Schlumberger

Company: **CPC Minerals LLC**

Well: **CPC 17−1**
Field: **Wildcat**
County: **Bonneville** State: **Idaho**

County: Bonneville
Field: Wildcat
Location: NWSW 758' FWL & 2264' FSL
Well: CPC 17−1
Company: CPC Minerals LLC

TRIPLE COMBO
Cement Volume Evaluation

LOCATION

NWSW 758' FWL & 2264' FSL

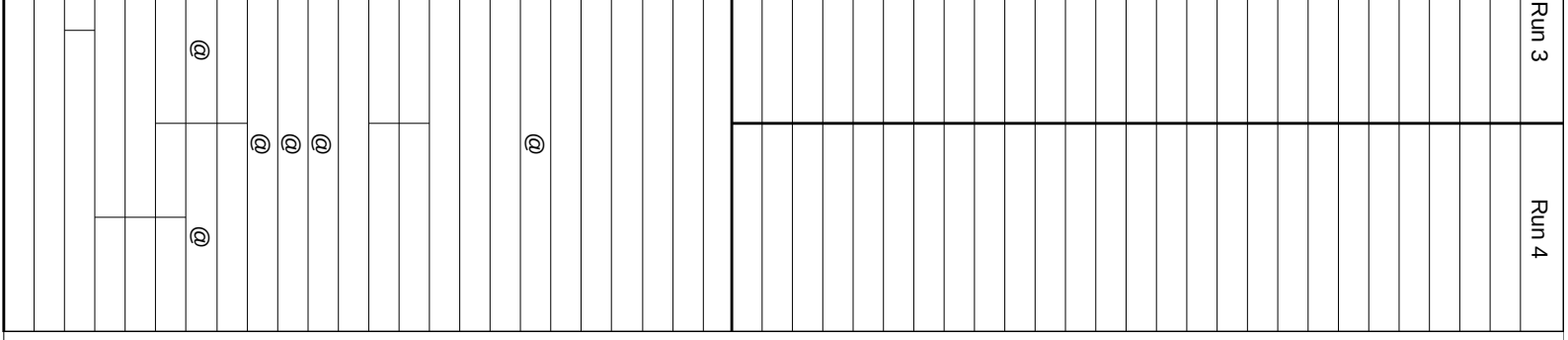
Elev.: K.B. 6435.4 ft
G.L. 6413.4 ft
D.F. 6434.4 ft

Permanent Datum: Ground Level Elev.: 6413.4 ft
Log Measured From: Kelly Bushing 22.0 ft above Perm. Datum
Drilling Measured From: Kelly Bushing

API Serial No.	Section	Township	Range
11−019−20−011	17	3S	43E

	Run 1	Run 2
Logging Date	18−Oct−2007	
Run Number	1	
Depth Driller	7636 ft	
Schlumberger Depth	5639 ft	
Bottom Log Interval	5639 ft	
Top Log Interval	2010 ft	
Casing Driller Size @ Depth	9.625 in @ 2010 ft	@
Casing Schlumberger	2010 ft	
Bit Size	8.750 in	
Type Fluid In Hole	WBM	
MUD Density / Viscosity	11.4 lbm/gal / 39 s	
MUD Fluid Loss / PH	7.6 cm3 / 9	
MUD Source Of Sample	Mudpit	
RM @ Measured Temperature	1.230 ohm.m @ 72 degF	@
RMF @ Measured Temperature	0.923 ohm.m @ 72 degF	@
RMC @ Measured Temperature	1.845 ohm.m @ 72 degF	@
Source RMF / RMC	Calculated / Calculated	
RM @ MRT / RMF @ MRT	0.418 @ 225 / 0.314 @ 225	@ / @
Maximum Recorded Temperatures	225 degF	
Circulation Stopped / Time	18−Oct−2007 / 14:30	
Logger On Bottom / Time	19−Oct−2007 / 1:10	
Unit Number / Location	2275 / Rock Springs	
Recorded By	Alfredo Bouchan	
Witnessed By	Cliff King	

	Run 1	Run 2
Logging Date		
Run Number		
Depth Driller		
Schlumberger Depth		
Bottom Log Interval		
Top Log Interval		
Casing Driller Size @ Depth	@	
Casing Schlumberger		
Bit Size		
Type Fluid In Hole		
MUD Density / Viscosity		
MUD Fluid Loss / PH		
MUD Source Of Sample		
RM @ Measured Temperature	@	
RMF @ Measured Temperature	@	
RMC @ Measured Temperature	@	
Source RMF / RMC		
RM @ MRT / RMF @ MRT	@ / @	
Maximum Recorded Temperatures		
Circulation Stopped / Time		
Logger On Bottom / Time		
Unit Number / Location		
Recorded By		
Witnessed By		



DEPTH SUMMARY LISTING

Date Created: 19−OCT−2007 5:19:30

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−B	Type:	CMTD−B/A	Type:	7−46A XS
Serial Number:	6432	Serial Number:	2718	Serial Number:	7179
Calibration Date:	30−Jan−2007 (i	Calibration Date:	21−Sep−2007	Length:	30000.00 FT
Calibrator Serial Number:	1	Calibrator Serial Number:	88310		
Calibration Cable Type:	7−46A XS	Calibration Gain:	1.26	Conveyance Method:	Wireline
Wheel Correction 1:	−5	Calibration Offset:	−813.00	Rig Type:	LAND
Wheel Correction 2:	−4				

Depth Control Parameters

Log Sequence: First Log In the Well

Stretch Correction: 3.00 FT
Tool Zero Check At Surface: 1.50 FT

Depth Control Remarks

1. Schlumberger depth control procedures followed.
2. IDW−JA used as primary depth control.
3. Z−Chart used as secondary depth control.
4. Rig up lengths at surface and bottom not done due to hole conditions.
5.
6.

OTHER SERVICES1	OTHER SERVICES2
OS1: None	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
First RIH, primary depth control used	
3 ft added to main log for stretch correction	
Max Temp 225 deg F	
Caliper closed 2672 − 2678 due to pull	

Caliper closed 2672 − 2678 due to pull

Cement Volume calculated from 5639 ft to CSG, FCD=7"

Wiper trip done between run 1 and run 2.

1st Run − LDT−CNL−GR (AIT not ran due to tool failure) planned to run backup in 2nd run with BHC, but bridged in 1st run @ 5639

2nd Run − AIT−GR−(Hole finder) Bridged @ 6686 ft.

3rd Run − AIT−GR−PPC−(No hole finder) Bridged @ 6686 ft.

4th Run − LDT−CNL−GR Bridged @ 4300 ft.

BHC not ran as client requested.

RUN 1		RUN 2	
SERVICE ORDER #:	11816233	SERVICE ORDER #:	
PROGRAM VERSION:	15C0−309	PROGRAM VERSION:	
FLUID LEVEL:		FLUID LEVEL:	

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1

SURFACE EQUIPMENT

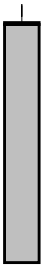
NCT−B
CNB−AB
NCS−VB
WITM (EDTS)−A

DOWNHOLE EQUIPMENT

LEH−QT 2053 — 42.5
LEH−QT 2053

Mud Tempe — 39.5

EDTC−B — 39.5
EDTH−B 8187
EDTC−B 8188
EDTG−A/B



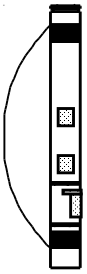
CTEM — 36.0

Gamma Ray — 34.2

EDTCB Ele — 33.0

DTA−A 8679 — 33.0
ECH−KE 8677
DTA−A 8679

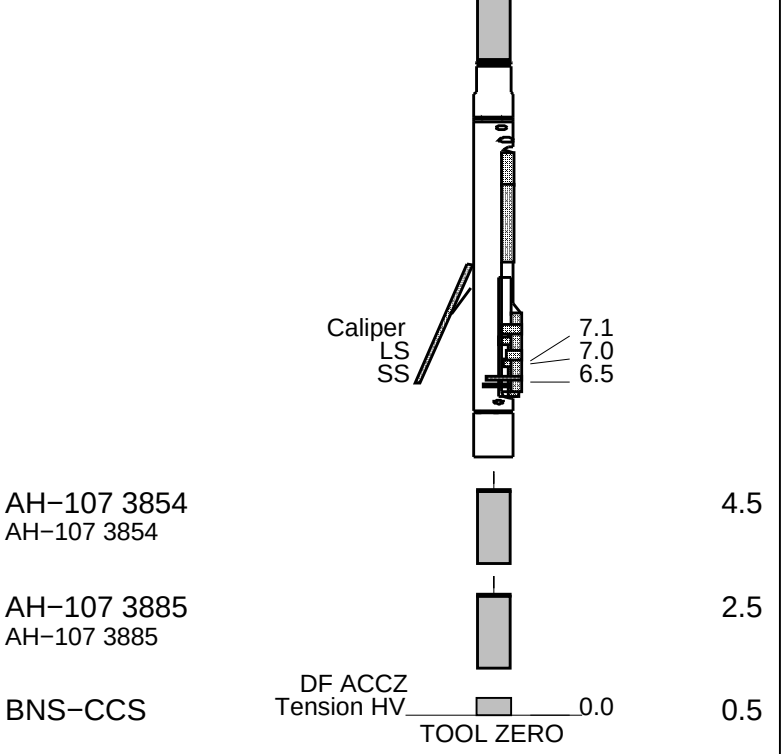
CNT−H 114 — 29.0
CND−A
NLS−KL
NSR−F
CNC−HA 114
CNH−A 4412
BOW−SPR
NPV−N



CFTC — 24.6
CNTC — 24.1

LDT−D — 21.8
GSR−J
PGD−G
NSC−E 2928
ECH−MKA 2947
DRS−C
PDH−L

RUN 2



MAXIMUM STRING DIAMETER 4.50 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Schlumberger

Cement Log

MAXIS Field Log

Company: CPC Minerals LLC **Well: CPC 17−1**

Input DLIS Files

BACKUP	**LDL_CNL_013LUP**	**FN:19**	**PRODUCER**	**19−Oct−2007 01:06**	**5646.0 FT**	**299.5 FT**

Output DLIS Files

DEFAULT	**LDL_CNL_018PUP**	**FN:24**	**PRODUCER**	**19−Oct−2007 04:10**	**5649.0 FT**	**304.0 FT**

Integrated Hole/Cement Volume Summary

Hole Volume = 3245.06 F3

Cement Volume = 2275.10 F3 (assuming 7.00 IN casing O.D.)

Computed from 5639.0 FT to 2010.0 FT using data channel(s) CALI

OP System Version: 15C0−309

MCM

LDT−D	**15C0−309**	**CNT−H**	**15C0−309**
DTA−A	**SKK−3299−EDTCB_b**	**EDTC−B**	**SKK−3299−EDTCB_b**

PIP SUMMARY

Integrated Hole Volume Minor Pip Every 10 F3

Integrated Hole Volume Major Pip Every 100 F3

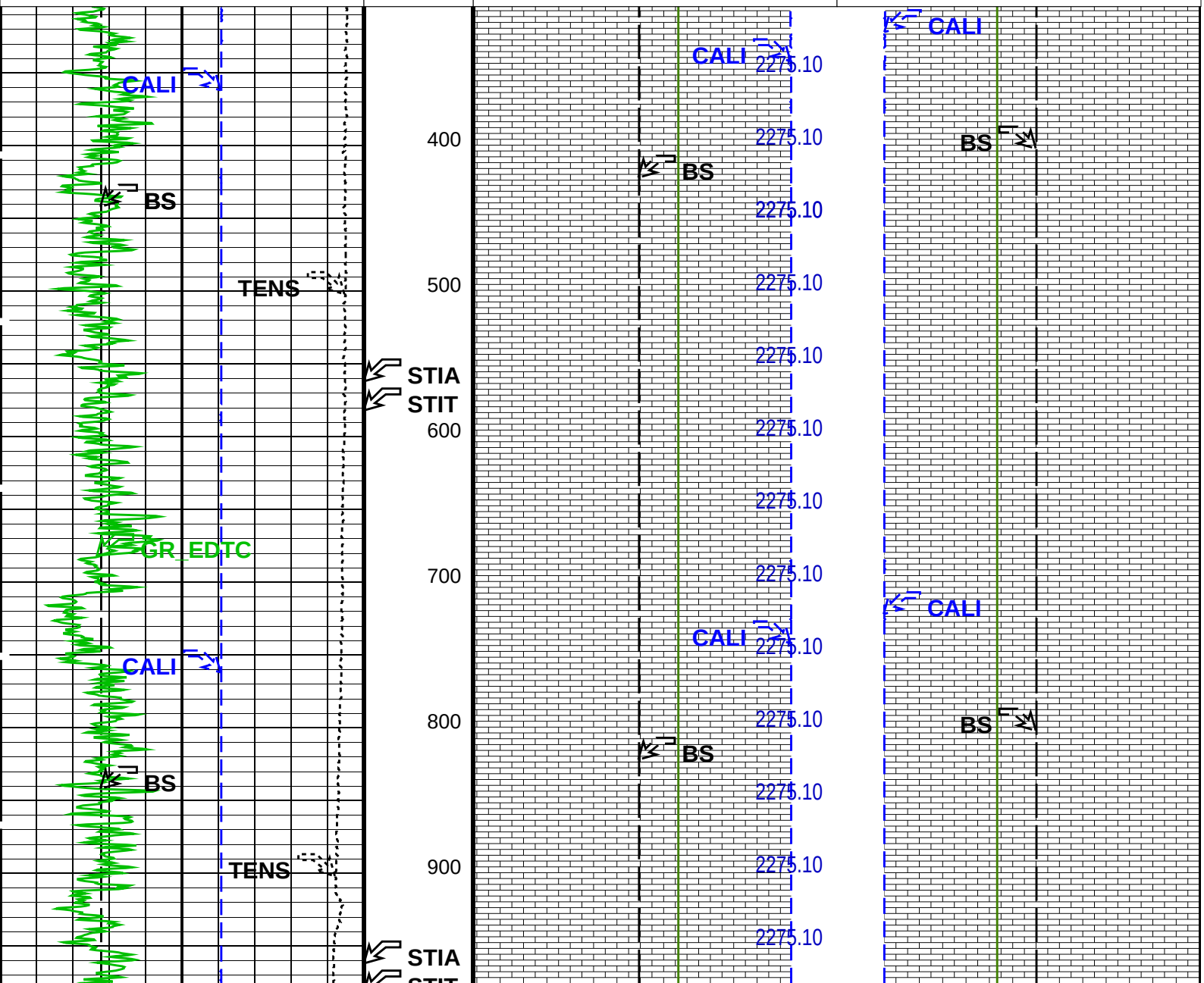
Integrated Cement Volume Minor Pip Every 10 F3

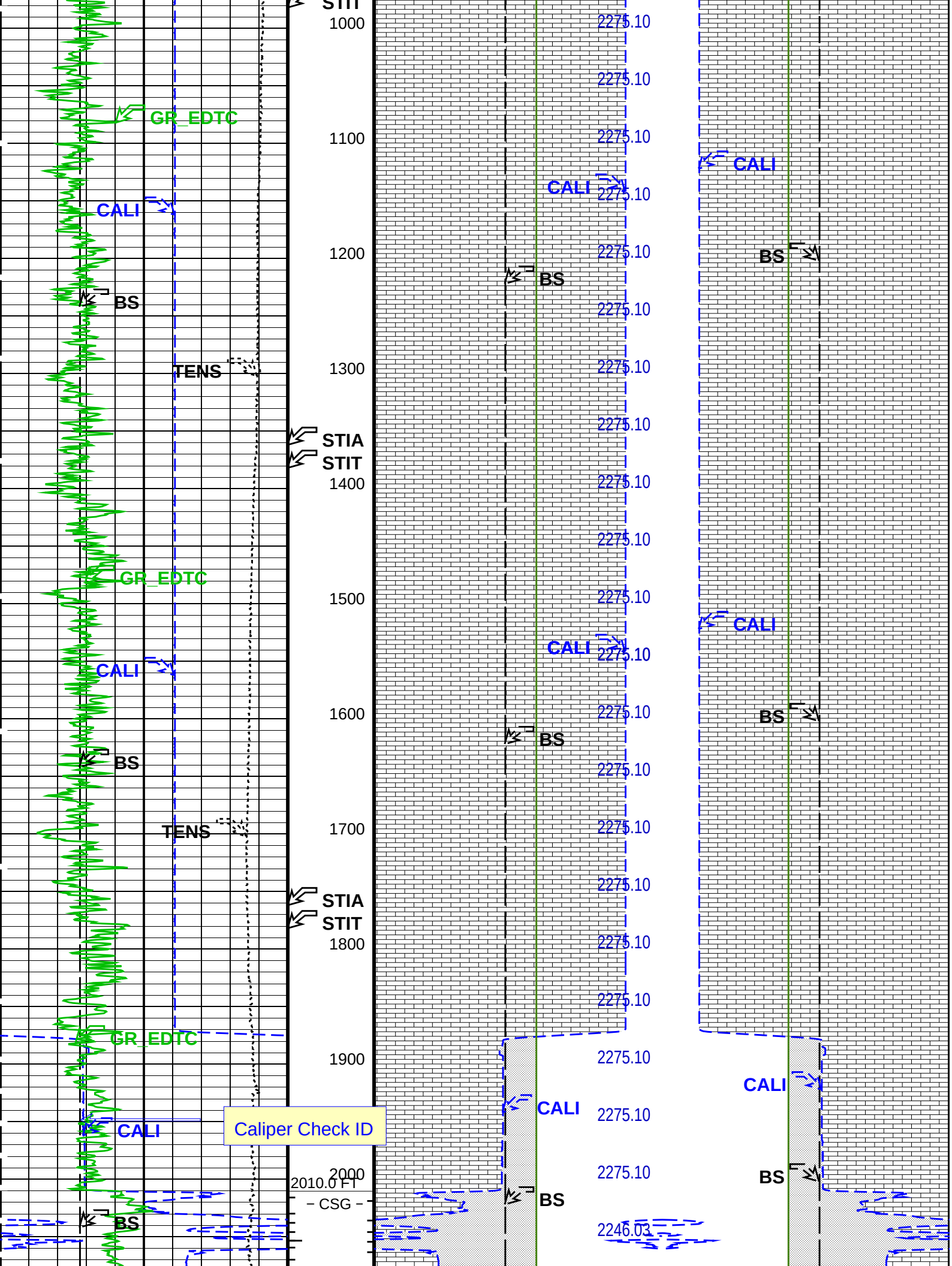
Integrated Cement Volume Major Pip Every 100 F3

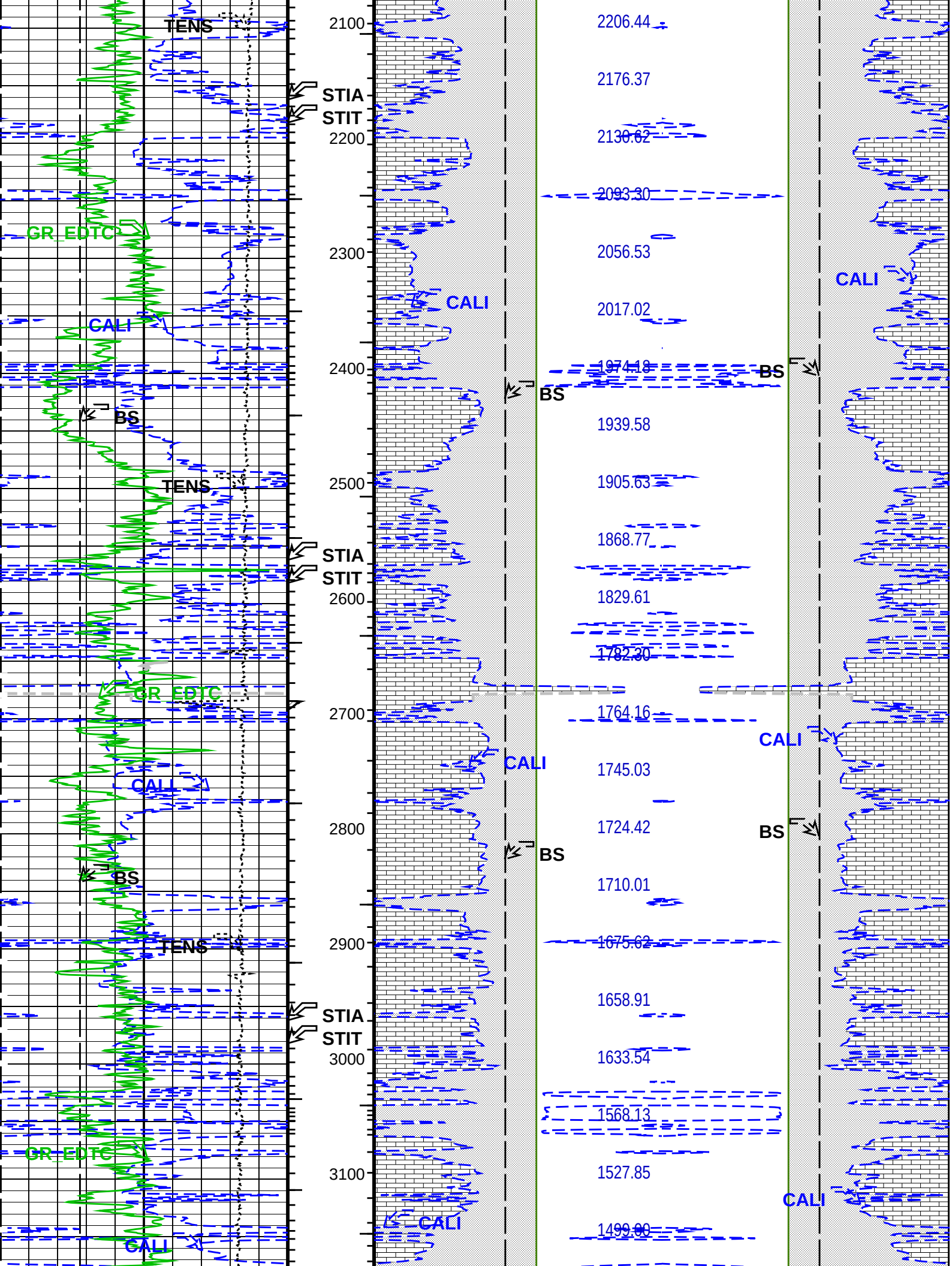
Time Mark Every 60 S

Cement Volume (ICV) (F3)

Tension (TENS) 10000 (LBF) 0		FORMATION From LHT2 to CALI_1 / CEMENT From CALI_1 to SpareCurve	FORMATION From CALI_2 to RHT3 / CEMENT From SpareCurve_1 to CALI_2
Gamma Ray (GR_EDTC) 0 (GAPI) 150	Tool/Tot. Drag From D3T to STIA	Future Casing Diameter (FCD) 16 (IN) 0	Future Casing Diameter (FCD) 0 (IN) 16
Caliper (CALI) 6 (IN) 16	Cable Drag From STIA to STIT	Caliper (CALI) 16 (IN) 0	Caliper (CALI) 0 (IN) 16
Bit Size (BS) 6 (IN) 16	Stuck Stretch (STIT) 0 (F) 50	Bit Size (BS) 16 (IN) 0	Bit Size (BS) 0 (IN) 16




STIT
1000
GR_EDTC
1100
CALI
1200
BS
TENS
1300
STIA
STIT
1400
GR_EDTC
1500
CALI
1600
BS
TENS
1700
STIA
STIT
1800
GR_EDTC
1900
CALI
Caliper Check ID
2000
2010.0 FT
– CSG –
BS
2275.10
CALI
BS
2246.03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2600
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2800
2900
3000
3100
2206.44
2176.37
2130.62
2093.30
2056.53
2017.02
1974.18
1939.58
1905.63
1868.77
1829.61
1782.30
1764.16
1745.03
1724.42
1710.01
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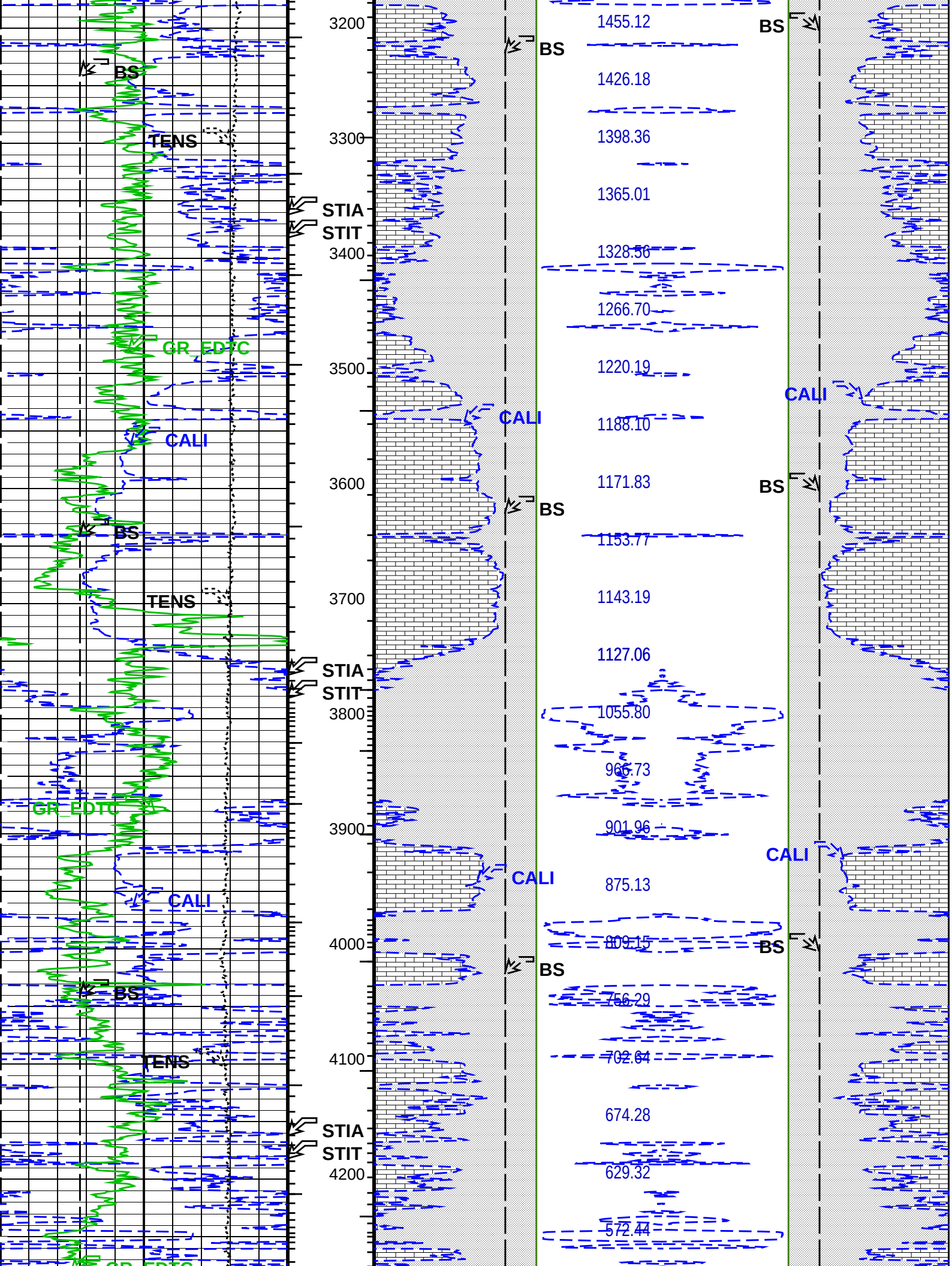
1658.91
1633.54
1568.13
1527.85
1499.00


BS
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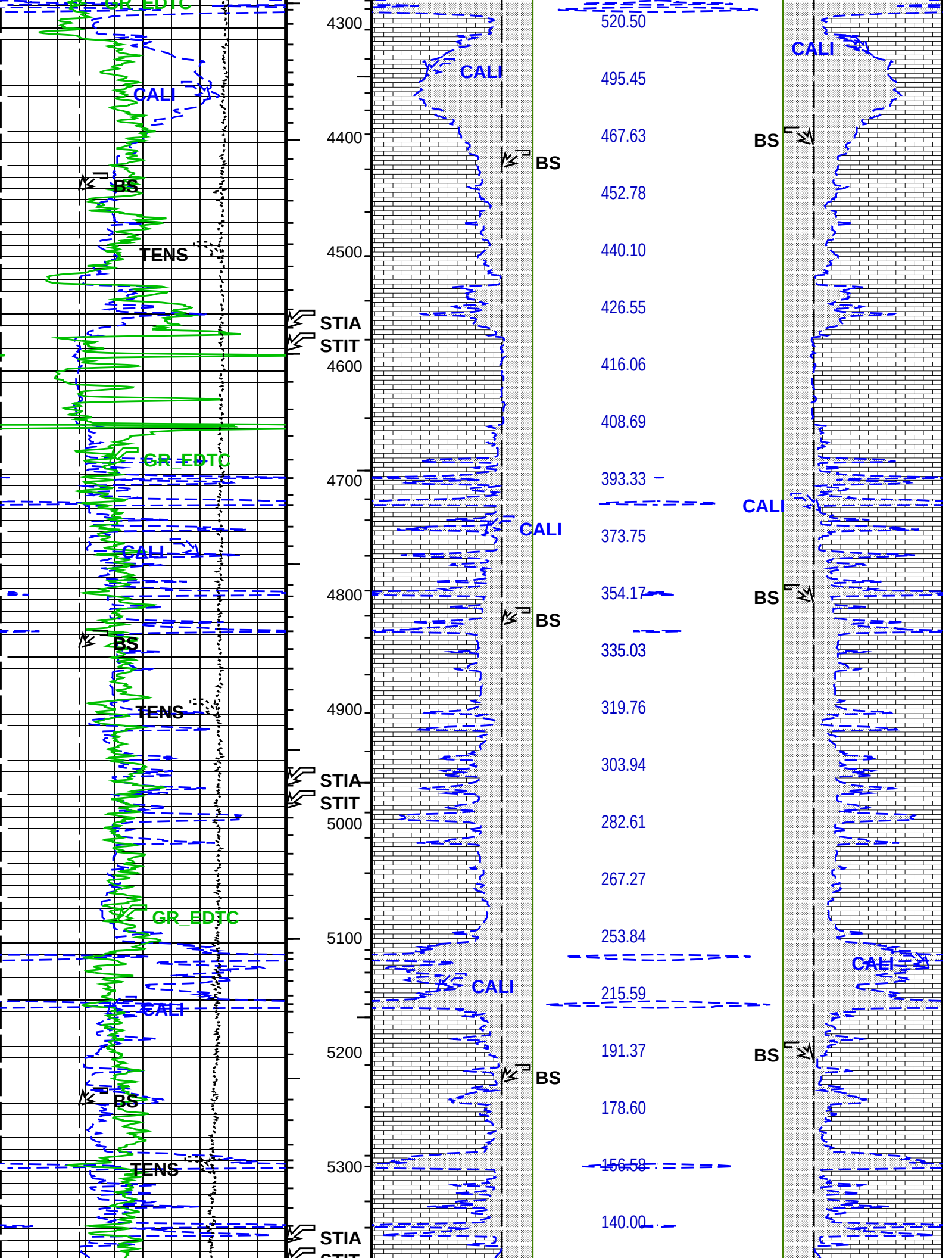
4000
4100
4200
1455.12
1426.18
1398.36
1365.01
1328.56
1266.70
1220.19
1188.10
1171.83
1153.77
1143.19
1127.06
1055.80
966.73
901.96
875.13
809.15
756.29
702.64
674.28
629.32
572.44


GR_EDTC
CALI
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4300
4400
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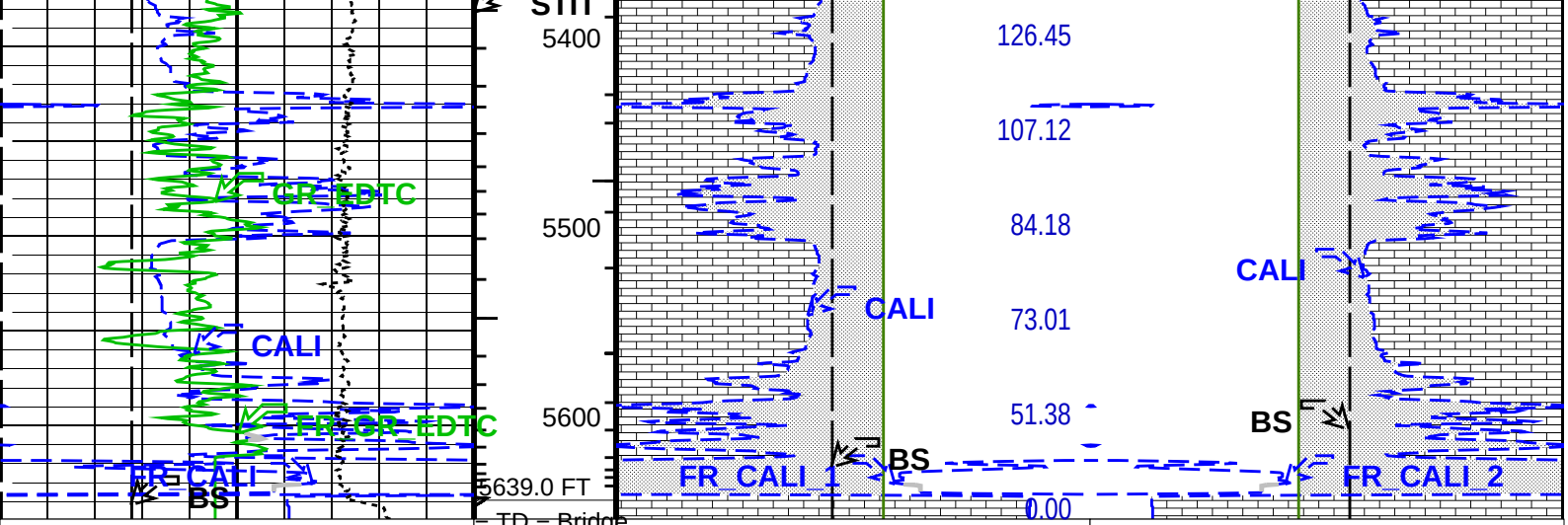
4600
4700
4800
4900
5000
5100
5200
5300
520.50
495.45
467.63
452.78
440.10
426.55
416.06
408.69
393.33
373.75
354.17
335.03
319.76
303.94
282.61
267.27
253.84
215.59
191.37
178.60
156.58
140.00



Bit Size (BS)	Stuck Stretch (STIT)	Bit Size (BS)	Bit Size (BS)
6 (IN) 16	0 (F) 50	16 (IN) 0	0 (IN) 16
Caliper (CALI)	**Cable Drag From STIA to STIT**	**Caliper (CALI)**	**Caliper (CALI)**
6 (IN) 16		16 (IN) 0	0 (IN) 16
Gamma Ray (GR_EDTC)	**Tool/Tot. Drag From D3T to STIA**	**Future Casing Diameter (FCD)**	**Future Casing Diameter (FCD)**
0 (GAPI) 150		16 (IN) 0	0 (IN) 16
Tension (TENS)		**CEMENT From CALI_1 to SpareCurve**	**CEMENT From SpareCurve_1 to CALI_2**
10000 (LBF) 0		**FORMATION From LHT2 to CALI_1**	**FORMATION From CALI_2 to RHT3**
		Cement Volume (ICV) (F3)	

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 10 F3
- Integrated Hole Volume Major Pip Every 100 F3
- Integrated Cement Volume Minor Pip Every 10 F3
- Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Format: CEMENT Vertical Scale: 1" per 100' Graphics File Created: 19-Oct-2007 04:10

OP System Version: 15C0-309

MCM

LDT-D	15C0-309	CNT-H	15C0-309
DTA-A	SKK-3299-EDTCB_b	EDTC-B	SKK-3299-EDTCB_b

Input DLIS Files

BACKUP	LDL_CNL_013LUP	FN:19	PRODUCER	19-Oct-2007 01:06	5646.0 FT	299.5 FT

Output DLIS Files

DEFAULT	LDL_CNL_018PUP	FN:24	PRODUCER	19-Oct-2007 04:10

Schlumberger

Calibrations

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Litho Density − D Wellsite Calibration − Background Measurement							
Master: 16−Oct−2007 20:41 Before: 17−Oct−2007 18:08							
LL Background	20.00	15.93	15.75	N/A	N/A	1.000	CPS
LU Background	76.00	60.95	61.27	N/A	N/A	1.000	CPS
LS Background	57.00	46.41	46.38	N/A	N/A	1.000	CPS
LITH Background	5.500	4.574	4.468	N/A	N/A	0.3000	CPS
SS1 Background	16.00	13.49	13.59	N/A	N/A	0.5000	CPS
SS2 Background	11.00	9.141	9.181	N/A	N/A	0.5000	CPS
Litho Density − D Wellsite Calibration − Tool Quality Control Information HV							
Master: 16−Oct−2007 20:41 Before: 17−Oct−2007 18:08							
LSHV Background	1500	1364	1361	N/A	N/A	N/A	V
SSHV Background	1500	1125	1126	N/A	N/A	N/A	V
Litho Density − D Wellsite Calibration − Detectors Resolution From BKG Measurments							
Master: 16−Oct−2007 20:41 Before: 17−Oct−2007 18:08							
LS Resolution Background	8.000	9.639	9.756	N/A	N/A	N/A	
SS Resolution Background	8.000	8.865	8.894	N/A	N/A	N/A	
Litho Density − D Wellsite Calibration − Caliper Calibration							
Before: 17−Oct−2007 17:54							
Caliper Small Ring	8.000	N/A	8.309	N/A	N/A	N/A	IN
Caliper Large Ring	12.00	N/A	12.50	N/A	N/A	N/A	IN
Litho Density − D Master Calibration − Aluminum Measurement							
Master: 16−Oct−2007 21:13							
LL Aluminum	90.00	96.64	−−	−−	−−	−−	CPS
LU Aluminum	135.0	148.5	−−	−−	−−	−−	CPS
LS Aluminum	155.0	170.9	−−	−−	−−	−−	CPS
LITH Aluminum	50.00	60.84	−−	−−	−−	−−	CPS
SS1 Aluminum	175.0	201.5	−−	−−	−−	−−	CPS
SS2 Aluminum	260.0	278.9	−−	−−	−−	−−	CPS
Litho Density − D Master Calibration − Litholog Measurement							
Master: 16−Oct−2007 21:08							
LL Iron	80.00	90.70	−−	−−	−−	−−	CPS
LU Iron	120.0	138.8	−−	−−	−−	−−	CPS
LS Iron	135.0	160.1	−−	−−	−−	−−	CPS
LITH Iron	30.00	42.01	−−	−−	−−	−−	CPS
SS1 Iron	155.0	190.2	−−	−−	−−	−−	CPS
SS2 Iron	245.0	265.2	−−	−−	−−	−−	CPS
Litho Density − D Master Calibration − Spectrum Quality Ratios							
Master: 16−Oct−2007 21:13							
QRLS Calculated	0.6500	0.6507	−−	−−	−−	−−	
QRSS Calculated	0.7200	0.7226	−−	−−	−−	−−	
QRLI Calculated	0.3900	0.3560	−−	−−	−−	−−	
QLIR Calculated	1.390	1.357	−−	−−	−−	−−	
QR Calculated	1.000	1.007	−−	−−	−−	−−	
Compensated Neutron − H Wellsite Calibration − Zero Measurement							
Master: 6−Oct−2007 1:27 Before: 17−Oct−2007 18:07							
CNTC Background	34.68	34.68	35.82	N/A	N/A	5.201	CPS
CFTC Background	30.67	30.67	30.75	N/A	N/A	4.601	CPS
Compensated Neutron − H Master Calibration − Tank Measurement							
Master: 6−Oct−2007 1:44							
Thermal Near Corr. (Tank)	6031	5962	−−	−−	−−	−−	CPS
Thermal Far Corr. (Tank)	2793	2438	−−	−−	−−	−−	CPS
CNTC/CFTC (Tank)	2.159	2.445	−−	−−	−−	−−	
Enhanced DTS Cartridge Wellsite Calibration − EDTC Accelerometer Calibration							
Before: 19−Oct−2007 0:54							
EDTC Z−Axis Acceleration	32.19	N/A	32.52	N/A	N/A	N/A	F/S2

Enhanced DTS Cartridge Wellsite Calibration − Detector Calibration
Before: 17−Oct−2007 17:52

Gamma Ray (Jig − Bkg)	157.9	N/A	157.9	N/A	N/A	14.35	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

The CNT Master Calibration Was Done With The Following Parameters :

NCT−B Water Temperature 62.2 DEGF.
Thermal Housing Size 3.370 IN.

Litho Density − D / Equipment Identification

Primary Equipment:		
Nuclear Services Cartridge	NSC − E	2928
Powered Gamma Detector	PGD − G	
Gamma Source Radioactive	GSR − J	
Auxiliary Equipment:		
Density Resistivity Sonde	DRS − C	
Electronics Cartridge Housing	ECH − MKA	2947
Powered Detector Housing	PDH − L	

Litho Density − D Wellsite Calibration
Background Measurement

Phase	LL Background CPS	Value
Master		15.93
Before		15.75
	15.00 (Minimum) 20.00 (Nominal) 25.00 (Maximum)	

Phase	LU Background CPS	Value
Master		60.95
Before		61.27
	58.00 (Minimum) 76.00 (Nominal) 94.00 (Maximum)	

Phase	LS Background CPS	Value
Master		46.41
Before		46.38
	43.00 (Minimum) 57.00 (Nominal) 72.00 (Maximum)	

Phase	LITH Background CPS	Value
Master		4.574
Before		4.468
	4.000 (Minimum) 5.500 (Nominal) 7.000 (Maximum)	

Phase	SS1 Background CPS	Value
Master		13.49
Before		13.59
	12.00 (Minimum) 16.00 (Nominal) 19.50 (Maximum)	

Phase	SS2 Background CPS	Value
Master		9.141
Before		9.181
	8.000 (Minimum) 11.00 (Nominal) 13.50 (Maximum)	

Master: 16−Oct−2007 20:41 Before: 17−Oct−2007 18:08

Litho Density − D Wellsite Calibration
Detectors Resolution From BKG Measurments

Phase	LS Resolution Background	Value
Master		9.639
Before		9.756
	5.000 (Minimum) 8.000 (Nominal) 11.50 (Maximum)	

Phase	SS Resolution Background	Value
Master		8.865
Before		8.894
	5.000 (Minimum) 8.000 (Nominal) 11.50 (Maximum)	

Master: 16−Oct−2007 20:41 Before: 17−Oct−2007 18:08

Litho Density − D Master Calibration
Aluminum Measurement

Phase	LL Aluminum CPS	Value
Master		96.64
	70.00 (Minimum) 90.00 (Nominal) 125.0 (Maximum)	

Phase	LU Aluminum CPS	Value
Master		148.5
	100.0 (Minimum) 135.0 (Nominal) 194.0 (Maximum)	

Phase	LS Aluminum CPS	Value
Master		170.9
	120.0 (Minimum) 155.0 (Nominal) 217.0 (Maximum)	

Phase	LITH Aluminum CPS	Value
Master		60.84
	35.00 (Minimum) 50.00 (Nominal) 74.00 (Maximum)	

Phase	SS1 Aluminum CPS	Value
Master		201.5
	125.0 (Minimum) 175.0 (Nominal) 256.0 (Maximum)	

Phase	SS2 Aluminum CPS	Value
Master		278.9
	210.0 (Minimum) 260.0 (Nominal) 353.0 (Maximum)	

Master: 16−Oct−2007 21:13

Litho Density − D Master Calibration
Litholog Measurement

Phase	LL Iron CPS	Value
Master		90.70

Phase	LU Iron CPS	Value
Master		138.8

Phase	LS Iron CPS	Value
Master		160.1

60.00 (Minimum)	80.00 (Nominal)	114.0 (Maximum)		85.00 (Minimum)	120.0 (Nominal)	177.0 (Maximum)		100.0 (Minimum)	135.0 (Nominal)	193.0 (Maximum)	
Phase	LITH Iron CPS		Value	Phase	SS1 Iron CPS		Value	Phase	SS2 Iron CPS		Value
Master			42.01	Master			190.2	Master			265.2
15.00 (Minimum)	30.00 (Nominal)	51.00 (Maximum)		105.0 (Minimum)	155.0 (Nominal)	234.0 (Maximum)		190.0 (Minimum)	245.0 (Nominal)	325.0 (Maximum)	

Master: 16−Oct−2007 21:08

Litho Density − D Master Calibration

Spectrum Quality Ratios

Phase	QRLS Calculated		Value	Phase	QRSS Calculated		Value	Phase	QRLI Calculated		Value
Master			0.6507	Master			0.7226	Master			0.3560
0.6000 (Minimum)	0.6500 (Nominal)	0.7000 (Maximum)		0.6200 (Minimum)	0.7200 (Nominal)	0.8200 (Maximum)		0.2900 (Minimum)	0.3900 (Nominal)	0.4500 (Maximum)	
Phase	QLIR Calculated		Value	Phase	QR Calculated		Value				
Master			1.357	Master			1.007				
1.290 (Minimum)	1.390 (Nominal)	1.450 (Maximum)		0.9800 (Minimum)	1.000 (Nominal)	1.020 (Maximum)					

Master: 16−Oct−2007 21:13

Compensated Neutron − H / Equipment Identification

Primary Equipment:			
Compensated Neutron Cartridge	CNC − HA	114	114
Neutron Logging Source	NLS − KL		
Neutron Source Radioactive	NSR − F		
Neutron Detector with Alpha Source	CND − A		
Compensated Neutron Box	CNB − AB		
Auxiliary Equipment:			
Compensated Neutron Housing	CNH − A	4412	4412
Neutron Calibration Tank	NCT − B		

Compensated Neutron − H Wellsite Calibration

Zero Measurement

Phase	CNTC Background CPS		Value	Phase	CFTC Background CPS		Value
Master			34.68	Master			30.67
Before			35.82	Before			30.75
5.000 (Minimum)	34.68 (Nominal)	40.00 (Maximum)		5.000 (Minimum)	30.67 (Nominal)	40.00 (Maximum)	

Master: 6−Oct−2007 1:27 Before: 17−Oct−2007 18:07

Compensated Neutron − H Master Calibration

Tank Measurement

Phase	Thermal Near Corr. (Tank) CPS		Value	Phase	Thermal Far Corr. (Tank) CPS		Value	Phase	CNTC/CFTC (Tank)		Value
Master			5962	Master			2438	Master			2.445
5000 (Minimum)	6031 (Nominal)	7200 (Maximum)		2075 (Minimum)	2793 (Nominal)	3125 (Maximum)		2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)	

Master: 6−Oct−2007 1:44

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:			
EDTC Gamma Ray Detector	EDTG − A/B		
Enhanced DTS Cartridge	EDTC − B	8188	
Auxiliary Equipment:			
EDTC Housing	EDTH − B	8187	

Enhanced DTS Cartridge Wellsite Calibration

EDTC Accelerometer Calibration

Phase	EDTC Z−Axis Acceleration F/S2		Value
Before			32.52
31.53 (Minimum)	32.19 (Nominal)	32.84 (Maximum)	

Before: 19−Oct−2007 0:54

Enhanced DTS Cartridge Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig − Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		47.32	Before		157.9	Before		165.0
0 (Minimum)	30.00 (Nominal) 120.0 (Maximum)		143.5 (Minimum)	157.9 (Nominal) 172.2 (Maximum)		150.0 (Minimum)	165.0 (Nominal) 180.0 (Maximum)	

Before: 17−Oct−2007 17:52

Company: **CPC Minerals LLC**

Schlumberger

Well: **CPC 17−1**
Field: **Wildcat**
County: **Bonneville**
State: **Idaho**

TRIPLE COMBO
Cement Volume Evaluation