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# **CHEVRON - MID-CONTINENT EBIZ**

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**Skinner Ridge 598-08-BV-01  
SKINNER RIDGE  
Garfield County , Colorado**

## **Cement Production Casing** **23-Sep-2013**

### **Post Job Report**

## The Road to Excellence Starts with Safety

Sold To #: 338668	Ship To #: 3096164	Quote #:	Sales Order #: 900762570
Customer: CHEVRON - MID-CONTINENT EBIZ		Customer Rep: Geiser, Greg	
Well Name: Skinner Ridge	Well #: 598-08-BV-01	API/UWI #:	
Field: SKINNER RIDGE	City (SAP): PARACHUTE	County/Parish: Garfield	State: Colorado
Contractor: ENSIGN		Rig/Platform Name/Num: 122	
Job Purpose: Cement Production Casing			
Well Type: Development Well		Job Type: Cement Production Casing	
Sales Person: GROFF, THEODORE	Srvc Supervisor: CARTER, ERIC	MBU ID Emp #: 345598	

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ATKINSON, STEPHAN Michael	0.0	513940	CARTER, ERIC Earl	0.0	345598	LYNGSTAD, FREDRICK D	0.0	403742
MCINTOSH, ROBERT James	0.0	547652	SINCLAIR, DAN J	0.0	338784			

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10297346	120 mile	10551730C	120 mile	10722398	120 mile	10867531	120 mile
10973571	120 mile	10989685	120 mile	11139330	120 mile	11583933	120 mile
11808829	120 mile						

### Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours

<b>TOTAL</b>	Total is the sum of each column separately							
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### Job

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
Formation Depth (MD)			On Location	23 - Sep - 2013	05:00	MST
Form Type	BHST		Job Started	23 - Sep - 2013	09:57	MST
Job depth MD	4000.2 ft		Job Completed	23 - Sep - 2013	11:40	MST
Water Depth	Wk Ht Above Floor		Departed Loc	23 - Sep - 2013	13:00	MST
Perforation Depth (MD)	From	To				

### 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
7-7/8" Open Hole				7.875				1000.	4015.	1000.	4015.
4-1/2" Production Casing	New		4.5	4.	11.6		N-80	.	4000.2	.	4000.2
8-5/8" Surface Casing	New		8.625	8.097	24.		J-55	.	1000.		

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

Description	Qty	Qty uom	Depth	Supplier
CMT CASING EQUIPMENT BOM	1	JOB		
CLR,FLT,4-1/2,BTC,11.6-15.1PPF,P-110,2-3	1	EA		
SHOE,FLT,4-1/2 8RD,2-3/4 SSII	1	EA		
CLAMP - LIMIT - 4-1/2 - HINGED -	2	EA		
CENTRALIZER ASSY - API - 4-1/2 CSG X	55	EA		
KIT,HALL WELD-A	1	EA		

### 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 ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk		
1	Red Dye Water Spacer				30.00	bbl	8.33	.0	.0	4.0			
2	50/50 Poz Premium	VARICEM (TM) CEMENT (452009)			455.0	sacks	12.8	1.64	7.45		7.45		
3	50/50 Poz Premium	VARICEM (TM) CEMENT (452009)			395.0	sacks	13.2	1.51	6.45		6.45		
4	2% KCl				61.00	bbl	8.43			.0			
Calculated Values		Pressures			Volumes								
Displacement		Shut In: Instant			Lost Returns			Cement Slurry			Pad		
Top Of Cement		5 Min			Cement Returns			Actual Displacement			Treatment		
Frac Gradient		15 Min			Spacers			Load and Breakdown			Total Job		
Rates													
Circulating		Mixing			Displacement			Avg. Job					
Cement Left In Pipe	Amount	44.59 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								

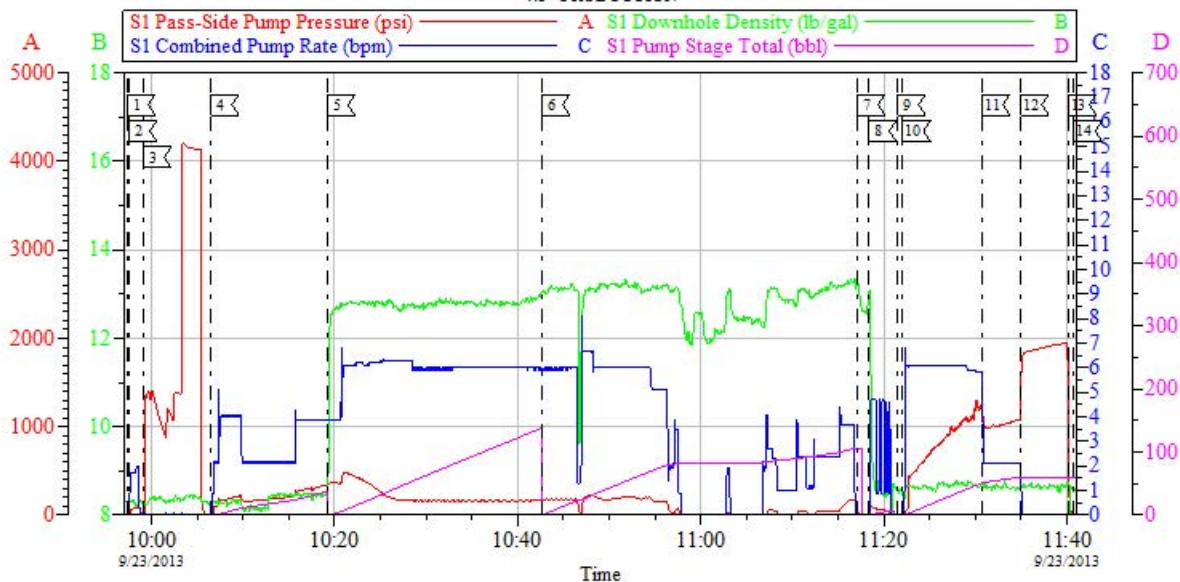
*The Road to Excellence Starts with Safety*

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<b>Well Name:</b> Skinner Ridge		<b>Well #:</b> 598-08-BV-01	<b>API/UWI #:</b>
<b>Field:</b> SKINNER RIDGE	<b>City (SAP):</b> PARACHUTE	<b>County/Parish:</b> Garfield	<b>State:</b> Colorado
<b>Legal Description:</b>			
<b>Lat:</b>		<b>Long:</b>	
<b>Contractor:</b> ENSIGN		<b>Rig/Platform Name/Num:</b> 122	
<b>Job Purpose:</b> Cement Production Casing			<b>Ticket Amount:</b>
<b>Well Type:</b> Development Well		<b>Job Type:</b> Cement Production Casing	
<b>Sales Person:</b> GROFF, THEODORE		<b>Srv Supervisor:</b> CARTER, ERIC	<b>MBU ID Emp #:</b> 345598

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Arrive at Location from Other Job or Site	09/23/2013 05:00							RIG RUNNING CASING
Assessment Of Location Safety Meeting	09/23/2013 07:30							ATTENDED BY ALL HES CREW
Other	09/23/2013 07:40							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	09/23/2013 08:10							ATTENDED BY ALL HES CREW
Rig-Up Equipment	09/23/2013 09:00							
Pre-Job Safety Meeting	09/23/2013 09:30							ATTENDED BY ALL HES CREW, RIG CREW AND COMPANY REP
Start Job	09/23/2013 09:57							TP 4000.24', TD 4015', SJ 44.59', FC 3955.65', MW 9.3 PPG, CASING 4.5", 11.6#, N-80, HOLE 7.875", SURFACE CASING 9.625", 32.3#, SET AT 1000', 42 CENTRALIZERS, RIG CIRCULATED FOR PRIOR TO JOB
Other	09/23/2013 09:57		2	2			80.0	FILL LINES
Test Lines	09/23/2013 09:57							PRESSURED UP TO 4154 PSI, PRESSURE HELD
Pump Spacer 1	09/23/2013 10:06		4	30			340.0	FRESH WATER WITH 5 LB. RED DYE
Pump Lead Cement	09/23/2013 10:19		6	132.9			480.0	455 SKS VARICEM MIXED AT 12.8 PPG, 1.64 YIELD, 7.45 GL/SK
Pump Tail Cement	09/23/2013 10:42		6	106.2			220.0	395 SKS VARICEM MIXED AT 13.2 PPG, 1.51 YIELD, 6.45 GL/SK

## Cementing Job Log

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Shutdown	09/23/2013 11:17							
Clean Lines	09/23/2013 11:18							CLEAN LINES TO OPEN TOP TANK
Drop Top Plug	09/23/2013 11:21							PLUG LUANCED
Pump Displacement	09/23/2013 11:22		6	51.3			1200.0	FRESH WATER WITH 2% KCL
Slow Rate	09/23/2013 11:30		2	10			1100.0	
Bump Plug	09/23/2013 11:34						1940.0	PLUG LANDED
Check Floats	09/23/2013 11:40							FLOATS HELD
End Job	09/23/2013 11:40							GOOD CIRCULATION THROUGH OUT JOB, PIPE NOT MOVED DURING JOB, 46 BBLS CEMENT TO SURFACE
Post-Job Safety Meeting (Pre Rig-Down)	09/23/2013 11:45							ATTENDED BY ALL HES CREW
Rig-Down Equipment	09/23/2013 11:50							
Depart Location Safety Meeting	09/23/2013 12:50							ATTENDED BY ALL HES CREW
Crew Leave Location	09/23/2013 13:00							THANK YOU FOR USING HALLIBURTON CEMENT, ERIC CARTER AND CREW.



## Local Event Log

1 < START JOB	09:57:21	2 < FILL LINES	09:57:33	3 < TEST LINES	09:59:06
4 < PUMP SPACER	10:06:30	5 < PUMP LEAD CEMENT	10:19:12	6 < PUMP TAIL CEMENT	10:42:38
7 < SHUTDOWN	11:17:06	8 < CLEAN LINES	11:18:20	9 < DROP TOP PLUG	11:21:31
10 < PUMP DISPLACEMENT	11:22:03	11 < SLOW RATE	11:30:44	12 < BUMP PLUG	11:34:59
13 < CHECK FLOATS	11:40:10	14 < END JOB	11:40:48		

Customer: CHEVRON - MID-CONTINENT EBIZ  
 Well Description: Skinner Ridge 598-08-BV-01  
 Company Rep: MICAH GOLMON

Job Date: 23-Sep-2013  
 Job Type: PRODUCTION  
 Service Supervisor: ERIC CARTER

Sales Order #: 900762570  
 ADC Used: YES  
 Elite Operator: 2-DAN SINCLAIR

# HALLIBURTON

## Water Analysis Report

Company: CHEVRON  
Submitted by: ERIC CARTER  
Attention: J.Trout  
Lease: ENSIGN 122  
Well #: SKR 598-08-BV-01

Date: 10/1/2013  
Date Rec.: 10/1/2013  
S.O.#: 900762570  
Job Type: PRODUCTION

Specific Gravity	<i>MAX</i>	<i>1</i>
pH	<i>8</i>	<i>7</i>
Potassium (K)	<i>5000</i>	<i>250</i> Mg / L
Hrdness	<i>500</i>	<i>250</i> Mg / L
Iron (FE2)	<i>300</i>	<i>0</i> Mg / L
Chlorides (Cl)	<i>3000</i>	<i>0</i> Mg / L
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<i>&lt;200</i> Mg / L
Temp	<i>40-80</i>	<i>60</i> Deg
Total Dissolved Solids		<i>590</i> Mg / L

Respectfully: ERIC CARTER

Title: CEMENTING SUPERVISOR

Location: Grand Junction, CO

NOTICE:

This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or

<b>Sales Order #:</b> 900762570	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 9/23/2013
<b>Customer:</b> CHEVRON - MID-CONTINENT EBIZ		<b>Job Type (BOM):</b> CMT PRODUCTION CASING BOM
<b>Customer Representative:</b> GREG GEISER		<b>API / UWI: (leave blank if unknown)</b> AFEYCNE0TIK3JOVHAAA
<b>Well Name:</b> Skinner Ridge		<b>Well Number:</b> 598-08-BV-01
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

Dear Customer,

We hope that you were satisfied with the service quality of this job performed by Halliburton. It is the aim of our management and service personnel to deliver equipment and service of a standard unmatched in the service sector of the energy industry.

Please take the time to let us know if our performance met with your satisfaction. Please be as critical as possible to ensure we constantly improve our service. Your comments are of great value to us and are intended for the exclusive use of Halliburton.

### CUSTOMER SATISFACTION SURVEY

CATEGORY	CUSTOMER SATISFACTION RESPONSE	
Survey Conducted Date	The date the survey was conducted	9/23/2013
Survey Interviewer	The survey interviewer is the person who initiated the survey.	ERIC CARTER (HX15491)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	GREG GEISER
HSE	Was our HSE performance satisfactory? Circle Y or N	Yes
Equipment	Were you satisfied with our Equipment? Circle Y or N	Yes
Personnel	Were you satisfied with our people? Circle Y or N	Yes
Customer Comment	Customer's Comment	

<b>CUSTOMER SIGNATURE</b>
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<b>Well Name:</b> Skinner Ridge		<b>Well Number:</b> 598-08-BV-01
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b>	9/23/2013
The date the survey was conducted	

Cementing KPI Survey	
<b>Type of Job</b>	0
Select the type of job. (Cementing or Non-Cementing)	
<b>Select the Maximum Deviation range for this Job</b>	Vertical
What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	
<b>Total Operating Time (hours)</b>	4
Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	
<b>HSE Incident, Accident, Injury</b>	No
HSE Incident, Accident, Injury. This should be recordable incidents only.	
<b>Was the job purpose achieved?</b>	Yes
Was the job delivered correctly as per customer agreed design?	
<b>Operating Hours (Pumping Hours)</b>	1.5
Total number of hours pumping fluid on this job. Enter in decimal format.	
<b>Customer Non-Productive Rig Time (hrs)</b>	0
Lost time due to Halliburton in the start, execution, or completion of an ordered service or product, or delays in a follow-on service. Enter in decimal format. 0 if none.	
<b>Type of Rig Classification Job Was Performed</b>	Drilling Rig (Portable)
Type Of Rig (classification) Job Was Performed On	
<b>Number Of JSAs Performed</b>	5
Number Of Jsas Performed	
<b>Number of Unplanned Shutdowns</b>	1
Unplanned shutdown is when injection stops for any period of time.	
<b>Reason For Unplanned Shutdown</b>	POOR BULK DELIVERY

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<b>Customer Representative:</b> GREG GEISER		<b>API / UWI: (leave blank if unknown)</b> AFEYCNE0TIK3JOVHAAA
<b>Well Name:</b> Skinner Ridge		<b>Well Number:</b> 598-08-BV-01
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

Reason For Unplanned Shutdowns (after Starting To Pump)	
<b>Was this a Primary Cement Job (Yes / No)</b> Primary Cement Job= Casing job, Liner job, or Tie-back job.	Yes
<b>Did We Run Wiper Plugs?</b> Did We Run Top And Bottom Casing Wiper Plugs?	Top
<b>Mixing Density of Job Stayed in Designed Density Range (0-100%)</b> Density Range defined as +/- .20 ppg. Calculation: Total BBLs cement mixed at designed density divided by total BBLs of cement multiplied by 100	96
<b>Was Automated Density Control Used?</b> Was Automated Density Control (ADC) Used ?	Yes
<b>Pump Rate (percent) of Job Stayed At Designed Pump Rate</b> Pump Rate range defined as +/- 1bbl/min. Calculation: Total BBLs of fluid pumped at the designed rate divided by Total BBLs of fluid pumped, multiplied by 100	90
<b>Nbr of Remedial Sqz Jobs Rqd - Competition</b> Number Of Remedial Squeeze Jobs Required After Primary Job Performed By Competition	0
<b>Nbr of Remedial Plug Jobs Rqd - HES</b> Number Of Remedial Plug Jobs Needed After Primary Plug Pumped By HES	0
<b>Nbr of Remedial Sqz Jobs Rqd - HES</b> Number Of Remedial Squeeze Jobs Required After Primary Job Performed By HES	0