DREDGE 40
Syoyo Smt。

SAMPLE ID	Mn CHEM	Pt & Au	REE	Si Chem	P.Sect.	35mm Pho	Archive	Paleo				
D40-1												
D40-2												
D40-3	Layers											

Sample Description

Cruise I.D: TT-192 - Mariana Islands Sample I.D: Sta: D40-1 Location: Shyago Sea

Size: 17x24x7cm Weight: 2.2kg Depth: 1635-1390m

Mn crust thickness:

Total: min: ____ max: ____ ave: ____

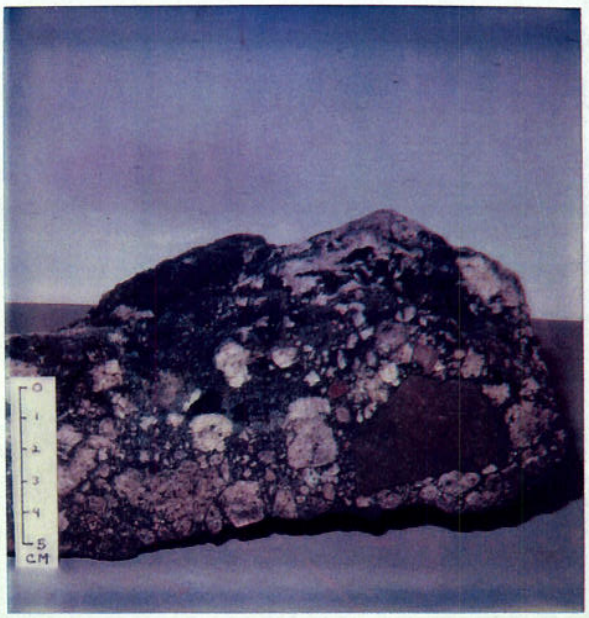
Inner crust: min: ____ max: ____ ave: ____

Outer crust: min: ____ max: ____ ave: ____

Surface texture: porous

Internal structure: ____

layered: ____
laminated: ____
massive: ____
porous: ____
dendritic: ____
other: (upper) 2cm of Mn cement supported breccia



MARIANA ISL.
D40-1

Mineralogy (XRD): ____

Associated alteration, phosphorite, or hydrothermal deposits: ____

Substratum:

Rock type: Pumice breccia

Description: Dark gray scoriaceous basalt breccia w/ white pumice clasts (1-30mm) & one large (5cm) fine grained basalt clast. All are subangular & moderately packed. Upper 2cm is Mn cement-supported

Mineralogy (XRD): ____

Analyses and subsamples:

analysis:	analyst:
1/2 rock to orig size 33x24x7cm	Bloomer & Stern
.35mm	

D40-1 TT192

Sample Description

Cruise I.D: TT-192 Marianna Islands Sample I.D: Sta: D 10-2 Location:

Size: Weight:

Mn crust thickness:

Total: min: max: ave:

Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture:

Internal structure:

layered:
laminated:
massive:
porous:
dendritic:
other:

Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type:

Description:

Mineralogy (XRD):

Analyses and subsamples:

analysis:	analyst:

Mariana Islands

Cruise I.D: TT-192

Sample Description

Sample I.D: Sta: D 40-3

Location: Shyoyo Seamount

Depth: 1635-1390m

Size: 9x8x7cm Weight: 310g

Mn crust thickness: None

Total: min: max: ave:

Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture:

Internal structure:

layered:
laminated:
massive:
porous:
dendritic:
other:

Mineralogy (XRD):

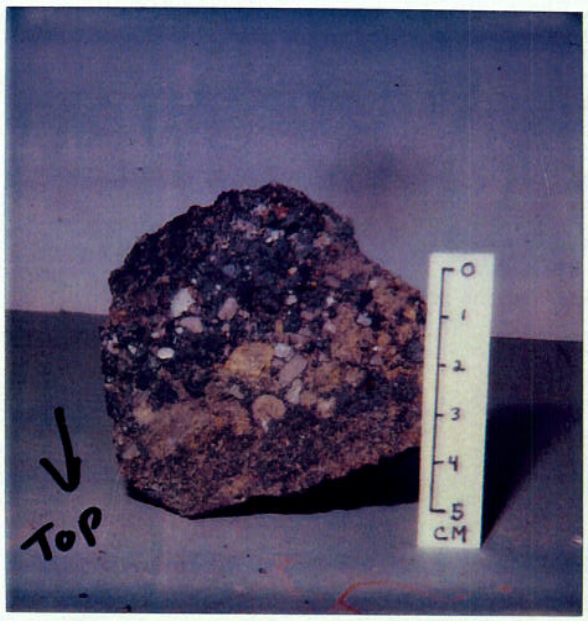
ssociated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type: Mn-cemented volcanic breccia

Description: Gray to black volcanic breccia w/ Mn cement? or Mn stained basalt (in lower layer). Three layers - [illegible] - Loosely packed breccia w/most clasts coated w/ Mn; others are subrounded to subangular pumice clasts all in a Mn-stained volcanic matrix; middle layer - breccia w/ little Mn & clasts are not coated; lower layer - dense fine-grained Mn sandstone w/ patches of Mn coating underside of rock

Mineralogy (XRD):



MARIANA ISLANDS

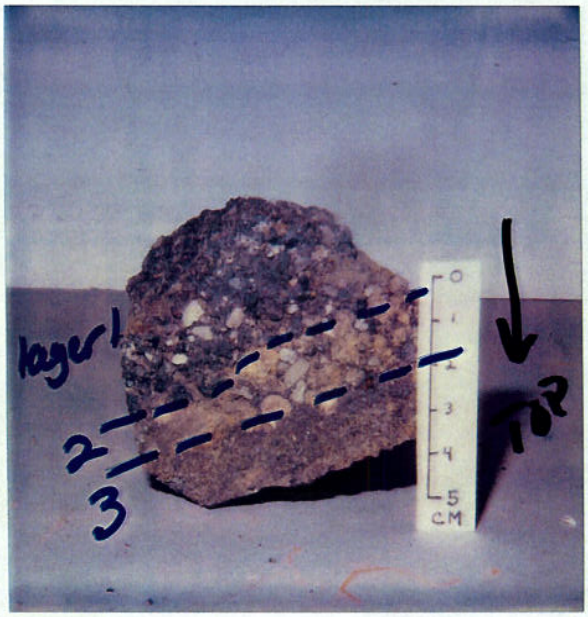
D40-3

(Limit this photographed inside drum [illegible])

Analyses and subsamples:

hydrogenous crust ~1mm above sandy layer

analysis:	analyst:
XRD	Charlin
D40-3-I: Mn breccia w/ Mn coated clasts	
-II: volc breccia w/ little Mn	
-III: Mn sst	
Chemistry -	F. Baum - Reston
D40-3-A Mn breccia 0-3cm	
-B volc " 3-4.5cm	
-C Mn sst 4.5-6.2cm	
35 mm	



MARIANAS ISLANDS
D40-3