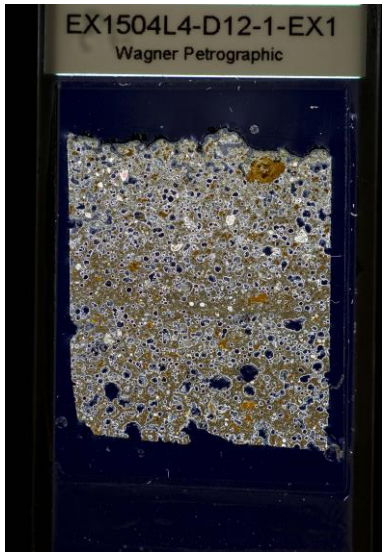
| General Information | | | |
|---|---|---|---|
| Sample Name (IGSN) | EX1504L4-D12-1 | | |
| Describer | Kevin Konrad | | |
| Sample Location | Abyssal Ridge | | |
| Lithology prefix | olivine | | |
| General Lithology | basalt | | |
| Texture 1 | heavily altered | | |
| Texture 2 | vesicular | | |
| Whole Rock Original (%) | 100 | Check [ Ph + Vs + Gm = 100% ] | OK |
| Whole Rock Present (%) | 5 | Check [ Or = Pr + Rf ] | OK |
| Whole Rock Replaced (%) | 95 | Check [ Or = Pr + Rf ] | OK |
| Total Groundmass Original (%) | 100 | Check [ Gp + Gl + Ms = 100% ] | OK |
| Total Groundmass Present (%) | 5 | Check [ Or = Pr + Rf ] | OK |
| Total Groundmass Replaced (%) | 95 | Check [ Or = Pr + Rf ] | OK |
| Whole Rock Summary | An altered basalt with zeolite filled vesicles. The rim is composed of altered glass (palagonite->reddish cryptocrystalline mush). The core is slightly fresher. Sample contains a few iddingsite grains an a thin Mn coat. | | |
| Thin Section Summary | A heavily altered vesicular olivine basalt. The olivine phenocrysts are completely recrystallized to iddingsite. The vesicles have alteration coating and ocasional infilling. The groundmass is dominately fine grained with grey alteration and some lath-like plagioclase. | | |

Whole Rock

Transmitted Light

| PHENOCRYSTS [Ph] | OL | PLAG | OPX | CPX | SPINEL | OTHER | VESICLES [Vs] | GRNDM [Gm] |
|---|---|---|---|---|---|---|---|---|
| Original (%) [ Or ] | 7 | | | | | | 70 | 23 |
| Present (%) [ Pr ] | 0 | | | | | | 35 | 1 |
| Replaced / Filled (%) [ Rf ] | 7 | | | | | | 35 | 22 |
| Check [ Or = Pr + Rf ] | OK | OK | OK | OK | OK | OK | OK | OK |
| Minimum Size (mm) | 0.4 | | | | | | 0.1 | |
| Maximum Size (mm) | 1 | | | | | | 0.4 | |
| Modal Size (mm) | 0.5 | | | | | | 0.2 | |
| Shape | anhedral | | | | | | rounded | |
| Habit | | | | | | | | |
| Zonation Type | | | | | | | | |
| Zonation Extent | | | | | | | | |
| Exsolution Type | | | | | | | | |
| Special Features | | | | | | | | |
| Comments | All iddingsite | | | | | | Grains range from unfilled to zeolite filled. | |

Cross Polarized




| GROUNDMASS [Gp] | OL | PLAG | OPX | CPX | SPINEL | OTHER | GLASS [Gl] | MSTASIS [Ms] |
|---|---|---|---|---|---|---|---|---|
| Original (%) [ Or ] | 15 | 10 | | | | | | 75 |
| Present (%) [ Pr ] | 0 | 5 | | | | | | 0 |
| Replaced / Filled (%) [ Rf ] | 15 | 5 | | | | | | 75 |
| Check [ Or = Pr + Rf ] | OK | OK | OK | OK | OK | OK | OK | OK |
| Minimum Size (mm) | 0.05 | 0.05 | | | | | | |
| Maximum Size (mm) | 0.1 | 0.2 | | | | | | |
| Modal Size (mm) | 0.1 | 0.1 | | | | | | |
| Shape | anhedral | subhedral | | | | | | |
| Habit | | | | | | | | |
| Comments | | | | | | | | Very altered |