Dredges 13 ~~and 14~~

USGS DREDGE STATION LOG

SE of Utirik seamount 780

SHIP / LEG L9-84-CP

DAY/MONTH/YEAR

DATE 2/8/84

	on bottom	off bottom
LATITUDE	11° 00.477'N	11° 00.487
LONGITUDE	170° 12.202 E	170° 11.884

STATION NO. 010

LINE NO. Dredge 13

TYPE OF STORAGE (check one)

☐ DRY ☐ COLD ☐ FROZEN

(chain bag dredge) Depth = [redacted] ≈ 2000 m

SAMPLE NO. TYPE & ID.	UNCORRECTED DEPTH (M)	CORE LENGTH	BASIC LITHOLOGY	AGE OF BOTTOM

REMARKS: Total recovery: ≈ 1/cg : pieces of Mn crust without substratum. Crust knobby and smooth, abraded looking. Max. thickness 3 cm, min. < 1 cm ave. ~2

NEBCO

L9-84-CP

Sample Description

Cruise I.D: ~~L5-83-HW~~

Sample I.D: Sta: 10 D 13-1

Location: SE [illegible] seamount 780

Size: 4x7x2cm Weight: 0.4 kg

Depth ≈ 2000 m

Mn crust thickness:

Total: min: 1cm max: 2.5cm ave: 2.0cm

Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: Smooth w/small knobs
Varying to porous w/ tiny pores

Internal structure:

layered: ✓ ?
laminated:
massive:
porous: ✓
dendritic:
other:

Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type: NONE

Description:

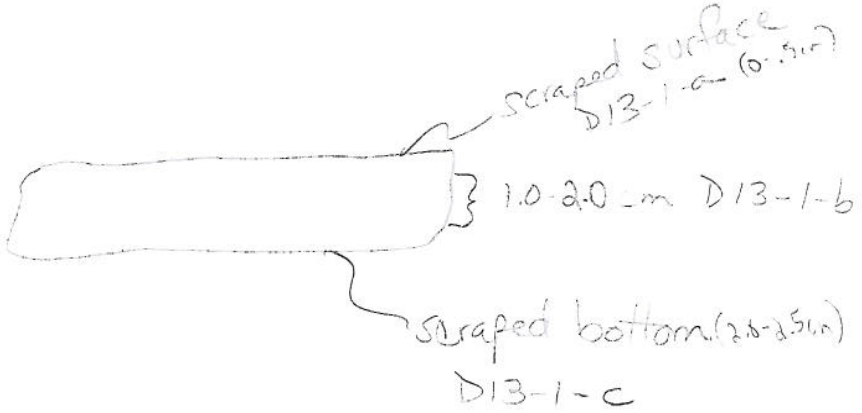
Mineralogy (XRD):

Smooth side looks abraded as if piece scraped off very hard substratum

Analyses and subsamples:

analysis:	analyst:
piece to	Henry Meyer
to	Janet Hagerty
" to	Lauren M. (Scripps)
* Sampled for chem	C. Daniel
D13-1-a sfc Mn 0-5mm	
D13-1-b 10-20mm (from sfc.)	
D13-1-c bottom 20-25mm	
Sampled for XRD:	C. Daniel
D13-1-I - bulk Mn 0-2.5cm	
D13-1-B and powders resubmitted for Hg Chem	
D13-1-C	

* see back


scraped surface
D13-1-a (0-.5cm)
1.0-2.0 cm D13-1-b
scraped bottom (2.0-2.5cm)
D13-1-c

L9-84-CP

Sample Description

Cruise I.D: ~~L5-83-HW~~

Sample I.D: Sta: 10 D 13-2

Location: SE of Utrik seamount 780

Size: 8x5x1cm 7x3x1cm Weight: 0.3 kg

Depth = 2000m (?)

Mn crust thickness:

Total: min: 1cm max: 2cm ave: 1½ cm

Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: smooth with little pores

Internal structure:

layered: ✓ 3 layers v. faint

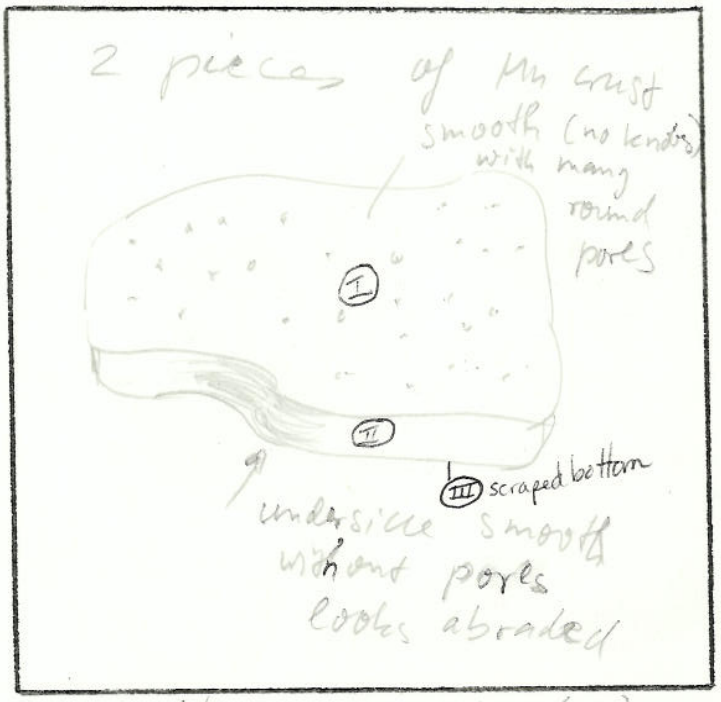
laminated:

massive:

porous: ✓

dendritic:

other:



— looks the same as #1 (CD) (except no knobs)

Mineralogy (XRD):

Associated alteration, phosphorite or hydrothermal deposits:

Substratum:

Rock type: NONE

Description:

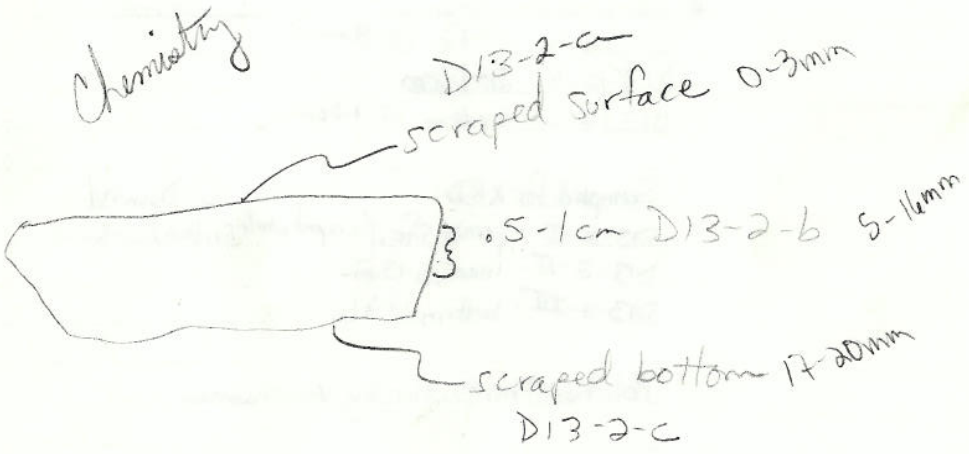
Mineralogy (XRD):

Analyses and subsamples:

analysis:	analyst:
piece to	Janet Haggerty
* sampled for chem.	C Daniel
D13-2-a - sfc. (0-3mm)	
D13-2-b .5-1.6cm	
D13-2-c bottom 1.7-2.0cm	
Sampled for XRD:	C. Daniel
D13-2-I - porous sfc, (scraped whole surface) 0-3mm	
D13-2-II - inner, 5-1.3cm	
D13-2-III - bottom 1.7-2cm	
Polished Thin Section by Vonthuene	

* see back

Chemistry


D13-2-a
scraped surface 0-3mm
.5-1cm D13-2-b 5-14mm
scraped bottom 17-20mm
D13-2-c

L9-84-CP

Sample Description

Cruise I.D: ~~L5-83-HW~~

Sample I.D: Sta: 10 D 13-3

Location: SE of Utirik Seamount 780

Size: 10x7x2 Weight: 0.2 kg

Depth = 2000 m (?)

Mn crust thickness:

Total: min: 1 cm max: 2.5 cm ave: 2.0 cm

Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: mostly smooth to knobby in places

Internal structure:

layered: ~3 layers; middle layer brown porous

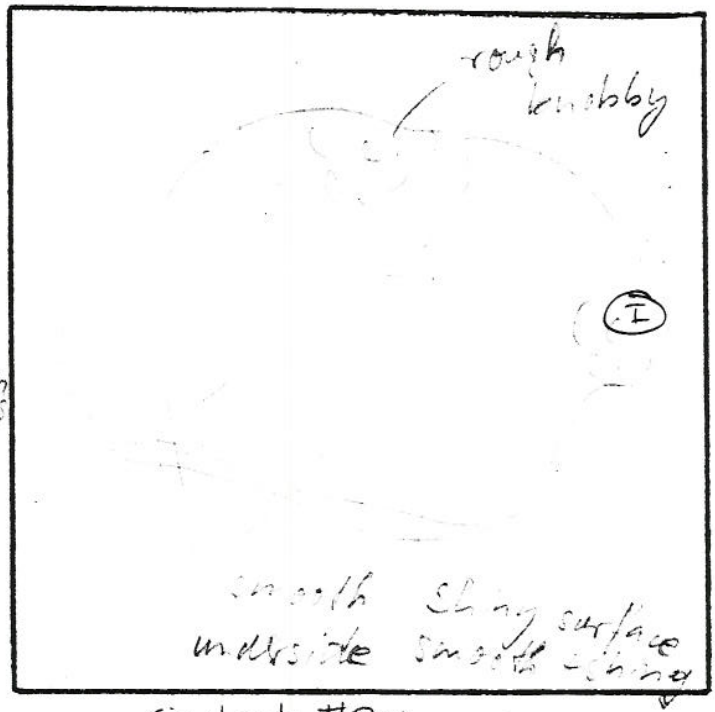
laminated:

massive:

porous:

dendritic:

other:



Similar to #2

Mineralogy (XRD):

Associated alteration phosphorite or hydrothermal deposits:

Substratum:

Rock type: None

Description:

Mineralogy (XRD):

Analyses and subsamples:

analysis:	analyst:
Sampled for XRD: D13-3-I composite Mn 0-2.5cm	C. Daniel

L9-84-CP

Sample Description

Cruise I.D: [redacted]

Sample I.D: Sta: 10 D 13-4

Location: SE of Utirik seamount 780

Size: _____ Weight: < 0.1 kg

Depth ≈ 2000 m

Mn crust thickness:

Total: min: _____ max: _____ ave: _____

Inner crust: min: _____ max: _____ ave: _____

Outer crust: min: _____ max: _____ ave: _____

Surface texture: mostly shiny, smooth

Internal structure:

layered: ✓

laminated:

massive:

porous:

dendritic:

other:

Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type: NONE

Description:

Mineralogy (XRD):

4 tiny pieces of Mn crust ranging from 1.5 to 4cm DIA 1mm to 1cm in thickness

Analyses and subsamples:

analysis:	analyst:
small [illegible]	Tim Ling (XRF)
Sampled for XRD: D13-4-I - took 2 small pieces bulk Mn 0-1cm	C. Daniel