

Deviation Summary

PICEANCE VLY

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	PA 14-2	Wellbore No.	00
Wellbore Legal Name	PA 14-2	Common Wellbore Name	PA 14-2
Project	PA 02-07S-095W	Site	GV 86-2 Pad
Vertical Section Azimuth	227.92 (°)	North reference	
Origin N/S		Origin E/W	
Spud date	3/22/2014	UWI	PA 14-2
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	3/22/2014	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 (°)
3/22/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/22/2014	NORMAL	76.0	0.18	87.98	76.00	0.00	0.12	-0.09	0.24	0.24	0.00	87.98
	NORMAL	161.0	0.79	246.71	161.00	-0.22	-0.29	0.36	1.13	0.72	186.74	162.63
	NORMAL	251.0	2.99	236.78	250.94	-1.75	-2.82	3.27	2.46	2.44	-11.03	346.55
	NORMAL	342.0	5.72	220.17	341.68	-6.52	-7.73	10.11	3.27	3.00	-18.25	326.76
	NORMAL	432.0	5.72	218.67	431.23	-13.45	-13.43	18.98	0.17	0.00	-1.67	269.25
	NORMAL	523.0	6.69	225.35	521.70	-20.72	-20.03	28.75	1.33	1.07	7.34	40.01
3/23/2014	NORMAL	615.0	8.62	225.62	612.87	-29.30	-28.77	40.99	2.10	2.10	0.29	1.20
	NORMAL	689.0	11.01	227.86	685.78	-37.93	-37.98	53.60	3.27	3.23	3.03	10.18
	NORMAL	781.0	13.01	230.59	775.77	-50.40	-52.49	72.74	2.26	2.17	2.97	17.20
	NORMAL	873.0	15.41	229.75	864.94	-64.87	-69.83	95.30	2.62	2.61	-0.91	354.68
	NORMAL	963.0	16.80	226.89	951.41	-81.49	-88.45	120.26	1.78	1.54	-3.18	328.90
	NORMAL	1,054.0	16.83	226.98	1,038.52	-99.46	-107.68	146.58	0.04	0.03	0.10	41.00
	NORMAL	1,120.0	16.83	226.98	1,101.69	-112.50	-121.65	165.68	0.00	0.00	0.00	0.00
3/24/2014	NORMAL	1,151.0	16.80	227.16	1,131.37	-118.61	-128.22	174.65	0.19	-0.10	0.58	120.03
	NORMAL	1,246.0	17.38	228.02	1,222.17	-137.43	-148.83	202.57	0.67	0.61	0.91	23.96
	NORMAL	1,341.0	17.85	227.86	1,312.72	-156.69	-170.18	231.32	0.50	0.49	-0.17	354.04
	NORMAL	1,436.0	17.59	227.33	1,403.21	-176.19	-191.53	260.23	0.32	-0.27	-0.56	211.56
	NORMAL	1,531.0	17.86	227.05	1,493.70	-195.85	-212.75	289.15	0.30	0.28	-0.29	342.34
	NORMAL	1,625.0	17.41	227.69	1,583.29	-215.13	-233.70	317.63	0.52	-0.48	0.68	157.00
	NORMAL	1,720.0	17.04	226.39	1,674.03	-234.30	-254.29	345.75	0.56	-0.39	-1.37	225.52

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 (°)
3/24/2014	NORMAL	1,815.0	17.06	229.62	1,764.85	-252.93	-274.98	373.60	1.00	0.02	3.40	90.33
	NORMAL	1,910.0	16.53	231.39	1,855.80	-270.39	-296.16	401.02	0.78	-0.56	1.86	136.87
	NORMAL	2,005.0	15.63	229.88	1,947.08	-287.07	-316.50	427.30	1.04	-0.95	-1.59	204.20
	NORMAL	2,099.0	16.60	230.37	2,037.39	-303.80	-336.53	453.37	1.04	1.03	0.52	8.22
	NORMAL	2,194.0	17.23	231.37	2,128.28	-321.24	-357.97	480.97	0.73	0.66	1.05	25.27
	NORMAL	2,289.0	17.17	230.92	2,219.03	-338.86	-379.85	509.02	0.15	-0.06	-0.47	245.51
3/25/2014	NORMAL	2,384.0	16.80	232.34	2,309.89	-356.09	-401.60	536.71	0.59	-0.39	1.49	132.41
	NORMAL	2,479.0	17.59	227.07	2,400.65	-374.25	-422.98	564.75	1.84	0.83	-5.55	294.35
	NORMAL	2,574.0	17.22	225.92	2,491.30	-393.81	-443.59	593.16	0.53	-0.39	-1.21	222.37
	NORMAL	2,669.0	16.51	226.03	2,582.21	-412.97	-463.41	620.71	0.75	-0.75	0.12	177.48
	NORMAL	2,764.0	17.26	227.62	2,673.11	-431.84	-483.54	648.29	0.93	0.79	1.67	32.39
	NORMAL	2,858.0	16.78	227.52	2,763.00	-450.40	-503.85	675.81	0.51	-0.51	-0.11	183.44
	NORMAL	2,953.0	17.75	226.71	2,853.72	-469.59	-524.50	704.00	1.05	1.02	-0.85	345.69
	NORMAL	3,048.0	17.41	228.30	2,944.28	-488.98	-545.65	732.69	0.62	-0.36	1.67	126.05
	NORMAL	3,143.0	17.09	226.99	3,035.01	-507.96	-566.47	760.86	0.53	-0.34	-1.38	229.90
	NORMAL	3,238.0	17.34	227.20	3,125.75	-527.10	-587.07	788.97	0.27	0.26	0.22	14.06
	NORMAL	3,333.0	16.84	225.43	3,216.56	-546.37	-607.26	816.87	0.76	-0.53	-1.86	225.29
	NORMAL	3,428.0	17.90	227.31	3,307.22	-565.93	-627.79	845.22	1.26	1.12	1.98	28.80
	NORMAL	3,523.0	17.28	227.01	3,397.78	-585.45	-648.84	873.93	0.66	-0.65	-0.32	188.18
	NORMAL	3,618.0	16.85	226.35	3,488.60	-604.57	-669.13	901.80	0.50	-0.45	-0.69	203.93
	NORMAL	3,712.0	17.49	228.77	3,578.41	-623.29	-689.61	929.54	1.02	0.68	2.57	49.30
	NORMAL	3,807.0	17.51	227.33	3,669.02	-642.38	-710.85	958.11	0.46	0.02	-1.52	271.96
	NORMAL	3,902.0	16.71	228.25	3,759.81	-661.16	-731.55	986.06	0.89	-0.84	0.97	161.75
	NORMAL	3,997.0	15.93	226.09	3,850.98	-679.30	-751.13	1,012.74	1.04	-0.82	-2.27	216.86
	NORMAL	4,092.0	14.87	225.57	3,942.57	-696.88	-769.23	1,037.96	1.13	-1.12	-0.55	187.17
	NORMAL	4,187.0	13.38	228.83	4,034.70	-712.65	-786.21	1,061.13	1.78	-1.57	3.43	153.47
	NORMAL	4,282.0	11.90	228.69	4,127.39	-726.35	-801.84	1,081.91	1.56	-1.56	-0.15	181.12
	NORMAL	4,377.0	10.67	228.83	4,220.55	-738.60	-815.82	1,100.50	1.30	-1.29	0.15	178.79
	NORMAL	4,472.0	9.03	225.23	4,314.15	-749.65	-827.74	1,116.74	1.84	-1.73	-3.79	198.82
	NORMAL	4,566.0	8.87	225.62	4,407.01	-759.91	-838.15	1,131.35	0.18	-0.17	0.41	159.43
	NORMAL	4,661.0	7.21	231.89	4,501.07	-768.71	-848.08	1,144.62	1.97	-1.75	6.60	155.23
	NORMAL	4,756.0	5.54	231.55	4,595.48	-775.24	-856.36	1,155.14	1.76	-1.76	-0.36	181.13
	NORMAL	4,851.0	5.53	227.92	4,690.04	-781.16	-863.35	1,164.30	0.37	-0.01	-3.82	266.56
3/26/2014	NORMAL	4,946.0	4.31	233.66	4,784.69	-786.35	-869.62	1,172.43	1.38	-1.28	6.04	160.87
	NORMAL	5,041.0	3.08	226.02	4,879.49	-790.23	-874.34	1,178.53	1.39	-1.29	-8.04	198.03
	NORMAL	5,135.0	1.49	228.04	4,973.41	-792.80	-877.06	1,182.28	1.69	-1.69	2.15	178.11
	NORMAL	5,325.0	0.54	213.81	5,163.38	-795.20	-879.40	1,185.62	0.51	-0.50	-7.49	187.82
	NORMAL	5,420.0	0.78	220.87	5,258.38	-796.06	-880.07	1,186.69	0.27	0.25	7.43	22.27
	NORMAL	5,514.0	1.19	221.67	5,352.36	-797.27	-881.14	1,188.30	0.44	0.44	0.85	2.32
	NORMAL	5,609.0	0.57	227.63	5,447.35	-798.33	-882.14	1,189.75	0.66	-0.65	6.27	174.57
	NORMAL	5,704.0	0.53	224.70	5,542.35	-798.96	-882.80	1,190.66	0.05	-0.04	-3.08	213.65
	NORMAL	5,799.0	0.79	237.09	5,637.34	-799.63	-883.66	1,191.75	0.31	0.27	13.04	35.05
3/27/2014	NORMAL	5,894.0	0.90	223.62	5,732.33	-800.52	-884.72	1,193.14	0.24	0.12	-14.18	292.13
	NORMAL	5,989.0	0.62	146.12	5,827.32	-801.49	-884.95	1,193.95	1.03	-0.29	-81.58	218.33
	NORMAL	6,084.0	0.88	180.49	5,922.32	-802.65	-884.67	1,194.52	0.53	0.27	36.18	77.91
	NORMAL	6,178.0	0.97	194.88	6,016.30	-804.14	-884.88	1,195.68	0.26	0.10	15.31	76.12
	NORMAL	6,273.0	0.56	232.17	6,111.30	-805.20	-885.46	1,196.81	0.66	-0.43	39.25	147.10
	NORMAL	6,368.0	0.88	234.98	6,206.29	-805.90	-886.42	1,198.00	0.34	0.34	2.96	7.70
	NORMAL	6,463.0	0.88	224.70	6,301.28	-806.84	-887.53	1,199.45	0.17	0.00	-10.82	264.86
	NORMAL	6,558.0	1.58	232.17	6,396.26	-808.16	-889.08	1,201.49	0.75	0.74	7.86	16.65
	NORMAL	6,653.0	1.93	240.17	6,491.21	-809.76	-891.50	1,204.36	0.45	0.37	8.42	39.03
	NORMAL	6,748.0	2.37	231.02	6,586.14	-811.79	-894.42	1,207.88	0.59	0.46	-9.63	317.41
	NORMAL	6,843.0	2.81	231.20	6,681.05	-814.49	-897.76	1,212.17	0.46	0.46	0.19	1.15
	NORMAL	6,937.0	3.08	227.77	6,774.92	-817.63	-901.42	1,216.99	0.34	0.29	-3.65	325.15
	NORMAL	7,032.0	3.73	235.69	6,869.76	-821.09	-905.86	1,222.61	0.84	0.68	8.34	39.89
	NORMAL	7,128.0	3.50	240.69	6,965.57	-824.28	-911.00	1,228.56	0.41	-0.24	5.21	128.59

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 (°)
3/27/2014	NORMAL	7,222.0	3.87	241.57	7,059.37	-827.20	-916.29	1,234.44	0.40	0.39	0.94	9.13
3/28/2014	NORMAL	7,317.0	3.96	244.12	7,154.15	-830.15	-922.06	1,240.71	0.21	0.09	2.68	63.94
	NORMAL	7,412.0	3.96	238.32	7,248.92	-833.31	-927.80	1,247.08	0.42	0.00	-6.11	267.11
	NORMAL	7,507.0	4.24	237.02	7,343.68	-836.94	-933.54	1,253.78	0.31	0.29	-1.37	340.99
	NORMAL	7,573.0	4.24	237.02	7,409.50	-839.60	-937.64	1,258.59	0.00	0.00	0.00	0.00