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# **CHEVRON - MID-CONTINENT EBIZ**

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**SKR 698-04-AV-15  
SKINNER RIDGE  
Garfield County , Colorado**

## **Cement Production Casing**

**21-Feb-2009**

### **Job Site Documents**

## Cementing Job Log

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Drop Plug	02/21/2009 00:49							
Pump Displacement	02/21/2009 00:50		8		97.3		111.0	
Slow Rate	02/21/2009 01:02		2	85			1420. 0	
Bump Plug	02/21/2009 01:06		2	97.3			2580. 0	
Check Floats	02/21/2009 01:10							
End Job	02/21/2009 01:12							GOOD CIRCULATION THROUGHOUT JOB. PIPE WAS LEFT STATIC THROUGHOUT JOB, PIPE WAS HELD DOWN BY TOP DRIVE. PLUG BUMPED AT CALCULATED DISPLACEMENT. FLOATS HELD.
Post-Job Safety Meeting (Pre Rig-Down)	02/21/2009 01:30							2 ADD HOURS CHARGED.
Rig-Down Equipment	02/21/2009 01:35							
Pre-Convoy Safety Meeting	02/21/2009 02:55							
Crew Leave Location	02/21/2009 03:00							THANK YOU FOR CHOOSING HALLIBURTON CEMENTING OF GRAND JUNCTION, COLORADO ANTHONY ANDREWS AND CREW

## The Road to Excellence Starts with Safety

Sold To #: 338668	Ship To #: 2695771	Quote #:	Sales Order #: 6513345
Customer: CHEVRON - MID-CONTINENT EBIZ	Customer Rep: MORGAN, RANDY		
Well Name: SKR	Well #: 698-04-AV-15	API/UWI #:	
Field: SKINNER RIDGE	City (SAP): PARACHUTE	County/Parish: Garfield	State: Colorado
Contractor: H&P 318	Rig/Platform Name/Num: H&P318		
Job Purpose: Cement Production Casing			
Well Type: Development Well	Job Type: Cement Production Casing		
Sales Person: HARTLEY, RICHARD	Srv Supervisor: ANDREWS, ANTHONY	MBU ID Emp #: 321604	

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ANDREWS, ANTHONY Michael		321604	ANGLESTEIN, TROY Edward WM		436099	BREEZE, MICHAEL		459034
GREGORY, JON D		439067	HAMMOND, DENNIS C		287025	HOEFER, FREEMAN Dennis		369666
LANE, R Michael		445002	ROSS, CHARLES Raymond		453128	SCOTT, DALLAS D		334750
STEMPKY, MICHAEL J		392967	WYMS, JUAN P		456693			

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
2/20/09	4	2	2/21/09	3	3			
TOTAL			Total is the sum of each column separately					

## Job

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
Formation Depth (MD)			On Location	20 - Feb - 2009	14:45	MST
Form Type	BHST		Job Started	20 - Feb - 2009	20:00	MST
Job depth MD	6324. ft	Job Depth TVD	Job Completed	20 - Feb - 2009	23:30	MST
Water Depth		Wk Ht Above Floor	Departed Loc	21 - Feb - 2009	01:12	MST
Perforation Depth (MD)	From	To		21 - Feb - 2009	03:00	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
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Sales/Rental/3<sup>rd</sup> Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG,CMTG,TOP,4 1/2,HVE,3.65 MIN/4.14 MA	1	EA		
ADC (AUTO DENSITY CTRL) SYS, /JOB,ZI	1	JOB		
PORT. DAS W/CEMWIN;ACQUIRE W/HES, ZI	1	JOB		

## Tools and Accessories

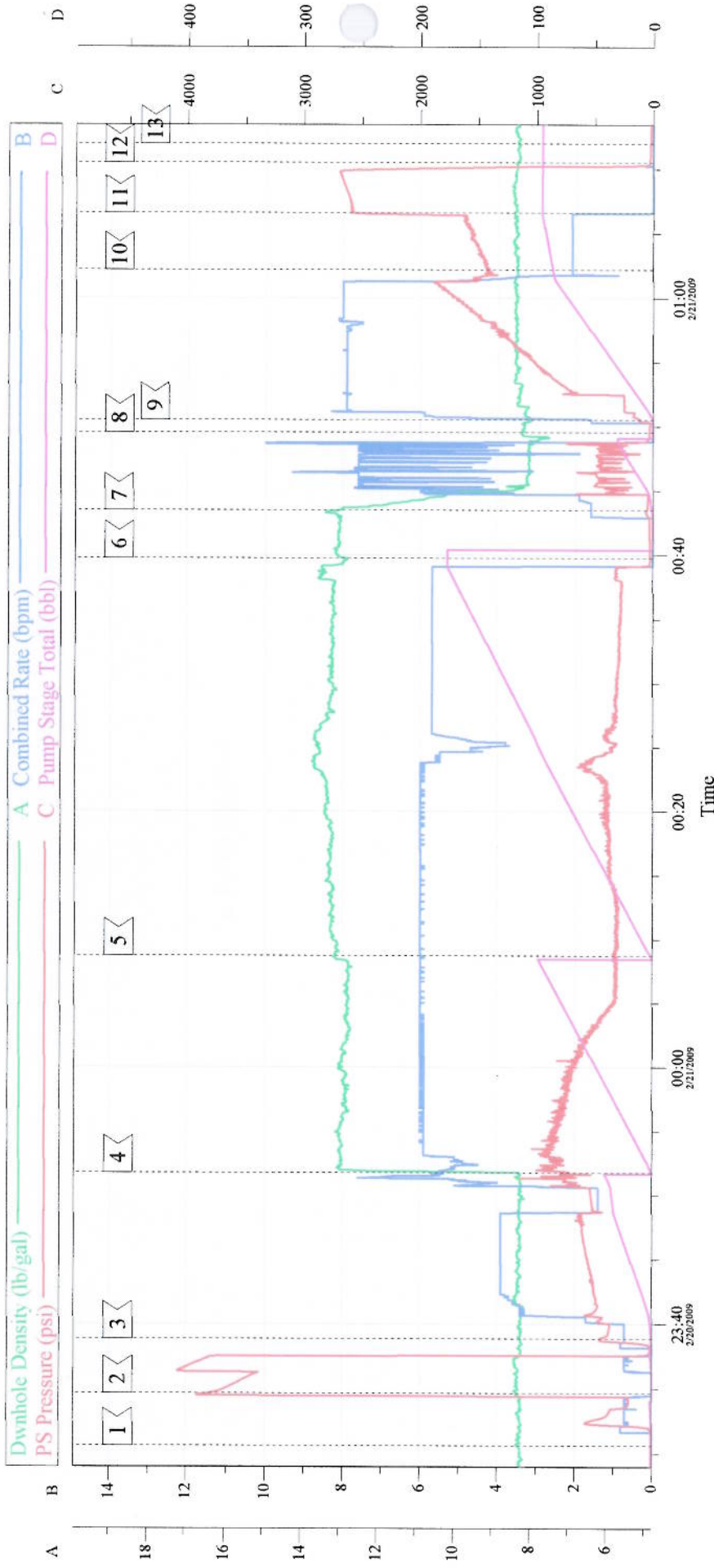
Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

## Miscellaneous Materials

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



# 4 1/2" PRODUCTION



Intersection		Event Log		Intersection		PP	
1	START JOB	2/20/2009 23:30:38	6.000	2	TEST LINES	2/20/2009 23:34:39	3819
3	PUMP SPACER	2/20/2009 23:38:52	448.0	4	PUMP LEAD CEMENT	2/20/2009 23:51:47	721.0
5	PUMP TAIL CEMENT	2/21/2009 00:08:44	322.0	6	SHUTDOWN	2/21/2009 00:39:47	27.00
7	CLEAN LINES	2/21/2009 00:43:30	52.10	8	DROP PLUG	2/21/2009 00:49:34	29.00
9	PUMP DISPLACEMENT	2/21/2009 00:50:33	111.3	10	SLOW RATE	2/21/2009 01:02:12	1420
11	BUMP PLUG	2/21/2009 01:06:37	2580	12	CHECK FLOATS	2/21/2009 01:10:32	32.77
13	END JOB	2/21/2009 01:12:00	25.00				

Customer: CHEVRON		Job Date: 2/20/09		Ticket #: 6513345	
Lease: SKR		Supervisor: ANTHONY ANDREWS		ADC Used?: YES	
Well #: 698-04-AV-15		Pump Truck: ELITE 8		Company Rep: ELMER TATUM	

EVENT #	EVENT	VOLUME	SACKS	WEIGHT	YIELD	GAL/ SK
1	Start Job		<b>Max Psi</b>			
6	Test Lines	4000.0				
	H2O SPACER	40.0	20 w/ poly			
	LEAD CEMENT	98.7	345	12.8	1.6	7.31
15	Tail Cement	159.7	610	13.2	1.47	6.32
	SHUTDOWN					
	CLEAN LINES					
	DROP PLUG					
	DISPLACEMENT	97.3				
	BUMP PLUG	1488+1000				
2	Release Psi / Job Over	0.0				
			Do Not Overdisplace			
DISPLACEMENT	TOTAL PIPE	SHOE JOINT LENGTH	FLOAT COLLAR	BBL/FT	H2O REQ.	
97.28	6324	48.14	6275.86	0.0155	450	
PSI to Lift Pipe		*****Use Mud Scales on Each Tier*****				
Total Displacement	97.28					
CALCULATED DIFFERENTIAL PSI		1488	TOTAL FLUID PUMPED			
Collapse	4960	BURST	5350	SO#	#REF!	



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Well Name: SKR	Well #: 698-04-AV-15	API/UWI #:	
Field: SKINNER RIDGE	City (SAP): PARACHUTE	County/Parish: Garfield	State: Colorado
Legal Description:			
Lat:		Long:	
Contractor: H&P 318	Rig/Platform Name/Num: H&P318		
Job Purpose: Cement Production Casing	Ticket Amount:		
Well Type: Development Well	Job Type: Cement Production Casing		
Sales Person: HARTLEY, RICHARD	Srvc Supervisor: ANDREWS, ANTHONY	MBU ID Emp #: 321604	

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	02/20/2009 14:45							
Pre-Convoy Safety Meeting	02/20/2009 16:15							
Crew Leave Yard	02/20/2009 16:30							
Arrive At Loc	02/20/2009 20:00							
Assessment Of Location Safety Meeting	02/20/2009 20:10							
Other	02/20/2009 20:15							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	02/20/2009 20:20							
Rig-Up Equipment	02/20/2009 20:30							
Pre-Job Safety Meeting	02/20/2009 23:00							
Start Job	02/20/2009 23:30							TD: 6350 TP: 6324 SJ: 48.14 MW: 10.4 4.5" 11.6#/FT CASING
Test Lines	02/20/2009 23:34							4000 PSI TEST
Pump Spacer	02/20/2009 23:38		4	40			448.0	20 BBLS W/ POLYFLAKE 20 FRESH
Pump Lead Cement	02/20/2009 23:51		6	98.3			721.0	345 SKS @ 12.8 PPG 1.6 YLD
Pump Tail Cement	02/21/2009 00:08		6	159.7			322.0	610 SKS @ 13.2 PPG 1.47YLD
Shutdown	02/21/2009 00:39							
Clean Lines	02/21/2009 00:43							

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	Dyed Polyflake Spacer		40	Bbl	8.33	.0	.0	.0	
2	Lead Cement	VARICEM (TM) CEMENT (452009)	345	Sacks	12.8	1.6	7.31		
3	Tail Cement	VARICEM (TM) CEMENT (452009)	610	Sacks	13.2	1.47	6.32		
4	KCL DISPLACEMENT		97.3	Bbl	8.4	.0	.0	.0	
Calculated Values		Pressures		Volumes					
Displacement	97.3	Shut In: Instant		Lost Returns	N	Cement Slurry	258	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	N	Actual Displacement	97.3	Treatment	
Frac Gradient		15 Min		Spacers	40	Load and Breakdown		Total Job	395.3
Rates									
Circulating	RIG	Mixing	6	Displacement	8-2	Avg. Job	6		
Cement Left In Pipe	Amount	48.14 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					