

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	PA 44-3	Wellbore No.	00
Wellbore Legal Name	PA 44-3	Common Wellbore Name	PA 44-3
Project	PA 02-07S-095W	Site	GV 86-2 Pad
Vertical Section Azimuth	249.02 (°)	North reference	
Origin N/S		Origin E/W	
Spud date	6/4/2014	UWI	PA 44-3
Active datum	KB @5,847.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	6/4/2014	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 (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
6/4/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/4/2014	NORMAL	71.0	0.44	167.26	71.00	-0.27	0.06	0.04	0.62	0.62	0.00	167.26
	NORMAL	162.0	0.70	221.21	162.00	-1.02	-0.23	0.58	0.62	0.29	59.29	92.84
	NORMAL	254.0	2.02	239.68	253.97	-2.27	-2.00	2.68	1.49	1.43	20.08	27.75
	NORMAL	344.0	5.10	262.18	343.79	-3.61	-7.33	8.14	3.69	3.42	25.00	35.92
	NORMAL	435.0	7.04	255.60	434.27	-5.56	-16.74	17.62	2.27	2.13	-7.34	336.65
	NORMAL	525.0	8.18	249.35	523.48	-9.20	-28.07	29.50	1.55	1.27	-6.83	321.38
	NORMAL	615.0	9.77	246.18	612.38	-14.54	-41.05	43.53	1.85	1.77	-3.52	341.15
6/5/2014	NORMAL	690.0	10.29	247.43	686.23	-19.68	-53.06	56.59	0.75	0.69	1.67	23.33
	NORMAL	780.0	11.80	246.80	774.56	-26.39	-68.94	73.82	1.68	1.68	-0.70	355.12
	NORMAL	871.0	13.65	246.58	863.32	-34.33	-87.35	93.84	2.03	2.03	-0.24	358.39
	NORMAL	961.0	15.88	248.18	950.35	-43.12	-108.52	116.77	2.52	2.48	1.78	11.14
	NORMAL	1,053.0	18.59	249.19	1,038.21	-53.01	-133.92	144.02	2.96	2.95	1.10	6.78
	NORMAL	1,148.0	21.19	250.16	1,127.53	-64.22	-164.23	176.34	2.76	2.74	1.02	7.69
	NORMAL	1,243.0	22.66	252.68	1,215.66	-75.50	-197.86	211.77	1.84	1.55	2.65	33.80
	NORMAL	1,338.0	24.06	252.27	1,302.87	-86.85	-233.77	249.37	1.48	1.47	-0.43	353.19
	NORMAL	1,432.0	26.72	252.15	1,387.79	-99.16	-272.15	289.61	2.83	2.83	-0.13	358.84
	NORMAL	1,527.0	29.37	252.18	1,471.62	-112.84	-314.66	334.20	2.79	2.79	0.03	0.32
	NORMAL	1,622.0	31.00	249.52	1,553.74	-128.53	-359.76	381.93	2.22	1.72	-2.80	319.47
	NORMAL	1,717.0	32.93	251.34	1,634.34	-145.35	-407.15	432.20	2.27	2.03	1.92	27.30
	NORMAL	1,812.0	34.60	249.76	1,713.31	-162.95	-456.93	484.98	1.99	1.76	-1.66	331.60

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
6/5/2014	NORMAL	1,908.0	36.14	249.10	1,789.96	-182.07	-507.87	539.39	1.69	1.64	-0.70	345.80
	NORMAL	2,001.0	37.90	249.19	1,865.81	-202.43	-561.32	596.58	1.85	1.85	0.09	1.80
	NORMAL	2,091.0	39.70	250.87	1,935.95	-221.67	-614.32	652.96	2.32	2.00	1.87	30.98
6/7/2014	NORMAL	2,191.0	40.19	248.75	2,012.62	-243.84	-674.57	717.15	1.45	0.49	-2.12	288.98
	NORMAL	2,286.0	39.88	249.53	2,085.35	-265.60	-731.67	778.28	0.62	-0.33	0.82	122.01
	NORMAL	2,381.0	38.61	249.27	2,158.93	-286.74	-787.93	838.36	1.35	-1.34	-0.27	187.28
	NORMAL	2,476.0	37.25	248.34	2,233.86	-307.85	-842.38	896.75	1.55	-1.43	-0.98	202.43
	NORMAL	2,571.0	36.23	247.69	2,309.99	-329.12	-895.07	953.57	1.15	-1.07	-0.68	200.61
	NORMAL	2,666.0	35.61	247.87	2,386.92	-350.19	-946.66	1,009.29	0.66	-0.65	0.19	170.41
	NORMAL	2,760.0	34.56	247.61	2,463.84	-370.66	-996.67	1,063.31	1.13	-1.12	-0.28	187.99
	NORMAL	2,855.0	34.14	247.82	2,542.27	-390.99	-1,046.27	1,116.89	0.46	-0.44	0.22	184.33
	NORMAL	2,950.0	34.99	247.52	2,620.50	-411.47	-1,096.12	1,170.78	0.91	0.89	-0.32	348.55
	NORMAL	3,045.0	36.31	247.48	2,697.70	-432.65	-1,147.27	1,226.13	1.39	1.39	-0.04	358.97
	NORMAL	3,140.0	37.34	247.36	2,773.74	-454.52	-1,199.85	1,283.04	1.09	1.08	-0.13	355.96
	NORMAL	3,235.0	37.13	247.37	2,849.38	-476.64	-1,252.91	1,340.50	0.22	-0.22	0.01	178.35
	NORMAL	3,330.0	37.02	248.84	2,925.17	-498.00	-1,306.04	1,397.76	0.94	-0.12	1.55	97.66
	NORMAL	3,425.0	36.71	248.47	3,001.18	-518.74	-1,359.13	1,454.76	0.40	-0.33	-0.39	215.46
	NORMAL	3,520.0	36.23	248.34	3,077.57	-539.52	-1,411.63	1,511.22	0.51	-0.51	-0.14	189.09
	NORMAL	3,615.0	35.74	248.12	3,154.45	-560.23	-1,463.47	1,567.03	0.53	-0.52	-0.23	194.69
	NORMAL	3,709.0	35.44	247.78	3,230.89	-580.76	-1,514.17	1,621.73	0.38	-0.32	-0.36	213.27
	NORMAL	3,804.0	35.00	247.52	3,308.50	-601.60	-1,564.85	1,676.50	0.49	-0.46	-0.27	198.71
	NORMAL	3,899.0	34.38	248.40	3,386.61	-621.89	-1,614.96	1,730.56	0.84	-0.65	0.93	141.43
	NORMAL	3,994.0	33.15	250.51	3,465.59	-640.43	-1,664.39	1,783.35	1.79	-1.29	2.22	137.24
	NORMAL	4,089.0	32.93	251.39	3,545.23	-657.34	-1,713.35	1,835.12	0.56	-0.23	0.93	115.00
	NORMAL	4,184.0	30.86	253.43	3,625.88	-672.53	-1,761.18	1,885.22	2.46	-2.18	2.15	153.36
	NORMAL	4,279.0	30.07	251.47	3,707.77	-687.04	-1,807.10	1,933.29	1.34	-0.83	-2.06	230.67
	NORMAL	4,374.0	29.28	251.47	3,790.31	-701.99	-1,851.69	1,980.28	0.83	-0.83	0.00	180.00
	NORMAL	4,468.0	28.43	252.59	3,872.64	-715.99	-1,894.84	2,025.58	1.07	-0.90	1.19	148.04
	NORMAL	4,563.0	25.28	256.03	3,957.38	-727.65	-1,936.12	2,068.29	3.70	-3.32	3.62	155.27
	NORMAL	4,658.0	23.04	256.75	4,044.06	-736.81	-1,973.90	2,106.85	2.38	-2.36	0.76	172.83
	NORMAL	4,753.0	20.30	254.21	4,132.34	-745.56	-2,007.86	2,141.69	3.05	-2.88	-2.67	197.72
	NORMAL	4,848.0	18.30	251.69	4,222.00	-754.73	-2,037.88	2,173.01	2.28	-2.11	-2.85	201.42
	NORMAL	4,943.0	16.26	248.70	4,312.71	-764.25	-2,064.44	2,201.21	2.34	-2.15	-3.15	202.10
6/8/2014	NORMAL	5,037.0	14.42	245.67	4,403.35	-773.85	-2,087.37	2,228.06	2.13	-1.96	-3.22	202.08
	NORMAL	5,132.0	12.66	244.44	4,495.71	-783.22	-2,107.54	2,248.24	1.88	-1.85	-1.29	188.70
	NORMAL	5,227.0	10.38	242.51	4,588.79	-791.66	-2,124.52	2,267.13	2.43	-2.40	-2.03	188.65
	NORMAL	5,322.0	9.17	236.74	4,682.41	-799.76	-2,138.45	2,283.03	1.64	-1.27	-6.07	216.17
	NORMAL	5,416.0	8.53	233.72	4,775.29	-808.00	-2,150.33	2,297.07	0.84	-0.68	-3.21	214.49
	NORMAL	5,511.0	8.09	235.30	4,869.30	-815.97	-2,161.50	2,310.36	0.52	-0.46	1.66	153.35
	NORMAL	5,606.0	7.47	238.73	4,963.42	-822.98	-2,172.28	2,322.93	0.82	-0.65	3.61	144.86
	NORMAL	5,701.0	6.06	241.30	5,057.76	-828.60	-2,181.96	2,333.98	1.52	-1.48	2.71	169.16
	NORMAL	5,796.0	4.44	247.01	5,152.36	-832.44	-2,189.74	2,342.62	1.79	-1.71	6.01	164.95
	NORMAL	5,891.0	3.07	266.10	5,247.16	-834.05	-2,195.66	2,348.73	1.93	-1.44	20.09	146.88
	NORMAL	5,986.0	2.11	273.71	5,342.06	-834.11	-2,199.95	2,352.75	1.07	-1.01	8.01	164.07
	NORMAL	6,080.0	1.00	256.65	5,436.02	-834.19	-2,202.47	2,355.13	1.27	-1.18	-18.15	194.26
	NORMAL	6,175.0	0.44	238.20	5,531.01	-834.57	-2,203.59	2,356.31	0.63	-0.59	-19.42	193.44
	NORMAL	6,270.0	0.79	247.78	5,626.01	-835.01	-2,204.50	2,357.33	0.38	0.37	10.08	21.20
	NORMAL	6,365.0	1.41	253.23	5,720.99	-835.60	-2,206.23	2,359.15	0.66	0.65	5.74	12.31
	NORMAL	6,460.0	1.11	249.81	5,815.97	-836.25	-2,208.21	2,361.23	0.33	-0.32	-3.60	192.37
	NORMAL	6,555.0	0.11	322.23	5,910.96	-836.50	-2,209.13	2,362.18	1.14	-1.05	76.23	174.44
	NORMAL	6,650.0	0.18	303.42	6,005.96	-836.34	-2,209.31	2,362.29	0.09	0.07	-19.80	316.14
6/9/2014	NORMAL	6,744.0	0.62	275.91	6,099.96	-836.21	-2,209.94	2,362.83	0.50	0.47	-29.27	322.25
	NORMAL	6,839.0	1.67	281.80	6,194.94	-835.87	-2,211.81	2,364.46	1.11	1.11	6.20	9.35
	NORMAL	6,934.0	1.67	289.11	6,289.90	-834.92	-2,214.37	2,366.51	0.53	0.00	18.22	98.65
	NORMAL	7,029.0	0.47	336.06	6,384.88	-833.89	-2,215.74	2,367.42	1.39	-1.26	38.89	167.69
	NORMAL	7,124.0	0.97	122.71	6,479.88	-833.97	-2,215.22	2,366.96	1.46	0.53	154.37	157.39

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	EW (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
6/9/2014	NORMAL	7,219.0	0.88	144.36	6,574.87	-834.99	-2,214.12	2,366.30	0.38	-0.09	22.79	115.10
	NORMAL	7,314.0	0.88	160.51	6,669.86	-836.27	-2,213.45	2,366.13	0.26	0.00	17.00	98.07
	NORMAL	7,409.0	1.23	210.43	6,764.84	-837.84	-2,213.72	2,366.95	0.99	0.37	52.55	95.34
	NORMAL	7,504.0	1.41	206.39	6,859.82	-839.77	-2,214.76	2,368.61	0.21	0.19	-4.25	330.63
	NORMAL	7,599.0	1.85	212.10	6,954.78	-842.11	-2,216.10	2,370.69	0.49	0.46	6.01	23.13
	NORMAL	7,693.0	2.02	221.33	7,048.73	-844.64	-2,218.00	2,373.37	0.38	0.18	9.82	66.05
	NORMAL	7,788.0	2.55	218.51	7,143.65	-847.55	-2,220.42	2,376.68	0.57	0.56	-2.97	346.61
	NORMAL	7,883.0	2.66	225.64	7,238.55	-850.75	-2,223.31	2,380.52	0.36	0.12	7.51	74.83
6/10/2014	NORMAL	7,913.0	2.81	227.13	7,268.52	-851.73	-2,224.35	2,381.84	0.55	0.50	4.97	26.11
	NORMAL	7,977.0	2.81	227.13	7,332.44	-853.87	-2,226.65	2,384.75	0.00	0.00	0.00	0.00