

HALLIBURTON

iCem[®] Service

TAPSTONE ENERGY LLC

For:

Date: Monday, January 05, 2015

croft farms 3407 31-1h

Case 1

Sincerely,

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1.0 Job Design

1.1 Time of Stages

Graph Label	Time (min)	Stage Starts Pumping	Stage Enters Annulus
①	0	Bump Plug	
②	0	Check Floats	
③	0	Slow Rate	
④	0	Drop Bottom Plug	

2.0 Hydraulics Summary

3.0 Temperature Modeling

4.0 Real-Time Job Summary

4.1 Stage Summary - Liquid Volume, Density, & Design Shutdown

4.2 Stage Summary - Pump Pressure & ECD

4.3 Stage Summary - Pump Rate & Nitrogen Rate

4.4 Shutdown Summary

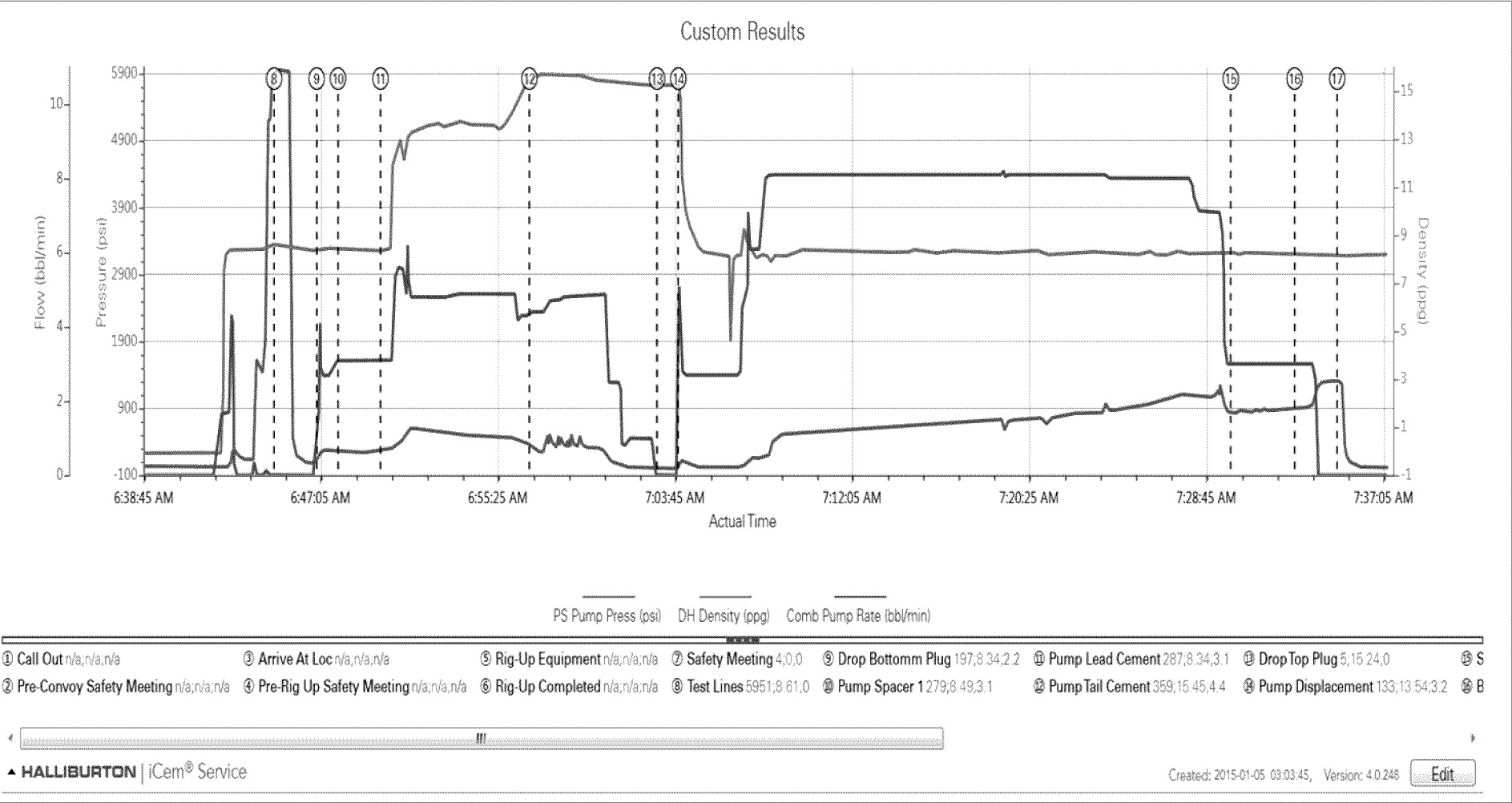
4.5 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	1/4/2015	15:00:00	USER				requested 22:00
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/4/2015	18:30:00	USER				stay on route, use smith driving skills
Event	3	Arrive At Loc	Arrive At Loc	1/4/2015	20:00:00	USER				wait on casing to be run, first set of pipe racks to be moved
Event	4	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	1/5/2015	01:30:00	USER				stay clear of line of fire, watchfooting on icy area
Event	5	Rig-Up Equipment	Rig-Up Equipment	1/5/2015	01:40:00	USER				
Event	6	Rig-Up Completed	Rig-Up Completed	1/5/2015	02:30:00	USER				wait on rest of casing to be run
Event	7	Safety Meeting	Safety Meeting	1/5/2015	06:10:00	USER				stay clear of red zone, don;t hammer on pressurized iron
Event	8	Test Lines	Test Lines	1/5/2015	06:45:00	COM5	6000.00	8.34	0.00	test lines low 500, high 6000 psi
Event	9	Drop Bottom Plug	Drop Bottomm Plug	1/5/2015	06:47:00	USER	0.00	8.34	0.00	drop bottom plug
Event	10	Pump Spacer 1	Pump Spacer 1	1/5/2015	06:48:00	COM5	279.00	8.40	3.00	pump 10 bbls mudflush ahead
Event	11	Pump Lead Cement	Pump Lead Cement	1/5/2015	06:50:00	COM5	287.00	13.60	5.00	pump 37.4 bbls (140 sks lead at 13.6#...good returns TOL 3305'
Event	12	Pump Tail Cement	Pump Tail Cement	1/5/2015	06:57:00	COM5	359.00	15.60	5.00	pump 19 bbls (90 sks) tail at 15.6#...good returns TOL 4700'
Event	13	Drop Top Plug	Drop Top Plug	1/5/2015	07:03:00	COM5	5.00	15.24	0.00	drop top plug
Event	14	Pump Displacement	Pump Displacement	1/5/2015	07:04:00	COM5	133.00	8.34	8.00	pump 199 bbls water displacement...good returns
Event	15	Slow Rate	Slow Rate	1/5/2015	07:30:00	USER	823.00	8.34	3.00	slow rate to 3 bbls min la 15 bbls
Event	16	Bump Plug	Bump Plug	1/5/2015	07:33:00	USER	1320.00	8.34	3.00	land plug from 850-1320 psi

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Comments
Event	17	Check Floats	Check Floats	1/5/2015	07:35:00	USER	0.00	8.34	0.00	floats holding 1 bbl back
Event	18	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	1/5/2015	07:40:00	USER				watch footing, watch har placement, line of fire
Event	19	Rig-Down Equipment	Rig-Down Equipment	1/5/2015	07:45:00	USER				
Event	20	Rig-Down Completed	Rig-Down Completed	1/5/2015	08:20:00	USER				
Event	21	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/5/2015	08:25:00	USER				stay on route, watch for slick spots on road
Event	22	Depart Location	Depart Location	1/5/2015	08:40:00	USER				

5.0 Attachments

5.1 Case 1-Custom Results.png



6.0 Custom Graphs

6.1 Custom Graph

