

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	RWF 412-35	Wellbore No.	
Well Name	RWF 412-35	Common Name	RWF 412-35
Project	RU 35-06S-094W	Site	RMV 15-35 Pad
Vertical Section	180.50 (°)	North Reference	True
Azimuth		Origin E/W	
Origin N/S		UWI	RWF 412-35
Spud Date	8/27/2012		
Active Datum	KB @5,575.7ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #2

Survey Name	Survey #2	Company	
Date Started	8/27/2012	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

5427

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 (°)
8/27/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8/27/2012	NORMAL	93.0	1.58	109.60	92.99	-0.43	1.21	0.42	1.70	1.70	0.00	109.60
	NORMAL	179.0	2.02	166.64	178.95	-2.30	2.68	2.28	2.05	0.51	66.33	105.83
	NORMAL	270.0	2.02	186.42	269.90	-5.46	2.87	5.43	0.76	0.00	21.74	99.88
8/28/2012	NORMAL	362.0	3.87	210.67	361.77	-9.74	1.10	9.73	2.38	2.01	26.36	46.47
	NORMAL	452.0	4.84	177.89	451.53	-16.15	-0.31	16.15	2.92	1.08	-36.42	274.41
	NORMAL	522.0	5.54	172.88	521.24	-22.45	0.22	22.45	1.19	1.00	-7.16	324.57
	NORMAL	613.0	4.85	178.62	611.87	-30.66	0.86	30.65	0.95	-0.76	6.31	145.85
	NORMAL	705.0	5.47	182.73	703.49	-38.92	0.74	38.92	0.78	0.67	4.47	32.86
	NORMAL	796.0	4.56	174.99	794.14	-46.86	0.85	46.85	1.24	-1.00	-8.51	212.82
	NORMAL	887.0	4.94	169.64	884.83	-54.32	1.87	54.30	0.64	0.42	-5.88	307.93
	NORMAL	978.0	3.98	180.20	975.56	-61.33	2.56	61.31	1.38	-1.05	11.60	144.64
	NORMAL	1,068.0	4.43	182.53	1,065.32	-67.93	2.40	67.90	0.53	0.50	2.59	21.95
	NORMAL	1,110.0	4.57	184.42	1,107.19	-71.21	2.20	71.19	0.49	0.33	4.50	47.59
8/29/2012	NORMAL	1,260.0	5.01	186.53	1,256.66	-83.68	0.99	83.67	0.32	0.29	1.41	22.88
	NORMAL	1,355.0	3.62	177.18	1,351.39	-90.80	0.67	90.79	1.64	-1.46	-9.84	202.23
	NORMAL	1,451.0	3.73	182.07	1,447.19	-96.94	0.71	96.93	0.35	0.11	5.09	73.11
	NORMAL	1,546.0	2.83	181.33	1,542.04	-102.38	0.54	102.37	0.95	-0.95	-0.78	182.32
	NORMAL	1,642.0	4.37	174.37	1,637.85	-108.39	0.84	108.38	1.66	1.60	-7.25	340.66
	NORMAL	1,738.0	5.60	183.65	1,733.48	-116.70	0.90	116.69	1.53	1.28	9.67	37.93
	NORMAL	1,832.0	5.18	180.56	1,827.07	-125.52	0.57	125.51	0.54	-0.45	-3.29	213.12

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (%/100ft)	Build Rate (%/100ft)	Turn (%/100ft)	TFace (°)
8/29/2012	NORMAL	1,927.0	5.32	182.06	1,921.67	-134.21	0.37	134.20	0.21	0.15	1.58	45.18
	NORMAL	2,023.0	4.95	178.32	2,017.28	-142.80	0.33	142.79	0.52	-0.39	-3.90	220.28
	NORMAL	2,119.0	5.27	174.31	2,112.90	-151.33	0.89	151.31	0.50	0.33	-4.18	309.85
	NORMAL	2,213.0	4.79	169.12	2,206.54	-159.48	2.06	159.45	0.70	-0.51	-5.52	220.91
	NORMAL	2,307.0	5.23	181.30	2,300.18	-167.61	2.70	167.58	1.22	0.47	12.96	73.67
8/30/2012	NORMAL	2,402.0	5.08	176.17	2,394.80	-176.14	2.89	176.11	0.51	-0.16	-5.40	249.43
	NORMAL	2,498.0	4.74	176.08	2,490.45	-184.34	3.44	184.30	0.35	-0.35	-0.09	181.25
	NORMAL	2,594.0	5.20	180.34	2,586.09	-192.64	3.69	192.61	0.61	0.48	4.44	40.88
	NORMAL	2,689.0	4.63	178.19	2,680.74	-200.78	3.78	200.74	0.63	-0.60	-2.26	196.84
	NORMAL	2,784.0	5.52	185.64	2,775.36	-209.16	3.45	209.12	1.16	0.94	7.84	40.27
	NORMAL	2,880.0	5.51	187.82	2,870.92	-218.32	2.37	218.29	0.22	-0.01	2.27	93.82
	NORMAL	2,976.0	4.99	189.07	2,966.52	-227.01	1.09	226.99	0.55	-0.54	1.30	168.22
	NORMAL	3,071.0	4.98	188.38	3,061.16	-235.17	-0.16	235.16	0.06	-0.01	-0.73	260.19
	NORMAL	3,166.0	4.66	182.40	3,155.82	-243.11	-0.93	243.10	0.63	-0.34	-6.29	234.55
	NORMAL	3,259.0	4.92	184.07	3,248.50	-250.86	-1.37	250.86	0.32	0.28	1.80	29.04
	NORMAL	3,355.0	4.44	178.29	3,344.18	-258.68	-1.55	258.68	0.70	-0.50	-6.02	221.64
	NORMAL	3,449.0	4.22	185.03	3,437.91	-265.76	-1.74	265.77	0.59	-0.23	7.17	116.72
	NORMAL	3,545.0	3.89	179.48	3,533.67	-272.54	-2.02	272.54	0.53	-0.34	-5.78	227.20
	NORMAL	3,640.0	4.31	179.41	3,628.43	-279.33	-1.96	279.33	0.44	0.44	-0.07	359.28
	NORMAL	3,736.0	4.24	177.66	3,724.16	-286.48	-1.78	286.49	0.15	-0.07	-1.82	240.91
	NORMAL	3,831.0	4.20	176.32	3,818.90	-293.46	-1.41	293.46	0.11	-0.04	-1.41	247.25
	NORMAL	3,927.0	3.84	180.40	3,914.67	-300.18	-1.21	300.18	0.48	-0.38	4.25	143.56
	NORMAL	4,022.0	3.50	177.75	4,009.47	-306.26	-1.11	306.26	0.40	-0.36	-2.79	205.20
	NORMAL	4,117.0	3.25	166.93	4,104.31	-311.78	-0.39	311.78	0.72	-0.26	-11.39	243.23
	NORMAL	4,212.0	3.93	172.94	4,199.12	-317.64	0.62	317.62	0.82	0.72	6.33	31.98
	NORMAL	4,307.0	4.60	180.56	4,293.86	-324.68	0.98	324.66	0.92	0.71	8.02	44.07
	NORMAL	4,402.0	4.22	182.92	4,388.58	-331.98	0.76	331.96	0.44	-0.40	2.48	155.65
	NORMAL	4,498.0	4.13	179.32	4,484.32	-338.96	0.63	338.94	0.29	-0.09	-3.75	249.26
	NORMAL	4,593.0	4.05	185.57	4,579.08	-345.72	0.34	345.71	0.48	-0.08	6.58	103.28
	NORMAL	4,689.0	3.97	184.79	4,674.84	-352.41	-0.27	352.40	0.10	-0.08	-0.81	213.90
	NORMAL	4,784.0	2.66	192.30	4,769.68	-357.84	-1.01	357.83	1.45	-1.38	7.91	165.38
	NORMAL	4,879.0	1.24	182.65	4,864.63	-361.02	-1.53	361.02	1.53	-1.49	-10.16	188.23
8/31/2012	NORMAL	4,974.0	1.23	201.29	4,959.60	-363.00	-1.94	363.00	0.42	-0.01	19.62	100.73
	NORMAL	5,068.0	1.26	191.52	5,053.58	-364.95	-2.52	364.96	0.23	0.03	-10.39	273.14
	NORMAL	5,163.0	0.47	274.75	5,148.57	-365.94	-3.11	365.95	1.36	-0.83	87.61	158.82
	NORMAL	5,259.0	0.21	9.10	5,244.57	-365.73	-3.48	365.75	0.55	-0.27	98.28	156.69
	NORMAL	5,355.0	0.60	12.79	5,340.57	-365.07	-3.34	365.09	0.41	0.41	3.84	5.67
	NORMAL	5,450.0	0.42	8.06	5,435.57	-364.24	-3.18	364.25	0.19	-0.19	-4.98	190.81
	NORMAL	5,546.0	0.38	3.08	5,531.56	-363.57	-3.11	363.59	0.06	-0.04	-5.19	218.52
	NORMAL	5,641.0	0.56	359.81	5,626.56	-362.80	-3.10	362.81	0.19	0.19	-3.44	349.89
	NORMAL	5,734.0	0.44	3.54	5,719.56	-361.98	-3.08	362.00	0.13	-0.13	4.01	166.68
	NORMAL	5,828.0	0.18	312.56	5,813.56	-361.52	-3.16	361.54	0.38	-0.28	-54.23	203.18
9/1/2012	NORMAL	5,924.0	0.24	19.68	5,909.56	-361.23	-3.21	361.25	0.25	0.06	69.92	111.41
	NORMAL	6,019.0	0.17	158.63	6,004.55	-361.18	-3.09	361.19	0.41	-0.07	146.26	163.13
	NORMAL	6,115.0	0.35	137.84	6,100.55	-361.53	-2.84	361.54	0.21	0.19	-21.66	321.68
	NORMAL	6,210.0	0.26	96.97	6,195.55	-361.77	-2.43	361.78	0.24	-0.09	-43.02	227.96
	NORMAL	6,303.0	0.51	175.50	6,288.55	-362.21	-2.19	362.21	0.56	0.27	84.44	107.60
	NORMAL	6,399.0	0.53	183.19	6,384.55	-363.08	-2.18	363.08	0.08	0.02	8.01	77.88
	NORMAL	6,494.0	0.62	243.57	6,479.54	-363.74	-2.67	363.75	0.61	0.09	63.56	112.53
	NORMAL	6,589.0	0.62	256.25	6,574.54	-364.09	-3.63	364.11	0.14	0.00	13.35	96.34
	NORMAL	6,685.0	0.70	315.90	6,670.53	-363.80	-4.54	363.82	0.69	0.08	62.14	113.79
	NORMAL	6,780.0	0.42	270.29	6,765.53	-363.38	-5.29	363.41	0.53	-0.29	-48.01	216.46
9/2/2012	NORMAL	6,874.0	0.48	257.50	6,859.53	-363.46	-6.02	363.50	0.12	0.06	-13.61	294.35
	NORMAL	6,970.0	0.57	195.33	6,955.52	-364.01	-6.54	364.05	0.57	0.09	-64.76	247.01
	NORMAL	7,065.0	1.14	228.98	7,050.51	-365.09	-7.38	365.14	0.78	0.60	35.42	59.04
	NORMAL	7,161.0	1.95	220.63	7,146.48	-366.95	-9.16	367.02	0.87	0.84	-8.70	340.27
	NORMAL	7,256.0	2.73	211.55	7,241.40	-370.11	-11.40	370.19	0.91	0.82	-9.56	330.00

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (%/100ft)	Build Rate (%/100ft)	Turn (%/100ft)	TFace (°)
9/2/2012	NORMAL	7,352.0	2.02	196.81	7,337.31	-373.67	-13.08	373.77	0.97	-0.74	-15.35	213.50
	NORMAL	7,447.0	2.81	202.17	7,432.23	-377.43	-14.45	377.55	0.86	0.83	5.64	18.64
	NORMAL	7,541.0	2.96	208.55	7,526.11	-381.70	-16.47	381.83	0.38	0.16	6.79	68.17
	NORMAL	7,637.0	2.95	200.59	7,621.98	-386.19	-18.53	386.34	0.43	-0.01	-8.29	264.63
	NORMAL	7,680.0	3.08	206.21	7,664.92	-388.26	-19.43	388.42	0.75	0.30	13.07	69.08
9/3/2012	NORMAL	7,736.0	3.08	206.21	7,720.84	-390.96	-20.76	391.13	0.00	0.00	0.00	0.00