

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 412-33-597	Wellbore No.	
Well Name	CHEVRON TR 412-33-597	Common Name	TR 412-33-597
Project	TR 32-05S-097W	Site	TR 41-32-597 Pad
Vertical Section Azimuth	136.32 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	8/7/2011	UWI	TR 412-33-597
Active Datum	KB @8,283.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	8/7/2011	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 (°)
8/7/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8/7/2011	NORMAL	115.0	1.00	130.30	114.99	-0.65	0.77	1.00	0.87	0.87	0.00	130.30
	NORMAL	207.0	2.50	132.40	206.95	-2.52	2.86	3.80	1.63	1.63	2.28	3.50
	NORMAL	299.0	4.00	148.00	298.80	-6.60	6.04	8.94	1.88	1.63	16.96	38.47
	NORMAL	391.0	4.40	143.70	390.55	-12.16	9.83	15.59	0.55	0.43	-4.67	319.63
	NORMAL	483.0	5.30	138.40	482.22	-18.18	14.74	23.33	1.09	0.98	-5.76	330.87
	NORMAL	574.0	5.50	131.80	572.82	-24.23	20.78	31.88	0.72	0.22	-7.25	284.54
	NORMAL	666.0	6.00	129.60	664.36	-30.24	27.78	41.05	0.59	0.54	-2.39	335.11
	NORMAL	758.0	7.40	126.90	755.73	-36.86	36.22	51.67	1.56	1.52	-2.93	345.98
	NORMAL	850.0	8.60	129.30	846.83	-44.77	46.28	64.34	1.35	1.30	2.61	16.75
	NORMAL	941.0	10.60	134.00	936.55	-54.90	57.57	79.46	2.36	2.20	5.16	23.73
	NORMAL	1,037.0	13.00	136.10	1,030.52	-68.81	71.41	99.08	2.54	2.50	2.19	11.17
	NORMAL	1,133.0	15.70	135.80	1,123.51	-85.91	87.95	122.87	2.81	2.81	-0.31	358.28
	NORMAL	1,228.0	17.70	136.70	1,214.50	-105.64	106.82	150.17	2.12	2.11	0.95	7.80
8/8/2011	NORMAL	1,324.0	19.20	136.80	1,305.56	-127.77	127.64	180.55	1.56	1.56	0.10	1.26
	NORMAL	1,419.0	21.10	136.50	1,394.75	-151.56	150.10	213.27	2.00	2.00	-0.32	356.75
	NORMAL	1,515.0	22.20	135.80	1,483.97	-177.10	174.64	248.69	1.18	1.15	-0.73	346.46
	NORMAL	1,611.0	22.70	138.30	1,572.70	-203.93	199.61	285.34	1.12	0.52	2.60	63.52
	NORMAL	1,706.0	22.30	135.60	1,660.47	-230.49	224.41	321.68	1.17	-0.42	-2.84	247.59
	NORMAL	1,802.0	21.60	134.90	1,749.51	-255.98	249.67	357.56	0.78	-0.73	-0.73	200.17

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 (°)
8/8/2011	NORMAL	1,896.0	22.20	136.00	1,836.73	-280.97	274.27	392.62	0.77	0.64	1.17	34.88
	NORMAL	1,992.0	21.30	135.30	1,925.89	-306.41	299.13	428.19	0.98	-0.94	-0.73	195.75
	NORMAL	2,088.0	20.80	136.00	2,015.49	-331.06	323.24	462.66	0.58	-0.52	0.73	153.63
	NORMAL	2,183.0	20.80	136.50	2,104.29	-355.43	346.56	496.40	0.19	0.00	0.53	90.23
	NORMAL	2,279.0	21.10	136.30	2,193.95	-380.29	370.23	530.72	0.32	0.31	-0.21	346.50
	NORMAL	2,375.0	21.20	137.00	2,283.48	-405.48	394.01	565.36	0.28	0.10	0.73	68.73
	NORMAL	2,470.0	21.10	137.60	2,372.08	-430.67	417.26	599.63	0.25	-0.11	0.63	115.07
	NORMAL	2,565.0	21.60	138.30	2,460.56	-456.35	440.42	634.20	0.59	0.53	0.74	27.33
	NORMAL	2,661.0	21.30	138.10	2,549.91	-482.52	463.82	669.29	0.32	-0.31	-0.21	193.61
	NORMAL	2,724.0	21.50	137.20	2,608.57	-499.51	479.30	692.27	0.61	0.32	-1.43	300.92
8/24/2011	NORMAL	2,724.0	21.50	137.20	2,608.57	-499.51	479.30	692.27	0.00	0.00	0.00	0.00
	NORMAL	2,845.0	19.78	137.30	2,721.80	-530.83	508.26	734.92	1.42	-1.42	0.08	178.87
	NORMAL	2,940.0	17.58	132.46	2,811.79	-552.33	529.75	765.31	2.83	-2.32	-5.09	212.89
	NORMAL	3,036.0	16.96	131.14	2,903.47	-571.33	550.99	793.72	0.76	-0.65	-1.38	211.67
	NORMAL	3,132.0	20.30	137.03	2,994.43	-592.73	572.89	824.33	3.99	3.48	6.14	32.21
	NORMAL	3,227.0	19.91	134.57	3,083.64	-616.14	595.65	856.97	0.98	-0.41	-2.59	244.09
	NORMAL	3,323.0	19.12	136.68	3,174.13	-639.05	618.08	889.03	1.10	-0.82	2.20	139.25
	NORMAL	3,418.0	18.11	133.96	3,264.16	-660.62	639.38	919.35	1.40	-1.06	-2.86	219.40
	NORMAL	3,514.0	17.62	135.45	3,355.53	-681.34	660.32	948.78	0.70	-0.51	1.55	137.70
	NORMAL	3,609.0	19.82	138.26	3,445.50	-703.60	681.13	979.26	2.50	2.32	2.96	23.63
	NORMAL	3,705.0	18.63	138.18	3,536.15	-727.18	702.19	1,010.85	1.24	-1.24	-0.08	181.23
	NORMAL	3,800.0	18.76	138.61	3,626.13	-749.95	722.41	1,041.28	0.20	0.14	0.45	46.88
	NORMAL	3,896.0	19.73	137.56	3,716.77	-773.49	743.55	1,072.91	1.07	1.01	-1.09	339.87
	NORMAL	3,991.0	18.85	137.65	3,806.43	-796.66	764.71	1,104.28	0.93	-0.93	0.09	178.11
8/25/2011	NORMAL	4,086.0	19.73	135.98	3,896.10	-819.54	786.19	1,135.66	1.09	0.93	-1.76	327.13
	NORMAL	4,182.0	18.28	135.98	3,986.87	-842.02	807.92	1,166.92	1.51	-1.51	0.00	180.00
	NORMAL	4,277.0	17.93	133.78	4,077.16	-862.85	828.83	1,196.43	0.81	-0.37	-2.32	241.85
	NORMAL	4,373.0	16.88	134.04	4,168.77	-882.76	849.52	1,225.12	1.10	-1.09	0.27	175.89
	NORMAL	4,469.0	15.56	132.73	4,260.94	-901.19	868.99	1,251.90	1.43	-1.38	-1.36	194.87
	NORMAL	4,564.0	14.33	132.20	4,352.73	-917.73	887.06	1,276.34	1.30	-1.29	-0.56	186.09
	NORMAL	4,660.0	13.67	130.88	4,445.88	-933.14	904.44	1,299.49	0.76	-0.69	-1.38	205.18
	NORMAL	4,755.0	12.96	131.76	4,538.32	-947.58	920.88	1,321.28	0.78	-0.75	0.93	164.50
	NORMAL	4,851.0	11.82	126.40	4,632.09	-960.58	936.82	1,341.70	1.69	-1.19	-5.58	222.66
	NORMAL	4,945.0	9.54	131.58	4,724.46	-971.47	950.40	1,358.95	2.63	-2.43	5.51	159.70
	NORMAL	5,041.0	9.10	132.37	4,819.19	-981.86	961.96	1,374.45	0.48	-0.46	0.82	164.18
	NORMAL	5,135.0	7.60	139.32	4,912.19	-991.59	971.50	1,388.07	1.92	-1.60	7.39	149.47
	NORMAL	5,229.0	5.89	132.11	5,005.54	-999.54	979.13	1,399.09	2.03	-1.82	-7.67	202.80
	NORMAL	5,324.0	4.35	134.75	5,100.16	-1,005.34	985.31	1,407.56	1.64	-1.62	2.78	172.62
	NORMAL	5,417.0	4.48	134.57	5,192.88	-1,010.37	990.40	1,414.71	0.14	0.14	-0.19	353.83
	NORMAL	5,511.0	2.20	123.50	5,286.72	-1,013.95	994.52	1,420.14	2.51	-2.43	-11.78	190.32
	NORMAL	5,607.0	1.67	131.32	5,382.66	-1,015.89	997.11	1,423.33	0.62	-0.55	8.15	157.39
	NORMAL	5,702.0	1.19	131.23	5,477.63	-1,017.45	998.89	1,425.69	0.51	-0.51	-0.09	180.22
	NORMAL	5,798.0	1.19	136.42	5,573.61	-1,018.83	1,000.33	1,427.68	0.11	0.00	5.41	92.59
	NORMAL	5,894.0	0.88	170.96	5,669.60	-1,020.28	1,001.13	1,429.29	0.71	-0.32	35.98	132.99
	NORMAL	5,989.0	1.23	177.99	5,764.58	-1,022.02	1,001.28	1,430.65	0.39	0.37	7.40	23.83
	NORMAL	6,085.0	0.79	329.43	5,860.57	-1,022.48	1,000.98	1,430.77	2.04	-0.46	157.75	168.89
	NORMAL	6,180.0	0.40	285.83	5,955.57	-1,021.83	1,000.33	1,429.85	0.60	-0.41	-45.89	208.87
	NORMAL	6,276.0	0.44	301.48	6,051.57	-1,021.54	999.69	1,429.20	0.13	0.04	16.30	78.71
	NORMAL	6,371.0	0.26	260.26	6,146.56	-1,021.39	999.17	1,428.73	0.31	-0.19	-43.39	215.03
	NORMAL	6,467.0	0.22	337.07	6,242.56	-1,021.25	998.88	1,428.44	0.31	-0.04	80.01	134.41
	NORMAL	6,562.0	0.40	301.12	6,337.56	-1,020.92	998.53	1,427.95	0.27	0.19	-37.84	293.85
	NORMAL	6,658.0	0.57	333.47	6,433.56	-1,020.32	998.03	1,427.17	0.33	0.18	33.70	75.03
	NORMAL	6,754.0	0.57	327.14	6,529.55	-1,019.49	997.55	1,426.24	0.07	0.00	-6.59	266.84
	NORMAL	6,849.0	0.70	294.36	6,624.55	-1,018.85	996.77	1,425.24	0.40	0.14	-34.51	272.80
	NORMAL	6,945.0	0.57	280.47	6,720.54	-1,018.52	995.76	1,424.31	0.21	-0.14	-14.47	223.01
	NORMAL	7,040.0	0.53	280.47	6,815.54	-1,018.36	994.87	1,423.57	0.04	-0.04	0.00	180.00
	NORMAL	7,136.0	0.53	285.22	6,911.53	-1,018.16	994.00	1,422.83	0.05	0.00	4.95	92.37

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 (°)
8/26/2011	NORMAL	7,231.0	0.97	306.22	7,006.53	-1,017.57	992.93	1,421.66	0.54	0.46	22.11	42.78
	NORMAL	7,327.0	1.01	313.08	7,102.51	-1,016.51	991.66	1,420.02	0.13	0.04	7.15	74.80
	NORMAL	7,422.0	0.66	300.07	7,197.50	-1,015.66	990.57	1,418.66	0.42	-0.37	-13.69	202.04
	NORMAL	7,517.0	1.05	153.82	7,292.50	-1,016.17	990.48	1,418.96	1.73	0.41	-153.95	200.83
	NORMAL	7,612.0	0.97	190.21	7,387.48	-1,017.74	990.72	1,420.26	0.67	-0.08	38.31	115.06
8/27/2011	NORMAL	7,708.0	1.45	208.75	7,483.46	-1,019.61	990.00	1,421.11	0.64	0.50	19.31	48.72
	NORMAL	7,804.0	0.66	201.02	7,579.44	-1,021.19	989.21	1,421.71	0.83	-0.82	-8.05	186.36
	NORMAL	7,899.0	0.62	280.47	7,674.44	-1,021.61	988.51	1,421.53	0.86	-0.04	83.63	131.88
	NORMAL	7,995.0	0.53	249.53	7,770.44	-1,021.67	987.58	1,420.93	0.33	-0.09	-32.23	238.74
	NORMAL	8,090.0	0.83	260.52	7,865.43	-1,021.93	986.49	1,420.37	0.34	0.32	11.57	29.06
	NORMAL	8,186.0	1.67	261.31	7,961.41	-1,022.26	984.43	1,419.18	0.88	0.88	0.82	1.57
	NORMAL	8,282.0	2.29	267.55	8,057.35	-1,022.55	981.13	1,417.11	0.68	0.65	6.50	22.31
	NORMAL	8,377.0	2.07	252.26	8,152.28	-1,023.16	977.60	1,415.11	0.65	-0.23	-16.09	241.75
	NORMAL	8,473.0	1.85	239.87	8,248.22	-1,024.46	974.60	1,413.99	0.50	-0.23	-12.91	236.46
	NORMAL	8,568.0	1.93	235.73	8,343.17	-1,026.13	971.96	1,413.37	0.17	0.08	-4.36	298.29
	NORMAL	8,621.0	1.98	237.32	8,396.14	-1,027.13	970.45	1,413.05	0.14	0.09	3.00	48.13
	NORMAL	8,671.0	2.03	238.82	8,446.11	-1,028.06	968.96	1,412.69	0.14	0.10	3.00	47.14