40 123 Rpt N° 2278.

DRILLING TARGET:– Quartz lode intersected in drill holes AN1, AN2 and AN3.

REMARKS:– Lode not intersected

SURVEY DATA			ASSAY DATA										
DEPTH metres	Bearing mag.	Inclin. degs	SAMPLE No.	FROM metres	TO metres	RECOVERY metres	RECOVERY %	ASSAY RESULTS					

GEOLOGICAL LOG Logged by:–

FROM metres	TO metres	RECOVERY metres	RECOVERY %	DESCRIPTION	SECTION Core	SECTION Sample
0.00	3.00	0.50	17	Boulders of quartzite and quartz grit (scree).		
3.00	12.85	7.90	80	Light grey siltstone and quartz sandstone with beds of siliceous grit/fine conglomerate. Bedding at 7.0 m with BCA = 40°. Quartz vein (10 mm thick, VCA = 25°) with wolframite at 3.75 m. Broken core at 7.25 - 8.25 m.		
12.85	13.35	0.50	100	Fine, pebble conglomerate with rounded quartz pebbles (up to 5 mm) in a grey/green siliceous and argillaceous matrix. The quartz pebbles have a similar habit to quartz phenocrysts in the underlying porphyry.		
13.35	17.25	3.85	99	White-light grey "ghost" conglomerate with pebbles (up to 50 mm) of quartz and quartzite. Poorly sorted conglomerate with well rounded pebbles in an open framework.		
17.25	19.25	1.95	98	Fine-medium grained, white, quartz sandstone with thin (up to 1 mm) quartz veins on joints; and at 17.70 m a quartz vein 20 mm thick and VCA = 70°. Fault (?) at 19.20 - 19.25 m.		

Continued over:–

DEPARTMENT OF MINES—TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No.:– AN4	MAP SHEET No. 37	DISTRICT SHEFFIELD	LOCATION OF SITE:–

ALL NATIONS MINE, MOINA (124 m bearing 120°m from the Main Shaft)

Core held G 98

R.L. OF SITE:–	SITE SURVEY ON MAP No.:	CORE SIZE:– NQ to 108.25 BQ to 209.55
BEARING OF HOLE:– 360° m	AIR PHOTO No.:–	COMMENCED:–
INCLINATION OF HOLE:– -69.5	DRILL:– Mindrill F20C	COMPLETED:–
CO-ORDS OF SITE:– 425000E 6405900 N	DRILLER:– G. Baker	FINAL DEPTH (m):–209.55

M1029

Index Page:–

FROM metres	TO metres	RECOVERY metres	RECOVERY %	DESCRIPTION	SECTION Core	SECTION Sample
19.25	29.95	8.45	79	Conglomerate of well-rounded quartzite and schist in a siliceous matrix. Brown iron-stained matrix at 19.25 - 20.35 m and at 26.70 - 27.75 m with joints coated with iron-oxides. Faults at 22.25 - 23.75 m (nil core) and at 29.95 m.		
29.95	33.15	3.15	98	Grey, medium grained quartzite and quartz sandstone. Bedding at 32.75 m, BCA = 65°.		
33.15	48.60	14.75	95	Light grey-white "ghost" conglomerate of quartzite pebbles (up to 50 mm, average 20 - 30 mm) in a siliceous matrix. At 48.00 - 48.40 m is a light grey-green siliceous and argillaceous matrix; and at 48.40 - 48.60 m the pebbles are white, light green and pale pink in colour. At 40.60 m is a quartz vein (30 mm thick, VCA = 35°) with wolframite; and at 38 - 41 m are narrow quartz veins (up to 2 mm) with wolframite filling joints sub-parallel to the hole. Fault at 34.25 m.		
48.60	61.50	11.65	90	Light grey-green quartz porphyry with quartz phenocrysts (up to 3 mm) in an altered quartz, chlorite, sericite matrix. Faults at 49.40 m, 52.50 m, 53.00 m, 58.40 m and 60.50 m. Quartz vein (15 mm, VCA = 80°) at 57.50 m.		
61.50	70.75	7.85	85	Light brown, decomposed porphyry with clay matrix binding quartz phenocrysts (e.g. 62.15 - 65.75 m). Faults at 62.75, 65.50 - 65.75 m and 68.0 - 68.75 m.		
70.75	79.50	8.70	99	Red/brown and pink/grey medium grained quartz-phyric tuff. Red hematite alteration of the matrix and fragments throughout the interval. Quartz veins with muscovite, chlorite and hematite at 76.73 m (10 mm), 76.83 m (15 mm), 78.20 m (5 mm). Quartz veins at 76.87 m and 76.96 m (VCA = 75°).		

Continued over

ASSAY DATA

SAMPLE No.	FROM metres	TO metres	RECOVERY metres	RECOVERY %	ASSAY RESULTS									

FROM metres	TO metres	RECOVERY metres	RECOVERY %	DESCRIPTION	SECTION Core	SECTION Sample
79.50	130.25	42.35	83	Grey/green, medium grained, quartz-phyric crystal-vitric tuff with patches of red/pink hematitic alteration. Porphyry altered adjacent to veins (bleached and silicified). Large lithic fragments at 93 - 93.4 m. Faults at 88.0 - 88.25 m, 91.5 m, 94.0 - 94.25 m, 95 m; and fault zones at 108.75 - 110.40 m and 116.40 - 117.9 m. Quartz vein mineralization as follows:-		

82.60 m = 10 mm thick
92.50 m = 50 mm thick; with wolframite
95.0 m = 5 mm; with chlorite
97.2 m = 3 mm; with chlorite
97.4 m = 5 mm; " "
106.35 m = 5 mm;
106.95 m = 10 mm; with alteration of the porphyry 50 mm either side.
107.85 m = 10 mm; with beryl; alteration of porphyry 100 mm either side.
110.60 m =
113.60 m = 5 mm)
114.50 m = 5 mm) alteration of porphyry
114.60 m = 5 mm)
115.65 m = 3 mm; with wolframite
119.10 m = 15 mm, VCA = 25°; with beryl and molybdenite (selvage); alteration of porphyry 100 mm either side.
119.65 m = 5 mm, VCA = 30°
119.70 m = 5 mm, VCA = 30°
126.20 m = 3 mm; tourmaline alteration 20 mm either side.
126.60 m = (1) 10 mm; with chlorite, biotite, tourmaline.
(2) 3 mm; with sericite, molybdenite; later than (1).

Continued over

ASSAY DATA

SAMPLE No.	FROM metres	TO metres	RECOVERY metres	RECOVERY %	ASSAY RESULTS

FROM metres	TO metres	RECOVERY metres	RECOVERY %	DESCRIPTION	SECTION Core	SECTION Sample
				127.50 m = 25 mm, VCA = 30°; with beryl and late cassiterite.		
				128.00 m = 10 mm, VCA = 45°; with fluorite.		
				128.45 m = 10 mm, VCA = 30°.		
130.25	146.40	16.15	100	Fine grained grey/green vitric tuff and crystal-vitric tuff with patches of chlorite alteration. Quartz vein mineralisation as follows:-		
				130.30 m = 2-3 mm, VCA = 20°; with molybdenite		
				132.40 m = 5 mm, VCA = 20°; with beryl		
				132.75 m = 2-3 mm; VCA = 30°; with wolframite		
				132.95 m = 2-3 mm, VCA = 20°; with molybdenite		
				134.60 m = 2-3 mm, VCA = 20°; with beryl		
				136.85 m = 10 mm, VCA = 30°; with wolframite, beryl.		
				136.95 m = 5 mm, VCA = 30°; with beryl, wolframite.		
				137.80 m = 8 mm, VCA = 45°; with beryl, fluorite.		
				139.70 m = joint; with molybdenite		
				140.65 m = with beryl, wolframite		
				140.90 m = 2 mm, VCA = about 10°		
				144.20 m = 10 mm, VCA = 20°; with beryl, wolframite, molybdenite		
				145.20 m = 10 mm, VCA = 20°; with beryl, wolframite, molybdenite		
				145.65 m = 10 mm, VCA = 30°; with beryl, wolframite, molybdenite		
				Also there are several fine veins in joints on fractures coated with molybdenite, from 140 m.		
146.40	173.00	26.40	99	Grey-green lithic tuff/agglomerate with sections of quartz-phyric, crystal-vitric tuff. Lithic/volcanic fragments		

Continued over

ASSAY DATA

SAMPLE No.	FROM metres	TO metres	RECOVERY metres	RECOVERY %	ASSAY RESULTS									

FROM metres	TO metres	RECOVERY metres	RECOVERY %	DESCRIPTION	SECTION Core	SECTION Sample
				up to 50 mm. Chlorite occurs patchily throughout; and magnetite at 156.50 m. Sulphides, mainly pyrite, are disseminated through the matrix. Quartz veins as follows:-		
				153.00 m = 10 mm, VCA = 30°; with fluorite, beryl, chlorite, molybdenite.		
				153.25 m = 10 mm, VCA = 30°; with molybdenite chlorite, sericite.		
				153.80 m = 25 mm; with fluorite, beryl, chlorite and molybdenite.		
				(Adjacent to the above three veins there is chlorite alteration of the porphyry).		
				166.75 m = with beryl, fluorite and wolframite.		
				169.45 m = 10 mm, VCA = 30°; fluorite, muscovite, wolframite.		
				170.75 m = 20 mm VCA = 20°; with sericite, beryl, topaz and molybdenite salvage.		
				170.85 m = 2-3 mm; with molybdenite		
				171.95 m = 2-3 mm; with molybdenite, scheelite.		
				At 149.50 m is a joint, coated with purple fluorite and pink calcite. Also several fine quartz veins in joints and fractures with molybdenite to 170-175 m.		
173.00	179.25	6.25	100	Fine grained, grey quartz-phyric tuff with sections of chlorite/biotite(?) alteration at 173.10 - 173.25 m and 173.40 - 173.70 m. Contains angular lithic and volcanic fragments from 177 m.		
179.25	192.35	13.10	100	Grey-dark grey agglomerate and lithic tuff with irregular patches of chloritic alteration at 190.40 - 192.35 m. Fault at 192.05 - 192.30. Quartz veins as follows:		

Continued over

ASSAY DATA

SAMPLE No.	FROM metres	TO metres	RECOVERY metres	RECOVERY %	ASSAY RESULTS

FROM metres	TO metres	RECOVERY metres	RECOVERY %	DESCRIPTION	SECTION Core	SECTION Sample
				180.50 m = 18 mm, VCA = 20°; with beryl biotite, muscovite.		
				185.85 m = 5 mm, VCA = 30°; with beryl and tourmaline biotite alteration of the matrix in adjacent porphyry.		
				192.85 m = 45 mm, VCA = 45°; with molybdenite, sericite, fluorite (vug).		
				At 188.15 m is a beryl vein (25 mm, VCA = 50°) with minor quartz muscovite, molybdenite (salvage) and scheelite.		
192.35	194.75	2.40	100	Green and white, variably banded, chlorite-magnetic-quartz-sericite skarn-type alteration of equigranular and agglomerate volcanics.		
194.75	209.55	14.80	100	Grey, lithic tuff/agglomerate with chlorite, tourmaline, sericite alteration of the matrix associated with narrow fractures sub-paralleling the core. Quartz vein (5 mm) with molybdenite at 204.45 m. From 206 m is a hard, dark grey, massive quartz-phyric tuff with lithic fragments; and which may be silicified.		
				E.O.H. 209.55 m		

Continued over

ASSAY DATA

SAMPLE No.	FROM metres	TO metres	RECOVERY metres	RECOVERY %	ASSAY RESULTS

FROM metres	TO metres	RECOVERY metres	RECOVERY %	DESCRIPTION	SECTION Core	SECTION Sample
		NOTE:		Extension of hole as recommended in Unpublished Report 1981/38. Commenced 26-7-82 at 209.55 m and completed 28-7-82 at 228.95 m (G. Baker, driller). Pajari survey: Bearing 354°M, dip 70°N at 228.5 m.		
209.55	228.95	19.02	98	Pale grey-green to dark brown quartz-phyric lithic tuff, strongly tourmalinised at 213.60-217.85 m and 223.65-224.15 m. At 224.5-228.95 m porphyry is albitised with pale pink colouration. At 212.75-214.40 m there occur several (>12) narrow (about 1 mm) veins with molybdenite and joints coated with molybdenite splashes; the veins are sub-parallel to 40° to the core axis. VEINS: Three types of veining occur: (1) Narrow (1-2 mm) quartz veins with molybdenite (e.g. at 209.70 m, 15° VCA; 210.78 m, 45°; 211.53 m, 40°; 212.08 m, 45°; 214.30 m, 5 mm, 20°; 216.73 m, 3 mm, 45°; 220.10 m, 65°; 221.0 m, 40°; 223.27 m, 65°; 225.38 m, 30°). (2) Thicker (>10 mm) quartz-topaz-fluorite-muscovite/chlorite veins ± molybdenite, wolframite, bismuth and pyrite (e.g. at 210.57 m, 10 mm thick, 35° VCA; 214.72 m, 30 mm, 30°; 215.02-215.18 m, ?60 mm, 30° at 215.18 m; 216.79-217.33 m : see below; 220.57-220.72, 85 mm, 35°; 222.33 m, 10 mm, 30°). (3) Albite veins ± molybdenite associated with albitisation of porphyry (e.g. at 224.73 m, 2 mm, 40°; 227.65 m, 3 mm, 40°). E.O.H.		

Continued over

ASSAY DATA

SAMPLE No.	FROM metres	TO metres	RECOVERY metres	RECOVERY %	ASSAY RESULTS

FROM metres	TO metres	RECOVERY metres	RECOVERY %	DESCRIPTION	SECTION Core	SECTION Sample
216.79	217.33	0.54	100	Quartz Vein: Quartz lode with topaz, purple fluorite, green chlorite/muscovite, colloform carbonate, pyrite, wolframite as blades up to 25 mm in length, molybdenite splashes up to 10 mm diameter, and native bismuth. Vein margins are diffuse, with strongly tourmalinised host porphyry: at 216.79 m, VCA = 35° and at 217.33 m, VCA = 40-50°. Coarse books of chlorite occur on the lower margin. True width of vein is 0.30-0.32 m.		

Continued over

ASSAY DATA

SAMPLE No.	FROM metres	TO metres	RECOVERY metres	RECOVERY %	ASSAY RESULTS