

# CEMENT JOB REPORT



<b>CUSTOMER</b> CARRIZO OIL & GAS INC XML				<b>DATE</b> 12-JUN-13		<b>F.R. #</b> 1001993612		<b>SERV. SUPV.</b> JASON L SJOBERG						
<b>LEASE &amp; WELL NAME</b> PERGAMOS 1-4-34-7-60 - API 05123363380000				<b>LOCATION</b> 4-7N-60W				<b>COUNTY-PARISH-BLOCK</b> Weld Colorado						
<b>DISTRICT</b> Brighton				<b>DRILLING CONTRACTOR RIG #</b> Xtreme Coil #19				<b>TYPE OF JOB</b> Liner						
<b>SIZE &amp; TYPE OF PLUGS</b>		<b>LIST-CSG-HARDWARE</b>		<b>MECHANICAL BARRIERS</b>		<b>MD</b>	<b>TVD</b>	<b>HANGER TYPES</b>		<b>MD</b>	<b>TVD</b>			
Dart For Plug Catcher, 4-1/2 In		Float Collar, Auto Fill, 4-1/2 - 8rd		Liner Packer		5680	5680	Liner	5680	5680				
		Guide Shoe, Cement Nose, 4-1/2 i												
		Centralizer, with Pins, 4-1/2 in												
<b>MATERIALS FURNISHED BY BJ</b>				<b>LAB REPORT NO.</b>				<b>PHYSICAL SLURRY PROPERTIES</b>						
								<b>SACKS OF CEMENT</b>	<b>SLURRY WGT PPG</b>	<b>SLURRY YLD FT<sup>3</sup></b>	<b>WATER GPS</b>	<b>PUMP TIME HR:MIN</b>	<b>Bbl SLURRY</b>	<b>Bbl MIX WATER</b>
Fresh Water				0				8.34	0	0	00:00	20		
50:50 (Class G:Poz) + adds				C0604213				64	13	1.76	8.87	03:49	20.06	13.52
Fresh Water				0				8.34	0	0	00:00	138.44		
Acid Sol. 50:50 (Poz:Class G)				C0604213				255	14.5	1.87	7.96	02:22	84.99	48.33
SealBond + SB Plus				0				10	0	0	00:00	20		
<b>Available Mix Water</b> 500 <b>Bbl.</b>				<b>Available Displ. Fluid</b> 500 <b>Bbl.</b>				<b>TOTAL</b>				283.49	61.84	
<b>HOLE</b>			<b>TBG-CSG-D.P.</b>							<b>COLLAR DEPTHS</b>				
<b>SIZE</b>	<b>% EXCESS</b>	<b>DEPTH</b>	<b>ID</b>	<b>OD</b>	<b>WGT.</b>	<b>TYPE</b>	<b>MD</b>	<b>TVD</b>	<b>GRADE</b>	<b>SHOE</b>	<b>FLOAT</b>	<b>STAGE</b>		
6.125	0	10820	6.366	7	23	CSG	6365	6365	P-110	10815	10712	0		
			1	4.5	11.6	CSG	10815	10815	P-110					
<b>LAST CASING</b>			<b>PKR-CMT RET-BR PL-LINER</b>				<b>PERF. DEPTH</b>		<b>TOP CONN</b>		<b>WELL FLUID</b>			
<b>ID</b>	<b>OD</b>	<b>WGT</b>	<b>TYPE</b>	<b>MD</b>	<b>TVD</b>	<b>BRAND &amp; TYPE</b>	<b>DEPTH</b>	<b>TOP</b>	<b>BTM</b>	<b>SIZE</b>	<b>THREAD</b>	<b>WGT.</b>		
						liner	5680			4	XT39	9.6		
<b>DISPL. VOLUME</b>		<b>DISPL. FLUID</b>		<b>CAL. PSI</b>	<b>CAL. MAX PSI</b>	<b>OP. MAX</b>	<b>MAX TBG PSI</b>		<b>MAX CSG PSI</b>		<b>MIX WATER</b>			
<b>VOLUME</b>	<b>UOM</b>	<b>TYPE</b>	<b>WGT.</b>	<b>BUMP PLUG</b>	<b>TO REV.</b>	<b>SQ. PSI</b>	<b>RATED</b>	<b>Operator</b>	<b>RATED</b>	<b>Operator</b>				
138.4	BBLS	Fresh Water	8.34	439	543	0	0	0	8552	4500	RIG TANK			
<b>Circulation Prior to Job</b>														
Circulated Well: Rig <input checked="" type="checkbox"/> BJ <input type="checkbox"/>						Circulation Time: 1			Circulation Rate: 5 BPM					
Mud Density In: 9.6 LBS/GAL Mud Density Out: 9.6 LBS/GAL						PV & YP Mud In: 19			PV & YP Mud Out: 19					
Gas Present: NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> Units:						Solids Present at End of Circulation: NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>								
<b>Displacement And Mud Removal</b>														
Displaced By: Rig <input type="checkbox"/> BJ <input checked="" type="checkbox"/>						Amount Bled Back After Job: 1.5 BBLS								
Returns During Job: <input type="checkbox"/> NONE <input type="checkbox"/> PARTIAL <input checked="" type="checkbox"/> FULL						Method Used to Verify Returns: VISUAL								
Cement Returns at Surface: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO						Were Returns Planned at Surface: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES								
Pipe Movement: <input type="checkbox"/> ROTATION <input checked="" type="checkbox"/> RECIPROICATION <input type="checkbox"/> NONE <input type="checkbox"/> UNABLE DUE TO STUCK PIPE														
Centralizers: <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES						Quantity: 70			Type: <input type="checkbox"/> BOW <input type="checkbox"/> RIGID					
Job Pumped Through: <input type="checkbox"/> CHOKE MANIFOLD <input type="checkbox"/> SQUEEZE MANIFOLD <input type="checkbox"/> MANIFOLD <input checked="" type="checkbox"/> NO MANIFOLD														
<b>Plugs</b>														
Number of Attempts by BJ: 0 Competition: 0						Wiper Balls Used: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Quantity:								
Plug Catcher Used: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES						Parabow Used: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES								
Was There a Bottom: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES						Top of Plug: 0 FT			Bottom of Plug: 0 FT					
<b>Squeezes (Update Original Treatment Report for Primary Job)</b>														
BLOCK SQUEEZE <input type="checkbox"/>		SHOE SQUEEZE <input type="checkbox"/>		TOP OF LINER SQUEEZE <input type="checkbox"/>		PLANNED <input type="checkbox"/>		UNPLANNED <input type="checkbox"/>						
Liner Packer: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES		Bond Log: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES		PSI Applied: 0		Fluid Weight: 0 LBS/GAL								
<b>Casing Test (Update Original Treatment Report for Primary Job)</b>														
Casing Test Pressure: 0 PSI With 0 LBS/GAL Mud						Time Held: 00 Hours 00 Minutes								

# CEMENT JOB REPORT



## Shoe Test (Update Original Treatment Report for Primary Job)

Depth Drilled out of Shoe: 0 FT Target EMW: 0 LBS/GAL Actual EMW: 0 LBS/GAL  
 Number of Times Tests Conducted: 0 Mud Weight When Test was Conducted: 0 LBS/GAL

Problems Before Job (I.E. Running Casing, Circulating Well, ETC)

Vac truck on location did not operate properly. Rig had to call out for another truck before starting the cement job.

Problems During Job (I.E. Lost Returns, Equipment Failure, Bulk Delivery, Foaming, ETC)

NONE

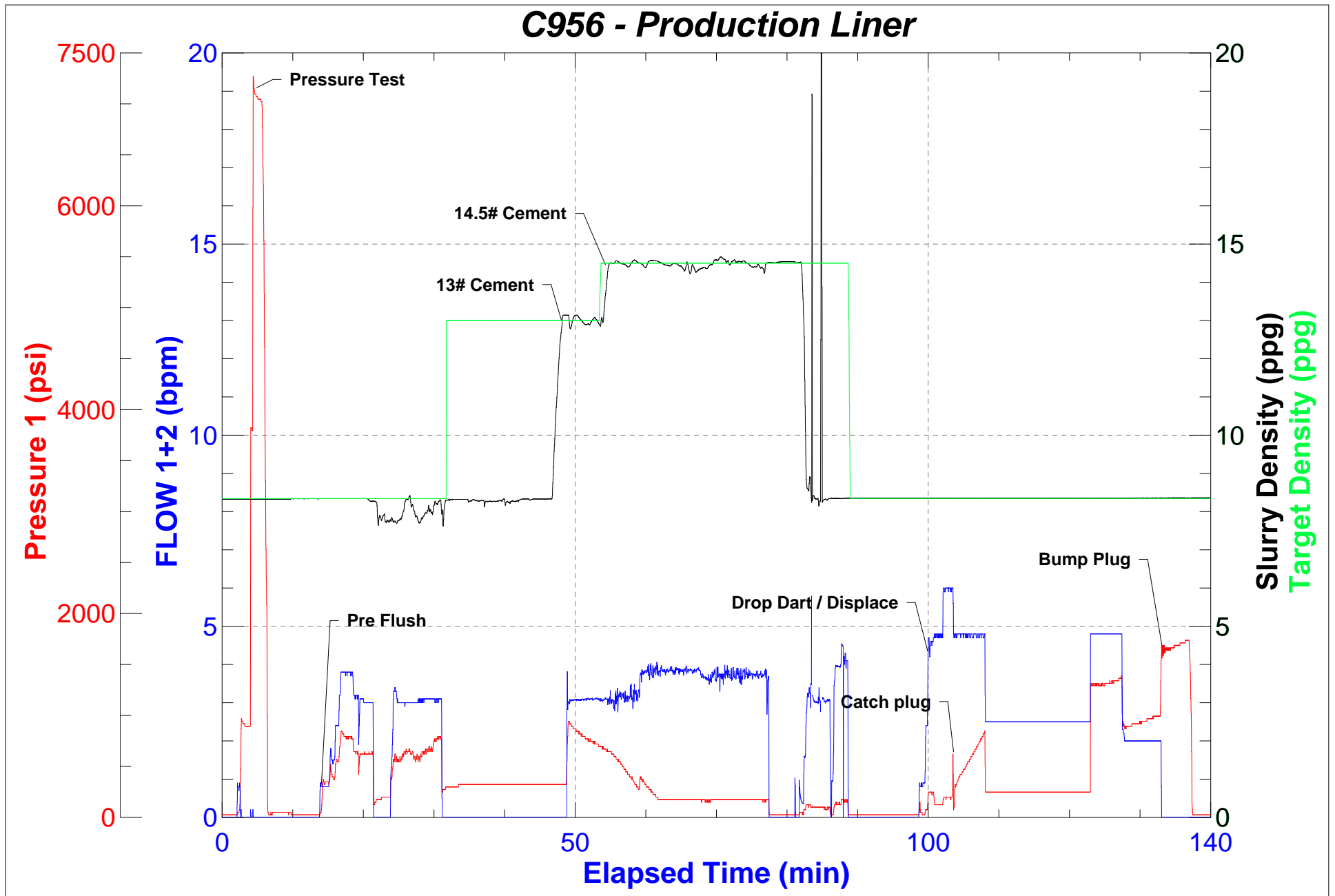
Problems After Job (I.E. Gas at Surface, Float Equipment Failed, ETC)

NONE

EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING: NONE

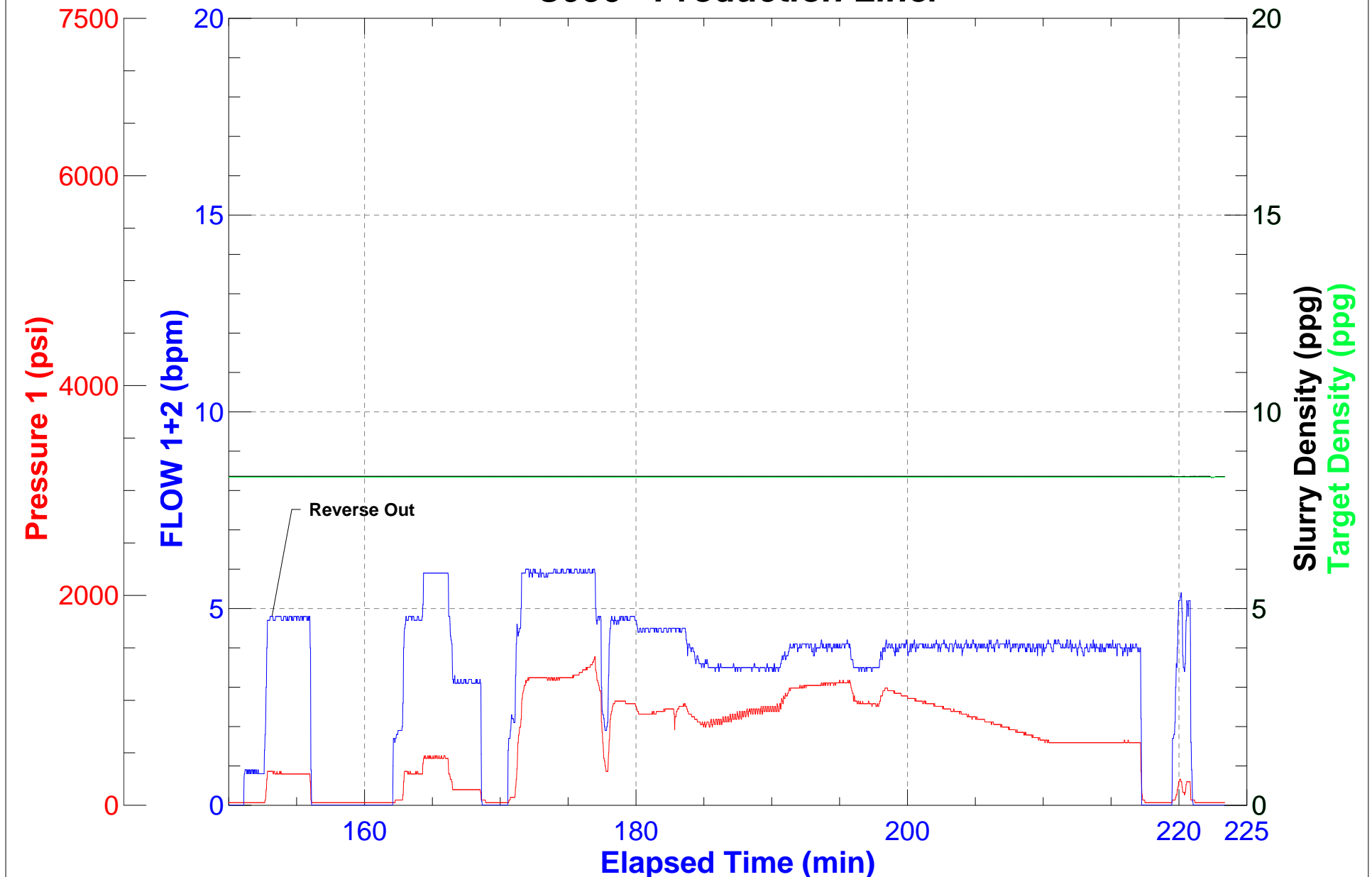
PRESSURE/RATE DETAIL						EXPLANATION	
TIME HR:MIN.	PRESSURE - PSI		RATE BPM	Bbl. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW <input checked="" type="checkbox"/> CO. REP. <input checked="" type="checkbox"/>	
	PIPE	ANNULUS				TEST LINES 7171 PSI	
						CIRCULATING WELL - RIG <input checked="" type="checkbox"/> BJ <input type="checkbox"/>	
14:00	0	0	0	0	N/A	LEAVE DISTRICT	
15:30	0	0	0	0	N/A	ARRIVE LOCATION, 78 MILES	
15:45	0	0	0	0	N/A	SPOT TRUCKS	
15:55	0	0	0	0	N/A	PRE RIG UP SAFETY MEETING	
17:50	0	0	0	0	N/A	PRE JOB SAFETY MEETING	
18:37	7171	0	.4	.3	H2O	PRESSURE TEST	
20:17	714	0	3.8	20	H2O	PRE FLUSH FRESH WATER	
20:24	621	0	3	20	H2O	PRE FLUSH SEAL BOND	
20:45	844	0	3	18.7	CMT	BATCH/WEIGH/PUMP @ 13 PPG 50:50 (Poz:Class G) + .3% bwoc FL-63 + .4% bwoc FL-52 + .6% bwoc ASA-301 + 2% bwoc Bentonite + .2% bwoc SMS + .3% bwoc BA-59 + 10lbs/sack CSE-2	
20:55	596	0	3.7	82.5	CMT	PUMP @ 14.5 PPG 50:50 (Poz:Class G) + .3% bwoc R-3 + .5% bwoc FL-62 + .3% SMS + 2% bwoc Bentonite(sacked) + .2% bwoc SMS + .3% bwoc BA-59 + 10lbs/sack CSE-2 + 40 lbs/sack ASCA-1	
21:35	0	0	0	0	N/A	DROP DART	
21:42	877	0	4.8	43	H2O	DISPLACEMENT	
21:48	472	0	2	10	H2O	SLOW RATE	
21:53	1100	0	2	53	H2O	PICK UP WIPER PLUG	
21:54	1315	0	4.8	68	H2O	INCREASE RATE	
22:07	894	0	2	11	H2O	SLOW RATE	
22:13	1005	0	2	132	H2O	BUMP PLUG	
22:18	1663	0	0	0	H2O	CHECK FLOATS	
22:25	0	0	0	0	N/A	RIG PUSH/ PULL TEST	
22:31	0	1092	6	230	H2O	REVERSE OUT	
23:38	0	0	0	0	N/A	POST JOB SAFETY MEETING	
BUMPED PLUG <input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PSI TO BUMP PLUG 1005	TEST FLOAT EQUIP. <input type="checkbox"/> Y <input checked="" type="checkbox"/> N	BBL.CMT RETURNS/ REVERSED 5	TOTAL BBL. PUMPED 563	PSI LEFT ON CSG 0	SPOT TOP OUT CEMENT Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	Service Supervisor Signature:

## C956 - Production Liner





## C956 - Production Liner





# CEMENTING LABORATORY REPORT

Lab Report #C0603613

COMPANY :	Carrizo Oil & Gas Inc	DATE:	June 8, 2013
WELL NAME:	Pergamos 1-4-34-7-60	LOCATION:	Weld County, Colorado
DISTRICT:	Brighton	TYPE JOB:	Liner
API #	05-123-36338-0000	TOC(md):	
DEPTH MD(ft):	10,684 ft	BHST(°F):	185 °F
CASING SIZE("):	4 1/2 in	BHCT(°F):	175 °F
TUBING SIZE("):	4 in	BHSqT(°F):	
HOLE SIZE("):	6 1/8 in	TOL (°F):	Static Circ

## SLURRY DESIGN DATA

#1	Lead Slurry : (50:50) Poz:Class G Cement + 2% Bentonite + 0.4% FL-52 + 0.3% BA-59 + 10 lbs/sk CSE-2 + 0.3% FL-63 + 0.6% ASA-301 + 0.2% Sodium Metasilicate
#2	Tail Slurry : (50:50) Poz:Class G Cement + 0.5% FL-62 + 2% Bentonite + 0.3% Sodium Metasilicate + 10 lbs/sk CSE-2 + 40lbs/sk ASCA-1 + 0.3% R-3
#3	

SLURRY PROPERTIES			#1	#2	#3
Density : ppg			13.00	14.50	
Yield :cu.ft./sk.			1.76	1.87	
Mixing Water: gal/sk.			8.87	7.96	
Water Type:			Fresh	Fresh	
Testing Temperature :			179 °F	176 °F	
Thickening Time: hrs:mins.			3:49	2:22	
Free Water: mls.				trace	
Fluid Loss:ml/30min				104	
Compressive Strength:					
		hrs.			
		hrs.			
Rheologies		RPM		80 °F	175 °F
		300		191	166
		200		145	216
		100		89	167
		6		26	108
		3		22	28
		600			
		PV		172	123
		YP		26	93
Gel Strength : #/100sq.ft.		10 sec.		24	26
		10 min.		90	52

REMARKS :	
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