

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	RWF 312-36	Wellbore No.	
Well Name	RWF 312-36	Common Name	RWF 312-36
Project	RU 36-06S-094W	Site	GV 15-36 Pad
Vertical Section	238.91 (°)	North Reference	True
Azimuth			
Origin N/S		Origin E/W	
Spud Date	4/11/2012	UWI	RWF 312-36
Active Datum	KB @6,413.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #2

Survey Name	Survey #2	Company	
Date Started	4/11/2012	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

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 (°)
4/11/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/11/2012	NORMAL	86.0	0.44	326.16	86.00	0.27	-0.18	0.02	0.51	0.51	0.00	326.16
	NORMAL	178.0	1.23	258.40	177.99	0.37	-1.35	0.96	1.24	0.86	-73.65	271.29
4/12/2012	NORMAL	269.0	3.26	236.78	268.92	-1.24	-4.47	4.47	2.38	2.23	-23.76	326.30
	NORMAL	360.0	6.16	227.29	359.60	-5.98	-10.22	11.84	3.29	3.19	-10.43	340.19
	NORMAL	451.0	6.77	228.87	450.02	-12.82	-17.85	21.90	0.70	0.67	1.74	17.04
	NORMAL	543.0	7.21	236.51	541.34	-19.57	-26.75	33.01	1.12	0.48	8.30	68.50
	NORMAL	614.0	7.65	238.64	611.74	-24.49	-34.50	42.19	0.73	0.62	3.00	33.11
	NORMAL	705.0	8.56	239.02	701.83	-31.12	-45.48	55.02	1.00	1.00	0.42	3.56
	NORMAL	796.0	7.55	239.72	791.94	-37.62	-56.45	67.77	1.12	-1.11	0.77	174.80
	NORMAL	888.0	7.80	238.78	883.11	-43.91	-67.01	80.06	0.30	0.27	-1.02	332.87
	NORMAL	980.0	8.35	235.79	974.20	-50.90	-77.87	92.97	0.75	0.60	-3.25	321.15
	NORMAL	1,075.0	7.65	243.17	1,068.28	-57.63	-89.22	106.16	1.31	-0.74	7.77	127.89
4/13/2012	NORMAL	1,166.0	8.26	244.93	1,158.40	-63.14	-100.54	118.70	0.72	0.67	1.93	22.64
	NORMAL	1,261.0	6.33	243.52	1,252.63	-68.36	-111.41	130.71	2.04	-2.03	-1.48	184.60
	NORMAL	1,356.0	6.24	244.46	1,347.06	-72.92	-120.76	141.07	0.14	-0.09	0.99	131.64
	NORMAL	1,452.0	6.51	236.84	1,442.46	-78.15	-130.02	151.70	0.92	0.28	-7.94	283.89
	NORMAL	1,547.0	6.72	234.03	1,536.83	-84.36	-139.03	162.62	0.41	0.22	-2.96	301.57
	NORMAL	1,643.0	6.54	238.96	1,632.19	-90.48	-148.26	173.69	0.62	-0.19	5.14	109.99
	NORMAL	1,739.0	6.69	238.52	1,727.55	-96.22	-157.71	184.75	0.16	0.16	-0.46	341.11
	NORMAL	1,834.0	6.34	239.56	1,821.94	-101.77	-166.96	195.52	0.39	-0.37	1.09	161.88

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 (°)
4/13/2012	NORMAL	1,929.0	6.98	238.69	1,916.30	-107.42	-176.41	206.54	0.68	0.67	-0.92	350.61
	NORMAL	2,024.0	7.10	237.80	2,010.58	-113.55	-186.31	218.18	0.17	0.13	-0.94	317.29
4/14/2012	NORMAL	2,120.0	6.87	239.09	2,105.87	-119.66	-196.26	229.86	0.29	-0.24	1.34	146.34
	NORMAL	2,215.0	6.86	237.89	2,200.19	-125.60	-205.94	241.21	0.15	-0.01	-1.26	265.42
	NORMAL	2,311.0	6.51	239.13	2,295.53	-131.44	-215.46	252.39	0.39	-0.36	1.29	158.20
	NORMAL	2,407.0	6.39	235.86	2,390.93	-137.23	-224.56	263.16	0.40	-0.12	-3.41	250.29
	NORMAL	2,501.0	6.70	236.57	2,484.31	-143.18	-233.46	273.87	0.34	0.33	0.76	14.98
	NORMAL	2,595.0	6.60	238.86	2,577.68	-149.00	-242.66	284.75	0.30	-0.11	2.44	111.80
	NORMAL	2,690.0	6.43	234.06	2,672.07	-154.94	-251.64	295.51	0.60	-0.18	-5.05	250.29
	NORMAL	2,785.0	7.03	240.53	2,766.41	-160.93	-261.01	306.62	1.02	0.63	6.81	54.89
	NORMAL	2,881.0	6.95	238.51	2,861.70	-166.85	-271.08	318.30	0.27	-0.08	-2.10	250.97
	NORMAL	2,976.0	6.23	240.35	2,956.07	-172.40	-280.46	329.20	0.79	-0.76	1.94	164.57
	NORMAL	3,070.0	7.34	236.71	3,049.41	-178.22	-289.91	340.30	1.27	1.18	-3.87	337.01
	NORMAL	3,162.0	7.91	240.73	3,140.60	-184.54	-300.35	352.50	0.85	0.62	4.37	45.10
	NORMAL	3,258.0	7.75	243.03	3,235.71	-190.71	-311.88	365.56	0.37	-0.17	2.40	118.19
	NORMAL	3,353.0	7.82	241.97	3,329.83	-196.65	-323.29	378.40	0.17	0.07	-1.12	295.46
	NORMAL	3,449.0	7.69	239.83	3,424.95	-202.95	-334.61	391.34	0.33	-0.14	-2.23	244.71
	NORMAL	3,544.0	7.50	240.34	3,519.12	-209.21	-345.49	403.90	0.21	-0.20	0.54	160.72
	NORMAL	3,639.0	7.19	238.88	3,613.34	-215.35	-355.97	416.04	0.38	-0.33	-1.54	210.33
	NORMAL	3,735.0	7.06	236.30	3,708.60	-221.73	-366.02	427.94	0.36	-0.14	-2.69	246.61
	NORMAL	3,830.0	7.41	244.88	3,802.84	-227.57	-376.42	439.87	1.19	0.37	9.03	76.34
	NORMAL	3,925.0	7.02	245.77	3,897.09	-232.55	-387.26	451.72	0.43	-0.41	0.94	164.45
	NORMAL	4,020.0	7.65	240.44	3,991.32	-238.05	-398.06	463.81	0.98	0.66	-5.61	310.13
	NORMAL	4,115.0	6.86	238.77	4,085.55	-244.11	-408.41	475.80	0.86	-0.83	-1.76	194.12
	NORMAL	4,211.0	6.86	242.64	4,180.87	-249.72	-418.41	487.26	0.48	0.00	4.03	91.92
	NORMAL	4,306.0	6.98	240.26	4,275.18	-255.19	-428.46	498.69	0.33	0.13	-2.51	291.52
	NORMAL	4,400.0	6.99	241.95	4,368.48	-260.72	-438.46	510.11	0.22	0.01	1.80	88.05
4/15/2012	NORMAL	4,495.0	7.12	239.39	4,462.76	-266.43	-448.63	521.77	0.36	0.14	-2.69	291.19
	NORMAL	4,589.0	6.88	242.18	4,556.06	-272.03	-458.63	533.22	0.44	-0.26	2.97	126.60
	NORMAL	4,685.0	6.80	239.51	4,651.38	-277.59	-468.61	544.64	0.34	-0.08	-2.78	254.56
	NORMAL	4,781.0	7.18	239.70	4,746.66	-283.50	-478.69	556.32	0.40	0.40	0.20	3.58
	NORMAL	4,876.0	6.91	242.16	4,840.94	-289.17	-488.87	567.96	0.43	-0.28	2.59	133.04
	NORMAL	4,972.0	7.07	242.13	4,936.23	-294.63	-499.19	579.63	0.17	0.17	-0.03	358.68
	NORMAL	5,067.0	7.00	240.75	5,030.52	-300.19	-509.41	591.25	0.19	-0.07	-1.45	246.82
	NORMAL	5,163.0	7.19	240.45	5,125.78	-306.01	-519.74	603.10	0.20	0.20	-0.31	348.82
	NORMAL	5,259.0	5.89	243.87	5,221.15	-311.14	-529.39	614.02	1.41	-1.35	3.56	165.01
	NORMAL	5,354.0	5.36	244.13	5,315.70	-315.22	-537.76	623.29	0.56	-0.56	0.27	177.38
	NORMAL	5,449.0	4.98	243.18	5,410.31	-319.02	-545.43	631.82	0.41	-0.40	-1.00	192.22
	NORMAL	5,545.0	4.26	244.18	5,506.00	-322.45	-552.36	639.53	0.75	-0.75	1.04	174.12
	NORMAL	5,640.0	2.99	245.08	5,600.81	-325.03	-557.78	645.51	1.34	-1.34	0.95	177.88
4/16/2012	NORMAL	5,736.0	2.67	233.06	5,696.69	-327.43	-561.84	650.22	0.70	-0.33	-12.52	235.75
	NORMAL	5,832.0	2.80	237.74	5,792.58	-330.03	-565.61	654.79	0.27	0.14	4.88	62.15
	NORMAL	5,927.0	1.49	252.48	5,887.51	-331.64	-568.75	658.31	1.49	-1.38	15.52	164.41
	NORMAL	6,022.0	0.26	240.71	5,982.50	-332.12	-570.12	659.73	1.30	-1.29	-12.39	182.46
	NORMAL	6,118.0	0.14	53.83	6,078.50	-332.15	-570.21	659.83	0.42	-0.12	180.33	177.59
	NORMAL	6,214.0	0.26	114.23	6,174.50	-332.17	-569.92	659.59	0.24	0.12	62.92	92.93
	NORMAL	6,309.0	0.44	145.79	6,269.50	-332.56	-569.52	659.44	0.27	0.19	33.22	63.48
	NORMAL	6,405.0	0.42	98.14	6,365.49	-332.92	-568.96	659.15	0.36	-0.02	-49.64	243.16
4/17/2012	NORMAL	6,500.0	0.17	143.13	6,460.49	-333.08	-568.53	658.87	0.34	-0.26	47.36	158.15
	NORMAL	6,595.0	0.09	295.02	6,555.49	-333.16	-568.52	658.89	0.27	-0.08	159.88	170.35
	NORMAL	6,691.0	0.18	163.10	6,651.49	-333.27	-568.54	658.97	0.26	0.09	-137.42	212.50
	NORMAL	6,785.0	0.12	104.50	6,745.49	-333.44	-568.40	658.94	0.17	-0.06	-62.34	221.08
	NORMAL	6,881.0	0.35	117.47	6,841.49	-333.60	-568.05	658.72	0.24	0.24	13.51	19.56
	NORMAL	6,976.0	0.45	150.27	6,936.49	-334.06	-567.60	658.57	0.26	0.11	34.53	83.39
	NORMAL	7,071.0	0.26	44.21	7,031.49	-334.23	-567.27	658.37	0.61	-0.20	-111.64	205.58
	NORMAL	7,167.0	0.09	312.21	7,127.49	-334.02	-567.17	658.19	0.29	-0.18	-95.83	198.87
	NORMAL	7,262.0	0.26	265.44	7,222.49	-333.99	-567.44	658.40	0.22	0.18	-49.23	294.94

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 (°)
4/17/2012	NORMAL	7,358.0	0.53	226.82	7,318.49	-334.31	-567.98	659.03	0.38	0.28	-40.23	294.98
	NORMAL	7,452.0	0.79	96.39	7,412.48	-334.68	-567.66	658.94	1.28	0.28	-138.76	209.98
	NORMAL	7,548.0	1.03	107.19	7,508.47	-335.01	-566.17	657.84	0.31	0.25	11.25	41.03
	NORMAL	7,642.0	0.81	153.08	7,602.46	-335.85	-565.07	657.33	0.79	-0.23	48.82	128.71
	NORMAL	7,738.0	0.69	177.77	7,698.45	-337.03	-564.74	657.65	0.36	-0.12	25.72	122.42
	NORMAL	7,833.0	0.53	164.77	7,793.45	-338.03	-564.60	658.05	0.22	-0.17	-13.68	214.48
4/18/2012	NORMAL	7,929.0	0.69	192.29	7,889.44	-339.02	-564.61	658.57	0.34	0.17	28.67	75.59
	NORMAL	8,023.0	0.68	185.22	7,983.43	-340.13	-564.78	659.29	0.09	-0.01	-7.52	259.73
	NORMAL	8,118.0	1.33	208.17	8,078.42	-341.66	-565.35	660.57	0.79	0.68	24.16	43.59
	NORMAL	8,212.0	1.11	202.63	8,172.40	-343.47	-566.21	662.24	0.27	-0.23	-5.89	205.45
	NORMAL	8,307.0	1.50	223.25	8,267.37	-345.22	-567.42	664.18	0.64	0.41	21.71	60.90
	NORMAL	8,403.0	1.41	228.23	8,363.34	-346.92	-569.16	666.55	0.16	-0.09	5.19	127.91
	NORMAL	8,499.0	1.43	227.94	8,459.31	-348.51	-570.93	668.89	0.02	0.02	-0.30	340.09
	NORMAL	8,594.0	1.46	227.97	8,554.28	-350.12	-572.71	671.24	0.03	0.03	0.03	1.46
	NORMAL	8,646.0	1.41	231.92	8,606.27	-350.95	-573.71	672.52	0.21	-0.10	7.60	118.78
	NORMAL	8,702.0	1.41	231.92	8,662.25	-351.80	-574.79	673.89	0.00	0.00	0.00	0.00