


DISTRIBUTED

2/1/10 to Ali Khan
via e-mail

	Directional Survey Report						Calpine		
	Well ID: Aidlin # 12						Well Name: Aidlin # 12		
	Field: Geysers			Sect: 32 Town: 12 N Rng: 9 W County: Sonoma State: CA					

Survey Type	Meas. Depth	Inc.	Azimuth	TVD	Coordinates		Closure	Vertical Section	Dog Leg Severity
					N-S	E-W			
Well Bore: Original Well Bore				Plane of Vertical Section: 19.93					
MSS	347.0	2.00	215	346.9	-5.0	-3.5	6.1	-5.8	0.576
MSS	690.0	3.25	217	689.6	-17.6	-12.8	21.8	-20.9	0.365
MSS	862.0	2.20	217	861.4	-24.2	-17.7	29.9	-28.7	0.610
VERTT	956.0	0.60	217	955.3	-26.0	-19.1	32.2	-30.9	1.702
VERTT	1,052.0	0.02	0	1,051.3	-26.4	-19.4	32.7	-31.4	0.642
VERTT	1,146.0	0.04	0	1,145.3	-26.3	-19.4	32.7	-31.4	0.021
VERTT	1,240.0	0.02	0	1,239.3	-26.3	-19.4	32.6	-31.3	0.021
VERTT	1,335.0	0.04	0	1,334.3	-26.2	-19.4	32.6	-31.3	0.021
VERTT	1,430.0	0.07	0	1,429.3	-26.1	-19.4	32.5	-31.2	0.032
VERTT	1,525.0	0.07	0	1,524.3	-26.0	-19.4	32.4	-31.1	0.000
VERTT	1,620.0	0.11	0	1,619.3	-25.9	-19.4	32.3	-30.9	0.042
VERTT	1,715.0	0.07	0	1,714.3	-25.7	-19.4	32.2	-30.8	0.042
VERTT	1,811.0	0.20	0	1,810.3	-25.5	-19.4	32.0	-30.6	0.135
VERTT	1,906.0	0.01	0	1,905.3	-25.3	-19.4	31.9	-30.4	0.199
VERTT	2,001.0	0.08	0	2,000.3	-25.2	-19.4	31.8	-30.3	0.073
VERTT	2,096.0	0.15	0	2,095.3	-25.1	-19.4	31.7	-30.2	0.074
VERTT	2,191.0	0.13	0	2,190.3	-24.8	-19.4	31.5	-29.9	0.021
VERTT	2,286.0	0.18	0	2,285.3	-24.6	-19.4	31.3	-29.7	0.053
VERTT	2,380.0	0.05	0	2,379.3	-24.4	-19.4	31.1	-29.5	0.138
VERTT	2,473.0	0.16	0	2,472.3	-24.2	-19.4	31.0	-29.4	0.118
VERTT	2,568.0	0.11	0	2,567.3	-24.0	-19.4	30.8	-29.1	0.053
VERTT	2,631.0	0.70	0	2,630.3	-23.5	-19.4	30.5	-28.7	0.937
VERTT	2,724.0	0.06	0	2,723.3	-22.9	-19.4	30.0	-28.2	0.688
VERTT	2,820.0	0.00	0	2,819.3	-22.9	-19.4	30.0	-28.1	0.062
VERTT	2,915.0	0.13	0	2,914.3	-22.8	-19.4	29.9	-28.0	0.137
VERTT	3,010.0	0.06	0	3,009.3	-22.6	-19.4	29.8	-27.9	0.074
VERTT	3,105.0	0.18	0	3,104.3	-22.4	-19.4	29.6	-27.7	0.126
VERTT	3,199.0	0.09	0	3,198.3	-22.2	-19.4	29.4	-27.5	0.096
VERTT	3,294.0	0.40	0	3,293.3	-21.8	-19.4	29.1	-27.1	0.326
VERTT	3,389.0	0.42	0	3,388.3	-21.1	-19.4	28.6	-26.4	0.021
VERTT	3,484.0	0.22	0	3,483.3	-20.6	-19.4	28.3	-25.9	0.211
VERTT	3,580.0	0.02	0	3,579.3	-20.4	-19.4	28.1	-25.7	0.208
VERTT	3,675.0	0.07	0	3,674.3	-20.3	-19.4	28.1	-25.7	0.053
VERTT	3,770.0	0.06	0	3,769.3	-20.2	-19.4	28.0	-25.6	0.011
VERTT	3,866.0	0.08	0	3,865.3	-20.1	-19.4	27.9	-25.5	0.021
VERTT	3,961.0	0.09	0	3,960.3	-19.9	-19.4	27.8	-25.3	0.011
VERTT	4,055.0	0.12	0	4,054.3	-19.8	-19.4	27.7	-25.2	0.032
VERTT	4,150.0	0.22	0	4,149.3	-19.5	-19.4	27.5	-24.9	0.105
VERTT	4,244.0	0.09	0	4,243.3	-19.2	-19.4	27.3	-24.7	0.138
VERTT	4,338.0	0.35	0	4,337.3	-18.9	-19.4	27.0	-24.3	0.277
VERTT	4,433.0	0.35	0	4,432.3	-18.3	-19.4	26.6	-23.8	0.000
VERTT	4,528.0	0.26	0	4,527.3	-17.8	-19.4	26.3	-23.3	0.095
VERTT	4,623.0	0.26	0	4,622.3	-17.3	-19.4	26.0	-22.9	0.000
VERTT	4,718.0	0.09	0	4,717.3	-17.1	-19.4	25.8	-22.6	0.179



Directional Survey Report

Calpine

Well ID: Aidlin # 12

Well Name: Aidlin # 12

Field: Geysers

Sect: 32 Town: 12 N Rng: 9 W County: Sonoma State: CA

Survey Type	Meas. Depth	Inc.	Azimuth	TVD	Coordinates		Closure	Vertical Section	Dog Leg Severity
					N-S	E-W			
VERTT	4,843.0	0.35	0	4,842.3	-16.6	-19.4	25.5	-22.2	0.208
VERTT	4,876.0	0.18	0	4,875.3	-16.4	-19.4	25.4	-22.0	0.515
VERTT	4,971.0	0.26	0	4,970.3	-16.1	-19.4	25.2	-21.7	0.084
TRUET	5,078.0	0.18	0	5,077.3	-15.6	-19.4	24.9	-21.3	0.075
TRUET	5,174.0	0.18	0	5,173.3	-15.3	-19.4	24.7	-21.0	0.000
TRUET	5,269.0	0.09	0	5,268.3	-15.1	-19.4	24.6	-20.8	0.095
TRUET	5,364.0	0.35	0	5,363.3	-14.8	-19.4	24.3	-20.5	0.274
TRUET	5,458.0	0.09	0	5,457.3	-14.4	-19.4	24.1	-20.1	0.277
TRUET	5,553.0	0.18	0	5,552.3	-14.2	-19.4	24.0	-19.9	0.095
TRUET	5,648.0	0.18	0	5,647.3	-13.9	-19.4	23.8	-19.6	0.000
TRUET	5,743.0	0.09	0	5,742.3	-13.6	-19.4	23.7	-19.4	0.095
TRUET	5,838.0	0.18	0	5,837.3	-13.4	-19.4	23.6	-19.2	0.095
TRUET	5,933.0	0.26	0	5,932.3	-13.1	-19.4	23.4	-18.9	0.084
TRUET	6,028.0	0.18	0	6,027.3	-12.7	-19.4	23.2	-18.5	0.084
TRUET	6,092.0	0.09	0	6,091.3	-12.5	-19.4	23.1	-18.4	0.141
TRUET	6,163.0	0.07	0	6,162.3	-12.4	-19.4	23.0	-18.3	0.028
TRUET	6,258.0	0.26	0	6,257.3	-12.2	-19.4	22.9	-18.0	0.200
TRUET	6,353.0	0.25	226	6,352.3	-12.1	-19.5	23.0	-18.0	0.494
TRUET	6,448.0	0.74	10.6	6,447.3	-11.6	-19.5	22.8	-17.6	1.005
TRUET	6,511.0	1.93	13.3	6,510.3	-10.2	-19.2	21.8	-16.2	1.891
TRUET	6,575.0	3.20	18.3	6,574.2	-7.5	-18.4	19.9	-13.3	2.013
TRUET	6,638.0	4.40	19.6	6,637.1	-3.5	-17.1	17.4	-9.1	1.910
TRUET	6,701.0	5.01	17.3	6,699.9	1.4	-15.4	15.5	-4.0	1.013
TRUET	6,765.0	6.24	16.9	6,763.6	7.4	-13.6	15.5	2.3	1.923
TRUET	6,828.0	7.35	19.6	6,826.1	14.5	-11.2	18.3	9.8	1.833
TRUET	6,891.0	8.08	21.6	6,888.5	22.4	-8.3	23.8	18.2	1.234
TRUET	6,955.0	9.32	21	6,951.8	31.4	-4.7	31.7	27.9	1.943
TRUET	7,018.0	10.32	22.69	7,013.9	41.4	-0.7	41.4	38.6	1.652
TRUET	7,081.0	11.28	20.49	7,075.8	52.3	3.6	52.5	50.4	1.658
TRUET	7,113.0	11.72	20.7	7,107.1	58.3	5.8	58.6	56.8	1.381

Well Bore: Side Track #1

Plane of Vertical Section: 19.93

** Tieln	6,575.0	3.20	18.3	6,574.2	-7.5	-18.4		-13.3	
MWD	6,610.0	3.86	19.1	6,609.1	-5.5	-17.7	18.5	-11.2	1.891
MWD	6,682.0	5.30	1.4	6,680.9	0.2	-16.8	16.8	-5.6	2.780
MWD	6,840.0	8.90	5.51	6,837.7	19.6	-15.5	25.0	13.2	2.300
MWD	6,935.0	11.10	8.8	6,931.2	36.0	-13.4	38.4	29.3	2.392
MWD	6,999.0	12.00	13.8	6,993.9	48.5	-10.8	49.7	41.9	2.102
MWD	7,030.0	12.40	15.5	7,024.2	54.9	-9.2	55.6	48.4	1.734
MSS	7,127.0	14.10	20.1	7,118.6	76.0	-2.3	76.0	70.6	2.061
MSS	7,253.0	16.80	21	7,240.1	107.4	9.5	107.8	104.2	2.151
MSS	7,348.0	17.10	21	7,331.0	133.3	19.4	134.7	131.9	0.316
MSS	7,453.0	17.40	21.9	7,431.2	162.3	30.8	165.1	163.0	0.382
MSS	7,548.0	17.70	23.5	7,521.8	188.7	41.8	193.3	191.6	0.598
MSS	7,660.0	18.60	25.1	7,628.2	220.5	56.2	227.5	226.4	0.918
MSS	7,791.0	18.00	23.9	7,752.6	257.9	73.3	268.1	267.4	0.541



Directional Survey Report

Calpine

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Field: Geysers

Sect: 32 Town: 12 N Rng: 9 W County: Sonoma State: CA

Survey Type	Meas. Depth	Inc.	Azimuth	TVD	Coordinates		Closure	Vertical Section	Dog Leg Severity
					N-S	E-W			
MSS	8,008.0	18.20	30.6	7,958.9	317.7	104.1	334.3	334.2	0.963
MSS	8,229.0	17.70	27	8,169.1	377.4	136.9	401.4	401.4	0.551
MSS	8,438.0	18.20	27.6	8,368.0	434.6	166.5	465.4	465.3	0.255
MSS	8,598.0	17.80	23.6	8,520.1	479.2	187.8	514.7	514.5	0.812
MSS	8,819.0	17.20	23.9	8,730.9	540.0	214.6	581.1	580.8	0.275
MSS	9,041.0	16.50	24.5	8,943.4	598.7	241.0	645.4	645.0	0.325
MSS	9,263.0	16.50	28.5	9,156.2	655.1	269.1	708.2	707.6	0.512

Well Bore: Side Track # 2

Plane of Vertical Section: 20

** MSS	7,453.0	17.40	21.9	7,431.2	162.3	30.8	165.1	163.0	
DIGITA	7,510.0	18.90							
MSS	7,541.0	18.90							
MSS	7,604.0	21.00							
DIGITA	7,749.0	22.10	22	7,709.7	255.0	68.2	263.9	262.9	1.588
DIGITA	7,838.0	22.00	27.5	7,792.2	285.3	82.1	296.9	296.2	2.322
DIGITA	7,963.0	21.80	21.9	7,908.2	327.6	101.6	343.0	342.6	1.678
DIGITA	8,090.0	21.50	23.7	8,026.3	370.8	119.7	389.7	389.4	0.574
DIGITA	8,281.0	21.50	31.3	8,204.0	432.8	152.0	458.7	458.7	1.457
DIGITA	8,477.0	21.60	26.4	8,386.3	495.8	186.7	529.8	529.7	0.919
DIGITA	8,699.0	21.00	23.7	8,593.2	568.8	220.9	610.2	610.0	0.518
DIGITA	8,952.0	19.10	30.7	8,830.9	645.9	260.2	696.4	696.0	1.209
DIGITA	9,204.0	19.50	33.5	9,068.7	716.5	304.5	778.5	777.4	0.400
DIGITA	9,520.0	23.40	33.3	9,362.8	812.9	368.1	892.4	889.8	1.234
DIGITA	9,822.0	26.70	38.8	9,636.4	916.0	443.6	1,017.7	1,012.4	1.336
DIGITA	10,107.0	33.20	38.8	9,883.2	1,026.8	532.7	1,156.7	1,147.0	2.281
DIGITA	10,392.0	39.40	37.6	10,112.7	1,159.4	636.8	1,322.8	1,307.3	2.190
DIGITA	10,825.0	39.40	37.6	10,447.3	1,377.1	804.5	1,594.9	1,569.3	0.000

Calculations using Minimum Curvature Method