

30-015-39104

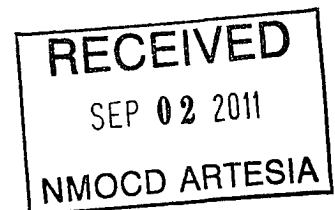
Scientific Drilling

Gyroscopic Survey Report
for
DEVON ENERGY

Well Location	EDDY COUNTY, NEW MEXICO
Well Name	SNAPPER 2 STATE #1H
Rig Name	H & P #416
Survey Date	6/16/2011
Latitude	32.07 deg
North Reference	Grid North
Grid Correction	-0.31 deg
Depth Reference	RKB
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 359.00Azim (deg)
Definitive Survey	FINAL INRUN
Operator	LEO GARZA

Comments

ZERO REFERNCE IS AT KB OF 26'





Well Name:		SNAPPER 2 STATE #1H									
Survey:		FINAL INRUN									
Survey Date:		6/16/2011									
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	0.68	140.45	100.00	-0.46	-0.46	0.38	0.68	0.59	140.45		
200.00	0.59	129.70	199.99	-1.27	-1.25	1.15	0.15	1.70	137.19		
300.00	0.44	154.94	299.99	-1.95	-1.92	1.71	0.27	2.58	138.27		
400.00	0.57	166.68	399.98	-2.78	-2.75	1.99	0.17	3.39	144.11		
500.00	0.69	157.35	499.98	-3.83	-3.79	2.33	0.16	4.45	148.33		
600.00	0.52	185.69	599.97	-4.83	-4.79	2.52	0.34	5.41	152.25		
700.00	0.22	353.96	699.97	-5.09	-5.05	2.45	0.74	5.61	154.06		
800.00	0.27	350.86	799.97	-4.66	-4.62	2.40	0.05	5.20	152.57		
900.00	0.15	18.27	899.97	-4.30	-4.26	2.40	0.15	4.89	150.58		
1000.00	0.41	57.44	999.97	-3.98	-3.94	2.75	0.31	4.80	145.09		
1100.00	0.49	77.71	1099.97	-3.71	-3.65	3.47	0.17	5.04	136.49		
1200.00	0.64	127.30	1199.96	-3.98	-3.90	4.33	0.50	5.83	132.04		
1300.00	0.74	128.69	1299.95	-4.74	-4.65	5.28	0.09	7.03	131.35		
1400.00	0.47	167.41	1399.95	-5.55	-5.45	5.87	0.47	8.01	132.88		
1500.00	0.53	186.16	1499.94	-6.41	-6.31	5.91	0.17	8.65	136.88		
1600.00	0.71	187.59	1599.94	-7.48	-7.38	5.78	0.18	9.38	141.93		
1700.00	0.49	168.60	1699.93	-8.51	-8.41	5.78	0.29	10.21	145.49		
1800.00	0.39	197.38	1799.93	-9.25	-9.15	5.77	0.24	10.82	147.79		
1900.00	0.51	183.51	1899.93	-10.02	-9.92	5.64	0.17	11.41	150.39		
2000.00	0.52	154.23	1999.92	-10.87	-10.78	5.81	0.26	12.24	151.67		
2100.00	0.46	151.58	2099.92	-11.65	-11.54	6.20	0.06	13.10	151.76		
2200.00	0.46	144.05	2199.92	-12.34	-12.22	6.63	0.06	13.90	151.53		
2300.00	0.43	146.61	2299.91	-12.98	-12.86	7.07	0.03	14.68	151.20		
2400.00	0.87	167.24	2399.91	-14.05	-13.92	7.45	0.48	15.79	151.85		
2500.00	1.01	178.24	2499.89	-15.66	-15.53	7.64	0.23	17.31	153.80		
2600.00	0.77	199.77	2599.88	-17.17	-17.05	7.44	0.40	18.60	156.42		
2700.00	0.98	212.16	2699.87	-18.52	-18.41	6.76	0.28	19.61	159.85		
2800.00	0.93	202.26	2799.86	-19.99	-19.88	5.99	0.17	20.77	163.23		
2900.00	0.60	202.20	2899.85	-21.21	-21.12	5.49	0.32	21.82	165.44		
3000.00	0.48	205.53	2999.84	-22.07	-21.98	5.11	0.13	22.57	166.92		
3100.00	0.46	181.14	3099.84	-22.84	-22.76	4.92	0.20	23.29	167.80		
3200.00	0.25	166.04	3199.84	-23.45	-23.37	4.96	0.23	23.89	168.01		
3300.00	0.12	58.67	3299.84	-23.61	-23.52	5.10	0.30	24.07	167.76		
3400.00	0.15	52.44	3399.84	-23.48	-23.39	5.30	0.03	23.98	167.24		
3500.00	0.64	100.84	3499.83	-23.52	-23.42	5.95	0.55	24.16	165.75		
3600.00	1.95	104.83	3599.81	-24.09	-23.96	8.14	1.32	25.30	161.23		
3700.00	2.02	103.42	3699.75	-25.00	-24.80	11.50	0.08	27.34	155.12		
3800.00	3.37	112.88	3799.63	-26.63	-26.35	15.93	1.41	30.79	148.86		



Scientific Drilling

Survey Report

Well Name: SNAPPER 2 STATE #1H

Survey: FINAL INRUN

Survey Date: 6/16/2011

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	3.97	122.17	3899.43	-29.71	-29.34	21.56	0.84	36.41	143.69
4000.00	3.44	123.65	3999.22	-33.31	-32.85	26.99	0.54	42.52	140.59
4100.00	2.77	126.81	4099.07	-36.50	-35.96	31.43	0.70	47.76	138.85
4200.00	1.65	125.76	4199.00	-38.85	-38.25	34.53	1.12	51.53	137.92
4300.00	1.28	125.59	4298.96	-40.37	-39.74	36.61	0.37	54.03	137.35
4400.00	1.16	132.73	4398.94	-41.74	-41.08	38.26	0.20	56.14	137.03
4500.00	1.03	122.55	4498.92	-42.94	-42.25	39.76	0.23	58.02	136.74
4600.00	0.83	124.82	4598.91	-43.86	-43.15	41.12	0.21	59.60	136.38
4700.00	0.99	135.08	4698.90	-44.91	-44.17	42.32	0.23	61.18	136.22
4800.00	1.20	131.68	4798.88	-46.24	-45.49	43.72	0.22	63.09	136.13
4900.00	1.00	122.26	4898.86	-47.43	-46.65	45.25	0.27	64.99	135.88
5000.00	0.96	129.16	4998.85	-48.46	-47.65	46.64	0.13	66.67	135.62
5100.00	0.87	120.32	5098.83	-49.39	-48.56	47.94	0.17	68.24	135.37
5200.00	0.38	121.06	5198.83	-49.96	-49.12	48.88	0.49	69.30	135.14
5300.00	0.36	98.50	5298.82	-50.19	-49.33	49.47	0.15	69.87	134.92
5400.00	0.22	87.47	5398.82	-50.24	-49.37	49.97	0.15	70.25	134.65
5500.00	0.24	27.58	5498.82	-50.05	-49.18	50.26	0.23	70.31	134.38
5600.00	0.40	53.72	5598.82	-49.66	-48.79	50.63	0.21	70.31	133.94
5700.00	0.21	79.56	5698.82	-49.43	-48.55	51.09	0.23	70.48	133.54
5800.00	0.42	55.39	5798.82	-49.20	-48.30	51.58	0.25	70.67	133.12
5900.00	0.26	129.14	5898.82	-49.14	-48.24	52.06	0.43	70.97	132.82
6000.00	0.31	69.83	5998.82	-49.19	-48.28	52.49	0.29	71.32	132.61
6100.00	0.27	76.72	6098.81	-49.05	-48.13	52.97	0.06	71.57	132.26
6200.00	0.50	179.04	6198.81	-49.43	-48.51	53.21	0.61	72.00	132.36
6300.00	0.45	171.36	6298.81	-50.25	-49.33	53.27	0.08	72.61	132.80
6400.00	0.45	181.16	6398.81	-51.03	-50.11	53.33	0.08	73.17	133.22
6500.00	0.58	197.27	6498.80	-51.90	-50.98	53.17	0.19	73.66	133.80
6600.00	0.90	194.28	6598.79	-53.14	-52.22	52.82	0.32	74.28	134.67
6700.00	1.12	194.27	6698.78	-54.84	-53.93	52.39	0.22	75.19	135.83
6800.00	0.49	186.80	6798.77	-56.21	-55.31	52.10	0.63	75.98	136.71
6900.00	0.38	205.49	6898.77	-56.94	-56.04	51.90	0.18	76.38	137.19
7000.00	0.53	188.63	6998.76	-57.69	-56.80	51.69	0.20	76.80	137.70
7100.00	0.86	212.53	7098.75	-58.77	-57.89	51.22	0.43	77.29	138.50
7200.00	1.14	231.02	7198.74	-60.00	-59.14	50.04	0.42	77.47	139.76
7300.00	1.41	220.42	7298.72	-61.53	-60.70	48.48	0.36	77.68	141.39
7400.00	1.78	220.11	7398.68	-63.63	-62.82	46.68	0.38	78.27	143.39
7500.00	0.78	169.67	7498.65	-65.47	-64.68	45.80	1.42	79.25	144.70
7600.00	1.16	106.86	7598.64	-66.45	-65.64	46.89	1.06	80.67	144.46



Well Name: SNAPPER 2 STATE #1H
Survey: FINAL INRUN
Survey Date: 6/16/2011

MD	Inc	Azim	TVD	VS	Northing	Easting	DLS	Closure Distance	Closure Angle
ft	deg	deg	ft	ft	ft	ft	deg/100ft	ft	deg
7700.00	0.95	109.51	7698.62	-67.05	-66.21	48.65	0.22	82.16	143.70
7800.00	0.92	152.13	7798.61	-68.06	-67.20	49.80	0.68	83.64	143.46
7875.00	1.01	149.41	7873.60	-69.17	-68.30	50.42	0.13	84.90	143.57

