

COMPANY WELL FIELD COUNTY STATE	BRIDGE/PARAMAX TRACY TRUST #3-2 HAMILTON PAYETTE ID	COMPANY WELL FIELD COUNTY STATE ID	BRIDGE/PARAMAX TRACY TRUST #3-2 HAMILTON PAYETTE STATE ID
Permanent Datum Log measured from Drilling measured from		API No. 011075200110000 Location SHL 2039' FSL & 647' FWL SEC 2, T.7N, R.4W	Other Services: RWCH KRMI BSAT DGCS
Date Run No. Depth - Driller Depth - Logger Bottom - Logged Interval Top - Logged Interval Casing - Driller Casing - Logger Bit Size Type Fluid in Hole	14-Aug-10 ONE 2810.00 ft 2817.0 ft 2808.0 ft 733.0 ft 9.625 in @ 833.0 ft 731.0 ft 8.750 in OBM	Sect. 2 Twp. 7 N Rge. 4 W Elev. 2246.0 ft 17.0 ft above perm Datum	Elev. K.B. 2263.0 ft D.F. 2262.0 ft G.L. 2246.0 ft
Density Alkalinity HTHP @ Meas. Temperature Solids Oil Water Phase Salinity Oil Type Electrical Stability Time Since Circulation Time on Bottom Max. Rec. Temperature Equipment Recorded By Witnessed By	F. Viscosity 9.8 cp P. Viscosity 0.20 pct 5.4 cp @ 200.00 degF 13.5 % 89 6000.00 ppm Cl DIESEL 1920 V 6.0 hr 14-Aug-10 16:34 131.0 degF @ 2817.0 ft 11014853 W. MATSON G. J. CO JEFF KIRN		

Service Ticket No.: 7564785		API Serial No.: 011075200110000		PGM Version: WL INSITE R3 0.5 (Build 3)	
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE			RESISTIVITY SCALE CHANGES		
Date	Sample No.	Type Log	Depth	Scale Up Hole	Scale Down Hole
Depth-Driller Type Fluid in Hole Density F. Viscosity Alkalinity P. Viscosity HTHP @ Meas. Temp					
RESISTIVITY EQUIPMENT DATA					
Solids	Wgt. Mat.	Run No.	Tool Type & No.	Pad Type	Tool Pos.
Oil	Water Ratio	ONE	ACRT E486	N/A	1.5' S.O
Water Phase Salinity Oil Type Water Type Electrical Stability					
EQUIPMENT DATA					
GAMMA		ACOUSTIC		DENSITY	
Run No.	ONE	Run No.	ONE	Run No.	ONE
Serial No.	11006602	Serial No.	11105782	Serial No.	10951314
Model No.	GTET	Model No.	BSAT	Model No.	SDLT
Diameter	3.625"	No. of Cent.	TWO	Diameter	4.5"
Detector Model No.	102A	Spacing	N/A	Log Type	GAMMA/GAMMA
Type	SCINT	Source Type	Cs-137	Log Type	THERM/THERM
Length	8"	Serial No.	5253 GW	Source Type	Am241Be
Distance to Source	11'	Strength	1.5 Ci	Serial No.	DSN-388
		FWDA [Y/N]	NO	Strength	15 Ci
LOGGING DATA					
GENERAL		GAMMA		ACOUSTIC	
Run No.	Depth	Speed	Scale	Scale	Matrix
No.	From To	ft/min	L R	L R	L R
ONE	TD CSG	REC	0 200	40% 0%	55.5 us/ft

DIRECTIONAL INFORMATION			
Maximum Deviation	@	KOP	@
Remarks:			
RUN ONE: GTET/DSN/SDL/FLEX/BSAT/ACRT			
RUN TWO: D4TGX/DCGS			
RUN THREE: D4TGX/IRMI			
TENSION PULLS MAY AFFECT LOG RESPONSE			
YOUR CREW TODAY: W. HALL, J. WIKERSON, T. VANALSTYNE			
RIG: RAZORBACK			
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES - GRAND JUNCTION, CO - (970) 523-3600.			
<p>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 LOSSES, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.</p>			
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**PARAMETERS REPORT**

Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	8.750	In
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDWT	Borehole Fluid Weight	10.100	ppg
	SHARED	OBM	Oil Based Mud System?	Yes	
	SHARED	CSD	Logging Interval Is Cased?	No	
	SHARED	ICOD	AHV Casing OD	5.500	In
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	2810.00	ft
	SHARED	BHT	Bottom Hole Temperature	200.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	NONE	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET	
	SHARED	TEMM	Temperature Master Tool	NONE	
	SHARED	BHSM	Borehole Size Master Tool	NONE	
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes	
	Rwa / CrossPlot	FCHO	Select Source of F	Automatic	
	Rwa / CrossPlot	AFAC	Archie A factor	0.6200	
	Rwa / CrossPlot	MFAC	Archie M factor	2.1500	
	Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm
	Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF
	Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
	Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
	GTET	GROK	Process Gamma Ray?	Yes	
	GTET	GRSO	Gamma Tool Standoff	0.000	In
	GTET	GEOK	Process Gamma Ray EVR?	No	
	GTET	POTA	Potassium	0.00	%
	GTET	MDTP	Mud Type	Natural	
	GTET	TPOS	Tool Position	Standoff	
	DSNT	DNOK	Process DSN?	Yes	
	DSNT	DEOK	Process DSN EVR?	No	
	DSNT	NLIT	Neutron Lithology	Sandstone	
	DSNT	DNSO	DSN Standoff - 0.25 In (6.35 mm) Recommended	0.000	In
	DSNT	DNTP	Temperature Correction Type	None	
	DSNT	DPRS	DSN Pressure Correction Type	None	
	DSNT	SHCO	View More Correction Options	No	

DSNT	UTVD	Use TVD for Gradient Corrections?	No	
DSNT	LHWT	Logging Horizontal Water Tank?	No	
SDLT	DNOK	Process Density?	Yes	
SDLT	DNOK	Process Density EVR?	No	
SDLT	AD	Is Hole Air Drilled?	No	
SDLT	CB	Logging Calibration Blocks?	No	
SDLT	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT	DTWN	Disable temperature warning	No	
SDLT	MDTP	Weighted Mud Correction Type?	Barite	
SDLT	DMA	Formation Density Matrix	2.650	g/cc
SDLT	DFL	Formation Density Fluid	1.000	g/cc
SDLT	CLOK	Process Caliper Outputs?	Yes	
SDLT	MLOK	Process MicroLog Outputs?	Yes	
BSAT	MBOK	Compute BCAS Results?	Yes	
BSAT	FLLO	Semblance Filter Low Pass Value?	5000	Hz
BSAT	FLHI	Semblance Filter High Pass Value?	27000	Hz
BSAT	DTFL	Delta -T Fluid	189.00	uspf
BSAT	DTMT	Delta -T Matrix Type	Sandstone 55.5	
BSAT	DTSH	Delta -T Shale	100.00	uspf
BSAT	SPEQ	Acoustic Porosity Equation	Wyllie	
ACRI	RTOK	Process ACRI?	Yes	
ACRI	MNSO	Minimum Tool Standoff	1.50	in
ACRI	TCS1	Temperature Correction Source	FP Lwr & FP Up	
ACRI	TPOS	Tool Position	Free Hanging	
ACRI	RMOP	Rmud Source	Mud Cell	
ACRI	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRI	RMIN	Maximum Resistivity for MAP	200.00	ohmm
ACRI	THQY	Threshold Quality	0.50	

BOTTOM

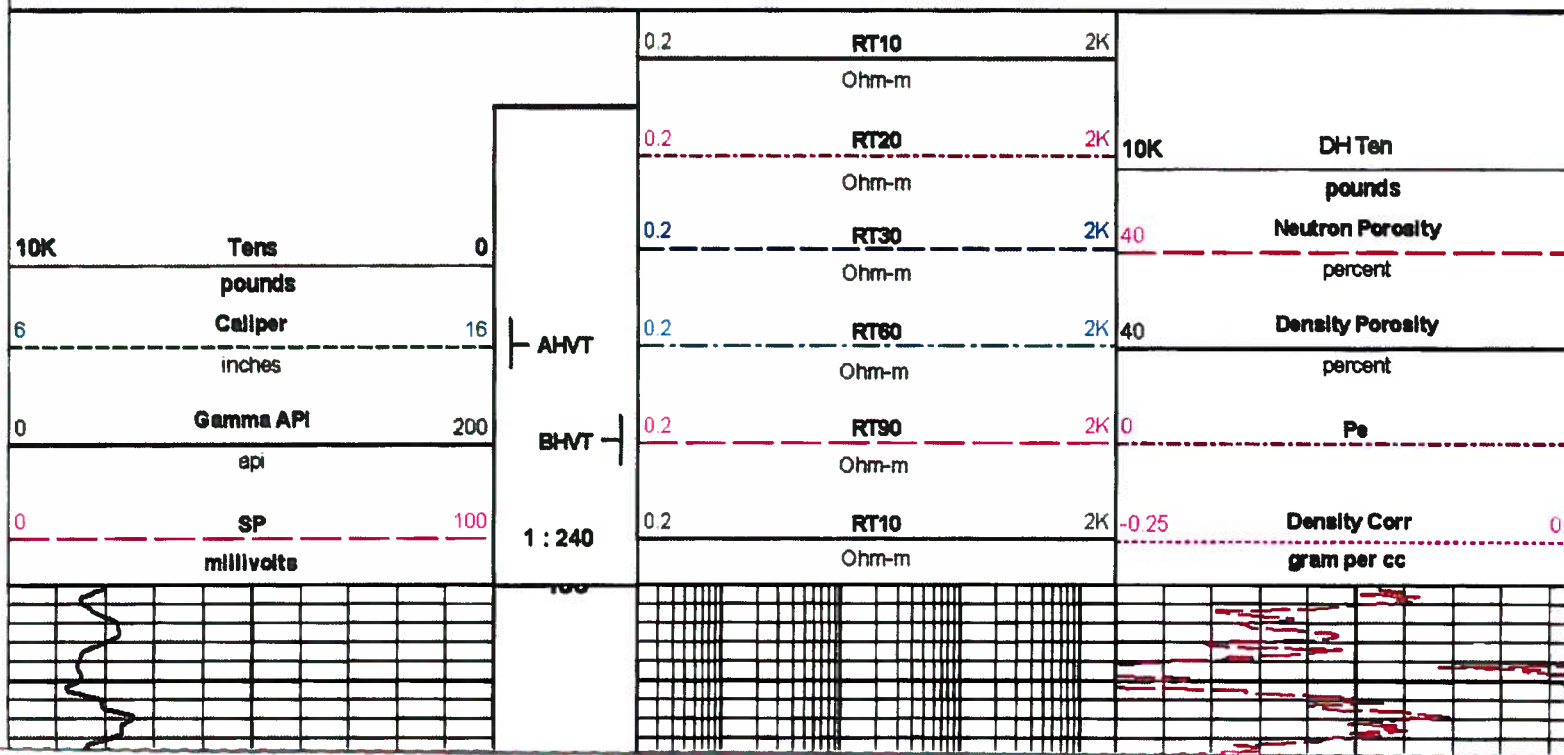
Data: BIRDOG\_TRACY\_3\_210001 QUAD-BSAT005 14-Aug-10 09:06 Up @2920.5f

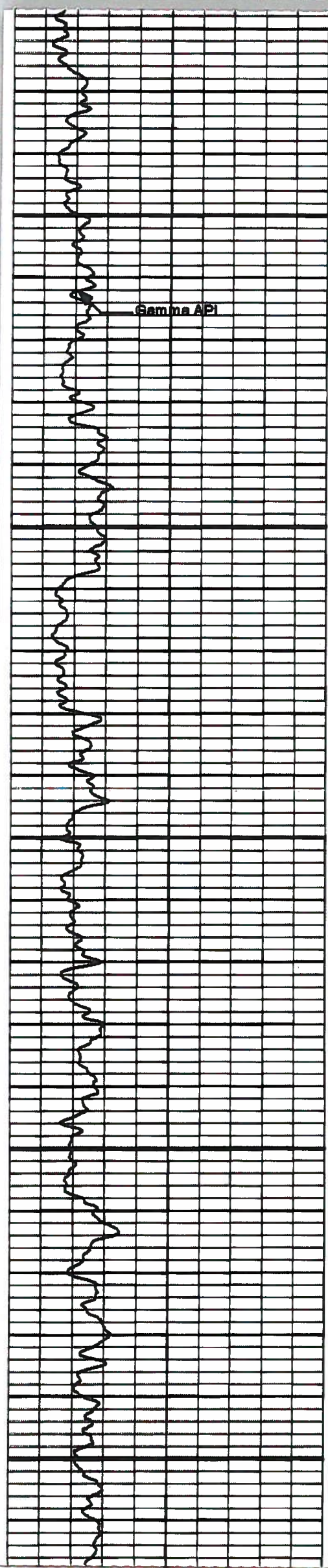
Date: 14-Aug-10 09:42:5f

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Plot Time: 14-Aug-10 18:00:24  
 Plot Range: 100 ft to 850 ft  
 Data: BIRDOG\_TRACY\_3\_21Well Based"1"  
 Plot File: \\CASING\BP\_5IN\_COMP\_M

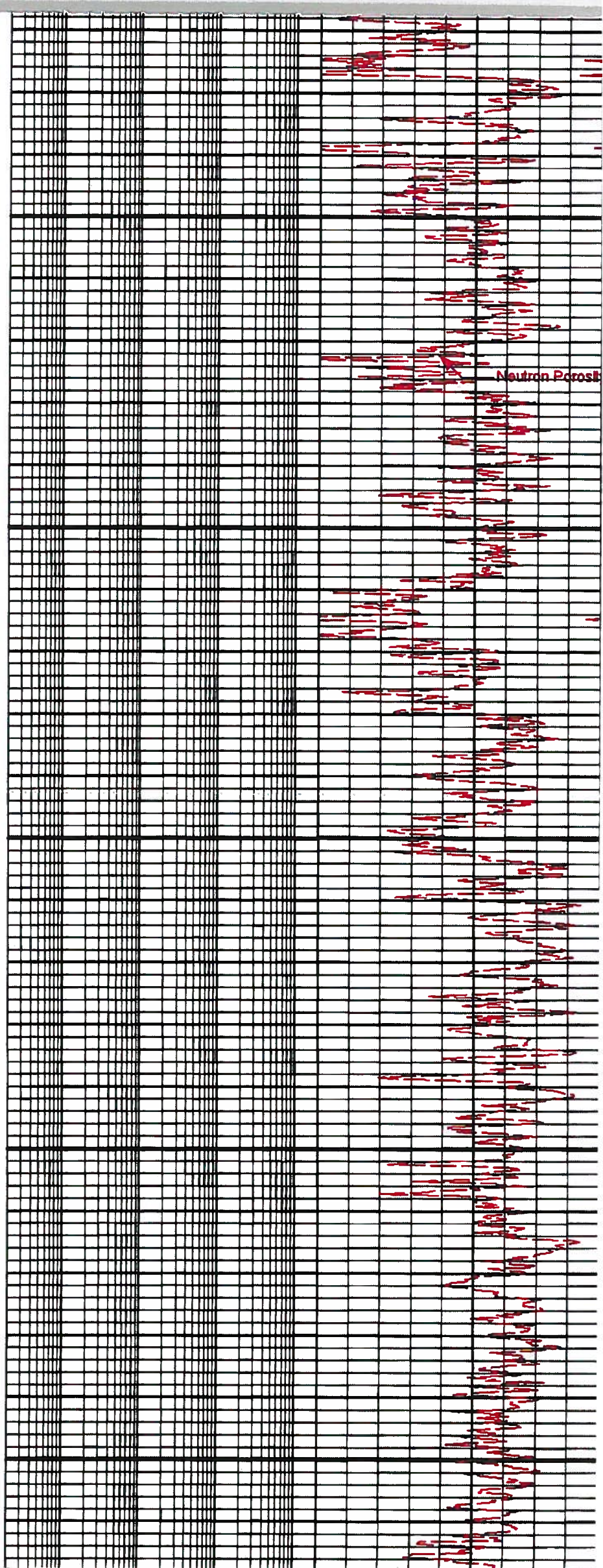
MAIN PASS 5" = 100'

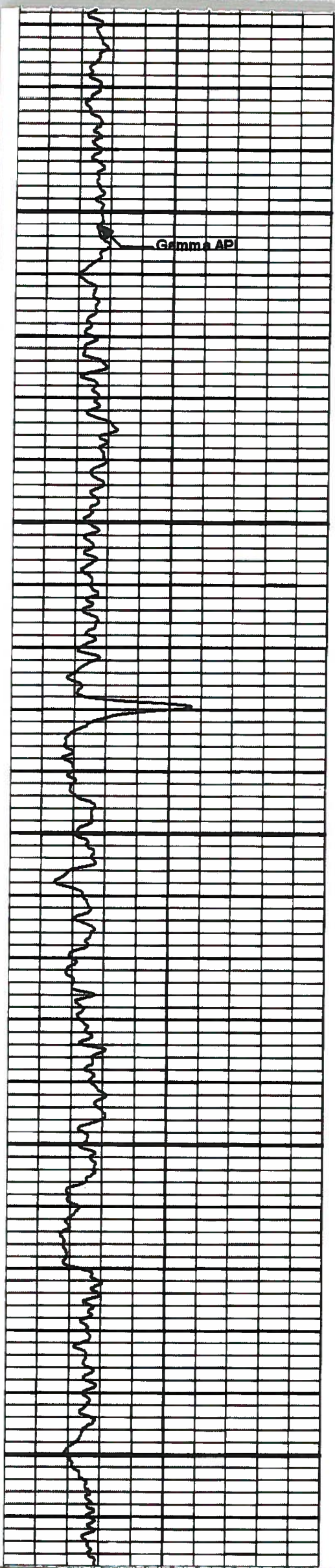




200

300

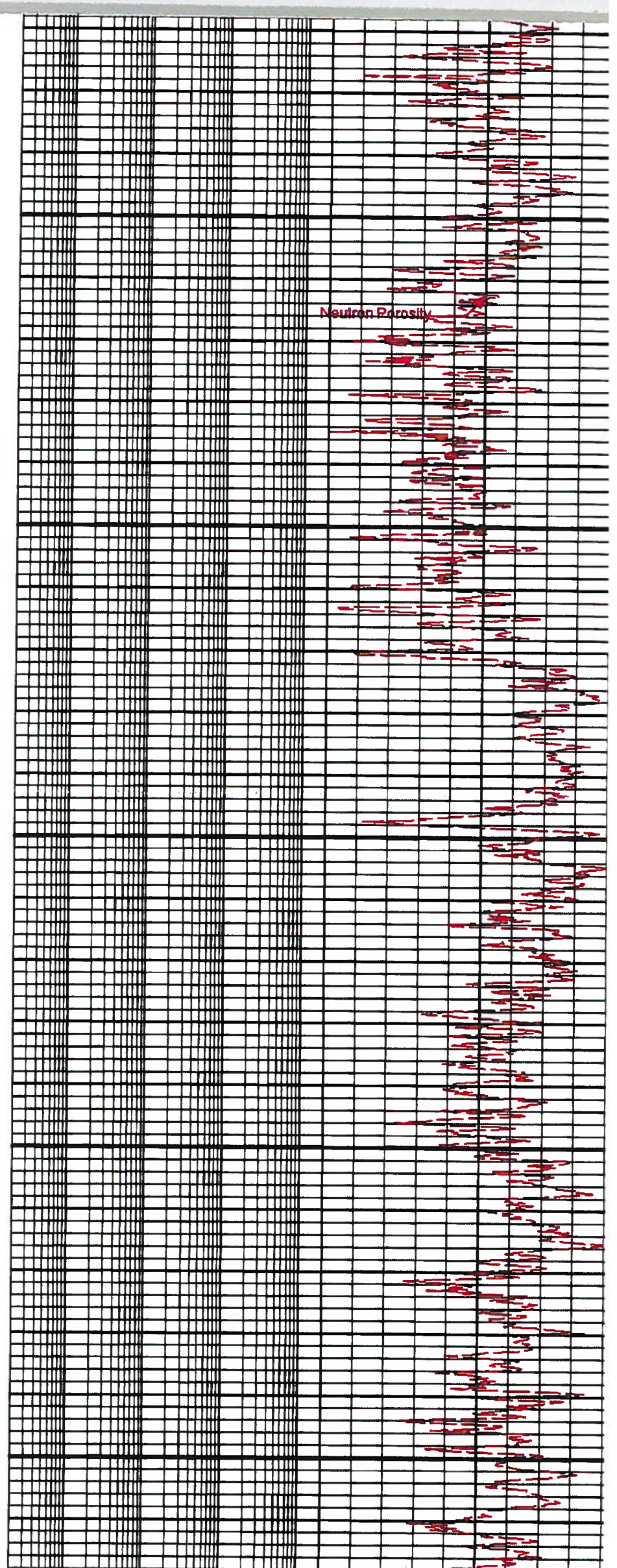


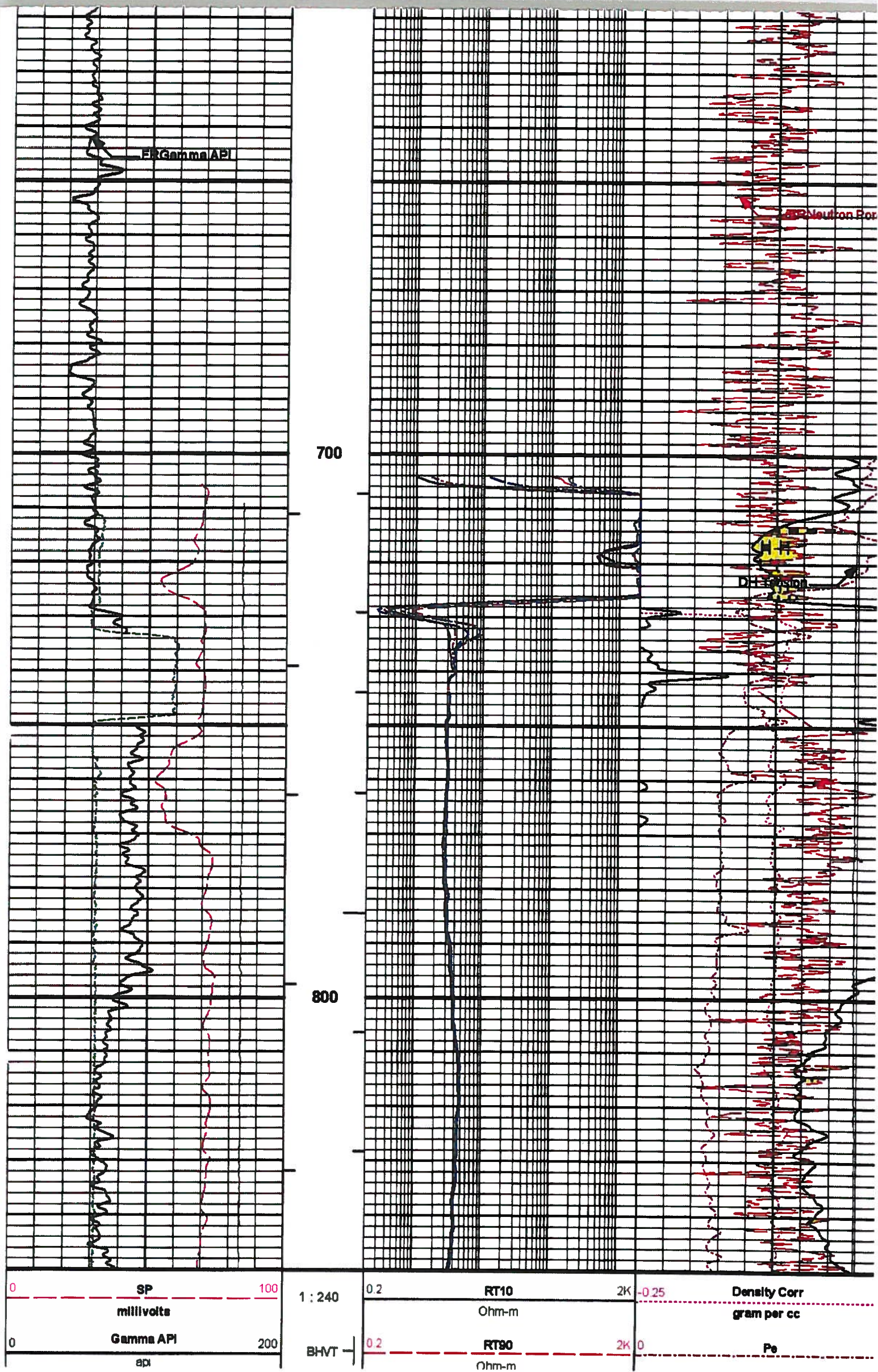


400

500

600





0 SP 100  
 millivolts  
 0 Gamma API 200  
 api

1 : 240  
 BHVT

0.2 RT10 2K  
 Ohm-m  
 0.2 RT90 2K  
 Ohm-m

-0.25 Density Corr  
 gram per cc  
 0 Po

6	Caliper	16	AHVT	0.2	RT60	2K	40	Density Porosity
	inches					Ohm-m		
10K	Tens	0		0.2	RT30	2K	40	Neutron Porosity
	pounds				Ohm-m			percent
				0.2	RT20	2K	10K	DH Ten
					Ohm-m			pounds
				0.2	RT10	2K		
					Ohm-m			

**HALLIBURTON**

Plot Time: 14-Aug-10 18:00:27  
 Plot Range: 100 ft to 860 ft  
 Data: BIRDG\_TRACY\_3\_2iWell Based\*1\*  
 Plot File: \\CASING1BP\_6IN\_COMP\_M

MAIN PASS 5" = 100'

**HALLIBURTON**

**CALIBRATION REPORT**

**NATURAL GAMMA RAY TOOL SHOP CALIBRATION**

Tool Name: GTET - 11005602      Reference Calibration Date: 30-May-10 03:58:22  
 Engineer: W. MATSON      Calibration Date: 02-Jul-10 18:13:20  
 Software Version: WL INSITE R3.0.5 (Build 3)      Calibration Version: 1

Calibrator Source S/N: 110  
 Calibrator API Reference: 239.00 api

Measurement	Measured	Calibrated	Units
Background	30.9	31.0	api
Background + Calibrator	273.1	274.2	api
Calibrator	243.3	243.2	api

**NATURAL GAMMA RAY TOOL FIELD CALIBRATION**

Tool Name: GTET - 11005602      Reference Calibration Date: 02-Jul-10 18:13:20  
 Engineer: W. MATSON      Calibration Date: 14-Aug-10 00:53:01  
 Software Version: WL INSITE R3.0.5 (Build 3)      Calibration Version: 1

Calibrator Source S/N: 110  
 Calibrator API Reference: 239.00 api

Field Verification	Shop	Field	Units
Background	31.0	110.4	api
Background + Calibrator	274.2	361.1	api
Calibrator	243.2	250.8	api

Shop	Field	Difference	Tolerance
243.2	250.8	-7.6	+/- 9.00

**NATURAL GAMMA RAY TOOL POST CALIBRATION**

Tool Name: GTET - 11005602      Reference Calibration Date: 14-Aug-10 00:53:01  
 Engineer: W. MATSON      Calibration Date: 14-Aug-10 10:33:41  
 Software Version: WL INSITE R3.0.5 (Build 3)      Calibration Version: 1

Calibrator Source S/N: 110  
 Calibrator API Reference: 239.00 api

Post Verification	Field	Post	Units
Background	110.4	72.2	api
Background + Calibrator	361.1	314.9	api

Calibrator 250.8 242.8 api

Shop	Field	Post	Difference	Tolerance
243.2	250.8	242.8	8.0	+/- 9.00

**DUAL SPACED NEUTRON SHOP CALIBRATION**

Tool Name: DSNT - 10993888 Reference Calibration Date: 01-Jan-70 00:00:00  
 Engineer: W. MATSON Calibration Date: 07-Aug-10 19:25:56  
 Software Version: WL INSITE R3.0.5 (Build 3) Calibration Version: 1

Logging Source S/N: DSN-388  
 Tank Serial Number: GJ WATER TANK  
 Reference value assigned to Tank: 52.750  
 Snow Block S/N: GJ-110  
 Calibration Tank Water Temperature: 68 degF  
 Min. Tool Housing Outside Diameter: 3.625 In

**CALIBRATION CONSTANTS**

Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.968	0.968	0.900 - 1.100

**WATER TANK SUMMARY (Horizontal Water Tank)**

Measurement	Current Reading (Previous Coef.)	Calibrated (New Coef.)	Change	Control Limit On Change
Porosity (decp):	0.2169	0.2169	0.0000	+/- 0.0020
Calibrated Ratio:	9.93	9.93	0.000	+/- 0.050

**VERIFIER**

Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0604	0.02000 - 0.09000

**PASS/FAIL SUMMARY**

Background Check: Passed  
 Gain-Range Check: Passed  
 Snow-Block Check: Passed

**DUAL SPACED NEUTRON FIELD CALIBRATION**

Tool Name: DSNT - 10993888 Reference Calibration Date: 07-Aug-10 19:25:56  
 Engineer: W. MATSON Calibration Date: 07-Aug-10 19:27:11  
 Software Version: WL INSITE R3.0.5 (Build 3) Calibration Version: 1

Logging Source S/N: DSN-388  
 Snow Block S/N: GJ-110

**NEUTRON FIELD-CHECK SUMMARY**

	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0604	0.0604	0.0000	+/- 0.0150

**PASS/FAIL SUMMARY**

Block Change Check: Passed  
 Snow Block Stat Check: Passed  
 Temperature Check: Passed

**DUAL SPACED NEUTRON POST CALIBRATION**

Tool Name: DSNT - 10993888 Reference Calibration Date: 07-Aug-10 19:27:11  
 Engineer: W. MATSON Calibration Date: 14-Aug-10 10:44:14  
 Software Version: WL INSITE R3.0.5 (Build 3) Calibration Version: 1

Logging Source S/N: DSN-388  
 Snow Block S/N: GJ-110

**NEUTRON POST-CHECK SUMMARY**

Control Limit



	Field Value	Post Value	Difference	On Change
Snow-Block Porosity (decp):	0.0604	0.0720	0.0116	+/- 0.0150

#### PASS/FAIL SUMMARY

Block Change Check:	Passed
Snow Block Stat Check:	Passed
Temperature Check:	Passed

#### SPECTRAL DENSITY SHOP CALIBRATION

<b>Tool Name:</b> SDLT - 10951314	<b>Reference Calibration Date:</b> 01-Jul-10 12:28:54
<b>Engineer:</b> W. MATSON	<b>Calibration Date:</b> 07-Aug-10 20:39:33
<b>Software Version:</b> WL INSITE R3.0.5 (Build 3)	<b>Calibration Version:</b> 1

Logging Source S/N: 5153GW

Aluminum Block S/N: 63094

Density: 2.610g/cc

Pe: 3.100

Magnesium Block S/N: 63387

Density: 1.685g/cc

Pe: 2.594

#### DENSITY CALIBRATION SUMMARY

Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0757	1.0537	0.90 - 1.10
Near Dens Gain	1.0386	1.0102	0.90 - 1.10
Near Peak Gain	1.0208	0.9795	0.90 - 1.10
Near Lith Gain	0.9989	0.9287	0.90 - 1.10
Far Bar Gain	1.0159	1.0122	0.90 - 1.10
Far Dens Gain	1.0044	0.9994	0.90 - 1.10
Far Peak Gain	0.9997	0.9880	0.90 - 1.10
Far Lith Gain	0.9804	0.9648	0.90 - 1.10
Near Bar Offset	-0.6212	-0.4116	NONE
Near Dens Offset	-0.2734	-0.0148	NONE
Near Peak Offset	-0.1103	0.2475	NONE
Near Lith Offsei	0.0429	0.6532	NONE
Far Bar Offset	-0.1071	-0.0711	NONE
Far Dens Offset	-0.0125	0.0357	NONE
Far Peak Offset	0.0184	0.1216	NONE
Far Lith Offset	0.1428	0.2756	NONE
Near Bar Background	964.19	960.60	700 - 1450
Near Dens Background	319.44	318.13	230 - 480
Near Peak Background	139.14	139.09	100 - 210
Near Lith Background	171.67	170.29	125 - 260
Far Bar Background	582.10	583.97	450 - 900
Far Dens Background	226.62	225.91	175 - 345
Far Peak Background	89.13	88.65	70 - 140
Far Lith Background	94.77	92.86	75 - 145

#### CALIBRATION BLOCK SUMMARY

Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
<b>MAGNESIUM</b>				
Density (g/cc)	1.683	1.685	0.002	+/- 0.015
Pe	2.645	2.593	-0.052	+/- 0.150
<b>ALUMINUM</b>				
Density (g/cc)	2.607	2.610	0.003	+/- 0.01500
Pe	3.242	3.098	-0.144	+/- 0.150

#### TOOL SUMMARY

Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
<b>QUALITY</b>				
Background	-0.0003	+/- 0.0110	-0.0007	+/- 0.0140

Magnesium Block	-0.0006	+/- 0.0110	-0.0014	+/- 0.0140
Aluminum Block	-0.0015	+/- 0.0110	0.0008	+/- 0.0140
Resolution	9.19	6.00 - 11.50	9.49	6.00 - 11.50
Internal Verifier(B+D+P+L)	1588	1200 - 2700	991	800 - 1700

**PASS/FAIL SUMMARY**

Background Quality Check:	Passed
Background Range Check:	Passed
Background Resolution Check:	Passed
Background Verification Check:	Passed
Magnesium Quality Check:	Passed
Aluminum Quality Check:	Passed
Gains Check:	Passed
Changes in Calibration Blocks:	Passed

**SPECTRAL DENSITY FIELD CHECK**

<b>Tool Name:</b> SDLT - 10951314	<b>Reference Calibration Date:</b> 07-Aug-10 20:39:33
<b>Engineer:</b> W. MATSON	<b>Calibration Date:</b> 14-Aug-10 00:52:46
<b>Software Version:</b> WL INSITE R3.0.5 (Build 3)	<b>Calibration Version:</b> 1

Pad Temperature: 75.2 degF

**DENSITY FIELD CALIBRATION SUMMARY**

Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1588.114	1596.243	8.129	16.029
Far (B+D+P+L) cps	991.393	1000.381	8.988	16.874
Near Resolution	9.19	9.48	0.290	0.50
Far Resolution	9.49	10.36	0.870	1.00

**PASS/FAIL SUMMARY**

Bkg Quality Check:	Passed
Bkg Resolution Check:	Passed
Bkg Verification Check:	Passed

**SPECTRAL DENSITY POST CHECK**

<b>Tool Name:</b> SDLT - 10951314	<b>Reference Calibration Date:</b> 14-Aug-10 00:52:46
<b>Engineer:</b> W. MATSON	<b>Calibration Date:</b> 14-Aug-10 10:35:41
<b>Software Version:</b> WL INSITE R3.0.5 (Build 3)	<b>Calibration Version:</b> 1

Pad Temperature: 98.1 degF

**DENSITY POST CALIBRATION SUMMARY**

Measurement	Field	Post	Change	Control Limit +/-
Near (B+D+P+L) cps	1596.243	1592.654	-3.589	16.029
Far (B+D+P+L) cps	1000.381	987.257	-13.124	16.874
Near Resolution	9.48	9.26	-0.220	0.50
Far Resolution	10.36	9.58	-0.780	1.00

**PASS/FAIL SUMMARY**

Bkg Quality Check:	Passed
Bkg Resolution Check:	Passed
Bkg Verification Check:	Passed

**DENSITY CALIPER SHOP CALIBRATION**

<b>Tool Name:</b> SDLT - 10951314	<b>Reference Calibration Date:</b> 28-May-10 01:35:27
<b>Engineer:</b> K. WOOD	<b>Calibration Date:</b> 04-Jul-10 17:21:04
<b>Software Version:</b> WL INSITE R3.0.5 (Build 3)	<b>Calibration Version:</b> 1

**CALIBRATION COEFFICIENTS**

Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-1494.47	-1002.44	-7000.00 - -1000.00
Pad Gain	0.0003846	0.0003840	0.000200 - 0.000600

Arm Offset	904.02	640.04	-5000.00 - 3000.00
Arm Gain	0.0005180	0.0005228	0.000300 - 0.000700
Arm Power	-0.000005476	-0.000006424	-0.000010 - 0.000010

The ring diameter is computed from:  $DIAMETER = PAD\ EXTENSION + ARM\ EXTENSION + TOOL\ DIAMETER$   
 Tool Diameter: 4.50 In

CALIBRATION RINGS				
Measurement	Current Reading (Previous Coeff.)	Calibrated (New Coeff.)	Change	Control Limit On New Value
PAD EXTENSION:				
Small Ring (In)	1.81	2.00	0.19	+/- 0.20
Medium Ring (In)	3.57	3.75	0.18	+/- 0.20
RING DIAMETER:				
Small Ring (In)	6.43	6.50	0.07	+/- 0.20
Medium Ring (In)	8.18	8.25	0.07	+/- 0.20
Large Ring (In)	15.09	15.00	-0.09	+/- 0.20

**PASS/FAIL SUMMARY**

Calibration-Coefficients Range Check: Passed  
 Ring-Measurement Check: Passed

**PASS/FAIL SUMMARY**

Calibration-Coefficients Range Check: Passed

SDLT CALIPER FIELD CALIBRATION			
Tool Name:	SDLT - 10951314	Reference Calibration Date:	04-Jul-10 17:21:04
Engineer:	W. MATSON	Calibration Date:	14-Aug-10 00:57:20
Software Version:	WL INSITE R3.0.5 (Build 3)	Calibration Version:	1

MEASURED CALIPER VALUES				
Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.76	0.01	+/- 0.10
Ring Diameter	8.25	8.34	0.09	+/- 0.15

**PASS/FAIL SUMMARY**

Pad Extension Check: Passed  
 Diameter Check: Passed

ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION			
Tool Name:	ACRT - 90194258-E7486-	Reference Calibration Date:	26-Feb-10 14:15:18
Engineer:	W. MATSON	Calibration Date:	12-Aug-10 15:41:15
Software Version:	WL INSITE R3.0.5 (Build 3)	Calibration Version:	1

TYPICAL GAIN RANGE									
Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	0.95	0.9940	1.05	0.95	0.9974	1.05	0.95	0.9973	1.0
A2 (50")	0.95	1.0021	1.05	0.95	1.0061	1.05	0.95	1.0064	1.0
A3 (29")	0.95	1.0057	1.05	0.95	1.0084	1.05	0.95	1.0064	1.0
A4 (17")	0.95	0.9969	1.05	0.95	0.9973	1.05	0.95	0.9968	1.0
A5 (10")	N/A	N/A	N/A	0.95	0.9994	1.05	0.95	0.9974	1.0
A6 (6")	N/A	N/A	N/A	0.95	0.9894	1.05	0.95	0.9868	1.0

TYPICAL SONDE OFFSET RANGE									
Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	-5	-0.290	2	-6	-4.029	-2	-8	-5.036	.
A2 (50")	-7	-2.370	-1	-6	-3.851	-2	-7	-4.602	.
A3 (29")	-27	-11.382	-9	-9	-3.589	-3	-7	-2.965	.
A4 (17")	-180	-101.271	-60	-45	-31.829	-15	-39	-25.778	-1
A5 (10")	N/A	N/A	N/A	-150	-65.345	-50	-80	-34.508	-1
A6 (6")	N/A	N/A	N/A	175	270.032	525	90	140.169	27

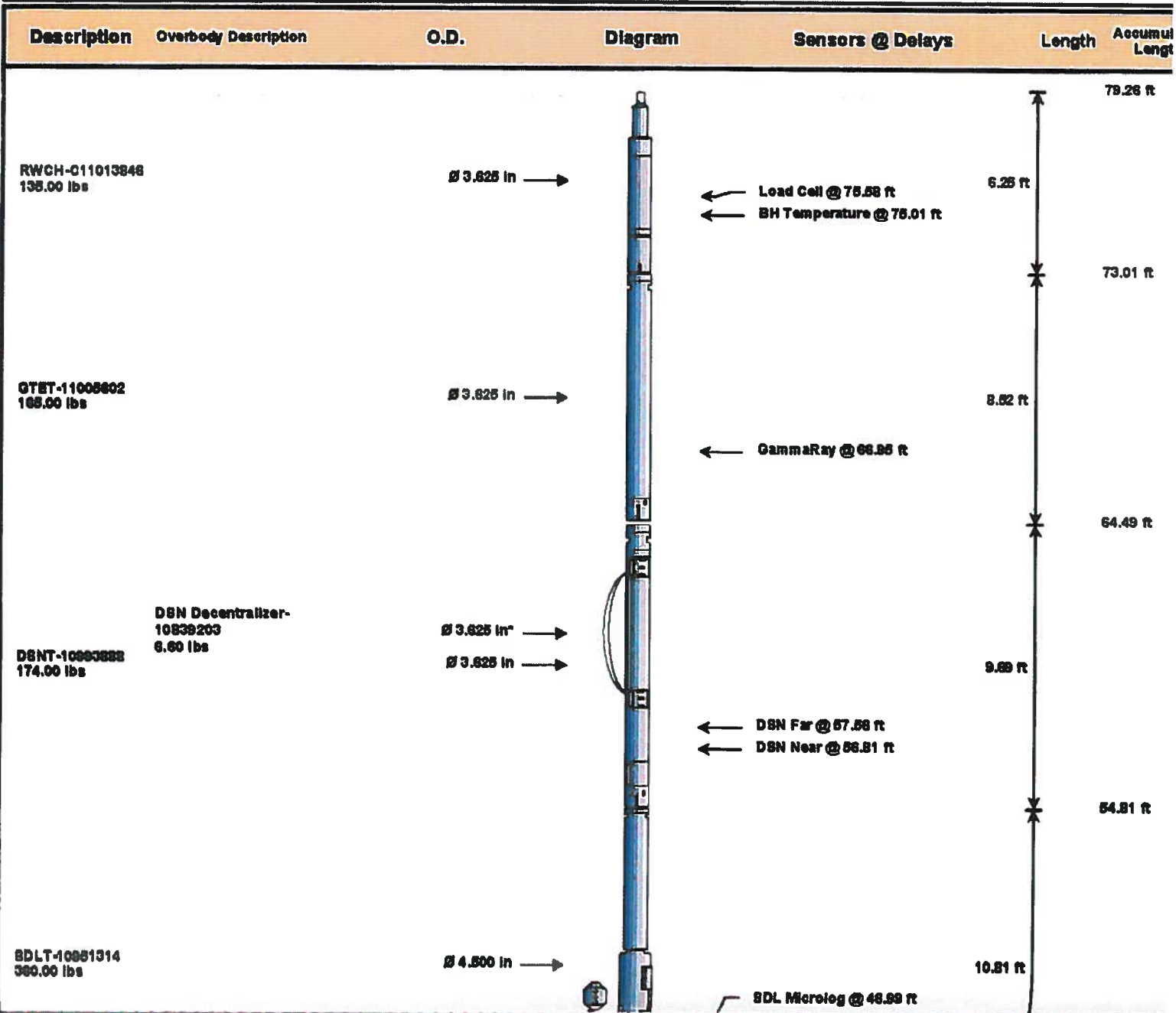
TRANSMITTER CURRENT GAIN				R-MUD VERIFICATION			
Signal	Lower	R	Upper	Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)
12K	0.6	0.9052	1.3	Mud Cell	0.95	1.004	1.0
36K	1.0	1.7805	2.0				
72K	1.0	1.1442	2.0				

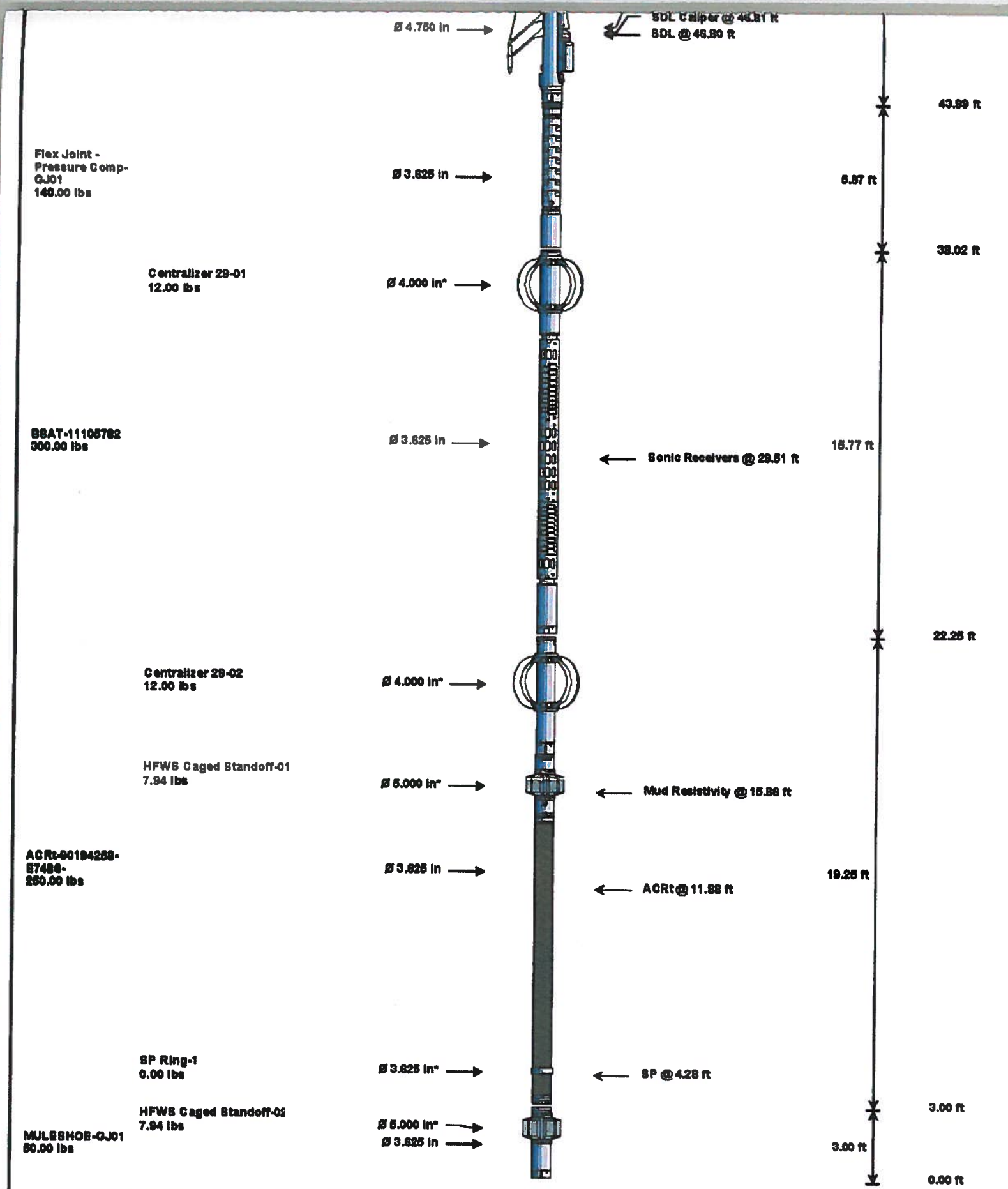
CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
<b>GTET-11005802</b>						
Gamma Ray Calibrator	243.2	250.8	242.8	8.0	+/- 9.00	api
<b>DSNT-10993888</b>						
Snow-Block Porosity	0.0604	0.0604	0.0720	-0.0116	+/- 0.0150	decp
<b>SDLT-10951314</b>						
Near(B+D+P+L)	1588.114	1596.243	1592.654	3.589	+/-16.029	cps
Far(B+D+P+L)	991.393	1000.381	987.257	13.124	+/-16.874	cps
Pad Extension	3.75	3.76	-----	-0.01	+/-0.10	in
Ring Diameter	8.25	8.34	-----	-0.090	+/-0.15	in
<b>ACRt-90194258-E7486-</b>						
Mud Cell	1.004	-----	-----	0.000	-----	ohm-m

Date: BIRDG\_TRACY\_3\_20001 QUAD-B8ATIDLE Date: 14-Aug-10 17:0

**HALLIBURTON**

**TOOL STRING DIAGRAM REPORT**





Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max. Log. Speed (fpm)
RWCH	Releasable Wireline Cable Head	C11013846	135.00	6.25	73.01	300.00
GTET	Gamma Telemetry Tool	11005602	165.00	8.52	64.49	60.00
DSNT	Dual Spaced Neutron	10993888	174.00	9.69	54.81	60.00
DCNT	DSN Decentralizer	10839203	6.60	5.13	58.14	300.00
SDLT	Spectral Density Tool	10951314	360.00	10.81	43.99	60.00
FLEX	Flex Joint - Pressure Compensated	GJ01	140.00	5.97	38.02	300.00
BCAS	Borehole Sonic Array Tool	11105782	300.00	15.77	22.25	60.00
OBCEN	Centralizer - 29 in Overbody	01	12.00	2.42	35.38	300.00
ACRt	Array Compensated True Resistivity	90194258-E7486-	250.00	19.25	3.00	300.00
HFCS	Hostile Full Wave Sonic Caged Metal and Rubber Standoff	01	7.94	1.33	15.47	300.00
SP	SP Ring	1	0.00	0.25	4.28	300.00
OBCEN	Centralizer - 29 in Overbody	02	12.00	2.42	19.08	300.00
MSHOE	MULESHOE	GJ01	50.00	3.00	0.00	100.00
HFCS	Hostile Full Wave Sonic Caged Metal and Rubber Standoff	02	7.94	1.33	1.44	300.00

total 1,620.48 79.26  
\* Not included in Total Length and Length Accumulation  
Date: 14-Aug-10 17:05:04  
Rate: BIRDG\_TRACY\_3\_210001 QUAD-BSATVDLE

COMPANY	BRIDGE/PARAMAX		
WELL	TRACY TRUST #3-2		
FIELD	HAMILTON		
COUNTY	PAYETTE	STATE	ID
<b>HALLIBURTON</b>		SPECTRAL DENSITY DUAL SPACED NEUTRON ARRAY COMPENSATED TRUE RESISTIVITY	

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