

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Sunday, January 08, 2017

Mickey #4 Production

Job Date: Saturday, December 17, 2016

Sincerely,

Julia Nichols

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Mickey #4** cement **Production** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Approximately 43 barrels of cement were returned to surface.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton [Ft. Lupton]

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 389404		Ship To #: 3788837		Quote #:		Sales Order #: 0903719228				
Customer: EXTRACTION OIL & GAS				Customer Rep: Todd Stephens						
Well Name: MICKEY		Well #: 4		API/UWI #: 05-123-43851-00						
Field: WATTENBERG	City (SAP): WINDSOR	County/Parish: WELD		State: COLORADO						
Legal Description: SW NE-5-8N-67W-2419FNL-1813FEL										
Contractor: PATTERSON-UTI ENERGY				Rig/Platform Name/Num: PATTERSON 348						
Job BOM: 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199				Srv Supervisor: Aaron Smith						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		17790ft		Job Depth TVD		7170				
Water Depth				Wk Ht Above Floor		4				
Perforation Depth (MD)		From		To						
Well Data										
Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		9.625	8.921	36			0	1557		1557
Casing	0	5.5	4.778	20			0	17788	0	7170
Open Hole Section			7.875				1557	17790	1557	7170
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5					Top Plug	5.5	1	KLX	
Float Shoe	5.5	1	KLX	17788		Bottom Plug	5.5		HES	
Float Collar	5.5	1	KLX	17788		SSR plug set	5.5		HES	
Insert Float	5.5					Plug Container	5.5	1	HES	
Stage Tool	5.5					Centralizers	5.5		HES	
Fluid Data										
Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name		Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	11.5 lb/gal Tuned Spacer III	Tuned Spacer III		50	bbl	11.5	3.74		6	
Fluid Data										
Fluid #	Stage Type	Fluid Name		Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal

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Cementing Job Summary

2	ElastiCemW/O CBL	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57		5	7.48
7.48 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	ElastiCem W/ Super CBL	ELASTICEM (TM) SYSTEM	2115	sack	13.2	1.57		5	7.49
7.49 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	Displacement	Displacement	393	bbl	8.33				
Cement Left In Pipe		Amount	2 ft		Reason			Shoe Joint	
Comment									

2.0 Real-Time Job Summary

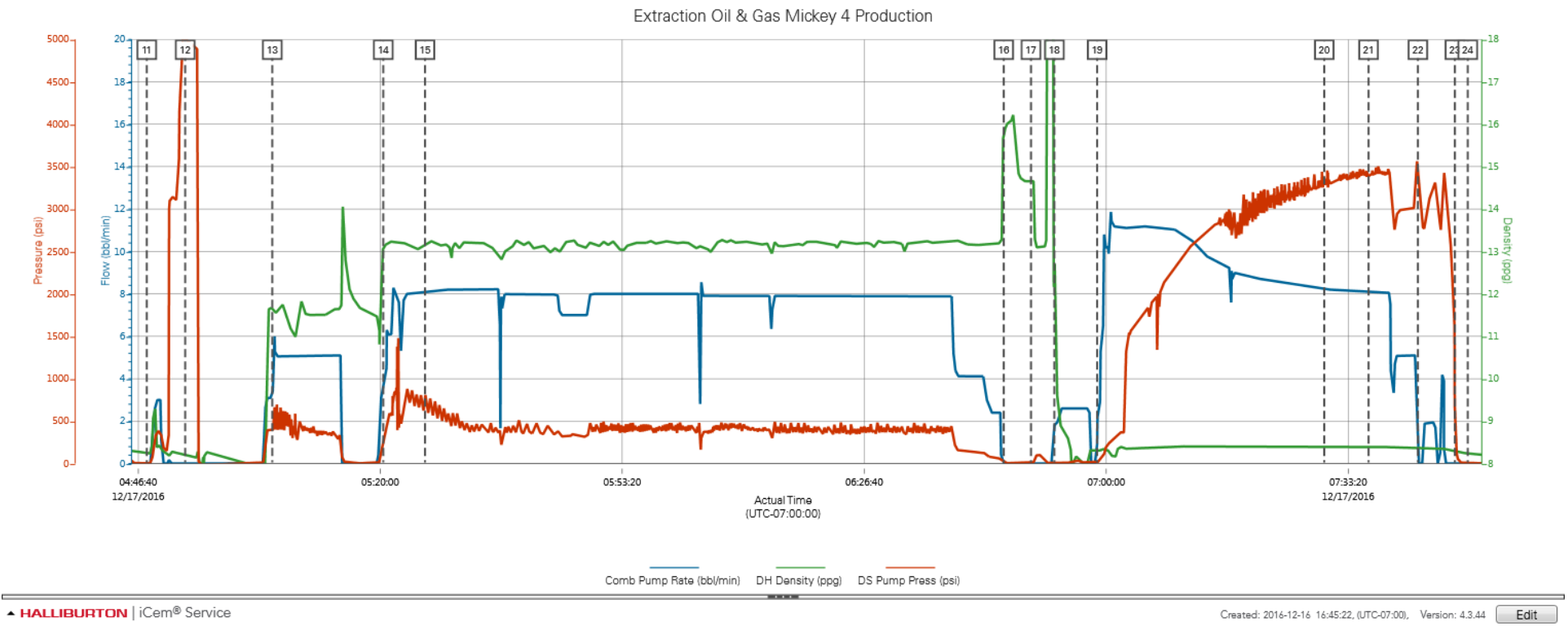
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	DH Density (ppg)	DS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	12/16/2016	15:00:00	USER				For on location @ 2130
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	12/17/2016	18:00:00	USER				Journey management meeting held prior to departure
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	12/17/2016	18:30:00	USER				Journey called into dispatch, Pump truck and two bulk trucks departed yard
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	12/17/2016	20:00:00	USER				With all equipment and materials
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	12/17/2016	22:00:00	USER				JSA to discuss the hazards of rig-up
Event	6	Rig-Up Equipment	Rig-Up Equipment	12/17/2016	22:15:00	USER				Rig-up all surface lines and equipment up to the red zone
Event	7	Casing on Bottom	Casing on Bottom	12/17/2016	02:20:00	USER				landing joint brought to floor and landed
Event	8	Circulate Well	Circulate Well	12/17/2016	02:25:00	USER				@13 bpm, MW 10#/gal, 2854 psi, 1.5 hrs,
Event	9	Rig-Up Completed	Rig-Up Completed	12/17/2016	02:35:00	USER				After all casing had been ran
Event	10	Pre-Job Safety Meeting	Pre-Job Safety Meeting	12/17/2016	04:00:53	USER				With all essential personnel
Event	11	Start Job	Start Job	12/17/2016	04:47:50	COM5				With fresh water supplied from uprights, water tested good to mix cement, PH 7, Temp 53, CI 74
Event	12	Test Lines	Test Lines	12/17/2016	04:53:08	USER	0.00	8.21	5001.00	@5000 psi
Event	13	Pump Spacer 1	Pump Spacer 1	12/17/2016	05:05:08	USER	3.10	11.67	385.00	50 bbls tuned spacer @11.5 ppg, verified with pressurized scales
Event	14	Pump Lead Cement	Pump Lead Cement	12/17/2016	05:20:25	USER	3.80	13.12	308.00	150 sks(41.94 bbls) Elasticem @ 13.2 ppg, verified with pressurized scales.
Event	15	Pump Lead Cement	Pump Lead Cement	12/17/2016	05:26:11	USER	8.10	13.18	820.00	2115 sks(591.39 bbls) Elasticem @ 13.2 ppg, verified with pressurized scales

Event	16	Shutdown	Shutdown	12/17/2016	06:45:53	USER				to blow lines down
Event	17	Drop Top Plug	Drop Top Plug	12/17/2016	06:49:38	USER	0.00	14.62	8.00	Hand Dropped klx top plug in casing verified by customer rep
Event	18	Clean Lines	Clean Lines	12/17/2016	06:52:51	USER	1.80	12.63	18.00	Wash pumps and lines to the pit.
Event	19	Pump Displacement	Pump Displacement	12/17/2016	06:58:44	USER	0.90	8.32	4.00	393 bbls fresh water
Event	20	Spacer Returns to Surface	Spacer Returns to Surface	12/17/2016	07:30:01	USER	8.30	8.39	3294.00	@300 bbls displacement 50 bbls to surface
Event	21	Cement Returns to Surface	Cement Returns to Surface	12/17/2016	07:36:08	USER	8.10	8.39	3388.00	@350 bbls displacement 43 bbls to surface
Event	22	Bump Plug	Bump Plug	12/17/2016	07:42:56	USER	0.00	8.37	3437.00	@500 psi over final circulating pressure of 2872 psi
Event	23	Check Floats	Check Floats	12/17/2016	07:48:01	USER	0.00	8.31	666.00	floats good 4 bbls back
Event	24	End Job	End Job	12/17/2016	07:49:47	COM5				Thanks Aaron Smith and Crew
Event	25	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	12/17/2016	07:54:59	USER	10.20	8.18	485.00	JSA to discuss the hazards of rig-down
Event	26	Rig-Down Equipment	Rig-Down Equipment	12/17/2016	08:00:00	USER	0.00	8.39	4.00	
Event	27	Rig-Down Completed	Rig-Down Completed	12/17/2016	08:39:11	USER				With no incidents or injuries
Event	28	Depart Location Safety Meeting	Depart Location Safety Meeting	12/17/2016	09:00:00	USER				Journey management meeting held prior to departure
Event	29	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	12/17/2016	09:15:00	USER				Journey called into dispatch

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events

