

PH01-03

0 - 5.50m **OVERBURDEN**

5.50 - 16.85m **PELITE** - Fractured and blocky core (core loss), fine-medium grained with coarse-grained rounded qtz grains, cordierite rich, thinly crenulated/foliated (60-70CA)

11.40-14.00m Coarse-grained veins (commonly bulbous and irregular with minor sulfides), py diss throughout and along fractures with qtz veins; overall no significant sulfides observed; interbeds of very fine-grained dark grained pelite with the coarser grained psammite; very fine-grained thin py-po along foliation; locally very fine-grained biotite-rich

11.45-12.00m Alteration of pelite, light green-grey, very fine-grained grey with dark rim (chill margin); see this within dyke also

16.85 - 25.90m **DIABASE DYKE** Fine to medium-grained (aphanitic - chill margin) at sharp upper (~20CA) and lower (~5CA) contacts; medium-grained center has subophitic texture; trace to minor sulfides py along fractures; several qtz veins (with/without calcite) throughout ~40-70CA particularly between 22.60-25.20m where the core is the most fractured and broken up

~23.90-24.80m Thinly laminated dark grey fine-grained pelite with 2% sulfides overall (60CA po lamination), with diabase dyke intersection

24.80-25.20m fractured, broken core with calcite veining/variable angles (40-70CA), diabase dyke

25.90 - 94.00m **PELITE** - Truncated by lower contact of diabase dyke; here large (12 cm max) irregular rounded coarse-grained qtz "clasts", possibly deformed qtz vein, generally 70CA with minor sulfides; below this is very thin laminations of very fine-grained biotite; discontinuous very thin sulfide laminations; foliations ~30-50CA; qtz veins and blebs: 27.08-27.43m ~40-90CA with/without diss po; cordierite increasing downhole

28.30m Qtz vein ~1 cm wide max 50CA

28.76m Qtz vein max 3 cm wide ~70-80CA

32.25-32.90m Zone of irregular qtz veins/blebs with light grey alteration pf pelite at both contacts, especially lower contact, minor sulfides (po), fractured core, alteration @ 33.87-34.22m - no distinct qtz veins, no fractured

35.08-35.35m Qtz rich veins/blebs (50CA), 36.00m with pelite breccia (60CA)

35.70-36.25m Two 20 cm wide coarse-grained qtz intermediate or felsic volcanic (?) contacts 40CA top contacts, 70Ca bottom contact (first) and 50CA top contact and 60CA lower contact (second); contacts crosscut laminated pelites, minor pyx; overall sulfide are euhedral and cubic py 5%; leucocratic with unaligned, <0.5cm rounded feldspar in fine-grained light colored groundmass
Continuation of cordierite-rich pelite with thin laminations ~2% sulfides (po) along laminations; (41.02m 60CA) and minor rounded qtz clasts or deformed qtz veins; minor localized patches of very fine-grained rounded garnet

39.20m - trace cpy (2-3 elongated specks) with diss and discontinuous (max 0.5 cm wide) po laminations/bands (50CA); note: see more sulfides on cross section (po with trace cpy)

48.02 - 48.24m Qtz blebs or deformed qtz veins, irregular with biotite and sulfides, ~40CA

Continuation of cordierite dark grey, fine-grained pelite with few wispy qtz stringers (or bands) and coarse-grained qtz grains throughout; overall sulfides ~2% on outer surface of core; discontinuous laminations of sulfides parallel to foliation (40CA @52.25m)

Sheared po laminations at 49.22m

52.85-53.01m Qtz "vein", irregular sharp contacts with minor po in cracks within qtz and along contacts

53.51m 0.5cm wide max po-rich laminations 60CA

55.33m 50CA 1cm wide qtz vein

57.33m 60CA 1-3cm wide qtz vein with minor po blebs along contact

64.85m Qtz vein ~1cm wide 70CA

70.24m 70CA 1 cm wide

72.52m 80CA 1 cm wide

73.93m 60-70CA <1cm wide

74.33m ~60CA 3 cm wide max

75.53m 60CA 6 cm wide max

76.31m 70CA, 2-3cm wide with po

Pelite (with less amounts of cordierite) continues with a few minor fracture zones

Fractures @ 65.55m 27cm wide 20CA, 67.80 - 68.00m 20CA, 69.30-69.85m 10CA

Thin discontinuous po and few bands (<0.5cm wide) parallel to foliation; py along few fracture planes; overall sulfides 1-2%

Foliation/crenulation of po 73.12m 60CA, 76.15m 50CA

Po lamination/band 0.5cm wide 71.28m 60CA

Fracture @ 78.90m 30CA with calcite

Fracture zone @ 83.17m 17cm wide 5-50CA; 83.95-84.50m variable angles, broken core

Other minor fractures throughout

Qtz veins: 80.50m 3 cm wide 50CA

80.70m 3 cm wide 40CA

81.45m 1-3 cm wide 60CA

82.57m 6cm wide, irregular qtz bleb with po or discontinuous vein @ 70CA

84.50m Sericite, qtz, po vein 5 cm wide @ 30CA, trace cpy

88.40m 8cm wide 60 CA, sericite, biotite, plus andalusite (?) at contact

88.70m 1 cm wide max 60-70CA

Same cordierite-garnet-rich pelite with thin po laminations, po decreases @ 89.00m to <<1% sul, discontinuous thin bulbous etc qtz rich veins and bands throughout

89.97m qtz vein 50CA 4cm wide with po

Increasing andalusite downhole

At 91.20-91.40m andalusite is stubby and square but commonly rounded to elongated, white to light grey, and unaligned; cordierite is also present; locally max 10-15%

89.28-90.42m Qtz veins and alteration with po-rich vein/lamination 30-50CA, pinched/boudinaged qtz vein (4cm wide) with po

90.50m 1cm wide qtz vein 60CA

92.56m 1-2 cm wide qtz vein ~90CA

93.62m Qtz filled fracture with py 40CA

95.10m 20CA fracture zone - broken core with po

98.98-99.02m Coarse-grained qtz vein with po and cpy wrapping around qtz, overall sulfides ~7%

99.23m Qtz vein 1-3cm wide 60CA with po

99.80m 0.5cm wide qtz vein @ 40CA

98.50-98.90m thin fracture filled with po 5CA

Still in pelite but with more andalusite and cordierite, less sulfides (overall <1 % sulfides)

94.00 - 95.07m **DIABASE DYKE** - sharp contacts top 40CA, bottom 20CA; fine-grained, light grey, homogeneous texture which truncate pelite laminations, trace po

95.07 -114.83m **PELITE** - Continued pelite with cordierite and andalusite and sulfide poor; few thin laminations of po along foliations or wispy discontinuous laminations throughout; one or two thin veins/bands of po (such as 99.40m 20CA ~2-3mm wide), possibly diabase @ 96.50-96.70m Foliation/lamination @ 100.47m 40CA

Thin <0.5cm wide po veins/laminations @ 101.20m (70CA)

102.36m Qtz veins 2 cm wide @ 50CA with po

102.61m Psammite with coarse-grained qtz and po with <1% cpy

103.30-103.45m Irregular/deformed qtz "clasts" with po

104.30-106.32m Psammite/pelite with qtz veins throughout, many of the qtz veins are deformed and irregular ± po angles from 50-80CA

~105.00m Cordierite increases, andalusite decreases significantly ~101.10m); thin irregular qtz veins/laminations continue <<1% diss, discontinuous laminations of po throughout

112.65 1-2mm wide po-rich vein 930CA) crosscutting foliations also po (50CA) along fractures

114.83-116.06m **APLITE** plug or dyke - top contact 40CA, bottom contact 45CA; Medium-grained homogeneous texture, pink colored, Kfsp rich, foliated parallel to contact near contacts, granular/sugary texture, <<1% diss po, minor qtz veining with po

115.10m Rounded irregular inclusions (~7cm) of po bearing pelite within

116.06-144.00m **PELITE** or **PSAMMITE** - cordierite rich with interbeds of coarser grained qtz rich psammite, discontinuous/deformed qtz veins with ptgmatic folds; qtz vein angles range from 50-60CA and irregular, local patches of andalusite; biotite rich with qtz zones

122.16-123.06m **FAULT ZONE** - fractured core (core loss), graphite rich (very conductive), po throughout, top fracture angle 30CA, bottom 40CA

124.70-126.65m Fractured core with calcite veins, po, py (core loss); top fracture (20CA), 125.26m calcite rich vein breccia ~1cm wide 20CA

Po laminations - Fine-grained dark grey pelite 50CA, 123.45m

127.35m Qtz vein ~1-7cm wide with po (~90CA)

127.81m and 127.91m : both are 1.5cm wide alteration veins 70-80CA

128.09m 1-3cm wide qtz vein ~70CA

128.43m <1cm wide calcite and qtz rich vein (30CA) along a fracture

130.24-130.62m Top contact 40CA, lower contact 50CA, qtz sericite vein with pelite, minor po Medium grained psammite continues with thin ≤0.5cm wide qtz veins with graphite ± sericite with ptgmatic folding, cordierite-rich, <1% overall po along foliation, trace cpy (eg at 140.36m)

138.07m 14cm wide qtz vein ~70CA, irregular (eg 20 cm of qtz veining beyond); 143.08m 1 cm wide qtz veins with po 70CA

143.50-144.00m Calcite veins (40CA), fractured, broken core (core loss), minor diss po, trace cpy

144.00m **EOH**