CEMENT JOB REPORT

BAKER HUGHES

CUSTOMER WHITING OIL & GAS CORP XM	**DATE** 19-MAY-16	**F.R. #** 10011198315	**SERV. SUPV.** STEPHEN J CARDOS
LEASE & WELL NAME HORSETAIL #07H-1815 - API 05123418310000	**LOCATION**		**COUNTY-PARISH-BLOCK** Weld Colorado
DISTRICT Brighton	**DRILLING CONTRACTOR RIG #** UNIT 406		**TYPE OF JOB** Long String

SIZE & TYPE OF PLUGS	LIST-CSG-HARDWARE	MECHANICAL BARRIERS	MD	TVD	HANGER TYPES	MD	TVD
5-1/2" Top Cem Plug, Nitrile cvr, Phe	Float Collar, Auto Fill, 5-1/2 - 8rd	N/A	0	0	N/A	0	0
	Float Shoe 5-1/2 - 8rd						

MATERIALS FURNISHED BY BJ	LAB REPORT NO.	SACKS OF CEMENT	SLURRY WGT PPG	SLURRY YLD FT3	WATER GPS	PUMP TIME HR:MIN	Bbl SLURRY	Bbl MIX WATER
		PHYSICAL SLURRY PROPERTIES						
Ultra Flush HV Spacer System	N/A	0	11	0	0	00:00	48	
Fresh Water	N/A	0	8.34	0	0	00:00	10	
Premium Lite High Strength RM + Adds		700	13	1.90	9.75	00:78	233	159.72
(50:50) Poz:Class G Cement + Adds		1,682	14	1.40	6.33	05:15	415	250.97
FW + FC1000 + Xcide 725 + Corrhib 132 + FP13L		0	8.34	0	0	00:00	293	
						TOTAL	999	410.70

Available Mix Water 1000 **Bbl.** **Available Displ. Fluid** 1000 **Bbl.**

HOLE SIZE	% EXCESS	DEPTH	TBG-CSG-D.P. ID	OD	WGT.	TYPE	MD	TVD	GRADE	COLLAR DEPTHS SHOE	FLOAT	STAGE
8.5	15	13808	4.778	5.5	20	CSG	13260	5750	P-110	13260	13212	

LAST CASING ID	OD	WGT	TYPE	MD	TVD	PKR-CMT RET-BR PL-LINER BRAND & TYPE	DEPTH	PERF. DEPTH TOP	BTM	TOP CONN SIZE	THREAD	WELL FLUID TYPE	WGT.
8.9	9.63	36	CSG	2050	2050	NO PACKER	0	0	0	5.5	BUTT	WATER BASED	10.5

DISPL. VOLUME VOLUME	UOM	DISPL. FLUID TYPE	WGT.	CAL. PSI BUMP PLUG	CAL. MAX PSI TO REV.	OP. MAX SQ. PSI	MAX TBG PSI RATED	Operator	MAX CSG PSI RATED	Operator	MIX WATER
293	BBLS	FW + FC1000 + Xcid	8.34	156	0	0	0	0	12640	10112	RIG TANK

Circulation Prior to Job

Circulated Well: Rig [X] BJ [ ] | Circulation Time: 2 | Circulation Rate: 6 BPM

Mud Density In: 10.5 LBS/G | Mud Density Out: 10.5 LBS/GAL | PV & YP Mud In: | PV & YP Mud Out:

Gas Present: NO [X] YES [ ] Units: | Solids Present at End of Circulation: NO [X] YES [ ]

Displacement And Mud Removal

Displaced By: Rig [ ] BJ [X] | Amount Bled Back After Job: 1 BBLS

Returns During Job: [ ] NONE [ ] PARTIAL [X] FULL | Method Used to Verify Returns: VISUAL

Cement Returns at Surface: [ ] YES [X] NO | Were Returns Planned at Surface: [X] NO [ ] YES

Pipe Movement: [ ] ROTATION [ ] RECIPROCATION [X] NONE [ ] UNABLE DUE TO STUCK PIPE

Centralizers: [X] NO [ ] YES | Quantity: | Type: [X] BOW [ ] RIGID

Job Pumped Through: [ ] CHOKE MANIFOLD [ ] SQUEEZE MANIFOLD [X] MANIFOLD [ ] NO MANIFOLD

Plugs

Number of Attempts by BJ: 0 | Competition: 0 | Wiper Balls Used: [X] NO [ ] YES Quantity:

Plug Catcher Used: [X] NO [ ] YES | Parabow Used: [X] NO [ ] YES

Was There a Bottom: [X] NO [ ] YES | Top of Plug: 0 FT | Bottom of Plug: 0 FT

Squeezes (Update Original Treatment Report for Primary Job)

BLOCK SQUEEZE [ ] SHOE SQUEEZE [ ] TOP OF LINER SQUEEZE [ ] PLANNED [ ] UNPLANNED [X]

Liner Packer: [X] NO [ ] YES | Bond Log: [X] NO [ ] YES | PSI Applied: 0 | Fluid Weight: 0 LBS/GAL

Casing Test (Update Original Treatment Report for Primary Job)

Casing Test Pressure: 0 PSI With 0 LBS/GAL Mud | Time Held: 00 Hours 00 Minutes

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

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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)
NONE

Problems During Job (I.E. Lost Returns, Equipment Failure, Bulk Delivery, Foaming, ETC)
NONE

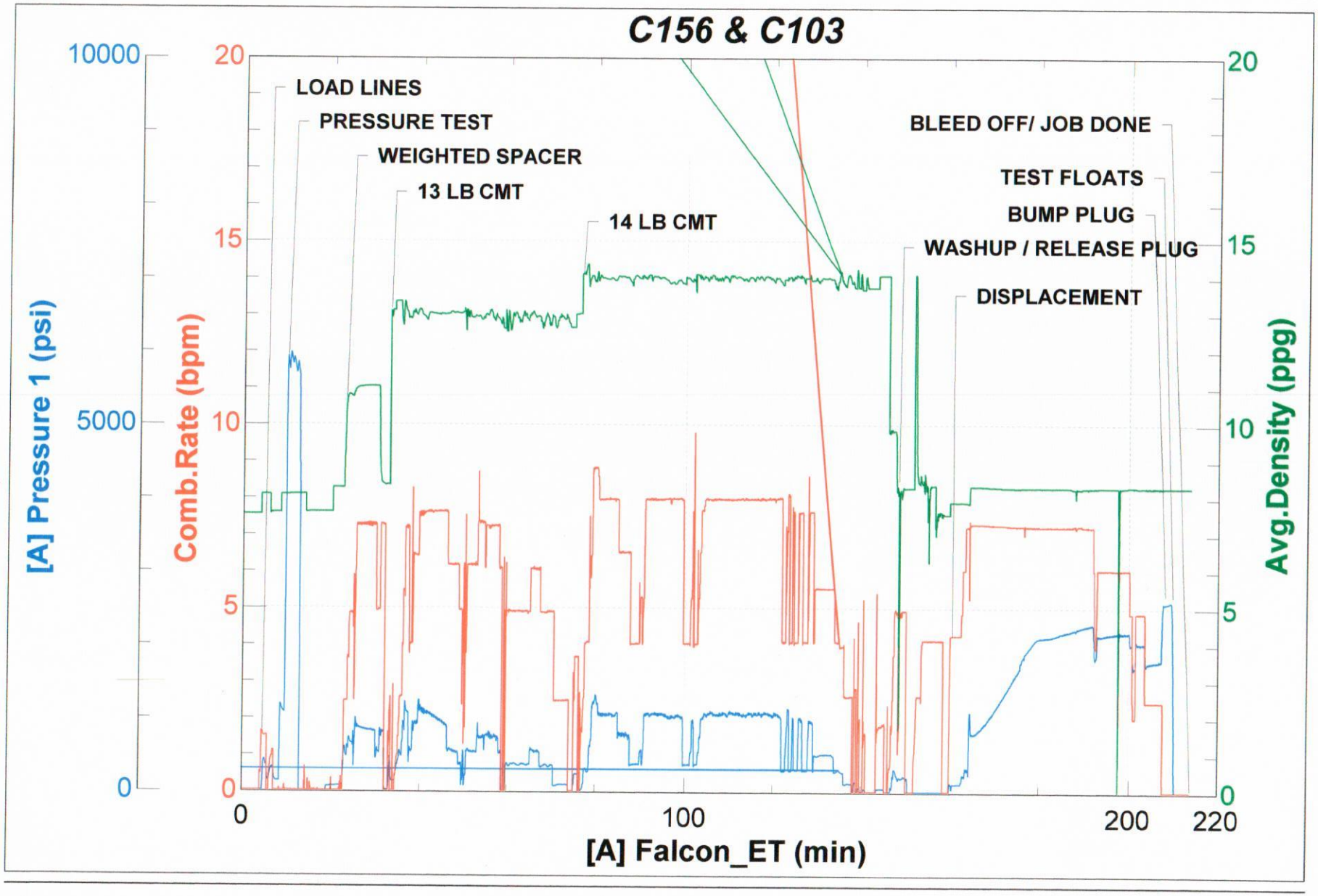
Problems After Job (I.E. Gas at Surface, Float Equipment Failed, ETC)
NONE

PRESSURE/RATE DETAIL						EXPLANATION
TIME HR:MIN.	PRESSURE - PSI PIPE	PRESSURE - PSI ANNULUS	RATE BPM	Bbl. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW [X] CO. REP. [X]
						TEST LINES 5930 PSI
						CIRCULATING WELL - RIG [X] BJ [ ]
20:00	0	0	0	0	N/A	LEAVE YARD
22:30	0	0	0	0	N/A	ARRIVE ON LOCATION
23:15	0	0	0	0	N/A	SPOT TRUCKS(WAIT TO SPOT CEMENT HEAD)
23:40	0	0	0	0	N/A	PRE RIG UP SAFETY MEETING
01:56	0	0	0	0	N/A	SAFETY MEETING(WAIT FOR RIG TO FINISH CIRCULATION)
02:50	5930	0	0	0	N/A	PRESSURE TEST
03:04	890	0	7.2	48	H2O	ULTRA FLUSH SPACER
03:13	795	0	7.2	10	H2O	FRESH WATER SPACER(SENT FIRST PLUG AT END OF SPACER)
03:14	1073	0	7.2	233	CMT	BATCH/WEIGH/PUMP 13.0 LB CEMENT
04:01	1169	0	7.2	415	CMT	BATCH/WEIGH/PUMP 14.0 LB CEMENT
05:11	0	0	0	0	H2O	DOWN/WASH UP PUMPS/RELEASE TOP PLUG
05:23	793	0	7.2	230	H2O	DISPLACEMENT
05:57	2126	0	6	260	H2O	DROP RATE(CALLED CEMENT AT 210-BELIEVE WAS JUST ULTRA UNTIL 270)
06:04	1990	0	4.8	280	H2O	DROP RATE
06:08	1716	0	2.4	293	H2O	DROP RATE
06:12	2514	0	0	293	H2O	BUMP PLUG
06:13	0	0	0	0	H2O	TEST FLOATS
06:15	0	0	0	0	N/A	BLEED OFF PRESSURE/JOB DONE

BUMPED PLUG	PSI TO BUMP PLUG	TEST FLOAT EQUIP.	BBL.CMT RETURNS/ REVERSED	TOTAL BBL. PUMPED	PSI LEFT ON CSG	SPOT TOP OUT CEMENT	Service Supervisor Signature:
[Y] N	2514	[Y] N	83	1001	0	Y [N]	

Baker Hughes JobMaster Program Version 4.02

Job Number: 10011198315
Customer: WHITING PETROLEUM
Well Name: HORSE TAIL 07H-1815



Job Start: Friday, May 20, 2016