

Wellbores - Step #2
 Actual Deviation Survey: Lori 2-2H, Proposed? No Wellbore Name: Original Hole
 Deviation Surveys - Step #1 Date: 2012/04/13
 Des: Lori 2-2H
 Tie-in Data
 Azm North Typ: Grid
 Survey Data
 MD (ftKB)

VS Dir (°): 2.64 Cor:

MD (ftKB)	Incl (°)	Convergence (°): 0.00	Azm (°)	Survey Company	Method	Azimuth Tie in (°): 0.00	Inclination Tie in (°): 0.00	TVD (ftKB)	VS (ft)	TVD Tie in (ftKB): 0.00	NS Tie in (ft): 0.00	EW Tie in (ft): 0.00	DLS (°/100ft)
1,152	0.2	8.36	Baker Hughes INTEQ	MWD	1,152	2	2.09	0.31					
1,617	0.6	78.9	Baker Hughes INTEQ	MWD	1,617	4	3.98	2.74					
2,095	0.8	86.57	Baker Hughes INTEQ	MWD	2,095	4	4.05	8.49					
2,571	1.2	39.97	Baker Hughes INTEQ	MWD	2,571	9	8.07	15.05					
3,049	1	55.68	Baker Hughes INTEQ	MWD	3,049	15	14.33	21.81					
3,526	0.3	33.65	Baker Hughes INTEQ	MWD	3,526	19	17.89	26.11					
3,814	0.5	115.74	Baker Hughes INTEQ	MWD	3,814	19	18.08	27.61					
3,877	0.4	126.48	Baker Hughes INTEQ	MWD	3,877	19	17.83	28.03					
3,908	2.9	3.24	Baker Hughes INTEQ	MWD	3,908	20	18.55	28.17					
3,939	5.9	358.01	Baker Hughes INTEQ	MWD	3,939	22	20.94	28.16					
3,970	9	357.55	Baker Hughes INTEQ	MWD	3,969	26	24.97	28					
4,002	11.5	355.68	Baker Hughes INTEQ	MWD	4,001	32	30.66	27.65					
4,033	12.9	356.14	Baker Hughes INTEQ	MWD	4,031	38	37.19	27.19					
4,065	14.2	356.17	Baker Hughes INTEQ	MWD	4,062	46	44.65	26.69					
4,065	14.2	365.17	Baker Hughes INTEQ	MWD	4,062	46	44.65	26.69					
4,097	15.4	356.45	Baker Hughes INTEQ	MWD	4,093	54	52.78	26.78					
4,128	17.4	358.14	Baker Hughes INTEQ	MWD	4,123	63	61.52	26.37					
4,160	19.4	0.15	Baker Hughes INTEQ	MWD	4,153	73	71.63	26.23					
4,191	21.4	359.24	Baker Hughes INTEQ	MWD	4,182	84	82.44	26.17					
4,223	22.5	359.24	Baker Hughes INTEQ	MWD	4,211	95	94.39	26.01					
4,255	25.5	358.24	Baker Hughes INTEQ	MWD	4,241	108	107.39	25.71					
4,287	28.5	358.24	Baker Hughes INTEQ	MWD	4,270	123	121.92	25.26					
4,319	31.8	0.22	Baker Hughes INTEQ	MWD	4,297	139	137.99	25.06					
4,383	36.6	0.28	Baker Hughes INTEQ	MWD	4,350	175	173.97	25.22					
4,415	38.8	359.85	Baker Hughes INTEQ	MWD	4,376	195	193.55	25.24					
4,446	40.5	1.51	Baker Hughes INTEQ	MWD	4,400	214	213.33	25.48					
4,478	42.4	2.18	Baker Hughes INTEQ	MWD	4,424	235	234.5	26.16					
4,510	44.2	2.68	Baker Hughes INTEQ	MWD	4,447	257	256.42	27.09					
4,542	46.1	3.34	Baker Hughes INTEQ	MWD	4,469	280	279.07	28.29					
4,574	47.2	3.04	Baker Hughes INTEQ	MWD	4,491	303	302.3	29.58					
4,606	48.3	1.42	Baker Hughes INTEQ	MWD	4,513	327	325.98	30.5					
4,638	49.7	359.69	Baker Hughes INTEQ	MWD	4,534	351	350.13	30.73					
4,670	49.9	358.45	Baker Hughes INTEQ	MWD	4,555	376	374.57	30.33					
4,702	49.7	358.24	Baker Hughes INTEQ	MWD	4,555	400	399	29.63					
4,734	49.6	357.25	Baker Hughes INTEQ	MWD	4,596	424	423.38	28.67					
4,766	49.7	357.22	Baker Hughes INTEQ	MWD	4,617	449	447.74	27.49					
4,798	49.6	357.03	Baker Hughes INTEQ	MWD	4,637	473	472.09	26.27					
4,830	49.7	357.39	Baker Hughes INTEQ	MWD	4,658	497	496.45	25.08					
4,862	51.9	358.46	Baker Hughes INTEQ	MWD	4,678	522	521.24	24.19					
4,894	55.5	358.55	Baker Hughes INTEQ	MWD	4,697	548	547.03	23.51					
4,926	58.3	358.95	Baker Hughes INTEQ	MWD	4,715	574	573.83	22.93					
4,958	60.2	358.67	Baker Hughes INTEQ	MWD	4,731	602	601.33	22.36					
4,990	62.7	358.42	Baker Hughes INTEQ	MWD	4,746	630	629.42	21.65					
5,022	65.1	0.73	Baker Hughes INTEQ	MWD	4,760	658	658.14	21.44					
5,054	67.6	2.08	Baker Hughes INTEQ	MWD	4,773	688	687.43	22.16					
5,086	71.9	2.73	Baker Hughes INTEQ	MWD	4,784	718	717.42	23.42					
5,118	75.8	2.49	Baker Hughes INTEQ	MWD	4,793	748	748.11	24.82					
5,149	79.6	3.33	Baker Hughes INTEQ	MWD	4,800	779	778.35	26.36					
5,259	91.5	2.83	Baker Hughes INTEQ	MWD	4,808	888	887.67	32.24					
5,302	92.2	1.85	Baker Hughes INTEQ	MWD	4,807	931	930.61	33.99					
5,364	92.7	1.81	Baker Hughes INTEQ	MWD	4,804	993	992.52	35.97					
5,425	91.9	2.4	Baker Hughes INTEQ	MWD	4,802	1,054	1,053.43	38.21					
5,486	92	2.73	Baker Hughes INTEQ	MWD	4,800	1,115	1,114.33	40.94					

5,547	92	2.55 Baker Hughes INTEQ	MWD	4,798	1,176	1,175.23	43.64	0.63
5,608	92.1	2.45 Baker Hughes INTEQ	MWD	4,795	1,237	1,236.14	46.19	0.3
5,669	90.9	2.82 Baker Hughes INTEQ	MWD	4,794	1,298	1,297.05	49	2.06
5,761	90	2.73 Baker Hughes INTEQ	MWD	4,793	1,390	1,388.94	53.45	0.95
5,852	89.6	3.11 Baker Hughes INTEQ	MWD	4,793	1,481	1,479.82	58.08	0.66
5,944	90	3.01 Baker Hughes INTEQ	MWD	4,794	1,573	1,571.69	63	0.45
6,036	90.7	3.46 Baker Hughes INTEQ	MWD	4,793	1,665	1,663.54	68.19	0.97
6,126	91.8	2.36 Baker Hughes INTEQ	MWD	4,791	1,755	1,753.40	72.76	1.7
6,217	92.4	2.26 Baker Hughes INTEQ	MWD	4,788	1,846	1,844.27	76.42	0.66
6,309	91.6	0.46 Baker Hughes INTEQ	MWD	4,785	1,938	1,936.18	78.6	2.14
6,401	88.7	2.01 Baker Hughes INTEQ	MWD	4,784	2,030	2,028.15	80.59	3.55
6,481	88.5	3.71 Baker Hughes INTEQ	MWD	4,787	2,120	2,118.00	85.07	1.91
6,586	89.4	3.64 Baker Hughes INTEQ	MWD	4,788	2,215	2,212.79	91.16	1.01
6,681	90.9	4.67 Baker Hughes INTEQ	MWD	4,788	2,310	2,307.54	98.05	1.9
6,777	91.4	4.28 Baker Hughes INTEQ	MWD	4,786	2,406	2,403.22	105.53	0.65
6,874	90.7	3.65 Baker Hughes INTEQ	MWD	4,784	2,502	2,499.97	112.24	0.96
6,969	92.3	3.15 Baker Hughes INTEQ	MWD	4,782	2,597	2,594.77	117.87	1.71
7,065	92.8	3.48 Baker Hughes INTEQ	MWD	4,778	2,693	2,690.51	123.42	0.69
7,160	95	2.88 Baker Hughes INTEQ	MWD	4,771	2,788	2,785.14	128.68	2.32
7,256	91.8	2.15 Baker Hughes INTEQ	MWD	4,766	2,884	2,880.87	132.88	3.42
7,352	91.9	0.89 Baker Hughes INTEQ	MWD	4,762	2,980	2,976.79	135.42	1.32
7,448	92.2	1.63 Baker Hughes INTEQ	MWD	4,762	3,076	3,072.70	137.53	0.82
7,543	91.5	1.81 Baker Hughes INTEQ	MWD	4,756	3,171	3,167.61	140.38	0.71
7,640	90.9	1.82 Baker Hughes INTEQ	MWD	4,754	3,268	3,264.54	143.46	0.63
7,735	90.9	0.82 Baker Hughes INTEQ	MWD	4,753	3,363	3,359.50	145.64	1.05
7,831	90.7	0.11 Baker Hughes INTEQ	MWD	4,751	3,459	3,455.49	146.42	0.78
7,927	88.9	359.95 Baker Hughes INTEQ	MWD	4,752	3,554	3,551.49	146.47	1.87
8,022	89.7	1.34 Baker Hughes INTEQ	MWD	4,753	3,649	3,646.47	147.54	1.67
8,117	89.9	0.78 Baker Hughes INTEQ	MWD	4,753	3,744	3,741.45	149.3	0.66
8,213	90.1	1.74 Baker Hughes INTEQ	MWD	4,753	3,840	3,837.43	151.41	1.02
8,309	91	0.3 Baker Hughes INTEQ	MWD	4,752	3,936	3,933.40	153.12	1.74
8,405	89.8	0.57 Baker Hughes INTEQ	MWD	4,751	4,032	4,029.40	153.85	1.21
8,502	90.4	1.16 Baker Hughes INTEQ	MWD	4,751	4,129	4,126.39	155.91	0.8
8,598	91.9	1.18 Baker Hughes INTEQ	MWD	4,749	4,225	4,222.34	157.27	1.65
8,694	93.1	1.51 Baker Hughes INTEQ	MWD	4,745	4,321	4,318.22	159.52	1.28
8,790	92.3	0.66 Baker Hughes INTEQ	MWD	4,741	4,417	4,414.10	161.34	1.22
8,886	92.1	2.65 Baker Hughes INTEQ	MWD	4,737	4,513	4,509.98	164.11	2.08
8,981	91.9	2.22 Baker Hughes INTEQ	MWD	4,734	4,608	4,604.84	168.14	0.55
9,115	91.9	2.22 Baker Hughes INTEQ	MWD	4,729	4,742	4,738.66	173.33	0.04