

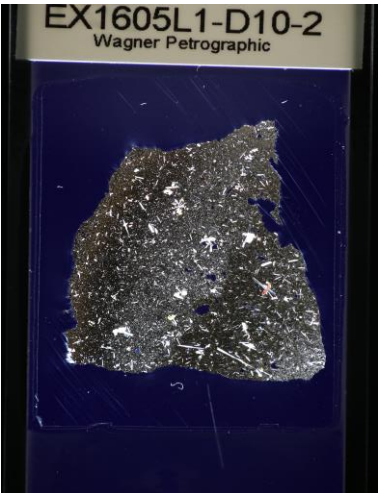


| General Information | | | | Whole Rock | Transmitted Light |
|-------------------------------|--|-------------------------------|----|---|---|
| Sample Name (IGSN) | EX1605L1-D10-2 | | |  |  |
| Describer | Kevin Konrad | | | | |
| Sample Location | New Hydrothermal Vent Field 1 | | | | |
| Lithology prefix | Plagioclase-Olivine | | | | |
| General Lithology | Basalt | | | | |
| Texture 1 | Glass | | | | |
| Texture 2 | | | | | |
| Whole Rock Original (%) | 100 | Check [Ph + Vs + Gm = 100%] | OK | | |
| Whole Rock Present (%) | 90 | Check [Or = Pr + Rf] | OK | | |
| Whole Rock Replaced (%) | 10 | Check [Or = Pr + Rf] | OK | | |
| Total Groundmass Original (%) | 100 | Check [Gp + Gl + Ms = 100%] | OK | | |
| Total Groundmass Present (%) | 80 | Check [Or = Pr + Rf] | OK | | |
| Total Groundmass Replaced (%) | 20 | Check [Or = Pr + Rf] | OK | | |
| Whole Rock Summary | <p>Very similar to D10-1, the sample is a glass-rimmed basalt nodule that contains a few small plagioclase phenocrysts. Sample has some vesicles that are unfilled. Regions of reddish-brown alteration are found near the glassy rim.</p> | | | | |
| Thin Section Summary | <p>A plagioclase and olivine phyric basalt with a glassy rind that coarsens towards a cryptocrystalline interior in the section. The phenocrysts display occasional ophitic textures and both phases contain melt and spinel inclusions. The glass rim contains some hydrous alteration inbetween pockets of fresh material. Hydrous alteration is found throughout, including within the coarser mesostasis. Sample is almost identical to D10-1.</p> | | | | |

| PHENOCRYSTS [Ph] | OL | PLAG | OPX | CPX | SPINEL | OTHER | VESICLES [Vs] | GRNDM [Gm] | Cross Polarized |
|------------------------------|---|--------------------------|-----|-----|--------|-------|------------------------------|------------|-----------------|
| Original (%) [Or] | 5 | 10 | | | | | 5 | 80 | |
| Present (%) [Pr] | 5 | 10 | | | | | 5 | 64 | |
| Replaced / Filled (%) [Rf] | 0 | 0 | | | | | 0 | 16 | |
| Check [Or = Pr + Rf] | OK | OK | OK | OK | OK | OK | OK | OK | |
| Minimum Size (mm) | 0.1 | 0.3 | | | | | 0.1 | | |
| Maximum Size (mm) | 0.25 | 0.8 | | | | | 0.5 | | |
| Modal Size (mm) | 0.1 | 0.4 | | | | | 0.1 | | |
| Shape | subhedral | sub-euhedral | | | | | rounded | | |
| Habit | | | | | | | | | |
| Zonation Type | | twinning, sector zoning | | | | | | | |
| Zonation Extent | | common | | | | | | | |
| Exsolution Type | | | | | | | | | |
| Special Features | | | | | | | | | |
| Comments | Mostly microcrystic. Spinel inclusions common | Glomerocrysts are common | | | | | Vary from round to irregular | | |



| GROUNDMASS [Gp] | OL | PLAG | OPX | CPX | SPINEL | OTHER | GLASS [GI] | MSTASIS [Ms] |
|------------------------------|----|------|-----|-----|--------|-------|--|--|
| Original (%) [Or] | | | | | | | 80 | 20 |
| Present (%) [Pr] | | | | | | | 60 | 10 |
| Replaced / Filled (%) [Rf] | | | | | | | 20 | 10 |
| Check [Or = Pr + Rf] | OK | OK | OK | OK | OK | OK | OK | OK |
| Minimum Size (mm) | | | | | | | | |
| Maximum Size (mm) | | | | | | | | |
| Modal Size (mm) | | | | | | | | |
| Shape | | | | | | | | |
| Habit | | | | | | | | |
| Comments | | | | | | | Hydrous alteration appears reddish in thin section | Consists of reddish clay/hydrous glass alteration and thin plagioclase laths |