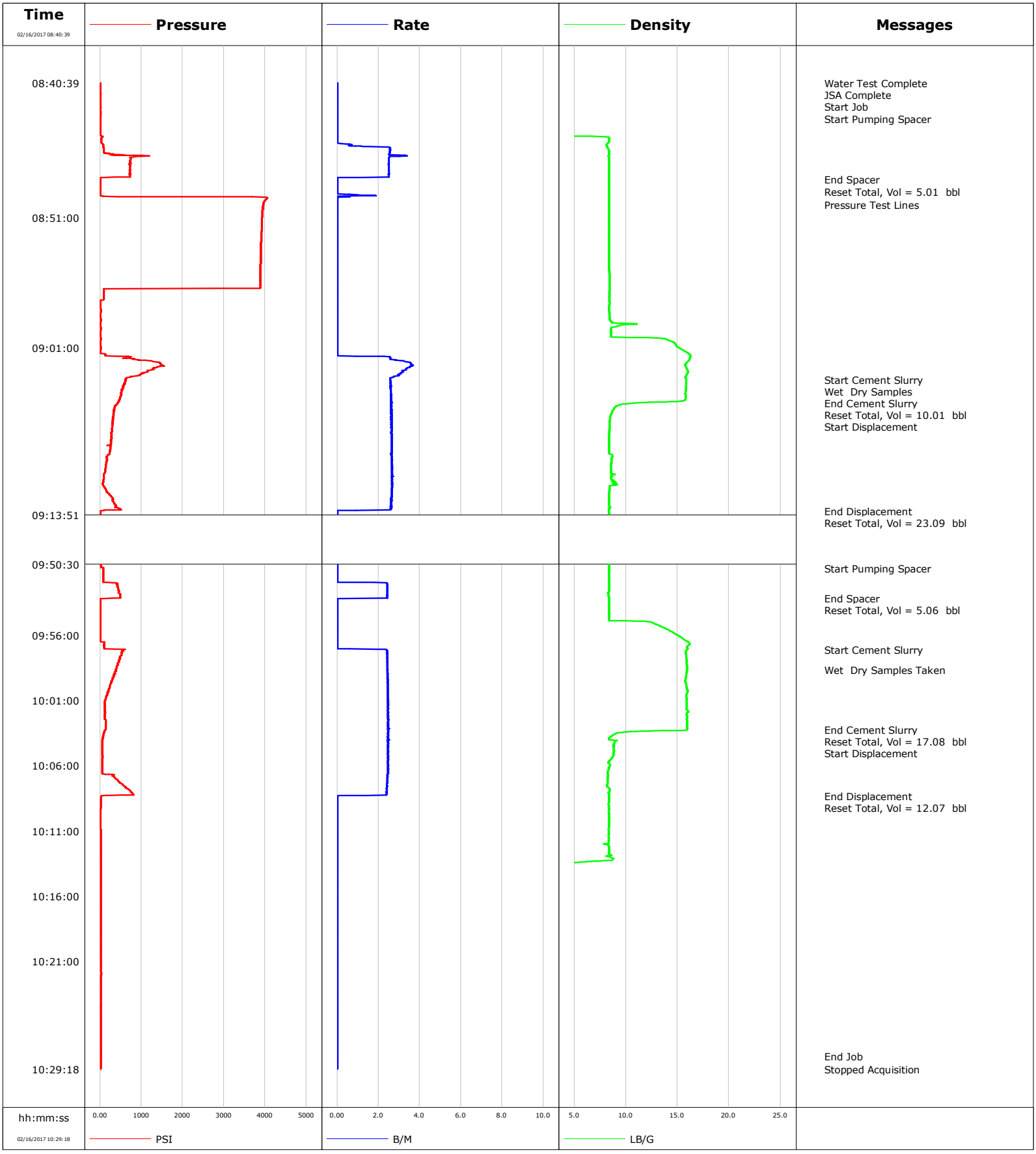
Schlumberger

Cementing Job Report

Well	WHISTON 7-4	**Client**	ANADARKO
Field	DJ	**SIR No.**	DA6T-00574
Engineer	Wayne Silvester	**Job Type**	Nio Sussex Plugs
Country	United States	**Job Date**	02-16-2017



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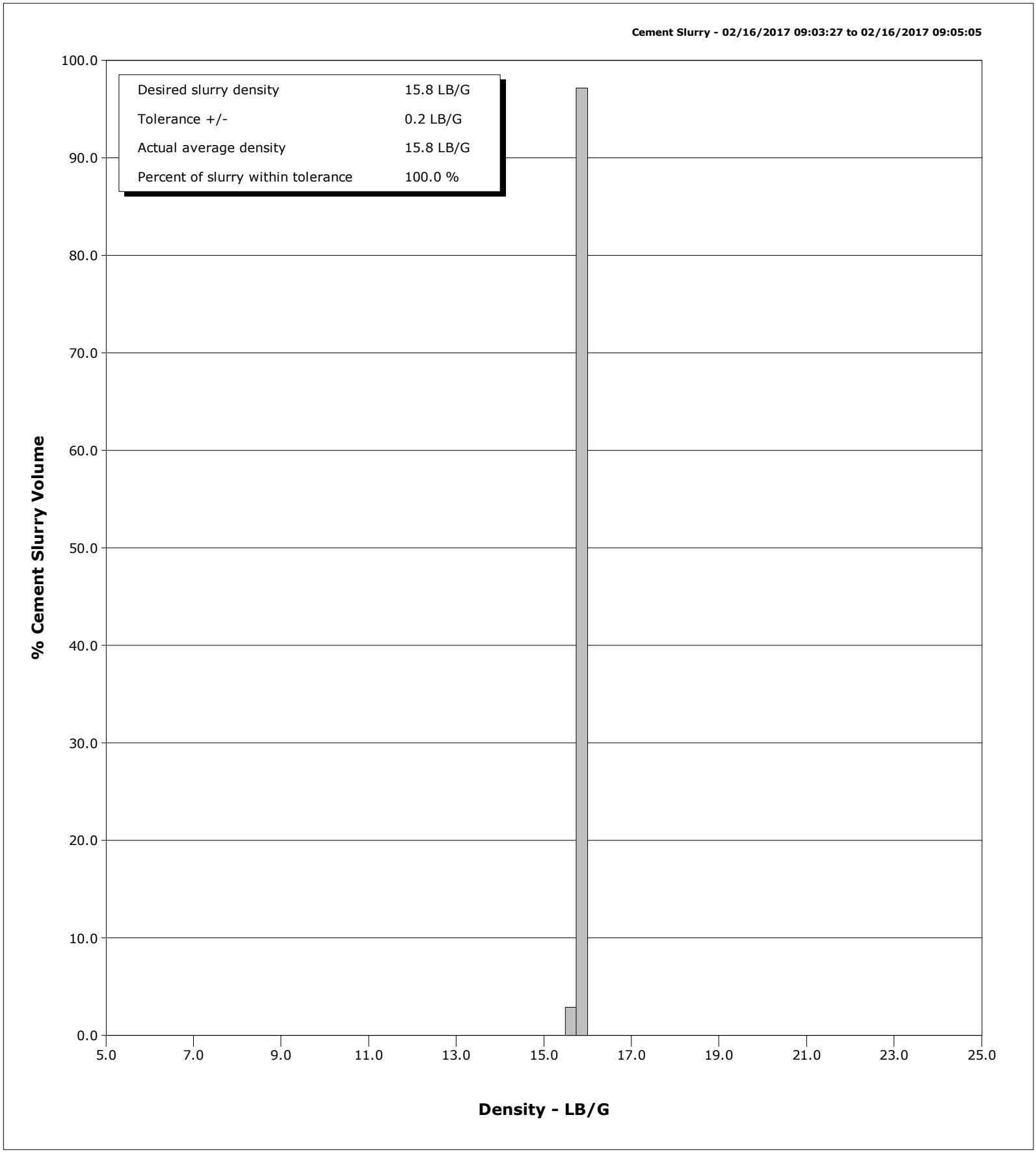
Cementing Qa/Qc Density Report

Well	WHISTON 7-4	**Client**	ANADARKO
Field	DJ	**SIR No.**	DA6T-00574
Engineer	Wayne Silvester	**Job Type**	Nio Sussex Plugs
Country	United States	**Job Date**	02-16-2017



Schlumberger Cementing Service Report

Customer	Job Number
ANADARKO	DA6T-00574

Well	Location (legal)	Schlumberger Location	Job Start
WHISTON 7-4	217304	Cheyenne	Feb/16/2017

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
DJ		deg	in	7110.0 ft	7110.0 ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
Weld	Colorado	psi	220 degF	210 degF	lb/gal
Well Master 0630692661	**API/UWI** 512322952				

Rig Name	Drilled For	Service Via
Concord 4	Oil & Gas	Land

Offshore Zone	Well Class	Well Type
	Old	Workover

Drilling Fluid Type	Max. Density	Plastic Viscosity
	lb/gal	cP

Service Line	Job Type
Cementing	Nio & Sussex Plugs

Max. Allowed Tub. Press	Max. Allowed Ann. Press	WH Connection
psi	psi	2 3/8" 4.7# T/S

Service Instructions

Nio Plug = 40 sks 1.53 ft3/sk 6.350 gps = 10 bbls

Est Toc =6466 ft Spacer 5 bbls CMT 10 bbls Displace 24 bbls

Sussex Plug = 64 sks 1.53 ft3/sk 6.354 gps= 15 bbls

Est Toc =3836 ft Spacer 5 CMT 17 bbls Displace 13 bbls

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
7110.0	4.5	11.6	N/A	N/A
4930.0	4.5	11.6	N/A	N/A

Tubing/Drill Pipe

T/D	Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
T	7110.0	2.4	4.7	N/A	N/A
T	4930.0	2.4	0.0	N/A	N/A

Perforations/Open Hole

Top, ft	Bottom, ft	shot/ft	No. of Shots	Total Interval
ft	ft			ft
ft	ft			Diameter
ft	ft			in

Treat Down	Displacement	Packer Type	Packer Depth
Tubing	37.0 bbl		ft

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
37.0 bbl	bbl	bbl	bbl

Casing/Tubing Secured	1 Hole Vol. Circulated prior to Cement
X	X

Lift Pressure	psi

Pipe Rotated	Pipe Reciprocated
☐	☐

No. Centralizers	Top Plugs	Bottom Plugs

Cement Head Type

Job Scheduled For	Arrived on Location	Leave Location
Feb/16/2017	Feb/16/2017	Feb/16/2017

Casing Tools		Squeeze Job	
Shoe Type		Squeeze Type	
Shoe Depth	ft	Tool Type	
Stage Tool Type		Tool Depth	ft
Stage Tool Depth	ft	Tail Pipe Size	in
Collar Type		Tail Pipe Depth	ft
Collar Depth	ft	Sqz. Total Vol.	bbl

Date	Time 24-hr clock	Flow Rate B/M	Density LB/G	Volume BBL	Pressure PSI	Message
02/16/2017	08:40:39	0.0	0.01	0.0	8	Started Acquisition
02/16/2017	08:40:40	0.0	0.01	0.0	8	Water Test Complete
02/16/2017	08:40:41	0.0	0.01	0.0	8	Start Job
02/16/2017	08:40:43	0.0	0.01	0.0	8	Start Pumping Spacer
02/16/2017	08:45:40	2.6	8.25	0.4	86	
02/16/2017	08:48:05	0.0	8.37	6.2	-1	End Spacer
02/16/2017	08:48:06	0.0	8.38	6.2	4	Reset Total, Vol = 5.01 bbl
02/16/2017	08:50:01	0.0	8.37	6.4	3954	Pressure Test Lines
02/16/2017	08:50:41	0.0	8.37	6.4	3927	
02/16/2017	08:55:42	0.0	8.40	6.4	3881	
02/16/2017	09:00:43	0.0	14.78	6.4	8	
02/16/2017	09:03:27	2.6	15.83	11.9	631	Start Cement Slurry
02/16/2017	09:03:29	2.6	15.85	12.0	617	Wet Dry Samples
02/16/2017	09:05:05	2.6	15.69	16.2	466	End Cement Slurry
02/16/2017	09:05:06	2.6	15.64	16.2	452	Reset Total, Vol = 10.01 bbl
02/16/2017	09:05:09	2.6	14.91	16.4	457	Start Displacement
02/16/2017	09:05:44	2.6	8.83	17.9	347	
02/16/2017	09:10:45	2.7	8.99	31.1	91	
02/16/2017	09:13:35	0.0	8.33	38.4	8	End Displacement
02/16/2017	09:13:36	0.0	8.35	38.4	8	Reset Total, Vol = 23.09 bbl
02/16/2017	09:14:10	0.0	8.37	38.4	8	End Job

Well	Field	Job Start	Customer	Job Number
WHISTON 7-4	DJ	Feb/16/2017	ANADARKO	DA6T-00574

Date	Time 24-hr clock	Flow Rate B/M	Density LB/G	Volume BBL	Pressure PSI	Message
02/16/2017	09:20:47	0.0	8.41	38.4	8	
02/16/2017	09:25:48	0.0	8.38	38.4	8	
02/16/2017	09:30:49	0.0	8.38	38.4	13	
02/16/2017	09:32:36	0.0	8.38	38.4	13	Stopped Acquisition
02/16/2017	09:48:37	0.0	8.38	0.0	13	Start Job
02/16/2017	09:50:50	0.0	8.38	0.0	77	Start Pumping Spacer
02/16/2017	09:50:53	0.0	8.35	0.0	77	
02/16/2017	09:53:08	2.4	8.38	2.9	347	End Spacer
02/16/2017	09:53:30	0.0	8.37	3.0	4	Reset Total, Vol = 5.06 bbl
02/16/2017	09:55:54	0.0	14.85	3.0	8	
02/16/2017	09:57:05	2.4	15.94	3.1	548	Start Cement Slurry
02/16/2017	09:58:40	2.5	15.92	6.9	379	Wet Dry Samples Taken
02/16/2017	10:00:55	2.5	15.90	12.4	123	
02/16/2017	10:03:14	2.5	15.94	18.2	132	End Cement Slurry
02/16/2017	10:03:15	2.5	15.94	18.2	123	Reset Total, Vol = 17.08 bbl
02/16/2017	10:03:17	2.5	15.43	18.3	114	Start Displacement
02/16/2017	10:08:19	0.0	8.37	30.6	36	End Displacement
02/16/2017	10:08:20	0.0	8.37	30.6	36	Reset Total, Vol = 12.07 bbl
02/16/2017	10:10:57	0.0	8.35	30.6	17	
02/16/2017	10:15:58	0.0	0.01	30.6	13	
02/16/2017	10:20:59	0.0	0.01	30.6	17	
02/16/2017	10:26:00	0.0	0.01	30.6	17	
02/16/2017	10:28:21	0.0	0.01	30.6	17	End Job

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2
2.4			2.6	30.6	0.0	30.6	

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
823	17	94				bbl	lb/gal

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp		
%	22.0 bbl	0.0 bbl	50 degF	Cement Circulated to Surface? ☐	Volume bbl
				Washed Thru Perfs ☐	To ft

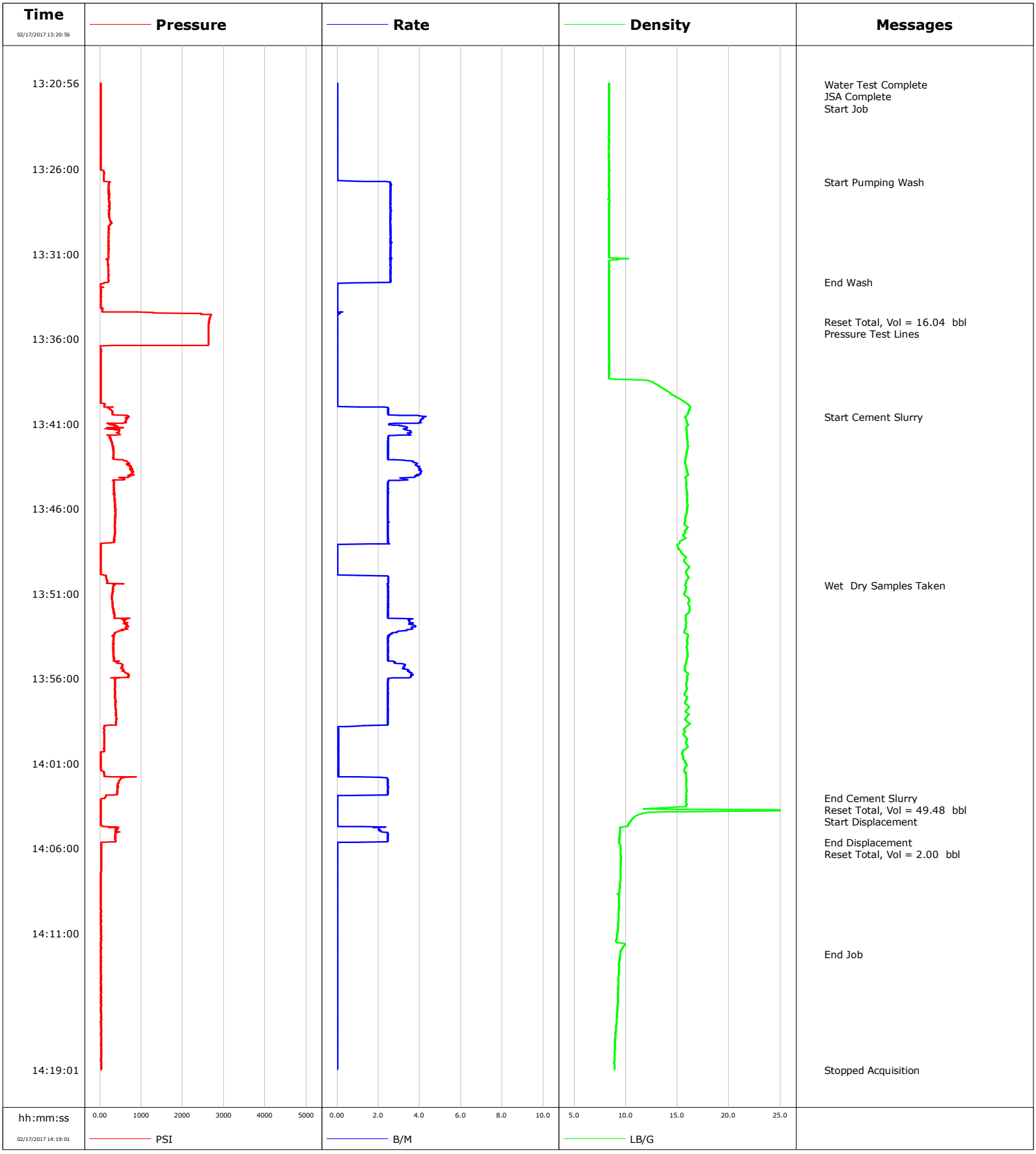
Customer or Authorized Representative	Schlumberger Supervisor		
	Wayne Silvester	Circulation Lost ☐	Job Completed ☒
		-	-

Schlumberger

Cementing Job Report

CemCAT v1.6

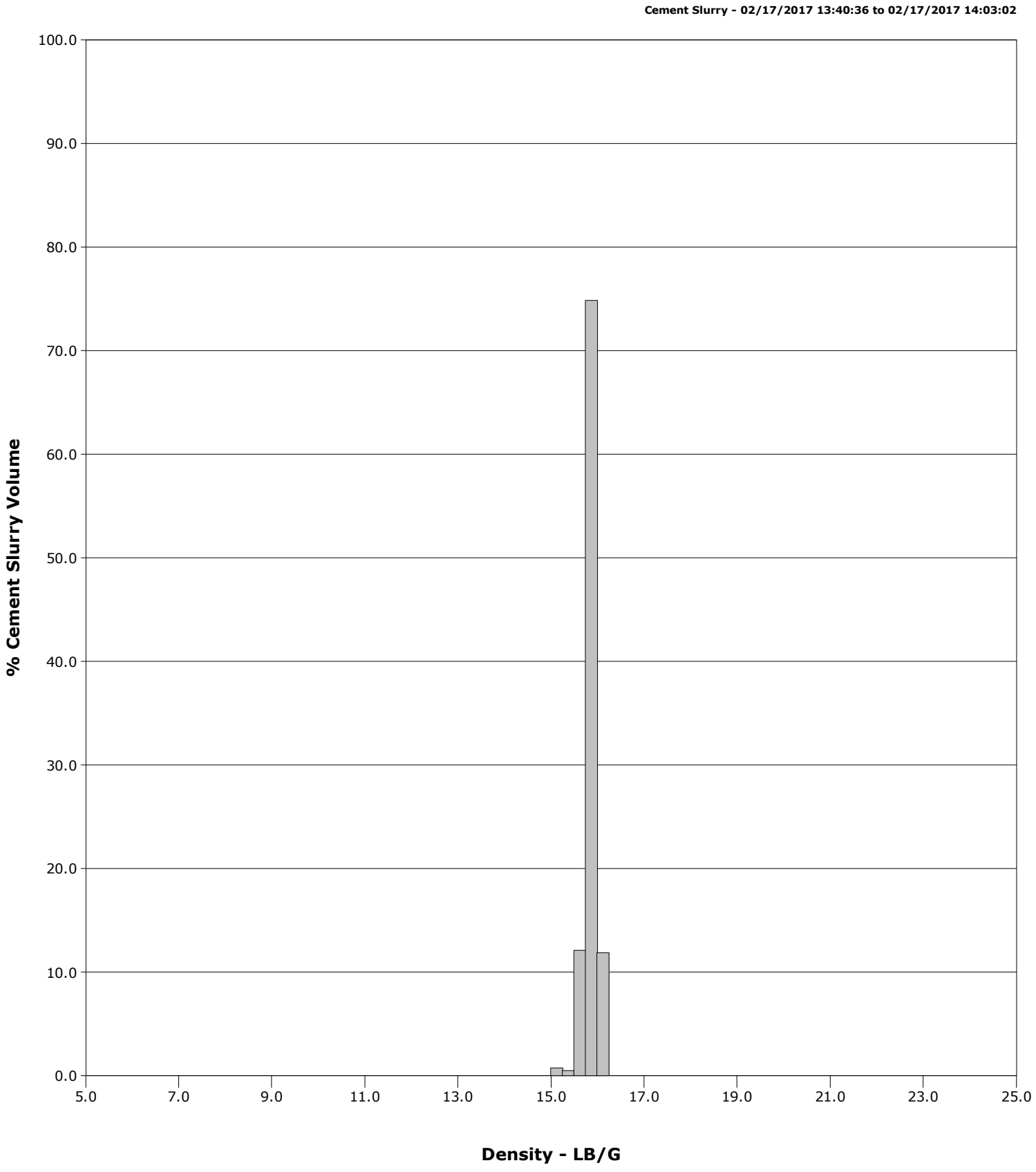
Well	WHISTON 7-4	**Client**	ANADARKO
Field	DJ	**SIR No.**	DA6T-00576
Engineer	Wayne Silvester	**Job Type**	Stub Plug
Country	United States	**Job Date**	02-17-2017



Schlumberger

Cementing Qa/Qc Density Report

Well	WHISTON 7-4	**Client**	ANADARKO
Field	DJ	**SIR No.**	DA6T-00576
Engineer	Wayne Silvester	**Job Type**	Stub Plug
Country	United States	**Job Date**	02-17-2017



Schlumberger Cementing Service Report

Customer	Job Number
ANADARKO	DA6T-00576

Well	Location (legal)	Schlumberger Location	Job Start
WHISTON 7-4	217304	Cheyenne	Feb/17/2017

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
DJ		deg	in	1150.0 ft	1150.0 ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
WELD	Colorado	psi	90 degF	80 degF	lb/gal

Well Master	API/UWI
0630692661	05123229520000

Rig Name	Drilled For	Service Via
Concord 4	Oil & Gas	Land

Offshore Zone	Well Class	Well Type
	Old	Workover

Drilling Fluid Type	Max. Density	Plastic Viscosity
	lb/gal	cP

Service Line	Job Type
Cementing	Stub Plug

Max. Allowed Tub. Press	Max. Allowed Ann. Press	WH Connection
psi	psi	2 3/8" 4.7# T/S

Service Instructions

Stub Plug = 186 sks 1.50 ft3/sk 6.041 gps = 49.5 bbls

Est Toc = 280 ft

CW7 16 bbls
CMT 49.5
Displace 2 bbls

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
1150.0	4.5	11.6	N/A	N/A
767.0	8.6	24.0	N/A	N/A

Tubing/Drill Pipe

T/D	Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
T	1150.0	2.4	4.7	N/A	N/A
	0.0	0.0	0.0		

Perforations/Open Hole

Top, ft	Bottom, ft	shot/ft	No. of Shots	Total Interval
ft	ft			ft
ft	ft			Diameter
ft	ft			in

Treat Down	Displacement	Packer Type	Packer Depth
Tubing	1.0 bbl		ft

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
2.0 bbl	bbl	bbl	bbl

Casing/Tubing Secured	1 Hole Vol. Circulated prior to Cement
X	X

Lift Pressure	psi

Pipe Rotated	Pipe Reciprocated
☐	☐

No. Centralizers	Top Plugs	Bottom Plugs

Cement Head Type

Job Scheduled For	Arrived on Location	Leave Location
Feb/17/2017	Feb/17/2017	Feb/17/2017

Casing Tools		Squeeze Job	
Shoe Type		Squeeze Type	
Shoe Depth	ft	Tool Type	
Stage Tool Type		Tool Depth	ft
Stage Tool Depth	ft	Tail Pipe Size	in
Collar Type		Tail Pipe Depth	ft
Collar Depth	ft	Sqz. Total Vol.	bbl

Date	Time 24-hr clock	Flow Rate B/M	Density LB/G	Volume BBL	Pressure PSI	Message
02/17/2017	13:20:56	0.0	8.36	0.0	17	Started Acquisition
02/17/2017	13:21:02	0.0	8.36	0.0	17	Water Test Complete
02/17/2017	13:21:03	0.0	8.36	0.0	17	Start Job
02/17/2017	13:25:57	0.0	8.36	0.0	17	
02/17/2017	13:26:47	2.6	8.37	0.1	260	Start Pumping Wash
02/17/2017	13:30:58	2.6	8.37	11.0	200	
02/17/2017	13:32:40	2.6	8.37	15.4	210	End Wash
02/17/2017	13:35:00	0.0	8.37	15.5	2640	Reset Total, Vol = 16.04 bbl
02/17/2017	13:35:03	0.0	8.36	15.5	2636	Pressure Test Lines
02/17/2017	13:35:59	0.0	8.37	15.5	2622	
02/17/2017	13:40:36	4.2	15.76	17.1	709	Start Cement Slurry
02/17/2017	13:41:00	2.6	15.97	18.7	338	
02/17/2017	13:46:01	2.5	15.92	33.3	361	
02/17/2017	13:50:31	2.5	15.75	38.4	361	Wet Dry Samples Taken
02/17/2017	13:51:02	2.5	15.66	39.3	306	
02/17/2017	13:56:03	2.5	15.92	53.5	356	
02/17/2017	14:01:04	0.1	15.88	60.3	22	
02/17/2017	14:03:02	0.0	15.84	62.9	114	End Cement Slurry
02/17/2017	14:03:06	0.0	15.83	62.9	36	Reset Total, Vol = 49.48 bbl
02/17/2017	14:03:27	0.0	15.86	62.9	22	Start Displacement
02/17/2017	14:05:38	0.9	9.35	65.0	68	End Displacement

Well	Field	Job Start	Customer	Job Number
WHISTON 7-4	DJ	Feb/17/2017	ANADARKO	DA6T-00576

Date	Time 24-hr clock	Flow Rate B/M	Density LB/G	Volume BBL	Pressure PSI	Message
02/17/2017	14:06:05	0.0	9.49	65.0	31	
02/17/2017	14:11:06	0.0	9.13	65.0	27	
02/17/2017	14:12:13	0.0	9.46	65.0	22	End Job
02/17/2017	14:16:07	0.0	9.09	65.0	27	

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2
2.4			4.3	49.5	0.0	16.0	

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
2700	27	255				bbl	lb/gal

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp		
%	49.5 bbl	2.1 bbl	50 degF	Cement Circulated to Surface? ☐	Volume bbl
				Washed Thru Perfs ☐	To ft

Customer or Authorized Representative	Schlumberger Supervisor		
Socorro Olivas	Wayne Silvester	Circulation Lost ☐	Job Completed ☒
		-	-