



Rocky Mountain Region Laboratory  
285 Weld County Rd 27  
Brighton, CO 80601  
Phone (303) 659-7347  
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**Rocky Mountain Region Laboratory  
CEMENTING REPORT**

Prepared for:  
**Kerr-McGee Corporation**  
**Denver #15-18**  
**Weld County, Colorado**  
**Lab Report #C04-068-11**  
**Squeeze**  
**APH# 05-123-32634-0000**

**Rocky Mountain Region Laboratory**  
**285 Weld County Rd 27**  
**Brighton, CO 80601**  
**Phone (303) 659-7347**

**ANALYST: Tom Smith**

**BJ SERVICES TECHNICAL REPRESENTATIVE**

**Submitted by: Shawn Purvis**

**April 18, 2011**



**CEMENTING LABORATORY REPORT**  
**Lab Report #C04-068-11**

<b>COMPANY :</b>	Kerr-McGee Corporation	<b>DATE:</b>	April 18, 2011
<b>WELL NAME:</b>	Denver #15-18	<b>LOCATION:</b>	Weld County, Colorado
<b>DISTRICT:</b>	Brighton	<b>TYPE JOB:</b>	Squeeze
<b>API #</b>	05-123-32634-0000	<b>TOC(md):</b>	
<b>DEPTH MD(ft):</b>	7,210 ft	<b>BHST(°F):</b>	239 °F
<b>CASING SIZE("):</b>	4 1/2 in	<b>BHCT(°F):</b>	200 °F
<b>TUBING SIZE("):</b>	2 3/8 in	<b>BHSqT(°F):</b>	200 °F
<b>HOLE SIZE("):</b>		<b>TOL (°F):</b>	Static                  Circ

**SLURRY DESIGN DATA**

#1	Slurry No.1- Class G:FA (50:50) + 20% S-8 + 3% Bentonite + 0.4% FL-52 + 0.1% SMS
#2	Slurry No.2 - Class G Cement + 0.1% R-3
#3	Slurry No.3 - Class G Cement + 0.1% R-3

SLURRY PROPERTIES	#1	#2	#3
Density : ppg	13.50	15.80	15.80
Yield :cu.ft./sk.	1.71	1.15	1.15
Mixing Water: gal/sk.	8.30	4.99	4.99
Water Type:	Fresh	Fresh	Fresh
Testing Temperature :	200 °F	201 °F	201 °F
Thickening Time: hrs:mins.	2:58	1:42	1:42
Free Water: mls.			
Fluid Loss:ml/30min			
Compressive Strength:			
	hrs.		
	hrs.		
Rheologies	RPM		
	300		
	200		
	100		
	6		
	3		
	600		
	PV		
	YP		
Gel Strength : #/100sq.ft.	10 sec.		
	10 min.		

**REMARKS :**

**COMMENTS :** The above data is supplied solely for informational purposes and BJ makes no guarantees or warranties, either express or implied, with respect to the accuracy or use of this data. All product warranties and guarantees shall be governed by the standard contract terms at the time of sale.



# BJ Services Rocky Mountain Region Laboratory Report

Report #: C04-068-11

## Customer/Well Information

Company:	Kerr-McGee Corporation	Depth MD:	7,210 ft	Date:	April 18, 2011
Well Name:	Denver #15-18	Depth TVD:	7,210 ft	Prepared for:	
API #:	05-123-32634-0000	TOC(md):		Submitted by:	Shawn Purvis
Location:	Weld County, Colorado	Casing Size:	4 1/2 in	Prepared by:	Tom Smith
District:	Brighton	Tubing Size:	2 3/8 in	Water Type:	Fresh
Type Job:	Squeeze	Hole size:			

BHST: 239 °F      BHCT: 200 °F      BHSqT: 200 °F

## Slurry Design Data

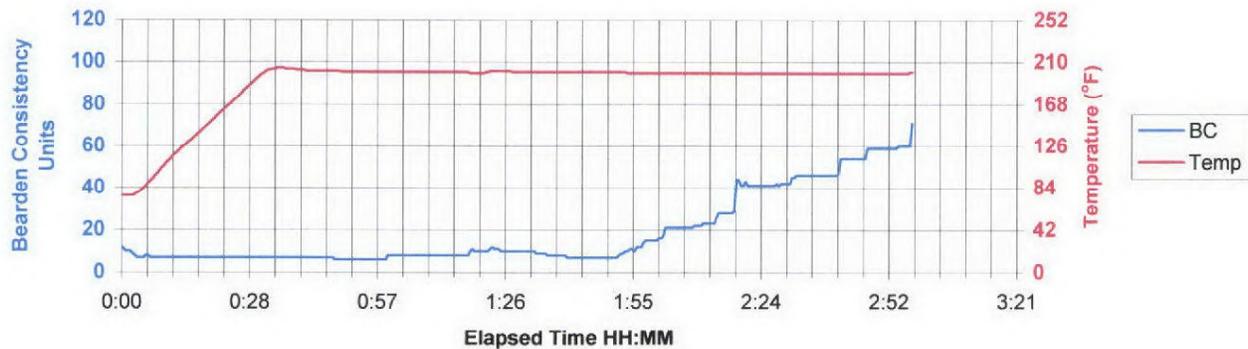
Slurry No.1- Class G:FA (50:50) + 20% S-8 + 3% Bentonite + 0.4% FL-52 + 0.1% SMS

## Slurry Properties

Density:	13.5 ppg	Fluid Loss:		Test Temp:	200 °F
Yield:	1.71 cf/sack	Free Water:		Time to 70bc:	2:58 hrs:min
Mix Water:	8.30 gps	Total Fluid:		Time to 100 bc:	

Rheology:	600 rpm	300 rpm	200 rpm	100 rpm	6 rpm	3 rpm	PV	YP	Gel Strength	
									10 sec	10 min

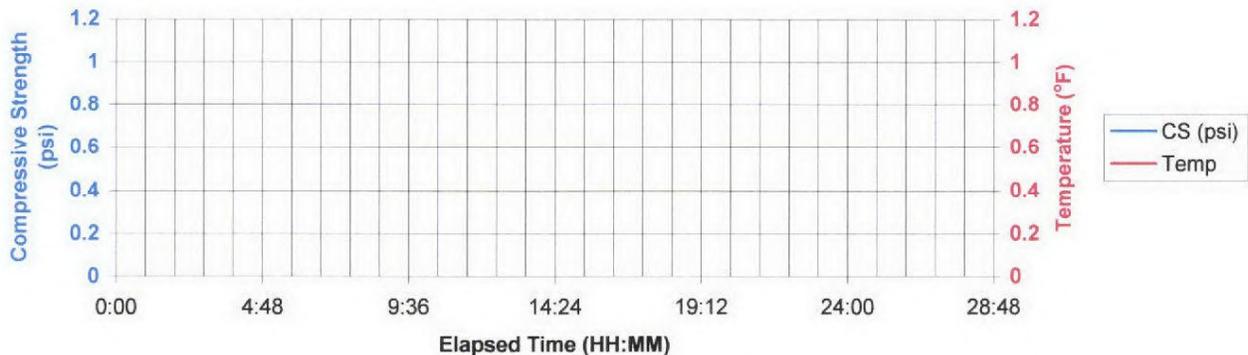
## Consistometer Recording of Bearden Consistency:



## Compressive Strength Data:

Temperature	12 hours	24 hours	36 hours	48 hours
25 psi				

## Ultrasonic Cement Analyzer Data Chart:



**Notice:** This report is presented in good faith based upon present day technology and information provided; but because of variable conditions and other information which must be relied upon, BJ Services makes no warranty, express or implied, as to the accuracy of the data or of any calculations or opinions expressed herein. You agree that BJ Services shall not be liable for any loss or damage, whether due to negligence or otherwise, arising out of or in connection with such data, calculations, or opinions.



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Location:	Weld County, Colorado	Casing Size:	4 1/2 in	Prepared by:	Tom Smith
District:	Brighton	Tubing Size:	2 3/8 in	Water Type:	Fresh
Type Job:	Squeeze	Hole size:			

BHST: 239 °F      BHCT: 200 °F      BHSqT: 200 °F

## Slurry Design Data

Slurry No.2 - Class G Cement + 0.1% R-3

## Slurry Properties

Density:	15.8 ppg	Fluid Loss:		Test Temp:	201 °F
Yield:	1.15 cf/sack	Free Water:		Time to 70bc:	1:42 hrs:min
Mix Water:	4.99 gps	Total Fluid:		Time to 100 bc:	

Rheology:	600 rpm	300 rpm	200 rpm	100 rpm	6 rpm	3 rpm	PV	YP	Gel Strength	
									10 sec	10 min

## Consistometer Recording of Bearden Consistency:



## Compressive Strength Data:

Temperature	12 hours	24 hours	36 hours	48 hours
25 psi				

## Ultrasonic Cement Analyzer Data Chart:



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District:	Brighton	Tubing Size:	2 3/8 in	Water Type:	Fresh
Type Job:	Squeeze	Hole size:			

BHST: 239 °F    BHCT: 200 °F    BHSqT: 200 °F

## Slurry Design Data

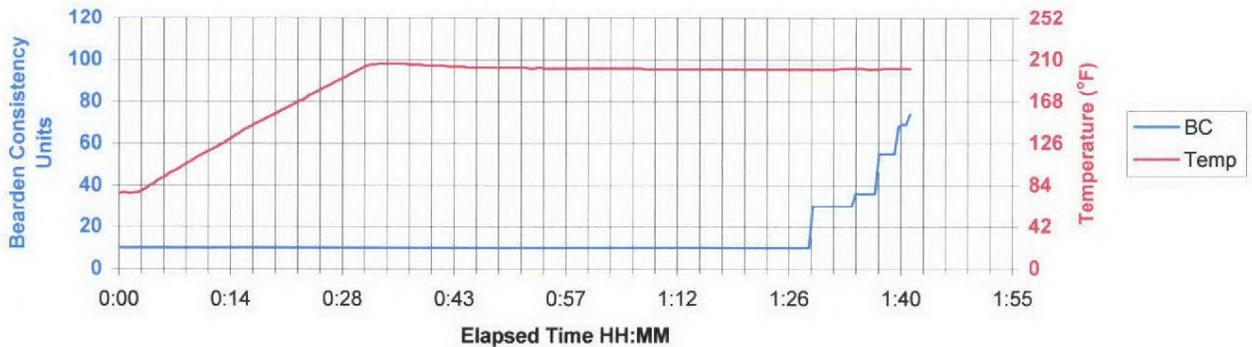
Slurry No.3 - Class G Cement + 0.1% R-3

## Slurry Properties

Density:	15.8 ppg	Fluid Loss:		Test Temp:	201 °F
Yield:	1.15 cf/sack	Free Water:		Time to 70bc:	1:42 hrs:min
Mix Water:	4.99 gps	Total Fluid:		Time to 100 bc:	

Rheology:	600 rpm	300 rpm	200 rpm	100 rpm	6 rpm	3 rpm	PV	YP	Gel Strength	
									10 sec	10 min

## Consistometer Recording of Bearden Consistency:



## Compressive Strength Data:

Temperature	12 hours	24 hours	36 hours	48 hours
25 psi				

## Ultrasonic Cement Analyzer Data Chart:



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