

Description of seven vibrocores from the Lille Fisker Banke area, Danish North Sea

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Description of seven vibrocores from the Lille Fisker Banke area, Danish North Sea

Geological description of vibrocores

Location

Seven vibrocores, Table 1, from the Lille Fisker Banke area are described.

They were cored under subcontract by Alluvial Mining as part of a shallow geochemical survey carried out by Seateam (1996) for Dansk operatørselskab i-s (DANOP) (1996) in the Danish license 4/95 area. In this survey a total of 119 vibrocores were taken, and the industrial report gives a short description of the sediments in the cores. These abbreviated descriptions are stored in the GEUS "JUPITER" database (Gravesen 2001).

Most of the cores were destructed during the industrial analysis. The seven cores presented in this report were left-over and presented to GEUS, then DGU, by DANOP.

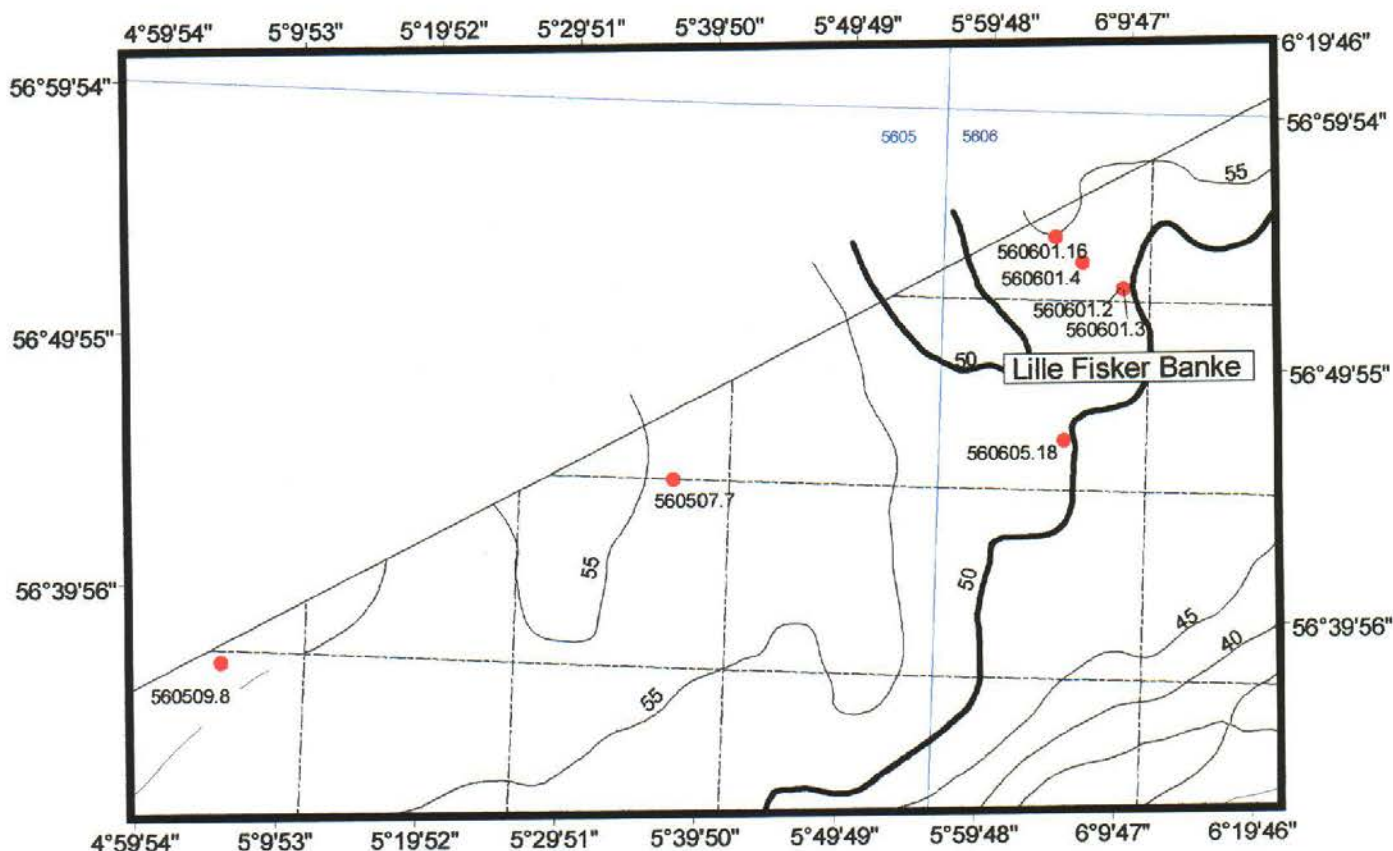
DGU Well File no.	GEUS Samba id.	Seateam id. No.	Latitude	Longitude	Water depth
560507.7	havb 131-31-584006	VC 243	56°45'15" N	05°41'13" E	55.1 m
560509.8	havb 131-31-590001	VC 6	56°37'53" N	05°09'18" E	62.0 m
560601.2	havb 131-31-584002	VC 224	56°53'20" N	06°13'30" E	53.9 m
560601.3	havb 131-31-584003	VC 225	56°53'21" N	06°13'21" E	53.8 m
560601.4	havb 131-31-584004	VC 226	56°54'40" N	06°10'58" E	50.8 m
560601.16	havb 131-31-584005	VC 236	56°55'42" N	06°08'48" E	53.9 m
560605.18	havb 131-31-584001	VC 208	56°47'41" N	06°09'55" E	45.8 m

Table 1: Identification and position of described cores.

Geological setting

The seafloor in the area is mostly rather flat dipping gently to the north-west to 60 m below sea level with some topographic highs in the south-east reaching less than 50 m below sea level (Fig. 1).

The industrial report takes the succession of strata known from the British Fisher Sheet (Fyfe 1986) as a model for the geology of the area. A general top layer of < 10 m of fine to medium sand, locally shelly, gravely or silty, is expected above the first reflector. The sands are referred to the Whitethorn Member of the Forth Formation, and it is of Holocene age (Table 2). This layer is often underlain by channels down to >70 m below seabed and infilled by soft to firm silty clay, at places with dropstones. This channel fill is referred to the Fitzroy Member of the Forth Formation and presumably is of Late Weichselian or Early



Skala: 1:555000

0 5 Kilometers



GEUS

Kortfremstilling: GEUS/
Lotte Møller/marts 2002.

Fig. 1: Position of the vibrocores at Lille Fisker Banke, Danish North Sea. Water depth in m. Bathymetric data after Kort & Matrikelstyrelsen.

Holocene age. Channels reaching down to 300 m below seabed and infilled by stiff silty and sandy clay, sand and interlaminated clays and silty sand underlies these deposits. Wood fragments, shelly material, pebbles and occasional dropstones can be found. Sub-horizontal as well as chaotic seismic structures are expected. The infill is supposed to be of Late Saalian, Eemian and Early Weichselian in age and belong to the Coal Pit Formation. The base of this unit is an erosion surface.

Sedimentological core log

The result of the geological description of core **560507.7** (havb 131-31-584006, Seateam VC 243) is given in Enclosure 1.

The core is 5.16 m. The upper 2.70 m is coarsening up from bioturbated silt with sand pockets to strongly bioturbated fine sand with silt laminae with few shells and shell fragments. The following 2 m downcore is laminated and bioturbated fine and very fine sand

with varying content of shell fragments. The lower part of the core is made up of 0.30 m of bioturbated and laminated clayey silt with few shell fragments overlying 0.15 m of very fine sand with few shell fragments.

The result of the geological description of core **560509.8** (havb 131-31-590001, Seateam VC 6) is given in Enclosure 2.

This 3.12 m core is primarily made up of fine and very fine sand with a varying content of silt and with some shells and shell fragments. The lower part includes medium sand layers with silt laminae and holds no shells.

The result of the geological description of core **560601.2** (havb 131-31-584002, Seateam VC 224) is given in Enclosure 3.

The 0.45 m core is made up of interbedded fine to medium and medium to coarse sand with shell fragments, except for the lower 4 cm, which is made up of silty fine sand with small shell fragments.

The result of the geological description of core **560601.3** (havb 131-31-584003, Seateam VC 225) is given in Enclosure 4.

The 0.82 m core consist of two fining up sections, 0 - 0.18 m and 0.18 - 0.60 m respectively, of laminated fine to medium sand to silty sand with shell fragments, overlying 7 cm of coarse sand and gravel with shell fragments. This is overlying 0.15 m of fine, silty sand with few shell fragments.

The result of the geological description of core **560601.4** (havb 131-31-584004, Seateam VC 226) is given in Enclosure 5.

This 0.86 m of the core, from 0.50 to 1.36 m below top of the original Seateam core, is made up of interbedded fine to medium sand with shell fragments. It includes a 22 cm bed of laminated coarse and medium sand with shell fragments about 10 - 20 cm above the bottom.

The result of the geological description of core **560601.16** (havb 131-31-584005, Seateam VC 236) is given in Enclosure 6.

The upper 1.62 m of this 3.80 m core is made up of interbedded medium and coarse sand and medium and fine sand with shell fragments. The lower part is laminated fine and very fine sand with a varying content of silt and of shells and shell fragments. The lower 1 m holds rounded clasts.

The result of the geological description of core **560605.18** (havb 131-31-584001, Seateam VC 208, R2) is given in Enclosure 7.

In this 3.83 m core, the top 8 cm is made up of coarse sand with shell fragments. The next 0.22 m is fine and very fine sand with shell fragments. The rest of the core, from 0.30 m to the bottom, is interbedded fine and very fine to fine, laminated sands with silty laminae and with charred fine organic particles on bedding planes and in some laminae

Core photos

The photos of core DGU no. 560507.7 are seen in Enclosure 8a and 8b.

The photo of core DGU no. 560509.8 is seen in Enclosure 9.

The photo of core DGU no. 560601.2 is seen in Enclosure 10.

The photo of core DGU no. 560601.3 is seen in Enclosure 11.

The photo of core DGU no. 560601.4 is seen in Enclosure 12.

The photos of core DGU no. 560601.16 are seen in Enclosure 13a and 13b.
The photos of core DGU no. 560605.18 are seen in Enclosure 14a and 14b.

Correlation between cores

The three short cores, 560601.2, 560601.3 and 560601.4, compare reasonably well. They are made up of interbedded fine and medium sand or medium and coarse sand with shells or shell fragments. They also compare to the upper part of the nearby core 560601.16 (Enclosure 15). In this core, as well as the lowermost 4 cm of core 560601.2 and the lowermost 15 cm of core 560601.3, the sands are underlain by silty fine sand with clasts or gravelly interbeds also with shells and shell fragments. Comparable silty fine sand is found in core 560507.7 except that no clasts are seen, instead sandy interbeds are found in the lowermost part. In core 560509.8 silty fine sand in the top is underlain by laminated fine and very fine sands with silt laminae and with few shells and shell fragments. In the lowermost 0.28 m of the core no shells are seen in the laminated fine to medium sand. The core 560605.18 is positioned in the shallowest position of the present cores, and only holds 0.30 m of interbedded fine and coarse sands with shell fragments in the top. Below this laminated fine and very fine sands are seen with charred fine organic particles on bedding planes and in some laminae. This sand probably may correlate to the lower 0.28 m of core 560509.8 (Enclosure 15).

Interpretation of genesis

The interbedded fine, medium and coarse sands, cores 560601.2, 560601.3, 56050601.4 and upper part of core 560601.16, are probably related to marine reworking of topographic highs and winnowing in Holocene time. The uppermost 0.08 m of core 560605.18 probably is a lag deposit and the result of this winnowing. Foraminifer analysis of samples from the silty, fine sand, two samples from core 560507.7 and four samples from the lower part of core 560601.16, indicate deposition in a Holocene shallow water facies. This silty, fine sand most probably is correlatable to the Elbow Formation of the southern North Sea. The occurrence of rounded clasts in the silty sand of core 560601.16 is not immediately explainable, but the phenomenon is suggested to originate in submarine sliding. The lower 3.53 m of core 560605.18 is made up of interbedded fine and very fine to fine, laminated sands with silty laminae and with charred, fine organic particles on bedding planes and in some laminae. This sediment possibly correlates to the lowermost 0.28 m of core 560509.8 which includes laminated fine and fine to medium sand with clay-silt laminae and holds no shells. These sediments probably originate in a periglacial lake deposit or the distal part of a sandur plain.

Correlation to seismic stratigraphy

Most, if not all cores, are expected to include sediments of the Holocene marine Whitethorn Member of the Forth Formation (Table 2). An exception is core 560605.18, which is cored a shallower water depth, and where only the uppermost 0.30 m holds shells

or shell fragments. The following 3.53 m of this core include laminated fine and very fine sand with some silt-clay bands and charred, fine organic particles in laminae or on bedding planes. This features is normally observed in sediments of the non-marine Twente Formation, known from the southern North Sea, especially the Dutch sector. The Twente Formation was not identified on the British Fisher Sheet (Fyfe 1986) and therefore not incorporated in model of the industrial report (Seateam 1996). Possibly the base of core 560509.8 also include sediments that can be related to the Twente Formation. These are laminated fine and fine to medium sands with silt-clay on bedding planes and no shells or shell fragments are identified.

Dutch sector and British sector south of 55°	British sector north of 55°	
Nieuw Zeeland Gronden Formation	Forth Formation	Whitethorn Member
Elbow Formation		
Botney Cut Formation		Fitzroy Member
Twente Formation	Not identified	
Bolders Bank Fm. & Dogger Bank Fm.	Wee Bankie Fm. & Marr Bank Fm.	
Eem Formation	Coal Pit Formation	
Cleaver Bank Formation	Fisher Formation	
Egmond Ground Formation	Ling Bank Formation	
Yarmouth Road Formation	Aberdeen Ground Formation	

Table 2: Summary correlation of the established Formations in the Dutch sector & British sector South of 56° and the British sector north of 55° (from Gatliff *et al.* 1994).

Conclusion and suggested correlation to stratigraphy of the southern North Sea

The upper section of the cores, the interbedded fine and medium sand and medium and coarse sand with shells and shell fragments is suggested to represent the Late Holocene comparable to the Nieuw Zeeland Gronden Formation (Table 3). The next section of the cores, the silty fine sand with shells, in core 560601.16 with gravel clasts and gravelly interbeds and in core 560507.7 with sandy interbeds, is suggested to represent the Early Holocene comparable to the Elbow Formation. The third section, the laminated fine sand with clay-silt laminae and charred, fine organic particles, is suggested to correlate to the Twente Formation.

Holocene	Nieuw Zeeland Gronden Formation
	Elbow Formation
Weichselian	Twente Formation

Table 3: Generalised stratigraphy of the Late Weichselian and Holocene of the southern North Sea (after Cameron *et al.* 1989 and Laban *et al.* 1995).

Stored cores

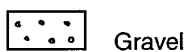
The cores DGU no. 560507.7, DGU no. 560509.8, DGU no. 560601.16 and DGU no.560605.18 are stored at the GEUS Core store.

Literature

- Cameron, T.D.J., Schüttenhelm, R.T.E. & Laban, C. 1989: Middle and Upper Pleistocene and Holocene stratigraphy in the southern North Sea between 52° and 54° N, 2° to 4° E. *In*: Henriot J.P. & de Moor, G. (Eds.) *The Quaternary and Tertiary geology of the Southern Bight, North Sea*.
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- Gatliff, R.W., Richards, P.C., Smith, K., Graham, C.C., McCormac, M., Smith, N.J.P., Long, D., Cameron, T.D.J., Evans, D., Stevenson, A.G., Bulat, J. and Ritchie, J.D. 1994: *The geology of the central North Sea*. British Geological Survey. United Kingdom Offshore Regional Report.
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Legend to enclosures

LITHOLOGY



Gravel



Sand



Silt

FOSSILS



Shells

PRIMARY SEDIMENT STUCTURES



Parallel lamination



Indistinct parallel lamination

BIOGENIC STUCTURES



Bioturbation

SEDIMENTOLOGICAL CORE LOG

Company: DANOP/Seateam, core VC 243

Borehole id.:DGU nr. 560507.7

Water depth: 55.1 m

havb 231-31-584006

Core	Core depth m	Litho-logy	Grain size & sediment structures									Description
			Clay	Silt	Sand				Gr	Pb		
					vf	f	m	c	vc			
												Sand, fine and very fine, silty to slightly silty, coarsing up, laminated, numerous silt laminae, strongly bioturbated, few shells and shell fragments, dark grey 5Y 4/1
	1.0											
	1.45											Silt, numerous pockets of sand, fine and very fine, at base clayey, coarsing up, bioturbated, presumably laminated, few shells and shell fragments, dark grey 5Y 4/1
	2.0											
	2.70											Sand, very fine, several silt laminae, slightly less silt on lower part, laminated, bioturbated, few shell fragments, dark grey 5Y 4/1
	3.0											
	4.0											
	4.25											
	4.35											Sand, fine, rich in shell fragments, dark grey 2.5Y 4/0
	4.56											Sand, very fine, laminated, with silty/clayey laminae, bioturbated, few shell fragments, dark grey 2.5Y 4/0
	4.71											Sand, very fine and fine, laminated, in top: organic material, few gravel clasts, shell fragments, dark grey 2.5Y 4/0
	5.01											Silt, clayey, laminated, with finesand laminae, bioturbated, upper half with few shell fragments, dark grey 2.5Y 4/0
	5.16											Sand, very fine, slightly silty, few shell fragments, dark grey 2.5Y 4/0
	6.0											Note: Foraminiferanalyses at 0.60 & 3.80 m: both indicate Holocene shallow water facies

Date: 30.07.1996

Described by: PK



Geological Survey of Denmark and Greenland

Enclosure 1

SEDIMENTOLOGICAL CORE LOG

Company: DANOP/Seateam, core VC 6

Borehole id.:DGU nr. 560509.8

Water depth: 62.0 m

havb 231-31-590001

Core	Core depth m	Litho-logy	Grain size & sediment structures								Description	
			Clay	Silt	Sand				Gr	Pb		
					vf	f	m	c	vc			
												Sand, fine to very fine, silty, fining up, slight content of gyttja, few shells and shell fragments, dark areas rich in organic material in top, olive 5Y 4/3
	0.60											gradual transition
	0.95											Sand, fine, silty to slightly silty, shells and shell fragments, at 0.89 m: shell bed, olive 5Y 4/3
	1.0											Sand, fine, slightly silty, few shells and shell fragments, olive 5Y 4/3
	1.34											Sand, fine, at 1.91: silt-clay band, few shells and shell fragments, olive 5Y 4/3
	2.02											Sand, fine to very fine, indistinct laminated, at 2.04, 2.34, 2.60, 2.69, 2.71, 2.75 & 2.81 m: silt-clay bands, at 2.58 m: lamina of medium sand, few shell fragments, dark greyish brown 2.5Y 4/2
	2.84											Sand, fine to medium, laminated with clay-silt on bedding planes, olivegrey 5Y 4/2
	2.98											Sand, fine, indistinct laminated, at 3.01 m: clay-silt band, dark grey 5Y 4/1
	3.12											
	4.0											
	5.0											
	6.0											

Date: 30.07.1996

Described by: PK



Geological Survey of Denmark and Greenland

Enclosure 2

SEDIMENTOLOGICAL CORE LOG

Company: DANOP/Seateam, core VC 224

Borehole id.:DGU nr. 560601.2

Water depth: 53.9 m

havb 231-31-584002

Core	Core depth m	Litho-logy	Grain size & sediment structures							Description	
			Clay	Silt	Sand				Gr		
					vf	f	m	c	vc		
	0.1										Sand, fine and medium, alternating, laminated, transported shell fragments on bedding planes, dark areas with organic material, olive 5Y 4/2
	0.15										Sand, medium and coarse, laminated, transported shell fragments on bedding planes, olive 5Y 4/2
	0.2										Sand, fine and medium, laminated, small transported shell fragments, dark areas with organic material, olive 5Y 4/2
	0.23										Sand, medium - coarse, laminated, transported shell fragments on bedding planes, olive 5Y 4/2
	0.29										Sand, fine - medium, laminated, small transported shell fragments, at 0.34: laminae rich in organic material, olive 5Y 4/2
	0.3										Sand, medium and coarse, transported shell fragments, olive 5Y 4/2
	0.32										Sand, fine, silty, few small shell fragments, organic material, olive 5Y 4/2
	0.39										
	0.4										
	0.42										
	0.455										
	0.5										
	0.6										
	0.7										
	0.8										
	0.9										
	1.0										
	1.1										
	1.2										

Date: 19.07.1996

Described by: PK



Geological Survey of Denmark and Greenland

Enclosure3

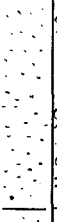


SEDIMENTOLOGICAL CORE LOG

Company: DANOP/Seateam, core VC 225

Borehole id.:DGU nr. 560601.3

Water depth: 53.8 m

havb 231-31-584003

Core	Core depth m	Litho-logy	Grain size & sediment structures							Description	
			Clay	Silt	Sand				Gr		
					vf	f	m	c	vc		
	0.1		9								
	0.18		9								
	0.2		9								
	0.3		9								
	0.4		9								
	0.5		9								
	0.6		9								
	0.67		9								
	0.7		9								
	0.8		9								
	0.82		9								
	0.9		9								
	1.0		9								
	1.1		9								
	1.2		9								
Sand, silty, fining up, in lower part: laminae of fine-medium sand, shell fragments, at 0.175 m: streak with organic material, olive 5Y 4/3											
Sand, fine, slightly silty, laminated, few small shell fragments, at 0.40 m: silt-clay lamina, areas of organic material due to bioturbation (?), olive 5Y 4/3											
Sand, coarse and Gravel, fine, with medium and coarse sand grains, shell fragments, in top: bioturbated dark area with organic material and sand from above, olive 5Y 5/3											
Sand, fine, silty, with silty-clayey streaks, few shell fragments, dark areas with organic material, bioturbation, olive 5Y 4/3											

Date: 19.07.1996

Described by: PK



Geological Survey of Denmark and Greenland

Enclosure 4

SEDIMENTOLOGICAL CORE LOG

Company: DANOP/Seateam, core VC 226

Borehole id.:DGU nr. 560601.4

Water depth: 50.8

havb 231-31-584004

Core	Core depth m	Litho-logy	Grain size & sediment structures								Description	
			Clay	Silt	Sand					Gr		
					vf	f	m	c	vc			
	0.3											
	0.4											
	0.5											
	0.6											
	0.7											
	0.8											
	0.81											
	0.9											
	1.0											
	1.1											
	1.17											
	1.2											
	1.29											
	1.3											
	1.36											
	1.4											

Sand, fine and medium, alternating, lamination, at 0.5 & 0.78 m: silt-clay laminae with organic material, shells and shell fragments, disturbances (due to coring?) olive 5Y 4/3

Sand, fine and fine-medium with coarse, alternating, lamination, disturbances (due to coring), few shell fragments, few dark areas with organic material, olive 5Y 4/3

Sand, coarse and medium, laminated, disturbed, transported shell fragments on bedding planes, olive 5Y 4/3

Sand, fine and medium, laminated, disturbed, few shell fragments, olive 5Y 4/3

Date: 19.07.1996

Described by: PK



Geological Survey of Denmark and Greenland

SEDIMENTOLOGICAL CORE LOG

Company: DANOP/Seateam, core VC 236

Borehole id.: DGU nr. 560601.16

Water depth: 53.9 m

havb 231-31-584005

Core	Core depth m	Litho-logy	Grain size & sediment structures								Description	
			Clay	Silt	Sand					Gr		Pb
					vf	f	m	c	vc			
	0.21											Sand, medium and coarse, laminated, laminae with very coarse-sand grains, shells on bedding planes, brownish-yellow 10YR 6/6
	0.35											Sand, coarse and very coarse, laminated, few gravel clasts and shells, 10YR 6/6
	0.57											Sand, medium, laminated with laminae of finesand, few gravel clasts, few shells, brownish-yellow 10YR 6/6
												Sand, fine and medium, laminated, with clasts of coarse-sand grains, shells and shell fragments on bedding planes, dark areas with organic material, yellowish brown 10YR 5/6
	1.06											
	1.13											Sand, coarse, shell fragments, dark streak with organic material, y.-br. 10YR 5/6
	1.26											Sand, fine-medium, clayey, laminated, few shell fragm.s, org. material, 2.5Y 2/0
	1.33											Sand, coarse, rich in shells, yellowish-brown 10YR 5/6
	1.47											Sand, medium, few shell fragments, dark areas, yellowish-brown 10YR 5/6
	1.62											Sand, medium-fine to coarse, coarsing up, laminated, shells and shell fragments, dark areas, yellowish-brown 10YR 5/6 and black 2.5Y 2/0
	2.0											Sand, fine and very fine, silty, coarsing up, laminated, silty laminae, few shell fragments, very dark grey 5Y 3/2
	2.45											
	2.70											Silt, pockets of finesand, in lower part clayey, bioturbated, at 2.54 m: clast with <i>Serpula</i> , at base: <i>Arctica islandica</i> , dark olive grey 5Y 3/2
	2.91											Sand, fine to very fine, very silty, many rounded clasts (max. 4 cm), shells, oblique upper boundary, at base: fine-medium sand with shellhash, 2.5Y 4/0
	3.0											Sand, very fine, slightly silty, especially at 2.90 - 3.24 m & 3.44 - 3.70 m : rounded clasts, partly as beds, at 3.60 - 3.65 m: max clast 7 cm, at 3.54 - 3.56 m: finesand laminae, few shells and shell fragments, very dark grey 2.5Y 4/0, few areas of light brown 10YR 6/3
	3.80											
	4.0											
	5.0											
	6.0											Note: Foraminifera analysis at: 2.15, 2.85, 3.25 & 3.75: All indicate Holocene shallow water facies

Date: 20.07.1996

Described by: PK



Geological Survey of Denmark and Greenland

Enclosure 6

SEDIMENTOLOGICAL CORE LOG

Company: DANOP/Seateam, core VC 208R

Borehole id: DGU nr. 560605.18

Water depth: 45.8 m

havb 231-31-584001

Core	Core depth m	Litho- logy	Grain size & sediment structures								Description	
			Clay	Silt	Sand				Gr	Pb		
					vf	f	m	c	vc			
	0.8											Sand, coarse, gravelly, 1 stone (6 cm), shellfragm.s, brownish yellow 10YR 6/6
	0.30											Sand, fine to very fine, laminated, finegravel on bedding planes, at 24-30 cm: or- ganic material on bedding planes, bioturba., few shellfragm.s, dark grey 5Y 4/1
	0.54											Sand, very fin, slightly silty, dark streaks with organic material, lamination disturbed, dark grey 5Y4/1
	0.82											Sand, fine to very fine, laminated, oblique lamination (disturbed), clay-silt bands, organic materials on bedding planes, dark grey 5Y4/1
	1											Sand, very fine, laminated, lamination partly disturbed, clay-silt bands, organic material on bedding planes, dark grey 5Y 4/1
	1.62											Sand, very fine, laminated, organic material on bedding planes, dark grey 5Y 4/1
	1.90											Sand, fine to very fine, laminated, dark grey 5Y 4/1
	2											
	2.22											Sand fine to very fine, alternating with Sand, very fine and streaks of clayey silt, often organic material on bedding planes, at 2.47 m layer rich in compacted plant fragments, laminated, dark grey 5Y 4/1
	3											
	3.83											
	4											

Date: 24.07.1996

Described by: PK



GEUS

Geological Survey of Denmark and Greenland

Enclosure 7

HAVB 231-31-584006
LILLE FISKEBANKEN
CORE:1: 0.00m-5.16m
2.00m - 3.00m
BOX: 3

PKVNR.: 111322

AUG-96

HAVB 231-31-584006
LILLE FISKEBANKEN
CORE:1: 0.00m-5.16m
1.00m - 2.00m
BOX: 2

PKVNR.: 111321

AUG-96

HAVB 231-31-584006
LILLE FISKEBANKEN
CORE:1: 0.00m-5.16m
0.00m - 1.00m
BOX: 1

PKVNR.: 111320

AUG-96

DGU no. 560607-7, 0 - 3 m

Enclosure 8a

HAVB 231-31-584006
LILLE FISKEBANKKE
CORE:1: 0.00m-5.16m
4.00m - 5.16m
BOX: 5b
PKVNR.: 111324

AUG-96

HAVB 231-31-584006
LILLE FISKEBANKKE
CORE:1: 0.00m-5.16m
3.00m - 4.00m
BOX: 4
PKVNR.: 111323

AUG-96

DGU no. 560507.7, 3 - 5.16

Enlosure 8b

HAVB 231-31-590001
STORE FISKEBANKKE
CORE:1: 0.00m-3.12m
2.00m - 3.12m
BOX: 3b
PKVNR.: 111309

AUG-96



DGU no. 560509.8

Enclosure 9

HAVB 231-31-590001
STORE FISKEBANKKE
CORE:1: 0.00m-3.12m
1.00m - 2.00m
BOX: 2
PKVNR.: 111308

AUG-96

HAVB 231-31-590001
STORE FISKEBANKKE
CORE:1: 0.00m-3.12m
0.00m - 1.00m
BOX: 1
PKVNR.: 111307

AUG-96



DG no. 560601.2

Enclosure 10

HAVB 231-31-584002
LILLE FISKERBANKE
CORE:1: 0.00m-.45m
BOX: 1b
PKVNR.: 111314

AUG-96

2

5



DGU no. 560601.3

Enclosure 11

HAVB 231-31-584003
LILLE FISKERBANKE
CORE: 1: 0.00m - 0.82m
BOX: 1b
PKVNR.: 111314

AUG-96



DGU no. 560601.4

Enclosure 12

HAVB 231-31-584004
LILLE FISKERBANKE
CORE-1: 0.00m-.86m
BOX: 1b
PKVNR.: 111315

AUG-96

2

3

HAVB 231-31-584005
LILLE FISKERBANKE
CORE:1: 0.00m-3.80m
2.00m - 3.00m
BOX: 3
PKVNR.: 111318

AUG-96

HAVB 231-31-584005
LILLE FISKERBANKE
CORE:1: 0.00m-3.80m
1.00m - 2.00m
BOX: 2
PKVNR.: 111317

AUG-96

HAVB 231-31-584005
LILLE FISKERBANKE
CORE:1: 0.00m-3.80m
0.00m - 1.00m
BOX: 1
PKVNR.: 111316

AUG-96



DGU no. 500601.16, 0 - 3 m

Enclosure 13a



DGU no. 5606 1.46, 3 - 3.8 m

Enclosure 13b

HAVB 231-31-584005
LILLE FISKERBANKE
CORE:1: 0.00m-3.80m
BOX: 4b
PKVNR.: 111319

AUG-96

HAVB 231-31-584001
LILLE FISKERBANKE
CORE:1: 0.00m-3.85m
2.00m - 3.00m
BOX: 3
PKVNR.: 111312

AUG-96



HAVB 231-31-584001
LILLE FISKERBANKE
CORE:1: 0.00m-3.85m
1.00m - 2.00m
BOX: 2
PKVNR.: 111311

AUG-96

HAVB 231-31-584001
LILLE FISKERBANKE
CORE:1: 0.00m-3.85m
0.00m - 1.00m
BOX: 1
PKVNR.: 111310

AUG-96

Enclosure 14a

DGU no. 560605.18, 1 - 3 m



Enclosure 14b

DGU no. 560605.18, 3 - 3.85 m

HAVB 231-31-584001
LILLE FISKEBANKEN
CORE: 1: 0.00m-3.85m
BOX: 4b
PKVNR.: 111313

AUG-96

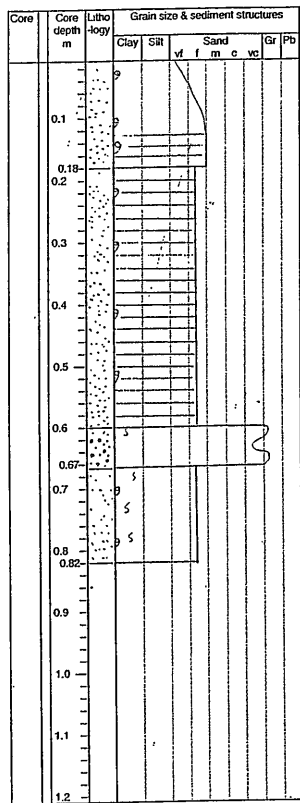
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5

CORRELATION BETWEEN CORES

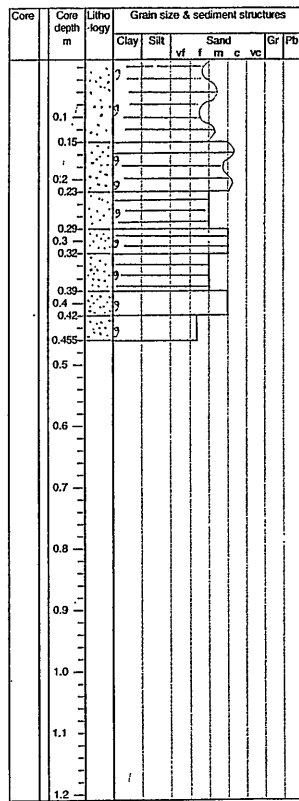
Borehole id.:DGU nr. 560601.3

Water depth: 53.8 m



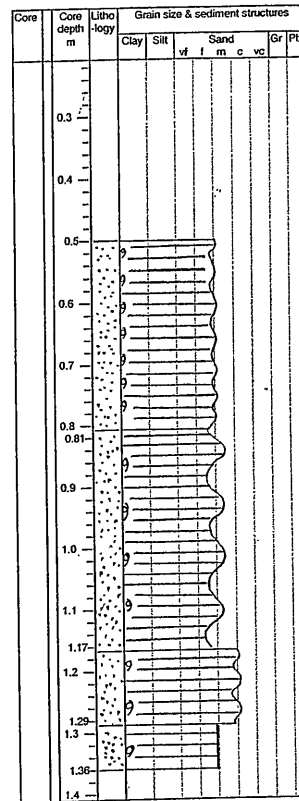
Borehole id.:DGU nr. 560601.2

Water depth: 53.9 m



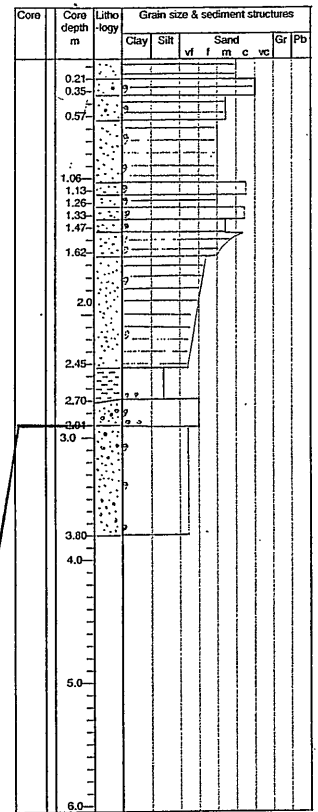
Borehole id.:DGU nr. 560601.4

Water depth: 50.8



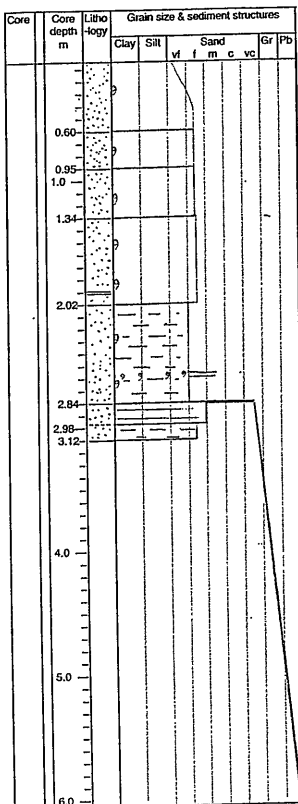
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Water depth: 53.9 m



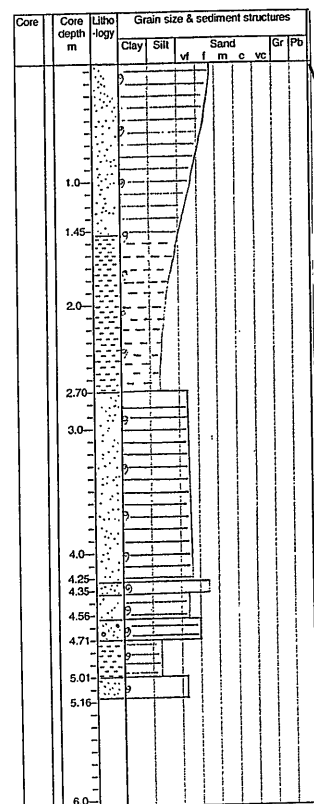
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Water depth: 62.0 m



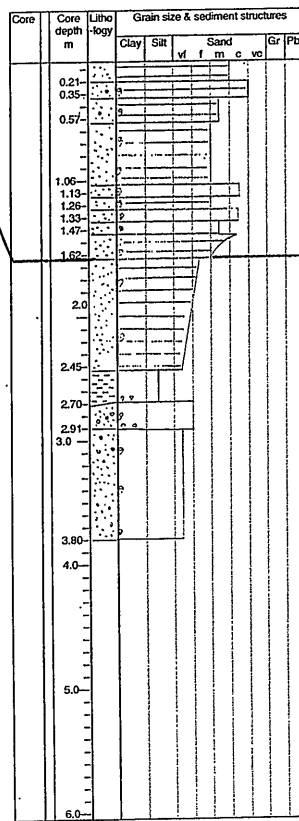
Borehole id.:DGU nr. 560507.7

Water depth: 55.1 m



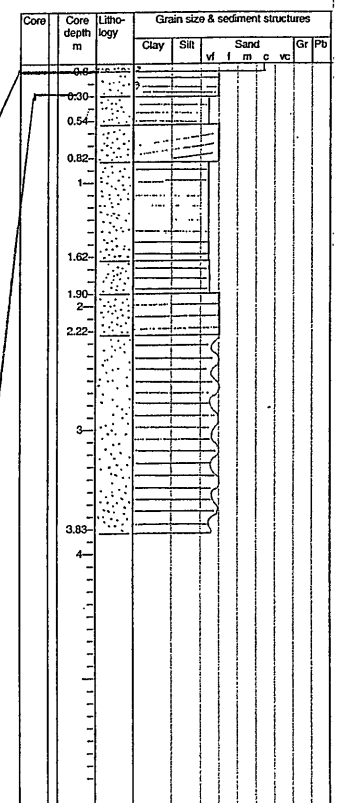
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Water depth: 53.9 m



Borehole id.:DGU nr. 560605.18

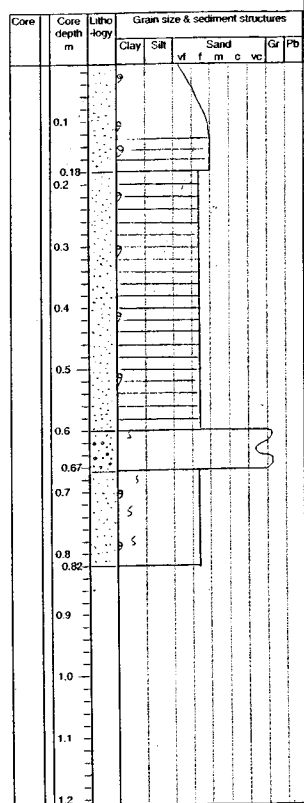
Water depth: 45.8 m



CORRELATION BETWEEN CORES

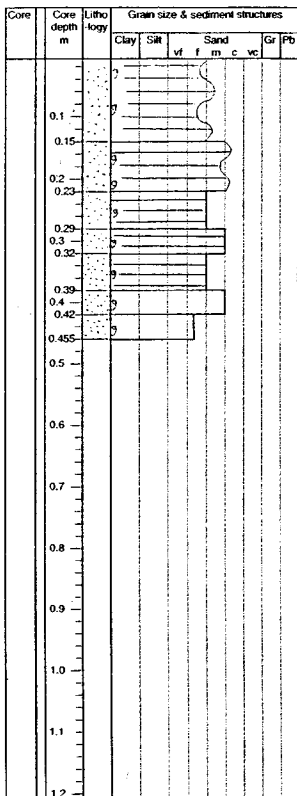
Borehole id.: DGU nr. 560601.3

Water depth: 53.8 m



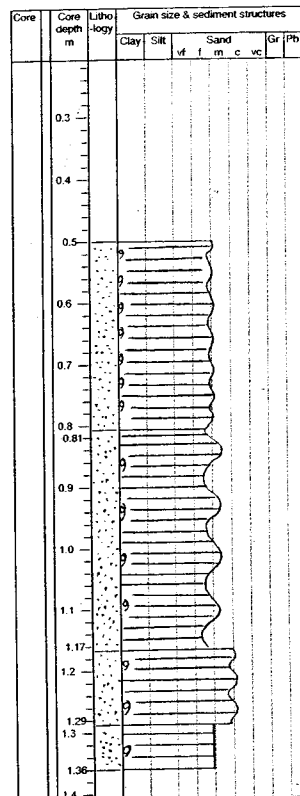
Borehole id.: DGU nr. 560601.2

Water depth: 53.9 m



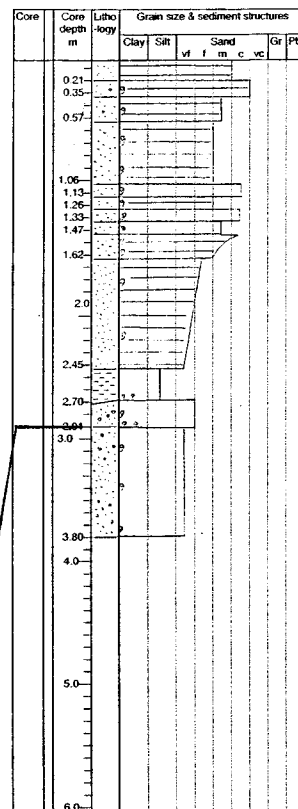
Borehole id.: DGU nr. 560601.4

Water depth: 50.8



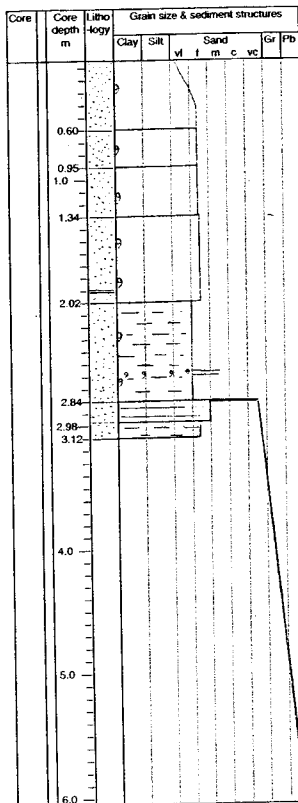
Borehole id.: DGU nr. 560601.16

Water depth: 53.9 m



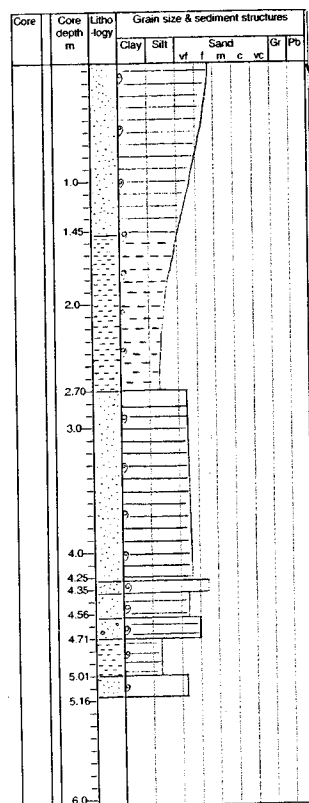
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Water depth: 62.0 m



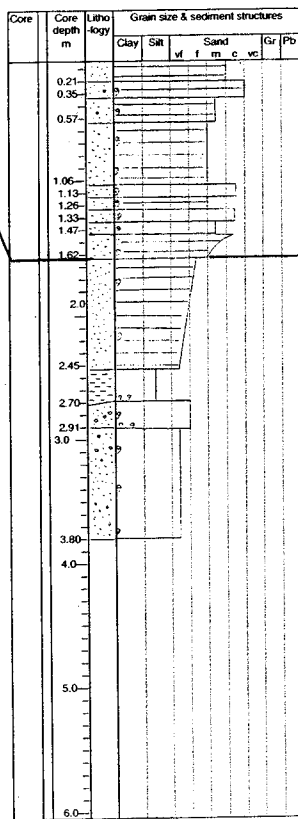
Borehole id.: DGU nr. 560507.7

Water depth: 55.1 m



Borehole id.: DGU nr. 560601.16

Water depth: 53.9 m



Borehole id.: DGU nr. 560605.18

Water depth: 45.8 m

