



Well History

Well Name: **Richter 44-27**

API 05123230920000	Surface Legal Location SESE 27 7N 64W	Field Name Wattenberg	State CO	Well Configuration Type Vertical
Ground Elevation (ft) 4,870.00	Original KB Elevation (ft) 4,880.00	KB-Ground Distance (ft) 10.00	Spud Date 11/1/2005 00:00	Rig Release Date 11/5/2006 00:00
On Production Date 1/13/2006				

Job

Drilling - original, 11/1/2005 00:00

Job Category Drilling	Primary Job Type Drilling - original	Start Date 11/1/2005	End Date 11/5/2005	Objective Drill a New Codell Well
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Daily Operations

Start Date	Summary	End Date

Initial Completion, 11/6/2005 00:00

Job Category Completion/Workover	Primary Job Type Initial Completion	Start Date 11/6/2005	End Date 11/13/2005	Objective Complete a New Codell Well
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Daily Operations

Start Date	Summary	End Date

Swab, 3/1/2012 00:00

Job Category LOE	Primary Job Type Swab	Start Date 3/1/2012	End Date	Objective
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Daily Operations

Start Date	Summary	End Date
3/1/2012	MIRU Clark Swabbing, RIH w/swab, STP 80 psi, SCP 475 psi, SFL 5000 , recovered 17 bbls, FFL flow , ETP 250, ECP 350 , isolate well, SDFD.	3/1/2012

Wellbore Integrity, 12/9/2013 06:00

Job Category Completion/Workover	Primary Job Type Wellbore Integrity	Start Date 12/9/2013	End Date 12/9/2013	Objective Set RBP, and swap out 3K well head with 5K well head for well bore integrity during the Richter 34R horizontal pad frac.
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Daily Operations

Start Date	Summary	End Date
12/9/2013	ITP-350, ICP-380, ISCP-0. Held safety meeting. MIRU Ensign Rig 314. RU pump lines to well head. Blew down well to RT and controlled w/40 bbls. of 2% claytreat/biocide water. Function tested BOPE. Rig down pump lines and production equipment. ND well head and NU BOP. PU tag jts. and tagged @ 7,253' w/4 tag jts.. LD tag jts.. POOH tallying 219 jts.-7,117.42', and 1-6' sub of 2 3/8" 4.7# J-55 EUE production tbg.. Tubing was landed 10.98' above Codell perms @ 7,133.02' w/219 jts., 1-6' sub, NC/SN-1.6', and 8' adj. KB. PU 3 7/8' blade bit, casing scraper for 4 1/2" 10.5# casing, and cross over. TIH w/219 jts., EOT @ 7,124'. LD 2 jts. and POOH to the derrick w/217 jts.. LD tools and PU WLTC RBP for 4 1/2" 10.5# casing. TIH w/216 jts. and 1 jt. from the ground and set RBP @ 7,059.92'. LD 1 jt. and RU circulation equipment. Broke circulation and rolled the hole clean of oil and gas. Pressured up to 2,000 psi. for 15 min.. Good test. Release pressure and RD circulation equipment. LD 4 jts. and dropped 2 sacks of sand and chased w/10 bbls. of 2% KCL. LD 5 more jts.. Leaving 207 jts. in the well and 12 jts. on the ground. Drain lines, shut in and secured the well for the night.	12/10/2013
12/10/2013	No pressures @ the well head. ND BOP and stripped off 3K well head. Stripped on a new 5K well head from WB Supply (includes new 5K casing valves and master valve). RDMOL. Note: Tubing needs to be tested when coming back to pull tubing.	12/9/2013
4/7/2014	No pressures @ the well head. Held safety meeting. MIRU Ensign Rig 325. ND top flange of 5K well head and NU BOPE (BOPE was function tested prior to installation). RU pump lines and return lines. Pressure tested lines to 2,500 psi., good test. PU 10 jts. from the ground and tagged sand @ 7,049.92'. RU tubing swivel, TIW valve, and circulation equipment. Broke circulation and wash down and latched on to RBP @ 7,059.92' w/same jt.. Rolled the hole clean of sand. RD circulation equipment. Re-released RBP and POOH tallying to the derrick w/34 jts.. Shut down due to wind. Shut in and secured the well for the night.	4/7/2014
4/8/2014	No tbg, ICP-0, ISCP-0. Held safety meeting. MIRU Pick Testers. PU new notch collar and seat nipple from WB Supply (ID=1.780"). TIH hydro testing to 6,000 psi. 219 jts. of 2 3/8" 4.7# J-55 EUE prd. tbg.. All jts. tested good. RD tester. PU 4 tag jts. and did not tag, EOT @ 7,250' w/223 jts.. LD tag jts. and landed tbg. 10.98' above Codell perms @ 7,133.02' w/219 jts.- 7,117.42' and 1-6' sub, NC/SN-1.6', and 8' adj. KB. Nipple down BOP and nipple up well head. RU lubricator, sand line w/1.901" broach, and pack off to master valve. Ran broach to seat nipple, good broach run. POOH and rig down broaching equipment. RDMOL	4/8/2014
12/21/2015	Core Tech RIH w/ 2" JUC and fished plunger @ 7121. Dropped new slide and sleeve bypass plunger. RIH w/ 2" JDC and set new 2 stage @ 4266. Dropped new TWNG and new PCS AS RDMO.	12/21/2015

Wireline, 12/22/2016 12:00

Job Category Other	Primary Job Type Wireline	Start Date 12/22/2016	End Date 12/22/2016	Objective REBUILD 2 STAGE
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Daily Operations

Start Date	Summary	End Date
12/22/2016	Coretech RU, RIH w/ 2" JDC to fish plgr @ 4258', TWNG @ 4260', 2 stage @ 4262', bypass plgr @ 7119', standing valve @ 7120'. RIH w/ 1.5" blind box to chase new ball seated SV to 7120'. Rebuilt and reset 2 stage @ 5332'. Dropped new TWNG and plgr. RDMO	12/22/2016



Well History

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Ground Elevation (ft) 4,870.00	Original KB Elevation (ft) 4,880.00	KB-Ground Distance (ft) 10.00	Spud Date 11/1/2005 00:00	Rig Release Date 11/5/2006 00:00
On Production Date 1/13/2006				

Job

Wireline, 4/23/2018 12:00				
Job Category Other	Primary Job Type Wireline	Start Date 4/23/2018	End Date 4/23/2018	Objective FISH ALL TOOLS

Daily Operations

Start Date	Summary	End Date
4/23/2018	RIHW 2" JDC TO FISH PLUNGER @ 5322, FISH SPRING @ 5323, FISH STAGE TOOL @ 5324, FISH STANDING VALVE @ 7114.	4/24/2018

Abandon Well EHS, 10/16/2018 14:00

Job Category Abandon	Primary Job Type Abandon Well EHS	Start Date 10/16/2018	End Date 10/18/2018	Objective PLUG AND ABANDON WELL.
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Daily Operations

Start Date	Summary	End Date
10/16/2018	ITP 150 PSI, ICP 150 PSI, ISCP 0 PSI, WELL WAS SHUT IN, MIRU ENSIGN RIG 354, BLEW DOWN WELL TO RIG TANK, FUNCTION TESTED BOP, CIRCULATED OIL AND GAS OUT, ND PRODUCTION TREE, NU BOP, PULLED 62 JTS OF 2 3/8 J-55 TO DERRICK, SI AND SECURE WELL FOR THE NIGHT WITH 157 JTS IN THE HOLE, DRAIN PUMP AND LINES, SD.	10/16/2018
10/17/2018	NO PRESSURES, OPENED WELL, CIRCULATED THE HOLE CLEAN, LD 157 JTS OF 2 3/8 ON ATP'S TRAILER, COME OUT LOADING THE HOLE, MIRU C&J WIRE LINE, MADE A GAUGE RING RUN DOWN TO 7100', PU 4 1/2 10K CIBP, SET CIBP AT 7094' CORRELATED WITH LOGS, SPOTTED 2 SACKS OF CEMENT ON TOP OF THE PLUG, SET SECOND CIBP AT 6795' CORRELATED WITH LOGS, SPOTTED 2 SACKS OF CEMENT ON TOP OF THE PLUG, RD WIRE LINE, LOADED THE HOLE, PRESSURE TESTED CASING AND PLUG UP TO 1000 PSI, HELD GOOD FOR 15 MINUTES, BLEED OFF PRESSURE, ND BOP AND 5K WELL HEAD, REMOVED SURFACE CAP AND PACKING, UNLANDED CASING WITH STS'S SPEAR PULLING 90K, NU BOP, WORKED CASING UP TO 100K AND GOT FREE CASING DOWN TO 1950', MIRU C&J WIRE LINE, RIH WITH JET CUTTER, CUT CASING AT 1900', RD WIRE LINE, LD LIFTING SUB, RU CIRCULATING EQUIPMENT, PUMPED 2 SACKS OF SAPP DOWN CASING, CONDITIONED THE HOLE WITH MUD FOR 40 MINUTES AND LOST CIRCULATION, LD 2 JTS OF 4 1/2 CASING, TRY CIRCULATING AGAIN, COULDN'T GET CIRCULATION, PULLED 8 MORE JTS UP TO 1470', COULDN'T GET CIRCULATION, LD THE REST OF THE CASING, CHANGED EQUIPMENT FROM 4 1/2 TO 2 3/8, SI AND SECURE WELL FOR THE NIGHT, DRAIN PUMP AND LINES, SD.	10/17/2018
10/18/2018	NO PRESSURES, OPENED WELL, RAN 62 JTS OF 2 3/8 DOWN TO 2029', RU CIRCULATING EQUIPMENT, CONDITIONED THE HOLE WITH MUD FOR 1.5 HOURS, GOT HEAVY MUD AND GAS ON RETURNS, MIRU C&J CEMENT TRUCKS, HELD SAFETY MEETING, PRESSURE TESTED LINES UP TO 2000 PSI, NO LEAKS, ESTABLISHED CIRCULATION WITH WATER, PUMPED 255 SACKS OF 14.8 TYPE III CEMENT DOWN TUBING, BALANCED CEMENT WITH 5 BBL OF WATER, EST TOC AT 1300', LD 37 JTS ON ATP'S TRAILER, EOT AT 815' WITH 25 JTS, ESTABLISHED CIRCULATION WITH WATER, OPENED WELL FOR 5 MINUTES, NO FLOW OR GAS MIGRATION, PUMPED 270 SACKS (64 BBL) OF 14.8 TYPE III CEMENT AND GOT CEMENT ON RETURNS, LD THE 25 JTS, TOP OFF WITH 13 SACKS, CLEANED UP EQUIPMENT FROM CEMENT, ND BOP, CLOSE WELL, RACK PUMP AND TANK, RDMOL. PUMPED TOTAL OF 538 SACKS OF 14.8 TYPE III CEMENT WITH THE 255 SACK BALANCE PLUG. MOVE IN ATP'S CUT AND CAP CREW, DUG DOWN 6' CUT OFF WELL HEAD, WELDED CAP ONTO SURFACE, INSTALLED MARKER PLATE ON CAP, BACKFILLED, SHUT DOWN. FINAL REPORT. 219 JTS OF 2 3/8 J-55 4.7 AND 45 JTS OF 4 1/2 10.5# CASING SOLD TO KARST.	10/18/2018



Daily Completion Operations

Date: 10/18/2018
Report #: 3.0

Well Name: Richter 44-27

Well Name Richter 44-27	Operator PDC Energy Inc.	API 05123230920000	Well Number 105.005245	Last Mod By echavez	
District Evans	Field Name Wattenberg	County Weld	State CO		
Well Type Development	Surface Legal Location SESE 27 7N 64W	Spud Date 11/1/2005	Original KB Elevation (ft) 4,880.00	Ground Elevation (ft) 4,870.00	KB-Ground Distance (ft) 10.00

Daily Operation: 10/18/2018 06:00 - 10/18/2018 14:00

AFE Number	Job Category Abandon	Objective PLUG AND ABANDON WELL.	Start Date 10/16/2018	End Date 10/18/2018	Primary Job Type Abandon Well EHS	Secondary Job Type
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Rigs

Contractor Ensign	Rig Number 354
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Daily Operations

Report Start Date 10/18/2018	Report End Date 10/18/2018	Daily Field Est Total (Cost) 23,138.00	Cum Field Est To Date (Cost) 50,020.00
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Status at Reporting Time

Operations Summary

NO PRESSURES, OPENED WELL, RAN 62 JTS OF 2 3/8 DOWN TO 2029', RU CIRCULATING EQUIPMENT, CONDITIONED THE HOLE WITH MUD FOR 1.5 HOURS, GOT HEAVY MUD AND GAS ON RETURNS, MIRU C&J CEMENT TRUCKS, HELD SAFETY MEETING, PRESSURE TESTED LINES UP TO 2000 PSI, NO LEAKS, ESTABLISHED CIRCULATION WITH WATER, PUMPED 255 SACKS OF 14.8 TYPE III CEMENT DOWN TUBING, BALANCED CEMENT WITH 5 BBL OF WATER, EST TOC AT 1300', LD 37 JTS ON ATP'S TRAILER, EOT AT 815' WITH 25 JTS, ESTABLISHED CIRCULATION WITH WATER, OPENED WELL FOR 5 MINUTES, NO FLOW OR GAS MIGRATION, PUMPED 270 SACKS (64 BBL) OF 14.8 TYPE III CEMENT AND GOT CEMENT ON RETURNS, LD THE 25 JTS, TOP OFF WITH 13 SACKS, CLEANED UP EQUIPMENT FROM CEMENT, ND BOP, CLOSE WELL, RACK PUMP AND TANK, RDMOL.
PUMPED TOTAL OF 538 SACKS OF 14.8 TYPE III CEMENT WITH THE 255 SACK BALANCE PLUG.
MOVE IN ATP'S CUT AND CAP CREW, DUG DOWN 6' CUT OFF WELL HEAD, WELDED CAP ONTO SURFACE, INSTALLED MARKER PLATE ON CAP, BACKFILLED, SHUT DOWN.

FINAL REPORT.

219 JTS OF 2 3/8 J-55 4.7 AND 45 JTS OF 4 1/2 10.5# CASING SOLD TO KARST.

Operations Next Report Period

FINAL REPORT.

Weather	Temperature (°F)	Hole Condition	Road Condition
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Time Log

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Code	Code Des	Com
06:00	07:00	1.00	1.00	TRAV	Travel - To Location	CREW TRAVEL, SAFETY MEETING.
07:00	07:30	0.50	1.50	RUTB	Run Tubing	RUN 62 JTS DOWN TO 2029'.
07:30	09:00	1.50	3.00	CIRC	Circulating	CIRCULATE THE HOLE WITH MUD FOR 1.5 HOUR.
09:00	10:00	1.00	4.00	CEMT	Cement Squeeze	PUMP A 255 SACK BALANCE PLUG.
10:00	10:30	0.50	4.50	PULT	Pull Tubing	LD 37 JTS.
10:30	12:00	1.50	6.00	CEMT	Cement Squeeze	PUMPED CEMENT UP TO SURFACE.
12:00	12:30	0.50	6.50	PULT	Pull Tubing	LD THE 25 JTS, TOP OFF WITH CEMENT.
12:30	13:00	0.50	7.00	BOPR	Remove BOP's	CLEAN UP EQUIPMENT FROM CEMENT, ND BOP.
13:00	14:00	1.00	8.00	SRIG	Rig Up/Down	RACK PUMP AND TANK, RIG DOWN.



Daily Completion Operations

Date: 10/17/2018
Report #: 2.0

Well Name: Richter 44-27

Well Name Richter 44-27	Operator PDC Energy Inc.	API 05123230920000	Well Number 105.005245	Last Mod By echavez	
District Evans	Field Name Wattenberg	County Weld	State CO		
Well Type Development	Surface Legal Location SESE 27 7N 64W	Spud Date 11/1/2005	Original KB Elevation (ft) 4,880.00	Ground Elevation (ft) 4,870.00	KB-Ground Distance (ft) 10.00

Daily Operation: 10/17/2018 06:00 - 10/17/2018 18:00

AFE Number	Job Category Abandon	Objective PLUG AND ABANDON WELL.	Start Date 10/16/2018	End Date 10/18/2018	Primary Job Type Abandon Well EHS	Secondary Job Type
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Rigs

Contractor Ensign	Rig Number 354
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Daily Operations

Report Start Date 10/17/2018	Report End Date 10/17/2018	Daily Field Est Total (Cost) 19,450.00	Cum Field Est To Date (Cost) 26,882.00
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Status at Reporting Time

Operations Summary

NO PRESSURES, OPENED WELL, CIRCULATED THE HOLE CLEAN, LD 157 JTS OF 2 3/8 ON ATP'S TRAILER, COME OUT LOADING THE HOLE, MIRU C&J WIRE LINE, MADE A GAUGE RING RUN DOWN TO 7100', PU 4 1/2 10K CIBP, SET CIBP AT 7094' CORRELATED WITH LOGS, SPOTTED 2 SACKS OF CEMENT ON TOP OF THE PLUG, SET SECOND CIBP AT 6795' CORRELATED WITH LOGS, SPOTTED 2 SACKS OF CEMENT ON TOP OF THE PLUG, RD WIRE LINE, LOADED THE HOLE, PRESSURE TESTED CASING AND PLUG UP TO 1000 PSI, HELD GOOD FOR 15 MINUTES, BLEED OFF PRESSURE, ND BOP AND 5K WELL HEAD, REMOVED SURFACE CAP AND PACKING, UNLANDED CASING WITH STS'S SPEAR PULLING 90K, NU BOP, WORKED CASING UP TO 100K AND GOT FREE CASING DOWN TO 1950', MIRU C&J WIRE LINE, RIH WITH JET CUTTER, CUT CASING AT 1900', RD WIRE LINE, LD LIFTING SUB, RU CIRCULATING EQUIPMENT, PUMPED 2 SACKS OF SAPP DOWN CASING, CONDITIONED THE HOLE WITH MUD FOR 40 MINUTES AND LOST CIRCULATION, LD 2 JTS OF 4 1/2 CASING, TRY CIRCULATING AGAIN, COULDN'T GET CIRCULATION, PULLED 8 MORE JTS UP TO 1470', COULDN'T GET CIRCULATION, LD THE REST OF THE CASING, CHANGED EQUIPMENT FROM 4 1/2 TO 2 3/8, SI AND SECURE WELL FOR THE NIGHT, DRAIN PUMP AND LINES, SD.

Operations Next Report Period

RIH WITH TBG DOWN TO 2029', CIRCULATE THE HOLE, PUMP A 255 SACK BALANCE PLUG, PUMP CEMENT FROM 815' UP TO SURFACE.

Weather	Temperature (°F)	Hole Condition	Road Condition
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Time Log

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Code	Code Des	Com
06:00	07:00	1.00	1.00	TRAV	Travel - To Location	CREW TRAVEL, SAFETY MEETING.
07:00	09:00	2.00	3.00	PULT	Pull Tubing	LD 156 JTS.
09:00	12:30	3.50	6.50	WLWK	Wireline	MADE A GAUGE RING RUN, SET CIBP AT 7094' AND AT 6795' WITH 2 SACKS OF CEMENT ON TOP OF EACH PLUG.
12:30	13:00	0.50	7.00	PTST	Pressure Test	PRESSURE TEST CASING UP TO 1000 PSI FOR 15 MINUTES.
13:00	14:00	1.00	8.00	WHRP	Well Head Work	ND BOP, UNLAND CASING. NU BOP.
14:00	14:30	0.50	8.50	WLWK	Wireline	CUT CASING AT 1900'.
14:30	16:00	1.50	10.00	CIRC	Circulating	LD LIFTING SUB, CIRCULATED THE HOLE FOR 40 MINUTES AND LOST CIRCULATION, PULLED 10 JTS AND COULDN'T GET CIRCULATION.
16:00	17:00	1.00	11.00	PULT	Pull Tubing	LD CASING.
17:00	18:00	1.00	12.00	TRAV	Travel - From Location	



Daily Completion Operations

Date: 10/16/2018
Report #: 1.0

Well Name: Richter 44-27

Well Name Richter 44-27	Operator PDC Energy Inc.	API 05123230920000	Well Number 105.005245	Last Mod By echavez	
District Evans	Field Name Wattenberg	County Weld	State CO		
Well Type Development	Surface Legal Location SESE 27 7N 64W	Spud Date 11/1/2005	Original KB Elevation (ft) 4,880.00	Ground Elevation (ft) 4,870.00	KB-Ground Distance (ft) 10.00

Daily Operation: 10/16/2018 14:00 - 10/16/2018 19:00

AFE Number	Job Category Abandon	Objective PLUG AND ABANDON WELL.	Start Date 10/16/2018	End Date 10/18/2018	Primary Job Type Abandon Well EHS	Secondary Job Type
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Rigs

Contractor Ensign	Rig Number 354
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Daily Operations

Report Start Date 10/16/2018	Report End Date 10/16/2018	Daily Field Est Total (Cost) 7,432.00	Cum Field Est To Date (Cost) 7,432.00
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Status at Reporting Time

Operations Summary

ITP 150 PSI, ICP 150 PSI, ISCP 0 PSI, WELL WAS SHUT IN, MIRU ENSIGN RIG 354, BLEW DOWN WELL TO RIG TANK, FUNCTION TESTED BOP, CIRCULATED OIL AND GAS OUT, ND PRODUCTION TREE, NU BOP, PULLED 62 JTS OF 2 3/8 J-55 TO DERRICK, SI AND SECURE WELL FOR THE NIGHT WITH 157 JTS IN THE HOLE, DRAIN PUMP AND LINES, SD.

Operations Next Report Period

LD THE PIPE, SET CIBP AT 7094' AND AT 6795', UNLAND CASING AND CUT IT AT 1900', CONDITION THE HOLE WITH MUD FOR 2 HOURS.

Weather	Temperature (°F)	Hole Condition	Road Condition
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Time Log

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Code	Code Des	Com
14:00	14:30	0.50	0.50	RMOV	Rig Move	
14:30	15:30	1.00	1.50	SRIG	Rig Up/Down	RIG UP RIG, PUMP AND TANK.
15:30	17:00	1.50	3.00	CIRC	Circulating	BLOW DOWN WELL, CIRCULATE OIL AND GAS OUT.
17:00	17:30	0.50	3.50	BOPI	Install BOP's	ND PRODUCTION TREE, NU BOP.
17:30	18:00	0.50	4.00	PULT	Pull Tubing	PULL 62 JTS TO DERRICK.
18:00	19:00	1.00	5.00	TRAV	Travel - From Location	

COUNTY	COMPANY	API Number
Weld	PDC ENERGY	05-123-23092
WELL NAME	RIG	JOB TYPE
Richter 44-27	Ensign 354	Plug to Abandon
SURFACE WELL LOCATION	CJES Field Supervisor	CUSTOMER REP
40.539264 104.528475	Austin Klosterman	Eduardo Chavez

EMPLOYEES

James McFarland		
James Bell-Verhey		
AJ Staples		

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)
	10"	1900'	1293'		
2		TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
	14"	1293'	583'		

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"		583'	0'		
Production	4 1/2"	10.5#		2029'	1900'		
Tubing	2 3/8"	4.7#		2029'	0'		

CEMENT DATA

Stage 1:
Type: **Stub Plug**

From Depth (ft): **2029'** To Depth (ft): **1293'**
Volume (sacks): **255** Volume (bbls): **61**

Cement & Additives:	Density (ppg)	Yield (ft³/sk)	Water Req.
See Service Order	14.8	1.33	6.32

Stage 2:
Type: **Surface Plug**

From Depth (ft): **815'** To Depth (ft): **0'**
Volume (sacks): **283** Volume (bbls): **67**

Cement & Additives:	Density (ppg)	Yield (ft³/sk)	Water Req.
See Service Order	14.8	1.33	6.32

Stage 3:
Type:

From Depth (ft): To Depth (ft):
Volume (sacks): Volume (bbls):

Cement & Additives:	Density (ppg)	Yield (ft³/sk)	Water Req.

Stage 4:
Type:

From Depth (ft): To Depth (ft):
Volume (sacks): Volume (bbls):

Cement & Additives:	Density (ppg)	Yield (ft³/sk)	Water Req.

SUMMARY

	Stage 1	Stage 2
Preflushes:		
5 bbls of Fresh Water	Calculated Displacement (bbl): 5	
10 bbls of Fresh Water	Actual Displacement (bbl): 4	
 bbls of 		
Total Preflush/Spacer Volume (bbl): 15	Plug Bump (Y/N): n/a	Bump Pressure (psi): n/a
Total Slurry Volume (bbl): 128	Lost Returns (Y/N): N (if Y, when)	
Total Fluid Pumped 147		
Returns to Surface: Cement 3 bbls		

Job Notes (fluids pumped / procedures / tools / etc.):
 1st Cement Plug - From 2029' to 1293' / Cement Coverage = 736' / Estimated TOC = 1293' / Displaced to balance w/ 4bbls / 255sx @14.8ppg (Yield 1.33) Type III = 61bbls
 2nd Cement Plug - From 815' to 0' / Cement Coverage = 815' / TOC = 0' / 283sx @14.8ppg (Yield 1.33) Type III to receive cement returns to tank and to top off = 67bbls

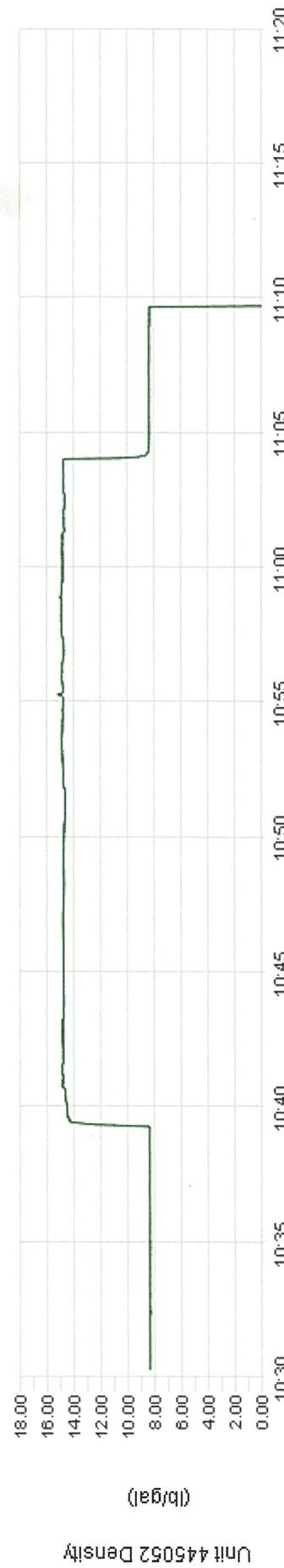
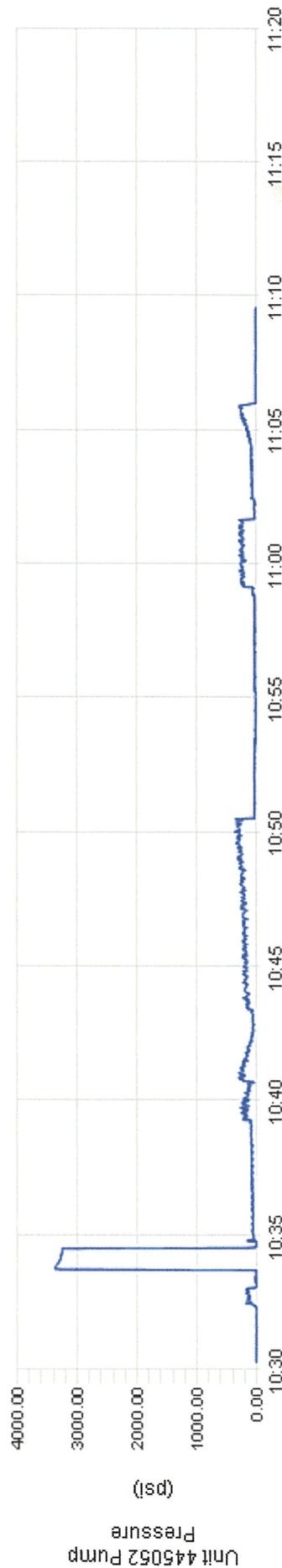
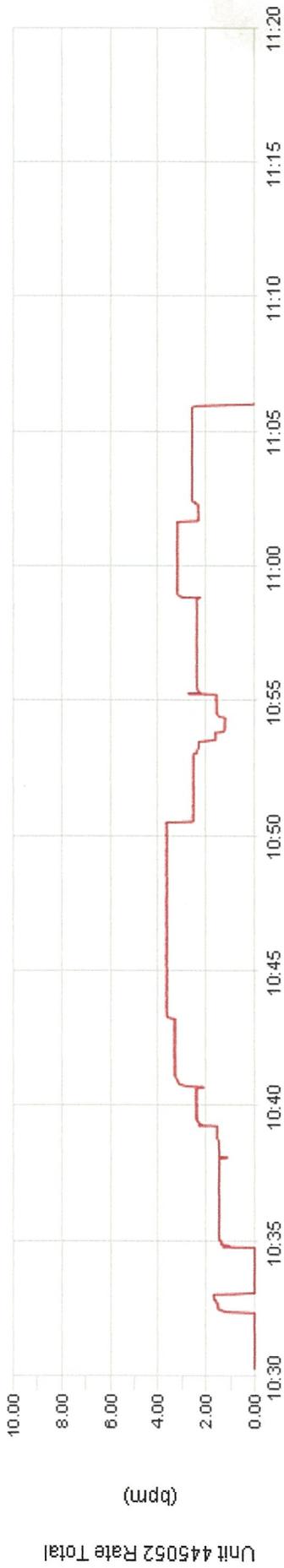
Customer Representative Signature: _____ **Thank You For Using CJES O-TEX Cementing**



Client PDC
Ticket No. 1810-0098
Location Sec27:T7N:R64W
Comments See job log.

Client Rep Bernie Chavez
Well Name Richter 44-27
Job Type Abandonment Plugs

Supervisor A. Klosterman
Unit No. 445052
Service District Brighton, CO
Job Date 10/18/2018



C&J ENERGY SERVICES	PDC ENERGY	YARD CALL	10/16/2017		DISTRICT
	Richter 44-27	RTS DATE	10/18/2018		Brighton
		YARD RTN	10/18/2018		

CUSTOMER INFORMATION		WELL INFORMATION		WELL DATA		TUBULAR DATA					
Customer Name	PDC ENERGY	API #:	05-123-23092	Casing Size	8 5/8" 24#	Size	Grade	Weight	Depth		
Customer #:	1000700	Field Name:	Wattenberg	Depth	583'	2 3/8"		4.7	2029'		
AFE #:		Well Name:	Richter 44-27	TVD	583'	Casing					
Cust Rep on Loc:	Eduardo Chavez	Well Type:	Oill	MD	583'	CEMENTING PLUG					
Cust Phone #:	970-397-0599	Formation:	Surface	OH	14"	Qty	Size	Type	Material		
Order Placed By:	Eduardo Chavez	Rig Contractor:	Ensign	OH Depth	1293'						
Phone #:		Rig Name/Num.:	Ensign 354	BHST	60°F						
Proposed Job Amt:	\$15,545.29	Rig Phone:		BHCT	0°F						
JOB INFORMATION		County:	Weld	Est. BHST/BHCT	60°F / 0°F (API) (0.00°F/100ft)						
Ticket #:	BCO-1810-0098	State:	CO	MD / TVD	2,029 ft / 2,029 ft		TOP CONNECTION				
PO #:		Latitude:	40.539264	Mud Weight & Type				Size	Type	Thread	
Order Taken By:	Laeger	Longitude:	104.528475	Open Hole	10" OH - From 1900' to 1293' 14" OH - From 1293' to 583'			2 3/8"	Swedge	8 Round	
Order Date:	10/16/2018	Township:	SESE 27 7N64W	Previous Casing	8.625 in. 24# (0 to 583 ft) 4.5 in. 10.5# (1,900 to 2,029 ft)			JOB TYPE			
CJES Acct. Manager:	Adam DeSaules	Quote Number:	1-BCO_181016110552							Plug to Abandon	
CJES Engineer	0										

COMMENTS
Job went according to program and customer's request. Job went well.

SPECIAL JOB INSTRUCTIONS
100# sugar

DIRECTIONS TO WELL
Cr 57 & Cr 76, N .2, W.1, S into

Emergency Contacts

Nearest Hospital	Greeley, CO	Phone Number:	911
Police Department	Greeley, CO	Phone Number:	911
Fire Department	Greeley, CO	Phone Number:	911

Designated Emergency Vehicle	C&J Pick Up	Vehicle Location:	Lease entrance
MSDS on Dash of Emergency Vehicle? (y/n)	Yes in Sup's laptop		

Muster Area #1	Lease entrance
Muster Area #2	Wind depending

Cell Phone Service on location? (y/n)	Yes
If not, nearest working phone	

Iron Tracking

Iron Type	Taken Out			Returned		
	Taken By	Date Out	Time Out	Returned By	Date In	Time In



ENSIGN WELL SERVICES

24020 Weld County Road 46, LaSalle, Colorado 80645
Telephone (970) 284-6006



RIG/UNIT #: 354
TOUR: Day Shift

DAILY WORK RECORD

Ticket No: 4043760-SO1

DATE: 16-Oct-18, 13:00

Page: 1 of 1

COMPANY		
PDC ENERGY, INC	LOCATION: RICHTER 44-27 (CO, Station: Lasalle)	PO:
ATTENTION: ACCOUNTS PAYABLE		APE: PA 000827
BRIDGEPORT, West Virginia, USA 26330		

CHARGES & EXPENDABLES			
NAME	QTY	UNIT PRICE	EXT. PRICE
Rig Hours	3.50		
Rig Up	1.00		
Crew Travel	1.00		
CHARGES & EXPENDABLES SUB-TOTAL			
FIELD ESTIMATE (TAX NOT INCLUDED)			
CUSTOMER STAMP			

ROD & TUBING DETAILS				
ROD DETAILS				
PULLED	SIZE:	PLAIN:	SCRAPERS:	PONYS:
RAN	SIZE:	PLAIN:	SCRAPERS:	PONYS:
NOTES:				
TUBING DETAILS				
PULLED	SIZE:	JOINTS:	TALLY:	
RAN	SIZE:	JOINTS:	TALLY:	
LANDED AT:		NIPPLE AT:		
NOTES:				
PUMP DETAILS				
SIZE:	TYPE:	SERIAL #:		

PRESSURE TESTS						
FUNCTION BOP	TIME TO OPERATE (s)	LOW (psi)	TIME (min)	HIGH (psi)	TIME (min)	TEST DATE & TIME
INITIAL ACCUM. PRESSURE:		FINAL ACCUM. PRESSURE:		RECHARGE TIME:		
DAILY WALK AROUND: Not run		RAM SAVER: NO		EMERGENCY HORN TEST: Not run		
LEL TEST: Not run		CROWN SAVER: Not run		EMERGENCY ENGINE KILLS: Not run		
DETAILED INSPECTION DATE:			SCBA DRILL DATE:			
MAN DOWN DRILL DATE:			RIG RESCUE DRILL DATE:			
BOP DRILL DATE:			BOP DRILL DURATION:			
IADC DETAILED INSPECTION DATE:						
WEATHER: Sunny		WIND: Calm		TEMP: 0 °F		H2S (%): 0.0

DETAILS OF OPERATIONS				
FROM	TO	DURATION (hrs)	ACTIVITY	DETAILS
16-Oct-18, 13:00	16-Oct-18, 18:30	5.50	BOP - Nipple Up/Down - BOPE & Wellhead	Crew moved in rig/equip removed well fence spot in rig/equip R/U rig R/U pump/tank check press 150/150/0 blow down to work tank circ well w/ 140bbl circ 1hr clean function test BOP test good N/D well tree, master valve, 5K top flange N/U BOP R/U work floor tbg equip unland mandrill from wellhead L/D mandrill L/D 6' 2 3/8 sub TOTH 62jnts to derrick leaving 157jnts in @ 5103' shut in well crew cleaned loc drained pump/lines crew traveled home
TOTAL TIME: 5.50 hours				

CREW DETAILS									
ROLE	NAME	START TIME	DURATION (hrs)	TRAVEL TIME (hrs)	PERS. VEH.	TRAVEL DIST (mi)	SUB.	DIST FROM RES (mi)	INJURY FREE
Service Rig Manager	Matthew McGraw	16-Oct-18, 13:00	5.50	0.00	No	0.00		0.00	Yes
Operator	Ever Valverde	16-Oct-18, 13:00	5.50	0.00	No	0.00		0.00	Yes
Floorhand	Jeffrey Garcia	16-Oct-18, 13:00	5.50	0.00	No	0.00		0.00	Yes
Derrickhand	Geovany Cadena Beltran	16-Oct-18, 13:00	5.50	0.00	No	0.00		0.00	Yes

SIGNATURES	
RIG MANAGER/SUPERVISOR'S SIGNATURE: 	The customer agrees that the contractor ("Ensign") will perform the work and supply the materials ("the work") as described within and in accordance with the conditions set out in the IADC contract and in accordance with all exhibits, specifications, schedules and/or parts (if any) attached hereto. OPERATOR'S REP. SIGNATURE:  Eduardo Chavez 970-397-0599



Field Ticket #

22860

Date

NO 22860

10/17/2018

Sater Tools and Services LLC, 2424 6th Ave, Greeley Co 80631

Office 970-356-4644 Fax 970-356-0185

NO.	RENTALS/SALES	QTY	PRICE	DSC	TOTAL
1					
2					
3					
4	Rental of 4-1/2 TIW valve	1			
5	Rental of 2-3/8 TIW valve	1			
6					
7					
8	Rental of 9487 casing spear	1			
9	Rental of 9487 3.941 spear grapple	1			
10	Rental of 2-3/8 reg pin x 2-3/8 IF box, 2-3/8 IF spear extension and lifting sub	3			
11	Rental of 8-5/8 adppter BOP flange	1			
12	Rental of 4-1/2 elevators	1			
13	Rental of 4-1/2 air slips	1			
14	Rental of 4-1/2 sub	1			
			Subtotal Taxable Charges		
SERVICE MANS TIME					
	Service mans time	1			
	Inspection charges	9			
			Subtotal Non-Taxable Charges		
MILEAGE					
	Mileage	35			
			Subtotal Non-Taxable Charges		

Terms: Net 30 Days

Authorized Agent: Ed Lopez

Date:

WALTER CORPORATION

Walter Corporation, LLC 33250 CR 53 Gill, CO 80624

Office: 970.301.2028

Fax: 970.284.6682

Field Ticket #

23002

Date

10/17/2018

No. 23002

Bill To Customer:	P D C	PO#	Lease Name:	Richter	Well #	44-27
Address:	3801 Carson Ave		County:	Weld	Invoice #	
City:	Evans	Field:	Job Type:	CO	OCSG #:	
State:	CO	Zip:	Casing Sz & Wt:			
Ordered By:	Eduardo Chavez	Legal Description:	Service Man			

NO.	RENTALS/SALES	QTY	PRICE	DSC	TOTAL
1	Sale of 4-1/2 D & H CIBP	2			
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					

SERVICE MANS TIME Subtotal Taxable Charges

MILEAGE Subtotal Non-Taxable Charges

Subtotal Non-Taxable Charges

Terms: Net 30 Days

Authorized Agent: Eduardo Chavez

Date: _____

CASEDHOLE SOLUTIONS

COMP. NO. NUMBER

SERVICE ORDER

PAGE

Rev.032718 A

F1716

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

10/17/2018

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	PDC ENERGY	
FURNISHED	Richter	WELL NUMBER 44-27
LEASE/WELL	05-123-23092	PARISH/COUNTY
INFORMATION	Wattenberg	STATE Colorado

THE UNDERSIGNED, HERINAFTER 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 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 THEREUNDER AS CUSTOMER.

CUSTOMER NAME **PDC ENERGY** CITY STATE ZIP CODE

INVOICE MAILING ADDRESS

SIGNATURE OF CUSTOMER OR AUTHORIZED REPRESENTATIVE

X Thank you for using Casedhole Solutions!! Total runs, all pages 6

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		FIRST	HOISTING TYPE	WORKOVER RIG	

WIRELINE DEPTH	MAX. WELLHEAD PRESSURE	PSI	PSI	PSI								
DESC. NO.	PERF. INTERVAL	PLUG DEPTH	OPERATION	ITEM	QUAN.	UNIT PRICE	DISC. PRICE	DISC. AMOUNT	SERVICE	FIRST READING	LAST READING	FOOTAGE DEL.
1			P - Packoff	each	1							
2	No Tag - 7100'		P - Gauge Ring or Depth Determination		1							
3		7094'	P - Plug or Retainer - setting (3rd party)		1							
4		7094'	P - Dump Bailer w/ 2sx Cement		1							
5		6795'	P - Plug or Retainer - setting (3rd party)		1							
6		6795'	P - Dump Bailer w/ 2sx Cement		1							
7	Jet Cut - 1900'		P - Jet Cutters (ell)		1							

Runs for this job made in October were 6

ESTIMATED TOTAL

STANDARD PRICING

TOTAL

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 REPRESENTATIVE: Eduardo Chavez CHAVEZ

LOGS RECEIVED AT WELL: Chavez

SIGNATURE OF CUSTOMER OR AUTHORIZED REPRESENTATIVE: John V. Meisner MEISNER, JACOB

SIZE	WEIGHT	TYPE	FROM	TO	PERM. DEPTH DATUM	GROUND LEVEL	ELEV.	ELEV. K.B.
		Casing 1				Fluid Level		
		Casing 2				Fluid Level		
		Tubing				8.345 lbs/gal		
		Liner				feet		
		Drill Pipe				Bottom Hole Temperature		
						Degrees F		

CASEDHOLE ENGINEER NAMES	WORK WITNESSED BY NAME	CLASS	DISTRICT JOB IS IN	TYPE OF JOB	LINE OF BUSINESS	COMPLETIONS
Meisner, Jacob	Chavez	Vert. Domestic	Fort Lupton, CO	Completions		
Crew 1						
Crew 2						
Crew 3						
Crew 4						
Crew 5						
Crew 6						

Was catering provided by Casedhole Solutions? **NO**

NO. SHOTS FIRED: 6
NO. SWITCHES FAILURES: 0
SEL. SW: 0
ES. EQ. USE: % T25/ACID: 10K
PHASE: 0
SPT: 6

REMARKS: District doing job: Fort Lupton, CO
Line of Business: Completions

RC#: _____
Engineer: _____
MSA#: _____