



Schematic - Current

Well Name: Hahn 23-27

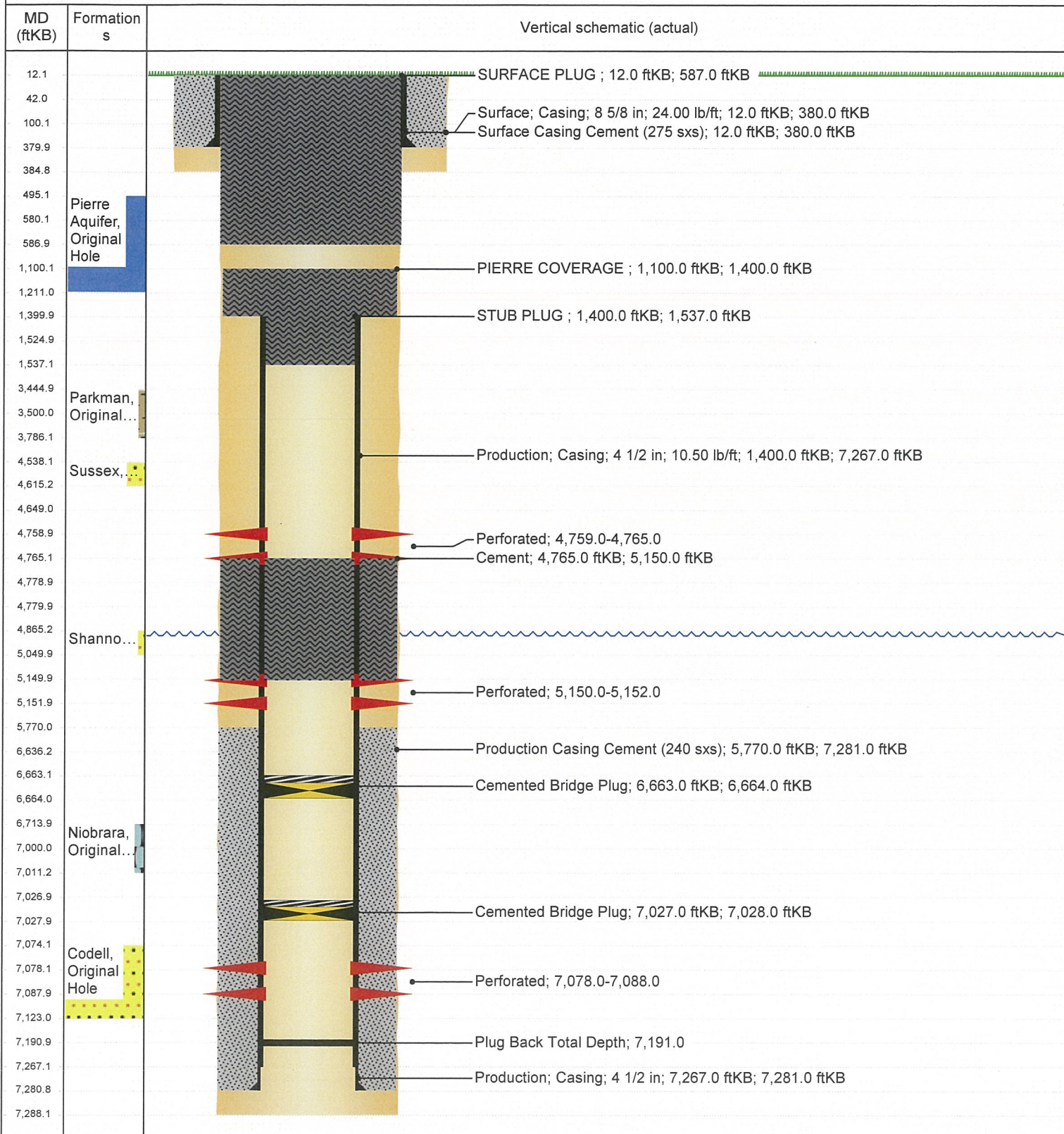
API 05123203460000	Surface Legal Location NESW 27 5N 67W	Field Name Wattenberg	State CO
Well Configuration Type Vertical	Ground Elevation (ft) 4,895.00	Original KB Elevation (ft) 4,907.00	KB-Ground Distance (ft) 12.00

Most Recent Job

Job Category Abandon	Primary Job Type Abandon Well EHS	Secondary Job Type	Start Date 5/10/2018	End Date 5/16/2018
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TD: 7,288.0

Vertical - Original Hole, 5/21/2018 6:33:47 AM





Daily Completion Operations

Date: 5/16/2018

Report #: 5.0

Well Name: Hahn 23-27

Well Name Hahn 23-27	Operator PDC Energy Inc.	API 05123203460000	Well Number 105.001051	Last Mod By RABeam
District Evans	Field Name Wattenberg	County Weld	State CO	
Well Type Development	Surface Legal Location NESW 27 5N 67W	Spud Date 3/23/2001	Original KB Elevation (ft) 4,907.00	Ground Elevation (ft) 4,895.00 KB-Ground Distance (ft) 12.00

Daily Operation: 5/16/2018 06:00 - 5/16/2018 18:00

A/E Number	Job Category Abandon	Objective PLUG AND ABANDON WELL	Start Date 5/10/2018	End Date 5/16/2018	Primary Job Type Abandon Well EHS	Secondary Job Type
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Rigs

Contractor Ranger Energy Services	Rig Number 022
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Daily Operations

Report Start Date 5/16/2018	Report End Date 5/16/2018	Daily Field Est Total (Cost) 20,173.00	Cum Field Est To Date (Cost) 79,116.84
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Status at Reporting Time

Operations Summary

CREW TO LOCATION

WELL WAS DEAD THIS AM, OPENED WELL TO FLAT TANK. P/U MULE SHOE AND TIH OUT OF DERRICK 47 JTS TBG TO PUT EOT @ 1537' (137' INSIDE CSG STUB). R/U RIG PUMP, LOADED TBG AND BACKSIDE, ESTABLISHED CIRCULATION AND CONDITIONED HOLE UNTIL CEMENTERS ARRIVED. KILLED PUMP. WELL WAS STATIC, NO PRESSURE AND NO FLOW. R/U O-TEX CEMENT SERVICES. HELD SAFETY MEETING AND PRESSURE TESTED LINES TO 2500 PSI. MIXED UP AND PUMPED 150 SACKS (31 BBLs) 15.8 PPG CEMENT PREBLENDED W/ 2% CaCl FROM 1537' TO 1100'. GOOD CIRCULATION THROUGHOUT ENTIRE JOB AT 2 BBL/MIN RATE. DISPLACED W/ 4.2 BBLs FRESH WATER TO BALANCE PLUG. R/D CEMENTERS. POOH L/D ON FLOAT 29 JTS TBG. LEFT 18 JTS TBG IN THE HOLE W/ EOT @ 587'. R/U O-TEX CEMENTERS. RETESTED LINES TO 2500 PSI. PUMPED 5 BBLs FRESH WATER AHEAD TO ESTABLISH CIRCULATION. MIXED UP AND PUMPED 207 SACKS (43 BBLs) 15.8 PPG CEMENT PREBLENDED TO 2% CaCl FROM 587' TO SURFACE. GOOD CIRCULATION THROUGHOUT ENTIRE JOB AT 2 BBL/MIN RATE. RETURNED 2 BLS CEMENT TO TANK. R/D CEMENTERS. POOH L/D ON FLOAT 18 JTS TBG AND MULE SHOE. TOPPED OFF W/ 5 SACKS (1 BBL). TOTAL CEMENT PUMPED WAS 212 SACKS (44 BBLs). R/D CEMENTERS TO WASH UP. N/D BOPS AND RIGGED DOWN. CEMENT WAS AT SURFACE. DUG UP WELL. CUT AND CAPPED WELL 6' BELOW GROUND LEVEL. WELDED ON MARKER PLATE. BURIED WELL AND TURNED OVER TO THE CONSTRUCTION DEPT TO ABANDON FLOWLINE.

THIS IS THE FINAL REPORT.

NOTE THERE WAS 33 JTS 4 1/2" 10.5# CSG AND 216 JTS 2 3/8" 4.70# J-55 8RD TBG SOLD FROM THIS WELL TO KARST. THERE WAS ALSO 2-10' PUP JOINTS FMTD TO PDC INVENTORY.

Operations Next Report Period

RDMO.

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	
07:00	08:00	1.00	2.00	RTRIP	Tripping	
08:00	10:00	2.00	4.00	CIRC	Circulating	
10:00	11:00	1.00	5.00	CEMT	Cement Squeeze	PUMPED STUB/PIERRE PLUG
11:00	12:00	1.00	6.00	RTRIP	Tripping	
12:00	14:30	2.50	8.50	CEMT	Cement Squeeze	PUMPED SURFACE PLUG
14:30	15:00	0.50	9.00	RTRIP	Tripping	
15:00	16:00	1.00	10.00	SRIG	Rig Up/Down	
16:00	17:00	1.00	11.00	ROTH	Other Rig Work	
17:00	18:00	1.00	12.00	TRAV	Travel - From Location	



Daily Completion Operations

Date: 5/15/2018

Report #: 4.0

Well Name: Hahn 23-27

Well Name Hahn 23-27	Operator PDC Energy Inc.	API 05123203460000	Well Number 105.001051	Last Mod By RABeam
District Evans	Field Name Wattenberg	County Weld	State CO	
Well Type Development	Surface Legal Location NESW 27 5N 67W	Spud Date 3/23/2001	Original KB Elevation (ft) 4,907.00	Ground Elevation (ft) 4,895.00
				KB-Ground Distance (ft) 12.00

Daily Operation: 5/15/2018 06:00 - 5/15/2018 16:00

A/E Number	Job Category Abandon	Objective PLUG AND ABANDON WELL	Start Date 5/10/2018	End Date 5/16/2018	Primary Job Type Abandon Well EHS	Secondary Job Type
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Rigs

Contractor Ranger Energy Services	Rig Number 022
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Daily Operations

Report Start Date 5/15/2018	Report End Date 5/15/2018	Daily Field Est Total (Cost) 13,473.00	Cum Field Est To Date (Cost) 58,943.84
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Status at Reporting Time

Operations Summary

CREW TO LOCATION WELL WAS DEAD THIS AM, OPENED WELL TO FLAT TANK. P/U MULE SHOE AND TIH OUT OF DERRICK 47 JTS TBG TO PUT EOT @ 1537' KB (137' INSIDE CSG STUB). R/U RIG PUMP, LOADED TBG AND BACKSIDE, ESTABLISHED CIRCULATION AND CONDITIONED HOLE FOR 4 HOURS. LOCATION WAS STILL TOO MUDDY TO GET CEMENTERS IN. KILLED PUMP. TOOH S/B IN DERRICK 47 JTS TBG. L/D MULE SHOE. HAD RIG AUDIT. SWI, SDFD, CREW TO THE YARD.

Operations Next Report Period

PUMP SURFACE PLUG

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	
07:00	07:30	0.50	1.50	SMTG	Safety Meeting	
07:30	08:30	1.00	2.50	RTRIP	Tripping	
08:30	12:30	4.00	6.50	CIRC	Circulating	
12:30	13:30	1.00	7.50	RTRIP	Tripping	
13:30	14:30	1.00	8.50	ROTH	Other Rig Work	
14:30	15:00	0.50	9.00	LOCL	Lock Wellhead & Secure	
15:00	16:00	1.00	10.00	TRAV	Travel - From Location	



Daily Completion Operations

Date: 5/14/2018

Report #: 3.0

Well Name: Hahn 23-27

Well Name Hahn 23-27	Operator PDC Energy Inc.	API 05123203460000	Well Number 105.001051	Last Mod By RABeam
District Evans	Field Name Wattenberg	County Weld	State CO	
Well Type Development	Surface Legal Location NESW 27 5N 67W	Spud Date 3/23/2001	Original KB Elevation (ft) 4,907.00	Ground Elevation (ft) 4,895.00
				KB-Ground Distance (ft) 12.00

Daily Operation: 5/14/2018 06:00 - 5/14/2018 16:00

AFE Number	Job Category Abandon	Objective PLUG AND ABANDON WELL	Start Date 5/10/2018	End Date	Primary Job Type Abandon Well EHS	Secondary Job Type
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Rigs

Contractor Ranger Energy Services	Rig Number 022
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Daily Operations

Report Start Date 5/14/2018	Report End Date 5/14/2018	Daily Field Est Total (Cost) 8,598.05	Cum Field Est To Date (Cost) 45,470.84
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Status at Reporting Time

Operations Summary

CREW TO LOCATION

WELL WAS DEAD THIS AM, OPENED WELL TO FLAT TANK. R/U RANGER WIRELINE SERVICES. P/U RIH W/ LOGGING TOOL. LOGGED FROM 1500' TO SURFACE. LOG SHOWED HEAVY MUD FROM 950' TO 1200'. POOH AND R/D WIRELINE. N/D BOPS AND WELL HEAD. P/U STS 4 1/2" CSG SPEAR. UNLANDED CSG PULLING 100K. N/U SURFACE SPOOL AND BOPS. CHANGED EQUIPMENT OVER TO 4 1/2". WORKED CSG STRETCH FOR 3 HOURS TO BREAK UP MUD. GOT ENOUGH STRETCH TO CUT CSG. R/U RANGER WIRELINE. P/U RIH W/ JET CUTTER. CUT CSG @ 1400'. POOH AND R/D WIRELINE. POOH L/D ON FLOAT 33 JTS 4 1/2" 10.5# CSG. COULD NOT GET CEMENTERS INTO LOCATION DUE TO MUDDY CONDITIONS. SWI, SDFD, CREW TO THE YARD.

Operations Next Report Period

PUMP SURFACE PLUG

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	
07:00	09:00	2.00	3.00	EWLL	Logging	
09:00	12:00	3.00	6.00	ROTH	Other Rig Work	
12:00	13:00	1.00	7.00	EWLO	Other	
13:00	15:00	2.00	9.00	RTRIP	Tripping	
15:00	16:00	1.00	10.00	TRAV	Travel - From Location	



Daily Completion Operations

Date: 5/11/2018
Report #: 2.0

Well Name: Hahn 23-27

Well Name Hahn 23-27	Operator PDC Energy Inc.	API 05123203460000	Well Number 105.001051	Last Mod By RABeam
District Evans	Field Name Wattenberg	County Weld	State CO	
Well Type Development	Surface Legal Location NESW 27 5N 67W	Spud Date 3/23/2001	Original KB Elevation (ft) 4,907.00	Ground Elevation (ft) 4,895.00 KB-Ground Distance (ft) 12.00

Daily Operation: 5/11/2018 06:00 - 5/11/2018 18:00

A/E Number	Job Category Abandon	Objective PLUG AND ABANDON WELL	Start Date 5/10/2018	End Date	Primary Job Type Abandon Well EHS	Secondary Job Type
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Rigs

Contractor Ranger Energy Services	Rig Number 022
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Daily Operations

Report Start Date 5/11/2018	Report End Date 5/11/2018	Daily Field Est Total (Cost) 15,556.61	Cum Field Est To Date (Cost) 36,872.79
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Status at Reporting Time

Operations Summary

CREW TO LOCATION

WELL WAS DEAD THIS AM, OPENED WELL TO FLAT TANK. RELEASED PACKER. P/U RIH W/ 4 JTS TBG. RESET PACKER @ 4840' (75' BELOW TOP SQUEEZE HOLES). R/U RIG PUMP, LOADED TBG AND BACKSIDE, ESTABLISHED CIRCULATION THROUGH SQUEEZE HOLES AND CONDITIONED HOLE FOR 2 HOURS AND ROLLED OUT ALL GAS AND HEAVY MUD. RELEASED PACKER AND TOOH W/ 146 JTS TBG. L/D ON FLOAT 2 JTS TBG. R/U RANGER WIRELINE SERVICES. P/U RIH W/ 4 1/2" STS CICR. SET CICR @ 4780' KB (15' BELOW TOP SQUEEZE HOLES). POOH AND R/D WIRELINE. P/U STINGER AND TIH OUT OF DERRICK 146 JTS TBG. TAGGED CICR. P/U 6' PUP JOINT. R/U RIG PUMP, LOADED TBG AND BACKSIDE, ESTABLISHED CIRCULATION AND ROLLED HOLE WHILE STINGING INTO RETAINER. ESTABLISHED CIRCULATION THROUGH SQUEEZE HOLES AND ROLLED HOLE UNTIL CEMENTERS ARRIVED. KILLED PUMP. WELL WAS STATIC. R/U O-TEX CEMENT SERVICES. HELD SAFETY MEETING AND PRESSURE TESTED LINES TO 2500 PSI. PUMPED 10 BBLs MUD FLUSH AHEAD FOLLOWED BY 10 BBLs FRESH WATER SPACER. MIXED UP AND PUMPED 110 SACKS (39 BBLs) 12.0 PPG 50/50 POZ CEMENT FROM 5150' TO 4765' KB. GOOD CIRCULATION THROUGHOUT ENTIRE JOB @ 2 BBL/MIN RATE. DISPLACED 16.5 BBLs FRESH WATER TO BALANCE PLUG (FULL DISPLACEMENT WAS 18.5 TO CICR). STUNG OUT OF CICR LEAVING 2 BBLs CEMENT ON TOP OF RETAINER. R/D CEMENTERS TO WASH UP. TOOH S/B IN DERRICK 46 JTS TBG AND POOH L/D ON FLOAT 100 JTS TBG AND PUP JOINT. CLEANED UP EQUIPMENT. SWI, SDFD, CREW TO THE YARD.

Operations Next Report Period

CUT AND PULL CSG, PUMP SURFACE PLUG

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	
07:00	09:00	2.00	3.00	CIRC	Circulating	
09:00	11:00	2.00	5.00	RTRIP	Tripping	
11:00	11:30	0.50	5.50	EWLO	Other	SET CICR AT 4780'
11:30	12:30	1.00	6.50	RTRIP	Tripping	
12:30	14:00	1.50	8.00	CIRC	Circulating	
14:00	15:00	1.00	9.00	CEMT	Cement Squeeze	PUMPED SQUEEZE FROM 5150' TO 4765'
15:00	17:00	2.00	11.00	RTRIP	Tripping	
17:00	18:00	1.00	12.00	TRAV	Travel - From Location	



Daily Completion Operations

Date: 5/10/2018
Report #: 1.0

Well Name: Hahn 23-27

Well Name Hahn 23-27	Operator PDC Energy Inc.	API 05123203460000	Well Number 105.001051	Last Mod By RABeam
District Evans	Field Name Wattenberg	County Weld	State CO	
Well Type Development	Surface Legal Location NESW 27 5N 67W	Spud Date 3/23/2001	Original KB Elevation (ft) 4,907.00	Ground Elevation (ft) 4,895.00 KB-Ground Distance (ft) 12.00

Daily Operation: 5/10/2018 06:00 - 5/10/2018 19:00

A/E Number	Job Category Abandon	Objective PLUG AND ABANDON WELL	Start Date 5/10/2018	End Date	Primary Job Type Abandon Well EHS	Secondary Job Type
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Rigs

Contractor Ranger Energy Services	Rig Number 022
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Daily Operations

Report Start Date 5/10/2018	Report End Date 5/10/2018	Daily Field Est Total (Cost) 21,316.18	Cum Field Est To Date (Cost) 21,316.18
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Status at Reporting Time

Operations Summary

MIRU RANGER RIG #22

IWP TBG- 1220 PSI, CSG- 1220 PSI, SURFACE CSG- 0 PSI. HELD SAFETY MEETING AND FUNCTION TESTED BOPS. OPENED WELL TO FLAT TANK. R/U RIG PUMP, LOADED TBG AND BACKSIDE, ESTABLISHED CIRCULATION AND ROLLED HOLE CLEAN. N/D WELL HEAD TREE AND N/U BOPS. TOOH S/B IN DERRICK 150 JTS TBG AND POOH L/D ON FLOAT 65 JTS TBG. TOTAL TBG IN THE HOLE WAS 216 JTS 2 3/8" 4.70# J-55 8RD TBG AND (2) 10' PUP JOINTS. R/U RANGER WIRELINE SERVICES. P/U RIH W/ GAUGE RING W/ JUNK BASKET DOWN TO 7050'. POOH L/D GAUGE RING. P/U RIH W/ STS 4 1/2" 10K CIBP. CORRELATE WITH LOG AND SET CIBP #1 @ 7028' KB (50' ABOVE TOP CODELL PERFS). DUMP BAILED 2 SACKS OF CEMENT ON TOP OF CIBP. POOH. P/U RIH W/ STS 4 1/2" 10K CIBP. SET CIBP #2 @ 6664' KB (50' ABOVE TOP OF NIO FORMATION). DUMP BAILED 2 SACKS OF CEMENT ON TOP OF CIBP. POOH. R/U RIG PUMP, LOADED CSG W/ FRESH WATER. CLOSED BLIND RAMS AND PRESSURE TESTED CSG TO 1000 PSI. HELD FOR 15 MIN. GOOD TEST. RELEASED PRESSURE. P/U RIH W/ PERF GUNS. SHOT BOTTOM SQUEEZE HOLES @ 5150' KB, 2' GUN, 4 SPF, ALL SHOTS FIRED. PULLED UP AND SHOT TOP SQUEEZE HOLES AT 4765', 6' GUN, 2 SPF, 12 HOLES, ALL SHOTS FIRED. POOH AND R/D WIRELINE. P/U STS COMPRESSION PACKER. R/U PICK TESTING. TESTED IN OUT OF DERRICK 150 JTS TBG TO 6500 PSI. ALL TBG TESTED GOOD. R/D HYDROTESTER. POOH L/D 6 JTS TBG ON FLOAT. SET PACKER ABOVE TOP SQUEEZE HOLES FOR THE NIGHT. SWI, SDFD, CREW TO THE YARD.

Operations Next Report Period

CONDITION HOLE AND PUMP SQUEEZE

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	
07:00	08:00	1.00	2.00	RMOV	Rig Move	
08:00	09:00	1.00	3.00	SRIG	Rig Up/Down	
09:00	10:00	1.00	4.00	CIRC	Circulating	
10:00	10:30	0.50	4.50	BOPI	Install BOP's	
10:30	13:00	2.50	7.00	RTRIP	Tripping	
13:00	14:30	1.50	8.50	EWLO	Other	SET CIBPS ABOVE FORMATION TOPS
14:30	15:00	0.50	9.00	PTST	Pressure Test	GOOD CSG TEST TO 10000 PSI
15:00	16:00	1.00	10.00	EWLP	Perforating	SHOT SQUEEZE HOLES
16:00	18:00	2.00	12.00	RTRIP	Tripping	
18:00	19:00	1.00	13.00	TRAV	Travel - From Location	



122793

Rig # R5022

Daily Work Ticket

Report #

Customer Name PDC Energy		Customer AFE #		Date: 5/16/2018
Mailing Address	City	State CO	Zip	County WELD
Field	Lease	Well HAHN 23-27		Order #
Work Description	Workover <input type="checkbox"/>	Rod <input type="checkbox"/>	Rod & Tubing <input type="checkbox"/>	Re-entry <input type="checkbox"/>
	Swabbing <input type="checkbox"/>	Tubing <input type="checkbox"/>	Completion <input type="checkbox"/>	P & A <input checked="" type="checkbox"/>

Description	Qty.	Rate Hr/Day/Ea	Total	Workover Equipment	Qty.	Rate Hr/Day/Ea	Total
Riq & Crew	11.00 @	\$275.00	\$3,025.00	BOP	1.00 @	\$300.00	\$300.00
Extra Labor	12.00 @	\$48.00	\$576.00	Pump	1.00 @	\$575.00	\$575.00
Riq Fuel	@			Tank	1.00 @	\$175.00	\$175.00
Pump Fuel	@			Base Beam	1.00 @	\$40.00	\$40.00
Cementing Services	@			Pipe Handler	@		
Extra Cement - Cementing Services	@			Loader	@		
P & A Bidded Cost	@			Pipe Racks	@		
				Power Swivel	@		
				JU/Washington H	1.00 @	\$150.00	\$150.00
				Rod/TBG Tongs	@		
				Adapter Flange	@		
				Catwalk	@		
ReCharge Items	Qty.	Rate Hr/Day/Ea	Total	Swabbing Equipment	Qty.	Rate Hr/Day/Ea	Total
Crew Travel	1.00 @	\$210.00	\$210.00	Swab Cups - Size	@		
Tool Pusher	@			OSR	@		
Per Diem	@			Swabbing Acid	@		
Stripper Rubbers	@			Fishing Tools	@		
Pipe Wipers	1.00 @	\$44.00	\$44.00	Extra Tank	@		
Tong Dies	@			Permits	@		
Slip Dies	@						
Safety Valve	@						
Fishing Tools-Recharge	@						
Pipe Dope	1.00 @	\$36.00	\$36.00				
Handling Equipment	@						
Description	Qty	Rate	Total	Discount: \$256.55 (5.00%)			
Miscellaneous	@			TOTAL BILLABLE AMOUNT \$4,874.45			
Description of Work	Start Time	6:00 AM	Stop Time	6:00 PM			

6:00 AM TO 6:30 AM CREW TRAVEL TO LOCATION.
JSA SAFETY MEETING CHECK PRESSURE 0/0 OPEN TO TANK AND TRIP IN WITH 47 JTS AND 4' MULE SHOE AT 1537.24' LOAD WELL ROLL THE HOLE CLEAN RIG UP O-TEX CEMENT CREW AND PUMPED 150 SACKS 31 BBLs AND DESPLACE WITH 4.2 BBLs LAYDOWN 29 JTS AND PUMPED WITH 18 JTS AT 587.25' PUMPED LAYDOWN ALL PIPE IN THE TRAILER WASH ALL EQUIPMENT NIPPLE DOWN BOP AND TOP OFF TOTAL 212 SACKS 44 BBLs PUT CAP RACK UP PUMP AND TANK AND RIG DOWN PUT FENCE CLEAN LOCATION AND MOVE RIG TO NEXT LOCATION SPOT IN AL EQUIPMENT AND RIG UP RIG UP PUMP AND TANK AND SHUT DOWN 5:30 PM TO 6:00 PM CREW TRAVEL TO TOWN.

Payroll Section					
Employee	Rev Hours	Travel Hours	Non Rev Hours	Total	
Tool Pusher	Quezada, Julian	0.00	0.00	0.00	0.00
Operator	Alonzo, Julio	11.00	1.00	0.00	12.00
Derrick	Barraza, Luis	11.00	1.00	0.00	12.00
FloorHand	Aguilar, Manuel Q	11.00	1.00	0.00	12.00
FloorHand	Caudillo Garcia, Aristeo	11.00	1.00	0.00	12.00

No Unreported Incidents Per My
Signature

Ranger Tool Pusher

Customer/Agent



122260

Rig # R5022

Daily Work Ticket

Report #

Customer Name PDC Energy		Customer AFE #		Date: 5/15/2018	
Mailing Address	City	State CO	Zip	County WELD	
Field	Lease	Well HAHN 23-27		Order #	
Work Description	Workover <input checked="" type="checkbox"/>	Rod <input type="checkbox"/>	Rod & Tubing <input type="checkbox"/>	Re-entry <input type="checkbox"/>	
	Swabbing <input type="checkbox"/>	Tubing <input type="checkbox"/>	Completion <input type="checkbox"/>	P & A <input type="checkbox"/>	

Description	Qty.	Rate Hr/Day/Ea	Total	Workover Equipment	Qty.	Rate Hr/Day/Ea	Total
Riq & Crew	9.00 @	\$275.00	\$2,475.00	BOP	1.00 @	\$300.00	\$300.00
Extra Labor	10.00 @	\$48.00	\$480.00	Pump	1.00 @	\$575.00	\$575.00
Riq Fuel	@			Tank	1.00 @	\$175.00	\$175.00
Pump Fuel	@			Base Beam	1.00 @	\$40.00	\$40.00
Cementing Services	@			Pipe Handler	@		
Extra Cement - Cementing Services	@			Loader	@		
P & A Bidded Cost	@			Pipe Racks	@		
				Power Swivel	@		
ReCharge Items	Qty.	Rate Hr/Day/Ea	Total	JU/Washington H	1.00 @	\$150.00	\$150.00
Crew Travel	1.00 @	\$210.00	\$210.00	Rod/TBG Tongs	@		
Tool Pusher	@			Adapter Flange	@		
Per Diem	@			Catwalk	@		
Stripper Rubbers	@						
Pipe Wipers	1.00 @	\$44.00	\$44.00	Swabbing Equipment	Qty.	Rate Hr/Day/Ea	Total
Tong Dies	@			Swab Cups - Size	@		
Slip Dies	@			OSR	@		
Safety Valve	@			Swabbing Acid	@		
Fishing Tools-Recharge	@			Fishing Tools	@		
Pipe Dope	1.00 @	\$36.00	\$36.00	Extra Tank	@		
Handling Equipment	@			Permits	@		
Description	Qty	Rate	Total	Discount: \$224.25 (5.00%)			
Miscellaneous	@			TOTAL BILLABLE AMOUNT \$4,260.75			
Description of Work Start Time 6:00 AM Stop Time 4:00 PM							

6:00 AM TO 6:30 AM CREW TRAVEL TO LOCATION.
JSA SAFETY MEETING CHECK PRESSURE 0/0 OPEN TO TANK AND TRIP IN WITH 47 JTS AND 4' MULE SHOE AT 1537.24' PUT W/RUBBER LOAD WELL BREAK CIRCULATION AND ROLL THE HOLE
CLEAN LAYDOWN 3 JTS AND PULL 44 JTS TO DERRECK CLOSE BOP LOCK AND SHUT DOWN. 3:30 PM TO 4:00 PM CREW TRAVEL TO TOWN.

Payroll Section					
Employee	Rev Hours	Travel Hours	Non Rev Hours	Total	
Tool Pusher	Quezada, Julian	0.00	0.00	0.00	0.00
Operator	Alonzo, Julio	9.00	1.00	0.00	10.00
Derrick	Barraza, Luis	9.00	1.00	0.00	10.00
FloorHand	Aguilar, Manuel Q	9.00	1.00	0.00	10.00
FloorHand	Caudillo Garcia, Aristeo	9.00	1.00	0.00	10.00

No Unreported Incidents Per My
Signature

Ranger Tool Pusher

Customer/Agent



121571

Rig # R5022

Daily Work Ticket

Report #

Customer Name PDC Energy		Customer AFE #		Date: 5/14/2018
Mailing Address	City	State CO	Zip	County WELD
Field	Lease	Well HAHN 23-27		Order #
Work Description	Workover <input type="checkbox"/>	Rod <input type="checkbox"/>	Rod & Tubing <input type="checkbox"/>	Re-entry <input type="checkbox"/>
	Swabbing <input type="checkbox"/>	Tubing <input type="checkbox"/>	Completion <input type="checkbox"/>	P & A <input checked="" type="checkbox"/>

Description	Qty.	Rate Hr/Day/Ea	Total	Workover Equipment	Qty.	Rate Hr/Day/Ea	Total
Riq & Crew	9.00 @	\$275.00	\$2,475.00	BOP	1.00 @	\$300.00	\$300.00
Extra Labor	10.00 @	\$48.00	\$480.00	Pump	1.00 @	\$575.00	\$575.00
Riq Fuel	@			Tank	1.00 @	\$175.00	\$175.00
Pump Fuel	@			Base Beam	1.00 @	\$40.00	\$40.00
Cementing Services	@			Pipe Handler	@		
Extra Cement - Cementing Services	@			Loader	@		
P & A Bidded Cost	@			Pipe Racks	@		
				Power Swivel	@		
				JU/Washington H	@		
				Rod/TBG Tongs	@		
				Adapter Flange	@		
				Catwalk	@		
ReCharge Items	Qty.	Rate Hr/Day/Ea	Total	Swabbing Equipment	Qty.	Rate Hr/Day/Ea	Total
Crew Travel	1.00 @	\$210.00	\$210.00	Swab Cups - Size	@		
Tool Pusher	@			OSR	@		
Per Diem	@			Swabbing Acid	@		
Stripper Rubbers	@			Fishing Tools	@		
Pipe Wipers	1.00 @	\$44.00	\$44.00	Extra Tank	@		
Tong Dies	@			Permits	@		
Slip Dies	@						
Safety Valve	@						
Fishing Tools-Recharge	@						
Pipe Dope	@						
Handling Equipment	@						
Description	Qty	Rate	Total	Discount: \$232.95 (5.00%)			
Miscellaneous	1.00 @	\$360.00 (4 1/2 EQUIPMENT)	\$360.00	TOTAL BILLABLE AMOUNT \$4,426.05			
Description of Work Start Time 6:00 AM Stop Time 4:00 PM							

6:00 AM TO 6:30 AM CREW TRAVEL TO LOCATION.
JSA SAFETY MEETING CHECK PRESSURE 0/0 OPEN TO TANK RIG UP RANGER WIRE LINE MAKE LOG TO 2000' NIPPLE DOWN BOP AND PULL CASING AND UNLADED CASING AT 100 K PULL SLIPS OUT CHANGE EQUIPMENT AT 4 1/2 NIPPLE UP BOP AND CUT CASING AT 1400' RIG DOWN WIRE LINE AND LAYDOWN 32 JTS AND 1- PICE 30' 4 1/2 CHANGE EQUIPMENT AT 2 3/8 CLOSE BOP LOCK AND SHUT DOWN. 3:30 PM TO 4:00 PM CREW TRAVEL TO TOWN.

Payroll Section					
Employee	Rev Hours	Travel Hours	Non Rev Hours	Total	
Tool Pusher	Quezada, Julian	0.00	0.00	0.00	0.00
Operator	Alonzo, Julio	9.00	1.00	0.00	10.00
Derrick	Barraza, Luis	9.00	1.00	0.00	10.00
FloorHand	Aguilar, Manuel Q	9.00	1.00	0.00	10.00
FloorHand	Caudillo Garcia, Aristeo	9.00	1.00	0.00	10.00

No Unreported Incidents Per My
Signature

Ranger Tool Pusher

Customer/Agent

Customer/Agent



121444

Rig # R5022

Daily Work Ticket

Report #

Customer Name PDC Energy		Customer AFE #		Date: 5/10/2018
Mailing Address	City	State CO	Zip	County WELD
Field	Lease	Well HAHN 23-27		Order #
Work Description	Workover <input checked="" type="checkbox"/>	Rod <input type="checkbox"/>	Rod & Tubing <input type="checkbox"/>	Re-entry <input type="checkbox"/>
	Swabbing <input type="checkbox"/>	Tubing <input type="checkbox"/>	Completion <input type="checkbox"/>	P & A <input type="checkbox"/>

Description	Qty.	Rate Hr/Day/Ea	Total	Workover Equipment	Qty.	Rate Hr/Day/Ea	Total
Riq & Crew	12.00	@ \$275.00	\$3,300.00	BOP	1.00	@ \$300.00	\$300.00
Extra Labor	13.00	@ \$48.00	\$624.00	Pump	1.00	@ \$575.00	\$575.00
Riq Fuel	@			Tank	1.00	@ \$175.00	\$175.00
Pump Fuel	@			Base Beam	1.00	@ \$40.00	\$40.00
Cementing Services	@			Pipe Handler	@		
Extra Cement - Cementing Services	@			Loader	@		
P & A Bidded Cost	@			Pipe Racks	@		
				Power Swivel	@		
				JU/Washington H	@		
				Rod/TBG Tongs	@		
				Adapter Flange	@		
				Catwalk	@		
ReCharge Items	Qty.	Rate Hr/Day/Ea	Total	Swabbing Equipment	Qty.	Rate Hr/Day/Ea	Total
Crew Travel	1.00	@ \$210.00	\$210.00	Swab Cups - Size	@		
Tool Pusher	@			OSR	@		
Per Diem	@			Swabbing Acid	@		
Stripper Rubbers	@			Fishing Tools	@		
Pipe Wipers	1.00	@ \$44.00	\$44.00	Extra Tank	@		
Tong Dies	@			Permits	@		
Slip Dies	@						
Safety Valve	@						
Fishing Tools-Recharge	@						
Pipe Dope	1.00	@ \$36.00	\$36.00				
Handling Equipment	@						
Description	Qty	Rate	Total	Discount: \$265.20 (5.00%)			
Miscellaneous	@			TOTAL BILLABLE AMOUNT \$5,038.80			

Description of Work Start Time 6:00 AM Stop Time 7:00 PM

6:00 AM TO 6:30 AM CREW TRAVEL TO LOCATION.
JSA SAFETY MEETING CHECK PRESSURE 1220 / 1200 PSI OPEN TO TANK LOAD WELL AND ROLL THE HOLE CLEAN NIPPLE UP BOP AND PULL TALLY150 JTS TO DERRECK AND ALYDOWN 65 JTS IN THE TRAILER HAS LANDEDE WITH 216 JTS AND 2-10' SUB TOTAL RIG UP RANGER WIRE LINE RUN GAUGE RING TO7050' AND RUN 2 CIBP PLUS 1- SET AT 7028' WITH 2 SXS CEMENT ON TOP SET 2 ND AT 6664' WITH 2 SXS CEMENT ON TOP LOAD WELL AND PRESSURE TEST AT1000 PSI TESTING GOOD SHOOT LOWER SQUEEZE HOLES AT5150' AND SHOOT UPPER AT4765' RIG DOWN WIRE LINE RIG UP HIDRO TESTER AND TRIP IN WITH PACKER WITH150 JTS ALL PIPE GOOD RIG DOWN HODRO TESTER LAYDOWN6 JTS CLOSE BOP LOCK AND SHUT DOWN. 6:30 PM TO 7:00 PM CREW TRAVEL TO TOWN.

Payroll Section						
Employee	Rev Hours	Travel Hours	Non Rev Hours	Total		
Tool Pusher	Quezada, Julian	0.00	0.00	0.00	0.00	0.00
Operator	Alonzo, Julio	12.00	1.00	0.00	13.00	13.00
Derrick	Barraza, Luis	12.00	1.00	0.00	13.00	13.00
FloorHand	Aguilar, Manuel Q	12.00	1.00	0.00	13.00	13.00
FloorHand	Caudillo Garcia, Aristeo	12.00	1.00	0.00	13.00	13.00

No Unreported Incidents Per My
Signature

Ranger Tool Pusher

Customer/Agent

RANGER ENERGY SERVICES, LLC

WIRELINE DIVISION

3333 Center Dr
Milliken, Co



Service Date:

Company Name: PDC		Company Address:		Field Ticket Number: 30001880
Well Name: HAHN 23-27	Field: WATTENBERG	County: WELD	State: COLORADO	Rig Name & Number: Ranger Rig #22
SERVICE NOTES: CBL 2000' to surface/ Jet cut 4.5" casing @ 1400'			Date: 5/14/2018	Wireline Unit # 222 Engineer: J. JOHNSON Operator: T. VAN NEST Operator:

RUN	CODE	DESCRIPTIONS	QTY	UNIT PRICE	DISCOUNT	AMOUNT
1	1000-001	Set Up Charge Cased Hole Unit	1	\$ 1,500.00		\$ 450.00
	3000-001	Packoff Operation Charge0#-1000#	1	\$ 900.00		\$ 225.00
2						
	4000-017	Cement Bond Log Depth Charge	2000	\$ 0.50		\$ 200.00
	4000-018	Cement Bond Log Operation Charge	2000	\$ 0.50		\$ 200.00
	4000-009	Simultaneous Gamma Ray Log Depth Charge	2000	\$ 0.12		\$ 60.00
	4000-010	Simultaneous Gamma Ray Log Operation Charge	2000	\$ 0.12		\$ 60.00
	4000-013	Simultaneous CCL Log Depth Charge	2000	\$ 0.10		\$ 50.00
	4000-014	Simultaneous CCL Log Operation Charge	2000	\$ 0.10		\$ 50.00
	5000-011	Jet Cutter Depth Charge	1400	\$ 0.36		\$ 352.80
	5000-014	Jet Cutter Operation Charge for Casing	1	\$ 1,700.00		\$ 1,700.00

SUB TOTAL	\$	3,347.80
Bulk Discount	\$	-
TAX	\$	-
TOTAL	\$	3,347.80

Customer Signature:	Customer Name Printed:	Ranger Energy Services Representative Signature:
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The above estimated charges and data shown are subject to change by Ranger Energy Services, LLC. Payment terms are net 30 Days.

RANGER ENERGY SERVICES, LLC

WIRELINE DIVISION

3333 Center Dr
Milliken, Co



Service Date:

Company Name: PDC		Company Address:		Field Ticket Number: 10001118
Well Name: HAHN 23-27	Field: WATTENBERG	County: WELD	State: COLORADO	Rig Name & Number: RANGER# 22
SERVICE NOTES: SET STS CEMENT RETAINER @ 4786'			Date: 5/11/2018	Wireline Unit # 233 Engineer: A.REAGAN Operator: H.DANFORD

RUN	CODE	DESCRIPTIONS	QTY	UNIT PRICE	DISCOUNT	AMOUNT
1	1000-001	Set Up Charge Cased Hole Unit	1	\$ 1,500.00		\$ 450.00
	3000-001	Packoff Operation Charge0#-1000#	1	\$ 900.00		\$ 288.00
	2000-003	API Type 6BX, 5,000 lb. WP 13-3/8" and smaller	1	\$ 205.00		\$ 61.50
1	8000-007	Cement Retainer Depth Charge	4786	\$ 0.30		\$ 502.53
	8000-008	Cement Retainer Operation Charge	1	\$ 500.00		\$ 135.00
	8000-015	Setting Tool Rental, per tool	1	\$ 1,200.00		\$ 384.00
1	8000-014	Standard Set Power Charge	1	\$ 250.00		\$ 250.00

SUB TOTAL	\$ 2,071.03
Bulk Discount	\$ -
TAX	\$ -
TOTAL	\$ 2,071.03

Customer Signature:	Customer Name Printed: RYAN BEAM	Ranger Energy Services Representative Signature:
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The above estimated charges and data shown are subject to change by Ranger Energy Services, LLC. Payment terms are net 30 Days.

RANGER ENERGY SERVICES, LLC

WIRELINE DIVISION

3333 Center Dr

Milliken, Co



Service Date:

Company Name: PDC		Company Address:			Field Ticket Number: 30001879
Well Name: HAHN 23-27	Field: WATTENBERG	County: WELD	State: COLORADO	Rig Name & Number: Ranger Rig #22	
SERVICE NOTES: JCGR to 7050' / Set STS CIBP at 7028' with 2 sx cement / Set STS CIBP at 6664' with 2 sx cement / Perf 1ft 4spf @ 5150' / Perf 6' 2spf @ 4765'			Date: 5/10/2018	Wireline Unit # 222 Engineer: A. Reagan Operator: J. Johnson Operator: T. Van Nest	

RUN	CODE	DESCRIPTIONS	QTY	UNIT PRICE	DISCOUNT	AMOUNT
1	1000-001	Set Up Charge Cased Hole Unit	1	\$ 1,500.00		\$ 450.00
	3000-001	Packoff Operation Charge 0#-1000#	1	\$ 900.00		\$ 288.00
	2000-003	API Type 6BX, 5,000 lb. WP 13-3/8" and smaller	1	\$ 205.00		\$ 61.50
2	8000-009	Junk Catcher / Gauge Ring Depth Charge	7100	\$ 0.30		\$ 575.10
	8000-010	Junk Catcher / Gauge Ring Operation Charge	1	\$ 500.00		\$ 110.00
3	8000-001	Bridge Plug Depth Charge	7061	\$ 0.30		\$ 741.41
	8000-002	Bridge Plug Operation Charge	1	\$ 500.00		\$ 135.00
4	8000-015	Setting Tool Rental, per tool	1	\$ 1,200.00		\$ 384.00
	7000-006	Dump Bailer Depth Charge	7061	\$ 0.30		\$ 741.41
	7000-007	Dump Bailer Operation Charge	1	\$ 500.00		\$ 110.00
5	8000-001	Bridge Plug Depth Charge	6805	\$ 0.30		\$ 714.53
	8000-002	Bridge Plug Operation Charge	1	\$ 500.00		\$ 135.00
6	8000-015	Setting Tool Rental, per tool	1	\$ 1,200.00		\$ 384.00
	7000-006	Dump Bailer Depth Charge	6805	\$ 0.30		\$ 714.53
	7000-007	Dump Bailer Operation Charge	1	\$ 500.00		\$ 110.00
	6200-000	Hollow Carrier Depth Charge (Expendable)	5150	\$ 0.20		\$ 721.00
	6400-000	Scalloped Gun Carriers, per shot	40	\$ 20.00		\$ 480.00
	6200-000	Hollow Carrier Depth Charge (Expendable)	4765	\$ 0.20		\$ 762.40
	6400-000	Scalloped Gun Carriers, per shot	40	\$ 20.00		\$ 800.00
4	8000-014	Standard Set Power Charge	2	\$ 250.00		\$ 500.00

SUB TOTAL	\$	8,917.86
Bulk Discount	\$	-
TAX	\$	-
TOTAL	\$	8,917.86

Customer Signature:	Customer Name Printed: RYAN BEAM	Ranger Energy Services Representative Signature:
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The above estimated charges and data shown are subject to change by Ranger Energy Services, LLC. Payment terms are net 30 Days.



TN# FL3743

Hahn 23-27	Job Type:	Stub Plug
Weld	Service Supervisor:	Payne, James
Colorado		
05-123-20346		
	Pump #1	445067
	Pump #2	

[illegible]

I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMERS AGENT.

Customer Authorized Agent:

DISCLAIMER OF LIABILITY: With respect to this report, neither C&J Energy Services nor any of their employees, makes any warranty, express or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.



Job Summary

Ticket Number	Ticket Date
TN# FL3743	5/16/2018

COUNTY	COMPANY	API Number
Weld	PDC Energy, Inc.	05-123-20346
WELL NAME	RIG	JOB TYPE
Hahn 23-27	Ranger #22	Stub Plug
SURFACE WELL LOCATION	O-TEX Field Supervisor	CUSTOMER REP
NESW 27 5N67W	Payne, James	Ryan Beam

EMPLOYEES
Douglass, Brian
Peterson, Ryan

WELL PROFILE

Max Treating Pressure (psi):	Bottom Hole Static Temperature (°F):	0
Bottom Hole Circulating Temperature (°F):	Well Type:	Oil

Open Hole

1	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
	10	1100	1400		
2	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
	10	380	587		

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	380	0	380
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Production	4.5	10.5		1400	1537	1400	1537
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	1537	0	1537

CEMENT DATA

Stage 1:	From Depth (ft):	1100	To Depth (ft):	1537
Type: Stub Plug	Volume (sacks):	150	Volume (bbls):	31

Cement & Additives:	Density (ppg)	Yield (ft³/sk)	Water Req.
100% Class G+2% CaCl₂	15.8	1.16	5.00

Stage 2:	From Depth (ft):	0	To Depth (ft):	587
Type: Surface Plug	Volume (sacks):	212	Volume (bbls):	44

Cement & Additives:	Density (ppg)	Yield (ft³/sk)	Water Req.
100% Class G+2% CaCl₂	15.8	1.15	5.00

SUMMARY

Preflushes:	Calculated Displacement (bbl):	Stage 1	Stage 2
10 bbls of Fresh Water	Actual Displacement (bbl):	4.2	
		4.2	
Total Preflush/Spacer Volume (bbl):	Plug Bump (Y/N):	N/A	Bump Pressure (psi):
75	Lost Returns (Y/N):	NO	(if Y, when)
Total Slurry Volume (bbl):			
89.2			
Total Fluid Pumped			
Returns to Surface:			

Job Notes (fluids pumped / procedures / tools / etc.): Filled Lines with Fresh water, Pressured tested to 2500, Est Circulation with 5bbl, mixed and pumped 31bbls @15.8#, Displaced with Fresh water 4.2 bbl, Rig Pulled up to 587, Est Circulation with 5bbl of Fresh water, Mixed and pumped 44bbls of cement @15.8# Rig took off BOP and topped of with a 1bbl of cement.

Thank You For Using

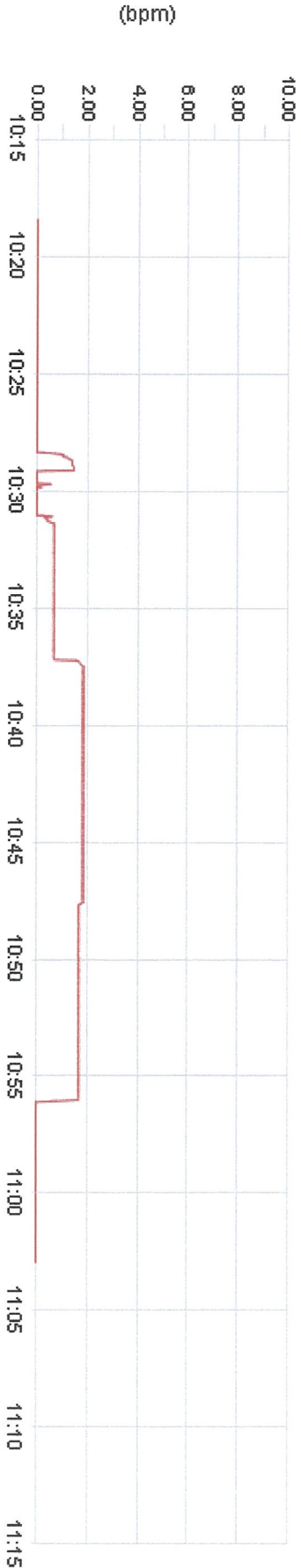
O-TEX Cementing

Customer Representative Signature:

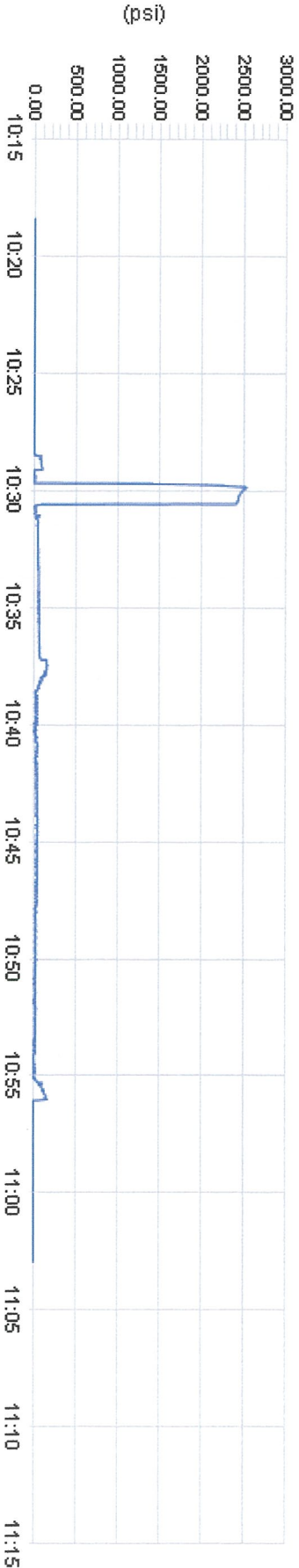
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Client	PDC ENERGY INC	Client Rep	MR. RYAN BEAM	Supervisor	JAMES PAYNE
Ticket No.	3743	Well Name	Hahn 23-27	Unit No.	445067
Location	NESW 27 5N67W	Job Type	Abandonment Plugs	Service District	BRIGHTON, CO
Comments	SEE JOB OG FOR DETAILS				
		Job Date	05/16/2018		

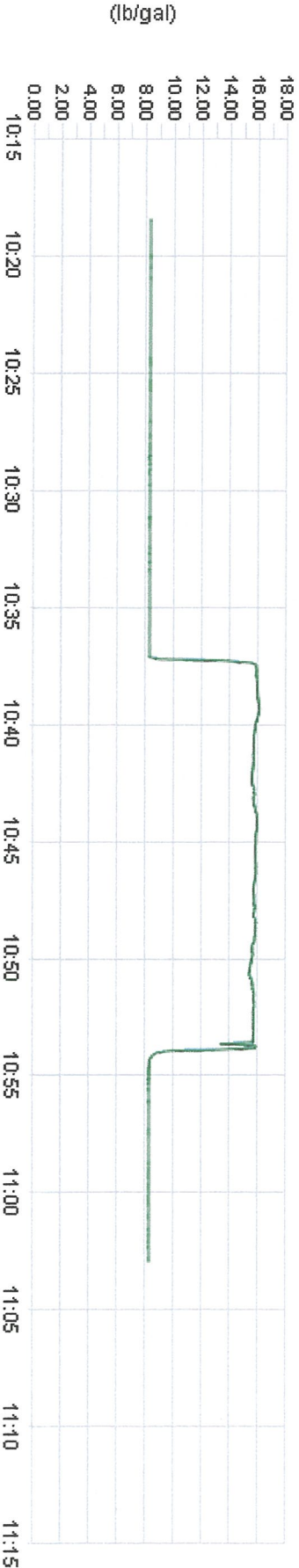
Unit 445067 Rate Total



Unit 445067 Pump Pressure



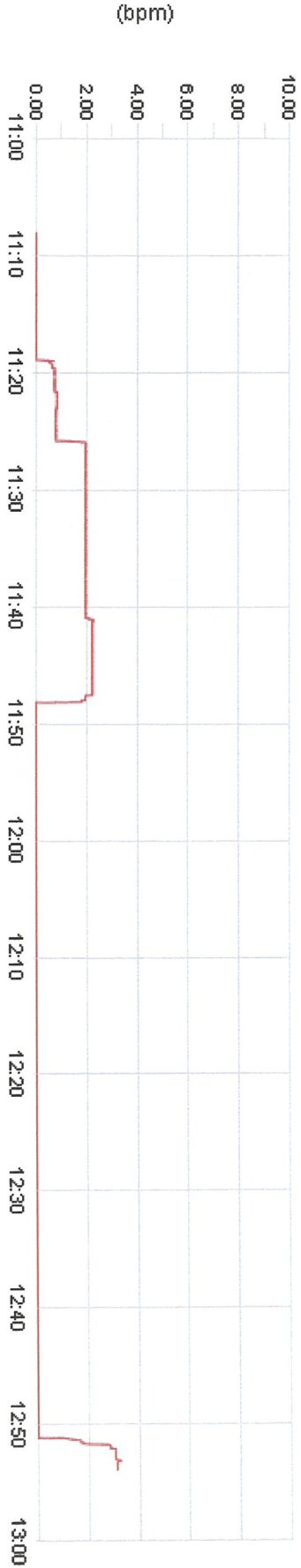
Unit 445067 Density



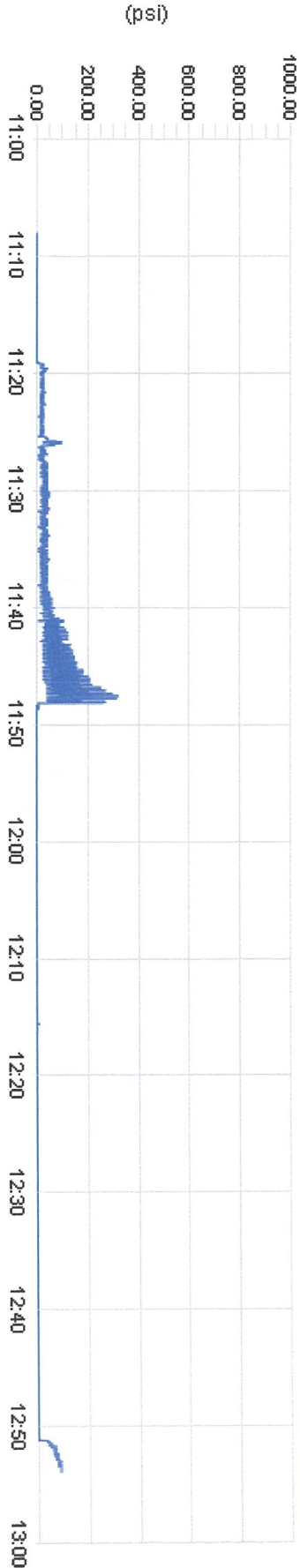


Client	PDC ENERGY INC	Client Rep	MR. RYAN BEAM	Supervisor	JAMES PAYNE
Ticket No.	3747	Well Name	Hahn 23-27	Unit No.	445067
Location	NESW 27 5N67W	Job Type	Abandonment Plugs	Service District	BRIGHTON.CO
Comments	STAGE 2			Job Date	05/16/2018

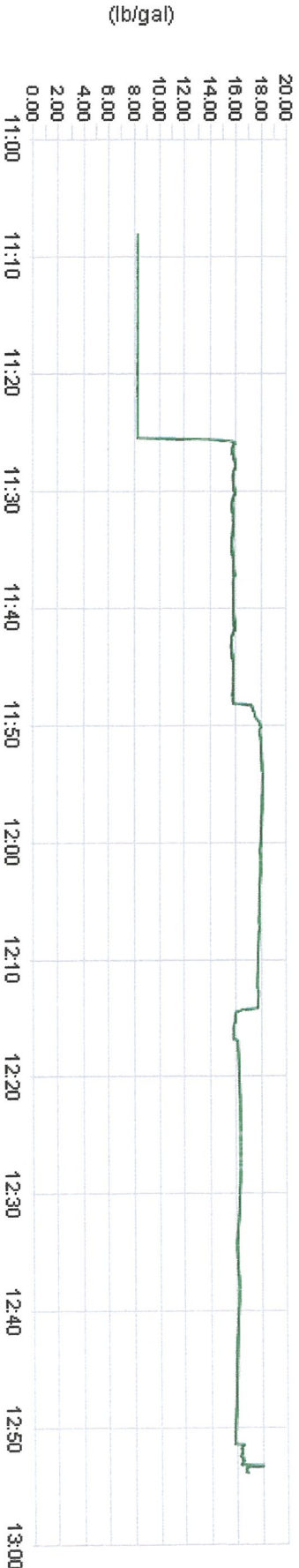
Unit 445067 Rate Total



Unit 445067 Pump Pressure



Unit 445067 Density





Field Cementing Water Analysis

Company: PDC Energy, Inc.
 Well: Hahn 23-27

Test Date: 5/16/2018
 Ticket Number: FL3743

Ion	Sample Volume	Titer	Factor	Concentration	Units	Limit
pH				6		6 - 8
Calcium	50	120	0.801	96	mg/l	<300
Total Hardness				350	mg/l	<600
Chlorides				200	mg/l	<500
Alkalinity				350	mg/l CaCO ³	<600
Slurry Temperature				74	°F	50-80°F

Water Analysis Limits		
	Limits	Potential Impact of Excess
pH	6 - 8	Accelerate or Retard Set Time, Short & Long Term Stability Issues
Calcium	<300	Accelerate Set Times and Higher Mixing Viscosities
Total Hardness	<600	Accelerate or Retard Set Time and Higher Mixing Viscosities
Chlorides	<500	Accelerate Set Time, Higher Mixing Visc, Interfere with fluid loss chemical
Alkalinity	<600	Accelerate or Retard Set Time, Lower Compressive Strength, Higher Visc
Slurry Temperature	50-80°F	Blend will not perform as designed

O-Tex Supervisor Signature: _____

Company Supervisor Signature: _____



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100	100

TN # FL3742

Hahn 23-27	Job Type:	Squeeze
Weld	Service Supervisor:	Klosterman, Austin
Colorado		
05-123-20346		
	Pump #1	445067
	Pump #2	

I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMERS AGENT.

DISCLAIMER OF LIABILITY: With respect to this report, neither C&J Energy Services nor any of their employees, express or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.



SERVICE ORDER CONTRACT

Customer: **PDC Energy, Inc.**

Ticket Number: **FL3742**

Lease & Well Number: **Hahn 23-27**

Date: **5/11/2018**

In consideration of the services and materials to be sold and/or provided by C&J Spec-Rent Services, Inc. ("C&J") under this service order, the above-named customer ("Customer") agrees that:

The services and materials quoted under this service order are based on the best information available at the time that this quotation was prepared. When the actual work is performed the amounts and types of services and materials may require adjustments any pre-quoted items in service order. Actual amounts and types of services and materials will be charged at the time the work is performed. Unit prices from C&J's current price list and discounts quoted are applied as per this service order, unless otherwise noted. Except as otherwise provided for herein, this service order is only for the materials and services quoted hereunder.

The prices and discounts reflected herein are based on C&J being awarded the work on a first call basis. Prices may be adjusted if the work is not on a first call basis. Prices are valid for a period of thirty (30) days following this quotation. Taxes, if any, will be applied to the actual invoice.

All services and materials sold and/or provided by C&J are subject to the terms of C&J's "Contractor's Standard Terms and Conditions" document (the "Terms and Conditions"), which contains provisions concerning risk allocation and warranties associated with C&J's services. The parties hereby agree that all materials and services will be furnished pursuant to the Terms and Conditions and this service order. A copy of the Terms and Conditions is attached to this proposal.

BY SIGNING IN THE SPACE PROVIDED BELOW, CUSTOMER (I) ACKNOWLEDGES RECEIPT OF A COPY OF THE TERMS AND CONDITIONS, AND (II) AGREES THAT THE TERMS AND CONDITIONS SHALL GOVERN ALL SERVICES AND MATERIALS SOLD AND/OR PROVIDED HEREUNDER. THE UNDERSIGNED FURTHER WARRANTS AND REPRESENTS THAT THE UNDERSIGNED IS AUTHORIZED TO EXECUTE THIS SERVICE ORDER AS CUSTOMER'S AGENT.

I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMER'S AGENT.

Customer Authorized Agent: _____



Job Summary

Ticket Number		Ticket Date
TN#	FL3742	5/11/2018

COUNTY	COMPANY	API Number
Weld	PDC Energy, Inc.	05-123-20346
WELL NAME	RIG	JOB TYPE
Hahn 23-27	Ranger #22	Squeeze
SURFACE WELL LOCATION	O-TEX Field Supervisor	CUSTOMER REP
NESW 27 5N67W	Klosterman, Austin	Ryan Beam

EMPLOYEES		
Peterson, Ryan		
Williamson, Garrick		
	Abdi, Aden	

WELL PROFILE			
Max Treating Pressure (psi):	1500	Bottom Hole Static Temperature (°F):	0
Bottom Hole Circulating Temperature (°F):		Well Type:	Oil

Open Hole

1	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
	10	5150	4765		
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	2.375	4.7	J-55	4786	0		
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Production	4.5	10.5	P-110	5150	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):	5150	To Depth (ft):	4765
Type: Squeeze	Volume (sacks):	110	Volume (bbls):	39

Cement & Additives:	Density (ppg)	Yield (ft³/sk)	Water Req.
50% Type III+50% Poz F+0.2% WG-4P+0.3% CF-41P+1% CFL-3+4% FWC-2+0.5% SMS	12	1.99	10.95

SUMMARY

Preflushes:	10 bbls of SAPP	Calculated Displacement (bbl):	Stage 1 16.5	Stage 2
	10 bbls of Fresh Water	Actual Displacement (bbl):	16.5	
	bbls of			
Total Preflush/Spacer Volume (bbl):	20	Plug Bump (Y/N):	n/a	Bump Pressure (psi): n/a
Total Slurry Volume (bbl):	39	Lost Returns (Y/N):	N (if Y, when)	
Total Fluid Pumped	75.5			
Returns to Surface:				

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

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

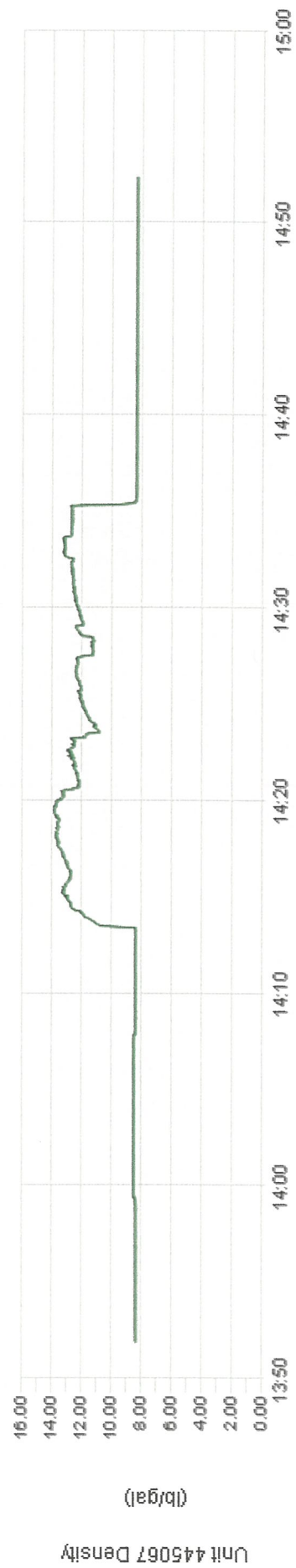
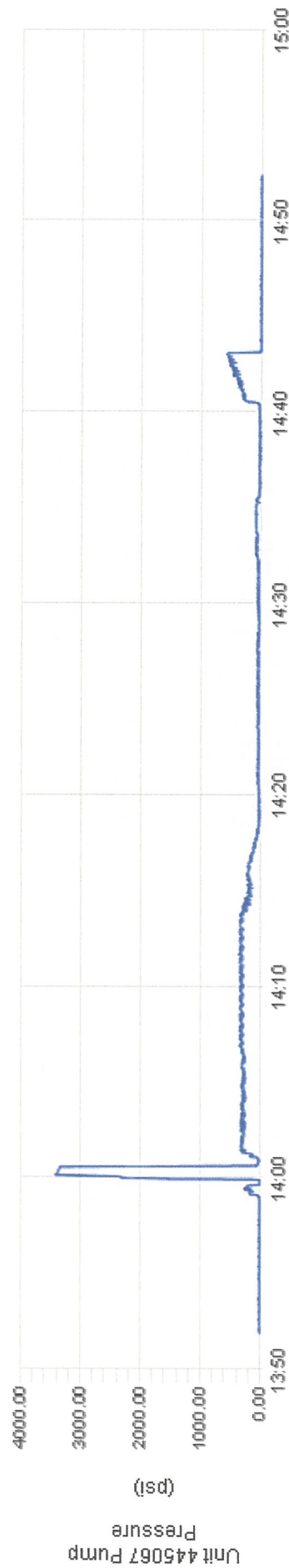
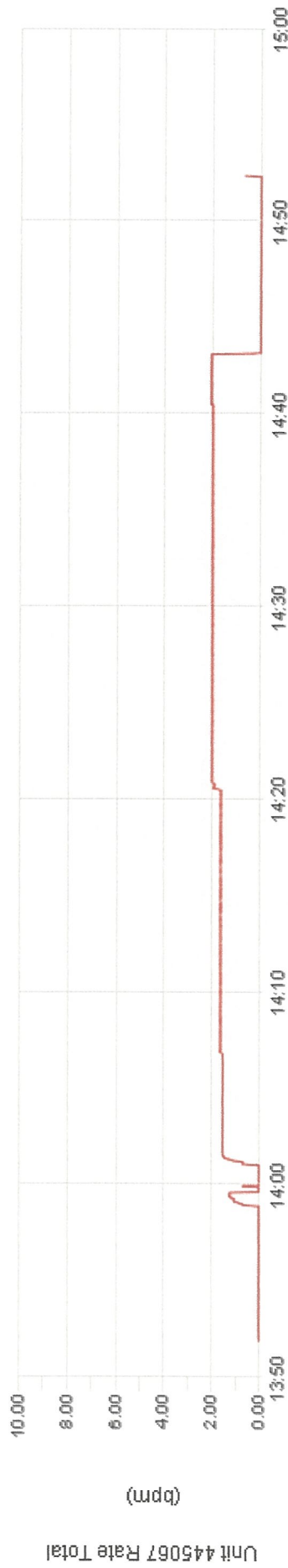
Thank You For Using
O-TEX Cementing

Customer Representative Signature: _____

[illegible]



Client	PDC	Client Rep	Ryan Beam	Supervisor	A. Klosterman
Ticket No.	3742	Well Name	Hahn 23-27	Unit No.	445067
Location	Sec27:T5N:R67W	Job Type	Abandonment Plugs	Service District	Brighton, CO
Comments	See job log.			Job Date	05/11/2018





Field Ticket #

21989

Date

NO 21989

5/11/2018

Sater Tools and Services LLC, 2424 6th Ave, Greeley Co 80631 Office 970-356-4644 Fax 970-356-0185

Bill To Customer:			PO#	Lease Name:			Hahn	Well #:	23-27	
Address:			3801 Carson Ave	County:	Weld	CO	Invoice Ref. #:			
City:			Evans	Job Type:	OCSG #:					
State:			CO	Casing Sz & Wt:	4-1/2 11.6#	Rosalio Terrazas				
Zip:			80620	Service Man:	MERCED TERRAZAS	Israel Villa				
Ordered By:			Ryan Beam							
NO.	RENTALS/SALES			QTY	PRICE	DSC	TOTAL			
1	Rental of 4-1/2 Crest II compression packer			1	1,670.00	35%	\$1,085.50			
2	Minimum 1st to day rental on compression packer			1	250.00	35%	162.50			
3	Sale of 4-1/2 wireline set cement retainer			1	1,633.00	35%	1,061.45			
4	Rental of wireline adopter kit and tubing stinger			1	550.00	35%	357.50			
5	Rental of 7-1/16 5K BOP flange			1	425.00	35%	276.25			
6	Sale of stinger sub			1	325.00		325.00			
7	Rental of TIW valve			1	275.00	35%	178.75			
8	Rental of 9487 casing spear			1	645.00	35%	419.25			
9	Rental of 9487 3.941 spear grapple			1	1,950.00	50%	975.00			
10	Rental of 2-3/8 reg pin x 2-3/8 IF box , 2-3/8 spear extension and lifting sub			3	138.00	35%	269.10			
11							0.00			
12							0.00			
13							0.00			
14							0.00			
				Subtotal Taxable Charges					\$5,110.30	
SERVICE MANS TIME										
	Service mans time			1	\$850.00		\$850.00			
	service mans time			1	850.00		850.00			
	Service mans time			1	850.00		850.00			
	Inspection charges			9	30.00		270.00			
				Subtotal Non-Taxable Charges					\$2,820.00	
MILEAGE										
	Mileage			35	\$2.95		\$103.25			
	Mileage			35	2.95		103.25			
	Mileage			35	2.95		103.25			
							0.00			
				Subtotal Non-Taxable Charges					\$309.75	
Terms: Net 30 Days				Total Service & Material:						
				\$8,240.05						
				Tax:						
				\$148.20						
				TOTAL CHARGES:						
				\$8,388.25						

\$

Authorized Agent: _____

Date: _____

WALTER CORPORATION

Walter Corporation, LLC 33250 CR 53 Gill, CO 80624

Office: 970.301.2028

Fax: 970.284.6682

Field Ticket #

21990

Date

5/14/2018

NO 21990

Bill To Customer:		P D C	PO#	Lease Name:		Hahn	Well #	23-27
Address:		3801 Carson Ave		County:	Weld	CO	Invoice \	
City:		Evans		Job Type:	OCSG #:			
State: CO		Zip: 80620	Legal Description:	Casing Sz & Wt:				
Ordered By:		Ryan Beam		Service Man				

NO.	RENTALS/SALES	QTY	PRICE	DSC	TOTAL
1	Sale of 4-1/2 D & H CIBP	2	700.00		\$1,400.00
2					0.00
3					0.00
4					0.00
5					0.00
6					0.00
7					0.00
8					0.00
9					0.00
10					0.00
11					0.00
12					0.00
13					0.00
14					0.00
Subtotal Taxable Charges					\$1,400.00
SERVICE MANS TIME					
					\$0.00
					0.00
					0.00
					0.00
Subtotal Non-Taxable Charges					\$0.00
MILEAGE					
					\$0.00
					0.00
					0.00
					0.00
Subtotal Non-Taxable Charges					\$0.00
Terms: Net 30 Days					
Total Service & Material:					\$1,400.00
Tax:					\$40.60
TOTAL CHARGES:					\$1,440.60

Authorized Agent: _____

Date: 5/14/18

P.O. BOX 341
STERLING, CO 80751
970-522-8387

PICK TESTERS
HYDRO

TICKET
NO. DH - 10421

B I T L	Customer Name <u>PDC Energy</u>			On Location: <u>2:30</u>
	Address _____			On Stand By: _____
	City _____	State _____	Zip _____	Off Stand By: _____
	Customer Order No. <u>Ryan Beam</u>			Off Location: <u>5:30</u>

Purpose of Work Test in Tubing Pressure Used 16000
Date 5-10-18 Lease HANN Well No 23-27
Field _____ County Weld State CO Location _____
Casing Size & Wt. _____ Tubing Size & Wt. 2 3/8
Contractor & # Ranger 22 Round Trip Miles From _____

Directions:

QUANTITY	DESCRIPTION	PRICE	AMOUNT
150	Joints	2.45	367.50
✓	Mileage <u>Truck</u>	FR	175.-
6	Test Cups	30.-	180.-
4	Hours	85.-	340.-
✓	Methanol <u>Net Com</u>	FR	25.-
	Casing Test		
	Computer Pressure Log		
		Sub Total	1087.50
		Sales Tax	7.03
		Labor	

REPRESENTATIVE BY: <u>Shawn Fr</u>	TOTAL CHARGES	Subject to Correction in accordance with Latest Published Price Schedules	1094.53
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1	Holes	
	Rod Cuts	
	Bad Pins	All tested good!
	Collar Leaks	
	Split Joints	

Remarks:

Thanks For Your Business!

I certify that the above material and/or services has been delivered and/or used; that the basis for charges are correctly stated; and that I am authorized to sign this agreement as agent of customer.

Company _____ By _____ Date _____