

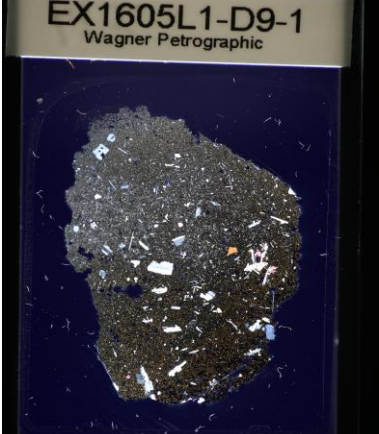


| General Information | | | | Whole Rock | Transmitted Light |
|-------------------------------|--|-------------------------------|----|---|---|
| Sample Name (IGSN) | EX1605L1-D9-1 | | |  |  |
| Describer | Kevin Konrad | | | | |
| Sample Location | Unnamed Lava Flows | | | | |
| Lithology prefix | Olivine-plagioclase | | | | |
| General Lithology | Basalt | | | | |
| Texture 1 | Glass | | | | |
| Texture 2 | Altered | | | | |
| Whole Rock Original (%) | 100 | Check [Ph + Vs + Gm = 100%] | OK | | |
| Whole Rock Present (%) | 70 | Check [Or = Pr + Rf] | OK | | |
| Whole Rock Replaced (%) | 30 | 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 | <p>A wonderful glassy pillow basalt with well preserved flow features. Interior consists of a cryptocrystalline basalt with some plagioclase phenocrysts (maybe olivine as well).</p> | | | | |
| Thin Section Summary | <p>An interesting glassy basalt with the glass rim partly to entirely consistant of reddish spherulitic alteration patterns. The alteration is likely hydrous alteration of glass surrounding microvesicles. The phenocrysts are quite fresh and at least one olivine grain contains a unusual opaque inclusion pattern. The groundmass ranges from a pure glass rim to a cryptocrystalline plagioclase bearing mesostasis. Large pockets of fresh glass are visible in plain light.</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 | 56 | |
| Replaced / Filled (%) [Rf] | 0 | 0 | | | | | 0 | 24 | |
| Check [Or = Pr + Rf] | OK | OK | OK | OK | OK | OK | OK | OK | |
| Minimum Size (mm) | 0.25 | 0.25 | | | | | 0.01 | | |
| Maximum Size (mm) | 0.4 | 0.5 | | | | | 0.25 | | |
| Modal Size (mm) | 0.25 | 0.4 | | | | | 0.2 | | |
| Shape | subhedral | sub-euhedral | | | | | rounded | | |
| Habit | | | | | | | | | |
| Zonation Type | | sector, twinning | | | | | | | |
| Zonation Extent | | common | | | | | | | |
| Exsolution Type | | | | | | | | | |
| Special Features | | | | | | | | | |
| Comments | Some spinel(?) inclusions in irregular shapes | | | | | | Likely a lot in the glass section which contain hydrous alteration halos | | |

| GROUNDMASS [Gp] | OL | PLAG | OPX | CPX | SPINEL | OTHER | GLASS [GI] | MSTASIS [Ms] |
|------------------------------|----|------|-----|-----|--------|-------|--|--|
| Original (%) [Or] | | | | | | | 30 | 70 |
| Present (%) [Pr] | | | | | | | 10 | 50 |
| Replaced / Filled (%) [Rf] | | | | | | | 20 | 20 |
| 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 halos around microvesicles. Not typical palagonite but a reddish rust | Difficult to ascertain alteration but appear fairly fresh in the core. |