

# Deviation Summary

PICEANCE VLY

## 1 General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well/Wellbore Information

Well	RWF 534-25	Wellbore No.	00
Wellbore Legal Name	RWF 534-25	Common Wellbore Name	RWF 534-25
Project	RU 25-06S-094W	Site	RWF 43-25 Pad
Vertical Section Azimuth	205.08 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	9/17/2014	UWI	RWF 534-25
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	9/17/2014	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)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
9/17/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/17/2014	NORMAL	72.0	0.97	251.46	72.00	-0.19	-0.58	0.42	1.35	1.35	0.00	251.46
	NORMAL	102.0	1.94	251.10	101.99	-0.44	-1.30	0.95	3.23	3.23	-1.20	359.28
	NORMAL	132.0	2.02	252.07	131.97	-0.77	-2.28	1.66	0.29	0.27	3.23	23.22
	NORMAL	163.0	2.20	247.24	162.95	-1.16	-3.35	2.48	0.82	0.58	-15.58	312.92
	NORMAL	193.0	2.55	243.63	192.92	-1.68	-4.48	3.42	1.27	1.17	-12.03	335.05
	NORMAL	223.0	2.90	237.83	222.89	-2.38	-5.72	4.58	1.48	1.17	-19.33	318.85
	NORMAL	253.0	3.08	232.47	252.85	-3.28	-7.00	5.94	1.11	0.60	-17.87	300.08
	NORMAL	283.0	3.34	229.83	282.80	-4.33	-8.31	7.45	1.00	0.87	-8.80	329.06
	NORMAL	313.0	3.34	222.28	312.75	-5.54	-9.56	9.08	1.47	0.00	-25.17	266.23
	NORMAL	343.0	4.13	219.46	342.69	-7.03	-10.84	10.96	2.70	2.63	-9.40	345.50
	NORMAL	373.0	4.13	229.39	372.61	-8.56	-12.35	12.99	2.38	0.00	33.10	94.95
	NORMAL	404.0	4.66	226.14	403.52	-10.16	-14.10	15.18	1.89	1.71	-10.48	333.20
	NORMAL	414.0	4.75	227.02	413.48	-10.73	-14.70	15.94	1.15	0.90	8.80	39.17
	NORMAL	504.0	8.52	209.22	502.87	-19.09	-20.68	26.05	4.72	4.19	-19.78	322.34
	NORMAL	595.0	11.87	200.87	592.43	-33.72	-27.31	42.12	4.01	3.68	-9.18	332.04
9/18/2014	NORMAL	685.0	13.15	200.44	680.29	-51.96	-34.18	61.55	1.43	1.42	-0.48	355.63
	NORMAL	776.0	11.87	195.31	769.13	-70.69	-40.27	81.10	1.86	-1.41	-5.64	218.48
	NORMAL	867.0	10.55	192.32	858.39	-87.86	-44.52	98.44	1.58	-1.45	-3.29	202.31
	NORMAL	958.0	11.07	195.82	947.78	-104.40	-48.68	115.19	0.92	0.57	3.85	53.34
	NORMAL	1,054.0	11.26	205.77	1,041.97	-121.71	-55.26	133.66	2.01	0.20	10.36	89.26



## 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 (°)
9/18/2014	NORMAL	1,085.0	12.05	206.73	1,072.33	-127.33	-58.03	139.92	2.62	2.55	3.10	14.26
9/19/2014	NORMAL	1,170.0	12.66	208.05	1,155.36	-143.47	-66.41	158.09	0.79	0.72	1.55	25.49
	NORMAL	1,265.0	11.16	206.30	1,248.32	-160.90	-75.37	177.68	1.62	-1.58	-1.84	192.68
	NORMAL	1,361.0	9.98	205.07	1,342.69	-176.77	-83.02	195.29	1.25	-1.23	-1.28	190.22
	NORMAL	1,456.0	9.93	203.83	1,436.26	-191.72	-89.81	211.71	0.23	-0.05	-1.31	256.26
	NORMAL	1,550.0	9.89	203.57	1,528.85	-206.53	-96.32	227.88	0.06	-0.04	-0.28	228.08
	NORMAL	1,646.0	9.63	202.52	1,623.47	-221.50	-102.69	244.15	0.33	-0.27	-1.09	213.88
	NORMAL	1,742.0	9.23	199.53	1,718.17	-236.18	-108.34	259.83	0.66	-0.42	-3.11	229.30
	NORMAL	1,837.0	9.93	199.35	1,811.84	-251.09	-113.60	275.57	0.74	0.74	-0.19	357.46
	NORMAL	1,933.0	10.77	201.46	1,906.28	-267.25	-119.62	292.75	0.96	0.88	2.20	25.33
	NORMAL	2,029.0	10.77	204.98	2,000.59	-283.72	-126.69	310.68	0.69	0.00	3.67	91.73
	NORMAL	2,125.0	10.51	206.21	2,094.94	-299.71	-134.35	328.40	0.36	-0.27	1.28	139.47
	NORMAL	2,220.0	11.16	207.79	2,188.25	-315.62	-142.46	346.25	0.75	0.68	1.66	25.33
	NORMAL	2,315.0	10.77	206.03	2,281.51	-331.73	-150.64	364.30	0.54	-0.41	-1.85	219.78
	NORMAL	2,409.0	11.60	205.59	2,373.73	-348.14	-158.58	382.54	0.89	0.88	-0.47	353.91
	NORMAL	2,504.0	11.47	206.30	2,466.81	-365.22	-166.89	401.53	0.20	-0.14	0.75	132.83
	NORMAL	2,599.0	11.25	205.42	2,559.95	-382.06	-175.05	420.24	0.29	-0.23	-0.93	217.80
	NORMAL	2,694.0	11.12	203.48	2,653.14	-398.83	-182.68	438.67	0.42	-0.14	-2.04	249.99
	NORMAL	2,789.0	10.95	202.17	2,746.39	-415.59	-189.74	456.83	0.32	-0.18	-1.38	235.22
	NORMAL	2,884.0	12.00	203.75	2,839.49	-432.99	-197.12	475.72	1.15	1.11	1.66	17.44
	NORMAL	2,979.0	11.65	204.19	2,932.47	-450.78	-205.03	495.18	0.38	-0.37	0.46	165.77
	NORMAL	3,074.0	11.47	203.92	3,025.54	-468.16	-212.79	514.22	0.20	-0.19	-0.28	196.60
	NORMAL	3,169.0	11.16	202.87	3,118.70	-485.27	-220.19	532.85	0.39	-0.33	-1.11	213.09
	NORMAL	3,264.0	12.00	205.07	3,211.76	-502.68	-227.95	551.91	1.00	0.88	2.32	28.81
	NORMAL	3,360.0	11.52	204.63	3,305.75	-520.44	-236.17	571.48	0.51	-0.50	-0.46	190.37
	NORMAL	3,455.0	11.21	205.51	3,398.89	-537.39	-244.10	590.20	0.37	-0.33	0.93	151.21
	NORMAL	3,551.0	11.16	204.54	3,493.06	-554.27	-251.98	608.82	0.20	-0.05	-1.01	254.64
	NORMAL	3,646.0	11.03	202.43	3,586.29	-571.03	-259.26	627.09	0.45	-0.14	-2.22	251.21
	NORMAL	3,741.0	11.60	205.94	3,679.44	-588.02	-266.91	645.72	0.94	0.60	3.69	52.12
	NORMAL	3,836.0	11.52	205.42	3,772.52	-605.18	-275.16	664.75	0.14	-0.08	-0.55	232.23
	NORMAL	3,932.0	11.16	204.19	3,866.64	-622.31	-283.08	683.63	0.45	-0.38	-1.28	213.29
	NORMAL	4,027.0	10.81	202.78	3,959.90	-638.91	-290.30	701.72	0.46	-0.37	-1.48	216.82
	NORMAL	4,122.0	11.08	208.84	4,053.18	-655.12	-298.15	719.73	1.24	0.28	6.38	79.78
9/20/2014	NORMAL	4,218.0	11.34	209.63	4,147.35	-671.41	-307.27	738.35	0.31	0.27	0.82	30.96
	NORMAL	4,313.0	12.09	211.13	4,240.37	-688.04	-317.03	757.55	0.85	0.79	1.58	22.84
	NORMAL	4,408.0	11.91	211.39	4,333.29	-704.92	-327.28	777.19	0.20	-0.19	0.27	163.41
	NORMAL	4,504.0	11.69	212.71	4,427.26	-721.56	-337.69	796.67	0.36	-0.23	1.38	129.83
	NORMAL	4,599.0	11.69	207.79	4,520.29	-738.18	-347.38	815.83	1.05	0.00	-5.18	267.59
	NORMAL	4,695.0	12.04	207.88	4,614.24	-755.63	-356.60	835.54	0.37	0.36	0.09	3.07
	NORMAL	4,790.0	12.44	207.96	4,707.08	-773.43	-366.03	855.66	0.42	0.42	0.08	2.47
9/21/2014	NORMAL	4,886.0	10.77	204.80	4,801.12	-790.70	-374.64	874.96	1.86	-1.74	-3.29	199.30
	NORMAL	4,981.0	10.90	204.63	4,894.43	-806.93	-382.11	892.82	0.14	0.14	-0.18	346.11
	NORMAL	5,075.0	9.85	205.51	4,986.89	-822.26	-389.27	909.74	1.13	-1.12	0.94	171.85
	NORMAL	5,170.0	8.92	205.15	5,080.62	-836.26	-395.90	925.23	0.98	-0.98	-0.38	183.43
	NORMAL	5,265.0	7.74	207.26	5,174.61	-848.62	-401.96	938.99	1.28	-1.24	2.22	166.52
	NORMAL	5,361.0	6.68	207.00	5,269.85	-859.34	-407.46	951.03	1.10	-1.10	-0.27	181.63
	NORMAL	5,456.0	5.41	210.16	5,364.32	-868.13	-412.22	961.02	1.38	-1.34	3.33	166.88
	NORMAL	5,552.0	3.74	212.10	5,460.01	-874.70	-416.16	968.63	1.75	-1.74	2.02	175.67
	NORMAL	5,647.0	2.11	214.82	5,554.89	-878.76	-418.80	973.43	1.72	-1.72	2.86	176.49
	NORMAL	5,743.0	0.48	153.03	5,650.86	-880.57	-419.63	975.42	2.01	-1.70	-64.36	192.66
9/22/2014	NORMAL	5,838.0	0.26	120.60	5,745.86	-881.04	-419.26	975.69	0.31	-0.23	-34.14	208.15
	NORMAL	5,933.0	0.31	193.90	5,840.86	-881.39	-419.14	975.96	0.36	0.05	77.16	119.93
	NORMAL	6,029.0	0.57	204.98	5,936.86	-882.08	-419.40	976.69	0.28	0.27	11.54	23.71
	NORMAL	6,125.0	0.88	204.71	6,032.85	-883.18	-419.91	977.91	0.32	0.32	-0.28	359.23
	NORMAL	6,220.0	1.14	207.61	6,127.83	-884.68	-420.65	979.58	0.28	0.27	3.05	12.58
	NORMAL	6,316.0	1.23	212.89	6,223.81	-886.39	-421.66	981.55	0.15	0.09	5.50	53.16



## 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 (°)
9/22/2014	NORMAL	6,411.0	1.36	216.40	6,318.79	-888.16	-422.88	983.67	0.16	0.14	3.69	33.15
	NORMAL	6,507.0	1.50	219.30	6,414.76	-890.05	-424.35	986.01	0.16	0.15	3.02	28.79
	NORMAL	6,602.0	1.98	221.85	6,509.72	-892.23	-426.23	988.78	0.51	0.51	2.68	10.44
	NORMAL	6,696.0	0.92	211.66	6,603.68	-894.08	-427.71	991.09	1.16	-1.13	-10.84	188.61
	NORMAL	6,792.0	0.44	110.41	6,699.68	-894.87	-427.77	991.82	1.14	-0.50	-105.47	203.22
9/23/2014	NORMAL	6,887.0	0.22	128.16	6,794.68	-895.11	-427.29	991.83	0.25	-0.23	18.68	163.77
	NORMAL	6,983.0	0.88	42.73	6,890.67	-894.68	-426.64	991.17	0.93	0.69	-88.99	260.30
	NORMAL	7,078.0	0.57	15.77	6,985.67	-893.69	-426.02	990.01	0.48	-0.33	-28.38	214.79
	NORMAL	7,174.0	1.27	12.94	7,081.65	-892.19	-425.65	988.50	0.73	0.73	-2.95	354.87
	NORMAL	7,270.0	1.63	49.23	7,177.63	-890.26	-424.38	986.21	1.01	0.38	37.80	87.39
9/24/2014	NORMAL	7,365.0	1.58	55.21	7,272.59	-888.63	-422.28	983.85	0.18	-0.05	6.29	109.60
	NORMAL	7,461.0	1.01	58.02	7,368.56	-887.43	-420.47	981.99	0.60	-0.59	2.93	175.05
	NORMAL	7,556.0	0.70	70.59	7,463.55	-886.80	-419.22	980.88	0.38	-0.33	13.23	155.01
	NORMAL	7,652.0	0.88	25.06	7,559.55	-885.93	-418.35	979.74	0.66	0.19	-47.43	262.43
	NORMAL	7,746.0	1.85	30.43	7,653.52	-883.97	-417.28	977.50	1.04	1.03	5.71	10.20
	NORMAL	7,848.0	1.32	24.71	7,755.48	-881.48	-415.95	974.69	0.54	-0.52	-5.61	193.78
	NORMAL	7,967.0	0.40	359.58	7,874.46	-879.82	-415.38	972.94	0.82	-0.77	-21.12	190.06
	NORMAL	8,032.0	0.18	338.66	7,939.46	-879.50	-415.42	972.67	0.37	-0.34	-32.18	195.49
	NORMAL	8,128.0	0.61	258.15	8,035.46	-879.47	-415.98	972.87	0.63	0.45	-83.86	262.48
	NORMAL	8,223.0	0.97	238.46	8,130.45	-879.99	-417.16	973.85	0.47	0.38	-20.73	312.86
	NORMAL	8,318.0	1.27	238.11	8,225.44	-880.97	-418.74	975.40	0.32	0.32	-0.37	358.52
	NORMAL	8,414.0	0.83	241.71	8,321.42	-881.86	-420.25	976.85	0.46	-0.46	3.75	173.27
	NORMAL	8,509.0	0.70	258.59	8,416.41	-882.30	-421.43	977.75	0.27	-0.14	17.77	128.24
9/25/2014	NORMAL	8,605.0	1.14	229.59	8,512.40	-883.03	-422.73	978.97	0.65	0.46	-30.21	298.26
	NORMAL	8,700.0	1.36	227.92	8,607.38	-884.40	-424.28	980.86	0.23	0.23	-1.76	349.76
	NORMAL	8,795.0	1.50	226.33	8,702.35	-886.02	-426.02	983.06	0.15	0.15	-1.67	343.38
	NORMAL	8,815.0	1.50	226.33	8,722.34	-886.38	-426.40	983.55	0.00	0.00	0.00	0.00
	NORMAL	8,860.0	1.50	226.33	8,767.32	-887.19	-427.25	984.65	0.00	0.00	0.00	0.00