

# HALLIBURTON

iCem® Service

**K P KAUFFMAN CO INC-EBUS**

Ft. Lupton District, Colorado

**For: Rick Ramos**

Date: Tuesday, May 12, 2020

**State**

Weld County

State #17

Job Date: Tuesday, May 12, 2020

Sincerely,

**Mike Loughran**

## 2.0 Real-Time Job Summary

## 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	PS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	5/12/2020	04:00:00	USER						CREW CALLED OUT AT 0400, REQUESTED ON LOCATION 0800.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	5/12/2020	06:30:00	USER						CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	5/12/2020	06:55:00	USER						CREW LEAVES YARD
Event	4	Arrive At Loc	Arrive At Loc	5/12/2020	07:20:00	USER						MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 8.675" 24#, 4.5" 10.5# casing, 2.375" Tubing 4.7# CIBP 4600', Plug #1 Perfs 1850' Retainer 1800', Plug#2 Perfs 900' Retainer 850', Plug#3 Perfs 100' Water 50 Degrees PH7 Chlorides and sulfates less 200 ppm
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	5/12/2020	07:50:00	USER						HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	5/12/2020	07:55:00	USER						CREW STAGED EQUIPMENT, RIGGED UP BULK, IRON,

												AND WATER HOSES TO PERFORM JOB.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	5/12/2020	08:36:00	USER						SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS.
Event	8	Start Job	Start Job	5/12/2020	08:54:38	COM6	-3734.00	8.28	0.00	0.00	35.00	Begin recording data
Event	9	Prime Pumps	Prime Pumps	5/12/2020	09:09:09	COM6	-3734.00	5.51	0.00	0.00	3.00	Fill Lines
Event	10	Test Lines	Test Lines	5/12/2020	09:10:33	COM6	-3734.00	1.25	0.00	1.50	51.00	Test lines 3500 psi
Event	11	Other	Other	5/12/2020	09:15:18	COM6	-3734.00	8.24	0.00	0.00	16.00	Injection test 3 bpm @ 570-psi Pumped 10 bbl.
Event	12	Pump Cement	Pump Cement	5/12/2020	09:42:34	COM6	-3734.00	8.29	0.00	0.00	52.00	40 sacks Premium Cement, 8.19 bbl., 15.8 ppg, 1.15 yield, 5 gal/sack
Event	13	Pump Displacement	Pump Displacement	5/12/2020	09:46:39	COM6	-3734.00	13.42	0.00	0.00	81.00	6.1 bbl. Fresh water displacement. TOC cement on retainer 1750', 200' cement on backside. TOC= 1650'.
Event	14	Shutdown	Shutdown	5/12/2020	09:50:14	COM6	-3734.00	8.26	0.00	0.00	-4.00	End plug #1 Wait on rig/wireline
Event	15	Break Formation	Break Formation	5/12/2020	11:57:31	COM6	-3734.00	6.32	0.00	0.00	11.00	Injection test 2.5 bbl @ 170 psi, Pump 5 bbl. Total
Event	16	Pump Cement	Pump Cement	5/12/2020	12:17:47	COM6	-3734.00	6.21	0.00	0.00	35.00	50 sacks Premium Cement, 10.24 bbl., 15.8 ppg, 1.15 yield, 5 gal/sack
Event	17	Pump Displacement	Pump Displacement	5/12/2020	12:24:01	COM6	-3734.00	13.35	2.10	0.00	21.00	2.5 bbl Fresh water displacement. TOC on retainer 800', 200' Cement on backside TOC=700'

Event	18	Shutdown	Shutdown	5/12/2020	12:25:12	COM6	-3734.00	5.44	0.00	2.50	49.00	Shutdown, wait on rig/wireline
Event	19	Break Formation	Break Formation	5/12/2020	13:35:31	COM6	-3733.00	7.04	0.00	0.00	12.00	
Event	20	Pump Cement	Pump Cement	5/12/2020	13:57:20	COM6	-3733.00	7.02	0.00	0.00	12.00	40 sacks Premium Cement, 8.19 bbl. 15.8 ppg 1.15 yield, 5 gal/sack. Approx. 1 bbl. good cement to surface. 100' cement in 4.5 casing, 100' cement on backside. TOC= 0'
Event	21	End Job	End Job	5/12/2020	14:04:24	USER	-3733.00	14.86	0.00	8.10	13.00	Stop recording data
Event	22	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	5/12/2020	14:05:00	USER	-3733.00	14.85	0.00	8.10	14.00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	23	Rig-Down Equipment	Rig-Down Equipment	5/12/2020	14:10:00	USER	-3733.00	15.02	0.00	8.10	12.00	RIG DOWN BULK AND MIXING EQUIPMENT
Event	24	End Job	End Job	5/12/2020	14:17:47	COM6	-3733.00	14.69	1.90	0.30	17.00	Stop recording data
Event	25	Rig-Down Completed	Rig-Down Completed	5/12/2020	14:30:00	USER						ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	26	Crew Leave Location	Crew Leave Location	5/12/2020	15:00:00	USER						THANK YOU FOR USING HALLIBURTON – MIKE LOUGHRAN AND CREW.

## 3.3 State 17 Plug #1 Events.png

## State #17 Plug #1

Description	Actual Time (UTC-07:00:00)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	PS Pump Press (psi)
8 Start Job	08:54:38	8.28	0.00	0.00	35.00
9 Prime Pumps	09:09:09	5.51	0.00	0.00	3.00
10 Test Lines	09:10:33	1.25	0.00	1.50	51.00
11 Other	09:15:18	8.24	0.00	0.00	16.00
12 Pump Cement	09:42:34	8.29	0.00	0.00	52.00
13 Pump Displacement	09:46:39	13.42	0.00	0.00	81.00
14 Shutdown	09:50:14	8.26	0.00	0.00	-4.00

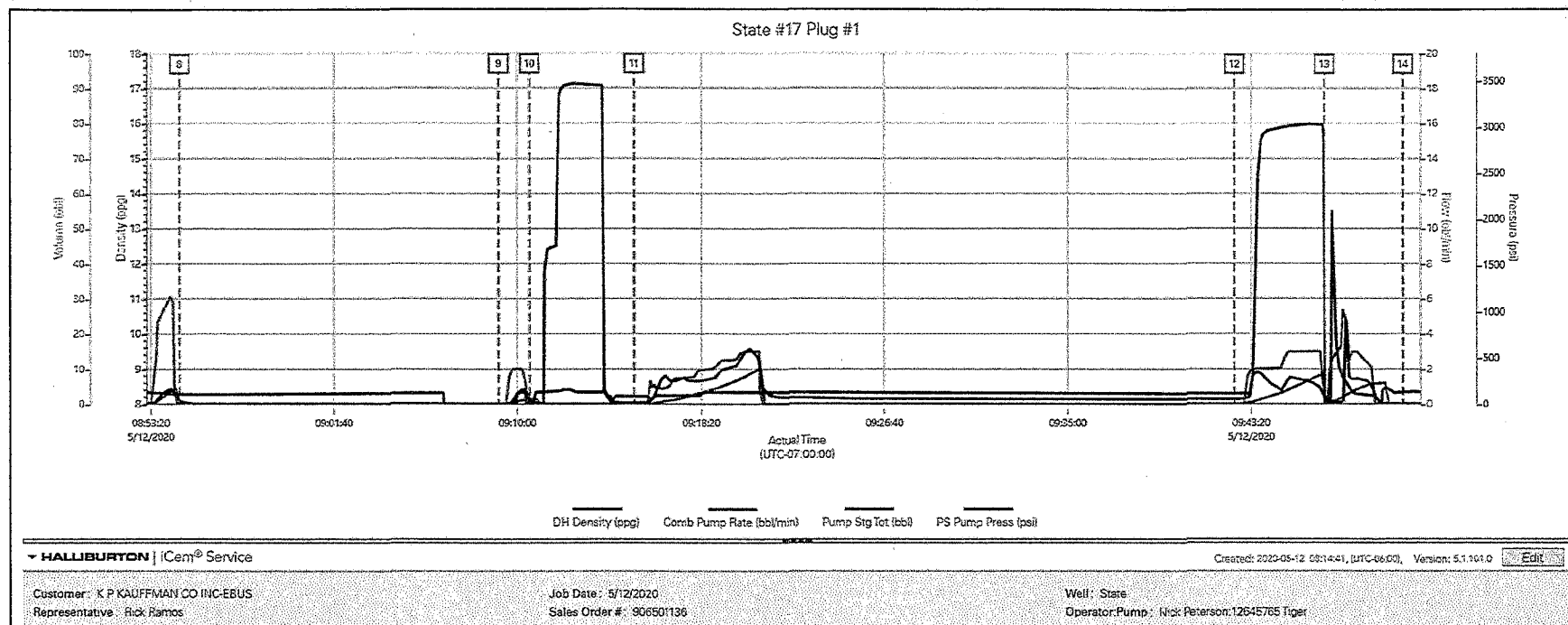
HALLIBURTON | iCem® Service

Created: 2020-05-12 08:14:41 (UTC-06:00) Version: 5.1.101.0

Edit

Customer: K P KAUFFMAN CO INC-EBUS  
Representative: Rick RamosJob Date: 5/12/2020  
Sales Order #: 906501136Well: State  
Operator/Pump: Mark Peterson:12645765 Tigar

## 3.4 State 17 Plug#1.png



## 3.2 State #17-Plug #2.png

## State #17 Plug #2

Description	Actual Time (UTC-07:00:00)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	PS Pump Press (psi)	Recirc Density (ppg)
15 Break Formation	11:57:31	0.00	0.00	11.00	8.50
16 Pump Cement	12:17:47	0.00	0.00	35.00	15.72
17 Pump Displacement	12:24:01	2.10	0.00	21.00	1.61
18 Shutdown	12:25:12	0.00	2.50	49.00	1.63

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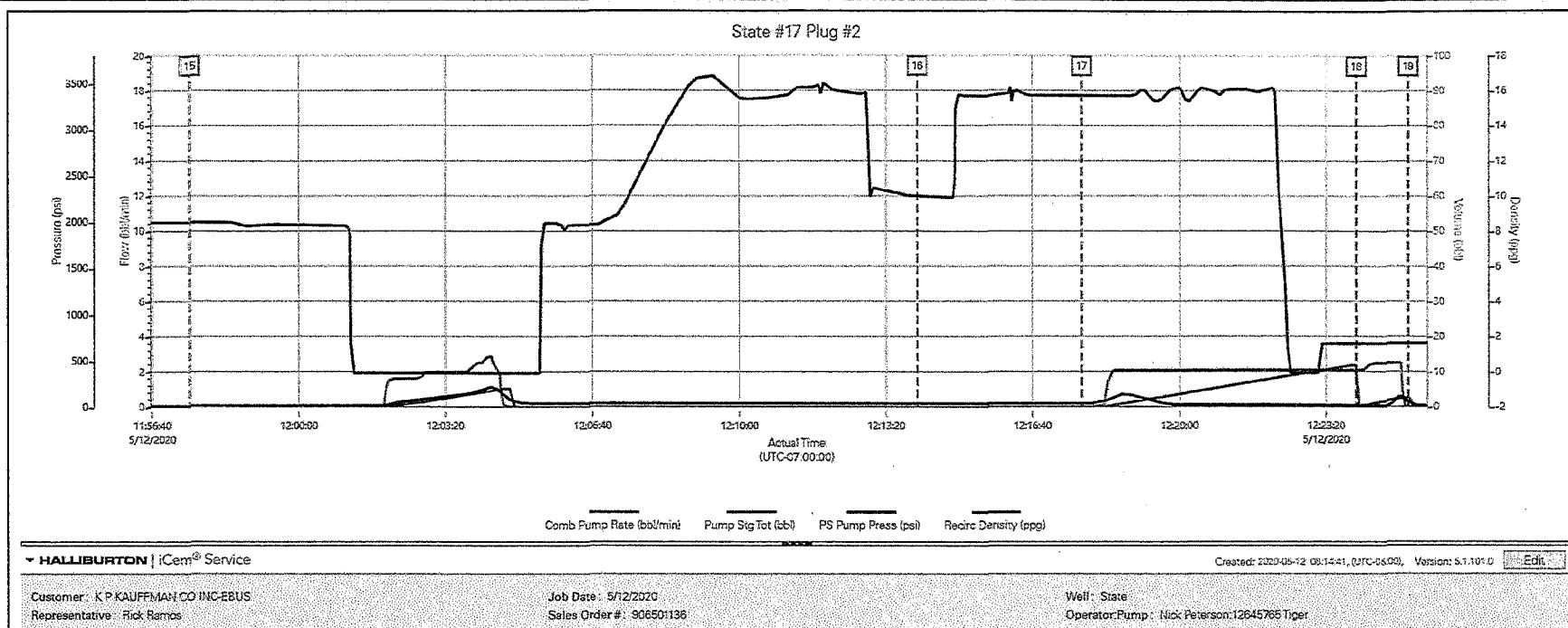
Created: 2020-05-12 00:14:41 (UTC-06:00) Version: 5.1.101.0

Edit

Customer: K P KAUFFMAN CO INC-EBUS  
Representative: Rick RamosJob Date: 5/12/2020  
Sales Order #: 906501136Well: State  
Operator/Pump: Rick Peterson/12645765 tiger

## 3.0 Attachments

### 3.1 State #17-Plug # 2.png





## 3.5 State #17-Plug# 3.png

### State #17 Plug #3

Description	Actual Time (UTC-07:00:00)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	PS Pump Press (psi)	Recirc Density (ppg)
19 Break Formation	13:35:31	0.00	0.00	12.00	8.54
20 Pump Cement	13:57:20	0.00	0.00	12.00	15.89
21 End Job	14:04:24	0.00	8.10	13.00	-0.04

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Created: 2020-05-12 08:14:41 (UTC-06:00) Version: 5.1.101.0

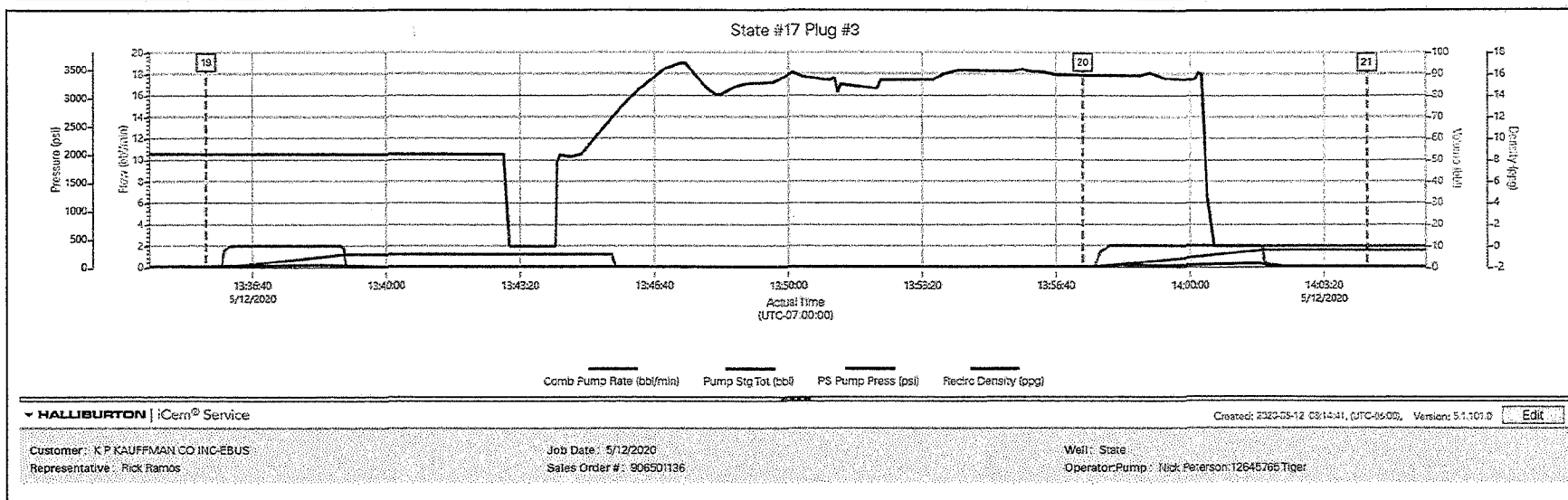
Edit

Customer: K P KAUFFMAN CO INC-EBUS  
Representative: Rick Ramos

Job Date: 5/12/2020  
Sales Order #: 906501136

Well: State  
Operator/Pump: Nick Peterson:12645765 Tiger

## 3.6 State #17-Plug#3.png



## Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 303209		Ship To #: 9039920		Quote #: 0022722414		Sales Order #: 0906501136	
Customer: K P KAUFFMAN CO INC-EBUS				Customer Rep: Rick Ramos			
Well Name: STATE			Well #: #17			API/UWI #:	
Field:		City (SAP): FREDERICK		County/Parish: WELD			State: COLORADO
Legal Description:							
Contractor:				Rig/Platform Name/Num:			
Job BOM: 7526 7526							
Well Type: OIL							
Sales Person: HALAMERICA\HB41307				Srv Supervisor: Michael Loughran			
Job							

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST
Job depth MD	1800ft		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
Tubing		2.375	1.995	4.7			0	1800		
Casing		4.5	4.052	10.5			0	4600		

### Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Retainer	2.375			1800	Top Plug	2.375		HES
Float Shoe	2.375				Bottom Plug	2.375		HES
Float Collar	2.375				SSR plug set	2.375		HES
Insert Float	2.375				Plug Container	2.375		HES
Stage Tool	2.375				Centralizers	2.375		HES

### Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Squeeze	Premium Cement	40	sack	15.8	1.15		2	5.00
		5.15 Gal							
		94 lbm							
		FRESH WATER							
		CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							

Cement Left In Pipe	Amount	50' on retainer, 200' annulus	Reason
Perfs @ 1850' Retainer @ 1800'			

### Fluid Data

Stage/Plug #: 2

## Cementing Job Summary

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Squeeze	Premium Cement	50	sack	15.8	1.15		2	5.00
94 lbm		CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							
5.15 Gal		FRESH WATER							
Cement Left In Pipe    Amount    50' On retainer, 200' annulus    Reason									
Perfs @ 900, Retainer @ 850'									
Fluid Data									
Stage/Plug #: 3									
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Squeeze	Premium Cement	40	sack	15.8	1.15		2	5.00
5.15 Gal		FRESH WATER							
94 lbm		CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							
Cement Left In Pipe    Amount    100' in 4.5" 100' annular    Reason    Shoe Joint									
Mix Water:		pH 7	Mix Water Chloride:		Less 200 ppm	Mix Water Temperature:		50 °F	
Cement Temperature:			Plug Displaced by:		8.33 lb/gal	Disp. Temperature:			
Plug Bumped?		NA	Bump Pressure:		NA	Floats Held?		NA	
Cement Returns:			Returns Density:			Returns Temperature:			
Comment Perfs @ 100', Approx 1 bbl. Good cement to surface. TOC=0'									

# Summary Report

Crew: \_\_\_\_\_  
Job Start Date: 05/12/2020 09:00 AM


Sales Order #: 0906501136  
WO #: 0906501136  
PO #: NA  
AFE #:

Customer: K P KAUFFMAN CO INC-EBUS  
UWI / API Number:  
Well Name: STATE  
Well No: #17

Field:  
County/Parish: WELD  
State: COLORADO  
Latitude:  
Longitude:  
Sect / Twn / Rng: //

Job Type: CMT SQUEEZE  
PERFORATIONS BOM  
Service Supervisor: Michael Loughran  
Cust Rep Name: Rick Ramos  
Cust Rep Phone #:

**Remarks:**

The Information Stated Herein Is Correct	Customer Representative Signature 	Date 5/12/20
	Customer Representative Printed Name Rick Ramos	

Field Ticket Number: 906501136		Field Ticket Date: 05/14/20		Planning Order #: NA	
<b>Bill To:</b> K P KAUFFMAN CO INC-EBUS DONOTMAIL-1675 BRDWAY STE 2800 DENVER 80202			<b>Job Name:</b> Squeeze <b>Order Type:</b> ZOH <b>Well Name:</b> STATE #17 <b>Company Code:</b> 1100 <b>Customer PO No.:</b> NA <b>AFE:</b> <b>Shipping Point:</b> Fort Lupton, CO <b>Sales Office:</b> Rocky Mountains BD <b>Well Type:</b> OIL <b>Well Category:</b> Development <b>Rig Name/#:</b>		
<b>Ship To:</b> STATE 17,WELD STATE 17 FREDERICK CO 80530 USA					

Material	Description	QTY	UOM	Unit Amount	Gross Amount	Discount	Net Amount
7526	CMT SQUEEZE PERFORATIONS BOM 7526	1.00	JOB	0.00	0.00		0.00
1	ZI-MILEAGE FROM NEAREST HES BASE,/UNIT Number of Units	30.00 1	MI	9.79 USD/1 MI	293.70	190.91	102.79
16097	SQUEEZE PUMPING CHARGE,ZI FEET/METERS (FT/M) DEPTH	1.00 FT 1800	EA	7,270.00 USD/1 EA	7,270.00	4,725.50	2,544.50
3965	HANDLE&DUMP SVC CHRG, CMT&ADDITIVES,ZI Unit of Measurement NUMBER OF EACH	130.00 EA 1	CF	5.49 USD/1 CF	713.70	463.91	249.79
76400	MILEAGE,CMT MTLs DEL/RET MIN NUMBER OF TONS	15.00 6.11	MI	3.35 USD/1 MI	307.03	199.57	107.46
	<b>SubTotal</b>				<b>8,584.43</b>	<b>5,579.89</b>	<b>3,004.54</b>
100003685	CEM,CLASS G / PREMIUM, BULK Premium Cement	40.00	SK	44.26 USD/1 SK	1,770.40	1,150.76	619.64
100003685	CEM,CLASS G / PREMIUM, BULK Premium Cement	50.00	SK	44.26 USD/1 SK	2,213.00	1,438.45	774.55
100003685	CEM,CLASS G / PREMIUM, BULK Premium Cement	40.00	SK	44.26 USD/1 SK	1,770.40	1,150.76	619.64
100008028	CHEM, SUGAR,GRANULATED, 50LB BAG	100.00	LB	6.96 USD/1 LB	696.00	452.40	243.60
2	MILEAGE FOR CEMENTING CREW Number of Units	30.00 1	MI	5.76 USD/1 MI	172.80	112.32	60.48
<b>Totals</b>				<b>USD</b>	<b>15,207.03</b>	<b>9,884.58</b>	<b>5,322.45</b>