

**Shell Exploration
Knoche Trust 31-1H
Kansas/Reno County
Nabors 102
API: 15-155-21611-01-00**

Date/Time	Depth	Inc	Azim	TVD	N/S	E/W	V/S	DLS
4/5/2013 2:02	177.00	0.62	279.48	177.00	0.16	-0.95	0.27	0.35
4/5/2013 2:37	238.00	1.23	270.51	237.99	0.22	-1.92	0.44	1.02
4/5/2013 3:09	291.00	2.00	265.10	290.97	0.14	-3.42	0.54	1.49
4/17/2013 0:30	405.00	2.86	262.36	404.86	-0.40	-8.22	0.55	0.76
4/17/2013 1:01	437.00	3.27	269.43	436.82	-0.52	-9.92	0.64	1.74
4/17/2013 1:32	532.00	4.46	272.16	531.60	-0.41	-16.31	1.49	1.27
4/17/2013 2:12	627.00	6.37	272.06	626.17	-0.08	-25.27	2.85	2.01
4/17/2013 3:03	722.00	8.54	274.67	720.36	0.69	-37.57	5.04	2.31
4/17/2013 3:45	817.00	9.26	272.63	814.22	1.61	-52.23	7.66	0.83
4/17/2013 4:24	912.00	9.78	272.51	907.91	2.31	-67.93	10.18	0.55
4/17/2013 5:13	1,007.00	9.40	273.61	1,001.58	3.16	-83.74	12.85	0.44
4/17/2013 6:19	1,099.00	8.63	272.10	1,092.44	3.88	-98.14	15.24	0.88
4/17/2013 7:14	1,192.00	9.48	273.14	1,184.29	4.56	-112.76	17.61	0.94
4/17/2013 8:13	1,285.00	8.39	268.90	1,276.16	4.85	-127.19	19.57	1.37
4/17/2013 9:05	1,377.00	8.23	268.34	1,367.19	4.53	-140.49	20.79	0.20
4/17/2013 9:54	1,467.00	8.95	269.26	1,456.18	4.25	-153.92	22.08	0.82
4/17/2013 10:36	1,559.00	9.54	267.89	1,546.98	3.88	-168.70	23.42	0.68
4/17/2013 11:29	1,652.00	8.03	269.85	1,638.89	3.58	-182.90	24.77	1.65
4/17/2013 12:48	1,743.00	8.38	268.65	1,728.96	3.41	-195.89	26.10	0.42
4/17/2013 13:53	1,841.00	8.73	269.00	1,825.87	3.11	-210.46	27.50	0.36
4/17/2013 14:48	1,932.00	9.16	268.26	1,915.76	2.77	-224.60	28.80	0.49
4/17/2013 15:42	2,027.00	9.23	267.58	2,009.54	2.21	-239.78	30.01	0.14
4/17/2013 16:54	2,122.00	9.38	273.65	2,103.29	2.39	-255.12	31.96	1.04
4/17/2013 17:38	2,217.00	9.72	274.32	2,196.98	3.48	-270.84	34.87	0.37
4/17/2013 18:30	2,312.00	7.76	272.82	2,290.87	4.40	-285.24	37.45	2.07
4/17/2013 19:11	2,407.00	7.50	272.42	2,385.03	4.98	-297.84	39.49	0.28
4/17/2013 20:13	2,502.00	7.49	279.71	2,479.22	6.28	-310.14	42.21	1.00
4/19/2013 10:40	2,597.00	7.57	282.71	2,573.40	8.71	-322.35	46.03	0.42
4/19/2013 21:37	2,692.00	7.56	282.80	2,667.57	11.47	-334.56	50.19	0.02
4/19/2013 23:32	2,787.00	8.78	275.11	2,761.61	13.50	-347.88	53.76	1.72
4/20/2013 0:34	2,882.00	9.60	273.22	2,855.39	14.59	-363.01	56.59	0.91
4/20/2013 1:46	2,978.00	9.45	269.56	2,950.06	14.98	-378.88	58.82	0.65
4/20/2013 3:03	3,072.00	7.95	272.89	3,042.98	15.25	-393.10	60.74	1.68
4/20/2013 3:45	3,167.00	7.98	272.53	3,137.06	15.87	-406.25	62.88	0.06
4/20/2013 4:15	3,231.00	7.76	271.39	3,200.46	16.17	-415.01	64.20	0.42
4/20/2013 5:01	3,262.00	7.68	272.29	3,231.18	16.31	-419.17	64.81	0.47
4/20/2013 5:48	3,294.00	8.06	281.43	3,262.88	16.84	-423.50	65.84	4.08
4/20/2013 7:01	3,326.00	9.90	293.03	3,294.49	18.36	-428.24	67.90	8.05
4/20/2013 8:12	3,358.00	12.05	302.25	3,325.90	21.22	-433.59	71.36	8.66
4/20/2013 9:08	3,389.00	14.40	309.49	3,356.08	25.40	-439.31	76.18	9.25
4/20/2013 9:58	3,421.00	17.19	316.67	3,386.87	31.37	-445.62	82.84	10.62
4/20/2013 11:05	3,453.00	19.96	324.18	3,417.21	39.24	-452.07	91.40	11.43

4/20/2013 12:00	3,484.00	22.85	330.22	3,446.07	48.76	-458.15	101.56	11.71
4/20/2013 13:04	3,516.00	25.55	335.81	3,475.26	60.45	-464.07	113.86	11.06
4/20/2013 14:16	3,548.00	28.31	340.89	3,503.79	73.92	-469.38	127.85	11.24
4/20/2013 15:26	3,579.00	31.27	345.00	3,530.69	88.64	-473.87	143.00	11.59
4/20/2013 16:14	3,611.00	34.57	347.67	3,557.55	105.54	-477.96	160.26	11.26
4/20/2013 17:13	3,643.00	37.49	349.57	3,583.43	123.99	-481.66	179.01	9.78
4/20/2013 21:01	3,674.00	40.47	350.79	3,607.52	143.20	-484.98	198.48	9.90
4/20/2013 22:14	3,706.00	42.97	351.49	3,631.41	164.24	-488.26	219.76	7.96
4/20/2013 23:15	3,738.00	45.86	351.65	3,654.26	186.40	-491.54	242.15	9.04
4/21/2013 0:14	3,769.00	48.26	351.80	3,675.38	208.85	-494.81	264.83	7.74
4/21/2013 1:14	3,801.00	50.74	352.66	3,696.16	232.96	-498.09	289.16	8.02
4/21/2013 2:15	3,833.00	53.85	352.95	3,715.72	258.08	-501.26	314.47	9.75
4/21/2013 3:18	3,864.00	56.86	353.23	3,733.34	283.39	-504.33	339.97	9.71
4/21/2013 4:15	3,896.00	60.02	353.83	3,750.09	310.48	-507.40	367.23	10.00
4/21/2013 5:18	3,928.00	63.43	354.07	3,765.25	338.50	-510.37	395.41	10.70
4/21/2013 6:03	3,959.00	65.84	355.37	3,778.53	366.39	-512.94	423.41	8.64
4/21/2013 6:58	3,991.00	68.49	356.30	3,790.95	395.80	-515.08	452.87	8.72
4/21/2013 7:52	4,023.00	71.24	356.55	3,801.96	425.79	-516.96	482.87	8.60
4/21/2013 8:48	4,055.00	74.23	357.74	3,811.46	456.30	-518.48	513.35	10.00
4/21/2013 9:37	4,086.00	77.55	359.12	3,819.02	486.35	-519.30	543.30	11.55
4/21/2013 10:29	4,118.00	81.27	0.17	3,824.90	517.80	-519.49	574.55	12.06
4/21/2013 12:05	4,213.00	89.69	2.10	3,832.38	612.39	-517.61	668.29	9.10
4/21/2013 12:32	4,247.00	90.49	2.84	3,832.32	646.36	-516.14	701.86	3.20
4/23/2013 3:55	4,332.00	91.88	3.14	3,830.56	731.23	-511.71	785.64	1.67
4/23/2013 5:42	4,427.00	91.20	2.92	3,828.01	826.06	-506.68	879.25	0.75
4/23/2013 6:56	4,522.00	90.22	1.18	3,826.83	920.98	-503.28	973.14	2.11
4/23/2013 8:16	4,617.00	90.00	359.89	3,826.65	1,015.98	-502.40	1,067.39	1.38
4/23/2013 9:06	4,712.00	88.83	359.90	3,827.63	1,110.97	-502.57	1,161.76	1.23
4/23/2013 10:19	4,807.00	88.74	358.24	3,829.64	1,205.93	-504.11	1,256.26	1.76
4/23/2013 11:27	4,903.00	89.75	359.29	3,830.91	1,301.90	-506.18	1,351.82	1.52
4/23/2013 12:19	4,998.00	89.94	358.69	3,831.16	1,396.88	-507.86	1,446.36	0.66
4/23/2013 14:05	5,093.00	90.31	358.79	3,830.96	1,491.86	-509.95	1,540.94	0.40
4/23/2013 15:34	5,188.00	90.65	359.31	3,830.17	1,586.84	-511.52	1,635.46	0.66
4/23/2013 16:43	5,283.00	89.38	357.84	3,830.15	1,681.81	-513.88	1,730.06	2.04
4/23/2013 17:47	5,378.00	89.69	357.44	3,830.91	1,776.73	-517.79	1,824.79	0.53
4/23/2013 18:35	5,473.00	91.26	358.76	3,830.12	1,871.67	-520.95	1,919.45	2.16
4/23/2013 19:58	5,568.00	89.78	357.12	3,829.25	1,966.59	-524.37	2,014.14	2.33
4/23/2013 21:04	5,664.00	90.89	357.61	3,828.69	2,062.49	-528.79	2,109.90	1.26
4/23/2013 22:03	5,756.00	90.71	358.35	3,827.40	2,154.42	-532.03	2,201.59	0.83
4/23/2013 23:13	5,848.00	90.77	358.44	3,826.21	2,246.38	-534.61	2,293.22	0.12
4/24/2013 0:51	5,942.00	91.45	358.99	3,824.39	2,340.34	-536.71	2,386.79	0.93
4/24/2013 4:28	6,020.00	90.93	358.02	3,822.77	2,418.29	-538.75	2,464.46	1.41
4/24/2013 13:46	6,034.00	91.23	358.29	3,822.51	2,432.28	-539.20	2,478.40	2.93
4/24/2013 16:06	6,124.00	90.86	359.93	3,820.86	2,522.25	-540.60	2,567.93	1.86
4/24/2013 18:07	6,216.00	90.46	358.73	3,819.80	2,614.24	-541.68	2,659.42	1.38
4/24/2013 20:03	6,309.00	91.27	359.45	3,818.40	2,707.22	-543.15	2,751.94	1.16
4/24/2013 23:41	6,399.00	90.15	358.84	3,817.28	2,797.20	-544.50	2,841.47	1.41
4/25/2013 2:20	6,490.00	89.91	358.45	3,817.23	2,888.17	-546.65	2,932.08	0.50
4/25/2013 5:48	6,585.00	89.66	359.80	3,817.59	2,983.16	-548.10	3,026.59	1.44

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