

Piceance Energy LLC-EBUS

Piceance 28-09M

**Patterson 306**

## **Post Job Summary**

# **Cement Surface Casing**

Date Prepared: 07/11/2015

Job Date: 07/10/2015

Submitted by: Jenna Cook – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 344919	Ship To #: 3672991	Quote #:	Sales Order #: 0902559758
Customer: PICEANCE ENERGY LLC - EBUS		Customer Rep: Roger Foster	
Well Name: PICEANCE	Well #: 28-09M	API/UWI #: 05-077-10238-00	
Field: VEGA	City (SAP): COLBRAN	County/Parish: MESA	State: COLORADO
Legal Description: SW NW-28-9S-93W-1614FNL-1256FWL			
Contractor: PATTERSON-UTI ENERGY		Rig/Platform Name/Num: PATTERSON 306	
Job BOM: 7521			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HX41066		Srcv Supervisor: Bill Jamison	

### Job

Circulated 20 bbls of cement to surface

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST
Job depth MD	1600.28ft		Job Depth TVD 1611
Water Depth			Wk Ht Above Floor 4
Perforation Depth (MD)	From		To

### Well Data

Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		16	15.25	65			0	60		
Casing		8.625	8.097	24			0	1600.28		0
Open Hole Section			11				60	1611		0

### Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	8.625	1		1600.28	Top Plug	8.625	1	HES
Float Shoe	8.625				Bottom Plug	8.625	1	HES
Float Collar	8.625	1		1554.83	SSR plug set	8.625		
Insert Float	8.625				Plug Container	8.625	1	HES
Stage Tool	8.625				Centralizers	8.625		

### 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/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Fresh Water	Fresh Water	40	bbl	8.33			6	

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal

2	VariCem GJ5	VARICEM (TM) CEMENT	192	sack	12.3	2.46		8	14.17
14.17 Gal		FRESH WATER							
<b>Fluid #</b>	<b>Stage Type</b>	<b>Fluid Name</b>	<b>Qty</b>	<b>Qty UoM</b>	<b>Mixing Density lbm/gal</b>	<b>Yield ft3/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/mi n</b>	<b>Total Mix Fluid Gal</b>
3	VariCem GJ5	VARICEM (TM) CEMENT	120	sack	12.8	2.18		7	12.11
12.05 Gal		FRESH WATER							
<b>Fluid #</b>	<b>Stage Type</b>	<b>Fluid Name</b>	<b>Qty</b>	<b>Qty UoM</b>	<b>Mixing Density lbm/gal</b>	<b>Yield ft3/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/mi n</b>	<b>Total Mix Fluid Gal</b>
4	Fresh Water Displacement	Fresh Water Displacement	98.9	bbl	8.4			8	
<b>Cement Left In Pipe</b>	<b>Amount</b>	45.45 ft		<b>Reason</b>				Shoe Joint	

## 2.0 Real-Time Job Summary

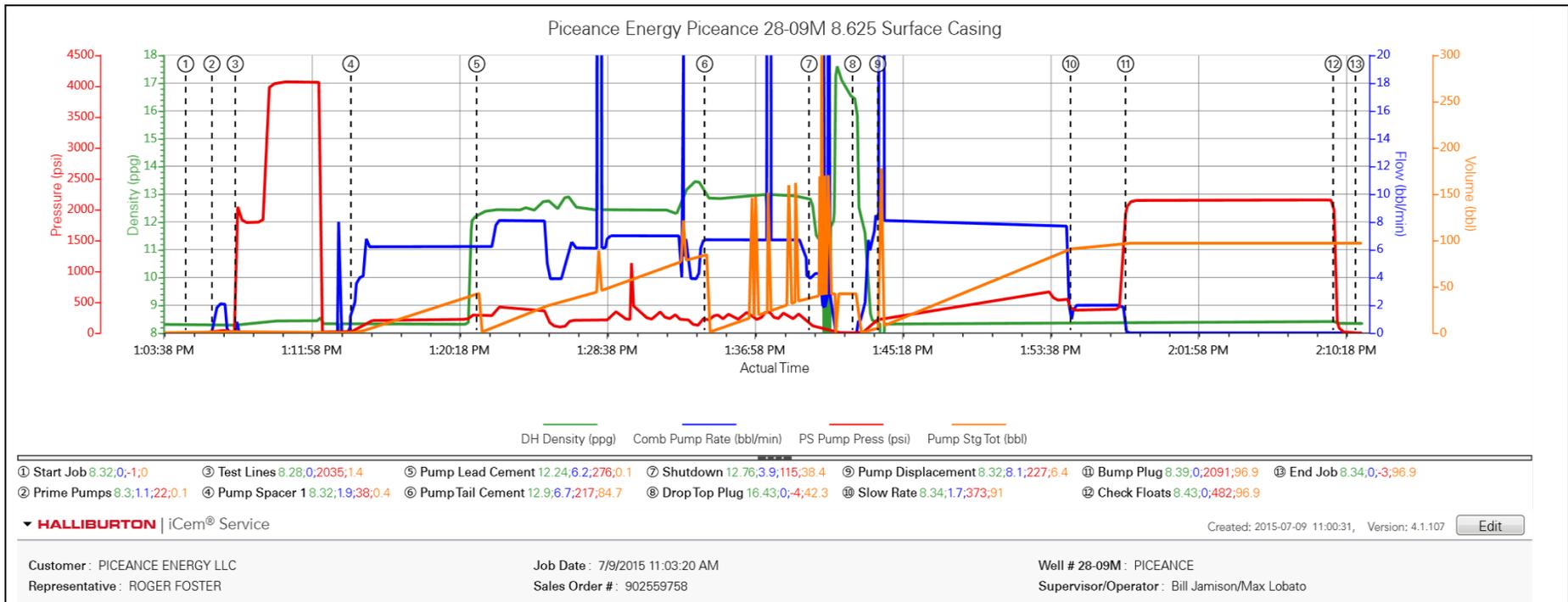
### 2.1 Job Event Log

Type	Seq. No.	Activity	Date	Time	Source	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	PS Pump Press <i>(psi)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Call Out	7/9/2015	06:00:00	USER					TD 1600 TP 1600.28 SJ 45.45 SURFACE CASING 8.625 24# J-55 HOLE SIZE 11.0 MUD 8.9
Event	2	Depart Yard Safety Meeting	7/9/2015	08:45:00	USER					
Event	3	Crew Leave Yard	7/9/2015	09:00:00	USER					
Event	4	Arrive At Loc	7/9/2015	11:00:00	USER					
Event	5	Assessment Of Location Safety Meeting	7/9/2015	11:20:00	USER					
Event	6	Pre-Rig Up Safety Meeting	7/9/2015	11:30:00	USER					
Event	7	Pre-Job Safety Meeting	7/9/2015	12:50:00	USER					
Event	8	Start Job	7/9/2015	13:05:00	COM2					
Event	9	Prime Pumps	7/9/2015	13:06:28	COM2	8.4	2	22	2	FRESH WATER
Event	10	Test Lines	7/9/2015	13:07:47	COM2			4000		
Event	11	Pump Spacer 1	7/9/2015	13:14:19	COM2	8.4	6	240	40	FRESH WATER
Event	12	Pump Lead Cement	7/9/2015	13:21:24	COM2	12.3	8	415	83.1	192 SKS YIELD 2.46 WAT/REQ 14.17
Event	13	Pump Tail Cement	7/9/2015	13:34:15	COM2	12.8	7	230	46.6	120 SKS YIELD 2.18 WAT/REQ 12.11
Event	14	Shutdown	7/9/2015	13:40:09	USER					
Event	15	Drop Top Plug	7/9/2015	13:42:36	COM2					

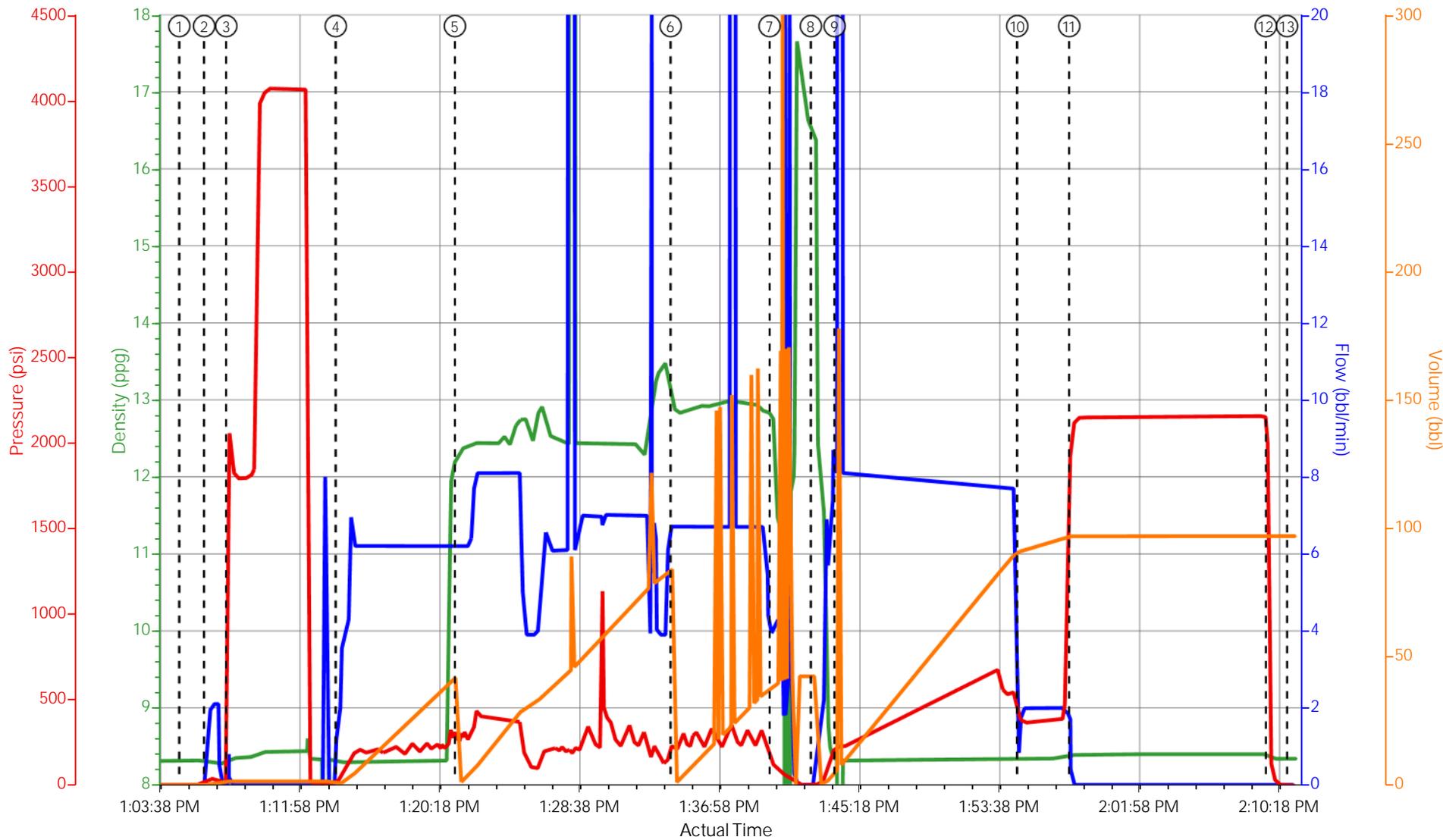
Event	16	Pump Displacement	7/9/2015	13:44:01	COM2	8.4	8	560	90	FRESH WATER
Event	17	Slow Rate	7/9/2015	13:54:54	USER	8.4		373	8.9	
Event	18	Bump Plug	7/9/2015	13:58:00	COM2	8.39	0.00	380	98.9	PRESSURED UP TO 2100 FOR 10 MIN CASING TEST
Event	19	Check Floats	7/9/2015	14:09:42	USER					FLOATS HELD 1 BBL BACK TO TRUCK
Event	20	End Job	7/9/2015	14:10:58	COM2					CEMENT TO SURFACE 20 BBLS
Event	21	Post-Job Safety Meeting (Pre Rig-Down)	7/9/2015	14:15:00	USER					GOOD RETURNES THROUGHOUT JOB
Event	22	Depart Location Safety Meeting	7/9/2015	14:50:00	USER					CASING WAS NOT MOVED THROUGHOUT JOB
Event	23	Crew Leave Location	7/9/2015	15:00:00	USER					THANKS FOR USING HALLIBURTON BILL JAMISON & CREW

3.0 Attachments

3.1 PICEANCE ENERGY PICEANCE 28-09M 8.625 SURFACE CASING.png

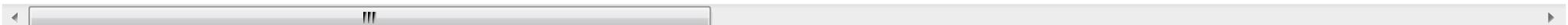


# Piceance Energy Piceance 28-09M 8.625 Surface Casing



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

• Start Job 8.32;0;-1;0 • Prime Pumps 8.3;1.1;22;0.1 • Test Lines 8.28;0;2035;1.4 • Pump Spacer 1 8.32;1.9;38;0.4 • Pump Lead Cement 12.24;6.2;276;0.1 • Pump Tail Cement 12.9;6.7;217;0.1



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Created: 2015-07-09 11:00:31, Version: 4.1.107 Edit

Customer : PICEANCE ENERGY LLC	Job Date : 7/9/2015 11:03:20 AM	Well # 28-09M : PICEANCE
Representative : ROGER FOSTER	Sales Order # : 902559758	Supervisor/Operator : Bill Jamison/Max Lobato

<b>Sales Order #:</b> 0902559758	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 7/9/2015
<b>Customer:</b> PICEANCE ENERGY LLC - EBUS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> ROGER FOSTER		<b>API / UWI: (leave blank if unknown)</b> 05-077-10238-00
<b>Well Name:</b> PICEANCE		<b>Well Number:</b> 0080734096
<b>Well Type:</b> DIRECTIONAL GAS	<b>Well Country:</b> USA	
<b>H2S Present:</b> No	<b>Well State:</b> COLORADO	<b>Well County:</b> MESA

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	7/10/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HAL9235
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	ROGER FOSTER
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	NONE

<b>CUSTOMER SIGNATURE</b>
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### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b>	7/9/2015
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>Pumping Hours</b>	2
Total number of hours pumping fluid on this job. Enter in decimal format.	
<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>Was this a Primary Cement Job (Yes / No)</b>	Yes
Primary Cement Job= Casing job, Liner job, or Tie-back job.	
<b>Number of Unplanned Shutdowns</b>	0
Unplanned shutdown is when injection stops for any period of time.	
<b>Customer Non-Productive Rig Time (hrs)</b>	0

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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>Was the non productive time or the unplanned shutdown caused by a problem with a piece of equipment?</b> Was the non productive time or the unplanned shutdown caused by a problem with a piece of equipment?	No
<b>Did We Run Wiper Plugs?</b> Did We Run Top And Bottom Casing Wiper Plugs?	Both
<b>If a top plug was run, was the plug bumped? (Yes/No/N/A)</b> If a top plug was run, was the plug bumped? (Yes/No/N/A)	Yes
<b>If applicable, was Halliburton float equipment used? (Yes/No/N/A)</b> If applicable, was Halliburton float equipment used? (Yes/No/N/A)	Yes
<b>If applicable, did the floats hold? (Yes/No/N/A)</b> If applicable, did the floats hold? (Yes/No/N/A)	Yes
<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	98
<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	98
<b>If applicable, were there returns throughout the job? (Yes/No/N/A)</b> If applicable, were there returns throughout the job? (Yes/No/N/A)	Yes
<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

# HALLIBURTON

## Water Analysis Report

Company: PICEANCE ENERGY

Date: 7/9/2015

Submitted by: BILL JAMISON

Date Rec.: 7/9/2015

Attention: DALLAS SCOTT

S.O.# 902559758

Lease PICEANCE

Job Type: SURFACE

Well # 28-09M

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>7.5</b>
Potassium (K)	<i>5000</i>	<b>400</b> Mg / L
Calcium (Ca)	<i>500</i>	<b>120</b> Mg / L
Iron (FE2)	<i>300</i>	<b>0</b> Mg / L
Chlorides (Cl)	<i>3000</i>	<b>0</b> Mg / L
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<b>-200</b> Mg / L
Chlorine (Cl <sub>2</sub> )		<b>0</b> Mg / L
Temp	<i>40-80</i>	<b>65</b> Deg
Total Dissolved Solids		<b>410</b> Mg / L

Respectfully: BILL JAMISON

Title: CEMENTING SUPERVISOR

Location: WILLISTON ND

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 its