

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	RWF 11-35	Wellbore No.	00
Wellbore Legal Name	RWF 11-35	Common Wellbore Name	RWF 11-35
Project	RU 35-06S-094W	Site	RWF 11-35 Pad
Vertical Section Azimuth	324.71 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	10/17/2013	UWI	RWF 11-35
Active datum	KB @5,494.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	SCIENTIFIC
Date Started	10/17/2013	Ended	
Tool Name	MWD	Engineer	DAVID HENSLEY

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

5625

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 (°)
10/17/2013	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/17/2013	NORMAL	77.0	0.44	22.50	77.00	0.27	0.11	0.16	0.57	0.57	0.00	22.50
	NORMAL	168.0	2.73	335.65	167.96	2.57	-0.65	2.47	2.69	2.52	-51.48	305.63
	NORMAL	259.0	4.75	323.79	258.76	7.59	-3.77	8.37	2.37	2.22	-13.03	333.06
10/18/2013	NORMAL	350.0	7.92	323.79	349.20	15.69	-9.70	18.41	3.48	3.48	0.00	0.00
	NORMAL	440.0	10.21	323.79	438.07	27.13	-18.07	32.58	2.54	2.54	0.00	0.00
	NORMAL	510.0	11.98	323.87	506.76	38.00	-26.02	46.05	2.53	2.53	0.11	0.54
	NORMAL	600.0	13.61	323.53	594.52	54.06	-37.83	65.98	1.81	1.81	-0.38	357.19
	NORMAL	691.0	14.64	323.23	682.77	71.88	-51.07	88.18	1.13	1.13	-0.33	355.79
	NORMAL	782.0	15.92	322.62	770.55	91.01	-65.53	112.15	1.42	1.41	-0.67	352.55
	NORMAL	872.0	16.27	324.41	857.02	111.08	-80.37	137.09	0.67	0.39	1.99	55.67
	NORMAL	963.0	15.09	324.33	944.63	131.07	-94.69	161.69	1.30	-1.30	-0.09	181.01
	NORMAL	1,058.0	14.63	325.42	1,036.46	150.99	-108.71	186.05	0.57	-0.48	1.15	149.24
	NORMAL	1,111.0	15.48	326.66	1,087.64	162.41	-116.40	199.81	1.71	1.60	2.34	21.35
	NORMAL	1,176.0	15.48	326.66	1,150.28	176.90	-125.93	217.15	0.00	0.00	0.00	0.00
10/19/2013	NORMAL	1,243.0	16.46	325.16	1,214.54	192.48	-136.76	236.12	0.81	0.74	-1.14	336.44
	NORMAL	1,337.0	16.09	324.24	1,304.77	213.98	-151.98	262.46	0.48	-0.39	-0.98	214.43
	NORMAL	1,431.0	14.33	326.75	1,395.48	234.28	-165.98	287.11	2.00	-1.87	2.67	160.69
	NORMAL	1,526.0	13.93	326.25	1,487.60	253.62	-178.78	310.29	0.44	-0.42	-0.53	196.73
10/20/2013	NORMAL	1,621.0	13.43	324.95	1,579.91	272.16	-191.46	332.76	0.62	-0.53	-1.37	210.96
	NORMAL	1,715.0	14.76	325.92	1,671.08	291.01	-204.44	355.64	1.44	1.41	1.03	10.54

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 (")
10/20/2013	NORMAL	1,809.0	14.75	325.16	1,761.98	310.75	-217.99	379.58	0.21	-0.01	-0.81	266.68
	NORMAL	1,903.0	14.77	323.85	1,852.88	330.25	-231.89	403.53	0.36	0.02	-1.39	272.80
	NORMAL	1,997.0	14.07	321.30	1,943.92	348.84	-246.11	426.92	1.01	-0.74	-2.71	220.98
	NORMAL	2,091.0	14.74	324.28	2,034.96	367.47	-260.23	450.28	1.06	0.71	3.17	49.34
	NORMAL	2,185.0	14.38	325.38	2,125.94	386.78	-273.85	473.91	0.48	-0.38	1.17	143.00
	NORMAL	2,279.0	14.07	322.09	2,217.06	405.40	-287.50	497.00	0.92	-0.33	-3.50	247.43
	NORMAL	2,373.0	14.77	326.64	2,308.10	424.43	-301.11	520.39	1.42	0.74	4.84	60.51
	NORMAL	2,468.0	15.05	327.02	2,399.91	444.89	-314.48	544.81	0.31	0.29	0.40	19.43
	NORMAL	2,562.0	15.12	326.40	2,490.67	465.34	-327.91	569.26	0.19	0.07	-0.66	293.15
	NORMAL	2,655.0	14.96	324.97	2,580.48	485.27	-341.51	593.39	0.43	-0.17	-1.54	245.99
	NORMAL	2,749.0	14.68	322.27	2,671.36	504.62	-355.76	617.42	0.79	-0.30	-2.87	246.63
	NORMAL	2,844.0	14.83	325.35	2,763.22	524.14	-370.04	641.61	0.84	0.16	3.24	80.67
	NORMAL	2,938.0	14.82	324.85	2,854.10	543.87	-383.80	665.66	0.14	-0.01	-0.53	265.29
	NORMAL	3,031.0	14.70	325.27	2,944.03	563.29	-397.37	689.35	0.17	-0.13	0.45	138.48
	NORMAL	3,125.0	14.54	324.13	3,034.98	582.66	-411.08	713.08	0.35	-0.17	-1.21	240.37
	NORMAL	3,219.0	14.21	322.69	3,126.04	601.40	-424.99	736.41	0.52	-0.35	-1.53	226.60
	NORMAL	3,312.0	14.22	322.08	3,216.19	619.49	-438.93	759.22	0.16	0.01	-0.66	273.52
	NORMAL	3,406.0	14.62	323.45	3,307.23	638.12	-453.09	782.62	0.56	0.43	1.46	41.13
10/21/2013	NORMAL	3,499.0	14.25	327.71	3,397.30	657.23	-466.19	805.78	1.21	-0.40	4.58	111.26
	NORMAL	3,592.0	14.10	328.78	3,487.47	676.59	-478.18	828.51	0.32	-0.16	1.15	120.31
	NORMAL	3,687.0	13.62	329.16	3,579.70	696.09	-489.91	851.21	0.51	-0.51	0.40	169.45
	NORMAL	3,780.0	13.28	328.42	3,670.15	714.59	-501.12	872.78	0.41	-0.37	-0.80	206.49
	NORMAL	3,873.0	13.02	327.61	3,760.71	732.54	-512.33	893.91	0.34	-0.28	-0.87	214.93
	NORMAL	3,967.0	12.93	327.97	3,852.31	750.40	-523.58	914.98	0.13	-0.10	0.38	138.25
	NORMAL	4,060.0	11.54	327.45	3,943.20	767.06	-534.10	934.66	1.50	-1.49	-0.56	184.28
	NORMAL	4,155.0	10.93	327.08	4,036.38	782.63	-544.11	953.15	0.65	-0.64	-0.39	186.56
	NORMAL	4,249.0	11.07	326.79	4,128.65	797.66	-553.89	971.07	0.16	0.15	-0.31	338.29
	NORMAL	4,344.0	9.61	325.20	4,222.11	811.80	-563.41	988.12	1.57	-1.54	-1.67	190.28
	NORMAL	4,438.0	9.06	323.57	4,314.86	824.20	-572.29	1,003.36	0.65	-0.59	-1.73	204.87
	NORMAL	4,532.0	8.00	327.71	4,407.82	835.69	-580.18	1,017.30	1.30	-1.13	4.40	151.95
	NORMAL	4,624.0	6.52	339.44	4,499.09	845.99	-585.43	1,028.74	2.27	-1.61	12.75	140.67
	NORMAL	4,718.0	4.60	348.72	4,592.64	854.69	-588.04	1,037.35	2.25	-2.04	9.87	159.48
10/22/2013	NORMAL	4,812.0	4.15	348.33	4,686.37	861.71	-589.47	1,043.91	0.48	-0.48	-0.41	183.59
	NORMAL	4,904.0	2.99	349.83	4,778.19	867.33	-590.57	1,049.13	1.26	-1.26	1.63	176.14
	NORMAL	4,999.0	2.70	354.06	4,873.07	872.00	-591.23	1,053.32	0.38	-0.31	4.45	146.20
	NORMAL	5,092.0	2.20	351.71	4,965.99	875.94	-591.72	1,056.82	0.55	-0.54	-2.53	190.19
	NORMAL	5,186.0	1.60	345.41	5,059.93	879.00	-592.31	1,059.66	0.67	-0.64	-6.70	196.06
	NORMAL	5,280.0	1.62	344.88	5,153.90	881.55	-592.99	1,062.13	0.03	0.02	-0.56	323.07
	NORMAL	5,373.0	0.57	274.39	5,246.88	882.86	-593.79	1,063.66	1.64	-1.13	-75.80	200.60
	NORMAL	5,468.0	0.67	253.57	5,341.88	882.74	-594.79	1,064.15	0.26	0.11	-21.92	283.29
	NORMAL	5,562.0	0.61	46.92	5,435.87	882.92	-594.96	1,064.39	1.33	-0.06	163.14	167.31
	NORMAL	5,656.0	1.13	67.76	5,529.86	883.61	-593.73	1,064.25	0.64	0.55	22.17	42.02
10/23/2013	NORMAL	5,750.0	0.81	91.22	5,623.85	883.95	-592.21	1,063.64	0.54	-0.34	24.96	140.19
	NORMAL	5,845.0	0.77	98.87	5,718.84	883.84	-590.91	1,062.80	0.12	-0.04	8.05	114.56
	NORMAL	5,939.0	0.69	119.05	5,812.83	883.47	-589.79	1,061.85	0.28	-0.09	21.47	117.20
	NORMAL	6,033.0	0.67	104.71	5,906.83	883.05	-588.76	1,060.92	0.18	-0.02	-15.26	256.16
	NORMAL	6,129.0	0.42	149.56	6,002.82	882.61	-588.04	1,060.14	0.50	-0.26	46.72	141.49
	NORMAL	6,222.0	0.67	167.53	6,095.82	881.78	-587.75	1,059.30	0.32	0.27	19.32	43.57
	NORMAL	6,317.0	0.88	168.46	6,190.81	880.52	-587.49	1,058.12	0.22	0.22	0.98	3.89
	NORMAL	6,410.0	0.92	197.45	6,283.80	879.11	-587.57	1,057.01	0.49	0.04	31.17	99.58
	NORMAL	6,504.0	0.75	171.56	6,377.79	877.78	-587.70	1,056.01	0.44	-0.18	-27.54	233.17
	NORMAL	6,598.0	0.79	205.02	6,471.78	876.59	-587.89	1,055.14	0.47	0.04	35.60	101.79
	NORMAL	6,693.0	0.79	178.92	6,566.78	875.34	-588.15	1,054.27	0.38	0.00	-27.47	256.95
10/24/2013	NORMAL	6,787.0	0.55	190.64	6,660.77	874.25	-588.22	1,053.42	0.29	-0.26	12.47	156.05
	NORMAL	6,882.0	0.79	208.00	6,755.76	873.22	-588.61	1,052.81	0.33	0.25	18.27	49.12
	NORMAL	6,978.0	0.71	189.64	6,851.75	872.05	-589.03	1,052.09	0.26	-0.08	-19.13	242.56

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 (°)
10/24/2013	NORMAL	7,073.0	0.62	202.65	6,946.75	871.00	-589.32	1,051.40	0.18	-0.09	13.69	127.19
10/25/2013	NORMAL	7,166.0	1.13	187.83	7,039.74	869.62	-589.64	1,050.46	0.60	0.55	-15.94	328.54
	NORMAL	7,260.0	1.22	175.48	7,133.72	867.71	-589.69	1,048.93	0.29	0.10	-13.14	283.32
	NORMAL	7,354.0	1.81	171.69	7,227.69	865.24	-589.39	1,046.75	0.64	0.63	-4.03	348.46
10/26/2013	NORMAL	7,448.0	1.99	156.87	7,321.63	862.27	-588.54	1,043.83	0.55	0.19	-15.77	282.61
	NORMAL	7,542.0	2.01	152.13	7,415.58	859.31	-587.13	1,040.60	0.18	0.02	-5.04	274.52
10/27/2013	NORMAL	7,637.0	2.17	168.09	7,510.52	856.08	-585.98	1,037.29	0.63	0.17	16.80	82.70
10/28/2013	NORMAL	7,730.0	2.17	163.92	7,603.45	852.67	-585.13	1,034.02	0.17	0.00	-4.48	267.92
	NORMAL	7,825.0	2.08	183.68	7,698.38	849.22	-584.74	1,030.98	0.77	-0.09	20.80	106.81
	NORMAL	7,872.0	1.90	179.39	7,745.36	847.59	-584.78	1,029.67	0.50	-0.38	-9.13	217.48
	NORMAL	7,937.0	1.90	179.39	7,810.32	845.43	-584.76	1,027.90	0.00	0.00	0.00	0.00