	-12.97	15.68	2.72	20.35	129.60
5125.00	3.58	196.19	5124.20	-15.42	-14.38	15.36	2.65	21.04	133.11
5150.00	3.83	197.23	5149.14	-16.93	-15.92	14.89	1.05	21.80	136.92
5175.00	3.72	197.06	5174.09	-18.46	-17.50	14.40	0.43	22.66	140.54
5200.00	3.74	197.23	5199.04	-19.98	-19.05	13.93	0.07	23.60	143.84
5225.00	3.77	197.39	5223.98	-21.50	-20.61	13.44	0.13	24.61	146.90
5250.00	3.58	200.51	5248.93	-22.98	-22.13	12.92	1.10	25.62	149.72
5275.00	2.91	219.35	5273.89	-24.15	-23.35	12.24	5.00	26.37	152.33
5300.00	3.00	254.45	5298.86	-24.74	-24.02	11.21	7.14	26.50	154.98
5325.00	3.20	265.41	5323.82	-24.88	-24.25	9.88	2.49	26.19	157.83
5350.00	3.27	266.77	5348.78	-24.88	-24.35	8.48	0.41	25.78	160.80
5375.00	3.27	267.50	5373.74	-24.85	-24.42	7.05	0.16	25.41	163.89
5400.00	3.29	266.84	5398.70	-24.82	-24.49	5.62	0.18	25.12	167.06
5425.00	3.10	264.89	5423.66	-24.82	-24.59	4.24	0.89	24.95	170.22
5450.00	2.98	264.99	5448.63	-24.85	-24.70	2.92	0.45	24.87	173.27
5475.00	2.91	265.32	5473.60	-24.87	-24.81	1.63	0.29	24.87	176.23
5500.00	2.77	263.94	5498.56	-24.89	-24.93	0.40	0.65	24.93	179.08
5525.00	2.77	265.85	5523.54	-24.92	-25.04	-0.80	0.37	25.05	181.83
5550.00	2.70	265.70	5548.51	-24.92	-25.12	-1.99	0.28	25.20	184.52
5575.00	2.73	263.46	5573.48	-24.95	-25.23	-3.17	0.45	25.43	187.15
5600.00	2.71	264.51	5598.45	-24.99	-25.36	-4.35	0.22	25.73	189.73
5625.00	2.76	264.90	5623.42	-25.02	-25.47	-5.54	0.21	26.06	192.26
5650.00	2.78	266.11	5648.39	-25.03	-25.56	-6.74	0.24	26.44	194.77

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
5675.00	2.78	265.60	5673.36	-25.03	-25.65	-7.95	0.10	26.85	197.21
5700.00	2.75	265.52	5698.33	-25.04	-25.74	-9.15	0.09	27.32	199.57
5725.00	2.85	264.59	5723.30	-25.06	-25.85	-10.37	0.42	27.85	201.85
5750.00	3.03	262.28	5748.27	-25.12	-26.00	-11.64	0.86	28.48	204.12
5775.00	3.15	257.52	5773.24	-25.26	-26.23	-12.96	1.13	29.26	206.30
5800.00	3.22	255.32	5798.20	-25.49	-26.56	-14.31	0.57	30.17	208.32
5825.00	3.25	254.22	5823.16	-25.77	-26.93	-15.67	0.27	31.16	210.20
5850.00	3.36	254.11	5848.12	-26.06	-27.32	-17.06	0.43	32.21	211.98
5875.00	3.27	254.33	5873.07	-26.36	-27.72	-18.45	0.33	33.30	213.65
5900.00	3.29	253.87	5898.03	-26.65	-28.11	-19.83	0.13	34.40	215.20
5925.00	3.36	254.27	5922.99	-26.95	-28.51	-21.22	0.27	35.54	216.67
5950.00	3.39	252.07	5947.95	-27.28	-28.93	-22.63	0.53	36.73	218.03
5975.00	3.76	247.57	5972.90	-27.72	-29.47	-24.09	1.86	38.07	219.26
6000.00	4.43	240.60	5997.84	-28.39	-30.26	-25.69	3.32	39.70	220.33
6025.00	4.59	239.84	6022.76	-29.24	-31.24	-27.40	0.70	41.55	221.25
6050.00	4.57	239.77	6047.68	-30.13	-32.24	-29.12	0.08	43.45	222.09
6075.00	4.58	238.92	6072.60	-31.02	-33.26	-30.84	0.27	45.35	222.84
6100.00	4.63	238.76	6097.52	-31.94	-34.30	-32.55	0.20	47.29	223.51
6125.00	4.72	238.67	6122.43	-32.87	-35.35	-34.30	0.38	49.26	224.13
6150.00	4.67	239.70	6147.35	-33.79	-36.40	-36.05	0.39	51.23	224.72
6175.00	4.69	239.68	6172.27	-34.70	-37.43	-37.82	0.08	53.21	225.29
6200.00	4.68	237.30	6197.18	-35.64	-38.50	-39.56	0.78	55.20	225.78
6225.00	4.77	237.15	6222.10	-36.63	-39.61	-41.29	0.36	57.22	226.18
6250.00	5.07	235.67	6247.01	-37.69	-40.80	-43.07	1.32	59.33	226.55
6275.00	5.04	235.41	6271.91	-38.80	-42.05	-44.89	0.15	61.50	226.87
6300.00	5.02	235.27	6296.81	-39.92	-43.29	-46.69	0.11	63.67	227.16
6325.00	5.28	231.91	6321.71	-41.12	-44.62	-48.49	1.59	65.90	227.38
6350.00	5.44	230.54	6346.60	-42.46	-46.09	-50.31	0.82	68.23	227.51
6375.00	5.52	230.57	6371.49	-43.84	-47.60	-52.16	0.32	70.61	227.61
6400.00	5.57	230.56	6396.37	-45.24	-49.14	-54.02	0.19	73.03	227.71
6425.00	5.54	230.48	6421.25	-46.64	-50.68	-55.89	0.12	75.44	227.80
6450.00	5.44	229.68	6446.14	-48.05	-52.21	-57.72	0.49	77.83	227.87

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
6475.00	5.33	229.48	6471.03	-49.44	-53.73	-59.51	0.44	80.18	227.92
6500.00	5.37	230.08	6495.92	-50.82	-55.24	-61.29	0.27	82.51	227.97
6525.00	5.23	229.22	6520.81	-52.18	-56.73	-63.05	0.64	84.81	228.02
6550.00	5.08	228.50	6545.71	-53.54	-58.21	-64.74	0.64	87.06	228.04
6575.00	5.21	227.80	6570.61	-54.92	-59.71	-66.41	0.55	89.30	228.04
6600.00	5.10	227.88	6595.51	-56.30	-61.21	-68.08	0.42	91.55	228.04
6625.00	5.06	226.80	6620.41	-57.69	-62.71	-69.70	0.41	93.76	228.02
6650.00	5.02	227.31	6645.32	-59.07	-64.21	-71.31	0.25	95.96	228.00
6675.00	5.01	226.87	6670.22	-60.44	-65.70	-72.91	0.16	98.15	227.98
6700.00	4.99	227.08	6695.12	-61.81	-67.19	-74.51	0.11	100.32	227.96
6725.00	5.00	227.16	6720.03	-63.18	-68.67	-76.10	0.06	102.50	227.94
6750.00	5.03	226.93	6744.93	-64.55	-70.16	-77.70	0.12	104.69	227.92
6775.00	5.14	227.78	6769.84	-65.93	-71.66	-79.33	0.56	106.90	227.91
6800.00	5.15	227.99	6794.74	-67.32	-73.16	-80.99	0.09	109.14	227.91
6825.00	5.21	228.29	6819.63	-68.70	-74.67	-82.68	0.27	111.40	227.91
6850.00	5.23	228.58	6844.53	-70.09	-76.18	-84.38	0.13	113.68	227.92
6875.00	5.36	228.29	6869.42	-71.50	-77.71	-86.10	0.51	115.98	227.93
6900.00	5.38	228.38	6894.31	-72.92	-79.26	-87.85	0.10	118.32	227.94
6925.00	5.35	228.52	6919.20	-74.35	-80.81	-89.60	0.11	120.66	227.95
6950.00	5.30	230.46	6944.10	-75.73	-82.32	-91.36	0.75	122.98	227.98
6975.00	5.33	231.67	6968.99	-77.05	-83.77	-93.17	0.46	125.29	228.04
7000.00	5.38	231.53	6993.88	-78.37	-85.22	-94.99	0.21	127.62	228.10
7025.00	5.34	231.30	7018.77	-79.70	-86.68	-96.82	0.15	129.95	228.16
7050.00	5.37	231.93	7043.66	-81.01	-88.13	-98.65	0.26	132.28	228.22
7075.00	5.37	232.18	7068.55	-82.32	-89.57	-100.49	0.10	134.62	228.29
7100.00	5.43	231.21	7093.44	-83.65	-91.03	-102.34	0.44	136.97	228.35
7125.00	5.47	232.54	7118.33	-84.98	-92.49	-104.21	0.53	139.34	228.41
7150.00	5.51	234.92	7143.21	-86.26	-93.91	-106.14	0.92	141.72	228.50
7175.00	5.80	237.00	7168.09	-87.49	-95.29	-108.18	1.41	144.16	228.63
7200.00	6.10	242.97	7192.96	-88.62	-96.58	-110.42	2.75	146.70	228.83
7225.00	6.55	247.33	7217.80	-89.60	-97.73	-112.92	2.63	149.34	229.12
7250.00	6.76	248.28	7242.64	-90.50	-98.83	-115.60	0.95	152.09	229.47

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
7275.00	6.72	248.07	7267.46	-91.40	-99.92	-118.33	0.19	154.87	229.82
7300.00	6.73	248.43	7292.29	-92.29	-101.00	-121.05	0.17	157.65	230.16
7325.00	6.74	248.46	7317.12	-93.17	-102.08	-123.77	0.04	160.43	230.49
7350.00	6.79	248.85	7341.94	-94.05	-103.15	-126.51	0.27	163.23	230.81
7375.00	6.63	247.98	7366.77	-94.93	-104.22	-129.23	0.74	166.02	231.11
7400.00	6.59	248.17	7391.61	-95.82	-105.30	-131.90	0.20	168.78	231.40
7425.00	6.35	247.42	7416.45	-96.70	-106.36	-134.51	1.00	171.48	231.66
7450.00	6.40	247.36	7441.29	-97.58	-107.43	-137.07	0.18	174.15	231.91
7475.00	6.28	247.26	7466.14	-98.47	-108.49	-139.62	0.48	176.82	232.15
7500.00	6.19	246.98	7490.99	-99.34	-109.55	-142.12	0.36	179.44	232.37
7525.00	6.31	247.82	7515.84	-100.21	-110.60	-144.63	0.60	182.07	232.60
7550.00	6.08	247.23	7540.70	-101.07	-111.63	-147.12	0.97	184.68	232.81
7575.00	6.11	247.10	7565.56	-101.92	-112.66	-149.57	0.14	187.25	233.01
7600.00	6.03	246.75	7590.42	-102.79	-113.69	-152.00	0.33	189.82	233.20
7625.00	6.02	246.97	7615.28	-103.65	-114.72	-154.41	0.12	192.37	233.39
7650.00	5.89	246.28	7640.14	-104.50	-115.75	-156.79	0.58	194.89	233.56
7675.00	5.83	246.70	7665.01	-105.36	-116.77	-159.13	0.30	197.38	233.73
7700.00	5.87	246.65	7689.88	-106.20	-117.78	-161.47	0.17	199.86	233.89
7725.00	5.95	246.03	7714.75	-107.07	-118.81	-163.83	0.41	202.38	234.05
7750.00	5.88	245.82	7739.62	-107.95	-119.86	-166.18	0.30	204.90	234.20
7775.00	5.73	246.31	7764.49	-108.81	-120.89	-168.50	0.64	207.38	234.34
7800.00	5.95	245.29	7789.36	-109.69	-121.93	-170.81	0.97	209.87	234.48
7825.00	6.11	244.93	7814.22	-110.62	-123.04	-173.20	0.67	212.45	234.61
7850.00	6.29	243.70	7839.07	-111.62	-124.21	-175.63	0.88	215.11	234.73
7875.00	6.24	244.09	7863.93	-112.65	-125.41	-178.08	0.26	217.80	234.85
7900.00	6.36	243.92	7888.77	-113.67	-126.61	-180.54	0.51	220.51	234.96
7925.00	6.26	243.77	7913.62	-114.71	-127.82	-183.01	0.42	223.23	235.07
7950.00	6.29	243.34	7938.47	-115.75	-129.04	-185.45	0.22	225.93	235.17
7975.00	6.25	242.96	7963.32	-116.81	-130.27	-187.89	0.23	228.63	235.26
8000.00	6.29	243.25	7988.17	-117.87	-131.51	-190.32	0.20	231.34	235.36
8025.00	6.31	242.96	8013.02	-118.94	-132.75	-192.77	0.15	234.05	235.45
8050.00	6.32	243.15	8037.87	-120.01	-133.99	-195.22	0.10	236.78	235.54

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
8075.00	6.40	243.41	8062.72	-121.08	-135.24	-197.69	0.33	239.52	235.62
8100.00	6.36	243.78	8087.56	-122.14	-136.47	-200.18	0.21	242.28	235.72
8125.00	6.46	243.11	8112.41	-123.21	-137.72	-202.68	0.47	245.04	235.80
8150.00	6.54	243.02	8137.25	-124.31	-139.00	-205.20	0.35	247.85	235.89
8175.00	6.42	243.80	8162.09	-125.40	-140.26	-207.72	0.61	250.65	235.97
8200.00	6.22	245.60	8186.93	-126.40	-141.44	-210.21	1.11	253.37	236.07
8225.00	5.97	243.49	8211.79	-127.36	-142.58	-212.61	1.35	255.99	236.15
8250.00	5.75	244.13	8236.66	-128.33	-143.71	-214.90	0.94	258.52	236.23
8275.00	5.73	243.47	8261.54	-129.27	-144.81	-217.14	0.27	261.00	236.30
8300.00	5.62	243.22	8286.41	-130.22	-145.92	-219.35	0.42	263.45	236.37
8325.00	5.48	243.05	8311.30	-131.16	-147.01	-221.51	0.60	265.85	236.43
8350.00	5.43	241.65	8336.18	-132.11	-148.11	-223.61	0.56	268.21	236.48
8375.00	5.33	242.42	8361.07	-133.07	-149.21	-225.68	0.51	270.55	236.53
8400.00	5.23	241.72	8385.97	-134.00	-150.29	-227.71	0.45	272.84	236.57
8425.00	5.14	241.20	8410.87	-134.94	-151.37	-229.70	0.43	275.09	236.62
8450.00	5.03	239.67	8435.77	-135.89	-152.46	-231.62	0.70	277.30	236.65
8475.00	4.80	240.87	8460.68	-136.82	-153.52	-233.48	0.98	279.43	236.67
8500.00	4.67	240.04	8485.59	-137.71	-154.54	-235.28	0.60	281.49	236.70
8525.00	4.54	240.82	8510.51	-138.58	-155.53	-237.02	0.58	283.50	236.73
8550.00	4.58	240.91	8535.43	-139.42	-156.50	-238.76	0.18	285.48	236.76
8575.00	4.52	242.59	8560.35	-140.23	-157.44	-240.51	0.58	287.45	236.79
8600.00	4.27	248.50	8585.28	-140.91	-158.23	-242.25	2.08	289.35	236.85
8625.00	4.20	250.17	8610.21	-141.43	-158.88	-243.97	0.57	291.15	236.93
8650.00	4.12	250.73	8635.14	-141.92	-159.49	-245.68	0.34	292.91	237.01
8675.00	4.15	251.14	8660.08	-142.39	-160.08	-247.38	0.17	294.66	237.09
8700.00	4.04	250.87	8685.02	-142.85	-160.66	-249.07	0.46	296.39	237.18
8725.00	3.91	250.28	8709.96	-143.31	-161.24	-250.71	0.53	298.08	237.25
8750.00	3.82	249.53	8734.90	-143.78	-161.82	-252.29	0.44	299.72	237.32
8775.00	3.73	249.62	8759.84	-144.24	-162.39	-253.83	0.33	301.33	237.39
8800.00	3.70	248.51	8784.79	-144.71	-162.97	-255.34	0.31	302.92	237.45
8825.00	3.57	247.86	8809.74	-145.20	-163.56	-256.82	0.57	304.48	237.51
8850.00	3.42	248.51	8834.70	-145.66	-164.12	-258.23	0.60	305.97	237.56

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
8875.00	3.23	248.50	8859.65	-146.10	-164.66	-259.58	0.80	307.40	237.61
8900.00	3.02	249.49	8884.62	-146.50	-165.14	-260.85	0.83	308.73	237.66
8925.00	3.03	249.75	8909.58	-146.87	-165.60	-262.09	0.06	310.03	237.71
8950.00	3.00	249.92	8934.55	-147.24	-166.06	-263.33	0.11	311.31	237.76
8975.00	3.04	250.41	8959.51	-147.60	-166.51	-264.57	0.16	312.60	237.82
9000.00	3.04	250.57	8984.48	-147.95	-166.95	-265.81	0.03	313.89	237.87
9025.00	3.10	250.02	9009.44	-148.31	-167.40	-267.07	0.29	315.20	237.92
9050.00	3.12	249.59	9034.40	-148.69	-167.87	-268.35	0.11	316.53	237.97
9075.00	3.24	251.11	9059.37	-149.06	-168.33	-269.65	0.61	317.88	238.03
9100.00	3.33	252.86	9084.32	-149.41	-168.78	-271.02	0.52	319.27	238.09
9125.00	3.62	253.92	9109.28	-149.74	-169.21	-272.47	1.20	320.73	238.16
9150.00	3.94	254.17	9134.22	-150.08	-169.66	-274.05	1.27	322.32	238.24
9175.00	4.22	255.03	9159.16	-150.43	-170.13	-275.77	1.17	324.02	238.33
9200.00	4.47	256.07	9184.09	-150.77	-170.60	-277.60	1.03	325.83	238.43
9225.00	4.55	256.38	9209.01	-151.11	-171.07	-279.51	0.33	327.71	238.53
9250.00	4.50	255.47	9233.93	-151.45	-171.55	-281.42	0.34	329.59	238.63
9275.00	4.61	255.69	9258.85	-151.81	-172.05	-283.34	0.43	331.49	238.73
9300.00	4.61	256.13	9283.77	-152.16	-172.54	-285.29	0.14	333.41	238.84
9325.00	4.44	256.00	9308.70	-152.50	-173.01	-287.21	0.65	335.29	238.94
9350.00	4.49	256.08	9333.62	-152.84	-173.48	-289.10	0.17	337.15	239.03
9375.00	4.64	257.14	9358.54	-153.16	-173.94	-291.03	0.69	339.05	239.13
9400.00	4.47	257.48	9383.46	-153.46	-174.38	-292.96	0.69	340.93	239.24
9425.00	4.56	256.69	9408.38	-153.77	-174.82	-294.88	0.44	342.80	239.34
9450.00	4.72	256.58	9433.30	-154.09	-175.28	-296.85	0.65	344.74	239.44
9475.00	5.12	256.19	9458.21	-154.45	-175.79	-298.93	1.62	346.79	239.54
9500.00	5.03	256.15	9483.11	-154.83	-176.32	-301.08	0.38	348.91	239.65
9525.00	5.04	255.89	9508.02	-155.21	-176.85	-303.21	0.10	351.01	239.75
9550.00	5.23	256.60	9532.92	-155.59	-177.38	-305.38	0.81	353.16	239.85
9575.00	5.27	255.93	9557.81	-155.97	-177.92	-307.60	0.30	355.35	239.95
9600.00	4.91	254.99	9582.71	-156.38	-178.48	-309.75	1.47	357.49	240.05
9625.00	4.95	254.81	9607.62	-156.79	-179.04	-311.82	0.15	359.57	240.14
9650.00	4.95	254.28	9632.53	-157.22	-179.61	-313.90	0.18	361.66	240.22

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
9675.00	5.00	254.17	9657.43	-157.66	-180.20	-315.99	0.21	363.76	240.30
9700.00	5.02	254.59	9682.34	-158.10	-180.79	-318.09	0.17	365.88	240.39
9725.00	5.13	254.39	9707.24	-158.54	-181.38	-320.23	0.44	368.03	240.47
9750.00	5.08	254.79	9732.14	-158.98	-181.97	-322.37	0.26	370.18	240.56
9775.00	5.01	255.50	9757.04	-159.40	-182.54	-324.49	0.37	372.31	240.64
9800.00	5.06	256.72	9781.95	-159.77	-183.06	-326.63	0.48	374.43	240.73
9825.00	5.10	256.02	9806.85	-160.14	-183.59	-328.78	0.29	376.56	240.82
9850.00	5.09	256.52	9831.75	-160.52	-184.11	-330.94	0.19	378.70	240.91
9875.00	5.05	257.75	9856.65	-160.86	-184.60	-333.09	0.46	380.82	241.00
9900.00	5.11	258.78	9881.55	-161.16	-185.05	-335.25	0.44	382.94	241.10
9925.00	5.10	260.11	9906.45	-161.41	-185.46	-337.44	0.47	385.05	241.21
9950.00	5.04	261.67	9931.36	-161.61	-185.81	-339.62	0.60	387.13	241.32
9975.00	5.03	262.48	9956.26	-161.76	-186.11	-341.80	0.29	389.18	241.43
10000.00	5.04	263.10	9981.16	-161.88	-186.39	-343.97	0.23	391.23	241.55
10025.00	4.79	263.47	10006.07	-161.98	-186.64	-346.10	1.01	393.22	241.66
10050.00	4.60	263.00	10030.99	-162.08	-186.88	-348.13	0.79	395.12	241.77
10075.00	4.34	262.15	10055.91	-162.19	-187.13	-350.06	1.07	396.94	241.87
10100.00	4.00	257.75	10080.84	-162.38	-187.45	-351.85	1.85	398.67	241.95
10125.00	3.87	256.18	10105.79	-162.65	-187.83	-353.52	0.70	400.33	242.02
10150.00	3.77	254.61	10130.73	-162.96	-188.25	-355.14	0.56	401.95	242.07
10175.00	3.79	253.40	10155.68	-163.30	-188.71	-356.72	0.33	403.56	242.12
10200.00	3.53	252.70	10180.62	-163.66	-189.17	-358.25	1.08	405.13	242.16
10225.00	3.43	250.08	10205.58	-164.04	-189.66	-359.69	0.75	406.62	242.20
10250.00	3.28	251.20	10230.54	-164.43	-190.14	-361.06	0.63	408.07	242.23
10275.00	3.28	249.43	10255.50	-164.81	-190.62	-362.41	0.41	409.49	242.26
10300.00	3.05	246.77	10280.46	-165.23	-191.14	-363.69	1.08	410.86	242.28
10325.00	2.25	245.31	10305.43	-165.63	-191.60	-364.75	3.20	412.01	242.29
10350.00	2.13	243.54	10330.41	-165.98	-192.01	-365.61	0.56	412.96	242.29
10375.00	1.74	241.44	10355.40	-166.31	-192.40	-366.36	1.58	413.81	242.29
10400.00	1.46	242.00	10380.39	-166.60	-192.73	-366.97	1.13	414.51	242.29
10425.00	1.18	240.53	10405.38	-166.84	-193.01	-367.48	1.13	415.08	242.29
10450.00	0.99	240.77	10430.38	-167.04	-193.24	-367.89	0.74	415.55	242.29

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
10475.00	0.96	236.46	10455.37	-167.24	-193.46	-368.25	0.32	415.98	242.28
10500.00	0.95	235.61	10480.37	-167.45	-193.70	-368.60	0.06	416.39	242.28
10525.00	0.86	236.62	10505.37	-167.64	-193.92	-368.93	0.38	416.79	242.27
10550.00	0.83	239.45	10530.36	-167.82	-194.11	-369.24	0.20	417.15	242.27
10575.00	0.77	244.00	10555.36	-167.96	-194.28	-369.55	0.35	417.50	242.27
10600.00	0.69	234.23	10580.36	-168.10	-194.44	-369.82	0.59	417.82	242.27
10625.00	0.67	228.05	10605.36	-168.27	-194.62	-370.05	0.31	418.11	242.26
10650.00	0.66	226.50	10630.36	-168.45	-194.82	-370.26	0.08	418.39	242.25
10675.00	0.71	217.69	10655.35	-168.66	-195.04	-370.46	0.46	418.67	242.23
10700.00	0.73	237.52	10680.35	-168.85	-195.25	-370.69	0.99	418.97	242.22
10725.00	0.70	236.69	10705.35	-169.00	-195.42	-370.95	0.12	419.28	242.22
10750.00	0.73	239.30	10730.35	-169.15	-195.58	-371.22	0.17	419.59	242.22
10775.00	0.76	239.69	10755.35	-169.29	-195.75	-371.50	0.13	419.91	242.21
10800.00	0.79	238.50	10780.34	-169.44	-195.92	-371.79	0.12	420.25	242.21
10825.00	0.81	231.65	10805.34	-169.62	-196.12	-372.07	0.39	420.60	242.21
10850.00	0.88	229.04	10830.34	-169.84	-196.36	-372.36	0.33	420.96	242.20
10875.00	0.90	221.86	10855.34	-170.09	-196.63	-372.63	0.45	421.33	242.18
10900.00	0.93	223.55	10880.33	-170.36	-196.92	-372.90	0.16	421.71	242.16
10925.00	1.09	222.72	10905.33	-170.66	-197.25	-373.21	0.64	422.12	242.14
10950.00	1.32	224.34	10930.32	-171.02	-197.63	-373.57	0.94	422.62	242.12
10975.00	1.35	222.53	10955.32	-171.41	-198.05	-373.97	0.20	423.17	242.09
11000.00	1.60	224.43	10980.31	-171.85	-198.51	-374.41	1.04	423.78	242.07
11025.00	2.73	232.58	11005.29	-172.40	-199.12	-375.13	4.65	424.70	242.04
11050.00	3.62	237.56	11030.25	-173.11	-199.91	-376.27	3.76	426.08	242.02
11075.00	4.09	238.07	11055.19	-173.90	-200.81	-377.69	1.86	427.75	242.00
11100.00	4.89	238.75	11080.12	-174.81	-201.83	-379.36	3.21	429.71	241.99
11125.00	6.30	240.28	11105.00	-175.89	-203.06	-381.46	5.66	432.14	241.97
11150.00	6.65	240.55	11129.84	-177.11	-204.45	-383.91	1.41	434.96	241.96
11175.00	6.81	240.52	11154.67	-178.36	-205.89	-386.46	0.66	437.88	241.95
11200.00	6.93	240.68	11179.49	-179.65	-207.36	-389.07	0.50	440.87	241.94
11225.00	7.07	240.71	11204.30	-180.95	-208.85	-391.72	0.55	443.92	241.93
11250.00	7.21	241.77	11229.11	-182.25	-210.35	-394.45	0.75	447.03	241.93

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
11275.00	7.34	242.44	11253.91	-183.53	-211.83	-397.24	0.64	450.19	241.93
11300.00	7.41	244.35	11278.70	-184.76	-213.27	-400.11	1.02	453.40	241.94
11325.00	7.37	245.31	11303.49	-185.92	-214.63	-403.03	0.52	456.62	241.96
11350.00	7.37	246.82	11328.28	-187.02	-215.94	-405.96	0.77	459.81	241.99
11375.00	7.31	248.78	11353.08	-188.01	-217.14	-408.91	1.03	462.99	242.03
11400.00	7.22	249.88	11377.88	-188.92	-218.26	-411.87	0.65	466.13	242.08
11425.00	7.15	250.88	11402.68	-189.76	-219.31	-414.82	0.59	469.22	242.14
11450.00	7.06	251.65	11427.49	-190.55	-220.30	-417.74	0.52	472.27	242.19
11475.00	6.97	252.60	11452.30	-191.28	-221.24	-420.65	0.58	475.28	242.26
11500.00	6.77	253.52	11477.12	-191.95	-222.11	-423.51	0.90	478.22	242.33
11525.00	6.65	254.04	11501.95	-192.57	-222.93	-426.31	0.55	481.08	242.39
11550.00	6.64	254.28	11526.78	-193.16	-223.72	-429.10	0.11	483.92	242.46
11575.00	6.73	253.27	11551.61	-193.78	-224.53	-431.89	0.58	486.77	242.53
11600.00	6.83	251.94	11576.44	-194.46	-225.41	-434.71	0.73	489.68	242.59
11625.00	6.94	251.83	11601.26	-195.19	-226.34	-437.56	0.47	492.64	242.65
11650.00	7.01	251.63	11626.07	-195.94	-227.30	-440.44	0.29	495.63	242.70
11675.00	7.00	251.70	11650.89	-196.69	-228.26	-443.34	0.07	498.65	242.76
11700.00	6.92	252.63	11675.70	-197.42	-229.18	-446.22	0.55	501.63	242.81
11725.00	6.93	253.49	11700.52	-198.09	-230.06	-449.10	0.42	504.60	242.88
11750.00	6.99	254.29	11725.34	-198.73	-230.90	-452.01	0.45	507.57	242.94
11775.00	6.98	254.15	11750.15	-199.35	-231.73	-454.93	0.08	510.55	243.01
11800.00	6.96	255.04	11774.97	-199.94	-232.53	-457.86	0.44	513.52	243.08
11825.00	6.99	255.72	11799.78	-200.50	-233.30	-460.79	0.35	516.49	243.15
11850.00	7.06	257.25	11824.59	-201.01	-234.01	-463.77	0.81	519.46	243.22
11875.00	6.96	256.51	11849.41	-201.49	-234.71	-466.74	0.53	522.43	243.30
11900.00	6.88	257.04	11874.23	-201.97	-235.39	-469.67	0.41	525.36	243.38
11925.00	6.90	257.89	11899.04	-202.42	-236.05	-472.60	0.41	528.27	243.46
11950.00	6.88	258.25	11923.86	-202.83	-236.67	-475.54	0.18	531.17	243.54
11975.00	6.84	256.28	11948.69	-203.29	-237.32	-478.45	0.95	534.08	243.62
12000.00	6.80	258.47	11973.51	-203.73	-237.97	-481.35	1.05	536.96	243.69

HOBBS OCD

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NORTHERN DELAWARE BASIN

LEA COUNTY, NM

BULLDOG

BASEBALL CAP FED COM #705H

OWB

Design: AWP

Standard Survey Report

01 October, 2019

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #705H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26' @ 3414.3usft (IDC 205)
Site:	BULLDOG	MD Reference:	KB=26' @ 3414.3usft (IDC 205)
Well:	BASEBALL CAP FED COM #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	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
From:	Map	Easting:	741,887.40 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 5' 36.820 N
		Longitude:	103° 33' 8.116 W
		Grid Convergence:	0.42 °

Well	BASEBALL CAP FED COM #705H		
Well Position	+N/-S	0.0 usft	Northing: 431,145.80 usft
	+E/-W	0.0 usft	Easting: 781,872.60 usft
Position Uncertainty	3.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 10' 55.400 N
		Longitude:	103° 25' 20.148 W
		Ground Level:	3,388.3 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2015	5/15/2019	6.67	60.02	47,732.64526197

Design	AWP				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.0	0.0	0.0		355.99

Survey Program	Date 8/7/2019			
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
100.0	12,000.0	GYRO-SURF/INTER (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
12,000.0	22,730.0	MWD-CURVE/LATERAL (OWB)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Survey										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate	
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
100.0	0.43	240.09	100.0	-0.2	-0.3	-0.2	0.43	0.43	0.00	
125.0	0.65	245.34	125.0	-0.3	-0.5	-0.3	0.90	0.88	21.00	
150.0	0.48	243.92	150.0	-0.4	-0.8	-0.3	0.68	-0.68	-5.68	
175.0	0.53	245.86	175.0	-0.5	-1.0	-0.4	0.21	0.20	7.76	
200.0	0.49	247.46	200.0	-0.6	-1.2	-0.5	0.17	-0.16	6.40	
225.0	0.56	249.49	225.0	-0.7	-1.4	-0.6	0.29	0.28	8.12	
250.0	0.60	248.96	250.0	-0.8	-1.6	-0.6	0.16	0.16	-2.12	
275.0	0.57	247.65	275.0	-0.8	-1.8	-0.7	0.13	-0.12	-5.24	
300.0	0.56	246.98	300.0	-0.9	-2.1	-0.8	0.05	-0.04	-2.68	

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #705H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26' @ 3414.3usft (IDC 205)
Site:	BULLDOG	MD Reference:	KB=26' @ 3414.3usft (IDC 205)
Well:	BASEBALL CAP FED COM #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	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	0.57	241.85	325.0	-1.0	-2.3	-0.9	0.21	0.04	-20.52
350.0	0.58	242.36	350.0	-1.2	-2.5	-1.0	0.04	0.04	2.04
375.0	0.61	240.07	375.0	-1.3	-2.7	-1.1	0.15	0.12	-9.16
400.0	0.59	231.96	400.0	-1.4	-3.0	-1.2	0.35	-0.08	-32.44
425.0	0.62	223.04	425.0	-1.6	-3.2	-1.4	0.39	0.12	-35.68
450.0	0.55	222.87	450.0	-1.8	-3.3	-1.6	0.28	-0.28	-0.68
475.0	0.60	218.32	475.0	-2.0	-3.5	-1.7	0.27	0.20	-18.20
500.0	0.64	221.04	500.0	-2.2	-3.7	-1.9	0.20	0.16	10.88
525.0	0.58	216.05	525.0	-2.4	-3.8	-2.1	0.32	-0.24	-19.96
550.0	0.54	215.85	550.0	-2.6	-4.0	-2.3	0.16	-0.16	-0.80
575.0	0.52	219.63	575.0	-2.8	-4.1	-2.5	0.16	-0.08	15.12
600.0	0.55	221.94	600.0	-3.0	-4.3	-2.7	0.15	0.12	9.24
625.0	0.51	225.57	625.0	-3.1	-4.4	-2.8	0.21	-0.16	14.52
650.0	0.54	228.33	650.0	-3.3	-4.6	-3.0	0.16	0.12	11.04
675.0	0.52	227.49	675.0	-3.4	-4.8	-3.1	0.09	-0.08	-3.36
700.0	0.44	227.25	700.0	-3.6	-4.9	-3.2	0.32	-0.32	-0.96
725.0	0.34	230.89	725.0	-3.7	-5.1	-3.3	0.41	-0.40	14.56
750.0	0.36	226.23	750.0	-3.8	-5.2	-3.4	0.14	0.08	-18.64
775.0	0.33	225.09	775.0	-3.9	-5.3	-3.5	0.12	-0.12	-4.56
800.0	0.33	217.45	800.0	-4.0	-5.4	-3.6	0.18	0.00	-30.56
825.0	0.41	218.10	825.0	-4.1	-5.5	-3.7	0.32	0.32	2.60
850.0	0.42	216.67	850.0	-4.3	-5.6	-3.9	0.06	0.04	-5.72
875.0	0.36	213.43	875.0	-4.4	-5.7	-4.0	0.26	-0.24	-12.96
900.0	0.27	207.20	900.0	-4.5	-5.7	-4.1	0.38	-0.36	-24.92
925.0	0.13	219.59	925.0	-4.6	-5.8	-4.2	0.58	-0.56	49.56
950.0	0.05	319.53	950.0	-4.6	-5.8	-4.2	0.59	-0.32	399.76
975.0	0.12	340.90	975.0	-4.6	-5.8	-4.2	0.30	0.28	85.48
1,000.0	0.19	19.29	1,000.0	-4.5	-5.8	-4.1	0.49	0.28	153.56
1,025.0	0.18	9.57	1,025.0	-4.5	-5.8	-4.0	0.13	-0.04	-38.88
1,050.0	0.14	345.08	1,050.0	-4.4	-5.8	-4.0	0.31	-0.16	-97.96
1,075.0	0.19	39.65	1,075.0	-4.3	-5.8	-3.9	0.63	0.20	218.28
1,100.0	0.54	68.08	1,100.0	-4.2	-5.7	-3.8	1.53	1.40	113.72
1,125.0	0.54	76.65	1,125.0	-4.2	-5.4	-3.8	0.32	0.00	34.28
1,150.0	0.76	80.67	1,150.0	-4.1	-5.2	-3.8	0.90	0.88	16.08
1,175.0	0.77	89.77	1,175.0	-4.1	-4.8	-3.7	0.49	0.04	36.40
1,200.0	0.88	90.82	1,200.0	-4.1	-4.5	-3.8	0.44	0.44	4.20
1,225.0	0.91	89.66	1,225.0	-4.1	-4.1	-3.8	0.14	0.12	-4.64
1,250.0	0.77	95.53	1,250.0	-4.1	-3.7	-3.8	0.66	-0.56	23.48
1,275.0	0.83	93.35	1,274.9	-4.1	-3.4	-3.9	0.27	0.24	-8.72
1,300.0	0.86	95.28	1,299.9	-4.2	-3.0	-3.9	0.17	0.12	7.72
1,325.0	0.87	92.26	1,324.9	-4.2	-2.6	-4.0	0.19	0.04	-12.08
1,350.0	0.94	92.87	1,349.9	-4.2	-2.2	-4.0	0.28	0.28	2.44
1,375.0	0.81	93.94	1,374.9	-4.2	-1.8	-4.1	0.52	-0.52	4.28

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #705H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26' @ 3414.3usft (IDC 205)
Site:	BULLDOG	MD Reference:	KB=26' @ 3414.3usft (IDC 205)
Well:	BASEBALL CAP FED COM #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	EDM_Users

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)
1,400.0	0.92	90.20	1,399.9	-4.2	-1.5	-4.1	0.49	0.44	-14.96
1,425.0	0.78	94.16	1,424.9	-4.3	-1.1	-4.2	0.61	-0.56	15.84
1,450.0	1.01	89.12	1,449.9	-4.3	-0.7	-4.2	0.97	0.92	-20.16
1,475.0	0.84	93.24	1,474.9	-4.3	-0.3	-4.2	0.73	-0.68	16.48
1,500.0	0.98	89.74	1,499.9	-4.3	0.1	-4.3	0.60	0.56	-14.00
1,525.0	0.83	95.61	1,524.9	-4.3	0.5	-4.3	0.70	-0.60	23.48
1,550.0	0.94	90.26	1,549.9	-4.3	0.9	-4.4	0.55	0.44	-21.40
1,575.0	0.88	92.18	1,574.9	-4.3	1.3	-4.4	0.27	-0.24	7.68
1,600.0	0.87	94.41	1,599.9	-4.4	1.7	-4.5	0.14	-0.04	8.92
1,625.0	0.99	88.18	1,624.9	-4.4	2.1	-4.5	0.63	0.48	-24.92
1,650.0	0.85	94.69	1,649.9	-4.4	2.5	-4.5	0.70	-0.56	26.04
1,675.0	0.96	88.09	1,674.9	-4.4	2.9	-4.6	0.61	0.44	-26.40
1,700.0	0.87	92.22	1,699.9	-4.4	3.3	-4.6	0.45	-0.36	16.52
1,725.0	0.85	93.05	1,724.9	-4.4	3.6	-4.6	0.09	-0.08	3.32
1,750.0	0.80	92.55	1,749.9	-4.4	4.0	-4.7	0.20	-0.20	-2.00
1,775.0	0.82	94.66	1,774.9	-4.4	4.3	-4.7	0.14	0.08	8.44
1,800.0	0.85	94.10	1,799.9	-4.5	4.7	-4.8	0.12	0.12	-2.24
1,825.0	0.84	93.75	1,824.9	-4.5	5.1	-4.8	0.05	-0.04	-1.40
1,850.0	0.87	89.05	1,849.9	-4.5	5.4	-4.9	0.31	0.12	-18.80
1,875.0	0.90	90.87	1,874.9	-4.5	5.8	-4.9	0.16	0.12	7.28
1,900.0	0.81	93.46	1,899.9	-4.5	6.2	-4.9	0.39	-0.36	10.36
1,925.0	0.85	93.30	1,924.9	-4.5	6.6	-5.0	0.16	0.16	-0.64
1,950.0	0.85	93.30	1,949.9	-4.6	6.9	-5.0	0.00	0.00	0.00
1,975.0	0.88	85.04	1,974.9	-4.5	7.3	-5.0	0.51	0.12	-33.04
2,000.0	0.91	96.15	1,999.9	-4.5	7.7	-5.1	0.70	0.12	44.44
2,025.0	0.83	100.28	2,024.9	-4.6	8.1	-5.2	0.41	-0.32	16.52
2,050.0	0.72	111.69	2,049.9	-4.7	8.4	-5.3	0.76	-0.44	45.64
2,075.0	0.71	149.68	2,074.9	-4.9	8.6	-5.5	1.86	-0.04	151.96
2,100.0	1.05	182.67	2,099.9	-5.2	8.7	-5.8	2.39	1.36	131.96
2,125.0	1.35	190.90	2,124.8	-5.8	8.6	-6.4	1.38	1.20	32.92
2,150.0	1.37	193.88	2,149.8	-6.3	8.5	-6.9	0.29	0.08	11.92
2,175.0	1.30	195.15	2,174.8	-6.9	8.4	-7.5	0.30	-0.28	5.08
2,200.0	1.38	194.93	2,199.8	-7.5	8.2	-8.0	0.32	0.32	-0.88
2,225.0	1.44	194.91	2,224.8	-8.1	8.0	-8.6	0.24	0.24	-0.08
2,250.0	1.44	194.31	2,249.8	-8.7	7.9	-9.2	0.06	0.00	-2.40
2,275.0	1.35	195.26	2,274.8	-9.3	7.7	-9.8	0.37	-0.36	3.80
2,300.0	1.36	192.38	2,299.8	-9.8	7.6	-10.3	0.28	0.04	-11.52
2,325.0	1.39	193.55	2,324.8	-10.4	7.5	-10.9	0.16	0.12	4.68
2,350.0	1.40	193.89	2,349.8	-11.0	7.3	-11.5	0.05	0.04	1.36
2,375.0	1.40	196.12	2,374.8	-11.6	7.2	-12.1	0.22	0.00	8.92
2,400.0	1.46	195.41	2,399.8	-12.2	7.0	-12.7	0.25	0.24	-2.84
2,425.0	1.49	194.77	2,424.8	-12.8	6.8	-13.3	0.14	0.12	-2.56
2,450.0	1.39	195.97	2,449.8	-13.4	6.7	-13.9	0.42	-0.40	4.80

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #705H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26' @ 3414.3usft (IDC 205)
Site:	BULLDOG	MD Reference:	KB=26' @ 3414.3usft (IDC 205)
Well:	BASEBALL CAP FED COM #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	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)
2,475.0	1.38	194.58	2,474.7	-14.0	6.5	-14.4	0.14	-0.04	-5.56
2,500.0	1.38	194.42	2,499.7	-14.6	6.3	-15.0	0.02	0.00	-0.64
2,525.0	1.47	194.58	2,524.7	-15.2	6.2	-15.6	0.36	0.36	0.64
2,550.0	1.41	194.81	2,549.7	-15.8	6.0	-16.2	0.24	-0.24	0.92
2,575.0	1.41	195.14	2,574.7	-16.4	5.9	-16.8	0.03	0.00	1.32
2,600.0	1.36	197.79	2,599.7	-17.0	5.7	-17.3	0.32	-0.20	10.60
2,625.0	0.93	214.83	2,624.7	-17.4	5.5	-17.8	2.18	-1.72	68.16
2,650.0	0.66	248.65	2,649.7	-17.6	5.2	-18.0	2.12	-1.08	135.28
2,675.0	0.71	335.01	2,674.7	-17.6	5.0	-17.9	3.75	0.20	345.44
2,700.0	0.81	334.72	2,699.7	-17.3	4.9	-17.6	0.40	0.40	-1.16
2,725.0	0.90	318.39	2,724.7	-17.0	4.7	-17.2	1.03	0.36	-65.32
2,750.0	0.92	312.44	2,749.7	-16.7	4.4	-16.9	0.39	0.08	-23.80
2,775.0	0.91	313.49	2,774.7	-16.4	4.1	-16.6	0.08	-0.04	4.20
2,800.0	0.93	316.03	2,799.7	-16.1	3.8	-16.3	0.18	0.08	10.16
2,825.0	0.92	314.27	2,824.7	-15.8	3.6	-16.0	0.12	-0.04	-7.04
2,850.0	0.90	319.14	2,849.7	-15.5	3.3	-15.7	0.32	-0.08	19.48
2,875.0	0.94	316.35	2,874.7	-15.2	3.0	-15.4	0.24	0.16	-11.16
2,900.0	0.95	315.33	2,899.7	-14.9	2.7	-15.1	0.08	0.04	-4.08
2,925.0	0.95	316.89	2,924.7	-14.7	2.4	-14.8	0.10	0.00	6.24
2,950.0	0.93	319.20	2,949.7	-14.3	2.2	-14.5	0.17	-0.08	9.24
2,975.0	0.92	317.47	2,974.7	-14.0	1.9	-14.1	0.12	-0.04	-6.92
3,000.0	0.96	318.95	2,999.7	-13.7	1.6	-13.8	0.19	0.16	5.92
3,025.0	0.97	319.05	3,024.7	-13.4	1.3	-13.5	0.04	0.04	0.40
3,050.0	0.91	320.43	3,049.7	-13.1	1.1	-13.2	0.26	-0.24	5.52
3,075.0	0.91	319.81	3,074.6	-12.8	0.8	-12.8	0.04	0.00	-2.48
3,100.0	0.90	318.84	3,099.6	-12.5	0.6	-12.5	0.07	-0.04	-3.88
3,125.0	0.89	319.80	3,124.6	-12.2	0.3	-12.2	0.07	-0.04	3.84
3,150.0	0.89	320.01	3,149.6	-11.9	0.1	-11.9	0.01	0.00	0.84
3,175.0	0.85	320.50	3,174.6	-11.6	-0.2	-11.6	0.16	-0.16	1.96
3,200.0	0.85	323.20	3,199.6	-11.3	-0.4	-11.3	0.16	0.00	10.80
3,225.0	0.88	320.80	3,224.6	-11.0	-0.6	-11.0	0.19	0.12	-9.60
3,250.0	0.84	324.81	3,249.6	-10.7	-0.9	-10.6	0.29	-0.16	16.04
3,275.0	0.72	327.87	3,274.6	-10.4	-1.1	-10.3	0.51	-0.48	12.24
3,300.0	0.67	333.03	3,299.6	-10.2	-1.2	-10.1	0.32	-0.20	20.64
3,325.0	0.68	331.05	3,324.6	-9.9	-1.3	-9.8	0.10	0.04	-7.92
3,350.0	0.60	337.25	3,349.6	-9.7	-1.5	-9.5	0.42	-0.32	24.80
3,375.0	0.59	343.03	3,374.6	-9.4	-1.6	-9.3	0.24	-0.04	23.12
3,400.0	0.58	336.28	3,399.6	-9.2	-1.6	-9.1	0.28	-0.04	-27.00
3,425.0	0.54	358.42	3,424.6	-9.0	-1.7	-8.8	0.87	-0.16	88.56
3,450.0	0.66	13.80	3,449.6	-8.7	-1.7	-8.6	0.80	0.48	61.52
3,475.0	0.56	347.89	3,474.6	-8.4	-1.7	-8.3	1.16	-0.40	-103.64
3,500.0	0.49	354.62	3,499.6	-8.2	-1.7	-8.1	0.37	-0.28	26.92
3,525.0	0.55	355.61	3,524.6	-8.0	-1.7	-7.8	0.24	0.24	3.96
3,550.0	0.51	5.80	3,549.6	-7.8	-1.7	-7.6	0.41	-0.16	40.76

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #705H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26' @ 3414.3usft (IDC 205)
Site:	BULLDOG	MD Reference:	KB=26' @ 3414.3usft (IDC 205)
Well:	BASEBALL CAP FED COM #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	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	0.50	7.26	3,574.6	-7.5	-1.7	-7.4	0.07	-0.04	5.84
3,600.0	0.48	19.13	3,599.6	-7.3	-1.6	-7.2	0.41	-0.08	47.48
3,625.0	0.53	19.05	3,624.6	-7.1	-1.6	-7.0	0.20	0.20	-0.32
3,650.0	0.59	25.60	3,649.6	-6.9	-1.5	-6.8	0.35	0.24	26.20
3,675.0	0.53	29.52	3,674.6	-6.7	-1.4	-6.6	0.28	-0.24	15.68
3,700.0	0.57	27.18	3,699.6	-6.5	-1.2	-6.4	0.18	0.16	-9.36
3,725.0	0.56	29.64	3,724.6	-6.3	-1.1	-6.2	0.10	-0.04	9.84
3,750.0	0.59	34.81	3,749.6	-6.0	-1.0	-6.0	0.24	0.12	20.68
3,775.0	0.61	34.79	3,774.6	-5.8	-0.8	-5.8	0.08	0.08	-0.08
3,800.0	0.73	44.95	3,799.6	-5.6	-0.7	-5.5	0.67	0.48	40.64
3,825.0	0.65	49.93	3,824.6	-5.4	-0.4	-5.4	0.40	-0.32	19.92
3,850.0	0.67	49.84	3,849.6	-5.2	-0.2	-5.2	0.08	0.08	-0.36
3,875.0	0.72	56.48	3,874.6	-5.0	0.0	-5.0	0.38	0.20	26.56
3,900.0	0.75	57.23	3,899.6	-4.9	0.3	-4.9	0.13	0.12	3.00
3,925.0	0.72	65.40	3,924.6	-4.7	0.6	-4.7	0.44	-0.12	32.68
3,950.0	0.84	68.84	3,949.6	-4.6	0.9	-4.6	0.52	0.48	13.76
3,975.0	0.82	71.68	3,974.6	-4.5	1.2	-4.5	0.18	-0.08	11.36
4,000.0	0.84	74.88	3,999.6	-4.3	1.6	-4.4	0.20	0.08	12.80
4,025.0	0.84	75.37	4,024.6	-4.3	1.9	-4.4	0.03	0.00	1.96
4,050.0	0.84	72.72	4,049.6	-4.2	2.3	-4.3	0.16	0.00	-10.60
4,075.0	0.80	73.72	4,074.6	-4.0	2.6	-4.2	0.17	-0.16	4.00
4,100.0	0.84	76.36	4,099.6	-4.0	3.0	-4.2	0.22	0.16	10.56
4,125.0	0.92	74.34	4,124.6	-3.9	3.3	-4.1	0.34	0.32	-8.08
4,150.0	0.83	73.36	4,149.6	-3.8	3.7	-4.0	0.36	-0.36	-3.92
4,175.0	1.51	70.36	4,174.6	-3.6	4.2	-3.9	2.73	2.72	-12.00
4,200.0	0.82	76.89	4,199.6	-3.4	4.7	-3.8	2.81	-2.76	26.12
4,225.0	0.85	75.59	4,224.6	-3.4	5.0	-3.7	0.14	0.12	-5.20
4,250.0	0.87	79.70	4,249.5	-3.3	5.4	-3.6	0.26	0.08	16.44
4,275.0	0.89	78.69	4,274.5	-3.2	5.8	-3.6	0.10	0.08	-4.04
4,300.0	0.81	77.94	4,299.5	-3.1	6.1	-3.5	0.32	-0.32	-3.00
4,325.0	0.86	81.46	4,324.5	-3.1	6.5	-3.5	0.29	0.20	14.08
4,350.0	0.91	83.10	4,349.5	-3.0	6.9	-3.5	0.22	0.20	6.56
4,375.0	0.85	79.95	4,374.5	-3.0	7.3	-3.5	0.31	-0.24	-12.60
4,400.0	0.89	83.38	4,399.5	-2.9	7.6	-3.4	0.26	0.16	13.72
4,425.0	0.81	81.20	4,424.5	-2.8	8.0	-3.4	0.35	-0.32	-8.72
4,450.0	0.91	80.70	4,449.5	-2.8	8.4	-3.4	0.40	0.40	-2.00
4,475.0	0.92	80.57	4,474.5	-2.7	8.8	-3.3	0.04	0.04	-0.52
4,500.0	1.00	82.74	4,499.5	-2.7	9.2	-3.3	0.35	0.32	8.68
4,525.0	0.94	81.10	4,524.5	-2.6	9.6	-3.3	0.26	-0.24	-6.56
4,550.0	1.00	80.61	4,549.5	-2.5	10.0	-3.2	0.24	0.24	-1.96
4,575.0	1.06	80.28	4,574.5	-2.5	10.5	-3.2	0.24	0.24	-1.32
4,600.0	1.17	79.16	4,599.5	-2.4	10.9	-3.1	0.45	0.44	-4.48
4,625.0	1.18	82.91	4,624.5	-2.3	11.4	-3.1	0.31	0.04	15.00

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #705H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26' @ 3414.3usft (IDC 205)
Site:	BULLDOG	MD Reference:	KB=26' @ 3414.3usft (IDC 205)
Well:	BASEBALL CAP FED COM #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	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	1.39	93.28	4,649.5	-2.3	12.0	-3.1	1.25	0.84	41.48
4,675.0	1.67	96.92	4,674.5	-2.3	12.7	-3.2	1.18	1.12	14.56
4,700.0	1.86	98.42	4,699.5	-2.4	13.4	-3.4	0.78	0.76	6.00
4,725.0	1.82	101.71	4,724.5	-2.6	14.2	-3.6	0.45	-0.16	13.16
4,750.0	1.70	102.86	4,749.4	-2.7	15.0	-3.8	0.50	-0.48	4.60
4,775.0	1.82	103.00	4,774.4	-2.9	15.7	-4.0	0.48	0.48	0.56
4,800.0	1.69	108.35	4,799.4	-3.1	16.5	-4.3	0.84	-0.52	21.40
4,825.0	1.29	157.76	4,824.4	-3.5	16.9	-4.7	5.19	-1.60	197.64
4,850.0	1.52	191.22	4,849.4	-4.1	17.0	-5.3	3.35	0.92	133.84
4,875.0	1.83	199.97	4,874.4	-4.8	16.8	-5.9	1.60	1.24	35.00
4,900.0	1.89	204.33	4,899.4	-5.5	16.4	-6.7	0.61	0.24	17.44
4,925.0	1.85	203.25	4,924.4	-6.3	16.1	-7.4	0.21	-0.16	-4.32
4,950.0	1.85	197.34	4,949.4	-7.0	15.8	-8.1	0.76	0.00	-23.64
4,975.0	2.00	189.90	4,974.3	-7.9	15.6	-8.9	1.16	0.60	-29.76
5,000.0	2.15	178.42	4,999.3	-8.8	15.6	-9.8	1.76	0.60	-45.92
5,025.0	2.27	173.15	5,024.3	-9.7	15.7	-10.8	0.94	0.48	-21.08
5,050.0	2.34	176.43	5,049.3	-10.7	15.7	-11.8	0.60	0.28	13.12
5,075.0	2.54	180.10	5,074.3	-11.8	15.8	-12.9	1.01	0.80	14.68
5,100.0	3.04	189.42	5,099.2	-13.0	15.7	-14.1	2.69	2.00	37.28
5,125.0	3.58	196.19	5,124.2	-14.4	15.3	-15.4	2.66	2.16	27.08
5,150.0	3.83	197.23	5,149.1	-15.9	14.9	-16.9	1.04	1.00	4.16
5,175.0	3.72	197.06	5,174.1	-17.5	14.4	-18.5	0.44	-0.44	-0.68
5,200.0	3.74	197.23	5,199.0	-19.1	13.9	-20.0	0.09	0.08	0.68
5,225.0	3.77	197.39	5,224.0	-20.6	13.4	-21.5	0.13	0.12	0.64
5,250.0	3.58	200.51	5,248.9	-22.1	12.9	-23.0	1.10	-0.76	12.48
5,275.0	2.91	219.35	5,273.9	-23.4	12.2	-24.2	5.00	-2.68	75.36
5,300.0	3.00	254.45	5,298.9	-24.0	11.2	-24.8	7.13	0.36	140.40
5,325.0	3.20	265.41	5,323.8	-24.3	9.9	-24.9	2.50	0.80	43.84
5,350.0	3.27	266.77	5,348.8	-24.4	8.5	-24.9	0.42	0.28	5.44
5,375.0	3.27	267.50	5,373.7	-24.4	7.0	-24.9	0.17	0.00	2.92
5,400.0	3.29	266.84	5,398.7	-24.5	5.6	-24.8	0.17	0.08	-2.64
5,425.0	3.10	264.89	5,423.7	-24.6	4.2	-24.8	0.88	-0.76	-7.80
5,450.0	2.98	264.99	5,448.6	-24.7	2.9	-24.9	0.48	-0.48	0.40
5,475.0	2.91	265.32	5,473.6	-24.8	1.6	-24.9	0.29	-0.28	1.32
5,500.0	2.77	263.94	5,498.6	-24.9	0.4	-24.9	0.62	-0.56	-5.52
5,525.0	2.77	265.85	5,523.5	-25.1	-0.8	-24.9	0.37	0.00	7.64
5,550.0	2.70	265.70	5,548.5	-25.1	-2.0	-24.9	0.28	-0.28	-0.60
5,575.0	2.73	263.46	5,573.5	-25.3	-3.2	-25.0	0.44	0.12	-8.96
5,600.0	2.71	264.51	5,598.5	-25.4	-4.4	-25.0	0.21	-0.08	4.20
5,625.0	2.76	264.90	5,623.4	-25.5	-5.6	-25.0	0.21	0.20	1.56
5,650.0	2.78	266.11	5,648.4	-25.6	-6.8	-25.0	0.25	0.08	4.84
5,675.0	2.78	265.60	5,673.4	-25.7	-8.0	-25.0	0.10	0.00	-2.04
5,700.0	2.75	265.52	5,698.3	-25.8	-9.2	-25.1	0.12	-0.12	-0.32

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #705H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26' @ 3414.3usft (IDC 205)
Site:	BULLDOG	MD Reference:	KB=26' @ 3414.3usft (IDC 205)
Well:	BASEBALL CAP FED COM #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	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)
5,725.0	2.85	264.59	5,723.3	-25.9	-10.4	-25.1	0.44	0.40	-3.72
5,750.0	3.03	262.28	5,748.3	-26.0	-11.7	-25.1	0.86	0.72	-9.24
5,775.0	3.15	257.52	5,773.2	-26.3	-13.0	-25.3	1.13	0.48	-19.04
5,800.0	3.22	255.32	5,798.2	-26.6	-14.3	-25.5	0.56	0.28	-8.80
5,825.0	3.25	254.22	5,823.2	-26.9	-15.7	-25.8	0.28	0.12	-4.40
5,850.0	3.36	254.11	5,848.1	-27.3	-17.1	-26.1	0.44	0.44	-0.44
5,875.0	3.27	254.33	5,873.1	-27.7	-18.5	-26.4	0.36	-0.36	0.88
5,900.0	3.29	253.87	5,898.0	-28.1	-19.9	-26.7	0.13	0.08	-1.84
5,925.0	3.36	254.27	5,923.0	-28.5	-21.2	-27.0	0.29	0.28	1.60
5,950.0	3.39	252.07	5,947.9	-28.9	-22.7	-27.3	0.53	0.12	-8.80
5,975.0	3.76	247.57	5,972.9	-29.5	-24.1	-27.7	1.86	1.48	-18.00
6,000.0	4.43	240.60	5,997.8	-30.3	-25.7	-28.4	3.33	2.68	-27.88
6,025.0	4.59	239.84	6,022.8	-31.3	-27.4	-29.3	0.68	0.64	-3.04
6,050.0	4.57	239.77	6,047.7	-32.3	-29.1	-30.1	0.08	-0.08	-0.28
6,075.0	4.58	238.92	6,072.6	-33.3	-30.9	-31.0	0.27	0.04	-3.40
6,100.0	4.63	238.76	6,097.5	-34.3	-32.6	-31.9	0.21	0.20	-0.64
6,125.0	4.72	238.67	6,122.4	-35.4	-34.3	-32.9	0.36	0.36	-0.36
6,150.0	4.67	239.70	6,147.3	-36.4	-36.1	-33.8	0.39	-0.20	4.12
6,175.0	4.69	239.68	6,172.3	-37.4	-37.8	-34.7	0.08	0.08	-0.08
6,200.0	4.68	237.30	6,197.2	-38.5	-39.6	-35.7	0.78	-0.04	-9.52
6,225.0	4.77	237.15	6,222.1	-39.6	-41.3	-36.6	0.36	0.36	-0.60
6,250.0	5.07	235.67	6,247.0	-40.8	-43.1	-37.7	1.30	1.20	-5.92
6,275.0	5.04	235.41	6,271.9	-42.1	-44.9	-38.8	0.15	-0.12	-1.04
6,300.0	5.02	235.27	6,296.8	-43.3	-46.7	-39.9	0.09	-0.08	-0.56
6,325.0	5.28	231.91	6,321.7	-44.6	-48.5	-41.1	1.59	1.04	-13.44
6,350.0	5.44	230.54	6,346.6	-46.1	-50.3	-42.5	0.82	0.64	-5.48
6,375.0	5.52	230.57	6,371.5	-47.6	-52.2	-43.9	0.32	0.32	0.12
6,400.0	5.57	230.56	6,396.4	-49.2	-54.0	-45.3	0.20	0.20	-0.04
6,425.0	5.54	230.48	6,421.3	-50.7	-55.9	-46.7	0.12	-0.12	-0.32
6,450.0	5.44	229.68	6,446.1	-52.2	-57.7	-48.1	0.50	-0.40	-3.20
6,475.0	5.33	229.48	6,471.0	-53.8	-59.5	-49.5	0.45	-0.44	-0.80
6,500.0	5.37	230.08	6,495.9	-55.3	-61.3	-50.8	0.28	0.16	2.40
6,525.0	5.23	229.22	6,520.8	-56.8	-63.1	-52.2	0.64	-0.56	-3.44
6,550.0	5.08	228.50	6,545.7	-58.2	-64.8	-53.6	0.65	-0.60	-2.88
6,575.0	5.21	227.80	6,570.6	-59.7	-66.4	-54.9	0.58	0.52	-2.80
6,600.0	5.10	227.88	6,595.5	-61.2	-68.1	-56.3	0.44	-0.44	0.32
6,625.0	5.06	226.80	6,620.4	-62.7	-69.7	-57.7	0.41	-0.16	-4.32
6,650.0	5.02	227.31	6,645.3	-64.2	-71.3	-59.1	0.24	-0.16	2.04
6,675.0	5.01	226.87	6,670.2	-65.7	-72.9	-60.5	0.16	-0.04	-1.76
6,700.0	4.99	227.08	6,695.1	-67.2	-74.5	-61.8	0.11	-0.08	0.84
6,725.0	5.00	227.16	6,720.0	-68.7	-76.1	-63.2	0.05	0.04	0.32
6,750.0	5.03	226.93	6,744.9	-70.2	-77.7	-64.6	0.14	0.12	-0.92
6,775.0	5.14	227.78	6,769.8	-71.7	-79.4	-65.9	0.53	0.44	3.40
6,800.0	5.15	227.99	6,794.7	-73.2	-81.0	-67.3	0.09	0.04	0.84

Survey Report

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: BASEBALL CAP FED COM #705H
Wellbore: OWB
Design: AWP

Local Co-ordinate Reference: Well BASEBALL CAP FED COM #705H
TVD Reference: KB=26' @ 3414.3usft (IDC 205)
MD Reference: KB=26' @ 3414.3usft (IDC 205)
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)
6,825.0	5.21	228.29	6,819.6	-74.7	-82.7	-68.7	0.26	0.24	1.20
6,850.0	5.23	228.58	6,844.5	-76.2	-84.4	-70.1	0.13	0.08	1.16
6,875.0	5.36	228.29	6,869.4	-77.7	-86.1	-71.5	0.53	0.52	-1.16
6,900.0	5.38	228.38	6,894.3	-79.3	-87.9	-72.9	0.09	0.08	0.36
6,925.0	5.35	228.52	6,919.2	-80.8	-89.6	-74.4	0.13	-0.12	0.56
6,950.0	5.30	230.46	6,944.1	-82.3	-91.4	-75.7	0.75	-0.20	7.76
6,975.0	5.33	231.67	6,969.0	-83.8	-93.2	-77.1	0.46	0.12	4.84
7,000.0	5.38	231.53	6,993.9	-85.2	-95.0	-78.4	0.21	0.20	-0.56
7,025.0	5.34	231.30	7,018.8	-86.7	-96.8	-79.7	0.18	-0.16	-0.92
7,050.0	5.37	231.93	7,043.7	-88.1	-98.7	-81.0	0.26	0.12	2.52
7,075.0	5.37	232.18	7,068.6	-89.6	-100.5	-82.3	0.09	0.00	1.00
7,100.0	5.43	231.21	7,093.4	-91.0	-102.4	-83.7	0.44	0.24	-3.88
7,125.0	5.47	232.54	7,118.3	-92.5	-104.2	-85.0	0.53	0.16	5.32
7,150.0	5.51	234.92	7,143.2	-93.9	-106.2	-86.3	0.92	0.16	9.52
7,175.0	5.80	237.00	7,168.1	-95.3	-108.2	-87.5	1.42	1.16	8.32
7,200.0	6.10	242.97	7,193.0	-96.6	-110.4	-88.6	2.75	1.20	23.88
7,225.0	6.55	247.33	7,217.8	-97.7	-112.9	-89.6	2.63	1.80	17.44
7,250.0	6.76	248.28	7,242.6	-98.8	-115.6	-90.5	0.95	0.84	3.80
7,275.0	6.72	248.07	7,267.5	-99.9	-118.3	-91.4	0.19	-0.16	-0.84
7,300.0	6.73	248.43	7,292.3	-101.0	-121.1	-92.3	0.17	0.04	1.44
7,325.0	6.74	248.46	7,317.1	-102.1	-123.8	-93.2	0.04	0.04	0.12
7,350.0	6.79	248.85	7,341.9	-103.2	-126.5	-94.1	0.27	0.20	1.56
7,375.0	6.63	247.98	7,366.8	-104.2	-129.3	-94.9	0.76	-0.64	-3.48
7,400.0	6.59	248.17	7,391.6	-105.3	-131.9	-95.8	0.18	-0.16	0.76
7,425.0	6.35	247.42	7,416.4	-106.4	-134.5	-96.7	1.02	-0.96	-3.00
7,450.0	6.40	247.36	7,441.3	-107.4	-137.1	-97.6	0.20	0.20	-0.24
7,475.0	6.28	247.26	7,466.1	-108.5	-139.6	-98.5	0.48	-0.48	-0.40
7,500.0	6.19	246.98	7,491.0	-109.6	-142.1	-99.4	0.38	-0.36	-1.12
7,525.0	6.31	247.82	7,515.8	-110.6	-144.7	-100.2	0.60	0.48	3.36
7,550.0	6.08	247.23	7,540.7	-111.6	-147.1	-101.1	0.95	-0.92	-2.36
7,575.0	6.11	247.10	7,565.6	-112.7	-149.6	-101.9	0.13	0.12	-0.52
7,600.0	6.03	246.75	7,590.4	-113.7	-152.0	-102.8	0.35	-0.32	-1.40
7,625.0	6.02	246.97	7,615.3	-114.7	-154.4	-103.7	0.10	-0.04	0.88
7,650.0	5.89	246.28	7,640.1	-115.8	-156.8	-104.5	0.59	-0.52	-2.76
7,675.0	5.83	246.70	7,665.0	-116.8	-159.2	-105.4	0.29	-0.24	1.68
7,700.0	5.87	246.65	7,689.9	-117.8	-161.5	-106.2	0.16	0.16	-0.20
7,725.0	5.95	246.03	7,714.7	-118.8	-163.9	-107.1	0.41	0.32	-2.48
7,750.0	5.88	245.82	7,739.6	-119.9	-166.2	-108.0	0.29	-0.28	-0.84
7,775.0	5.73	246.31	7,764.5	-120.9	-168.5	-108.8	0.63	-0.60	1.96
7,800.0	5.95	245.29	7,789.4	-121.9	-170.8	-109.7	0.97	0.88	-4.08
7,825.0	6.11	244.93	7,814.2	-123.1	-173.2	-110.6	0.66	0.64	-1.44
7,850.0	6.29	243.70	7,839.1	-124.2	-175.7	-111.6	0.89	0.72	-4.92
7,875.0	6.24	244.09	7,863.9	-125.4	-178.1	-112.7	0.26	-0.20	1.56

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #705H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26' @ 3414.3usft (IDC 205)
Site:	BULLDOG	MD Reference:	KB=26' @ 3414.3usft (IDC 205)
Well:	BASEBALL CAP FED COM #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	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	6.36	243.92	7,888.8	-126.6	-180.6	-113.7	0.49	0.48	-0.68
7,925.0	6.26	243.77	7,913.6	-127.8	-183.0	-114.7	0.41	-0.40	-0.60
7,950.0	6.29	243.34	7,938.5	-129.1	-185.5	-115.8	0.22	0.12	-1.72
7,975.0	6.25	242.96	7,963.3	-130.3	-187.9	-116.8	0.23	-0.16	-1.52
8,000.0	6.29	243.25	7,988.2	-131.5	-190.4	-117.9	0.20	0.16	1.16
8,025.0	6.31	242.96	8,013.0	-132.8	-192.8	-119.0	0.15	0.08	-1.16
8,050.0	6.32	243.15	8,037.9	-134.0	-195.3	-120.0	0.09	0.04	0.76
8,075.0	6.40	243.41	8,062.7	-135.3	-197.7	-121.1	0.34	0.32	1.04
8,100.0	6.36	243.78	8,087.6	-136.5	-200.2	-122.2	0.23	-0.16	1.48
8,125.0	6.46	243.11	8,112.4	-137.7	-202.7	-123.2	0.50	0.40	-2.68
8,150.0	6.54	243.02	8,137.2	-139.0	-205.2	-124.3	0.32	0.32	-0.36
8,175.0	6.42	243.80	8,162.1	-140.3	-207.8	-125.4	0.60	-0.48	3.12
8,200.0	6.22	245.60	8,186.9	-141.5	-210.2	-126.4	1.13	-0.80	7.20
8,225.0	5.97	243.49	8,211.8	-142.6	-212.6	-127.4	1.34	-1.00	-8.44
8,250.0	5.75	244.13	8,236.7	-143.7	-214.9	-128.3	0.92	-0.88	2.56
8,275.0	5.73	243.47	8,261.5	-144.8	-217.2	-129.3	0.28	-0.08	-2.64
8,300.0	5.62	243.22	8,286.4	-145.9	-219.4	-130.2	0.45	-0.44	-1.00
8,325.0	5.48	243.05	8,311.3	-147.0	-221.5	-131.2	0.56	-0.56	-0.68
8,350.0	5.43	241.65	8,336.2	-148.1	-223.6	-132.1	0.57	-0.20	-5.60
8,375.0	5.33	242.42	8,361.1	-149.2	-225.7	-133.1	0.49	-0.40	3.08
8,400.0	5.23	241.72	8,386.0	-150.3	-227.8	-134.0	0.48	-0.40	-2.80
8,425.0	5.14	241.20	8,410.9	-151.4	-229.7	-135.0	0.41	-0.36	-2.08
8,450.0	5.03	239.67	8,435.8	-152.5	-231.7	-135.9	0.70	-0.44	-6.12
8,475.0	4.80	240.87	8,460.7	-153.5	-233.5	-136.8	1.01	-0.92	4.80
8,500.0	4.67	240.04	8,485.6	-154.6	-235.3	-137.7	0.59	-0.52	-3.32
8,525.0	4.54	240.82	8,510.5	-155.6	-237.1	-138.6	0.58	-0.52	3.12
8,550.0	4.58	240.91	8,535.4	-156.5	-238.8	-139.4	0.16	0.16	0.36
8,575.0	4.52	242.59	8,560.3	-157.5	-240.5	-140.3	0.58	-0.24	6.72
8,600.0	4.27	248.50	8,585.3	-158.3	-242.3	-140.9	2.07	-1.00	23.64
8,625.0	4.20	250.17	8,610.2	-158.9	-244.0	-141.5	0.57	-0.28	6.68
8,650.0	4.12	250.73	8,635.1	-159.5	-245.7	-141.9	0.36	-0.32	2.24
8,675.0	4.15	251.14	8,660.1	-160.1	-247.4	-142.4	0.17	0.12	1.64
8,700.0	4.04	250.87	8,685.0	-160.7	-249.1	-142.9	0.45	-0.44	-1.08
8,725.0	3.91	250.28	8,710.0	-161.3	-250.8	-143.3	0.55	-0.52	-2.36
8,750.0	3.82	249.53	8,734.9	-161.8	-252.3	-143.8	0.41	-0.36	-3.00
8,775.0	3.73	249.62	8,759.8	-162.4	-253.9	-144.3	0.36	-0.36	0.36
8,800.0	3.70	248.51	8,784.8	-163.0	-255.4	-144.7	0.31	-0.12	-4.44
8,825.0	3.57	247.86	8,809.7	-163.6	-256.9	-145.2	0.55	-0.52	-2.60
8,850.0	3.42	248.51	8,834.7	-164.1	-258.3	-145.7	0.62	-0.60	2.60
8,875.0	3.23	248.50	8,859.7	-164.7	-259.6	-146.1	0.76	-0.76	-0.04
8,900.0	3.02	249.49	8,884.6	-165.2	-260.9	-146.5	0.87	-0.84	3.96
8,925.0	3.03	249.75	8,909.6	-165.6	-262.1	-146.9	0.07	0.04	1.04
8,950.0	3.00	249.92	8,934.5	-166.1	-263.4	-147.3	0.13	-0.12	0.68

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #705H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26' @ 3414.3usft (IDC 205)
Site:	BULLDOG	MD Reference:	KB=26' @ 3414.3usft (IDC 205)
Well:	BASEBALL CAP FED COM #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	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	3.04	250.41	8,959.5	-166.5	-264.6	-147.6	0.19	0.16	1.96
9,000.0	3.04	250.57	8,984.5	-167.0	-265.9	-148.0	0.03	0.00	0.64
9,025.0	3.10	250.02	9,009.4	-167.4	-267.1	-148.3	0.27	0.24	-2.20
9,050.0	3.12	249.59	9,034.4	-167.9	-268.4	-148.7	0.12	0.08	-1.72
9,075.0	3.24	251.11	9,059.4	-168.4	-269.7	-149.1	0.59	0.48	6.08
9,100.0	3.33	252.86	9,084.3	-168.8	-271.1	-149.4	0.54	0.36	7.00
9,125.0	3.62	253.92	9,109.3	-169.2	-272.5	-149.8	1.19	1.16	4.24
9,150.0	3.94	254.17	9,134.2	-169.7	-274.1	-150.1	1.28	1.28	1.00
9,175.0	4.22	255.03	9,159.2	-170.2	-275.8	-150.4	1.15	1.12	3.44
9,200.0	4.47	256.07	9,184.1	-170.6	-277.6	-150.8	1.05	1.00	4.16
9,225.0	4.55	256.38	9,209.0	-171.1	-279.6	-151.1	0.33	0.32	1.24
9,250.0	4.50	255.47	9,233.9	-171.6	-281.5	-151.5	0.35	-0.20	-3.64
9,275.0	4.61	255.69	9,258.9	-172.1	-283.4	-151.8	0.45	0.44	0.88
9,300.0	4.61	256.13	9,283.8	-172.6	-285.3	-152.2	0.14	0.00	1.76
9,325.0	4.44	256.00	9,308.7	-173.0	-287.3	-152.5	0.68	-0.68	-0.52
9,350.0	4.49	256.08	9,333.6	-173.5	-289.1	-152.9	0.20	0.20	0.32
9,375.0	4.64	257.14	9,358.5	-174.0	-291.1	-153.2	0.69	0.60	4.24
9,400.0	4.47	257.48	9,383.5	-174.4	-293.0	-153.5	0.69	-0.68	1.36
9,425.0	4.56	256.69	9,408.4	-174.8	-294.9	-153.8	0.44	0.36	-3.16
9,450.0	4.72	256.58	9,433.3	-175.3	-296.9	-154.1	0.64	0.64	-0.44
9,475.0	5.12	256.19	9,458.2	-175.8	-299.0	-154.5	1.61	1.60	-1.56
9,500.0	5.03	256.15	9,483.1	-176.3	-301.1	-154.8	0.36	-0.36	-0.16
9,525.0	5.04	255.89	9,508.0	-176.9	-303.3	-155.2	0.10	0.04	-1.04
9,550.0	5.23	256.60	9,532.9	-177.4	-305.4	-155.6	0.80	0.76	2.84
9,575.0	5.27	255.93	9,557.8	-177.9	-307.7	-156.0	0.29	0.16	-2.68
9,600.0	4.91	254.99	9,582.7	-178.5	-309.8	-156.4	1.48	-1.44	-3.76
9,625.0	4.95	254.81	9,607.6	-179.1	-311.9	-156.8	0.17	0.16	-0.72
9,650.0	4.95	254.28	9,632.5	-179.6	-314.0	-157.2	0.18	0.00	-2.12
9,675.0	5.00	254.17	9,657.4	-180.2	-316.0	-157.7	0.20	0.20	-0.44
9,700.0	5.02	254.59	9,682.3	-180.8	-318.1	-158.1	0.17	0.08	1.68
9,725.0	5.13	254.39	9,707.2	-181.4	-320.3	-158.6	0.45	0.44	-0.80
9,750.0	5.08	254.79	9,732.1	-182.0	-322.4	-159.0	0.25	-0.20	1.60
9,775.0	5.01	255.50	9,757.0	-182.6	-324.5	-159.4	0.38	-0.28	2.84
9,800.0	5.06	256.72	9,781.9	-183.1	-326.7	-159.8	0.47	0.20	4.88
9,825.0	5.10	256.02	9,806.8	-183.6	-328.8	-160.2	0.30	0.16	-2.80
9,850.0	5.09	256.52	9,831.7	-184.1	-331.0	-160.5	0.18	-0.04	2.00
9,875.0	5.05	257.75	9,856.6	-184.6	-333.1	-160.9	0.46	-0.16	4.92
9,900.0	5.11	258.78	9,881.5	-185.1	-335.3	-161.2	0.44	0.24	4.12
9,925.0	5.10	260.11	9,906.5	-185.5	-337.5	-161.4	0.48	-0.04	5.32
9,950.0	5.04	261.67	9,931.4	-185.8	-339.7	-161.6	0.60	-0.24	6.24
9,975.0	5.03	262.48	9,956.3	-186.1	-341.8	-161.8	0.29	-0.04	3.24
10,000.0	5.04	263.10	9,981.2	-186.4	-344.0	-161.9	0.22	0.04	2.48
10,025.0	4.79	263.47	10,006.1	-186.7	-346.1	-162.0	1.01	-1.00	1.48
10,050.0	4.60	263.00	10,031.0	-186.9	-348.2	-162.1	0.78	-0.76	-1.88

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #705H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26' @ 3414.3usft (IDC 205)
Site:	BULLDOG	MD Reference:	KB=26' @ 3414.3usft (IDC 205)
Well:	BASEBALL CAP FED COM #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	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	4.34	262.15	10,055.9	-187.2	-350.1	-162.2	1.07	-1.04	-3.40
10,100.0	4.00	257.75	10,080.8	-187.5	-351.9	-162.4	1.87	-1.36	-17.60
10,125.0	3.87	256.18	10,105.8	-187.9	-353.6	-162.7	0.68	-0.52	-6.28
10,150.0	3.77	254.61	10,130.7	-188.3	-355.2	-163.0	0.58	-0.40	-6.28
10,175.0	3.79	253.40	10,155.7	-188.7	-356.8	-163.3	0.33	0.08	-4.84
10,200.0	3.53	252.70	10,180.6	-189.2	-358.3	-163.7	1.06	-1.04	-2.80
10,225.0	3.43	250.08	10,205.6	-189.7	-359.7	-164.1	0.75	-0.40	-10.48
10,250.0	3.28	251.20	10,230.5	-190.2	-361.1	-164.4	0.65	-0.60	4.48
10,275.0	3.28	249.43	10,255.5	-190.6	-362.5	-164.8	0.41	0.00	-7.08
10,300.0	3.05	246.77	10,280.5	-191.2	-363.7	-165.3	1.09	-0.92	-10.64
10,325.0	2.25	245.31	10,305.4	-191.6	-364.8	-165.6	3.21	-3.20	-5.84
10,350.0	2.13	243.54	10,330.4	-192.0	-365.7	-166.0	0.55	-0.48	-7.08
10,375.0	1.74	241.44	10,355.4	-192.4	-366.4	-166.3	1.59	-1.56	-8.40
10,400.0	1.46	242.00	10,380.4	-192.8	-367.0	-166.6	1.12	-1.12	2.24
10,425.0	1.18	240.53	10,405.4	-193.0	-367.5	-166.9	1.13	-1.12	-5.88
10,450.0	0.99	240.77	10,430.4	-193.3	-367.9	-167.1	0.76	-0.76	0.96
10,475.0	0.96	236.46	10,455.4	-193.5	-368.3	-167.3	0.32	-0.12	-17.24
10,500.0	0.95	235.61	10,480.4	-193.7	-368.7	-167.5	0.07	-0.04	-3.40
10,525.0	0.86	236.62	10,505.4	-193.9	-369.0	-167.7	0.37	-0.36	4.04
10,550.0	0.83	239.45	10,530.4	-194.1	-369.3	-167.8	0.21	-0.12	11.32
10,575.0	0.77	244.00	10,555.4	-194.3	-369.6	-168.0	0.35	-0.24	18.20
10,600.0	0.69	234.23	10,580.4	-194.5	-369.9	-168.1	0.59	-0.32	-39.08
10,625.0	0.67	228.05	10,605.4	-194.7	-370.1	-168.3	0.30	-0.08	-24.72
10,650.0	0.66	226.50	10,630.4	-194.8	-370.3	-168.5	0.08	-0.04	-6.20
10,675.0	0.71	217.69	10,655.4	-195.1	-370.5	-168.7	0.47	0.20	-35.24
10,700.0	0.73	237.52	10,680.3	-195.3	-370.7	-168.9	0.99	0.08	79.32
10,725.0	0.70	236.69	10,705.3	-195.4	-371.0	-169.0	0.13	-0.12	-3.32
10,750.0	0.73	239.30	10,730.3	-195.6	-371.3	-169.2	0.18	0.12	10.44
10,775.0	0.76	239.69	10,755.3	-195.8	-371.5	-169.3	0.12	0.12	1.56
10,800.0	0.79	238.50	10,780.3	-196.0	-371.8	-169.5	0.14	0.12	-4.76
10,825.0	0.81	231.65	10,805.3	-196.2	-372.1	-169.6	0.39	0.08	-27.40
10,850.0	0.88	229.04	10,830.3	-196.4	-372.4	-169.9	0.32	0.28	-10.44
10,875.0	0.90	221.86	10,855.3	-196.7	-372.7	-170.1	0.45	0.08	-28.72
10,900.0	0.93	223.55	10,880.3	-197.0	-373.0	-170.4	0.16	0.12	6.76
10,925.0	1.09	222.72	10,905.3	-197.3	-373.3	-170.7	0.64	0.64	-3.32
10,950.0	1.32	224.34	10,930.3	-197.7	-373.6	-171.0	0.93	0.92	6.48
10,975.0	1.35	222.53	10,955.3	-198.1	-374.0	-171.4	0.21	0.12	-7.24
11,000.0	1.60	224.43	10,980.3	-198.5	-374.5	-171.9	1.02	1.00	7.60
11,025.0	2.73	232.58	11,005.3	-199.2	-375.2	-172.4	4.67	4.52	32.60
11,050.0	3.62	237.56	11,030.2	-199.9	-376.3	-173.1	3.72	3.56	19.92
11,075.0	4.09	238.07	11,055.2	-200.8	-377.7	-173.9	1.88	1.88	2.04
11,100.0	4.89	238.75	11,080.1	-201.9	-379.4	-174.8	3.21	3.20	2.72
11,125.0	6.30	240.28	11,105.0	-203.1	-381.5	-175.9	5.67	5.64	6.12

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #705H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26' @ 3414.3usft (IDC 205)
Site:	BULLDOG	MD Reference:	KB=26' @ 3414.3usft (IDC 205)
Well:	BASEBALL CAP FED COM #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	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)
11,150.0	6.65	240.55	11,129.8	-204.5	-384.0	-177.1	1.41	1.40	1.08
11,175.0	6.81	240.52	11,154.7	-205.9	-386.5	-178.4	0.64	0.64	-0.12
11,200.0	6.93	240.68	11,179.5	-207.4	-389.1	-179.7	0.49	0.48	0.64
11,225.0	7.07	240.71	11,204.3	-208.9	-391.8	-181.0	0.56	0.56	0.12
11,250.0	7.21	241.77	11,229.1	-210.4	-394.5	-182.3	0.77	0.56	4.24
11,275.0	7.34	242.44	11,253.9	-211.9	-397.3	-183.6	0.62	0.52	2.68
11,300.0	7.41	244.35	11,278.7	-213.3	-400.2	-184.8	1.02	0.28	7.64
11,325.0	7.37	245.31	11,303.5	-214.7	-403.1	-185.9	0.52	-0.16	3.84
11,350.0	7.37	246.82	11,328.3	-216.0	-406.0	-187.0	0.77	0.00	6.04
11,375.0	7.31	248.78	11,353.1	-217.2	-409.0	-188.0	1.03	-0.24	7.84
11,400.0	7.22	249.88	11,377.9	-218.3	-411.9	-188.9	0.66	-0.36	4.40
11,425.0	7.15	250.88	11,402.7	-219.3	-414.9	-189.8	0.57	-0.28	4.00
11,450.0	7.06	251.65	11,427.5	-220.3	-417.8	-190.6	0.52	-0.36	3.08
11,475.0	6.97	252.60	11,452.3	-221.3	-420.7	-191.3	0.59	-0.36	3.80
11,500.0	6.77	253.52	11,477.1	-222.1	-423.6	-192.0	0.91	-0.80	3.68
11,525.0	6.65	254.04	11,501.9	-223.0	-426.4	-192.6	0.54	-0.48	2.08
11,550.0	6.64	254.28	11,526.8	-223.7	-429.2	-193.2	0.12	-0.04	0.96
11,575.0	6.73	253.27	11,551.6	-224.6	-431.9	-193.8	0.59	0.36	-4.04
11,600.0	6.83	251.94	11,576.4	-225.4	-434.8	-194.5	0.74	0.40	-5.32
11,625.0	6.94	251.83	11,601.3	-226.4	-437.6	-195.2	0.44	0.44	-0.44
11,650.0	7.01	251.63	11,626.1	-227.3	-440.5	-196.0	0.30	0.28	-0.80
11,675.0	7.00	251.70	11,650.9	-228.3	-443.4	-196.7	0.05	-0.04	0.28
11,700.0	6.92	252.63	11,675.7	-229.2	-446.3	-197.4	0.55	-0.32	3.72
11,725.0	6.93	253.49	11,700.5	-230.1	-449.2	-198.1	0.42	0.04	3.44
11,750.0	6.99	254.29	11,725.3	-230.9	-452.1	-198.7	0.46	0.24	3.20
11,775.0	6.98	254.15	11,750.1	-231.8	-455.0	-199.4	0.08	-0.04	-0.56
11,800.0	6.96	255.04	11,775.0	-232.6	-457.9	-200.0	0.44	-0.08	3.56
11,825.0	6.99	255.72	11,799.8	-233.3	-460.9	-200.5	0.35	0.12	2.72
11,850.0	7.06	257.25	11,824.6	-234.0	-463.8	-201.0	0.80	0.28	6.12
11,875.0	6.96	256.51	11,849.4	-234.7	-466.8	-201.5	0.54	-0.40	-2.96
11,900.0	6.88	257.04	11,874.2	-235.4	-469.7	-202.0	0.41	-0.32	2.12
11,925.0	6.90	257.89	11,899.0	-236.1	-472.7	-202.4	0.42	0.08	3.40
11,950.0	6.88	258.25	11,923.9	-236.7	-475.6	-202.9	0.19	-0.08	1.44
11,975.0	6.84	256.28	11,948.7	-237.4	-478.5	-203.3	0.95	-0.16	-7.88
12,000.0	6.80	258.47	11,973.5	-238.0	-481.4	-203.7	1.05	-0.16	8.76
12,171.0	15.06	268.96	12,141.3	-240.4	-513.6	-203.9	4.95	4.83	6.13
First MWD Svy @ 12171'MD									
12,202.0	20.23	278.55	12,170.8	-239.7	-522.9	-202.5	19.08	16.68	30.94
12,234.0	24.87	284.63	12,200.4	-237.2	-534.9	-199.2	16.21	14.50	19.00
12,265.0	28.38	292.53	12,228.1	-232.7	-548.0	-193.8	16.06	11.32	25.48
12,297.0	30.18	298.24	12,256.0	-226.0	-562.1	-186.1	10.38	5.63	17.84
12,328.0	33.07	303.76	12,282.4	-217.6	-576.1	-176.8	13.19	9.32	17.81
12,360.0	36.87	308.88	12,308.6	-206.7	-590.8	-164.9	15.00	11.88	16.00

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #705H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26' @ 3414.3usft (IDC 205)
Site:	BULLDOG	MD Reference:	KB=26' @ 3414.3usft (IDC 205)
Well:	BASEBALL CAP FED COM #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	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)
12,391.0	41.45	314.06	12,332.7	-193.7	-605.4	-150.9	18.15	14.77	16.71
12,422.0	44.39	317.73	12,355.4	-178.6	-620.1	-134.8	12.44	9.48	11.84
12,454.0	45.88	324.28	12,377.9	-161.0	-634.3	-116.2	15.23	4.66	20.47
12,485.0	48.13	332.02	12,399.1	-141.7	-646.3	-96.2	19.64	7.26	24.97
12,517.0	49.81	337.27	12,420.1	-119.9	-656.6	-73.7	13.44	5.25	16.41
12,549.0	51.15	343.25	12,440.5	-96.7	-664.9	-49.9	15.01	4.19	18.69
12,580.0	52.39	346.69	12,459.7	-73.2	-671.2	-26.0	9.59	4.00	11.10
12,602.9	53.61	349.16	12,473.5	-55.3	-675.0	-7.9	10.13	5.32	10.80
FTP @ 12602.9'MD									
12,611.0	54.05	350.02	12,478.2	-48.9	-676.2	-1.4	10.13	5.46	10.57
12,643.0	54.85	354.16	12,496.8	-23.1	-679.8	24.5	10.82	2.50	12.94
12,675.0	54.76	355.61	12,515.3	3.0	-682.1	50.7	3.71	-0.28	4.53
12,706.0	54.34	354.96	12,533.3	28.1	-684.2	75.9	2.18	-1.35	-2.10
12,738.0	55.53	354.48	12,551.7	54.2	-686.6	102.1	3.92	3.72	-1.50
12,769.0	58.16	355.10	12,568.6	80.1	-688.9	128.1	8.65	8.48	2.00
12,801.0	62.17	354.60	12,584.5	107.7	-691.4	155.8	12.60	12.53	-1.56
12,832.0	66.81	355.50	12,597.9	135.6	-693.9	183.8	15.20	14.97	2.90
12,863.0	70.18	356.43	12,609.2	164.3	-695.9	212.6	11.22	10.87	3.00
12,894.0	71.04	358.27	12,619.5	193.5	-697.2	241.8	6.25	2.77	5.94
12,926.0	72.61	1.23	12,629.5	223.9	-697.4	272.2	10.06	4.91	9.25
12,944.0	73.35	1.91	12,634.8	241.1	-696.9	289.3	5.47	4.11	3.78
12,975.0	78.97	2.97	12,642.2	271.2	-695.6	319.2	18.43	18.13	3.42
13,007.0	83.41	2.43	12,647.1	302.8	-694.1	350.6	13.97	13.88	-1.69
13,038.0	85.40	2.75	12,650.1	333.6	-692.7	381.2	6.50	6.42	1.03
13,100.0	87.68	2.41	12,653.9	395.4	-689.9	442.7	3.72	3.68	-0.55
13,195.0	88.34	3.57	12,657.2	490.2	-685.0	536.9	1.40	0.69	1.22
13,289.0	88.11	3.79	12,660.1	584.0	-679.0	630.1	0.34	-0.24	0.23
13,384.0	89.58	2.95	12,662.0	678.8	-673.4	724.2	1.78	1.55	-0.88
13,478.0	89.32	2.42	12,662.9	772.7	-669.0	817.6	0.63	-0.28	-0.56
13,573.0	89.12	2.53	12,664.2	867.6	-664.9	912.0	0.24	-0.21	0.12
13,668.0	88.94	2.52	12,665.8	962.5	-660.7	1,006.4	0.19	-0.19	-0.01
13,761.0	88.11	1.55	12,668.2	1,055.4	-657.4	1,098.8	1.37	-0.89	-1.04
13,855.0	87.68	359.60	12,671.6	1,149.3	-656.4	1,192.4	2.12	-0.46	-2.07
13,949.0	87.36	358.67	12,675.7	1,243.2	-657.9	1,286.2	1.05	-0.34	-0.99
14,043.0	89.55	358.68	12,678.2	1,337.2	-660.0	1,380.1	2.33	2.33	0.01
14,137.0	89.29	357.61	12,679.2	1,431.1	-663.1	1,474.0	1.17	-0.28	-1.14
14,231.0	90.18	358.07	12,679.6	1,525.0	-666.6	1,567.9	1.07	0.95	0.49
14,325.0	91.24	358.31	12,678.5	1,619.0	-669.6	1,661.9	1.16	1.13	0.26
14,420.0	91.47	358.58	12,676.2	1,713.9	-672.2	1,756.7	0.37	0.24	0.28
14,514.0	91.01	358.45	12,674.2	1,807.9	-674.6	1,850.6	0.51	-0.49	-0.14
14,609.0	91.13	358.21	12,672.4	1,902.8	-677.4	1,945.5	0.28	0.13	-0.25
14,702.0	90.90	357.77	12,670.8	1,995.7	-680.6	2,038.5	0.53	-0.25	-0.47
14,796.0	90.15	357.38	12,669.9	2,089.7	-684.6	2,132.4	0.90	-0.80	-0.41
14,890.0	90.12	359.20	12,669.7	2,183.6	-687.4	2,226.3	1.94	-0.03	1.94

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #705H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26' @ 3414.3usft (IDC 205)
Site:	BULLDOG	MD Reference:	KB=26' @ 3414.3usft (IDC 205)
Well:	BASEBALL CAP FED COM #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	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)
14,984.0	89.58	359.62	12,669.9	2,277.6	-688.4	2,320.2	0.73	-0.57	0.45
15,078.0	88.68	0.46	12,671.3	2,371.6	-688.3	2,413.9	1.31	-0.96	0.89
15,172.0	88.08	0.66	12,674.0	2,465.5	-687.4	2,507.6	0.67	-0.64	0.21
15,266.0	87.71	0.72	12,677.5	2,559.5	-686.3	2,601.2	0.40	-0.39	0.06
15,361.0	87.48	0.39	12,681.4	2,654.4	-685.3	2,695.8	0.42	-0.24	-0.35
15,455.0	89.20	0.73	12,684.2	2,748.3	-684.4	2,789.5	1.87	1.83	0.36
15,549.0	90.12	0.90	12,684.7	2,842.3	-683.1	2,883.1	1.00	0.98	0.18
15,642.0	93.02	2.03	12,682.2	2,935.3	-680.7	2,975.7	3.35	3.12	1.22
15,736.0	93.74	2.56	12,676.6	3,029.0	-676.9	3,068.9	0.95	0.77	0.56
15,830.0	91.36	1.40	12,672.4	3,122.9	-673.7	3,162.3	2.82	-2.53	-1.23
15,923.0	93.34	2.39	12,668.6	3,215.7	-670.6	3,254.8	2.38	2.13	1.06
16,018.0	91.70	2.02	12,664.5	3,310.6	-667.0	3,349.1	1.77	-1.73	-0.39
16,112.0	91.39	1.81	12,661.9	3,404.5	-663.8	3,442.6	0.40	-0.33	-0.22
16,206.0	92.28	1.92	12,658.9	3,498.4	-660.8	3,536.0	0.95	0.95	0.12
16,300.0	90.12	1.66	12,656.9	3,592.3	-657.8	3,629.5	2.31	-2.30	-0.28
16,395.0	85.66	0.30	12,660.4	3,687.2	-656.2	3,724.1	4.91	-4.69	-1.43
16,488.0	89.69	359.35	12,664.2	3,780.1	-656.5	3,816.8	4.45	4.33	-1.02
16,582.0	92.42	358.92	12,662.5	3,874.1	-657.9	3,910.6	2.94	2.90	-0.46
16,676.0	92.68	359.27	12,658.3	3,968.0	-659.4	4,004.4	0.46	0.28	0.37
16,770.0	91.73	359.01	12,654.7	4,061.9	-660.8	4,098.1	1.05	-1.01	-0.28
16,864.0	91.21	358.46	12,652.3	4,155.8	-662.9	4,192.0	0.81	-0.55	-0.59
16,958.0	94.03	358.49	12,648.0	4,249.7	-665.4	4,285.8	3.00	3.00	0.03
17,053.0	93.54	358.91	12,641.7	4,344.4	-667.5	4,380.5	0.68	-0.52	0.44
17,147.0	96.48	359.25	12,633.5	4,438.1	-669.0	4,474.0	3.15	3.13	0.36
17,241.0	92.57	359.02	12,626.1	4,531.7	-670.5	4,567.5	4.17	-4.16	-0.24
17,335.0	92.19	359.11	12,622.2	4,625.6	-672.0	4,661.3	0.42	-0.40	0.10
17,428.0	91.99	359.43	12,618.8	4,718.6	-673.2	4,754.1	0.41	-0.22	0.34
17,522.0	92.36	359.48	12,615.2	4,812.5	-674.1	4,847.9	0.40	0.39	0.05
17,616.0	94.49	0.46	12,609.6	4,906.3	-674.1	4,941.5	2.49	2.27	1.04
17,710.0	95.18	1.21	12,601.7	5,000.0	-672.8	5,034.8	1.08	0.73	0.80
17,804.0	95.45	1.58	12,593.0	5,093.6	-670.5	5,128.0	0.49	0.29	0.39
17,898.0	95.96	1.37	12,583.6	5,187.1	-668.1	5,221.1	0.59	0.54	-0.22
17,992.0	95.27	1.83	12,574.4	5,280.6	-665.5	5,314.2	0.88	-0.73	0.49
18,086.0	89.60	0.55	12,570.4	5,374.4	-663.5	5,407.7	6.18	-6.03	-1.36
18,206.0	92.06	359.31	12,568.7	5,494.4	-663.7	5,527.4	2.30	2.05	-1.03
18,301.0	92.37	358.04	12,565.0	5,589.3	-665.9	5,622.2	1.38	0.33	-1.34
18,395.0	92.17	356.79	12,561.3	5,683.1	-670.1	5,716.1	1.35	-0.21	-1.33
18,489.0	92.29	357.65	12,557.6	5,776.9	-674.6	5,810.0	0.92	0.13	0.91
18,584.0	92.17	357.65	12,554.0	5,871.8	-678.5	5,904.9	0.13	-0.13	0.00
18,678.0	92.09	357.68	12,550.5	5,965.7	-682.4	5,998.8	0.09	-0.09	0.03
18,773.0	92.35	357.13	12,546.8	6,060.5	-686.7	6,093.7	0.64	0.27	-0.58
18,867.0	92.06	356.61	12,543.2	6,154.3	-691.8	6,187.6	0.63	-0.31	-0.55
18,961.0	93.24	357.46	12,538.8	6,248.0	-696.6	6,281.5	1.55	1.26	0.90

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #705H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26' @ 3414.3usft (IDC 205)
Site:	BULLDOG	MD Reference:	KB=26' @ 3414.3usft (IDC 205)
Well:	BASEBALL CAP FED COM #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	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)
19,055.0	92.63	358.24	12,534.0	6,341.9	-700.2	6,375.3	1.05	-0.65	0.83
19,149.0	92.23	359.70	12,530.0	6,435.8	-701.9	6,469.1	1.61	-0.43	1.55
19,243.0	92.09	0.68	12,526.5	6,529.7	-701.5	6,562.8	1.05	-0.15	1.04
19,337.0	92.43	0.68	12,522.8	6,623.6	-700.4	6,656.4	0.36	0.36	0.00
19,430.0	92.23	359.81	12,519.0	6,716.5	-700.0	6,749.0	0.96	-0.22	-0.94
19,525.0	91.74	359.47	12,515.7	6,811.5	-700.6	6,843.8	0.63	-0.52	-0.36
19,619.0	93.90	359.30	12,511.1	6,905.3	-701.6	6,937.5	2.30	2.30	-0.18
19,712.0	93.29	358.90	12,505.2	6,998.1	-703.1	7,030.2	0.78	-0.66	-0.43
19,806.0	91.05	358.74	12,501.7	7,092.1	-705.0	7,124.0	2.39	-2.38	-0.17
19,901.0	91.43	0.50	12,499.6	7,187.0	-705.7	7,218.8	1.89	0.40	1.85
19,995.0	91.14	1.46	12,497.5	7,281.0	-704.1	7,312.4	1.07	-0.31	1.02
20,089.0	91.28	2.38	12,495.5	7,374.9	-700.9	7,405.9	0.99	0.15	0.98
20,183.0	90.94	1.96	12,493.7	7,468.8	-697.3	7,499.3	0.57	-0.36	-0.45
20,277.0	91.37	6.24	12,491.8	7,562.5	-690.6	7,592.3	4.58	0.46	4.55
20,371.0	92.03	4.30	12,489.0	7,656.1	-682.0	7,685.1	2.18	0.70	-2.06
20,465.0	92.46	0.71	12,485.3	7,749.9	-677.9	7,778.4	3.84	0.46	-3.82
20,560.0	92.26	357.94	12,481.4	7,844.8	-679.0	7,873.1	2.92	-0.21	-2.92
20,653.0	92.26	354.85	12,477.8	7,937.6	-684.9	7,966.0	3.32	0.00	-3.32
20,747.0	93.53	356.82	12,473.0	8,031.2	-691.7	8,059.9	2.49	1.35	2.10
20,841.0	94.13	359.49	12,466.7	8,124.9	-694.7	8,153.6	2.91	0.64	2.84
20,935.0	94.45	0.32	12,459.7	8,218.7	-694.8	8,247.1	0.94	0.34	0.88
21,029.0	94.19	359.36	12,452.6	8,312.4	-695.1	8,340.6	1.06	-0.28	-1.02
21,123.0	94.36	359.39	12,445.6	8,406.1	-696.1	8,434.2	0.18	0.18	0.03
21,217.0	94.07	358.69	12,438.7	8,499.8	-697.7	8,527.8	0.80	-0.31	-0.74
21,311.0	94.22	358.75	12,431.9	8,593.6	-699.8	8,621.5	0.17	0.16	0.06
21,405.0	91.68	358.53	12,427.1	8,687.4	-702.0	8,715.2	2.71	-2.70	-0.23
21,499.0	89.13	358.24	12,426.4	8,781.4	-704.7	8,809.2	2.73	-2.71	-0.31
21,593.0	89.10	357.92	12,427.9	8,875.3	-707.8	8,903.1	0.34	-0.03	-0.34
21,687.0	89.18	357.61	12,429.3	8,969.2	-711.5	8,997.0	0.34	0.09	-0.33
21,781.0	89.41	357.81	12,430.4	9,063.1	-715.2	9,091.0	0.32	0.24	0.21
21,875.0	89.41	358.08	12,431.4	9,157.1	-718.6	9,184.9	0.29	0.00	0.29
21,968.0	89.18	358.02	12,432.5	9,250.0	-721.8	9,277.8	0.26	-0.25	-0.06
22,062.0	89.44	356.60	12,433.7	9,343.9	-726.2	9,371.8	1.54	0.28	-1.51
22,157.0	88.29	357.86	12,435.6	9,438.8	-730.8	9,466.8	1.80	-1.21	1.33
22,251.0	88.35	359.89	12,438.3	9,532.7	-732.6	9,560.6	2.16	0.06	2.16
22,345.0	88.24	1.37	12,441.1	9,626.7	-731.6	9,654.3	1.58	-0.12	1.57
22,439.0	88.03	1.30	12,444.2	9,720.6	-729.4	9,747.8	0.24	-0.22	-0.07
22,533.0	88.35	0.57	12,447.1	9,814.5	-727.9	9,841.4	0.85	0.34	-0.78
22,601.7	88.25	0.05	12,449.2	9,883.2	-727.5	9,909.9	0.77	-0.15	-0.76
LTP @ 22601.7'MD									
22,627.0	88.21	359.86	12,450.0	9,908.5	-727.5	9,935.1	0.77	-0.15	-0.76
22,703.0	88.32	359.87	12,452.3	9,984.4	-727.7	10,010.9	0.15	0.14	0.01
Final MWD Survey @ 22703'MD									
22,730.0	88.32	359.87	12,453.0	10,011.4	-727.8	10,037.8	0.00	0.00	0.00

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #705H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26' @ 3414.3usft (IDC 205)
Site:	BULLDOG	MD Reference:	KB=26' @ 3414.3usft (IDC 205)
Well:	BASEBALL CAP FED COM #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	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)
PTD @ 22730'MD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
12,171.0	12,141.3	-240.4	-513.6	First MWD Svy @ 12171'MD
12,602.9	12,473.5	-55.3	-675.0	FTP @ 12602.9'MD
22,601.7	12,449.2	9,883.2	-727.5	LTP @ 22601.7'MD
22,703.0	12,452.3	9,984.4	-727.7	Final MWD Survey @ 22703'MD
<u>22,730.0</u>	<u>12,453.0</u>	10,011.4	-727.8	PTD @ 22730'MD

Checked By: _____ Approved By: _____ Date: _____