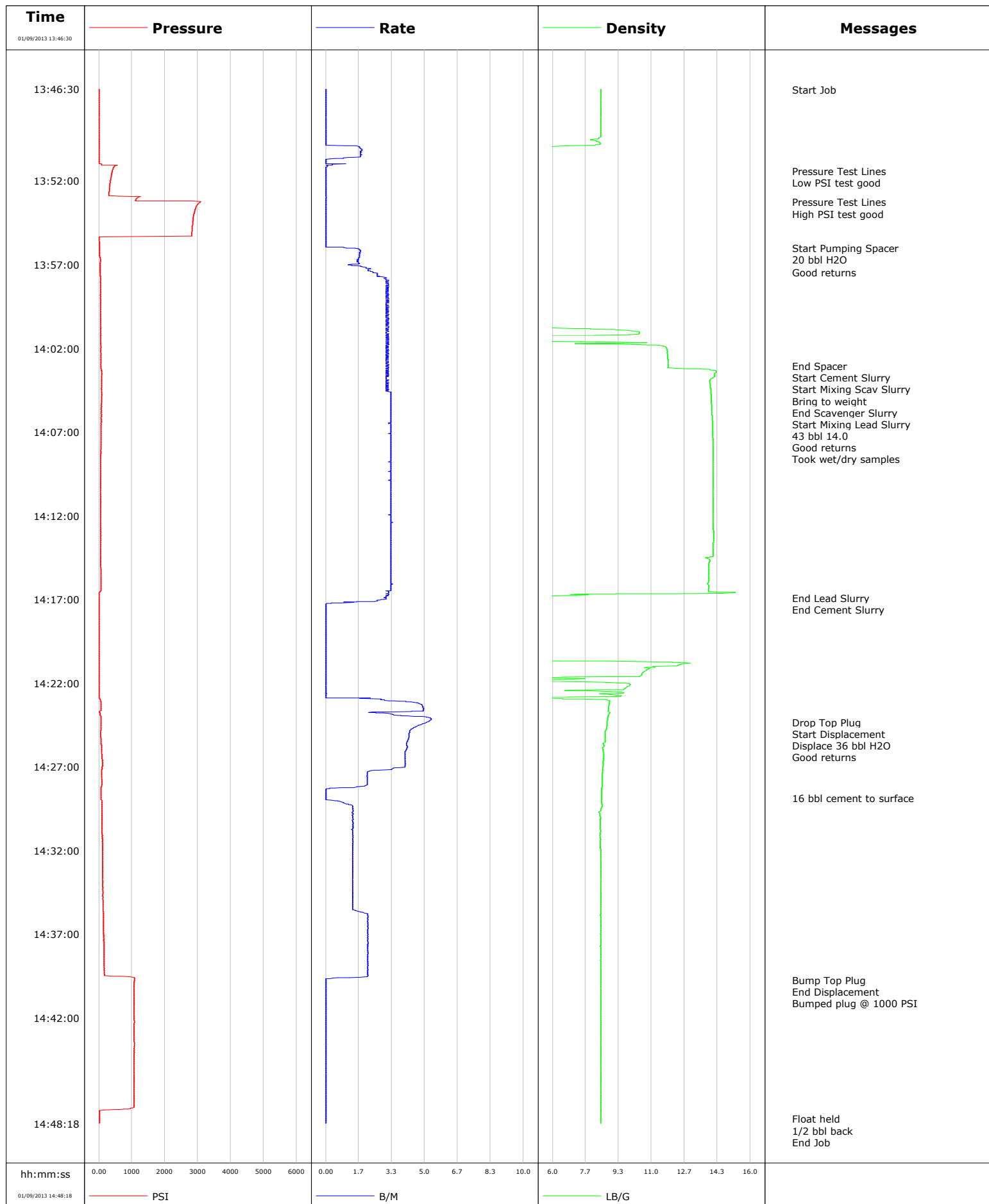


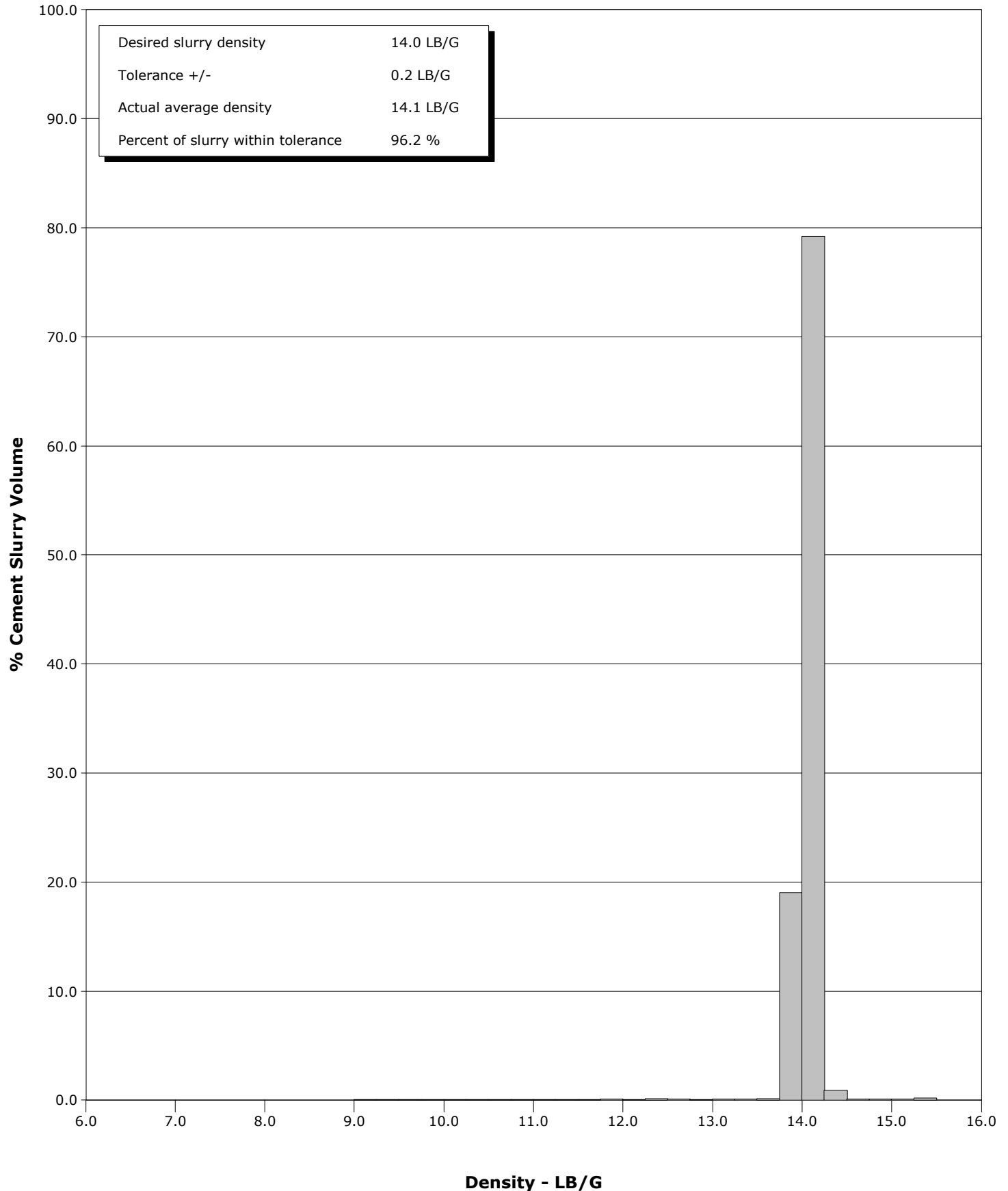
Well	Forristall Stage 22-10S-56W	Client	Cascade
Field	Wilcat	SIR No.	C610-01041
Engineer	Matt Fair/Mike Reedy	Job Type	9 5/8" Surface
Country	United States	Job Date	01-09-2013



Well Forristall Stage 22-10S-56W
Field Wilcat
Engineer Matt Fair/Mike Reedy
Country United States

Client Cascade
SIR No. C610-01041
Job Type 9 5/8" Surface
Job Date 01-09-2013

Cement Slurry - 01/09/2013 14:03:07 to 01/09/2013 14:16:54



					Customer Cascade			Job Number C610-01041									
Well Forristall Stage 22-10S-56W				Location (legal)			Schlumberger Location			Job Start Jan/09/2013							
Field Wilcat		Formation Name/Type Shale			Deviation deg		Bit Size 12.3 in		Well MD 504.0 ft		Well TVD 504.0 ft						
County Lincoln		State/Province Colorado			BHP psi		BHST 85 degF		BHCT 80 degF		Pore Press. Gradient lb/gal						
Well Master 0631432984		API/UWI															
Rig Name		Drilled For Gas		Service Via Land		Casing/Liner											
						Depth, ft		Size, in		Weight, lb/ft		Grade		Thread			
Offshore Zone		Well Class New		Well Type Development		504.0		9.6		36.0		J55		8RD			
						0.0		0.0		0.0							
Drilling Fluid Type Bentonite		Max. Density lb/gal		Plastic Viscosity cP		Tubing/Drill Pipe											
						T/D		Depth, ft		Size, in		Weight, lb/ft		Grade		Thread	
Service Line Cementing		Job Type 9 5/8" Surface															
Max. Allowed Tub. Press 3520 psi		Max. Allowed Ann. Press 2030 psi		WH Connection Single Cement head		Perforations/Open Hole											
						Top, ft		Bottom, ft		shot/ft		No. of Shots		Total Interval ft			
Service Instructions						ft		ft									
						ft		ft						Diameter in			
						ft		ft									
						Treat Down Casing		Displacement 39.0 bbl		Packer Type		Packer Depth ft					
						Tubing Vol. bbl		Casing Vol. 42.0 bbl		Annular Vol. 28.0 bbl		Openhole Vol. 67.0 bbl					
Casing/Tubing Secured <input checked="" type="checkbox"/>		1 Hole Vol. Circulated prior to Cement <input checked="" type="checkbox"/>				Casing Tools				Squeeze Job							
Lift Pressure 249 psi						Shoe Type Float				Squeeze Type							
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>				Shoe Depth 504.0 ft				Tool Type							
No. Centralizers		Top Plugs 1		Bottom Plugs 0		Stage Tool Type				Tool Depth ft							
Cement Head Type Single						Stage Tool Depth ft				Tail Pipe Size in							
Job Scheduled For Jan/09/2013 12:00		Arrived on Location Jan/09/2013 12:00		Leave Location Jan/09/2013		Collar Type Float				Tail Pipe Depth ft							
						Collar Depth 464.0 ft				Sqz. Total Vol. bbl							
Date	Time 24-hr clock	CPF1_DENSITY LB/G	CPF1_PRESS PSI	CPF1_TTL_RATE B/M	CPF1_TTL_STAGE BBL	CPF1_TTL_VOLUME BBL	Message										
01/09/2013	13:46:30	8.44	8	0.0	0.0	0.0	Started Acquisition										
01/09/2013	13:46:33	8.44	8	0.0	0.0	0.0	Start Job										
01/09/2013	13:49:00	8.44	6	0.0	0.0	0.0											
01/09/2013	13:51:25	0.01	407	0.0	1.4	1.4	Pressure Test Lines										
01/09/2013	13:51:26	0.01	407	0.0	1.4	1.4	Low PSI test good										
01/09/2013	13:51:30	0.01	397	0.0	1.4	1.4											
01/09/2013	13:53:16	0.01	3073	0.0	1.4	1.4	Pressure Test Lines										
01/09/2013	13:53:18	0.01	3060	0.0	1.4	1.4	High PSI test good										
01/09/2013	13:54:00	0.01	2882	0.0	1.4	1.4											
01/09/2013	13:56:00	0.01	23	1.1	1.4	1.4	Start Pumping Spacer										
01/09/2013	13:56:01	0.01	22	1.5	1.4	1.4	20 bbl H2O										
01/09/2013	13:56:30	0.01	28	1.7	2.3	2.3											
01/09/2013	13:57:27	0.01	41	2.4	4.0	4.0	Good returns										
01/09/2013	13:59:00	0.01	44	3.2	8.6	8.6											
01/09/2013	14:01:30	0.19	56	3.2	16.4	16.4											
01/09/2013	14:03:03	11.84	70	3.2	21.2	21.2	End Spacer										
01/09/2013	14:03:07	11.84	62	3.2	21.4	21.4	Start Cement Slurry										
01/09/2013	14:03:08	11.83	67	3.2	21.5	21.5	Start Mixing Scav Slurry										
01/09/2013	14:03:09	11.83	67	3.2	21.6	21.6	Bring to weight										
01/09/2013	14:03:47	14.10	88	3.1	23.5	23.5	End Scavenger Slurry										
01/09/2013	14:03:49	14.04	82	3.1	23.6	23.6	Start Mixing Lead Slurry										

Well Forristall Stage 22-10S-56W			Field Wilcat		Job Start Jan/09/2013		Customer Cascade		Job Number C610-01041
Date	Time 24-hr clock	CPF1_DENSITY LB/G	CPF1_PRESS PSI	CPF1_TTL_RATE B/M	CPF1_TTL_STAGE BBL	CPF1_TTL_VOLUME BBL	Message		
01/09/2013	14:04:50	14.02	76	3.3	2.6	26.8	43 bbl 14.0		
01/09/2013	14:05:03	14.03	87	3.3	3.3	27.5	Good returns		
01/09/2013	14:06:30	14.09	73	3.3	8.1	32.3			
01/09/2013	14:07:17	14.11	64	3.3	10.7	34.9	Took wet/dry samples		
01/09/2013	14:09:00	14.12	57	3.3	16.3	40.5			
01/09/2013	14:11:30	14.12	58	3.3	24.5	48.7			
01/09/2013	14:14:00	14.13	58	3.3	32.8	57.0			
01/09/2013	14:16:30	13.88	52	3.1	41.0	65.2			
01/09/2013	14:16:53	4.64	1	2.9	42.2	66.4	End Lead Slurry		
01/09/2013	14:16:54	4.03	4	2.9	42.2	66.4	End Cement Slurry		
01/09/2013	14:19:00	0.01	6	0.0	43.0	67.2			
01/09/2013	14:21:30	10.51	11	0.0	43.0	67.2			
01/09/2013	14:24:00	8.81	64	4.9	4.5	71.7			
01/09/2013	14:24:20	8.76	64	5.1	6.2	73.4	Drop Top Plug		
01/09/2013	14:24:21	8.76	65	5.1	6.3	73.5	Start Displacement		
01/09/2013	14:24:22	8.76	64	5.1	6.4	73.6	Displace 36 bbl H2O		
01/09/2013	14:24:44	8.73	67	4.4	8.1	75.3	Good returns		
01/09/2013	14:26:30	8.57	102	4.0	15.4	82.6			
01/09/2013	14:28:52	8.49	71	0.0	20.3	87.5	16 bbl cement to surface		
01/09/2013	14:29:00	8.50	93	0.3	20.3	87.5			
01/09/2013	14:31:30	8.41	106	1.4	23.6	90.8			
01/09/2013	14:34:00	8.43	117	1.4	27.0	94.2			
01/09/2013	14:36:30	8.43	144	2.1	31.0	98.2			
01/09/2013	14:39:00	8.43	162	2.1	36.4	103.6			
01/09/2013	14:39:45	8.43	1075	0.0	37.6	104.8	Bump Top Plug		
01/09/2013	14:39:46	8.43	1074	0.0	37.6	104.8	End Displacement		
01/09/2013	14:39:47	8.43	1075	0.0	37.6	104.8	Bumped plug @ 1000 PSI		
01/09/2013	14:41:30	8.43	1071	0.0	37.6	104.8			
01/09/2013	14:44:00	8.43	1071	0.0	37.6	104.8			
01/09/2013	14:46:30	8.43	1072	0.0	37.6	104.8			
01/09/2013	14:48:02	8.43	20	0.0	37.6	104.8	Float held		
01/09/2013	14:48:08	8.43	21	0.0	37.6	104.8	1/2 bbl back		

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 2.7	N2	Mud	Maximum Rate 5.3		Total Slurry 43.0	Mud 0.0	Spacer 21.2	N2
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 3099	Final 21	Average 303	Bump Plug to 1000	Breakdown	Type	Volume bbl		Density lb/gal
Avg. N2 Percent %		Designed Slurry Volume 43.0 bbl		Displacement 36.3 bbl	Mix Water Temp 45 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>		Volume 16.0 bbl
						Washed Thru Perfs <input type="checkbox"/>		To ft
Customer or Authorized Representative				Schlumberger Supervisor		Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>
Craig Hope				Matt Fair/Mike Reedy		-		-



Service Quality Evaluation

Client:	Cascade
Field:	Wilcat
Rig:	
Well:	Forristall Stage 22-10S-56W
Service Line:	Cementing
Job Type:	9 5/8" Surface

Service Order #:	
Date:	Jan/09/2013
Operating Time (hh:mm):	00:00
Client Rep:	Craig Hope
Schlumberger Engineer:	Matt Fair/Mike Reedy
Schlumberger FSM:	

Main Objective:

To be completed by Company Rep. Please answer Y (Yes) or N (No) and add any comments below.

		Score	Yes / No		Result
1	HSE				
1a	Free of lost time injury and compliance with SLB and loc. spec. HSE practice	5	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	5
1b	Free of environmental spill or non-compliant discharge	5	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	5
1c	Wellsite left clean	4	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	4
Sub-total					100%

2	Design / Preparation				
2a	Program incl. job simulation (CemCADE) & pump schedule / tool hydraulic calcs	3	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	3
2b	Equipment maintenance schedule completed / Green tagged	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
2c	All materials and equipment required for job/contingency checked & on location	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
2d	Safety / pre-job meeting conducted with all involved present	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
Sub-total					100%

3	Execution				
3a	Lost time < 30 mins	3	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	3
3b	Equipment pressure tested succesfully	3	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	3
3c	All key parameters monitored and recorded accurately (Pressure, Rate, Density)	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
3d	Plugs / darts released and tested succesfully	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
3e	Density variation met expectations	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
3f	Personnel performed as per expectations	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
3g	Equipment performed as per expectations	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
3h	Job pumped as per design	3	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	3
3i	Did job start on time	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
3j	Free of Operational failures (screen out, Cementing Example, etc.)	3	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	3
Sub-total					100%

4	Evaluation				
4a	Main job objective achieved with no consequential non-productive time	10	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	10
Sub-total					100%

Total 100%

Comments: (Please include a brief explanation for a "NO" response and summarize any innovations attempted on this well.)

Client:	Schlumberger:
	Water - 009749, 010015 Cement - 010339
Client Signature:	Schlumberger Signature: