

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	RWF 441-34	Wellbore No.	
Well Name	RWF 441-34	Common Name	RWF 441-34
Project	RU 35-06S-094W	Site	RMV 15-35 Pad
Vertical Section	307.37 (°)	North Reference	True
Azimuth		Origin E/W	
Origin N/S		UWI	RWF 441-34
Spud Date	5/23/2012		
Active Datum	KB @5,575.7ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	4/23/2012	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

5843

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
4/23/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/23/2012	NORMAL	84.0	1.23	283.62	83.99	0.21	-0.88	0.83	1.46	1.46	0.00	283.62
	NORMAL	178.0	1.85	340.66	177.96	1.88	-2.36	3.02	1.67	0.66	60.68	98.18
	NORMAL	269.0	3.61	304.89	268.86	4.91	-5.20	7.11	2.60	1.93	-39.31	297.11
5/24/2012	NORMAL	339.0	5.92	298.90	338.62	7.91	-10.16	12.88	3.37	3.30	-8.56	344.85
	NORMAL	431.0	8.01	303.30	429.93	13.73	-19.68	23.97	2.34	2.27	4.78	16.51
	NORMAL	522.0	9.67	307.42	519.85	21.85	-31.05	37.94	1.95	1.82	4.53	22.92
	NORMAL	613.0	12.85	307.06	609.09	32.60	-45.20	55.70	3.50	3.49	-0.40	358.56
	NORMAL	704.0	16.34	306.87	697.14	46.38	-63.52	78.63	3.84	3.84	-0.21	359.12
	NORMAL	795.0	19.95	308.53	783.60	63.74	-85.91	106.96	4.01	3.97	1.82	8.94
	NORMAL	887.0	21.73	307.85	869.58	83.96	-111.64	139.69	1.95	1.93	-0.74	351.94
	NORMAL	978.0	22.51	307.63	953.88	104.94	-138.74	173.95	0.86	0.86	-0.24	353.84
	NORMAL	1,073.0	23.39	308.65	1,041.36	127.82	-167.87	210.99	1.02	0.93	1.07	24.79
5/26/2012	NORMAL	1,165.0	23.29	306.19	1,125.83	149.96	-196.81	247.43	1.06	-0.11	-2.67	263.01
	NORMAL	1,257.0	24.03	305.63	1,210.10	171.62	-226.71	284.34	0.84	0.80	-0.61	342.85
	NORMAL	1,352.0	23.83	310.49	1,296.94	195.35	-257.03	322.84	2.09	-0.21	5.12	98.01
	NORMAL	1,448.0	23.59	310.01	1,384.84	220.29	-286.49	361.39	0.32	-0.25	-0.50	218.59
	NORMAL	1,544.0	23.21	310.23	1,472.94	244.86	-315.65	399.47	0.41	-0.40	0.23	167.15
	NORMAL	1,640.0	22.25	305.92	1,561.49	267.74	-344.81	436.54	2.00	-1.00	-4.49	238.06
	NORMAL	1,734.0	21.90	306.27	1,648.60	288.55	-373.36	471.86	0.40	-0.37	0.37	159.56
	NORMAL	1,828.0	21.71	306.40	1,735.87	309.24	-401.48	506.77	0.21	-0.20	0.14	165.80

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (%/100ft)	Bulld Rate (%/100ft)	Turn (%/100ft)	TFace (°)
5/26/2012	NORMAL	1,924.0	20.94	306.30	1,825.30	329.93	-429.60	541.67	0.80	-0.80	-0.10	182.66
	NORMAL	2,020.0	20.40	307.06	1,915.12	350.17	-456.78	575.56	0.63	-0.56	0.79	153.94
	NORMAL	2,116.0	20.14	307.68	2,005.18	370.36	-483.21	608.81	0.35	-0.27	0.65	140.73
	NORMAL	2,211.0	20.14	308.03	2,094.37	390.43	-509.04	641.52	0.13	0.00	0.37	90.16
	NORMAL	2,306.0	22.25	308.38	2,182.94	411.67	-536.02	675.86	2.23	2.22	0.37	3.60
	NORMAL	2,402.0	22.49	308.20	2,271.71	434.31	-564.70	712.40	0.26	0.25	-0.19	343.99
5/27/2012	NORMAL	2,498.0	22.07	306.01	2,360.55	456.27	-593.72	748.79	0.97	-0.44	-2.28	242.16
	NORMAL	2,593.0	21.46	304.52	2,448.77	476.61	-622.48	783.99	0.87	-0.64	-1.57	221.48
	NORMAL	2,689.0	22.25	307.59	2,537.88	497.65	-651.35	819.70	1.45	0.82	3.20	56.78
	NORMAL	2,785.0	21.72	306.98	2,626.89	519.42	-679.94	855.64	0.60	-0.55	-0.64	203.03
	NORMAL	2,878.0	21.37	307.24	2,713.40	540.03	-707.18	889.79	0.39	-0.38	0.28	164.86
	NORMAL	2,973.0	22.84	307.69	2,801.41	561.78	-735.55	925.54	1.56	1.55	0.47	6.78
	NORMAL	3,068.0	23.01	307.71	2,888.91	584.41	-764.83	962.54	0.18	0.18	0.02	2.63
	NORMAL	3,163.0	22.42	306.63	2,976.54	606.57	-794.05	999.23	0.76	-0.62	-1.14	214.76
	NORMAL	3,257.0	21.98	306.89	3,063.57	627.83	-822.51	1,034.74	0.48	-0.47	0.28	167.53
	NORMAL	3,353.0	22.25	305.66	3,152.51	649.21	-851.64	1,070.87	0.56	0.28	-1.28	299.68
	NORMAL	3,447.0	22.07	309.44	3,239.57	670.80	-879.74	1,106.31	1.53	-0.19	4.02	98.94
	NORMAL	3,542.0	22.10	309.33	3,327.60	693.47	-907.35	1,142.01	0.05	0.03	-0.12	305.91
	NORMAL	3,638.0	21.88	309.80	3,416.62	716.36	-935.06	1,177.93	0.29	-0.23	0.49	141.56
	NORMAL	3,734.0	20.89	308.90	3,506.00	738.56	-962.13	1,212.91	1.09	-1.03	-0.94	197.92
	NORMAL	3,829.0	19.30	309.75	3,595.22	759.24	-987.38	1,245.53	1.70	-1.67	0.89	169.99
	NORMAL	3,925.0	19.13	309.68	3,685.87	779.43	-1,011.68	1,277.10	0.18	-0.18	-0.07	187.68
	NORMAL	4,020.0	17.40	309.68	3,776.08	798.44	-1,034.60	1,306.85	1.82	-1.82	0.00	180.00
	NORMAL	4,125.0	15.79	307.71	3,876.70	817.20	-1,057.98	1,336.82	1.62	-1.53	-1.88	198.32
	NORMAL	4,210.0	15.06	305.98	3,958.64	830.76	-1,076.07	1,359.43	1.02	-0.86	-2.04	211.39
	NORMAL	4,305.0	14.42	306.80	4,050.52	845.10	-1,095.53	1,383.59	0.71	-0.67	0.86	162.34
	NORMAL	4,400.0	13.50	305.36	4,142.71	858.60	-1,114.04	1,406.50	1.04	-0.97	-1.52	199.99
	NORMAL	4,496.0	13.17	304.08	4,236.12	871.22	-1,132.24	1,428.62	0.46	-0.34	-1.33	221.19
	NORMAL	4,591.0	11.70	307.94	4,328.89	883.20	-1,148.80	1,449.06	1.78	-1.55	4.06	152.39
5/28/2012	NORMAL	4,687.0	9.66	308.29	4,423.22	894.18	-1,162.80	1,466.85	2.13	-2.13	0.36	178.35
	NORMAL	4,782.0	9.77	306.71	4,516.86	903.94	-1,175.52	1,482.88	0.30	0.12	-1.66	291.64
	NORMAL	4,876.0	8.09	310.32	4,609.72	912.98	-1,186.96	1,497.46	1.88	-1.79	3.84	163.33
	NORMAL	4,972.0	6.55	311.32	4,704.93	920.97	-1,196.22	1,509.67	1.61	-1.60	1.04	175.77
	NORMAL	5,065.0	5.87	309.04	4,797.39	927.47	-1,203.90	1,519.71	0.78	-0.73	-2.45	198.80
	NORMAL	5,161.0	4.33	314.75	4,893.01	933.11	-1,210.28	1,528.21	1.69	-1.60	5.95	164.59
	NORMAL	5,257.0	4.02	314.17	4,988.75	938.01	-1,215.27	1,535.15	0.33	-0.32	-0.60	187.47
	NORMAL	5,352.0	2.90	316.28	5,083.58	942.07	-1,219.32	1,540.83	1.19	-1.18	2.22	174.57
5/29/2012	NORMAL	5,448.0	2.07	302.53	5,179.49	944.75	-1,222.46	1,544.96	1.06	-0.86	-14.32	208.95
	NORMAL	5,544.0	0.96	287.51	5,275.45	945.93	-1,224.69	1,547.44	1.22	-1.16	-15.65	192.28
	NORMAL	5,639.0	0.30	327.37	5,370.45	946.38	-1,225.58	1,548.42	0.79	-0.69	41.96	165.24
	NORMAL	5,732.0	0.51	323.67	5,463.44	946.92	-1,225.96	1,549.05	0.23	0.23	-3.98	351.05
	NORMAL	5,826.0	0.70	67.02	5,557.44	947.48	-1,225.68	1,549.17	1.02	0.20	109.95	134.60
	NORMAL	5,922.0	0.74	68.42	5,653.43	947.93	-1,224.56	1,548.56	0.05	0.04	1.46	24.44
	NORMAL	6,017.0	0.43	28.74	5,748.43	948.47	-1,223.82	1,548.29	0.52	-0.33	-41.77	213.87
	NORMAL	6,113.0	0.43	29.79	5,844.43	949.10	-1,223.47	1,548.40	0.01	0.00	1.09	90.52
	NORMAL	6,208.0	0.44	75.74	5,939.42	949.50	-1,222.94	1,548.22	0.36	0.01	48.37	111.42
	NORMAL	6,301.0	0.18	69.06	6,032.42	949.64	-1,222.46	1,547.92	0.28	-0.28	-7.18	184.58
	NORMAL	6,396.0	0.26	230.51	6,127.42	949.56	-1,222.48	1,547.89	0.46	0.08	169.95	169.02
	NORMAL	6,491.0	0.79	82.68	6,222.42	949.50	-1,222.00	1,547.47	1.07	0.56	-155.61	204.37
	NORMAL	6,587.0	0.53	96.92	6,318.41	949.53	-1,220.90	1,546.62	0.32	-0.27	14.83	154.74
	NORMAL	6,682.0	0.41	142.89	6,413.41	949.21	-1,220.26	1,545.91	0.40	-0.13	48.39	129.73
5/30/2012	NORMAL	6,778.0	0.47	180.53	6,509.41	948.54	-1,220.06	1,545.35	0.30	0.06	39.21	97.51
	NORMAL	6,872.0	0.36	241.95	6,603.40	948.02	-1,220.32	1,545.24	0.46	-0.12	65.34	133.29
	NORMAL	6,967.0	0.72	201.62	6,698.40	947.32	-1,220.81	1,545.20	0.53	0.38	-42.45	292.07
	NORMAL	7,063.0	0.62	17.38	6,794.40	947.26	-1,220.87	1,545.21	1.39	-0.10	183.08	178.04
	NORMAL	7,159.0	0.54	42.84	6,890.39	948.08	-1,220.41	1,545.35	0.28	-0.08	26.52	119.71
	NORMAL	7,254.0	0.45	72.42	6,985.39	948.53	-1,219.75	1,545.09	0.28	-0.09	31.14	123.79

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
5/30/2012	NORMAL	7,349.0	0.67	93.39	7,080.39	948.61	-1,218.84	1,544.42	0.31	0.23	22.07	53.78
	NORMAL	7,444.0	0.47	107.49	7,175.38	948.46	-1,217.91	1,543.59	0.26	-0.21	14.84	151.87
	NORMAL	7,539.0	0.74	206.23	7,270.38	947.79	-1,217.81	1,543.10	0.98	0.28	103.94	128.53
5/31/2012	NORMAL	7,942.0	2.46	211.18	7,673.14	936.91	-1,225.49	1,542.61	0.00	0.00	0.00	0.00
5/31/2012	NORMAL	7,634.0	1.57	215.69	7,365.36	946.18	-1,218.84	1,542.95	0.89	0.87	9.96	17.70
	NORMAL	7,730.0	1.99	218.88	7,461.31	943.81	-1,220.66	1,542.95	0.45	0.44	3.32	14.87
	NORMAL	7,825.0	2.26	217.61	7,556.25	941.05	-1,222.84	1,543.00	0.29	0.28	-1.34	349.47
	NORMAL	7,885.0	2.46	211.18	7,616.19	939.01	-1,224.22	1,542.87	0.55	0.33	-10.72	303.82