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SEP 15 2009



Scientific Drilling

Gyroscopic Survey Report
for
C.O.G.

Well Location	EDDY COUNTY, NEW MEXICO
Well Name	G-J WEST COOP UNIT #100
Rig Name	ARIES P/U
Survey Date	8/12/2009
Latitude	32.82 deg
North Reference	True North
Grid Correction	0.00 deg
Depth Reference	RKB
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 34.11Azim (deg)
Definitive Survey	FINAL SURVEY
Operator	LEO GARZA

Comments

ZERO REFERENCE IS SENSOR AT 8 FOOT KB



Scientific Drilling

Survey Report

Well Name: G-J WEST COOP UNIT #100
 Survey: FINAL SURVEY
 Survey Date: 8/12/2009

MD ft	Inc deg	Azim deg	TVD ft	VS ft	Northing ft	Easting ft	DLS deg/100ft	Closure Distance ft	Closure Angle deg
0.00	0.00	0 00	0 00	0 00	0 00	0.00	Invalid	0.00	0 00
100.00	0 51	151 16	100.00	-0.20	-0.39	0.21	0.51	0.44	151.16
200.00	0.69	157.36	199.99	-0.73	-1 33	0.66	0 19	1 48	153 67
300.00	0.68	145.87	299.99	-1 28	-2 37	1 22	0.14	2.67	152 77
400.00	0 62	129 11	399.98	-1.54	-3.20	1 97	0 20	3.76	148.39
500.00	1.01	78.96	499.97	-0 96	-3 37	3 25	0.78	4 68	135.99
600.00	1 08	81 62	599.95	0 30	-3.06	5 05	0 08	5 91	121.22
700.00	1.06	80 39	699.94	1.57	-2.77	6.89	0 03	7.43	111.90
800.00	0 68	77.45	799.93	2.64	-2 49	8.38	0.39	8.74	106 55
900.00	0.40	70.63	899.92	3 35	-2.24	9.29	0 28	9.55	103.59
1000.00	0 11	15 96	999.92	3 73	-2 03	9.65	0.35	9.86	101.90
1100.00	0.07	335.18	1099.92	3 85	-1.88	9.65	0.08	9 83	101 03
1200.00	0.09	245 33	1199.92	3.81	-1 86	9.55	0.12	9.73	101 02
1300.00	0 18	249 48	1299.92	3.61	-1 95	9.32	0.09	9 52	101.81
1400.00	0.25	283.93	1399.92	3.41	-1.95	8.96	0.15	9 17	102.29
1500.00	0 25	241 60	1499.92	3.14	-2 00	8.55	0.18	8 78	103.18
1600.00	0 29	264 34	1599.92	2 78	-2.13	8 11	0.11	8 39	104 72
1700.00	0.28	236.00	1699.92	2.40	-2 29	7 66	0 14	8.00	106.67
1800.00	0.38	258.88	1799.91	1 94	-2.49	7.13	0.16	7.56	109.26
1900.00	0.29	239 41	1899.91	1.47	-2.69	6.59	0.14	7 12	112 17
2000.00	0 25	229 02	1999.91	1.03	-2.96	6.21	0.06	6 88	115.52
2100.00	0 10	223.35	2099.91	0.72	-3 17	5 98	0 15	6.77	117.96
2200.00	0 18	207 79	2199.91	0 48	-3.38	5.84	0 09	6 75	120 04
2300.00	0 33	226.66	2299.91	0.04	-3 72	5 56	0.17	6.69	123.76
2400.00	0 30	242 73	2399.91	-0 47	-4.03	5 12	0 09	6.52	128.20
2500.00	0 21	295 95	2499.91	-0 72	-4 07	4 73	0 24	6.24	130.71
2600.00	0 33	346 48	2599.91	-0.55	-3.71	4.50	0 26	5.83	129.50
2700.00	0 26	348 93	2699.90	-0 19	-3 20	4 38	0.08	5.43	126 16
2800.00	0 42	19.82	2799.90	0 32	-2.64	4.47	0 24	5 19	120.57
2900.00	0.68	351 02	2899.90	1 11	-1.71	4.50	0.37	4.81	110.80
3000.00	0.70	0 02	2999.89	2 05	-0 51	4 41	0.11	4 44	96 64
3100.00	0 68	7 51	3099.88	3 08	0.68	4.48	0.09	4.54	81 34
3200.00	0.75	8.45	3199.88	4 20	1 91	4.66	0.07	5.03	67 67
3300.00	0 87	20.40	3299.87	5 52	3.27	5 02	0 21	5.99	56 92
3400.00	0.61	19 34	3399.86	6.77	4.48	5.46	0.25	7 06	50.60
3500.00	0.50	14.59	3499.85	7 70	5.41	5.75	0.13	7.89	46.72
3600.00	0.60	21.73	3599.85	8.62	6.32	6 05	0.12	8 75	43 76
3700.00	0.44	7 31	3699.84	9 48	7.19	6 29	0.20	9.55	41 20
3800.00	0.36	48.72	3799.84	10.13	7 78	6.58	0 29	10.19	40 22



Well Name: G-J WEST COOP UNIT #100
Survey: FINAL SURVEY
Survey Date: 8/12/2009

MD ft	Inc deg	Azim deg	TVD ft	VS ft	Northing ft	Easting ft	DLS deg/100ft	Closure Distance ft	Closure Angle deg
3900.00	0.46	71.77	3899.84	10.76	8.12	7.20	0.19	10.85	41.59
4000.00	0.40	80.91	3999.84	11.31	8.30	7.93	0.09	11.47	43.69
4100.00	0.44	127.65	4099.83	11.53	8.12	8.57	0.33	11.80	46.55
4200.00	0.63	128.33	4199.83	11.46	7.54	9.30	0.20	11.98	50.97
4300.00	0.71	136.79	4299.82	11.29	6.75	10.16	0.12	12.20	56.40
4400.00	0.77	155.99	4399.81	10.79	5.68	10.86	0.25	12.25	62.36
4500.00	0.83	178.18	4499.81	9.85	4.35	11.15	0.31	11.97	68.70
4600.00	0.45	197.47	4599.80	8.89	3.25	11.06	0.43	11.53	73.61
4700.00	0.16	215.56	4699.80	8.38	2.77	10.86	0.30	11.21	75.71
4800.00	0.74	350.10	4799.80	8.70	3.29	10.67	0.86	11.16	72.88
4900.00	0.58	1.50	4899.79	9.59	4.42	10.57	0.20	11.46	67.29
5000.00	0.48	7.15	4999.78	10.39	5.34	10.64	0.11	11.90	63.33
5100.00	0.44	305.67	5099.78	10.77	5.98	10.38	0.47	11.98	60.04
5200.00	0.99	294.89	5199.77	10.64	6.57	9.28	0.57	11.37	54.71
5300.00	1.01	287.46	5299.76	10.25	7.20	7.66	0.13	10.51	46.78
5400.00	0.83	287.21	5399.75	9.79	7.68	6.12	0.18	9.82	38.58
5459.00	0.69	304.89	5458.74	9.67	8.01	5.42	0.46	9.67	34.11