

1 General

1.1 Customer Information

Company	PICEANCE HL
Representative	Eric Kolstad
Address	1515 Arapahoe St., Suite 1000 Denver, CO 80202

1.2 Well Information

Well	TR 11-1-698	Wellbore No.	
Well Name	CHEVRON TR 11-1-698	Common Name	TR 11-1-698
Project	TR 01-06S-98W	Site	TR 11-1-698 PAD
Vertical Section Azimuth	194.76 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	9/8/2011	UWI	TR 11-1-698
Active Datum	KB @8,308.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	9/8/2011	Ended	
Tool Name	MWD	Engineer	

2.1.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
0.0	0.00	0.00	0.00	0.00	0.00

2.1.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
9/8/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/8/2011	NORMAL	139.0	0.70	333.00	139.00	0.76	-0.39	-0.63	0.50	0.50	0.00	333.00
9/9/2011	NORMAL	231.0	3.20	288.40	230.94	2.07	-3.08	-1.22	2.98	2.72	-48.48	305.10
	NORMAL	323.0	4.20	291.70	322.75	4.12	-8.64	-1.79	1.11	1.09	3.59	13.67
	NORMAL	414.0	4.80	292.40	413.47	6.81	-15.26	-2.69	0.66	0.66	0.77	5.58
	NORMAL	506.0	4.80	293.10	505.14	9.78	-22.36	-3.76	0.06	0.00	0.76	90.35
	NORMAL	598.0	4.60	294.70	596.83	12.84	-29.25	-4.96	0.26	-0.22	1.74	147.55
	NORMAL	690.0	4.40	293.10	688.55	15.76	-35.85	-6.11	0.26	-0.22	-1.74	211.32
	NORMAL	782.0	4.00	288.90	780.30	18.19	-42.13	-6.85	0.55	-0.43	-4.57	215.48
	NORMAL	874.0	5.00	297.90	872.02	21.10	-48.71	-8.00	1.33	1.09	9.78	39.77
	NORMAL	966.0	5.10	298.20	963.66	24.91	-55.86	-9.86	0.11	0.11	0.33	14.94
	NORMAL	1,061.0	5.40	294.40	1,058.26	28.75	-63.65	-11.59	0.48	0.32	-4.00	308.89
	NORMAL	1,156.0	5.40	289.10	1,152.84	32.06	-71.95	-12.67	0.52	0.00	-5.58	267.36
	NORMAL	1,252.0	5.50	281.90	1,248.41	34.49	-80.72	-12.79	0.72	0.10	-7.50	274.73
	NORMAL	1,348.0	4.20	288.70	1,344.06	36.56	-88.55	-12.80	1.48	-1.35	7.08	159.51
	NORMAL	1,443.0	3.80	288.90	1,438.83	38.70	-94.82	-13.26	0.42	-0.42	0.21	178.10
	NORMAL	1,539.0	4.70	297.50	1,534.57	41.55	-101.32	-14.36	1.15	0.94	8.96	39.64
	NORMAL	1,635.0	4.30	299.60	1,630.27	45.14	-107.94	-16.15	0.45	-0.42	2.19	158.66
	NORMAL	1,731.0	4.10	299.40	1,726.02	48.60	-114.06	-17.94	0.21	-0.21	-0.21	184.09
	NORMAL	1,826.0	3.70	298.40	1,820.79	51.73	-119.71	-19.52	0.43	-0.42	-1.05	189.15

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (%/100ft)	Build Rate (%/100ft)	Turn (%/100ft)	TFace (°)
9/9/2011	NORMAL	1,921.0	4.30	299.10	1,915.56	54.92	-125.52	-21.13	0.63	0.63	0.74	5.00
	NORMAL	2,015.0	5.00	296.10	2,009.25	58.43	-132.28	-22.80	0.79	0.74	-3.19	339.34
	NORMAL	2,111.0	4.90	291.70	2,104.90	61.79	-139.84	-24.12	0.41	-0.10	-4.58	253.06
9/10/2011	NORMAL	2,207.0	5.30	288.70	2,200.59	64.22	-146.33	-24.82	0.50	0.42	-3.13	324.81
	NORMAL	2,302.0	5.20	290.30	2,295.19	67.12	-154.53	-25.54	0.19	-0.11	1.68	125.13
	NORMAL	2,398.0	5.30	289.60	2,390.79	70.12	-162.78	-26.33	0.12	0.10	-0.73	327.01
	NORMAL	2,494.0	5.10	290.10	2,486.39	73.07	-170.97	-27.10	0.21	-0.21	0.52	167.48
	NORMAL	2,578.0	4.80	287.10	2,570.08	75.39	-177.83	-27.59	0.47	-0.36	-3.57	219.30
9/11/2011	NORMAL	2,653.0	4.70	288.37	2,644.82	77.28	-183.75	-27.92	0.19	-0.13	1.69	134.19
	NORMAL	2,749.0	4.09	286.61	2,740.54	79.50	-190.76	-28.27	0.65	-0.64	-1.83	191.59
	NORMAL	2,845.0	4.26	292.24	2,836.28	81.83	-197.34	-28.85	0.46	0.18	5.86	70.30
	NORMAL	2,940.0	3.74	292.68	2,931.05	84.36	-203.47	-29.73	0.55	-0.55	0.46	176.84
	NORMAL	3,036.0	3.87	289.69	3,026.84	86.65	-209.41	-30.44	0.25	0.14	-3.11	301.73
	NORMAL	3,131.0	3.52	289.69	3,121.64	88.72	-215.17	-30.97	0.37	-0.37	0.00	180.00
	NORMAL	3,227.0	4.61	292.94	3,217.40	91.21	-221.50	-31.77	1.16	1.14	3.39	13.56
	NORMAL	3,322.0	4.17	294.08	3,312.12	94.11	-228.17	-32.88	0.47	-0.46	1.20	169.35
9/12/2011	NORMAL	3,418.0	4.26	293.56	3,407.86	96.96	-234.62	-33.99	0.10	0.09	-0.54	336.73
	NORMAL	3,513.0	3.78	299.88	3,502.63	99.93	-240.57	-35.34	0.69	-0.51	6.65	140.41
	NORMAL	3,609.0	4.35	298.30	3,598.39	103.23	-246.52	-37.02	0.61	0.59	-1.65	348.09
	NORMAL	3,704.0	5.76	294.96	3,693.01	106.95	-254.02	-38.71	1.52	1.48	-3.52	346.54
	NORMAL	3,800.0	5.76	298.65	3,788.53	111.30	-262.61	-40.72	0.39	0.00	3.84	91.84
	NORMAL	3,895.0	5.58	298.92	3,883.06	115.81	-270.84	-42.99	0.19	-0.19	0.28	171.70
	NORMAL	3,991.0	5.54	292.59	3,978.61	119.85	-279.20	-44.77	0.64	-0.04	-6.59	263.12
	NORMAL	4,086.0	5.01	289.16	4,073.21	122.98	-287.35	-45.71	0.65	-0.56	-3.61	209.05
	NORMAL	4,181.0	5.01	291.97	4,167.85	125.89	-295.12	-46.55	0.26	0.00	2.96	91.40
	NORMAL	4,277.0	4.83	291.36	4,263.50	128.93	-302.77	-47.54	0.20	-0.19	-0.64	195.90
	NORMAL	4,373.0	4.97	293.64	4,359.14	132.07	-310.34	-48.64	0.25	0.15	2.38	55.43
	NORMAL	4,468.0	4.79	294.08	4,453.80	135.34	-317.73	-49.92	0.19	-0.19	0.46	168.47
	NORMAL	4,564.0	4.88	294.08	4,549.46	138.64	-325.12	-51.23	0.09	0.09	0.00	0.00
	NORMAL	4,659.0	4.39	293.12	4,644.15	141.71	-332.15	-52.42	0.52	-0.52	-1.01	188.52
	NORMAL	4,755.0	4.39	294.61	4,739.87	144.69	-338.87	-53.58	0.12	0.00	1.55	90.74
	NORMAL	4,849.0	3.96	298.04	4,833.62	147.71	-345.01	-54.94	0.53	-0.46	3.65	151.56
	NORMAL	4,945.0	3.74	300.06	4,929.40	150.84	-350.64	-56.53	0.27	-0.23	2.10	149.35
	NORMAL	5,039.0	3.78	300.59	5,023.20	153.95	-355.97	-58.18	0.06	0.04	0.56	41.25
	NORMAL	5,133.0	1.76	313.95	5,117.08	156.53	-359.67	-59.73	2.24	-2.15	14.21	168.87
	NORMAL	5,228.0	1.58	351.56	5,212.05	158.84	-360.92	-61.65	1.15	-0.19	39.59	117.79
	NORMAL	5,321.0	1.98	357.19	5,305.00	161.71	-361.18	-64.36	0.47	0.43	6.05	26.45
	NORMAL	5,415.0	1.27	325.90	5,398.96	164.20	-361.85	-66.59	1.18	-0.76	-33.29	216.40
	NORMAL	5,511.0	1.05	315.27	5,494.94	165.70	-363.06	-67.74	0.32	-0.23	-11.07	219.14
	NORMAL	5,606.0	1.32	312.80	5,589.92	167.06	-364.48	-68.69	0.29	0.28	-2.60	348.05
	NORMAL	5,702.0	1.19	317.90	5,685.90	168.55	-365.96	-69.76	0.18	-0.14	5.31	141.86
	NORMAL	5,798.0	1.49	61.79	5,781.89	169.88	-365.52	-71.15	2.21	0.31	108.22	136.93
9/13/2011	NORMAL	5,893.0	1.63	157.41	5,876.86	169.22	-363.92	-70.92	2.44	0.15	100.65	135.47
	NORMAL	5,989.0	1.36	149.50	5,972.83	166.98	-362.81	-69.03	0.35	-0.28	-8.24	213.48
	NORMAL	6,084.0	1.36	147.66	6,067.80	165.05	-361.64	-67.47	0.05	0.00	-1.94	269.08
	NORMAL	6,180.0	1.23	189.32	6,163.78	163.07	-361.20	-65.67	0.97	-0.14	43.40	118.34
	NORMAL	6,276.0	0.62	301.47	6,259.77	162.33	-361.81	-64.79	1.64	-0.64	116.82	158.58
	NORMAL	6,371.0	0.62	291.80	6,354.77	162.79	-362.72	-65.01	0.11	0.00	-10.18	265.17
	NORMAL	6,466.0	0.62	265.08	6,449.76	162.93	-363.71	-64.89	0.30	0.00	-28.13	256.64
	NORMAL	6,562.0	0.97	259.28	6,545.75	162.74	-365.03	-64.37	0.37	0.36	-6.04	344.14
	NORMAL	6,658.0	0.92	263.41	6,641.74	162.50	-366.59	-63.74	0.09	-0.05	4.30	128.33
	NORMAL	6,753.0	1.10	271.58	6,736.73	162.44	-368.26	-63.25	0.24	0.19	8.60	42.79
	NORMAL	6,849.0	0.83	271.06	6,832.71	162.48	-369.88	-62.88	0.28	-0.28	-0.54	181.60
	NORMAL	6,944.0	0.83	266.66	6,927.70	162.45	-371.25	-62.50	0.07	0.00	-4.63	267.80
	NORMAL	7,040.0	0.88	259.37	7,023.69	162.27	-372.67	-61.97	0.12	0.05	-7.59	291.01
	NORMAL	7,135.0	0.79	180.27	7,118.68	161.48	-373.39	-61.02	1.12	-0.09	-83.26	226.72
	NORMAL	7,231.0	0.57	115.49	7,214.68	160.61	-372.96	-60.29	0.78	-0.23	-67.48	223.31

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (%/100ft)	Build Rate (%/100ft)	Turn (%/100ft)	TFace (°)
9/13/2011	NORMAL	7,326.0	0.53	106.17	7,309.67	160.29	-372.11	-60.20	0.10	-0.04	-9.81	241.30
	NORMAL	7,421.0	0.44	170.42	7,404.67	159.81	-371.63	-59.85	0.55	-0.09	67.63	130.53
	NORMAL	7,517.0	0.62	56.95	7,500.67	159.73	-371.13	-59.90	0.93	0.19	-118.20	219.62
	NORMAL	7,613.0	0.79	153.63	7,596.66	159.42	-370.41	-59.79	1.10	0.18	100.71	132.21
	NORMAL	7,708.0	0.53	210.85	7,691.66	158.45	-370.34	-58.87	0.71	-0.27	60.23	138.46
	NORMAL	7,803.0	0.88	217.97	7,786.65	157.50	-371.01	-57.78	0.38	0.37	7.49	17.63
	NORMAL	7,899.0	1.14	209.44	7,882.64	156.09	-371.94	-56.18	0.31	0.27	-8.89	325.65
9/14/2011	NORMAL	7,994.0	1.63	224.74	7,977.60	153.91	-373.80	-53.60	0.64	0.52	16.11	44.85
	NORMAL	8,090.0	1.71	225.35	8,073.56	151.93	-375.78	-51.18	0.09	0.08	0.64	12.83
	NORMAL	8,186.0	1.93	233.79	8,169.51	149.97	-378.10	-48.69	0.36	0.23	8.79	54.89
	NORMAL	8,281.0	2.24	226.40	8,264.45	147.75	-380.74	-45.87	0.43	0.33	-7.78	315.33
	NORMAL	8,370.0	2.46	235.11	8,353.38	145.45	-383.56	-42.93	0.47	0.25	9.79	62.77
9/15/2011	NORMAL	8,422.0	2.46	235.11	8,405.26	145.08	-386.47	-41.83	0.00	0.00	0.00	0.00