

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	PA 43-6	Wellbore No.	00
Wellbore Legal Name	PA 43-6	Common Wellbore Name	PA 43-6
Project	PA 06-07S-095W	Site	PA 24-6 Pad
Vertical Section Azimuth	58.36 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	7/30/2014	UWI	PA 43-6
Active datum	KB @5,160.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #2

Survey Name	Survey #2	Company	
Date Started	8/5/2014	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

5633

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 (°)
8/5/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8/5/2014	NORMAL	100.0	1.32	43.59	99.99	0.83	0.79	1.11	1.32	1.32	0.00	43.59
	NORMAL	161.0	2.99	42.36	160.95	2.52	2.35	3.32	2.74	2.74	-2.02	357.80
	NORMAL	253.0	6.16	51.15	252.64	7.39	7.81	10.53	3.52	3.45	9.55	16.88
	NORMAL	343.0	9.15	59.68	341.83	14.03	17.75	22.48	3.55	3.32	9.48	25.07
	NORMAL	432.0	12.23	57.74	429.28	22.64	31.84	38.98	3.48	3.46	-2.18	352.38
	NORMAL	509.0	15.65	56.08	504.00	32.79	47.36	57.52	4.47	4.44	-2.16	352.52
	NORMAL	598.0	19.17	54.18	588.91	48.05	69.17	84.10	4.01	3.96	-2.13	349.92
	NORMAL	689.0	23.13	54.79	673.76	67.10	95.90	116.85	4.36	4.35	0.67	3.47
	NORMAL	779.0	26.72	56.58	755.37	88.45	127.24	154.73	4.08	3.99	1.99	12.68
	NORMAL	870.0	30.07	57.96	835.41	111.82	163.66	197.99	3.75	3.68	1.52	11.69
	NORMAL	960.0	33.90	58.87	911.73	136.76	204.27	245.65	4.29	4.26	1.01	7.56
	NORMAL	1,052.0	37.26	59.24	986.55	164.28	250.18	299.17	3.66	3.65	0.40	3.82
	NORMAL	1,147.0	41.73	58.70	1,059.84	195.43	301.93	359.57	4.72	4.71	-0.57	355.40
	NORMAL	1,242.0	44.81	58.08	1,129.00	229.56	357.37	424.68	3.27	3.24	-0.65	351.92
	NORMAL	1,337.0	48.33	57.97	1,194.30	266.09	415.89	493.66	3.71	3.71	-0.12	358.66
	NORMAL	1,431.0	52.76	59.01	1,254.02	304.00	477.76	566.22	4.79	4.71	1.11	10.61
	NORMAL	1,526.0	57.07	59.63	1,308.62	343.64	544.60	643.92	4.57	4.54	0.65	6.89
	NORMAL	1,610.0	59.64	59.81	1,352.68	379.70	606.36	715.41	3.06	3.06	0.21	3.46
	NORMAL	1,719.0	60.76	60.33	1,406.85	426.89	688.33	809.95	1.11	1.03	0.48	22.07
	NORMAL	1,814.0	59.97	58.66	1,453.83	468.80	759.47	892.50	1.74	-0.83	-1.76	241.03

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 (°)
8/5/2014	NORMAL	1,909.0	58.65	58.57	1,502.32	511.34	829.21	974.20	1.39	-1.39	-0.09	183.33
	NORMAL	2,003.0	56.89	59.98	1,552.45	551.97	897.55	1,053.69	2.26	-1.87	1.50	146.25
	NORMAL	2,098.0	56.89	60.06	1,604.34	591.73	966.48	1,133.24	0.07	0.00	0.08	90.02
	NORMAL	2,193.0	57.42	60.06	1,655.87	631.57	1,035.64	1,213.01	0.56	0.56	0.00	0.00
	NORMAL	2,288.0	57.86	60.59	1,706.72	671.30	1,105.36	1,293.21	0.66	0.46	0.58	45.64
	NORMAL	2,383.0	56.37	59.36	1,758.30	711.21	1,174.44	1,372.95	1.91	-1.57	-1.29	214.40
	NORMAL	2,477.0	55.34	58.89	1,811.06	751.13	1,241.21	1,450.74	1.17	-1.10	-0.50	200.56
	NORMAL	2,572.0	55.29	57.74	1,865.12	792.16	1,307.68	1,528.86	1.00	-0.05	-1.21	266.65
	NORMAL	2,667.0	55.40	58.92	1,919.14	833.18	1,374.19	1,607.00	1.03	0.12	1.24	83.87
	NORMAL	2,762.0	53.46	57.62	1,974.40	873.81	1,439.91	1,684.27	2.33	-2.04	-1.37	208.22
	NORMAL	2,857.0	51.66	55.75	2,032.16	915.22	1,502.95	1,759.66	2.46	-1.89	-1.97	218.95
	NORMAL	2,952.0	49.74	57.09	2,092.33	955.89	1,564.18	1,833.12	2.30	-2.02	1.41	152.05
	NORMAL	3,047.0	47.57	57.60	2,155.08	994.37	1,624.22	1,904.43	2.32	-2.28	0.54	170.16
	NORMAL	3,142.0	45.55	59.45	2,220.40	1,030.40	1,683.03	1,973.40	2.55	-2.13	1.95	147.01
	NORMAL	3,237.0	43.86	58.89	2,287.92	1,064.64	1,740.42	2,040.22	1.83	-1.78	-0.59	192.92
	NORMAL	3,332.0	42.17	58.38	2,357.38	1,098.37	1,795.76	2,105.02	1.82	-1.78	-0.54	191.45
	NORMAL	3,427.0	40.89	58.83	2,428.49	1,131.19	1,849.52	2,168.01	1.38	-1.35	0.47	167.05
	NORMAL	3,522.0	39.58	59.58	2,501.02	1,162.60	1,902.22	2,229.36	1.47	-1.38	0.79	159.99
	NORMAL	3,617.0	37.55	58.13	2,575.29	1,193.22	1,952.91	2,288.57	2.34	-2.14	-1.53	203.44
	NORMAL	3,711.0	35.80	58.81	2,650.68	1,222.58	2,000.76	2,344.71	1.91	-1.86	0.72	167.21
8/6/2014	NORMAL	3,806.0	34.46	58.57	2,728.38	1,250.99	2,047.47	2,399.38	1.42	-1.41	-0.25	185.79
	NORMAL	3,901.0	32.38	59.31	2,807.67	1,277.99	2,092.28	2,451.70	2.23	-2.19	0.78	169.22
	NORMAL	3,996.0	30.76	59.25	2,888.60	1,303.40	2,135.04	2,501.42	1.71	-1.71	-0.06	181.09
	NORMAL	4,091.0	28.58	60.06	2,971.14	1,327.16	2,175.61	2,548.43	2.33	-2.29	0.85	169.93
	NORMAL	4,186.0	26.64	58.92	3,055.32	1,349.50	2,213.55	2,592.45	2.12	-2.04	-1.20	194.73
	NORMAL	4,280.0	25.50	58.22	3,139.76	1,371.04	2,248.80	2,633.76	1.26	-1.21	-0.74	194.79
	NORMAL	4,375.0	23.80	56.64	3,226.10	1,392.35	2,282.20	2,673.37	1.92	-1.79	-1.66	200.47
	NORMAL	4,470.0	22.16	57.69	3,313.56	1,412.47	2,313.35	2,710.45	1.78	-1.73	1.11	166.45
	NORMAL	4,565.0	20.58	56.11	3,402.02	1,431.35	2,342.36	2,745.05	1.77	-1.66	-1.66	199.29
	NORMAL	4,660.0	18.99	56.99	3,491.41	1,449.09	2,369.18	2,777.19	1.70	-1.67	0.93	169.80
	NORMAL	4,755.0	17.19	57.72	3,581.71	1,465.01	2,394.01	2,806.68	1.91	-1.89	0.77	173.17
	NORMAL	4,850.0	14.95	54.97	3,673.00	1,479.54	2,415.92	2,832.95	2.49	-2.36	-2.89	197.45
	NORMAL	4,944.0	13.10	55.93	3,764.19	1,492.47	2,434.67	2,855.70	1.98	-1.97	1.02	173.30
	NORMAL	5,039.0	12.49	55.41	3,856.83	1,504.33	2,452.05	2,876.72	0.65	-0.64	-0.55	190.44
	NORMAL	5,134.0	11.12	53.01	3,949.82	1,515.67	2,467.82	2,896.10	1.53	-1.44	-2.53	198.55
	NORMAL	5,229.0	10.38	54.35	4,043.15	1,526.18	2,482.09	2,913.76	0.82	-0.78	1.41	161.99
8/7/2014	NORMAL	5,323.0	9.15	57.43	4,135.79	1,535.13	2,495.27	2,929.68	1.42	-1.31	3.28	158.50
	NORMAL	5,418.0	7.74	53.47	4,229.76	1,543.01	2,506.78	2,943.61	1.60	-1.48	-4.17	200.46
	NORMAL	5,513.0	6.04	54.50	4,324.07	1,549.72	2,515.99	2,954.97	1.79	-1.79	1.08	176.35
	NORMAL	5,608.0	4.84	38.53	4,418.65	1,555.76	2,522.56	2,963.73	2.02	-1.26	-16.81	223.83
	NORMAL	5,703.0	4.13	35.54	4,513.35	1,561.68	2,527.04	2,970.65	0.79	-0.75	-3.15	196.74
	NORMAL	5,798.0	2.64	44.68	4,608.19	1,566.02	2,530.57	2,975.93	1.66	-1.57	9.62	164.61
	NORMAL	5,892.0	2.55	40.55	4,702.09	1,569.14	2,533.45	2,980.02	0.22	-0.10	-4.39	242.24
	NORMAL	5,987.0	1.49	30.18	4,797.03	1,571.82	2,535.45	2,983.12	1.18	-1.12	-10.92	193.89
	NORMAL	6,082.0	1.49	32.82	4,892.00	1,573.92	2,536.74	2,985.33	0.07	0.00	2.78	91.32
	NORMAL	6,177.0	0.53	334.63	4,986.99	1,575.36	2,537.22	2,986.49	1.36	-1.01	-61.25	200.41
	NORMAL	6,272.0	0.44	325.05	5,081.98	1,576.06	2,536.82	2,986.52	0.13	-0.09	-10.08	217.30
	NORMAL	6,367.0	0.32	219.54	5,176.98	1,576.15	2,536.44	2,986.24	0.64	-0.13	-111.06	210.40
	NORMAL	6,462.0	0.60	207.21	5,271.98	1,575.50	2,536.05	2,985.57	0.31	0.29	-12.98	334.29
	NORMAL	6,557.0	0.70	212.82	5,366.97	1,574.57	2,535.50	2,984.62	0.12	0.11	5.91	35.30
	NORMAL	6,651.0	1.20	207.89	5,460.96	1,573.22	2,534.73	2,983.25	0.54	0.53	-5.24	348.25
	NORMAL	6,746.0	0.97	211.06	5,555.94	1,571.65	2,533.85	2,981.68	0.25	-0.24	3.34	166.95
	NORMAL	6,841.0	0.97	203.77	5,650.93	1,570.23	2,533.11	2,980.30	0.13	0.00	-7.67	266.36
	NORMAL	6,936.0	1.37	201.09	5,745.91	1,568.43	2,532.38	2,978.74	0.42	0.42	-2.82	350.87
8/8/2014	NORMAL	7,031.0	1.75	204.56	5,840.87	1,566.05	2,531.37	2,976.63	0.41	0.40	3.67	15.79
	NORMAL	7,126.0	2.38	197.81	5,935.81	1,562.86	2,530.16	2,973.92	0.71	0.66	-7.13	335.43

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 (°)
8/8/2014	NORMAL	7,221.0	2.84	195.01	6,030.71	1,558.70	2,528.95	2,970.71	0.50	0.48	-2.95	343.11
	NORMAL	7,316.0	3.43	194.71	6,125.57	1,553.68	2,527.62	2,966.95	0.62	0.62	-0.32	358.26
	NORMAL	7,411.0	3.61	204.83	6,220.39	1,548.22	2,525.64	2,962.40	0.68	0.19	10.65	78.93
	NORMAL	7,505.0	3.61	207.63	6,314.21	1,542.91	2,523.02	2,957.39	0.19	0.00	2.98	91.40
	NORMAL	7,600.0	3.43	208.51	6,409.03	1,537.76	2,520.28	2,952.35	0.20	-0.19	0.93	163.73
	NORMAL	7,681.0	3.34	209.48	6,489.89	1,533.58	2,517.96	2,948.18	0.13	-0.11	1.20	148.01
	NORMAL	7,745.0	3.34	209.48	6,553.78	1,530.34	2,516.13	2,944.92	0.00	0.00	0.00	0.00