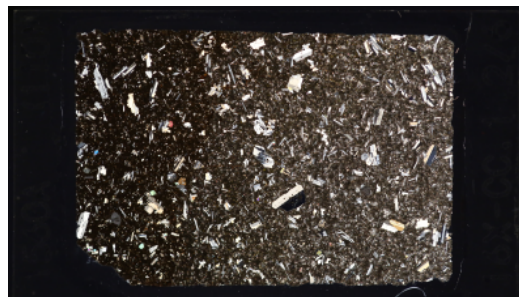


THIN SECTION LABEL ID: **395E-U1560A-16X-CC-W 2/6-TSB-TS110** Thin section no.: 110
 Observer: MH, EA Piece no.: 1
 Total number of domains: 3 Unit/subunit: 1
 Thin section summary: Increase in FeOH overprinting towards the brown halo associated with the flow margin. Dark grey outer halo defined by vesicle and groundmass replacement by yellow-brown clays.

Plane-polarized: 63279311



Cross-polarized: 63279331



No. of photomicrographs in database: 12

Igneous Petrology

Lithology:	Style of emplacement: pillow lava flow				
Domain number (if >1): 1					
Igneous domain type: chilled margin	Domain relative abundance (%): 15				
Major groundmass texture:	Groundmass grain size (avg):				
Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	2	0.05	euhedral	equant	Mostly altered to iddingsite but some relict fresh domains within crystals, including one with a glassy melt inclusion and bubble.
Plagioclase	6	0.4	euhedral	tabular	Millimeter sized fresh plag phenocrysts, locally seriate to micrometric groundmass laths
Clinopyroxene	0.5	0.1	euhedral	equant	Fresh, some isolated and some as the interstitial phase in glomercrysts with plag.
Groundmass	Original (%)	Comment			
Groundmass	88.5	Seriate plag laths that become higher aspect ratio as they decrease in size, sparsely set in a brownish cryptocrystalline matrix with plumose textures.			
Vesicle	Original (%)	Size Mode (mm)	Shape	Comments	
Vesicle	3	0.1	round		

Lithology:	Style of emplacement: pillow lava flow	
Domain number (if >1): 2		
Igneous domain type: flow interior	Domain relative abundance (%): 85	
Major groundmass texture:	Groundmass grain size (avg):	

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	2	0.05	euhedral	equant	Mostly altered to iddingsite along cracks
Plagioclase	10	0.5	euhedral	tabular	Large plagioclase phenocryst grains observed forming clusters giving rise to glomeroporphyritic texture locally. Twinning in plag grains observed.
Clinopyroxene	0.5	0.1	euhedral	equant	Fresh, some isolated and some as the interstitial phase in glomercrysts with plag.
Groundmass	Original (%)		Comment		
Groundmass	87		Phenocrysts of plagioclase with euhedral olivine and clinopyroxene set in a fine grained groundmass.		
Vesicle	Original (%)	Size Mode (mm)	Shape	Comments	
Vesicle	0.5	0.05			

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	60				minor clays around grain boundaries		minor clays around grain boundaries	70	brown clay		

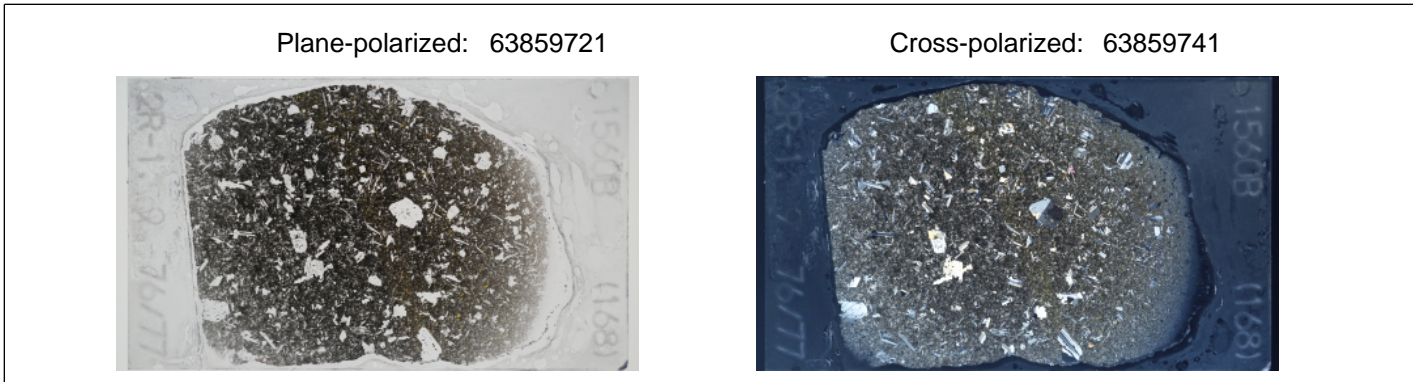
Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
other halo-brown	80	100	clay, FeOH	2	FeOH along rims	2	FeOH	90	strong FeOH overprint		

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
other halo-dark grey	75			5	yellow-orange clay in spots	5	yellow-orange clay in spots	80	brown and yellow-orange clay, less red		

Veins

Vein width (mm)	Vein fill sequence (rim to center)	Vein comments	Halo comments
0.02	mixed yellow clay + FeOH		

THIN SECTION LABEL ID: **393-U1560B-2R-1-W 76/77-TSB-TS 168** Thin section no.: 168
 Observer: MJ, EA Piece no.: 9
 Total number of domains: 1 Unit/subunit: 1A
 Thin section summary: Plagioclase-olivine-pyroxene phyric basalt pillow lava flow, fine-grained. Alteration intensity is moderate, with brown and yellow (in halo) clay + FeOH.



No. of photomicrographs in database: 6

Igneous Petrology

Lithology:	plagioclase-olivine-pyroxene phyric basalt pillow lava flow	Style of emplacement:	pillow lava flow
Domain number (if >1):	1		
Igneous domain type:	flow interior	Domain relative abundance (%):	100
Major groundmass texture:	variolitic	Groundmass grain size (avg):	fine-grained

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.05	0.2	subhedral	subequant	Sparse ol phenocrysts 0.25mm in size, feebly altered along cracks and grain boundaries. Some grains are completely altered to Fe-OH
Plagioclase	2	0.3	euhedral	equant	Plagioclase phenocrysts (upto 5mm) often forming glomerocrysts. Zoning and sieve texture is observed in few grains.

Groundmass	Original (%)	Comment
Groundmass	97.45	Groundmass altered to brown and yellow clay + FeOH

Vesicle	Original (%)	Size Mode (mm)	Shape	Comments
Vesicle	0.5	0.2	round	generally unfilled or mostly with yellow clay lining or completely filled, few with brown clay fill

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	15										

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
other halo-grey	19										

THIN SECTION LABEL ID: **393-U1560B-2R-1-W 83/85-TSB-TS 165**

Thin section no.: 165

Observer: A. Shchepetkina

Piece no.: 10

Total number of domains:

Unit/subunit: 1A

Thin section summary: Organic-rich micritic limestone with foraminifers (~10-12%). Micrite is significantly clotted in the upper part and less in the lower. Organic matter is dispersed and forms digitate structures present in the sample (~5-10%). Some organic matter is pyritized, some is oxidized, forming Fe oxides. Traces of angular feldspar grains.

Plane-polarized: 63832491



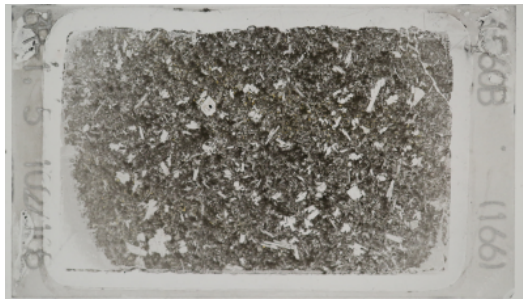
Cross-polarized: 63832511



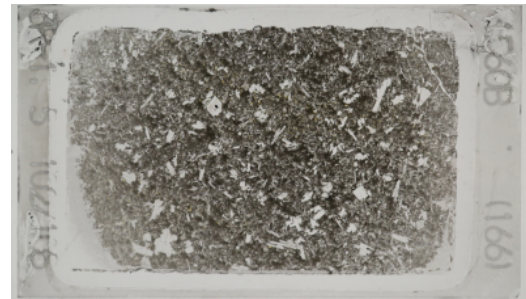
No. of photomicrographs in database: 22

THIN SECTION LABEL ID: **393-U1560B-3R-1-W 102/105-TSB-TS 166** Thin section no.: 166
 Observer: MJ, EA Piece no.: 15
 Total number of domains: 1 Unit/subunit: 1B
 Thin section summary: Plagioclase-olivine phyric basalt sheet lava flow, fine grained, intergranular with laths of plagioclase, minute olivine grains and possibly cpx set in a fine-grained groundmass. Alteration intensity is moderate, with brown and minor yellow clay + FeOH as alteration products. Groundmass is locally replaced by carbonate, OI partly replaced by yellow clay.

Plane-polarized: 63832531



Cross-polarized: 63832531



No. of photomicrographs in database: 7

Igneous Petrology

Lithology: plagioclase-olivine phyric basalt sheet lava flow **Style of emplacement:** sheet lava flow
Domain number (if >1): 1
Igneous domain type: flow interior **Domain relative abundance (%):** 100
Major groundmass texture: intergranular **Groundmass grain size (avg):** fine-grained

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.1	0.4	subhedral	subequant	Sparse ol phenocrysts 0.4mm in size, feebly altered along cracks and grain boundaries. Some phenocrysts has completely Fe-oxide
Plagioclase	2	0.2	euhedral	equant	Plagioclase phenocrysts (upto 5mm) often forming glomerocrysts. Zoning and sieve texture is observed in few grains.

Groundmass	Original (%)	Comment
Groundmass	97.9	Laths of plagioclase with minute olivine grains and possibly cpx set in a fine-grained groundmass. Alteration to brown and yellow clay + FeOH

Vesicle	Original (%)	Size Mode (mm)	Shape	Comments
Vesicle			round	mostly unfilled but some with yellow clay lining, few (partially) filled with carbonate

Alteration

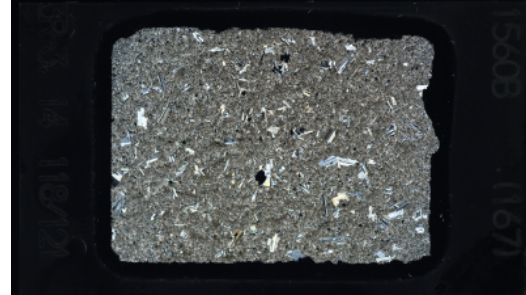
Domain type	Alteration %	% OI repl.	OI repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	18										

THIN SECTION LABEL ID: **393-U1560B-3R-3-W 118/121-TSB-TS 167** Thin section no.: 167
 Observer: MJ, EA Piece no.: 14
 Total number of domains: 1 Unit/subunit: 1B
 Thin section summary: Plagioclase-olivine phyric basalt sheet lava flow, fine-grained, laths of plagioclase with minute olivine grains and possibly cpx set in a fine-grained groundmass. Alteration intensity is moderate, with brown clay + FeOH as alteration products. Groundmass is locally replaced by carbonate.

Plane-polarized: 63832571



Cross-polarized: 63832591



No. of photomicrographs in database: 0

Igneous Petrology

Lithology: plagioclase-olivine phyric basalt sheet lava flow **Style of emplacement:** sheet lava flow
Domain number (if >1): 1
Igneous domain type: flow interior **Domain relative abundance (%):** 100
Major groundmass texture: intergranular **Groundmass grain size (avg):** fine-grained

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.01	0.2	subhedral	subequant	Sparse ol phenocrysts 0.2mm in size, feebly altered along cracks and grain boundaries.
Plagioclase	2	0.1	euhedral	equant	Plagioclase phenocrysts (upto 2mm) often forming glomerocrysts. Zoning and sieve texture is observed in few grains.

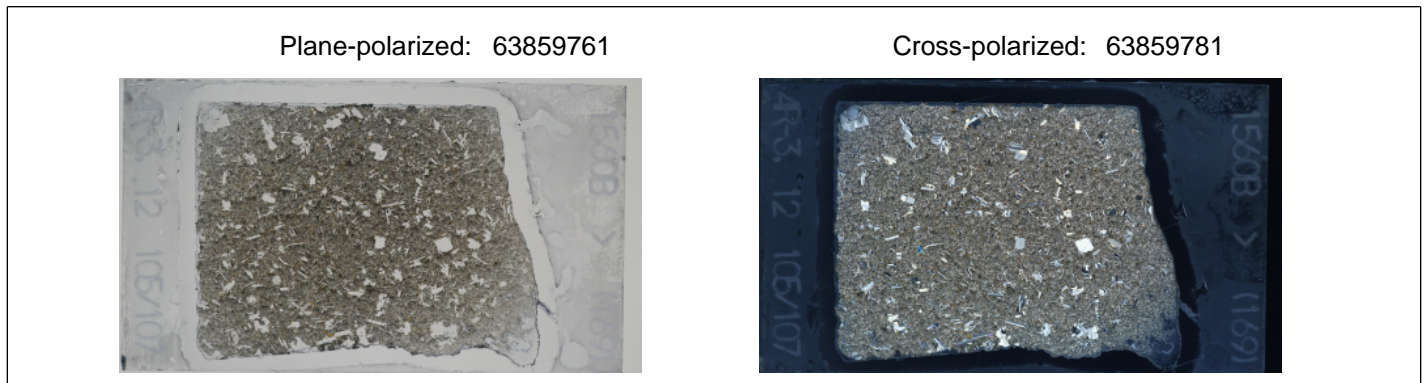
Groundmass	Original (%)	Comment
Groundmass	97.89	Laths of plagioclase with minute olivine grains and possibly cpx set in a fine-grained groundmass. Alteration to brown and yellow clay + FeOH

Vesicle	Original (%)	Size Mode (mm)	Shape	Comments
Vesicle	0.1	0.1	round	mostly lined with yellow clay and at places seen occupied with carbonate.

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	16										

THIN SECTION LABEL ID: **393-U1560B-4R-3-W 105/107-TSB-TS 169** Thin section no.: 169
 Observer: MJ, EA Piece no.: 12
 Total number of domains: 1 Unit/subunit: 1B
 Thin section summary: Plagioclase-olivine phyric basalt sheet lava flow, microcrystalline, felty with laths of plagioclase with minute olivine grains and possibly cpx set in a fine-grained groundmass exhibiting sub-ophitic textures at places. Alteration intensity is moderate, with orange-brown clay + FeOH as alteration products. Ol partly replaced by mica(?).



No. of photomicrographs in database: 8

Igneous Petrology

Lithology:	plagioclase-olivine phyric basalt sheet lava flow	Style of emplacement:	sheet lava flow
Domain number (if >1):	1		
Igneous domain type:	flow interior	Domain relative abundance (%):	100
Major groundmass texture:	felty	Groundmass grain size (avg):	microcrystalline

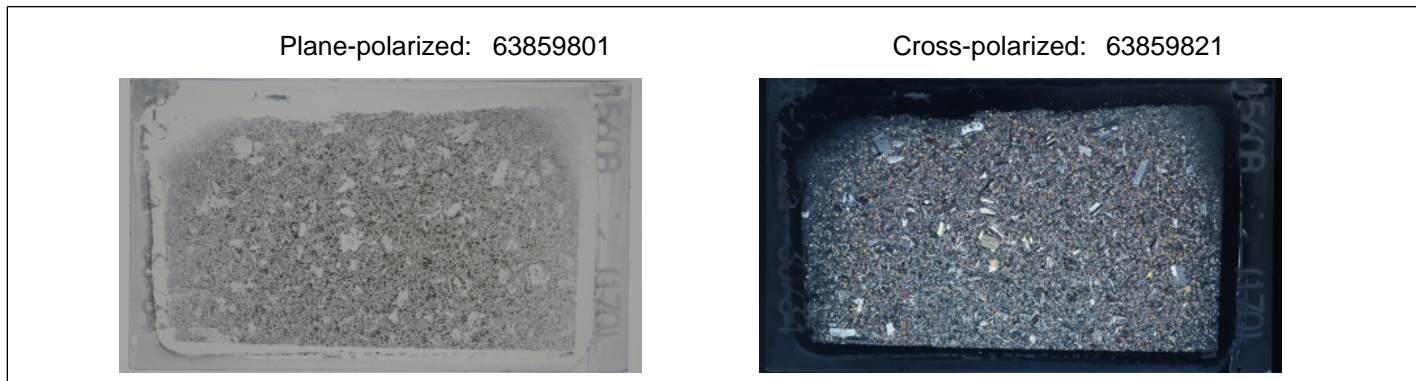
Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.05	0.2	subhedral	subequant	Sparse ol phenocrysts 0.4mm in size, feebly altered along cracks and grain boundaries. Some grains are completely altered to Fe-OH
Plagioclase	2	0.1	euhedral	equant	Plagioclase phenocrysts (upto 5mm) often forming glomerocrysts. Zoning is observed in few grains

Groundmass	Original (%)	Comment
Groundmass	97.95	Laths of plagioclase with minute olivine grains and possibly cpx set in a fine-grained groundmass exhibiting felty and sub-ophitic textures at places.

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	17										

THIN SECTION LABEL ID:	393-U1560B-6R-2-W 30/34-TSB-TS 170	Thin section no.:	170
Observer:	MJ, EA	Piece no.:	2
Total number of domains:	1	Unit/subunit:	2
Thin section summary:	Plagioclase-olivine-pyroxene phyric basalt sheet lava flow, medium-grained, intergranular with laths of plagioclase with 0.2mm olivine and approx. 0.2-0.3mm cpx exhibiting intergranular and sub-ophitic textures. Alteration intensity is slight, with brown clay + FeOH as alteration products.		



No. of photomicrographs in database:	12
--------------------------------------	----

Igneous Petrology

Lithology:	plagioclase-olivine-pyroxene phyric basalt sheet lava flow	Style of emplacement:	sheet lava flow
Domain number (if >1):	1		
Igneous domain type:	flow interior	Domain relative abundance (%):	100
Major groundmass texture:	intergranular	Groundmass grain size (avg):	medium-grained

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.5	0.1	subhedral	subequant	Ol phenocrysts upto 0.7mm, feebly altered along cracks and grain boundaries
Plagioclase	5	0.4	euhedral	equant	Plagioclase phenocrysts (upto 5mm) often forming glomerocrysts closely associated with olivine (partially altered) and clinopyroxene exhibiting sub-ophitic texture. Zoning commonly observed.
Clinopyroxene	0.5	0.25	subhedral	subequant	Subhedral cpx (0.5mm) phenocrysts in contact with plagioclase

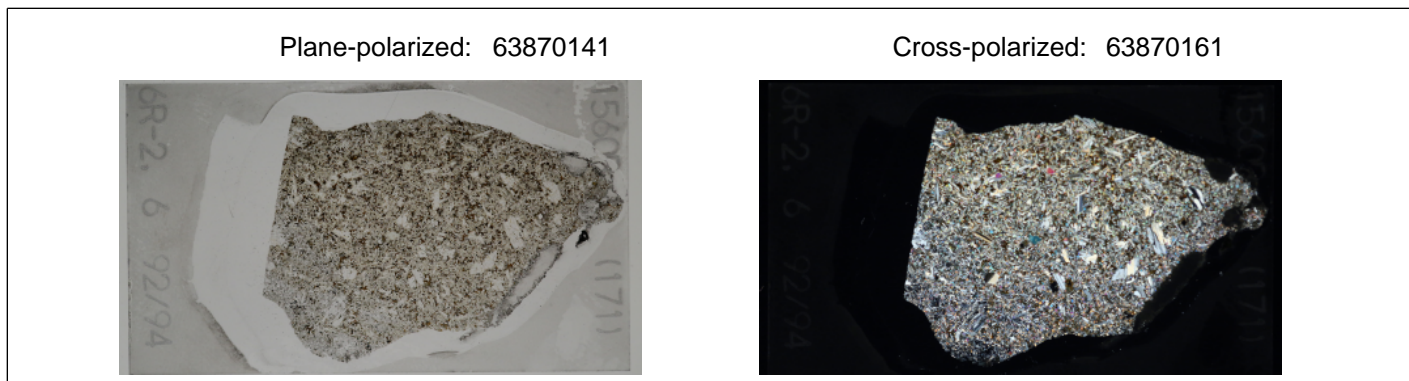
Groundmass	Original (%)	Comment
Groundmass	93.5	Laths of plagioclase with 0.2mm olivine grains and 0.2-0.3mm cpx set exhibiting intergranular and sub-ophitic textures at places.

Vesicle	Original (%)	Size Mode (mm)	Shape	Comments
Vesicle	0.5	0.2	round	mostly lined with clay

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	11										

THIN SECTION LABEL ID:	393-U1560B-6R-2-W 92/94-TSB-TS 171	Thin section no.:	171
Observer:	MJ, EA	Piece no.:	6
Total number of domains:	1	Unit/subunit:	2
Thin section summary:	Plagioclase-olivine-pyroxene phyric basalt sheet lava flow medium grained, intergranular with laths of plagioclase, minute olivine grains and possibly cpx set in a fine-grained groundmass exhibiting intergranular and sub-ophitic textures. Alteration intensity is slight, with orange-brown clay + FeOH as alteration products. Ol partly replaced by orange-brown clay + FeOH.		



No. of photomicrographs in database: 5

Igneous Petrology

Lithology:	plagioclase-olivine-pyroxene phyric basalt sheet lava flow	Style of emplacement:	sheet lava flow
Domain number (if >1):	1	Domain relative abundance (%):	100
Igneous domain type:	flow interior	Groundmass grain size (avg):	medium-grained
Major groundmass texture:	intergranular		

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.5	0.1	subhedral	subequant	Ol phenocrysts upto 0.7mm, feebly altered along cracks and grain boundaries
Plagioclase	5	0.4	euhedral	equant	Plagioclase phenocrysts (upto 6mm) often forming glomerocrysts closely associated with olivine (partially altered) and clinopyroxene exhibiting sub-ophitic texture. Zoning commonly observed.
Clinopyroxene	0.2	0.25	subhedral	subequant	Subhedral cpx (0.4mm) microphenocrysts

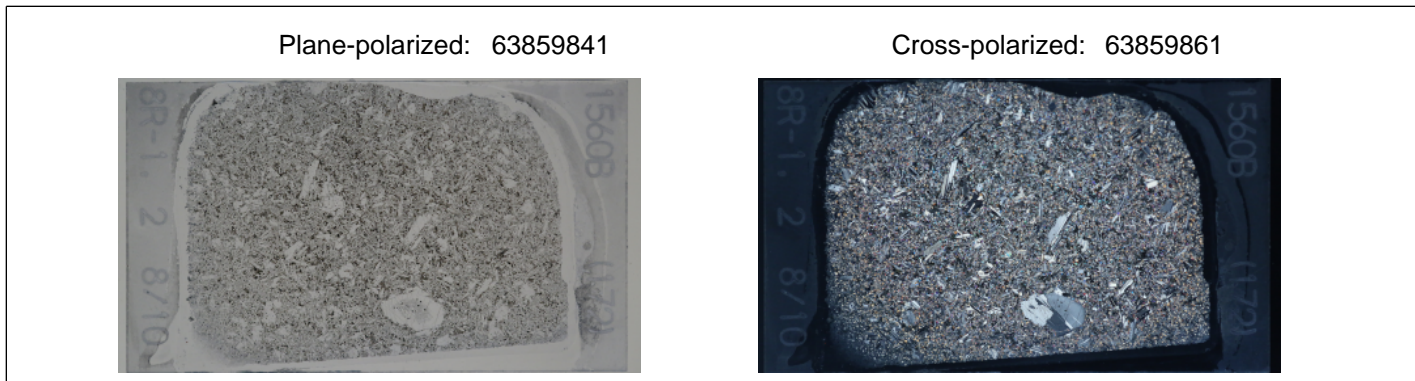
Groundmass	Original (%)	Comment
Groundmass	93.8	Laths of plagioclase with minute olivine grains and cpx set exhibiting intergranular and sub-ophitic textures at places.

Vesicle	Original (%)	Size Mode (mm)	Shape	Comments
Vesicle	0.5	0.3	round	mostly lined with grey clay and at places seen occupied with carbonate.

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	7										

THIN SECTION LABEL ID:	393-U1560B-8R-1-W 8/10-TSB-TS 172	Thin section no.:	172
Observer:	MJ, EA	Piece no.:	2
Total number of domains:	1	Unit/subunit:	3A
Thin section summary:	Plagioclase-olivine-pyroxene phyric basalt pillow lava flow, medium grained, intergranular with laths of plagioclase, small olivine grains and larger cpx set in a medium-grained groundmass exhibiting intergranular and sub-ophitic textures at places. Alteration intensity is slight, with brown clay + FeOH as alteration products. Some Ol replaced by brown clay.		



No. of photomicrographs in database: 4

Igneous Petrology

Lithology:	plagioclase-olivine-pyroxene phyric basalt pillow lava flow	Style of emplacement:	pillow lava flow
Domain number (if >1):	1	Domain relative abundance (%):	100
Igneous domain type:	flow interior	Groundmass grain size (avg):	medium-grained
Major groundmass texture:	intergranular		

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	1	0.2	subhedral	subequant	Ol phenocrysts upto 0.4mm, feebly altered along cracks and grain boundaries
Plagioclase	2	0.2	euhedral	equant	Plagioclase phenocrysts (upto 6mm) often forming glomerocrysts closely associated with olivine (partially altered) and clinopyroxene exhibiting sub-ophitic texture. Zoning commonly observed.
Clinopyroxene	0.01	0.25	subhedral	subequant	Subhedral cpx (0.4mm) long with high interference colors in contact with plagioclase

Groundmass	Original (%)	Comment
Groundmass	96.49	Laths of plagioclase with minute olivine grains and cpx set exhibiting intergranular and sub-ophitic textures at places.

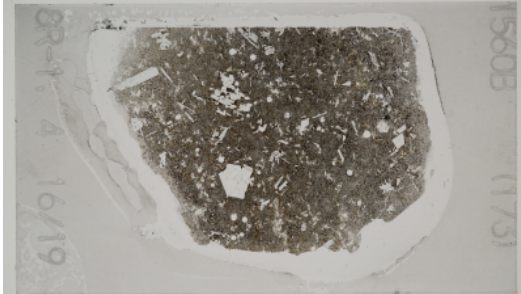
Vesicle	Original (%)	Size Mode (mm)	Shape	Comments
Vesicle	0.5	0.2	round	mostly lined with grey clay and at places seen occupied with carbonate.

Alteration

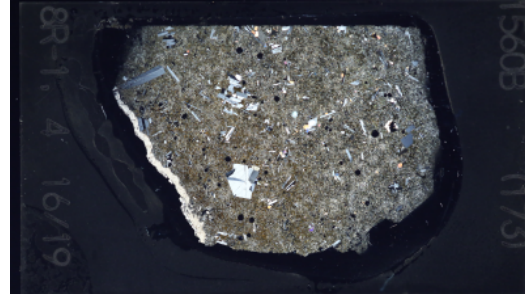
Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	10										

THIN SECTION LABEL ID: **393-U1560B-8R-1-W 17/19-TSB-TS 173** Thin section no.: 173
 Observer: MJ, EA Piece no.: 4
 Total number of domains: 1 Unit/subunit: 3A
 Thin section summary: Plagioclase-olivine-pyroxene phyric basalt pillow lava flow, fine grained, intergranular with laths of plagioclase with minute olivine grains and cpx set in a fine-grained groundmass exhibiting intergranular and sub-ophitic textures. Two halo types with high alteration intensity, with orange-brown and yellow (in gray halo) clay + FeOH as alteration products. Ol partly replaced by orange-brown clay + FeOH or by carbonate (in gray halo). Vein composed of metamorphosed carbonaceous sediment with foraminifer shells overgrown by zeolites + authigenic carbonate.

Plane-polarized: 63870261



Cross-polarized: 63870281



No. of photomicrographs in database: 23

Igneous Petrology

Lithology: plagioclase-olivine-pyroxene
phyric basalt pillow lava flow **Style of emplacement:** pillow lava flow
Domain number (if >1): 1
Igneous domain type: flow interior **Domain relative abundance (%):** 100
Major groundmass texture: intergranular **Groundmass grain size (avg):** fine-grained

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	1	0.2	euhedral	equant	Ol phenocrysts upto 0.4mm, altered along cracks and grain boundaries
Plagioclase	2	0.2	euhedral	equant	Plagioclase phenocrysts (upto 4mm) often forming glomerocrysts closely associated with olivine (partially altered) and clinopyroxene exhibiting sub-ophitic texture.
Clinopyroxene	0.01	0.25	euhedral	equant	Euhedral cpx (0.4mm) long with high interference colors in contact with plagioclase

Groundmass	Original (%)	Comment
Groundmass	96.49	Laths of plagioclase with minute olivine grains and cpx set in a fine-grained groundmass exhibiting intergranular and sub-ophitic textures at places.

Vesicle	Original (%)	Size Mode (mm)	Shape	Comments
Vesicle	0.5	0.2	round	mostly unfilled

Alteration

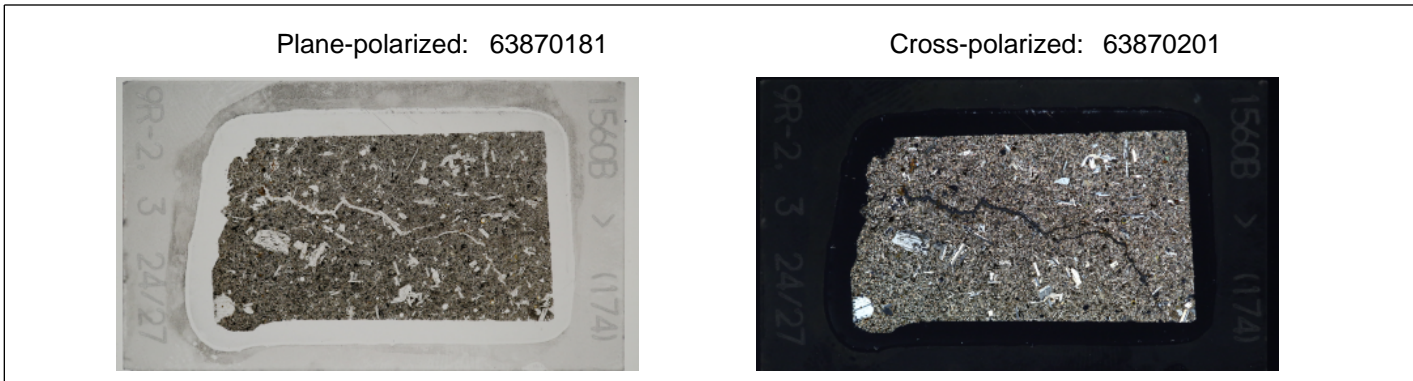
Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
vein halo-brown	70										

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
vein halo-dark grey	68										

Veins

Vein width (mm)	Vein fill sequence (rim to center)	Vein comments	Halo comments
1.5	met. carbonaceous sediment - zeolite - authigenic carbonate	metamorphosed carbonaceous sediment with multiple foraminifera shells in direct contact to host rock, overgrown by zeolites and authigenic carbonate	

THIN SECTION LABEL ID: **393-U1560B-9R-2-W 24/27-TSB-TS 174** Thin section no.: 174
 Observer: MJ, EA Piece no.: 3
 Total number of domains: 1 Unit/subunit: 3A
 Thin section summary: Plagioclase-olivine-pyroxene phyric basalt pillow lava flow, fine grained, intergranular with laths of plagioclase with minute olivine grains and cpx set in a fine-grained groundmass exhibiting intergranular and sub-ophitic textures. Patchy alteration with moderate intensity, with brown clay + FeOH as alteration products; intensity increases across TS, with minor yellow clay in more intensely altered domain. Ol replaced by orange-brown clay. Vein partly filled with zeolites with local brown clay lining.



No. of photomicrographs in database: 11

Igneous Petrology

Lithology:	plagioclase-olivine-pyroxene phyric basalt pillow lava flow	Style of emplacement:	pillow lava flow
Domain number (if >1):	1		
Igneous domain type:	flow interior	Domain relative abundance (%):	100
Major groundmass texture:	intergranular	Groundmass grain size (avg):	fine-grained

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Plagioclase	1	0.2	euheral	equant	3mm plagioclase laths closely associated with olivine and clinopyroxene phenocrysts
Clinopyroxene	0.01	0.25	euheral	equant	Euheral cpx (0.25mm) long with high interference colors

Groundmass	Original (%)	Comment
Groundmass	98.99	Laths of plagioclase with minute olivine grains and cpx set in a fine-grained groundmass exhibiting intergranular and sub-ophitic textures at places.

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	28										

Veins

Vein width (mm)	Vein fill sequence (rim to center)	Vein comments	Halo comments
0.8	clay - zeolites	zeolite-filled vein with brown clay lining in places; not completely filled, probably due to TS preparation	

THIN SECTION LABEL ID: **393-U1560B-11R-1-W 71/74-TSB-TS 175** Thin section no.: 175
 Observer: MJ, EA Piece no.: 9
 Total number of domains: 1 Unit/subunit: 3B
 Thin section summary: Aphyric basalt pillow lava flow, fine-grained, intergranular, laths of plagioclase with minute olivine grains set in a fine-grained groundmass exhibiting intergranular and sub-ophitic textures at places. Alteration intensity is moderate (background) but more intense in halo, with brown and yellow (in halo) clay + FeOH as alteration products. Ol replaced by mica(?) in background and orange-brown clay in halo.

Plane-polarized: 63870221



Cross-polarized: 63870241



No. of photomicrographs in database: 2

Igneous Petrology

Lithology:	aphyric basalt pillow lava flow	Style of emplacement:	pillow lava flow
Domain number (if >1):	1		
Igneous domain type:	flow interior	Domain relative abundance (%):	100
Major groundmass texture:	intergranular	Groundmass grain size (avg):	fine-grained

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Plagioclase	0.1	0.4	euhedral	equant	2mm plagioclase crystals forming glomerocrysts. Cores of plagioclase crystals resorbed.

Groundmass	Original (%)	Comment
Groundmass	99.4	Laths of plagioclase with minute olivine grains set in a fine-grained groundmass exhibiting intergranular and sub-ophitic textures at places.

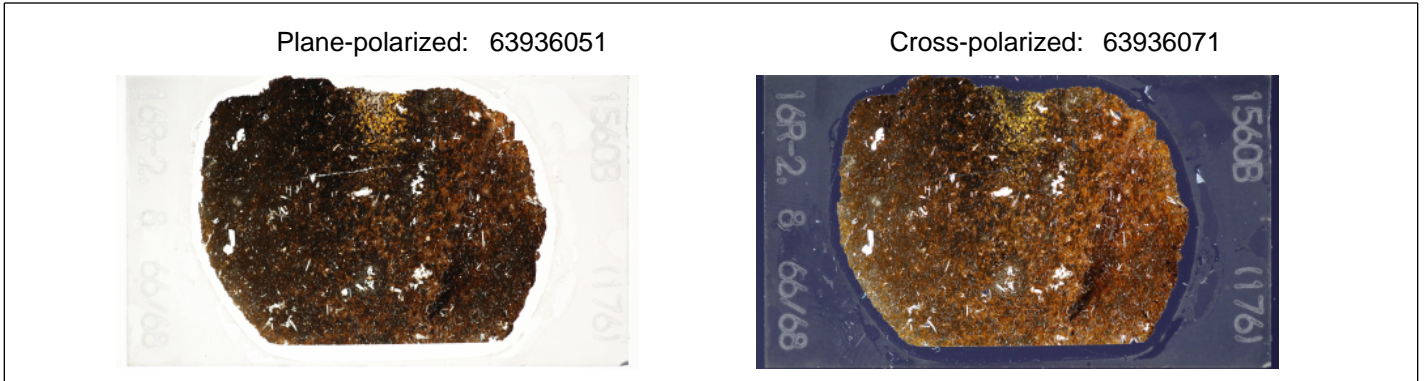
Vesicle	Original (%)	Size Mode (mm)	Shape	Comments
Vesicle	0.5	0.2	round	0.4mm big vesicles, filled Fe-Oh or carbonate

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	15										

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
other halo-brown	31										

THIN SECTION LABEL ID: **393-U1560B-16R-2-W 66/68-TSB-TS 176** Thin section no.: 176
 Observer: MJ, EA Piece no.: 8
 Total number of domains: 1 Unit/subunit: 3C
 Thin section summary: Glassy basalt pillow lava flow with pale yellow isotropic glass with scattered olivine microlites and plagioclase microlaths followed by a plagioclase-olivine phyric basalt pillow lava flow. Groundmass texture changes from glomeroporphyritic to intersertal and intergranular as we move away from the variolitic chilled margin. Glass partially altered to yellow clay + FeOH. Alteration intensity of chilled margin is moderate, with brown clay + FeOH as alteration products. Ol replaced by orange-brown clay + FeOH.



No. of photomicrographs in database: 0

Igneous Petrology

Lithology:	glassy basalt pillow lava flow	Style of emplacement:	pillow lava flow
Domain number (if >1):	1		
Igneous domain type:	glassy margin	Domain relative abundance (%):	10
Major groundmass texture:	glass	Groundmass grain size (avg):	glass

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.01	0.1	euhedral	equant	Fresh ol microphenocrysts upto (0.5mm)
Plagioclase	0.5	0.2	euhedral	equant	Sparse fresh plagioclase (0.4mm) phenocrysts in isotropic glass

Groundmass	Original (%)	Comment
Groundmass	99.49	Pale yellow isotropic glass with scattered olivine microlites and plagioclase microlaths

Glass	Glass present (%)	Glass replaced (%)	Glass original (%)	Glass comment
Glass	100		100	

Lithology:	plagioclase-olivine phyric basalt pillow lava flow	Style of emplacement:	pillow lava flow
Domain number (if >1):	2		
Igneous domain type:	chilled margin	Domain relative abundance (%):	90
Major groundmass texture:	variolitic	Groundmass grain size (avg):	cryptocrystalline

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.5	0.2	euhedral	equant	Fresh ol microphenocrysts upto (0.4mm). Slightly altered along cracks
Plagioclase	0.5	0.2	euhedral	equant	Plagioclase crystals (upto 2mm) often form glomerocrysts

Groundmass	Original (%)	Comment		
Groundmass	98.9	Scattered ovoid brown varioles isolated in glassy groundmass with thin rim of fibrous anisotropic minerals. Groundmass texture changes from glomeroporphyritic to intersertal and intergranular as we move away from the variolitic chilled margin.		
Vesicle	Original (%)	Size Mode (mm)	Shape	Comments
Vesicle	0.1	0.1	round	mostly unfilled or with yellow clay lining, few completely filled with brown clay

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
	32										

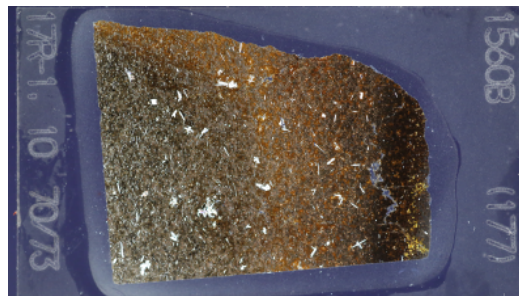
Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
	38										

THIN SECTION LABEL ID: **393-U1560B-17R-1-W 70/73-TSB-TS 177** Thin section no.: 177
 Observer: MJ, EA Piece no.: 10
 Total number of domains: 1 Unit/subunit: 3C
 Thin section summary: Glassy basalt pillow lava flow with pale yellow isotropic glass followed by chilled margin showing variolitic transition from glassy margin of pillow lava to plagioclase-olivine phyric basalt pillow lava flow. Groundmass texture changes from glomeroporphyritic to intersertal and intergranular as we move away from the variolitic chilled margin. Glass partially altered to yellow clay + FeOH. Alteration intensity of chilled margin is moderate to high, with brown clay + FeOH as alteration products. Ol mostly replaced by orange-brown clay + FeOH. Halo across chilled margin defined by light brown clays. Narrow veins partially filled with yellow and brown clay + FeOH.

Plane-polarized: 63936091



Cross-polarized: 63936111



No. of photomicrographs in database: 2

Igneous Petrology

Lithology:	glassy basalt pillow lava flow	Style of emplacement:	pillow lava flow		
Domain number (if >1):	1				
Igneous domain type:	glassy margin	Domain relative abundance (%):	10		
Major groundmass texture:		Groundmass grain size (avg):			
Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.5	0.1	euhedral	equant	Slightly altered ol microphenocrysts upto (0.2mm)
Plagioclase	0.5	1	euhedral	equant	Sparse fresh plagioclase (0.4mm) phenocrysts in isotropic glass
Groundmass	Original (%)	Comment			
Groundmass	99				

Lithology:	plagioclase-olivine phyric basalt pillow lava flow	Style of emplacement:	pillow lava flow		
Domain number (if >1):	2				
Igneous domain type:	chilled margin	Domain relative abundance (%):	50		
Major groundmass texture:		Groundmass grain size (avg):			
Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.1	0.1	euhedral	equant	Fresh ol microlites upto (0.2mm), some altered along grain boundaries.
Plagioclase	1	1	euhedral	equant	Plagioclase crystals (upto 3mm) often form glomerocrysts and are associated with olivine.
Groundmass	Original (%)	Comment			
Groundmass	98.9				

Lithology:	plagioclase-olivine phyric basalt pillow lava flow			Style of emplacement:	pillow lava flow
Domain number (if >1):	3				
Igneous domain type:	flow interior			Domain relative abundance (%):	40
Major groundmass texture:	intersertal			Groundmass grain size (avg):	cryptocrystalline
Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.1	0.4	subhedral	subequant	Ol phenocrysts upto 0.4mm, altered along cracks and grain boundaries
Plagioclase	1	0.15	euhedral	equant	Plagioclase phenocrysts (upto 4mm) often forming glomerocrysts enclosing olivine (partially altered) - sub-ophitic texture.
Groundmass	Original (%)	Comment			
Groundmass	98.9	Groundmass texture changes from glomeroporphyritic to intersertal and intergranular as we move away from the variolitic chilled margin.			

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
	28										

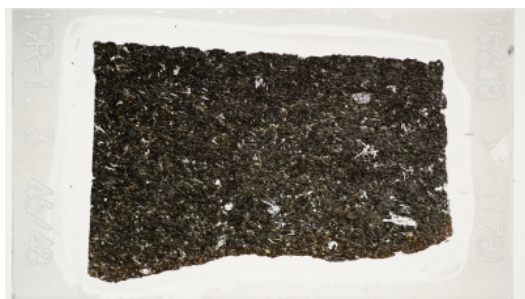
Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
	39										

Veins

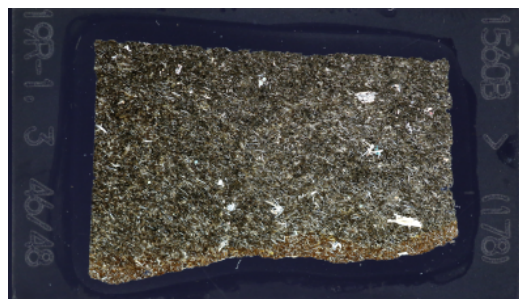
Vein width (mm)	Vein fill sequence (rim to center)	Vein comments	Halo comments
0.02		radial cracks across chilled margin, locally with clay + FeOH as lining	

THIN SECTION LABEL ID: **393-U1560B-19R-1-W 46/48-TSB-TS 178** Thin section no.: 178
 Observer: MJ, EA Piece no.: 3
 Total number of domains: 1 Unit/subunit: 3C
 Thin section summary: Plagioclase-olivine phyric basalt sheet lava flow, fine grained, intergranular, Laths of plagioclase with minute euhedral olivine set in a fine-grained groundmass. Alteration intensity is high in background and halo, with brown and minor yellow (in halo) clay + FeOH as alteration products. Ol unaltered in background but altered to orange-brown clay in halo.

Plane-polarized: 63936131



Cross-polarized: 63936151



No. of photomicrographs in database: 7

Igneous Petrology

Lithology:	plagioclase-olivine phyric basalt sheet lava flow	Style of emplacement:	sheet lava flow
Domain number (if >1):	1	Domain relative abundance (%):	100
Igneous domain type:	flow interior	Groundmass grain size (avg):	fine-grained
Major groundmass texture:	intergranular		

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.01	0.2	euhedral	elongate	0.4mm euhedral olivines showing alteration along cracks closely associated with plagioclase forming sub-ophitic intergrowths.
Plagioclase	0.01	1	euhedral	equant	3mm plagioclase laths forming glomerocrysts occasionally seen associated with olivine. Plagioclase showing sieve structure is observed in few grains.

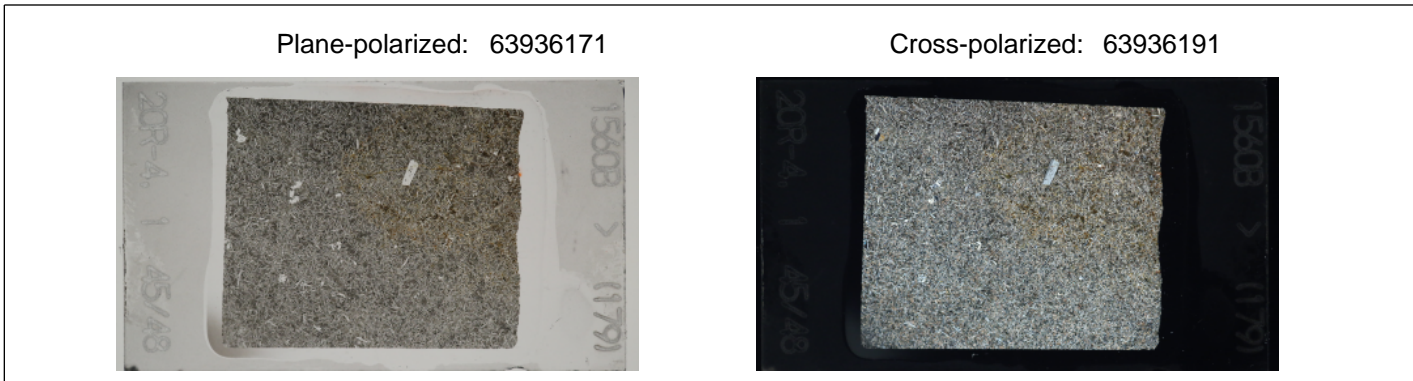
Groundmass	Original (%)	Comment
Groundmass	99.98	Laths of plagioclase with minute euhedral olivine set in a fine-grained groundmass. Groundmass is altered in the at places

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	61										

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
vein halo-brown	77										

THIN SECTION LABEL ID: **393-U1560B-20R-4-W 45/48-TSB-TS 179** Thin section no.: 179
 Observer: MJ, EA Piece no.: 1
 Total number of domains: 1 Unit/subunit: 3D
 Thin section summary: Aphyric basalt sheet lava flow, fine-grained, intergranular, Laths of plagioclase with minute euhedral olivine set in a fine-grained groundmass. Alteration intensity is slight-moderate, with brown clay + mica(?) + FeOH in background as alteration products in background and orange-brown and yellow clay + FeOH in halo. Ol replaced by greenish-beige mica(?) in background and orange-brown clay in halo. Narrow vein fill composed of brown and yellow clay.



No. of photomicrographs in database: 0

Igneous Petrology

Lithology:	aphyric basalt sheet lava flow	Style of emplacement:	sheet lava flow
Domain number (if >1):	1		
Igneous domain type:	flow interior	Domain relative abundance (%):	100
Major groundmass texture:	intergranular	Groundmass grain size (avg):	fine-grained

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Plagioclase	0.01	2	euhedral	equant	2mm plagioclase laths

Groundmass	Original (%)	Comment
Groundmass	99.99	Laths of plagioclase with minute euhedral olivine set in a fine-grained groundmass. Groundmass is altered in the at places

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	12										

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
vein halo-grey	15										

Veins

Vein width (mm)	Vein fill sequence (rim to center)	Vein comments	Halo comments
0.05		composition changes from brown to yellow clay	

THIN SECTION LABEL ID:	393-U1560B-21R-3-W 0/4-TSB-TS 180	Thin section no.:	180
Observer:	MJ, EA	Piece no.:	1
Total number of domains:	1	Unit/subunit:	3E
Thin section summary:	Aphyric basalt pillow lava flow, fine grained, intersertal, Laths of plagioclase with minute euhedral olivine set in a fine-grained groundmass. Alteration intensity is moderate (background) but more intense in halo, with brown clay + FeOH as alteration products. Ol replaced by brown clay + FeOH.		



No. of photomicrographs in database:	0
--------------------------------------	---

Igneous Petrology

Lithology:	aphyric basalt pillow lava flow	Style of emplacement:	pillow lava flow
Domain number (if >1):	1		
Igneous domain type:	flow interior	Domain relative abundance (%):	100
Major groundmass texture:	intersertal	Groundmass grain size (avg):	fine-grained

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.01	0.1	euhedral	equant	0.4mm euhedral olivines showing alteration along cracks
Plagioclase	0.05	0.2	euhedral	equant	Plagioclase laths (0.4 mm) long forming glomerocrysts.

Groundmass	Original (%)	Comment
Groundmass	99.94	Laths of plagioclase with minute euhedral olivine set in a fine-grained groundmass. At places alteration to clay is observed.

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	18										

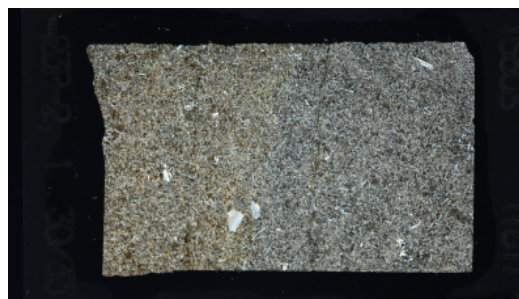
Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
other halo-brown	45										

THIN SECTION LABEL ID: **393-U1560B-23R-2-W 29/32-TSB-TS 181** Thin section no.: 181
 Observer: MJ, EA Piece no.: 1
 Total number of domains: 1 Unit/subunit: 3F
 Thin section summary: Aphyric basalt sheet lava flow, finegrained, intergranular, laths of plagioclase with subhedral olivine set in a finegrained groundmass. Alteration intensity is slight-moderate (background) to moderate (halo), with brown clay + FeOH + mica(?) as alteration products in background and additional yellow clay in halo. Ol partly replaced by mica(?) in background and mica(?) and/or brown clay in halo.

Plane-polarized: 63936251



Cross-polarized: 63936271



No. of photomicrographs in database: 0

Igneous Petrology

Lithology:	aphyric basalt sheet lava flow	Style of emplacement:	sheet lava flow
Domain number (if >1):	1		
Igneous domain type:	flow interior	Domain relative abundance (%):	100
Major groundmass texture:	intergranular	Groundmass grain size (avg):	fine-grained

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Plagioclase	0.01	1.2	euhedral	equant	Sparse phenocrysts of plagioclase (2mm) long forming glomerocrysts.

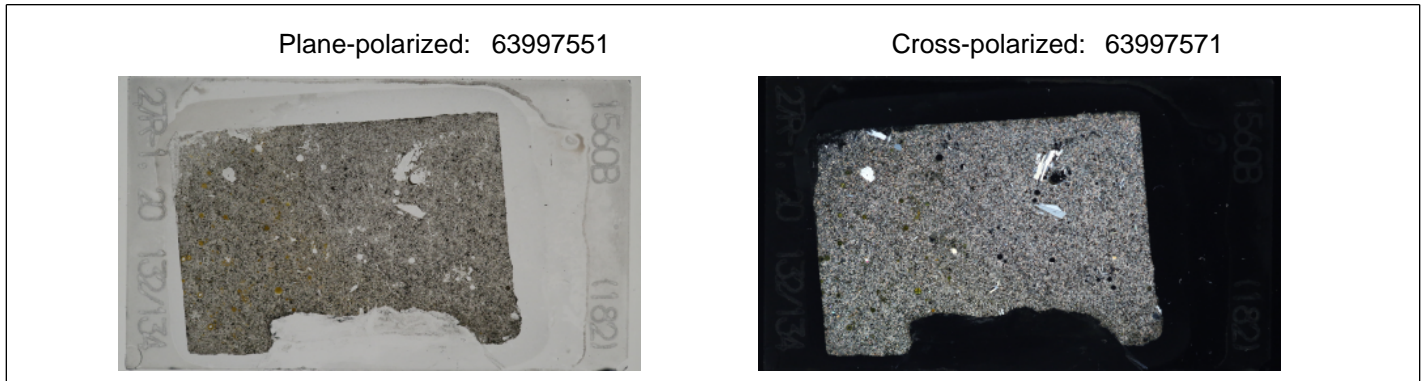
Groundmass	Original (%)	Comment
Groundmass	99.99	Laths of plagioclase with subhedral olivine set in a finegrained groundmass. At places alteration to clay is observed.

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	13										

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
vein halo-brown	21										

THIN SECTION LABEL ID: **393-U1560B-27R-1-W 132/134-TSB-TS 182** Thin section no.: 182
 Observer: MJ, EA Piece no.: 20
 Total number of domains: 1 Unit/subunit: 4
 Thin section summary: Plagioclase-olivine phyric basalt pillow lava flow, fine-grained, intergranular, laths of plagioclase with minute olivine grains and possibly cpx set in a fine-grained groundmass exhibiting intergranular and sub-ophitic textures at places. Alteration intensity is moderate (background) to slightly more intense (in halo).



No. of photomicrographs in database: 4

Igneous Petrology

Lithology:	plagioclase-olivine phyric basalt pillow lava flow	Style of emplacement:	pillow lava flow
Domain number (if >1):	1		
Igneous domain type:	flow interior	Domain relative abundance (%):	100
Major groundmass texture:	intergranular	Groundmass grain size (avg):	fine-grained

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.1	0.2	subhedral	subequant	Sparse mostly fresh olivine phenocrysts 0.45mm
Plagioclase	1	0.22	euhedral	equant	Plagioclase phenocrysts (upto 4mm) often forming glomerocrysts

Groundmass	Original (%)	Comment
Groundmass	98.4	Laths of plagioclase with minute olivine grains and possibly cpx set in a fine-grained groundmass exhibiting intergranular and sub-ophitic textures at places.

Vesicle	Original (%)	Size Mode (mm)	Shape	Comments
Vesicle	0.5	0.4	round	mostly lined with yellow clay and at places seen occupied with carbonate.

Alteration

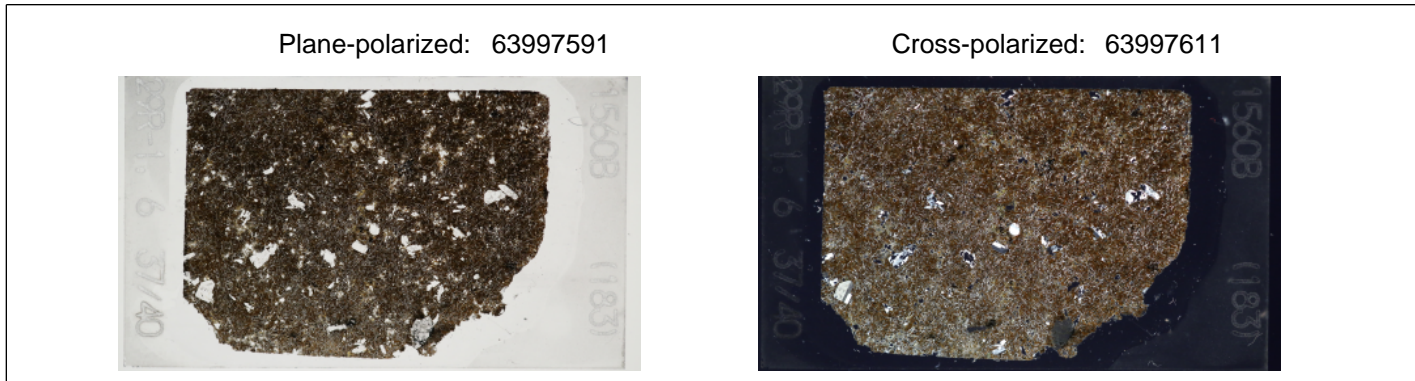
Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	14										

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
vein halo-dark grey	20										

Veins

Vein width (mm)	Vein fill sequence (rim to center)	Vein comments	Halo comments
0.1		unfilled - crack during TS preparation?	

THIN SECTION LABEL ID: **393-U1560B-29R-1-W 37/41-TSB-TS 183** Thin section no.: 183
 Observer: MJ, EA Piece no.: 6
 Total number of domains: 1 Unit/subunit: 5A
 Thin section summary: Plagioclase-olivine phyric basalt pillow lava flow, cryptocrystalline, variolitic with seriate laths of plagioclase 0.4mm long. High alteration intensity, with brown, orange-brown, and minor yellow clay + FeOH as alteration products. Ol replaced by orange-brown clay + FeOH.



No. of photomicrographs in database: 0

Igneous Petrology

Lithology:	plagioclase-olivine phyric basalt pillow lava flow	Style of emplacement:	pillow lava flow
Domain number (if >1):	1		
Igneous domain type:	flow interior	Domain relative abundance (%):	100
Major groundmass texture:	variolitic	Groundmass grain size (avg):	cryptocrystalline

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.1	0.2	subhedral	subequant	Sparse mostly altered olivine phenocrysts 0.25mm
Plagioclase	1	0.18	euhedral	equant	Plagioclase phenocrysts (upto 4mm) at places forming glomerocrysts

Groundmass	Original (%)	Comment
Groundmass	98.9	Seriate laths of plagioclase 0.4mm long in a groundmass altered to brown and orange-brown clay + FeOH + minor yellow clay;

Alteration

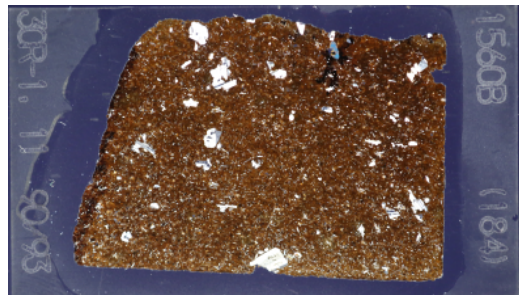
Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
other halo-brown	65										

THIN SECTION LABEL ID:	393-U1560B-30R-1-W 90/93-TSB-TS 184	Thin section no.:	184
Observer:	MJ, EA	Piece no.:	11
Total number of domains:	1	Unit/subunit:	5A
Thin section summary:	Plagioclase-olivine phyric basalt pillow lava flow, cryptocrystalline, variolitic with seriate laths of plagioclase 0.4mm long. Alteration intensity is high, with orange-brown and yellow clay + FeOH as alteration products. Ol mostly replaced by orange-brown clay + FeOH, Plag slightly altered to brown clay.		

Plane-polarized: 63997631



Cross-polarized: 63997651



No. of photomicrographs in database: 2

Igneous Petrology

Lithology:	plagioclase-olivine phyric basalt pillow lava flow	Style of emplacement:	pillow lava flow
Domain number (if >1):	1		
Igneous domain type:	flow interior	Domain relative abundance (%):	100
Major groundmass texture:	variolitic	Groundmass grain size (avg):	cryptocrystalline

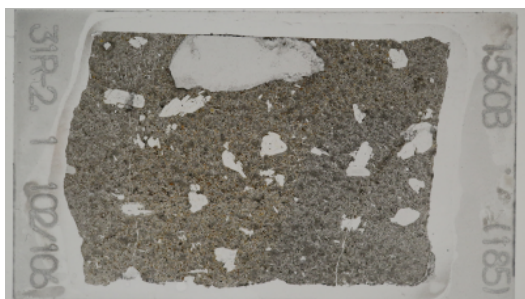
Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.1	0.2	subhedral	subequant	Sparse mostly altered olivine phenocrysts 0.4mm
Plagioclase	1	0.18	euhedral	equant	Plagioclase phenocrysts (upto 4mm) at places forming glomerocrysts
Groundmass	Original (%)	Comment			
Groundmass	98.9	Seriate laths of plagioclase 0.4mm long in a groundmass altered to brown and orange-brown clay + FeOH + minor yellow clay;			

Alteration

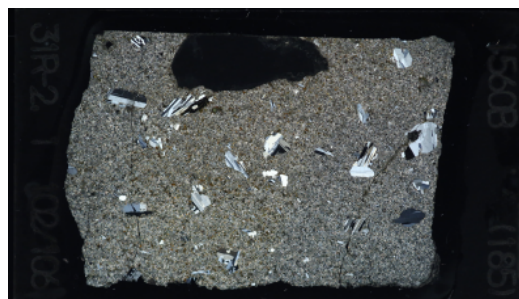
Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
other halo-brown	74										

THIN SECTION LABEL ID: **393-U1560B-31R-2-W 102/106-TSB-TS 185** Thin section no.: 185
 Observer: MJ, EA Piece no.: 1
 Total number of domains: 1 Unit/subunit: 5B
 Thin section summary: Plagioclase-olivine phyric sheet lava flow, fine-grained, intergranular with laths of plagioclase with minute euhedral olivine set in a fine-grained groundmass. Alteration intensity is slight-moderate (background) to moderate (halo), with brown clay + FeOH + mica(?) as alteration products in background and additional yellow clay in halo. Ol replaced by mica(?) in background, which is locally overprinted by yellow clay in halo.

Plane-polarized: 63997791



Cross-polarized: 63997811



No. of photomicrographs in database: 3

Igneous Petrology

Lithology:	plagioclase-olivine phyric basalt sheet lava flow	Style of emplacement:	sheet lava flow
Domain number (if >1):	1		
Igneous domain type:	flow interior	Domain relative abundance (%):	100
Major groundmass texture:	intergranular	Groundmass grain size (avg):	fine-grained

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.1	0.2	subhedral	subequant	sparse mostly altered ol microphenocrysts
Plagioclase	1	2	euhedral	elongate	Plagioclase phenocrysts (upto 3.2mm) at places forming glomerocrysts. sieve textures observed at places

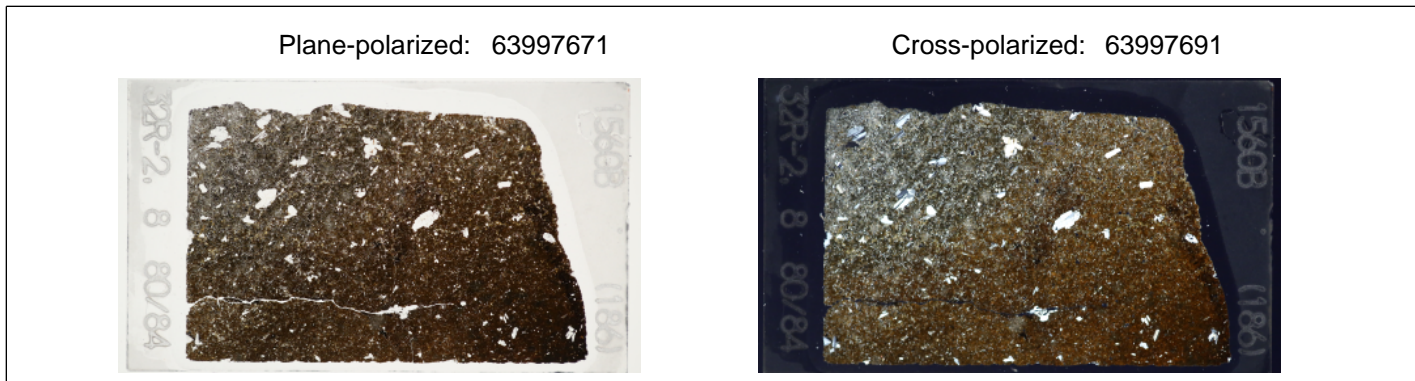
Groundmass	Original (%)	Comment
Groundmass	98.9	Laths of plagioclase with minute euhedral olivine set in a fine-grained groundmass. At places alteration to clay is observed.

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	11										

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
vein halo-grey	24										

THIN SECTION LABEL ID: **393-U1560B-32R-2-W 80/84-TSB-TS 186** Thin section no.: 186
 Observer: MJ, EA Piece no.: 8
 Total number of domains: 1 Unit/subunit: 5C
 Thin section summary: Plagioclase-olivine phyric basalt pillow lava flow, cryptocrystalline, variolitic with seriate laths of plagioclase 0.4mm long. Alteration intensity is moderate, with brown and minor yellow clay + FeOH as alteration products in background, and orange-brown clay + FeOH in halo. In halo, Plag laths are altered in patchy domains of more intense alteration; Ol replaced by orange-brown clay + FeOH.



No. of photomicrographs in database: 3

Igneous Petrology

Lithology:	plagioclase-olivine phyric basalt pillow lava flow	Style of emplacement:	pillow lava flow
Domain number (if >1):	1		
Igneous domain type:	flow interior	Domain relative abundance (%):	100
Major groundmass texture:	variolitic	Groundmass grain size (avg):	cryptocrystalline

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.01	0.1	anhedral	elongate	Sparse Ol (1mm) altered along cracks
Plagioclase	0.5	0.4	euhedral	equant	Plagioclase phenocrysts (upto 2mm) at places forming glomerocrysts. sieve textures observed at places

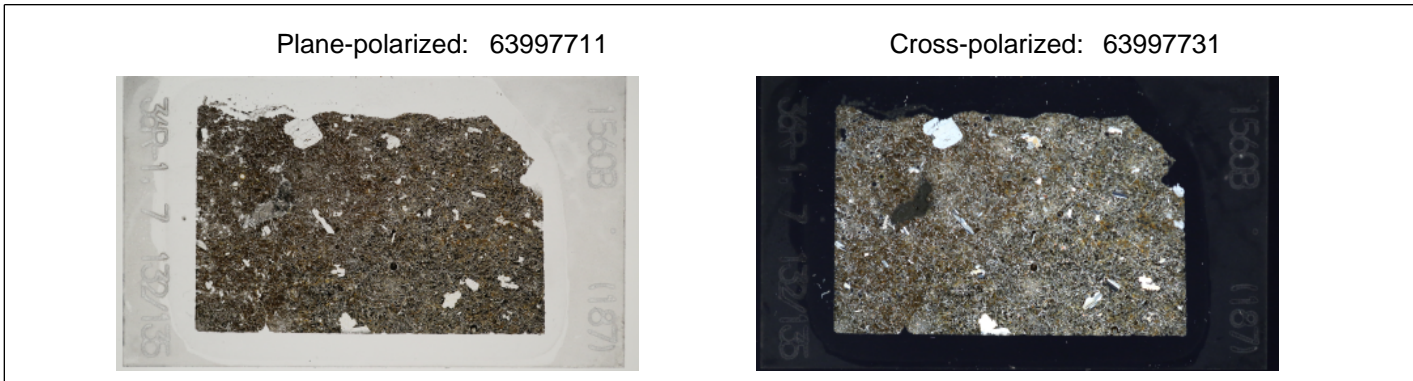
Groundmass	Original (%)	Comment
Groundmass	99.49	Seriate laths of plagioclase 0.4mm long in an altered groundmass

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	31										

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
vein halo-brown	44										

THIN SECTION LABEL ID: **393-U1560B-36R-1-W 132/137-TSB-TS 187** Thin section no.: 187
 Observer: MJ, EA Piece no.: 17
 Total number of domains: 1 Unit/subunit: 5C
 Thin section summary: Plagioclase-olivine phyric basalt pillow lava flow, cryptocrystalline, variolitic with seriate laths of plagioclase 0.4mm long. Alteration intensity is high but transitions across TS, from brown clay + mica(?) + FeOH alteration products, with Ol replaced by mica(?), to overprint of the former by orange-brown clay.



No. of photomicrographs in database: 3

Igneous Petrology

Lithology:	plagioclase-olivine phyric basalt pillow lava flow	Style of emplacement:	pillow lava flow
Domain number (if >1):	1		
Igneous domain type:	flow interior	Domain relative abundance (%):	100
Major groundmass texture:	variolitic	Groundmass grain size (avg):	cryptocrystalline

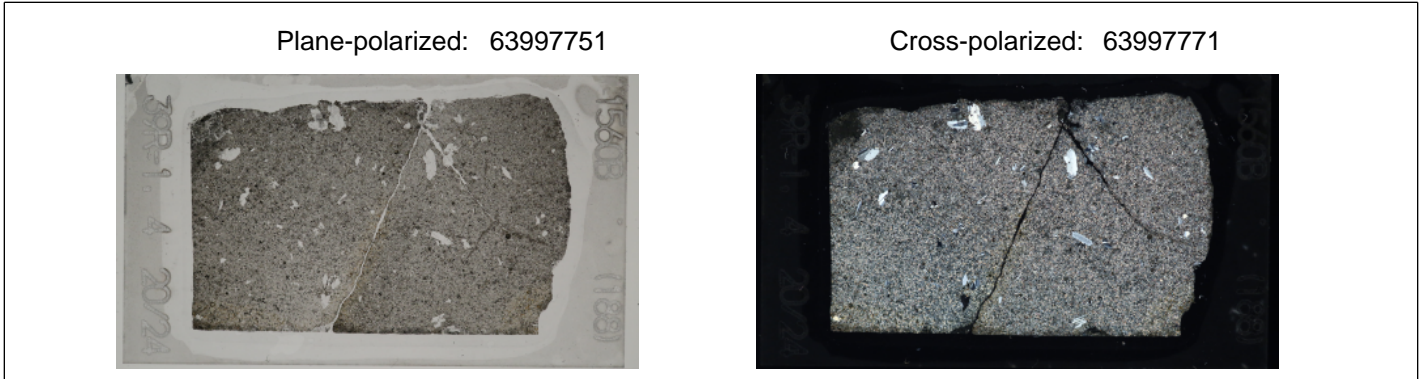
Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	0.01	0.1	anhedral	elongate	Sparse Ol (0.5mm) intensely altered along cracks
Plagioclase	0.5	0.4	euhedral	equant	Plagioclase phenocrysts (upto 2mm) at places forming glomerocrysts. sieve textures observed at places

Groundmass	Original (%)	Comment
Groundmass	99.49	Seriate laths of plagioclase 0.4mm long in an altered groundmass

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
other halo-brown	63										

THIN SECTION LABEL ID:	393-U1560B-39R-1-W 20/24-TSB-TS 188	Thin section no.:	188
Observer:	MJ, EA	Piece no.:	4
Total number of domains:	1	Unit/subunit:	5C
Thin section summary:	Plagioclase phyric basalt pillow lava flow, fine-grained, intergranular, with laths of plagioclase with minute olivine grains and cpx set in a fine-grained groundmass exhibiting intergranular and sub-ophitic textures at places. Slight-moderate alteration intensity, with brown clay + mica(?) + FeOH as alteration products. OI partly altered to mica(?).		



No. of photomicrographs in database: 6

Igneous Petrology

Lithology:	plagioclase phyric basalt pillow lava flow	Style of emplacement:	pillow lava flow
Domain number (if >1):	1	Domain relative abundance (%):	100
Igneous domain type:	flow interior	Groundmass grain size (avg):	fine-grained
Major groundmass texture:	intergranular		

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Plagioclase	0.5	0.2	euhedral	equant	Plagioclase phenocrysts (upto 4mm) often forming glomerocrysts closely associated with olivine (partially altered) exhibiting sub-ophitic texture.

Groundmass	Original (%)	Comment
Groundmass	99.5	Laths of plagioclase with minute olivine grains and cpx set in a fine-grained groundmass exhibiting intergranular and sub-ophitic textures at places.

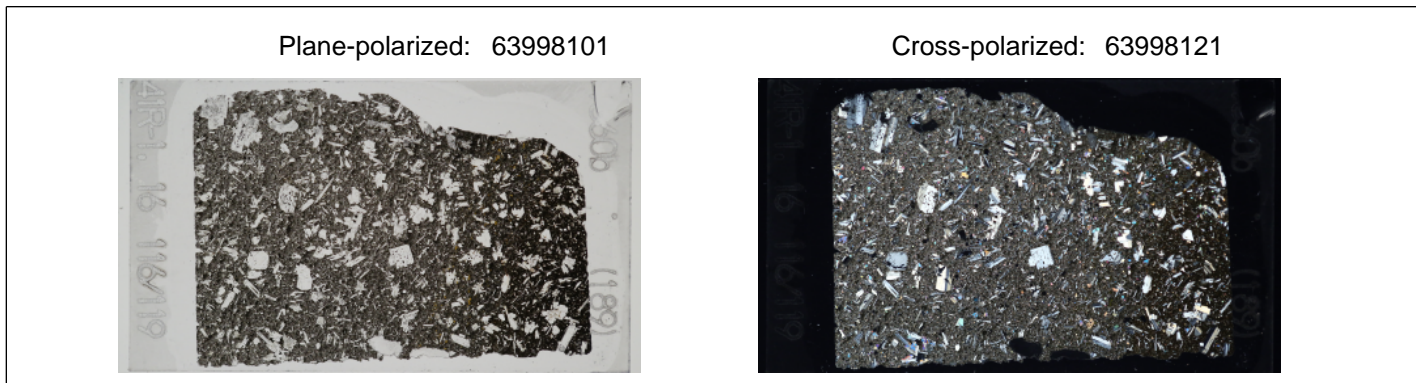
Alteration

Domain type	Alteration %	% OI repl.	OI repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
background	12										

Veins

Vein width (mm)	Vein fill sequence (rim to center)	Vein comments	Halo comments
0.5		unfilled - cracks during TS preparation?	groundmass slightly overprinted by yellow clay

THIN SECTION LABEL ID: **393-U1560B-41R-1-W 115/119-TSB-TS 189** Thin section no.: 189
 Observer: MJ, EA Piece no.: 16
 Total number of domains: 1 Unit/subunit: 6B
 Thin section summary: Plagioclase-olivine phyric basalt sheet lava flow fine-grained, intergranular with laths of plagioclase with minute olivine grains and possibly cpx set in a fine-grained groundmass exhibiting intergranular and sub-ophitic textures at places. Glass slightly altered to brown clay + FeOH. Chilled margin moderately to highly altered, with brown clay + FeOH as alteration products and partial Ol replacement by orange-brown clay + FeOH; in halo, brown and yellow clay + FeOH as alteration products and Ol replaced by orange-brown clay + FeOH.



No. of photomicrographs in database: 2

Igneous Petrology

Lithology:	plagioclase-olivine phyric basalt sheet lava flow	Style of emplacement:	sheet lava flow
Domain number (if >1):		Domain relative abundance (%):	
Igneous domain type:		Groundmass grain size (avg):	fine-grained
Major groundmass texture:	intergranular		

Phenocrysts	Original (%)	Size MODE (mm)	Shape	Habit	Comments
Olivine	5	0.2	euhedral	equant	several 0.3-0.4 mm sized olivines phenocrysts altered along crack and grain boundaries
Plagioclase	7	0.4	euhedral	elongate	Plagioclase phenocrysts (upto 4mm) often forming glomerocrysts closely associated with olivine (partially altered) exhibiting sub-ophitic texture.

Groundmass	Original (%)	Comment
Groundmass	88	Laths of plagioclase with minute olivine grains and possibly cpx set in a fine-grained groundmass exhibiting intergranular and sub-ophitic textures at places.

Alteration

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
	12										

Domain type	Alteration %	% Ol repl.	Ol repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
other halo-dark grey	46										

Domain type	Alteration %	% OI repl.	OI repl. by	% Plag repl.	Plag repl. by	% CPX repl.	CPX repl. by	% groundmass repl.	Groundmass repl. by	% glass repl.	Glass repl. by
other halo-brown	54										