

WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

RWF 321-25

Cyclone 17

## **Post Job Summary**

# **Cement Surface Casing**

Date Prepared: 04/19/2014

Submitted by: Grand Junction Cement Engineering

## The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 3123554	Quote #:	Sales Order #: 0901234332
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS	Customer Rep: MIKE BRUNK		
Well Name: SAVAGE	Well #: RWF 321-25	API/UWI #: 05-045-21970-00	
Field: RULISON	City (SAP): RIF	County/Parish: GARFIELD	State: COLORADO
Legal Description: SE NW-25-6S-94W-2437FNL-1436FWL			
Contractor: CYCLONE	Rig/Platform Name/Num: CYCLONE 17		
Job BOM: 7521			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HB50180	Srvc Supervisor: Bill Jamison		
Job			

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST
Job depth MD	1217ft		Job Depth TVD
Water Depth			Wk Ht Above Floor
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		9.625	9.001	32.3			0	1217		0
Open Hole Section			13.5				0	1230	0	0

Tools and Accessories									
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe				1217		Top Plug	9.625	1	HES
Float Shoe						Bottom Plug			
Float Collar						SSR plug set			
Insert Float						Plug Container	9.625	1	HES
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/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Fresh Water	Fresh Water	20	bbl	8.34			4		
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	Lead Cement	VARICEM (TM) CEMENT	134	Sack/Ton	12.3	2.38		8	13.77	
94 lbm		TYPE I / II CEMENT, BULK (101439798)								

13.72 Gal		FRESH WATER							
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
3	Tail Cement	VARICEM (TM) CEMENT	176	Sack/Ton	12.8	2.11		8	11.77
11.74 Gal		FRESH WATER							
94 lbm		TYPE I / II CEMENT, BULK (101439798)							
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
4	Displacement	Displacement	92.7	bbl	8.34			10	
Cement Left In Pipe		Amount	40 ft		Reason		Shoe Joint		
Comment									

# Summary Report



Crew: \_\_\_\_\_

Job Start Date: 4/2/2014

Sales Order #: 0901234332  
WO #: 0901234332  
PO/AFE #: NA

Customer:	WPX ENERGY ROCKY MOUNTAIN LLC-EBUS	Field:	RULISON	Job Type:	CMT SURFACE CASING BOM
UWI / API Number:	05-045-21970-00	County/Parish:	GARFIELD	Service Supervisor:	Bill Jamison
Well Name:	SAVAGE	State:	COLORADO		
Well No:	RWF 321-25	Latitude:	39.497120	Cust Rep Name:	MIKE BRUNK
		Longitude:	-107.840969	Cust Rep Phone #:	
		Sect / Twn / Rng:	25/6/94		

**Remarks:**

<b>The Information Stated Herein Is Correct</b>	Customer Representative Signature	Date
	Customer Representative Printed Name	

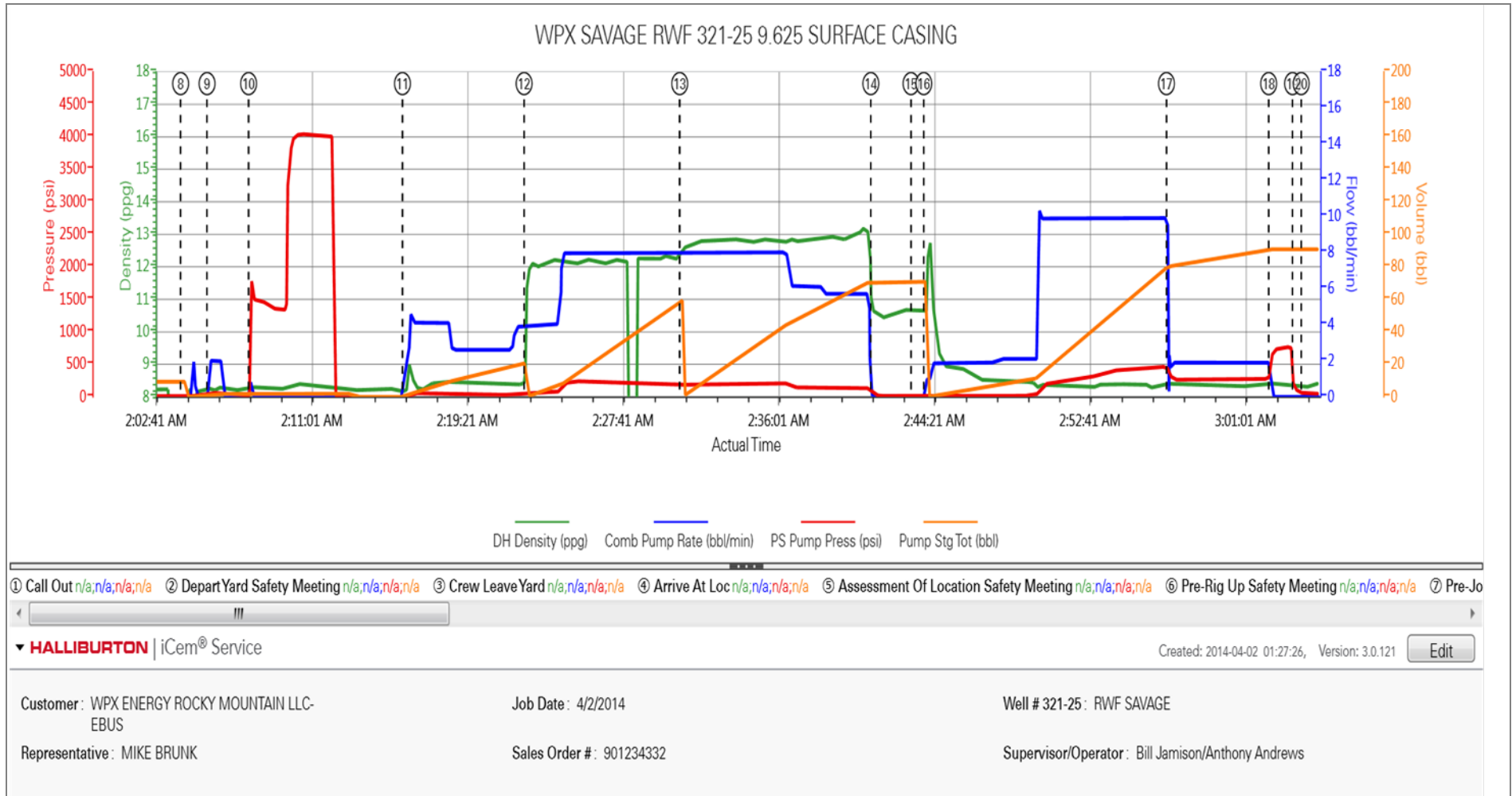
## 4.1 Job Event Log

Type	Seq. No.	Graph Label/Activity	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comment
Event	1	Call Out	4/1/2014	20:30:00	USER					
Event	2	Depart Yard Safety Meeting	4/1/2014	22:20:00	USER					TD 1230 TP 1217 SJ 40 CASING 9.625 32.3 # GRADE H-40 HOLE SIZE 13.5
Event	3	Crew Leave Yard	4/1/2014	22:30:00	USER					
Event	4	Arrive At Loc	4/2/2014	00:20:00	USER					
Event	5	Assessment Of Location Safety Meeting	4/2/2014	00:30:00	USER					
Event	6	Pre-Rig Up Safety Meeting	4/2/2014	00:40:00	USER					
Event	7	Pre-Job Safety Meeting	4/2/2014	01:50:00	USER					
Event	8	Start Job	4/2/2014	02:04:07	COM2					
Event	9	Prime Pumps	4/2/2014	02:05:32	USER	8.3	2.00	63	2.	FRESH WATER
Event	10	Test Lines	4/2/2014	02:07:46	COM2			4000		
Event	11	Pump Spacer 1	4/2/2014	02:16:00	COM2	8.3	4	58	20	FRESH WATER
Event	12	Pump Lead Cement	4/2/2014	02:22:31	COM2	12.3	8	235	56.8	134 SKS MIXED @ 12.3 PPG YIELD 2.38 WAT/REQ 13.77
Event	13	Pump Tail Cement	4/2/2014	02:30:51	COM2	12.8	8	204	66.1	176 SKS MIXED @ 12.8 PPG YIELD 2.11 WAT/REQ 11.77
Event	14	Shutdown	4/2/2014	02:41:05	COM2					
Event	15	Drop Plug	4/2/2014	02:43:14	COM2					
Event	16	Pump Displacement	4/2/2014	02:43:55	COM2	8.4	10			FRESH WATER
Event	17	Slow Rate	4/2/2014	02:56:54	USER	8.39	2	470	82	
Event	18	Bump Plug	4/2/2014	03:02:23	COM2	8.38	2	280	92.7	PRESSURED UP TO 766 PSI
Event	19	Check Floats	4/2/2014	03:03:39	USER	8.35	0.00	766	92.7	FLOATS HELD
Event	20	End Job	4/2/2014	03:04:07	COM2					CEMENT TO SURFACE 22BBLs
Event	21	Post-Job Safety Meeting (Pre Rig-Down)	4/2/2014	03:10:00	USER					GOOD CIRCULATION THROUGHOUT JOB
Event	22	Depart Location Safety	4/2/2014	03:50:00	USER					CASING WAS NOT MOVED THROUGHOUT JOB

Meeting						
Event	23	Crew Leave Location	4/2/2014	04:00:00	USER	THANKS FOR USING HALLIBURTON BILL JAMISON & CREW

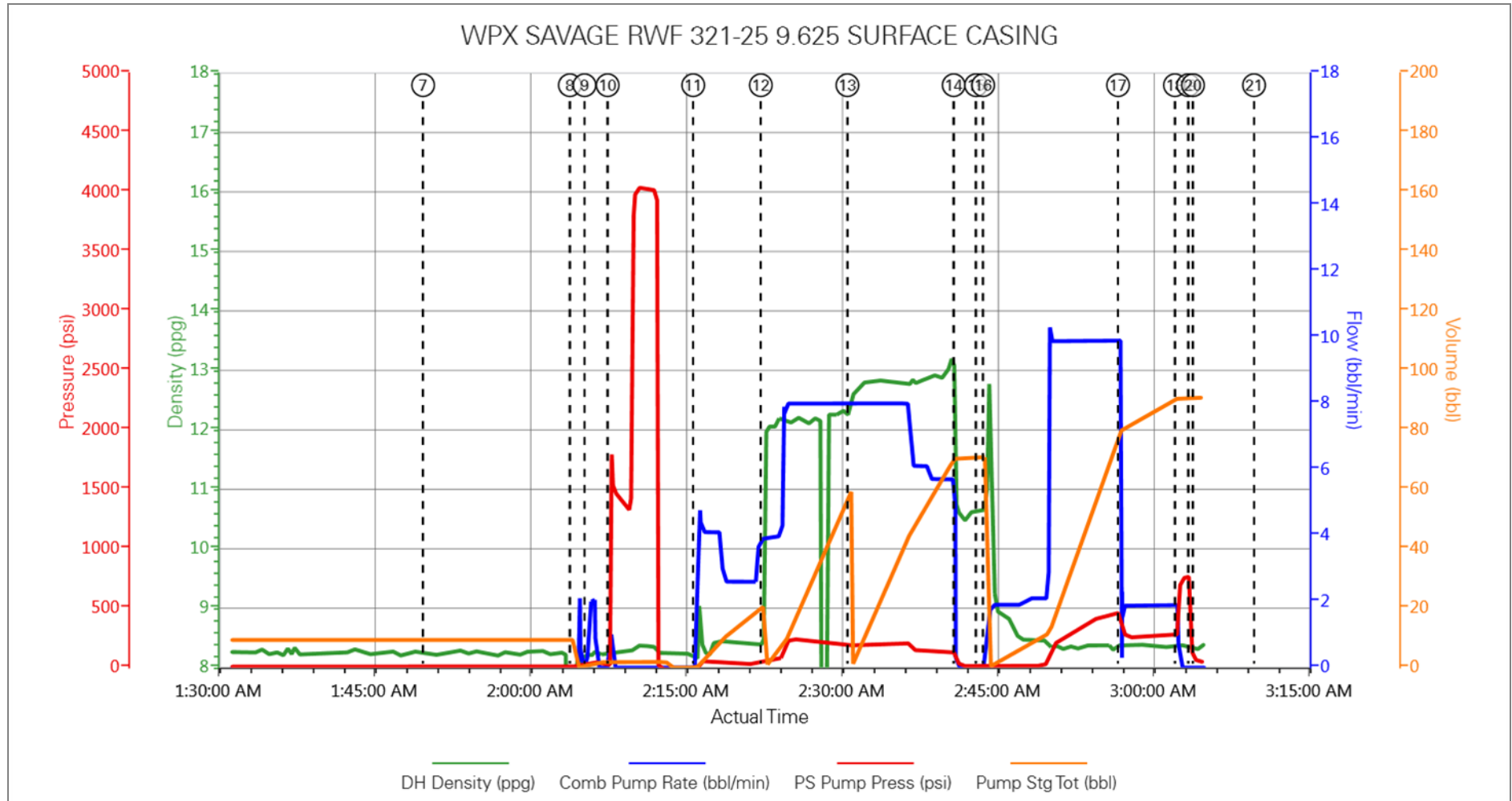
## 5.0 Attachments

### 5.1 WPX-SAVAGE RWF 321-25 SURFACE CASING.png



## 6.0 Custom Graphs

### 6.1 Custom Graph





# HALLIBURTON

## Water Analysis Report

Company: WPX

Submitted by: BILL JAMISON

Attention: DALLAS SCOTT

Lease RWF

Well # 321-25

Date: 4/1/2014

Date Rec.: 4/1/2014

S.O.# 901234332

Job Type: SURFACE

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>8</b>
Potassium (K)	<i>5000</i>	<b>425</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>67</b> Deg
Total Dissolved Solids		<b>160</b> Mg / L

Respectfully: BILL JAMISON

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 its use.

<b>Sales Order #:</b> 0901234332	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 4/2/2014
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> MIKE BRUNK		<b>API / UWI: (leave blank if unknown)</b> 05-045-21970-00
<b>Well Name:</b> SAVAGE		<b>Well Number:</b> 0080125628
<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> 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	4/2/2014
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	MIKE BRUNK
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

CUSTOMER SIGNATURE

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### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b> The date the survey was conducted	4/2/2014

Cementing KPI Survey	
<b>Type of Job</b> Select the type of job. (Cementing or Non-Cementing)	0
<b>Select the Maximum Deviation range for this Job</b> What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	Vertical
<b>Total Operating Time (hours)</b> Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	3
<b>HSE Incident, Accident, Injury</b> HSE Incident, Accident, Injury. This should be recordable incidents only.	No
<b>Was the job purpose achieved?</b> Was the job delivered correctly as per customer agreed design?	Yes
<b>Operating Hours (Pumping Hours)</b> Total number of hours pumping fluid on this job. Enter in decimal format.	1
<b>Customer Non-Productive Rig Time (hrs)</b> 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.	0
<b>Type of Rig Classification Job Was Performed</b> Type Of Rig (classification) Job Was Performed On	Drilling Rig (Portable)
<b>Number Of JSAs Performed</b> Number Of Jsas Performed	5
<b>Number of Unplanned Shutdowns</b> Unplanned shutdown is when injection stops for any period of time.	0
<b>Was this a Primary Cement Job (Yes / No)</b>	Yes

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Primary Cement Job= Casing job, Liner job, or Tie-back job.	
<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	98
<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	98
<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