The photomicrograph PDF filenames presented in the VOLUME\CORES\PHOTOMIC directory have been modified to conform to the 8.3 filenaming convention. The hyphen has been removed (e.g., the PDF file for photomicrograph ID# 1203-100 has been changed to 1203100.PDF). Please note that this log summarizes all photomicrographs taken during Leg 197, not just those included in this volume.

Leg 197 Digital Photomicrograph Log

Save image to local hard drive using format 1203-1 for image #1, 1203-2 for image #2, etc.

Image#	TS#	Hole	Core	Sec	Interval	Piece	Light	Filter	Field of View	Feature	Unit #	Who?
1	6	1203	A	19R-2	24-26	3	PPL	B, N	1.4	Pillow rind. See microlytic pl in core of varioles, surrounded by glass.	3	PT
2	6	1203	A	19R-2	24-26	3	PPL	B, N	5.5	Pillow rind.	3	PT
3	6	1203	A	19R-2	24-26	3	PPL	B, N	5.5	Glomerocrystic pl in glasssy groundmass.	3	PT
4	7	1203	A	19R-2	136-138	15	XPL	B, N	5.5	Glomerocrystic rounded plagioclase. Ol on LHS psuedomorphed by magnesite.	3	PT
5	7	1203	A	19R-2	136-138	15	XPL	B, N	1.4	Cpx partially enclosing pl. Groundmass showing subophitic texture.	3	PT
6	1	1203	A	17R-4	34-38	10	XPL	B, N	1.4	Olivine pseudomorphed by silica (?)	1	PT
7	4	1203	A	19R-1	19-21	2A	XPL	B, N	1.4	Relict olivine showing several stages of alteration. Interesting texture.	3	PT
8	2	1203	A	18R-2	27-30	5	PPL	B, N	1.4	Variolitic clast in carbonate interbed.	2	PT
9	2	1203	A	18R-2	27-30	5	PPL	B, N	1.4	Glassy clasts in carbonate.	2	PT
10	8	1203	A	19R-5	13-15	2	PPL	B, N	5.5	Skeletal olivine pseudomorph.	3	PT
11		1203	A	19R-5	13-15	2	PPL	B, N	5.5	Olivine glomerocryst. Calcite vein at top.	3	PT
12		1203	A	20R4	44-47	1B	XPL	B, N	1,4	Subophitic texture in groundmass- clinopyroxene partially enclosing plagioclase.	3	PT
13		1203	A	26R1	10-12	1A	PPL	B, N	0.7	Curved acicular clinopyroxene and opaque needles in groundmass within segregation vesicle- indicative of quenching	6	PT
14		1203	A	26R1	10-12	1A	XPL	B, N	0.7	Curved acicular clinopyroxene and opaque needles in groundmass within segregation vesicle- indicative of quenching	6	PT
15		1203	A	26R1	10-12	1A	PPL	B, N	0.7	Skeletal opaque minerals with dendritic form.	6	PT
16	25	1203	A	31R-1	24-26	12	PPL	B, N	0.7	Pillow rind. See microlytic pl in core of varioles, surrounded by glass.	8	PT

17	30	1203	A	32R-2	85-87	1E	PPL	B, N	5.5	Fresh olivine phenocrysts and a plagioclase glomerocryst, with ophitic clinopyroxene. A plagioclase is visible below the centre.	11	PT
18	30	1203	A	32R-2	85-87	1E	PPL	B, N	5.5	Olivine crystal showing strain bands.	11	PT
19	32	1203	A	32R-5	86-88	1C	PPL	B, N	2.75	Plagioclase glomerocryst showing late-stage overgrowth.	11	PT
20	32	1203	A	32R-5	86-88	1C	PPL	B, N	0.7	Plagioclase glomerocryst showing several concentric stages of growth 1. Core 2. Intermediate band. Now replaced by clays. 3. Late stage overgrowth.	11	PT
21	34	1203	A	35R-4	47-49	1F	XPL	B, N	0.7	Varioltic texture: skeletal plagioclase and comb texture formed from parallel acicular clinopyroxene crystals.	14	PT
22	42	1203	A	37R-3	10-13	1A	PPL	B, N	5.5	Representative image of fresh olivine phyric basalt showing ophitic texture.	16	PT
23	48	1203	A	42R-5	20-23	1A	XPL	B, N	1.4	Large fresh clinopyroxene phenocryst (part of glomerocryst) showing olivine-like fractures.	19	PT
24	4	1203	A	19R-1	19-21	15	RL	B, N	0.5	Skeletal herring bone structure Magnetite-maghemite.	3	CRN
25	4	1203	A	19R-1	19-21	15	RL	B, N	2.5	General reflected light picture.	3	CRN
26	6	1203	A	19R-2	24-26	2	RL XP	B, N	1.25	Devitrified pillow margin.	3	CRN
27	7	1203	A	19R-2	136-138	15	RL	B, N	0.5	Titanomagnetite to Maghemite to Magnesite along cracks	3	CRN
28	53	1203	A	51R-1	14-17	4	XPL	B, N	0.7	Dendritic clusters of black oxides.	23??	PT
29	54	1203	A	51R-4	93-96	2A	XPL	B, N, Gray	5.5	Vesicles showing clear segregation rims.	23	PT
30	54	1203	A	51R-4	93-96	2A	XPL	B, N	0.7	Close up of segregated material outside vesicle showing acicular morphology of black oxides, including oxide blades cutting plagioclase (top LHS).	23	PT
31	57	1203A	52R	6	12-14	1B	PPL	B, N	0.7	Acicular black oxides ilustrating quenched texture.	23	PT
32	57	1203A	52R	6	12-14	1B	PPL	B, N, Gray	1.4	Orbicular structure defined by plagioclase laths surrounding round area of fine-grained segregated material.	23	PT
33	30	1203A	32R	1	85-87	1E	RL	N	0.5	Titanomagneite with maghemote alteration along cleavage planes	11	CRN
34	30	1203A	32R	1	85-87	1E	RL	N	0.5	Titanomagneite with maghemote alteration along cleavage planes	11	CRN
35	4	1203A	19R	1	19-21	1	RL	N	1.25	Maghemite after titanomagnetite in Unit 3	3	CRN
36	17	1203A	25R	1	65-67	4C	RL	N	0.5	Titanomagnetite with ilmenite oxidation along cleavage planes	5	CRN
37	19	1203A	26R	1	10-12	1A	RL	N	0.5	Unaltered titanomagnetite and secondary chalcopyrite		CRN

38	20	1203A	26R	3	39-41	1B	RL	N	0.5	Unaltered titanomagnetite and primary pentlandite	6	CRN
39	24	1203A	31R	1	29-31	4	XPL	B	2.5	Zonation in plagioclase phenocrysts	8	CRN
40	30	1203A	32R	2	85-87	1E	PPL	BN	2.5	Cr-spinel inclusions in olivine	11	CRN
41	30	1203A	32R	2	85-87	1E	RL	N	0.5	Cr-spinel with titanomagnetite overgrowths	11	CRN
42	30	1203A	32R	2	85-87	1E	RL	N	0.5	Cr-spinel reacting to titanomagnetite	11	CRN
43	30	1203A	32R	2	85-87	1E	RL	N	0.5	Titanomagnetite with maghemite alteration along cleavage planes	11	CRN
44	76	1203A	68R	4	29-30	4	XPL	BN	5.5	Rounded plagioclase glomerocrysts in fine grained groundmass		PT
45	76	1203A	68R	4	29-30	4	PPL	BN	1.4	Altered olivine phenocryst now replaced by FeOx and amorphous clays		PT
46	60	1203A	55R	1	122-125	7D	XPL	B	0.7	Alteration. Pumpellyite in vesicles		JG
47	60	1203A	55R	1	122-125	7D	XPL	B	1.4	Texture of thin section		JG
48	73	1203A	65R	4	21-27	3	XPL	BN	1.4	Typical vesicle pattern: elongate-irregular vesicle surrounded by smaller ones + segregated material		PT
49	64	1203A	59R	2	99-102	2B	XPL	BN	2.5	Good example of subophitic texture		PT
50	64	1203A	59R	2	99-102	2B	PPL	BN	2.5	Good example of subophitic texture		PT
51	3	1203A	18R	3	46-48	4	RL	N	0.5	Titanomagneite altered to maghemite		CRN
52	17	1203A	25R	1	65-67	4C	RL	N	0.5	Titanomagnetite with ilmenite oxidation lamellae, showing the ilmenite		CRN
53	17	1203A	25R	1	65-67	4C	RL	N	0.5	Titanomagnetite with ilmenite oxidation lamellae, not showing the ilmenite		CRN
54	20	1203A	26R	3	39-41	1B	RL	N	0.5	Unaltered titanomagnetite and pentlandite		CRN
55	6	1203A	19R	2	24-26	3	PPL	BN	1.25	Glass (melt) inclusions in plagioclase from a glassy margin		CRN
56	30	1203A	32R	1	85-87	1E	RL	N	0.5	Ilmenite exsolution in titanomagnetite	11	CRN
57	30	1203A	32R	1	85-87	1E	RL	N	0.5	Same picture as 56, but rotated 90 degress	11	CRN
58	32	1203A	32R	5	56-58	1C	XPL	BN	2.5	Resorption of a plagioclase phenocryst that contains melt inclusions		CRN
59	34	1203A	35R	4	47-49	1F	XPL	BN	10	Zonation in plagioclase		CRN

60	34	1203A	35R	4	47-49	1F	XPL	BN	2.5	Zonation in plagioclase		CRN
61	42	1203A	37R	3	10-13	1A	RL	N	0.5	Cr-spinel with tiatanomagnetite overgrowth	16	CRN
62	48	1203A	42R	5	20-23	1A	XP	BN	10	Zoned plagioclase phenocrysts	19	CRN
63	73	1203A	65R	4	21-24	3	RL	N	0.5	Titanomagnetite with maghemite rim	29	CRN
64	75	1203A	68R	3	16-18	4	RL	N	0.5	Titanomagnetite with extensive maghemite alteration	30	CRN
65	76	1203A	68R	4	29-30	4	XP	B	2.5	Zoned plagioclase phenocrysts	31	CRN
66	16	1203A	21R	1	139-141	12B	XPL	B	1.4	Cuspate shards in volcaniclastic	4f	PT
67	16	1203A	21R	1	139-141	12B	XPL	B	5.5	Cuspate shards in volcaniclastic. Note stretched shards on left hand side.	4f	PT
68	16	1203A	21R	1	139-141	12B	PPL	B	5.5	Cuspate shards in volcaniclastic. Note stretched shards on left hand side.	4f	PT
69	16	1203A	21R	2	139-141	12B	PPL		1.4	Fluidal strethced outlines show elongate vesicles in pumice clast.	4f	PT
70	13	1203A	21R	2	141-143	12B	PPL	BN	5.5	Cuspate pumices in volaniclastics showing jigsawfit fragments.	4f	PT
71	13	1203A	21R	2	141-143	12B	PPL	BN	1.4	Stretched outline of pumice showing lobate outline-spectacular!	4f	PT
72	13	1203A	21R	2	141-143	12B	PPL	BN Gry	5.5	Slide showing assortment of pumice- general and cuspate shards.	4f	PT
73	13	1203A	21R	2	141-143	12B	PPL	BN Gry	5.5	Pumice clast showing irregular jigsawfit outline fills most of slide.	4f	PT
74	15	1203A	21R	4	86-88	12B	PPL	BN Gry	1.4	Sinuous pumice clast showing curved outline.		PT
75	29	1203A	32R	1	74-77		PPL	BN	5.5	Subrounded multigenetic pumice in cement-supported volcaniclastic.		PT
76	59	1203A	54R	3	15-18		PPL	BN	0.7	Segregated area on margin of vesicle.	23	PT
77	57	1203A	52R	6	12-14	1B	PPL	BN Gry	1.4	Round segregation structure showing rim of plagioclase and core of acicular back oxides and clinopyroxene	23	PT
78	57	1203A	52R	6	12-14	1B	PPL	BN Gry	1.4	Typical groundmass of thin section, showing abundance of acicular oxides.	23	PT
79	65	1203A	59R	5	30-32	5	PPL	BN Gry	1.4	Typical groundmass of thin section, showing interstitial vesicles (?) infilled with pumpellyite and concentrations of black oxides	26	PT
80	73	1203A	65R	4	21-24	3	PPL	BN Gry	1.4	Segregated area around vesicle showing concentrations of clinopyroxene.	29	PT
81	71	1203	64R	1	45-47		XPL	BG	1.4	Red coralline algae in volcaniclastic		PT
82	27	1203	31R	2	61-64	9	PPL	BG	5.5	Vein filled with calcite, celadonite and chlorite	8	SR

83	27	1203	31R	2	61-64	9	XPL	BG	5.5	idem XPL	8	SR
84	27	1203	31R	2	61-64	9	PPL	BG	1.4	idem closer view	8	SR
85	27	1203	31R	2	61-64	9	XPL	BG	1.4	idem XPL	8	SR
86	35	1203	35R	4	114-116	1n	PPL	BG	1.4	Vein	14	SR
87	35	1203	35R	4	114-116	1n	PPL	BG	1.4	Vein	14	SR
88	35	1203	35R	4	114-116	1n	XPL	BG	1.4	Vein	14	SR
89	36	1203	35R	4	147-149	10	PPL	BG	1.4	Brown and green (saponite) clays	14	SR
90	36	1203	35R	4	147-149	10	XPL	BG	5.5	Calcite and prehnite	14	SR
91	37	1203	36R	1	37-39	1a	PPL		5.5	Vein with saponite and celadonite	14	SR
92	38	1203	36R	3	10-13	1a	RL		0.7	Pyrite	14	SR
93	38	1203	36R	3	10-13	1a	RL		0.7	Pyrite	14	SR
94	38	1203	36R	3	10-13	1a	XPL		5.5	Celadonite	14	SR
95	40	1203	36R	3	97-100	1E	XPL		5.5	Calcite, chlorite and prehnite	14	SR
96	61	1203	57R	1	108-111	11B	PPL		1.4	Vein	23	SR
97	61	1203	57R	1	108-111	11B	XPL		0.7	Vein	23	SR
98	62	1203	57R	2	127-129	29	PPL		1.4	Zeolite in vesicle and vein	23	SR
99	62	1203	57R	2	127-129	29	XPL		1.4	Zeolite in vesicle and vein	23	SR
100	52	1203	51R	5	43-45		PPL		5.5	Vesicles filled with zeolite	23	SR
101	52	1203	51R	5	43-45		XPL		5.5	Vesicles filled with zeolite	23	SR
102	66	1203	62R	3	48-51		PPL		1.4	Vesicle	26	SR
103	66	1203	62R	3	48-51		XPL		1.4	Alteration halo	26	SR
104	69	1203	63R	5	130-131		PPL		5.5	Vesicle	26	SR
105	69	1203	63R	5	130-131		XPL		5.5	Vesicle	26	SR

120	30	1203A	32R	2	85-87	1E	RL	BN	1.25	Unaltered Cr-spinel in olivine + titanomagnetite	11	CRN
127	28	1203A	32R	1	22-24	4	PPL	BN	1.4	Pumice with fluidal outlines.		PT
128	29	1203A	32R	1	74-77	15	PPL	BN Gray	5.5	Pumice with fluidal outlines.		PT
168	55	1203A	51R	1	105-107	16A	PPL	B, N, Gy	1.4	spectacular radial arrangement of plagioclase groundmass around plagioclase phenocryst, surrounded by vesicles		PT
169	60	1203A	55R	1	122-125	7D	PPL	B, N, Gy	1.4	Spectacular plumose clinopyroxene occuring in sheafs along with skeletal titanomagnetite in segregated material		PT
170	71	1203A	64R	1	45	47	XPL	B,N	1.4	Coralline algae		PT
209	16	1203A	21R	1	139-141	12B	PPL	B, N,Gy	1.4	Vesicular basalt tephra clast; unaltered sideroleane (pale brown) center rimed by gel palagonite (yellow)	4f	TT
210	12	1203A	21R	2	74	77	PPL	B, N,Gy	1.25	Basalt glass shards (palagonite) in resedimented tuff	4f	TT
385	15	1203A	21R	4	86-88	12B	XPL	B	5	Vesicular basalt tephra clast in Unit 4h (XPL)	4h	TT
386	15	1203A	21R	5	86-89	12B	PPL	B	5	Vesicular basalt tephra clast in Unit 4h (PPL)	4h	TT
387	15	1203A	32R	1	22-24	4	PPL	B, N,Gy	5	Vesicular basalt tephra clast in Unit 4h (PPL)	9	TT

Field of View : 2.5x = 5.5 mm
5x = 2.75 mm
10x = 1.40 mm
20x = 0.7 mm
40x = 0.35 mm
50x = 0.275 mm
80x = 0.175 mm
100x = 0.14 mm

RL = reflected light
PPL = plane-polarized light
XP = crossed polarized light

Leg 197 Digital Photomicrograph Log

Save image to local hard drive using format 1204A-106 for image #106, 1204B-129 for image #129, etc.

Image#	TS#	Hole	Core	Sec	Interval	Piece	Light	Filter	Field of View	Feature	Unit #	Who?
106	78	1204A	7R	3	36-37	3	RL	N	0.5	Maghemite alteration of titanomagnetite	?	CRN
107	78	1204A	7R	3	36-37	3	PPL	B	2.5	Groundmass olivine	?	CRN
108	78	1204A	7R	3	36-37	3	PPL	B	1.25	Groundmass olivine	?	CRN
109	80	1204A	9R	1	96-97	12B	XPL	BN	1.4	Plagioclase and olivine glomerocrysts (olivine replaced by FeOx and carbonate)	?	PT
110	79	1204A	7R	3	36-37	3	PPL	BN	1.4	Olivine glomerocrystsrepl;aced by FeOx. and calcite	?	PT
111	80	1204A	9R	1	96-97	12B	RL	N	1.25	Alteration of Clinopyroxene with relict clinopyroxene present. Maghemite/FeOx pervades along cleavage planes		CRN
112	80	1204A	9R	1	96-97	12B	PPL	BN	1.25	Same shot as 111, but in ppl. Could altered Clinopyroxene be mistaken for altered olivine????		CRN
113	80	1204A	9R	1	96-97	12B	RL	N	0.5	Relict titanomagnetite extensively altered to maghemite		CRN
114	81	1204A	9R	2	50-51	5	RL	N	1.25	Relict titanomagnetite extensively altered to maghemite		CRN
115	81	1204A	9R	2	50-51	5	RL	N	1.25	Relict titanomagnetite extensively altered to maghemite		CRN
116	81	1204A	9R	2	50-51	5	PPL	BN	1.25	Alteration of Clinopyroxene with relict clinopyroxene present.		CRN
117	81	1204A	9R	2	50-51	5	XPL	BN	1.25	Alteration of Clinopyroxene with relict clinopyroxene present.		CRN
118	83	1204A	10R	3	54-56	2	PPL	BN	2.5	Alteration of Clinopyroxene with relict clinopyroxene present.		CRN
119	83	1204A	10R	3	54-56	2	XPL	B	2.5	Alteration of Clinopyroxene with relict clinopyroxene present.		CRN
120	80	1204A	9R	1	96-97	12B	PPL	B, N, Bl	0.28	Plagioclase and apatite needles.		PT
121	80	1204A	9R	1	96-97	12B	XPL	B, N.	0.28	Plagioclase and apatite needles.		PT
122	81	1204A	9R	2	50-51	5	PPL	BN	2.5	Olivine microphenocrysts replaced by calcite		CRN

123	81	1204A	9R	2	50-51	5	XPL	B	2.5	Same as 122, but XPL		CRN
124	81	1204A	9R	2	50-51	5	XPL	B	2.5	Mesostasis/glass replaced by calcite. Looks like pseudomorphed olivine, but there is not fracture AND a plag lath penetrates the calcite.		CRN
125	81	1204A	9R	2	50-51	5	RL	N	0.5	BEAUTIFUL titanomagnetite mantled by maghemite.		CRN
126	82	1204A	10R	2	77-79	5	PPL	BN	2.5	Olivine microphenocrysts? Replaced by Fe-Ox./goethite and preserving olivine fracture.		CRN
127	x	x	x	x	x	x	x	x	x	In 1203 log…		PT
128	x	x	x		x	x		x	x	In 1203 log…		PT
129	84	1204B	2R	2	48-50	1B	PPL	BNGray	1.4	Obvious altered olivine (now rimmed by Fe-oxyhydroxides) surrounded by plagioclase.	1	PT
130	92	1204B	7R	3	140-142	17	XPL	BN Gray	5.5	Nice slide showing subophitic texture	1	PT
131	92	1204B	7R	3	140-142	17	PPL	BN Gray	5.5	Nice slide showing subophitic texture	1	PT
132	92	1204B	7R	3	140-142	17	PPL	BN Gray	5.5	General slide showing contrast between olivine and clinopyroxene in freshish rock. 3 grains of olivine in upper middle of photo.		PT
133	95	1204B	9R	2	22-24	1B	PPL	BN Gray	5.5	Olivine and clinopyroxene in groundmass of freshish basalt/diabase. Olivine in middle of slide.		PT
134	85	1204B	2R	2	16-19	1	RL	N	0.5	Remnant titanomagnetite to left, maghemite exsolving ulvospinel		CRN
135	87	1204B	3R	1	47-60	6	PPL	BN	10	Glass vein, altered to yellow clay, containing zeolite(?)-filled vesicle, altered olivine and plagioclase crystals.		CRN
136	90	1204B	6R	4	21-24	4	PPL	BN	10	Olivine replaced by Fe-Ox. and calcite		CRN
137	94	1204B	8R	3	53-55	8	RL	N	2.5	BEAUTIFUL titanomagnetite mantled by maghemite. TEXT-BOOK STUFF!		CRN
138	83	1204B	3R	2	97-100	11	PPL	BN	2.5	Unaltered olivine and plagioclase in glass		CRN
139	83	1204B	3R	2	97-100	11	XPL	BN	2.5	Same as 138, but XPL		CRN
140	83	1204B	3R	2	97-100	11	PPL	B	1.25	Melt inclusions in olivine		CRN
141	94	1204B	8R	3	55-57	8	RL	N	1.25	BEAUTIFUL titanomagnetite mantled by maghemite. TEXT-BOOK STUFF!		CRN
142	96	1204B	10R	3	25-27	2A	RL	N	0.5	Titanomagnetite completely altered to maghemite and exsolving (ulvo)spinel		CRN

143	96	1204B	10R	3	25-27	2A	RL	N	1.25	Titanomagnetite completely altered to maghemite and exsolving (ulvo)spinel		CRN
144	96	1204B	10R	3	25-27	2A	RL	N	0.5	Titanomagnetite completely altered to maghemite and exsolving (ulvo)spinel - another example		CRN
145	97	1204B	12R	1	28-30	4A	RL	N	0.5	Remnant titanomagnetite parallel to cleavage planes. Maghemite pervasive		CRN
146	97	1204B	12R	1	28-30	4A	RL	N	1.25	Remnant titanomagnetite parallel to cleavage planes. Maghemite pervasive		CRN
147	80	1204A	9R	1	96-97	12B	RL	N	1.25	Titanomagnetite with maghemite alteration rims and a large goethite mass		CRN
148	86	1204B	2R	4	87-89	2B	RL	N	1.25	Maghemite rimming titanomagnetite		CRN
149	90	1204B	6R	4	21-24	4	RL	N	1.25	Small titanomagnetite altered to mahemite, occasional relict centers.		CRN
150	92	1204B	7R	3	140-142	17	RL	N	1.25	Large titanomgnetite altered to maghemite with relict center		CRN
151	93	1204B	7R	2	129-131	16A	RL	N	1.25	Completely maghemitized titanomagnetite		CRN
152	91	1204B	7R	3	106-108	13	RL	N	1.25	BEAUTIFUL titanomagnetite mantled by maghemite. TEXT-BOOK STUFF!		CRN
153	95	1204B	9R	2	22-24	1B	RL	N	2.5	Unaltered titanomagnetite with secondary pyrite		CRN
154	98	1204B	13R	2	10-12	1	RL	N	1.25	Titanomagnetite with maghemite alteration rims and a large goethite mass		CRN
155	82	1204B	10R	2	77-79	5	RL	N	1.25	Completely maghemitized titanomagnetite		CRN
156	88	1204B	3R	2	97-100	11	XPL	B, N	2.5	Fresh olivine and plagioclase in glasssy lobe margin		PT
157	81	1204B	2R	2	48-50	1B	PPL	B, N, Gry	1.4	Segregated area on margin of vesicle.		PT
158	101	1204B	14R	3	68-70	14	PPL	B,N,Gry	5.5	Segregation vesicle		PT
159	104	1204B	16R	2	42-44	5A	PPL	BN	2.5	Olivine altered to iddingsite		TT
160	104	1204B	16R	2	42-44	5A	XPL	BN	2.5	As 159 but XPL		TT
161	100	1204B	14R	2	115-117	5	XPL	B	2.5	Zonation in plagioclase phenocryst		CRN
162	103	1204B	15R	1	131-133	9	RL	B	0.5	Maghemite rims on titanomagnetite		CRN

163	78	1204A	7R	3	36-37	3	XPL	B	5.5	vesicle filled with calcite and zeolite		SR
164	78	1204A	7R	3	36-37	3	XPL	B	5.5	Vesicle filled with calcite ans prehnite		SR
165	80	1204A	9R	1	96-97	12b	XPL	B	0.7	Vesicle lined by zeolite, zeolite replacing groundmass		SR
166	102	1204B	15R	1	15-18	1	PPL	BG	10	Vesicle cylinder with segregated material		CRN
167	102	1204B	15R	1	15-18	1	PPL	BN	2.5	Close-up of 166		CRN
168	x	x	x	x	x	x	x	x	x	1203		PT
169	x	x	x	x	x	x	x	x	x	1203		PT
170	x	x	x	x	x	x	x	x	x	1203		PT
171	89	1204B	4R	3	29-31	5	XPL	B	2.5	Clinopyroxene sheaves in segregation vesicle		CRN
172	102	1204B	15R	1	15-18	1	PPL	BNGray	5.5	Vesicle cylinder with segregated material		PT
173	103	1204B	15R	2	15-19	2	PPL	BNGray	5.5	Glomerocryst of plagioclase and olivine (now calcite)		PT
174	104	1204B	16R	2	42-44	5A	PPL	BNGray	1.4	Olivine entirely and spectacularly pseudomorphed by iddingsite in glass.		PT
175	104	1204B	16R	2	42-44	5A	PPL	BNGray	1.4	Glassy groundmass showing microlites		PT
176	107	1204B	7R	2	66-69	10	XPL	BN	5.5	Groundmass showing subtrachytic texture. CC filled vesicle at base.		PT
177	107	1204B	7R	2	66-69	10	XPL	BN	1.4	Olivine pseudomorphed by Fe-oxyhydroxides and calcite surrounded by plagioclase		PT
178	107	1204B	7R	2	66-69	10	PPL	BNGray	1.4	Olivine pseudomorphed by Fe-oxyhydroxides and calcite surrounded by plagioclase		PT
189	102	1204B	15R	1	15-18	1	XPL	BN	0.5	Skeletal opaques in reflected light		JG

Field of View : 2.5x = 5.5 mm 40x = 0.35 mm RL = reflected light
5x = 2.75 mm 50x = 0.275 mm PPL = plane-polarized light
AS LOGFILE IS UPDATED, PLEASE BACKUP NEW IMAGES TO I:/THIN SECTION PHOTOS

Leg 197 Digital Photomicrograph Log

Save image to local hard drive using format 1205-179 for image #179, 1205-180 for image #180, etc.

Image#	TS#	Hole	Core	Sec	Interval	Piece	Light	Filter	Field of View	Feature	Unit #	Who?
179	112	1205A	5R	2	31-33	7	PPL	BN	1.25	Pseudomorphed olivine(?) microphenocryst in trachytic textured plag. laths and a mass of glass altered to goethite.	Conglom	CRN
180	112	1205A	5R	2	31-33	7	XPL	BN	5	Trachytic texture	Conglom	CRN
181	113	1205A	5R	2	101-103	21	PPL	BN	0.625	Altered groundmass olivine	Conglom	CRN
182	113	1205A	5R	2	101-103	21	RL	B	0.25	Titanomagnetite crystals next to geothite	Conglom	CRN
183	114	1205A	6R	2	13-15	1A	XPL	BN	1.25	Optical zonation in a small plagioclase phenocryst.	1	CRN
184	114	1205A	6R	2	13-15	1A	XPL	BN	5	Optical zonation and resorption in a large plagioclase phenocryst.	1	CRN
185	115	1205A	6R	2	55-57	4	PPL	BN	1.25	Altered olivine accentuated by replacement with Fe-oxyhydroxide, along with altered glass, a large plag lath and opaques at the margin of the large vein.	1	CRN
186	114	1205A	6R	2	13-15	1A	XPL	BN	0.625	Close-up of groundmass cpx in full illumination	1	CRN
187	114	1205A	6R	2	13-15	1A	XPL	BN	0.625	Same as in 186, but almost to extinction showing weak sector zonation.	1	CRN
188	115	1205A	6R	2	55-57	4	XPL	BN	5	One end of 1.5 cm long plagioclase crystal showing resorption layer.	1	CRN
189	*	*	*	*	*	*	*	*	*	1204 log	*	*
190	117	1205A	8R	1	59-61	4	PPL	BN	1.25	Partially altered olivine phenocrysts	2	CRN
191	117	1205A	8R	1	59-61	4	XPL	B	1.25	Partially altered olivine phenocrysts - as above but XPL	2	CRN
192	117	1205A	8R	1	59-61	4	RL	BN	0.25	Chromite inclusions in olivine compared to groundmass titanomagnetite	3B	CRN
193	118	1205A	9R	2	65-67	2A	XPL	BN	1.25	Single plagioclase phenocryst exhibiting resorption. Altered olivine also.	3B	CRN
194	121	1205A	11R	4	42-44	1F	XPL	BN	0.625	Zonation and resorption features in small plagioclase phenocryst. Altered groundmass olivine to the top right of the crystal.	3B	CRN
195	121	1205A	11R	4	42-44	1F	XPL	BN	5	Large plagioclase cluster. No zonation, but calcite inclusions (replaced melt inclusions?) and resorption features.	3B	CRN

196	113	1205A	5R	2	101-103	21	PPL	B	0.625	Saponite and goethite replacing groundmass	Conglom	SR
197	114	1205A	6R	2	13-15	1A	XPL	B	1.25	Plag ?	1	SR
198	115	1205A	6R	2	55-57	4	XPL	BN	1.25	Trachytic texture	1	PT
199	116	1205A	7R	1	83-85	17	PPL	BNGry	1.25	Olivine in groundmass.	3B	PT
200	118	1205A	9R	2	65-67	2A	XPL	BN	1.25	Subophitic texture	3B	PT
201	118	1205A	9R	2	65-67	2A	XPL	BN	1.25	Plagioclase showing resorbed margins	3B	PT
202	119	1205A	10R	2	73-75	3E	XPL	BN	5	Strain bands in trachytic texture	3B	PT
203	120	1205A	11R	1	73-75	2A	XPL	BN	5	Subophitic subtrachytic texture	3B	PT
204	120	1205A	11R	1	73-75	2A	XPL	BN	5	Strained lamellae in plagioclase megacryst	3B	PT
205	122	1205A	12R	2	114-116	3A	XPL	BN	1.25	subophitic texture with clinopyroxene surrounding olivine phenocryst	3B	PT
206	123	1205A	13R	3	27-29	2A	XPL	BN	1.25	rounded plagioclase with resorption rim	3B	PT
207	123	1205A	13R	3	27-29	2A	XPL	BN	5	Plagioclase forming trachytic texture around olivine with subophitic clinopyroxene beneath.	3B	PT
208	123	1205A	13R	3	27-29	2A	PPL	BN	5	Altered olivine with plagioclase surrounding it and plagioclase phenocryst beside	3B	PT
209	x	1203	x	x	x	x	x	x	x			
210	x	1203	x	x	x	x	x	x	x			
211	125	1205A	15R	2	138-140	10	XPL	BNGry	5	Plagioclase megacryst with olivine inclusion.	5B	PT
212	125	1205A	15R	3	37-39	1B	XPL	BNGry	5	Plagioclase megacryst with resorbed edges and clinopyroxene inclusions	5B	PT
213	125	1205A	15R	3	37-39	1B	XPL	BN	1.25	Close-up of above	5B	PT
214	127	1205A	16R	2	84-86	1J	XPL	BN	5	Multimineralic megracryst- note olivine at base and fresh cpx and opaques	5B	PT
215	127	1205A	16R	2	84-86	1J	XPL	BN	5	Multimineralic megracryst-	5B	PT

216	129	1205A	20R	5	67-68	3	XPL	B	1.25	Zonation in a plagioclase phenocryst.	8A	CRN
217	127	1205A	16R	2	84-86	1J	XPL	BN	5	Complex zonation of plag in gabbroic xenolith.	5B	CRN
218	127	1205A	16R	2	84-86	1J	XPL	BN	1.25	Zonation is plagioclase phenocryst	5B	CRN
219	127	1205A	16R	2	84-86	1J	XPL	BN	1.25	Complex zonation is plagioclase phenocryst next to altered olivine.	5B	CRN
220	127	1205A	16R	2	84-86	1J	XPL	BN	1.25	Complex zonation is plagioclase phenocryst next to altered olivine.	5B	CRN
221	133	1205A	24R	2	124-130	19	PPL	BN	5	Wide view of groundmass olivine completely altered to Fe-oxyhydroxide or iddingsite(?)	10	CRN
222	133	1205A	24R	2	124-130	19	PPL	BN	1.25	Close-up of groundmass olivine completely altered to Fe-oxyhydroxide or iddingsite(?)	10	CRN
223	133	1205A	24R	2	124-130	19	PPL	BN	5	Wide view of groundmass olivine completely altered to Fe-oxyhydroxide or iddingsite(?) and welded clasts + altered glass.	10	CRN
224	135	1205A	27R	5	103-105	5	RL	B	0.25	Ilmenite oxidation lamellae in generally unaltered titanomagnetite.	12B	CRN
225	135	1205A	27R	5	103-105	5	XPL	BN	1.25	Zonation + sericitization in a plagioclase phenocryst.	12B	CRN
226	123	1205A	13R	3	27-29	1F	RL	B	0.25	Ilmenite oxidation lamellae in generally unaltered titanomagnetite, with the lamellae showing.	3B	CRN
227	123	1205A	13R	3	27-29	1F	RL	B	0.25	Ilmenite oxidation lamellae in generally unaltered titanomagnetite, with the lamellae NOT showing.	3B	CRN
228	122	1205A	12R	2	114-116	3A	XPL	B	0.625	Zoned plagioclase with a ring of inclusions towards the rim	3B	CRN
229	115	1205A	6R	2	55-57	4	XPL	B	5	Vein filling with calcite and prehnite	1	SR
230	115	1205A	6R	2	55-57	4	PPL	BG	0.625	Glass replaced by saponite, linbed by chlorite	1	SR
231	137	1205A	28R	3	4-6	1A	XPL	BN	1.25	Subophitic cpx	13B	PT
232	137	1205A	28R	3	4-6	1A	XPL	BN	1.25	Olivine in groundmass.	13B	PT
233	137	1205A	28R	3	4-6	1A	PPL	BN Gry	1.25	Olivine in groundmass.	13B	PT
234	138	1205A	29R	2	55-58	7A	XPL	BN	5	Resorbed plagioclase shwing embayments and fracturing. Note trachytic texture	14B	PT
235	138	1205A	29R	2	55-58	7A	XPL	BN	5	Plagioclase with olivines attached	14B	PT

236	138	1205A	29R	2	55-58	7A	XPL	BN	5	Plagiocalse- zoned, fractured and strained	14B	PT
237	138	1205A	29R	2	55-58	7A	XPL	BN	5	Plagioclase showing big embayment	14B	PT
238	139	1205A	30R	1	42-44	9	PPL	BNGry	1.25	Olivine phenocryst now iddinsite	15B	PT
239	131	1205A	22R	1	28-30	6a	PPL	B	0.625	Glass replaced by zeolite and lined by celadonite	9	SR
240	146	1205A	35R	3	97-99	1J	XPL	B	0.625	Glass replaced by fibrous zeolite and olivine replaced by iddingsite	19A	SR
241	146	1205A	35R	3	97-99	1J	PPL	B	1.25	Olivine replaced by iddingsite, brown clay and including a vesicle filled by zeolite	19A	SR
242	146	1205A	35R	3	97-99	1J	XPL	B	1.25	Olivine replaced by iddingsite, brown clay and including a vesicle filled by zeolite	19A	SR
243	144	1205A	34R	1	85-87	13B	XPL	B	1.25	Vesicle filled with zeolite, olivine replaced by calcite	18B	SR
244	143	1205A	33R	4	77-79	17	PPL	BG	5	Olivine replaced by iddingsite, groundmass replaced by celadonite.	18B	SR
245	143	1205A	33R	4	77-79	17	PPL	BG	0.625	Vein filled by brown clay, celadonite and olivine replaced by iddingsite.	18B	SR
246	141	1205A	33R	2	5-7	1a	XPL	B	5	Plagioclase	17	SR
247	141	1205A	33R	2	5-7	1a	XPL	B	5	Vein filling	17	SR
248	145	1205A	35R	1	32-34	1A	RL	B	0.25	Cr-spinel rimmed with titanomagnetite	18B	CRN
249	138	1205A	29R	2	55-58	7A	XPL	B	0.625	Vesicle filled with zeolite	14B	SR
250	148	1205A	36R	5	50-51	2D	RL	B	0.25	Titanomagnetite inclusions in olivine + ilmenite oxidation lamellae in Ti-magnetite + maghemite alteration along a fracture in Ti-mag.	20	CRN
251		1205A	35R	4	77-79	1C	XPL	BN	10	olivine shwing embayments	19B	JG
252	154	1205A	43R	2	58-60	2A	RL	B	0.25	Ilmenite oxidation of titanomagnetite - ilmenite showing	27	CRN
253	154	1205A	43R	2	58-60	2A	RL	B	0.25	Ilmenite oxidation of titanomagnetite - ilmenite NOT showing	27	CRN
254	154	1205A	43R	2	58-60	2A	RL	B	0.25	Maghemite along cleavage planes	27	CRN
255	157	1205A	45R	1	126-128	5I	PPL	B	0.625	Mica showing pleochroic colors	30B	CRN

256	157	1205A	45R	1	126-128	5I	PPL	B	0.625	Same as in 255, but rotated 90 degrees	30B	CRN
257	144	1205A	37R	5	28-29	2C	XPL	BN	5	extremely embayed margins in olivine	21	PT
258	154	1205A	43R	2	58-60	2A	XPL	BN	5	Olivine phenocryst in ophitic groundmass	27	PT
259	154	1205A	43R	2	58-60	2A	XPL	BN	5	Ophitic groundmass shwing "spotty texture"	27	PT
260	155	1205A	44R	1	87-88	5A	PPL	BN	1.25	Apparently sheared relic olivine	28A	PT
261	156	1205A	44R	2	110-112	9	XPL	BN	5	Subrounded plagioclase with olivine attached	29B	PT
262	156	1205A	44R	2	110-112	9	XPL	BN	1.25	Apparently sheared relic olivine	29B	PT
263	157	1205A	45R	1	126-128	5I	PPL	BN	1.25	Ex-Olivine annd plagioclase phenocryst	30B	PT
264	156	1205A	44R	2	110-112	9	RL	B	0.25	Titanomagnetite with ilmenite oxidation and maghemite alteration at the rim and along cleavage planes.	29B	CRN
265	157	1205A	45R	1	126-128	5I	RL	B	0.25	Titanomagnetite with maghemite along cleavage planes.	30B	CRN
266	152	1205A	41R	5	24-26	1A	RL	B	0.25	Maghemite alteration	26A	CRN
267	152	1205A	41R	5	24-26	1A	RL	B	0.25	Maghemite alteration + ilmenite oxidation lamellae	26A	CRN
268	147	1205A	35R	4	77-79	1C	RL	B	0.25	Maghemite alteration along cleavage planes	19B	CRN
269	147	1205A	35R	4	77-79	1C	RL	B	0.25	Titanomagnetite with ilmenite oxidation lamellae illuminated.	19B	CRN
270	145	1205A	35R	1	32-34	1A	RL	B	0.25	Cr-spinel rimmed with titanomagnetite	18B	CRN
271	142	1205A	33R	3	11-13	1C	RL	B	0.25	Extensive ilmenite oxidation lamellae development in titanomagnetite	18B	CRN
272	139	1205A	30R	1	42-44	9	RL	B	0.25	Maghemite alteration along cleavage planes	15B	CRN
273	138	1205A	29R	2	55-58	7A	RL	B	0.25	Maghemite alteration and ilmenite oxidation lamellae.	14B	CRN
274	154	1205A	43R	2	58-60	2A	PPL	BNGy	5	Same olivine pheno as 258, showing biotite alteration on margins	27	PT
275	154	1205A	43R	2	58-60	2A	PPL	BNGy	5	as 274 rotated 90 deg to show pleochroism	27	PT

276	154	1205A	43R	2	58-60	2A	PPL	BNGy	1.25	Close up of 275	27	PT
277	154	1205A	43R	2	58-60	2A	PPL	BNGy	1.25	As 276 rotated 90 deg	27	PT
278	157	1205A	45R	1	126-128	5I	PPL	B	0.25	Olivine altered to biolite, still with chromite inclusions	30B	PT
279	157	1205A	45R	1	126-128	5I	PPL	B	0.625	Chlorite replacing plagioclase along flow foliation, giving an apparent schistose texture	30B	
280	147	1205A	35R	4	77-79	1C	RL	B	0.25	Maghemite alteration along cleavage planes	19B	CRN
281	147	1205A	35R	4	77-79	1C	RL	B	1.25	Opaque morphologies in tholeiites	19B	CRN
282	147	1205A	35R	4	77-79	1C	RL	B	1.25	Opaque morphologies in tholeiites	19B	CRN
283	148	1205A	36R	5	50-51	2D	RL	B	1.25	Opaque morphologies in tholeiites	20	CRN
284	155	1205A	44R	1	87-88	5A	RL	B	1.25	Opaque morphologies in tholeiites	28	CRN
285	156	1205A	44R	2	110-112	9	RL	B	1.25	Opaque morphologies in tholeiites	29	CRN
286	133	1205A	24R	2	124-130	19	RL	B	0.25	Titanomagnetite altered to maghemite along cleavage planes in altereed flow top	10?	CRN
287	113	1205A	5R	2	101-103	21	RL	B	0.25	Dendritic titanomagnetite in the hawaiite cobble	VII	CRN
288	147	1205A	35R	4	77-79	1C	RL	B	0.25	Cr-spinel inclusions in altered olivine. One remains unreacted to titanomagnetite. 3 (one is out of focus) have reacted out completely.	18B	CRN

Field of View : 2.5x = 5.5 mm 40x = 0.35 mm RL = reflected light
5x = 2.75 mm 50x = 0.275 mm PPL = plane-polarized light

Leg 197 Digital Photomicrograph Log

Save image to local hard drive using format 1206-289 for image #289, 1206-290 for image #290, etc.

Image#	TS#	Hole	Core	Sec	Interval	Piece	Light	Filter	Field of View	Feature	Unit #	Who?
289	159	1206A	3R	2	94-96	8	RL	B	0.25	Cr-spinel with titanomagnetite rim in altered olivine	1	CRN
290	159	1206A	3R	2	94-96	8	RL	B	0.25	Two titanomagnetite crystals, one with ilmenite oxidation lamellae (triangle) and the other with maghemite development along cleavage planes.	1	CRN
291	159	1206A	3R	2	94-96	8	RL	B	1.25	Dendritic and skeletal octahedral morphology of tholeiitic titanomagnetites.	1	CRN
292	159	1206A	3R	2	94-96	8	RL	B	0.25	An unaltered Cr-spinel inclusion in altered olivine with groundmass titanomagnetite for comparison.	1	CRN
293	160	1206A	4R	3	72-74	4A	RL	B	1.25	Cr-spinel with and without titanomagnetite rim in partially altered olivine	1	CRN
294	160	1206A	4R	3	72-74	4A	RL	B	0.25	Close up of partially altered Cr-spinel (with titanomagnetite rims) inclusions in partially altered olivine	1	CRN
295	160	1206A	4R	3	72-74	4A	PPL	BN	1.25	Unaltered olivine phenocryst with Cr-spinel inclusions	1	CRN
296	160	1206A	4R	3	72-74	4A	RL	B	1.25	Unaltered olivine phenocryst with Cr-spinel inclusions	1	CRN
297	160	1206A	4R	3	72-74	4A	RL	B	1.25	Dendritic and skeletal octahedral morphology of tholeiitic titanomagnetites.	1	CRN
298	163	1206A	8R	1	99-101	24	PPL	BN Gry	1.25	Olivine altered to iddingsite rim	4	PT
299	163	1206A	8R	1	99-101	24	PPL	BN Gry	1.25	Olivine plagiocalse glomerocryst	4	PT
300	163	1206A	8R	1	99-101	24	PPL	BN Gry	1.25	Olivine plagiocalse glomerocryst	4	PT
301	166	1206A	4R	3	72-74	4A	XPL	BN	5	Olivine to serpentine- spectacular!	1	PT
302	166	1206A	4R	3	72-74	4A	PPL	BN	5	Olivine to serpentine- spectacular!	1	PT
303	166	1206A	4R	3	72-74	4A	PPL	BN	1.25	Chrome spinel in olivine	1	PT
304	166	1206A	4R	3	72-74	4A	PPL	BN	5	Chrome spinel in olivine	1	PT
305	162	1206A	7R	1	123-125	21	PPL	BN	0.625	Holohyaline texture/olivine micro phenos	2C	JG
306	161	1206A	4R	2	92-95	9	XPL	B	0.625	Olivine replaced by serpentine and zeolite	1	SR

307	161	1206A	4R	2	92-95	9	PPL	B	0.625	Olivine replaced by serpentine and zeolite	1	SR
308	161	1206A	4R	2	92-95	9	PPL	BG	1.25	Vein filled by zeolite and calcite	1	SR
309	161	1206A	4R	2	92-95	9	XPL	BG	1.25	Vein filled by zeolite and calcite	1	SR
310	164	1206A	15R	1	72-74	7A	XPL	BG	1.25	Plag cpx glomerocryst	5	PT
311	164	1206A	15R	1	72-74	7A	XPL	B	0.625	Plag with resporbed edges	5	PT
312	165	1206A	15R	3	97-89	15	XPL	BN	5	Plag cpx glomerocryst	5	PT
313	165	1206A	15R	3	97-89	15	XPL	BN	1.25	Plag cpx glomerocryst	5	PT
314	165	1206A	15R	3	97-89	15	XPL	BN	5	Plag cpx glomerocryst	5	PT
315	167	1206A	8R	1	2-3	1	PPL	BN	1.25	Segregation vesicle- showing plumose texture	4	PT
316	167	1206A	8R	1	2-3	1	PPL	BN	5	Segregation vesicle- showing outline	4	PT
317	168	1206A	8R	2	2-3	1	PPL	BN	0.625	Olivine altered to iddingsite rim	4	PT
318	170	1206A	21R	3	66-68	9	XPL	BN	0.625	Blue high relief very reflective minerals in slide- from grinding process?	8	PT
319	173	1206A	19R	3	46-48	4B	XPL	BN	5	CPX glomerocryst surrounding olivine	7	PT
320	173	1206A	19R	3	46-48	4B	XPL	BN	1.25	CPX glomerocryst surrounding olivine	7	PT
321	169	1206A	17R	2	74-76	6	PPL	BN	1.25	Olivine glomerocryst altered to brown clays	6	JG
322	165	1206A	15R	3	87-89	15	XPL	BN	0.25	Titanomagnetite with maghemite	5	JG
323	164	1206A	15R	1	72-74	7A	RL	B	0.25	Titanomagnetite overgrowth on Cr-spinel	5	CRN
324	164	1206A	15R	1	72-74	7A	RL	B	0.625	Titanomagnetite morphology (alkali basalt?) with ilmenite oxidation in largest crystal	5	CRN
325	165	1206A	15R	3	87-89	15	RL	B	1.25	Chromite in cpx and plagioclase and titanomagnetite crystals altered to maghemite.	5	CRN
326	165	1206A	15R	3	87-89	15	RL	B	0.25	Maghemite alteration of titanomagnetite	5	CRN

327	165	1206A	15R	3	87-89	15	RL	B	0.25	Differential alteration of titanomagnetite	5	CRN
328	166	1206A	18R	1	49-51	4	PPL	BN	5	Olivine phenocrysts with unaltered centers, highlighted by iddingsite	6	CRN
329	160	1206A	4R	3	72-74	4A	XPL	B	1.25	Plagioclase phenocryst with resorption and deformation features.	1	SR
330	160	1206A	4R	3	72-74	4A	XPL	B	1.25	Glomerocryst of plagioclase and clinopyroxene	1	SR
331	166	1206A	18R	1	49-51	4	RL	B	0.25	Cr-spinel with titanomagnetite rim and maghemite alteration of titanomagnetite	6	CRN
332	166	1206A	18R	1	49-51	4	RL	B	1.25	Cr-spinel phenocryst with titanomagnetite overgrowth	6	CRN
333	166	1206A	18R	1	49-51	4	RL	B	0.625	Cr-spinel phenocryst with titanomagnetite overgrowth. Titanomagnetite has maghemite alteration and ilmenite oxidation lamellae that does not extend to the Cr-spinel	6	CRN
334	173	1206A	19R	3	46-48	2	RL	B	1.25	Titanomagnetite morphology (tholeiitic basalt?)	7	CRN
335	171	1206A	24R	3	66-68	2	RL	B	0.25	Alteration of titanomagnetite to maghemite along cleavage planes and fractures.	10	CRN
336	171	1206A	24R	3	66-68	2	RL	B	0.25	Ilmenite oxidation lamellae	10	CRN
337	174	1206A	28R	1	100-102	17C	PPL	BN	0.625	Relict olivine with Cr-spinel inclusions	11	PT
338	174	1206A	28R	1	100-102	17C	XPL	BN	5	Vesicle infilled with calcite and analcite or other zeolite?	11	PT
339	177	1206A	31R	1	60-63	11	XPL	B	0.625	Fresh olivine with chrome spinels	13	PT
340	177	1206A	31R	1	60-63	11	XPL	BN	0.625	Plagioclase with very resorbed margins	13	PT
341	178	1206A	32R	2	136-137	26	PPL	bn	1.25	Ex-olivines	14	PT
342	175	1206A	30R	2	53-56	7	PPL	B	0.625	Cuspate glass shard	12	Sten
343	175	1206A	30R	2	53-56	7	PPL	B	0.625	Sandstone,basalt, glass framents	12	Sten
344	176	1206A	30R	4	49-53	1	PPL	B	0.625	Vitric fragment, vesicular, in sandstone	12	Sten
345	176	1206A	30R	4	49-53	1	PPL	B	1.25	Benthic foram, echinoid insandstone	12	Sten
346	162	1206A	7R	1	123-125	9	PPL	BG	1.25	Vesicle filled with zeolite and lined by green clay and iddingsite	2C	SR

347	179	1206A	32R	2	136-137	26	PPL	B	1.25	Vesicle filled with celadonite and iddingsite	14	SR
348	179	1206A	32R	2	136-137	26	XPL	B	1.25	Vesicle filled with celadonite and iddingsite	14	SR
349	182	1206A	38R	1	55-58	2B	PPL	B	1.25	Altered olivine with cr-spinel inclusion, and cr-spinel phnocryst beside it?	17	PT
350	182	1206A	38R	1	55-58	2B	XPL	B	1.25	Altered olivine with cr-spinel inclusion, and cr-spinel phnocryst beside it?	17	PT
351	182	1206A	38R	1	55-58	2B	XPL	B	5	Fresh olivines	17	PT
352	182	1206A	38R	1	55-58	2B	PPL	B	1.25	Zeolites infilling dixytaxytitic voids?	17	PT
353	182	1206A	38R	1	55-58	2B	XPL	B	1.25	Zeolites infilling dixytaxytitic voids?	17	PT
354	180	1206A	16R	5	66-67	8	PPL	BN GY	5	Euhedral olivine surrounded by vesicles	6	PT
355	180	1206A	16R	5	66-67	8	XPL	BN GY	5	Euhedral olivine surrounded by vesicles	6	PT
356	179	1206A	16R	4	80-82	8B	PPL	B	0.625	Olivine altered to iddingsite.	6	PT
357	166	1206A	18R	1	49-51	4	XPL	BN	5	Fresh olivine	6	PT
358	166	1206A	18R	1	49-51	4	XPL	BN	5	Fresh olivine	6	PT
359	166	1206A	18R	1	49-51	4	XPL	BN	5	Fresh olivine	6	PT
360	182	1206A	38R	1	55-58	2B	RL	B	1.25	Cr-spinel inclusions in olivine + groundmass titanomagnetite	17	CRN
361	182	1206A	38R	1	55-58	2B	RL	B	0.625	Ilmenite oxidation lamellae in titanomagnetite that has replaced Cr-spinel phenocrysts	17	CRN
362	182	1206A	38R	1	55-58	2B	RL	B	0.625	Cr-spinel in large titanomagnetite + groundmass titanomagnetite	17	CRN
363	182	1206A	38R	1	55-58	2B	RL	B	0.625	Two large titanomagnetite masses formed by replacement of Cr-spinel phenocrysts	17	CRN
364	182	1206A	38R	1	55-58	2B	RL	B	0.625	Cr-spinel in large titanomagnetite + groundmass titanomagnetite	17	CRN
365	183	1206A	41R	1	22-24	5A	RL	B	0.625	Cr-spinel inclusions in altered olivine with groundmass titanomagnetite for comparison	18B	CRN
366	183	1206A	41R	1	22-24	5A	RL	B	1.25	General morphology of opaques in 41R-1	18B	CRN

367	178	1206A	32R	2	136-137	26	PPL	B	0.625	Cr-spinel inclusion in altered olivine - below the surface	14	CRN
368	179	1206A	16R	4	80-82	8B	RL	B	0.625	Cr-spinel inclusion in altered (iddingsite) olivine with groundmass titanomagnetite for comaprison	6	CRN
369	179	1206A	16R	4	80-82	8B	RL	B	0.625	Cr-spinel inclusions now reacted to titanomagnetite in altered (iddingsite) olivine with groundmass titanomagnetite for comaprison. Triangular form on left may be relict Cr-spinel	6	CRN
370	179	1206A	16R	4	80-82	8B	PPL	B	0.625	Cr-spinel inclusions now reacted to titanomagnetite in altered (iddingsite) olivine with groundmass titanomagnetite for comaprison. Triangular form on left may be relict Cr-spinel	6	CRN
371	180	1206A	16R	5	66-67	8	RL	B	0.625	Cr-spinel inclusions in altered olivine. Olivine has iddingsite rim	6	CRN
372	180	1206A	16R	5	66-67	8	PPL	BN	0.625	Cr-spinel inclusions in altered olivine. Olivine has iddingsite rim	6	CRN
373	180	1206A	16R	5	66-67	8	XPL	B	0.625	Cr-spinel inclusions in altered olivine. Olivine has iddingsite rim	6	CRN
374	181	1206A	18R	1	80-83	4	RL	B	0.25	Maghemite alteration of titanomagnetite dendrite	6	CRN
375	181	1206A	18R	1	80-83	4	RL	B	0.625	Altered and unaltered titanomagnetite	6	CRN
376	181	1206A	18R	1	80-83	4	PPL	BN	5	Altered olivine phenocrysts with iddingsite rims and Cr-spinel phenocrysts	6	CRN
377	181	1206A	18R	1	80-83	4	PPL	BN	5	Altered olivine phenocrysts with iddingsite rims and Cr-spinel inclusions	6	CRN
378	181	1206A	18R	1	80-83	4	RL	B	0.635	Cr-spinel with titanomagnetite overgrowth	6	CRN
379	181	1206A	18R	1	80-83	4	RL	B	1.25	Cr-spinel phenocryst with titanomagnetite overgrowth	6	CRN
380	181	1206A	18R	1	80-83	4	RL	B	0.625	Close-up of 379	6	CRN
381	184	1206A	42R	2	76-78	3	PPL	BN	1.25	Altered olivine - euhedral and skeletal. Altered to clay and oxides.	21	CRN
382	170	1206A	21R	5	66-68	9	PPL	BN	0.625	Olivine in groundmass with plagioclase inclusions	8	PT
383	184	1206A	42R	2	76-78	3	RL	B	0.625	General morphology of titanomagnetite	21	CRN
384	182	1206A	38R	1	55-58	2B	PPL	BN	5	Altered olivine (with Cr-spinel inclusions) and discrete Cr-spinel phenocrysts	17	CRN

Field of View :	2.5x = 5.5 mm	40x = 0.35 mm	RL = reflected light
	5x = 2.75 mm	50x = 0.275 mm	PPL = plane-polarized light