

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	RWF 313-25	Wellbore No.	00
Wellbore Legal Name	RWF 313-25	Common Wellbore Name	RWF 313-25
Project	RU 25-06S-094W	Site	RWF 23-25 Pad
Vertical Section Azimuth	297.28 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	3/22/2014	UWI	RWF 313-25
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	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	187.0	2.90	304.53	186.92	2.68	-3.90	4.69	1.55	1.55	0.00	304.53
	NORMAL	233.0	3.69	305.76	232.84	4.21	-6.06	7.31	1.72	1.72	2.67	5.73
	NORMAL	263.0	4.66	304.27	262.76	5.46	-7.85	9.48	3.25	3.23	-4.97	352.88
	NORMAL	323.0	7.08	301.45	322.44	8.76	-13.02	15.58	4.06	4.03	-4.70	351.80
	NORMAL	414.0	10.24	296.80	412.40	15.33	-25.02	29.27	3.55	3.47	-5.11	345.20
	NORMAL	504.0	14.11	299.08	500.36	24.28	-41.76	48.24	4.33	4.30	2.53	8.20
	NORMAL	595.0	19.16	298.64	587.52	36.83	-64.57	74.27	5.55	5.55	-0.48	358.36
	NORMAL	686.0	21.85	297.59	672.75	51.84	-92.69	106.14	2.98	2.96	-1.15	351.72
	NORMAL	776.0	22.86	298.20	755.98	67.85	-122.95	140.37	1.15	1.12	0.68	13.22
	NORMAL	868.0	23.56	298.38	840.54	85.04	-154.87	176.62	0.76	0.76	0.20	5.87
	NORMAL	959.0	23.78	294.42	923.89	101.27	-187.58	213.13	1.76	0.24	-4.35	276.06
	NORMAL	1,055.0	24.57	294.33	1,011.47	117.49	-223.39	252.40	0.82	0.82	-0.09	357.29
	NORMAL	1,107.0	23.60	295.04	1,058.94	126.35	-242.67	273.59	1.95	-1.87	1.37	163.69
3/24/2014	NORMAL	1,268.0	23.74	295.57	1,206.39	153.98	-301.11	338.19	0.16	0.09	0.33	56.90
	NORMAL	1,363.0	23.34	296.18	1,293.49	170.54	-335.24	376.12	0.49	-0.42	0.64	148.94
	NORMAL	1,459.0	21.89	295.39	1,382.10	186.60	-368.48	413.02	1.54	-1.51	-0.82	191.47
	NORMAL	1,554.0	20.13	298.47	1,470.79	201.99	-398.85	447.07	2.19	-1.85	3.24	149.33
	NORMAL	1,650.0	20.66	298.90	1,560.77	218.05	-428.20	480.51	0.57	0.55	0.45	15.99
	NORMAL	1,745.0	21.19	297.67	1,649.50	234.12	-458.08	514.44	0.72	0.56	-1.29	319.77
	NORMAL	1,841.0	19.87	299.08	1,739.41	250.11	-487.70	548.09	1.47	-1.38	1.47	160.12

2.1.2 Survey Stations (Continued)

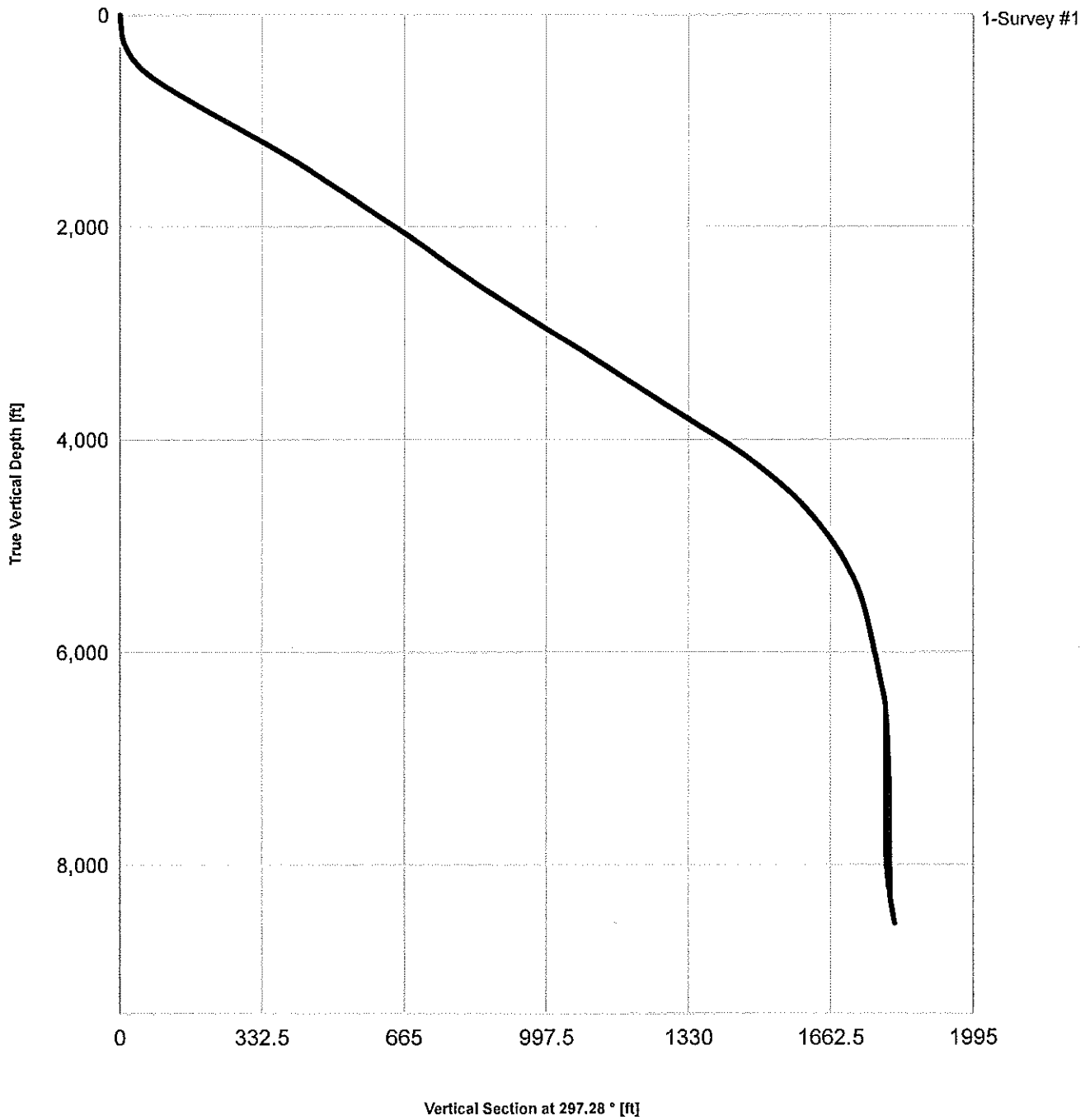
Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
3/24/2014	NORMAL	1,936.0	20.40	298.82	1,828.60	265.94	-516.32	580.78	0.57	0.56	-0.27	350.29
	NORMAL	2,031.0	21.23	298.73	1,917.40	282.19	-545.91	614.53	0.87	0.87	-0.09	357.75
	NORMAL	2,127.0	19.91	299.69	2,007.28	298.64	-575.35	648.24	1.42	-1.38	1.00	166.11
	NORMAL	2,223.0	20.26	299.61	2,097.44	314.95	-604.00	681.18	0.37	0.36	-0.08	355.47
	NORMAL	2,318.0	18.81	297.41	2,186.97	330.13	-631.90	712.93	1.71	-1.53	-2.32	205.87
3/25/2014	NORMAL	2,414.0	18.81	297.50	2,277.84	344.40	-659.37	743.88	0.03	0.00	0.09	90.04
	NORMAL	2,509.0	19.39	298.03	2,367.61	358.88	-686.87	774.97	0.64	0.61	0.56	16.90
	NORMAL	2,605.0	19.82	298.29	2,458.04	374.08	-715.27	807.17	0.46	0.45	0.27	11.59
	NORMAL	2,700.0	20.31	298.90	2,547.28	389.69	-743.89	839.76	0.56	0.52	0.64	23.41
	NORMAL	2,795.0	20.97	298.73	2,636.18	405.82	-773.23	873.23	0.70	0.69	-0.18	354.73
	NORMAL	2,891.0	21.67	299.34	2,725.61	422.77	-803.74	908.12	0.76	0.73	0.64	17.86
	NORMAL	2,986.0	20.53	293.46	2,814.25	438.00	-834.32	942.27	2.53	-1.20	-6.19	238.97
	NORMAL	3,082.0	21.41	292.75	2,903.89	451.47	-865.92	976.54	0.95	0.92	-0.74	343.56
	NORMAL	3,177.0	22.33	293.46	2,992.05	465.36	-898.47	1,011.83	1.01	0.97	0.75	16.37
	NORMAL	3,273.0	22.95	294.25	3,080.65	480.31	-932.26	1,048.72	0.72	0.65	0.82	26.49
	NORMAL	3,369.0	20.88	296.71	3,169.71	495.69	-964.61	1,084.52	2.36	-2.16	2.56	157.22
	NORMAL	3,464.0	20.88	297.67	3,258.48	511.16	-994.73	1,118.38	0.36	0.00	1.01	90.45
	NORMAL	3,559.0	21.32	297.50	3,347.11	527.00	-1,025.04	1,152.58	0.47	0.46	-0.18	352.00
	NORMAL	3,655.0	21.10	297.67	3,436.60	543.08	-1,055.83	1,187.31	0.24	-0.23	0.18	164.46
	NORMAL	3,751.0	21.01	297.23	3,526.19	558.98	-1,086.43	1,221.80	0.19	-0.09	-0.46	240.14
	NORMAL	3,846.0	21.06	297.59	3,614.86	574.68	-1,116.70	1,255.90	0.15	0.05	0.38	69.01
	NORMAL	3,942.0	21.32	298.38	3,704.37	590.96	-1,147.34	1,290.59	0.40	0.27	0.82	48.05
	NORMAL	4,037.0	21.63	298.90	3,792.78	607.63	-1,177.87	1,325.36	0.38	0.33	0.55	31.80
	NORMAL	4,132.0	21.85	298.99	3,881.02	624.66	-1,208.66	1,360.54	0.23	0.23	0.09	8.66
	NORMAL	4,228.0	21.45	298.55	3,970.25	641.71	-1,239.70	1,395.94	0.45	-0.42	-0.46	201.88
	NORMAL	4,323.0	20.97	298.20	4,058.81	658.04	-1,269.94	1,430.30	0.52	-0.51	-0.37	194.62
	NORMAL	4,418.0	18.55	300.31	4,148.21	673.70	-1,297.98	1,462.40	2.66	-2.55	2.22	164.57
3/26/2014	NORMAL	4,513.0	17.06	297.94	4,238.66	687.86	-1,323.33	1,491.42	1.74	-1.57	-2.49	204.81
	NORMAL	4,608.0	17.67	296.53	4,329.33	700.83	-1,348.54	1,519.77	0.78	0.64	-1.48	324.72
	NORMAL	4,704.0	16.09	298.47	4,421.19	713.68	-1,373.28	1,547.64	1.75	-1.65	2.02	161.30
	NORMAL	4,799.0	14.81	298.99	4,512.76	725.84	-1,395.47	1,572.94	1.36	-1.35	0.55	174.07
	NORMAL	4,895.0	12.92	297.06	4,605.96	736.67	-1,415.76	1,595.94	2.03	-1.97	-2.01	192.82
3/27/2014	NORMAL	4,990.0	12.40	293.90	4,698.65	745.64	-1,434.55	1,616.75	0.91	-0.55	-3.33	231.56
	NORMAL	5,085.0	11.43	294.51	4,791.60	753.67	-1,452.44	1,636.33	1.03	-1.02	0.64	172.90
	NORMAL	5,179.0	10.51	296.09	4,883.88	761.31	-1,468.61	1,654.20	1.03	-0.98	1.68	162.68
	NORMAL	5,274.0	10.07	296.18	4,977.35	768.78	-1,483.85	1,671.17	0.46	-0.46	0.09	177.95
	NORMAL	5,370.0	8.09	292.49	5,072.15	775.07	-1,497.62	1,686.30	2.15	-2.06	-3.84	194.57
	NORMAL	5,466.0	7.65	291.17	5,167.24	779.96	-1,509.82	1,699.38	0.50	-0.46	-1.38	201.68
	NORMAL	5,562.0	7.78	292.93	5,262.37	784.80	-1,521.76	1,712.21	0.28	0.14	1.83	62.05
	NORMAL	5,657.0	6.29	291.35	5,356.66	789.20	-1,532.53	1,723.80	1.58	-1.57	-1.66	186.62
	NORMAL	5,753.0	4.62	299.87	5,452.22	793.04	-1,540.78	1,732.90	1.93	-1.74	8.88	158.33
	NORMAL	5,848.0	4.04	300.05	5,546.95	796.62	-1,547.00	1,740.06	0.61	-0.61	0.19	178.75
	NORMAL	5,944.0	3.60	301.89	5,642.73	799.91	-1,552.48	1,746.44	0.48	-0.46	1.92	165.35
	NORMAL	6,040.0	3.30	300.05	5,738.56	802.88	-1,557.44	1,752.21	0.33	-0.31	-1.92	199.34
	NORMAL	6,136.0	3.21	297.59	5,834.41	805.51	-1,562.21	1,757.65	0.17	-0.09	-2.56	235.98
	NORMAL	6,231.0	3.03	293.02	5,929.27	807.73	-1,566.88	1,762.82	0.32	-0.19	-4.81	231.84
	NORMAL	6,327.0	3.12	291.87	6,025.13	809.69	-1,571.64	1,767.95	0.11	0.09	-1.20	325.00
3/28/2014	NORMAL	6,422.0	2.90	294.51	6,120.00	811.65	-1,576.22	1,772.92	0.27	-0.23	2.78	149.10
	NORMAL	6,518.0	2.86	285.63	6,215.88	813.30	-1,580.74	1,777.69	0.47	-0.04	-9.25	260.45
	NORMAL	6,613.0	3.56	308.05	6,310.73	815.76	-1,585.34	1,782.91	1.50	0.74	23.60	72.36
	NORMAL	6,708.0	3.56	330.02	6,405.55	820.13	-1,589.14	1,788.29	1.43	0.00	23.13	100.96
	NORMAL	6,804.0	3.17	2.27	6,501.39	825.37	-1,590.53	1,791.92	1.98	-0.41	33.59	117.44
	NORMAL	6,900.0	2.50	9.39	6,597.28	830.09	-1,590.08	1,793.69	0.79	-0.70	7.42	155.80
	NORMAL	6,995.0	2.11	9.57	6,692.20	833.85	-1,589.45	1,794.86	0.41	-0.41	0.19	179.03
	NORMAL	7,091.0	1.98	6.67	6,788.14	837.24	-1,588.96	1,795.98	0.17	-0.14	-3.02	217.08
	NORMAL	7,186.0	1.63	5.61	6,883.09	840.22	-1,588.64	1,797.05	0.37	-0.37	-1.12	184.92

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	EW (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
3/28/2014	NORMAL	7,281.0	1.19	13.17	6,978.06	842.52	-1,588.28	1,797.79	0.50	-0.46	7.96	160.83
3/29/2014	NORMAL	7,376.0	1.05	0.87	7,073.04	844.36	-1,588.05	1,798.42	0.29	-0.15	-12.95	233.73
	NORMAL	7,472.0	1.01	332.57	7,169.03	845.99	-1,588.42	1,799.50	0.53	-0.04	-29.48	251.45
	NORMAL	7,567.0	0.70	350.85	7,264.02	847.30	-1,588.90	1,800.53	0.43	-0.33	19.24	147.55
3/30/2014	NORMAL	7,756.0	0.53	69.25	7,453.01	848.75	-1,588.27	1,800.63	0.42	-0.09	41.48	138.82
	NORMAL	7,851.0	0.83	120.57	7,548.00	848.56	-1,587.26	1,799.65	0.68	0.32	54.02	90.99
	NORMAL	7,947.0	1.36	132.09	7,643.99	847.44	-1,585.82	1,797.85	0.60	0.55	12.00	28.38
	NORMAL	8,042.0	1.41	143.43	7,738.96	845.75	-1,584.29	1,795.72	0.29	0.05	11.94	85.36
3/31/2014	NORMAL	8,137.0	1.27	173.57	7,833.93	843.76	-1,583.47	1,794.08	0.75	-0.15	31.73	116.05
	NORMAL	8,232.0	1.58	200.11	7,928.90	841.48	-1,583.80	1,793.33	0.76	0.33	27.94	78.50
	NORMAL	8,328.0	2.02	231.76	8,024.86	839.19	-1,585.59	1,793.87	1.11	0.46	32.97	82.49
	NORMAL	8,423.0	2.29	254.43	8,119.79	837.65	-1,588.73	1,795.96	0.93	0.28	23.86	83.97
	NORMAL	8,518.0	3.25	248.54	8,214.68	836.15	-1,593.07	1,799.12	1.05	1.01	-6.20	340.53
	NORMAL	8,614.0	3.56	244.76	8,310.51	833.89	-1,598.29	1,802.73	0.40	0.32	-3.94	322.19
	NORMAL	8,710.0	4.28	242.90	8,406.29	830.98	-1,604.18	1,806.63	0.76	0.75	-1.94	349.06
	NORMAL	8,806.0	4.70	238.26	8,501.99	827.28	-1,610.71	1,810.74	0.58	0.44	-4.83	316.82
	NORMAL	8,851.0	4.77	241.40	8,546.84	825.42	-1,613.92	1,812.74	0.60	0.16	6.98	76.46
	PROJECTION	8,896.0	4.70	238.26								

3 Charts

3.1 Vertical Section View



3.2 Plan View

