

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	RWF 423-25	Wellbore No.	00
Wellbore Legal Name	RWF 423-25	Common Wellbore Name	RWF 423-25
Project	RU 25-06S-094W	Site	RWF 23-25 Pad
Vertical Section Azimuth	352.49 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	4/1/2014	UWI	RWF 423-25
Active datum	KB @6,122.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	4/1/2014	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

6346

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 (°)
4/1/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/2/2014	NORMAL	50.0			50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NORMAL	238.0	1.54	332.04	237.98	2.23	-1.18	2.37	0.82	0.82	0.00	332.04
	NORMAL	268.0	1.67	335.47	267.97	2.99	-1.56	3.16	0.54	0.43	11.43	38.19
	NORMAL	298.0	1.89	340.74	297.95	3.85	-1.90	4.07	0.91	0.73	17.57	39.31
	NORMAL	328.0	2.07	341.27	327.93	4.83	-2.24	5.08	0.60	0.60	1.77	6.07
	NORMAL	419.0	3.21	339.51	418.84	8.77	-3.66	9.18	1.26	1.25	-1.93	355.05
	NORMAL	509.0	3.82	340.74	508.67	13.96	-5.53	14.57	0.68	0.68	1.37	7.66
	NORMAL	600.0	3.65	353.84	599.47	19.71	-6.84	20.43	0.95	-0.19	14.40	107.75
	NORMAL	691.0	4.44	354.01	690.25	26.09	-7.52	26.85	0.87	0.87	0.19	0.95
	NORMAL	781.0	5.28	355.07	779.92	33.68	-8.24	34.47	0.94	0.93	1.18	6.63
	NORMAL	873.0	6.37	355.07	871.45	42.98	-9.04	43.79	1.18	1.18	0.00	0.00
	NORMAL	964.0	7.47	354.19	961.78	53.90	-10.07	54.75	1.21	1.21	-0.97	354.06
	NORMAL	1,059.0	6.46	351.90	1,056.08	65.33	-11.45	66.27	1.10	-1.06	-2.41	194.24
	NORMAL	1,110.0	5.89	349.09	1,106.78	70.74	-12.35	71.75	1.26	-1.12	-5.51	206.54
4/3/2014	NORMAL	1,110.0	5.89	349.09	1,106.78	70.74	-12.35	71.75	0.00	0.00	0.00	0.00
	NORMAL	1,171.0	5.45	345.31	1,167.48	76.62	-13.68	77.75	0.95	-0.72	-6.20	218.45
	NORMAL	1,267.0	5.36	347.42	1,263.06	85.40	-15.81	86.74	0.23	-0.09	2.20	115.41
	NORMAL	1,363.0	5.10	344.43	1,358.66	93.89	-17.93	95.43	0.39	-0.27	-3.11	224.87
	NORMAL	1,458.0	3.82	355.51	1,453.37	101.11	-19.31	102.77	1.62	-1.35	11.66	151.49
	NORMAL	1,553.0	3.82	353.92	1,548.16	107.41	-19.89	109.09	0.11	0.00	-1.67	269.21

2.1.2 Survey Stations (Continued)

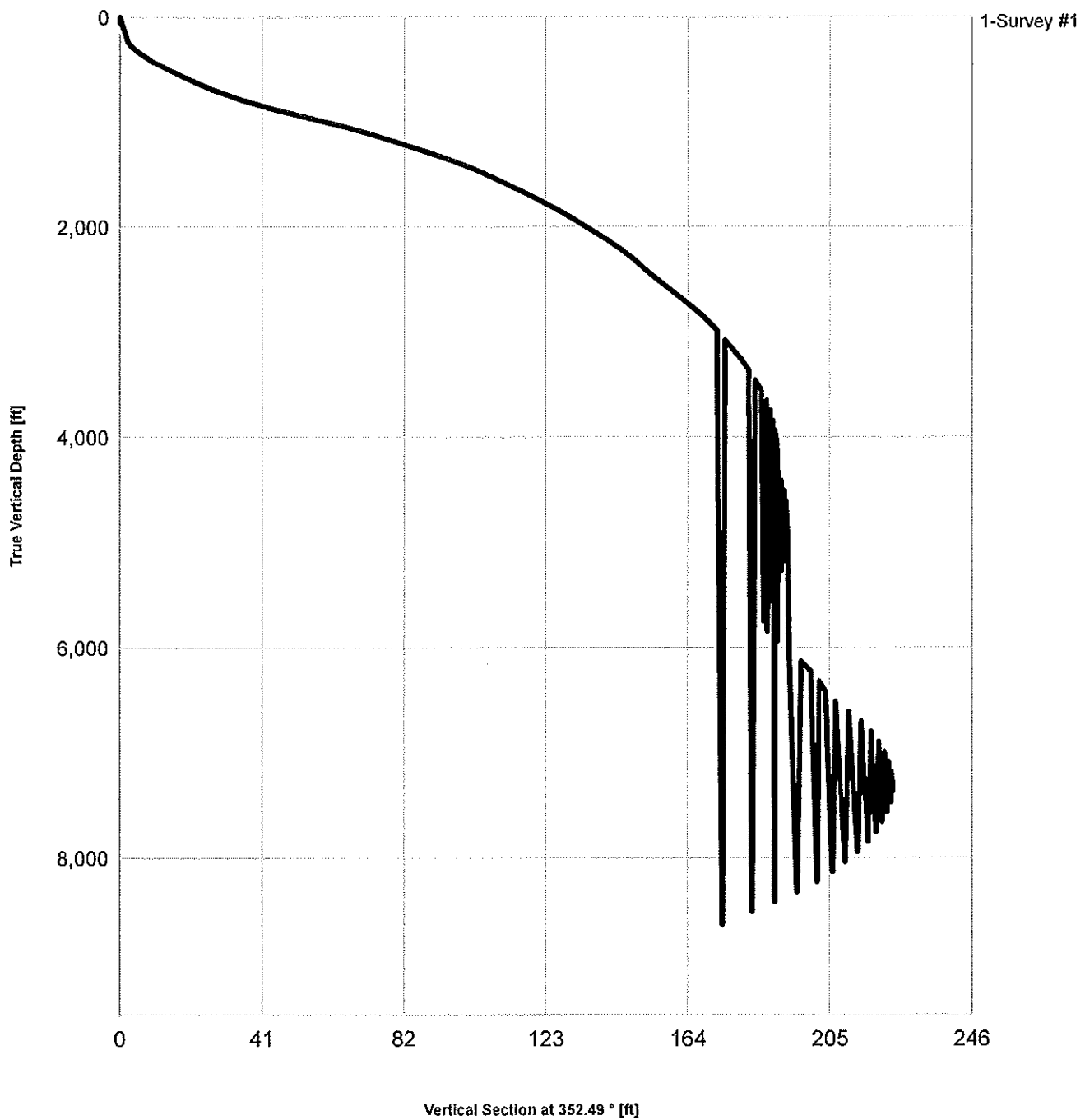
Date	Type	MD (ft)	Inc. (")	Azi. (")	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS ("/100usft)	Build Rate ("/100usft)	Turn ("/100usft)	Tface (")
4/3/2014	NORMAL	1,649.0	3.47	352.52	1,643.97	113.47	-20.61	115.19	0.38	-0.36	-1.46	193.57
	NORMAL	1,744.0	3.52	355.59	1,738.79	119.23	-21.21	120.88	0.20	0.05	3.23	76.58
	NORMAL	1,840.0	3.12	353.40	1,834.63	124.77	-21.74	126.54	0.44	-0.42	-2.28	196.50
	NORMAL	1,935.0	2.73	348.48	1,929.50	129.55	-22.49	131.38	0.49	-0.41	-5.18	210.33
	NORMAL	2,031.0	3.03	345.05	2,025.38	134.24	-23.60	136.17	0.36	0.31	-3.57	328.40
	NORMAL	2,126.0	2.55	341.44	2,120.27	138.67	-24.92	140.74	0.54	-0.51	-3.80	198.31
	NORMAL	2,222.0	2.55	344.69	2,216.17	142.76	-26.16	144.95	0.15	0.00	3.39	91.62
	NORMAL	2,318.0	2.02	339.16	2,312.10	146.40	-27.33	148.71	0.60	-0.55	-5.76	199.84
	NORMAL	2,413.0	1.89	342.59	2,407.04	149.46	-28.39	151.89	0.18	-0.14	3.61	139.72
	NORMAL	2,509.0	2.33	345.75	2,502.98	152.86	-29.35	155.38	0.47	0.46	3.29	16.39
	NORMAL	2,604.0	2.20	342.94	2,597.90	156.47	-30.36	159.10	0.18	-0.14	-2.96	219.11
	NORMAL	2,699.0	2.33	341.71	2,692.83	160.05	-31.50	162.79	0.15	0.14	-1.29	338.88
	NORMAL	2,795.0	2.15	335.38	2,788.76	163.54	-32.86	166.43	0.32	-0.19	-6.59	230.83
	NORMAL	2,890.0	2.02	329.05	2,883.69	166.60	-34.46	169.67	0.28	-0.14	-6.66	237.42
	NORMAL	2,986.0	1.54	337.23	2,979.65	169.24	-35.83	172.47	0.56	-0.50	8.52	156.15
4/4/2014	NORMAL	3,081.0	1.41	340.48	3,074.61	171.52	-36.72	174.84	0.16	-0.14	3.42	148.86
	NORMAL	3,177.0	1.58	333.62	3,170.58	173.81	-37.70	177.25	0.26	0.18	-7.15	310.06
	NORMAL	3,273.0	1.41	338.02	3,266.55	176.10	-38.73	179.65	0.21	-0.18	4.58	148.16
	NORMAL	3,368.0	1.19	331.69	3,361.53	178.05	-39.63	181.70	0.28	-0.23	-6.66	210.00
	NORMAL	3,464.0	1.10	330.37	3,457.51	179.73	-40.56	183.49	0.10	-0.09	-1.38	195.68
	NORMAL	3,559.0	1.23	328.44	3,552.49	181.39	-41.55	185.26	0.14	0.14	-2.03	342.24
	NORMAL	3,654.0	1.01	315.96	3,647.47	182.86	-42.66	186.87	0.34	-0.23	-13.14	221.83
	NORMAL	3,750.0	0.66	302.51	3,743.46	183.76	-43.72	187.90	0.42	-0.36	-14.01	202.64
	NORMAL	3,846.0	0.79	296.18	3,839.45	184.35	-44.78	188.62	0.16	0.14	-6.59	325.17
	NORMAL	3,941.0	0.70	289.94	3,934.44	184.84	-45.91	189.25	0.13	-0.09	-6.57	218.94
	NORMAL	4,037.0	0.79	281.24	4,030.43	185.17	-47.11	189.74	0.15	0.09	-9.06	304.10
	NORMAL	4,132.0	0.79	263.84	4,125.43	185.23	-48.40	189.96	0.25	0.00	-18.32	261.30
	NORMAL	4,227.0	1.10	255.22	4,220.41	184.92	-49.94	189.86	0.36	0.33	-9.07	331.01
	NORMAL	4,323.0	0.83	293.46	4,316.40	184.96	-51.47	190.10	0.71	-0.28	39.83	131.09
	NORMAL	4,418.0	0.75	333.01	4,411.39	185.79	-52.38	191.05	0.57	-0.08	41.63	117.79
	NORMAL	4,513.0	0.48	326.59	4,506.39	186.68	-52.88	191.99	0.29	-0.28	-6.76	191.12
	NORMAL	4,608.0	0.35	281.66	4,601.38	187.07	-53.38	192.44	0.36	-0.14	-47.27	226.79
	NORMAL	4,704.0	0.48	268.93	4,697.38	187.12	-54.07	192.58	0.17	0.14	-13.28	318.12
4/5/2014	NORMAL	4,799.0	0.26	40.86	4,792.38	187.28	-54.33	192.77	0.72	-0.23	138.87	163.52
	NORMAL	4,895.0	0.48	83.92	4,888.38	187.48	-53.79	192.91	0.35	0.23	44.85	74.53
	NORMAL	4,990.0	0.26	124.79	4,983.38	187.40	-53.22	192.75	0.35	-0.23	43.02	149.02
	NORMAL	5,085.0	0.13	107.83	5,078.38	187.25	-52.94	192.56	0.15	-0.14	-17.85	195.62
	NORMAL	5,179.0	0.53	185.88	5,172.37	186.78	-52.88	192.09	0.55	0.43	83.03	92.24
	NORMAL	5,274.0	0.61	184.91	5,267.37	185.84	-52.97	191.17	0.08	0.08	-1.02	352.64
	NORMAL	5,370.0	0.79	206.88	5,363.36	184.74	-53.31	190.13	0.33	0.19	22.89	67.46
	NORMAL	5,466.0	0.88	217.17	5,459.35	183.56	-54.05	189.05	0.18	0.09	10.72	64.24
	NORMAL	5,562.0	0.83	215.76	5,555.34	182.41	-54.91	188.02	0.06	-0.05	-1.47	202.12
4/6/2014	NORMAL	5,657.0	1.01	196.77	5,650.33	181.05	-55.55	186.76	0.37	0.19	-19.99	290.83
	NORMAL	5,753.0	0.66	267.79	5,746.32	180.22	-56.35	186.04	1.05	-0.36	73.98	141.88
	NORMAL	5,848.0	1.32	3.59	5,841.31	181.29	-56.83	187.16	1.62	0.69	100.84	121.13
	NORMAL	5,944.0	2.42	28.02	5,937.26	184.19	-55.80	189.90	1.39	1.15	25.45	48.56
4/7/2014	NORMAL	6,040.0	2.59	23.54	6,033.17	187.96	-53.99	193.41	0.27	0.18	-4.67	308.71
	NORMAL	6,136.0	2.11	22.93	6,129.09	191.58	-52.43	196.79	0.50	-0.50	-0.64	182.68
	NORMAL	6,231.0	1.67	5.26	6,224.04	194.57	-51.62	199.65	0.76	-0.46	-18.60	224.34
	NORMAL	6,327.0	1.19	6.67	6,320.01	196.95	-51.38	201.98	0.50	-0.50	1.47	176.51
	NORMAL	6,422.0	1.36	31.10	6,414.98	198.90	-50.68	203.81	0.59	0.18	25.72	85.09
	NORMAL	6,518.0	3.03	30.49	6,510.91	202.06	-48.81	206.70	1.74	1.74	-0.64	358.89
	NORMAL	6,613.0	2.94	32.16	6,605.78	206.28	-46.23	210.56	0.13	-0.09	1.76	136.81
	NORMAL	6,708.0	2.46	28.82	6,700.67	210.13	-43.95	214.08	0.53	-0.51	-3.52	196.48
	NORMAL	6,804.0	1.71	23.54	6,796.61	213.25	-42.39	216.96	0.81	-0.78	-5.50	191.74
	NORMAL	6,900.0	1.19	13.00	6,892.58	215.54	-41.59	219.12	0.61	-0.54	-10.98	201.95

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 (°)
4/7/2014	NORMAL	6,995.0	0.92	356.56	6,987.56	217.26	-41.42	220.81	0.42	-0.28	-17.31	220.25
	NORMAL	7,091.0	1.10	293.63	7,083.55	218.40	-42.31	222.05	1.11	0.19	-65.55	246.82
	NORMAL	7,186.0	1.32	280.89	7,178.53	218.97	-44.22	222.87	0.36	0.23	-13.41	302.79
4/8/2014	NORMAL	7,281.0	1.50	265.15	7,273.50	219.07	-46.53	223.27	0.45	0.19	-16.57	286.92
	NORMAL	7,376.0	1.80	253.38	7,368.46	218.54	-49.20	223.10	0.47	0.32	-12.39	305.53
	NORMAL	7,472.0	2.29	254.34	7,464.40	217.59	-52.49	222.58	0.51	0.51	1.00	4.48
	NORMAL	7,567.0	2.07	235.97	7,559.33	216.12	-55.74	221.55	0.77	-0.23	-19.34	243.49
	NORMAL	7,661.0	1.80	231.58	7,653.28	214.25	-58.30	220.03	0.33	-0.29	-4.67	206.59
	NORMAL	7,756.0	2.24	230.61	7,748.22	212.15	-60.91	218.29	0.46	0.46	-1.02	355.07
	NORMAL	7,851.0	2.77	229.12	7,843.13	209.46	-64.08	216.04	0.56	0.56	-1.57	352.25
4/9/2014	NORMAL	7,947.0	2.73	214.35	7,939.02	206.06	-67.12	213.06	0.74	-0.04	-15.39	259.41
	NORMAL	8,042.0	2.81	208.11	8,033.91	202.14	-69.50	209.49	0.33	0.08	-6.57	281.73
	NORMAL	8,137.0	2.15	176.03	8,128.82	198.31	-70.47	205.81	1.59	-0.69	-33.77	229.13
	NORMAL	8,232.0	3.12	174.89	8,223.72	193.95	-70.12	201.45	1.02	1.02	-1.20	356.34
	NORMAL	8,328.0	3.91	181.31	8,319.54	188.08	-69.96	195.61	0.92	0.82	6.69	29.71
4/12/2014	NORMAL	8,423.0	4.09	193.26	8,414.31	181.54	-70.81	189.24	0.90	0.19	12.58	83.82
	NORMAL	8,518.0	4.44	194.67	8,509.05	174.69	-72.52	182.67	0.38	0.37	1.48	17.38
	NORMAL	8,640.0	4.35	196.16	8,630.69	165.67	-75.00	174.06	0.12	-0.07	1.22	128.99

3 Charts

3.1 Vertical Section View



3.2 Plan View

