
WEXPRO COMPANY E-BILL

**Carl Allen 37
POWDER WASH
Moffat County, Colorado**

**Cement Surface Casing
21-Dec-2011**

Post Job Report

The Road to Excellence Starts with Safety

Sold To #: 343491		Ship To #: 2891057		Quote #:		Sales Order #: 9149848	
Customer: WEXPRO COMPANY E-BILL				Customer Rep: Airdrill, Questar			
Well Name: Carl Allen			Well #: 37		API/UWI #: 05-081-07617		
Field: POWDER WASH		City (SAP): CRAIG		County/Parish: Moffat		State: Colorado	
Legal Description: Section 4 Township 11N Range 97W							
Contractor: Wexpro				Rig/Platform Name/Num: SST 88			
Job Purpose: Cement Surface Casing							
Well Type: Development Well				Job Type: Cement Surface Casing			
Sales Person: VOLNER, THOMAS				Srvc Supervisor: CAUDILL, BRIAN		MBU ID Emp #: 433515	
Job Personnel							
HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs
BERRY, TYREE Douglas	12	490164	CAUDILL, BRIAN David	12	433515	DICKENSON, STEVEN Patrick	12
RASMUSSEN, BRYCE L	12	489414	WHITE, JARED	12	511644		
Equipment							
HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10025032C	80 mile	10249494C	80 mile	10624096C	80 mile	10998510	80 mile
10998520	80 mile	11106721	80 mile	11380725	80 mile		
Job Hours							
Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours
12/21/11	12	1					
TOTAL		<i>Total is the sum of each column separately</i>					
Job				Job Times			
Formation Name				Date	Time	Time Zone	
Formation Depth (MD)	Top	Bottom		Called Out	21 - Dec - 2011	01:00	MST
Form Type	BHST		99 degF	On Location	21 - Dec - 2011	05:30	MST
Job depth MD	1536. ft			Job Started	21 - Dec - 2011	14:35	MST
Water Depth	Wk Ht Above Floor		4. ft	Job Completed	21 - Dec - 2011	15:41	MST
Perforation Depth (MD)	From	To		Departed Loc	21 - Dec - 2011	17:20	MST
Well Data							
Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade
Surface Openhole				12.25			
Conductor Pipe	Unknown		16.	15.376	55.		
Surface Casing	New		9.625	8.921	36.		J-55
Tools and Accessories							
Type	Size	Qty	Make	Depth	Type	Size	Qty
Guide Shoe					Packer		
Float Shoe					Bridge Plug		
Float Collar					Retainer		
Insert Float							
Stage Tool							
Miscellaneous Materials							
Gelling Agt		Conc		Surfactant		Conc	
Treatment Fld		Conc		Inhibitor		Conc	
						Acid Type	
						Sand Type	
						Qty	
						Conc	%
						Size	Qty

Fluid Data									
Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft ³ /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Fresh Water		20.00	bbl	8.34	.0	.0	2.0	
2	VeriCem RS 1	VARICEM (TM) CEMENT (452009)	175.0	sacks	11.5	2.98	18.22	6	18.22
	0.125 lbm	POLY-E-FLAKE (101216940)							
	0.25 lbm	KWIK SEAL, SK (100064010)							
	17.799 Gal	FRESH WATER							
3	W1- Premium	CMT - PREMIUM - CLASS G, 94 LB SK (100003685)	265.0	sacks	15.2	1.28	5.81	6	5.81
	94 lbm	CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							
	2 %	CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
	1 %	HALLIBURTON GEL, 50 LB SK (100064040)							
	5.802 Gal	FRESH WATER							
4	Fresh Water		20.00	bbl	8.33	.0	.0	6.0	
Calculated Values		Pressures		Volumes					
Displacement	115.5	Shut In: Instant		Lost Returns		Cement Slurry	153.2	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	55	Actual Displacement	115.5	Treatment	
Frac Gradient		15 Min		Spacers	20	Load and Breakdown		Total Job	288.7
Rates									
Circulating	8	Mixing		6	Displacement	6	Avg. Job		6
Cement Left In Pipe	Amount	41 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					

Wexpro Carl Allen 37 Surface**1. Pressure Test HES Lines****2. Pump Spacer**

	Name	Density (lb/gal)	Volume (bbls)	Rate (bpm)	Surfactants
2a.	Water	8.33	20	5	

3. Pump Cement

	Name	Density (lb/gal)	Slurry Volume (bbls)	Rate (bpm)	Mix Water Required (bbls)
3a.	VariCem RS1-Lead	11.5	92.9	5	75.9
3b.	W1 - Premium-Tail	15.2	60.3	5	36.6

4. Shutdown, Drop Top Plug**5. Displacement**

	Name	Density (lb/gal)	Volume (bbls)	Rate (bpm)
5a.	Water	8.33	92.0	5
5b.	Water	8.33	20.0	2

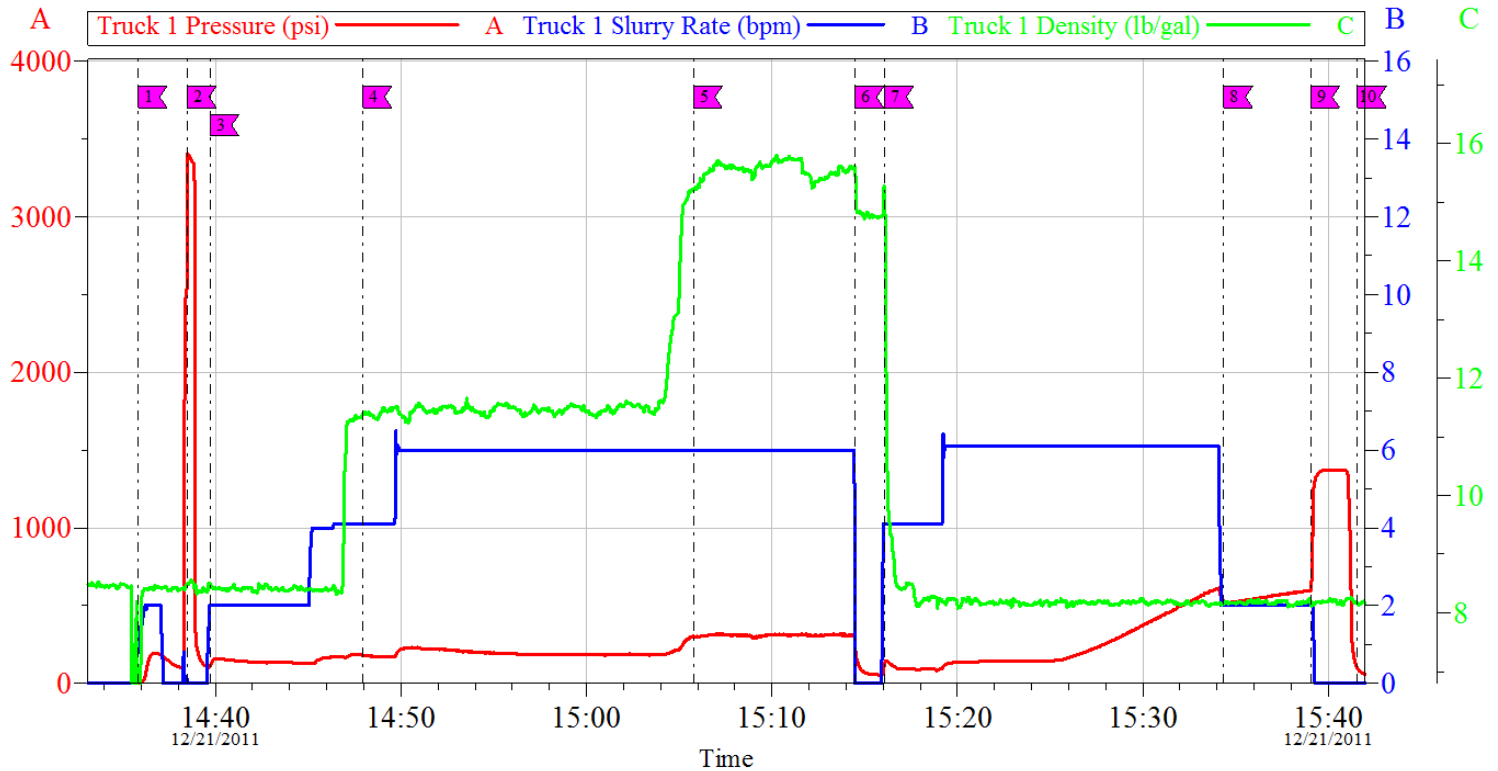
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Well Name: Carl Allen	Well #: 37	API/UWI #: 05-081-07617	
Field: POWDER WASH	City (SAP): CRAIG	County/Parish: Moffat	State: Colorado
Legal Description: Section 4 Township 11N Range 97W			
Lat: N 0 deg. OR N 0 deg. 0 min. 0 secs.		Long: E 0 deg. OR E 0 deg. 0 min. 0 secs.	
Contractor: Wexpro		Rig/Platform Name/Num: SST 88	
Job Purpose: Cement Surface Casing			Ticket Amount:
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: VOLNER, THOMAS		Srv Supervisor: CAUDILL, BRIAN	MBU ID Emp #: 433515

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	12/21/2011 01:00							REQUESTED ON LOCATION @ 07:00
Pre-Convoy Safety Meeting	12/21/2011 03:00							
Crew Leave Yard	12/21/2011 03:15							
Arrive At Loc	12/21/2011 05:30							
Assessment Of Location Safety Meeting	12/21/2011 05:35							
Rig-Up Equipment	12/21/2011 05:45							
Wait on Customer or Customer Sub-Contractor Equip	12/21/2011 06:20							
Pre-Job Safety Meeting	12/21/2011 14:20							
Rig-Up Completed	12/21/2011 14:33							
Start Job	12/21/2011 14:35	1	2	3	3		115.0	FILLED LINES WITH H2O
Pressure Test	12/21/2011 14:38	2						GOOD PRESSURE TEST, NO LEAKS, 3031 PSI
Pump Spacer	12/21/2011 14:39	3	2	17	<u>20</u>		110.0	PUMPED H2O SPACER
Pump Lead Cement	12/21/2011 14:48	4	6	92.8	92.8		180.0	PUMPED 175 SKS OF VERICEM RS1 @ 11.5 PPG, 2.98 CF/SK, 18.22 GAL/SK
Pump Tail Cement	12/21/2011 15:05	5	6	60.4	<u>153.2</u>		296.0	PUMPED 265 SKS OF W-1 PREMIUM @ 15.2 PPG, 1.28 CF/SK, 5.81 GAL/SK
Shutdown	12/21/2011 15:14	6						

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Drop Plug	12/21/2011 15:14	6						
Pump Displacement	12/21/2011 15:16	7	6	100	100		123.0	PUMPED H2O
Slow Rate	12/21/2011 15:34	8	2	15.5	<u>115.5</u>		531.0	PUMPED H2O
Bump Plug	12/21/2011 15:39	9					620.0	BROUGHT FINAL CIRCULATING PRESSURE TO 1360 PSI
Check Floats	12/21/2011 15:41	10						FLOATS HELD, 1 BBLS BACK TO THE PUMP,
Other	12/21/2011 15:42							FULL RETURNS THROUGHOUT THE JOB, 20 BBLS OF SPACER, AND 55 BBLS OF CEMENT TO SURFACE
Pre-Rig Down Safety Meeting	12/21/2011 15:45							
Rig-Down Equipment	12/21/2011 15:47							
Pre-Convoy Safety Meeting	12/21/2011 17:20							
Crew Leave Location	12/21/2011 17:25							THANKS FROM HES CREW

WEXPRO CARL ALLEN WELL 37 MOFFAT CO.



Local Event Log											
Intersection		T1P	T1SR	T1D	Intersection		T1P	T1SR	T1D		
1	FILL LINES	14:35:49	-1.000	0.800	0.654	2	PRESURE TEST	14:38:29	3031	0.057	8.496
3	PUMP H2O SPACER	14:39:42	110.6	2.000	8.491	4	PUMP LEAD CEMENT	14:47:57	180.2	4.100	11.38
5	PUMP TAIL CEMENT	15:05:46	296.6	6.000	15.20	6	SHUTDOWN/DROP TOP PLUG	15:14:28	262.0	2.600	15.61
7	START DISPLACEMENT	15:16:04	123.0	4.100	15.18	8	SLOW RATE	15:34:22	531.0	2.000	8.160
9	BUMP PLUG	15:39:03	598.0	2.000	8.200	10	CHECK FLOATS	15:41:35	94.00	0.000	8.150

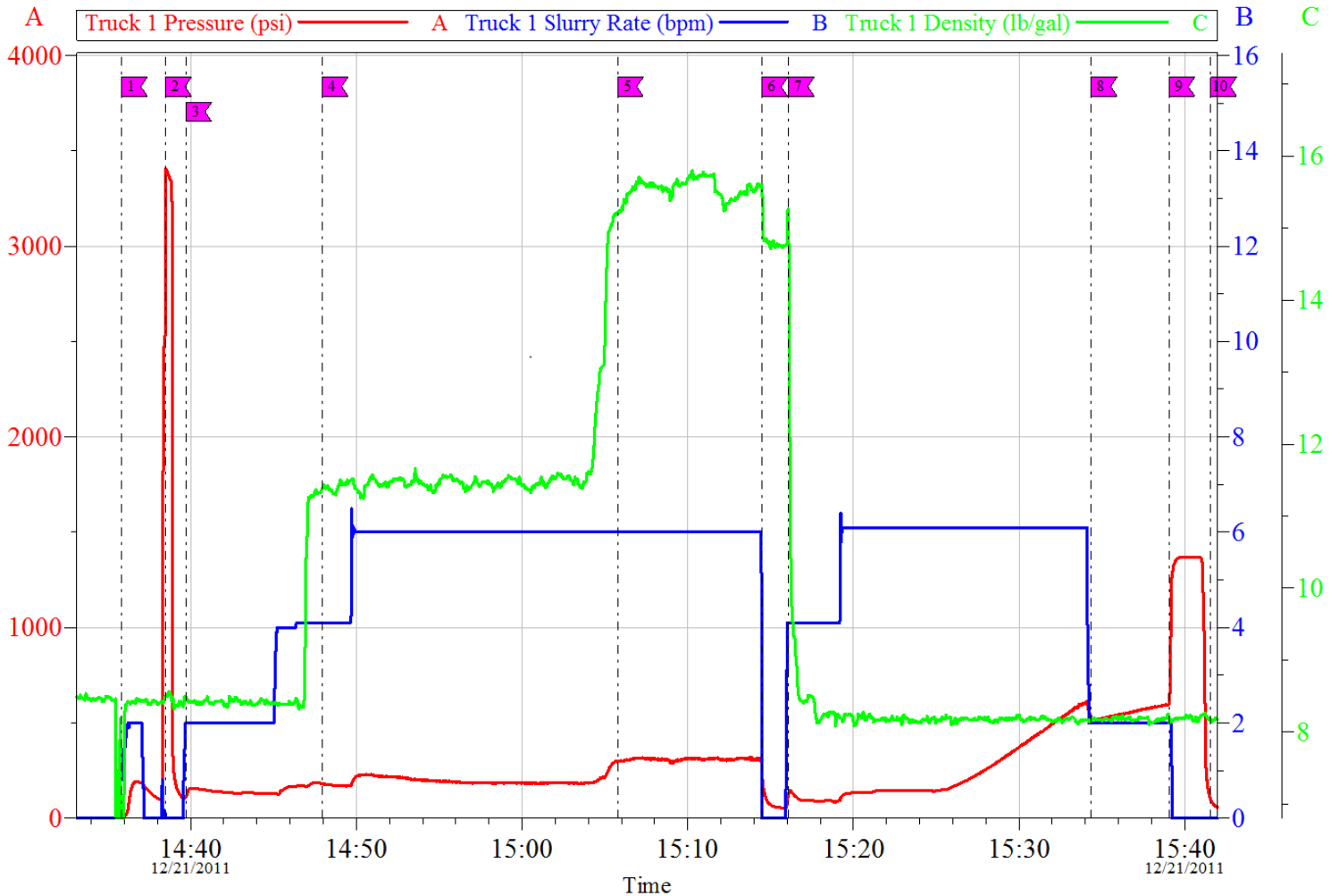
Customer: WEXPRO
Well Description: CARL ALLEN # 37

Job Date: 21-Dec-2011
JOB TYPE SURFACE

Sales Order #: 9149848
SUPERVISOR B. CAUDILL

OptiCem v6.4.9
21-Dec-11 16:20

WEXPRO CARL ALLEN WELL 37 MOFFAT CO.



Customer: WEXPRO	Job Date: 21-Dec-2011	Sales Order #: 9149848
Well Description: CARL ALLEN # 37	JOB TYPE SURFACE	SUPERVISOR B. CAUDILL

OptiCem v6.4.9
21-Dec-11 16:25

HALLIBURTON

Water Analysis Report

COMPANY: WEXPRO

SUBMITTED BY: B. CAUDILL

LEASE: CARL ALLEN

WELL #: 37

Date Recorded 12/21/2011

SO# 9149848

Job Type SURFACE

Camp Location ROCKSPRINGS WY

CEMENT MIX WATER REQUIREMENTS

Item	Recorded Test Value	Units	Max. Acceptable Limit	Potential Problems in Exceeding Limit
pH	8	----	6.0 - 8.0	Chemicals in the water can cause severe retardation
Chlorides	0	ppm	3000 ppm	Can shorten thickening time of cement
Sulfates	<200	ppm	1500 ppm	Will greatly decrease the strength of cement
Total Hardness	50	ppm	500 mg/L	High concentrations will accelerate the set of the cement
Calcium	0	ppm	500 ppm	High concentrations will accelerate the set of the cement
Total Alkalinity	180	ppm	1000 ppm	Cement is greatly retarded to the point where it may not set up at all (typically occurs @ pH \geq 8.3).
Potassium	200	ppm	5000 ppm	High concentrations will shorten the pump time of cement (indicates the presence of chlorides, therefore if Potassium levels
Iron	3	ppm	300 ppm	High concentrations will accelerate the set of the cement
Temperature	75	°F	50-80 °F	High temps will accelerate; Low temps may risk freezing in cold weather

Sales Order #: 9149848	Line Item: 10	Survey Conducted Date: 12/21/2011
Customer: WEXPRO COMPANY E-BILL		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative: STEVE		API / UWI: (leave blank if unknown) 05-081-07617
Well Name: Carl Allen		Well Number: 37
Well Type: Development Well	Well Country: United States of America	
H2S Present:	Well State: Colorado	Well County: Moffat

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	12/21/2011
Survey Interviewer	The survey interviewer is the person who initiated the survey.	BRIAN CAUDILL (HX44516)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	STEVE
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	GOOD JOB THANKS

CUSTOMER SIGNATURE

Sales Order #: 9149848	Line Item: 10	Survey Conducted Date: 12/21/2011
Customer: WEXPRO COMPANY E-BILL		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative: STEVE		API / UWI: (leave blank if unknown) 05-081-07617
Well Name: Carl Allen		Well Number: 37
Well Type: Development Well	Well Country: United States of America	
H2S Present:	Well State: Colorado	Well County: Moffat

KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date	12/21/2011
The date the survey was conducted	

Cementing KPI Survey	
Type of Job	0
Select the type of job. (Cementing or Non-Cementing)	
Select the Maximum Deviation range for this Job	Deviated
What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	
Total Operating Time (hours)	3
Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	
HSE Incident, Accident, Injury	No
HSE Incident, Accident, Injury. This should be recordable incidents only.	
Was the job purpose achieved?	Yes
Was the job delivered correctly as per customer agreed design?	
Operating Hours (Pumping Hours)	2
Total number of hours pumping fluid on this job. Enter in decimal format.	
Customer Non-Productive Rig Time (hrs)	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.	
Type of Rig Classification Job Was Performed	Drilling Rig (Portable)
Type Of Rig (classification) Job Was Performed On	
Number Of JSAs Performed	5
Number Of Jsas Performed	
Number of Unplanned Shutdowns	0
Unplanned shutdown is when injection stops for any period of time.	
Was this a Primary Cement Job (Yes / No)	Yes

Sales Order #: 9149848	Line Item: 10	Survey Conducted Date: 12/21/2011
Customer: WEXPRO COMPANY E-BILL		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative: STEVE		API / UWI: (leave blank if unknown) 05-081-07617
Well Name: Carl Allen		Well Number: 37
Well Type: Development Well	Well Country: United States of America	
H2S Present:	Well State: Colorado	Well County: Moffat

Primary Cement Job= Casing job, Liner job, or Tie-back job.	
Did We Run Wiper Plugs? Did We Run Top And Bottom Casing Wiper Plugs?	Top
Mixing Density of Job Stayed in Designed Density Range (0-100%) Density Range defined as +/- .20 ppg. Calculation: Total BBLs cement mixed at designed density divided by total BBLs of cement multiplied by 100	98
Was Automated Density Control Used? Was Automated Density Control (ADC) Used ?	Yes
Pump Rate (percent) of Job Stayed At Designed Pump Rate 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
Nbr of Remedial Sqz Jobs Rqd - Competition Number Of Remedial Squeeze Jobs Required After Primary Job Performed By Competition	0
Nbr of Remedial Plug Jobs Rqd - HES Number Of Remedial Plug Jobs Needed After Primary Plug Pumped By HES	0
Nbr of Remedial Sqz Jobs Rqd - HES Number Of Remedial Squeeze Jobs Required After Primary Job Performed By HES	0