

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	RWF 411-36		
Project	RU 36-06S-094W	Site	GV 15-36 Pad
Rig Name/No.	SSD/576	Event	DRILLING
Start Date	2/22/2012	End Date	3/3/2012
Spud Date	2/22/2012	UWI	RWF 411-36
Active Datum	KB @6,413.0ft (above Mean Sea Level)		

2 Summary

2.1 Operation Summary

Date	Time Start-End	Duration (hr)	Phase	Code	Sub	Class	MD From (ft)	Operation
2/22/2012				01	01			CONDUCTOR 40' 18" .250W 47.44# X42 ERW DRL PEB CEMENTED WITH 15 SKS CEMENT
	2:00 4:00	2.00		01	02	P		SKID RIG
	4:00 7:30	3.50		01	03	P		READY RIG TO DRILL
	7:30 13:00	5.50		02	01	P	68.0	DRILLING
	13:00 14:00	1.00		08	03	T		DOWN TIME GENERATORS
	14:00 23:00	9.00		02	01	P	184.0	DRILLING
2/23/2012	23:00 0:00	1.00		06	01	P		TRIP OUT OF HOLE CHANGE BIT AND LAYDOWN GYRO
	0:00 1:00	1.00		06	01	P		TRIP IN HOLE
	1:00 9:00	8.00		02	01	P	486.0	DRILLING
	9:00 9:30	0.50		05	01	P		CIRCULATE
	9:30 11:00	1.50		06	05	P		TRIP OUT OF HOLE
	11:00 12:00	1.00		06	07	P		LAY DOWN 8 " TOOLS
	12:00 13:00	1.00		12	01	P		RIG UP CASING CREW AND HELD SAFETY MEETING
	13:00 15:00	2.00		12	02	P		RAN 25 JTS. OF 9.625 32.30 LB/FT EVRAZ H-40 ST&C AND 1 JT. OF 9.625 36 LB/FT EVERAZ J-55 ST&C SURFACE CASING. GUIDE SHOE SET AT 1166' BAFFLE PLATE AT 1124'. USED 7 CENTRALIZERS INSTALLED AT 1150, 1108, 1064, AND EVERY 3RD JT. USED 2 TURBOLIZERS RAN WEATHERFORD EQUIPMENT - GUIDE SHOE AND BAFFLE PLATE. HAD FULL RETURNS THROUGHOUT THE JOB, FLOAT HELD
	15:00 15:30	0.50		05	01	P		CIRCULATE
	15:30 17:00	1.50		12	02	P		PUMPED 20 BBL OF H2O SPACER, PUMPED 67.8 BBLS, 160 SKS, VERSACEM (TM) 12.3PPG, 2.38 YIELD, 13.75 GAL/SK, LEAD CEMENT. PUMPED 60.1 BBL, 160 SKS, VERSACEM (TM) OF 12.8PPG, 2.11 YIELD, 11.75 GAL/SK, TAIL CEMENT. DISPLACED WITH 88.3 BBLS, WATER @ 10 BBLS / MIN. 10 BBLS 2 BBLS / MIN. BUMPED PLUG W/ 770 PSI. FLOATS HELD, 22 BBLS CEMENT TO SURFACE, GOOD RETURNS THROUGH OUT THE JOB. CMT FELL 5 "
	17:00 21:00	4.00		13		P		WAIT ON CEMENT
	21:00 22:00	1.00		14		P		NIPPLE UP BOP
	22:00 0:00	2.00		15		P		TEST BOP 3000 PSI ON ALL VALVES AND RAMS 1500 PSI ON HYDRILL, 500 PSI ON CHOKES, 1000PSI ON CASING
2/24/2012	0:00 2:00	2.00		15		P		FINISH TEST BOP
	2:00 2:30	0.50		26		P		INSTALL WEAR BUSHING
	2:30 4:00	1.50		06	07	P		PICK UP 6" TOOLS
	4:00 5:30	1.50		06	06	P		TRIP IN HOLE
	5:30 6:30	1.00		08	05	T		CHANGE OUT JET LINE VALVE ON FLO-LINE

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Code	Sub	Class	MD From (ft)	Operation
2/25/2012	6:30 7:30	1.00		08	04	T		WORK ON TOPDRIVE
	7:30 8:30	1.00		02	02	P		DRILLING FLOATEQUIPMENT CEMENT AND 10' NEW HOLE
	8:30 9:00	0.50		25		P		MUD EQUIVANT TEST FOR 15.2 MUD 350 PSI 10 MIN TEST
	9:00 0:00	15.00		02	01	P	1,180.0	DRILLING
	0:00 9:00	9.00		02	01	P	3,098.0	DRILLING
	9:00 12:00	3.00		06	08	P		TRIP OUT TO CASING WPER
	12:00 13:30	1.50		09		P		CUT DRILL LINE--CHANGE SAVER SUB
2/26/2012	13:30 18:00	4.50		06	08	P		TRIP IN WASH AND REAM AS NEEDED
	18:00 0:00	6.00		02	01	P	3,892.0	DRILLING
	0:00 11:00	11.00		02	01	P	4,458.0	DRILLING
	11:00 11:30	0.50		05	01	T		TRIP OUT 10 STANDS FOR LOSS CIRCULATION
	11:30 14:00	2.50		05	02	T		STAGE IN HOLE
	14:00 16:30	2.50		02	01	P	5,125.0	DRILLING
	16:30 17:00	0.50		07		P		SERVICE RIG
2/27/2012	17:00 0:00	7.00		02	01	P	5,220.0	DRILLING
	0:00 4:30	4.50		02	01	P	5,480.0	DRILLING
	4:30 8:30	4.00		06	01	P		TRIP OUT FOR BIT
	8:30 9:00	0.50		06	07	P		CHANGE BIT CK MOTOR
	9:00 13:30	4.50		06	01	P		TRIP IN HOLE STAGE IN
	13:30 17:30	4.00		02	01	P	5,618.0	DRILLING
	17:30 18:00	0.50		07		P		SERVICE RIG
2/28/2012	18:00 0:00	6.00		02	01	P	5,904.0	DRILLING
	0:00 17:30	17.50		02	01	P	6,175.0	DRILLING
	17:30 18:00	0.50		07		P		SERVICE RIG
	18:00 0:00	6.00		02	01	P	7,090.0	DRILLING
2/29/2012	0:00 17:30	17.50		02	01	P	7,310.0	DRILLING
	17:30 18:00	0.50		07		P		SERVICE RIG
	18:00 0:00	6.00		02	01	P	8,225.0	DRILLING
3/1/2012	0:00 9:30	9.50		02	01	P	8,510.0	DRILLING
	9:30 11:30	2.00		05	01	P		CIRCULATE
	11:30 17:00	5.50		06	08	P		TRIP OUT OF HOLE
	17:00 18:00	1.00		06	07	P		LAY DOWN MWD TOOLS BIT AND MOTOR
	18:00 0:00	6.00		06	08	P		STAGE IN HOLE
3/2/2012	0:00 3:00	3.00		05	01	P		CIRCULATE
	3:00 7:00	4.00		06	06	P		TRIP OUT FOR LOGS
	7:00 7:30	0.50		11	01	P		RIGUP LOGGERS
	7:30 12:00	4.50		11	02	P		LOGGING TRIPPLE COMBO WITH BAKER
	12:00 12:30	0.50		26		P		PULL WEAR BUSHING
	12:30 13:00	0.50		12	01	P		SAFETY MEETING / RIG UP CASING CREW
	13:00 19:30	6.50		12	02	P		RAN 213 JTS. OF IPSCO I 80 WITH A MARKER JT. @ # 81, SHOE DEPTH 8963', FLOAT COLLAR DEPTH 8919'. RAN 30 CENTRALIZERS @8945 , 8904, 8862, THEN EVERT 3RD JT, USED WEATHERFORD FLOAT EQUIPMENT; FLOAT SHOE AND FLOAT COLLAR (BALL DROP). HAD FULL RETURNS THROUGHOUT THE JOB.
	19:30 22:30	3.00		05	01	P		CIRCULATE CASING
	22:30 0:00	1.50		12	02			PUMP 10 BBLs FRESH WATER SPACER,PUMP 295 SKS/HALCEM (TM) CEMENT 12.7 PPG,1.81 YIELD, 9.63 GAL/SK PUMPED 950 SKS, VARICEM(TM) 14.2 PPG,1.33 YIELD,5.79 GAL/SK WASH UP, DROP PLUG DISPLACE 138.5 BBLs KCL WATER, BUMP PLUG W 2800 PSI @ 4 BBLs MIN. FLOATS HELD, FULL RETURNES
3/3/2012	0:00 1:00	1.00		12	01	P		RIG DOWN HALLIBURTON
	1:00 2:00	1.00		14		P		NIPPLE DOWN SET CASING SLIPS WITH 75K
	2:00							RIG RELEASED AT 02:00 3/3/12

1 General

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1.2 Well Information

Well	RWF 411-36		
Project	RU 36-06S-094W	Site	GV 15-36 Pad
Rig Name/No.		Event	COMPLETION
Start Date	3/21/2012	End Date	4/13/2012
Spud Date	2/22/2012	UWI	RWF 411-36
Active Datum	KB @6,413.0ft (above Mean Sea Level)		

2 Summary

2.1 Operation Summary

Date	Time Start-End	Duration (hr)	Phase	Code	Sub	Class	MD From (ft)	Operation
3/21/2012	0:00 17:00	17.00		LOC	01	P		prep for frac
	17:00 18:00	1.00		PUMP	01	P		test casing with WSWS to 7000 psi, good test. test flow back Iron to 4500 psi, good test
	18:00 0:00	6.00		LOC	01	P		prep for frac
3/22/2012	0:00 0:00	24.00		LOC	01	P		prepare for frac
3/23/2012	0:00 0:00	24.00		LOC	01	P		prepare for frac
3/24/2012	0:00 0:00	24.00		LOC	01	P		prepare for frac
3/25/2012	0:00 12:15	12.25		WSI	01	P		WSI waiting to perforate Lower Cameo
	12:15 13:15	1.00		PERF	01	P	8,569.0	MIRU Pure WL, RIH and perforate Lower Cameo, 6 intervals, 20 shots, 8569'-8729'
	13:15 0:00	10.75		WSI	01	P		WSI waiting to frac
3/26/2012	0:00 0:00	24.00		WSI	02	U		WSI waiting to frac
3/27/2012	0:00 12:45	12.75		WSI	01	P		WSI waiting to frac
	12:45 13:00	0.25		STIM	01	P		MIRU HES Frac crew
	13:00 13:45	0.75		WOT	02	P		W/O frac crew to repair pumps
	13:45 15:20	1.58		STIM	02	P	8,569.0	PSI test to 7672 psi, Waterfrac Lower Cameo
3/28/2012	15:20 0:00	8.67		PROD	01	P		Flowing to tanks on 20/64 choke @ 2400 psi, 0 mmscfd gas, ~ 137 bph water
	0:00 5:00	5.00		PROD	01	P		Flowing to tanks on 20/64 choke @ 2400 psi, 0 mmscfd gas, ~ 137 bph water
	5:00 7:00	2.00		WSI	01	P		WSI waiting to perf Cameo
	7:00 8:00	1.00		PERF	01	P	8,269.0	MIRU Pure WL, RIH to 8526' set Baker 8K CFP, perforate 6 intervals, 22 shots
	8:00 10:50	2.83		WSI	01	P		WSI waiting to Frac
	10:50 11:15	0.42		STIM	01	P		MIRU HES Frac crew, psi test lines to 7900 psi
	11:15 12:50	1.58		STIM	02	P	8,269.0	Waterfrac Cameo
	12:50 14:00	1.17		PERF	01	P	7,944.0	MIRU Pure WL, RIH to 8235' set Baker 8K CFP, perforate 7 intervals, 22 shots
	14:00 0:00	10.00		WSI	01	P		WSI waiting to Frac 3/29/12
	0:00 6:00	6.00		WSI	01	P		WSI waiting to frac MV I
3/29/2012	6:00 6:30	0.50		STIM	01	P		MIRU HES Frac crew, psi test lines to 7800 psi
	6:30 8:00	1.50		STIM	02	P	7,944.0	Waterfrac MV I
	8:00 9:00	1.00		PERF	01	P	7,483.0	MIRU Pure WL, RIH to 7790' and set Baker 8K CFP, perforate 7 intervals, 23 shots
	9:00 12:00	3.00		WSI	01	P		WSI waiting to frac MV II
	12:00 15:00	3.00		WOT	02	U		W/O in spec 30/50 sand to be delivered, frac delayed until 3/30/12
	15:00 0:00	9.00		WSI	01	U		WSI waiting to frac MV II 3/30/2012
3/30/2012	0:00 5:45	5.75		WSI	01	P		WSI waiting to frac MV II

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Code	Sub	Class	MD From (ft)	Operation
	5:45 6:25	0.67		STIM	01	P		MIRU HES Frac crew, hold safety meeting, psi test surface lines to 8000 psi
	6:25 7:52	1.45		STIM	02	P	7,483.0	Waterfrac MV II
	7:52 9:10	1.30		WSI	01	P		WSI waiting to perforate MV III
	9:10 10:00	0.83		PERF	01	P	7,170.0	MIRU Pure WL, RIH to 7420' set Baker 8K CFP, perforate 7 intervals, 23 shots
	10:00 14:45	4.75		WSI	01	P		WSI waiting to Frac
	14:45 15:00	0.25		STIM	01	P		MIRU HES Frac crew
	15:00 16:13	1.22		WOT	02	U		Wait on HES Frac crew to repair HHP units
	16:13 18:00	1.78		STIM	02	P	7,170.0	PSI test surface lines to 7600 psi, Waterfrac MV III
	18:00 19:00	1.00		WSI	01	P		WSI
	19:00 22:00	3.00		PROD	01	P		Flowing to tanks on 20/64 choke @ 1850 psi, 0 mmscfd gas, ~92 bph water
3/31/2012	22:00 0:00	2.00		PROD	02	P		Flowing to sales on 20/64 choke @ 1650 psi, 0.415 mmscfd gas, ~88 bph water
	0:00 5:00	5.00		PROD	02	P		Flowing to sales on 20/64 choke @ 1650 psi, 0.415 mmscfd gas, ~88 bph water
	5:00 8:20	3.33		WSI	01	P		WSI waiting to perforate MV IV
	8:20 9:30	1.17		PERF	01	P	6,833.0	MIRU Pure WL, RIH to 7080' and set Baker 8K CFP, perforate 6 intervals, 22 shots
	9:30 12:25	2.92		WSI	01	P		WSI waiting to frac
	12:25 12:40	0.25		STIM	01	P		MIRU HES Frac crew
	12:40 16:22	3.70		WOT	02	P		Wait on MM repairs, torn bearing support. Welder came out and fixed the mount
4/1/2012	16:22 17:45	1.38		STIM	02	P	6,833.0	Pressure test surface lines to 7695 psi, Waterfrac MV IV
	17:45 0:00	6.25		PROD	02	P		Flowing to sales on 20/64 choke @ 1050 psi, 0.727 mmscfd gas, ~135 bph water
	0:00 7:00	7.00		PROD	02	P		Flowing to sales on 20/64 choke @ 1050 psi, 0.727 mmscfd gas, ~135 bph water
4/2/2012	7:00 11:00	4.00		WELL	01	P		WSI waiting to set kill plug
	11:00 12:00	1.00		PLUG	02	P	6,644.0	MIRU Pure WL, RIH to 6644' and set Baker 10K Kill Plug
	12:00 0:00	12.00		WSI	01	P		WSI waiting drillout
4/2/2012	0:00 0:00	24.00		WSI	01	P		WSI waiting drillout
4/3/2012	0:00 0:00	24.00		WSI	01	P		WSI waiting drillout
4/4/2012	0:00 11:00	11.00		WSI	01	P		WSI
	11:00 12:00	1.00		MIRU	03	P		MIRU RPS #1, ND Frac Tree, NU BOP's, Pressure test unit
	12:00 15:30	3.50		RIH	01	P	6,644.0	Strap, PU tbg and RIH to top of Kill plug
4/5/2012	15:30 0:00	8.50		WSI	03	P		SIFN
	0:00 6:50	6.83		WSI	03	P		SIFN
	6:50 7:05	0.25		RIH	01	P		Strap, P/U tbg, RIH to KP, MU swivel, pump tbg capacity of produced water
	7:05 7:19	0.23		DOP	04	P	6,636.0	Drill Kill Plug @ 6635' 750 psi, 0 fill
	7:19 7:30	0.18		RIH	01	P	7,080.0	RIH to 1st CFP @ 7080', MU swivel
	7:30 7:45	0.25		DOP	04	P	7,080.0	Drill 1st CFP @ 7080', 500 psi, 0 fill
	7:45 8:00	0.25		RIH	01	P	7,420.0	RIH to 2nd CFP @ 7420'
	8:00 8:15	0.25		DOP	04	P	7,420.0	Drill 2nd CFP @ 7420', 500 psi, 0 fill
	8:15 8:50	0.58		RIH	01	P	7,790.0	RIH to 7655' and begin washing down to 3rd CFP @ 7790'
	8:50 9:05	0.25		DOP	04	P	7,790.0	Drill 3rd CFP @ 7790', 900 psi, 145' fill
	9:05 9:30	0.42		RIH	01	P	8,237.0	RIH to 8220' and begin washing down to 4th CFP @ 8237'
	9:30 11:00	1.50		DOP	04	P	8,237.0	Begin to drill Drill 4th CFP @ 8237', plug pushing up hole, 17' fill
	11:00 11:22	0.37		DOP	03	P	8,237.0	Install milling clamp and drill 4th CFP @ 8237', 1500 psi
	11:22 11:58	0.60		RIH	01	P	8,480.0	RIH to 8480' and wash down to 5th CFP @ 8546', 66' fill
	11:58 12:10	0.20		DOP	03	P	8,546.0	Drill 5th CFP @ 8546', 750 psi,
	12:10 12:15	0.08		RIH	01	P	8,635.0	RIH to 8635', tag fill
	12:15 12:50	0.58		DOP	02	P	8,635.0	Clean out 250' of fill to 8885'
	12:50 13:40	0.83		POOH	01	P	8,519.0	Pump 20 bbl sweep, hang swivel back and POOH to landing depth 8519' (261 jls), install hanger
	13:40 14:10	0.50		WELL	01	U		Tbg hanger would not seal, pull and replace seal, it appeared that there was sand in the hanger bowl.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Code	Sub	Class	MD From (ft)	Operation
	14:10 14:50	0.67		MIRU	03	P		Swing snubbing unit to RWF 511-36
	14:50 15:15	0.42		RDMO	01	P		ND BOP's, NU Wellhead, pump off bit @ 3400 psi. 500 bbls water used
	15:15 17:00	1.75		WSI	01	P		WSI during rig over to RWF 511-36
	17:00 0:00	7.00		PROD	02	P		Flowing to sales on 20/64 choke @ 2400 psi csg, 2.104 mmscfd gas, ~ 101 bph water
4/6/2012	0:00 0:00	24.00		PROD	02	P		Flowing to sales on 20/64 choke @ 3000 psi csg, 2.05 mmscfd gas, ~33.5 bph water
4/7/2012	0:00 0:00	24.00		PROD	02	P		Flowing to sales on 20/64 choke @ 2750 psi csg, 2.403 mmscfd gas, ~25.7 bph water
4/8/2012	0:00 0:00	24.00		PROD	02	P		Tbg flowing to sales on 20/64 choke, Tbg 1900 psi, Csg 2625 psi, 2.639 gas rate, 20 bbls per day Oil, 20 BPH water
4/9/2012	0:00 0:00	24.00		PROD	02	P		Tbg flowing to sales on 20/64 choke, Tbg 1800 psi, Csg 2500 psi, 2.339 gas rate, 23 Bbls per day oil, 16 BPH water
4/10/2012	0:00 0:00	24.00		PROD	02	P		Tbg flowing to sales on 18/64 choke, Tbg 1825 psi, Csg 2450 psi, 2.091 gas rate, 17 Bbls per day oil, 8 BPH water
4/11/2012	0:00 0:00	24.00		PROD	02	P		Flowing of sales on 18/64 choke, Tbg 1825, Csg 2450 psi, 8 BPH water
4/12/2012	0:00 0:00	24.00		PROD	02	P		Flowing to sales on 18/64 choke, Tbg 1800, Csg 2350 psi, 8 BPH water
4/13/2012	0:00 5:00	5.00		PROD	02	P		Flowing to sales on 18/64 choke, Tbg 1750, Csg 2325 psi, 8 BPH water
	5:00 0:00	19.00		PROD	05	P		WSI waiting to be taken over by production for final sales