



Sediment Smear Slide / Thin Section Description Sheet

Date: 14 July 2019

Expedition: 358

Observer: MH

Site: C00025 Hole: 1A Core: 1R Section: CC Interval: 7.0-7.0 cm

Sediment Name: Silty clay(stone)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		~1	25	75

Select one and check

Select one and check

Percent	Composition	Percent	Composition	Percent	Composition
Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types	
C	Quartz		Calcareous	F	Dense minerals ¹ (Hb, Px, etc)
C	Feldspars	A	Nannofossils	C	Micas (biotite, musc, chl)
A	Clay minerals	C	Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
Lithic Grains			Diatom	F	Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate	F	Terrestrial organic matter
C	Mudstone	F	Sponge Spicule		Other (specify):
	Siltstone/sandstone	Other bioclasts		Authigenic components	
	Limestone		Mollusk		Pyrite (framboids)
	Metamorphic lithic		Algae	F	Pyrite (euhedral)
	Plutonic lithic		Echinoderm		Pyrite (grain coating)
			Benthic foraminifer	R	Calcite
Volcaniclastic Grains			Other bioclast (specify)		Dolomite
	Vitric fragments	Other carbonate allochems			Zeolites
F	Clear glass		Peloid		Fe/Mn oxide
	Colored glass		Intraclast		Other (specify):
	Pumice		Ooid		
	Volcanic lithics		Silt or sand-size carbonate allochem fragment (unspecified)		
	Felsitic	A	Carbonate mud (apart from nannos)		
	Microlite				
	Lathwork				
	Altered volcanic (palagonite)				

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Hemipelagic

* This form is not designed for shallow water (neritic) carbonate sediments

D (>50%), A = (>10-50%), C = (>1-10%), F (>0.1-1%)
R (<0.10%)

Sediment Smear Slide / Thin Section Description Sheet

Date: 14 July 2019

Expedition: 358

Observer: MH

Site: C00025 Hole: A Core: 3R Section: 2A Interval: (.0 cm - 1.0 cm)

Sediment Name: Sandy silt (silt-sand-clay) stone

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment ^{Hemipel}			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
✓						✓		15	40	45

Select one and check.

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
C	Quartz
C	Feldspars
A	Clay minerals
Lithic Grains	
Sedimentary Lithics	
	Chert
C	Mudstone ✓
	Siltstone/sandstone
	Limestone
C	Metamorphic lithic ✓
	Plutonic lithic
Volcaniclastic Grains	
	Vitric fragments
F-R	Clear glass
	Colored glass
	Pumice
	Volcanic lithics
	Felsitic
	Microlite
	Lathwork
	Altered volcanic(palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
C	Nannofossils
C	Foraminifers ✓
	Siliceous
R	Diatom ✓
	Radiolarian
	Sillicoflagellate
F	Sponge Spicule ✓
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
C	Carbonate mud (apart from nannos)

Percent	Composition
Minor Grain Types	
C	Dense minerals ¹
C	Micas (biotite, musc, chl)
R	Glauconite
	Phosphate (bones, teeth, etc)
C	Opaque Grain ✓
	Marine organic matter
F	Terrestrial organic matter
	Other (specify):
Authigenic components	
	Pyrite (framboids)
C	Pyrite (euhedral) ✓
	Pyrite (grain coating) ✓
	Calcite
	Dolomite
	Zeolites
R	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Hemipelagic

* This form is not designed for shallow water (neritic) carbonate sediments

D (>50%), A (>10-50%), C (>1-10%), F (>0.1-1%)
R (<0.1%)

Sediment Smear Slide / Thin Section Description Sheet

Date: 14 July 2019

Expedition: 358

Observer: MH

Site: C0002 5 Hole: A Core: 4R Section: 5A

Interval: 1.0-1.0 cm

Sediment Name: Sandy silt stone (sand-silt-clay)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
<input checked="" type="checkbox"/>			

Select one and check.

Granular Sediment <u>Hemi</u>			Other material	Percent Texture		
Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
		<input checked="" type="checkbox"/>		<u>15</u>	<u>50</u>	<u>45</u>

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
<u>C-A</u>	Quartz
<u>C</u>	Feldspars
<u>A</u>	Clay minerals
Lithic Grains	
Sedimentary Lithics	
<u>F</u>	Chert <u>(polycrystalline)</u>
<u>C</u>	Mudstone <u>(thin)</u>
	Siltstone/sandstone
	Limestone
<u>F</u>	Metamorphic lithic <input checked="" type="checkbox"/>
	Plutonic lithic
Volcaniclastic Grains	
	Vitric fragments
<u>F</u>	Clear glass <input checked="" type="checkbox"/>
	Colored glass
<u>F</u>	Pumice <input checked="" type="checkbox"/>
	Volcanic lithics
	Felsitic
<u>F</u>	Microinite
	Lathwork
	Altered volcanic (palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
<u>C</u>	Nannofossils
<u>F</u>	Foraminifers <input checked="" type="checkbox"/>
	Siliceous
	Diatom
	Radiolarian
	Silicoflagellate
<u>F</u>	Sponge Spicule <input checked="" type="checkbox"/>
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
<u>C</u>	Carbonate mud (apart from nannos)

Percent	Composition
Minor Grain Types	
<u>C</u>	Dense minerals ¹ <input checked="" type="checkbox"/>
<u>C</u>	Micas (biotite, musc, chl) ¹ <input checked="" type="checkbox"/>
	Glauconite
	Phosphate (bones, teeth, etc)
<u>C</u>	Opaque Grain
	Marine organic matter
<u>C</u>	Terrestrial organic matter <input checked="" type="checkbox"/>
	Other (specify):
Authigenic components	
	Pyrite (framboids)
	Pyrite (euhedral)
<u>C</u>	Pyrite (grain coating) <input checked="" type="checkbox"/>
	Calcite
<u>F</u>	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Hemipelagic

* This form is not designed for shallow water (neritic) carbonate sediments

D (>50%), A (>10-50%), C (>1-10%), F (>0.1-1%)
R (<0.1%)

Sediment Smear Slide / Thin Section Description Sheet

Date: 14 July 2019

Expedition: 358

Observer: MH

Site: C00025 Hole: A Core: 5R Section: 3A Interval: 1.0cm

Sediment Name: silty claystone

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment <u>Hemi</u>			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>		~3	20	~77

Select one and check

Select one and check

Percent	Composition
Major Siliciclastic Grain Types	
<u>C</u>	Quartz
<u>C</u>	Feldspars
<u>A</u>	Clay minerals
Lithic Grains	
Sedimentary Lithics	
<u>F</u>	Chert <input checked="" type="checkbox"/>
<u>C</u>	Mudstone <input checked="" type="checkbox"/>
	Siltstone/sandstone
	Limestone
<u>F</u>	Metamorphic lithic <input checked="" type="checkbox"/>
	Plutonic lithic
Volcaniclastic Grains	
Vitric fragments	
<u>C</u>	Clear glass
	Colored glass
	Pumice
Volcanic lithics	
	Felsitic
<u>F</u>	Microlite
	Lathwork
	Altered volcanic (palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
<u>C</u>	Nannofossils
<u>C</u>	Foraminifers
	Siliceous
<u>C</u>	Diatom <input checked="" type="checkbox"/>
	Radiolarian
<u>R</u>	Silicoflagellate
<u>F</u>	Sponge Spicule <input checked="" type="checkbox"/>
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
<u>C</u>	Carbonate mud (apart from nannos)

Percent	Composition
Minor Grain Types	
<u>F-C</u>	Dense minerals ¹
<u>C</u>	Micas (biotite, musc, chl) ¹
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
<u>F</u>	Terrestrial organic matter
	Other (specify):
Authigenic components	
	Pyrite (framboids)
	Pyrite (euhedral)
<u>F-C</u>	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Hemipelagic

* This form is not designed for shallow water (neritic) carbonate sediments

D (>50%), A (>10-50%), C (>1-10%), F (>0.1-1%)
R (<0.1%)

Sediment Smear Slide / Thin Section Description Sheet

Date: 14 Jul. 2019

Expedition: 358

Observer: DJ

Site: C00025

Hole: A

Core: 6R

Section: 3

Interval: 21 cm

Sediment Name: silty clay/clayey silt(stone)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
<u>X</u>						<u>hemipelagic</u>		<u>0</u>	<u>~50</u>	<u>~50</u>

Select one and check.

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
<u>C</u>	Quartz
<u>F</u>	Feldspars
<u>A</u>	Clay minerals
Lithic Grains	
Sedimentary Lithics	
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
Volcaniclastic Grains	
	Vitric fragments
	Clear glass
	Colored glass
	Pumice
	Volcanic lithics
	Felsitic
	Microlite
	Lathwork
	Altered volcanic(palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
<u>D</u>	Nannofossils
	Foraminifers
	Siliceous
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nannos)

Percent	Composition
Minor Grain Types	
<u>R</u>	Dense minerals ¹
	Micas (biotite, musc, chl) ¹
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
Authigenic components	
	Pyrite (framboids)
	Pyrite (euhedral)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: mostly nannos; few calcareous (shell?) fragments. elastic grains (presumably) mostly quartz; few feldspar grains. Hdl rare

* This form is not designed for shallow water (neritic) carbonate sediments

D (75%), A (10-50%), C (1-10%), F (0.1-1%)
R (<0.1%)

Sediment Smear Slide / Thin Section Description Sheet

Date: 14 Jul 2019

Expedition: 358

Observer: DJ

Site: C00025 Hole: A Core: 7R Section: 7 Interval: 1cm

Sediment Name: silty clay-/clayey silt(stone)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X						hemipelagic		0	~50	~50

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types	
C	Quartz		Calcareous		Dense minerals ¹
F	Feldspars	D	Nannofossils	F	Micas (biotite, musc, chl) ¹
	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
Lithic Grains			Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate		Terrestrial organic matter
	Mudstone		Sponge Spicule		Other (specify):
	Siltstone/sandstone				
	Limestone	Other bioclasts			
	Metamorphic lithic		Mollusk	Authigenic components	
	Plutonic lithic		Algae		Pyrite (framboids)
			Echinoderm		Pyrite (euhedral)
			Benthic foraminifer		Pyrite (grain coating)
Volcaniclastic Grains			Other bioclast (specify)		Calcite
	Vitric fragments				Dolomite
	Clear glass	Other carbonate allochems			Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics		Ooid		
	Felsitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Microlite				
	Lathwork		Carbonate mud (apart from nannos)		
	Altered volcanic(palagonite)				

¹List under remarks if possible

Fill percentage (Total must be 100).

Remarks: mostly nannos, clastic grains presumably mostly quartz & few feldspars, few grains of biotite

* This form is not designed for shallow water (neritic) carbonate sediments

D (>50%), A (10-50%), C(1-10%), F(0.1-1%), R (<0.1%)

Sediment Smear Slide / Thin Section Description Sheet

Date: 14 Jul 2019

Expedition: 358

Observer: DJ

Site: C00025

Hole: A

Core: 8R

Section: 5

Interval: 1

Sediment Name: silty clay - / clayey siltstone

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
<u>X</u>						<u>hemipelagic</u>		<u>0</u>	<u>~50</u>	<u>~50</u>

Select one and check

Select one and check

Percent	Composition
Major Siliciclastic Grain Types	
<u>A</u>	Quartz
<u>G</u>	Feldspars
<u>A</u>	Clay minerals
Lithic Grains	
Sedimentary Lithics	
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
Volcaniclastic Grains	
	Vitric fragments
	Clear glass
	Colored glass
	Pumice
	Volcanic lithics
	Felsitic
	Microlite
	Lathwork
	Altered volcanic (palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
<u>R</u>	Nannofossils
<u>R</u>	Foraminifers
	Siliceous
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nanos)

Percent	Composition
Minor Grain Types	
<u>R</u>	Dense minerals ¹
	Micas (biotite, musc, chl) ¹
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
Authigenic components	
	Pyrite (framboids)
	Pyrite (euhedral)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: finest sized fraction mostly nanos, clastic (coarser) grains mostly quartz & some feldspar; occasional foram fragments; rare zircon

* This form is not designed for shallow water (neritic) carbonate sediments

D (>50%), A (10-50%), C (1-10%), F (0.1-1%), R (<0.1%)

Sediment Smear Slide / Thin Section Description Sheet

Date: 14-Jul 2019

Expedition: 358

Observer: DJ

Site: C0002 5

Hole: A

Core: 9

Section: 4

Interval: 1

Sediment Name: silty clay - / clayey silt stone

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
X			

Select one and check.

Granular Sediment			Other material	Percent Texture		
Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
		hemi-pelagic		< 1	~50	~50

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
A	Quartz
C	Feldspars
A	Clay minerals
Lithic Grains	
Sedimentary Lithics	
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
Volcaniclastic Grains	
	Vitric fragments
	Clear glass
	Colored glass
	Pumice
	Volcanic lithics
	Felsitic
	Microlite
	Lathwork
	Altered volcanic (palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
D	Nannofossils
F	Foraminifers
	Siliceous
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nannos)

Percent	Composition
Minor Grain Types	
	Dense minerals ¹
	Micas (biotite, musc, chl) ¹
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
Authigenic components	
	Pyrite (framboids)
	Pyrite (euhedral)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: mostly nannos. clastic fraction qz + fclsp.; occasional birom fragment

* This form is not designed for shallow water (neritic) carbonate sediments

D (>50%), A (40-50%), C (1-10%), F (0.1-1%), R (<0.1%)

Sediment Smear Slide / Thin Section Description Sheet

Date: 14 Jul 2019

Expedition: 358

Observer: DJ

Site: C0002 5 Hole: A Core: 10R Section: 4 Interval: 11

Sediment Name: silty clay - clayey silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
<u>Δ</u>						<u>hemipelagic</u>		<u>< 1</u>	<u>~50</u>	<u>~50</u>

Select one and check.

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
<u>A</u>	Quartz
<u>C</u>	Feldspars
<u>A</u>	Clay minerals
Lithic Grains	
Sedimentary Lithics	
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
Volcaniclastic Grains	
	Vitric fragments
	Clear glass
	Colored glass
	Pumice
	Volcanic lithics
	Felsitic
	Microlite
	Lathwork
	Altered volcanic (palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
<u>A</u>	Nannofossils
	Foraminifers
	Siliceous
<u>F</u>	Diatom
	Radiolarian
	Silicoflagellate
<u>F</u>	Sponge Spicule
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nanos)

Percent	Composition
Minor Grain Types	
<u>F</u>	Dense minerals ¹
	Micas (biotite, musc, chl) ¹
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
Authigenic components	
	Pyrite (framboids)
	Pyrite (euhedral)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100). + few fine sand sized grains

Remarks: Nannos & mostly silt-sized clastic grains (qz, blsp); few HM (zircon, rutile observed)

* This form is not designed for shallow water (neritic) carbonate sediments

D (>50%) A (10-50%) C (1-10%) F (0.1-1%) R (<0.1%)

Sediment Smear Slide / Thin Section Description Sheet

Date: 15 / 07 / 2019

Expedition: 358

Observer: PC

Site: C00025

Hole: A

Core: 11R

Section: 6

Interval: 1

Sediment Name: Silty claystone

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
✓			

Select one and check.

Granular Sediment			Other material	Percent Texture		
Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
		✓		~10%	~40%	~60%

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
A	Quartz
R	Feldspars
C	Clay minerals
Lithic Grains	
Sedimentary Lithics	
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
Volcaniclastic Grains	
F	Vitric fragments
	Clear glass
	Colored glass
	Pumice
	Volcanic lithics
	Felsitic
	Microclitic
	Lathwork
	Altered volcanic (palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
A	Nannofossils
R	Foraminifers
	Siliceous
C	Diatom
	Radiolarian
	Silicoflagellate
C	Sponge Spicule
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nannos)

Percent	Composition
Minor Grain Types	
F	Dense minerals ¹
F	Micas (biotite, musc, chl) ¹
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
Authigenic components	
	Pyrite (framboids)
	Pyrite (euhedral)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

Hemipelagic silty claystone - High content in nannofossils - fragments of diatoms and sponge spicules.

* This form is not designed for shallow water (neritic) carbonate sediments

D = >50% A = 10-50% C = 1-10% F: 0.1-1%
R < 0.1%

Sediment Smear Slide / Thin Section Description Sheet

Date: 15/07/2019

Expedition: 358

Observer: PC

Site: C0002 S

Hole: A

Core: 12R

Section: 7

Interval: 119 cm

Sediment Name: Silty claystone

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
✓			

Select one and check.

Granular Sediment			Other material	Percent Texture		
Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
		✓			40%	60%

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
C	Quartz
	Feldspars
F	Clay minerals
Lithic Grains	
Sedimentary Lithics	
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
Volcaniclastic Grains	
R	Vitric fragments
	Clear glass
	Colored glass
	Pumice
Volcanic lithics	
	Felsitic
	Microclite
	Lathwork
	Altered volcanic(palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
D	Nannofossils
F	Foraminifers
	Siliceous
C	Diatom
	Radiolarian
	Silicoflagellate
C	Sponge Spicule
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nannos)

Percent	Composition
Minor Grain Types	
	Dense minerals ¹
R	Micas (biotite, musc, chl) ¹
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
Authigenic components	
	Pyrite (framboids)
	Pyrite (euhedral)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Hemipelagic silty claystone. Nannofossil dominant

* This form is not designed for shallow water (neritic) carbonate sediments

D = >50% A: 10-50% C: 1-10% F: 0.1-1% R < 0.1%



Sediment Smear Slide / Thin Section Description Sheet

Date: 15/07/ 2019

Expedition: 358

Observer: FC

Site: C0002S Hole: A Core: 13R Section: 3 Interval: 21 cm

Sediment Name: Silty claystone

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
✓						✓		50%	50%	

Select one and check.

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
<u>A</u>	Quartz
<u>R</u>	Feldspars
<u>A</u>	Clay minerals
Lithic Grains	
Sedimentary Lithics	
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
Volcaniclastic Grains	
<u>R</u>	Vitric fragments
	Clear glass
	Colored glass
	Pumice
Volcanic lithics	
	Felsitic
	Microlite
	Lathwork
	Altered volcanic(palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
<u>A</u>	Nannofossils
	Foraminifers
	Siliceous
<u>C</u>	Diatom
	Radiolarian
	Silicoflagellate
<u>C</u>	Sponge Spicule
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nannos)

Percent	Composition
Minor Grain Types	
<u>R</u>	Dense minerals ¹
<u>R</u>	Micas (biotite, musc, chl) ¹
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
Authigenic components	
	Pyrite (framboids)
	Pyrite (euhedral)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Hemipelagic silty claystone to clayey siltstone

* This form is not designed for shallow water (neritic) carbonate sediments

D > 50% A. 10-50% C. 1-10% F 0,1-10% R < 0,1%

Sediment Smear Slide / Thin Section Description Sheet

Date: 15/07/ 2019

Expedition: 358

Observer: PC

Site: C0002

Hole: A

Core: 14R

Section: 6

Interval: 36 cm

Sediment Name: silty claystone to clayey siltstone

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
✓			

Select one and check.

Granular Sediment			Other material	Percent Texture		
Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
		✓			50%	50%

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
A	Quartz
C	Feldspars
D	Clay minerals
Lithic Grains	
Sedimentary Lithics	
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
Volcaniclastic Grains	
R	Vitric fragments
	Clear glass
	Colored glass
	Pumice
	Volcanic lithics
	Felsitic
	Microlite
	Lathwork
	Altered volcanic(palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
A	Nannofossils
F	Foraminifers
	Siliceous
C	Diatom
	Radiolarian
	Silicoflagellate
C	Sponge Spicule
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nannos)

Percent	Composition
Minor Grain Types	
R	Dense minerals ¹
C	Micas (biotite, musc, chl) ¹
	Glauconite
	Phosphate (bones, teeth, etc)
F	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
Authigenic components	
	Pyrite (framboids)
	Pyrite (euhedral)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Hemipelagic silty claystone to clayey siltstone with clay minerals dominant.

* This form is not designed for shallow water (neritic) carbonate sediments

D >50% A 10-50% C 1-10% F 0.1-1% R <0.1%

Sediment Smear Slide / Thin Section Description Sheet

Date: 15/07/ 2019

Expedition: 358

Observer: PC

Site: C00025 Hole: A Core: ISR Section: 5 Interval: 52 cm

Sediment Name: Silty claystone to clayey siltstone

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
✓						✓		50%	50%	

Select one and check.

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
<u>A</u>	Quartz
<u>R</u>	Feldspars
<u>A</u>	Clay minerals
Lithic Grains	
Sedimentary Lithics	
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
Volcaniclastic Grains	
Vitric fragments	
	Clear glass
	Colored glass
	Pumice
Volcanic lithics	
	Felsitic
	Microlite
	Lathwork
	Altered volcanic(palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
<u>A</u>	Nannofossils
<u>C</u>	Foraminifers
	Siliceous
<u>C</u>	Diatom
	Radiolarian
	Silicoflagellate
<u>C</u>	Sponge Spicule
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nannos)

Percent	Composition
Minor Grain Types	
<u>R</u>	Dense minerals ¹
<u>C</u>	Micas (biotite, musc, chl) ¹
<u>R</u>	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
Authigenic components	
	Pyrite (framboids)
	Pyrite (euhedral)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Hemipelagic silty claystone to clayey siltstone

* This form is not designed for shallow water (neritic) carbonate sediments

D. > 50% A. 10-50% C. 1-10% F. 0.1-1% R. < 0.1%

Sediment Smear Slide / Thin Section Description Sheet

Date: 15/07/ 2019

Expedition: 358

Observer: PC

Site: C0002 3

Hole: A

Core: 16R

Section: 1

Interval: 42 cm

Sediment Name: Silty claystone

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
✓			

Select one and check.

Granular Sediment			Other material	Percent Texture		
Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
		✓			40%	60%

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
A	Quartz
R	Feldspars
D	Clay minerals
Lithic Grains	
Sedimentary Lithics	
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
Volcaniclastic Grains	
Vitric fragments	
	Clear glass
	Colored glass
	Pumice
Volcanic lithics	
	Felsitic
	Microplitic
	Lathwork
	Altered volcanic (palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
A	Nannofossils
C	Foraminifers
	Siliceous
C	Diatom
	Radiolarian
	Silicoflagellate
C	Sponge Spicule
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nannos)

Percent	Composition
Minor Grain Types	
B	Dense minerals ¹
C	Micas (biotite, musc, chl) ¹
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
Authigenic components	
	Pyrite (framboids)
	Pyrite (euhedral)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Hemipelagic silty claystone

* This form is not designed for shallow water (neritic) carbonate sediments

D > 50% A 10-50% C 1-10% F 0,1-10% R < 0,1%

Sediment Smear Slide / Thin Section Description Sheet

Date: 15 Jul 2019

Expedition: 358

Observer: DJ

Site: C0002 5 Hole: A Core: 16 Section: 1 Interval: 128

Sediment Name: silty clay - clayey silt (+ fine sand)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
<u>X</u>						<u>hemipelagic</u>		<u>~20</u>	<u>~40</u>	<u>~40</u>

Select one and check.

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
<u>A</u>	Quartz
<u>C</u>	Feldspars
<u>A</u>	Clay minerals
Lithic Grains	
Sedimentary Lithics	
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
Volcaniclastic Grains	
	Vitric fragments
	Clear glass
	Colored glass
	Pumice
	Volcanic lithics
	Felsitic
	Microlite
	Lathwork
	Altered volcanic (palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
<u>A</u>	Nannofossils
	Foraminifers
	Siliceous
	Diatom
	Radiolarian
	Silicoflagellate
<u>F</u>	Sponge Spicule
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nannos)

Percent	Composition
Minor Grain Types	
<u>F</u>	Dense minerals ¹
	Micas (biotite, musc, chl) ¹
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
Authigenic components	
	Pyrite (framboids)
	Pyrite (euhedral)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: poor slide quality (bubbles); clay mins & nannos roughly equivalent; clastic grains qz, feldsp; significant amount of fine sand sized grains

* This form is not designed for shallow water (neritic) carbonate sediments

D (>50%); A (10-50%); C (1-10%); F (0.1-1%); R (<0.1%)

Sediment Smear Slide / Thin Section Description Sheet

Date: 15 Jul 2019

Expedition: 358

Observer: PJ

Site: C0002 5 Hole: A Core: 17R Section: 2 Interval: 1

Sediment Name: clay - silt - ^{fine} sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
<u>X</u>			

Select one and check.

Granular Sediment			Other material	Percent Texture		
Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
<u>?</u>		<u>?</u>		<u>~33</u>	<u>~33</u>	<u>~33</u>

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
<u>A</u>	Quartz
<u>C</u>	Feldspars
<u>A</u>	Clay minerals
Lithic Grains	
Sedimentary Lithics	
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
Volcaniclastic Grains	
Vitric fragments	
	Clear glass
	Colored glass
	Pumice
Volcanic lithics	
	Felsitic
	Microlite
	Lathwork
	Altered volcanic(palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
<u>A</u>	Nannofossils
	Foraminifers
	Siliceous
<u>F</u>	Diatom
	Radiolarian
	Silicoflagellate
<u>F</u>	Sponge Spicule
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nanos)

Percent	Composition
Minor Grain Types	
<u>F</u>	Dense minerals ¹
<u>F</u>	Micas (biotite, musc, chl) ¹
<u>R</u>	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
Authigenic components	
	Pyrite (framboids)
	Pyrite (euhedral)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: roughly equal mix of clay-silt-fine sand; biotite; rare grains of glauconite; HM (unidentifiable)

* This form is not designed for shallow water (neritic) carbonate sediments

D(>50%); A(10-50%); C(1-10%); F(0.1-1%); R(<0.1%)

Sediment Smear Slide / Thin Section Description Sheet

Date: 15 Jul 2019

Expedition: 358

Observer: PJ

Site: C00025 Hole: A Core: 18R Section: 2 Interval: 18

Sediment Name: silty clay / clayey silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
X			

Select one and check.

Granular Sediment			Other material	Percent Texture		
Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
		hemipelagic		<1	~50	~50

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
A	Quartz
C	Feldspars
A	Clay minerals
Lithic Grains	
Sedimentary Lithics	
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
Volcaniclastic Grains	
	Vitric fragments
	Clear glass
	Colored glass
	Pumice
	Volcanic lithics
	Felsitic
	Microlite
	Lathwork
	Altered volcanic (palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
A	Nannofossils
	Foraminifers
	Siliceous
F	Diatom
	Radiolarian
	Silicoflagellate
F	Sponge Spicule
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nannos)

Percent	Composition
Minor Grain Types	
F	Dense minerals ¹
	Micas (biotite, musc, chl) ¹
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
Authigenic components	
	Pyrite (framboids)
	Pyrite (euhedral)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: rare fine sand sized grains; few Hbl (mostly unidentifiable), amphibole observed

* This form is not designed for shallow water (neritic) carbonate sediments

D (>50%); A (10-50%); C (1-10%); F (0.1-1%); R (<0.1%)

Sediment Smear Slide / Thin Section Description Sheet

Date: 15 Jul 2019

Expedition: 358

Observer: DJ

Site: C0002 5 Hole: A Core: 19 R Section: 1 Interval: 91

Sediment Name: silty clay / clayey silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
<u>X</u>						<u>hemipel.</u>		<u><1</u>	<u>~50</u>	<u>~50</u>

Select one and check.

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
<u>A</u>	Quartz
<u>C</u>	Feldspars
<u>A</u>	Clay minerals
Lithic Grains	
	Sedimentary Lithic
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
Volcaniclastic Grains	
	Vitric fragments
	Clear glass
	Colored glass
	Pumice
	Volcanic lithics
	Felsitic
	Microlite
	Lathwork
	Altered volcanic(palagonite)

Percent	Composition
Pelagic Grains	
	Calcareous
<u>A</u>	Nannofossils
	Foraminifers
	Siliceous
<u>F</u>	Diatom
	Radiolarian
	Silicoflagellate
<u>F</u>	Sponge Spicule
Other bioclasts	
	Mollusk
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
Other carbonate allochems	
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nannos)

Percent	Composition
Minor Grain Types	
	Dense minerals ¹
	Micas (biotite, musc, chl) ¹
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
Authigenic components	
	Pyrite (framboids)
	Pyrite (euhedral)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: rare sand-sized grains; Hde likely present but not identifiable

* This form is not designed for shallow water (neritic) carbonate sediments