Dredge 8

USGS DREDGE LOG

SHIP/LEG F7-91-WP

STATION # 14

DREDGE # 8

DEPTH INTERVAL(m) 2673-2360

DEPTH(m)corrected 2600 2400 [redacted]

DATE JD 203 LOCAL 7/22/91

TIME GMT 0919-1249 LOCAL 1919-2249

LATITUDE 10°38.68 TO 140°07.03

LONGITUDE 10°37.67 TO 140°06.90'

TOTAL WEIGHT: DREDGE 500 CRUST < 10?

PERCENTAGE OF ROCK COVERED BY CRUST Probably patina on all exposed at seafloor

PERCENT BROKEN FROM: OUTCROP 100 TALUS 0

THICKNESS OF MN CRUST: MAXIMUM 3 MINIMUM <1 AVERAGE <1

DOMINANT SURFACE TEXTURE granular

SUBSTRATE LITHOLOGY Limestone - . Reefal, mostly Coral -, framework + bioclastic

NODULES PRESENT 0

REMARKS: Boulders to pebbles
no obvious phosphorite

450 kg discarded

USGS DREDGE LOG

Depth Interval 2600-2400m

Cruise I.D. F7-91-WP

Station No. 14

Dredge No. D-8

Julian Date 203

Local Date (m/d/y) 7/22/91

Chief Scientist Hein/Ahn

Tech on Watch Walter

	On Station	Dredge on Btm	Dredge off btm	Off Station
GMT	0831	0919	1249	1335
LATITUDE	10°38.74	10°38.68	10°37.07	10°37.7
LONGITUDE	140°07.02	140°07.03	140°06.90	140°07.0
WATER DEPTH	2690	2673	2355	2365

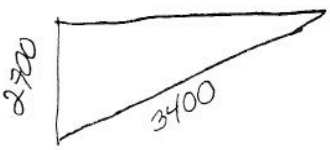
Site Description and Target: Dredging to south up north flank of a seamount that rises to within 30 m. of the surface target area is between 2700 and 2400m

OPERATION*	GMT	DEPTH (m)	WIRE OUT (m)	TENSION	HDG/SPD	COMMENTS
On bottom	0919	2673	2675	—	—	Moving up line/paying out sc
Scope is out	0933	2510	3400	—	—	taking up slack
Starting to dredge	1042	2400				1700m Along
Bite	1135	2370		3		
Broke off	1140			3.53		
Bite	1142	2200?		3.28		Hard to pick depth
Bite	1144			2.76		
Bite	1145			3.25		Pulling wire in
Bite	1147	2150-2400		2.94		
Bite	1151	~2387?	3350	5.7		Pulling wire in
Broke off	1154	2385	3335	5.20		
Bite	1156	2385	3277	4.40		Broke off
Bite	1157	2388	3200	4.67		
Bites	1159	2385	32	3.92	+ 3.84	
Bites	1200	2385	3220	4.20		hung up?
—	1201	2385	3200	—		
Broke?	1207	2385	3123	5.7		
Bite	1208	2382	3115	5.2		

*on/off bottom, bites, etc.

OTHER COMMENTS: Got almost a full bag of limestone We'd picked a deeper spot than last time in hopes of getting basalt.

11560000
7290000
4270000 → 2066



OPERATION*	GMT	DEPTH (m)	WIRE OUT (m)	TENSION	HDG/SPD	COMMENTS
Bite	1210	2380	3086	4.44		
Bite	1211	2380	3080	3.46		
Bite	1211	2380	3075	3.46		
Bite	1219	2375	2970	4.41		
Bite	1220	2370	2935	3.65		
Bite	1222		2898	5.95		
? —	1228	2360	2767	Strange #'s		
	1247	2360	2400	2.7?		lost it? or off bottom
OFF Bottom	1249	2360	2360	—		

*on/off bottom, bites, etc.

OTHER COMMENTS:

SAMPLE DESCRIPTION

Largest 22 x 11.5 x 6

Cruise Id: F7-21-WP Size (cm): Smallest 8.2 x 3 x 3.2 Location: West End Caroline Ridge ~~[illegible]~~

Sample Id: D8-1 Weight (kg): 10 Depth (m): 2600 - 2400

Mn Crust Description

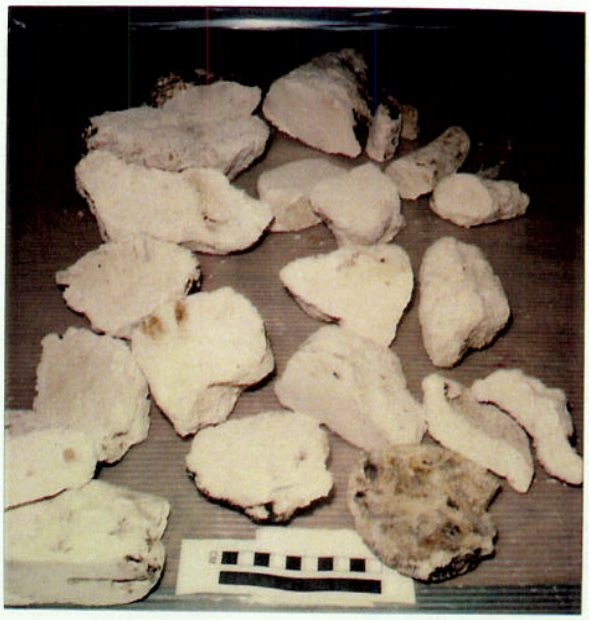
Surface Texture: Slight staining

Mn Crust Thickness (mm):

Min:_____ Max:_____ Ave:_____

Outer to Inner Layers (mm)

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



D8-1

Comments and XRD Mineralogy:

Subsa

Substrate Description

Rock Type: Massive Corals; several types, not recrystallized

Kord. 45%
USGS 55%

Description:

Biology (?):

Described by:

JSS

Subsampled by:

D8-1

SAMPLE DESCRIPTION

Cruise Id: E7-91-WP
Sample Id: D8-2
Size (cm): 5x5x3 ~ 30x20x10
Weight (kg): 11
Location: W. End Caroline Ridge [redacted]
Depth (m): 2600 - 2400

Mn Crust Description

Surface Texture:

Mn Crust Thickness (mm):

Min:_____ Max:_____ Ave:_____

Outer to Inner Layers (mm)

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

Comments and XRD Mineralogy:

Subs

Substrate Description

Rock Type:
Cut

Description: (Boundstone)

Biology (?):

Kordi ~ 1/3
USGS ~ 2/3

Described by:

Subsampled by:

SAMPLE DESCRIPTION

Cruise Id: F7-91-WP Size (cm): 30 x 15 x 11 Location: [redacted]

Sample Id: D8-3 Weight (kg): 3.5 Depth (m): 2600-2400

Mn Crust Description

Surface Texture: patina or staining

Mn Crust Thickness (mm):

Min:_____ Max:_____ Ave:_____

Outer to Inner Layers (mm)

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

D8-3

Comments and XRD Mineralogy:

Sub

Substrate Description

Rock Type: large branching coral

Description:

Biology (?):

Described by:

Subsampled by:

SAMPLE DESCRIPTION

Cruise Id: F/1-91-WP Size (cm): 35 X 30 X 10 Location: Seamount W. End Caroline Ridge [redacted]

Sample Id: D8-4 Weight (kg): 10 Depth (m): 2600 - 2400

Mn Crust Description

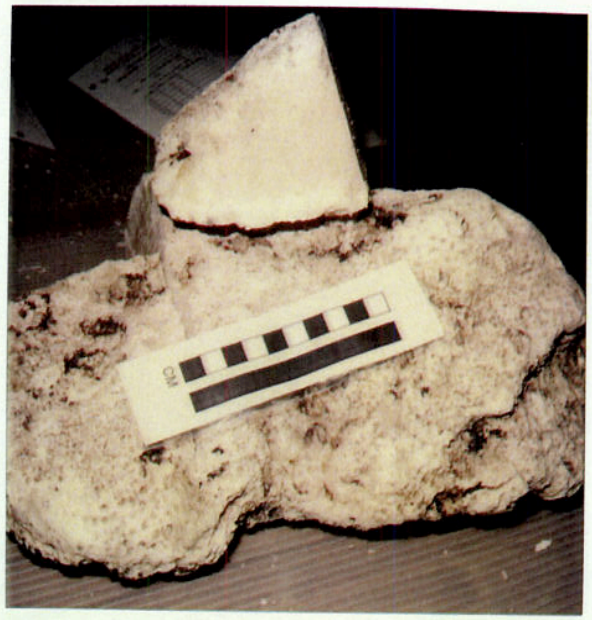
Surface Texture: Stain of Mn

Mn Crust Thickness (mm):

Min:_____ Max:_____ Ave:_____

Outer to Inner Layers (mm)

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



D8-4

Comments and XRD Mineralogy:

Sub

Kordi ~ 15%
USGS ~ 85%

Substrate Description

Rock Type: Massive Coral Head

Description:

Biology (?):

Described by: JSS

Subsampled by:

SAMPLE DESCRIPTION

Cruise Id: F7-91-WP Size (cm): 5×4×3 ~ 15×10×8 Location: Seamount W End of [illegible] [redacted]

Sample Id: D8-5 Weight (kg): 1 Depth (m): 2600-2400

Mn Crust Description

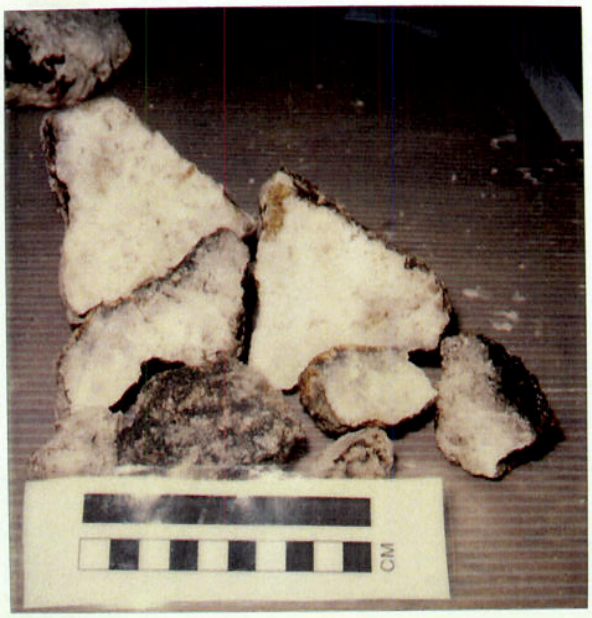
Surface Texture: patina of Mn

Mn Crust Thickness (mm):

Min:_____ Max:_____ Ave:_____

Outer to Inner Layers (mm)

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



D8 - 5

Comments and XRD Mineralogy:

Subs

Substrate Description

Rock Type: [illegible]

covered nodules w/Fe & Mn [illegible]

Description: (Boundstone)

recrystallized

Biology (?):

Described by:

Subsampled by:

SAMPLE DESCRIPTION

Cruise Id: EW-91-WP Size (cm): 2x1x1 ~ 10x5x3 Location: [redacted]

Sample Id: D8-6 Weight (kg): ~0.2 Depth (m): 2600-2400

Mn Crust Description

Surface Texture:

Mn Crust Thickness (mm):

Min:_____ Max:_____ Ave:_____

Outer to Inner Layers (mm)

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

D8-6

Comments and XRD Mineralogy:

Sub

D8-6 Paler All pieces

Substrate Description

Rock Type: Several shell pieces, gastropods, pelecypods, oyster

Description:

Biology (?):

Described by: JSS

Subsampled by:

SAMPLE DESCRIPTION

Cruise Id: [illegible] Size (cm): 25 x 10 x 10 Location: [redacted]

Sample Id: D8-7 Weight (kg): 2 Depth (m): 2600 - 2400

Mn Crust Description

Surface Texture:

Mn Crust Thickness (mm):

Min:_____ Max:_____ Ave:_____

Outer to Inner Layers (mm)

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

D8-7

Comments and XRD Mineralogy:

Su

D8-7 T.S, Paleo

Substrate Description

Rock Type: Biolithite with molds of gastropods and other unidentifiable molds

Description: much moldic porosity

Biology (?):

Described by: [illegible]

Subsampled by: HEIN

SAMPLE DESCRIPTION

Cruise Id: [illegible] Size (cm): [illegible] Location: [redacted]

Sample Id: D8-8 Weight (kg): [illegible] Depth (m): 2600-2400

Mn Crust Description

Surface Texture: [illegible]

Mn Crust Thickness (mm):

Min:_____ Max:_____ Ave:_____

Outer to Inner Layers (mm)

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

D8-8

Comments and XRD Mineralogy:

Sub

Substrate Description

Rock Type: Massive Coral Limestone

Description:

Biology (?):

Described by: JSS

Subsampled by:

SAMPLE DESCRIPTION

Cruise Id: [illegible] Size (cm): [illegible] Location: [redacted]

Sample Id: D8-9 Weight (kg): [illegible] Depth (m): 2600 - 2400

Mn Crust Description

Surface Texture: [illegible]

Mn Crust Thickness (mm):

Min:_____ Max:_____ Ave:_____

Outer to Inner Layers (mm)

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

D8-9

Comments and XRD Mineralogy:

Sub

Substrate Description

Rock Type: [illegible]

boulder (Boundstone)

Description:

Biology (?):

Described by: [illegible]

Subsampled by: