

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	RWF 313-35	Wellbore No.	
Well Name	RWF 313-35	Common Name	RWF 313-35
Project	RU 35-06S-094W	Site	RMV 15-35 Pad
Vertical Section Azimuth	186.25 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	9/3/2012	UWI	RWF 313-35
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	9/3/2012	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

5670

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 (°)
9/3/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/3/2012	NORMAL	79.0	0.53	203.38	79.00	-0.34	-0.14	0.35	0.67	0.67	0.00	203.38
	NORMAL	179.0	2.55	191.50	178.96	-2.94	-0.77	3.01	2.03	2.02	-11.88	345.05
	NORMAL	270.0	5.28	189.58	269.74	-9.05	-1.87	9.20	3.00	3.00	-2.11	356.29
	NORMAL	362.0	7.21	192.30	361.19	-18.87	-3.81	19.17	2.12	2.10	2.96	10.07
9/4/2012	NORMAL	452.0	8.01	188.53	450.39	-30.59	-5.94	31.05	1.05	0.89	-4.19	326.15
	NORMAL	523.0	8.21	185.85	520.68	-40.52	-7.19	41.07	0.60	0.28	-3.77	296.55
	NORMAL	614.0	9.17	185.08	610.64	-54.21	-8.50	54.81	1.06	1.05	-0.85	352.71
	NORMAL	706.0	8.56	185.33	701.54	-68.33	-9.78	68.99	0.66	-0.66	0.27	176.51
	NORMAL	797.0	9.15	184.82	791.45	-82.28	-11.02	82.99	0.65	0.65	-0.56	352.17
	NORMAL	888.0	7.81	185.91	881.46	-95.64	-12.26	96.41	1.48	-1.47	1.20	173.70
	NORMAL	979.0	8.30	185.32	971.56	-108.33	-13.51	109.16	0.55	0.54	-0.65	350.13
	NORMAL	1,069.0	9.38	183.97	1,060.49	-122.12	-14.62	122.98	1.22	1.20	-1.50	348.46
	NORMAL	1,119.0	10.29	183.36	1,109.75	-130.64	-15.16	131.52	1.83	1.82	-1.22	353.17
9/5/2012	NORMAL	1,260.0	11.06	181.58	1,248.31	-156.73	-16.27	157.57	0.59	0.55	-1.26	335.94
	NORMAL	1,356.0	9.30	179.15	1,342.80	-173.70	-16.41	174.45	1.89	-1.83	-2.53	192.52
	NORMAL	1,451.0	7.83	189.43	1,436.74	-187.76	-17.36	188.53	2.23	-1.55	10.82	138.84
	NORMAL	1,547.0	7.56	189.51	1,531.88	-200.44	-19.47	201.36	0.28	-0.28	0.08	177.77
	NORMAL	1,642.0	7.14	187.35	1,626.10	-212.45	-21.26	213.51	0.53	-0.44	-2.27	212.27
	NORMAL	1,738.0	7.09	192.19	1,721.36	-224.16	-23.28	225.36	0.63	-0.05	5.04	97.17
	NORMAL	1,832.0	8.00	187.84	1,814.54	-236.31	-25.39	237.67	1.14	0.97	-4.63	325.72

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 (°)
9/5/2012	NORMAL	1,928.0	8.43	183.66	1,909.56	-249.95	-26.75	251.38	0.77	0.45	-4.35	303.67
	NORMAL	2,023.0	7.52	181.60	2,003.64	-263.12	-27.37	264.53	1.00	-0.96	-2.17	196.42
	NORMAL	2,119.0	7.75	177.71	2,098.79	-275.86	-27.29	277.20	0.59	0.24	-4.05	292.05
	NORMAL	2,213.0	7.21	176.59	2,191.99	-288.09	-26.68	289.28	0.60	-0.57	-1.19	194.56
	NORMAL	2,307.0	8.05	175.73	2,285.16	-300.54	-25.84	301.57	0.90	0.89	-0.91	351.83
	NORMAL	2,402.0	9.08	184.57	2,379.10	-314.64	-25.94	315.60	1.76	1.08	9.31	56.39
	NORMAL	2,498.0	9.15	184.07	2,473.89	-329.81	-27.09	330.80	0.11	0.07	-0.52	311.22
	NORMAL	2,594.0	9.15	183.63	2,568.67	-345.04	-28.11	346.05	0.07	0.00	-0.46	269.78
	NORMAL	2,689.0	9.32	185.82	2,662.43	-360.23	-29.37	361.29	0.41	0.18	2.31	65.27
	NORMAL	2,785.0	9.85	194.00	2,757.10	-375.93	-32.15	377.20	1.52	0.55	8.52	72.80
9/6/2012	NORMAL	2,880.0	9.63	194.41	2,850.73	-391.51	-36.09	393.12	0.24	-0.23	0.43	162.70
	NORMAL	2,976.0	9.23	189.25	2,945.43	-406.89	-39.33	408.75	0.97	-0.42	-5.37	242.15
	NORMAL	3,071.0	9.11	189.00	3,039.22	-421.84	-41.73	423.87	0.13	-0.13	-0.26	198.24
	NORMAL	3,166.0	9.06	189.69	3,133.03	-436.64	-44.16	438.85	0.13	-0.05	0.73	114.99
	NORMAL	3,260.0	7.93	189.32	3,225.99	-450.33	-46.46	452.72	1.20	-1.20	-0.39	182.59
	NORMAL	3,355.0	7.91	186.88	3,320.09	-463.29	-48.30	465.80	0.35	-0.02	-2.57	265.39
	NORMAL	3,449.0	7.85	188.54	3,413.20	-476.06	-50.03	478.68	0.25	-0.06	1.77	105.59
	NORMAL	3,545.0	7.40	189.64	3,508.35	-488.64	-52.04	491.40	0.49	-0.47	1.15	162.57
	NORMAL	3,641.0	8.52	182.45	3,603.43	-501.84	-53.38	504.67	1.56	1.17	-7.49	314.76
	NORMAL	3,736.0	8.58	184.53	3,697.37	-515.93	-54.24	518.77	0.33	0.06	2.19	80.05
	NORMAL	3,832.0	8.27	183.96	3,792.34	-529.96	-55.28	532.83	0.33	-0.32	-0.59	194.80
	NORMAL	3,927.0	7.55	182.29	3,886.43	-543.01	-56.00	545.88	0.80	-0.76	-1.76	196.88
	NORMAL	4,023.0	7.31	181.88	3,981.63	-555.42	-56.46	558.26	0.26	-0.25	-0.43	192.25
	NORMAL	4,118.0	7.34	182.97	4,075.85	-567.52	-56.97	570.35	0.15	0.03	1.15	78.36
	NORMAL	4,212.0	7.88	179.73	4,169.02	-579.96	-57.25	582.75	0.73	0.57	-3.45	319.92
	NORMAL	4,308.0	7.62	178.63	4,264.15	-592.90	-57.07	595.59	0.31	-0.27	-1.15	209.16
	NORMAL	4,403.0	7.42	185.88	4,358.33	-605.30	-57.54	607.97	1.02	-0.21	7.63	105.48
	NORMAL	4,498.0	6.23	188.14	4,452.66	-616.51	-58.90	619.26	1.28	-1.25	2.38	168.40
	NORMAL	4,594.0	4.88	185.38	4,548.20	-625.73	-60.02	628.55	1.43	-1.41	-2.88	189.82
	NORMAL	4,689.0	4.84	190.42	4,642.86	-633.70	-61.13	636.58	0.45	-0.04	5.31	97.86
	NORMAL	4,784.0	4.19	194.20	4,737.57	-641.00	-62.70	644.02	0.75	-0.68	3.98	157.28
9/7/2012	NORMAL	4,879.0	2.73	193.29	4,832.39	-646.57	-64.08	649.70	1.54	-1.54	-0.96	181.70
	NORMAL	4,974.0	1.75	190.15	4,927.32	-650.20	-64.85	653.39	1.04	-1.03	-3.31	185.57
	NORMAL	5,068.0	0.94	178.06	5,021.29	-652.38	-65.08	655.59	0.91	-0.86	-12.86	193.33
	NORMAL	5,163.0	0.26	3.80	5,116.29	-652.94	-65.04	656.14	1.26	-0.72	-183.43	181.24
	NORMAL	5,259.0	0.22	74.84	5,212.29	-652.68	-64.84	655.86	0.29	-0.04	74.00	132.18
	NORMAL	5,355.0	0.44	34.92	5,308.29	-652.33	-64.46	655.47	0.32	0.23	-41.58	292.59
	NORMAL	5,451.0	0.18	23.31	5,404.28	-651.89	-64.19	655.00	0.28	-0.27	-12.09	187.82
	NORMAL	5,546.0	0.59	59.32	5,499.28	-651.50	-63.71	654.56	0.48	0.43	37.91	49.40
	NORMAL	5,641.0	0.89	71.47	5,594.27	-651.02	-62.59	653.96	0.35	0.32	12.79	33.78
	NORMAL	5,735.0	0.79	69.72	5,688.26	-650.56	-61.29	653.37	0.11	-0.11	-1.86	193.52
9/8/2012	NORMAL	5,829.0	0.26	357.91	5,782.26	-650.12	-60.69	652.87	0.80	-0.56	-76.39	199.21
	NORMAL	5,924.0	0.18	1.52	5,877.26	-649.76	-60.69	652.50	0.09	-0.08	3.80	171.97
	NORMAL	6,019.0	0.14	312.36	5,972.26	-649.53	-60.77	652.29	0.15	-0.04	-51.75	230.14
	NORMAL	6,115.0	0.14	338.31	6,068.26	-649.34	-60.90	652.11	0.07	0.00	27.03	102.97
	NORMAL	6,211.0	0.35	291.82	6,164.26	-649.13	-61.22	651.93	0.28	0.22	-48.43	291.69
	NORMAL	6,304.0	0.09	180.09	6,257.26	-649.09	-61.48	651.93	0.42	-0.28	-120.14	192.30
	NORMAL	6,399.0	0.18	156.03	6,352.26	-649.30	-61.42	652.13	0.11	0.09	-25.33	315.38
	NORMAL	6,494.0	0.18	154.95	6,447.26	-649.58	-61.30	652.39	0.00	0.00	-1.14	269.46
9/9/2012	NORMAL	6,589.0	0.48	187.51	6,542.26	-650.10	-61.28	652.91	0.36	0.32	34.27	49.00
	NORMAL	6,685.0	0.26	160.86	6,638.25	-650.71	-61.27	653.51	0.29	-0.23	-27.76	205.22
	NORMAL	6,780.0	0.62	164.82	6,733.25	-651.41	-61.06	654.18	0.38	0.38	4.17	6.81
	NORMAL	6,874.0	1.13	186.85	6,827.24	-652.82	-61.04	655.59	0.64	0.54	23.44	44.75
	NORMAL	6,970.0	0.76	207.40	6,923.23	-654.33	-61.44	657.13	0.52	-0.39	21.41	147.48
	NORMAL	7,065.0	0.79	222.56	7,018.22	-655.37	-62.18	658.24	0.22	0.03	15.96	89.30
	NORMAL	7,161.0	1.08	214.71	7,114.20	-656.60	-63.14	659.57	0.33	0.30	-8.18	332.21
	NORMAL	7,257.0	1.66	205.42	7,210.18	-658.60	-64.25	661.68	0.65	0.60	-9.68	334.36

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 (°)
9/9/2012	NORMAL	7,352.0	1.95	196.03	7,305.13	-661.39	-65.29	664.57	0.44	0.31	-9.88	309.68
	NORMAL	7,447.0	2.28	205.59	7,400.07	-664.65	-66.55	667.95	0.51	0.35	10.06	51.76
	NORMAL	7,541.0	2.34	197.94	7,493.99	-668.16	-67.95	671.59	0.33	0.06	-8.14	277.17
	NORMAL	7,637.0	2.64	200.15	7,589.90	-672.10	-69.32	675.66	0.33	0.31	2.30	18.85
	NORMAL	7,732.0	2.99	197.78	7,684.78	-676.52	-70.83	680.21	0.39	0.37	-2.49	340.42
	NORMAL	7,788.0	2.99	197.78	7,740.71	-679.30	-71.72	683.07	0.00	0.00	0.00	0.00