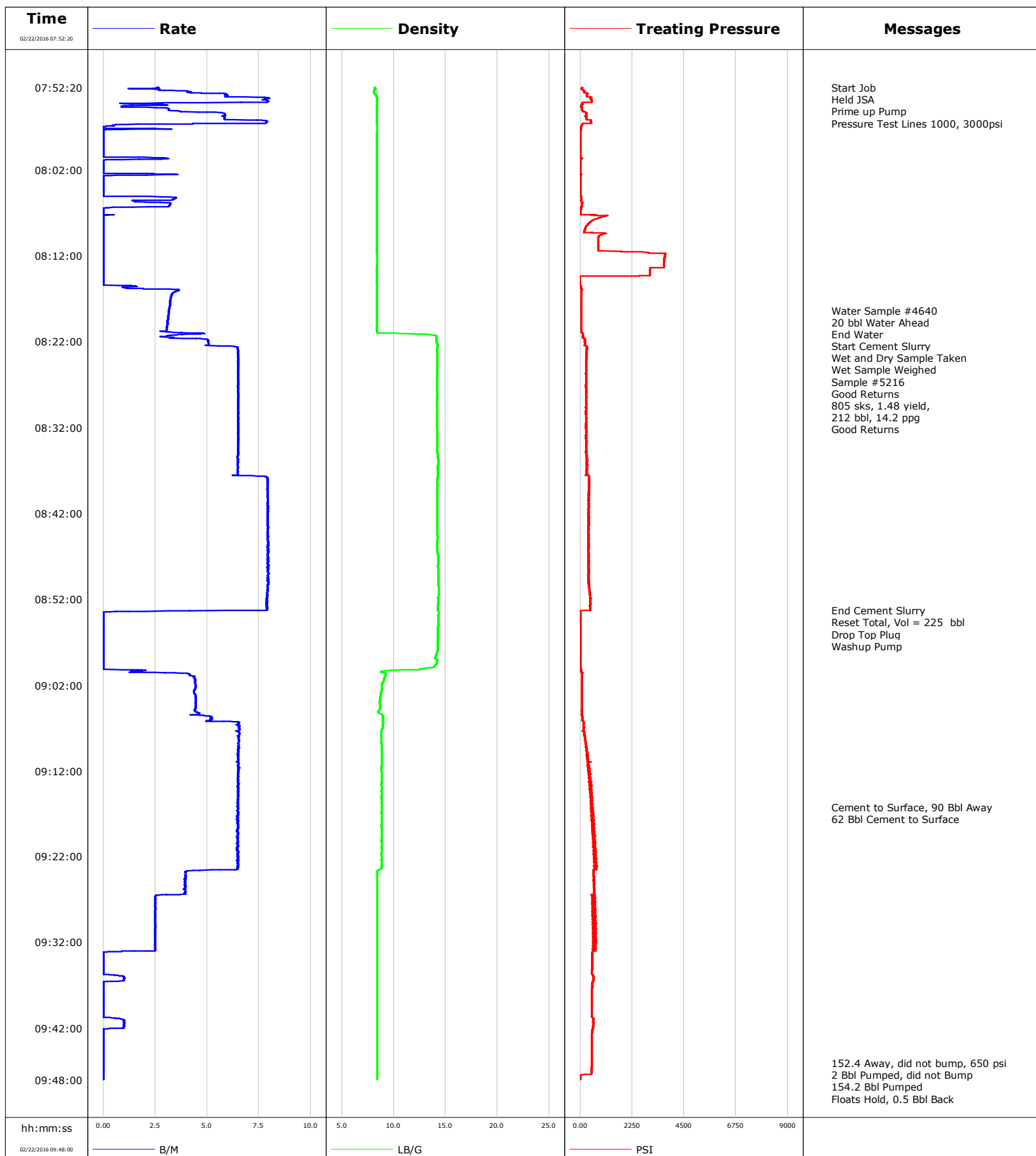


<b>Well</b>	Horsetail 07E-0604	<b>Client</b>	Whiting
<b>Field</b>	Wildcat	<b>SIR No.</b>	
<b>Engineer</b>	Ryan Drilling/Matt Leiker	<b>Job Type</b>	9 5/8" Surface
<b>Country</b>	United States	<b>Job Date</b>	02-22-2016



# Cementing Service Report

				Customer Whiting			Job Number	
Well Horsetail 07E-0604 07E-0604			Location (legal) CWY		Schlumberger Location Cheyenne		Job Start Feb/22/2016	
Field Wildcat		Formation Name/Type		Deviation deg	Bit Size in	Well MD 2038.0 ft		Well TVD 2038.0 ft
County Weld		State/Province Colorado		BHP psi	BHST 120 degF	BHCT 100 degF	Pore Press. Gradient lb/gal	
Well Master CWJN-01696		API/UWI						
Rig Name Unit 409	Drilled For Oil	Service Via Land		Casing/Liner				
				Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
Offshore Zone	Well Class New	Well Type Development		2014.0	9.6	36.0	j55	Itc
				0.0	0.0	0.0		
Drilling Fluid Type Bentonite		Max. Density lb/gal	Plastic Viscosity 8.800 cP		Tubing/Drill Pipe			
				T/D	Depth, ft	Size, in	Weight, lb/ft	Grade
Service Line Cementing	Job Type 9 5/8" Surface							
Max. Allowed Tub. Press psi	Max. Allowed Ann. Press psi	WH Connection Single Cement head		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 154.0 bbl	Packer Type	Packer Depth ft	
				Tubing Vol. bbl	Casing Vol. 152.4 bbl	Annular Vol. bbl	Openhole Vol. 175.0 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 Guide			Squeeze Type	
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>		Shoe Depth 2014.0 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 Feb/22/2016 07:30		Arrived on Location Feb/22/2016 07:30		Leave Location Feb/22/2016 11:00		Collar Type Float		Tail Pipe Depth ft
						Collar Depth 1970.7 ft		Sqz. Total Vol. bbl
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
02/22/2016	07:52:20	84	2.6	8.32	0.0	Started Acquisition		
02/22/2016	07:52:21	84	2.6	8.28	0.0	Start Job		
02/22/2016	07:52:23	86	2.7	8.19	0.0	Held JSA		
02/22/2016	07:52:29	59	1.2	8.19	0.1	Prime up Pump		
02/22/2016	07:52:37	112	2.7	8.27	0.3	Pressure Test Lines 1000, 3000psi		
02/22/2016	07:52:50	197	4.1	8.10	1.0			
02/22/2016	07:53:20	286	5.9	8.29	3.6			
02/22/2016	07:53:50	480	7.8	8.40	7.2			
02/22/2016	07:54:20	105	2.7	8.41	10.0			
02/22/2016	07:54:50	71	3.2	8.39	11.1			
02/22/2016	07:55:20	268	5.7	8.39	12.9			
02/22/2016	07:55:50	268	5.8	8.39	15.8			
02/22/2016	07:56:20	467	7.9	8.40	19.1			
02/22/2016	07:56:50	60	0.4	8.40	21.5			
02/22/2016	07:57:20	22	0.0	8.41	21.8			
02/22/2016	07:57:50	10	0.0	8.40	21.8			
02/22/2016	07:58:20	9	0.0	8.40	21.8			
02/22/2016	07:58:50	6	0.0	8.40	21.8			
02/22/2016	07:59:20	6	0.0	8.39	21.8			
02/22/2016	07:59:50	5	0.0	8.39	21.8			
02/22/2016	08:00:20	5	0.0	8.39	21.8			

Well Horsetail 07E-0604 07E-0604			Field Wildcat		Job Start Feb/22/2016		Customer Whiting		Job Number	
Date	Time 24-hr clock	Treating Pressure PSI		Flow Rate B/M	Density LB/G		Volume BBL		Message	
02/22/2016	08:01:20	5		0.0	8.39		0.0			
02/22/2016	08:01:50	1		0.0	8.39		0.0			
02/22/2016	08:02:20	1		0.0	8.39		0.0			
02/22/2016	08:02:50	14		0.0	8.40		0.5			
02/22/2016	08:03:20	13		0.0	8.40		0.5			
02/22/2016	08:03:50	12		0.0	8.39		0.5			
02/22/2016	08:04:20	11		0.0	8.39		0.5			
02/22/2016	08:04:50	11		0.0	8.40		0.5			
02/22/2016	08:05:20	58		3.4	8.39		1.3			
02/22/2016	08:05:50	90		3.3	8.39		2.6			
02/22/2016	08:06:20	44		0.9	8.39		4.1			
02/22/2016	08:06:50	20		0.0	8.39		4.2			
02/22/2016	08:07:20	1167		0.0	8.40		4.2			
02/22/2016	08:07:50	565		0.0	8.39		4.2			
02/22/2016	08:08:20	332		0.0	8.39		4.2			
02/22/2016	08:08:50	217		0.0	8.39		4.2			
02/22/2016	08:09:20	1043		0.0	8.39		4.2			
02/22/2016	08:09:50	797		0.0	8.40		4.2			
02/22/2016	08:10:20	789		0.0	8.40		4.2			
02/22/2016	08:10:50	782		0.0	8.40		4.2			
02/22/2016	08:11:20	777		0.0	8.40		4.2			
02/22/2016	08:11:50	3684		0.0	8.40		4.2			
02/22/2016	08:12:20	3652		0.0	8.40		4.2			
02/22/2016	08:12:50	3633		0.0	8.40		4.2			
02/22/2016	08:13:20	3620		0.0	8.40		4.2			
02/22/2016	08:13:50	3022		0.0	8.40		4.2			
02/22/2016	08:14:20	2566		0.0	8.40		4.2			
02/22/2016	08:14:50	-6		0.0	8.40		4.2			
02/22/2016	08:15:20	-3		0.0	8.40		4.2			
02/22/2016	08:15:50	72		2.0	8.40		4.7			
02/22/2016	08:16:20	60		3.3	8.39		6.4			
02/22/2016	08:16:50	61		3.3	8.39		8.0			
02/22/2016	08:17:20	58		3.2	8.39		9.7			
02/22/2016	08:17:50	59		3.2	8.39		11.3			
02/22/2016	08:18:20	58		3.2	8.39		12.9		Water Sample #4640	
02/22/2016	08:18:40	60		3.2	8.39		13.9		20 bbl Water Ahead	
02/22/2016	08:18:50	60		3.1	8.39		14.4			
02/22/2016	08:19:20	58		3.1	8.39		16.0			
02/22/2016	08:19:50	59		3.1	8.39		17.6			
02/22/2016	08:20:20	59		3.1	8.39		19.1			
02/22/2016	08:20:49	60		3.0	8.39		20.6		End Water	
02/22/2016	08:20:50	61		3.0	8.39		20.6			
02/22/2016	08:21:20	118		3.1	14.11		22.5			
02/22/2016	08:21:21	120		3.0	14.12		22.6		Start Cement Slurry	
02/22/2016	08:21:26	152		2.9	14.12		22.8		Wet and Dry Sample Taken	
02/22/2016	08:21:27	125		3.0	14.11		22.9		Wet Sample Weighed	
02/22/2016	08:21:28	130		3.0	14.11		22.9		Good Returns	
02/22/2016	08:21:50	215		5.0	14.09		24.4			
02/22/2016	08:22:02	230		5.1	14.11		25.5		805 sks, 1.48 yield,	
02/22/2016	08:22:20	199		5.1	14.22		27.0			
02/22/2016	08:22:50	292		6.5	14.19		30.0			
02/22/2016	08:23:20	282		6.5	14.21		33.2			
02/22/2016	08:23:50	279		6.5	14.22		36.4			
02/22/2016	08:24:20	268		6.5	14.19		39.7			

Well Horsetail 07E-0604 07E-0604			Field Wildcat	Job Start Feb/22/2016		Customer Whiting		Job Number
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
02/22/2016	08:25:20	259	6.5	14.21	46.2			
02/22/2016	08:25:50	249	6.5	14.20	49.4			
02/22/2016	08:26:20	280	6.5	14.18	52.7			
02/22/2016	08:26:50	274	6.5	14.18	56.0			
02/22/2016	08:27:20	267	6.5	14.16	59.2			
02/22/2016	08:27:50	245	6.5	14.19	62.5			
02/22/2016	08:28:20	250	6.5	14.20	65.7			
02/22/2016	08:28:50	254	6.5	14.18	69.0			
02/22/2016	08:29:20	262	6.5	14.18	72.2			
02/22/2016	08:29:50	262	6.5	14.19	75.5			
02/22/2016	08:30:20	261	6.5	14.19	78.7			
02/22/2016	08:30:50	272	6.5	14.16	82.0			
02/22/2016	08:31:12	258	6.5	14.16	84.3	Good Returns		
02/22/2016	08:31:20	249	6.5	14.15	85.2			
02/22/2016	08:31:50	236	6.5	14.18	88.5			
02/22/2016	08:32:20	243	6.5	14.19	91.7			
02/22/2016	08:32:50	263	6.5	14.19	95.0			
02/22/2016	08:33:20	259	6.5	14.20	98.2			
02/22/2016	08:33:50	281	6.5	14.21	101.5			
02/22/2016	08:34:20	275	6.5	14.20	104.7			
02/22/2016	08:34:50	239	6.5	14.19	108.0			
02/22/2016	08:35:20	285	6.5	14.27	111.2			
02/22/2016	08:35:50	291	6.5	14.30	114.5			
02/22/2016	08:36:20	303	6.5	14.28	117.7			
02/22/2016	08:36:50	295	6.5	14.25	120.9			
02/22/2016	08:37:20	262	6.5	14.25	124.2			
02/22/2016	08:37:50	388	7.9	14.24	127.7			
02/22/2016	08:38:20	381	7.9	14.22	131.6			
02/22/2016	08:38:50	387	7.9	14.23	135.6			
02/22/2016	08:39:20	378	7.9	14.21	139.5			
02/22/2016	08:39:50	377	7.9	14.21	143.5			
02/22/2016	08:40:20	358	7.9	14.23	147.5			
02/22/2016	08:40:50	382	7.9	14.22	151.4			
02/22/2016	08:41:20	388	7.9	14.21	155.4			
02/22/2016	08:41:50	357	7.9	14.21	159.4			
02/22/2016	08:42:20	370	7.9	14.22	163.3			
02/22/2016	08:42:50	367	7.9	14.23	167.3			
02/22/2016	08:43:20	388	7.9	14.21	171.2			
02/22/2016	08:43:50	367	7.9	14.20	175.2			
02/22/2016	08:44:20	372	7.9	14.22	179.2			
02/22/2016	08:44:50	360	7.9	14.24	183.1			
02/22/2016	08:45:20	376	7.9	14.21	187.1			
02/22/2016	08:45:50	360	8.0	14.22	191.1			
02/22/2016	08:46:20	361	7.9	14.21	195.0			
02/22/2016	08:46:50	363	8.0	14.27	199.0			
02/22/2016	08:47:20	360	7.9	14.29	203.0			
02/22/2016	08:47:50	379	7.9	14.31	206.9			
02/22/2016	08:48:20	361	7.9	14.28	210.9			
02/22/2016	08:48:50	374	7.9	14.31	214.9			
02/22/2016	08:49:20	377	7.9	14.32	218.9			
02/22/2016	08:49:50	362	7.9	14.31	222.8			
02/22/2016	08:50:20	367	7.9	14.31	226.8			
02/22/2016	08:50:50	401	7.9	14.37	230.8			
02/22/2016	08:51:20	426	7.9	14.37	234.7			

Well Horsetail 07E-0604 07E-0604			Field Wildcat	Job Start Feb/22/2016		Customer Whiting	Job Number
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
02/22/2016	08:52:20	443	7.9	14.29	242.6		
02/22/2016	08:52:50	448	7.9	14.27	246.5		
02/22/2016	08:53:20	131	5.9	14.25	250.5	End Cement Slurry	
02/22/2016	08:53:23	18	3.2	14.31	250.7	Reset Total, Vol = 225 bbl	
02/22/2016	08:53:24	18	2.0	14.34	250.8	Drop Top Plug	
02/22/2016	08:53:28	17	0.4	14.36	250.9	Washup Pump	
02/22/2016	08:53:50	13	0.0	14.33	250.9		
02/22/2016	08:54:20	11	0.0	14.30	250.9		
02/22/2016	08:54:50	11	0.0	14.29	250.9		
02/22/2016	08:55:20	13	0.0	14.28	250.9		
02/22/2016	08:55:50	13	0.0	14.28	250.9		
02/22/2016	08:56:20	13	0.0	14.27	250.9		
02/22/2016	08:57:20	15	0.0	14.27	250.9		
02/22/2016	08:57:50	19	0.0	14.25	250.9		
02/22/2016	08:58:20	19	0.0	14.14	250.9		
02/22/2016	08:58:50	20	0.0	14.00	250.9		
02/22/2016	08:59:20	20	0.0	14.19	250.9		
02/22/2016	08:59:50	20	0.0	13.94	250.9		
02/22/2016	09:00:20	31	1.7	9.47	251.1		
02/22/2016	09:00:50	82	4.1	9.24	252.5		
02/22/2016	09:01:20	76	4.4	9.07	254.7		
02/22/2016	09:01:50	76	4.4	8.91	256.9		
02/22/2016	09:02:20	71	4.5	8.87	259.1		
02/22/2016	09:02:50	71	4.4	8.80	261.3		
02/22/2016	09:03:20	69	4.5	8.74	263.5		
02/22/2016	09:03:50	67	4.5	8.70	265.7		
02/22/2016	09:04:20	71	4.5	8.70	268.0		
02/22/2016	09:04:50	66	4.4	8.67	270.2		
02/22/2016	09:05:50	104	5.2	8.98	274.9		
02/22/2016	09:06:20	143	6.5	9.02	277.5		
02/22/2016	09:06:50	173	6.5	8.95	280.8		
02/22/2016	09:07:20	131	6.5	8.83	284.1		
02/22/2016	09:07:50	183	6.5	8.81	287.3		
02/22/2016	09:08:20	231	6.5	8.80	290.6		
02/22/2016	09:08:50	241	6.5	8.83	293.8		
02/22/2016	09:09:20	246	6.5	8.84	297.1		
02/22/2016	09:09:50	323	6.5	8.84	300.4		
02/22/2016	09:10:20	334	6.5	8.83	303.6		
02/22/2016	09:10:50	326	6.5	8.83	306.9		
02/22/2016	09:11:20	367	6.5	8.83	310.1		
02/22/2016	09:11:50	332	6.5	8.83	313.4		
02/22/2016	09:12:20	439	6.5	8.83	316.6		
02/22/2016	09:12:50	445	6.5	8.83	319.9		
02/22/2016	09:13:20	384	6.5	8.83	323.1		
02/22/2016	09:13:50	471	6.5	8.83	326.4		
02/22/2016	09:14:20	499	6.5	8.83	329.6		
02/22/2016	09:14:50	439	6.5	8.83	332.9		
02/22/2016	09:15:20	515	6.5	8.83	336.1		
02/22/2016	09:15:50	513	6.5	8.83	339.4		
02/22/2016	09:16:14	470	6.5	8.83	342.0	Cement to Surface, 90 Bbl Away	
02/22/2016	09:16:20	458	6.5	8.83	342.6		
02/22/2016	09:16:35	560	6.5	8.83	344.2	62 Bbl Cement to Surface	
02/22/2016	09:16:50	477	6.5	8.82	345.9		
02/22/2016	09:17:20	583	6.4	8.83	349.1		

Well Horsetail 07E-0604 07E-0604			Field Wildcat	Job Start Feb/22/2016		Customer Whiting		Job Number
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
02/22/2016	09:18:20	573	6.5	8.83	355.6			
02/22/2016	09:18:50	612	6.5	8.83	358.8			
02/22/2016	09:19:20	549	6.5	8.84	362.1			
02/22/2016	09:19:50	548	6.5	8.83	365.3			
02/22/2016	09:20:20	646	6.5	8.83	368.5			
02/22/2016	09:20:50	569	6.5	8.83	371.8			
02/22/2016	09:21:20	627	6.5	8.83	375.0			
02/22/2016	09:21:50	679	6.4	8.82	378.2			
02/22/2016	09:22:20	700	6.5	8.83	381.5			
02/22/2016	09:22:50	612	6.5	8.83	384.7			
02/22/2016	09:23:20	683	6.5	8.83	388.0			
02/22/2016	09:23:50	588	3.9	8.43	390.6			
02/22/2016	09:24:20	575	4.0	8.44	392.6			
02/22/2016	09:24:50	603	3.9	8.44	394.6			
02/22/2016	09:25:20	615	3.9	8.44	396.6			
02/22/2016	09:25:50	630	3.9	8.44	398.5			
02/22/2016	09:26:20	620	3.9	8.42	400.5			
02/22/2016	09:26:50	653	2.5	8.42	401.9			
02/22/2016	09:27:20	512	2.5	8.42	403.2			
02/22/2016	09:27:50	636	2.5	8.42	404.5			
02/22/2016	09:28:20	536	2.5	8.42	405.7			
02/22/2016	09:28:50	536	2.5	8.42	407.0			
02/22/2016	09:29:20	671	2.5	8.42	408.2			
02/22/2016	09:29:50	542	2.5	8.42	409.5			
02/22/2016	09:30:20	600	2.5	8.42	410.7			
02/22/2016	09:30:50	558	2.5	8.41	412.0			
02/22/2016	09:31:20	549	2.5	8.41	413.2			
02/22/2016	09:31:50	703	2.5	8.41	414.5			
02/22/2016	09:32:20	583	2.5	8.41	415.7			
02/22/2016	09:32:50	643	2.5	8.41	417.0			
02/22/2016	09:33:20	528	0.0	8.41	417.6			
02/22/2016	09:33:50	520	0.0	8.41	417.6			
02/22/2016	09:34:20	518	0.0	8.41	417.6			
02/22/2016	09:34:50	518	0.0	8.42	417.6			
02/22/2016	09:35:20	516	0.0	8.42	417.6			
02/22/2016	09:35:50	555	0.6	8.41	417.6			
02/22/2016	09:36:20	578	1.0	8.41	418.1			
02/22/2016	09:36:50	531	0.0	8.41	418.3			
02/22/2016	09:37:20	518	0.0	8.41	418.3			
02/22/2016	09:37:50	514	0.0	8.41	418.3			
02/22/2016	09:38:20	512	0.0	8.42	418.3			
02/22/2016	09:38:50	511	0.0	8.42	418.3			
02/22/2016	09:39:20	509	0.0	8.42	418.3			
02/22/2016	09:39:50	509	0.0	8.42	418.3			
02/22/2016	09:40:20	508	0.0	8.42	418.3			
02/22/2016	09:40:50	556	0.5	8.41	418.3			
02/22/2016	09:41:20	573	1.0	8.41	418.8			
02/22/2016	09:41:50	552	1.0	8.41	419.3			
02/22/2016	09:42:20	527	0.0	8.41	419.5			
02/22/2016	09:42:50	511	0.0	8.41	419.5			
02/22/2016	09:43:20	506	0.0	8.41	419.5			
02/22/2016	09:43:50	504	0.0	8.41	419.5			
02/22/2016	09:44:20	502	0.0	8.41	419.5			
02/22/2016	09:44:50	500	0.0	8.41	419.5			

Well Horsetail 07E-0604 07E-0604			Field Wildcat		Job Start Feb/22/2016	Customer Whiting		Job Number
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
02/22/2016	09:45:50	497	0.0	8.41	419.5			
02/22/2016	09:46:04	497	0.0	8.41	419.5	152.4 Away, did not bump, 650 psi		
02/22/2016	09:46:20	496	0.0	8.41	419.5			
02/22/2016	09:46:24	496	0.0	8.42	419.5	2 Bbl Pumped, did not Bump		
02/22/2016	09:46:50	494	0.0	8.41	419.5			
02/22/2016	09:47:05	493	0.0	8.41	419.5	154.2 Bbl Pumped		
02/22/2016	09:47:20	490	0.0	8.41	419.5			
02/22/2016	09:47:37	3	0.0	8.41	419.5	Floats Hold, 0.5 Bbl Back		
02/22/2016	09:47:50	4	0.0	8.41	419.5			

### Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 5.5	N2	Mud	Maximum Rate 8.0	Total Slurry 225.0	Mud 0.0	Spacer 0.0	N2	
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 3702	Final 5	Average 400	Bump Plug to	Breakdown	Type	Volume bbl	Density lb/gal	
Avg. N2 Percent %	Designed Slurry Volume 212.0 bbl	Displacement 154.4 bbl	Mix Water Temp 67 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>	Washed Thru Perfs <input type="checkbox"/>	Volume 62.0 bbl	To ft	
Customer or Authorized Representative Tyson Renton			Schlumberger Supervisor Ryan Drilling/Matt Leiker			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>	
						-	-	