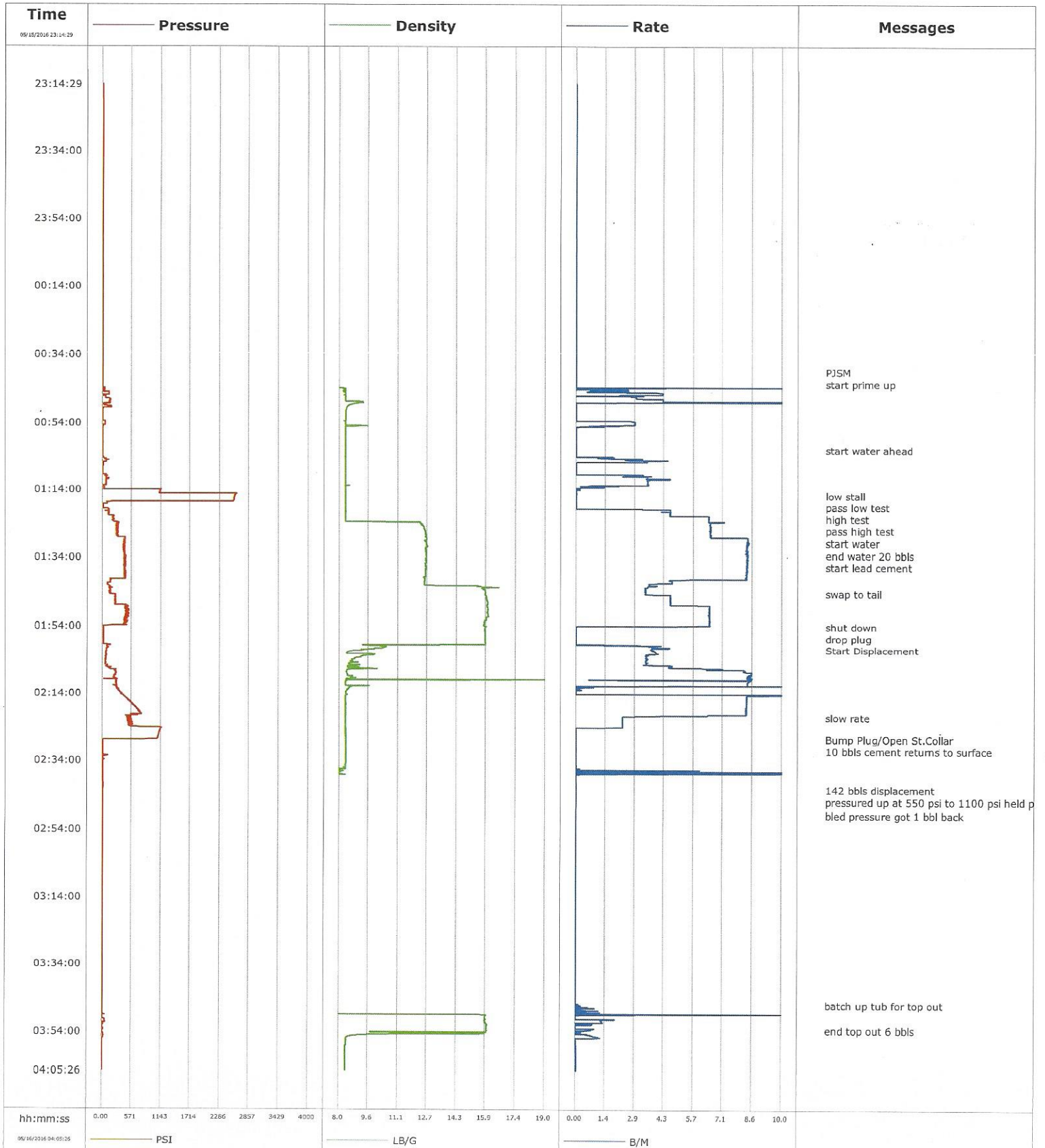


Well	Land Fed 34C-34HZ	Client	Anadarko
Field	Wattenberg	SIR No.	2308186
Engineer	Kyle Christensen	Job Type	Surface
Country	United States	Job Date	05-15-2016

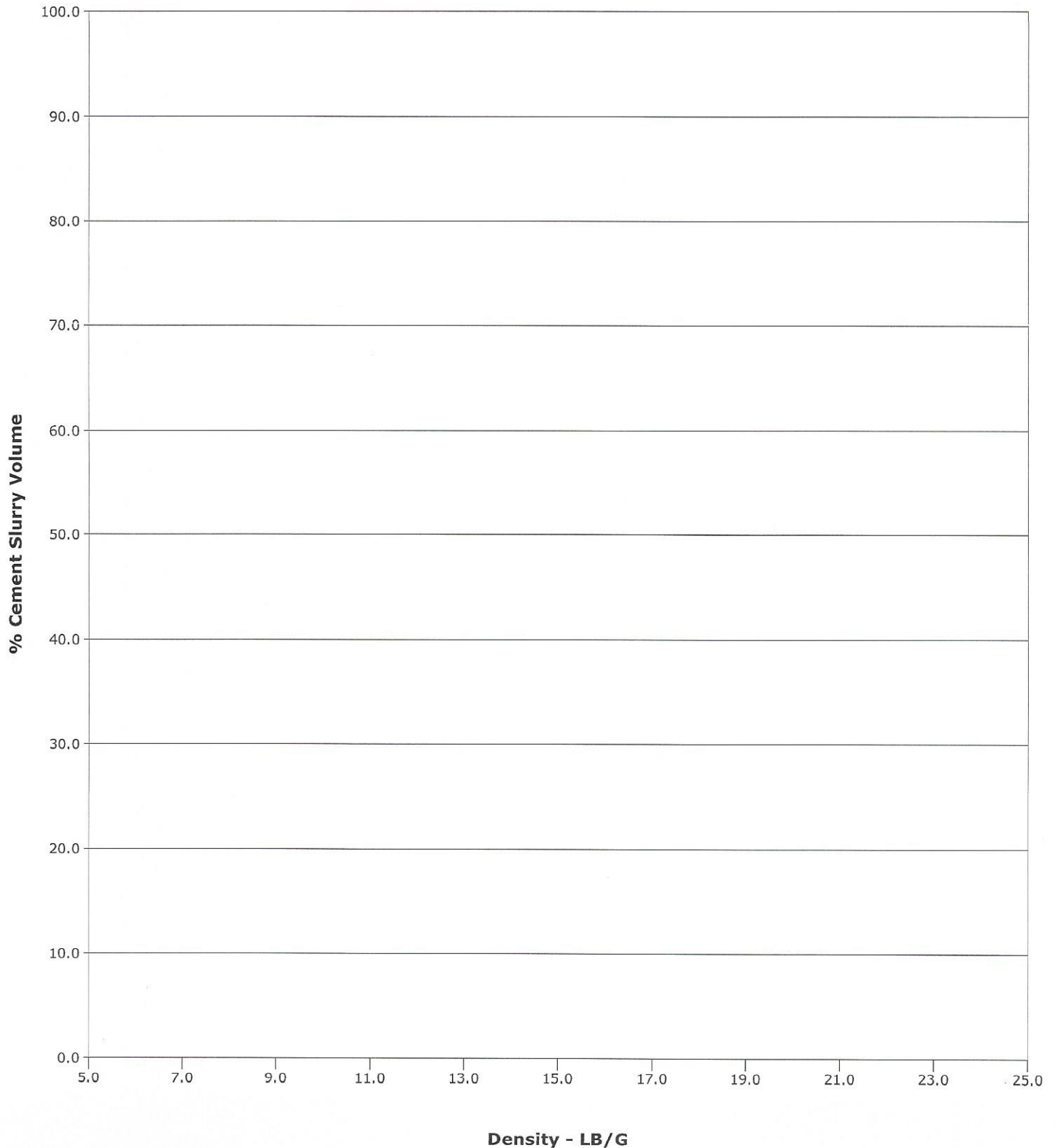




Cementing Qa/Qc Density Report

Well	Land Fed 34C-34HZ	Client	Anadarko
Field	Wattenberg	SIR No.	2308186
Engineer	Kyle Christensen	Job Type	Surface
Country	United States	Job Date	05-15-2016

- 04/23/1974 16:33:52 to 04/23/1974 16:37:36



Cementing Service Report

				Customer		Job Number	
				Anadarko		2308186	
Well			Location (legal)		Schlumberger Location		Job Start
Land Fed 34C-34HZ 1			Colorado		Casper		May/15/2016
Field		Formation Name/Type		Deviation	Bit Size	Well MD	Well TVD
Wattenberg				0 deg	13.5 in	1900.0 ft	1864.0 ft
County		State/Province		BHP	BHST	BHCT	Pore Press. Gradient
Weld		Colorado		0 psi	101 degF	81 degF	lb/gal
Well Master		API/UWI					
631663003		5123423950000					
Rig Name		Drilled For	Service Via	Casing/Liner			
Precision 461		Oil	Land	Depth, ft	Size, in	Weight, lb/ft	Grade
							Thread
Offshore Zone		Well Class	Well Type	30.0	16.0	65.0	H40
		New	Development	1900.0	9.6	36.0	J55
							BUTT
Drilling Fluid Type		Max. Density	Plastic Viscosity	Tubing/Drill Pipe			
		lb/gal	cP	T/D	Depth, ft	Size, in	Weight, lb/ft
							Grade
							Thread
Service Line		Job Type					
Cementing		Surface					
Max. Allowed Tub. Press		Max. Allowed Ann. Press		Perforations/Open Hole			
2000 psi		2000 psi		Top, ft	Bottom, ft	shot/ft	No. of Shots
		WH Connection		Total Interval			
		Single Cement head		ft			
Service Instructions				ft	ft		
pumped 400 sks of 12.5 ppg lead cement 2.10 ft3/sk				ft	ft		Diameter
pumped 290 sks of 15.8 ppg tail cement 1.16 ft3/sk				ft	ft		in
Displacement was 145 bbls of water							
bumped plug							
EstimatedTop of tail 1366 feet							
Topped out previous well with 6 bbls of cement=29 sks							
				Treat Down		Displacement	Packer Type
				Casing		142.0 bbl	Packer Depth
							ft
				Tubing Vol.		Casing Vol.	Annular Vol.
				bbl		145.0 bbl	8.0 bbl
							Openhole Vol.
							187.0 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		psi			Shoe Type	Float	Squeeze Type
Pipe Rotated		<input type="checkbox"/>	Pipe Reciprocated	<input type="checkbox"/>	Shoe Depth	1900.0 ft	Tool Type
No. Centralizers		Top Plugs	1	Bottom Plugs	Stage Tool Type	Tool Depth	
						ft	
Cement Head Type		Single		Stage Tool Depth	ft		Tail Pipe Size
							in
Job Scheduled For		Arrived on Location		Leave Location		Collar Type	Tail Pipe Depth
May/15/2016		May/15/2016		May/15/2016		Collar Depth	ft
						1856.0 ft	Sqz. Total Vol.
							bbl
Date	Time 24-hr clock	Treating Pressure PSI	Density LB/G	CPF1_DOWNHOLE_RATE B/M	Message		
05/15/2016	23:14:29	1	0.03	0.0	Started Acquisition		
05/16/2016	00:38:59	2	0.03	0.0			
05/16/2016	00:39:01	2	0.03	0.0	PJSM		
05/16/2016	00:39:29	2	0.03	0.0			
05/16/2016	00:39:59	2	0.03	0.0			
05/16/2016	00:40:29	3	0.03	0.0			
05/16/2016	00:40:59	3	0.03	0.0			
05/16/2016	00:41:29	2	0.03	0.0	start prime up		
05/16/2016	00:41:59	2	0.04	0.0			
05/16/2016	00:42:29	2	0.03	0.0			
05/16/2016	00:42:59	2	0.04	0.0			
05/16/2016	00:43:29	2	0.03	0.0			
05/16/2016	00:43:59	45	8.18	2.4			
05/16/2016	00:44:29	43	8.35	2.5			
05/16/2016	00:44:59	40	8.36	1.0			
05/16/2016	00:45:29	126	8.36	4.2			
05/16/2016	00:45:59	41	8.28	2.4			
05/16/2016	00:46:29	65	8.37	2.8			
05/16/2016	00:46:59	62	8.36	2.9			
05/16/2016	00:47:29	145	8.36	4.2			
05/16/2016	00:47:59	135	9.12	21.3			

Well		Field	Job Start	Customer	Job Number
Land Fed 34C-34HZ 1		Wattenberg	May/15/2016	Anadarko	2308186
Date	Time 24-hr clock	Treating Pressure PSI	Density LB/G	CPF1_DOWNHOLE_RATE B/M	Message
05/16/2016	00:48:59	41	8.55	0.0	
05/16/2016	00:49:29	175	8.45	0.0	
05/16/2016	00:49:59	12	8.41	0.0	
05/16/2016	00:50:29	7	8.39	0.0	
05/16/2016	00:50:59	6	8.39	0.0	
05/16/2016	00:51:29	6	8.37	0.0	
05/16/2016	00:51:59	5	8.37	0.0	
05/16/2016	00:52:29	5	8.37	0.0	
05/16/2016	00:52:59	5	8.37	0.0	
05/16/2016	00:53:29	5	8.37	0.0	
05/16/2016	00:53:59	53	8.36	2.9	
05/16/2016	00:54:29	52	8.36	2.9	
05/16/2016	00:54:59	9	9.25	1.6	
05/16/2016	00:55:29	6	8.36	0.0	
05/16/2016	00:55:59	5	8.36	0.0	
05/16/2016	00:56:29	5	8.36	0.0	
05/16/2016	00:56:59	5	8.36	0.0	
05/16/2016	00:57:29	5	8.36	0.0	
05/16/2016	00:57:59	5	8.36	0.0	
05/16/2016	00:58:29	5	8.36	0.0	
05/16/2016	00:58:59	6	8.36	0.0	
05/16/2016	00:59:29	6	8.36	0.0	
05/16/2016	00:59:59	5	8.36	0.0	
05/16/2016	01:00:29	6	8.36	0.0	
05/16/2016	01:00:59	5	8.36	0.0	
05/16/2016	01:01:29	6	8.36	0.0	
05/16/2016	01:01:59	5	8.36	0.0	
05/16/2016	01:02:10	5	8.36	0.0	start water ahead
05/16/2016	01:02:29	5	8.36	0.0	
05/16/2016	01:02:59	5	8.36	0.0	
05/16/2016	01:03:29	1	8.36	0.0	
05/16/2016	01:03:59	1	8.36	0.0	
05/16/2016	01:04:29	15	8.35	1.5	
05/16/2016	01:04:59	70	8.35	3.2	
05/16/2016	01:05:29	72	8.36	3.3	
05/16/2016	01:05:59	16	8.36	0.1	
05/16/2016	01:06:29	14	8.36	0.0	
05/16/2016	01:06:59	13	8.36	0.0	
05/16/2016	01:07:29	8	8.36	0.0	
05/16/2016	01:07:59	6	8.36	0.0	
05/16/2016	01:08:29	6	8.36	0.0	
05/16/2016	01:08:59	6	8.36	0.0	
05/16/2016	01:09:29	6	8.36	0.0	
05/16/2016	01:09:59	48	8.36	3.1	
05/16/2016	01:10:29	74	8.36	3.5	
05/16/2016	01:10:59	120	8.36	4.6	
05/16/2016	01:11:29	73	8.36	3.5	
05/16/2016	01:11:59	74	8.36	3.5	
05/16/2016	01:12:29	68	8.36	3.5	
05/16/2016	01:12:59	25	8.43	0.6	
05/16/2016	01:13:29	25	8.36	1.4	
05/16/2016	01:13:59	27	8.36	0.0	
05/16/2016	01:14:29	1120	8.36	0.0	
05/16/2016	01:14:59	1112	8.36	0.0	

Well		Field		Job Start	Customer	Job Number
Land Fed 34C-34HZ 1		Wattenberg		May/15/2016	Anadarko	2308186
Date	Time 24-hr clock	Treating Pressure PSI	Density LB/G	CPF1_DOWNHOLE_RATE B/M	Message	
05/16/2016	01:15:48	2579	8.36	0.0	low stall	
05/16/2016	01:15:59	2573	8.36	0.0		
05/16/2016	01:16:29	2565	8.36	0.0		
05/16/2016	01:16:59	2559	8.36	0.0		
05/16/2016	01:17:21	2556	8.36	0.0	pass low test	
05/16/2016	01:17:29	2555	8.36	0.0		
05/16/2016	01:17:59	87	8.36	0.0		
05/16/2016	01:18:29	94	8.36	0.0		
05/16/2016	01:18:53	15	8.36	0.0	high test	
05/16/2016	01:18:59	15	8.36	0.0		
05/16/2016	01:19:29	15	8.36	0.0		
05/16/2016	01:19:59	47	8.36	0.1		
05/16/2016	01:20:24	128	8.36	4.6	pass high test	
05/16/2016	01:20:29	112	8.36	4.6		
05/16/2016	01:20:59	128	8.36	4.6		
05/16/2016	01:21:29	125	8.36	4.6		
05/16/2016	01:21:59	125	8.36	4.6	start water	
05/16/2016	01:22:29	218	8.36	6.5		
05/16/2016	01:22:59	221	8.36	6.5		
05/16/2016	01:23:29	193	8.36	6.5		
05/16/2016	01:23:59	276	12.34	6.5		
05/16/2016	01:24:18	312	12.38	6.5	end water 20 bbls	
05/16/2016	01:24:29	279	12.46	6.5		
05/16/2016	01:24:41	287	12.39	6.5	start lead cement	
05/16/2016	01:24:59	287	12.49	6.5		
05/16/2016	01:25:29	290	12.55	6.5		
05/16/2016	01:25:59	279	12.55	6.5		
05/16/2016	01:26:29	298	12.59	6.5		
05/16/2016	01:26:59	281	12.62	6.5		
05/16/2016	01:27:29	284	12.63	6.5		
05/16/2016	01:27:59	292	12.63	6.5		
05/16/2016	01:28:29	437	12.66	8.3		
05/16/2016	01:28:59	433	12.70	8.4		
05/16/2016	01:29:29	419	12.58	8.3		
05/16/2016	01:29:59	424	12.66	8.3		
05/16/2016	01:30:29	429	12.69	8.3		
05/16/2016	01:30:59	415	12.72	8.3		
05/16/2016	01:31:29	406	12.63	8.3		
05/16/2016	01:31:59	425	12.63	8.3		
05/16/2016	01:32:29	419	12.63	8.3		
05/16/2016	01:32:59	433	12.65	8.3		
05/16/2016	01:33:29	445	12.66	8.3		
05/16/2016	01:33:59	446	12.66	8.3		
05/16/2016	01:34:29	436	12.64	8.3		
05/16/2016	01:34:59	438	12.63	8.3		
05/16/2016	01:35:29	440	12.64	8.3		
05/16/2016	01:35:59	433	12.62	8.3		
05/16/2016	01:36:29	440	12.62	8.3		
05/16/2016	01:36:59	441	12.64	8.3		
05/16/2016	01:37:29	424	12.62	8.3		
05/16/2016	01:37:59	439	12.62	8.3		
05/16/2016	01:38:29	444	12.62	8.3		
05/16/2016	01:38:59	439	12.61	8.3		
05/16/2016	01:39:29	443	12.63	8.3		

Well		Field	Job Start	Customer	Job Number
Land Fed 34C-34HZ 1		Wattenberg	May/15/2016	Anadarko	2308186
Date	Time 24-hr clock	Treating Pressure PSI	Density LB/G	CPF1_DOWNHOLE_RATE B/M	Message
05/16/2016	01:40:29	339	12.59	8.2	
05/16/2016	01:40:59	158	12.56	4.7	
05/16/2016	01:41:29	155	12.56	4.7	
05/16/2016	01:41:59	103	12.57	3.6	
05/16/2016	01:42:29	129	15.45	3.7	
05/16/2016	01:42:59	155	16.22	3.4	
05/16/2016	01:43:29	144	15.71	3.4	
05/16/2016	01:43:59	167	15.81	3.4	
05/16/2016	01:44:23	150	15.82	3.4	swap to tail
05/16/2016	01:44:29	165	15.82	3.4	
05/16/2016	01:44:59	254	15.81	4.6	
05/16/2016	01:45:29	252	15.86	4.6	
05/16/2016	01:45:59	258	15.87	4.6	
05/16/2016	01:46:29	252	15.90	4.6	
05/16/2016	01:46:59	251	15.93	4.6	
05/16/2016	01:47:29	258	15.93	4.6	
05/16/2016	01:47:59	443	15.90	6.4	
05/16/2016	01:48:29	499	15.92	6.5	
05/16/2016	01:48:59	441	15.94	6.5	
05/16/2016	01:49:29	463	15.94	6.5	
05/16/2016	01:49:59	456	15.91	6.5	
05/16/2016	01:50:29	504	15.95	6.5	
05/16/2016	01:50:59	445	15.95	6.5	
05/16/2016	01:51:29	433	15.87	6.5	
05/16/2016	01:51:59	467	15.85	6.5	
05/16/2016	01:52:29	439	15.79	6.5	
05/16/2016	01:52:59	479	15.75	6.5	
05/16/2016	01:53:29	417	15.75	6.5	
05/16/2016	01:53:58	23	15.87	1.0	shut down
05/16/2016	01:53:59	24	15.87	0.6	
05/16/2016	01:54:29	21	15.80	0.0	
05/16/2016	01:54:53	21	15.79	0.0	drop plug
05/16/2016	01:54:59	21	15.78	0.0	
05/16/2016	01:55:29	21	15.79	0.0	
05/16/2016	01:55:59	21	15.79	0.0	
05/16/2016	01:56:29	21	15.80	0.0	
05/16/2016	01:56:33	21	15.80	0.0	Start Displacement
05/16/2016	01:56:59	21	15.80	0.0	
05/16/2016	01:57:29	22	15.80	0.0	
05/16/2016	01:57:59	22	15.81	0.0	
05/16/2016	01:58:29	22	15.81	0.0	
05/16/2016	01:58:59	23	15.82	0.0	
05/16/2016	01:59:29	21	15.82	0.0	
05/16/2016	01:59:59	94	10.41	3.7	
05/16/2016	02:00:29	89	10.13	3.8	
05/16/2016	02:00:59	83	9.27	3.7	
05/16/2016	02:01:29	77	8.66	3.8	
05/16/2016	02:01:59	74	8.45	3.9	
05/16/2016	02:02:29	74	9.94	3.5	
05/16/2016	02:02:59	76	9.24	3.4	
05/16/2016	02:03:29	74	8.90	3.4	
05/16/2016	02:03:59	71	8.73	3.4	
05/16/2016	02:04:29	66	8.64	3.4	
05/16/2016	02:04:59	66	8.63	3.4	

Well		Field		Job Start	Customer	Job Number
Land Fed 34C-34HZ 1		Wattenberg		May/15/2016	Anadarko	2308186
Date	Time 24-hr clock	Treating Pressure PSI	Density LB/G	CPF1_DOWNHOLE_RATE B/M	Message	
05/16/2016	02:05:59	100	8.50	4.6		
05/16/2016	02:06:29	177	8.48	4.8		
05/16/2016	02:06:59	160	8.61	6.4		
05/16/2016	02:07:29	247	8.41	8.2		
05/16/2016	02:07:59	268	8.43	8.5		
05/16/2016	02:08:29	266	8.48	8.5		
05/16/2016	02:08:59	225	8.75	8.5		
05/16/2016	02:09:29	219	8.83	8.5		
05/16/2016	02:09:59	262	22.78	0.9		
05/16/2016	02:10:29	263	8.37	8.4		
05/16/2016	02:10:59	268	8.37	8.3		
05/16/2016	02:11:29	273	8.37	8.3		
05/16/2016	02:11:59	276	8.89	0.0		
05/16/2016	02:12:29	275	8.56	0.1		
05/16/2016	02:12:59	308	8.44	0.1		
05/16/2016	02:13:29	338	8.39	0.0		
05/16/2016	02:13:59	354	8.38	0.0		
05/16/2016	02:14:29	381	8.43	21.4		
05/16/2016	02:14:59	419	8.37	8.3		
05/16/2016	02:15:29	457	8.37	8.3		
05/16/2016	02:15:59	492	8.37	8.3		
05/16/2016	02:16:29	528	8.37	8.3		
05/16/2016	02:16:59	563	8.37	8.3		
05/16/2016	02:17:29	599	8.37	8.3		
05/16/2016	02:17:59	625	8.37	8.3		
05/16/2016	02:18:29	660	8.37	8.3		
05/16/2016	02:18:59	689	8.37	8.3		
05/16/2016	02:19:29	712	8.37	8.3		
05/16/2016	02:19:59	737	8.37	8.3		
05/16/2016	02:20:29	656	8.37	6.4		
05/16/2016	02:20:59	476	8.37	2.4		
05/16/2016	02:21:06	519	8.37	2.3	slow rate	
05/16/2016	02:21:29	490	8.37	2.3		
05/16/2016	02:21:59	504	8.37	2.2		
05/16/2016	02:22:29	563	8.37	2.3		
05/16/2016	02:22:59	532	8.37	2.3		
05/16/2016	02:23:29	586	8.37	2.3		
05/16/2016	02:23:59	576	8.37	2.3		
05/16/2016	02:24:29	1152	8.37	0.0		
05/16/2016	02:24:59	1129	8.37	0.0		
05/16/2016	02:25:29	1118	8.37	0.0		
05/16/2016	02:25:59	1108	8.37	0.0		
05/16/2016	02:26:29	1097	8.37	0.0		
05/16/2016	02:26:59	1085	8.37	0.0		
05/16/2016	02:27:29	1075	8.37	0.0		
05/16/2016	02:27:43	1069	8.37	0.0	Bump Plug/Open St.Collar	
05/16/2016	02:27:59	986	8.37	0.0	10 bbls cement returns to surface	
05/16/2016	02:28:29	17	8.37	0.0		
05/16/2016	02:28:59	17	8.37	0.0		
05/16/2016	02:29:29	16	8.37	0.0		
05/16/2016	02:29:59	16	8.37	0.0		
05/16/2016	02:30:29	16	8.37	0.0		
05/16/2016	02:30:59	16	8.37	0.0		
05/16/2016	02:31:29	15	8.37	0.0		

Well		Field	Job Start	Customer	Job Number
Land Fed 34C-34HZ 1		Wattenberg	May/15/2016	Anadarko	2308186
Date	Time 24-hr clock	Treating Pressure PSI	Density LB/G	CPF1_DOWNHOLE_RATE B/M	Message
05/16/2016	02:32:29	15	8.37	0.0	
05/16/2016	02:32:59	47	8.37	0.0	
05/16/2016	02:33:29	12	8.37	0.0	
05/16/2016	02:33:59	34	8.37	0.0	
05/16/2016	02:34:29	11	8.37	0.0	
05/16/2016	02:34:59	11	8.37	0.0	
05/16/2016	02:35:29	11	8.35	0.0	
05/16/2016	02:35:59	11	8.33	0.0	
05/16/2016	02:36:29	11	8.22	0.0	
05/16/2016	02:36:59	11	8.00	0.2	
05/16/2016	02:37:29	11	0.90	0.0	
05/16/2016	02:37:59	11	7.84	0.0	
05/16/2016	02:38:29	10	0.11	0.0	
05/16/2016	02:38:59	10	0.07	0.0	
05/16/2016	02:39:29	11	0.06	0.0	
05/16/2016	02:39:59	10	0.06	0.0	
05/16/2016	02:40:29	10	0.06	0.0	
05/16/2016	02:40:59	11	0.06	0.0	
05/16/2016	02:41:29	10	0.06	0.0	
05/16/2016	02:41:59	10	0.06	0.0	
05/16/2016	02:42:29	9	0.06	0.0	
05/16/2016	02:42:42	9	0.06	0.0	142 bbls displacement
05/16/2016	03:45:29	7	0.06	0.0	
05/16/2016	03:45:45	7	0.06	0.1	batch up tub for top out
05/16/2016	03:45:59	8	0.06	0.0	
05/16/2016	03:46:29	7	0.06	0.0	
05/16/2016	03:46:59	7	0.05	0.0	
05/16/2016	03:47:29	7	0.05	0.0	
05/16/2016	03:47:59	7	0.05	0.0	
05/16/2016	03:48:29	7	0.05	0.0	
05/16/2016	03:48:59	17	15.83	0.6	
05/16/2016	03:49:29	7	15.83	0.0	
05/16/2016	03:49:59	6	15.82	0.0	
05/16/2016	03:50:29	47	15.84	1.2	
05/16/2016	03:50:59	56	15.84	1.3	
05/16/2016	03:51:29	6	15.88	0.0	
05/16/2016	03:51:59	9	15.94	0.2	
05/16/2016	03:52:29	6	15.91	0.0	
05/16/2016	03:52:59	5	15.90	0.0	
05/16/2016	03:53:19	27	15.90	0.8	end top out 6 bbls
05/16/2016	03:53:29	25	15.90	0.8	
05/16/2016	03:53:59	6	15.90	0.0	
05/16/2016	03:54:29	5	15.67	0.0	
05/16/2016	03:54:59	26	8.98	0.7	
05/16/2016	03:55:29	28	8.50	1.1	
05/16/2016	03:55:59	5	8.42	0.0	
05/16/2016	03:56:29	7	8.42	0.0	
05/16/2016	03:56:59	7	8.41	0.0	
05/16/2016	03:57:29	7	8.40	0.0	
05/16/2016	03:57:59	7	8.40	0.0	
05/16/2016	03:58:29	7	8.39	0.0	
05/16/2016	03:58:59	6	8.39	0.1	
05/16/2016	03:59:29	7	8.39	0.1	
05/16/2016	03:59:59	6	8.39	0.1	

Well		Field		Job Start	Customer		Job Number
Land Fed 34C-34HZ 1		Wattenberg		May/15/2016	Anadarko		2308186
Date	Time 24-hr clock	Treating Pressure PSI	Density LB/G	CPF1_DOWNHOLE_RATE B/M		Message	
05/16/2016	04:00:59	7	8.39	0.1			
05/16/2016	04:01:29	7	8.39	0.1			
05/16/2016	04:01:59	7	8.38	0.1			
05/16/2016	04:02:29	7	8.38	0.1			
05/16/2016	04:02:59	7	8.38	0.1			
05/16/2016	04:03:29	7	8.38	0.1			
05/16/2016	04:03:59	7	8.38	0.1			
05/16/2016	04:04:29	7	8.38	0.1			

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry 3.9	N2	Mud	Maximum Rate 25.0	Total Slurry 5.3	Mud 0.0	Spacer 0.0	N2
Treating Pressure Summary, psi				Breakdown Fluid			
Maximum 2605	Final 8	Average 141	Bump Plug to 1100	Breakdown	Type	Volume bbl	Density lb/gal
Avg. N2 Percent %	Designed Slurry Volume 195.0 bbl		Displacement 0.0 bbl	Mix Water Temp 64 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>	Volume 10.0 bbl	
					Washed Thru Perfs <input type="checkbox"/>	To ft	
Customer or Authorized Representative Anadarko Co. man			Schlumberger Supervisor Kyle Christensen			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>
						-	-