



Scientific Drilling

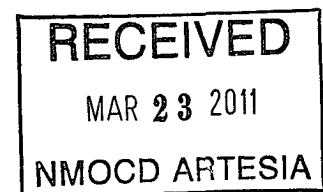
Gyroscopic Survey Report
for
C.O.G.

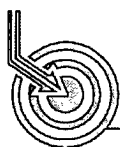
30-015-29607

Well Location	EDDY COUNTY, NEW MEXICO
Well Name	YUCCA STATE #3
Rig Name	ARIES P/U
Survey Date	2/19/2011
Latitude	32.83 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), 0.00Azim (deg)
Definitive Survey	FINAL OUTFUN
Operator	LEO GARZA

Comments

ZERO REFERENCE IS K.B. OF 14'.





Survey Report

Well Name:		YUCCA STATE #3							
Survey:		FINAL OUTRUN							
Survey Date:		2/19/2011							
MD	Inc	Azim	TVD	VS	Northing	Easting	DLS	Closure Distance	Closure Angle
ft	deg	deg	ft	ft	ft	ft	deg/100ft	ft	deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid	0.00	0.00
100.00	0.67	244.03	100.00	-0.26	-0.26	-0.53	0.67	0.59	244.03
200.00	2.38	247.24	199.96	-1.32	-1.32	-2.97	1.71	3.25	246.08
300.00	2.91	249.05	299.85	-3.03	-3.03	-7.25	0.54	7.86	247.34
400.00	2.72	251.55	399.73	-4.69	-4.69	-11.87	0.23	12.77	248.46
500.00	2.36	255.52	499.63	-5.95	-5.95	-16.12	0.39	17.18	249.73
600.00	2.39	257.41	599.55	-6.92	-6.92	-20.15	0.08	21.31	251.04
700.00	2.33	257.37	699.46	-7.82	-7.82	-24.17	0.06	25.41	252.07
800.00	2.34	256.08	799.38	-8.76	-8.76	-28.14	0.05	29.47	252.71
900.00	2.25	255.10	899.30	-9.75	-9.75	-32.02	0.10	33.47	253.06
1000.00	1.97	255.59	999.23	-10.69	-10.69	-35.58	0.27	37.15	253.28
1100.00	1.76	255.89	1099.18	-11.49	-11.49	-38.73	0.22	40.40	253.48
1200.00	1.71	261.19	1199.13	-12.09	-12.09	-41.69	0.17	43.41	253.83
1300.00	1.53	271.96	1299.09	-12.27	-12.27	-44.50	0.35	46.16	254.58
1400.00	1.55	271.78	1399.06	-12.19	-12.19	-47.18	0.02	48.73	255.52
1500.00	1.58	275.96	1499.02	-12.00	-12.00	-49.90	0.12	51.32	256.48
1600.00	1.37	274.38	1598.99	-11.77	-11.77	-52.46	0.22	53.76	257.36
1700.00	1.42	273.28	1698.96	-11.60	-11.60	-54.88	0.06	56.09	258.06
1800.00	1.45	272.02	1798.93	-11.49	-11.49	-57.38	0.05	58.51	258.68
1900.00	1.48	267.50	1898.89	-11.50	-11.50	-59.93	0.12	61.02	259.14
2000.00	1.58	264.34	1998.86	-11.69	-11.69	-62.60	0.13	63.68	259.42
2100.00	1.69	266.22	2098.82	-11.93	-11.93	-65.44	0.12	66.52	259.67
2200.00	1.59	261.71	2198.78	-12.22	-12.22	-68.29	0.16	69.37	259.85
2300.00	1.63	260.98	2298.74	-12.65	-12.65	-71.07	0.05	72.19	259.91
2400.00	1.61	258.82	2398.70	-13.14	-13.14	-73.86	0.06	75.02	259.91
2500.00	1.62	255.31	2498.66	-13.78	-13.78	-76.61	0.10	77.83	259.81
2600.00	1.59	256.20	2598.62	-14.47	-14.47	-79.32	0.03	80.63	259.67
2700.00	1.54	250.38	2698.58	-15.25	-15.25	-81.94	0.17	83.35	259.46
2800.00	1.59	247.05	2798.54	-16.24	-16.24	-84.49	0.10	86.04	259.12
2900.00	1.68	248.05	2898.50	-17.33	-17.33	-87.13	0.09	88.84	258.75
3000.00	1.65	246.98	2998.46	-18.45	-18.45	-89.82	0.04	91.70	258.39
3100.00	1.74	247.13	3098.41	-19.60	-19.60	-92.55	0.09	94.60	258.04
3200.00	1.55	241.83	3198.37	-20.83	-20.83	-95.15	0.24	97.40	257.65
3300.00	1.48	229.86	3298.34	-22.31	-22.31	-97.33	0.32	99.85	257.09
3400.00	1.38	223.37	3398.31	-24.01	-24.01	-99.14	0.19	102.01	256.38
3500.00	1.39	225.63	3498.28	-25.74	-25.74	-100.84	0.06	104.07	255.68
3600.00	1.51	229.74	3598.25	-27.44	-27.44	-102.71	0.16	106.32	255.04
3700.00	1.60	232.38	3698.21	-29.14	-29.14	-104.83	0.11	108.80	254.46
3800.00	1.73	228.70	3798.17	-30.99	-30.99	-107.06	0.17	111.46	253.86



Survey Report

Well Name: YUCCA STATE #3

Survey: FINAL OUTRUN

Survey Date: 2/19/2011

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	1.67	227.87	3898.12	-32.96	-32.96	-109.28	0.07	114.14	253.21
4000.00	1.70	228.97	3998.08	-34.91	-34.91	-111.47	0.04	116.81	252.61
4100.00	1.73	229.66	4098.03	-36.86	-36.86	-113.74	0.04	119.56	252.04
4200.00	1.78	231.28	4197.99	-38.81	-38.81	-116.10	0.07	122.42	251.52
4300.00	1.68	230.59	4297.94	-40.71	-40.71	-118.45	0.10	125.25	251.03
4400.00	1.86	229.87	4397.89	-42.69	-42.69	-120.82	0.18	128.14	250.54
4500.00	1.81	230.50	4497.84	-44.74	-44.74	-123.28	0.06	131.15	250.05
4600.00	1.85	230.93	4597.79	-46.76	-46.76	-125.75	0.04	134.17	249.60
4700.00	1.94	231.72	4697.74	-48.83	-48.83	-128.34	0.10	137.31	249.17
4800.00	2.01	226.58	4797.68	-51.09	-51.09	-130.94	0.19	140.56	248.69
4900.00	1.97	221.42	4897.62	-53.58	-53.58	-133.36	0.18	143.72	248.11
5000.00	1.99	221.11	4997.56	-56.18	-56.18	-135.64	0.03	146.81	247.50
5100.00	1.89	218.21	5097.50	-58.78	-58.78	-137.80	0.15	149.81	246.90
5200.00	2.09	219.11	5197.44	-61.49	-61.49	-139.97	0.21	152.88	246.28
5300.00	1.94	218.44	5297.38	-64.23	-64.23	-142.17	0.15	156.01	245.69
5400.00	2.00	220.72	5397.32	-66.89	-66.89	-144.36	0.10	159.10	245.14
5500.00	1.99	227.73	5497.26	-69.38	-69.38	-146.79	0.24	162.36	244.70
5600.00	1.91	234.87	5597.20	-71.51	-71.51	-149.44	0.26	165.67	244.43
5700.00	1.76	234.27	5697.15	-73.36	-73.36	-152.04	0.15	168.81	244.24
5800.00	1.66	229.79	5797.11	-75.19	-75.19	-154.39	0.17	171.72	244.03
5900.00	1.84	226.97	5897.06	-77.22	-77.22	-156.67	0.21	174.66	243.76
6000.00	1.79	235.11	5997.01	-79.21	-79.21	-159.12	0.26	177.75	243.54
6100.00	1.55	233.08	6096.97	-80.91	-80.91	-161.48	0.24	180.62	243.39
6200.00	1.18	244.83	6196.94	-82.16	-82.16	-163.49	0.46	182.98	243.32
6300.00	1.28	225.57	6296.92	-83.38	-83.38	-165.22	0.42	185.07	243.22
6400.00	1.13	233.58	6396.89	-84.75	-84.75	-166.81	0.23	187.11	243.07