



Company: CNX Gas
Lease/Well: SHL / 1B-HS

Rig Name: Les Wilson #27
State/County: West Virginia/Marshall
Latitude: 39.95



GRID North is 0.68 Degrees West of True North
VS-Azi: 0.00 Degrees

FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference : RKB = 15 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: shl-1b-hs_ed.ut
Minimum Curvature Method
Report Date/Time: 5/21/2011 / 06:43

Vaughn Energy Services
Morgantown, WV
817.773.7470

Surveyor: Troy Bracke

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	****
100.00	0.85	168.79	100.00	-0.73	0.14	-0.73	0.75	168.79	0.85
200.00	0.71	183.78	199.99	-2.08	0.25	-2.08	2.09	173.17	0.25
300.00	0.32	133.04	299.98	-2.89	0.41	-2.89	2.92	171.88	0.56
400.00	0.14	111.90	399.98	-3.12	0.73	-3.12	3.20	166.90	0.20
500.00	0.14	127.68	499.98	-3.24	0.93	-3.24	3.37	163.96	0.04
600.00	0.16	142.95	599.98	-3.42	1.11	-3.42	3.60	162.05	0.04
700.00	0.10	296.58	699.98	-3.49	1.11	-3.49	3.67	162.29	0.25
800.00	0.10	338.00	799.98	-3.37	1.01	-3.37	3.52	163.39	0.07
900.00	0.15	240.49	899.98	-3.36	0.86	-3.36	3.47	165.67	0.19
1000.00	0.18	276.19	999.98	-3.41	0.58	-3.41	3.46	170.27	0.11
1100.00	0.03	101.79	1099.98	-3.40	0.45	-3.40	3.42	172.44	0.21
1200.00	0.10	244.24	1199.98	-3.44	0.40	-3.44	3.46	173.41	0.12
1300.00	0.25	163.92	1299.98	-3.69	0.38	-3.69	3.71	174.10	0.26
1400.00	0.24	192.93	1399.98	-4.11	0.40	-4.11	4.13	174.50	0.12
1500.00	0.35	191.55	1499.98	-4.61	0.29	-4.61	4.62	176.42	0.11
1600.00	0.31	176.61	1599.98	-5.18	0.24	-5.18	5.18	177.30	0.09
1700.00	0.43	158.22	1699.97	-5.80	0.40	-5.80	5.81	176.06	0.16
1800.00	0.21	200.84	1799.97	-6.32	0.47	-6.32	6.33	175.74	0.31
1900.00	0.13	160.12	1899.97	-6.59	0.44	-6.59	6.61	176.17	0.14
2000.00	0.15	175.51	1999.97	-6.83	0.49	-6.83	6.85	175.90	0.05
2100.00	0.21	216.01	2099.97	-7.11	0.39	-7.11	7.12	176.85	0.14
2200.00	0.09	283.31	2199.97	-7.24	0.20	-7.24	7.24	178.38	0.19
2300.00	0.23	283.79	2299.97	-7.18	-0.07	-7.18	7.18	180.55	0.14
2400.00	0.48	315.56	2399.97	-6.83	-0.56	-6.83	6.85	184.66	0.31
2500.00	0.19	270.15	2499.97	-6.53	-1.02	-6.53	6.61	188.85	0.37
2600.00	0.38	305.13	2599.97	-6.34	-1.45	-6.34	6.50	192.92	0.25
2700.00	0.29	293.86	2699.96	-6.04	-1.96	-6.04	6.35	197.93	0.11
2800.00	0.51	326.99	2799.96	-5.56	-2.43	-5.56	6.07	203.59	0.31
2900.00	0.30	326.31	2899.96	-4.97	-2.82	-4.97	5.72	209.53	0.22
3000.00	0.29	294.51	2999.96	-4.65	-3.19	-4.65	5.64	214.43	0.16
3100.00	0.42	323.49	3099.96	-4.25	-3.64	-4.25	5.60	220.55	0.22
3200.00	0.20	321.14	3199.96	+3.82	+3.97	+3.82	5.51	226.08	0.23
3300.00	0.37	309.51	3299.95	-3.48	-4.32	-3.48	5.55	231.16	0.18
3400.00	0.33	295.23	3399.95	-3.15	-4.83	-3.15	5.77	236.86	0.10

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
3500.00	0.35	299.34	3499.95	-2.88	-5.36	-2.88	6.08	241.73	0.03
3600.00	0.25	292.74	3599.95	-2.65	-5.82	-2.65	6.40	245.56	0.11
3700.00	0.19	317.22	3699.95	-2.44	-6.14	-2.44	6.60	248.31	0.11
3800.00	0.43	7.15	3799.95	-1.94	-6.20	-1.94	6.50	252.61	0.34
3900.00	0.44	13.11	3899.94	-1.19	-6.07	-1.19	6.18	258.88	0.05
4000.00	0.49	23.44	3999.94	-0.43	-5.81	-0.43	5.83	265.82	0.10
4100.00	0.57	39.83	4099.94	0.35	-5.32	0.35	5.33	273.76	0.17
4200.00	0.48	12.90	4199.93	1.14	-4.91	1.14	5.04	283.11	0.26
4300.00	0.68	15.42	4299.93	2.13	-4.66	2.13	5.12	294.53	0.20
4400.00	0.87	0.27	4399.92	3.46	-4.50	3.46	5.67	307.54	0.28
4500.00	0.78	20.72	4499.91	4.85	-4.25	4.85	6.45	318.75	0.31
4600.00	0.75	5.42	4599.90	6.13	-3.95	6.13	7.30	327.22	0.21
4700.00	0.83	353.51	4699.89	7.50	-3.97	7.50	8.49	332.12	0.18
4800.00	0.89	348.72	4799.88	8.98	-4.20	8.98	9.92	334.92	0.09
4900.00	1.01	344.17	4899.86	10.59	-4.59	10.59	11.54	336.54	0.14
5000.00	0.86	336.97	4999.85	12.13	-5.13	12.13	13.17	337.07	0.18
5100.00	0.88	341.43	5099.84	13.55	-5.67	13.55	14.69	337.30	0.07
5200.00	0.87	334.50	5199.83	14.97	-6.24	14.97	16.22	337.36	0.11
5300.00	0.47	341.85	5299.82	16.04	-6.70	16.04	17.38	337.34	0.41
5400.00	0.56	338.43	5399.82	16.88	-7.00	16.88	18.28	337.47	0.09
5500.00	0.65	341.78	5499.81	17.87	-7.36	17.87	19.33	337.62	0.10
5533.00	0.67	357.43	5532.81	18.24	-7.43	18.24	19.70	337.85	0.55

HORIZONTAL DISPLACEMENT IS
19.70 FEET AT 337.85 DEGREES