144-872A-18X-1 (Piece 4, 26–28 cm) ROCK NAME: Alkali Olivine Basalt GRAIN SIZE: Fine-grained. TEXTURE: Pilotaxitic.		OBSERVER: JJD		WHERE SAMPLED: Unit 1.		
PRIMARY	PERCENT	PERCENT	SIZE	COMPO-		
MINERALOGY	PRESENT	ORIGINAL	(mm)	SITION	MORPHOLOGY	COMMENTS
Olivine	0	8	<0.25		Euhedral.	Pseudomorphed with iddingsite rims and
Plagioclase	10	56	<0.2		Lathe	green clay centers.
Ilmenite	Tr	Tr	<0.1		Needles.	Most altered to hematite.
OF CONTRACTS						
MINERALOCY	PERCENT	ELLING				COMMENTS
Calcite	<1	FILLING				To 5 mm patches covering groundmass.
Green Clay	10					<0.3 mm patches covering groundmass.
VESICLES/			SIZE			
CAVITIES	PERCENT	LOCATION	(mm)	FILLING	SHAPE	COMMENTS
Vesicles	10	Random	0.5-4	Brown clay, zeolites, calcite	Irregular	Often rimmed with brown clay.
COMMENTS: Extensiv	ely altered unit.					
144-872B-4R-1 (Piece ROCK NAME: Alkali C GRAIN SIZE: Fine-grai TEXTURE: Intergranula	7, 30–32 cm) Dlivine Basalt ned. ur.		OBSERVER:	D	WHERE SAMPLED: U	Jnit 5.
PRIMARY	PERCENT	PERCENT	SIZE	COMPO-		
MINERALOGY	PRESENT	ORIGINAL	(mm)	SITION	MORPHOLOGY	COMMENTS
Olivine	0	10	0.025-0.5		Euhedral to subhedral.	Iddingsitized with some clay centers.
Plagioclase	10	60	<0.1		Laths.	Most are pseudomorphed by brown speckled clays: some are completely obscured
Titanomagnetite	0	15	0.025-0.5		Euhedral.	Altered to hematite.
SECONDARY		REPLACING/				
MINERALOGY	PERCENT	FILLING				COMMENTS
Brown clay	30					<0.5 mm patches replacing groundmass. Larger patches have equant calcite crystals in the center. Some of these may have been vesicles.
VESICLES/			SIZE			
CAVITIES	PERCENT	LOCATION	(mm)	FILLING	SHAPE	

COMMENTS: Extensively altered unit. Very similar to Hole 872A, Unit 1.

144-872B-5R-1 (Piece 6, 45–47 cm) ROCK NAME: Hawaiite GRAIN SIZE: Fine-grained. TEXTURE: Pilotaxitic.		OBSERVER: JJD		WHERE SAMPLED: Unit 6.		
PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPO- SITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	7	7	0.5 - 2	An35-45	Laths.	Twinned; Only slightly altered along the edges.
Clinopyroxene	<1	<1	0.1-1	Ti-Augite	Anhedral.	Fresh.
GROUNDMASS						
Plagioclase	32	40	<0.5		Laths.	Some replaced by patches of brown clays.
Titanomagnetite	20	20	0.01-0.001		Euhedral.	Fresh. A few are chadacrystic in plagioclase.
Glass	0	20				Altered to brown clays.
SECONDARY		REPLACING/				
MINERALOGY	PERCENT	FILLING				COMMENTS
Brown Clay	38					0.2-1 mm patches covering mesostasis and groundmass minerals.
VESICLES/			SIZE			
CAVITIES	PERCENT	LOCATION	(mm)	FILLING	SHAPE	
None						
COMMENTS: Not too	altered. Plagioclas	se may be promis	ing for dating.			
144-872B-5R-3 (Piece	10, 104-108 cm)		OBSERVER:	JJD	WHERE SAMPLED	D: Unit 9B.
ROCK NAME: Hawaiite						
GRAIN SIZE: Fine-grain	ned.					
TEXTURE: Intergranula	r.					
PRIMARY	PERCENT	PERCENT	SIZE	COMPO-		
MINERALOGY	PRESENT	ORIGINAL	(mm)	SITION	MORPHOLOGY	COMMENTS
Clinopyroxene	7	7	0.5-0.2	Ti-augite	Subhedral.	Prisms impinged on by plagioclase laths.
Plagioclase	45	80	<0.5	An ₃₀₋₄₀	Laths.	Many have been obscured by clays.
Ilmenite	3	3	<0.3		Needles.	
Titanomagnetite	Tr	Tr	< 0.3		Anhedral.	Intersertal between plagioclase.
SECONDARY		REPLACING/				
MINERALOGY	PERCENT	FILLING				COMMENTS
Green and Brown	35					<2 mm patches in the groundmass, replacing
Clay						plagioclase laths and mesostasis.
VESICLES/	******		SIZE		****************************	
CAVITIES	PERCENT	LOCATION	(mm)	FILLING	SHAPE	
	2	Random	0.25-1	Green and	Subround	
Vesicles	4	remino onn	A7 + m L7 A-	cheen and	Subtound	

COMMENTS: None.

144-872B-6R-1 (Piece 5, 40-45 cm) ROCK NAME: Alkali Olivine Basalt GRAIN SIZE: Fine-grained. TEXTURE: Intergranular.

OBSER	VER: .	IJD

WHERE SAMPLED: Unit 10B.

PRIMARY	PERCENT	PERCENT	SIZE	COMPO-		
MINERALOGY	PRESENT	ORIGINAL	(mm)	SITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Olivine	0	3	0.2 - 1		Subhedral.	Pseudomorphed with iddingsite rims and
						green clay centers.
Plagioclase	0	2	0.5 - 2		Laths.	Pseudomorphed by clay.
GROUNDMASS						
Mafic	0	2	0.01-0.04	Unknown	Anhedral.	Pseudomorphed by red clay,
Plagioclase	0	29	< 0.3		Laths.	Pseudomorphed to clay.
Titanomagnetite	8	8	< 0.05		Euhedral.	Fresh.
Ilmenite	1	1	< 0.1		Needles.	Fresh.
SECONDARY		REPLACING/				
MINERALOGY	PERCENT	FILLING				COMMENTS
Brown clay	10	1 100.01 10				Renlacing mesostasis
Dio nu onij						Replacing mesosasis.
VESICLES/			SIZE			
CAVITIES	PERCENT	LOCATION	(mm)	FILLING	SHAPE	COMMENTS
Vesicles	45	Random	0.5-7	Well-	Irregular	Some are filled or rimmed with clavs.
	0.000	i i i i i i i i i i i i i i i i i i i	0.5 /	developed	megulai	Some are fined of finance what onlys.
				ababanita bu	N 99331	
				chanazile hy	x-rav	
				diffraction	x-ray	
COMMENTS: None.				diffraction	x-ray	
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic.	75–80 cm) d.		OBSERVER:	diffraction	WHERE SAMPLED	: Unit 11.
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic.	75-80 cm) d.	DEDCENT	OBSERVER:	JJD	WHERE SAMPLED	: Unit 11.
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic.	75–80 cm) d. PERCENT	PERCENT	OBSERVER:	COMPO- STTION	WHERE SAMPLED	: Unit 11.
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY	75–80 cm) d. PERCENT PRESENT	PERCENT ORIGINAL	OBSERVER: SIZE (mm)	COMPO- SITION	WHERE SAMPLED MORPHOLOGY	: Unit 11. COMMENTS
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY PHENOCRYSTS	75–80 cm) d. PERCENT PRESENT	PERCENT ORIGINAL	OBSERVER: SIZE (mm)	COMPO- SITION	WHERE SAMPLED	: Unit 11. COMMENTS
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY PHENOCRYSTS Plagioclase	75–80 cm) d. PERCENT PRESENT Tr	PERCENT ORIGINAL Tr	OBSERVER: SIZE (mm) >0.5	COMPO- SITION An ₂₅₋₃₅	WHERE SAMPLED MORPHOLOGY Laths.	: Unit 11. COMMENTS Fresh.
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY PHENOCRYSTS Plagioclase GROUNDMASS	75–80 cm) d. PERCENT PRESENT Tr	PERCENT ORIGINAL Tr	OBSERVER: SIZE (mm) >0.5	COMPO- SITION An ₂₅₋₃₅	WHERE SAMPLED MORPHOLOGY Laths.	: Unit 11. COMMENTS Fresh.
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY PHENOCRYSTS Plagioclase GROUNDMASS Olivine	75–80 cm) d. PERCENT PRESENT Tr 0	PERCENT ORIGINAL Tr	OBSERVER: SIZE (mm) >0.5 0.1-0.4	COMPO- SITION An ₂₅₋₃₅	WHERE SAMPLED WORPHOLOGY Laths.	: Unit 11. COMMENTS Fresh. Pseudomorphed by green clays.
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY PHENOCRYSTS Plagioclase GROUNDMASS Olivine Clinopoyroxene	75–80 cm) d. PERCENT PRESENT Tr 0 4	PERCENT ORIGINAL Tr 3 4	OBSERVER: SIZE (mm) >0.5 0.1-0.4 <0.05	COMPO- SITION An ₂₅₋₃₅	WHERE SAMPLED WORPHOLOGY Laths. Euhedral. Subhedral	: Unit 11. COMMENTS Fresh. Pseudomorphed by green clays. Fresh.
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY PHENOCRYSTS Plagioclase GROUNDMASS Olivine Clinopyroxene Ilmenite	75–80 cm) d. PERCENT PRESENT Tr 0 4 4	PERCENT ORIGINAL Tr 3 4 4	OBSERVER: SIZE (mm) >0.5 0.1-0.4 <0.05 0.1-0.25	COMPO- SITION An ₂₅₋₃₅ Ti-augite	WHERE SAMPLED WORPHOLOGY Laths. Euhedral. Subhedral. Needles	: Unit 11. COMMENTS Fresh. Pseudomorphed by green clays. Fresh.
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY PHENOCRYSTS Plagioclase GROUNDMASS Olivine Clinopyroxene Ilmenite Titanomagnetite	75–80 cm) d. PERCENT PRESENT Tr 0 4 4 6	PERCENT ORIGINAL Tr 3 4 4 6	OBSERVER: SIZE (mm) >0.5 0.1-0.4 <0.05 0.1-0.25 <0.2	COMPO- SITION An ₂₅₋₃₅ Ti-augite	WHERE SAMPLED WORPHOLOGY Laths. Euhedral. Subhedral. Subhedral	: Unit 11. COMMENTS Fresh. Pseudomorphed by green clays. Fresh.
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY PHENOCRYSTS Plagioclase GROUNDMASS Olivine Clinopyroxene Ilmenite Titanomagnetite Plagioclase	75–80 cm) d. PERCENT PRESENT Tr 0 4 4 6 6 5	PERCENT ORIGINAL Tr 3 4 4 6 55	OBSERVER: SIZE (mm) >0.5 0.1-0.4 <0.05 0.1-0.25 <0.2 <0.2	COMPO- SITION An ₂₅₋₃₅ Ti-augite	WHERE SAMPLED WORPHOLOGY Laths. Euhedral. Subhedral. Needles. Subhedral. Laths.	: Unit 11. COMMENTS Fresh. Pseudomorphed by green clays. Fresh. Most are fresh.
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY PHENOCRYSTS Plagioclase GROUNDMASS Olivine Clinopyroxene Ilmenite Titanomagnetite Plagioclase	75–80 cm) d. PERCENT PRESENT Tr 0 4 4 6 6 5	PERCENT ORIGINAL Tr 3 4 4 6 55	OBSERVER: SIZE (mm) >0.5 0.1-0.4 <0.05 0.1-0.25 <0.2 <0.2	COMPO- SITION An ₂₅₋₃₅ Ti-augite	WHERE SAMPLED WORPHOLOGY Laths. Euhedral. Subhedral. Necelles. Subhedral. Laths.	: Unit 11. COMMENTS Fresh. Pseudomorphed by green clays. Fresh. Most are fresh.
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY PHENOCRYSTS Plagioclase GROUNDMASS Olivine Clinopyroxene Ilmenite Titanomagnetite Plagioclase SECONDARY	75–80 cm) d. PERCENT PRESENT Tr 0 4 4 6 6 5	PERCENT ORIGINAL Tr 3 4 4 6 55 REPLACING/	OBSERVER: SIZE (mm) >0.5 0.1-0.4 <0.05 0.1-0.25 <0.2 <0.2	COMPO- SITION An ₂₅₋₃₅ Ti-augite	WHERE SAMPLED WORPHOLOGY Laths. Euhedral. Subhedral. Needles. Subhedral. Laths.	: Unit 11. COMMENTS Fresh. Pseudomorphed by green clays. Fresh. Most are fresh.
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY PHENOCRYSTS Plagioclase GROUNDMASS Olivine Clinopyroxene Ilmenite Titanomagnetite Plagioclase SECONDARY MINERALOGY	75–80 cm) d. PERCENT PRESENT Tr 0 4 4 6 6 5 PERCENT	PERCENT ORIGINAL Tr 3 4 4 6 55 REPLACING/ FILLING	OBSERVER: SIZE (mm) >0.5 0.1-0.4 <0.05 0.1-0.25 <0.2 <0.2	COMPO- SITION An ₂₅₋₃₅ Ti-augite	WHERE SAMPLED WORPHOLOGY Laths. Euhedral. Subhedral. Needles. Subhedral. Laths.	: Unit 11. COMMENTS Fresh. Pseudomorphed by green clays. Fresh. Most are fresh. COMMENTS
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY PHENOCRYSTS Plagioclase GROUNDMASS Olivine Clinopyroxene Ilmenite Titanomagnetite Plagioclase SECONDARY MINERALOGY Green Phyllosilcates	75–80 cm) d. PERCENT PRESENT Tr 0 4 4 6 6 5 PERCENT 10	PERCENT ORIGINAL Tr 3 4 4 6 55 REPLACING/ FILLING	OBSERVER: SIZE (mm) >0.5 0.1-0.4 <0.05 0.1-0.25 <0.2 <0.2	COMPO- SITION An ₂₅₋₃₅ Ti-augite	WHERE SAMPLED WORPHOLOGY Laths. Euhedral. Subhedral. Needles. Subhedral. Laths.	: Unit 11. COMMENTS Fresh. Pseudomorphed by green clays. Fresh. Most are fresh. COMMENTS Small patches replacing groundmass.
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY PHENOCRYSTS Plagioclase GROUNDMASS Olivine Clinopyroxene Ilmenite Titanomagnetite Plagioclase SECONDARY MINERALOGY Green Phyllosilcates Brown Clay	75–80 cm) d. PERCENT PRESENT Tr Tr 0 4 4 6 6 5 PERCENT 10 15	PERCENT ORIGINAL Tr 3 4 4 6 55 REPLACING/ FILLING	OBSERVER: SIZE (mm) >0.5 0.1-0.4 <0.05 0.1-0.25 <0.2 <0.2	COMPO- SITION An ₂₅₋₃₅ Ti-augite	WHERE SAMPLED MORPHOLOGY Laths. Euhedral. Subhedral. Needles. Subhedral. Laths.	: Unit 11. COMMENTS Fresh. Pseudomorphed by green clays. Fresh. Most are fresh. COMMENTS Small patches replacing groundmass. May be chlorite. Small patches replacing groundmass.
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY PHENOCRYSTS Plagioclase GROUNDMASS Olivine Clinopyroxene Ilmenite Titanomagnetite Plagioclase SECONDARY MINERALOGY Green Phyllosilcates Brown Clay	75–80 cm) d. PERCENT PRESENT Tr 0 4 4 6 65 PERCENT 10 15	PERCENT ORIGINAL Tr 3 4 4 6 55 REPLACING/ FILLING	OBSERVER: SIZE (mm) >0.5 0.1-0.4 <0.05 0.1-0.25 <0.2 <0.2	COMPO- SITION An ₂₅₋₃₅ Ti-augite	WHERE SAMPLED MORPHOLOGY Laths. Euhedral. Subhedral. Needles. Subhedral. Laths.	: Unit 11. COMMENTS Fresh. Pseudomorphed by green clays. Fresh. Most are fresh. COMMENTS Small patches replacing groundmass. May be chlorite. Small patches replacing groundmass.
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY PHENOCRYSTS Plagioclase GROUNDMASS Olivine Clinopyroxene Ilmenite Titanomagnetite Plagioclase SECONDARY MINERALOGY Green Phyllosilcates Brown Clay VESICLES/	75–80 cm) d. PERCENT PRESENT Tr 0 4 4 6 6 5 PERCENT 10 15	PERCENT ORIGINAL Tr 3 4 4 6 55 REPLACING/ FILLING	OBSERVER: SIZE (mm) >0.5 0.1-0.4 <0.05 0.1-0.25 <0.2 <0.2 SIZE	COMPO- SITION An ₂₅₋₃₅ Ti-augite	WHERE SAMPLED MORPHOLOGY Laths. Euhedral. Subhedral. Needles. Subhedral. Laths.	: Unit 11. COMMENTS Fresh. Pseudomorphed by green clays. Fresh. Most are fresh. COMMENTS Small patches replacing groundmass. May be chlorite. Small patches replacing groundmass.
COMMENTS: None. 144-872B-6R-1 (Piece 8, ROCK NAME: Mugearite GRAIN SIZE: Fine-graine TEXTURE: Pilotaxitic. PRIMARY MINERALOGY PHENOCRYSTS Plagioclase GROUNDMASS Olivine Clinopyroxene Ilmenite Titanomagnetite Plagioclase SECONDARY MINERALOGY Green Phyllosilcates Brown Clay VESICLES/ CAVITIES	75–80 cm) d. PERCENT PRESENT Tr 0 4 4 6 6 5 PERCENT 10 15 PERCENT	PERCENT ORIGINAL Tr 3 4 4 6 55 8 REPLACING/ FILLING	OBSERVER: SIZE (mm) >0.5 0.1-0.4 <0.05 0.1-0.25 <0.2 <0.2 SIZE (mm)	COMPO- SITION An ₂₅₋₃₅ Ti-augite FILLING	WHERE SAMPLED MORPHOLOGY Laths. Euhedral. Subhedral. Needles. Subhedral. Laths.	: Unit 11. COMMENTS Fresh. Pseudomorphed by green clays. Fresh. Most are fresh. COMMENTS Small patches replacing groundmass. May be chlorite. Small patches replacing groundmass.

COMMENTS: Sample contains trace biotite, hornblende, and potassium feldspar. Very evolved lava.

144-872B-7R-1 (Piece 2, 34-35 cm) ROCK NAME: Alkali Olivine Basalt GRAIN SIZE: Fine-grained. TEXTURE: Pilotaxitic.

OBSERVER: JJD

WHERE SAMPLED: Unit 13.

PERCENT	PERCENT	SIZE	COMPO-		***************************************
PRESENT	ORIGINAL	(mm)	SITION	MORPHOLOGY	COMMENTS
0	1	0.2-1		Euhedral.	Iddingsitized rims and green, fibrous clay centers.
2	2	0.3-1.5	Ti-augite	Round.	Fresh. Skeletal rims.
Tr	1	0.5-4	2 40 40 7 0 69	Laths.	Most are pseudomorphed to clays.
0	15	< 0.2		Euhedral-subhedral.	Iddingsite pseudomorphs.
Tr	47	<0.5		Laths.	Pseudomorphed by brown, speckled clays.
0	2	< 0.15		Needles.	Altered to hematite.
0	7	<0,1		Subhedral.	Altered to hematite.
		SIZE			
PERCENT	LOCATION	(mm)	FILLING	SHAPE	COMMENTS
25	Random	1-7		Irregular	Larger ones are filled with chabazite. Smaller ones are filled with brown clay.
the texture has b	een lost during t	he clay develop	ment. Thin secti	on has a 6 mm, medium-	grained, gabbro xenolith.
, 69-70 cm)		OBSERVER	: JJD	WHERE SAMPLED:	Unit 14B.
livine Basalt					
ied.					
	PERCENT PRESENT 0 2 Tr 0 Tr 0 0 7 PERCENT 25 the texture has be , 69–70 cm) livine Basalt ed.	PERCENT PERCENT PRESENT ORIGINAL 0 1 2 2 Tr 1 0 15 Tr 47 0 2 0 7 PERCENT LOCATION 25 Random the texture has been lost during the sasalt ed.	PERCENT PRESENT PERCENT ORIGINAL SIZE (mm) 0 1 0.2-1 2 2 0.3-1.5 Tr 1 0.5-4 0 15 <0.2	PERCENT PRESENTPERCENT ORIGINALSIZE (mm)COMPO- SITION01 $0.2-1$ 222 $0.3-1.5$ Ti-augiteTr1 $0.5-4$ 015 2 <0.2 (mm)015 2 <0.2 (0.15 02 2 <0.15 (0.1 SIZE PERCENT 25PERCENT Random $1-7$ PERCENT ($1-7$ 0 ($1-7$ Colspan="3">SIZE ($1-7$ PERCENT ($1-7$ LOCATION (0 ($1-7$ Mandom ($1-7$ Colspan="3">OBSERVER: JJD	PERCENT PRESENTPERCENT ORIGINALSIZE (mm)COMPO- SITIONMORPHOLOGY01 $0.2-1$ 2Euhedral.22 $0.3-1.5$ Ti-augiteRound. Laths.015 7r $0.5-4$ Euhedral-subhedral. Laths.015 2 <0.2 <0.15 Euhedral-subhedral. Laths.015 2 <0.2 <0.15 Euhedral-subhedral. Laths.02 <0.15 <0.2 <1.15 Needles. Subhedral.07 <0.1 <0.1 SUBhedral.02 <0.1 <0.1 Subhedral.07 <0.1 <0.1 <0.1 25Random $1-7$ <0.1 SIZE PERCENT $1-7$ SIZE Needles. 0 0 <0.1 <0.1 <0.1 <0.1 <0.1 SIZE IrregularORADOM NOBSERVER: JJDWHERE SAMPLED: Ivine Basalt ed.

PRIMARY	PERCENT	PERCENT	SIZE	COMPO-		
MINERALOGY	PRESENT	ORIGINAL	(mm)	SITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Olivine	0	1	0.2-1.5		Subhedral.	Iddingsite rims with green clay centers. Possibly xenocrysts.
Plagioclase	1.5	3	>0.5	An ₅₅₋₆₀	Laths.	Partially replaced by clay.
Clinopyroxene	1	1	<1	Diopside	Round.	Fresh. Xenocrysts.
GROUNDMASS						
Olivine	0	15	<0.1		Anhedral.	Iddingsitized; Some clay development.
Plagioclase	30	57	<0.2		Laths.	Partially replaced and obscured by calcite and clay
Titanomagnetite	10	10	<0.1		Euhedral-subhedral.	Areas with 5%, 0.1 mm, subhedral and areas with 15%, 0.025 mm, euhedral.
Ilmenite	Tr	Tr	<0.1		Needles.	
Biotite	Tr	Tr	0.2		Euhedral.	Fresh.
SECONDARY		REPLACING/				
MINERALOGY	PERCENT	FILLING				COMMENTS
Brown clay	8					Replaces groundmass in small patches.
Calcite	5					0.1-1.0 mm patches of fine-grained calcite.
VESICLES/			SIZE			
CAVITIES None	PERCENT	LOCATION	(mm)	FILLING	SHAPE	

COMMENTS: Good for dating and microprobe work.

144-872B-7R-7 (Piece 9, 74–76 cm) ROCK NAME: Alkali Olivine Basalt GRAIN SIZE: Fine-grained. TEXTURE: Unknown. OBSERVER: JJD

WHERE SAMPLED: Unit 15B.

TEXTORE. OIKIOWI.						
PRIMARY	PERCENT	PERCENT	SIZE	COMPO- SITION	MODDHOLOGY	COMMENTS
MINERALOGI	TRESLIVI	ORIGINAL	(inni)	SITION	MORPHOLOGI	COMMENTS
PHENOCRYSTS						
Plagioclase	Tr	2	0.5 - 2		Laths.	Replaced by brown clay and clear zeolite.
Clinopyroxene	Tr	Tr	0.25-1	Diopside	Round.	Fresh. Probably xenocrysts.
GROUNDMASS						
Olivine	0	4	< 0.5		Subhedral.	Pseudomorphed by iddingsite and green clay.
Plagioclase	Tr	55	<0.2		Laths.	Almost entirely replaced by brown, speckled clay.
Titanomagnetite	7	14	< 0.05		Euhedral.	Half are replaced with hematite.
SECONDARY		REPLACING/				
MINERALOGY	PERCENT	FILLING				COMMENTS
Brown clay	40					Obscuring groundmass.
VESICLES/			SIZE			
CAVITIES	PERCENT	LOCATION	(mm)	FILLING	SHAPE	COMMENTS
Vesicles	25	Random	0.5-4	Chabazite	Irregular	Chabazite is very well-developed, large crystals.
COMMENTS: Sample is e	extensively alte	ered; original text	ure is no long	ger discernable.		
144-872B-8R-2 (Piece 3.	89–91 cm)		OBSERVE	8: IID	WHERE SAMPLED	P Unit 16B
ROCK NAME: Alkali Oliv	vine Basalt		Obolactica		WILLIGS OF UNIT LIST	. on ros
GRAIN SIZE: Fine-grained	1.					
TEXTURE: Pilotaxitic.						
PRIMARY	PERCENT	PERCENT	SIZE	COMPO-		
MINERALOGY	PRESENT	ORIGINAL	(mm)	SITION	MORPHOLOGY	COMMENTS
Clinonyroyene	Tr	Tr	0.25 1	Unknown	Dound	Frash Probably vanogruete
Plagioclase	1	1	0.25-1	Unknown	Kound.	Little clay replacement
Thightenase	3	1	1		Euneurai.	Little city replacement.
GROUNDMASS						
Mafic	0	15	<0.5		Amorphous.	Previous groundmass mafic mineral gone to orange
Plagioclase	10	55	<0.2		Lathe	Largely altered to clay
Titanomagnetite	20	25	<0.05		Eubedral	Some have been destroyed by the development of
, manoning northe	20	20	\$0.05		Luncora.	clay patches.
SECONDARY		REPLACING/				
MINERALOGY	PERCENT	FILLING				COMMENTS
Brown and Green Clay	35					<1 mm patches replacing groundmass.
VESICLES/			SIZE			
CAVITIES	PERCENT	LOCATION	(mm)	FILLING	SHAPE	
None						

COMMENTS: None.

SITE 872

144-872B-9R-2 (Piece 4, 92–94 cm) ROCK NAME: Hawaiite GRAIN SIZE: Fine-grained. TEXTURE: Trachytic.		OBSERVER: JJD		WHERE SAMPLED: Unit 17B.		
PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPO- SITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	Tr	Tr	1-4		Laths.	Clay replacement on edges and along fractures.
GROUNDMASS						
Mafic	0	8	< 0.05	Unknown	Amorphous.	Reddish-brown clay blotches, probably replacing a matic phase
Plagioclase	45	74	<1	Anag 50	Laths.	Partially replaced by speckled brown clay.
Clinopyroxene	Tr	Tr	<0.1	28-30	Anhedral.	Fresh.
Ilmenite	Tr	3	<0.1		Needles.	Mostly altered to hematite.
Titanomagnetite	Tr	10	<0.1		Subhedral.	Mostly altered to hematite.
SECONDARY		REPLACING/				
MINERALOGY	PERCENT	FILLING				COMMENTS
Brown clay	5					Replacing groundmass in small (<0.5 mm) patches.
VESICLES/			SIZE			
CAVITIES None	PERCENT	LOCATION	(mm)	FILLING	SHAPE	
144-872B-9R-5 (Piece ROCK NAME: Olivine- GRAIN SIZE: Fine-grai TEXTURE: Intergranula	1, 131–133 cm) Phyric Hawaiite ned. ar.		OBSERVER	: JJD	WHERE SAMPLEI	D: Unit 18B.
PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPO- SITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS Olivine	0	17	0.5-5		Subhedral.	Pseudomorphed to a fibrous mineral with high 1st
Clinopyroxene	3	3	0.5-5		Anhedral.	Fresh. Xenocrysts?
GROUNDMASS						
Clinopyroxene	4	4	0.1-0.5		Round.	Fresh. Often cracked.
Plagioclase	Tr	40	<0.5	An20.25	Laths.	Pseudomorphed almost entirely to clay,
Ilmenite	4	4	0.01-0.1		Needles.	Mostly fresh.
Titanomagnetite	Tr	1	0.05-0.1		Anhedral.	Mostly altered to hematite.
SECONDARY		REPLACING/				
MINERALOGY	PERCENT	FILLING				COMMENTS
Brown clay	11					Small patches in the matrix and pseudomorphing mafic minerals.
VESICLES/			SIZE			
CAVITIES	PERCENT	LOCATION	(mm)	FILLING	SHAPE	
Vesicles	20	Random	0.5-6	Clay minera	ls Subround	

COMMENTS: Given the groundmass assemblage, it is probable that the large olivines and clinopyroxenes are xenocrysts.

144-872C-18X-2 (Piece 2, 26–28 cm) ROCK NAME: Alkali Olivine Basalt GRAIN SIZE: Fine-grained. TEXTURE: Subophitic. OBSERVER: JJD

WHERE SAMPLED: Unit 1.

PRIMARY	PERCENT	PERCENT	SIZE	COMPO-		
MINERALOGY	PRESENT	ORIGINAL	(mm)	SITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Olivine	0	15	<1		Euhedral.	Iddingsitized, often with green clay centers. Quasi poikolitic around plagioclases.
GROUNDMASS						
Clinopyroxene	5	5	0.05-0.1	Ti-augite	Subhedral.	Fresh. Prisms impinged on by plagiclase.
Plagioclase	50	70	<0.5	Unknown	Laths.	Some altered to clay minerals. Difficult to get an An # on.
Ilmenite	3	4	<0.15		Needles,	Some altered to hematite.
Titanomagnetite	Tr	1	<0.1		Anhedral.	Altered to hematite.
VESICLES/			SIZE			
CAVITIES	PERCENT	LOCATION	(mm)	FILLING	SHAPE	COMMENTS
Vesicles	5	Random	<1			Irregular. Empty or plucked.

COMMENTS: One 2 mm plagioclase replaced by a clear zeolite. One 2 mm disaggregated mafic (clinopyroxene?) grain.