330-U1374A-3R-1-A_SHLF2738771_20110106123737

9-27
vein, steep
dip.

TYPE 3
▷ APHYRIC BASALT
CLAST
OLIVINE MICROPHENOS &
G.DMASS < 0.5mm
FINE-GRAINED 0.1mm

VESICLES
2%. 2mm, 0.5mm
LOW, SUBANGULAR

79.5 – 82
82.5 – 86.5
91 – 93.5

104-
111
vein netw.
branched

116-117
vein,
79 -> 162

123-124
vein,
80 -> 163

129-131
vein netw
steep dip ->
160

66-67
bedding
79 -> 021

clast

moderately al...

CLAST TYPE 1
▷ HIGHLY OLIVINE-PYROXENE
PHYRIC BASALT CLAST
10% OLIVINE
MAX: 10mm
MODE: 4mm
EUHEDRAL, COMPLETELY
ALTERED to iddingsite

3% PYROXENE
MAX. 8mm
MODE: 3mm
PORPHYRITIC, FINE-
GRAINED MATRIX
VESICLES
1%, 3mm, 1mm
MODERATE, SUBROUNDED

70 – 79cm

CLAST

100-100 geopetal
steep dip -> 178

CLAST
TYPE 2
98.5 – 116.5
▷ HIGHLY OLIVINE-PHYRIC
BASALT CLAST
10% OLIVINE
7mm, 3.5mm
EUHEDRAL, COMPLETELY
ALTERED to iddingsite
PORPHYRITIC, FINE-GRAINED
MATRIX
VESICLES
0.1%, 0.1mm, 0.1mm
HIGH, ROUNDED

CLAST TYPE 2
117 – 120.5

moderately altered

CLAST TYPE 2
121 – 131.5

olivine 5%, altered to iddingsite

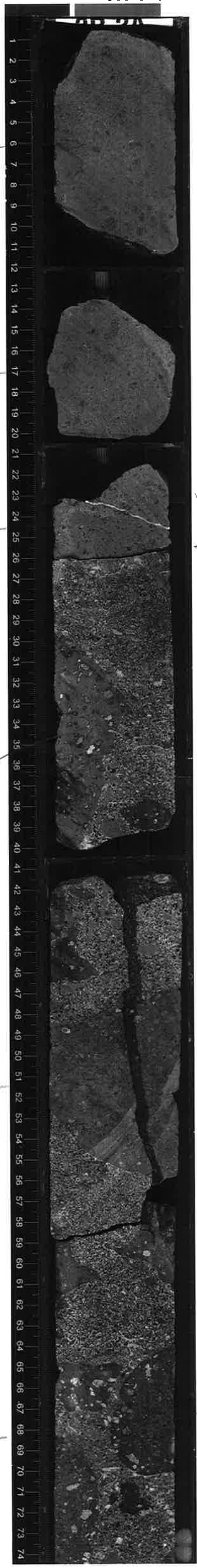
CLAST TYPE 2
134 – 139.5

CLAST TYPE 2
140 – 142.5

330-U1374A-3R-2-A_SHLF2738801_20110106120429

UNIT 1 Piece 4d – 5b

0



CLAST 1
0-11CM
ALTERED OLIVINE AND PYROXENE

CLAST 1
ALTERED OLIVINE AND PYROXENE
12 - 20cm

CLAST 1
21-26cm
ALTERED OLIVINE AND PYROXENE

CLAST

CLAST 1
30-40cm

CLAST

CLAST 1
47-56cm

CLAST

CLAST 1
64-70cm

CLAST

CLAST 1
68-76cm

22-25
vein in clast
20->203

87-89
contact
62->202
89-93 slopped vein
87.5-93 fracture network
94-98
vein, irreg. non-oriented

SEDIMENT VEIN/DYKE/CRACK
89-104
vein, irreg. non-orient.
94.94
geopetal ->
180°

VESICLES
89-3R-3 76cm
END OF CORE
0.5%
0.5mm MAX
0.1mm MAX
HIGH SPHERICITY
ROUNDED

← CHILLED MARGIN IN CONTACT WITH SEDIMENT 89cm
UNIT 1

LAVA FLOW
SHEET FLOW
PHENOCRYSTS.
PLAGIOCLASE 1% (SUBHEDRAL, FRESH)
2mm MAX
0.8mm MODE
PYROXENE 10% (EUHEDRAL, FRESH)
10mm MAX
3mm MODE
OLIVINE 8% (SUBHEDRAL, MOD. ALTERED)
6mm MAX
3mm MODE
COMPLETELY ALTERED IN PLACES
▷ HIGHLY PYROXENE-OLIVINE-PHYRIC BASALT
MEDIUM GRAY
MOTTLED GREEN AND ORANGE
DEPENDING ON OLIVINE ALTERATION
FINE-GRAINED, 0.1mm
HIGHLY-PORPHYRITIC/PHYRIC

113-116
fracture vein.
irreg. non. oriented

123.5-127, vein, slopped dip

130-137 vein ntw, non-oriented

UNIT 1
Piece 1 – 4

330-U1374A-3R-3-A_SHLF2738831_20110106130308

1-6.5
vein subv.
sleep dip
6-8
fracture
subv →
71->360

17-21
vein subv.
sleep dip
→059

17-21
fracture subv.
irreg. non-orient

27-28
vein, sleep dip

30-56 fract. subv.
non-orient

40-40 vein
90 -> 183

45-46
vein, sleep dip

46-54 vein,
non-orient

56-56 vein
81->350

UNIT 1

330-U1374A-4R-2-A_SHLF2739771_20110106183926

UNIT (2)
(continued)
piece 1 → 7

0-1cm vein 1mm
(most material removed during drilling)
single, straight
90→172

4.8-5.5cm vein 1mm
single, straight 80→172°

6-10cm vein 1mm
branched, steep dip

10-10cm vein 1mm
curved 80→186

10-12cm vein 1mm
straight 78→268°

16.5-19cm vein 1mm
10→320°

21.5-27cm vein 1mm
76→106

22-28cm conjugate vein 1mm
75→188 n=2

29cm
geopetal ~180°
(very small vesicles)
filled

30-43cm
magmatic foliation
sub-vertical →195

36-39cm
vein single 1mm
75→205

41-43cm vein 0.1mm
single, straight 80→338

44.6-48.2cm
vein, straight 0.5mm
single 85→324°

46-49cm fracture, single
curved 80→15°

55.5-57.5cm
vein 0.5mm
single, irregular
75→345°

63-66.5cm
vein 1mm
single, curved
90→144

15-26cm
magmatic
foliation
sub-vertical
→190°

9cm
geopetal ~180°
(in vesicle zone
3cm wide on
archive section
outer face)

63cm
geopetal ~180°
(on outer surface)

68.5 cm vein straight
0.1mm 78→012

69-72cm vein straight single
0.1mm 70→230

84cm vein single straight 0.1mm
85→006

87-100cm
Strong magmatic foliation
80→020°

100.5-106cm
vein 2mm single, curved
90→050

108-108.5cm vein 5mm
steep dip

magmatic foliation
85→026°

← vesicle

121 cm (vesicle unit)
0.1%
low sphericity, subangular
Size 6/2 mm
0.1/cm²

126-132cm strong magmatic foliation
85→024°

128.5-132cm
vein single straight 0.5mm
85→030

330-U1374A-4R-3-A_SHLF2739801_20110106184606

UNIT (2)
(continued)

piece 1 → 12

1cm vein 0.1mm
single straight
60 → 355

5-6.5cm fracture
single, straight
75 → 020

5-30cm
magmatic foliation
strong 85 → 028

13-22.5cm
vein 1mm
single straight
70 → 065

19-19.5cm
fracture, single, straight
80 → 008

27.5-29cm
vein 2mm
single, straight
75 → 200°
(crossed vein hill)

31.5-42.5cm
strong magmatic
foliation
85 → 166°

47-48.5cm
vein 0.1mm
80 → 345°
single, straight

51-51.5cm
vein 0.1mm
85 → 174°
single straight

44-57.5cm
magmatic foliation
80 → 160°

56cm vein 4mm
single straight
75 → 355°

57-66.5 magmatic
foliation 85 → 350°

62.5-63cm
vein 0.1mm
80 → 350°

68-81 cm magmatic foliation
85 → 355

72.5-73.5cm conjugate fracture
85 → 358°

78cm conjugate fracture 85 → 005

70-81cm
fracture
curved 90 → 270°

83-90 magmatic foliation 85 → 175

0.5mm straight
85.5-86cm vein 80 → 182

89.5-90.5cm vein x2
1mm straight 80 → 184

91-91.5cm vein 5mm
straight, single 90 → 195°

95.5-96cm vein 0.5mm
single, straight 90 → 180°

98cm vein 80 → 355°
0.1 mm single

91-102cm magmatic foliation
90 → 180°

107-108cm vein 0.1mm
straight

110-114cm vein 3mm straight

113-114cm vein 0.5mm curved

115.5-118cm vein 3mm straight

118.5 Conjugate vein 3mm straight

330-U1374A-4R-1-A_SHLF2739741_20110106182329

UNIT (1)
UNIT (2)

Aphyric Basalt

piece 1 -> 13
lava flow
phenocrysts: none
fine grained

light yellowish gray

Not Recovered

1-4cm vein
straight single 1mm

Vesicles: 0%

6.5-10cm
vein network 1mm
n=4
gently dipping

14-22cm
fracture straight
65->074 single

18.5-22cm
Vein single 1mm
curved
10->052

23-38cm
vein network
branching n=18
max 1mm
avg 0.5mm
steep dip

25-31cm
magmatic foliation
dip? -> 215°

39.5-45.5cm
vein network n>20
straight, branch
max 2mm
avg 0.5mm
possibly rotated piece

47cm vein straight
1mm (most removed during drilling)
85->190

47-52cm
vein 1mm straight
90->265

47-54cm magmatic
foliation 90->185°

54 cm
Vesicles unit
5%, low, subrounded
Size: 2/0.5 mm
15/cm²

61.5cm vein 1mm
single, straight
85->350
↑ most removed during drilling

68.5-71cm
vein 2mm
65->160

72-74cm 0.1mm
Vein isolated irregular, steep dip

55-57cm
Conjugate vein
network n=3

55-58cm
vein 2mm
straight
Rotated piece

78-89cm magmatic foliation
85->350°

79cm vein single straight 0.1mm
75->005°

86.5-87cm vein n=2 branching
1mm steep dip

84 cm (vesicles unit)
Vesicles 0%

88cm vein network n=2 branching
straight 2mm 85->340

91-92.5cm vein 0.5mm
straight, single sub-vertical -> 185°

91.5-97cm vein 1mm straight, single
80->042

93-98cm magmatic foliation 90->185°

99cm vein straight single 0.5mm

102cm " " " "

most material removed during drilling

103-104cm
vein 6mm
straight, single 85->020

light gray

103-116cm
magmatic foliation
steep -> 190°

106-115.5cm
Vein 5mm
irregular 90->080
Odd vein filling

120cm conjugate vein 1mm

119-123cm vein
branched
max 8mm
on MB10 fragments - no orientation measurements

124.5-125cm vein 2mm (most removed during drilling)
straight 86->170°

124.5-127cm vein 2mm 90->286

124.5-128cm vein 4mm
straight 80->122

125-137.5
magmatic foliation
sub-vertical -> 175

127-137cm
vein network n=8
.1mm straight, steep dip

139cm vein 1mm

141-142.5cm vein network n=3
branching 1mm

330-U1374A-5R-1-A_SHLF2740851_20110107041249

UNIT (2)
(continued)

Aphyric basalt

light gray
phenocryst: none
fine grained

inflated lava flow

vein max 15mm
Varg 8mm

Drilling debris

Pieces 2 - 10

9.5 - 11.5cm
vein 2mm
curved single
85→160°

7.5 - 15cm
magmatic foliation
85→172°

Vesicles: none

19 - 22cm
vein 1mm straight
85→032

21 - 23cm
conjugate vein
85→155 straight

26 - 27cm
vein 1mm
straight
75→365°

17 - 30cm
vein network
n>20
0.1mm
steeply dipping

18 - 31cm
magmatic foliation
steep→170°

33 - 38cm
magmatic foliation
steep→190°

33 - 34cm
vein network
n~10
1mm wide (max) avg 0.5mm
90→190°

39 cm
Vesicles
20%
low sphericity, subangular
size: 20 / 1.5mm
20/cm²

46 cm

56 - 58cm fracture n=1
35→320

63 - 64.5cm vein 2mm
85→342°

Vesicles: 0,5 %
moderate, subrounded
Size: 4 / 2mm
0.1/cm²

65 - 65.5cm vein 1.5mm
90→010°

56 - 72 cm
magmatic foliation
90→175°

74 - 84
magmatic foliation
90→181°

87 - 87
vein, 1.5mm
straight, non-oriented

330-U1374A-5R-2-A_SHLF2740881_20110107042018

UNIT (2)
(continued)
Pieces 1 - 4

1 - 14 irreg. to subvertical 80 → 356
2-6 vein sub-horiz. → 227
8-9 vein, straight 81 → 35
13.5 vesicle band 80 → 356
14 cm
Vesicles
15%
Pow spher., subrounded
Size: 6/1 mm
10/cm²
22-26 irreg. foliation 90° → 066
27 cm
33-37 vein 90 → 328
Vesicles:
1,5%
moderate, subrounded
Size: 3/2 mm
0,5 /cm²
62-71 vein, irreg. non-oriented

81-90 vein irreg. non-oriented
90-97 vein, steep dip → 190
97-97 vein, steep dip → 100
104-104 vein steep dip → 113
118-123 fracture network, non-oriented
139-141 vein network, non-oriented

330-U1374A-5R-3-A_SHLF2740911_20110107043423

UNIT (2)
(continued)

Pieces 1 - 3

1-86
magmatic
Fol. ~90°->179

4-4 vein,
89->006

8.5-8.5 vein
90->180

13-13 fracture
92->185

28-30
vein
86->179

45-45
fracture
80->182

50-50 vein
81->176

60-60 vein
72->179

85-85
fracture 79->188

88-122
magmatic foliation
90->184

88-116 vein
90->274

90-92
vein veins
89-180

92-95
vein veins
82->294

116-118 vein vein.
85->179

330-U1374A-5R-4-A_SHLF2740941_20110107044044

UNIT (2)

Piccos 1 - 4

55 fracture, irreg. step dip

11-25 vein 30 → 063

19-25 vein 69 → 071

26-29 fracture veins. non-orientated

UNIT (2)

99 cm

UNIT (3)

Volcanic breccia

(continued in core 6R-1)

35 vein step dip → 189

step dip 36 vein step dip → 194

39 vein step dip → 184

56-56 vein 22-184

60-72 fracture 60 → 229

69-80 fracture 89 → 162

72-72 fracture 88 → 186

76-96 fracture 79 → 013

82-82 fracture 79 → 083

103 cm geopetal 179°

110-112 geopetal 180° 1=3

330-U1374A-6R-1-A_SHLF2741641_20110107124708

UNIT 3

Piece 1–6
VOLCANIC BRECCIA
WITH PILLOW
FRAGMENTS

MOSTLY APHYRIC
0% PHENOCRYSTS.
SOME OLIVINE
MICRO-PHENOCRYSTS
IN GROUNDMASS (SKELETAL)
PLAGIOCLASE LATHS.
APHYRIC BASALT
VOLCANIC BRECCIA
WITH PILLOW
FRAGMENTS.

MOTTLED RED
ORANGE GRAY
CREAM.

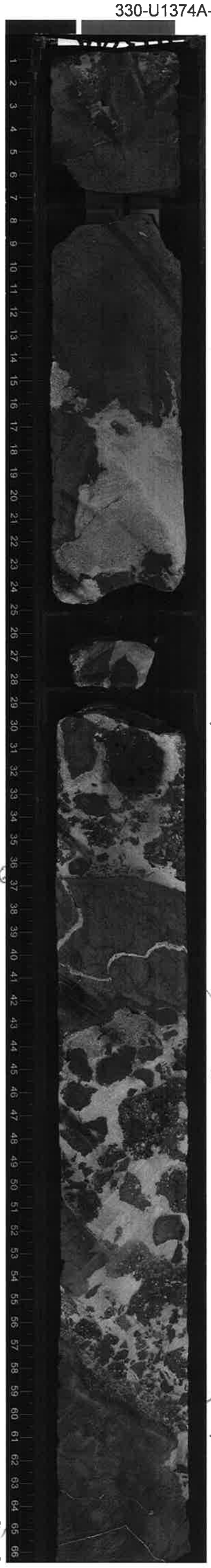
80% PILLOW
FRAGMENTS VS
MATRIX.

25 MM MODAL SIZE
LOW SPHERICITY
ANGULAR
POOR SORTING

MATRIX IS
PROBABLY LIMESTONE
→ TO BE
CONFIRMED.

37-40
vein, non-
oriented

64-72
vein network
non-oriented



VESICLES

0–30 cm

0.5%
ELONGATE
SUBROUNDED
4.5 MM MAX
0.8MM MOD.

3-5 } glomerocrysts 180°
16-16 } 172°
46-47 } 179°

30–36
15%
LOW SPH.
SUB ROUNDED
4MM MAX
0.4MM MOD.

36–45
0.5%
ELONGATE
SUB-R
0.7MM MAX
0.2MM MOD

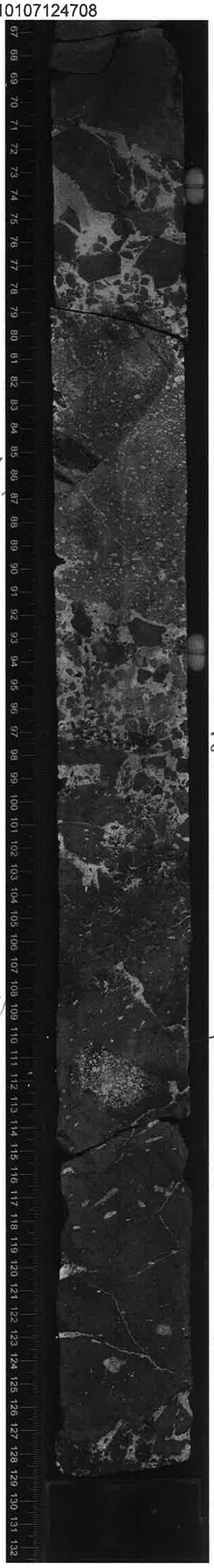
45–57
15%
LOW SPH.
SUB-R
3MM
0.4MOD.

CHILLED
MARGINS
TO PILLOWS.

57–78
0.5%
ELONGATE
SUB-R,
2.3MM
0.2MOD.

86-91
vein, non-
oriented

107-
125
vein network
non-
oriented



78–97.5
10%
LOW
SUB-R
5MM MAX
1MM MOD.

97.5–129
5%
ELONGATE
SUB-R
11MM MAX
0.7MM MOD.

XENOLITH OR
MORE VESICULAR
PATCH?

330-U1374A-6R-2-A_SHLF2741671_20110107112046

UNIT 3

Piece 1 - 4d

0-87
3%
LOW
SUB-R
4mm MAX
0.4mm MOD.

2-4
vein network
non-orient.

29-31
Vein, non-orient.

63-71
vein network
non-orient

RADIAL JOINTING.

67-75
chilled contact
71 → 052

66-75cm
ALONG CORE
OF CAST.
slightly to
moderately altered.
GLASS.
See back of
core

87 - 6R 3A - 94
5%
LOW
SUB-R
16mm MAX
0.5mm MOD.

MANGANESE IN VESICLES ??
OR SAW POLISH?

UNIT ?
1 – 6

PIPE VESICLES.

3-13
vein, sub-horizontal

MANGANESE IN VESICLE?
OR SAW POLISH?

92-112
vein network
non-oriented

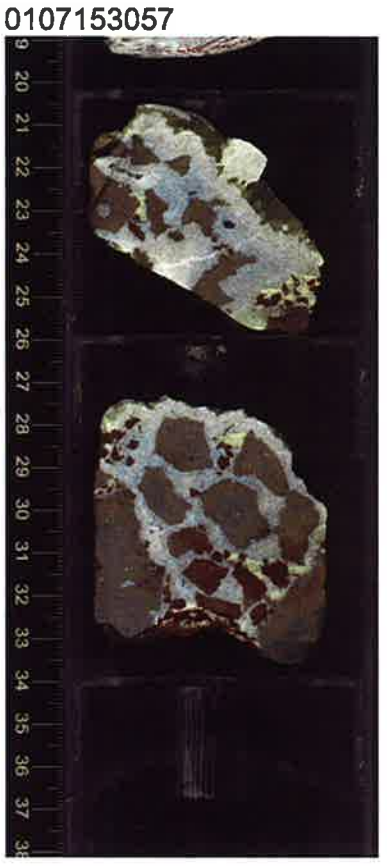
94 - end of 4A.
1%.
MOD
SUB-R
3MM MAX
0.3MM MOD

ON BACK OF CORE
XENOLITH OR MORE VESICULAR PATCH.

UNIT 3

1-3

330-U1374A-6R-4-A_SHLF2741731_20110107153057



GLASS!
8-16cm
ON THE BACK OF
SECTION
SLIGHTLY-MODERATELY
ALTERED
(BEST ON WORKING HALF)

9-18
vein network
irreg. non
oriented