

HALLIBURTON

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# CONOCO/PHILLIPS COMPANY EBUSINESS

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Watkins 4-64-19-1H  
WILDCAT  
Arapahoe County , Colorado

Cement Production Liner  
02-Sep-2013

Job Site Documents

## The Road to Excellence Starts with Safety

Sold To #: 352431	Ship To #: 3092714	Quote #:	Sales Order #: 900711280
Customer: CONOCO/PHILLIPS COMPANY EBUSINESS	Customer Rep: Evans, Wes		
Well Name: Watkins	Well #: 4-64-19-1H	API/UWI #: 05-005-07173	
Field: WILDCAT	City (SAP): BENNETT	County/Parish: Arapahoe	State: Colorado
Lat: N 39 deg. OR N 39 deg. 0 min. 0 secs.	Long: E 104.585 deg. OR E 104 deg. 35 min. 6 secs.		
Contractor: H&P	Rig/Platform Name/Num: H&P 280		
Job Purpose: Cement Production Liner			
Well Type: Development Well	Job Type: Cement Production Liner		
Sales Person: PLIENESS, RYAN	Srv Supervisor: SMITH, AARON	MBU ID Emp #: 518187	

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
CONGDON, RICHARD S.	13.0	320306	DODSON, RICHARD Bryan	13.0	518192	SIMMONS, KEATON J	13.0	524850
SMITH, AARON David	13.0	518187	TAUILILI, SAIAGA	13.0	545471			

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10972458	40 mile	11019275C	40 mile	11106651	40 mile	11518550	40 mile
11812069C	40 mile	12010173	40 mile				

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
9-1-13	3.5	0	9-2-13	9.5	5			

TOTAL Total is the sum of each column separately

## Job

## Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Form Type	Job depth MD	Job Depth TVD	Water Depth	Perforation Depth (MD)	From	To	Called Out	Date	Time	Time Zone
				BHST	12221. ft	7672. ft					On Location	01 - Sep - 2013	16:00	MST
											Job Started	01 - Sep - 2013	20:30	MST
											Job Completed	02 - Sep - 2013	03:24	MST
											Job Completed	02 - Sep - 2013	08:09	MST
											Departed Loc	02 - Sep - 2013	09:30	MST

## Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbf/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
6" Open Hole				6.25				8031.	12221.	8031.	7672.
4-1/2" Liner	New		4.5	3.92	13.5		P-110	6993.	12211.		7672.
7" Casing	Unknown		7.	6.094	32.	BTC	P-110		8031.		7672.
4" Drill Pipe	Unknown		4.	3.34	14.				6993.		

Sales/Rental/3<sup>rd</sup> Party (HES)

Description	Qty	Qty uom	Depth	Supplier
CENTRALIZER SLIDER II 4 1/2" x 6"	185	EA		
SOLID STOP COLLAR 4-1/2", #0412-00SO	370	EA		
MILEAGE FOR CEMENTING CREW,ZI	50	MI		

## Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe	4.5	1		12211	Packer					Top Plug	4.5	1	
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar	4.5	1		12127	Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

## Miscellaneous Materials



Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty	

Fluid Data									
Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Clean Spacer III		30.00	bbl	10.5	3.86	24.21	.0	
2	EXPANDACEM B2	EXPANDACEM (TM) SYSTEM (452979)	360.0	sacks	13.8	1.68	7.74		7.74
7.74 Gal		FRESH WATER							
3	Displacement with MMCR		80.00	bbl	8.34	.0	.0	.0	
0.1 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
4	Clean Spacer III		12.00	bbl	10.5	3.86	24.21	.0	
5	Displacement		73.00	bbl	.	.0	.0	.0	

Calculated Values		Pressures		Volumes			
Displacement	141	Shut In: Instant		Lost Returns		Cement Slurry	108
Top Of Cement	6933	5 Min		Cement Returns	0	Actual Displacement	141
Frac Gradient		15 Min		Spacers	42	Load and Breakdown	
						Total Job	

Rates							
Circulating	5	Mixing	5	Displacement	5	Avg. Job	5
Cement Left In Pipe	Amount	84 ft	Reason	Shoe Joint			
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID

The Information Stated Herein Is Correct	Customer Representative Signature
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Field: WILDCAT		City (SAP): BENNETT		County/Parish: Arapahoe		State: Colorado	
Legal Description:							
Lat: N 39 deg. OR N 39 deg. 0 min. 0 secs.				Long: E 104.585 deg. OR E 104 deg. 35 min. 6 secs.			
Contractor: H&P			Rig/Platform Name/Num: H&P 280				
Job Purpose: Cement Production Liner						Ticket Amount:	
Well Type: Development Well			Job Type: Cement Production Liner				
Sales Person: PLIENESS, RYAN			Srvc Supervisor: SMITH, AARON			MBU ID Emp #: 518187	

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Arrive at Location from Service Center	09/01/2013 20:30							With all equipment and materials, rig still running drill pipe and liner.
Assessment Of Location Safety Meeting	09/01/2013 21:00							Hazard hunt performed with crew.
Casing on Bottom	09/02/2013 00:00							
Circulate Well	09/02/2013 00:15		5	900				
Pre-Rig Up Safety Meeting	09/02/2013 00:45							Discussed rig-up jsa with crew.
Rig-Up Equipment	09/02/2013 01:00							
Pre-Job Safety Meeting	09/02/2013 02:45							With Company Reps, and Rig Crew.
Rig-Up Completed	09/02/2013 03:15							Finished rigging up after hanger was set, and pre-job safety meeting.
Start Job	09/02/2013 03:24							
Test Lines	09/02/2013 03:31							@ 4000 psi
Pump Spacer 1	09/02/2013 03:48		5	30			700.0	@10.5 ppg, 3.86 yield, 24.21 gal/sk
Pump Cement	09/02/2013 03:57		5	108			500.0	360 sks, @13.8 ppg, 1.68 yield, 7.75 gal/sk
Shutdown	09/02/2013 04:23							
Clean Lines	09/02/2013 04:26							Wash pumps and lines to catch tank
Drop Top Plug	09/02/2013 04:28							Pre-loaded in baker cement head.
Pump Displacement	09/02/2013 04:31		5	77				Fresh Water

Activity Description	Date/Time	Cht	Rate bbl/ min	Volume bbl	Pressure psig	Comments
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*Cementing Job Log*

		#		Stage	Total	Tubing	Casing	
Pump Displacement	09/02/2013 04:49		3	12				Clean Spacer, @ 10.5 ppg, 3.86 yield, 24.21 gal/sk
Pump Displacement	09/02/2013 04:53		5	52				Mud
Bump Plug	09/02/2013 05:09		2				2430. 0	@500 over final circulating pressure 1606
Check Floats	09/02/2013 05:15							Floats Good, 1 bbl back
Other	09/02/2013 05:33							Sting out
Reverse Circ Well	09/02/2013 06:20							Rig Reversed out.
End Job	09/02/2013 08:09							Thanks Aaron Smith and Crew

# HALLIBURTON

CONOCO/PHILLIPS COMPANY EBUSINESS

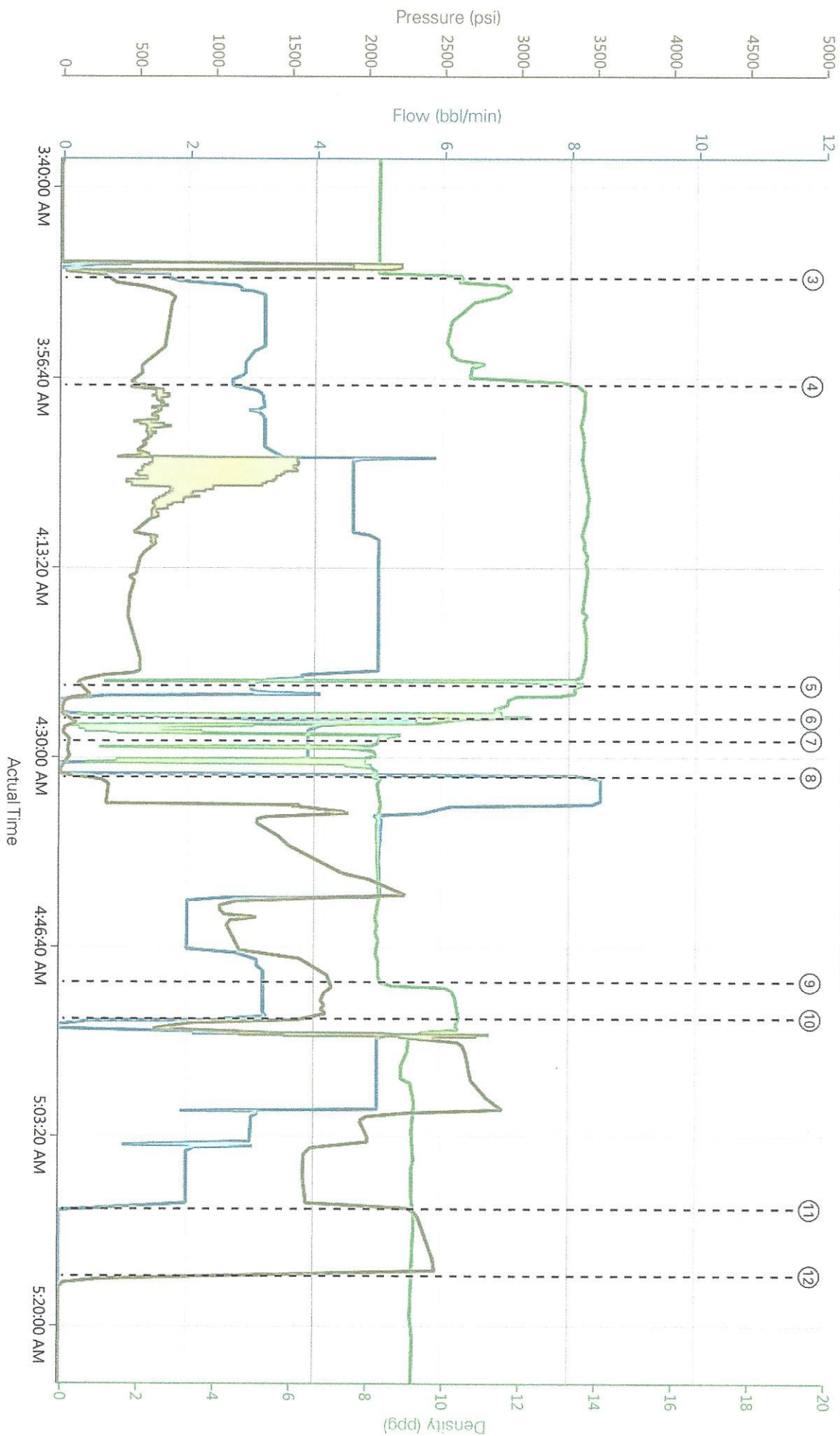
Production Liner

Conoco/Phillips Watkins 4-64-19-1H Production Liner

## 1.5 Job Event Log

Time	Description	Graph Label	Combined Pump Rate (bbl/min)	Downhole Density (ppg)	Pass- Side Pump Pressure (psi)	Comment
03:24:48	Start Job	Start Job	0.00	8.40	-18.00	
03:31:38	Test Lines	Test Lines	0.00	8.45	3985.00	
03:48:03	Pump Spacer 1	Pump Spacer 1	1.70	10.51	323.00	
03:57:27	Pump Cement	Pump Cement	2.70	13.50	540.00	
04:23:52	Shutdown	Shutdown	3.00	13.51	149.00	
04:26:42	Clean Lines	Clean Lines	5.60	10.43	107.00	
04:28:40	Drop Top Plug	Drop Top Plug	3.90	8.31	67.00	
04:31:52	Pump Displacement	Pump Displacement	8.50	8.34	261.00	
04:49:53	Pump Displacement	Pump Displacement	3.20	8.41	1789.00	
04:53:10	Pump Displacement	Pump Displacement	0.00	10.44	1200.00	
05:09:51	Bump Plug	Bump Plug	0.00	9.26	2327.00	
05:15:41	Check Floats	Check Floats	0.00	9.20	525.00	
05:33:30	Other	Slng out	0.00	9.15	-1.00	
06:20:09	Reverse Circ Well	Reverse Circ Well	0.00	9.10	1.00	
08:09:35	End Job	End Job	3.50	1.26	3.00	

# Conoco/Phillips Watkins 4-64-19-1H Production Liner



Comb Pump Rate (bbl/min) DH Density (ppg) PS Pump Press (psi)

- 1 Start Job
- 2 Test Lines
- 3 Pump Spacer
- 4 Pump Cement
- 5 Shutdown
- 6 Clean Lines
- 7 Drop Top Plug
- 8 Pump Displacement
- 9 Pump Displacement
- 10 Pump Displacement
- 11 Bump Plug
- 12 Check Floats
- 13 Sting out
- 14 Reverse Circ Well
- 15 End Job

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Customer: CONOCO/PHILLIPS COMPANY  
EBUSINESS

Representative: Aaron Smith

Job Date: 9/2/2013 3:14:17 AM

Sales Order #: 900711280

Well: Watkins 4-64-19-1H

Thanks: Aaron Smith and Crew

Created: 2013-09-01 19:11:39, Version: 1.4.96

Edit