

WPX ENERGY ROCKY MOUNTAIN LLC- EBUS

PA 34-6

**Aztec 1000**

# **Post Job Summary**

## **Cement Production Casing**

Date Prepared: 07/25/2014  
Job Date: 07/17/2014

Submitted by: Evan Russell – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 3476006	Quote #:	Sales Order #: 0901506115
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Customer Rep: Ron Towers	
Well Name: HICKS PA	Well #: 34-6	API/UWI #: 05-045-22410-00	
Field: PARACHUTE	City (SAP): PARACHUTE	County/Parish: GARFIELD	State: COLORADO
Legal Description: SE SW-6-7S-95W-793FSL-2224FWL			
Contractor:		Rig/Platform Name/Num: Aztec 1000	
Job BOM: 7523			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HB50180		Srcv Supervisor: Carlton Kukus	
<b>Job</b>			

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	6695ft Job Depth TVD
Water Depth	Wk Ht Above Floor 5ft
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	0	9.625	9.001	32.3			0	1310	0	1310
Casing	0	4.5	4	11.6	8 RD (LT&C)	I-80	0	6680	0	6680
Open Hole Section			8.75				1310	6695	1310	6695

Tools and Accessories									
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	4.5	1		6680		Top Plug	4.5	1	HES
Float Shoe	4.5	1				Bottom Plug	4.5		HES
Float Collar	4.5	1				SSR plug set	4.5		HES
Insert Float	4.5	1				Plug Container	4.5	1	HES
Stage Tool	4.5	1				Centralizers	4.5		HES

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	12.3 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	12.3	2.87		4		
34.90 gal/bbl		FRESH WATER								
195.30 lbm/bbl		BARITE, BULK (100003681)								

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
2	HalCem GJ1	HALCEM (TM) SYSTEM	320	sack	12.7	1.81		5	9.64	
9.67 Gal		FRESH WATER								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
3	HalCem GJ2	HALCEM (TM) SYSTEM	750	sack	13.5	1.44		6	6.33	
6.57 Gal		FRESH WATER								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
4	Fresh Water Displacement	Fresh Water Displacement	103.1	bbl	8.34			10		
<b>Cement Left In Pipe</b>		<b>Amount</b> 27 ft	<b>Reason</b>				Shoe Joint			
<b>Comment</b> TOP OF TAIL 4416 FEET										

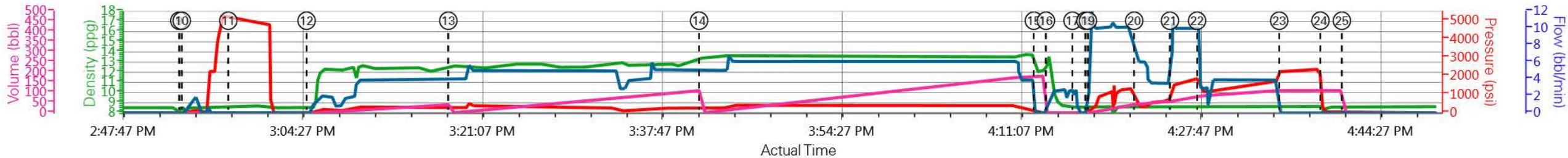
### 3.1 Job Event Log

Type	Seq. No.	Activity	Date	Time	Source	DH Density (ppg)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comb Pump Rate (bbl/min)	Comment
Event	1	Call Out	7/17/2014	06:00:00	USER					HES CREW CALLED OUT AT 06:00
Event	2	Pre-Convoy Safety Meeting	7/17/2014	08:30:00	USER					ALL HES CREW
Event	3	Crew Leave Yard	7/17/2014	09:00:00	USER					1-F-550 PICKUP, 1-ELITE PUMP TRUCK, 1-660 BULK TRUCK, 1-BODY LOAD
Event	4	Arrive At Loc	7/17/2014	10:00:00	USER					HES CREW ARRIVE 1 HOUR EARLY
Event	5	Assessment Of Location Safety Meeting	7/17/2014	10:15:00	USER					RIG WAS STILL RUNNING CASING, HES WAITED TO SPOT EQUIPMENT DUE TO SIZE OF LOCATION
Event	6	Pre-Rig Up Safety Meeting	7/17/2014	11:10:27	USER					ALL HES CREW, DISCUSSED HAZARDS WHILE RIGGING UP
Event	7	Rig-Up Equipment	7/17/2014	11:10:34	USER					RIG UP IRON TO THE STAND PIPE, RIG UP IRON TO THE CATCH TANK, WATER HOSES TO THE UPRIGHT, AND BULK EQUIPMENT TO PUMP TRUCK
Event	8	Pre-Job Safety Meeting	7/17/2014	11:10:45	USER					ALL HES CREW AND RIG CREW, TO DISCUSS JOB PROCEDURES
Event	9	Start Job	7/17/2014	14:53:14	COM5	8.52	-4.00	0.0	0.00	TD: 6695FT TP: 6680FT SJ: 27FT OH: 8.75 CSG: 4.5 11.6# I-80 SRF CSG: 1310FT 9.625 32.3# MUD WT: 11.7# VISC: 50, RIG CIRCULATED 3 HOURS PRIOR TO JOB
Event	10	Prime Pumps	7/17/2014	14:53:28	USER	8.50	-4.00	0.0	0.00	FILL LINES TO PRESSURE TEST

Event	11	Test Lines	7/17/2014	14:57:46	COM5	8.66	5232.00	1.6	0.00	PRESSURE TEST TO 5000 PSI, PRESSURE TEST OK
Event	12	Pump Spacer 1	7/17/2014	15:05:02	COM5	12.3	325	40	4	40 BBLs TUNED SPACER 12.3PPG 2.87YIELD 17.95GAL/SK WEIGHT OF CEMENT VERIFIED VIA MUD SCALES THROUGHOUT TUNED SPACER
Event	13	Pump Lead Cement	7/17/2014	15:18:11	COM5	12.7	385	103.2	5	320 SKS OF HALCEM CEMENT 12.7PPG 1.81YIELD 9.64GAL/SK WEIGHT OF CEMENT VERIFIED VIA MUD SCALES THROUGHOUT LEAD CEMENT
Event	14	Pump Tail Cement	7/17/2014	15:41:27	COM5	13.5	410	192.3	6	750 SKS OF HALCEM CEMENT 13.5PPG 1.44YIELD 6.33GAL/SK WEIGHT OF CEMENT VERIFIED VIA MUD SCALES THROUGHOUT TAIL CEMENT
Event	15	Shutdown	7/17/2014	16:12:31	USER	12.00	45.00	192.3	0.00	SHUTDOWN END OF CEMENT
Event	16	Clean Lines	7/17/2014	16:13:38	USER	13.63	24.00	0.2	0.80	CLEAN LINES TO THE PIT
Event	17	Shutdown	7/17/2014	16:16:06	USER	8.55	35.00	6.3	2.60	LINES CLEANED
Event	18	Drop Plug	7/17/2014	16:17:18	USER	8.57	20.00	0.3	2.00	PLUG AWAY NO PROBLEMS
Event	19	Pump Displacement	7/17/2014	16:17:32	COM5	8.58	1275	50	10	FRESH WATER DISPLACEMENT WITH KCL, BE-6 AND 1 GALLON MMCR
Event	20	Slow Rate	7/17/2014	16:21:49	USER	8.65	436	53	6	RATE SLOWED DUE TO NOT GETTING WATER FAST ENOUGH
Event	21	Resume	7/17/2014	16:25:09	USER	8.65	1512.00	58	10	RATE RESUMED
Event	22	Slow Rate	7/17/2014	16:27:40	USER	8.60	1355.00	93	4	SLOW RATE TO BUMP PLUG

Event	23	Bump Plug	7/17/2014	16:35:17	COM5	8.63	1500	103	0.00	BUMPED PLUG AT 1500 PSI TOOK TO 2360 PSI
Event	24	Check Floats	7/17/2014	16:39:06	USER	0.80	2360	103	0.00	FLOATS HELD 1 BBL BACK TO TANKS
Event	25	End Job	7/17/2014	16:41:06	COM5	8.59	8.00	0.0	0.00	THANK YOU FOR CHOOSING HALLIBURTON CEMENT CARL KUKUS AND CREW
Event	26	Post-Job Safety Meeting (Pre Rig-Down)	7/17/2014	16:58:22	USER					ALL HES EMPLOYEES
Event	27	Rig Down Lines	7/17/2014	16:58:37	USER					RIG DOWN ALL EQUIPMENT AND WASH UP PUMP
Event	28	Pre-Convoy Safety Meeting	7/17/2014	17:30:00	USER					ALL HES EMPLOYEES
Event	29	Crew Leave Location	7/17/2014	18:00:01	USER					1-F-550 PICKUP, 1-ELITE PUMP TRUCK, 1-660 BULK TRUCK, 1-BODY LOAD

# WPX/HICKS PA 34-6/PRODUCTION/901506115



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

- |   |                                    |                                      |
|---|------------------------------------|--------------------------------------|
| ① Call Out n/a;n/a;n/a;n/a                              | ⑩ Fill Lines 8.5;-4;0;0            | ⑲ Pump Displacement 8.58;108;1.3;6.5 |
| ② Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a             | ⑪ Test Lines 8.68;5229;1.6;0       | 20 Slow Rate 8.65;436;43.4;6.1       |
| ③ Crew Leave Yard n/a;n/a;n/a;n/a                       | ⑫ Tuned Spacer 8.52;15;0;0         | 21 Resume 8.65;1512;58.6;9.9         |
| ④ Arrive At Loc n/a;n/a;n/a;n/a                         | ⑬ Pump Lead Cement 12.64;275;0.1;4 | 22 Slow Rate 8.6;1355;83.5;4.9       |
| ⑤ Assessment Of Location Safety Meeting n/a;n/a;n/a;n/a | ⑭ Pump Tail Cement 13.45;286;0.1;5 | 23 Bump Plug 8.63;2271;110.4;0       |
| ⑥ Pre-Rig Up Safety Meeting n/a;n/a;n/a;n/a             | ⑮ Shutdown 12;45;181.5;0           | 24 Check Floats 0.8;134;110.4;0      |
| ⑦ Rig-Up Equipment n/a;n/a;n/a;n/a                      | ⑯ Clean Lines 13.63;24;0.2;0.8     | 25 End Job 8.59;8;0;0                |
| ⑧ Pre-Job Safety Meeting n/a;n/a;n/a;n/a                | ⑰ Shutdown 8.55;35;6.3;2.6         |                                      |
| ⑨ Start Job 8.52;-4;0;0                                 | ⑱ Drop Plug 8.57;20;0.3;2          |                                      |

▼ **HALLIBURTON** | iCem® Service

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[Edit](#)

Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

Job Date: 7/17/2014 1:26:16 PM

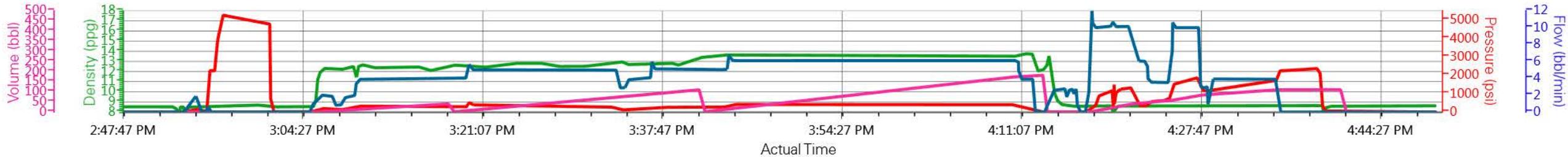
Well: HICKS PA 34-6

Representative: Ron Towers

Sales Order #: 901506115

Supervisor/Operator: Carlton Kukus/Andrew Schanz E-6

WPX/HICKS PA 34-6/PRODUCTION/901506115



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

EVENT #	EVENT	VOLUME	SACKS	WEIGHT	YIELD	GAL/ SK
1	Start Job					
6	Test Lines	5000.0				
	Tuned Spacer	40.0		12.3	2.87	17.95
	LEAD CEMENT	103.2	320	12.7	1.81	9.64
15	Tail Cement	192.3	750	13.5	1.44	6.33
	SHUTDOWN/DROP PLUG	0.0				
23	Displace w/Fresh Water	103.1		8.34		
	SLOW RATE	93.1				
26	Land Plug	1469.0		500	OVER	
2	Release Psi / Job Over	0.0				
			<b>Do Not Overdisplace</b>			
DISPLACEMENT	TOTAL PIPE	SHOE JOINT LENGTH		FLOAT COLLAR	BBL/FT	H2O REQ.
103.12	6680	27.00		6653.00	0.0155	329
PSI to Lift Pipe		<b>*****Use Mud Scales on Each Tier*****</b>				
Total Displacement	103.10					
<b>CALCULATED DIFFERENTIAL PSI</b>		1469		<b>TOTAL FLUID PUMPED</b>		439
Collapse		Burst			SO#	901506115

# HALLIBURTON

## Water Analysis Report

Company: WPX

Submitted by: Carl Kukus

Attention: J.Trout

Lease Hicks PA

Well # 34-6

Date: 7/17/2014

Date Rec.: 7/17/2014

S.O.# 901489715

Job Type: Surface

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>7</b>
Potassium (K)	<i>5000</i>	<b>200 Mg / L</b>
Calcium (Ca)	<i>500</i>	<b>120 Mg / L</b>
Iron (FE2)	<i>300</i>	<b>3 Mg / L</b>
Chlorides (Cl)	<i>3000</i>	<b>0 Mg / L</b>
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<b>200 Mg / L</b>
Chlorine (Cl <sub>2</sub> )		<b>0 Mg / L</b>
Temp	<i>40-80</i>	<b>67 Deg</b>
Total Dissolved Solids		<b>250 Mg / L</b>

Respectfully: Carl Kukus

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 i

<b>Sales Order #:</b> 0901506115	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 7/17/2014
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT PRODUCTION CASING BOM
<b>Customer Representative:</b> RON TOWERS		<b>API / UWI: (leave blank if unknown)</b> 05-045-22410-00
<b>Well Name:</b> HICKS PA		<b>Well Number:</b> 0080606511
<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	7/17/2014
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HB44726
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	RON TOWERS
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	

<b>CUSTOMER SIGNATURE</b>
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<b>Sales Order #:</b> 0901506115	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 7/17/2014
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<b>H2S Present:</b> No	<b>Well State:</b> COLORADO	<b>Well County:</b> GARFIELD

### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b>	7/17/2014
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>	6
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

<b>Sales Order #:</b> 0901506115	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 7/17/2014
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<b>Customer Representative:</b> RON TOWERS		<b>API / UWI: (leave blank if unknown)</b> 05-045-22410-00
<b>Well Name:</b> HICKS PA		<b>Well Number:</b> 0080606511
<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

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>Did We Run Wiper Plugs?</b> Did We Run Top And Bottom Casing Wiper Plugs?	Top
<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)	N/A
<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	85
<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	6
<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