

A Gyrodatta Directional Survey
Field Copy Only, not definitive

for

DEVON ENERGY

Location: PPP #4, SAN JUAN COUNTY, NEW MEXICO,
Lease: STATE LEASE #3705-5 Well: N. E. B. U. #346 DK 34144, 4-1/2" CASING

Job Number: MDD0407G_163

Run Date: 4/14/2007 11:06:39 PM

Surveyor: MARK BORINO

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 36.850750 deg. N Longitude: 107.622100 deg. W

Azimuth Correction:

Gyro: Bearings are Relative to True North

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

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MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg/ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	0.00	0.00	0.0 0.0	0.00 N 0.00 E

0 TO 8100FT RATE GYROSCOPIC MULTISHOT SURVEY RUN IN 4-1/2" CASING
 ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO PPP #4 R.K.B. 16.5 FT

200.00	0.59	24.60	0.29	200.00	1.0 24.6	0.93 N 0.43 E
400.00	1.67	351.08	0.61	399.96	4.8 4.8	4.73 N 0.40 E
600.00	9.68	342.22	4.02	598.82	24.2 347.6	23.65 N 5.19 W
800.00	15.93	339.92	3.14	793.75	68.4 343.2	65.49 N 19.77 W
1000.00	22.55	339.39	3.31	982.47	134.2 341.4	127.24 N 42.72 W
1200.00	23.43	337.35	0.59	1166.58	212.3 340.3	199.84 N 71.53 W
1400.00	24.14	338.17	0.39	1349.59	292.9 339.6	274.50 N 102.05 W
1600.00	24.86	339.19	0.42	1531.58	375.8 339.4	351.77 N 132.19 W
1800.00	24.03	338.70	0.43	1713.65	458.5 339.3	429.01 N 161.92 W
2000.00	24.07	339.10	0.08	1896.29	540.0 339.3	505.05 N 191.26 W
2200.00	23.49	340.25	0.37	2079.31	620.7 339.3	580.67 N 219.27 W
2400.00	24.23	339.16	0.43	2262.22	701.6 339.4	656.53 N 247.34 W
2600.00	23.79	338.86	0.23	2444.92	783.0 339.3	732.51 N 276.48 W
2800.00	23.43	340.69	0.41	2628.18	863.0 339.4	807.67 N 304.18 W
3000.00	20.60	336.95	1.58	2813.58	938.0 339.3	877.59 N 331.11 W
3200.00	16.03	340.31	2.34	3003.40	1000.8 339.3	936.00 N 354.21 W
3400.00	9.23	343.54	3.42	3198.45	1044.4 339.4	977.44 N 368.07 W
3600.00	6.41	349.52	1.47	3396.58	1071.4 339.5	1003.80 N 374.65 W

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3800.00	4.55	352.25	0.94	3595.65	1090.2 339.7	1022.63 N 377.75W
4000.00	2.16	353.15	1.20	3795.30	1101.6 339.9	1034.22 N 379.26W
4200.00	1.11	351.44	0.53	3995.21	1107.1 339.9	1039.87 N 380.00W
4400.00	0.63	340.37	0.25	4195.19	1110.1 339.9	1042.81 N 380.66W
4600.00	0.26	335.57	0.18	4395.18	1111.7 339.9	1044.27 N 381.22W
4800.00	0.19	1.29	0.06	4595.18	1112.4 339.9	1045.02 N 381.40W
5000.00	0.10	147.57	0.14	4795.18	1112.6 340.0	1045.20 N 381.30W
5200.00	0.23	76.97	0.11	4995.18	1112.4 340.0	1045.14 N 380.81W
5400.00	0.41	104.08	0.11	5195.18	1111.9 340.0	1045.06 N 379.74W
5600.00	0.33	126.91	0.08	5395.17	1111.0 340.1	1044.54 N 378.58W
5800.00	0.20	94.36	0.10	5595.17	1110.4 340.1	1044.16 N 377.78W
6000.00	0.03	285.43	0.11	5795.17	1110.3 340.1	1044.15 N 377.48W
6200.00	0.48	17.98	0.24	5995.17	1111.0 340.1	1044.96 N 377.27W
6400.00	0.71	22.20	0.12	6195.16	1112.6 340.2	1046.89 N 376.55W
6600.00	1.31	73.31	0.51	6395.13	1113.3 340.4	1048.69 N 373.90W
6800.00	1.13	72.17	0.09	6595.08	1113.2 340.6	1049.95 N 369.83W
7000.00	0.62	104.08	0.35	6795.06	1112.5 340.7	1050.29 N 366.89W
7200.00	0.58	140.36	0.19	6995.05	1111.0 340.8	1049.25 N 365.19W
7400.00	0.63	138.18	0.03	7195.04	1109.0 340.8	1047.66 N 363.81W
7600.00	0.47	137.34	0.08	7395.03	1107.3 340.9	1046.23 N 362.52W
7800.00	0.53	116.57	0.10	7595.02	1105.8 340.9	1045.21 N 361.13W
8000.00	0.40	215.60	0.36	7795.02	1104.8 340.9	1044.23 N 360.70W
8100.00	0.39	277.89	0.20	7995.02	1104.7 340.9	1043.76 N 361.79W

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MEASURED DEPTH	INCL	AZIMUTH	DOGLEG SEVERITY	VERTICAL DEPTH	CLOSURE DIST. AZIMUTH	HORIZONTAL COORDINATES
feet	deg.	deg.	deg./ 100 ft.	feet	feet deg.	feet

Final Station Closure: Distance: 1104.68 ft Az: 340.88 deg.