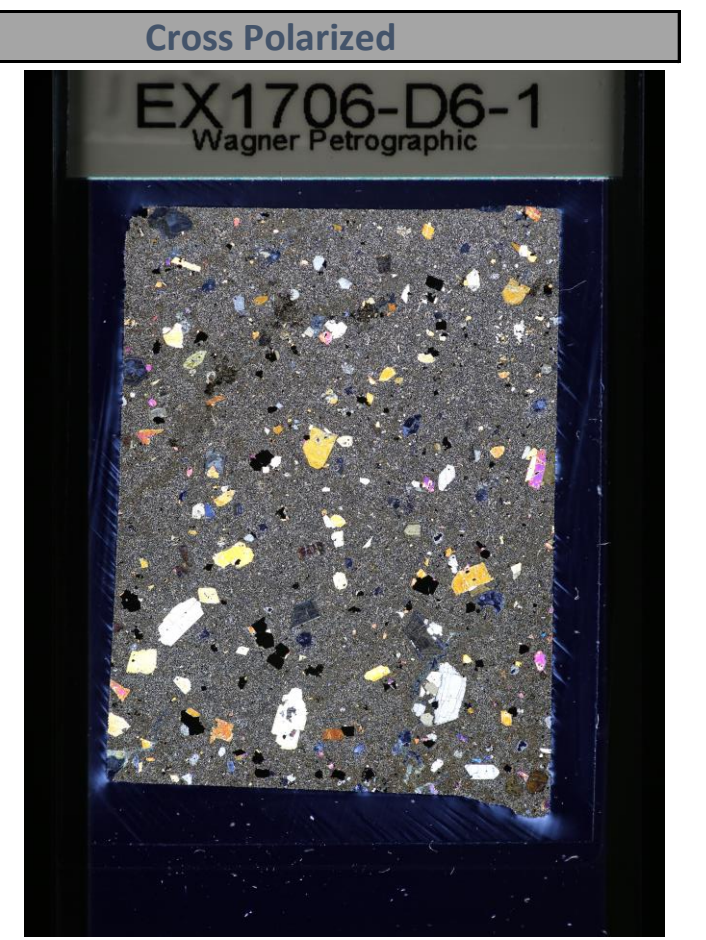


General Information			
Sample Name (IGSN)	EX1706-D6-1		
Describer	Kevin Konrad		
Sample Location	Keli Ridge		
Lithology prefix	spinel-clinopyroxene		
General Lithology	Basalt		
Texture 1	Alkaline		
Texture 2			
Whole Rock Original (%)	100	Check [ Ph + Vs + Gm = 100% ]	OK
Whole Rock Present (%)	80	Check [ Or = Pr + Rf ]	OK
Whole Rock Replaced (%)	20	Check [ Or = Pr + Rf ]	OK
Total Groundmass Original (%)	100	Check [ Gp + Gl + Ms = 100% ]	OK
Total Groundmass Present (%)	70	Check [ Or = Pr + Rf ]	OK
Total Groundmass Replaced (%)	30	Check [ Or = Pr + Rf ]	OK
Whole Rock Summary	A dark mottled basalt which is likely coarse grained. Contains clinopyroxene phenocrysts and perhaps another phase (or filled vesicles). Very dense rock. Possible altered glass rind in some areas with a few iddingsite grains. Rock is coated with a thin layer of phosphorite followed by a 1-2 cm thick FeMn crust.		
Thin Section Summary	An interesting alkali-basalt with both clinopyroxene and spinel macrocrysts (xenocryst or phenocrysts). The spinels are most likely magnetite and are potentially (likely?) xenocrystic in origin. Clinopyroxene typically have beautiful blue extinctions and sector zoning indicating they're Ti-augite. Augite grains commonly have abundant spinel inclusions around the outer most zone of the grain. Sample contains irregular shaped vesicles with complete zeolite infill. Groundmass consists of pyroxene, spinel (~50%) and altered mesostasis.		



PHENOCRYSTS [Ph]	OL	PLAG	OPX	CPX	SPINEL	OTHER	VESICLES [Vs]	GRNDM [Gm]	Cross Polarized
Original (%) [ Or ]				20	10		5		
Present (%) [ Pr ]				20	10		0		
Replaced / Filled (%) [ Rf ]				0	0		5		
Check [ Or = Pr + Rf ]	OK	OK	OK	OK	OK	OK	OK	OK	
Minimum Size (mm)				0.5	0.1		0.1		
Maximum Size (mm)				2.5	1		0.75		
Modal Size (mm)				1.5	0.75		0.5		
Shape				subhedral	subhedral		irregular		
Habit									
Zonation Type				sector					
Zonation Extent				common					
Exsolution Type									
Special Features				blueish extinction					
Comments				Spinel inclusions frequent along grain rims.	CPX is commonly adhered to the edges of the grain (glomerocrystic?)		Zeolite infilling		



GROUNDMASS [Gp]	OL	PLAG	OPX	CPX	SPINEL	OTHER	GLASS [Gl]	MSTASIS [Ms]
Original (%) [ Or ]				10	50			40
Present (%) [ Pr ]				5	50			0
Replaced / Filled (%) [ Rf ]				5	0			40
Check [ Or = Pr + Rf ]	OK	OK	OK	OK	OK	OK	OK	OK
Minimum Size (mm)				0.01	0.01			
Maximum Size (mm)				0.05	0.1			
Modal Size (mm)				0.01	0.01			
Shape				subhedral	subhedral			
Habit								
Comments								Mostly altered glass