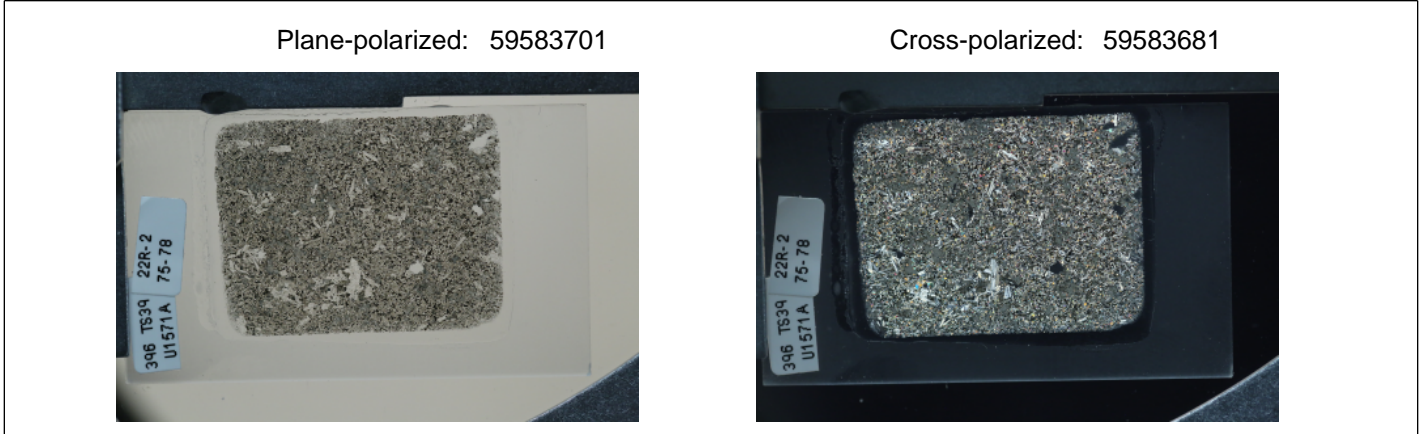


THIN SECTION LABEL ID: **396-U1571A-22R-2-W 75/78-TSB-TS39** Thin section no.:
 Observer: Sarah Lambart Piece no.:
 Thin section thickness: 30 Unit/subunit:
 Thin section summary: fine-grained glomeroporphyritic basalt with cluster of plagioclase and minor clinopyroxene phenocrysts. The groundmass is mostly composed of plag (50%) and cpx (30%) and clay mineral. The basalt is highly vesicular and the vesicles are filled with clay minerals.



Igneous Petrology

Lithology: moderately plagioclase phyric basalt **Groundmass grain size (avg.):** fine-grained

Texture: holocrystalline **Grain size distribution:** seriate

Phenocrysts	Original (%)	Present (%)	Replaced (%)	Size min. (mm)	Size max. (mm)	Shape	Habit	Comments
Plagioclase	12				5	subhedral	tabular	

Groundmass	Original (%)	Present (%)	Replaced (%)	Size min. (mm)	Size max. (mm)	Shape	Habit	Comments
Plagioclase		50				subhedral	elongate	
Clinopyroxene		30				anhedral	equant	

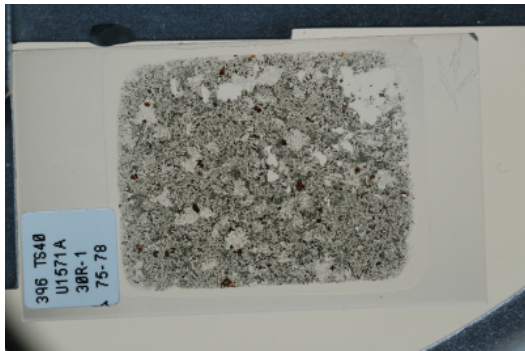
Alteration

Alteration intensity: slight **Total alteration (%):** **Recrystallization extent:** weak

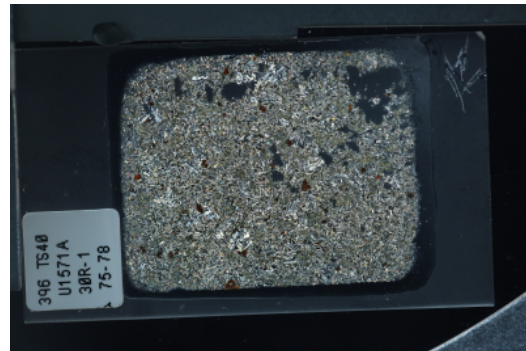
Vesicle fill composition	Percent
Total vesicle fill	90

THIN SECTION LABEL ID: **396-U1571A-30R-1-W 75/78-TSB-TS40** Thin section no.:
 Observer: Sarah Lambart Piece no.:
 Thin section thickness: 30 Unit/subunit:
 Thin section summary: sparsely olivine plagioclase phyric fined grain basalt. The groundmass is mostly composed of millimetric plagioclase and submillimetric cpx. The plagioclase phenocrysts (2-3mm) often form clusters. The olivine phenocrysts (1-2mm) are completely replaced by iddingsite. The sample is moderately vesicular with 50% vesicles filled with clay minerals.

Plane-polarized: 59626651



Cross-polarized: 59626631



Igneous Petrology

Lithology: olivine-plagioclase phyric basalt **Groundmass grain size (avg.):** fine-grained
Texture: holocrystalline **Grain size distribution:** seriate

Phenocrysts	Original (%)	Present (%)	Replaced (%)	Size min. (mm)	Size max. (mm)	Shape	Habit	Comments
Plagioclase	5				4	subhedral	tabular	
Olivine	3	0	100		0.5	subhedral	subhedral	replaced by iddingsite

Groundmass	Original (%)	Present (%)	Replaced (%)	Size min. (mm)	Size max. (mm)	Shape	Habit	Comments
Plagioclase		40			2	subhedral	elongate	
Clinopyroxene		30			1	anhedral	tabular	
Fe-Ti oxide	5					anhedral	equant	

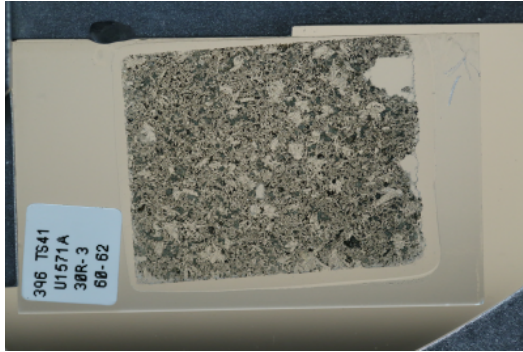
Alteration

Alteration intensity: moderate **Total alteration (%):** **Recrystallization extent:** strong

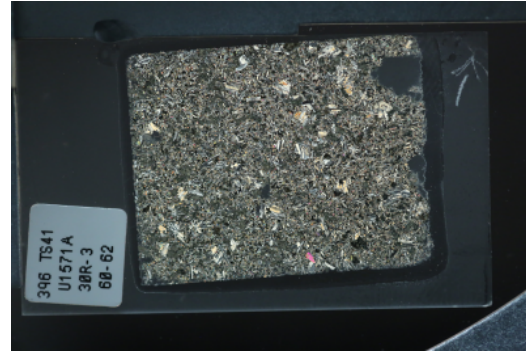
Vesicle fill composition	Percent
Total vesicle fill	50
Clay, saponite	100

THIN SECTION LABEL ID: **396-U1571A-30R-3-W 60/62-TSB-TS41** Thin section no.:
 Observer: Sarah Lambart Piece no.:
 Thin section thickness: 30 Unit/subunit:
 Thin section summary: fine-grained glomeroporphyritic basalt with cluster of plagioclase and minor clinopyroxene phenocrysts. The groundmass is mostly composed of plag (40%) and cpx (30%) and clay mineral. A few plagioclase grains show continuous zoning.

Plane-polarized: 59629551



Cross-polarized: 59629591



Igneous Petrology

Lithology: plagioclase phyric basalt **Groundmass grain size (avg.):** fine-grained
Texture: holocrystalline **Grain size distribution:** seriate

Phenocrysts	Original (%)	Present (%)	Replaced (%)	Size min. (mm)	Size max. (mm)	Shape	Habit	Comments
Plagioclase	10				5	subhedral	tabular	
Clinopyroxene	1				2	anhedral	tabular	

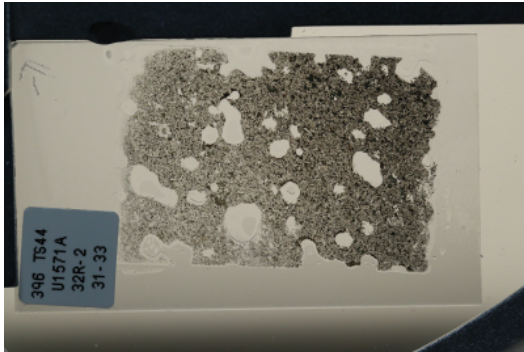
Groundmass	Original (%)	Present (%)	Replaced (%)	Size min. (mm)	Size max. (mm)	Shape	Habit	Comments
Plagioclase		40				subhedral	elongate	
Clinopyroxene		30				anhedral	equant	

Alteration

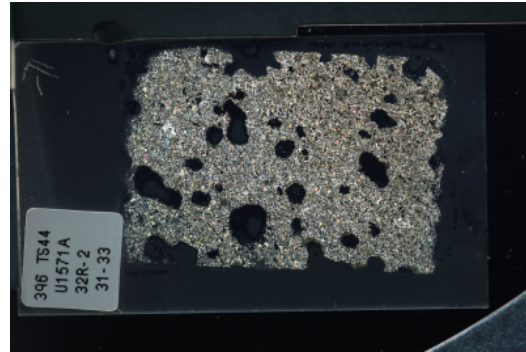
Alteration intensity: slight **Total alteration (%):** **Recrystallization extent:** weak

THIN SECTION LABEL ID: **396-U1571A-32R-2-W 31/33-TSB-TS44** Thin section no.:
 Observer: Sarah Lambart Piece no.:
 Thin section thickness: 30 Unit/subunit:
 Thin section summary: moderately vesicular fine grained basalt. The groundmass is mostly composed of plagioclase and clinopyroxene. Vesicles are empty and alteration is weak

Plane-polarized: 59684831



Cross-polarized: 59684811



Igneous Petrology

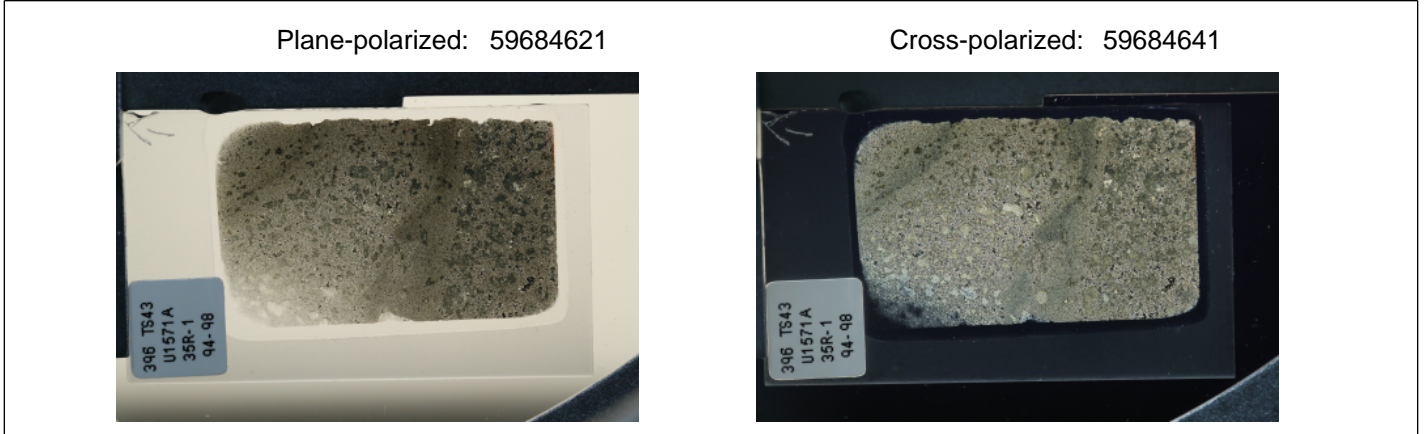
Lithology: basalt **Groundmass grain size (avg.):** fine-grained
Texture: holocrystalline **Grain size distribution:** seriate

Groundmass	Original (%)	Present (%)	Replaced (%)	Size min. (mm)	Size max. (mm)	Shape	Habit	Comments
Plagioclase		50			1.5	subhedral	elongate	
Clinopyroxene		20			1	anhedral	tabular	

Alteration

Alteration intensity: slight **Total alteration (%):** **Recrystallization extent:** weak

THIN SECTION LABEL ID: **396-U1571A-35R-1-W 94/98-TSB-TS43** Thin section no.:
 Observer: Sarah Lambart Piece no.:
 Thin section thickness: 30 Unit/subunit:
 Thin section summary: strongly altered highly vesicular aphyric basalt. The groundmass crystallinity changes from cryptocrystalline to microcrystalline, highlighting flow texture. The groundmass is mostly composed of plagioclase and clay minerals. The submillimetric vesicles are filled with saponite.



Igneous Petrology

Lithology: aphyric basalt **Groundmass grain size (avg.):** microcrystalline
Texture: aphanitic **Grain size distribution:** seriate

Groundmass	Original (%)	Present (%)	Replaced (%)	Size min. (mm)	Size max. (mm)	Shape	Habit	Comments
Plagioclase					0.5	subhedral	elongate	

Alteration

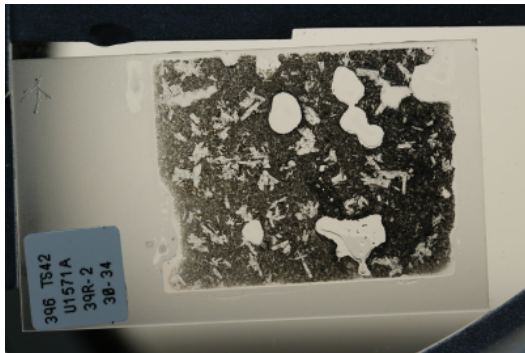
Alteration intensity: high **Total alteration (%):** **Recrystallization extent:** strong

Vesicle abundance (%): 50 **Vesicle shape:** rounded **Vesicle distribution:**
Vesicle min. size (mm): **Vesicle max. size (mm):** 2 **Vesicle mode size (mm):** 0.5

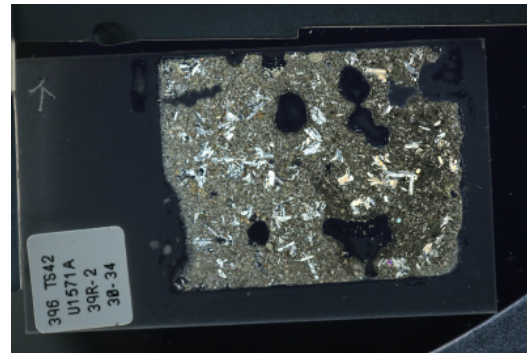
Vesicle fill composition	Percent
Total vesicle fill	100
Clay, saponite	100

THIN SECTION LABEL ID: **396-U1571A-39R-2-W 32/34-TSB-TS42** Thin section no.:
 Observer: Sarah Lambart Piece no.:
 Thin section thickness: 30 Unit/subunit:
 Thin section summary: highly vesicular moderately plagioclase phyric basalt with minor phenocrysts of euhedral olivine (replaced by iddingsite and clay minerals) and anhedral clinopyroxene. The groundmass is microcrystallized and mostly composed of plagioclase and cpx. Strong recrystallization in clay minerals (saponite) is observed. Vesicles are empty and surrounded.

Plane-polarized: 59684541



Cross-polarized: 59684481



Igneous Petrology

Lithology: moderately plagioclase phyric basalt **Groundmass grain size (avg.):** microcrystalline
Texture: holocrystalline **Grain size distribution:** bimodal

Phenocrysts	Original (%)	Present (%)	Replaced (%)	Size min. (mm)	Size max. (mm)	Shape	Habit	Comments
Plagioclase	10				3	subhedral	tabular	
Olivine	1	0	100		0.6	euhedral	euhedral	replaced by iddingsite (20%) & clay minerals (80%)
Clinopyroxene	1				0.5	anhedral	equant	

Groundmass	Original (%)	Present (%)	Replaced (%)	Size min. (mm)	Size max. (mm)	Shape	Habit	Comments
Plagioclase		50				subhedral	elongate	
Clinopyroxene		15				anhedral	equant	

Alteration

Alteration intensity: moderate **Total alteration (%):** **Recrystallization extent:** strong