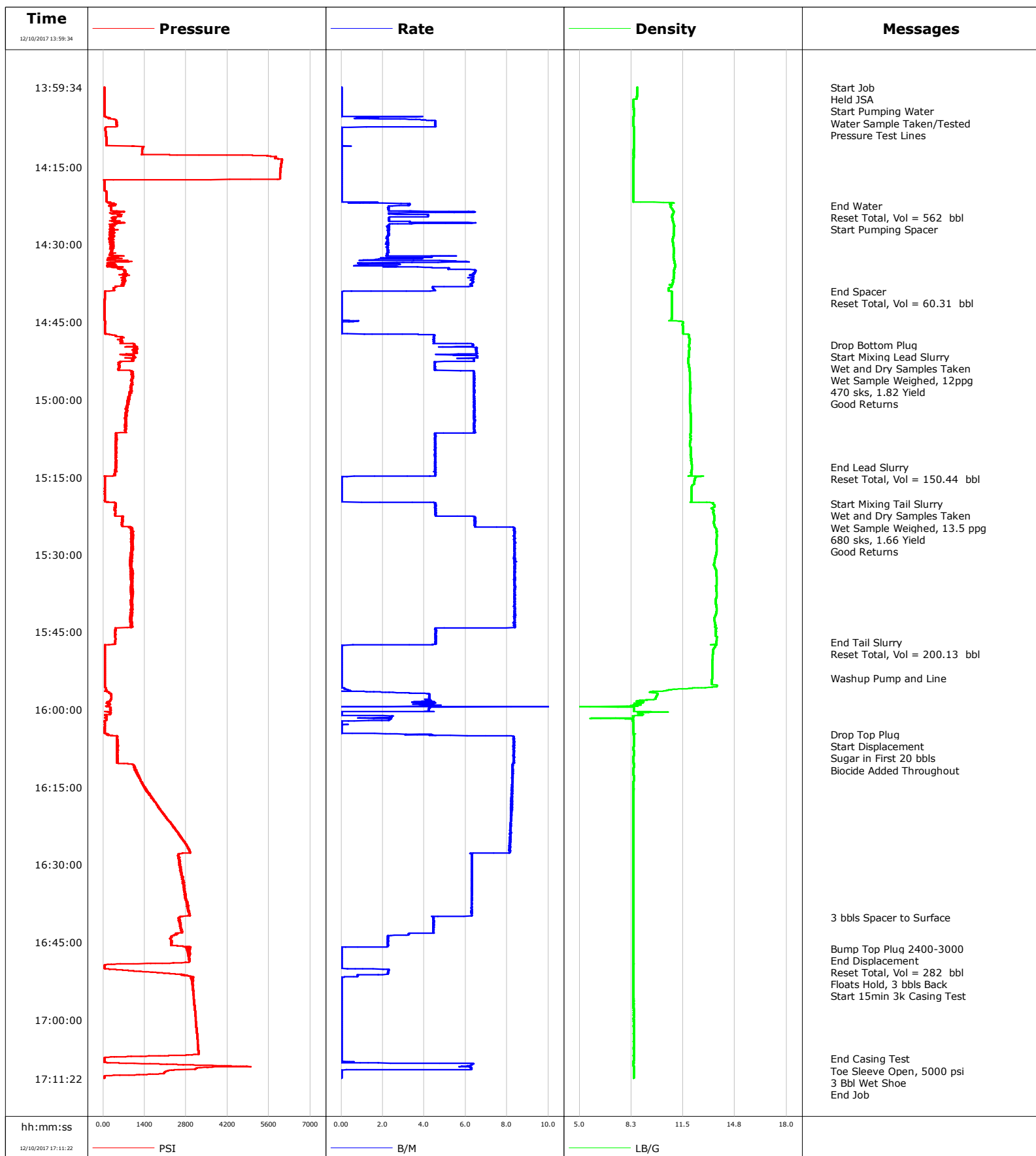


Well Burough 2N-17HZ
Field Wattenberg
Engineer Ryan Drilling/Ken Sovereign
Country United States

Client Anadarko
SIR No. CSS9-00890
Job Type 5.5" Production
Job Date 12-10-2017



Cementing Service Report

				Customer Anadarko			Job Number CSS9-00890				
Well Borough 2N-17HZ			Location (legal) CWY			Schlumberger Location CWY			Job Start Dec/10/2017		
Field Wattenberg		Formation Name/Type Shale		Deviation 90 deg		Bit Size 7.9 in		Well MD 12153.0 ft		Well TVD 7422.0 ft	
County Weld		State/Province Colorado		BHP psi		BHST 231 degF		BHCT 205 degF		Pore Press. Gradient lb/gal	
Well Master 0631733209		API/UWI									
Rig Name Precision 564		Drilled For Oil & Gas		Service Via Land		Casing/ Liner					
						Depth, ft		Size, in		Weight, lb/ft	
										Grade	
										Thread	
Offshore Zone		Well Class New		Well Type Development		1888.0		9.6		36.0	
						12153.0		5.5		17.0	
										j55	
										p110	
										lrc	
Drilling Fluid Type OBM		Max. Density 9.50 lb/gal		Plastic Viscosity 11.000 cP		Tubing/Drill Pipe					
						T/D		Depth, ft		Size, in	
										Weight, lb/ft	
										Grade	
										Thread	
Service Line Cementing		Job Type 5.5" Production									
Max. Allowed Tub. Press psi		Max. Allowed Ann. Press psi		WH Connection Weatherford		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 Casing		Displacement bbl		Packer Type	
										Packer Depth	
										ft	
						Tubing Vol. bbl		Casing Vol. 28.0 bbl		Annular Vol. bbl	
										Openhole Vol. 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 2400 psi						Shoe Type Float			Squeeze Type		
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>				Shoe Depth 12153.0 ft			Tool Type		
No. Centralizers		Top Plugs 1		Bottom Plugs 1		Stage Tool Type			Tool Depth ft		
Cement Head Type Double						Stage Tool Depth ft			Tail Pipe Size in		
Job Scheduled For Dec/10/2017 09:00		Arrived on Location Dec/10/2017 09:00		Leave Location Dec/10/2017 18:00		Collar Type Float			Tail Pipe Depth ft		
						Collar Depth 12151.0 ft			Sqz. Total Vol. bbl		
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message					
12/10/2017	13:59:34	36	0.0	8.62	0.0	Started Acquisition					
12/10/2017	13:59:35	37	0.0	8.62	0.0	Start Job					
12/10/2017	13:59:37	36	0.0	8.62	0.0	Held JSA					
12/10/2017	13:59:41	37	0.0	8.62	0.0	Start Pumping Water					
12/10/2017	13:59:43	37	0.0	8.62	0.0	Water Sample Taken/Tested					
12/10/2017	13:59:46	37	0.0	8.62	0.0	Pressure Test Lines					
12/10/2017	14:00:34	37	0.0	8.61	0.0						
12/10/2017	14:01:34	38	0.0	8.61	0.0						
12/10/2017	14:02:34	39	0.0	8.39	0.0						
12/10/2017	14:03:34	39	0.0	8.39	0.0						
12/10/2017	14:04:34	40	0.0	8.39	0.0						
12/10/2017	14:05:34	219	1.7	8.39	0.5						
12/10/2017	14:06:34	453	4.5	8.39	4.3						
12/10/2017	14:07:34	78	0.0	8.40	7.6						
12/10/2017	14:08:34	91	0.0	8.40	7.6						
12/10/2017	14:09:34	106	0.0	8.40	7.6						
12/10/2017	14:10:34	105	0.0	8.40	0.0						
12/10/2017	14:11:34	1325	0.0	8.39	0.0						
12/10/2017	14:12:34	1307	0.0	8.39	0.0						
12/10/2017	14:13:34	6039	0.0	8.39	0.0						
12/10/2017	14:14:34	6008	0.0	8.39	0.0						

Well			Field	Job Start		Customer		Job Number	
Burough 2N-17HZ			Wattenberg		Dec/10/2017		Anadarko		CSS9-00890
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message			
12/10/2017	14:16:34	5972	0.0	8.39	0.0				
12/10/2017	14:17:34	30	0.0	8.39	0.0				
12/10/2017	14:18:34	42	0.0	8.39	0.0				
12/10/2017	14:19:34	43	0.0	8.39	0.0				
12/10/2017	14:20:34	109	0.0	8.39	0.0				
12/10/2017	14:21:34	116	0.0	8.39	0.0				
12/10/2017	14:22:32	383	2.8	10.72	1.9	End Water			
12/10/2017	14:22:34	194	2.4	10.72	2.0				
12/10/2017	14:22:35	194	2.3	10.72	2.0	Reset Total, Vol = 562 bbl			
12/10/2017	14:22:38	268	2.3	10.71	2.1	Start Pumping Spacer			
12/10/2017	14:23:34	455	3.3	10.88	4.3				
12/10/2017	14:24:34	545	4.2	10.81	8.3				
12/10/2017	14:25:34	380	3.3	10.86	10.9				
12/10/2017	14:26:34	239	2.3	10.93	14.2				
12/10/2017	14:27:34	331	2.3	10.92	16.5				
12/10/2017	14:28:34	335	2.2	10.86	18.8				
12/10/2017	14:29:34	309	2.2	10.86	21.0				
12/10/2017	14:30:34	338	2.2	10.90	23.2				
12/10/2017	14:31:34	270	2.3	10.91	25.5				
12/10/2017	14:32:34	342	2.2	10.91	28.3				
12/10/2017	14:33:34	155	1.5	10.97	31.7				
12/10/2017	14:34:34	617	5.2	10.97	34.0				
12/10/2017	14:35:34	755	6.4	10.94	40.1				
12/10/2017	14:36:34	722	6.4	10.92	46.4				
12/10/2017	14:37:34	697	6.3	10.84	52.7				
12/10/2017	14:38:34	362	4.4	10.59	58.3				
12/10/2017	14:39:02	61	1.5	10.70	60.3	End Spacer			
12/10/2017	14:39:03	69	0.5	10.70	60.3	Reset Total, Vol = 60.31 bbl			
12/10/2017	14:39:34	55	0.0	10.81	0.0				
12/10/2017	14:40:34	51	0.0	10.81	0.0				
12/10/2017	14:41:34	49	0.0	10.80	0.0				
12/10/2017	14:42:34	48	0.0	10.80	0.0				
12/10/2017	14:43:34	48	0.0	10.80	0.0				
12/10/2017	14:44:34	49	0.0	10.76	0.0				
12/10/2017	14:45:34	66	0.0	11.47	0.2				
12/10/2017	14:46:34	64	0.0	11.48	0.0				
12/10/2017	14:47:34	372	4.5	11.86	0.8				
12/10/2017	14:48:34	645	4.5	11.90	5.3				
12/10/2017	14:49:23	1045	6.3	11.87	9.3	Drop Bottom Plug			
12/10/2017	14:49:24	1043	6.3	11.87	9.4	Start Mixing Lead Slurry			
12/10/2017	14:49:27	1036	6.4	11.87	9.7	Wet and Dry Samples Taken			
12/10/2017	14:49:28	1023	6.4	11.87	9.8	470 sks, 1.82 Yield			
12/10/2017	14:49:34	1075	6.4	11.87	10.5				
12/10/2017	14:50:34	1128	6.5	11.87	16.8				
12/10/2017	14:51:34	1028	6.5	11.85	23.1				
12/10/2017	14:52:34	1029	6.4	11.82	29.5				
12/10/2017	14:53:34	547	4.5	11.87	34.2				
12/10/2017	14:54:34	993	6.4	11.90	39.0				
12/10/2017	14:55:34	1021	6.4	11.93	45.4				
12/10/2017	14:56:34	970	6.4	11.93	51.8				
12/10/2017	14:57:34	928	6.4	11.96	58.2				
12/10/2017	14:58:34	884	6.4	11.95	64.6				
12/10/2017	14:59:34	912	6.4	11.92	71.0				
12/10/2017	15:00:34	857	6.4	11.93	77.4				

Well			Field	Job Start		Customer	Job Number	
Borough 2N-17HZ			Wattenberg		Dec/10/2017		Anadarko	CSS9-00890
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
12/10/2017	15:02:34	766	6.4	11.97	90.3			
12/10/2017	15:03:34	732	6.5	11.99	96.7			
12/10/2017	15:04:34	786	6.4	11.99	103.1			
12/10/2017	15:05:34	772	6.4	11.99	109.5			
12/10/2017	15:06:34	431	4.5	11.97	115.8			
12/10/2017	15:07:34	452	4.5	11.97	120.3			
12/10/2017	15:08:34	431	4.5	11.92	124.9			
12/10/2017	15:09:34	453	4.5	11.99	129.4			
12/10/2017	15:10:34	429	4.5	11.99	133.9			
12/10/2017	15:11:34	427	4.5	12.02	138.5			
12/10/2017	15:12:34	415	4.5	12.04	143.0			
12/10/2017	15:13:09	433	4.5	12.04	145.6	End Lead Slurry		
12/10/2017	15:13:34	438	4.6	12.04	147.5			
12/10/2017	15:14:34	403	4.5	12.01	152.1			
12/10/2017	15:14:50	59	4.3	11.83	153.3	Reset Total, Vol = 150.44 bbl		
12/10/2017	15:15:34	53	0.0	12.22	0.0			
12/10/2017	15:16:34	52	0.0	12.09	0.0			
12/10/2017	15:17:34	51	0.0	12.00	0.0			
12/10/2017	15:18:34	51	0.0	12.01	0.0			
12/10/2017	15:19:34	50	0.0	12.01	0.0			
12/10/2017	15:20:11	423	4.6	13.39	1.3	Start Mixing Tail Slurry		
12/10/2017	15:20:34	428	4.5	13.48	3.1			
12/10/2017	15:21:34	410	4.6	13.43	7.6			
12/10/2017	15:21:52	414	4.6	13.38	9.0	Wet and Dry Samples Taken		
12/10/2017	15:21:53	417	4.6	13.38	9.1	680 sks, 1.66 Yield		
12/10/2017	15:22:34	408	4.6	13.45	12.2			
12/10/2017	15:23:34	657	6.5	13.44	18.5			
12/10/2017	15:24:34	669	6.5	13.48	25.0			
12/10/2017	15:25:34	1025	8.4	13.62	33.1			
12/10/2017	15:26:34	1004	8.4	13.61	41.5			
12/10/2017	15:27:34	1001	8.4	13.57	49.8			
12/10/2017	15:28:34	1018	8.4	13.61	58.2			
12/10/2017	15:29:34	995	8.4	13.58	66.5			
12/10/2017	15:30:34	972	8.4	13.52	74.9			
12/10/2017	15:31:34	910	8.3	13.47	83.3			
12/10/2017	15:32:34	930	8.4	13.50	91.6			
12/10/2017	15:33:34	1006	8.4	13.56	100.0			
12/10/2017	15:34:34	1005	8.3	13.59	108.4			
12/10/2017	15:35:34	994	8.4	13.59	116.7			
12/10/2017	15:36:34	989	8.4	13.57	125.1			
12/10/2017	15:37:34	974	8.4	13.59	133.4			
12/10/2017	15:38:34	959	8.4	13.55	141.8			
12/10/2017	15:39:34	964	8.4	13.55	150.2			
12/10/2017	15:40:34	932	8.4	13.59	158.5			
12/10/2017	15:41:34	922	8.4	13.55	166.9			
12/10/2017	15:42:34	901	8.4	13.44	175.2			
12/10/2017	15:43:34	953	8.4	13.52	183.6			
12/10/2017	15:44:34	421	4.6	13.54	190.6			
12/10/2017	15:45:34	409	4.5	13.55	195.1			
12/10/2017	15:46:34	409	4.6	13.59	199.7			
12/10/2017	15:47:00	397	4.6	13.57	201.6	End Tail Slurry		
12/10/2017	15:47:06	395	4.6	13.56	202.1	Reset Total, Vol = 200.13 bbl		
12/10/2017	15:47:34	62	0.0	13.56	203.8			
12/10/2017	15:48:34	60	0.0	13.39	203.8			

Well			Field		Job Start		Customer		Job Number	
Burough 2N-17HZ			Wattenberg		Dec/10/2017		Anadarko		CSS9-00890	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
12/10/2017	15:50:34	61	0.0	13.32	203.8					
12/10/2017	15:51:34	60	0.0	13.31	203.8					
12/10/2017	15:52:34	59	0.0	13.31	203.8					
12/10/2017	15:53:34	59	0.0	13.31	203.8					
12/10/2017	15:54:02	59	0.0	13.31	203.8	Washup Pump and Line				
12/10/2017	15:54:34	59	0.0	13.30	203.8					
12/10/2017	15:55:34	59	0.0	13.61	203.8					
12/10/2017	15:56:34	133	1.4	9.49	204.1					
12/10/2017	15:57:34	270	4.3	9.81	207.8					
12/10/2017	15:58:34	231	4.3	8.91	212.0					
12/10/2017	15:59:34	239	4.3	8.36	216.4					
12/10/2017	16:00:34	245	0.0	9.17	220.1					
12/10/2017	16:01:34	77	2.4	8.38	221.0					
12/10/2017	16:02:34	51	0.0	8.38	222.2					
12/10/2017	16:03:34	51	0.0	8.38	222.2					
12/10/2017	16:04:34	51	0.0	8.38	0.0					
12/10/2017	16:04:50	110	3.8	8.39	0.5	Drop Top Plug				
12/10/2017	16:04:51	123	3.1	8.39	0.6	Start Displacement				
12/10/2017	16:05:34	478	8.3	8.42	5.7					
12/10/2017	16:06:34	497	8.3	8.39	14.0					
12/10/2017	16:07:34	500	8.3	8.39	22.3					
12/10/2017	16:08:34	500	8.3	8.39	30.6					
12/10/2017	16:08:56	495	8.3	8.39	33.7	Sugar in First 20 bbls				
12/10/2017	16:08:57	469	8.3	8.39	33.8	Biocide Added Throughout				
12/10/2017	16:09:34	487	8.3	8.39	38.9					
12/10/2017	16:10:34	965	8.3	8.39	47.2					
12/10/2017	16:11:34	1060	8.3	8.39	55.5					
12/10/2017	16:12:34	1175	8.3	8.39	63.8					
12/10/2017	16:13:34	1251	8.2	8.39	72.0					
12/10/2017	16:14:34	1355	8.2	8.39	80.3					
12/10/2017	16:15:34	1465	8.2	8.39	88.5					
12/10/2017	16:16:34	1604	8.2	8.39	96.7					
12/10/2017	16:17:34	1715	8.2	8.39	104.9					
12/10/2017	16:18:34	1821	8.2	8.39	113.2					
12/10/2017	16:19:34	1946	8.2	8.39	121.4					
12/10/2017	16:20:34	2074	8.2	8.39	129.6					
12/10/2017	16:21:34	2224	8.2	8.39	137.7					
12/10/2017	16:22:34	2373	8.2	8.38	145.9					
12/10/2017	16:23:34	2477	8.2	8.39	154.1					
12/10/2017	16:24:34	2604	8.1	8.38	162.2					
12/10/2017	16:25:34	2727	8.1	8.38	170.4					
12/10/2017	16:26:34	2851	8.1	8.39	178.5					
12/10/2017	16:27:34	2944	8.1	8.39	186.6					
12/10/2017	16:28:34	2559	6.3	8.38	193.3					
12/10/2017	16:29:34	2579	6.3	8.38	199.6					
12/10/2017	16:30:34	2585	6.3	8.38	205.9					
12/10/2017	16:31:34	2645	6.3	8.38	212.2					
12/10/2017	16:32:34	2689	6.3	8.38	218.5					
12/10/2017	16:33:34	2709	6.3	8.38	224.8					
12/10/2017	16:34:34	2729	6.3	8.38	231.1					
12/10/2017	16:35:34	2761	6.3	8.38	237.4					
12/10/2017	16:36:34	2796	6.3	8.39	243.7					
12/10/2017	16:37:34	2828	6.3	8.39	250.0					
12/10/2017	16:38:34	2877	6.3	8.38	256.3					

Well			Field	Job Start		Customer	Job Number
Burough 2N-17HZ			Wattenberg	Dec/10/2017		Anadarko	CSS9-00890
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
12/10/2017	16:40:14	2563	4.4	8.39	266.3	3 bbls Spacer to Surface	
12/10/2017	16:40:34	2584	4.4	8.38	267.8		
12/10/2017	16:41:34	2587	4.4	8.39	272.2		
12/10/2017	16:42:34	2658	4.4	8.38	276.7		
12/10/2017	16:43:34	2482	3.3	8.39	280.8		
12/10/2017	16:44:34	2295	2.2	8.38	283.1		
12/10/2017	16:45:34	2313	2.2	8.38	285.4		
12/10/2017	16:46:17	2873	0.0	8.39	286.2	Bump Top Plug 2400-3000	
12/10/2017	16:46:18	2920	0.0	8.39	286.2	End Displacement	
12/10/2017	16:46:19	2943	0.0	8.39	286.2	Reset Total, Vol = 282 bbl	
12/10/2017	16:46:34	2927	0.0	8.39	286.2		
12/10/2017	16:47:34	2935	0.0	8.39	286.2		
12/10/2017	16:49:14	581	0.0	8.39	286.2	Floats Hold, 3 bbls Back	
12/10/2017	16:49:34	48	0.0	8.39	286.2		
12/10/2017	16:50:34	1035	2.3	8.39	287.1		
12/10/2017	16:51:34	2900	0.8	8.39	288.9		
12/10/2017	16:52:15	3016	0.0	8.39	289.1	Start 15min 3k Casing Test	
12/10/2017	16:52:34	2994	0.0	8.39	289.1		
12/10/2017	16:53:34	3023	0.0	8.39	289.1		
12/10/2017	16:54:34	3051	0.0	8.39	289.1		
12/10/2017	16:55:34	3060	0.0	8.39	289.1		
12/10/2017	16:56:34	3073	0.0	8.39	289.1		
12/10/2017	16:57:34	3087	0.0	8.39	289.1		
12/10/2017	16:58:34	3102	0.0	8.39	289.1		
12/10/2017	16:59:34	3119	0.0	8.39	289.1		
12/10/2017	17:00:34	3134	0.0	8.39	289.1		
12/10/2017	17:01:34	3148	0.0	8.39	289.1		
12/10/2017	17:02:34	3164	0.0	8.39	289.1		
12/10/2017	17:03:34	3180	0.0	8.39	289.1		
12/10/2017	17:04:34	3194	0.0	8.39	289.1		
12/10/2017	17:05:34	3210	0.0	8.39	289.1		
12/10/2017	17:06:34	3224	0.0	8.39	289.1		
12/10/2017	17:07:34	43	0.0	8.39	289.1	End Casing Test	
12/10/2017	17:08:34	1590	6.4	8.38	1.2		
12/10/2017	17:09:16	3306	6.3	8.39	5.5	Toe Sleeve Open, 5000 psi	
12/10/2017	17:09:34	3118	6.3	8.39	7.4		
12/10/2017	17:09:38	3111	6.3	8.39	7.8	3 Bbl Wet Shoe	
12/10/2017	17:10:34	1585	0.0	8.39	8.1		

Well Borough 2N-17HZ	Field Wattenberg	Job Start Dec/10/2017	Customer Anadarko	Job Number CSS9-00890
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Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 5.9	N2	Mud	Maximum Rate 25.0	Total Slurry 350.0	Mud 0.0	Spacer 60.0	N2	
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 6056	Final 43	Average 1221	Bump Plug to 3000	Breakdown	Type	Volume bbl	Density lb/gal	
Avg. N2 Percent %	Designed Slurry Volume 350.0 bbl	Displacement 28.0 bbl	Mix Water Temp 69 degF	Cement Circulated to Surface? <input type="checkbox"/>		Volume bbl		
				Washed Thru Perfs <input type="checkbox"/>		To ft		
Customer or Authorized Representative Joe Wallem			Schlumberger Supervisor Ryan Drilling/Ken Sovereign			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>	
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