

Cementing Treatment



12/19

Start Date	10/20/2017	Well	STATE 1-3
End Date	12/30/2018	County	WELD
Client	BILL BARRETT CORPORATION	State/Province	CO
Client Field Rep	Chris	API	05-123-07600
Service Supervisor	C. Johnson	Formation	
Field Ticket No.		Rig	
District	Cheyenne, WY	Type of Job	Plug & Abandon

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)	Grade	Thread
Previous Casing	8.10	8.63	24.00	249.00	249.00			
Tubing	1.85	2.38	5.89	2,500.00	2,500.00			
Open Hole	7.88			2,500.00	2,500.00	15.00		
Open Hole	7.88			400.00	400.00	10.00		

Shoe Length (ft):

HARDWARE

Bottom Plug Used?	No	Tool Type
Bottom Plug Provided By		Tool Depth (ft)
Bottom Plug Size		Max Tubing Pressure - Rated (psi)
Top Plug Used?	No	Max Tubing Pressure - Operated (psi)
Top Plug Provided By		Max Casing Pressure - Rated (psi)
Top Plug Size		Max Casing Pressure - Operated (psi)
Centralizers Used	No	Pipe Movement
Centralizers Quantity		Job Pumped Through
Centralizers Type		Top Connection Thread
Landing Collar Depth (ft)	2,500	Top Connection Size

Cementing Treatment



CIRCULATION PRIOR TO JOB

Well Circulated By		Solids Present at End of Circulation	No
Circulation Prior to Job	No	10 sec SGS	
Circulation Time (min)		10 min SGS	
Circulation Rate (bpm)		30 min SGS	
Circulation Volume (bbls)		Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	No
Mud Density In (ppg)		Gas Units	
Mud Density Out (ppg)			
PV Mud In			
PV Mud Out			
YP Mud In			
YP Mud Out			

TEMPERATURE

Ambient Temperature (°F)	50	Slurry Cement Temperature (°F)
Mix Water Temperature (°F)	70	Flow Line Temperature (°F)

BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	Water (Plug 2)	8.3300					10.0000
Spacer / Pre Flush / Flush	Water (Plug 1)	8.3300					10.0000
Tail Slurry	PL100-X1 (Plug 2)	15.8000	1.1645	5.00	154	164.0000	31.4000
Tail Slurry	PL100-X1 (Plug 1)	15.8000	1.1563	5.00	34	40.0000	7.0000

Cementing Treatment



Displacement 1	Water (Plug 1)	8.3300			0.0000	14.0000
Displacement Final	Water (Plug 2)	8.3300			0.0000	10.0000

Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	Water (Plug 2)	Fresh Water	100.00	PCT
Tail Slurry	PL100-X1 (Plug 1)	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	1.00	BWOB
Tail Slurry	PL100-X1 (Plug 2)	CEMENT, CLASS G	100.00	PCT
Tail Slurry	PL100-X1 (Plug 1)	CEMENT, CLASS G	100.00	PCT
Tail Slurry	PL100-X1 (Plug 2)	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.00	BWOB
Displacement 1	Water (Plug 1)	Fresh Water	100.00	PCT
Displacement Final	Water (Plug 2)	Fresh Water	100.00	PCT

TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)	Annulus Pressure (psi)	Comments
	Water (Plug 1)	5.00	10.00	400		
	Water (Plug 2)	5.00	10.00	50		
	PL100-X1 (Plug 1)	5.00	7.00	700		
	PL100-X1 (Plug 2)	5.00	29.20	100		
	Water (Plug 1)	5.00	14.00	350		
	Water (Plug 2)	5.00	10.00	50		

	Min	Max	Avg
Pressure (psi)	350	1100	300
Rate (bpm)	1	3	2

DISPLACEMENT AND END OF JOB SUMMARY

Cementing Treatment



Displaced By	BJ	Amount of Cement Returned/Reversed	3 bbls
Calculated Displacement Volume (bbls)	8	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	8	Amount of Spacer to Surface	
Did Float Hold?	Yes	Pressure Left on Casing (psi)	
Bump Plug	No	Amount Bled Back After Job	
Bump Plug Pressure (psi)		Total Volume Pumped (bbls)	
Were Returns Planned at Surface	No	Top Out Cement Spotted	No
Cement returns During Job		Lost Circulation During Cement Job	No

CEMENT PLUG

Bottom of Cement Plug?	No	Wiper Balls Used?	No
Wiper Ball Quantity		Plug Catcher	No
Number of Plugs			

SQUEEZE

Injection Rate (bpm)	Fluid Density (ppg)
Injection Pressure (psi)	ISIP (psi)
Type of Squeeze	FSIP (psi)
Operators Max SQ Pressure (psi)	

COMMENTS

Treatment Report

Job Summary

FIELD TICKET

Client BILL BARRETT CORPORATION
Well STATE 1-3
Job Description Plug & Abandon
Date December 08, 2017



Field Ticket # FT-01721-TOX7Z80202-42663

Field Ticket # FT-01721-TOX7Z80202-42663 **Credit Approval #**
Client BILL BARRETT CORPORATION **Purchase Approval #**
1099 18TH STREET, DENVER, 80202 **Invoice #**

Field Rep	C. Johnson	Well	STATE 1-3
Field Client Rep	Chris	Well API #	05-123-07600
District	Cheyenne, WY	Well Type	
Job Type	Plug & Abandon	Well Classification	
Job Depth (ft)	2,500.00	County	USA
Gas Used On Job	No	State/Province	CO
		Field	
		Lease	

FIELD TICKET

Client BILL BARRETT CORPORATION

Well STATE 1-3

Job Description Plug & Abandon

Date December 08, 2017



Field Ticket # FT-01721-TOX7Z80202-42663

MATERIALS

Product Code	Description	UOM	Quantity	List Price	Gross Amount	Disc (%)	Net Amount
L100112	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	LB	350.0000	\$2.40	\$840.00	35.00	\$546.00
L100021	CEMENT, CLASS G	SK	188.0000	\$47.08	\$8,851.04	35.00	\$5,753.18
20000093	AR-61	GAL	2.0000	\$54.80	\$109.60	35.00	\$71.24
Product Material Subtotal:					\$9,800.64		\$6,370.42

SERVICES

Product Code	Description	UOM	Quantity	List Price	Gross Amount	Disc (%)	Net Amount
S-100050	Cement pump charge, 2,001-3,000 feet/ 601-900 m	4/HR	1.00	\$5,040.00	\$5,040.000	45.00	\$2,772.000
S-100066	Cement pump charge, Additional Hours	HR	5.00	\$2,720.00	\$13,600.000	45.00	\$7,480.000
S-100004	Cement Crew Mobilization-Demobilization Fee	EA	1.00	\$10,880.00	\$10,880.000	45.00	\$5,984.000
Service Subtotal:					\$29,520.000		\$16,236.00

FIELD TICKET

Client BILL BARRETT CORPORATION

Well STATE 1-3

Job Description Plug & Abandon

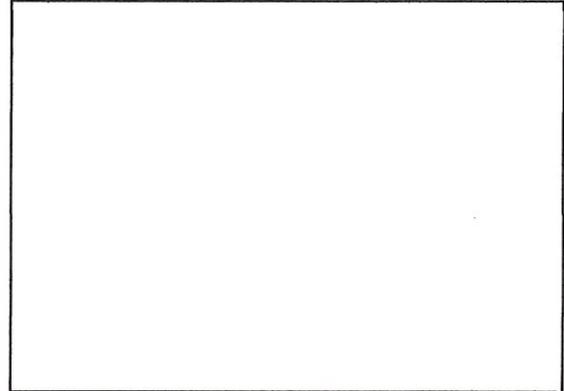
Date December 08, 2017



Field Ticket # FT-01721-TOX7Z80202-42663

FIELD ESTIMATES

TOTAL GROSS AMOUNT	\$39,320.640
TOTAL % DISC	41.386%
TOTAL NET AMOUNT	\$22,606.420



Arrive Location

Client Rep.

Service Order

I authorize work to begin per service instructions in accordance with the terms and conditions printed on the following pages of this form and represent that I have authority to accept and sign this order.

Service receipt

I certify that the materials and services listed were received and all services performed in a workmanlike manner.

BJ REPRESENTATIVE

CLIENT AUTHORIZED AGENT
