

# HALLIBURTON

iCem<sup>®</sup> Service

## **BONANZA CREEK ENERGY**

Date: June 20, 2013

**State Antelope T-28-21XRLNB Intermediate**

Sincerely,  
**Derek Trier**

**Executive Summary**

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Halliburton appreciates the opportunity to perform the cementing services on the **State Antelope T-28-21XRLNB** cement **Intermediate** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

**Halliburton [Ft. Lupton]**

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Cementing Job Summary

The Road to Excellence Starts with Safety

<b>Sold To #:</b> 324725		<b>Ship To #:</b> 3004854		<b>Quote #:</b>		<b>Sales Order #:</b> 900527432							
<b>Customer:</b> BONANZA CREEK ENERGY				<b>Customer Rep:</b> Bradley, John									
<b>Well Name:</b> State Antelope			<b>Well #:</b> T-28-21XRLNB		<b>API/UWI #:</b> 05-123-36879								
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> MASTERS		<b>County/Parish:</b> Weld		<b>State:</b> Colorado							
<b>Lat:</b> N 40.364 deg. OR N 40 deg. 21 min. 51.804 secs.				<b>Long:</b> W 104.324 deg. OR W -105 deg. 40 min. 33.96 secs.									
<b>Contractor:</b> CADE			<b>Rig/Platform Name/Num:</b> Cade 22										
<b>Job Purpose:</b> Cement Intermediate Casing													
<b>Well Type:</b> Development Well				<b>Job Type:</b> Cement Intermediate Casing									
<b>Sales Person:</b> PLIENESS, RYAN			<b>Srvc Supervisor:</b> SMITH, AARON		<b>MBU ID Emp #:</b> 518187								
<b>Job Personnel</b>													
<b>HES Emp Name</b>	<b>Exp Hrs</b>	<b>Emp #</b>	<b>HES Emp Name</b>	<b>Exp Hrs</b>	<b>Emp #</b>	<b>HES Emp Name</b>	<b>Exp Hrs</b>	<b>Emp #</b>					
BOURGEOIS, KEVIN Paul	5.5	459092	DEY, JERRY A	5.5	505015	Onuorah, Theodore	5.5	546822					
REYNOLDS, SCOTT Arthur	5.5	522540	SMITH, AARON David	5.5	518187								
<b>Equipment</b>													
<b>HES Unit #</b>	<b>Distance-1 way</b>	<b>HES Unit #</b>	<b>Distance-1 way</b>	<b>HES Unit #</b>	<b>Distance-1 way</b>	<b>HES Unit #</b>	<b>Distance-1 way</b>						
10246780C	68 mile	10988836C	68 mile	11019824C	68 mile	11398490	68 mile						
11808819	68 mile	11923776C	68 mile	12010173	68 mile								
<b>Job Hours</b>													
<b>Date</b>	<b>On Location Hours</b>	<b>Operating Hours</b>	<b>Date</b>	<b>On Location Hours</b>	<b>Operating Hours</b>	<b>Date</b>	<b>On Location Hours</b>	<b>Operating Hours</b>					
<b>TOTAL</b>													
Total is the sum of each column separately													
<b>Job</b>				<b>Job Times</b>									
<b>Formation Name</b>	<b>Top</b>	<b>Bottom</b>	<b>Called Out</b>	<b>Date</b>	<b>Time</b>	<b>Time Zone</b>							
<b>Formation Depth (MD)</b>			<b>On Location</b>	19 - Jun - 2013	09:00	MST							
<b>Form Type</b>	BHST		<b>Job Started</b>	19 - Jun - 2013	14:30	MST							
<b>Job depth MD</b>	6586. ft	<b>Job Depth TVD</b>	5800. ft	<b>Job Completed</b>	19 - Jun - 2013	16:36	MST						
<b>Water Depth</b>		<b>Wk Ht Above Floor</b>	8. ft	<b>Job Completed</b>	19 - Jun - 2013	18:59	MST						
<b>Perforation Depth (MD)</b>	<b>From</b>	<b>To</b>	<b>Departed Loc</b>	19 - Jun - 2013	20:00	MST							
<b>Well Data</b>													
<b>Description</b>	<b>New / Used</b>	<b>Max pressure psig</b>	<b>Size in</b>	<b>ID in</b>	<b>Weight lbm/ft</b>	<b>Thread</b>	<b>Grade</b>	<b>Top MD ft</b>	<b>Bottom MD ft</b>	<b>Top TVD ft</b>	<b>Bottom TVD ft</b>		
8 3/4" Open Hole Section				8.75				467.	6696.				
7" Intermediate Casing	Unknown		7.	6.276	26.		P-110		6690.		5815.		
Surface Casing	Unknown		9.625	8.921	36.		J-55		467.				
<b>Tools and Accessories</b>													
<b>Type</b>	<b>Size</b>	<b>Qty</b>	<b>Make</b>	<b>Depth</b>	<b>Type</b>	<b>Size</b>	<b>Qty</b>	<b>Make</b>	<b>Depth</b>	<b>Type</b>	<b>Size</b>	<b>Qty</b>	<b>Make</b>
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			
<b>Miscellaneous Materials</b>													
<b>Gelling Agt</b>		<b>Conc</b>		<b>Surfactant</b>		<b>Conc</b>		<b>Acid Type</b>		<b>Qty</b>		<b>Conc %</b>	
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty	

<b>Fluid Data</b>											
<b>Stage/Plug #: 1</b>											

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*Cementing Job Summary*

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	MUD FLUSH III	MUD FLUSH III - SBM (528788)	24.00	bbl	8.4	.0	.0	.0	
2	EconoCem B3	ECONOCEM (TM) SYSTEM (452992)	516.0	sacks	12.5	1.89	10.29		10.29
2 %		HALLIBURTON GEL, 50 LB SK (100064040)							
3	ExpandaCem B1	EXPANDACEM (TM) SYSTEM (452979)	253.0	sacks	14.6	1.46	6.08		6.08
6.08 Gal		FRESH WATER							
4	Mud Displacement			bbl	9.8	.0	.0	.0	
<b>Calculated Values</b>		<b>Pressures</b>			<b>Volumes</b>				
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	
<b>Rates</b>									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe		Amount	0 ft	Reason	Shoe Joint				
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID		
The Information Stated Herein Is Correct				Customer Representative Signature					
									

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## Cementing Job Log

*The Road to Excellence Starts with Safety*

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<b>Field:</b> WATTENBERG	<b>City (SAP):</b> MASTERS	<b>County/Parish:</b> Weld	<b>State:</b> Colorado
<b>Legal Description:</b>			
<b>Lat:</b> N 40.364 deg. OR N 40 deg. 21 min. 51.804 secs.		<b>Long:</b> W 104.324 deg. OR W -105 deg. 40 min. 33.96 secs.	
<b>Contractor:</b> CADE		<b>Rig/Platform Name/Num:</b> Cade 22	
<b>Job Purpose:</b> Cement Intermediate Casing			<b>Ticket Amount:</b>
<b>Well Type:</b> Development Well		<b>Job Type:</b> Cement Intermediate Casing	
<b>Sales Person:</b> PLIENESS, RYAN		<b>Srvc Supervisor:</b> SMITH, AARON	<b>MBU ID Emp #:</b> 518187

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Arrive at Location from Service Center	06/19/2013 14:30							With all Equipment and Materials.
Casing on Bottom	06/19/2013 14:30							
Circulate Well	06/19/2013 14:30							
Assessment Of Location Safety Meeting	06/19/2013 14:40							Hazard Hunt with crew.
Pre-Rig Up Safety Meeting	06/19/2013 15:00							Covered rig-up JSA with crew., waiting for casing crew to rig down.
Rig-Up Equipment	06/19/2013 15:30							
Rig-Up Completed	06/19/2013 16:00							
Pre-Job Safety Meeting	06/19/2013 16:15							With Customer and Rig Crew
Start Job	06/19/2013 16:36							
Test Lines	06/19/2013 16:48							@3500 PSI
Pump Spacer 1	06/19/2013 16:53		5	10				Fresh Water
Pump Spacer 2	06/19/2013 16:55		5	24				Mud Flush
Pump Spacer 1	06/19/2013 17:00		5	10				Fresh Water
Pump Lead Cement	06/19/2013 17:01		6.5	173			250.0	516sks @12.5ppg, 1.89 yield, 10.29 gal/sk
Pump Tail Cement	06/19/2013 17:35		4.5	65			200.0	253sks @ 14.6ppg, 1.46 yield, 6.08 gal/sk
Shutdown	06/19/2013 18:05							
Clean Lines	06/19/2013 18:06			20				Washed up on top of plug, first 20 bbls of displacement

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SUMMIT Version: 7.3.0081

Wednesday, June 19, 2013 07:40:00

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*Cementing Job Log*

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Drop Top Plug	06/19/2013 18:06							Pre-loaded, verified by driller
Pump Displacement	06/19/2013 18:06		8.5	210			1500.0	Mud
Spacer Returns to Surface	06/19/2013 18:38			180				@180 bbls displacement, 44 bbls to the pit
Cement Returns to Surface	06/19/2013 18:45			230				@226 bbls displacement, 24 bbls to the pit
Bump Plug	06/19/2013 18:50						1776.0	@500 over
Check Floats	06/19/2013 18:52							Floats Good
End Job	06/19/2013 18:59							Thanks Aaron Smith and Crew.

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