HALLIBURTON

RADIAL CEMENT BOND LOG

SCALE 1:240

Company	RAMSEY PROPERTY MGNT
Well	HOLT #1
Field	VERDE
County	BACA
State	CO

Company RAMSEY PROPERTY MGNT
Well HOLT #1
Field VERDE
County BACA State CO

API No.: 05-009-06676 Serv #: 900765511
Location: (SHL) 215 FSL & 397 FWL
Other Services
4.52 GUAGE RING

Sec: 31 Twp: 34S Rge: 42W

Permanent Datum	GROUND LEVEL	Elevation	3640	Elevation
Log Measured From	KB	10 Ft. above perm. datum		K.B. 3650
Drilling Measured From	KB			D.F. 3649 G.L. 3640
Date @ Time Logged	25 SEPT, 2013 @ 17:28	Type Fluid in Hole	WATER	
Run No.	ONE	Density of Fluid	8.4	
Depth - Driller	4800	Fluid Level	SURFACE	
Depth - Logger	4737	Cement Top Est. Logged	2610	
Bottom - Logged Interval	4731	Equipment / Location	10971687 / LIBERAL	
Top - Log Interval	2400	Recorded by	T HANSON	
Max. Recorded Temp.	132	Witnessed by	C ANDREWS	

CEMENTING DATA	Surface	Protection	Production	Liner
	String	String	String	
Date / Time Cemented	N/A	N/A		
Primary / Squeeze				
Expected Compressive Strength	psi@ hrs	psi@ hrs	psi@ hrs	psi@ hrs
Cement Volume				
Cement Type / Weight	/	/	/	/
Formulation				
Mud Type / Mud Wgt.	/	/	/	/

Borehole Record			Casing & Tubing Record			
Bit	From	To	Size	Weight	From	To
			5.5	15.5	SURFACE	4760

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HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

LOG CORRELATED TO HALLIBURTON DSN LOG DATED 16 SEPTEMBER, 2013

FREE PIPE PASS NOT CORRELATED

TOP OF CEMENT @ 2610

SHORT JOINT @ 4344 - 4365

THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES
YOUR CREW TODAY R GONZALEZ, J STROHM, T HANSON

Service Ticket No. 900765511 API No. 05-009-06676 PGM Ver WARRIOR 7.0

The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client

EQUIPMENT DATA

RCBL		GR/CCL					
Run No.	ONE	Run No.	ONE	Run No.		Run No.	
Serial No.	080454	Serial No.	060633	Serial No.		Serial No.	
Model No.	PRB_275	Model No.	PRB_275	Model No.		Model No.	
Diameter	2.75	Diameter	2.75	Diameter		Diameter	

LOGGING DATA

General Data

Pass No.	Depths From	Depths To	Well Head Pressure	Speed Ft/Min	Logging Run Comments
7	4750	2400	0	45	MAIN PASS

Pass	GR Scale		TT Scale		AMP Scale		MSG Scale	
No.	L	R	L	R	L	R	L	L
ALL PASSES	0	150	176	276	0	100	200	1200
	150	300			0	20		

DIRECTIONAL INFORMATION

Maximum Deviation deg. @ KOP

HALLIBURTON

MAIN PASS

SCALE 1:240

Database File: ramsey_property_mgnt_holt_1.db
Dataset Pathname: pass7
Presentation Format: rcbltemp
Dataset Creation: Wed Sep 25 17:28:35 2013 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

GAMMA RAY	LTEN	AMP	AMPS	MSG	SECTORS
0 (GAPI) 150 2.25 CCL -0.25 TEMP (degF)	0 (lb) 2000	0 AMP (mV) 100 0 AAMP (mV) 20 176 TT (usec) 276	0 AMPS1 120 0 AMPS2 120 0 AMPS3 120 0 AMPS4 120 0 AMPS5 120 0 AMPS6 120 0 AMPS7 120 0 AMPS8 120	200 MSG 1200	1 SECTORS 8 0 100

GAMMA RAY	LTEN	AMP	AMPS	MSG	SECTORS
0 (GAPI) 150 2.25 CCL -0.25 TEMP (degF)	0 (lb) 2000	0 AMP (mV) 100 0 AAMP (mV) 20 176 TT (usec) 276	0 AMPS1 120 0 AMPS2 120 0 AMPS3 120 0 AMPS4 120 0 AMPS5 120 0 AMPS6 120 0 AMPS7 120 0 AMPS8 120	200 MSG 1200	1 SECTORS 8 0 100

HALLIBURTON

MAIN PASS

SCALE 1:240

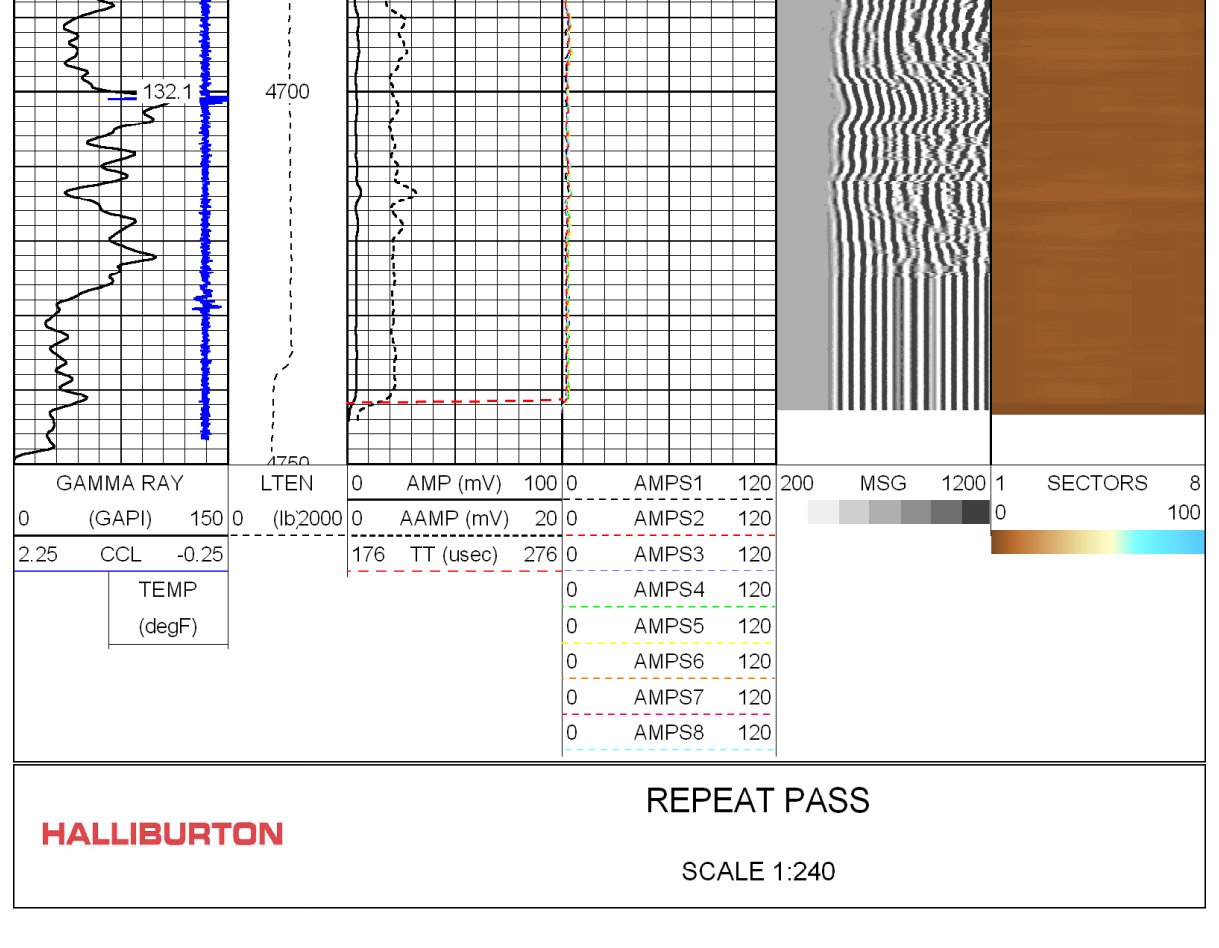
HALLIBURTON

REPEAT PASS

SCALE 1:240

Database File: ramsey_property_mgnt_holt_1.db
Dataset Pathname: pass6
Presentation Format: rcbltemp
Dataset Creation: Wed Sep 25 17:21:15 2013 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

GAMMA RAY	LTEN	AMP	AMPS	MSG	SECTORS
0 (GAPI) 150 2.25 CCL -0.25 TEMP (degF)	0 (lb) 2000	0 AMP (mV) 100 0 AAMP (mV) 20 176 TT (usec) 276	0 AMPS1 120 0 AMPS2 120 0 AMPS3 120 0 AMPS4 120 0 AMPS5 120 0 AMPS6 120 0 AMPS7 120 0 AMPS8 120	200 MSG 1200	1 SECTORS 8 0 100



GAMMA RAY	LTEN	AMP	AMPS	MSG	SECTORS
0 (GAPI) 150 2.25 CCL -0.25 TEMP (degF)	0 (lb) 2000	0 AMP (mV) 100 0 AAMP (mV) 20 176 TT (usec) 276	0 AMPS1 120 0 AMPS2 120 0 AMPS3 120 0 AMPS4 120 0 AMPS5 120 0 AMPS6 120 0 AMPS7 120 0 AMPS8 120	200 MSG 1200	1 SECTORS 8 0 100

HALLIBURTON

REPEAT PASS

SCALE 1:240

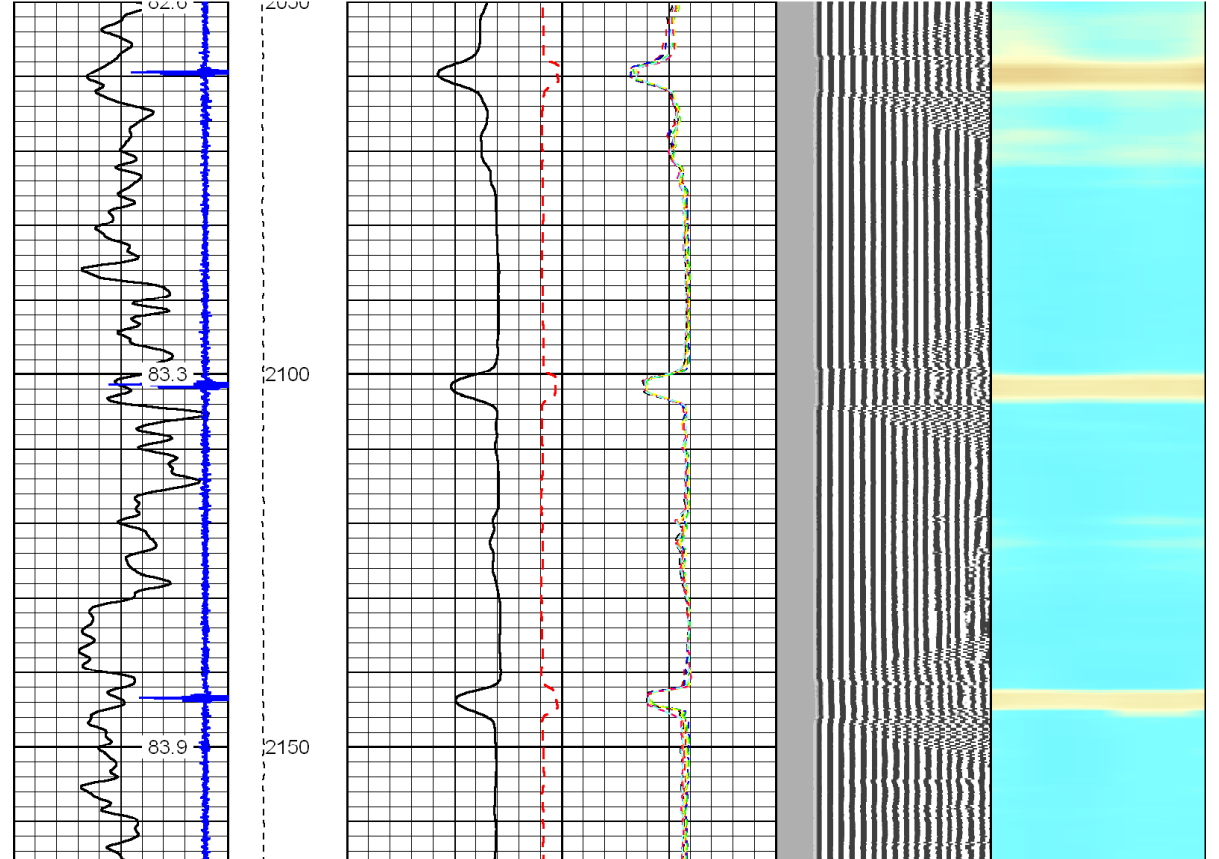
HALLIBURTON

FREE PIPE PASS

SCALE 1:240

Database File: ramsey_property_mgnt_holt_1.db
Dataset Pathname: pass4
Presentation Format: rcbltemp
Dataset Creation: Wed Sep 25 17:02:02 2013 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

GAMMA RAY	LTEN	AMP	AMPS	MSG	SECTORS
0 (GAPI) 150 2.25 CCL -0.25 TEMP (degF)	0 (lb) 2000	0 AMP (mV) 100 0 AAMP (mV) 20 176 TT (usec) 276	0 AMPS1 120 0 AMPS2 120 0 AMPS3 120 0 AMPS4 120 0 AMPS5 120 0 AMPS6 120 0 AMPS7 120 0 AMPS8 120	200 MSG 1200	1 SECTORS 8 0 100



GAMMA RAY	LTEN	AMP	AMPS	MSG	SECTORS
0 (GAPI) 150 2.25 CCL -0.25 TEMP (degF)	0 (lb) 2000	0 AMP (mV) 100 0 AAMP (mV) 20 176 TT (usec) 276	0 AMPS1 120 0 AMPS2 120 0 AMPS3 120 0 AMPS4 120 0 AMPS5 120 0 AMPS6 120 0 AMPS7 120 0 AMPS8 120	200 MSG 1200	1 SECTORS 8 0 100

HALLIBURTON

FREE PIPE PASS

SCALE 1:240

Log Variables

Database:C:\Warrior\Data\ramsey_property_mgnt_holt_1.db
Dataset: field/well/run1/pass7

Top - Bottom

PPT usec	CASEWGHT lb/ft	MAXAMPL mV	MINAMPL mV	MINATTN db/ft	CASEOD in	PERFS	TDEPTH ft
0	15.5	72	0.5	0.8	5.5	0	4750

BOTTEMP degF	BITSIZE in
100	7.875

Calibration Report

Database File: ramsey_property_mgnt_holt_1.db
Dataset Pathname: pass7
Dataset Creation: Wed Sep 25 17:28:35 2013 by Log Halliburton Casedho

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 060633

SHOP CALIBRATION Mon Jul 29 10:08:37 2013

	Counts/Sec.	Gain	Offset	Jig	Units
Background	39.7				cps
Calibrator	244.1				cps
		1.2967			GAPI/cps

PRIMARY VERIFICATION Mon Feb 06 17:07:17 2012

Background	52.3		cps
Calibrator	314.3		cps
Difference		262.0	GAPI

BEFORE SURVEY VERIFICATION

Background	0.0		cps
Calibrator	0.0		cps
Difference		0.0	GAPI

AFTER SURVEY VERIFICATION

Background	0.0		cps
Calibrator	0.0		cps
Difference		0.0	GAPI

Segmented Cement Bond Log Calibration Report

Serial Number: 080454
Tool Model: Probe

Calibration Casing Diameter: 5.500 in
Calibration Depth: 2211.262 ft

Master Calibration, performed Wed Sep 25 17:01:22 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.004	0.514	0.500	71.921	138.066	1.006
CAL	0.629	0.629				
5'	0.002	0.519	0.500	71.921	137.909	0.279
SUM						
S1	0.002	0.504	0.000	72.000	143.600	-0.342
S2	-0.000	0.616	0.000	72.000	116.822	0.001
S3	-0.001	0.573	0.000	72.000	125.481	0.089
S4	0.002	0.500	0.000	72.000	144.469	-0.220
S5	-0.002	0.476	0.000	72.000	150.677	0.315
S6	0.001	0.500	0.000	72.000	144.268	-0.158
S7	0.001	0.524	0.000	72.000	137.649	-0.091
S8	-0.002	0.446	0.000	72.000	160.816	0.269

Internal Reference Calibration, performed Wed Dec 31 18:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.629	0.629	1.000	0.000

Air Zero Calibration, performed Wed Dec 31 18:00:00 1969:

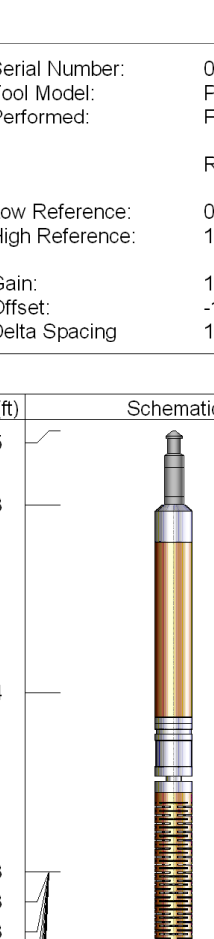
	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

Temperature Calibration Report

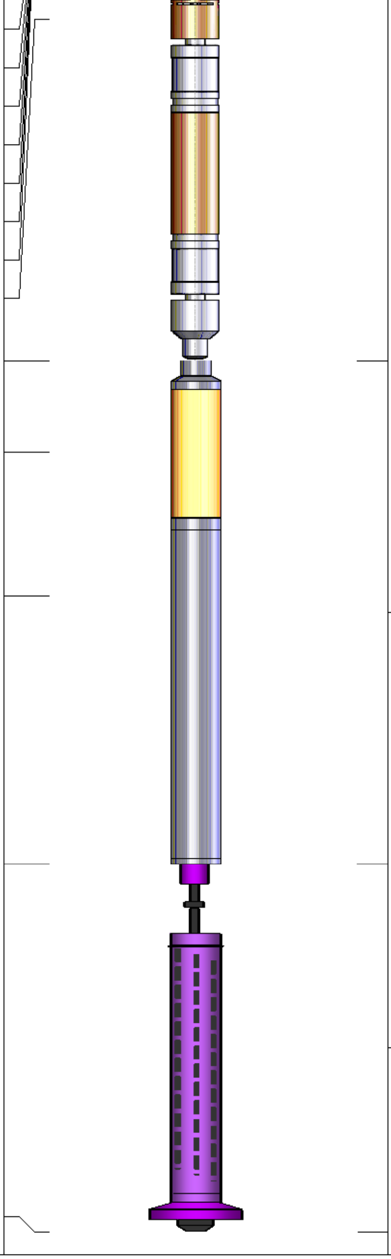
Serial Number: 080454
Tool Model: Probe
Performed: Fri Feb 17 14:23:20 2012

	Reference	Reading
Low Reference:	0.00 degF	0.00 degF
High Reference:	1.00 degF	1.00 degF

Gain: 1.00
Offset: -16.00
Delta Spacing 1

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
STNDCH	17.95		STND_CH 1.4375 IN CABLE HEAD	0.92	1.44	1.00
RBT_PRB275	17.03					
TEMP	14.74					
WVF3FT	12.53		RBT_PRB275-Probe (080454) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	90.00
WVFCAL	12.53					
WVFS1	12.53					

WVFS2	12.53
WVFS3	12.53
WVFS4	12.53
WVFS5	12.53
WVFS6	12.53
WVFS7	12.53
WVFS8	12.53
WVF5FT	11.53
GR_PRB275	8.28
CCL	7.42
GR	6.04
JBT	3.50
LLMTEN	0.00



GR_PRB275-probe275dig (060633) Probe Digital Gamma CCL	4.78	2.75	57.00
#10 Titan 3.0" (#10) Junk Basket w/ 4.52 Gring	3.50	3.00	10.00

Dataset:	ramsey_property_mgnt_holt_1.db: field/well/run1/pass7
Total Length:	17.95 ft
Total Weight:	158.00 lb
O.D.	3.00 in

Company	RAMSEY PROPERTY MGNT		
Well	HOLT #1		
Field	VERDE		
County	BACA	State	CO

HALLIBURTON

RADIAL CEMENT BOND LOG

SCALE 1:240