C&J ENERGY SERVICES

CUSTOMER	**PDC ENERGY**
DISTRICT	**Brighton**
ADDRESS	**PO Box 26, Bridgeport, WV, 26330**
PHONE	

AFE #	PA 001111	**PO:**	
LEASE NAME / NUMBER		**API WELL NUMBER**	
Wells Ranch 12-36		05-123-26853	
SECTION	**TOWNSHIP**	**RANGE**	**COUNTY, STATE**
36	6N	63W	Weld, CO
WELL PERMIT NUMBER		**JOB TYPE**	
		Plug to Abandon	

TICKET	BCO-1905-0043
DATE	5/10/2019
CREW INFORMATION	
SUPERVISOR	Siarhei Dzmitryieu
PUMP UNIT NUMBERS	445051
ARRIVAL (D&T)	5/10/19 7:00 AM
DEPARTURE (D&T)	5/10/19 12:30 PM

36_1-BCO_190507110733-JLPjob 1.xlsm]Main

Service & Equipment Charges

Price Code	Description	Unit	Quantity	Price	Gross Amount	Discount	Net Amount
202000008	Bulk Cement Delivery/Return	TON MILE	713				
202150001	Bulk Material Mixing Service Charge	FT3	275				
202990008	Data Acquisition System	JOB	1				
202000001	Pump Truck/Heavy Vehicle Mileage	MILE	55				
202000002	Pickup Mileage	MILE	55				
111000010	Environmental Fee*	EA	1				
CT007	Pump Charge 6001-7000'	4-HRS	1				
		0	0				
		0	0				
		0	0				
		0	0				
		0	0				

Materials & Products 13

Price Code	Description	Unit	Quantity
CJ914	Class G Cement	SK	25
CJ922	Type III Portland Cement	SK	225
CJ775L	Alpha Defoamer	GAL	1
202202000	Pump Charge Additional Hours	HR	1
AE012	Bulk Unit Additional Hours	UNTHRS	1
		0	0
		0	0
		0	0
		0	0

Customer Stamp

Customer Name Printed _____

Customer Signature _____

Date Signed _____

Job Summary

C&J ENERGY SERVICES — O-TEX CEMENTING

Ticket Number	Ticket Date
TN# BCO-1905-0043	5/10/2019

COUNTY	COMPANY	API Number
Weld	PDC ENERGY	05-123-26853
WELL NAME	**RIG**	**JOB TYPE**
Wells Ranch 12-36	Ensign 318	Plug to Abandon
SURFACE WELL LOCATION	**CJES Field Supervisor**	**CUSTOMER REP**
40.44444 -104.39206	Siarhei Dzmitryieu	Eduardo Chavez

EMPLOYEES

Anthony Nelson		
Jared Cross		

WELL PROFILE

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

Open Hole

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

Casing/Tubing/Drill Pipe

Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Surface	8.625	24		0	463	0	463
Production	4.5	10.5		0	6524	0	6524
Tubbing	2.375	4.7		0	6524	0	6524

CEMENT DATA

Stage 1: Type: **Balance plug**

From Depth (ft): 6398 To Depth (ft): 6524

Volume (sacks): 10 Volume (bbls): 2

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

Stage 2: Type: **Balance plug**

From Depth (ft): 1324 To Depth (ft): 1922

Volume (sacks): 40 Volume (bbls): 9.5

Cement & Additives:	Density (ppg)	Yield (ft^3/sk)	Water Req.
Type III	14.8	1.33	6.32

Stage 3: Type: **Surface plug**

From Depth (ft): 0 To Depth (ft): 685

Volume (sacks): 50 Volume (bbls): 12

Cement & Additives:	Density (ppg)	Yield (ft^3/sk)	Water Req.
Type III	14.8	1.33	6.32

Stage 4: Type: **Squeeze**

From Depth (ft): 0 To Depth (ft): 500

Volume (sacks): 135 Volume (bbls): 32

Cement & Additives:	Density (ppg)	Yield (ft^3/sk)	Water Req.
Type III	14.8	1.33	6.32

SUMMARY

				Stage 1	Stage 2
Preflushes:	5	bbls of	Fresh Water	Calculated Displacement (bbl):	24.8	5.1
	5	bbls of	Fresh Water	Actual Displacement (bbl):	24.8	5.1
	5	bbls of	Fresh Water			
TotalPreflush/Spacer Volume (bbl):	15			Plug Bump (Y/N):		Bump Pressure (psi):	
Total Slurry Volume (bbl):	55.5			Lost Returns (Y/N):	N	(if Y, when)	
Total Fluid Pumped	100.4						
Returns to Surface:	Cement	5	bbls				

Job Notes (fluids pumped / procedures / tools / etc.):

Pumped 5 bbl of H2O , 10 sx of class G cement at 15.8/1.15 and displaced with 24.8 bbl of H2O to ETOC 6398' . Pulled tubbing to 1922' , pumped 5 bbl of H2O , 40 sx of type III cement at 14.8/1.33 and displaced 5.1 bbl to ETOC 1324' , pull tubbing to 685' and pumped 5 bbl of H2O , 50 sx type III cement at 14.8/1.33 to bring cement to surface , pulled tubbing out and squeeze annulus with 135 sx of type cement at 14.8/1.33 from 500' through circ . holes to surface per customer request.

Customer Representative Signature: _____

Thank You For Using
CJES O-TEX Cementing

Cement Job Log

C&J ENERGY SERVICES

Customer: PDC ENERGY	**Date:** 5/7/2019	**Serv. Supervisor:** Siarhei Dzmitryieu	
Cust. Rep.: Eduardo Chavez	**Ticket #:** BCO-1905-0043	**Serv. Center** Brighton - 3021	
Lease: Wells Ranch 12-36	**API Well #:** 05-123-26853	**County:** Weld	**State:** CO
Well Type: Oil	**Rig:** Ensign 318	**Type of Job:** Plug to Abandon	

OPEN HOLE DATA

7.875 in. O.H. (463 to 6,524 ft)

TUBULAR DATA

4.5 in. 10.5#, (0 to 6,524 ft)

SIZE WEIGHT	THREAD	DEPTH (ft)	GRADE	ID (in)	BURST (psi)	COLLAPSE (psi)
2.375 4.7#		6524		1.995		

PREVIOUS CASING DATA

8.625 in. 24# (0 to 463 ft)

PERFORATED INTERVAL DATA

TOP	BTM	SPF	SIZE

CASING EQUIPMENT DEPTHS

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				
Water	8.3 ppg	24.8 bbl	Water	8.3 ppg			1000	110

Time	Rate (bbl/min)	Csg. Press. (psi)	Tbg. Press (psi)	Ann. Press. (psi)	Stg. Vol. (bbl)	Cum. Vol. (bbl)	Stage Details
7:00 AM						0	ARRIVE ON LOCATION
7:10 AM						0	SPOT EQUIPMENT
7:20 AM						0	RIG UP IRON AND HOSES
7:45 AM						0	PRE JOB SAFETY MEETING
7:55 AM	1.5		350		1	1	LOAD LINES TO TEST
7:56 AM			3000			1	TEST PUMP AND LINES TO 2000 PSI
7:58 AM	0.8		182		4	5	START H2O SPACER
8:08 AM	1.7		610		2	7	START 10 SX OF CLASS G AT 15.8/1.15
8:09 AM	2.5		490		24.8	31.8	START DISPLACEMENT
8:22 AM	0		0			31.8	SHUT DOWN
9:51 AM	2.8		264		5	36.8	START H20 SPACER
9:55 AM	2.5		217		9.5	46.3	START 40 SX OF TYPE III AT 14.8/1.33
9:59 AM	3		104		5.1	51.4	START DISPLACEMENT
10:01 AM						51.4	SHUT DOWN
10:28 AM	2.7		156		5	56.4	START H2O SPACER
10:30 AM	3		199		12	68.4	START 50 SX OF TYPE III AT 14.8/1.33
10:36 AM						68.4	SHUT DOWN (1 BBL OF CEMENT TO SURFACE)
11:13 AM	2.5		220		32	100.4	START 135 SX OF TYPE III AT 14.8/1.33
11:26 AM	0		0			100.4	SHUT DOWN (4 BBL OF CEMENT TO SURFACE)
11:40 AM							WASH UP
12:00 PM							RIG DOWN
12:30 PM							LEAVE LOCATION

Left Yard	5/10/19 5:30 AM	Left Loc.	5/10/19 12:30 PM	Start Pump	5/10/19 7:55 AM		
Arrived Loc.	5/10/19 7:00 AM	Returned Yd.	5/10/19 2:00 PM	End Pump	5/10/19 11:40 AM		

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	5	Surface	Yes	1000		1			

Siarhei Dzmitryieu — Service Supervisor

5/10/2019 — Date

CASEDHOLE SOLUTIONS

C&J ENERGY SERVICES

Rev.032718 A	CUSTOMER P. O. NUMBER	SERVICE ORDER F1938	PAGE 1 of 1

* Service charges include a daily per diem of $30.00/employee and a daily catering charge (when provided by Casedhole Solutions) of $25.00/employee.

DATE 5/9/2019

TO CASEDHOLE SOLUTIONS, INC
You are hereby requested to perform or attempt to perform the following service(s) or furnish the following equipment:

SERVICE(S) AND/OR EQUIPMENT REQUESTED

CUSTOMER FURNISHED LEASE/WELL INFORMATION	COMPANY	PDC ENERGY				
	LEASE	Wells Ranch	WELL NUMBER	12-36		
	API	05-123-26853				
	FIELD	Wattenberg	PARISH/COUNTY	Weld	STATE	Colorado

THE UNDERSIGNED, HEREINAFTER REFERRED TO AS CUSTOMER AGREES TO PAY YOU FOR THE ABOVE SPECIFIED SERVICE(S) (INCLUDING LEASED EQUIPMENT) AND ANY ADDITIONAL SERVICE(S) REQUESTED, AT THE FIELD OFFICE OF CASEDHOLE SOLUTIONS, INC. IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF YOUR CURRENT PRICE SCHEDULE.
IN CONSIDERATION OF THE PRICES AS ARE SET OUT IN YOUR CURRENT APPLICABLE PRICE SCHEDULE WE CHOOSE TO BE BOUND BY THE TERMS AND CONDITIONS SET OUT IN THE CURRENT PRICE SCHEDULE (ALSO PRINTED ON THE REVERSE SIDE HEREOF), INCLUDING THE ASSUMPTION BY US OF THE LIABILITIES AND RESPONSIBILITIES CONTAINED IN THE RESPONSIBILITIES HEREIN ASSUMED BY US.
WHEN SIGNED BY AN AGENT ON BEHALF OF CUSTOMER, SAID AGENT REPRESENTS THAT HE HAS FULL AUTHORITY FROM HIS PRINCIPAL TO EXECUTE SAME, IN THE ABSENCE OF AUTHORITY, THE SIGNER AGREES THAT HE SHALL BE OBLIGATED HEREUNDER AS CUSTOMER.

CUSTOMER NAME	PDC ENERGY		
INVOICE MAILING ADDRESS	CITY	STATE	ZIP CODE
SIGNATURE OF CUSTOMER OR AURTHORIZED REPRESENATIVE			
X	Thank you for using Casedhole Solutions!!	Total runs, all pages	3

THE ESTIMATED CHARGES AND DATA SHOWN ARE SUBJECT TO CORRECTION BY CASEDHOLE SOLUTIONS, INC. ACCOUNTING

UNIT NUMBER	OPERATION TYPE: DAYLIGHT	WELL TYPE: WORKOVER	ROUND TRIP MILEAGE
92-3856	TRIP: FIRST	HOISTING TYPE: WORKOVER RIG	
WIRELINE DEPTH	MAX. WELLHEAD PRESSURE	PSI	BOTTOM HOLE PRESSURE: PSI

Desc. NO.	PERF. INTERVAL	PLUG DEPTH	OPERATION	ITEM	QUAN.	UNIT PRICE	DISC	DISC. PRICE	AMOUNT
1			P - Packoff	each	1				
2	No Tag 6550'		P - Gauge Ring or Depth Determination	per run	1				
3		6524'	P - Plug or Retainer - setting (3rd party)		1				
4	500'		P - Squeeze Gun - 1st Gun		1				

SERVICE	FIRST READING	LAST READING	FOOTAGE DEL.

Desc. NO.	NO. GUNS	SHOTS FIRED	TYPE CHRG.	SIZE

NO. DESC.	NO. SHOTS FIRED	NO. SEL. SWITCHES	SEL. SW. FAILURES
3	0	0	0

S. EQ. USE	% H2S/ACID	PHASE	SPF
10K		0	0

STANDARD PRICIN

T

TOTAL

Runs for this job made in May were 3

6 Shots Each Gun
.59" Entry Hole
4.7" Penetration

Was catering provided by Casedhole Solutions?

NO

ESTIMATED TOTAL CHARGE PAGE 1 $4,

THE SERVICE(S) AND/OR EQUIPMENT COVERED BY THIS SERVICE ORDER HAVE BEEN PERFORMED OR RECEIVED AS SET FORTH ABOVE

SIGNATURE OF CUSTOMER OR AUTHORIZED REPRESENATIVE	LOGS RECEIVED AT WELL	CUST. INITIALS	SIGNATURE OF CASEDHOLE SOLUTIONS ENGINEER
X Eduardo Chavez Chavez			Meisner,Jacob

CASING/TUBING RECORD SIZE	WEIGHT	TYPE	FROM	TO
		Casing 1		
		Casing 2		
		Tubing		
		Liner		
		Drill Pipe		

PERM. DEPTH DATUM GROUND LEVEL ELEV. ELEV K.B.
LOG MEAS. FROM WHICH IS ABOVE PERM DATUM D.F. G.L.

Fluid Type	Fluid Weight	Fluid Level
Water	8.345 lbs/gal	feet

Bottom Hole Temperature Degrees F

REMARKS

District doing job:	Fort Lupton, CO
Line of Business:	Completions
Type of Job:	
Class:	Vert. Domestic
District job is in:	Fort Lupton, CO
RC#:	
Engineer:	
MSA#:	

CASEDHOLE ENGINEER NAMES		WORK WITNESSED BY NAME
Meisner,Jacob	Crew 1	Chavez
	Crew 2	
	Crew 3	
	Crew 4	
	Crew 5	
	Crew 6	