028377

Depth	Veins > 10 mm	Mineralisation (Excluding veins > 10 mm)	
TRICONE DRILLED TO 3.0 m - NO CORE.			
3.00 - 9.20 m INTERGRADED SILTSTONES AND CARBONACEOUS SHALES WITH TUFFS 3.5-4.0 dark grey siltstones with thin black pyritic shale beds: Brecciated intensely - soft sediment disruption! 5.4-5.9 Tuff. sub angular/rounded clasts of shale and siltstone to 8 mm in pale grey f.g. matrix. 5.9-6.17 Siltstones, shales as above. 6.17-6.52 Tuff, as above - weakly bedded 6.52-7.92 Siltstones, black shales as above. 7.92-9.20 Mixture of and siltstones, shales intercalated in a brecciated fabric to 10 cm. Overall, quite well fractured - thin white clay filled fracture planes at ≑ 60° LCA - but not broken up.	4 / 10/12/Rc ← 3.6 m Bedding 50° ← 6.4 m Weak foliation in tuff, 45° ← 7.5 m bedding 50° ← 9.12 m 15 mm qtz-py vein, 60° ← Contact weakness 80° (LCA)	Py, bedded laminae, and as veinlets and stringers ≤ 2 mm; concentrated in black shales as disseminated cubic crystals to coarsely fine grained aggregates. In tuffs as rounded grains to 2 mm and fine grained interstitial aggregates. Sparse qtz-carbonate-py veinlets to 3 mm	1%
9.20 m - 26.84 m QUARTZ-FELSPAR PORPHYRY. Matrix - pale grey and finely crystalline when unweathered. Phenocrysts: Quartz 10-15%, occasionally 25%, as rounded grains 1 mm - 5 mm or sparse well formed crystals. : Felspar 10%-15%, variable 5-25% as rounded grains to 5 mm. Some alteration to hard faintly yellowish mineral; elsewhere decomposed to soft white clay. Increased concentration and finer grained in last 0.8 m : Fe sulphides: py as distinct blebs and grains to 2 mm and as indistinct fine gr. aggregates to 5 mm. Concentration variable due to removal of material by weathering. Some po. po.	1 Upper 2 m extensively weathered - bleached to pale cream colour with zones of brown limonitic material surrounding voids of grey porphyry with pitted sulphides. Weathering has proceeded along fracture planes, the contact and severing decreases from 11 m to m until the rock is well fractured and broken, with soft black py and some white mica on fracture planes, but not bleached or stained by limonite.	9.2-11.4 Py, trace po, sp, marcasite and rare chalcopyrite, qtz, mica, limonite. Originally 10-15%, weathered. 11.4-12.2 py, trace po, sp, qtz, limonite, rare cubic to 1 mm. 12.2-15.0 py, marcasite trace sp and chalcopyrite. Bleaching and removal is varied by weathering along fractures, limonite staining surrounding bleached zones. Originally ≑ 10-15%. 15-17.0 py, pitted, trace sp, marcasite. Rare grains weathered. 17.0-21.5 py, trace po in f.g. aggregates. No visible cast. 21.5-23.7 As above - trace grains cassiterite. 23.7-24.84 py decreases abruptly at 23.7 m, trace sp, limonite. ← Contact 80°	1% / 15% / 5% / 10-15% / 1-2%
23.7-24.84 Ground mass requires a greenish yellow alteration, qtz decreases to 5%, felspar increases to 25-30% and grain size decreases.			
24.84-29.40 SILTSTONES, SILTY SHALES AND CARBONACEOUS SHALES (intercalated) 1-2 m. Light grey quartzose siltstones with dark grey clay rich siltstones and silty shales and thin black shale laminae (45 mm). Minor contortion and folding, weakly brecciated and finely fractured.	10/9/c ← Bedding 35°, 26.3 m. ← 28.0 m Bedding 60°	24.84-27.4 Py, disseminated 5% in siltstones, bedded laminae to 2-3 mm in black shales and as small blebs, veinlets and stringers.	3-5%
29.4-37.4 FINELY BEDDED SILTSTONE/SILTY SHALE Some minor black pyritic shales. Dark grey in colour, in places almost black and carbonaceous. Finely laminated (1-2 mm) alternating clay rich/silt rich layers. Minor contortion and folding. 33.2-37.0 Black shales/carbonaceous beds locally abundant.	10/c ← 29.8 m Bedding 40° ← 30.7 Vuggy qtz-py-carb vein, 12 mm, 30° ← 31.9 m Fold axis, 90° ← 32.7 m Bedding 60° ← 33.5 m 25 mm py-marcasite-qtz-carbonate - trace carb vein, 60°.	Py as small blebs and stringers, locally disseminated along bedding planes. 33.2 m - 37.4 m py, as fine disseminations and sparse bedded laminae in black shales. Minor qtz-py veinlets and stringers.	1% / 1-2%
37.38-49.42 SILTSTONES AND QUARTZITES. Thinly bedded dark grey clay rich siltstones with hard bluish grey quartzites to 2 m. Bedding is poorly defined in quartzites - extensive brecciation, soft sediment deformation and minor folding in the siltstones.	10/11 Gradual change to ← 43.2 m Vuggy qtz-py-marcasite vein, 15 mm, 25° ← 45.6 Qtz-py-marcasite-sp-carb vein in broken core, 10 mm, 80° ← 46.6 Bedding 75°	37.38-49.42 py, trace po, as blebs, veins, stringers, especially in thinly bedded laminae. Finely disseminated py in quartzites. Rare qtz, carbonate veinlets	1%
49.42-59.71 SILTSTONES, SILTY SHALES AND CARBONACEOUS SHALES. As for 24.84-29.4	10/9/c Gradual change to. ← 49.6 Bedding 70° ← 51.6 Bedding 50° ← 58.4 m Bedding 60°	py, trace po. Bedded disseminations in siltstones and silty shales (locally 5-10%). Bedded laminae py to 2 mm associated with black shales. Sparse qtz-py-marcasite-carb veinlets and stringers.	3-5%
59.71-76.80 SILTSTONES AND QUARTZITES. As for 37.38-49.42, finely fractured	10/11 Gradual Change to ← 62.5 Bedding 35° ← 66.7 Bedding 70° ← 70.4 Bedding 55° ← 76.3 10 mm Qtz-py-marcasite-qtz-sp vein, 15° ← 75.3 Bedding 35°	59.71-76.80 py, trace marcasite. Bedded laminae to 2 mm, finely disseminated in quartzites. Some sparse veins qtz-py-carbonate at ≑ 30° LCA. 66.7-70.4 Trace py in veinlets and stringers 68.4-76.80 Py, as bedded laminae, finely disseminated, rather some sparse qtz-py veinlets.	1-2% / <1% / 1%
76.8-80.0 (EOH) SILTSTONES, SILTY SHALES AND CARBONACEOUS SHALES. As for 24.84-29.4 but fractures well healed and only minor disruption and contortion.	10/9/c ← 76.9 m 15 mm Qtz-py-marcasite vein, 55° ← 77.7 m 120 mm massive py-marcasite, screw hole sp, gn	76.8-78.0 py, marcasite, trace, trace sp, gn, as veinlets and stringers ≤ 5 mm 78.0-80.0 py, trace marcasite as veinlets, stringers and thin bedded laminae.	10% / 1-2%
END OF HOLE 80.0 m			

5 cm

DEPTH from-to : ROCK UNIT capital letters, underlined
Depth: Detailed rock description and notes
indented about 15 mm

GRAPHIC LOG — STRUCTURAL AND VEIN INFORMATION — MINERALISATION — NOTES

METALS EXPLORATION LIMITED

MINERAL EXPLORATION
DRILL LOG
Scale 1:100

Prospect or project: Mt Bischoff
Logged by: G. BROADBENT date 11/1/80
written up 13/5/80

HOLE No. MBD 14
LOG SHEET 2 OF 2
from 0.0 m to 80.0 m