

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	PA 343-3	Wellbore No.	00
Wellbore Legal Name	PA 343-3	Common Wellbore Name	PA 343-3
Project	PA 02-07S-095W	Site	GV 86-2 Pad
Vertical Section Azimuth	271.80 (°)	North reference	
Origin N/S		Origin E/W	
Spud date	5/22/2014	UWI	PA 343-3
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	5/22/2014	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 (°)
5/22/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5/28/2014	NORMAL	120.0	0.88	283.71	120.00	0.22	-0.90	0.90	0.73	0.73	0.00	283.71
	NORMAL	162.0	2.11	277.56	161.98	0.40	-1.98	1.99	2.95	2.93	-14.64	349.49
	NORMAL	254.0	6.33	285.56	253.71	1.98	-8.54	8.60	4.62	4.59	8.70	11.95
	NORMAL	344.0	7.30	272.29	343.08	3.54	-19.04	19.14	2.05	1.08	-14.74	294.93
	NORMAL	435.0	8.80	267.19	433.18	3.43	-31.77	31.86	1.82	1.65	-5.60	332.00
	NORMAL	525.0	10.91	264.55	521.85	2.28	-47.12	47.17	2.40	2.34	-2.93	346.61
	NORMAL	601.0	13.63	269.50	596.11	1.52	-63.24	63.26	3.83	3.58	6.51	23.58
	NORMAL	692.0	17.67	270.03	683.72	1.44	-87.78	87.79	4.44	4.44	0.58	2.28
	NORMAL	782.0	20.75	270.47	768.69	1.57	-117.39	117.38	3.43	3.42	0.49	2.90
	NORMAL	873.0	24.53	269.24	852.67	1.46	-152.41	152.38	4.19	4.15	-1.35	352.29
	NORMAL	963.0	28.40	270.91	933.22	1.55	-192.51	192.46	4.38	4.30	1.86	11.64
	NORMAL	1,057.0	33.47	273.15	1,013.83	3.33	-240.76	240.76	5.53	5.39	2.38	13.76
	NORMAL	1,152.0	35.13	273.59	1,092.30	6.48	-294.22	294.27	1.77	1.75	0.46	8.68
	NORMAL	1,230.0	37.71	272.65	1,155.06	8.99	-340.45	340.57	3.38	3.31	-1.21	347.41
	NORMAL	1,338.0	38.76	270.89	1,239.90	11.04	-407.25	407.40	1.40	0.97	-1.63	313.26
	NORMAL	1,432.0	37.52	272.95	1,313.83	12.97	-465.27	465.44	1.89	-1.32	2.19	135.07
	NORMAL	1,528.0	36.99	272.46	1,390.24	15.71	-523.32	523.55	0.63	-0.55	-0.51	209.04
	NORMAL	1,622.0	36.46	271.31	1,465.58	17.57	-579.49	579.76	0.92	-0.56	-1.22	231.92
	NORMAL	1,717.0	36.18	270.74	1,542.13	18.57	-635.75	636.02	0.46	-0.29	-0.60	230.10
	NORMAL	1,812.0	36.46	271.06	1,618.67	19.46	-692.01	692.28	0.36	0.29	0.34	34.22

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 (")
5/28/2014	NORMAL	1,907.0	36.64	271.45	1,694.99	20.70	-748.57	748.85	0.31	0.19	0.41	52.38
	NORMAL	2,001.0	36.78	270.76	1,770.35	21.78	-804.75	805.04	0.46	0.15	-0.73	288.47
	NORMAL	2,096.0	36.26	272.84	1,846.70	23.55	-861.25	861.57	1.41	-0.55	2.19	113.62
	NORMAL	2,191.0	36.53	273.90	1,923.17	26.87	-917.52	917.91	0.72	0.28	1.12	67.19
	NORMAL	2,286.0	36.10	273.94	1,999.71	30.71	-973.65	974.13	0.45	-0.45	0.04	176.86
	NORMAL	2,381.0	37.00	273.73	2,076.03	34.49	-1,030.10	1,030.67	0.96	0.95	-0.22	352.00
	NORMAL	2,476.0	36.78	273.64	2,152.01	38.16	-1,087.01	1,087.67	0.24	-0.23	-0.09	193.76
	NORMAL	2,571.0	36.41	273.68	2,228.28	41.78	-1,143.52	1,144.27	0.39	-0.39	0.04	176.33
	NORMAL	2,666.0	35.71	273.55	2,305.08	45.30	-1,199.33	1,200.16	0.74	-0.74	-0.14	186.19
	NORMAL	2,760.0	35.51	273.22	2,381.50	48.53	-1,253.97	1,254.88	0.30	-0.21	-0.35	223.72
	NORMAL	2,855.0	34.82	272.89	2,459.16	51.45	-1,308.61	1,309.58	0.75	-0.73	-0.35	195.27
	NORMAL	2,950.0	34.85	272.94	2,537.14	54.21	-1,362.80	1,363.83	0.04	0.03	0.05	43.61
	NORMAL	3,045.0	35.32	272.95	2,614.88	57.02	-1,417.33	1,418.43	0.49	0.49	0.01	0.70
	NORMAL	3,140.0	35.55	274.06	2,692.28	60.38	-1,472.31	1,473.48	0.72	0.24	1.17	70.79
	NORMAL	3,235.0	35.74	273.68	2,769.48	64.12	-1,527.54	1,528.80	0.31	0.20	-0.40	310.47
	NORMAL	3,331.0	35.53	273.54	2,847.51	67.64	-1,583.36	1,584.71	0.23	-0.22	-0.15	201.17
	NORMAL	3,425.0	35.33	273.26	2,924.10	70.87	-1,637.76	1,639.18	0.27	-0.21	-0.30	218.95
	NORMAL	3,520.0	34.91	272.84	3,001.81	73.78	-1,692.34	1,693.82	0.51	-0.44	-0.44	209.74
	NORMAL	3,615.0	34.65	273.34	3,079.83	76.70	-1,746.45	1,747.99	0.41	-0.27	0.53	132.56
	NORMAL	3,709.0	34.18	273.06	3,157.38	79.67	-1,799.49	1,801.11	0.53	-0.50	-0.30	198.49
	NORMAL	3,804.0	33.67	273.82	3,236.21	82.85	-1,852.41	1,854.10	0.70	-0.54	0.80	140.56
	NORMAL	3,899.0	33.24	274.42	3,315.47	86.61	-1,904.65	1,906.43	0.57	-0.45	0.63	142.68
	NORMAL	3,994.0	32.62	274.60	3,395.21	90.67	-1,956.13	1,958.02	0.66	-0.65	0.19	171.11
	NORMAL	4,089.0	29.99	273.81	3,476.37	94.30	-2,005.36	2,007.33	2.80	-2.77	-0.83	188.53
	NORMAL	4,184.0	29.68	274.26	3,558.78	97.63	-2,052.50	2,054.55	0.40	-0.33	0.47	144.36
	NORMAL	4,279.0	28.23	272.49	3,641.90	100.35	-2,098.41	2,100.52	1.77	-1.53	-1.86	209.81
	NORMAL	4,374.0	27.07	272.22	3,726.05	102.16	-2,142.45	2,144.61	1.23	-1.22	-0.28	186.05
	NORMAL	4,468.0	25.87	271.30	3,810.20	103.46	-2,184.33	2,186.50	1.35	-1.28	-0.98	198.46
	NORMAL	4,563.0	23.90	271.77	3,896.37	104.52	-2,224.29	2,226.48	2.08	-2.07	0.49	174.48
	NORMAL	4,658.0	21.22	269.80	3,984.10	105.06	-2,260.73	2,262.91	2.93	-2.82	-2.07	194.84
	NORMAL	4,753.0	19.96	271.96	4,073.03	105.55	-2,294.12	2,296.31	1.55	-1.33	2.27	149.92
	NORMAL	4,848.0	18.35	272.75	4,162.76	106.82	-2,325.27	2,327.48	1.72	-1.69	0.83	171.23
	NORMAL	4,943.0	17.15	271.08	4,253.24	107.81	-2,354.21	2,356.44	1.37	-1.26	-1.76	202.20
	NORMAL	5,037.0	16.23	270.02	4,343.28	108.07	-2,381.20	2,383.42	1.03	-0.98	-1.13	197.80
	NORMAL	5,132.0	14.93	267.78	4,434.79	107.60	-2,406.71	2,408.90	1.51	-1.37	-2.36	203.76
	NORMAL	5,227.0	13.89	267.74	4,526.80	106.68	-2,430.33	2,432.49	1.09	-1.09	-0.04	180.53
	NORMAL	5,322.0	11.91	271.03	4,619.40	106.40	-2,451.53	2,453.66	2.22	-2.08	3.46	161.25
	NORMAL	5,416.0	11.20	269.43	4,711.49	106.49	-2,470.36	2,472.48	0.83	-0.76	-1.70	203.51
	NORMAL	5,511.0	10.32	273.18	4,804.82	106.87	-2,488.08	2,490.21	1.18	-0.93	3.95	143.33
	NORMAL	5,606.0	8.06	269.55	4,898.60	107.29	-2,503.24	2,505.37	2.45	-2.38	-3.82	192.60
	NORMAL	5,701.0	7.03	268.71	4,992.77	107.10	-2,515.71	2,517.83	1.09	-1.08	-0.88	185.70
	NORMAL	5,796.0	4.87	267.40	5,087.26	106.79	-2,525.55	2,527.66	2.28	-2.27	-1.38	182.95
	NORMAL	5,891.0	3.29	276.74	5,182.01	106.93	-2,532.29	2,534.40	1.80	-1.66	9.83	161.80
	NORMAL	5,985.0	2.37	252.19	5,275.90	106.65	-2,536.82	2,538.92	1.60	-0.98	-26.12	220.97
	NORMAL	6,080.0	0.85	259.19	5,370.86	105.92	-2,539.38	2,541.45	1.61	-1.60	7.37	176.12
	NORMAL	6,175.0	0.96	264.42	5,465.85	105.71	-2,540.86	2,542.93	0.14	0.12	5.51	39.54
	NORMAL	6,270.0	1.41	274.51	5,560.83	105.72	-2,542.82	2,544.89	0.52	0.47	10.62	29.98
	NORMAL	6,365.0	0.70	188.46	5,655.82	105.24	-2,544.07	2,546.12	1.61	-0.75	-90.58	207.15
	NORMAL	6,460.0	1.06	226.87	5,750.80	104.07	-2,544.80	2,546.81	0.71	0.38	40.43	78.78
	NORMAL	6,555.0	0.38	217.28	5,845.80	103.21	-2,545.63	2,547.62	0.72	-0.72	-10.09	185.28
	NORMAL	6,650.0	0.12	287.18	5,940.80	102.99	-2,545.92	2,547.90	0.38	-0.27	73.58	161.60
	NORMAL	6,744.0	0.70	243.02	6,034.79	102.76	-2,546.52	2,548.49	0.66	0.62	-46.98	308.09
	NORMAL	6,839.0	0.93	257.36	6,129.78	102.33	-2,547.79	2,549.75	0.32	0.24	15.09	48.89
	NORMAL	6,934.0	1.93	247.97	6,224.75	101.56	-2,550.03	2,551.96	1.08	1.05	-9.88	342.09
	NORMAL	7,029.0	2.37	244.36	6,319.69	100.11	-2,553.28	2,555.17	0.48	0.46	-3.80	341.08
	NORMAL	7,124.0	3.17	242.68	6,414.57	98.05	-2,557.39	2,559.20	0.85	0.84	-1.77	353.37

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
5/28/2014	NORMAL	7,219.0	3.43	243.31	6,509.42	95.57	-2,562.26	2,564.00	0.28	0.27	0.66	8.26
	NORMAL	7,314.0	3.96	240.32	6,604.22	92.67	-2,567.65	2,569.29	0.59	0.56	-3.15	338.52
	NORMAL	7,409.0	3.65	234.85	6,699.01	89.31	-2,572.97	2,574.51	0.50	-0.33	-5.76	226.79
	NORMAL	7,504.0	3.08	232.50	6,793.85	86.01	-2,577.47	2,578.90	0.62	-0.60	-2.47	192.43
	NORMAL	7,599.0	3.17	222.39	6,888.71	82.52	-2,581.26	2,582.58	0.59	0.09	-10.64	274.20
	NORMAL	7,693.0	3.25	221.16	6,982.56	78.59	-2,584.77	2,585.96	0.11	0.09	-1.31	318.66
	NORMAL	7,788.0	3.52	223.36	7,077.39	74.45	-2,588.54	2,589.61	0.32	0.28	2.32	26.79
	NORMAL	7,883.0	3.87	227.14	7,172.19	70.14	-2,592.90	2,593.82	0.45	0.37	3.98	36.73
	NORMAL	7,978.0	4.40	228.45	7,266.95	65.55	-2,597.97	2,598.75	0.57	0.56	1.38	10.76
	NORMAL	8,073.0	4.62	232.49	7,361.65	60.80	-2,603.74	2,604.36	0.41	0.23	4.25	57.32
	NORMAL	8,099.0	4.40	229.07	7,387.57	59.51	-2,605.32	2,605.90	1.34	-0.85	-13.15	229.02
	NORMAL	8,165.0	4.40	229.07	7,453.38	56.19	-2,609.15	2,609.62	0.00	0.00	0.00	0.00