

A Gyrodata Directional Survey

Yates Petroleum
Well: GRAHM AKB STATE #4, 2-7/8" TUBING
Location: KEY #283, LEA COUNTY, NEW MEXICO
Job Number: MD0901GMW342

MEASURED DEPTH feet	IN C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.0	0.00	0.00	N 0 0 E	0.00	0.0	0.0 0.0	0.00 N 0.00 E

0- 7700 FT RATE GYROSCOPIC MULTISHOT SURVEY RUN INSIDE 2-7/8" TUBING							
ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO KEY #283 FLOOR							

200.0	0.36	67.90	N 67 54 E	0.18	200.0	0.6 67.9	0.24 N 0.58 E
400.0	0.53	63.41	N 63 24 E	0.09	400.0	2.2 66.0	0.89 N 2.00 E
600.0	0.68	60.39	N 60 23 E	0.08	600.0	4.3 63.9	1.90 N 3.87 E
800.0	0.67	102.62	S 77 23 E	0.24	800.0	6.4 69.7	2.23 N 6.05 E
1000.0	0.69	105.96	S 74 2 E	0.02	1000.0	8.5 78.9	1.64 N 8.35 E
1200.0	0.72	106.47	S 73 32 E	0.01	1199.9	10.8 84.9	0.95 N 10.72 E
1400.0	0.70	109.98	S 70 1 E	0.03	1399.9	13.1 89.2	0.18 N 13.07 E
1600.0	0.65	99.84	S 80 10 E	0.06	1599.9	15.3 91.6	0.43 S 15.33 E
1800.0	0.74	70.87	N 70 52 E	0.18	1799.9	17.7 90.6	0.20 S 17.66 E
2000.0	0.85	68.29	N 68 18 E	0.06	1999.9	20.3 87.8	0.78 N 20.27 E
2200.0	0.94	64.05	N 64 3 E	0.06	2199.9	23.2 84.9	2.05 N 23.13 E
2400.0	1.20	60.76	N 60 46 E	0.13	2399.8	26.7 81.8	3.79 N 26.44 E
2600.0	1.65	64.71	N 64 43 E	0.23	2599.8	31.5 78.9	6.05 N 30.87 E
2800.0	1.91	68.39	N 68 23 E	0.14	2799.7	37.6 76.9	8.51 N 36.58 E
3000.0	1.81	65.79	N 65 48 E	0.07	2999.6	44.0 75.5	11.03 N 42.56 E
3200.0	0.79	13.79	N 13 48 E	0.73	3199.5	47.8 73.4	13.66 N 45.77 E
3400.0	3.72	347.94	N 12 3 W	1.51	3399.3	49.6 64.5	21.34 N 44.74 E
3600.0	7.02	353.33	N 6 40 W	1.67	3598.4	57.8 46.5	39.81 N 41.97 E
3800.0	4.54	344.30	N 15 42 W	1.32	3797.4	70.9 32.8	59.56 N 38.41 E
4000.0	3.11	342.39	N 17 37 W	0.72	3997.0	80.2 25.6	72.35 N 34.63 E