

## 1 General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well Information

Well	RWF 12-36	Wellbore No.	
Well Name	RWF 12-36	Common Name	RWF 12-36
Project	RU 36-06S-094W	Site	GV 15-36 Pad
Vertical Section	223.05 (*)	North Reference	True
Azimuth		Origin E/W	
Origin N/S		UWI	RWF 12-36
Spud Date	3/12/2012		
Active Datum	KB @6,413.0ft (above Mean Sea Level)		

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	SCIENTIFIC
Date Started	3/12/2012	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 (°)
3/12/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/12/2012	NORMAL	84.0	0.26	281.78	84.00	0.04	-0.19	0.10	0.31	0.31	0.00	281.78
	NORMAL	178.0	1.85	269.65	177.98	0.07	-1.91	1.25	1.70	1.69	-12.90	345.91
	NORMAL	269.0	3.52	229.66	268.88	-1.74	-5.51	5.04	2.65	1.84	-43.95	290.55
	NORMAL	330.0	5.28	219.37	329.70	-5.13	-8.72	9.70	3.15	2.89	-16.87	330.65
	NORMAL	431.0	7.03	219.45	430.12	-13.49	-15.59	20.51	1.73	1.73	0.08	0.32
3/13/2012	NORMAL	522.0	8.50	222.16	520.28	-22.78	-23.65	32.79	1.66	1.62	2.98	15.33
	NORMAL	614.0	9.71	225.75	611.12	-33.23	-33.77	47.34	1.45	1.32	3.90	26.93
	NORMAL	705.0	10.50	225.67	700.71	-44.38	-45.20	63.29	0.87	0.87	-0.09	358.94
	NORMAL	796.0	10.55	218.33	790.18	-56.71	-56.30	79.87	1.47	0.05	-8.07	268.52
	NORMAL	888.0	9.30	216.10	880.80	-69.33	-65.90	95.65	1.42	-1.36	-2.42	196.00
	NORMAL	980.0	10.20	216.46	971.47	-81.88	-75.12	111.12	0.98	0.98	0.39	4.05
	NORMAL	1,075.0	9.06	220.59	1,065.13	-94.33	-84.99	126.95	1.40	-1.20	4.35	150.81
	NORMAL	1,111.0	9.34	220.06	1,100.67	-98.72	-88.71	132.70	0.81	0.78	-1.47	342.90
3/14/2012	NORMAL	1,199.0	9.67	224.19	1,187.46	-109.48	-98.46	147.22	0.86	0.38	4.69	66.23
	NORMAL	1,262.0	9.58	224.48	1,249.58	-117.02	-105.82	157.75	0.16	-0.14	0.46	151.83
	NORMAL	1,358.0	9.18	225.34	1,344.29	-128.10	-116.86	173.39	0.44	-0.42	0.90	161.11
	NORMAL	1,453.0	10.64	221.12	1,437.87	-140.03	-128.02	189.72	1.72	1.54	-4.44	331.46
	NORMAL	1,549.0	10.82	220.15	1,532.20	-153.60	-139.66	207.58	0.27	0.19	-1.01	314.43
	NORMAL	1,645.0	10.26	228.77	1,626.58	-166.12	-151.90	225.09	1.74	-0.58	8.98	113.76
	NORMAL	1,740.0	10.02	226.64	1,720.10	-177.37	-164.27	241.75	0.47	-0.25	-2.24	236.34

## 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 (°)
3/14/2012	NORMAL	1,836.0	10.29	228.59	1,814.59	-188.78	-176.78	258.62	0.46	0.28	2.03	52.82
	NORMAL	1,930.0	8.79	226.13	1,907.29	-199.31	-188.25	274.15	1.65	-1.60	-2.62	194.00
	NORMAL	2,025.0	8.46	224.03	2,001.22	-209.36	-198.34	288.39	0.48	-0.35	-2.21	222.63
	NORMAL	2,121.0	8.53	224.81	2,096.16	-219.49	-208.27	302.57	0.14	0.07	0.81	59.11
	NORMAL	2,216.0	8.54	221.11	2,190.11	-229.80	-217.87	316.66	0.58	0.01	-3.89	269.21
	NORMAL	2,312.0	8.10	219.41	2,285.10	-240.40	-226.85	330.53	0.53	-0.46	-1.77	208.37
	NORMAL	2,408.0	9.29	221.40	2,380.00	-251.44	-236.27	345.03	1.28	1.24	2.07	15.17
	NORMAL	2,502.0	8.79	220.15	2,472.83	-262.62	-245.92	359.78	0.57	-0.53	-1.33	200.83
	NORMAL	2,596.0	9.94	220.41	2,565.58	-274.29	-255.81	375.06	1.22	1.22	0.28	2.24
	NORMAL	2,691.0	9.85	221.74	2,659.16	-286.59	-266.53	391.38	0.26	-0.09	1.40	112.15
	NORMAL	2,786.0	9.82	223.72	2,752.77	-298.51	-277.54	407.60	0.36	-0.03	2.08	96.04
	NORMAL	2,882.0	9.61	223.36	2,847.39	-310.26	-288.70	423.80	0.23	-0.22	-0.38	195.96
	NORMAL	2,977.0	9.49	222.77	2,941.07	-321.77	-299.46	439.56	0.16	-0.13	-0.62	218.91
	NORMAL	3,071.0	8.83	221.42	3,033.87	-332.87	-309.50	454.52	0.74	-0.70	-1.44	197.37
	NORMAL	3,163.0	10.35	223.45	3,124.59	-344.16	-319.86	469.85	1.69	1.65	2.21	13.55
3/15/2012	NORMAL	3,259.0	10.58	223.06	3,218.99	-356.86	-331.80	487.28	0.25	0.24	-0.41	342.69
	NORMAL	3,354.0	10.30	220.83	3,312.42	-369.66	-343.31	504.49	0.52	-0.29	-2.35	234.19
	NORMAL	3,450.0	10.27	221.65	3,406.87	-382.55	-354.61	521.62	0.16	-0.03	0.85	101.98
	NORMAL	3,545.0	10.16	220.58	3,500.37	-395.24	-365.69	538.46	0.23	-0.12	-1.13	239.37
	NORMAL	3,641.0	10.03	226.98	3,594.89	-407.38	-377.31	555.26	1.18	-0.14	6.67	99.75
	NORMAL	3,736.0	10.08	226.32	3,688.43	-418.76	-389.37	571.81	0.13	0.05	-0.69	293.13
	NORMAL	3,832.0	8.93	230.08	3,783.11	-429.35	-401.16	587.60	1.36	-1.20	3.92	153.48
	NORMAL	3,926.0	8.71	224.63	3,876.00	-439.09	-411.76	601.95	0.92	-0.23	-5.80	252.57
	NORMAL	4,021.0	8.44	223.31	3,969.94	-449.29	-421.59	616.11	0.35	-0.28	-1.39	215.44
	NORMAL	4,116.0	8.44	222.06	4,063.91	-459.54	-431.04	630.06	0.19	0.00	-1.32	269.38
	NORMAL	4,212.0	9.15	225.42	4,158.78	-470.12	-441.20	644.73	0.91	0.74	3.50	37.56
	NORMAL	4,307.0	9.29	222.73	4,252.55	-481.06	-451.78	659.94	0.48	0.15	-2.83	286.66
	NORMAL	4,401.0	9.47	225.10	4,345.30	-492.09	-462.41	675.26	0.45	0.19	2.52	66.19
	NORMAL	4,504.0	8.53	224.11	4,447.03	-503.56	-473.73	691.36	0.92	-0.91	-0.96	188.87
	NORMAL	4,590.0	8.46	224.03	4,532.08	-512.68	-482.57	704.06	0.08	-0.08	-0.09	189.54
3/16/2012	NORMAL	4,686.0	8.13	224.26	4,627.08	-522.62	-492.21	717.91	0.35	-0.34	0.24	174.37
	NORMAL	4,792.0	8.63	223.10	4,731.95	-533.80	-502.88	733.36	0.50	0.47	-1.09	340.74
	NORMAL	4,887.0	8.26	220.57	4,825.92	-544.19	-512.19	747.30	0.55	-0.39	-2.66	223.87
	NORMAL	4,973.0	9.44	225.17	4,910.89	-553.85	-521.20	760.52	1.60	1.37	5.35	33.24
	NORMAL	5,068.0	9.45	226.89	5,004.60	-564.67	-532.42	776.09	0.30	0.01	1.81	88.82
	NORMAL	5,164.0	7.72	225.79	5,099.52	-574.56	-542.80	790.40	1.81	-1.80	-1.15	184.88
	NORMAL	5,260.0	7.74	227.97	5,194.65	-583.38	-552.22	803.28	0.31	0.02	2.27	87.18
	NORMAL	5,355.0	6.82	223.65	5,288.89	-591.74	-560.87	815.29	1.13	-0.97	-4.55	208.62
	NORMAL	5,450.0	6.24	224.90	5,383.27	-599.48	-568.41	826.09	0.63	-0.61	1.32	166.85
	NORMAL	5,546.0	5.01	217.69	5,478.81	-606.50	-574.65	835.48	1.48	-1.28	-7.51	206.33
	NORMAL	5,641.0	2.86	213.20	5,573.58	-611.76	-578.49	841.95	2.28	-2.26	-4.73	185.92
	NORMAL	5,737.0	2.77	216.97	5,669.46	-615.62	-581.19	846.61	0.21	-0.09	3.93	117.80
	NORMAL	5,833.0	2.56	206.94	5,765.36	-619.38	-583.56	850.98	0.53	-0.22	-10.45	240.80
	NORMAL	5,928.0	2.79	214.42	5,860.26	-623.18	-585.83	855.30	0.44	0.24	7.87	60.39
	NORMAL	5,928.0	2.79	214.42	5,860.26	-623.18	-585.83	855.30	0.44	0.24	7.87	60.39
3/17/2012	NORMAL	6,023.0	1.41	210.65	5,955.19	-626.10	-587.73	858.73	1.46	-1.45	-3.97	183.83
	NORMAL	6,119.0	0.26	278.33	6,051.18	-627.08	-588.55	860.01	1.39	-1.20	70.50	169.60
	NORMAL	6,215.0	0.60	206.12	6,147.18	-627.50	-588.99	860.61	0.60	0.35	-75.22	262.36
	NORMAL	6,310.0	0.83	239.09	6,242.17	-628.30	-589.79	861.75	0.49	0.24	34.71	77.96
	NORMAL	6,406.0	0.88	343.56	6,338.16	-627.95	-590.60	862.05	1.41	0.05	108.82	140.93
	NORMAL	6,501.0	1.04	308.43	6,433.15	-626.71	-591.48	861.74	0.63	0.17	-36.98	267.19
	NORMAL	6,597.0	0.78	319.41	6,529.14	-625.68	-592.59	861.74	0.32	-0.27	11.44	151.56
	NORMAL	6,597.0	0.78	319.41	6,529.14	-625.68	-592.59	861.74	0.00	0.00	0.00	0.00
	NORMAL	6,692.0	0.62	311.27	6,624.13	-624.85	-593.40	861.69	0.20	-0.17	-8.57	207.84
	NORMAL	6,786.0	1.14	288.40	6,718.12	-624.22	-594.67	862.09	0.66	0.55	-24.33	314.17
	NORMAL	6,882.0	0.88	18.77	6,814.11	-623.22	-595.34	861.82	1.50	-0.27	94.14	142.47
	NORMAL	6,977.0	0.82	14.45	6,909.10	-621.87	-594.93	860.56	0.09	-0.06	-4.55	224.74

## 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 (°)
3/18/2012	NORMAL	7,072.0	1.48	98.27	7,004.09	-621.39	-593.55	859.26	1.70	0.69	88.23	114.17
	NORMAL	7,168.0	1.13	124.09	7,100.06	-622.10	-591.54	858.41	0.70	-0.36	26.90	133.24
	NORMAL	7,262.0	1.47	120.56	7,194.04	-623.23	-589.73	858.00	0.37	0.36	-3.76	344.98
	NORMAL	7,358.0	1.22	138.48	7,290.01	-624.62	-587.99	857.83	0.51	-0.26	18.67	129.48
3/19/2012	NORMAL	7,452.0	1.13	181.41	7,383.99	-626.29	-587.35	858.62	0.92	-0.10	45.67	117.02
	NORMAL	7,548.0	1.06	208.90	7,479.98	-628.02	-587.80	860.19	0.55	-0.07	28.64	111.19
	NORMAL	7,643.0	0.31	192.94	7,574.97	-629.04	-588.29	861.26	0.81	-0.79	-16.80	186.38
	NORMAL	7,739.0	0.67	326.47	7,670.97	-628.82	-588.65	861.36	0.95	0.38	139.09	147.80
	NORMAL	7,834.0	0.76	279.95	7,765.96	-628.25	-589.58	861.57	0.60	0.09	-48.97	255.07
	NORMAL	7,930.0	1.34	267.96	7,861.94	-628.18	-591.33	862.71	0.64	0.60	-12.49	333.19
	NORMAL	8,024.0	1.49	290.31	7,955.92	-627.80	-593.58	863.96	0.60	0.16	23.78	86.15
3/20/2012	NORMAL	8,710.0	2.81	243.71	8,641.48	-628.63	-614.48	878.84	0.00	0.00	0.00	0.00
3/20/2012	NORMAL	8,119.0	1.38	337.46	8,050.89	-626.31	-595.17	863.97	1.21	-0.12	49.63	118.59
	NORMAL	8,213.0	1.23	298.81	8,144.87	-624.78	-596.49	863.75	0.93	-0.16	-41.12	241.37
	NORMAL	8,308.0	1.41	275.52	8,239.84	-624.18	-598.55	864.71	0.59	0.19	-24.52	276.67
	NORMAL	8,404.0	2.28	269.40	8,335.79	-624.08	-601.63	866.75	0.93	0.91	-6.38	344.17
	NORMAL	8,500.0	2.19	252.06	8,431.72	-624.67	-605.29	869.67	0.71	-0.09	-18.06	253.81
	NORMAL	8,595.0	2.99	247.31	8,526.62	-626.18	-609.30	873.52	0.87	0.84	-5.00	342.60
	NORMAL	8,654.0	2.81	243.71	8,585.55	-627.42	-612.02	876.27	0.43	-0.31	-6.10	223.55