



Weatherford

8-Arm Imager Log

1:200

Main Pass

COMPANY IODP Expedition 347 Baltic Sea
 WELL BSB-7/Hole 65C
 FIELD Sweden
 PROVINCE/COUNTY Sweden
 COUNTRY/STATE Sweden
 LOCATION

Latitude 55 28.084 N Other Services
 Longitude 15 28.624 E 8-Arm Caliper
 Micro Imager Tool

Permanent Datum M.S.L., Elevation 84.32 metres
 Log Measured From GL
 Drilling Measured From GL

Elevations: metres
 KB 87.32
 DF 87.32
 GL 0.00

Date	26-OCT-2013
Run Number	2
Service Order	50004126
Depth Driller	44.90 metres
Depth Logger	41.50 metres
First Reading	40.00 metres
Last Reading	18.00 metres
Casing Driller	13.70 metres
Casing Logger	13.70 metres
Bit Size	8.500 inches
Hole Fluid Type	Sea Water
Density / Viscosity	
PH / Fluid Loss	
Sample Source	
Rm @ Measured Temp	
Rmf @ Measured Temp	
Rmc @ Measured Temp	
Source Rmf / Rmc	
Rm @ BHT	
Time Since Circulation	
Max Recorded Temp	
Equipment / Base	16104
Recorded By	C.Sedlatschek
Witnessed By	A.Fehr

REMARKS

1. Well Manager Version 13.07.1135 used.
2. Spectral GR and Sonic Log correlated to drill bit depth at 13.70m.
3. Depth Offset = +0.5m.
4. No Depth Offset applied to Imager Log.
5. Imager Log recorded in High Resolution.

BOREHOLE RECORD

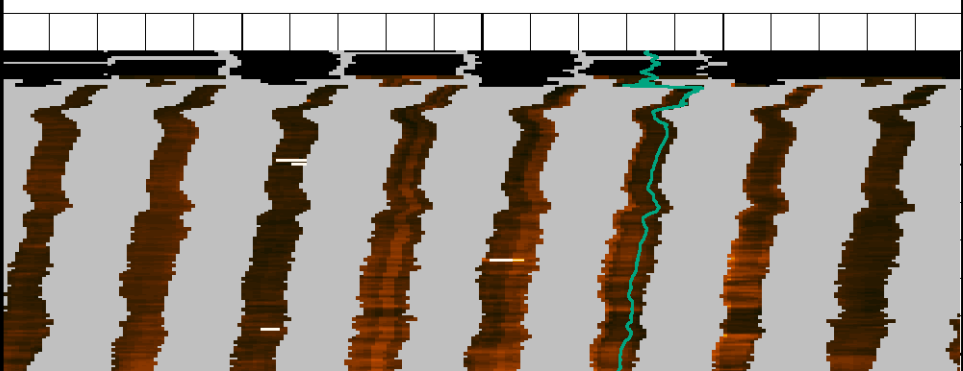
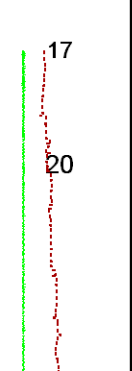
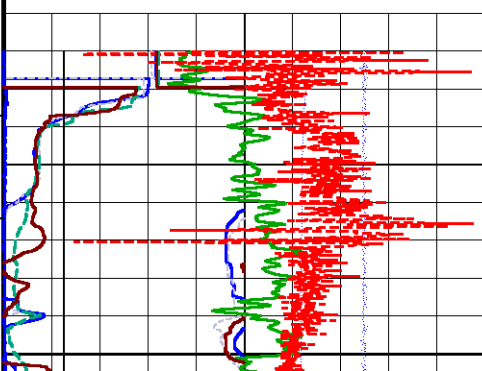
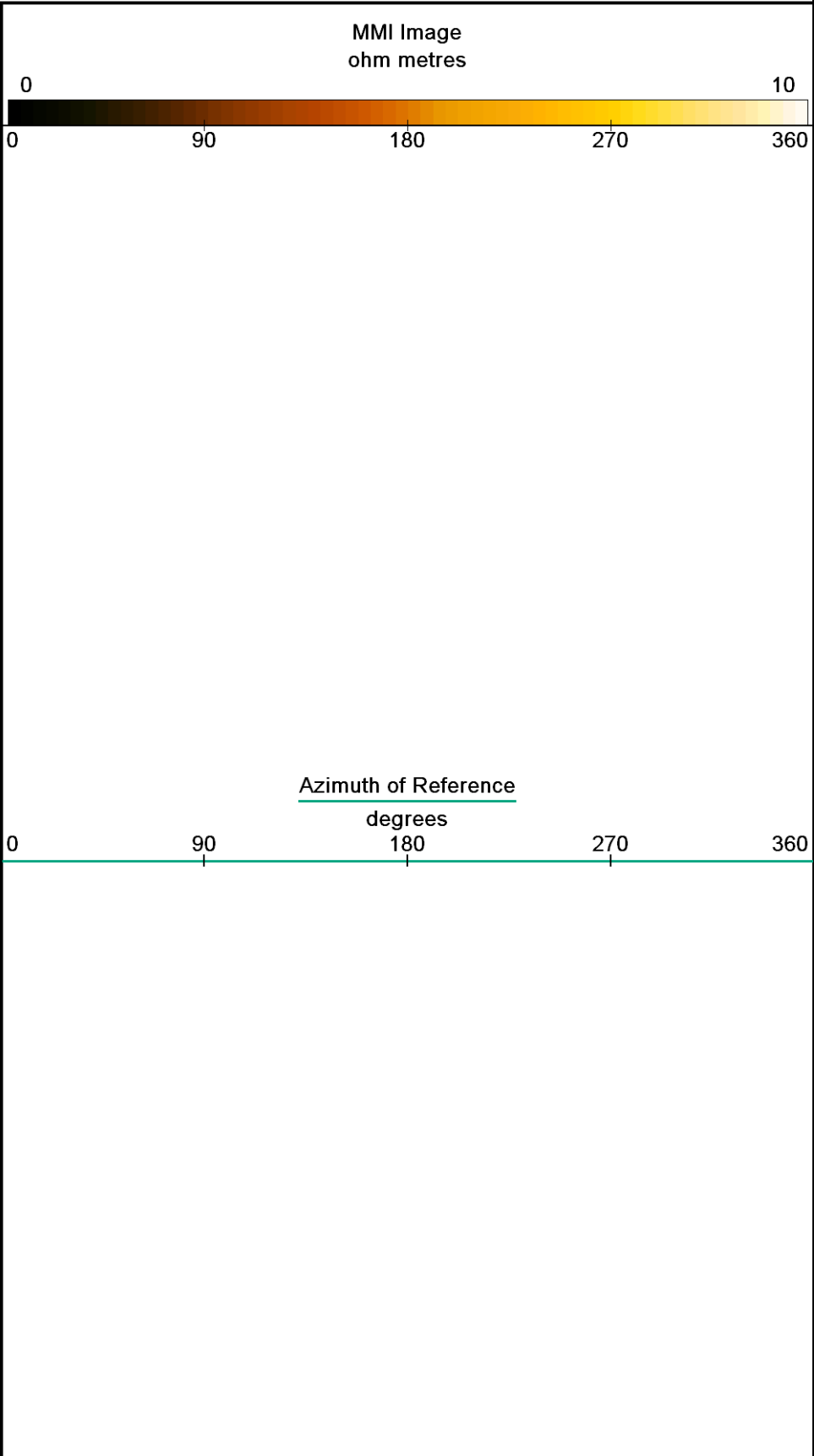
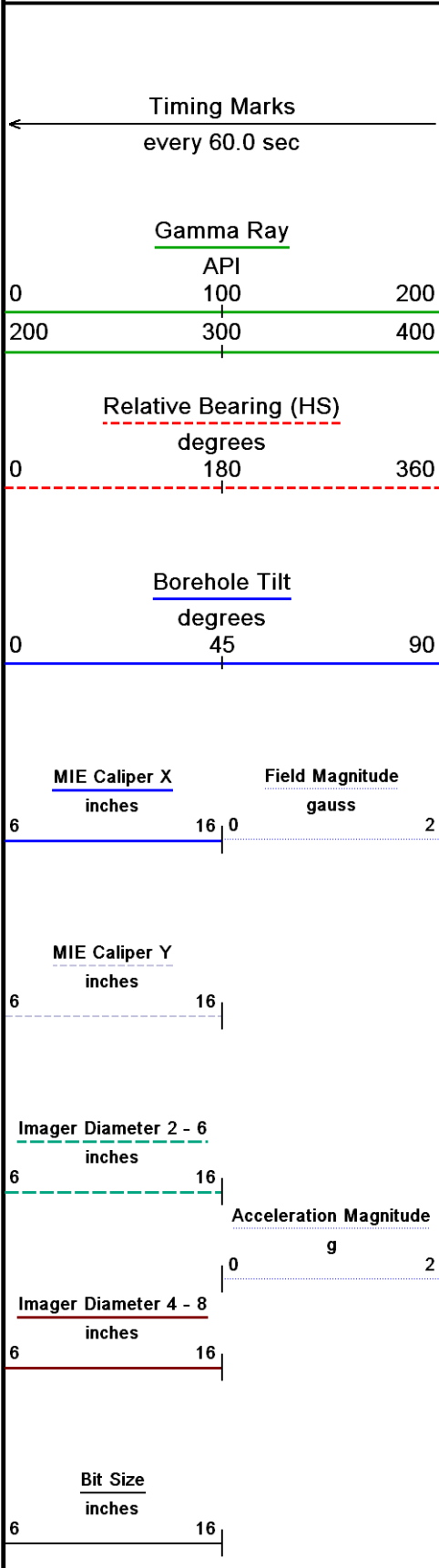
Last Edited: 25-OCT-2013 23:53

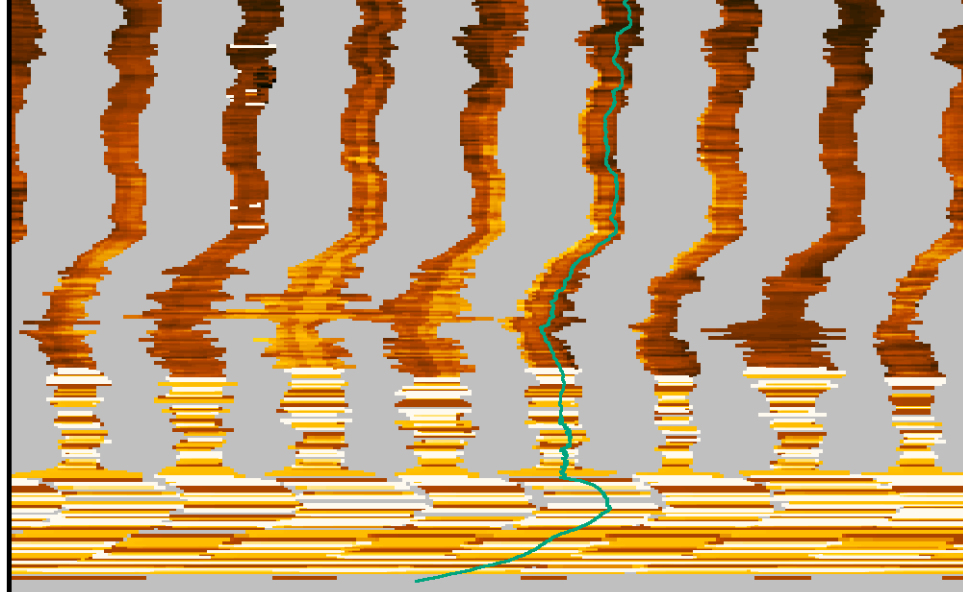
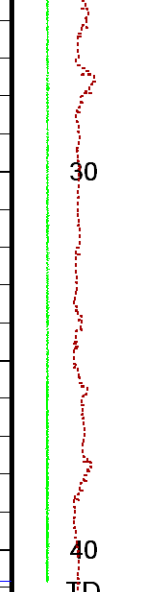
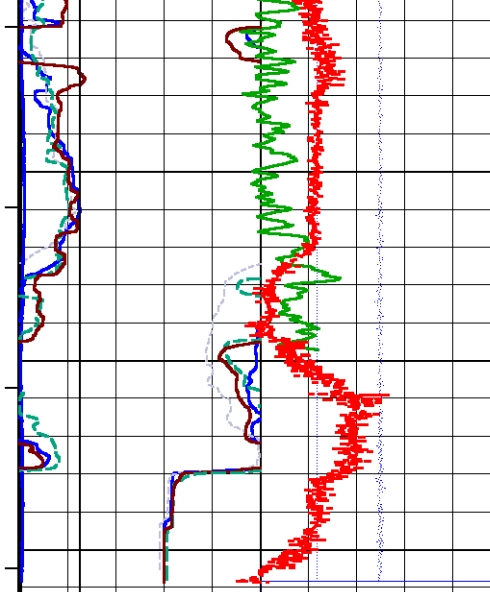
Bit Size inches	Depth From metres	Depth To metres
8.500	0.00	44.90

CASING RECORD

Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
	5.500	0.00	13.70	23.00

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions in our price schedule.





← Timing Marks
every 60.0 sec

Gamma Ray
API
0 100 200
200 300 400

Relative Bearing (HS)
degrees
0 180 360

Borehole Tilt
degrees
0 45 90

MIE Caliper X inches
6 16

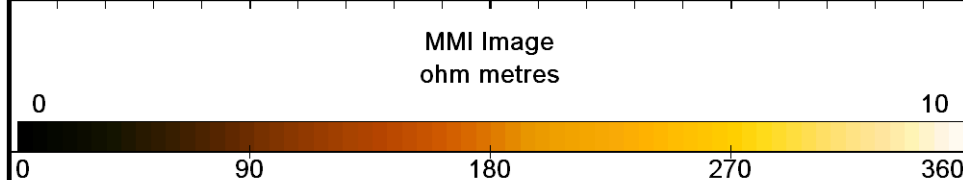
Field Magnitude gauss
0 2

MIE Caliper Y inches
6 16

Imager Diameter 2 - 6 inches
6 16

Acceleration Magnitude
g

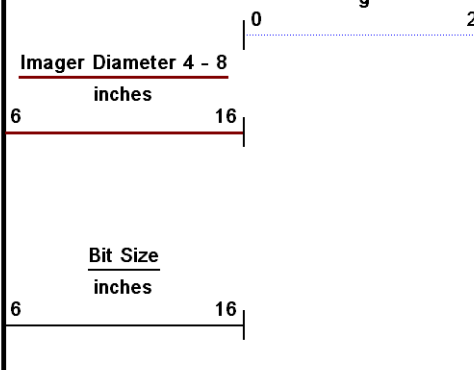
Depth in Metres



SMTU
0 1000

IMZA
-2 2

Azimuth of Reference
degrees
0 90 180 270 360



Replay
Scale
1:200

Depth Based Data - Maximum Sampling Increment 2.5cm Plotted on 26-OCT-2013 00:15
 Filename: C:\Well Manager\mim238_kalman_speed_correction_BSB_7_Micro_2.dta Recorded on 25-OCT-2013 22:10
 System Versions: Logged with 13.07.1135 Processed with 13.07.1135 Plotted with 13.07.1135



BEFORE SURVEY CALIBRATION

C:\Well Manager\mim238_kalman_speed_correction_BSB_7_Micro_2.dta

General Constants All 000 Last Edited on 01-OCT-2013,00:16

General Parameters
 Mud Resistivity 3.210 ohm-metres
 Mud Resistivity Temperature 20.000 degrees C
 Water Level 0.000 metres
 Borehole Fluid Processing Wet Hole

Hole/Annular Volume and Differential Caliper Parameters
 HVOL Method 8 Arm CMI
 HVOL Caliper 1 N/A
 HVOL Caliper 2 N/A
 Annular Volume Diameter 7.000 inches
 Caliper for Differential Caliper None

Rwa Parameters
 Porosity used N/A
 Resistivity used N/A
 RWA Constant A N/A
 RWA Constant M N/A
 SW/APOR Tool Source 0.000

Gamma Calibration MCG-D.J 387 Field Calibration on 28-AUG-2013 14:21

	Measured	Calibrated (API)
Background	176	122
Calibrator (Gross)	1239	857
Calibrator (Net)	1063	735

Gamma Constants MCG-D.J 387 Last Edited on 12-SEP-2013,01:55

Gamma Calibrator Number 097
Mud Density 1.00 gm/cc
Caliper Source for Processing Bit Size
Tool Position Eccentred
Concentration of KCl kppm
K Mud Type Chloride
K Mud Concentration 0.00 %

Caliper Calibration MIE-A.J 238 Base Calibration on 03-OCT-2013 04:34
Field Calibration on 03-OCT-2013 04:36

Reading No	Pads 1-5 Meas.	Pads 3-7 Meas.	Calibrator Size (in)
1	24622	25826	4.00
2	34022	35207	5.97
3	43043	44501	7.97
4	51454	52355	9.86
5	0	0	0.00

Reading No	Pad 2 Meas.	Pad 4 Meas.	Pad 6 Meas.	Pad 8 Meas.	Calibrator Size (in)
1	23421	23841	22974	23149	4.00
2	31275	31649	30872	31071	5.97
3	39765	39349	38804	40063	7.97
4	47752	46020	47292	50451	9.86
5	0	0	0	0	0.00

Field Calibration					
Measured Pads 1-5 Caliper(in)		Measured Pads 3-7 Caliper(in)		Actual Caliper(in)	
8.09		8.01		7.97	
Measured Pad 2 Caliper(in)		Measured Pad 4 Caliper(in)		Measured Pad 8 Caliper(in)	
3.96		4.01		3.94	
					Actual Caliper(in)
					7.97

Caliper Constants MIE-A.J 238 Last Edited on 04-SEP-2013,15:29

Caliper Difference for BRKT 0.120 inches

Accelerometer Parameters MIE-A.J 238

Date Of Last Accelerometer Calibration		8-DEC-2011,09:59			
Slope		X Accelerometer	Y Accelerometer	Z Accelerometer	
		-1.112831	-1.099829	-1.106838	
Offset		0.006602	-0.001700	0.007965	

Accelerometer Constants MIE-A.J 238 Last Edited on 08-SEP-2013,10:59

Accelerometer Calibrator Number		000			
Accelerometer Temperature Characterisation					
X Accelerometer					
Serial Number		1043			
Calibration Date		25-Apr-2011			
Bias(g)		B0	B1	B2	B3
		0.00000e+000	1.87896e-007	-2.20144e-008	2.14922e-010
Scale Factor(mA/g)		SF0	SF1	SF2	SF3
		3.00000e+000	2.71246e-004	1.73794e-007	1.63418e-009
Y Accelerometer					
Serial Number		920			
Calibration Date		12-Nov-2010			
Bias(g)		B0	B1	B2	B3
		0.00000e+000	8.60269e-006	-3.24354e-009	7.63473e-011
Scale Factor(mA/g)		SF0	SF1	SF2	SF3
		3.00000e+000	2.62626e-004	3.93255e-007	6.99125e-010
Z Accelerometer					
Serial Number		1003			
Calibration Date		10-Feb-2011			
Bias(g)		B0	B1	B2	B3
		0.00000e+000	1.42425e-005	-1.64266e-008	2.06911e-010
Scale Factor(mA/g)		SF0	SF1	SF2	SF3
		3.00000e+000	2.69048e-004	2.49542e-007	7.48043e-010

Magnetometer Parameters MIE-A.J 238

Date Of Last Magnetometer Calibration		17-OCT-2012,12:45			
Slope		X Magnetometer	Y Magnetometer	Z Magnetometer	
		-1.000000	-1.001595	-0.994746	
Offset		0.015422	-0.015061	0.005819	

Magnetometer Constants MIE-A.J 238 Last Edited on

Magnetometer Calibrator Number 000

Navigation Constants MIE-A.J 238 Last Edited on 25-OCT-2013,23:07

Magnetic Declination 3.50 degrees East

Imager Pad Check MIE-A.J 238 Field Check on

Pad 1 Pad 2 Pad 3 Pad 4 Pad 5 Pad 6 Pad 7 Pad 8 Pad 9 Pad 10

Pad 1	Pad Not Tested	Pad 5	Pad Not Tested
Pad 2	Pad Not Tested	Pad 6	Pad Not Tested
Pad 3	Pad Not Tested	Pad 7	Pad Not Tested
Pad 4	Pad Not Tested	Pad 8	Pad Not Tested

Compact Micro Imager Constants MIE-A.J 238

Last Edited on 20-OCT-2013,03:11

Sonde Configuration	Imager Mode
Arm-Pad Kit	Slim Pads with KIE-CA (12.25 in)
Arm-Pad Kit Serial Number	
Centre Pad 1 Rotational Offset	0.00 degrees
Image/Borehole Ovality Reference	Azimuth of Pad 1
Non Active Buttons	Omit
Search Angle	0.00 degrees
Correlation Interval	1.00 metres
Correlation Step	0.50 metres
Current Offset	0.0000 mAmp
Squasher Start	0.0500 mAmp
Image Processing	Enabled

DOWNHOLE EQUIPMENT

C:\Well Manager\mim238_kalman_speed_correction_BSB_7_Micro_2.dta

CBH-C, Cablehead, 11 pin
 CBH-CA 171 LG: 0.73 m WT: 24.3 lb OD: 57 mm

11C-11B MTA-K.A Compact Tool Adaptor
 MTA-K.A 130 LG: 0.47 m WT: 13.2 lb OD: 57 mm

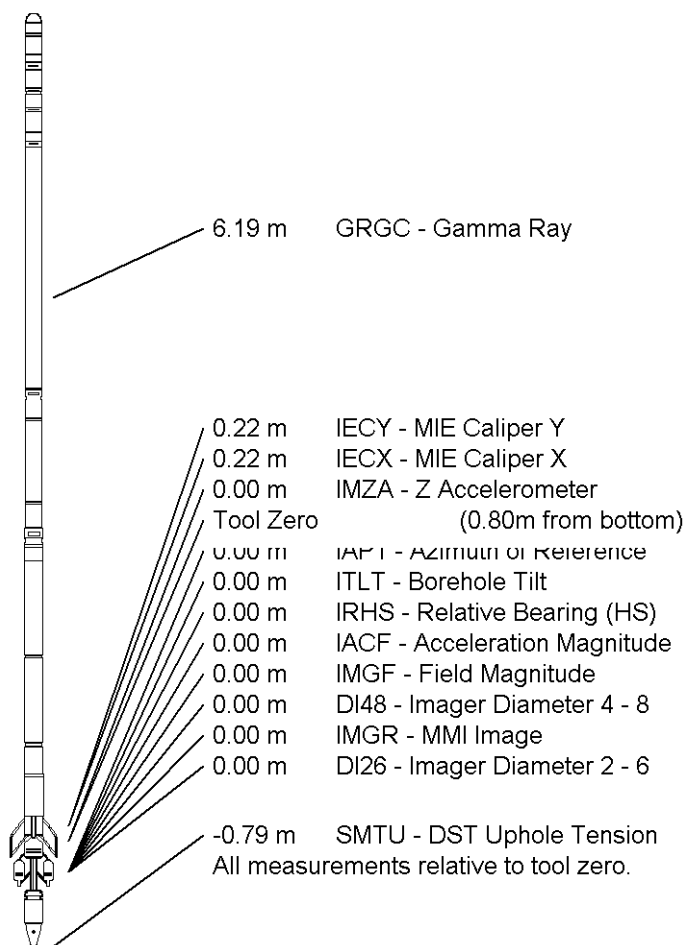
Compact Comms Gamma
 MCG-D.J 387 LG: 2.65 m WT: 63.9 lb OD: 57 mm

Compact MMI Memory Section
 MIM-A.J 238 LG: 1.42 m WT: 26.5 lb OD: 57 mm

Compact MMI Electrode Section
 MIE-A.J 238 LG: 4.25 m WT: 99.2 lb OD: 61 mm

Compact Hole Finder
 HFS 1 LG: 0.24 m WT: 2.2 lb OD: 57 mm

Total Length: 9.75 m Weight: 229.3 lb



COMPANY	IODP Expedition 347 Baltic Sea		
WELL	BSB-7/Hole 65C		
FIELD	Sweden		
PROVINCE/COUNTY	Sweden		
COUNTRY/STATE	Sweden		

Elevation Kelly Bushing	87.32	metres	First Reading	40.00	metres
Elevation Drill Floor	87.32	metres	Depth Driller	44.90	metres

Elevation Ground Level

0.00 metres

Depth Logger

41.50 metres



8-Arm Imager Log

1:200

Main Pass

Weatherford[®]