

2000

Date 11/29/12

Expedition: 338

Observer: KLM

Site: C0002 Hole: F Core: 175MW1 Sect.:

Interval:

Sediment Name: Silty claystone - single fragment

Smear Slide	Thin Section	Coarse Feaction	Grain Mount
	✓		

Select one and check.

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Peragic	Neritic
✓			

Select one and check.

Percent Texture		
Sand	Silt	Clay
2	23	75

Select one and check.

Percent	Composition
	Siliciclastic Grain
	Minerals
25	Quartz } - subequal
	Feldspars } 3/4
3	Micas
	Ferromagnesian Minerals
	Glauconite
70	Clay Minerals
	Zeolites
	Heavy Minerals
2	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
P	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rhyolitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Silicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragment
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Graing
	Sideritic Graing

[illegible]

Fill percentage (Total must be 100).

Remarks: a few thin (10-20 μm) defm. bands cross entire specimen,
highly visible w/ λ -plate

Date 11/29/12

Expedition: 338

Observer: KLM

Site: C0002

Hole:

F Cuttings
Core: 175mW2 Sect.:

Interval:

Sediment Name: Silty claystone (single fragment)

Smear Slide	Thin Section	Coarse Faction	Grain Mounrt	Granular Sediment	Chemical Sediment		Percent Texture			
	✓			Siliciclastic	Volcaniclastic	Peragic	Neritic	Sand	Silt	Clay
				✓				2	33	65

Select one and check.

Select one and check.

Select one and check.

[illegible]

Fill percentage (Total must be 100).

Remarks: Numerous round holes may be foraminifera/radiolaria plucked during sectioning

Date 11/29/12

Observer: KLM

Hole:

Cutting 5

Core: 27 SMW

Sect.:

Interval:

Sediment Name:

Basalt? Phenocrystic rock w/ crystalline groundmass
(single fragment) Basalt?

Percent Texture		
Sand	Silt	Clay

Select one and check.

[illegible]

Remarks: abundant opaques; phenocrysts are? pyroxenes!

Sediment Smear Slide / Thin Section Description Sheet

Date 11/29/12

Expedition: 338

Observer: KLM

Site: C0002

Hole: F

Core: 55

41 SMW Sect.:

Interval:

Sediment Name:

Silty clayst. (single fragment)

Smear Slide	Thin Section	Coarse Feaction	Grain Mount
	✓		

Select one and check.

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Pelagic	Neritic
✓			

Select one and check.

Percent Texture		
Sand	Silt	Clay
10	30	60

Select one and check.

Percent	Composition
	Siliciclastic Grain
	Minerals
40	Quartz subequal
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
55	Clay Minerals
	Zeolites
	Heavy Minerals
2	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
P	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rhyolitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
3	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Silicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragment
P	Peloid - clay
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Grain
	Sideritic Grain

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
	Pyrite Grain
	Opaque Grain

Fill percentage (Total must be 100).

Remarks:

open primary intra granular porosity

Sediment Smear Slide / Thin Section Description Sheet

Date 11/29/12

Expedition: 338

Observer: KLM

Site: C0002

Hole: F

Core: cuttings

S1SMW

Sect.:

Interval:

Sediment Name: silty claystone (single fragment)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
	✓		

Select one and check.

Granular Sediment	Chemical Sediment
Siliciclastic	Volcaniclastic
✓	

Select one and check.

Percent Texture		
Sand	Silt	Clay
<1	25	75

Select one and check.

Percent	Composition
	Siliclastic Grain
	Minerals
30	Quartz
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
70	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Pieritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rhyolitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Silicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragment
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Grain
	Sideritic Grain

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
	Pyrite Grain
	Opaque Grain

Fill percentage (Total must be 100).

Remarks:

dark zone is invasion of grinding grit along an induced fracture (?)

Sediment Smear Slide / Thin Section Description Sheet

Date 11/29/12

Expedition: 338

Observer: KLM

Site: C0002

Hole: F

Core: cuttings

56 SMW

Sect.:

Interval:

Sediment Name:

calcareous ash (single fragment)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
	✓		

Select one and check.

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Pelagic	Neritic
	✓		

Select one and check.

Percent Texture		
Sand	Silt	Clay
5	30	65

Select one and check.

Percent	Composition
	Siliciclastic Grain
	Minerals
	Quartz
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
80	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
R	Pumice
	Volcaniclastic Lithic Grain
	Pieritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rhyolitic Lithic Grain
	Crystal Grain
20	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Silicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragment
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Aragonitic Grain
	Sideritic Grain

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
	Pyrite Grain
	Opaque Grain

Fill percentage (Total must be 100).

Remarks: a diagenetically altered ash (calcareous) - contains a fracture w/ fragments of the wall-rock (crack-seal?) filled w/ ? peloidal microbial calcite in calcite spar; vitric fragments are glassy in part, but also extensively calcite-repl. + silicified

Sediment Smear Slide / Thin Section Description Sheet

Date 11/30/12

Expedition: 338

Observer: KLM

Site: C0002

Hole: F

Core: 645MW

Sect.:

Interval:

Sediment Name:

claystone

(single fragment)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
	✓		

Select one and check.

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Peragic	Neritic
✓			

Select one and check.

Percent Texture		
Sand	Silt	Clay
0	15	85

Select one and check.

Percent	Composition
	Siliciclastic Grain
	Minerals
15	Quartz
	Feldspars
1	Micas
	Ferromagnesian Minerals
	Glaucanite
80	Clay Minerals
	Zeolites
	Heavy Minerals
1	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rhyolitic Lithic Grain
	Crystal Grain
2	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
R	Foraminifers
	Siliceous Grain
	Diatom
R	Radiolarians
	Silicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragment
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Grain
	Sideritic Grain

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
	Pyrite Grain
	Opaque Grain
1	red-brown organic matter

Fill percentage (Total must be 100).

Remarks:

Date 11/30/12

Observer: *KLM*

Interval:

Sediment Name: silty claystone (single fragment)

Smear Slide	Thin Section	Coarse Faction	Grain Mounrt	Granular Sediment Chemical Sediment				Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic	Neritic	Sand	Silt	Clay
	✓							1	34	65

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Siliclastic Grain		Pelagic Grain		Others
	Minerals		Calcareous Grain		Gypsiferous Grain
	Quartz		Nannofossils		Calcareous Grain
43	Feldspars		Foraminifers		Sapropelic Grain
	Micas		Siliceous Grain		Mn Nodules/ Crusts
	Ferromagnesian Minerals		Diatom	2	Pyrite Grain crystal
	Glauconite	R	Radiolarians		Opaque Grain
55	Clay Minerals		Silicoflagellates		
	Zeolites		Sponge Spicule	1	red-brown OM
	Heavy Minerals				
	Pyrite				
	Phospholite				
	Aragonite		Neritic Grain		
	Calcite		Ooid		
	Oolites		Spherical Particles		
	Lithic Grain		Elliptical Particles		
	Sedimentary Lithic Grain		Bioclast		
	Igneous Lithic Grain		Molluscan		
	Metamorphic Lithic Grain		Algal		
			Pellet		
			Molluscs		
			Echinoderms		
			Others		
	Volcaniclastic Grain		Intraclast		
	Scoria / Pumice		Carbonate Rock Fragment		
	Scoria		Peloid		
	Pumice		Pisolite		
	Volcaniclastic Lithic Grain		Calcareous Grain		
	Picritic Lithic Grain		Dolomitic Grain		
	Basaltic Lithic Grain		Araginitic Grain		
	Andesitic Lithic Grain		Sideritic Grain		
	Dacitic Lithic Grain				
	Rhyolitic Lithic Grain				
	Crystal Grain				
	Vitric Grain				

Fill percentage (Total must be 100).

Remarks:

Complex def'm $\rightarrow$? scaly fabric? $\rightarrow$ individual bands traverse entire sample

Date 12-8-12

338

Observer:

KLM

Hole:

F

Core:

86

Sect.:

Interval:

claystone

(single fragment)

Percent Texture		
Sand	Silt	Clay
0	15	85

Select one and check.

[illegible]

Remarks:

silt conc. in burrows?

Date 12/08/12

Observer: KLM

Sediment Name: Silty claystone (single fragment)

[illegible]

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Siliclastic Grain		Pelagic Grain		Others
	Minerals		Calcareous Grain		Gypsiferous Grain
28	Quartz		Nannofossils		Calcareous Grain
	Feldspars		Foraminifers		Sapropelic Grain
	Micas		Siliceous Grain		Mn Nodules/ Crusts
	Ferromagnesian Minerals		Diatom	2	Pyrite Grain
	Glauconite		Radiolarians		Opaque Grain
65	Clay Minerals		Sillicoflagellates		
	Zeolites		Sponge Spicule		
	Heavy Minerals			1	red-brown OM
	Pyrite				
	Phospholite				
	Aragonite		Neritic Grain		
	Calcite		Ooid		
	Oolites		Spherical Particles		
	Lithic Grain		Elliptical Particles		
	Sedimentary Lithic Grain		Bioclast		
	Igneous Lithic Grain		Molluscan		
	Metamorphic Lithic Grain		Algal		
			Pellet		
			Molluscs		
			Echinoderms		
			Others		
	Volcaniclastic Grain		Intraclast		
	Scoria / Pumice		Carbonate Rock Fragment		
	Scoria		Peloid		
	Pumice		Pisolite		
	Volcaniclastic Lithic Grain		Calcareous Grain		
	Picritic Lithic Grain		Dolomitic Grain		
	Basaltic Lithic Grain		Araginitic Grain		
	Andesitic Lithic Grain		Sideritic Grain		
	Dacitic Lithic Grain				
	Rhyolitic Lithic Grain				
	Crystal Grain				
	Vitric Grain				

Fill percentage (Total must be 100).

Remarks:

Date 12/08/12

338

KLM

Hole:

Core:

Sect.:

Interval:

silty claystone

Select one and check.

Select one and check.

Select one and check.

Fill percentage (Total must be 100).

Remarks:

Date 12/08/12

Observer: KLM

Sect.:

Interval:

Sediment Name: several fragments - ? pebbles + granules? - see below
mixed - some not sedimentary

Percent Texture		
Sand	Silt	Clay

Select one and check.

[illegible]

Fill percentage (Total must be 100).

Remarks:

includes: wood fragment; polycrystalline quartz grains;
quartzite w/vein (metamorphic); grains of anhedral calcite
spar (marble?); pelleted chert; lithic arkose; veined chert

Date 12/08/12

Expedition: 338

Observer: KLM

Site: C0002

Hole:

F cuttings
-Core: 110

Sect.:

Interval:

Sediment Name:

Silty claystone, } (8 fragments)
Clayey sandstone } → mixed siliciclastic

Percent Texture		
Sand	Silt	Clay

Select one and check.

Select one and check.

Select one and check.

[illegible]

Fill percentage (Total must be 100).

Remarks: Sand is mostly qtz + feld; minor lithics mostly chert, minor VRFs; little or no carb.

Date 12/08/12

Observer: FLW

Interval:

(2 fragments)

Percent Texture		
Sand	Silt	Clay

Select one and check.

[illegible]

Remarks:

little or no carbonate

Date 12/08/12

Expedition: 338

Observer: KLM

Site: C0002 Hole: F Core: Cuttings 130

Sect.: _____ Interval: _____

Sediment Name: silty claystone (2 fragments)

Smear Slide	Thin Section	Coarse Feaction	Grain Mount	Granular Sediment	Chemical Sediment		Percent Texture			
				Siliciclastic	Volcaniclastic	Peragic	Neritic	Sand	Silt	Clay
	✓			✓						

Select one and check.

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Siliclastic Grain		Pelagic Grain		Others
	Minerals		Calcareous Grain		Gypsiferous Grain
	Quartz		Nannofossils		Calcareous Grain
	Feldspars		Foraminifers		Sapropelic Grain
	Micas		Siliceous Grain		Mn Nodules/ Crusts
	Ferromagnesian Minerals		Diatom		Pyrite Grain
	Glauconite		Radiolarians		Opaque Grain
	Clay Minerals		Silicoflagellates		
	Zeolites		Sponge Spicule		
	Heavy Minerals				
	Pyrite				
	Phospholite				
	Aragonite		Neritic Grain		
	Calcite		Ooid		
	Oolites		Spherical Particles		
	Lithic Grain		Elliptical Particles		
	Sedimentary Lithic Grain		Bioclast		
	Igneous Lithic Grain		Molluscan		
	Metamorphic Lithic Grain		Algal		
			Pellet		
			Molluscs		
			Echinoderms		
			Others		
	Volcaniclastic Grain		Intraclast		
	Scoria / Pumice		Carbonate Rock Fragment		
	Scoria		Peloid		
	Pumice		Pisolite		
	Volcaniclastic Lithic Grain		Calcareous Grain		
	Picritic Lithic Grain		Dolomitic Grain		
	Basaltic Lithic Grain		Araginitic Graing		
	Andesitic Lithic Grain		Sideritic Graing		
	Dacitic Lithic Grain				
	Rholitic Lithic Grain				
	Crystal Grain				
	Vitric Grain				

Fill percentage (Total must be 100).

Remarks: one fragment contains a very nice agglutinated tube - ? palantus?

Date 12/08/12

Expedition: 338

Observer: KLM

Site: C0092

Hole:

Cottings
Core: 144

Sect.:

Interval:

Sediment Name:

Silty claystone

(2 fragments)

Smear Slide	Thin Section	Coarse Faction	Grain Mounrt	Granular Sediment	Chemical Sediment	Percent Texture				
				Siliciclastic	Volcaniclastic	Peragic	Neritic	Sand	Silt	Clay
	✓			✓						

Select one and check.

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Siliclastic Grain		Pelagic Grain		Others
	Minerals		Calcareous Grain		Gypsiferous Grain
	Quartz		Nannofossils		Calcareous Grain
	Feldspars		Foraminifers		Sapropelic Grain
	Micas		Siliceous Grain		Mn Nodules/ Crusts
	Ferromagnesian Minerals		Diatom		Pyrite Grain
	Glauconite		Radiolarians		Opaque Grain
	Clay Minerals		Sillicoflagellates		
	Zeolites		Sponge Spicule		
	Heavy Minerals				
	Pyrite				
	Phospholite				
	Aragonite		Neritic Grain		
	Calcite		Ooid		
	Oolites		Spherical Particles		
	Lithic Grain		Elliptical Particles		
	Sedimentary Lithic Grain		Bioclast		
	Igneous Lithic Grain		Molluscan		
	Metamorphic Lithic Grain		Algal		
			Pellet		
			Molluscs		
			Echinoderms		
			Others		
	Volcaniclastic Grain		Intraclast		
	Scoria / Pumice		Carbonate Rock Fragment		
	Scoria		Peloid		
	Pumice		Pisolite		
	Volcaniclastic Lithic Grain		Calcareous Grain		
	Picritic Lithic Grain		Dolomitic Grain		
	Basaltic Lithic Grain		Araginitic Graing		
	Andesitic Lithic Grain		Sideritic Graing		
	Dacitic Lithic Grain				
	Rholitic Lithic Grain				
	Crystal Grain				
	Vitric Grain				

Fill percentage (Total must be 100).

Remarks:

Silt-filled bioturbation structures

Date 12/08/12

Expedition: 338

Observer: KLM

Site: C0002

Hole:

cuttings
Core: 153

Sect.:

Interval:

Sediment Name: Coment?

(Single fragment)

Smear Slide	Thin Section	Coarse Faction	Grain Mounrt	Granular Sediment	Chemical Sediment		Percent Texture			
				Siliciclastic	Volcaniclastic	Peragic	Neritic	Sand	Silt	Clay
	✓			✓						

Select one and check.

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Siliclastic Grain		Pelagic Grain		Others
	Minerals		Calcareous Grain		Gypsiferous Grain
	Quartz		Nannofossils		Calcareous Grain
	Feldspars		Foraminifers		Sapropelic Grain
	Micas		Siliceous Grain		Mn Nodules/ Crusts
	Ferromagnesian Minerals		Diatom		Pyrite Grain
	Glauconite		Radiolarians		Opaque Grain
	Clay Minerals		Silicoflagellates		
	Zeolites		Sponge Spicule		
	Heavy Minerals				
	Pyrite				
	Phospholite				
	Aragonite		Neritic Grain		
	Calcite		Ooid		
	Oolites		Spherical Particles		
	Lithic Grain		Elliptical Particles		
	Sedimentary Lithic Grain		Bioclast		
	Igneous Lithic Grain		Molluscan		
	Metamorphic Lithic Grain		Algal		
			Pellet		
			Molluscs		
			Echinoderms		
			Others		
	Volcaniclastic Grain		Intraclast		
	Scoria / Pumice		Carbonate Rock Fragment		
	Scoria		Peloid		
	Pumice		Pisolite		
	Volcaniclastic Lithic Grain		Calcareous Grain		
	Pieritic Lithic Grain		Dolomitic Grain		
	Basaltic Lithic Grain		Araginitic Graing		
	Andesitic Lithic Grain		Sideritic Graing		
	Dacitic Lithic Grain				
	Rholitic Lithic Grain				
	Crystal Grain				
	Vitric Grain				

Fill percentage (Total must be 100).

Remarks:

has bubbles $\rightarrow$ sand-size fragments unknown

Sediment Smear Slide / Thin Section Description Sheet

Date 12/08/12Expedition: 338Observer: KLMSite: C0002Hole: FCore: cuttings161Sect.: Interval: Sediment Name: Chyeg siltstone(single fragment)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
	✓		

Select one and check.

Granular Sediment	Chemical Sediment		
Siliciclastic	Volcaniclastic	Pelagic	Neritic
✓			

Select one and check.

Percent Texture		
Sand	Silt	Clay
20	40	40

Select one and check.

Percent	Composition
	Siliciclastic Grain
	Minerals
65	Quartz
5	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
35	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rhyolitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Silicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragment
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Grain
	Sideritic Grain

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
2	Pyrite Grain crystals
	Opaque Grain
3	organic matter

Fill percentage (Total must be 100).

Remarks:

Sediment Smear Slide / Thin Section Description Sheet

Date 12/08/12

Expedition: 338

Observer: KLM

Site: C0002 Hole: F Core: cuttings 169 Sect.: Interval:

Sediment Name: Silty claystone (single fragment)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
	✓		

Select one and check.

Granular Sediment	Chemical Sediment
Siliciclastic	Volcaniclastic
✓	

Select one and check.

Percent Texture		
Sand	Silt	Clay
0	25	75

Select one and check.

Percent	Composition
	Siliclastic Grain
	Minerals
	Quartz
88	Feldspars
	Micas
	Ferromagnesian Minerals
	Glaucinite
70	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rholitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
1	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Silicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragment
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Grain
	Sideritic Grain

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
1	Pyrite Grain crystal
	Opaque Grain

Fill percentage (Total must be 100).

Remarks:

Sediment Smear Slide / Thin Section Description Sheet

Date 12/08/12

Expedition: 338

Observer: KLM

Site: C0002

Hole: F

Core: 169

Sect.:

Interval:

Sediment Name: Claystone

(2 fragments)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
	✓		

Select one and check.

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Peragic	Neritic
✓			

Select one and check.

Percent Texture		
Sand	Silt	Clay
	20	80

Select one and check.

Percent	Composition
	Siliclastic Grain
	Minerals
25	Quartz
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
25	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rholitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Silicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragment
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Grain
	Sideritic Grain

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
	Pyrite Grain
	Opaque Grain

Fill percentage (Total must be 100).

Remarks:

Sediment Smear Slide / Thin Section Description Sheet

Date 12/09/12

Expedition: 338

Observer: KLM

Site: C0002 Hole: F Core: Cuttings 177

Sect.: Interval:

Sediment Name: Clayey siltstone
Silty claystone w/ V. fine sandstone (2 fragments)
layer

Smear Slide	Thin Section	Coarse Feaction	Grain Mount
	✓		

Select one and check.

Granular Sediment	Chemical Sediment
Siliciclastic	Volcaniclastic
✓	

Select one and check.

Percent Texture
Sand

Select one and check.

Percent	Composition
	Siliciclastic Grain
	Minerals
	Quartz
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Pieritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rhyolitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Silicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragment
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Grain
	Sideritic Grain

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
	Pyrite Grain
	Opaque Grain

Fill percentage (Total must be 100).

Remarks: sandstone is highly compacted w/ much ductile grain defm.
GF + MRFs are dominant grains

Date 12/09/12

Observer: KLM

Interval:

Sediment Name: silty claystone (2 fragments)

Smear Slide	Thin Section	Coarse Feaction	Grain Mounrt
	✓		

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Peragic	Neritic
☒			

Percent Texture		
Sand	Silt	Clay
	30	70

Select one and check.

Percent	Composition
	Siliclastic Grain
	Minerals
40	Quartz
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
60	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picrotic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rhyolitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Silicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragment
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Graing
	Sideritic Graing

[illegible]

Remarks:

Date 12/09/12

338

Observer:

KLM

Hole:

 π

Core:

193

Sect.:

Interval:

Sediment Name:

fine sandstone

sdysilty claystone

(5 fragments)

Select one and check.

Select one and check.

Select one and check.

Volcaniclastic Grain

Neritic Grain

Others	1
--------	---

Fill percentage (Total must be 100).

Remarks:

Coarser grains are qtz, chert, + mudstone

? drilling induced aggregates?

Sediment Smear Slide / Thin Section Description Sheet

Date 12/69/12

Expedition: 338

Observer: KLM

Site: C0002

Hole: F

Core: C0002

217

Sect.:

Interval:

Sediment Name: v. fine sandstone
silty claystone

(2 fragments)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
	✓		

Select one and check.

Granular Sediment	Chemical Sediment
Siliciclastic	Volcaniclastic
✓	

Select one and check.

Percent Texture
Sand

Select one and check.

Percent	Composition
	Siliciclastic Grain
	Minerals
	Quartz
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rhyolitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Silicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragment
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Aragonitic Grain
	Sideritic Grain

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
	Pyrite Grain
	Opaque Grain

Fill percentage (Total must be 100).

Remarks:

Sandstone has been compacted w/ much ductile grain
 defm → IGV ~ "0"; grain assemblage is dominantly qtz-feld;
 lithics are hard to ID → mostly micaceous MRFs (?) — little
 or no evidence of VRFs; abundant epidote in dense min. assembl.

Date 12/09/12

Expedition:

Observer: KLM

Site: 6002

Hole:

Core:

Core: 238

Sect.:

Interval:

Sediment Name: V. fine sandstone
sandy silty claystone (2 fragments - mixed lithologies)
silty claystone

Smear Slide	Thin Section	Coarse Feaction	Grain Mounrt
	✓		

Select one and check.

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Peragic	Neritic
✓			

Select one and check.

Percent Texture		
Sand	Silt	Clay

Select one and check.

Percent	Composition
	Siliclastic Grain
	Minerals
	Quartz
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picroitic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rhyolitic Lithic Grain
	Crystal Grain
	Vitric Grain

[illegible][illegible]

Fill percentage (Total must be 100).

Remarks:

sandst. is highly compacted w/ abundant ductile lithics

Sediment Smear Slide / Thin Section Description Sheet

Date 12/09/12

Expedition: 338

Observer: *KLM*

Site: C0002 Hole: F ^{Cuttings} ~~Core~~ 255 Sect.:

Interval:

Sediment Name: silty claystone (2 fragments)

Smear Slide	Thin Section	Coarse Faction	Grain Mount
	✓		

Select one and check.

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Peragic	Neritic
✓			

Select one and check.

Percent Texture		
Sand	Silt	Clay

Select one and check.

[illegible]

Fill percentage (Total must be 100).

Remarks: burrow mottles

Sediment Smear Slide / Thin Section Description Sheet

Date 12/09/12

Expedition: 338

Observer: KLM

Site: C0002 Hole: F cuttings Core: 258

Sect.:

Interval:

Sediment Name: silty claystone (1 fragment - 2 lithol)
silty v. fine sandstone

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
	✓		

Select one and check.

Granular Sediment	Chemical Sediment
Siliciclastic	Volcaniclastic
✓	

Select one and check.

Percent Texture
Sand

Select one and check.

Percent	Composition
	Siliclastic Grain
	Minerals
	Quartz
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glaucinite
	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rhyolitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Silicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragment
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Grain
	Sideritic Grain

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
	Pyrite Grain
	Opaque Grain

Fill percentage (Total must be 100).

Remarks: sandstone highly compacted w/ much ductile grain defm -
Q-F-L subequal. Many v-fine gr. mudstone (?) clasts; also
micas, MRFs

Sediment Smear Slide / Thin Section Description Sheet

Date

12/09/12

Expedition:

338

Observer:

KLM

Site:

C0002

Hole:

F

Core:

cuttings 260

Sect.:

Interval:

Sediment Name:

silty claystone

(single fragment)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
	✓		

Select one and check.

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Peragic	Neritic
✓			

Select one and check.

Percent Texture		
Sand	Silt	Clay
1	35	65

Select one and check.

Percent	Composition
	Siliclastic Grain
	Minerals
36	Quartz
35	Feldspars
	Micas
	Ferromagnesian Minerals
	Glaucinite
60	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rhyolitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
2	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Silicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragment
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Grain
	Sideritic Grain

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
2	Pyrite Grain crystals
	Opaque Grain
R	Red-br. OM

Fill percentage (Total must be 100).

Remarks:

pyrite rather coarse + in cubes; possible zeolites in foram test

Date 12/09/12

Observer: *KLM*

Sediment Name: Silty claystone (2 fragments)

Smear Slide	Thin Section	Coarse Faction	Grain Mounrt	Granular Sediment	Chemical Sediment		Percent Texture			
				Siliciclastic	Volcaniclastic	Peragic	Neritic	Sand	Silt	Clay
	✓			✓						

Select one and check.

[illegible]

Remarks: sandy lithology has burrows; claystone has minor defm. bands

Sediment Smear Slide / Thin Section Description Sheet

Date 12/09/12

Expedition: 338

Observer: KLM

Site: C0002

Hole: F

Core: 289

Sect.:

Interval:

Sediment Name:

silty claystone (single fragment)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
	✓		

Select one and check.

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Pelagic	Neritic
✓			

Select one and check.

Percent Texture		
Sand	Silt	Clay
2	28	70

Select one and check.

Percent	Composition
	Siliclastic Grain
	Minerals
33	Quartz
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
65	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rhyolitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
2	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Silicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragment
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Grain
	Sideritic Grain

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
1	Pyrite Grain crystals
	Opaque Grain

Fill percentage (Total must be 100).

Remarks:

burrow mottles very distinct w/ gypsum plate; small detm. band - poss. agglutinate tube OR sil. sponge spic.

Date 12/09/12

Observer: KLM

Interval:

Sediment Name: Silty claystone (many fragments)

Smear Slide	Thin Section	Coarse Feaction	Grain Mounrt
			

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Peragic	Neritic
✓			

Percent Texture		
Sand	Silt	Clay

Select one and check.

Percent	Composition
	Siliciclastic Grain
	Minerals
	Quartz
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rhyolitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Sillicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragment
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Graing
	Sideritic Graing

[illegible]

Fill percentage (Total must be 100).

Remarks: all silty claystone - many w/ distinct brown mottles