

**HALLIBURTON**

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# **CONOCO/PHILLIPS COMPANY EBUSINESS**

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**Bomhoff 5-8H  
WILDCAT  
Arapahoe County , Colorado**

## **Cement Surface Casing**

**08-Nov-2013**

### **Job Site Documents**

## Work Order Contract

Order Number

900876498

TO: HALLIBURTON ENERGY SERVICES, INC. - YOU ARE HEREBY REQUESTED TO FURNISH EQUIPMENT AND SERVICE PERSONNEL TO DELIVER AND OPERATE THE SAME AS AN INDEPENDENT CONTRACTOR TO CUSTOMER LISTED BELOW AND DELIVER AND SELL PRODUCTS, SUPPLIES AND MATERIALS FOR THE PURPOSE OF SERVICING:

Well No. 5-8H	Farm or Lease Bomhoff	County Arapahoe	State Colorado	Well Permit Number 400395693
Customer CONOCO/PHILLIPS COMPANY EBUSINESS		Well Owner	Job Purpose Cement Surface Casing	

**THIS WORK ORDER MUST BE SIGNED BEFORE WORK IS COMMENCED**

A. **CUSTOMER REPRESENTATION** - Customer warrants that the well is in proper condition to receive the services, equipment, products, and materials to be supplied by Halliburton Energy Services, Inc. (hereinafter "Halliburton").

B. **PRICE AND PAYMENT** - The services, equipment, products, and/or materials to be supplied hereunder are priced in accordance with Halliburton's current price list. All prices of Halliburton are exclusive of any federal, state or municipal taxes which may be imposed on the sale or use of any materials, products or supplies furnished or services performed. Customer agrees to pay such taxes in addition to the prices in Halliburton's price list. If Customer does not have an approved open account with Halliburton, all sums due are payable in cash at the time of performance of services or delivery of equipment, products or materials. If Customer has an approved open account, invoices are payable on the twentieth day after the date of invoice. Customer agrees to pay interest on any unpaid balance from the date payable until paid at the highest lawful contract rate applicable, but never to exceed 18% per annum. In the event Halliburton employs an attorney for collection of any account, Customer agrees to pay attorney fees of 20% of the unpaid account, or Halliburton's actual attorney fees, whichever is greater, plus all collection and court costs. Customer agrees that the amount of attorney fees set out herein are reasonable and necessary.

C. **RELEASE AND INDEMNITY** - Customer agrees to **RELEASE** Halliburton Group from any and all liability for any and all damages whatsoever to property of any kind owned by, in the possession of, or leased by Customer and those persons and entities Customer has the ability to bind by contract or which are co-interest owners or joint ventures with Customer. Customer also agrees to **DEFEND, INDEMNIFY, AND HOLD HARMLESS** Halliburton Group **HARMLESS** from and against any and all liability, claims, costs, expenses, attorney fees and damages whatsoever for personal injury, illness, death, property damage and loss resulting from loss of well control; services to control a wild well whether underground or above the surface; reservoir or underground damage, including loss of oil, gas, other mineral substances or water; surface damage arising from underground damage; damage to or loss of the well bore; subsurface trespass or any action in the nature thereof, fire, explosion; subsurface pressure, radioactivity, and pollution and contamination and its cleanup and control.

**CUSTOMER'S RELEASE, DEFENSE, INDEMNITY AND HOLD HARMLESS** obligations will apply even if the liability and claims are caused by the sole, concurrent, active or passive negligence, fault, or strict liability of one or more members of the Halliburton Group, the unseaworthiness of any vessel or any defect in the data, products, supplies, materials or equipment furnished by any member or members of the Halliburton Group whether in the design, manufacture, maintenance or marketing thereof or from a failure to warn of such defect. "Halliburton Group" is defined as Halliburton Energy Services, Inc., its parent, subsidiary, and affiliated companies, insurers and subcontractors and all its/their officers, directors, employees, consultants and agents. **Customer's RELEASE, DEFENSE, INDEMNITY AND HOLD HARMLESS** obligations apply whether the personal injury, illness, death, property damage or loss is suffered by one or more members of the Halliburton Group, Customer, or any other person or entity. Customer agrees to support such obligations assumed herein with liability insurance with limits of not less than \$500,000. Customer agrees to name Halliburton Group as named additional insured on all of its general liability policy(s). Customer agrees that its liability under this Contract is not limited by the amounts of its insurance coverage, except where and as may be required by applicable local law for the provisions of this Contract to be enforceable.

D. **EQUIPMENT LIABILITY** - Customer shall at its risk and expense attempt to recover any Halliburton Group equipment lost or lodged in the well. If the equipment is recovered and repairable, Customer shall pay the repair costs, unless caused by Halliburton's sole negligence. If the equipment is not recovered or is irreparable, Customer shall pay the current published replacement rate, unless caused by Halliburton's sole negligence. If a radioactive source becomes lost or lodged in the well, Customer shall meet all requirements of Section 39.15(a) of the Nuclear Regulatory Commission regulations and any other applicable laws or regulations concerning retrieval or abandonment and shall permit Halliburton to monitor the recovery or abandonment efforts all at no risk or liability to Halliburton Group. Customer shall be responsible for damage to or loss of Halliburton group equipment, products, and materials while in transit aboard Customer-supplied transportation, even if such is arranged by Halliburton at Customer's request, and during loading and unloading from such transport. Customer will also pay for the repair or replacement of Halliburton group equipment damaged by corrosion or abrasion due to well effluents.

E. **LIMITED WARRANTY** - Halliburton warrants only title to the equipment, products, and materials supplied under this Contract and that same are free from defects in workmanship and materials for thirty (30) days from the date of delivery. **THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE.** Halliburton's sole liability and Customer's exclusive remedy in any cause of action (whether in contract, tort, breach of warranty or otherwise) arising out of the sale, lease or use of any equipment, products, or materials is expressly limited to the replacement of such on their return to Halliburton or, at Halliburton's option, to the allowance to Customer of credit for the cost of such items. In no event shall Halliburton be liable for special, incidental, indirect, consequential, or punitive damages. Because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others, **HALLIBURTON IS UNABLE TO GUARANTEE THE EFFECTIVENESS OF THE EQUIPMENT, MATERIALS, OR SERVICE, NOR THE ACCURACY OF ANY CHART INTERPRETATION, RESEARCH ANALYSIS, JOB RECOMMENDATION OR OTHER DATA FURNISHED BY HALLIBURTON GROUP.** Halliburton personnel will use their best efforts in gathering such information and their best judgment in interpreting it, but Customer agrees that Halliburton Group shall not be liable for and **CUSTOMER SHALL INDEMNIFY HALLIBURTON GROUP AGAINST ANY DAMAGES ARISING FROM THE USE OF SUCH INFORMATION, even if such is contributed to or caused by the active or passive negligence, fault or strict liability of any member or members of Halliburton Group.** Halliburton also does not warrant the accuracy of data transmitted by electronic process, and Halliburton will not be responsible for accidental or intentional interception of such data by third parties.

F. **GOVERNING LAW** - The validity, interpretation, and construction of this Contract shall be determined by the laws of the jurisdiction where the services are performed or the equipment or materials are delivered.

G. **DISPUTE RESOLUTION** Except for Halliburton's statutory rights with regard to collection of past due invoices for services or materials, including the Contractor's statutory rights for perfection and enforcement of mechanics' and materialmen's' liens, Customer and Halliburton agree that any dispute that may arise out of the performance of this Contract shall be resolved by binding arbitration by a panel of three arbitrators under the rules of the American Arbitration Association. The arbitration will take place in Houston, TX.

H. **SEVERABILITY** - If any provision or part thereof of this Contract shall be held to be invalid, void, or of no effect for any reason, such holding shall not be deemed to affect the validity of the remaining provisions of this Contract which can be given effect, without the invalid provision or part thereof, and to this end, the provisions of this Contract are declared to be severable. Customer and Halliburton agree that any provision of this Contract that is unenforceable or void under applicable law will be modified to achieve the intent of the parties hereunder to the greatest extent allowed by applicable law.

I. **MODIFICATIONS** - Customer agrees that Halliburton shall not be bound by any modifications to this Contract, except where such modification is made in writing by a duly authorized executive officer of Halliburton. Requests for modifications should be directed to the Vice President - Legal, 10200 Bellaire Blvd, Houston, TX 77072-5299.

**I HAVE READ AND UNDERSTAND THIS WORK ORDER CONTRACT WHICH CONTAINS RELEASE AND INDEMNITY LANGUAGE WHICH CUSTOMER ACKNOWLEDGES IS CONSPICUOUS AND AFFORDS FAIR AND ADEQUATE NOTICE AND I REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMER'S AGENT. I AM SIGNING THIS WORK ORDER CONTRACT WITH THE UNDERSTANDING THAT ITS TERMS AND CONDITIONS WILL NOT APPLY TO THE EXTENT THEY CONFLICT WITH TERMS AND CONDITIONS OF A SIGNED MASTER SERVICE CONTRACT BETWEEN THE PARTIES.**

Customer Acceptance of Terms and Conditions, Materials and Services

CUSTOMER Authorized Signatory

Date

The Road to Excellence Starts with Safety

Sold To #: 352431	Ship To #: 3116865	Quote #:	Sales Order #: 900876498
Customer: CONOCO/PHILLIPS COMPANY EBUSINESS		Customer Rep: Perez, Richard	
Well Name: Bomhoff	Well #: 5-8H	API/UWI #: 05-005-07180	
Field: WILDCAT	City (SAP): AURORA	County/Parish: Arapahoe	State: Colorado
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: PLIENESS, RYAN		Srvc Supervisor: PICKELL, CHRISTOPHER	MBU ID Emp #: 396838

**Job Personnel**

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
JEWELL, WILLIAM Uris	12.5	503358	NESBITT, ROY Iverson	12.5	537416	PICKELL, CHRISTOPHER Lee	12.5	396838
PRICE, JEREMIAH	12.5	123456	ROBINSON, TROY	.5	123456	STIELER, KENT	12.5	554541

**Equipment**

HES Unit #	Distance-1 way						
10822531C	38 mile	10867419C	38 mile	11019824C	38 mile	11036298	38 mile
11526488	38 mile	11605597	38 mile	11633848	38 mile	11667703C	38 mile

**Job Hours**

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
11/7/13	10	5	11/8/13	2.5	2.5			
TOTAL		Total is the sum of each column separately						

**Job**

**Job Times**

Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	Date	Time	Time Zone
Form Type	Job depth MD	1938. ft	Job Depth TVD	1938. ft	Job Started	07 - Nov - 2013	21:32
Water Depth	Perforation Depth (MD)	From	To	Job Completed	08 - Nov - 2013	12:32	MST
				Departed Loc	08 - Nov - 2013	02:30	MST

**Well Data**

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
13-1/2" Open Hole				13.5				100.	1938.		
16" Casing	Unknown		16.	15.5					100.		
9-5/8" Casing	Mixed		9.625	8.921	36.	STC	J-55		1928.		

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

Description	Qty	Qty uom	Depth	Supplier
CMT SURFACE CASING BOM	0	JOB		
SHOE,FLT,9-5/8 8RD,2-3/4 SUPER SEAL	1	EA		
CLR,FLT,9-5/8 8RD 29.3-40PPF,2-3/4	1	EA		
CENTRALIZER-9-5/8"-CSG-12 1/4"-HINGED	25	EA		
COLLAR-STOP-9 5/8"-FRICTION-HINGED	1	EA		
KIT,HALL WELD-A	1	EA		
MILEAGE FOR CEMENTING CREW,ZI	100	MI		

**Tools and Accessories**

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					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				50.00	bbl	8.33	3.86	24.21	.0	
2	SwiftCem B2	SWIFTCEM (TM) SYSTEM (452990)			410.0	sacks	12.	2.56	15.09		15.09
	15.086 Gal	FRESH WATER									
3	SwiftCem B2	SWIFTCEM (TM) SYSTEM (452990)			200.0	sacks	13.	2.01	10.99		10.99
	10.989 Gal	FRESH WATER									
Calculated Values			Pressures			Volumes					
Displacement	147.4 BBL	Shut In: Instant			Lost Returns	0 BBL	Cement Slurry	257 BBL	Pad		
Top Of Cement	0 FT	5 Min			Cement Returns	70 BBL	Actual Displacement	148.25 BBL	Treatment		
Frac Gradient		15 Min			Spacers	50 BBL	Load and Breakdown		Total Job		
Rates											
Circulating		Mixing		5	Displacement		6	Avg. Job		5.5	
Cement Left In Pipe	Amount	45.2 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						

*The Road to Excellence Starts with Safety*

Sold To #: 352431	Ship To #: 3116865	Quote #:	Sales Order #: 900876498
Customer: CONOCO/PHILLIPS COMPANY EBUSINESS		Customer Rep: Perez, Richard	
Well Name: Bomhoff	Well #: 5-8H	API/UWI #: 05-005-07180	
Field: WILDCAT	City (SAP): AURORA	County/Parish: Arapahoe	State: Colorado
Legal Description:			
Lat: N 0 deg. OR N 0 deg. 0 min. 0 secs.		Long: E 0 deg. OR E 0 deg. 0 min. 0 secs.	
Contractor:	Rig/Platform Name/Num: H&P 280		
Job Purpose: Cement Surface Casing		Ticket Amount:	
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: PLIENESS, RYAN		Srvc Supervisor: PICKELL, CHRISTOPHER	MBU ID Emp #: 396838

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	11/07/2013 09:30							CREW CALLED OUT AT 0930 TO BE ON LOCATION AT 1430. CREW WAS PICKELL, JEWELL, NESBITT, STIELER, PRICE
Depart from Service Center or Other Site	11/07/2013 13:00							SAFETY MEETING FOR JOURNEY TO LOCATION
Arrive At Loc	11/07/2013 14:00							ARRIVE AT LOCATION 30 MINUTES EARLY. RIG LANDING ON BOTTOM. RIG BEGAN TO LOSE CIRCULATION ONCE CASING LANDED
Rig-Up Equipment	11/07/2013 14:30							HAZARD HUNT PERFORMED. WATER TEST DONE. RIG UP SAFETY AND PROCEDURE PLANNED OUT. EQUIPMENT RIGGED UP
Pre-Job Safety Meeting	11/07/2013 21:00							SAFETY MEETING WITH ALL PERSONEL ON LOCATION TO DISCUSS JOB SAFETY AND PROCEDURE
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	

Sold To #: 352431

Ship To #: 3116865

Quote #:

Sales Order #: 900876498

SUMMIT Version: 7.3.0106

Friday, November 08, 2013 02:01:00

Start Job	11/07/2013 21:32							210 SKS OF LEAD AND 90 SKS OF TAIL WERE BROUGHT TO LOCATION ONCE RIG LOST CIRCULATION. ONCE RIG REGAINED CIRCULATION DECISION WAS MADE NOT TO PUMP EXTRA CEMENT BROUGHT TO LOCATION
Test Lines	11/07/2013 21:42		1	3			3000.0	PRESSURE TEST LINES TO 3000 PSI. CHECK FOR VISIBLE LEAKS AND PRESSURE LOSS
Pump Spacer 1	11/07/2013 21:45		4	50	53		100.0	PUMP CLEAN SPACER 50 BBL 10.5 PPG 3.86 CUFT/SK 24.21 GAL/SK. 4 POUNDS OF RED DYE ADDED TO SPACER
Shutdown	11/07/2013 22:02							SHUTDOWN TO LOAD TOP PLUG
Drop Bottom Plug	11/07/2013 22:07							NON ROTATING BOTTOM PLUG PRELOADED. WITNESSED BY COMPANY MAN
Pump Lead Cement	11/07/2013 22:11		5.5	187.7	240.7		125.0	PUMP SWIFTCEM CEMENT 410 SKS 12 PPG 2.57 CUFT/SK 15.14 GAL/SK
Pump Tail Cement	11/07/2013 22:53		5	71.6	312.3		110.0	PUMP SWIFTCEM CEMENT 200 SKS 13 PPG 2.01 CUFT/SK 11.03 GAL/SK
Shutdown	11/07/2013 23:17							
Clean Lines	11/07/2013 23:18							WASH PUMPS AND LINES
Drop Top Plug	11/07/2013 23:19							NON ROTATING TOP PLUG DROPPED
Pump Displacement	11/07/2013 23:19		6	148.2 5	460.5 5		700.0	PUMP DISPLACEMENT USING WATER. CALCULATED DISPLACEMENT WAS 147.4 BBL. CEMENT RETURNS WITH 78 BBL AWAY
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	

Sold To #: 352431

Ship To #: 3116865

Quote #:

Sales Order #: 900876498

SUMMIT Version: 7.3.0106

Friday, November 08, 2013 02:01:00

Bump Plug	11/07/2013 23:48		2.5				475.0	CALCULATED PRESSURE TO LAND WAS 387. PLUG LANDED WITH 475 PSI
Check Floats	11/07/2013 23:54						783.0	PRESSURE WAS HELD FOR 5 MINUTES THEN RELEASED. FLOATS HELD. 3/4 BBL BACK TO TANKS
Pressure Test	11/07/2013 23:57		2	1.25	461.8		1500.0	1500 PSI 30 MINUTE CASING TEST
Release Casing Pressure	11/08/2013 00:30						1548.0	PRESSURE WAS RELEASED AFTER 30 MINUTES AND CLIMBING TO 1548
End Job	11/08/2013 00:32							70 BBL OF CEMENT BACK TO SURFACE
Pre-Rig Down Safety Meeting	11/08/2013 00:35							SAFETY MEETING HELD TO DISCUSS RIG DOWN SAFETY AND PROCEDURE
Rig-Down Equipment	11/08/2013 00:45							WASH UP PUMP TRUCK. BLOW DOWN ALL LINES. RIG DOWN EQUIPMENT
Depart Location for Service Center or Other Site	11/08/2013 02:00							LEAVE LOCATION FOR THE YARD

*Material Roll Up*

Sales Order #: 900876498

AFE #:

Crew: RED CREW

WO #:

Requested Job Start Date: \_\_\_\_\_

PO #:

Colorado Oil and Gas Commission Wellsite Form

Customer: CONOCOPHILLIPS      Field: WILDCAT      Job Type: SURFACE  
 UWI / API Number: 05-005-07180      County/Parish: ARAPAHOE      Service Supervisor: CHRISTOPHER PICKELL  
 Well Name: BOMHOFF      State: COLORADO  
 Well No: 5-8H      Latitude:  
 Stage / Zone:      Longitude:      Cust Rep Name:  
 Formation:      Sect / Twn / Rng: / /      Cust Rep Phone #:

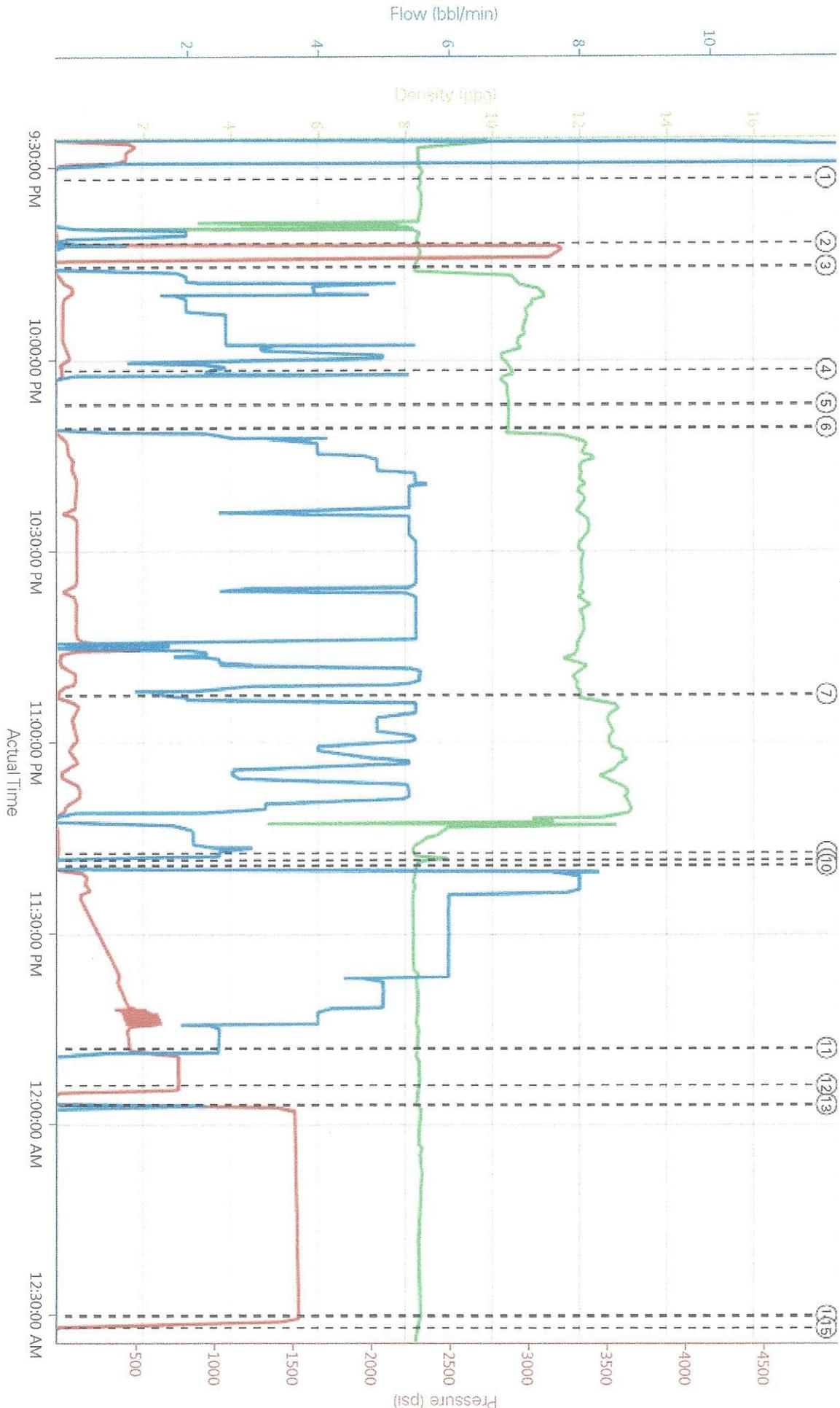
**Do Not leave the yard without the proper MSDS documentation for All chemicals.**

Colorado Oil and Gas Commission					
Material	Delivered to Location	UOM	Specific Gravity	Weight (lbs)	Comment
CLEAN SPACER 10.5#	11/7/13	LB		7349.2	BLENDED WITH ADDITIVES
SWIFTCEM 12#	11/7/13	LB		42639	BLENDED CEMENT WITH ADDITIVES
SWIFTCEM 13#	11/7/13	GAL		20796	BLENDED CEMENT WITH ADDITIVES
		LB			BLENDED CEMENT WITH ADDITIVES

Operator provided all Material Safety Data Sheets (MSDS) related to material listed above.  
 Operator representative will check box to designate he/she has received all MSDS documentation.

\_\_\_\_\_  
 Operator Representative Signature

BOMHOFF 5-8H



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

- ① Start Job 8:35:-7:0
- ② Test Lines 8:37:3261:0
- ③ Pump Clean Spacer 10.5# 8:25:-6:0
- ④ Shutdown 10:47:40:2.3
- ⑤ Drop Bottom Plug 10:44:-7:0
- ⑥ Pump Switcem 12# 10:32:-7:0
- ⑦ Pump Switcem 13# 11:37:15:2
- ⑧ Shutdown 8:25:19:2.5
- ⑨ Drop Top Plug 8:28:-2:0
- ⑩ Pump Displacement 8:26:-2:0
- ⑪ Bump Plug 8:31:477:2.5
- ⑫ Check Floats 8:2:783:0
- ⑬ Casing Test 8:43:1496:0
- ⑭ Release Casing Pressure 8:39:1548:0
- ⑮ End Job 8:29:-10:0



