



Company: MEWBORNE
Lease/Well: LIMOUSINE/"15" ML # 1H

Rig Name: PATTERSON 101
State/County: NEW MEXICO/EDDY

Latitude: 32.37
GRID North is 0.08 Degrees West of True North
VS-Azi: 0.00 Degrees



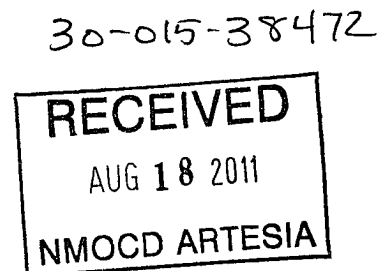
FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference : RKB 20 FEET

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: limousine15ml#1h.ut
Minimum Curvature Method
Report Date/Time: 7/13/2011 / 04:44

Vaughn Energy Services
Woodward, OK
580-254-5000
David Miller



Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
200.00	0.23	253.63	200.00	-0.11	-0.39	-0.11	0.40	253.63	0.12
400.00	0.36	264.67	400.00	-0.28	-1.40	-0.28	1.43	258.50	0.07
600.00	0.95	287.09	599.98	0.14	-3.61	0.14	3.62	272.26	0.31
800.00	0.52	289.00	799.97	0.92	-6.05	0.92	6.12	278.68	0.22
1000.00	0.84	292.04	999.95	1.77	-8.26	1.77	8.44	282.07	0.16
1200.00	0.50	297.46	1199.94	2.71	-10.38	2.71	10.73	284.65	0.17
1400.00	0.87	289.19	1399.92	3.61	-12.58	3.61	13.09	286.01	0.19
1600.00	0.97	279.38	1599.90	4.38	-15.67	4.38	16.27	285.62	0.09
1800.00	0.42	276.44	1799.88	4.74	-18.07	4.74	18.68	284.70	0.27
1967.00	0.41	273.55	1966.88	4.85	-19.28	4.85	19.88	284.11	0.01

HORIZONTAL DISPLACEMENT IS
19.88 FEET AT 284.11 DEGREES