DREDGE 59
S Rohan
Smt.

SAMPLE ID	Mn CHEM	Pt & Au	REE	Si Chem	P.Sect.	35mm Pho	Archive	Paleo	XRD				
D59-1													
D59-2	Lowes.				DPTS			✓	✓	Paleoc			
D59-3													
D59-4	✓												
D59-5													

SAMPLE DESCRIPTION

Id: TT196 Size: [illegible] Location: S Roper Cut

Sample Id: D59-1 Weight: 2 kg Depth: 1100-1140m

Mn Crust Description

Surface Texture: Bathyoid

Mn Crust Thickness:

Min: 5mm Max: [illegible] Ave: [illegible]

Layers (Outer to Inner):

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

Mariana Islands

D59-1

C[illegible]nts and XRD Mineralogy:

Basically massive w/ columnar structure

Substrate Description

Rock Type: Tuffaceous Volcanic Breccia

Heavily Altered

Description:

Upper part appears bioturbated has Mn staining

ANALYSES

Described By: JSM Subsampled By:

Mariana Islands

Cruise I.D: TT-192

(very approx. [illegible] being slabbed)

Size: [illegible] Weight: 12 kg (nearly dry)

Sample Description

Sample I.D: Sta: D 59-2

Location: S. [illegible]

Depth [illegible]

Mn crust thickness:

Total: min: 0 cm max: 6.5 cm ave: 3 cm

Inner crust: min: [illegible] max: [illegible] ave: [illegible]

Outer crust: min: [illegible] max: 3 cm ave: 2 cm

Surface texture: Botryoidal

Internal structure:

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

Mariana Is. cut into 7 slabs
D 59-2

Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type: Volcanic Breccia

Description: Basalt Clasts are porphyritic. Large clasts alteration rim. Matrix and some clast are highly altered

Innermost (nucleating) layer is denser and harder than the other layers. (XRD separately)

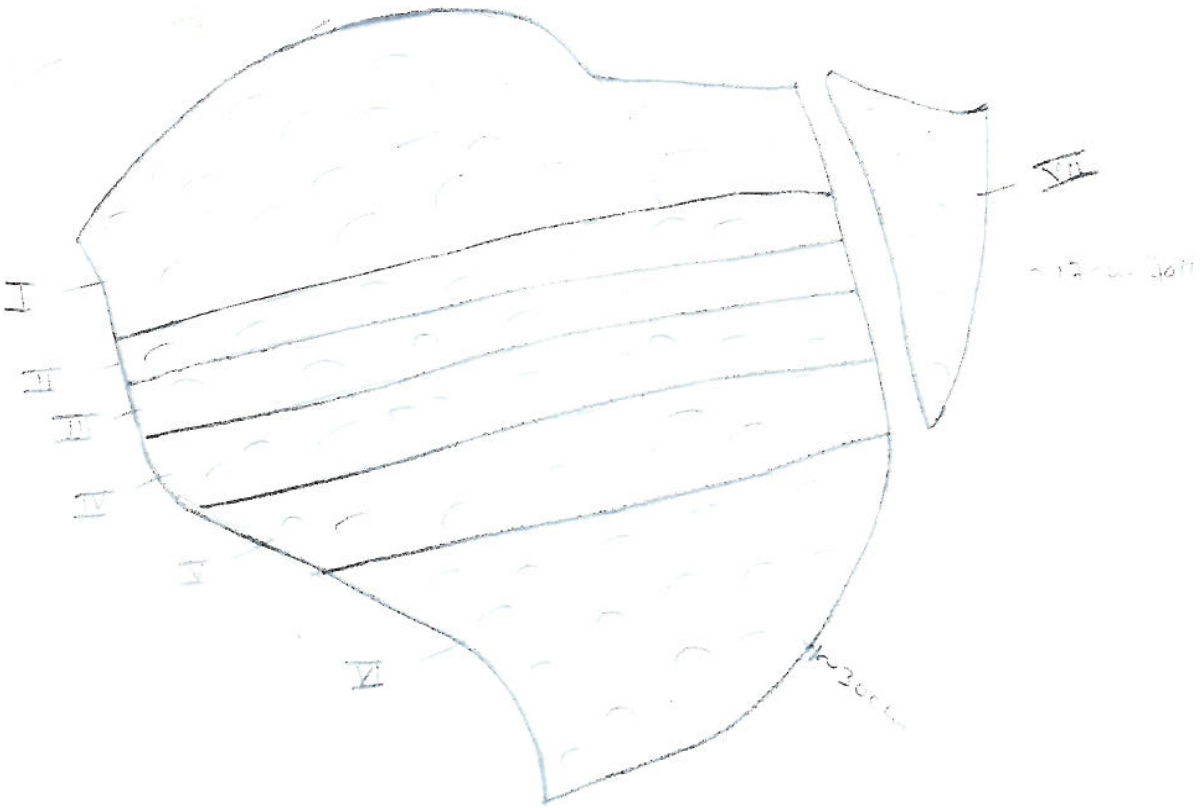
Inner and outer layers are differentiated by a Rust colored "stain".

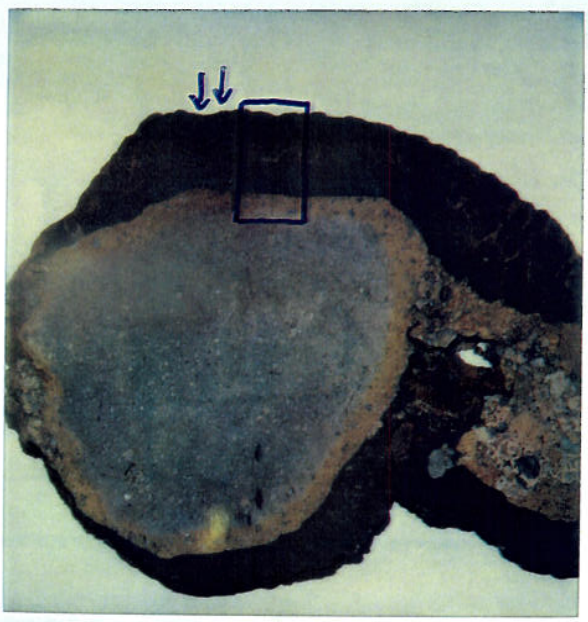
"Vug" Between crust layers filled with ochre mud/silt sampled for Nannos. (Slab IV)

Mineralogy (XRD):

Analyses and subsamples:

analysis:	analyst:
Slab III sent to [illegible]	[illegible] 9/27
[illegible]	
[illegible]	
Slab IV - Chemistry Samples	M. Morris 10-1[illegible]
D59-2-A Mn-Chem PKG	
D59-2-B RFE (Bulk crust)	
D59-2-A Pt group	
D59-2-D OUTER LAYER Mn-Chem 0-20 mm	
D59-2-E INNER LAYER MN-CHEM 20-30 mm	
XRD on BULK INNER - OUTER	
D-59-2-E-I INNER 20-30 mm	
D-59-2-D-I OUTER 0-20 mm	
D-59-2-A-I BULK	
D59-2-G - Vug Filling For Nannos	
D-59-2-F Inner Dense Layer/XRD	



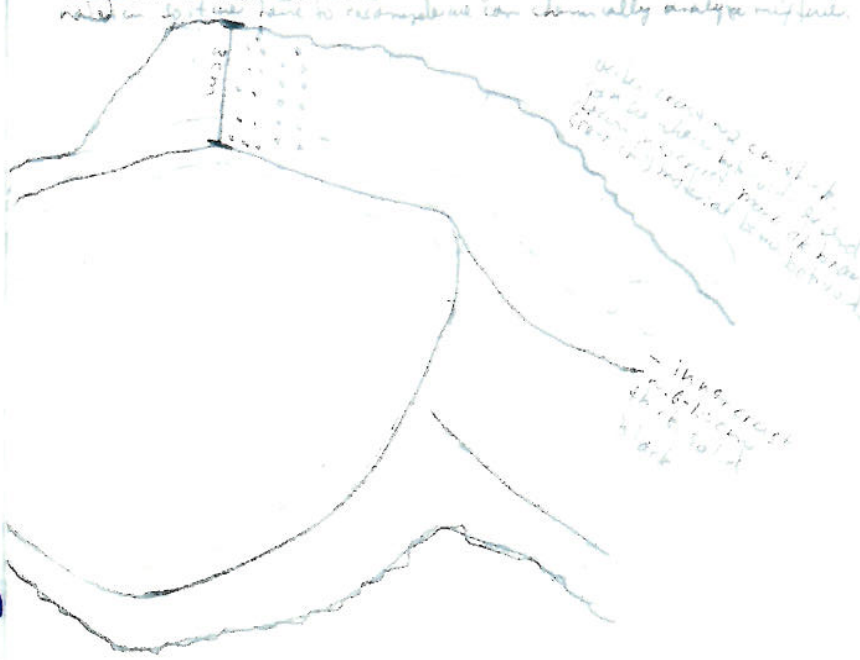


Mariana Is.
D59-2 III (slab III)

arrows point to where Lynn Ingram sampled for Sr/Nd isotope (9/87)
□ marks where Doubly PTS to be taken. (9/87)

9.9.87

All of slab 3 was sent to Dave Mann to impregnate & make doubly P.T.S. so table for microprobe. Asked him to preserve slab pop. where Lynn sampled in case resampling is needed. Asked him also to send a vial of mixture sample was impregnated in so if we have to resample we can chemically analyze mixture.



Mariana Is.
D59-2 (slab) III

Mariana Is. Cut into 7 slabs
D59-2

SAMPLE DESCRIPTION

Id: TT192 Size: 24.5 x 22.5 x 9 cm Location: S. Rohan Sort

Sample Id: D59-3 Weight: 2 kg Depth: 1100 - 1170 m

Mn Crust Description

Surface Texture: Botryoids

Mn Crust Thickness:

Min: 5 mm Max: 12 mm Ave: 10 mm

Layers (Outer to Inner):

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

Mariana Islands

D59-3

C[illegible]nts and XRD Mineralogy:

Crust massive w/ columnar structures

ANALYSES

Substrate Description

Rock Type: Tuffaceous Volcanic Breccia

Description:

Matrix supported, upper 2 cm bioturbated and Mn stained

Silicone [illegible]

Described By: JSM Subsampled By:

Sample Description

Cruise I.D: ~~L5-83-MW~~ Mariana Is.

Sample I.D: Sta: D59-4

Location: S. Rohan Cmt

Depth: 1100-1020 cm

Size: [illegible] Weight: 2.11 kg (wet)

Mn crust thickness:

Total: min: 1 mm max: 42 mm ave: 0.20 mm

Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: botryoidal

Internal structure:

layered: [illegible] w/ [illegible]

laminated: [illegible] If you look carefully

massive: [illegible]

porous: [illegible]

dendritic:

other:

Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type: Volcaniclastic sandstone

Description: Some clasts highly altered some [illegible] [illegible]

Mineralogy (XRD):

Mariana Islands

D59-4

Analyses and subsamples:

analysis:	analyst:
Chemistry: Bulk crust "manhole" see photo on back	J. Morgenson 7/86
XRD: Bulk crust [illegible] for chem. D59-4-I	

Mariana Is.
D59-4

Boxed area sent for bulk chem., 7/86

SAMPLE DESCRIPTION

Id: TT192 Size: _____ Location: S. [illegible]

Sample Id: D59-5 Weight: _____ Depth: 1100 - 1470

Mn Crust Description

Surface Texture: [illegible]

Mn Crust Thickness:

Min: ~ Max: 45mm Ave: ~

Layers (Outer to Inner):

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

Mariana Islands

D59-5

C[illegible]nts and XRD Mineralogy:

[illegible] pieces of thick crusts

[illegible] between [illegible]

[illegible] [illegible] [illegible] [illegible]

Substrate Description

Rock Type: Volcaniclastic Breccias

Description:

Not much [illegible] [illegible] [illegible] [illegible]

ANALYSES

Described By: JSM Subsampled By: