

Wellbores - Step #2
 Actual Deviation Survey: Kathleen 1-1H, Proposed? No
 Deviation Surveys - Step #1
 Des: Kathleen 1-1H
 Tie-in Data
 Azm North Typ: Grid
 Survey Data
 MD (ftKB)

Wellbore Name: Original Hole
 Date: 2012/05/06
 VS Dir (°): 180.24 Com:

Incl (°)	Convergence (°): 0.00	Dec (°): 4.82	Azm (°)	MD Tie in (ftKB): 0.00	Method	Azimuth Tie in (°): 0.00	TVD (ftKB)	Inclination Tie in (°): 0.00	VS (ft)	TVD Tie in (ftKB): 0.00	NS Tie in (ft): 0.00	EW Tie in (ft): 0.00	DLS (°/100ft)	
1.148			1	21.24	Baker Hughes INTEQ	MWD	1.148		1.148		-10	9.52	3.7	0.09
1.331			1	15.39	Baker Hughes INTEQ	MWD	1.331		1.331		-13	12.6	4.72	0.06
1.362			0.8	13.62	Baker Hughes INTEQ	MWD	1.362		1.362		-13	13.06	4.84	0.78
1.392			0.5	38.84	Baker Hughes INTEQ	MWD	1.392		1.392		-13	13.37	4.98	1.21
1.423			0.6	51.9	Baker Hughes INTEQ	MWD	1.423		1.423		-14	13.57	5.19	0.4
1.487			0.9	125.21	Baker Hughes INTEQ	MWD	1.487		1.487		-13	13.47	5.85	1.45
1.519			1.2	134.08	Baker Hughes INTEQ	MWD	1.519		1.519		-13	13.09	6.3	1.01
1.550			2	142.43	Baker Hughes INTEQ	MWD	1.550		1.550		-12	12.43	6.86	2.74
1.582			2.8	141.16	Baker Hughes INTEQ	MWD	1.582		1.582		-11	11.37	7.7	2.44
1.614			3.6	140.46	Baker Hughes INTEQ	MWD	1.614		1.614		-10	10	8.82	2.35
1.646			4.6	144.42	Baker Hughes INTEQ	MWD	1.646		1.646		-8	8.2	10.19	3.27
1.677			5.7	144.68	Baker Hughes INTEQ	MWD	1.677		1.677		-6	5.94	11.8	3.77
1.710			6.7	143.27	Baker Hughes INTEQ	MWD	1.709		1.709		-3	3.05	13.91	3.01
1.741			7.7	142.95	Baker Hughes INTEQ	MWD	1.740		1.740		0	-0.06	16.24	3.1
1.773			8.5	143.37	Baker Hughes INTEQ	MWD	1.772		1.772		4	-3.67	18.94	2.73
1.805			9.6	142.52	Baker Hughes INTEQ	MWD	1.803		1.803		8	-7.69	21.98	3.34
1.837			10.4	141.42	Baker Hughes INTEQ	MWD	1.835		1.835		12	-12.07	25.41	2.54
1.869			11.4	140.66	Baker Hughes INTEQ	MWD	1.866		1.866		17	-16.77	29.22	3.28
1.901			12.3	140.78	Baker Hughes INTEQ	MWD	1.898		1.898		22	-21.86	33.38	2.69
1.964			14	140.37	Baker Hughes INTEQ	MWD	1.959		1.959		33	-32.92	42.48	2.7
1.996			14.8	141.04	Baker Hughes INTEQ	MWD	1.990		1.990		39	-39.08	47.51	2.49
2.028			15.6	140.55	Baker Hughes INTEQ	MWD	2.021		2.021		45	-45.56	52.8	2.5
2.093			15.1	139.52	Baker Hughes INTEQ	MWD	2.084		2.084		58	-58.71	63.82	0.89
2.156			14.9	139.16	Baker Hughes INTEQ	MWD	2.144		2.144		71	-74.42	74.42	0.29
2.173			15.1	139.63	Baker Hughes INTEQ	MWD	2.206		2.206		83	-83.63	85.2	0.39
2.284			15.4	139.79	Baker Hughes INTEQ	MWD	2.268		2.268		96	-96.48	96.1	0.47
2.348			15.7	138.69	Baker Hughes INTEQ	MWD	2.330		2.330		109	-109.5	107.32	0.69
2.411			15.7	137.54	Baker Hughes INTEQ	MWD	2.390		2.390		122	-122.21	118.72	0.5
2.475			15.6	136.47	Baker Hughes INTEQ	MWD	2.453		2.453		134	-135.03	130.67	0.51
2.571			15.3	138.19	Baker Hughes INTEQ	MWD	2.544		2.544		153	-153.63	147.82	0.54
2.667			14.7	136.42	Baker Hughes INTEQ	MWD	2.698		2.698		171	-171.95	164.7	0.79
2.730			14.8	137.13	Baker Hughes INTEQ	MWD	2.698		2.698		183	-183.64	175.69	0.29
2.793			14.5	137.57	Baker Hughes INTEQ	MWD	2.759		2.759		195	-195.33	186.47	0.51
2.857			14.6	139.4	Baker Hughes INTEQ	MWD	2.821		2.821		207	-207.37	197.12	0.77
2.921			15.7	139.6	Baker Hughes INTEQ	MWD	2.883		2.883		219	-220.11	208	1.67
2.984			16	141.15	Baker Hughes INTEQ	MWD	2.943		2.943		232	-233.38	218.98	0.82
3.048			16.9	141.26	Baker Hughes INTEQ	MWD	3.005		3.005		247	-247.48	230.32	1.31
3.143			16.9	140.48	Baker Hughes INTEQ	MWD	3.096		3.096		268	-268.86	247.71	0.24
3.238			15.7	142	Baker Hughes INTEQ	MWD	3.187		3.187		288	-289.59	264.37	1.36
3.333			14.3	140.22	Baker Hughes INTEQ	MWD	3.279		3.279		308	-308.72	279.78	1.48
3.429			13.6	139.38	Baker Hughes INTEQ	MWD	3.372		3.372		325	-326.43	294.74	0.75
3.525			12	137.8	Baker Hughes INTEQ	MWD	3.465		3.465		341	-342.42	308.82	1.72
3.557			12.4	138.14	Baker Hughes INTEQ	MWD	3.497		3.497		346	-347.44	313.34	1.09
3.589			13.1	138.34	Baker Hughes INTEQ	MWD	3.528		3.528		351	-352.7	318.04	2.32
3.621			13.6	140.68	Baker Hughes INTEQ	MWD	3.559		3.559		357	-358.31	322.83	2.19
3.653			14.2	141.27	Baker Hughes INTEQ	MWD	3.590		3.590		363	-364.27	327.66	2.08
3.685			14.7	142	Baker Hughes INTEQ	MWD	3.621		3.621		369	-370.53	332.61	1.69
3.716			15.1	141.15	Baker Hughes INTEQ	MWD	3.651		3.651		375	-376.78	337.57	1.44
3.779			13.9	140.52	Baker Hughes INTEQ	MWD	3.712		3.712		388	-388.99	347.51	1.98
3.811			12.3	140.69	Baker Hughes INTEQ	MWD	3.743		3.743		393	-394.6	352.12	4.75
3.843			12.6	139.34	Baker Hughes INTEQ	MWD	3.774		3.774		398	-399.89	356.55	1.16
3.875			13.3	139.35	Baker Hughes INTEQ	MWD	3.806		3.806		404	-405.32	361.22	2.25
3.938			15.6	140.5	Baker Hughes INTEQ	MWD	3.867		3.867		416	-417.36	371.93	3.73
3.970			15.3	140.52	Baker Hughes INTEQ	MWD	3.898		3.898		422	-423.94	376.76	0.94
4.001			14.8	140.57	Baker Hughes INTEQ	MWD	3.927		3.927		429	-430.16	381.87	1.81
4.033			15.1	141.39	Baker Hughes INTEQ	MWD	3.958		3.958		435	-436.56	387.06	1.22

4,095	18.4	140.51	Baker Hughes INTEQ	MWD	4,018	449	-450.41	398.31	5.29
4,126	20.9	140	Baker Hughes INTEQ	MWD	4,047	457	-458.41	404.97	8.28
4,157	22.8	139.8	Baker Hughes INTEQ	MWD	4,076	466	-467.23	412.4	5.94
4,189	23.7	141.08	Baker Hughes INTEQ	MWD	4,105	475	-476.97	420.44	3.33
4,221	26.1	141.99	Baker Hughes INTEQ	MWD	4,134	486	-487.52	428.82	7.66
4,253	28.6	140.37	Baker Hughes INTEQ	MWD	4,163	497	-498.96	438.03	7.94
4,285	30.7	139.58	Baker Hughes INTEQ	MWD	4,190	509	-511.07	448.2	6.77
4,316	32.8	140.53	Baker Hughes INTEQ	MWD	4,217	522	-523.57	458.67	7.03
4,348	34.8	143.52	Baker Hughes INTEQ	MWD	4,243	536	-537.61	469.61	8.18
4,380	37.6	143.42	Baker Hughes INTEQ	MWD	4,269	551	-552.8	480.86	8.63
4,412	40.3	142.79	Baker Hughes INTEQ	MWD	4,294	567	-568.88	492.94	8.68
4,443	42.8	143.23	Baker Hughes INTEQ	MWD	4,317	583	-585.31	505.32	8.02
4,475	44.9	143.36	Baker Hughes INTEQ	MWD	4,340	601	-603.08	518.56	6.41
4,506	46.3	142.37	Baker Hughes INTEQ	MWD	4,362	618	-620.72	531.92	5.15
4,538	46.4	142.34	Baker Hughes INTEQ	MWD	4,384	637	-639.05	546.06	0.41
4,570	46.7	143.09	Baker Hughes INTEQ	MWD	4,406	655	-657.53	560.13	1.86
4,601	48.3	142.65	Baker Hughes INTEQ	MWD	4,427	673	-675.74	573.92	5.3
4,646	50.3	142.36	Baker Hughes INTEQ	MWD	4,456	700	-702.8	594.68	4.6
4,696	50	141.82	Baker Hughes INTEQ	MWD	4,488	730	-733.09	618.27	1.04
4,741	49.5	141.08	Baker Hughes INTEQ	MWD	4,518	757	-759.95	659.67	1.72
4,790	49.1	142.08	Baker Hughes INTEQ	MWD	4,549	786	-789.05	662.76	1.71
4,822	48.6	140.86	Baker Hughes INTEQ	MWD	4,571	805	-807.91	677.77	3.27
4,886	52.3	146.85	Baker Hughes INTEQ	MWD	4,611	845	-847.76	706.8	9.21
4,919	53.6	150.47	Baker Hughes INTEQ	MWD	4,651	867	-870.25	720.48	9.61
4,951	55.2	154.32	Baker Hughes INTEQ	MWD	4,650	890	-893.3	732.52	10.91
4,983	57.6	157	Baker Hughes INTEQ	MWD	4,668	914	-917.57	743.5	10.36
5,014	59.2	159.74	Baker Hughes INTEQ	MWD	4,684	939	-942.12	753.22	9.2
5,046	61.2	161.79	Baker Hughes INTEQ	MWD	4,700	965	-968.35	762.37	8.37
5,078	64.3	163.73	Baker Hughes INTEQ	MWD	4,714	992	-995.51	770.79	10.84
5,110	67.3	165.7	Baker Hughes INTEQ	MWD	4,727	1,020	-1,023.66	778.48	11.14
5,142	70	167.03	Baker Hughes INTEQ	MWD	4,739	1,049	-1,052.63	785.5	9.28
5,173	72.8	168.6	Baker Hughes INTEQ	MWD	4,749	1,078	-1,081.35	791.7	10.23
5,205	75.1	171.04	Baker Hughes INTEQ	MWD	4,758	1,108	-1,111.62	797.13	10.24
5,236	76.6	172.64	Baker Hughes INTEQ	MWD	4,765	1,138	-1,141.37	801.4	6.81
5,268	78.3	174.62	Baker Hughes INTEQ	MWD	4,772	1,169	-1,172.41	804.86	8.19
5,299	80.3	176.47	Baker Hughes INTEQ	MWD	4,778	1,199	-1,202.78	807.22	8.67
5,331	82	177.22	Baker Hughes INTEQ	MWD	4,783	1,231	-1,234.35	808.96	5.85
5,363	84	177.26	Baker Hughes INTEQ	MWD	4,787	1,263	-1,266.07	810.49	6.25
5,403	85.9	176.99	Baker Hughes INTEQ	MWD	4,790	1,302	-1,305.87	812.49	4.82
5,434	87.5	177.5	Baker Hughes INTEQ	MWD	4,792	1,333	-1,336.78	813.98	5.26
5,466	88.1	178.67	Baker Hughes INTEQ	MWD	4,793	1,365	-1,368.73	815.05	4.06
5,529	89.1	180.17	Baker Hughes INTEQ	MWD	4,795	1,428	-1,431.71	815.69	2.86
5,593	89.2	180.28	Baker Hughes INTEQ	MWD	4,796	1,492	-1,495.70	815.43	0.33
5,657	88.3	180.93	Baker Hughes INTEQ	MWD	4,797	1,556	-1,559.68	814.76	1.77
5,720	90.2	179.68	Baker Hughes INTEQ	MWD	4,798	1,619	-1,622.67	814.42	3.64
5,815	91	179.58	Baker Hughes INTEQ	MWD	4,797	1,714	-1,717.66	815.04	0.79
5,909	88.8	179.74	Baker Hughes INTEQ	MWD	4,797	1,808	-1,811.66	815.59	2.36
6,003	88.6	179.63	Baker Hughes INTEQ	MWD	4,800	1,902	-1,905.63	816.11	0.22
6,100	88	179.86	Baker Hughes INTEQ	MWD	4,802	1,999	-2,002.58	816.54	0.61
6,195	88.6	179.84	Baker Hughes INTEQ	MWD	4,805	2,094	-2,097.54	816.79	0.57
6,291	90.2	180.77	Baker Hughes INTEQ	MWD	4,806	2,190	-2,193.53	816.28	1.95
6,386	89.4	181.29	Baker Hughes INTEQ	MWD	4,807	2,285	-2,288.51	814.57	0.99
6,482	88.6	181.07	Baker Hughes INTEQ	MWD	4,808	2,381	-2,384.48	812.6	0.89
6,577	88.8	181.13	Baker Hughes INTEQ	MWD	4,811	2,476	-2,479.44	810.77	0.21
6,672	88.9	180.7	Baker Hughes INTEQ	MWD	4,812	2,571	-2,574.40	809.26	0.48
6,768	89.2	180.11	Baker Hughes INTEQ	MWD	4,814	2,667	-2,670.39	808.58	0.67
6,863	90.2	180	Baker Hughes INTEQ	MWD	4,815	2,762	-2,765.38	808.49	1.11
6,959	90.4	180.01	Baker Hughes INTEQ	MWD	4,814	2,858	-2,861.38	808.48	0.16
7,054	90.3	179.86	Baker Hughes INTEQ	MWD	4,814	2,953	-2,956.38	808.59	0.18
7,148	90.2	178.91	Baker Hughes INTEQ	MWD	4,813	3,047	-3,050.37	809.59	1.02
7,244	90	179.23	Baker Hughes INTEQ	MWD	4,813	3,143	-3,146.36	811.15	0.39
7,339	90	177.76	Baker Hughes INTEQ	MWD	4,813	3,238	-3,241.33	813.65	1.55
7,434	90.1	177.81	Baker Hughes INTEQ	MWD	4,813	3,333	-3,336.25	817.32	0.17
7,529	89.7	177.95	Baker Hughes INTEQ	MWD	4,813	3,428	-3,431.19	820.83	0.45

