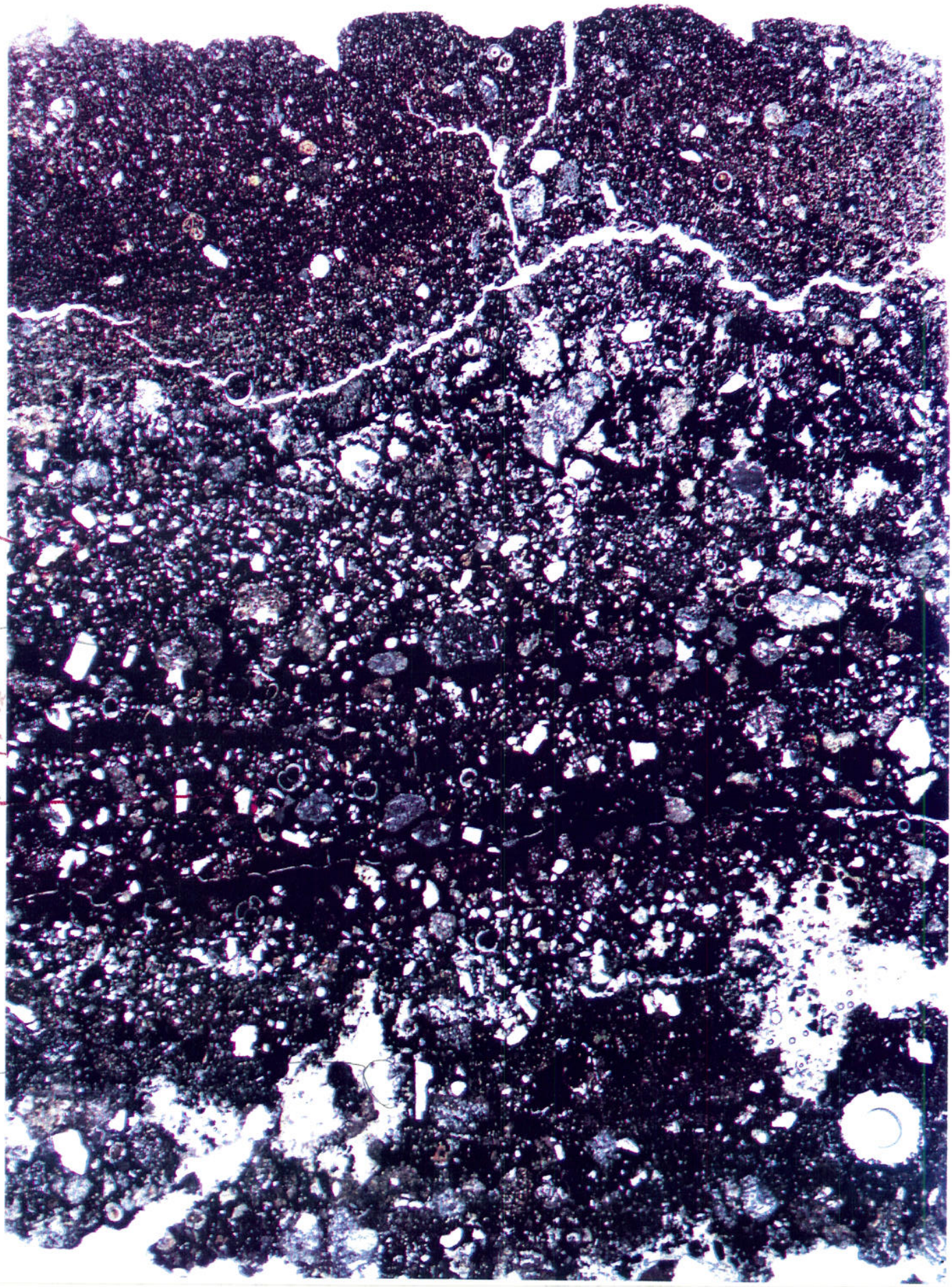
D8-12


DB12 2
DB123
DB12 1
DB12 4

Petrographic Descriptions

Cruise ID TT192

Sample # D8-12

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

Planar & Wavey laminated Stratabound layers, some radial laminated Mn around mineral grains [illegible] however colloform texture in this section is the exception and not the norm. There is one stratabound layer across the section. Beside this feature Mn mineralization is as a cement and grain replacement.

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

Stratabound layer across whole section (near bottom) is Dense & laminated. most of the layers are textured w/rough surface, in some places the layers are aligned & will go in & out of extinction at the same time. There is a Dense smooth layer in the middle of this sequence which leads me to suspect that mineralization occurred inward from the 2 sides and closed up the void w/the last dense layer; there are also areas of very light gray Mn(?) between the 2 "episodes" of mineralization and can cross-cut (photo) the Dense feature. Mn infills fractures in the more textured Mn

Grain Supported Grain supported

Cement Supported

Fracture Orientation

Fracture Fill

Porosity

Alteration and replacement of grains Along stratabound layer near bottom [illegible] many replaced detrital grains and clasts, although replacement is not confined to this layer. There are [illegible] grains which reflect a whiter, brighter grain (clastic primary organics from sediments)

Photo(s) Taken of

SEM: Replaced Grains

Microprobe laminae in the strata form layer

Grain Counts of the Mn Cemented Coarse to Medium Sandstone 0.5 intervals

	Unaltered	Altered
60	Volcanic Rock Fragments	
8	Volcanic Glass	
	Mineral Grains	
2	Pyroxene	
	Olivine	
17	Plagioclase	
	K-spar	
	Amphibole	
	Quartz	
	Others	
	Microfossils Foram not Replaced 17 Partially Replaced 5	
	Others	
22	Matrix	
9	Pore Space	
85	Mn Cement	
	Other Cements	

Note: A few V.R.F. may be reworked sedimentary Rock Fragments

Transmitted Light Notes:

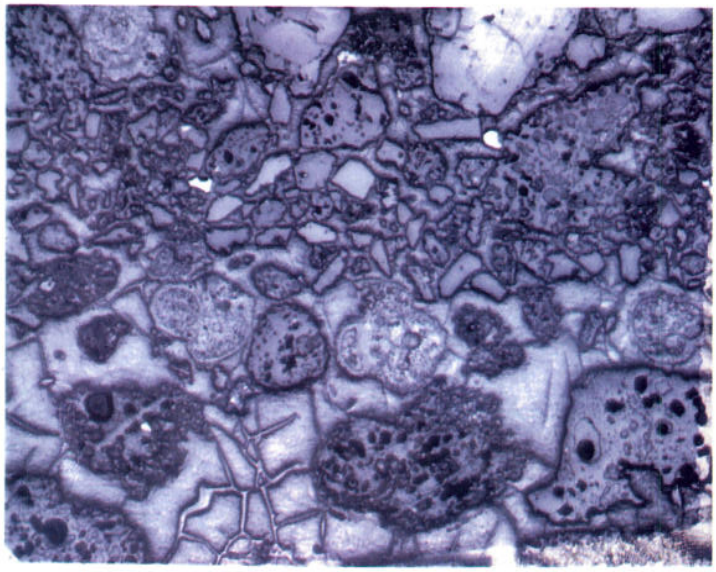
Fine grained [illegible] w/ Fe cement/matrix overlying coarse grained volcaniclastic sandstone w/ foram present

Coarse sandstone fresh (no glassy) volcaniclastic fragments that are subrounded and mineral grains that are angular to subrounded

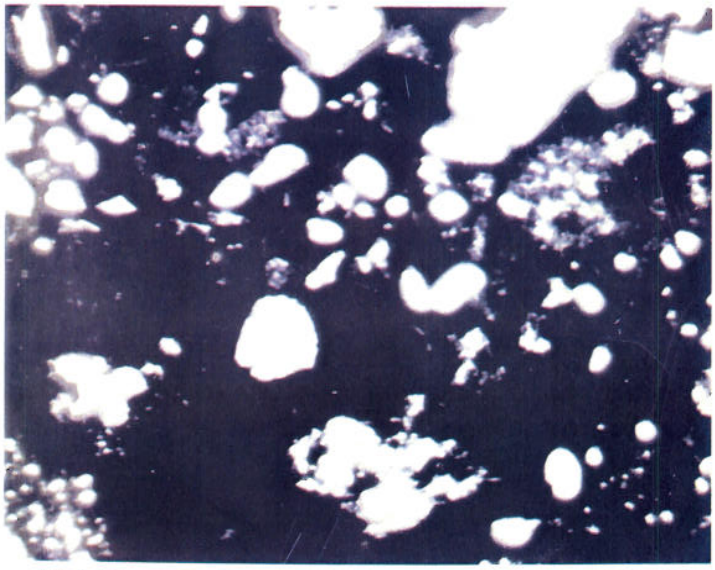
There is some micro bedding [illegible] w/ thin layers of fine [illegible] [illegible] L.G. clasts

Brown [illegible]

Epidote? Crystals pleochroic, diagenetic?

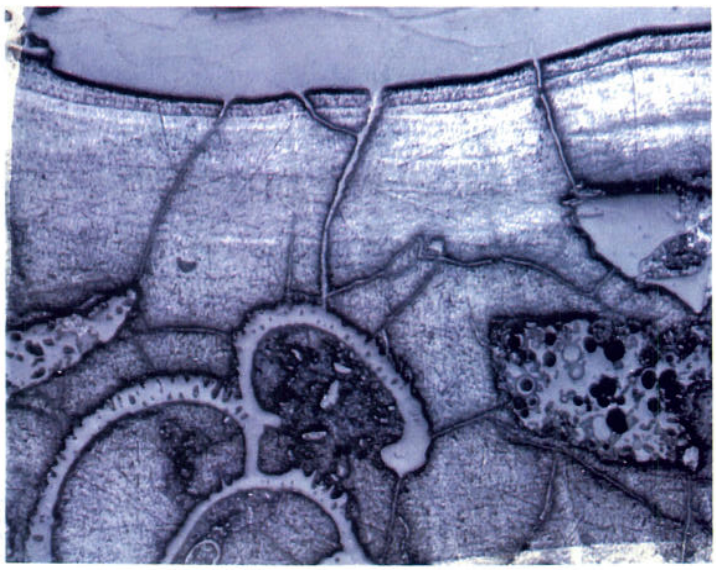


5x10 P.R.L D8-12



5x10 P.T.L D8-12

The Foreon test is not Replaced here



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