

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	RWF 514-25	Wellbore No.	00
Wellbore Legal Name	RWF 514-25	Common Wellbore Name	RWF 514-25
Project	RU 25-06S-094W	Site	RWF 23-25 Pad
Vertical Section Azimuth	234.75 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	1/27/2014	UWI	RWF 514-25
Active datum	KB @5,122.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	1/27/2014	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

6756

Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
1/27/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/27/2014	NORMAL	72.0	0.62	254.18	72.00	-0.11	-0.37	0.37	0.86	0.86	0.00	254.18
	NORMAL	102.0	1.67	227.20	101.99	-0.45	-0.85	0.95	3.84	3.50	-89.93	318.89
	NORMAL	163.0	3.08	228.96	162.94	-2.13	-2.74	3.47	2.31	2.31	2.89	3.84
	NORMAL	254.0	4.57	232.91	253.73	-5.92	-7.48	9.52	1.66	1.64	4.34	12.00
	NORMAL	344.0	7.83	235.20	343.19	-11.58	-15.37	19.24	3.63	3.62	2.54	5.48
	NORMAL	435.0	13.11	233.96	432.65	-21.20	-28.82	35.77	5.81	5.80	-1.36	356.95
	NORMAL	526.0	18.30	236.16	520.22	-35.24	-49.04	60.39	5.74	5.70	2.42	7.61
	NORMAL	596.0	22.69	232.04	585.78	-49.67	-68.83	84.87	6.60	6.27	-5.89	339.87
	NORMAL	687.0	26.47	238.98	668.53	-70.93	-100.06	122.65	5.22	4.15	7.63	40.57
	NORMAL	777.0	27.33	236.98	748.80	-92.52	-134.58	163.30	1.39	0.96	-2.22	312.65
	NORMAL	869.0	28.14	235.38	830.23	-116.36	-170.14	206.10	1.20	0.88	-1.74	316.70
	NORMAL	960.0	28.58	233.71	910.31	-141.43	-205.34	249.32	1.00	0.48	-1.84	298.28
	NORMAL	1,055.0	29.19	234.59	993.49	-168.31	-242.54	295.21	0.78	0.64	0.93	35.26
	NORMAL	1,151.0	30.00	234.37	1,076.96	-195.85	-281.13	342.62	0.85	0.84	-0.23	352.26
1/29/2014	NORMAL	1,262.0	30.33	234.50	1,172.93	-228.29	-326.50	398.39	0.30	0.30	0.12	11.25
	NORMAL	1,357.0	28.70	233.80	1,255.60	-255.70	-364.44	445.19	1.75	-1.72	-0.74	191.64
	NORMAL	1,453.0	27.69	234.24	1,340.21	-282.35	-401.14	490.54	1.07	-1.05	0.46	168.56
	NORMAL	1,548.0	28.26	233.45	1,424.11	-308.64	-437.12	535.10	0.72	0.60	-0.83	326.62
	NORMAL	1,644.0	27.43	234.50	1,508.99	-335.01	-473.38	579.93	1.00	-0.86	1.09	149.89
	NORMAL	1,739.0	27.34	232.83	1,593.35	-360.90	-508.58	623.62	0.81	-0.09	-1.76	262.58

2.1.2 Survey Stations (Continued)

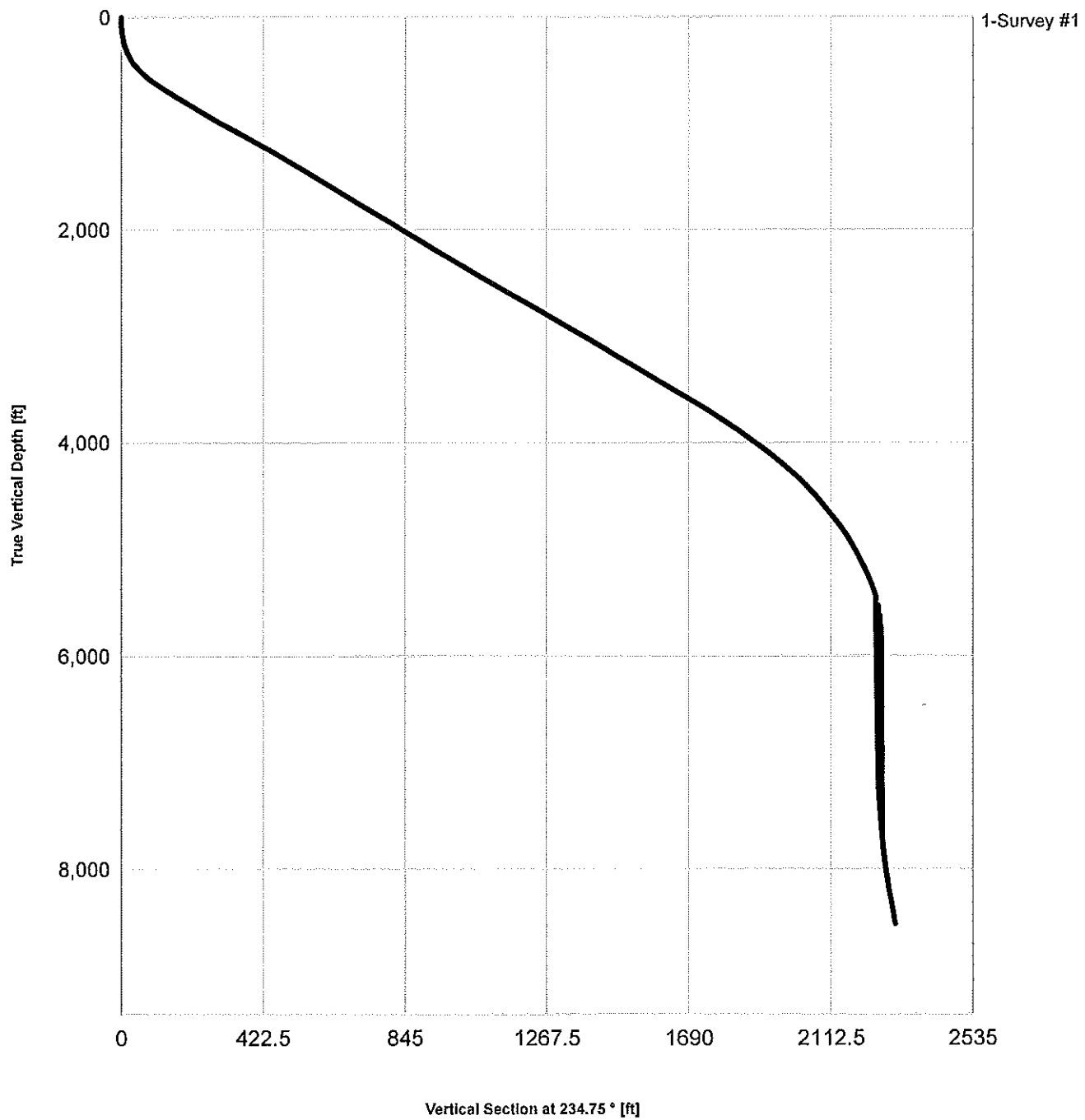
Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
1/29/2014	NORMAL	1,835.0	27.60	235.29	1,678.53	-386.88	-544.43	667.89	1.21	0.27	2.56	78.19
	NORMAL	1,931.0	28.00	234.85	1,763.45	-412.52	-581.13	712.66	0.47	0.42	-0.46	332.65
	NORMAL	2,026.0	28.22	233.36	1,847.24	-438.76	-617.39	757.42	0.77	0.23	-1.57	286.74
	NORMAL	2,122.0	27.56	236.00	1,932.09	-464.73	-654.01	802.31	1.46	-0.69	2.75	119.28
	NORMAL	2,217.0	27.34	234.76	2,016.40	-489.61	-690.05	846.10	0.64	-0.23	-1.31	248.40
	NORMAL	2,312.0	27.08	233.09	2,100.89	-515.18	-725.16	889.53	0.85	-0.27	-1.76	250.46
	NORMAL	2,408.0	27.56	234.68	2,186.18	-541.14	-760.75	933.58	0.91	0.50	1.66	57.37
	NORMAL	2,503.0	28.75	234.59	2,269.94	-567.09	-797.31	978.41	1.25	1.25	-0.09	357.92
	NORMAL	2,599.0	28.44	233.62	2,354.23	-594.03	-834.53	1,024.35	0.58	-0.32	-1.01	235.84
	NORMAL	2,694.0	27.87	234.41	2,437.99	-620.37	-870.80	1,069.17	0.72	-0.60	0.83	147.16
	NORMAL	2,790.0	29.23	236.35	2,522.31	-646.41	-908.56	1,115.04	1.71	1.42	2.02	35.14
	NORMAL	2,885.0	29.14	236.26	2,605.25	-672.11	-947.10	1,161.35	0.11	-0.09	-0.09	205.96
	NORMAL	2,981.0	29.10	234.76	2,689.12	-698.57	-985.60	1,208.06	0.76	-0.04	-1.56	266.21
	NORMAL	3,076.0	28.92	234.76	2,772.20	-725.15	-1,023.23	1,254.13	0.19	-0.19	0.00	180.00
	NORMAL	3,171.0	28.61	233.97	2,855.48	-751.78	-1,060.39	1,299.85	0.52	-0.33	-0.83	230.46
	NORMAL	3,266.0	28.31	232.48	2,939.00	-778.88	-1,096.65	1,345.10	0.81	-0.32	-1.57	246.44
	NORMAL	3,362.0	28.13	234.06	3,023.59	-806.03	-1,133.03	1,390.47	0.80	-0.19	1.65	104.24
	NORMAL	3,457.0	27.82	234.41	3,107.49	-832.07	-1,169.19	1,435.03	0.37	-0.33	0.37	152.25
	NORMAL	3,552.0	28.40	236.08	3,191.28	-857.58	-1,205.96	1,479.79	1.03	0.61	1.76	54.34
1/30/2014	NORMAL	3,648.0	28.00	236.00	3,275.89	-882.92	-1,243.59	1,525.14	0.42	-0.42	-0.08	185.36
	NORMAL	3,743.0	27.82	235.38	3,359.84	-907.99	-1,280.32	1,569.60	0.36	-0.19	-0.65	237.92
	NORMAL	3,838.0	27.65	234.50	3,443.92	-933.38	-1,316.51	1,613.81	0.47	-0.18	-0.93	247.07
	NORMAL	3,934.0	28.31	236.43	3,528.70	-958.91	-1,353.61	1,658.84	1.17	0.69	2.01	54.77
	NORMAL	4,029.0	28.35	237.14	3,612.33	-983.60	-1,391.33	1,703.90	0.36	0.04	0.75	83.54
	NORMAL	4,125.0	26.59	235.29	3,697.50	-1,008.21	-1,428.14	1,748.16	2.04	-1.83	-1.93	205.05
	NORMAL	4,220.0	26.11	236.52	3,782.63	-1,031.84	-1,463.05	1,790.31	0.77	-0.51	1.29	131.87
	NORMAL	4,316.0	24.18	237.40	3,869.53	-1,054.09	-1,497.24	1,831.07	2.05	-2.01	0.92	169.43
	NORMAL	4,411.0	23.87	234.50	3,956.30	-1,075.74	-1,529.28	1,869.73	1.28	-0.33	-3.05	253.97
	NORMAL	4,506.0	22.64	232.22	4,043.58	-1,098.10	-1,559.38	1,907.22	1.80	-1.29	-2.40	215.16
	NORMAL	4,602.0	21.93	231.78	4,132.41	-1,120.51	-1,588.07	1,943.58	0.76	-0.74	-0.46	193.02
	NORMAL	4,697.0	20.31	237.14	4,221.04	-1,140.44	-1,615.86	1,977.78	2.65	-1.71	5.64	132.47
	NORMAL	4,793.0	18.81	235.61	4,311.50	-1,158.22	-1,642.63	2,009.90	1.65	-1.56	-1.59	198.14
	NORMAL	4,888.0	17.14	238.46	4,401.86	-1,174.20	-1,667.20	2,039.19	1.99	-1.76	3.00	153.58
	NORMAL	4,984.0	15.30	233.36	4,494.04	-1,189.16	-1,689.42	2,065.97	2.42	-1.92	-5.31	215.32
	NORMAL	5,080.0	14.99	231.86	4,586.70	-1,204.38	-1,709.35	2,091.03	0.52	-0.32	-1.56	230.93
1/31/2014	NORMAL	5,175.0	14.15	234.24	4,678.65	-1,218.76	-1,728.44	2,114.91	1.09	-0.88	2.51	145.67
	NORMAL	5,271.0	13.36	235.82	4,771.89	-1,231.85	-1,747.14	2,137.74	0.91	-0.82	1.65	155.33
	NORMAL	5,366.0	12.04	235.29	4,864.57	-1,243.65	-1,764.36	2,158.62	1.39	-1.39	-0.56	184.79
	NORMAL	5,461.0	10.15	234.41	4,957.79	-1,254.17	-1,779.31	2,176.80	2.00	-1.99	-0.93	184.69
	NORMAL	5,557.0	9.28	236.26	5,052.41	-1,263.39	-1,792.63	2,193.10	0.96	-0.91	1.93	161.17
	NORMAL	5,652.0	8.88	236.52	5,146.22	-1,271.69	-1,805.12	2,208.08	0.42	-0.42	0.27	174.27
2/1/2014	NORMAL	5,746.0	8.40	237.49	5,239.15	-1,279.38	-1,816.96	2,222.19	0.53	-0.51	1.03	163.59
	NORMAL	5,841.0	7.12	233.27	5,333.28	-1,286.63	-1,827.53	2,235.01	1.47	-1.35	-4.44	201.92
	NORMAL	5,941.0	5.54	235.82	5,432.67	-1,293.05	-1,836.49	2,246.03	1.60	-1.58	2.55	171.18
	NORMAL	6,037.0	4.00	227.38	5,528.34	-1,297.92	-1,842.79	2,253.99	1.76	-1.60	-8.79	200.33
2/2/2014	NORMAL	6,132.0	2.50	226.59	5,623.18	-1,301.59	-1,846.73	2,259.32	1.58	-1.58	-0.83	181.32
	NORMAL	6,228.0	0.75	222.63	5,719.14	-1,303.49	-1,848.68	2,262.01	1.83	-1.82	-4.13	181.69
	NORMAL	6,323.0	0.31	41.84	5,814.14	-1,303.76	-1,848.93	2,262.37	1.12	-0.46	188.64	179.77
	NORMAL	6,419.0	0.44	54.41	5,910.13	-1,303.35	-1,848.45	2,261.75	0.16	0.14	13.09	38.72
	NORMAL	6,515.0	0.83	32.70	6,006.13	-1,302.55	-1,847.78	2,260.73	0.47	0.41	-22.61	317.16
	NORMAL	6,611.0	0.88	27.08	6,102.12	-1,301.31	-1,847.07	2,259.44	0.10	0.05	-5.85	297.97
	NORMAL	6,706.0	0.83	18.03	6,197.11	-1,300.00	-1,846.52	2,258.24	0.15	-0.05	-9.53	245.20
	NORMAL	6,802.0	0.35	29.28	6,293.10	-1,299.09	-1,846.16	2,257.42	0.51	-0.50	11.72	172.01
	NORMAL	6,897.0	0.09	272.38	6,388.10	-1,298.83	-1,846.10	2,257.21	0.42	-0.27	-123.05	191.61
2/3/2014	NORMAL	6,993.0	0.75	50.46	6,484.10	-1,298.43	-1,845.69	2,256.65	0.85	0.69	143.83	142.29
	NORMAL	7,088.0	0.66	56.17	6,579.09	-1,297.73	-1,844.75	2,255.48	0.12	-0.09	6.01	144.85

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
2/3/2014	NORMAL	7,184.0	0.44	95.46	6,675.09	-1,297.46	-1,843.93	2,254.65	0.44	-0.23	40.93	138.91
	NORMAL	7,279.0	0.31	123.93	6,770.08	-1,297.63	-1,843.35	2,254.28	0.24	-0.14	29.97	138.58
	NORMAL	7,375.0	0.44	61.00	6,866.08	-1,297.60	-1,842.81	2,253.82	0.42	0.14	-65.55	254.35
	NORMAL	7,470.0	0.48	130.88	6,961.08	-1,297.68	-1,842.19	2,253.36	0.56	0.04	73.56	121.38
2/4/2014	NORMAL	7,566.0	0.70	108.91	7,057.08	-1,298.14	-1,841.33	2,252.92	0.32	0.23	-22.89	302.86
	NORMAL	7,661.0	0.48	203.91	7,152.07	-1,298.69	-1,840.95	2,252.92	0.93	-0.23	100.00	147.19
2/5/2014	NORMAL	7,757.0	0.92	202.42	7,248.06	-1,299.77	-1,841.40	2,253.92	0.46	0.46	-1.55	356.89
	NORMAL	7,852.0	1.23	207.61	7,343.05	-1,301.38	-1,842.17	2,255.47	0.34	0.33	5.46	20.04
	NORMAL	7,947.0	1.32	228.88	7,438.02	-1,303.00	-1,843.46	2,257.47	0.50	0.09	22.39	89.99
	NORMAL	8,043.0	1.27	228.52	7,534.00	-1,304.43	-1,845.09	2,259.63	0.05	-0.05	-0.38	189.06
	NORMAL	8,137.0	2.07	225.89	7,627.96	-1,306.30	-1,847.09	2,262.34	0.85	0.85	-2.80	353.21
	NORMAL	8,232.0	2.73	255.59	7,722.88	-1,308.06	-1,850.52	2,266.15	1.46	0.69	31.26	77.42
	NORMAL	8,326.0	1.45	243.47	7,816.82	-1,309.15	-1,853.75	2,269.42	1.43	-1.36	-12.89	193.06
	NORMAL	8,422.0	2.20	229.49	7,912.77	-1,310.89	-1,856.24	2,272.45	0.90	0.78	-14.56	322.19
	NORMAL	8,517.0	2.77	222.37	8,007.68	-1,313.77	-1,859.17	2,276.51	0.68	0.60	-7.49	327.97
	NORMAL	8,612.0	3.17	218.59	8,102.55	-1,317.52	-1,862.35	2,281.28	0.47	0.42	-3.98	332.02
	NORMAL	8,707.0	3.12	223.78	8,197.41	-1,321.44	-1,865.78	2,286.34	0.30	-0.05	5.46	102.54
	NORMAL	8,803.0	3.65	221.05	8,293.24	-1,325.63	-1,869.60	2,291.87	0.58	0.55	-2.84	341.72
2/6/2014	NORMAL	8,899.0	3.34	216.92	8,389.06	-1,330.17	-1,873.28	2,297.50	0.42	-0.32	-4.30	217.03
	NORMAL	8,979.0	3.25	210.24	8,468.93	-1,333.99	-1,875.82	2,301.78	0.49	-0.11	-8.35	253.49
	NORMAL	9,024.0	3.25	210.24	8,513.86	-1,336.20	-1,877.11	2,304.10	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

