

# Deviation Summary

PICEANCE VLY

## 1 General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well/Wellbore Information

Well	RWF 543-25	Wellbore No.	00
Wellbore Legal Name	RWF 543-25	Common Wellbore Name	RWF 543-25
Project	RU 25-06S-094W	Site	RWF 43-25 Pad
Vertical Section Azimuth	45.87 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	7/5/2014	UWI	RWF 543-25
Active datum	KB @6,259.0ft (above Mean Sea Level)		

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	7/5/2014	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

Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Buidl Rate (°/100usft)	Turn (°/100usft)	Tface (°)
7/5/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/5/2014	NORMAL	149.0	1.45	26.84	148.98	1.68	0.85	1.78	0.97	0.97	0.00	26.84
	NORMAL	180.0	2.64	41.52	179.96	2.57	1.50	2.86	4.16	3.84	47.35	31.21
	NORMAL	210.0	3.34	38.97	209.92	3.76	2.51	4.42	2.37	2.33	-8.50	347.97
	NORMAL	240.0	3.96	48.73	239.86	5.13	3.84	6.32	2.92	2.07	32.53	50.00
	NORMAL	271.0	4.35	42.49	270.78	6.70	5.44	8.57	1.92	1.26	-20.13	307.64
	NORMAL	301.0	4.92	46.18	300.68	8.43	7.13	10.99	2.14	1.90	12.30	29.46
	NORMAL	331.0	5.71	46.62	330.55	10.34	9.15	13.77	2.64	2.63	1.47	3.17
	NORMAL	361.0	6.68	51.01	360.38	12.47	11.59	17.00	3.60	3.23	14.63	28.22
	NORMAL	391.0	7.87	49.26	390.14	14.91	14.50	20.79	4.03	3.97	-5.83	348.58
	NORMAL	422.0	8.84	48.82	420.81	17.86	17.90	25.28	3.14	3.13	-1.42	356.01
	NORMAL	512.0	9.49	45.74	509.66	27.59	28.42	39.61	0.90	0.72	-3.42	321.43
	NORMAL	603.0	10.20	45.48	599.32	38.48	39.54	55.17	0.78	0.78	-0.29	356.29
	NORMAL	694.0	11.16	43.63	688.74	50.50	51.36	72.03	1.12	1.05	-2.03	339.44
	NORMAL	784.0	9.76	47.76	777.24	61.93	63.02	88.35	1.76	-1.56	4.59	153.85
	NORMAL	875.0	10.11	44.42	866.88	72.82	74.32	104.05	0.74	0.38	-3.67	299.62
7/6/2014	NORMAL	967.0	10.55	45.30	957.39	84.51	85.96	120.54	0.51	0.48	0.96	20.16
	NORMAL	1,061.0	11.47	45.74	1,049.66	97.09	98.77	138.49	0.98	0.98	0.47	5.43
	NORMAL	1,098.0	11.30	44.42	1,085.93	102.25	103.94	145.80	0.84	-0.46	-3.57	236.23
7/7/2014	NORMAL	1,171.0	10.15	47.32	1,157.65	111.72	113.67	159.38	1.74	-1.58	3.97	156.28
	NORMAL	1,267.0	10.02	47.41	1,252.17	123.10	126.04	176.18	0.14	-0.14	0.09	173.13

## 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 (°)
7/7/2014	NORMAL	1,363.0	9.76	47.23	1,346.74	134.28	138.16	192.66	0.27	-0.27	-0.19	186.69
	NORMAL	1,458.0	11.03	46.88	1,440.18	145.96	150.71	209.80	1.34	1.34	-0.37	356.98
	NORMAL	1,553.0	10.42	45.12	1,533.52	158.23	163.43	227.48	0.73	-0.64	-1.85	207.37
	NORMAL	1,649.0	9.85	45.65	1,628.02	170.10	175.45	244.37	0.60	-0.59	0.55	170.97
	NORMAL	1,744.0	12.18	47.15	1,721.27	182.60	188.61	262.52	2.47	2.45	1.58	7.75
	NORMAL	1,840.0	12.04	47.06	1,815.13	196.31	203.37	282.65	0.15	-0.15	-0.09	187.64
	NORMAL	1,935.0	11.96	45.74	1,908.06	209.93	217.67	302.40	0.30	-0.08	-1.39	253.10
	NORMAL	2,030.0	11.43	43.02	2,001.08	223.68	231.14	321.65	0.80	-0.56	-2.86	224.80
	NORMAL	2,126.0	12.13	48.82	2,095.06	237.27	245.22	341.22	1.43	0.73	6.04	62.27
	NORMAL	2,221.0	12.13	47.06	2,187.94	250.65	260.04	361.17	0.39	0.00	-1.85	269.14
	NORMAL	2,317.0	11.87	46.53	2,281.85	264.31	274.59	381.13	0.29	-0.27	-0.55	202.71
	NORMAL	2,412.0	11.65	45.91	2,374.85	277.70	288.57	400.49	0.27	-0.23	-0.65	209.57
	NORMAL	2,508.0	10.99	44.51	2,468.98	290.97	301.95	419.33	0.74	-0.69	-1.46	201.92
	NORMAL	2,603.0	10.59	44.60	2,562.30	303.65	314.43	437.11	0.42	-0.42	0.09	177.63
	NORMAL	2,698.0	10.33	45.30	2,655.73	315.85	326.61	454.35	0.30	-0.27	0.74	154.30
	NORMAL	2,794.0	9.85	44.95	2,750.24	327.72	338.53	471.17	0.50	-0.50	-0.36	187.11
	NORMAL	2,889.0	9.76	44.77	2,843.85	339.19	349.94	487.35	0.10	-0.09	-0.19	198.72
	NORMAL	2,985.0	10.68	44.69	2,938.33	351.29	361.93	504.38	0.96	0.96	-0.08	359.08
	NORMAL	3,080.0	10.55	45.04	3,031.70	363.69	374.27	521.87	0.15	-0.14	0.37	153.79
	NORMAL	3,176.0	10.20	45.21	3,126.13	375.89	386.52	539.16	0.37	-0.36	0.18	175.08
	NORMAL	3,271.0	10.07	44.33	3,219.65	387.76	398.30	555.87	0.21	-0.14	-0.93	229.55
	NORMAL	3,364.0	9.71	45.04	3,311.27	399.12	409.53	571.84	0.41	-0.39	0.76	161.64
	NORMAL	3,459.0	10.81	42.58	3,404.75	411.34	421.22	588.75	1.25	1.16	-2.59	337.07
	NORMAL	3,554.0	10.37	43.37	3,498.13	424.11	433.12	606.18	0.49	-0.46	0.83	162.13
	NORMAL	3,650.0	10.59	43.19	3,592.53	436.83	445.09	623.63	0.23	0.23	-0.19	351.45
	NORMAL	3,745.0	12.22	45.74	3,685.65	450.21	458.27	642.40	1.80	1.72	2.68	18.44
7/8/2014	NORMAL	3,841.0	11.74	45.65	3,779.56	464.13	472.53	662.33	0.50	-0.50	-0.09	182.18
	NORMAL	3,936.0	11.21	47.76	3,872.66	477.09	486.28	681.22	0.71	-0.56	2.22	142.65
	NORMAL	4,031.0	11.08	47.94	3,965.87	489.41	499.89	699.58	0.14	-0.14	0.19	165.11
	NORMAL	4,127.0	10.55	47.67	4,060.16	501.51	513.24	717.58	0.55	-0.55	-0.28	185.33
	NORMAL	4,222.0	10.15	48.38	4,153.62	512.93	525.93	734.63	0.44	-0.42	0.75	162.66
	NORMAL	4,317.0	9.85	48.73	4,247.17	523.85	538.29	751.11	0.32	-0.32	0.37	168.72
	NORMAL	4,412.0	9.41	46.71	4,340.84	534.53	550.05	766.99	0.58	-0.46	-2.13	216.53
	NORMAL	4,507.0	9.01	47.94	4,434.61	544.84	561.23	782.19	0.47	-0.42	1.29	154.40
	NORMAL	4,602.0	10.11	45.12	4,528.29	555.71	572.66	797.97	1.26	1.16	-2.97	335.54
	NORMAL	4,697.0	9.80	44.42	4,621.86	567.37	584.23	814.39	0.35	-0.33	-0.74	200.98
	NORMAL	4,792.0	9.23	43.10	4,715.55	578.70	595.09	830.08	0.64	-0.60	-1.39	200.30
	NORMAL	4,888.0	8.44	42.14	4,810.41	589.55	605.08	844.80	0.84	-0.82	-1.00	190.10
7/9/2014	NORMAL	4,988.0	7.82	41.17	4,909.41	600.11	614.48	858.90	0.63	-0.62	-0.97	192.00
	NORMAL	5,083.0	7.69	41.70	5,003.54	609.72	622.96	871.68	0.16	-0.14	0.56	151.45
	NORMAL	5,175.0	7.43	42.66	5,094.74	618.69	631.09	883.76	0.31	-0.28	1.04	154.57
	NORMAL	5,269.0	7.12	40.91	5,187.98	627.56	639.02	895.63	0.41	-0.33	-1.86	214.69
	NORMAL	5,367.0	6.81	49.52	5,285.26	635.93	647.42	907.48	1.11	-0.32	8.79	110.78
	NORMAL	5,463.0	6.72	49.96	5,380.59	643.24	656.05	918.76	0.11	-0.09	0.46	150.28
	NORMAL	5,559.0	5.89	50.57	5,476.01	649.98	664.15	929.28	0.87	-0.86	0.64	175.69
	NORMAL	5,650.0	5.19	52.16	5,566.59	655.47	671.01	938.02	0.79	-0.77	1.75	168.42
	NORMAL	5,745.0	4.88	52.95	5,661.22	660.54	677.63	946.30	0.33	-0.33	0.83	167.79
	NORMAL	5,845.0	4.57	56.64	5,760.88	665.29	684.35	954.44	0.43	-0.31	3.69	137.39
	NORMAL	5,939.0	4.53	46.36	5,854.59	669.91	690.17	961.83	0.87	-0.04	-10.94	262.08
	NORMAL	6,034.0	4.18	45.83	5,949.31	674.91	695.36	969.04	0.37	-0.37	-0.56	186.30
	NORMAL	6,130.0	3.47	42.31	6,045.10	679.50	699.83	975.44	0.78	-0.74	-3.67	186.55
	NORMAL	6,225.0	2.94	41.43	6,139.95	683.45	703.38	980.74	0.56	-0.56	-0.93	184.86
	NORMAL	6,320.0	3.52	39.68	6,234.80	687.53	706.85	986.07	0.62	0.61	-1.84	349.48
	NORMAL	6,416.0	3.08	42.58	6,330.64	691.69	710.48	991.57	0.49	-0.46	3.02	160.67
7/10/2014	NORMAL	6,512.0	4.48	50.22	6,426.43	695.99	715.11	997.89	1.55	1.46	7.96	23.63
	NORMAL	6,608.0	3.87	47.67	6,522.17	700.57	720.38	1,004.86	0.66	-0.64	-2.66	195.66

## 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 (°)
7/10/2014	NORMAL	6,704.0	3.34	49.08	6,617.98	704.58	724.89	1,010.89	0.56	-0.55	1.47	171.21
	NORMAL	6,800.0	3.34	47.59	6,713.82	708.30	729.07	1,016.48	0.09	0.00	-1.55	269.26
	NORMAL	6,896.0	2.90	41.96	6,809.68	711.99	732.76	1,021.70	0.56	-0.46	-5.86	212.07
	NORMAL	6,992.0	2.68	46.62	6,905.56	715.34	736.01	1,026.36	0.33	-0.23	4.85	136.44
	NORMAL	7,087.0	2.55	54.97	7,000.46	718.08	739.36	1,030.67	0.42	-0.14	8.79	112.98
	NORMAL	7,183.0	2.37	59.54	7,096.37	720.31	742.82	1,034.71	0.28	-0.19	4.76	134.81
	NORMAL	7,278.0	2.20	62.70	7,191.30	722.14	746.13	1,038.36	0.22	-0.18	3.33	145.03
	NORMAL	7,374.0	0.83	105.42	7,287.27	722.80	748.44	1,040.48	1.76	-1.43	44.50	160.50
	NORMAL	7,468.0	0.79	114.21	7,381.26	722.36	749.68	1,041.06	0.14	-0.04	9.35	112.21
	NORMAL	7,563.0	0.53	127.83	7,476.25	721.82	750.63	1,041.37	0.32	-0.27	14.34	155.58
7/11/2014	NORMAL	7,658.0	0.26	159.91	7,571.25	721.35	751.05	1,041.34	0.36	-0.28	33.77	155.97
	NORMAL	7,754.0	0.48	244.72	7,667.25	720.97	750.76	1,040.87	0.55	0.23	88.34	114.37
7/12/2014	NORMAL	7,850.0	0.79	256.32	7,763.24	720.64	749.75	1,039.92	0.35	0.32	12.08	28.39
	NORMAL	7,944.0	1.19	252.37	7,857.23	720.19	748.19	1,038.49	0.43	0.43	-4.20	348.34
	NORMAL	8,038.0	1.41	261.16	7,951.20	719.72	746.12	1,036.67	0.32	0.23	9.35	46.64
	NORMAL	8,133.0	1.54	266.52	8,046.17	719.46	743.69	1,034.75	0.20	0.14	5.64	49.40
	NORMAL	8,229.0	1.45	263.01	8,142.14	719.24	741.20	1,032.80	0.13	-0.09	-3.66	223.75
	NORMAL	8,325.0	2.02	261.51	8,238.09	718.84	738.32	1,030.46	0.60	0.59	-1.56	354.69
7/13/2014	NORMAL	8,419.0	2.42	261.42	8,332.04	718.30	734.72	1,027.50	0.43	0.43	-0.10	359.46
	NORMAL	8,515.0	2.64	258.00	8,427.95	717.54	730.55	1,023.98	0.28	0.23	-3.56	323.83
	NORMAL	8,610.0	3.03	251.58	8,522.83	716.29	726.03	1,019.86	0.53	0.41	-6.76	317.61
	NORMAL	8,705.0	3.52	247.71	8,617.67	714.39	720.95	1,014.89	0.57	0.52	-4.07	333.78
	NORMAL	8,801.0	3.78	246.39	8,713.48	712.00	715.32	1,009.19	0.28	0.27	-1.38	341.43
	NORMAL	8,890.0	3.91	245.25	8,802.28	709.56	709.88	1,003.58	0.17	0.15	-1.28	328.97
	NORMAL	8,935.0	3.91	245.25	8,847.18	708.27	707.09	1,000.69	0.00	0.00	0.00	0.00