

Deviation Summary

PICEANCE VLY

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	PA 744-26	Wellbore No.	00
Wellbore Legal Name	PA 744-26	Common Wellbore Name	PA 744-26
Project	PA 35-06S-095W	Site	PA 341-35 Pad
Vertical Section Azimuth	29.14 (°)	North reference	
Origin N/S		Origin E/W	
Spud date	5/19/2014	UWI	PA 744-26
Active datum	KB @5,189.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	5/19/2014	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 (°)
5/19/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5/19/2014	NORMAL	73.0	0.18	299.27	73.00	0.06	-0.10	-52.03	0.25	0.25	0.00	299.27
	NORMAL	164.0	1.50	4.57	163.99	1.31	-0.13	1.08	1.58	1.45	71.76	71.85
	NORMAL	257.0	3.08	30.06	256.91	4.69	1.22	4.69	1.98	1.70	27.41	45.98
	NORMAL	350.0	4.93	28.48	349.68	10.36	4.38	11.18	1.99	1.99	-1.70	355.80
	NORMAL	441.0	5.98	29.88	440.27	17.91	8.60	19.83	1.16	1.15	1.54	7.92
	NORMAL	514.0	6.96	28.13	512.80	25.11	12.58	28.06	1.37	1.34	-2.40	347.75
5/20/2014	NORMAL	606.0	7.83	24.64	604.04	35.72	17.82	39.88	1.06	0.95	-3.79	330.95
	NORMAL	699.0	10.46	26.31	695.85	49.05	24.21	54.63	2.84	2.83	1.80	6.59
	NORMAL	791.0	10.57	31.87	786.31	63.70	32.36	71.40	1.11	0.12	6.04	86.55
	NORMAL	883.0	10.57	33.50	876.74	77.91	41.48	88.24	0.32	0.00	1.77	90.80
	NORMAL	975.0	9.73	32.29	967.30	91.51	50.29	104.42	0.94	-0.91	-1.32	193.65
	NORMAL	1,067.0	9.16	28.91	1,058.06	104.50	57.98	119.50	0.86	-0.62	-3.67	222.56
	NORMAL	1,159.0	9.28	30.12	1,148.87	117.32	65.24	134.24	0.25	0.13	1.32	58.84
	NORMAL	1,254.0	8.07	29.58	1,242.78	129.75	72.38	148.57	1.28	-1.27	-0.57	183.58
5/21/2014	NORMAL	1,348.0	8.26	32.70	1,335.83	141.17	79.28	161.91	0.51	0.20	3.32	68.34
	NORMAL	1,442.0	9.31	34.08	1,428.72	153.15	87.19	176.22	1.14	1.12	1.47	12.03
	NORMAL	1,536.0	9.12	28.69	1,521.51	165.98	95.03	191.25	0.94	-0.20	-5.73	254.93
	NORMAL	1,630.0	9.19	24.97	1,614.32	179.32	101.77	206.18	0.63	0.07	-3.96	274.91
	NORMAL	1,723.0	10.12	26.50	1,706.00	193.37	108.56	221.75	1.04	1.00	1.65	16.18
	NORMAL	1,817.0	10.06	31.92	1,798.55	207.73	116.58	238.20	1.01	-0.06	5.77	96.28

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc. (")	Azl. (")	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS ("/100usft)	Build Rate ("/100usft)	Turn ("/100usft)	Tface (")
5/21/2014	NORMAL	1,911.0	9.94	34.83	1,891.12	221.35	125.56	254.48	0.55	-0.13	3.10	104.79
	NORMAL	1,995.0	10.79	34.04	1,973.75	233.82	134.10	269.52	1.03	1.01	-0.94	350.12
5/24/2014	NORMAL	2,098.0	11.34	35.45	2,074.83	250.06	145.37	289.20	0.60	0.53	1.37	26.89
	NORMAL	2,192.0	10.88	33.40	2,167.07	264.99	155.61	307.23	0.64	-0.49	-2.18	219.65
	NORMAL	2,286.0	10.49	30.41	2,259.44	279.78	164.83	324.63	0.72	-0.41	-3.18	233.41
	NORMAL	2,380.0	9.81	28.29	2,351.97	294.21	172.95	341.19	0.83	-0.72	-2.26	207.74
	NORMAL	2,474.0	8.97	28.68	2,444.71	307.69	180.27	356.53	0.90	-0.89	0.41	175.86
	NORMAL	2,568.0	9.17	27.30	2,537.53	320.78	187.22	371.34	0.31	0.21	-1.47	311.91
	NORMAL	2,662.0	10.44	28.30	2,630.16	334.93	194.69	387.34	1.36	1.35	1.06	8.13
	NORMAL	2,756.0	9.72	27.59	2,722.71	349.46	202.40	403.79	0.78	-0.77	-0.76	189.44
	NORMAL	2,849.0	8.46	27.68	2,814.54	362.48	209.22	418.48	1.35	-1.35	0.10	179.40
	NORMAL	2,943.0	8.55	23.08	2,907.51	375.03	215.17	432.34	0.73	0.10	-4.91	275.22
	NORMAL	3,037.0	8.27	27.24	3,000.50	387.47	221.00	446.05	0.72	-0.30	4.45	116.67
	NORMAL	3,131.0	8.92	31.07	3,093.44	399.73	227.85	460.09	0.92	0.69	4.07	43.27
	NORMAL	3,225.0	9.95	28.51	3,186.17	413.11	235.49	475.49	1.18	1.10	-2.72	336.57
	NORMAL	3,319.0	9.51	27.62	3,278.81	427.12	242.97	491.37	0.49	-0.47	-0.95	198.43
	NORMAL	3,413.0	8.97	28.39	3,371.59	440.45	250.05	506.46	0.59	-0.57	0.82	167.48
	NORMAL	3,507.0	9.86	27.57	3,464.33	454.03	257.26	521.84	0.96	0.95	-0.87	351.02
	NORMAL	3,600.0	9.81	27.13	3,555.96	468.14	264.56	537.72	0.10	-0.05	-0.47	236.15
5/25/2014	NORMAL	3,694.0	9.27	26.92	3,648.66	482.02	271.64	553.28	0.58	-0.57	-0.22	183.58
	NORMAL	3,788.0	9.45	27.30	3,741.41	495.63	278.61	568.56	0.20	0.19	0.40	19.14
	NORMAL	3,882.0	9.41	31.76	3,834.14	509.02	286.19	583.95	0.78	-0.04	4.74	95.33
	NORMAL	3,977.0	9.63	27.23	3,927.83	522.69	293.92	599.65	0.82	0.23	-4.77	284.12
	NORMAL	4,070.0	9.91	27.80	4,019.48	536.68	301.21	615.43	0.32	0.30	0.61	19.34
	NORMAL	4,165.0	9.67	27.45	4,113.10	550.99	308.70	631.57	0.26	-0.25	-0.37	193.75
	NORMAL	4,258.0	8.46	29.83	4,204.94	563.86	315.70	646.22	1.36	-1.30	2.56	163.95
	NORMAL	4,352.0	8.79	33.08	4,297.88	575.88	323.06	660.30	0.63	0.35	3.46	57.51
	NORMAL	4,446.0	9.35	30.42	4,390.70	588.48	330.85	675.10	0.74	0.60	-2.83	321.86
	NORMAL	4,540.0	9.31	31.96	4,483.46	601.51	338.74	690.33	0.27	-0.04	1.64	99.86
	NORMAL	4,633.0	9.57	31.52	4,575.20	614.49	346.76	705.57	0.29	0.28	-0.47	344.27
5/26/2014	NORMAL	4,727.0	9.99	33.65	4,667.83	627.94	355.37	721.50	0.59	0.45	2.27	41.80
	NORMAL	4,820.0	9.56	31.22	4,759.48	641.26	363.84	737.26	0.64	-0.46	-2.61	222.62
	NORMAL	4,914.0	9.67	31.67	4,852.16	654.65	372.03	752.95	0.14	0.12	0.48	34.57
	NORMAL	5,008.0	9.94	33.71	4,944.79	668.12	380.68	768.92	0.47	0.29	2.17	53.15
	NORMAL	5,102.0	9.60	30.26	5,037.43	681.64	389.13	784.85	0.72	-0.36	-3.67	238.16
	NORMAL	5,195.0	9.99	29.81	5,129.07	695.33	397.05	800.67	0.43	0.42	-0.48	348.67
	NORMAL	5,289.0	10.17	29.51	5,221.62	709.63	405.19	817.12	0.20	0.19	-0.32	343.59
	NORMAL	5,383.0	9.57	29.82	5,314.23	723.63	413.16	833.23	0.64	-0.64	0.33	175.09
5/27/2014	NORMAL	5,477.0	9.21	32.03	5,406.97	736.79	421.04	848.56	0.54	-0.38	2.35	136.04
	NORMAL	5,570.0	8.71	32.64	5,498.83	749.03	428.78	863.02	0.55	-0.54	0.66	169.54
	NORMAL	5,664.0	9.08	31.74	5,591.70	761.33	436.52	877.53	0.42	0.39	-0.96	338.94
	NORMAL	5,757.0	8.62	31.41	5,683.59	773.52	444.02	891.83	0.50	-0.49	-0.35	186.14
	NORMAL	5,850.0	9.39	30.83	5,775.45	785.98	451.54	906.38	0.83	0.83	-0.62	352.99
	NORMAL	5,944.0	8.71	30.44	5,868.28	798.70	459.07	921.16	0.73	-0.72	-0.41	184.96
5/28/2014	NORMAL	6,038.0	8.97	29.56	5,961.16	811.21	466.29	935.60	0.31	0.28	-0.94	332.08
	NORMAL	6,132.0	7.65	26.66	6,054.17	823.18	472.72	949.18	1.47	-1.40	-3.09	198.19
	NORMAL	6,226.0	8.33	23.38	6,147.26	835.02	478.23	962.20	0.87	0.72	-3.49	324.53
	NORMAL	6,319.0	7.33	23.86	6,239.39	846.63	483.30	974.82	1.08	-1.08	0.54	176.35
5/30/2014	NORMAL	6,414.0	7.36	25.76	6,333.61	857.65	488.40	986.92	0.25	0.03	1.98	83.82
	NORMAL	6,507.0	6.22	28.13	6,425.96	867.46	493.36	997.91	1.26	-1.23	2.55	167.37
	NORMAL	6,601.0	5.36	24.90	6,519.48	875.93	497.61	1,007.38	0.98	-0.91	-3.44	199.15
	NORMAL	6,695.0	4.48	28.33	6,613.13	883.15	501.20	1,015.43	0.99	-0.94	3.65	163.22
	NORMAL	6,789.0	3.67	26.65	6,706.89	889.07	504.29	1,022.10	0.87	-0.86	-1.79	187.55
	NORMAL	6,884.0	3.27	30.59	6,801.72	894.12	507.04	1,027.85	0.49	-0.42	4.15	151.15
	NORMAL	6,978.0	3.23	32.01	6,895.57	898.67	509.81	1,033.18	0.10	-0.04	1.51	117.13
	NORMAL	7,071.0	3.69	30.53	6,988.40	903.47	512.71	1,038.78	0.50	0.49	-1.59	348.27

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 (")
5/31/2014	NORMAL	7,164.0	2.99	22.53	7,081.24	908.29	515.16	1,044.19	0.90	-0.75	-8.60	209.71
	NORMAL	7,257.0	1.85	38.08	7,174.16	911.71	517.02	1,048.08	1.40	-1.23	16.72	157.68
	NORMAL	7,351.0	0.79	20.95	7,268.13	913.51	518.19	1,050.22	1.19	-1.13	-18.22	192.00
	NORMAL	7,445.0	0.33	78.81	7,362.12	914.17	518.68	1,051.04	0.72	-0.49	61.55	155.54
	NORMAL	7,539.0	0.79	178.97	7,456.12	913.57	518.96	1,050.65	0.97	0.49	106.55	121.11
6/1/2014	NORMAL	7,633.0	0.98	181.24	7,550.11	912.12	518.96	1,049.38	0.21	0.20	2.41	11.59
	NORMAL	7,726.0	0.70	244.28	7,643.10	911.08	518.43	1,048.21	0.98	-0.30	67.79	136.72
	NORMAL	7,820.0	0.96	288.87	7,737.09	911.09	517.16	1,047.60	0.72	0.28	47.44	91.39
6/2/2014	NORMAL	7,913.0	0.81	265.32	7,830.08	911.28	515.77	1,047.10	0.42	-0.16	-25.32	236.10
	NORMAL	8,007.0	1.06	262.03	7,924.07	911.11	514.25	1,046.20	0.27	0.27	-3.50	346.23
	NORMAL	8,101.0	0.97	288.57	8,018.06	911.24	512.63	1,045.53	0.50	-0.10	28.23	113.92
6/3/2014	NORMAL	8,195.0	0.62	297.01	8,112.05	911.73	511.43	1,045.37	0.39	-0.37	8.98	165.69
	NORMAL	8,290.0	0.62	336.65	8,207.04	912.43	510.76	1,045.66	0.44	0.00	41.73	109.82
	NORMAL	8,383.0	0.32	302.60	8,300.04	913.03	510.35	1,045.98	0.43	-0.32	-36.61	206.79
	NORMAL	8,477.0	0.82	225.72	8,394.03	912.70	509.64	1,045.35	0.86	0.53	-81.79	260.49
6/4/2014	NORMAL	8,605.0	1.54	243.61	8,522.01	911.30	507.45	1,043.06	0.63	0.56	13.98	36.23
6/13/2014	NORMAL	8,675.0	1.48	217.69	8,591.98	910.17	506.05	1,041.39	0.97	-0.09	-37.03	252.11
	NORMAL	8,770.0	0.70	74.56	8,686.97	909.35	505.86	1,040.58	2.19	-0.82	-150.66	191.64
6/14/2014	NORMAL	8,864.0	1.23	76.76	8,780.96	909.73	507.40	1,041.67	0.57	0.56	2.34	5.10
	NORMAL	8,958.0	0.81	111.63	8,874.95	909.72	509.00	1,042.43	0.78	-0.45	37.10	140.68
	NORMAL	9,052.0	1.08	157.37	8,968.93	908.66	509.95	1,041.97	0.82	0.29	48.66	94.16
	NORMAL	9,146.0	1.07	208.01	9,062.92	907.07	509.88	1,040.55	0.98	-0.01	53.87	115.88
	NORMAL	9,240.0	1.10	35.68	9,156.91	907.02	510.00	1,040.57	2.30	0.03	-183.33	183.89
	NORMAL	9,334.0	0.97	54.87	9,250.90	908.21	511.17	1,042.18	0.39	-0.14	20.41	119.97
	NORMAL	9,427.0	0.44	73.24	9,343.89	908.77	512.16	1,043.14	0.61	-0.57	19.75	165.91
	NORMAL	9,521.0	0.67	72.89	9,437.89	909.04	513.03	1,043.80	0.24	0.24	-0.37	358.98
	NORMAL	9,615.0	0.18	0.91	9,531.89	909.35	513.56	1,044.33	0.68	-0.52	-76.57	195.57
	NORMAL	9,709.0	0.00	108.13	9,625.88	909.49	513.56	1,044.46	0.19	-0.19	0.00	180.00
	NORMAL	9,803.0	0.49	137.84	9,719.88	909.20	513.83	1,044.33	0.52	0.52	0.00	137.84
6/15/2014	NORMAL	9,897.0	0.57	148.06	9,896.84	-41.78	26.04	-23.61	0.01	0.01	0.00	148.06
	NORMAL	9,991.0	0.62	182.84	9,990.83	-42.68	26.27	-24.49	0.38	0.05	37.00	99.75
	NORMAL	10,085.0	0.79	214.92	10,084.83	-43.72	25.87	-25.59	0.45	0.18	34.13	83.29
	NORMAL	10,179.0	0.51	252.58	10,178.82	-44.38	25.10	-26.54	0.53	-0.30	40.06	141.11
	NORMAL	10,273.0	0.88	313.62	10,272.81	-44.00	24.18	-26.66	0.82	0.39	64.94	96.22
	NORMAL	10,367.0	1.03	303.04	10,366.80	-43.05	22.95	-26.42	0.25	0.16	-11.26	305.02
	NORMAL	10,462.0	0.71	322.83	10,461.79	-42.11	21.88	-26.13	0.46	-0.34	20.83	146.41
6/16/2014	NORMAL	10,555.0	0.79	331.99	10,471.87	911.39	513.55	1,046.11	0.17	0.04	-22.05	188.74
	NORMAL	10,650.0	0.53	302.72	10,566.86	912.20	512.88	1,046.49	0.44	-0.27	-30.81	218.34
	NORMAL	10,743.0	0.53	78.69	10,659.86	912.52	512.94	1,046.80	1.06	0.00	146.20	157.98
	NORMAL	10,837.0	0.39	154.42	10,753.86	912.32	513.50	1,046.90	0.61	-0.15	80.56	138.94
	NORMAL	10,930.0	0.38	233.96	10,846.85	911.85	513.39	1,046.43	0.53	-0.01	85.53	130.66
	NORMAL	11,024.0	0.60	233.64	10,940.85	911.38	512.74	1,045.70	0.23	0.23	-0.34	359.13
	NORMAL	11,117.0	0.51	282.61	11,033.85	911.18	511.94	1,045.14	0.50	-0.10	52.66	124.58
	NORMAL	11,210.0	1.06	270.82	11,126.84	911.28	510.68	1,044.62	0.61	0.59	-12.68	337.68
6/17/2014	NORMAL	11,304.0	0.70	66.56	11,220.83	911.52	510.34	1,044.66	1.83	-0.38	165.68	170.39
	NORMAL	11,397.0	1.58	63.57	11,313.81	912.32	512.01	1,046.17	0.95	0.95	-3.22	354.64
	NORMAL	11,491.0	1.13	75.27	11,407.79	913.13	514.06	1,047.88	0.56	-0.48	12.45	154.18
	NORMAL	11,584.0	0.94	84.87	11,500.77	913.43	515.71	1,048.94	0.28	-0.20	10.32	142.35
	NORMAL	11,678.0	1.06	81.77	11,594.76	913.63	517.34	1,049.91	0.14	0.13	-3.30	334.18
6/18/2014	NORMAL	11,772.0	0.44	275.92	11,688.75	913.79	517.84	1,050.29	1.59	-0.66	-176.44	184.14
	NORMAL	11,866.0	0.59	243.54	11,782.75	913.61	517.05	1,049.75	0.34	0.16	-34.45	280.45
	NORMAL	11,960.0	0.86	225.35	11,876.74	912.90	516.11	1,048.67	0.37	0.29	-19.35	310.22
6/19/2014	NORMAL	12,054.0	0.58	219.18	11,970.73	912.03	515.31	1,047.53	0.31	-0.30	-6.56	192.41
	NORMAL	12,148.0	0.85	236.53	12,064.73	911.28	514.43	1,046.44	0.37	0.29	18.46	47.61
	NORMAL	12,242.0	0.32	233.26	12,158.72	910.74	513.64	1,045.58	0.56	-0.56	-3.48	181.97
	NORMAL	12,336.0	0.37	259.77	12,252.72	910.53	513.13	1,045.15	0.18	0.05	28.20	86.16

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 (°)
6/19/2014	NORMAL	12,430.0	0.44	229.41	12,346.72	910.24	512.55	1,044.62	0.24	0.07	-32.30	272.49
	NORMAL	12,524.0	0.34	231.61	12,440.72	909.83	512.06	1,044.02	0.11	-0.11	2.34	172.58
	NORMAL	12,619.0	0.78	225.29	12,535.71	909.20	511.38	1,043.14	0.47	0.46	-6.65	348.84
6/20/2014	NORMAL	12,713.0	0.51	241.26	12,629.71	908.55	510.56	1,042.17	0.34	-0.29	16.99	154.16
	NORMAL	12,808.0	0.74	248.67	12,724.70	908.12	509.62	1,041.34	0.26	0.24	7.80	23.09
	NORMAL	12,902.0	0.53	243.66	12,818.69	907.71	508.66	1,040.51	0.23	-0.22	-5.33	192.31
	NORMAL	12,996.0	0.62	234.34	12,912.69	907.22	507.86	1,039.69	0.14	0.10	-9.91	309.17
	NORMAL	13,090.0	1.05	232.93	13,006.68	906.40	506.76	1,038.45	0.46	0.46	-1.50	356.56
	NORMAL	13,184.0	0.70	245.16	13,100.67	905.64	505.55	1,037.19	0.42	-0.37	13.01	157.94
	NORMAL	13,200.0	1.05	231.60	13,116.67	905.51	505.35	1,036.98	2.53	2.19	-84.75	322.49
	NORMAL	13,260.0	1.05	231.60	13,176.66	904.83	504.49	1,035.96	0.00	0.00	0.00	0.00