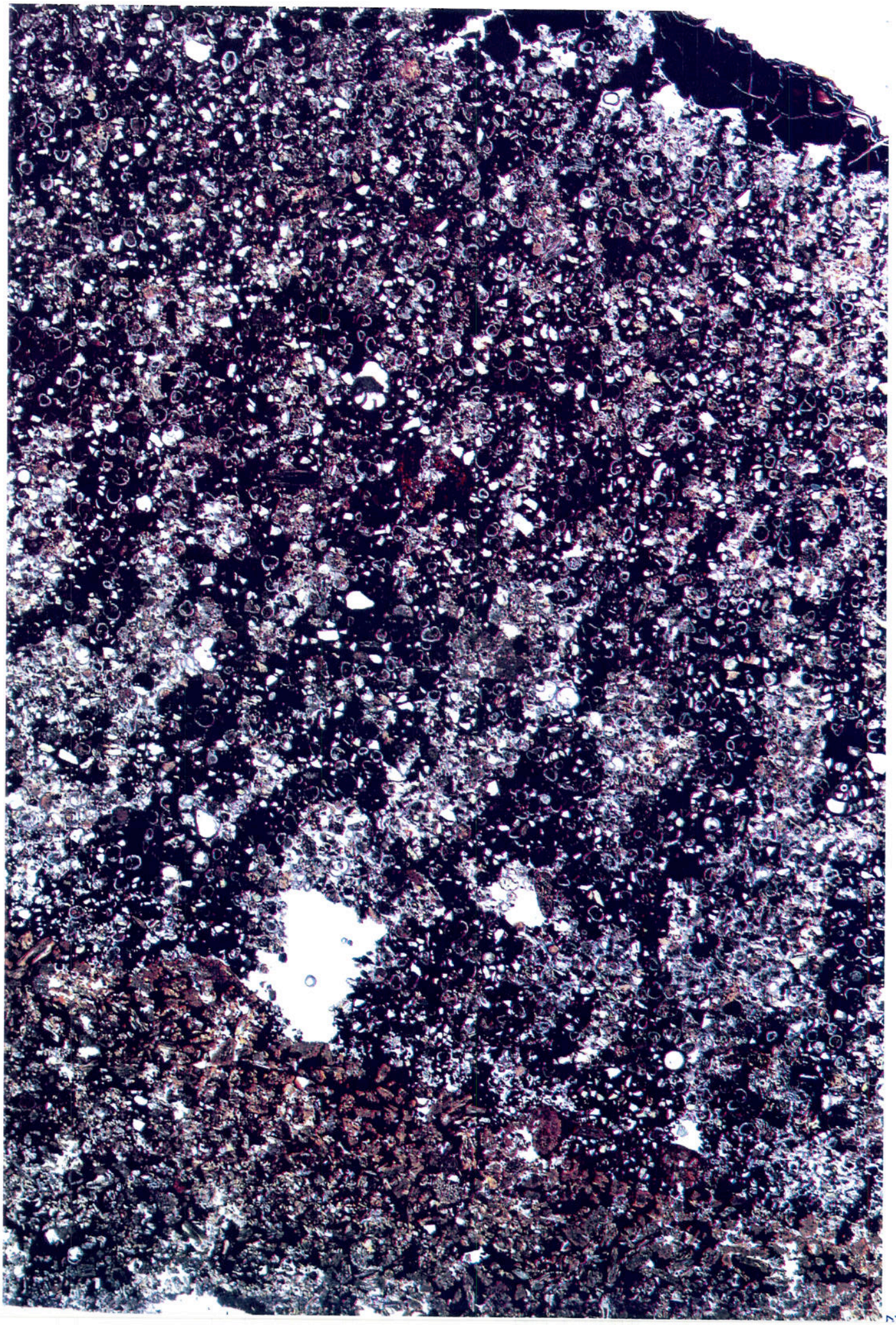
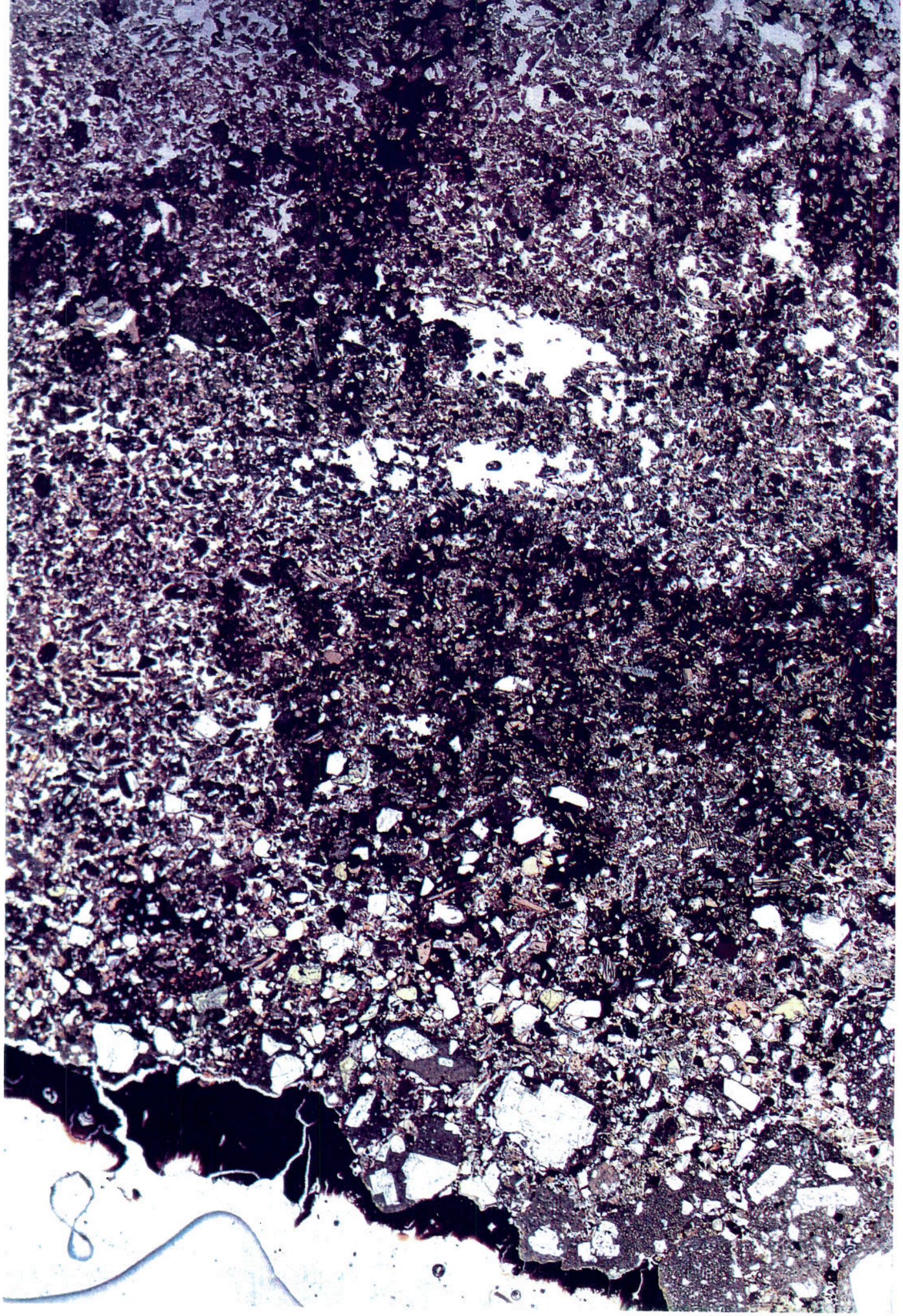
D73 - 1C





Petrographic Descriptions

Cruise ID TT192

Sample # D73-1C

Two Overlapping Sections

Stratabound oxide Layer

Stratabound oxide-replaced Sandstone

Stratabound oxide-cemented Sandstone

Fe-Mn Crust

Mn Textures:

Dense
- Massive
- Laminated
  - Planar
  - Wavey

Colloform
- Columnar
- Laminated
- Aggregate Radial

Stockwork

Crystal Form: Radial-fibrous Spherulitic Aligned Tabular Euhedral Void Fill

Grain Supported

Cement Supported

Fracture Orientation

Fracture Fill

Porosity

Alteration and replacement of grains

Photo(s) Taken of

SEM:

Microprobe

Grain Counts

Non Foram Sand	Unaltered	Altered
13	Volcanic Rock Fragments 𝍸 𝍸 III	𝍸 I 6
29+60	Volcanic Glass 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	𝍸 𝍸 𝍸 𝍸 𝍸 IIII
	Mineral Grains	
1	Pyroxene I	
	Olivine	
11	Plagioclase 𝍸 𝍸 I	
	K-spar	
	Amphibole	
	Quartz	
	Others	
1	Microfossils foram I	
	Others alteration rim celadonite II	
	Matrix	
24	Pore Space 𝍸 𝍸 𝍸 𝍸 III	
20	Mn Cement 𝍸 𝍸 𝍸 𝍸 𝍸 I	
	Other Cements	

Green layer w/ patches of Mn cement. Upper layer not [illegible] Mn cement

Transmitted Light Notes:

Green layer is altered Vesicular clasts & Glass, mostly glass everything rimmed by green alteration(?) product. The bed is graded (normal, or not?) (haven't decided Topography yet) grain supported where no Mn cement it doesn't [illegible] be cemented. Medium to fine grained, angular clasts

Other layer is foraminiferal w/ mineral grains angular to subrounded, glass and V.R.F. areas w/o Mn cement appear to have calcite cement [illegible] w/ spar [illegible]

Glass [illegible] Non Foram sand have celadonite rinds

3 (colors) Upper glass [illegible] Dark red brown, brown, clear

Foram sand is cemented w/ Mn to a greater extent

D73-1C

Grain Counts

Foram Sand	Unaltered	Altered
12 Volcanic Rock Fragments	𝍸 𝍸 ||	𝍸 ||, 7
12 Volcanic Glass	𝍸 |||	|||
Mineral Grains		
10 Pyroxene	𝍸 𝍸	
Olivine		
18 Plagioclase	𝍸 𝍸 𝍸 |||	
K-spar		
Amphibole		
1 Quartz	|	
Others		
62 Microfossils	foram 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ||	Replaced ||2 Rad |
Others		
12 Matrix	𝍸 𝍸 ||	
7 Pore Space	𝍸 ||	
90 Mn Cement	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	𝍸 𝍸
Other Cements	FeMn Cement |	

Foram Sand Transmitted Light Notes

Fe Mineralization: Botryoids of Fe minerals surrounded by the Mn cement and [illegible]
Mn replacing the Fe in some spots. Fe mineralization occurs first.

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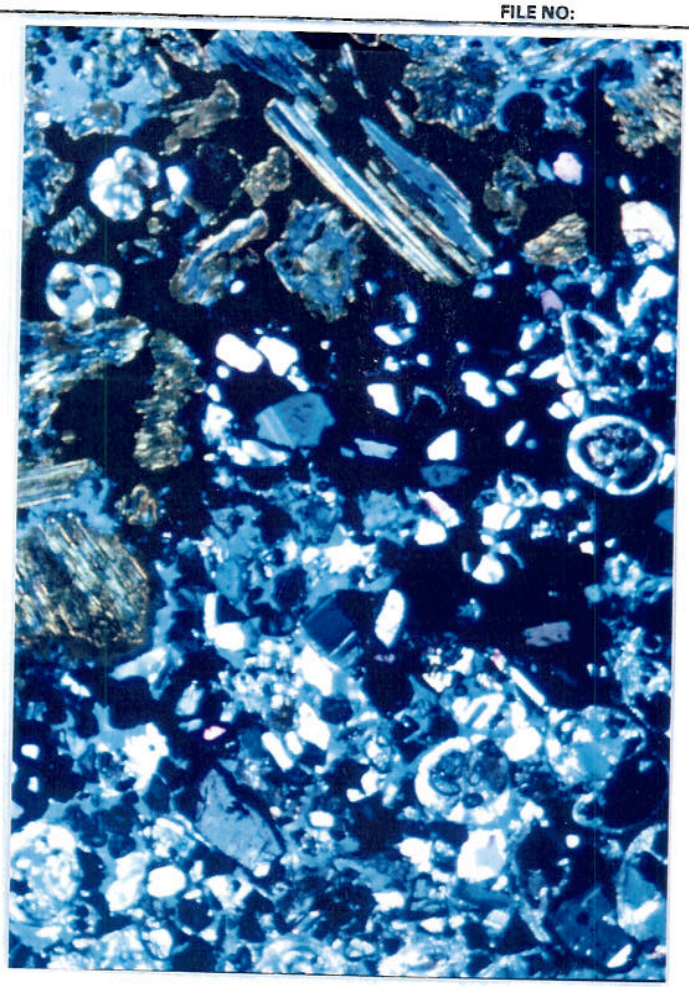
STYLE NO. 45-4B

INSERT EMULSION SIDE DOWN

DATE ASSIGNMENT

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