152-918D-94R-2 (Piece 2, 49–50 cm) ROCK NAME: Pyroxene-plagioclase-phyric basalt. GRAIN SIZE: Fine- to medium-grained. TEXTURE: Glomeroporphyritic.

OBSERVER: DEM

| PRIMARY | PERCENT | PERCENT | SIZE | COMPO- | | |
|----------------|---------|----------|-----------|--------|------------|---|
| MINERALOGY | PRESENT | ORIGINAL | (mm) | SITION | MORPHOLOGY | COMMENTS |
| PHENOCRYSTS | 2.2 | 150 | 0.0 | | | |
| Olivine | 0.5 | 0.5 | 0.5 | | Subhedral. | |
| Plagioclase | 1.8 | 1.8 | 0.5 - 1.0 | | Lath. | |
| Clinopyroxene | 3.4 | 3.4 | 0.4-0.5 | | Subhedral. | |
| GROUNDMASS | | | | | | |
| Olivine | 2.6 | 2.6 | 0.2-0.3 | | Subhedral. | |
| Clinopyroxene | 31.2 | 31.2 | 0.1 - 0.3 | | Anhedral. | |
| Plagioclase | 47.4 | 47.4 | 0.2 - 0.5 | | Lath. | |
| Opaque mineral | 6.5 | 6.5 | 0.1 - 0.3 | | Anhedral. | |
| Mesostasis | 6.6 | 6.6 | | | | Devitrified glass with skeletal pyroxene and plagioclase. |

COMMENTS: Very fresh lava; olivine only slightly altered to green clay along the fractures of the crystal.

152-918D-99R-4 (Piece 1, 31-32 cm) ROCK NAME: Aphyric basalt. GRAIN SIZE: Very fine-grained. TEXTURE: Intersertal.

OBSERVER: DEM

| PRIMARY | PERCENT | PERCENT | SIZE | COMPO- | | |
|----------------|---------|----------------|------------|--------|------------|---------------------------------------|
| MINERALOGY | PRESENT | ORIGINAL | (mm) | SITION | MORPHOLOGY | COMMENTS |
| Olivine | 0 | 1 | 0.2-0.8 | | Euhedral. | Altered to iddingsite and green clay. |
| Clinopyroxene | 38 | 38 | 0.05 - 0.2 | | Grain. | |
| Plagioclase | 45 | 45 | 0.1 - 0.2 | | Laths. | |
| Opaque mineral | 6 | 6 | 0.05-0.1 | | Anhedral. | |
| Mesostasis | 0 | 10 | | | | Completely replaced by green clay. |
| SECONDARY | | REPLACING/ | , | | | 71 57 541 9513 670 |
| MINERALOGY | PERCENT | FILLING | | | | COMMENTS |
| Clay | 11 | Olivine and me | esostasis. | | | Green to brownish green clay. |

COMMENTS: Lava is relatively fresh; plagioclase are preserved.

152-918D-101R-4 (Piece 7, 50-52 cm)

ROCK NAME: Aphyric basalt. GRAIN SIZE: Very fine-grained.

TEXTURE: Intersertal.

OBSERVER: DEM

| PRIMARY | PERCENT | PERCENT | SIZE | COMPO- | | Contract to Contract |
|----------------|---------|-------------|------------|--------|------------|------------------------------------|
| MINERALOGY | PRESENT | ORIGINAL | (mm) | SITION | MORPHOLOGY | COMMENTS |
| Clinopyroxene | 39 | 39 | 0.05 - 0.1 | | Grain. | |
| Plagioclase | 45 | 45 | 0.1 - 0.3 | | Lath. | |
| Opaque mineral | 6 | 6 | 0.05 - 0.2 | | Anhedral. | |
| Mesostasis | 0 | 10 | | | | Altered to green clays. |
| SECONDARY | | REPLACING/ | | | | |
| MINERALOGY | PERCENT | FILLING | | | | COMMENTS |
| Clays | 10 | Mesostasis. | | | | Altered to green clays (smectite). |

COMMENTS: Lava is fresh. Flow-banding visible on hand specimen corresponds to zones with glassy matrix (intersertal texture) alternating with intergranular zones.

152-918D-105R-3 (Piece 5, 30-33 cm)

OBSERVER: DEM

ROCK NAME: Aphyric basalt. GRAIN SIZE: Very fine-grained. TEXTURE: Intergranular to intersertal.

| PRIMARY | PERCENT | PERCENT | SIZE | COMPO- | | | | | | | | | | |
|---------------------------|----------|----------------------|---------|---------|------------|---|--|--|--|--|--|--|--|--|
| MINERALOGY PHENOCRYSTS | PRESENT | ORIGINAL (mm) SITION | | SITION | MORPHOLOGY | COMMENTS | | | | | | | | |
| Plagioclase GROUNDMASS | <<1 | <<1 | 1.0 | | Subhedral. | Aggregate of plagioclase phenocrysts partly embayed. | | | | | | | | |
| Plagioclase | 48 | 48 | 0.1-0.4 | | Lath. | Some larger laths associated with clinopyroxene and glass. | | | | | | | | |
| Clinopyroxene | 48 37 | 37 | 0.1-0.2 | | Grain. | Elongated crystals up to 0.4 mm long in radiating aggregates with plagioclase. | | | | | | | | |
| Opaque mineral | 7 | 7 0.1–0.2 | | | Anhedral. | Late crystallizing mineral. | | | | | | | | |
| Glass | 0 | 8 | | | | Alters to clays. | | | | | | | | |
| SECONDARY | | REPLACING/ | | | | | | | | | | | | |
| MINERALOGY | PERCENT | FILLING | | | | COMMENTS | | | | | | | | |
| Clays | 8 | Glass. | | | | Brown to green colored clay. | | | | | | | | |
| VESICLES/ | | | SIZE | | | | | | | | | | | |
| CAVITIES | PERCENT | LOCATION | (mm) | FILLING | SHAPE | COMMENTS | | | | | | | | |
| Vesicles | 1 | | 0.2-0.5 | Clay. | Rounded. | Brownish green clay lines the vesicle and pale colored radiating smectite is in the center. | | | | | | | | |

COMMENTS: Fresh lava; plagioclase and clinopyroxene are well preserved.

OBSERVER: DEM

152-918D-108R-1 (Piece 2C, 65–66 cm) ROCK NAME: Aphyric basalt. GRAIN SIZE: Very fine-grained. TEXTURE: Intersertal to intergranular.

| PRIMARY | PERCENT | PERCENT | SIZE | COMPO- | | | | | | | | | | |
|---------------------------|---------|-----------------|----------------|-------------------|------------|--|--|--|--|--|--|--|--|--|
| MINERALOGY PHENOCRYSTS | PRESENT | ORIGINAL | (mm) | SITION | MORPHOLOGY | COMMENTS | | | | | | | | |
| Plagioclase GROUNDMASS | <<1 | <<1 | 1.0 | | Lath. | Isolated laths. | | | | | | | | |
| Olivine | 0 | 1 | 0.1 - 0.4 | | Anhedral. | Crystals with embayed margins. | | | | | | | | |
| Clinopyroxene | 34 | 34 | < 0.1 | | Grain. | Intimate association with plagioclase laths in the matrix. | | | | | | | | |
| Plagioclase | 47 | 47 | 0.1-0.2 | | Lath. | | | | | | | | | |
| Opaque mineral | 6 | 6 | < 0.1 | | Anhedral. | | | | | | | | | |
| Glass | 0 | 12 | | | | Present in patches disseminated in the intergranular matrix. | | | | | | | | |
| | | | | | | | | | | | | | | |
| MINERALOGY | PERCENT | FILLING | | | | COMMENTS | | | | | | | | |
| Clays | 13 | Olivine and gla | ass from the m | natrix. | | Brownish green in color. | | | | | | | | |
| VESICLES/ | | | SIZE | | | *************************************** | | | | | | | | |
| CAVITIES | PERCENT | LOCATION | (mm) | FILLING | SHAPE | COMMENTS | | | | | | | | |
| Vesicles 5 | | | 1 | Clay and calcite. | Irregular. | Filled mainly with clear calcite; some with smectite. | | | | | | | | |

OBSERVER: DEM

152-918D-109R-1 (Piece 2D, 59–60 cm) ROCK NAME: Aphyric basalt. GRAIN SIZE: Very fine-grained. TEXTURE: Intersertal to intergranular.

| | | | | | | *************************************** |
|----------------|---------|-----------------|---------|--------------|------------|--|
| PRIMARY | PERCENT | PERCENT | SIZE | COMPO- | | |
| MINERALOGY | PRESENT | ORIGINAL | (mm) | SITION | MORPHOLOGY | COMMENTS |
| Olivine | 0 | 1 | 0.4 | | Anhedral. | Crystals are embayed and altered to iddingsite. |
| Plagioclase | 48 | 48 | 0.1-0.2 | | Lath. | Some larger crystals (0.4 mm) form glomeroporphyritic aggregates with clinopyroxene and glass. |
| Clinopyroxene | 35 | 35 | < 0.1 | | Grain. | |
| Opaque mineral | 6 | 6 | < 0.1 | | | |
| Glass | 0 | 10 | | | | Totally replaced by clays. |
| SECONDARY | | REPLACING/ | | | | |
| MINERALOGY | PERCENT | FILLING | | | | COMMENTS |
| Clays | 11 | Olivine and gla | SS. | | | Brownish green clay. |
| /ESICLES/ | | 1 | SIZE | | | |
| CAVITIES | PERCENT | LOCATION | (mm) | FILLING | SHAPE | COMMENTS |
| Vesicles | 15 | Disseminated. | 2–5 | Clay and Cu. | Irregular. | Filled with pale colored aggregates of smectite. Flecks of native copper are present in the clay material lining the vesicles. |

COMMENTS: This rock is only slightly altered; some mica-like clays are present in the very fine-grained matrix.

OBSERVER: DEM

152-918D-110R-4 (Piece 10, 111–112 cm) ROCK NAME: Aphyric basalt. GRAIN SIZE: Very fine-grained. TEXTURE: Intersertal to intergranular.

| PRIMARY | PERCENT | PERCENT | SIZE | COMPO- | | |
|----------------|---------|---|---------|--------------|------------|--|
| MINERALOGY | PRESENT | ORIGINAL | (mm) | SITION | MORPHOLOGY | COMMENTS |
| Olivine | 0 | <1 | 0.3-0.5 | | Subhedral. | Altered to iddingsite and clays; embayed margins. |
| Clinopyroxene | 37 | 37 | < 0.1 | | Grain. | Some crystals are more elongated (pigeonite?). |
| Plagioclase | 48 | 48 | 0.1-0.5 | | Lath, | Forms some doleritic aggregates. |
| Opaque mineral | 6 | 6 | < 0.1 | | | CO. TO ANALYSI (MANAGORY) COM SON SON TO SON |
| Glass | 0 | 9 | | | | Altered to brownish clays. |
| SECONDARY | | REPLACING/ | | | | |
| MINERALOGY | PERCENT | FILLING | | | | COMMENTS |
| Clays | 9 | Olivine and gla | ass. | | | Brownish green clay. |
| VESICLES/ | | *************************************** | SIZE | | | ###################################### |
| CAVITIES | PERCENT | LOCATION | (mm) | FILLING | SHAPE | COMMENTS |
| Vesicles | I | | 0.5-1 | Clay and Cu. | Rounded. | Filled with smectites; flecks of native copper in the clay material lining the vesicles. |

 $COMMENTS: Branching \ pyroxene \ develops \ with \ radiating \ plagioclase \ in \ the \ glomeroporphyritic \ assemblages.$

OBSERVER: DEM

152-918D-111R-3 (Piece 12, 111–114 cm) ROCK NAME: Aphyric basalt. GRAIN SIZE: Very fine-grained. TEXTURE: Intersertal to intergranular.

| Clinopyroxene Plagioclase | 37.5 49.5 | 37.5 49.5 | <0.1 0.1–0.4 | | Grain. Lath. | | | | | |
|------------------------------|-------------------|-----------------|-----------------|---------|--------------------------------|---|--|--|--|--|
| Opaque mineral Glass | 3.5 0 | 3.5 9 | <0.1 | | | Altered to clays. | | | | |
| SECONDARY MINERALOGY | 0 9 REPLACING/ | | | | | COMMENTS | | | | |
| Clays | 9.5 | Olivine and gla | ass. | | | Alteration of the glassy matrix. | | | | |
| VESICLES/ | | | SIZE | | ****************************** | *************************************** | | | | |
| CAVITIES | PERCENT | LOCATION | (mm) | FILLING | SHAPE | COMMENTS | | | | |
| Vesicles | 2 | | 1-2 | Clay. | Rounded. | Filled with brownish green smectites. | | | | |

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| Hole, core, section, interval (cm) | Depth (mbsf) | Lithology | Sand | Silt | Clay | Albite | Amphibole | Bioclast | Biotite | Carbonate | Chlorite | Clay | Epidote | Feldspar | Forams | Glass | Glauconite | Leucoxene | Mica | Micrite | Nannos | Opaques | Plant | Prehnite | Pyrite | Pyroxene | Quartz | Rock Fragments | Spar. Cement | Unknown |
| Hole 914A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-3, 30 | 7.81 | D | 25 | 40 | 35 | | | | | | | 35 | | 16 | | | | | | | | 5 | | | | 2 | 30 | 12 | | |
| Hole 915A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22-1, 6 | 177.6 | М | 60 | 30 | 10 | | 3 | | | | | | | 1 | | 19 | | | 3 | | - 1 | 24 | | | | 4 | | | | |
| 23-1, 100 | 188.1 | М | 70 | 10 | 20 | | 1 | | | | | | | | | 15 | | | 1 | | | | | | | 3 | | | | |
| Hole 917A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 103-1, 1 | 826.9 | М | 0 | 20 | 80 | 15 | 15 | | | 7 | | | | 5 | | | 25 | | | | | | 2 | | 2 | | | | | |
| 103-1, 52 | 827.4 | М | 0 | 60 | 40 | 50 | 50 | | | Tr | | | | 10 | | | 20 | | | | | | * | | Tr | | | | | |
| 103-1, 59 | 827.5 | М | 0 | 80 | 20 | 40 | 40 | | | | | | | 5 | | | 20 | 3 | | | | | 2 | | 2 | | 3 | | | |
| 103-1, 119 | 828.1 | М | 0 | 60 | 40 | 20 | 20 | | 10 | 3 | | 10 | | 25 | | | 15 | Tr | | | | | 2 | | 2 | | * | | | |
| 103-2, 16 | 828.4 | М | 0 | 60 | 40 | 25 | 25 | | 3 | | | 3 | | 35 | | | 20 | 2 | | | | | * | | Tr | | 2 | | | |
| 103-2, 70 | 829 | М | 0 | 60 | 40 | 20 | 20 | | | 5 | | | | 30 | | | 30 | Tr | | | | | * | | Tr | | * | | | |
| 103-2, 111 | 829.4 | М | 0 | 45 | 55 | 10 | 10 | | 5 | 3 | | 5 | | 30 | | | 40 | 1 | | | | | 1 | | 1 | | 1 | | | |
| 104-1, 8 | 831.6 | М | 0 | 60 | 40 | 25 | 25 | | Tr | 2 | 30 | * | | 30 | | | 30 | Tr | | | | | * | 3 | Tr | | * | | | |
| 104-1, 129 | 832.8 | М | 0 | 65 | 35 | 25 | 25 | | 15 | | 15 | 15 | | 15 | | | 30 | 2 | | | | | * | Tr | Tr | | 2 | | | 5 |
| 104-2, 52 | 833.5 | М | 0 | 75 | 25 | 25 | 25 | | | 5 | 15 | | | 15 | | | 20 | | | | | | * | 20 | Tr | | | | | |
| 104-2, 97 | 834 | М | 10 | 70 | 20 | 25 | 25 | | | | 20 | | | 20 | | | 20 | | | | | | * | 20 | Tr | | | | | |
| 104-3, 97 | 835.1 | М | 0 | 60 | 40 | 20 | 20 | | | 5 | 10 | | | 10 | | | 40 | | | | | | * | 15 | Tr | | | | | |
| Hole 918D | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| 14-CC, 1 | 415.5 | М | 35 | 60 | 5 | 35 | 2 | | | 10 | 10 | | | 8 | | | | | | | | | 20 | 15 | Tr | | 10 | | | |
| 35-CC, 9 | 612.4 | М | 5 | 88 | 7 | 10 | | | | Tr | 10 | | | 10 | | | | | 3 | | 10 | | 20 | 40 | 2 | | 2 | 3 | | |
| 57-4, 18 | 825.7 | М | 10 | 85 | 5 | | | | | | | | | 15 | | | | | 2 | | | | 25 | | | | | 15 | | |
| 86-1, 59 | 1099 | М | 100 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 88-1, 3 | 1118 | М | 5 | 85 | 10 | | | | | | | | | ٠ | 1 | | | | | | 40 | | * | | 1 | | 20 | | | |