



Job Summary

Ticket Number	Ticket Date
TN# BCO-1902-0137	2/27/2019

COUNTY	COMPANY	API Number
Weld	PDC ENERGY	05-123-14471
WELL NAME	RIG	JOB TYPE
Churchill 2-28A	Brigade 7	Plug to Abandon
SURFACE WELL LOCATION	CJES Field Supervisor	CUSTOMER REP
40.371944 -104.561667	Jeff Kopp	Ryan Beam

EMPLOYEES		

WELL PROFILE			
Max Treating Pressure (psi):	1000	Bottom Hole Static Temperature (°F):	
Bottom Hole Circulating Temperature (°F):		Well Type:	

Open Hole

1	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
2	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)

Casing/Tubing/Drill Pipe

Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Tubing	2 3/8	4.7		4758	0		
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Production	3.5	9.3		4758	0		
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)

CEMENT DATA

Stage 1: From Depth (ft): **4758** To Depth (ft): **4500**
 Type: **Balance Plug**
 Volume (sacks): **10** Volume (bbls): **2.2**

Cement & Additives:	Density (ppg)	Yield (ft ³ /sk)	Water Req.
	15.8	1.15	5.00

Stage 2: From Depth (ft): To Depth (ft):
 Type:
 Volume (sacks): Volume (bbls):

Cement & Additives:	Density (ppg)	Yield (ft ³ /sk)	Water Req.

Stage 3: From Depth (ft): To Depth (ft):
 Type:
 Volume (sacks): Volume (bbls):

Cement & Additives:	Density (ppg)	Yield (ft ³ /sk)	Water Req.

Stage 4: From Depth (ft): To Depth (ft):
 Type:
 Volume (sacks): Volume (bbls):

Cement & Additives:	Density (ppg)	Yield (ft ³ /sk)	Water Req.

SUMMARY

Preflushes:	5 bbls of Fresh Water	Calculated Displacement (bbl):	17.4	Stage 1	Stage 2
		Actual Displacement (bbl):	17.4		
Total Preflush/Spacer Volume (bbl):	5	Plug Bump (Y/N):	N/A	Bump Pressure (psi):	N/A
Total Slurry Volume (bbl):	2.2	Lost Returns (Y/N):	N (if Y, when)		
Total Fluid Pumped	7.2				
Returns to Surface:	Cement	0 bbls			

Job Notes (fluids pumped / procedures / tools / etc.): **First 10bbls of displacement was 100# of SAPP followed by fresh water.**

Customer Representative Signature: _____ **Thank You For Using CJES O-TEX Cementing**

Cement Job Log



Customer: PDC ENERGY	Date: 2/27/2019	Serv. Supervisor: Jeff Kopp
Cust. Rep.: Ryan Beam	Ticket #: BCO-1902-0137	Serv. Center Brighton - 3021
Lease: Churchill 2-28A	API Well #: 05-123-14471	County: Weld State: CO
Well Type: Oil	Rig: Brigade 7	Type of Job: Plug to Abandon

OPEN HOLE DATA		TUBULAR DATA						
SIZE WEIGHT	THREAD	DEPTH (ft)	GRADE	ID (in)	BURST (psi)	COLLAPSE (psi)		
2.375		4758						

PREVIOUS CASING DATA		PERFORATED INTERVAL DATA				CASING EQUIPMENT DEPTHS			
3.5 in 9.3# (0 to 4758ft)		TOP	BTM	SPF	SIZE	SHOE	FLOAT	STAGE	ACP

WELL FLUID		DISPLACEMENT FLUID			DIFF PRESS (psi)	CSG LIFT (psi)	MAX PRESS (psi)	WATER ON LOC (bbl)
TYPE	DENSITY	VOLUME	TYPE	DENSITY				
							1000	80

Time	Rate (bbl/min)	Csg. Press. (psi)	Tbg. Press. (psi)	Ann. Press. (psi)	Stg. Vol. (bbl)	Cum. Vol. (bbl)	Stage Details
2:23 PM						0	ARRIVE ON LOCATION
2:25 PM						0	PRE JOB SAFETY MEETING
2:30 PM						0	SPOT EQUIPMENT
2:38 PM						0	RIG UP IRON AND HOSES
3:24 PM						0	SAFETY MEETING
3:30 PM	1		500		1	1	FILL LINES
3:33 PM			2095			1	PRESSURE TEST
3:40 PM						1	BATCH UP
3:52 PM	0.9		825		2.2	3.2	PUMP 10SXS @15.8PPG 1.15Y 5.0WR
3:54 PM	1.1		1000		17.4	20.6	DISPLACE
4:15 PM							SHUT DOWN
4:18 PM							WASH UP
4:32 PM							RIG OUT
5:00 PM							LEAVE LOCATION

Left Yard	Left Loc.				Start Pump						
Arrived Loc.	Returned Yd.				End Pump						
Bumped Plug (psi)	Final Differential (psi)	Floats Held (Y/N)	PSI Left on Casing	Cement to Surface (bbl)	Top of Cement (ft)	Full Circ. During Job (Y/N)	Max Pump Pressure (psi)	Casing Rotation	Standby Charged (hrs)	Casing Reciprocation	
			0	0	4500	Yes	1000		0		

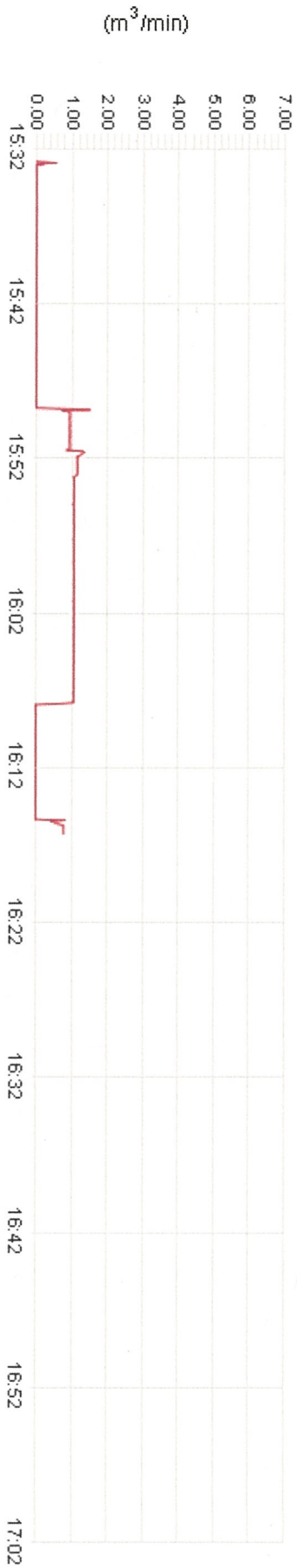
J&K Kopp

Service Supervisor Date

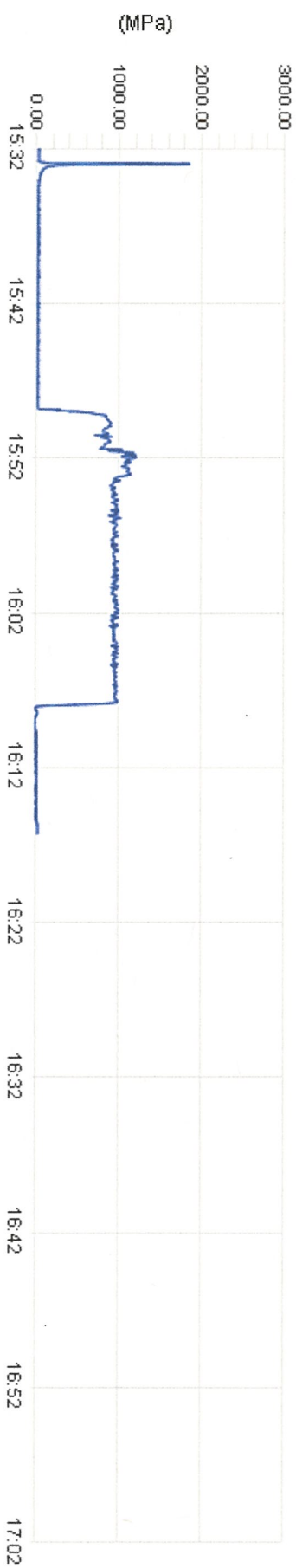
Client: PDC Energy
 Ticket No.: 19020137
 Location: SWNW 28 5N64W
 Client Rep: Ryan Beam
 Well Name: Churchill 2-28A
 Job Type: Abandonment Plugs

Supervisor: Jeff Kopp
 Unit No.: 445047
 Service District: Brighton Co
 Job Date: 02/27/2019

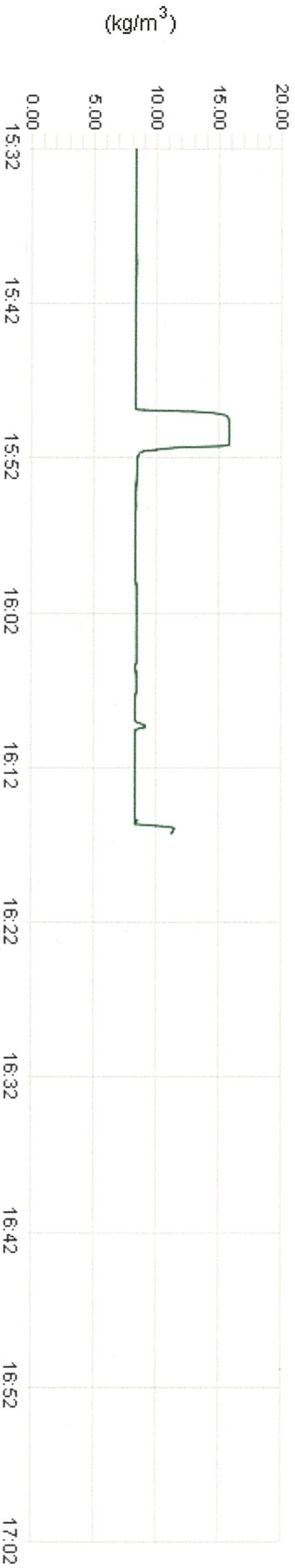
Unit 445047 Rate Total



Unit 445047 Pump Pressure



Unit 445047 Density





Job Summary

Ticket Number	Ticket Date
TN# BCO-1902-0140	2/28/2019

COUNTY	COMPANY	API Number
Weld	PDC ENERGY	05-123-14471
WELL NAME	RIG	JOB TYPE
Churchill 2-28A	Brigade 7	Plug to Abandon
SURFACE WELL LOCATION	CJES Field Supervisor	CUSTOMER REP
40.371944 -104.561667	Barlen Joyner	Ryan Beam

EMPLOYEES		
<i>Garrick Williamson</i>		
<i>Juan Bernardino</i>		

WELL PROFILE			
Max Treating Pressure (psi):	2500	Bottom Hole Static Temperature (°F):	
Bottom Hole Circulating Temperature (°F):		Well Type:	

Open Hole					
1	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
	10	4068	4490		
2	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)

Casing/Tubing/Drill Pipe							
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Production	3 1/2	9.3		0	4490		
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)

CEMENT DATA				
Stage 1:	From Depth (ft):	4068	To Depth (ft):	4490
Type: Balance plug	Volume (sacks):	200	Volume (bbls):	41
Cement & Additives:				
100% G		Density (ppg):	Yield (ft³/sk):	Water Req.
		15.8	1.15	5.00

SUMMARY				
Preflushes:	5 bbls of Fresh Water	Calculated Displacement (bbl):	35.2	Stage 1
		Actual Displacement (bbl):	35	Stage 2
Total Preflush/Spacer Volume (bbl):	5	Plug Bump (Y/N):	N/A	Bump Pressure (psi):
Total Slurry Volume (bbl):	41	Lost Returns (Y/N):	Y (if Y, when)	30bbls into the job
Total Fluid Pumped	81			
Returns to Surface:	Mud	81 bbls		

Job Notes (fluids pumped / procedures / tools / etc.): **See job log**

Customer Representative Signature: _____ **Thank You For Using CJES O-TEX Cementing**

Cement Job Log



Customer: PDC ENERGY		Date: 2/28/2019	Serv. Supervisor: Barlen Joyner					
Cust. Rep.: Ryan Beam		Ticket #: BCO-1902-0140	Serv. Center Brighton - 3021					
Lease: Churchill 2-28A		API Well #: 05-123-14471	County: Weld	State: CO				
Well Type: Oil		Rig: Brigade 7	Type of Job: Plug to Abandon					
Materials Furnished by C&J ENERGY SERVICES								
Plugs	Casing Hardware	Sacks of Cement	Fluid Dens (lb/gal)	Excess	Yield (cuft/sk)	Mix Water (gal/sk)	Fluid Volume (bbls)	Mix Water (bbls)
5 Bbl Water							5.00	
Balance Plug	100 % CJ914	200	15.8		1.15	5.00	40.88	24
0								
0								
Displacement Chemicals:								

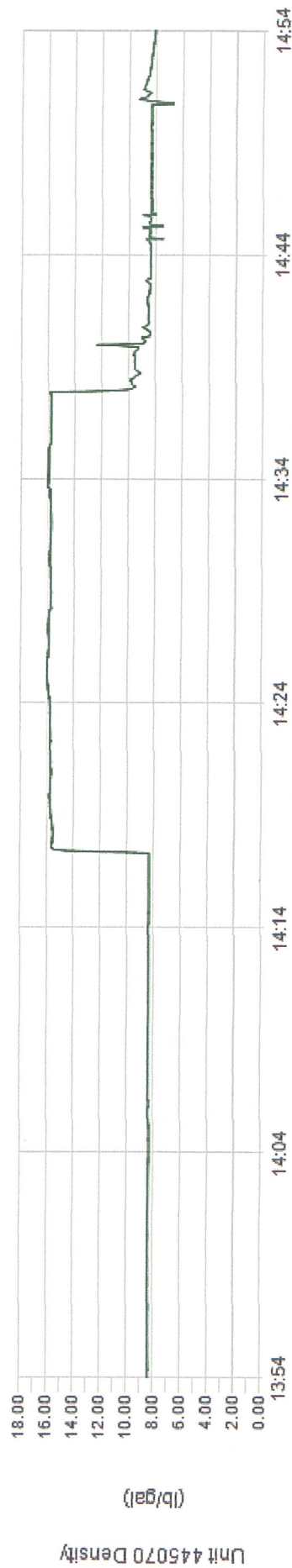
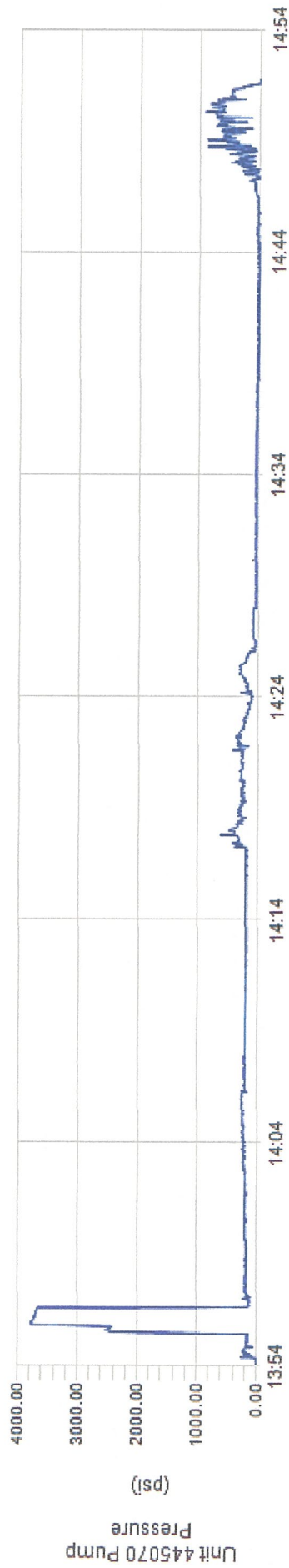
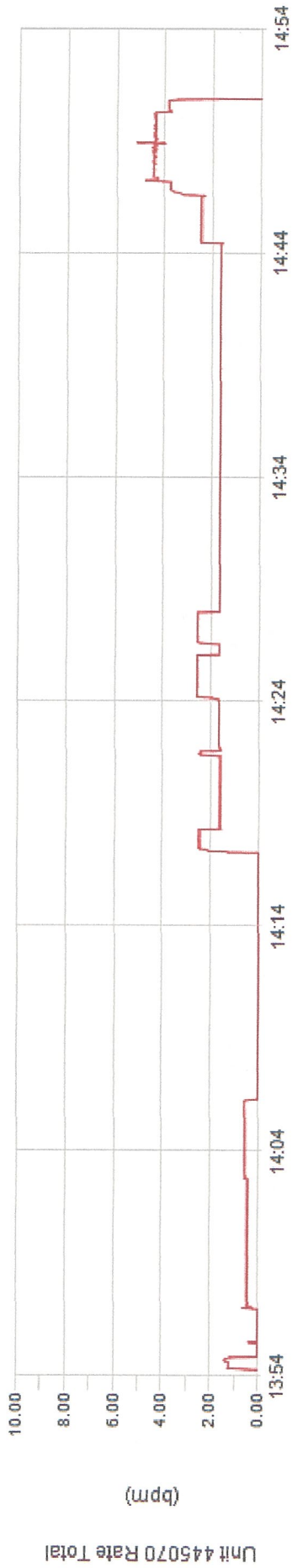
Cement Job Log



Customer: PDC ENERGY		Date: 2/28/2019			Serv. Supervisor: Barlen Joyner						
Cust. Rep.: Ryan Beam		Ticket #: BCO-1902-0140			Serv. Center Brighton - 3021						
Lease: Churchill 2-28A		API Well #: 05-123-14471			County: Weld	State: CO					
Well Type: Oil		Rig: Brigade 7			Type of Job: Plug to Abandon						
OPEN HOLE DATA				TUBULAR DATA							
10" from 4068' to 4490'		N/A		SIZE WEIGHT	THREAD	DEPTH (ft)	GRADE	ID (in)	BURST (psi)	COLLAPSE (psi)	
				3 1/2 9.3#	LTC	4490	J-55	2.992	6980	7400	
PREVIOUS CASING DATA			PERFORATED INTERVAL DATA				CASING EQUIPMENT DEPTHS				
N/A			TOP	BTM	SPF	SIZE	SHOE	FLOAT	STAGE	ACP	
			N/A					N/A			
WELL FLUID		DISPLACEMENT FLUID			DIFF PRESS (psi)	CSG LIFT (psi)	MAX PRESS (psi)	WATER ON LOC (bbl)			
TYPE	DENSITY	VOLUME	TYPE	DENSITY							
Mud	9.0 ppg	35.2 bbl	Water	8.3 ppg	N/A	N/A	2500	110			
Time	Rate (bbl/min)	Csg. Press. (psi)	Tbg. Press (psi)	Ann. Press. (psi)	Stg. Vol. (bbl)	Cum. Vol. (bbl)	Stage Details				
11:15 AM							0 Arrive on location / sign in				
11:25 AM							0 Spot trucks / rig in				
1:35 PM							0 Safety meeting				
1:51 PM			3700				0 Pressure test				
1:53 PM	0.6		174			5	5 Fresh water spacer				
2:14 PM	2.5		400			41	46 Mix, weigh & pump 200sx G @ 15.8ppg - Balance plug from 4068' to 4490'				
2:34 PM	3		720			35	81 Displace till balanced				
2:48 PM			0				Stop / verify zero				
2:55 PM							Wash up pumps & lines				
3:15 PM							Rig out				
3:30 PM							Leave location				
							****Lost returns 30bbls into the job****				
Left Yard	2/28/19 10:30 AM		Left Loc.	2/28/19 3:30 PM		Start Pump	2/28/19 1:53 PM				
Arrived Loc.	2/28/19 11:15 AM		Returned Yd.	2/28/19 4:30 PM		End Pump	2/28/19 2:48 PM				
Bumped Plug (psi)	Final Differential (psi)	Floats Held (Y/N)	PSI Left on Casing	Cement to Surface (bbl)	Top of Cement (ft)	Full Circ. During Job (Y/N)	Max Pump Pressure (psi)	Casing Rotation	Standby Charged (hrs)	Casing Reciprocation	
No	N/A	No	0	0	4068	No	720	N/A	0	N/A	
						Barlen Joyner		2/28/2019			
						Service Supervisor		Date			



Client PDC
 Ticket No. 19020133
 Location SW NW 28:5N:64W
 Comments 200sx G @ 15.8ppg
 Client Rep Ryan Beam
 Well Name Churchill 2-28A
 Job Type Abandonment Plugs
 Supervisor Joyner
 Unit No. 445070
 Service District Brighton
 Job Date 02/28/2019





Job Summary

Ticket Number	Ticket Date
TN# BCO-1903-0002	3/4/2019

COUNTY	COMPANY	API Number
Weld	PDC ENERGY	05-123-14471
WELL NAME	RIG	JOB TYPE
CHURCHILL 2-28A	BRIGADE 7	Plug to Abandon
SURFACE WELL LOCATION	CJES Field Supervisor	CUSTOMER REP
40.371944 - 104.561667	JAMES PAYNE	Ryan Beam

EMPLOYEES		
SIARHEI DZMITRYIEU		
JUAN		
AARON		

WELL PROFILE			
Max Treating Pressure (psi):		Bottom Hole Static Temperature (°F):	
Bottom Hole Circulating Temperature (°F):		Well Type:	

Open Hole					
1	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
	10	1183	1,500		
2	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
	14	324	525		

Casing/Tubing/Drill Pipe							
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Surface	8 5/8	24		0	324		
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
TUBING	2 3/8	4.7		0	1500		
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)

CEMENT DATA

Stage 1:	From Depth (ft):	1183	To Depth (ft):	1500
Type: STUB PLUG	Volume (sacks):	130	Volume (bbls):	31
Cement & Additives:		Density (ppg)	Yield (ft³/sk)	Water Req.
TYPE III		14.8	1.33	6.32

Stage 2:	From Depth (ft):	0	To Depth (ft):	525
Type: Surface Plug	Volume (sacks):	250	Volume (bbls):	59
Cement & Additives:		Density (ppg)	Yield (ft³/sk)	Water Req.
TYPE III		14.8	1.33	6.32

Stage 3:	From Depth (ft):	0	To Depth (ft):	31
Type: TOP OFF	Volume (sacks):	10	Volume (bbls):	2
Cement & Additives:		Density (ppg)	Yield (ft³/sk)	Water Req.
TYPE III		14.8	1.33	6.32

Stage 4:	From Depth (ft):		To Depth (ft):	
Type:	Volume (sacks):		Volume (bbls):	
Cement & Additives:		Density (ppg)	Yield (ft³/sk)	Water Req.

SUMMARY

Preflushes:	5 bbls of Fresh Water	Calculated Displacement (bbl):	4.5	Stage 1	Stage 2
	10 bbls of SAPP	Actual Displacement (bbl):	4.5		
	bbls of				
Total Preflush/Spacer Volume (bbl):	15	Plug Bump (Y/N):	N/A	Bump Pressure (psi):	N/A
Total Slurry Volume (bbl):	92	Lost Returns (Y/N):	NO	(if Y, when)	
Total Fluid Pumped	101.5				
Returns to Surface:					bbls

Job Notes (fluids pumped / procedures / tools / etc.): **SEE JOB LOG.**

Customer Representative Signature: _____ **Thank You For Using CJES O-TEX Cementing**

Cement Job Log



Customer:	PDC ENERGY	Date:	3/4/2019	Serv. Supervisor:	James Payne
Cust. Rep.:	Ryan Beam	Ticket #:	BCO-1903-0002	Serv. Center	Brighton - 3021
Lease:	Churchill 2-28A	API Well #:	05-123-14471	County:	Weld State: CO
Well Type:	Oil	Rig:	Brigade 7	Type of Job:	Plug to Abandon

TUBULAR DATA								
10" from 1171' to 1500'	#N/A	SIZE WEIGHT	THREAD	DEPTH (ft)	GRADE	ID (in)	BURST (psi)	COLLAPSE (psi)
		2 3/8 4.7#	LTC	1500	J-55	1.995	8100	7700

PREVIOUS CASING DATA	PERFORATED INTERVAL DATA				CASING EQUIPMENT DEPTHS			
N/A	TOP	BTM	SPF	SIZE	SHOE	FLOAT	STAGE	ACP
		N/A				N/A		

WELL FLUID		DISPLACEMENT FLUID			DIFF PRESS (psi)	CSG LIFT (psi)	MAX PRESS (psi)	WATER ON LOC (bbl)
TYPE	DENSITY	VOLUME	TYPE	DENSITY				
Mud	9.0 ppg	4.5 bbl	Water	8.3 ppg	N/A	N/A	1500	110

Time	Rate (bbl/min)	Csg. Press. (psi)	Tbg. Press (psi)	Ann. Press. (psi)	Stg. Vol. (bbl)	Cum. Vol. (bbl)	Stage Details
11:15 AM						0	Arrive on location / sign in (requested OL @ 11:30) 3/1/19
11:15 AM						0	Wait for rig to finish pulling casing / run tubing / tag cement / pull tubing & circulate - Cement tagged @ 4087'
2:55 PM						0	Spot trucks / rig in
3:10 PM						0	Wait for rig to finish pulling tubing
4:00 PM						0	Crew released from location
12:00 PM						0	Safety meeting 3/4/19
1:11 PM			2900			0	Pressure test
1:12 PM	1.7		30		10	10	SAPP spacer
1:12 PM	2		116		5	5	Fresh water spacer
1:28 PM	2		23		31	36	Mix, weigh & pump 130sx III @ 14.8ppg - Balance plug from 1183' to 1500'
1:40 PM	2		23		4.5	40.5	Displace till balanced
1:45 PM			0			40.5	Stop / verify zero
1:55 PM						40.5	Wash up pumps & lines
2:10 PM						40.5	Standby wait for rig to trip pipe
3:25 PM	1		30			40.5	Est Circulation
3:32 PM	2		60		59	99.5	Mix, weigh & pump 250sx III @ 14.8ppg - Balance plug from 0' to 525'
4:15 PM						99.5	Shut down
4:45 PM	.5		0		2	101.5	Top off well With 10sx III
5:00 PM							Wash up pumps & lines
5:25 PM							Rig out iron and hoses
6:00 PM							Leave location

Left Yard	3/4/19 10:00 AM			Left Loc.	3/4/19 6:00 PM			Start Pump	3/4/19 1:12 PM		
Arrived Loc.	3/4/19 11:00 AM			Returned Yd.	3/4/19 6:30 PM			End Pump	3/4/19 4:45 PM		
Bumped Plug (psi)	Final Differential (psi)	Floats Held (Y/N)	PSI Left on Casing	Cement to Surface (bbl)	Top of Cement (ft)	Full Circ. During Job (Y/N)	Max Pump Pressure (psi)	Casing Rotation	Standby Charged (hrs)	Casing Reciprocation	
No	N/A	No	0	0	surface	Yes	1000	N/A	2	N/A	

							Jimmy Payne		3/4/2019	
							Service Supervisor		Date	

RANGER ENERGY SERVICES, LLC


WIRELINE DIVISION

3333 Center Dr.
Milliken, CO.
80543



Company Name: PDC ENERGY, INC.		Company Address:			Field Ticket Number: 70001589	
Well Name: CHURCHILL 2-28A		Field: WATTENBERG	County: WELD	State: COLORADO	Rig Name & Number: BRIGADE RIG #7	
API #: 05-123-14471		AFE #:		Date: 2/26/2019	Wireline Unit # 233	
SERVICE NOTES: Gauge Ring / Junk Basket to 6565' Set STS 3-1/2" 10K CIBP @ 6500' Cement Dump Bail 2sx @ 6500'					Engineer:	J. Michael
					Operator:	D. Valenzuela
					Operator:	
					Operator:	

RUN	CODE	DESCRIPTIONS	QTY	UNIT PRICE	DISCOUNT	AMOUNT
	1000-001	Set Up Charge Cased Hole Unit	1			
	3000-001	Packoff Operation Charge0#-1000#	1			
	8000-009	Junk Catcher / Gauge Ring Depth Charge	6565			
	8000-010	Junk Catcher / Gauge Ring Operation Charge	1			
	8000-001	Bridge Plug Depth Charge	6500			
	8000-015	Setting Tool Rental, per tool	1			
	8000-002	Bridge Plug Operation Charge	1			
	8000-014	Standard Set Power Charge	1			
	7000-006	Dump Bailer Depth Charge	6500			
	7000-007	Dump Bailer Operation Charge	1			

Customer Signature:	Customer Name Printed:	Ranger Energy Services Representative Signature:	Ranger Energy Services Representative:
	MR. RYAN BEAM		JOE MICHAEL

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RANGER ENERGY SERVICES, LLC

WIRESLINE DIVISION

3333 Center Dr
Milliken, Co



Service Date:

Company Name: PDC		Company Address:			Field Ticket Number: 30001967
Well Name: Church hill 28-A2	Field: WATTENBERG	County: WELD	State: COLORADO	Rig Name & Number: Brigade rig #7	
SERVICE NOTES: Tag Cement top @ 4492' Jet cut 3.5" casing @ 4490'			Date: 2/28/2019	Wireline Unit # 222	Engineer: J. JOHNSON
				Operator: T. VAN NEST	

RUN	CODE	DESCRIPTIONS	QTY	UNIT PRICE	DISCOUNT	AMOUNT
1	1000-001	Set Up Charge Cased Hole Unit	1			
	3000-001	Packoff Operation Charge0#-1000#	1			
2	5000-011	Jet Cutter Depth Charge	4490			
	5000-014	Jet Cutter Operation Charge for Casing	1			

Customer Signature:	Customer Name Printed: RYAN BEAM	Ranger Energy Services Representative Signature:
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