



Rocky Mountain Region Laboratory
899 Baseline Place
Brighton, CO 80603
Phone (303) 659-7347
Fax (303) 659-7401

***Rocky Mountain Region Laboratory
CEMENTING REPORT***

Prepared for:
***Kerr McGee Corporation
Hanson Leslie Gas Unit #1
Weld County, Colorado
Lab Report #C12-023-09***

***Squeeze
API# 05-123-08594-0000***

***Rocky Mountain Region Laboratory
899 Baseline Place
Brighton, CO 80603
Phone (303) 659-7347***

ANALYST: Joe Burock

***BJ SERVICES TECHNICAL REPRESENTATIVE
Travis Yenne***

Submitted by: Larry Mullins

December 15, 2009



CEMENTING LABORATORY REPORT **Lab Report #C12-023-09**

COMPANY :	Kerr McGee Corporation	DATE:	December 15, 2009
WELL NAME:	Hanson Leslie Gas Unit #1	LOCATION:	Weld County, Colorado
DISTRICT:	Brighton	TYPE JOB:	Squeeze
API #	05-123-08594-0000	TOC(md):	
DEPTH MD(ft):	6,840 ft	BHST(°F):	217 °F
CASING SIZE("):	4 1/2 in	BHCT(°F):	150 °F
TUBING SIZE("):	2 3/8 in	BHSqT(°F):	182 °F
HOLE SIZE("):		TOL (°F):	Static Circ

SLURRY DESIGN DATA

#1	Slurry No.1: Class G Cement + 0.3% R-3
#2	
#3	

SLURRY PROPERTIES		#1	#2	#3
Density : ppg		15.80		
Yield :cu.ft./sk.		1.15		
Mixing Water: gal/sk.		4.98		
Water Type:		Fresh		
Testing Temperature :		182 °F		
Thickening Time: hrs:mins.		3:10		
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 #: C12-023-09

Customer/Well Information

Company:	Kerr McGee Corporation	Depth MD:	6,840 ft	Date:	December 15, 2009
Well Name:	Hanson Leslie Gas Unit #1	Depth TVD:	6,840 ft	Prepared for:	Travis Yenne
API #	05-123-08594-0000	TOC(md):		Submitted by:	Larry Mullins
Location:	Weld County, Colorado	Casing Size:	4 1/2 in	Prepared by:	Joe Burock
District:	Brighton	Tubing Size:	2 3/8 in	Water Type:	Fresh
Type Job:	Squeeze	Hole size:			

BHST: 217 °F

BHCT: 150 °F

BHSqT: 182 °F

Slurry Design Data

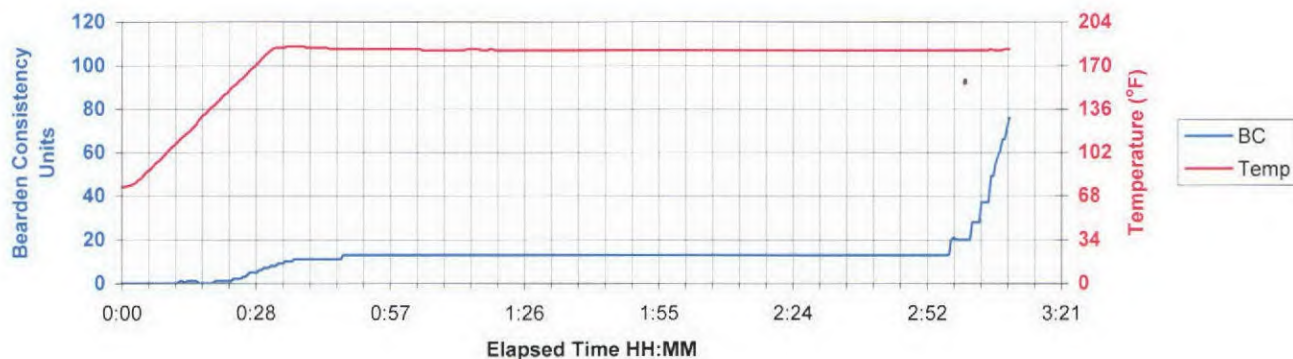
Slurry No.1: Class G Cement + 0.3% R-3

Slurry Properties

Density:	15.8 ppg	Fluid Loss:		Test Temp:	182 °F
Yield:	1.15 cf/sack	Free Water:		Time to 70bc:	3:10 hrs:min
Mix Water:	4.98 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

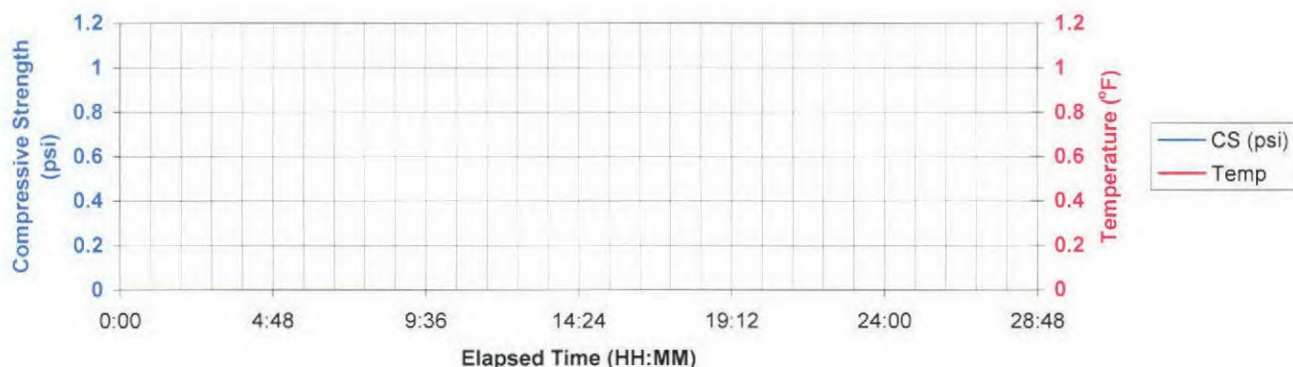
Consistometer Recording of Bearden Consistency:



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.

SSX SQUEEZE
Kerr-McGee Corporation
HANSON LESLIE GAS UNIT #1

Work-Over Rig
API # 05-123-08594-0000
WATTENBERG Field
Sec.30 - T3N - R64W
Weld County, Colorado
December 15, 2009

LM 
Proposal No: 531251340C
1001539742

Cement Proposal

Prepared for:

Mr. Dave Donoho
Customer Representative
Anadarko
Mobile: (970) 534-0677

Prepared by:

Larry Mullins
Senior Sales Rep
Brighton, Colorado



Service Point:

Brighton
Bus Phone: (303) 659-5853
Fax: (303) 659-5806

Service Representatives:

Larry Mullins
Senior Sales Rep
Brighton, Colorado

Operator Name: Kerr-McGee Corporation
Well Name: HANSON LESLIE GAS UNIT #1
Job Description: Squeeze
Date: December 15, 2009



Proposal No: 531251340C

JOB AT A GLANCE

Casing Size/Weight :	4 1/2 in, 11.6 lbs/ft
Pump Via	Tubing 2 3/8" O.D. (1.995" I.D) 4.7
Total Mix Water Required	4,400 gals
Spacer	
Fresh Water	20 bbls
Density	8.3 ppg
Lead Slurry	
Premium Lite Cement + Adds	400 sacks
Density	12.5 ppg
Yield	1.89 cf/sack
Cement Slurry	
Class "G" Grade	50 sacks
Density	15.8 ppg
Yield	1.15 cf/sack
Displacement	
Fresh Water	21 bbls
Density	8.3 ppg

WELL DEPTHS & TUBULAR CONFIGURATION IS ESTIMATED. VERIFY PROPER WELL & TUBULAR INFORMATION, PROPER JOB PROCEDURES, CEMENT VOLUMES, & DISPLACEMENT VOLUME WITH CUSTOMER'S REPRESENTATIVE

MAXIMUM PRESSURE: 2500 PSI.

PLEASE DOCUMENT HOW LONG THE WELL HAS BEEN CIRCULATED BEFORE CEMENTING AND ALL OTHER IMPORTANT ISSUES ON THE CEMENT REPORT.

Directions:

Rd. 27 South to Rd. 2,
East to I-76.
North and East to Kersey Road / Rd. 49,
North to 3.25 mile past Rd. 22,
East into Location.

Operator Name: Kerr-McGee Corporation
Well Name: HANSON LESLIE GAS UNIT #1
Job Description: Squeeze
Date: December 15, 2009



Proposal No: 531251340C

WELL GEOMETRY

Squeeze Depth	4,780 ft		
Tool Setting Depth	4,660 ft		
Tubing/Drill Pipe Size	2.375 in	1.995 in ID	4.7 lbs/ft
Casing Size	4.500 in	4.000 in ID	11.6 lbs/ft
Squeeze Temperature	148 ° F		
Est. Static Temperature	176 ° F		

FLUID SPECIFICATIONS

Spacer = 20.0 bbls Fresh Water @ 8.34 ppg

SLURRY NO.	VOLUME CU-FT	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
1	755	/ 1.89	= 400 sacks Premium Lite Cement + 0.4% bwoc FL-52 + 3% bwoc Bentonite + 99.5% Fresh Water
2	57	/ 1.15	= 50 sacks Class G Cement + 44.2% Fresh Water
Displacement			= 21.0 bbls Fresh Water @ 8.34 ppg

CEMENT PROPERTIES

	SLURRY NO. 1	SLURRY NO. 2
Slurry Weight (ppg)	12.50	15.80
Slurry Yield (cf/sack)	1.89	1.15
Amount of Mix Water (gps)	10.38	4.98
Estimated Pumping Time - 70 BC (HH:MM)	03:00	01:30

TEMPERATURE WAS ESTIMATED FROM A WATTENBERG FIELD TEMPERATURE GRADIENT MAP.

THICKENING TEST TIMES ARE ESTIMATES & SLURRIES ARE SUBJECT TO CHANGE BASED ON TEST RESULTS FROM ROCKY MOUNTAIN REGION LABORATORY.

SLURRY VOLUMES ARE ESTIMATED & VOLUMES ARE SUBJECT TO CHANGE BASED ON CALIPER LOG MEASUREMENTS.

PLEASE DOCUMENT HOW LONG WELL HAS BEEN CIRCULATED BEFORE CEMENTING AND ALL OTHER IMPORTANT ISSUES ON CEMENT REPORT.