DRedge # 8

Dredge Sample Summary Sheet

Sample ID	Bulk CC	Layer CC	Pt & Au	Ree	OC	DPTS/TS	XRD	35mm Photo	Paleo	Archive
D8-1										
D8-2						X	X			
D8-3	X						X			
D8-4	X	X				X	2 X			
D8-5										
D8-6	X	X S.S.	X	X	X		3 X		X	
D8-7						X				

SAMPLE DESCRIPTION

Cruise Id: 91-AV-191a Size (cm): 4 Cobbles Location: V2-91-CP

Sample Id: D8-1 Weight (kg): 6 Depth (m): 4200-3700

Mn Crust Description

Surface Texture: Cement smoothed + Polished

Mn Crust Thickness (mm):

Min: 5 Max: 12 Ave: 8

Outer to Inner Layers (mm)

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

D8-1

Comments and XRD Mineralogy:

Subsam

Substrate Description

Rock Type: Basalt

Description: vesicular alkalic basalt — Mugearite?

Biology (?):

Described by: HEIN

Subsampled by:

SAMPLE DESCRIPTION

Cruise Id: 91-AV-19/2 Size (cm): 10-15 Cobble sized Location: ~~V2-91-CP~~ NE Flank Karin Ridge

Sample Id: D8-2 Weight (kg): 7.2 Depth (m): 4200-3700

Mn Crust Description

Surface Texture: lizard skin to subdued Botryoids (current) to patina

Mn Crust Thickness (mm):

Min: Patina Max: 10 Ave: 5

Outer to Inner Layers (mm)

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

D8-2

Comments and XRD Mineralogy:

Black - Dense - lizard skin
Black Dorous with Botryoids on side.

S

TS 178-2

Substrate Description

Rock Type: Basalt (Pillow)

Description: (0-6mm) AT surface (Red Alteration Rims)
6-11mm Brown Rim - Pin hole sized vesicles
Below Rims - Highly vesicular - Phaneritic Black
vesicles + voids filled with whitish yellow mud - None calcite

Biology (?): encrusting forams

Described by: G. S.

Subsampled by:

SAMPLE DESCRIPTION

Cruise Id: 91-AV-19/2 Size (cm): 2 Cobbles ~15 Pebbles Location: V2-91-CP

Sample Id: D8-3 Weight (kg): 8 Depth (m): 4200-3700

D8-3

Mn Crust Description

Surface Texture: Current smoothed by sand Skin - Polished on sand

Mn Crust Thickness (mm):

Min: 5 Max: 18 Ave: 10

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1				massive 1
2				layer
3				some have 2
4			equal	massive layers
5				separated by
6				Porous zone 1mm Thick

Comments and XRD Mineralogy:

Substrate Description

Rock Type: Breccia

Description: Red-brown, brown, + gray basalt clasts in yellow-green hyaloclastite matrix angular - poorly sorted

Biology (?): NONE

Described by: HEIN

Subsa

D8-3-1 CC Bulk 0-7mm (11 gm)

D8-3-2 CC Surface Scrape 0-5mm (5.2g)

D8-3-2 XRD

Subsampled by: HEIN JW

SAMPLE DESCRIPTION

Cruise Id: 91-AV-19/2 Size (cm): 7 x 5.4 x 2 / 37 x 24 x 12 Location: V2-91-CP

Sample Id: D8-4 Weight (kg): 12.3 Depth (m): 4200-3700

Mn Crust Description

Surface Texture: Smooth Current Lizard skin to Botryoids

Mn Crust Thickness (mm):

Min: Patina Max: 19 Ave: 12

Outer to Inner Layers (mm)

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

D8-4

Comments and XRD Mineralogy:

Subsam

D8-4-1 CC Bulk 6-16mm 37gm
XRD
TS ✓

D8-4-2 surface scrape 6.1gm
XRD
65% USGS 35% USGR

Substrate Description

Rock Type: Grey + white Plag Phyric Basalt

Description: Aphanitic Groundmass with 30-40% medium to large Plagioclase minor Plag alteration & minor vesicules Several basalts with 1 to 2 cooling rims

Biology (?): encrusting forams

Described by: JW

Subsampled by: A.S. + [illegible]

Lev

* Large piece Packed w/ D11-3-4 + D11-3 cut

SAMPLE DESCRIPTION

Cruise Id: 91-AV-191z Size (cm): 20 pebble to cobble size Location: ~~V2-91-CP~~ NE slope of Kamil Ridge

Sample Id: D8-5 Weight (kg): 2-3 Depth (m): 9200-3700

Mn Crust Description

Surface Texture: Granular patina to eroded Botryoids. (granular) Current smooth Botryoid.

Mn Crust Thickness (mm):

Min: Patina Max: 10mm Ave: Patina

Outer to Inner Layers (mm)

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

D8-5

Comments and XRD Mineralogy:

Black, porous to dense.

Subs

Substrate Description

Rock Type: Basalt from Breccia

Description: Similar to D8-7. uncut void fill - white none effervesent mud

Biology (?): None

Described by: [signature] S.

Subsampled by:

SAMPLE DESCRIPTION

Cruise Id: 91-AV-1912 Size (cm): Revise to 5x9x20 cm Location: ~~V2-91-CP~~ NE Kairei Ridge

Sample Id: D8-6 Weight (kg): 15 Depth (m): 4200-3700 m

Mn Crust Description

Surface Texture: Lizard skin with subdued Botryoids

Mn Crust Thickness (mm):

Min: 4 Max: 22 Ave: 10

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1	8	22	10	Black Dense
2				
3				
4				
5				
6				

D8-6

Comments and XRD Mineralogy:

Nice Pieces all Broken off.

Substrate Description

Rock Type: Mudstone

Description: Brown very fine grained bedded, bored + burrowed in places; borings lined w/ Mn-Fe oxides and some infilled with

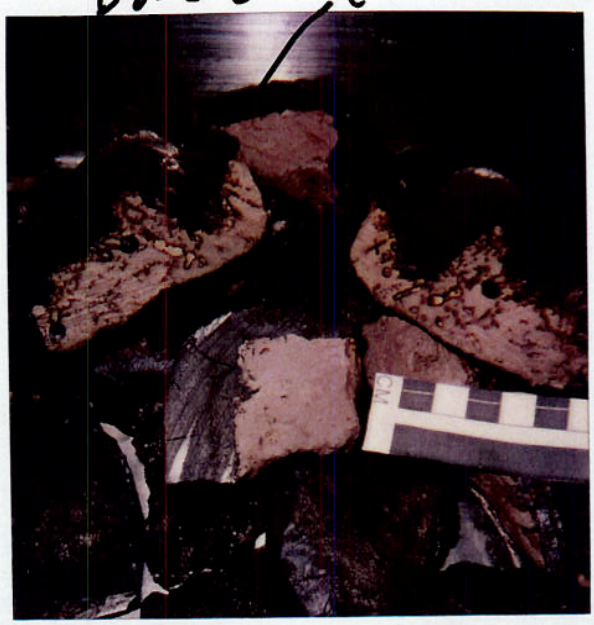
Biology (?): None

Described by: A.S.

Subs

D8-6-2A	CC	Bulk 0-18 mm	48.9 gm
	REE		
	PGE		
D8-6-2B	OC	XRD	(16 gm)
	Paleo		
D8-6-1,3,4,5 (mixed)		Surface Scrape 5.2 gm XRD	

Subsampled by: HEIN



D8-6

SAMPLE DESCRIPTION

Cruise Id: 91-AV-1912 Size (cm): 20 pieces 2.5 x 2.5 x 3 cm 3.5 x 13 x 16 Location: ~~V2-91-CP~~ NW Kann Ridge

Sample Id: D8-7 Weight (kg): 6 Depth (m): 4200 - 3700 m

Mn Crust Description

Surface Texture: Lizard skin on Topsurface with granular + current smoothed botryoid texture on sides

Mn Crust Thickness (mm):

Min: Patina Max: 12mm Ave: 4

Outer to Inner Layers (mm)

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

D8-7

Comments and XRD Mineralogy:

Black - Dense - Lizard texture

Porous where Botryoidal + at crevesses where pieces of breccia make the topsurface irregular

Sub

D8-7 TS

Substrate Description

Rock Type: Breccia - pillow Basalts, Hyloclastite Phosphate

Description: ① Basalt: Highly vesicular, Red Alteration Rims, Black. The more vesicles present the smaller they are and closer to Alteration Rims

Plag. altered

voids left + filled

② Hyloclastite - Green (Yellow) + Red volcanic w/ white clastics with crust fragments.

Biology (?): ③ White very fine (Dense) mud with upper layer (4-8mm) normally graded w/ Hyloclastic matter

None calcitic mud.

Encrusting forams

Described by:

Subsampled by:

Heir

D 8-7