USGS DREDGE LOG

SHIP/LEG FARNELLA

STATION # 27

DREDGE # D 17

DEPTH INTERVAL(m) 2025 -1850

DEPTH(m)corrected 2000 - 1850

DATE JD 268 LOCAL 25 September 1989

TIME GMT 1850 LOCAL _____

LATITUDE 10° 07.6' TO 10° 07.2' N

LONGITUDE 160° 27.5' TO 160° 27.2' E

TOTAL WEIGHT: DREDGE 4 CRUST 4

PERCENTAGE OF ROCK COVERED BY CRUST 100

PERCENT BROKEN FROM: OUTCROP 100 TALUS Ø

THICKNESS OF MN CRUST: MAXIMUM 50 MINIMUM 5 AVERAGE 30

DOMINANT SURFACE TEXTURE Botryoidal, granular

SUBSTRATE LITHOLOGY none —

NODULES PRESENT Ø

REMARKS: silica sponge, 3 pebbles pumice, one small basalt pebble

where is it?
Malcolm, never saw →
doesn't have a number?

Dr_ge S ple Summary Sheet

Sample ID	Bulk CC	Layer CC	Pt & Au	REE	OC	DPTS/TS	XRD	35mm Ph	Archive	Paleo
D17-1	✓		(½ to	KORD1)			✓			
D17-2	surface✓		(½ to	KORD1)						
D17-3										
D17-4										

USGS DREDGE LOG

Depth Interval ~~2025~~-1850m

Julian Date 268

Cruise I.D. F10-89-CP

Local Date (m/d/y) _____

Station No. 27

Chief Scientist Hein/Kang

Dredge No. 17

Tech on Watch O'Toole

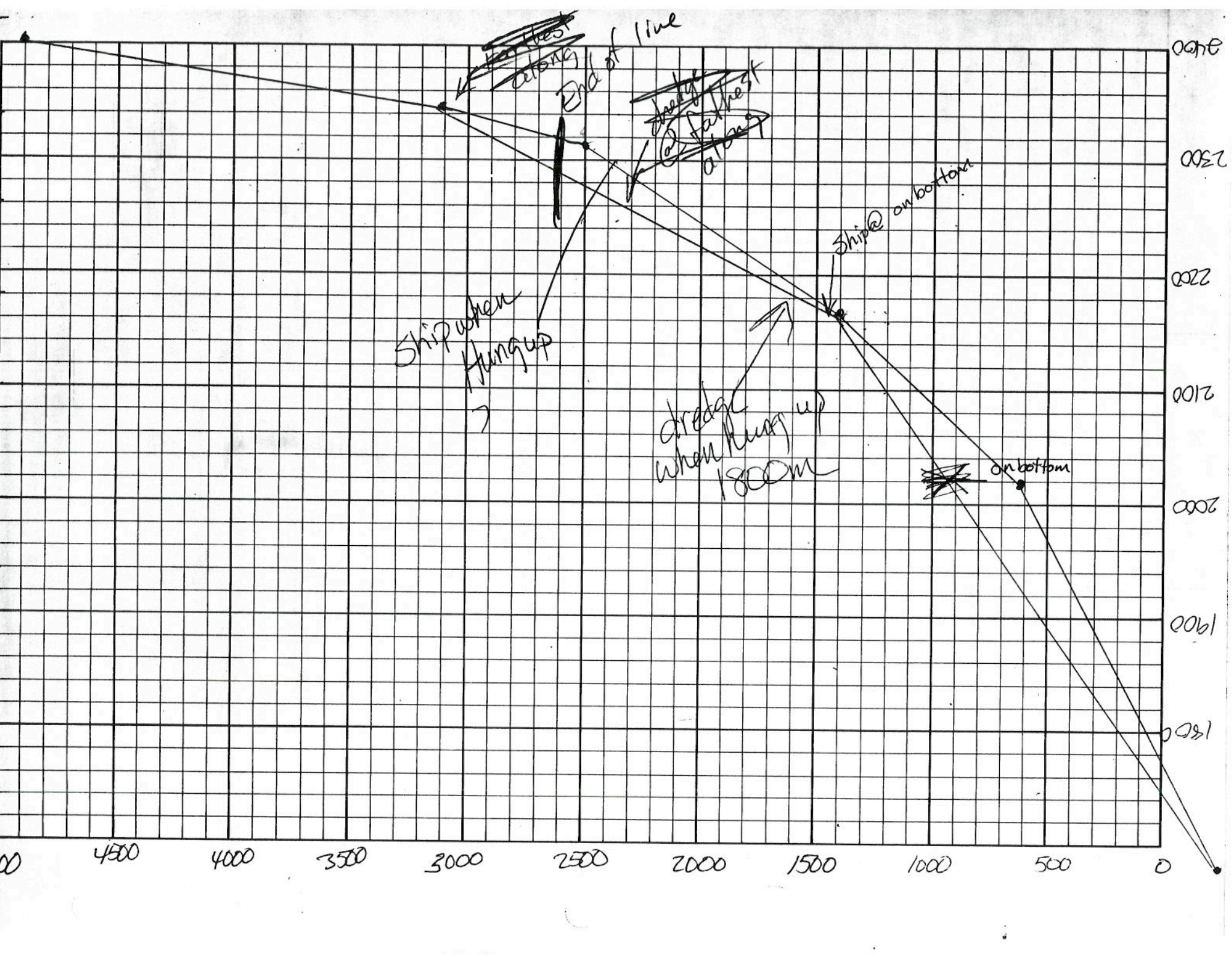
	On Station	Dredge on Btm	Dredge off btm	Off Station
GMT	0030	0106	0249	0327
LATITUDE	10 07.7	10 07.6	10 07.2	10 07.6
LONGITUDE	160 27.5	160 27.5	160 27.2	160 26.8
WATER DEPTH	2060	2025	1850	2130

Site Description and Target : Rocks from 2000-1850

OPERATION*	GMT	DEPTH (m)	WIRE OUT (m)	TENSION	HDG/SPD	COMMENTS
On bottom	0106	2025	2180			moving up line/paying out ~~scope~~
Scope out	0122	1900	2650			Taking up slack
Starting to dredge	0147	1710	"			Rhorho drifting off to the west
Bites	0158	fuzzy 1655	"	2.4-2.6		
On a bite	0202	1650	"			
Broke off	0204	1650	"	5T		
Bite	0206		"	2.4		Broke off
"	0209	1640	"	2.6		Broke off
"	~~2210~~?		"	2.5		Broke off
"	2216	1630	"	3.2		Broke off
"	217	1630	"	2.6		Broke off
Hung up	0221	1620	"			
" "	0224	"	"			Backing down
Slipped off ~~0224~~	0243	1800		6T max		Bringing it up
Off bottom	0249	~~1880~~ 1850	1860			
Off Station	0327	2130	—	—	—	

*on/off bottom, bites, etc.

OTHER COMMENTS:



~~farthest along~~
End of line
~~dredge @ farthest along~~
Ship when Hung up
Ship @ on bottom
dredge when hung up 1800m
on bottom
2400
2300
2200
2100
2000
1900
1800
4500
4000
3500
3000
2500
2000
1500
1000
500
0

SAMPLE DESCRIPTION

Cruise Id: F10-89-CP Size: 22.5x12x7 (cm) Location: Seamount F

Sample Id: D17-1 Weight: 2 (kg) Depth: 2000-1850 (m)

Mn Crust Description

Surface Texture: typical botryoidal and granular on sides

Mn Crust Thickness (mm):
Min: _____ Max: 55 Ave: 50

Layers (Outer to Inner)(mm):

	Min	Max	Ave	Texture & Color
1.	5	10	7	black and relatively massive
2.		30		porous w/ calcite filling
3.		15		porous without calcite filling
4.				dense, massive only in central part where crust maybe complete or nearly complete
5.				
6.				

Comments and XRD Mineralogy:
borders between thick crust and remains of younger part.

F10-89-CP
D17-1

ANALYS

Subsample Number	Analysis	LayerThickness	
D17-1	CC	0-55	(58gm)
		Bulk	

Substrate Description

Rock Type: NONE

Description:

Biology ?: encrusting fauna

Maybe some clay contamination in porous layer - all visible scraped out - maybe some bias to upper layers as slab tapers to base -

1/2 to KORDI

Described By: KAND

Subsampled By:

KEIN

SAMPLE DESCRIPTION

Cruise Id: F10-89-CP Size: ASSORTED (cm) Location: SEAMOUNT F

Sample Id: D17-2 Weight: 2.0 (kg) Depth: 2000-1650 (m)

Mn Crust Description

Surface Texture: BOTRYOIDAL, AND GRANULAR, SMOOTH

Mn Crust Thickness (mm):
Min: 5 Max: 35 Ave: 20

Layers (Outer to Inner)(mm):

	Min	Max	Ave	Texture & Color
1.				
2.				
3.				
4.				
5.				
6.				

NO PICTURE

Comments and XRD Mineralogy:

FRAGMENTS AND SPALLS OF CRUST MOST ARE UPPER CRUSTS, but also massive older + Granular side Crusts fragments are present

Substrate Description

Rock Type: NONE

Description:

Biology ?: ENCRUSTING FORAMS

ANALYSES

Subsample Number	Analysis	LayerThickness
D17-2-1	CC	≤ 0.5mm (5-8 Scraped surface of 4 pieces

1/2 to KORDI

Described By: RO Subsampled By: HEIN

SAMPLE DESCRIPTION

Cruise Id: F10-89-CP Size: 2 MEDIUM PEBBLES (cm) Location: SEAMOUNT F

Sample Id: D17-3 Weight: <<< 1 (kg) Depth: 2000-1850 (m)

Mn Crust Description

Surface Texture:

Mn Crust Thickness (mm):
Min: Max: Ave:

NO PICTURE

Layers (Outer to Inner)(mm):

	Min	Max	Ave	Texture & Color
1.				
2.				
3.				
4.				
5.				
6.				

Comments and XRD Mineralogy:

ANALYSES

Subsample Number	Analysis	LayerThickness

Substrate Description

Rock Type: PUMICE

Description: greyish-brown, porous, fibrous looking,

Biology ?: —

Described By: RO

Subsampled By:

SAMPLE DESCRIPTION

Cruise Id: F10-89-CP Size: 17cm long (cm) Location: SEAMOUNT F

Sample Id: D17-4 Weight: < 1 (kg) Depth: 2000-1850 (m)

Mn Crust Description

Surface Texture:

Mn Crust Thickness (mm):

Min: Max: Ave:

NO PICTURE

Layers (Outer to Inner)(mm):

	Min	Max	Ave	Texture & Color
1.				
2.				
3.				
4.				
5.				
6.				

Comments and XRD Mineralogy:

ANALYSES

Subsample Number	Analysis	LayerThickness

Substrate Description

Rock Type:

Description:

Biology ?: SILICA SPONGE, FAIRLY LONG PIECE SHOWS BRANCHING CHAMBERS; BITS OF SILICA SPONGE; FORAM MUD.

Described By: RO Subsampled By: