

Deviation Summary

PICEANCE VLY

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	RWF 344-25	Wellbore No.	00
Wellbore Legal Name	RWF 344-25	Common Wellbore Name	RWF 344-25
Project	RU 25-06S-094W	Site	RWF 43-25 Pad
Vertical Section Azimuth	122.90 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	8/15/2014	UWI	RWF 344-25
Active datum	KB @6,259.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	SDI
Date Started	8/15/2014	Ended	
Tool Name	MWD	Engineer	JOHN FORSTER

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 (°)
8/15/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8/15/2014	NORMAL	74.0	0.26	61.44	74.00	0.08	0.15	0.08	0.35	0.35	0.00	61.44
	NORMAL	104.0	0.88	124.10	104.00	-0.02	0.40	0.34	2.65	2.07	208.87	79.55
	NORMAL	134.0	1.41	139.13	133.99	-0.42	0.83	0.93	2.02	1.77	50.10	37.19
	NORMAL	164.0	1.58	144.93	163.98	-1.04	1.31	1.67	0.76	0.57	19.33	44.60
	NORMAL	195.0	2.46	130.08	194.96	-1.82	2.06	2.72	3.28	2.84	-47.90	321.69
	NORMAL	225.0	3.08	135.97	224.93	-2.81	3.12	4.15	2.27	2.07	19.63	27.62
	NORMAL	255.0	3.34	128.94	254.88	-3.94	4.36	5.80	1.57	0.87	-23.43	299.90
	NORMAL	285.0	3.87	124.63	284.82	-5.07	5.87	7.68	1.98	1.77	-14.37	330.76
	NORMAL	316.0	4.31	119.27	315.74	-6.23	7.75	9.89	1.88	1.42	-17.29	316.32
	NORMAL	346.0	4.84	120.76	345.65	-7.43	9.82	12.28	1.81	1.77	4.97	13.38
	NORMAL	376.0	5.37	122.70	375.53	-8.84	12.09	14.95	1.86	1.77	6.47	19.01
8/16/2014	NORMAL	436.0	5.89	120.85	435.24	-11.93	17.09	20.83	0.92	0.87	-3.08	339.84
	NORMAL	467.0	6.16	118.65	466.07	-13.54	19.92	24.08	1.15	0.87	-7.10	318.36
	NORMAL	497.0	6.25	118.21	495.89	-15.09	22.77	27.31	0.34	0.30	-1.47	331.93
	NORMAL	527.0	6.51	116.10	525.71	-16.61	25.74	30.63	1.17	0.87	-7.03	316.90
	NORMAL	602.0	6.95	115.25	600.19	-20.41	33.66	39.35	0.60	0.59	-1.13	346.82
	NORMAL	692.0	6.99	121.40	689.53	-25.59	43.26	50.22	0.83	0.04	6.83	89.99
	NORMAL	783.0	7.56	124.30	779.79	-31.85	52.93	61.74	0.74	0.63	3.19	34.24
	NORMAL	874.0	7.38	120.35	870.02	-38.18	62.92	73.56	0.60	-0.20	-4.34	248.73
	NORMAL	965.0	5.41	122.90	960.45	-43.46	71.56	83.69	2.19	-2.16	2.80	173.06

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 (°)
8/16/2014	NORMAL	1,059.0	6.64	124.13	1,053.93	-48.92	79.78	93.56	1.32	1.31	1.31	6.60
	NORMAL	1,098.0	6.33	118.77	1,092.68	-51.22	83.53	97.96	1.74	-0.79	-13.74	240.24
8/17/2014	NORMAL	1,171.0	6.50	119.56	1,165.22	-55.19	90.66	106.09	0.26	0.23	1.08	27.83
	NORMAL	1,267.0	5.67	112.97	1,260.68	-59.72	99.75	116.19	1.13	-0.86	-6.86	216.84
	NORMAL	1,363.0	5.67	111.56	1,356.21	-63.32	108.53	125.51	0.15	0.00	-1.47	269.30
	NORMAL	1,457.0	5.19	114.20	1,449.79	-66.76	116.72	134.27	0.58	-0.51	2.81	153.81
	NORMAL	1,553.0	5.32	126.94	1,545.39	-71.22	124.24	143.00	1.22	0.14	13.27	90.01
	NORMAL	1,648.0	5.19	126.50	1,639.99	-76.42	131.21	151.68	0.14	-0.14	-0.46	197.00
	NORMAL	1,743.0	4.92	128.08	1,734.62	-81.49	137.87	160.03	0.32	-0.28	1.66	153.51
	NORMAL	1,839.0	5.58	122.55	1,830.22	-86.54	145.05	168.79	0.87	0.69	-5.76	319.75
	NORMAL	1,933.0	5.41	123.60	1,923.79	-91.45	152.59	177.79	0.21	-0.18	1.12	149.92
	NORMAL	2,029.0	5.19	123.69	2,019.38	-96.36	159.97	186.66	0.23	-0.23	0.09	177.88
	NORMAL	2,124.0	5.98	122.99	2,113.93	-101.44	167.70	195.91	0.83	0.83	-0.74	354.72
	NORMAL	2,219.0	6.20	121.23	2,208.39	-106.80	176.24	205.98	0.30	0.23	-1.85	318.80
	NORMAL	2,315.0	5.80	126.06	2,303.87	-112.34	184.59	216.01	0.67	-0.42	5.03	130.77
	NORMAL	2,411.0	5.63	121.40	2,399.39	-117.65	192.53	225.56	0.51	-0.18	-4.85	247.57
8/18/2014	NORMAL	2,507.0	5.45	126.68	2,494.94	-122.83	200.21	234.81	0.56	-0.19	5.50	112.06
	NORMAL	2,602.0	5.45	129.40	2,589.51	-128.38	207.31	243.80	0.27	0.00	2.86	91.35
	NORMAL	2,697.0	5.32	126.33	2,684.10	-133.86	214.35	252.68	0.33	-0.14	-3.23	244.19
	NORMAL	2,793.0	5.28	129.49	2,779.69	-139.30	221.34	261.51	0.31	-0.04	3.29	99.37
	NORMAL	2,889.0	4.84	129.31	2,875.31	-144.68	227.88	269.92	0.46	-0.46	-0.19	181.98
	NORMAL	2,984.0	5.41	128.08	2,969.93	-149.98	234.51	278.36	0.61	0.60	-1.29	348.48
	NORMAL	3,079.0	5.58	127.12	3,064.49	-155.53	241.72	287.43	0.20	0.18	-1.01	331.12
	NORMAL	3,175.0	5.50	123.78	3,160.05	-160.90	249.26	296.68	0.35	-0.08	-3.48	254.41
	NORMAL	3,270.0	5.28	123.86	3,254.63	-165.87	256.68	305.61	0.23	-0.23	0.08	178.08
	NORMAL	3,366.0	5.28	125.18	3,350.22	-170.88	263.96	314.44	0.13	0.00	1.38	90.66
	NORMAL	3,461.0	5.14	125.71	3,444.83	-175.88	270.98	323.06	0.16	-0.15	0.56	161.29
	NORMAL	3,556.0	4.66	127.73	3,539.48	-180.72	277.49	331.15	0.54	-0.51	2.13	161.23
	NORMAL	3,650.0	5.58	122.11	3,633.10	-185.49	284.38	339.53	1.11	0.98	-5.98	328.58
	NORMAL	3,744.0	5.63	122.90	3,726.66	-190.42	292.12	348.71	0.10	0.05	0.84	57.45
	NORMAL	3,840.0	5.58	121.76	3,822.20	-195.44	300.05	358.08	0.13	-0.05	-1.19	245.25
	NORMAL	3,935.0	6.50	122.55	3,916.67	-200.76	308.51	368.08	0.97	0.97	0.83	5.56
	NORMAL	4,031.0	6.46	126.59	4,012.06	-206.90	317.42	378.90	0.48	-0.04	4.21	97.02
	NORMAL	4,126.0	6.46	126.41	4,106.45	-213.26	326.02	389.57	0.02	0.00	-0.19	269.91
	NORMAL	4,222.0	6.15	124.83	4,201.87	-219.40	334.58	400.10	0.37	-0.32	-1.65	208.45
	NORMAL	4,317.0	6.11	127.47	4,296.33	-225.39	342.77	410.22	0.30	-0.04	2.78	99.39
	NORMAL	4,413.0	5.93	129.66	4,391.80	-231.66	350.65	420.24	0.30	-0.19	2.28	129.17
	NORMAL	4,507.0	5.41	127.12	4,485.34	-237.43	357.92	429.48	0.61	-0.55	-2.70	204.50
	NORMAL	4,603.0	6.15	120.44	4,580.85	-242.77	365.96	439.13	1.04	0.77	-6.96	314.37
	NORMAL	4,697.0	6.02	119.82	4,674.32	-247.77	374.58	449.09	0.15	-0.14	-0.66	206.51
	NORMAL	4,793.0	5.54	121.67	4,769.84	-252.71	382.89	458.74	0.54	-0.50	1.93	159.70
8/19/2014	NORMAL	4,888.0	5.71	120.44	4,864.38	-257.51	390.87	468.05	0.22	0.18	-1.29	324.04
	NORMAL	4,983.0	6.07	116.48	4,958.88	-262.14	399.44	477.76	0.57	0.38	-4.17	309.56
	NORMAL	5,078.0	5.93	121.49	5,053.36	-266.95	408.12	487.66	0.57	-0.15	5.27	107.45
	NORMAL	5,173.0	5.58	120.09	5,147.88	-271.83	416.30	497.18	0.40	-0.37	-1.47	201.16
	NORMAL	5,269.0	5.05	126.24	5,243.47	-276.66	423.74	506.06	0.81	-0.55	6.41	135.97
	NORMAL	5,365.0	5.10	130.46	5,339.09	-281.93	430.40	514.51	0.39	0.05	4.40	84.48
	NORMAL	5,461.0	4.62	119.29	5,434.75	-286.59	437.02	522.60	1.10	-0.50	-11.64	237.61
	NORMAL	5,555.0	4.44	118.77	5,528.45	-290.19	443.51	530.00	0.20	-0.19	-0.55	192.59
	NORMAL	5,649.0	4.13	122.90	5,622.19	-293.78	449.54	537.02	0.47	-0.33	4.39	137.18
	NORMAL	5,745.0	3.78	130.81	5,717.96	-297.73	454.84	543.61	0.67	-0.36	8.24	126.59
8/20/2014	NORMAL	5,841.0	3.17	123.78	5,813.79	-301.27	459.44	549.40	0.77	-0.64	-7.32	211.46
	NORMAL	5,935.0	3.60	109.89	5,907.63	-303.72	464.37	554.87	0.98	0.46	-14.78	290.62
	NORMAL	6,030.0	3.34	106.11	6,002.45	-305.51	469.84	560.43	0.36	-0.27	-3.98	219.47
	NORMAL	6,126.0	3.34	105.14	6,098.29	-307.01	475.22	565.77	0.06	0.00	-1.01	269.52
	NORMAL	6,221.0	2.50	102.77	6,193.16	-308.19	479.92	570.35	0.89	-0.88	-2.49	187.00

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 (°)
8/20/2014	NORMAL	6,316.0	0.66	101.98	6,288.12	-308.76	482.47	572.81	1.94	-1.94	-0.83	180.28
8/21/2014	NORMAL	6,411.0	1.54	343.94	6,383.11	-307.65	482.65	572.35	2.04	0.93	-124.25	224.49
	NORMAL	6,506.0	1.67	335.94	6,478.08	-305.16	481.74	570.23	0.27	0.14	-8.42	296.08
	NORMAL	6,601.0	1.54	324.43	6,573.04	-302.86	480.43	567.88	0.37	-0.14	-12.12	242.35
	NORMAL	6,697.0	1.67	16.02	6,669.01	-300.46	480.07	566.28	1.46	0.14	53.74	111.00
	NORMAL	6,793.0	1.36	15.76	6,764.97	-298.02	480.76	565.53	0.32	-0.32	-0.27	181.14
	NORMAL	6,889.0	1.10	0.11	6,860.95	-296.01	481.07	564.70	0.44	-0.27	-16.30	224.61
	NORMAL	6,985.0	0.92	343.85	6,956.94	-294.34	480.86	563.62	0.35	-0.19	-16.94	229.92
	NORMAL	7,081.0	1.41	48.81	7,052.92	-292.83	481.53	563.36	1.37	0.51	67.67	104.19
	NORMAL	7,177.0	1.23	45.90	7,148.90	-291.33	483.16	563.92	0.20	-0.19	-3.03	198.98
	NORMAL	7,273.0	0.92	57.33	7,244.88	-290.20	484.55	564.47	0.39	-0.32	11.91	150.95
	NORMAL	7,368.0	1.10	69.46	7,339.86	-289.47	486.05	565.33	0.29	0.19	12.77	56.08
	NORMAL	7,464.0	0.75	96.88	7,435.85	-289.22	487.53	566.44	0.58	-0.36	28.56	141.50
8/22/2014	NORMAL	7,559.0	0.75	318.37	7,530.85	-288.83	487.74	566.40	1.48	0.00	-145.80	200.75
	NORMAL	7,655.0	0.79	301.58	7,626.84	-288.01	486.76	565.13	0.24	0.04	-17.49	271.59
	NORMAL	7,749.0	0.97	287.78	7,720.83	-287.43	485.45	563.72	0.29	0.19	-14.68	303.30
	NORMAL	7,844.0	1.36	278.46	7,815.81	-287.02	483.57	561.91	0.46	0.41	-9.81	329.38
	NORMAL	7,939.0	1.54	263.96	7,910.78	-286.99	481.18	559.89	0.43	0.19	-15.26	288.76
	NORMAL	8,035.0	2.02	265.19	8,006.73	-287.26	478.21	557.55	0.50	0.50	1.28	5.17
	NORMAL	8,131.0	2.33	254.73	8,102.67	-287.92	474.64	554.91	0.52	0.32	-10.90	302.68
	NORMAL	8,225.0	2.86	251.75	8,196.57	-289.16	470.57	552.17	0.58	0.56	-3.17	344.23
	NORMAL	8,320.0	2.94	251.92	8,291.45	-290.66	466.01	549.15	0.08	0.08	0.18	6.22
	NORMAL	8,414.0	3.08	250.16	8,385.32	-292.26	461.34	546.10	0.18	0.15	-1.87	325.69
8/23/2014	NORMAL	8,510.0	3.38	246.30	8,481.17	-294.27	456.32	542.98	0.39	0.31	-4.02	322.12
	NORMAL	8,606.0	3.56	240.41	8,576.99	-296.88	451.14	540.04	0.42	0.19	-6.14	293.83
	NORMAL	8,700.0	3.74	241.37	8,670.80	-299.79	445.91	537.24	0.20	0.19	1.02	19.23
	NORMAL	8,801.0	3.60	242.52	8,771.59	-302.83	440.21	534.10	0.16	-0.14	1.14	152.84
	NORMAL	8,846.0	3.60	242.52	8,816.49	-304.14	437.70	532.70	0.00	0.00	0.00	0.00