HOLE NUMBER	FED 17
PURPOSE	To test the down-dip extension of alteration intersected in FED 8
LOCATION	EASTERN WORKINGS
COLLAR R.L.	485.95
CO-ORDINATES	5360074.35N 350857.70E
LENGTH	200.0m
HOLE SIZE	0 - 3m HQ 3 - 12.5m NQ 12.5 - 200.0m BQ
DATE DRILLED	6.2.81 - 16.2.81
SIGNIFICANT CORE LOSS ZONES	
ORE ZONE GROUND CONDITIONS	
LOGGED BY	P. ROBERTS

SURVEY			From - To	Distance D	VERTICAL		HORIZONTAL	
Depth	Bearing	Dip			D Sin Dip	R.L.	D Cos Dip	Prog Total
(m)	(A.M.G.)							
COLLAR	-	-70°	0 - 10.5	10.5	9.87	476.08	3.6	3.6
21	195.2	-69°	- 36.5	26.0	24.27	451.81	9.32	12.92
52	196.7	-68.5°	- 76.5	40.0	37.22	414.59	14.66	27.58
101	200.2	-68°	-126.5	50.0	46.4	368.19	18.7	46.28
152	202.2	-67.5°	-176.0	49.5	45.7	322.49	18.9	65.18
200	206.2	-66.5°	-200.0	24.0	22.0	300.49	9.6	74.78

COMMENTS

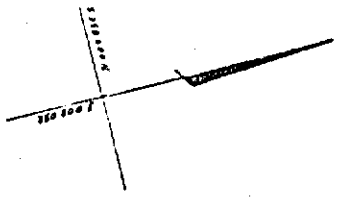
Interpretation of geological mapping, I.P. and ground magnetics data all suggested that alteration intersected in FED 8 was dipping shallowly northwards. This hole intersected only minor, weak alteration which suggests that either the alteration zone dips shallowly north but pinches out in that direction, or that the zone's orientation is quite different from the interpretation.

SUMMARY - ASSAY DATA

LODE NAME	FROM	TO	LENGTH (m)	AVERAGE WEIGHTED ASSAYS													B.C.A.
				Sn.	* Acid Sol. Sn.	Cu.	As.	S.	Pb.	Zn.	Bi.	WO_3	Ag g/t				

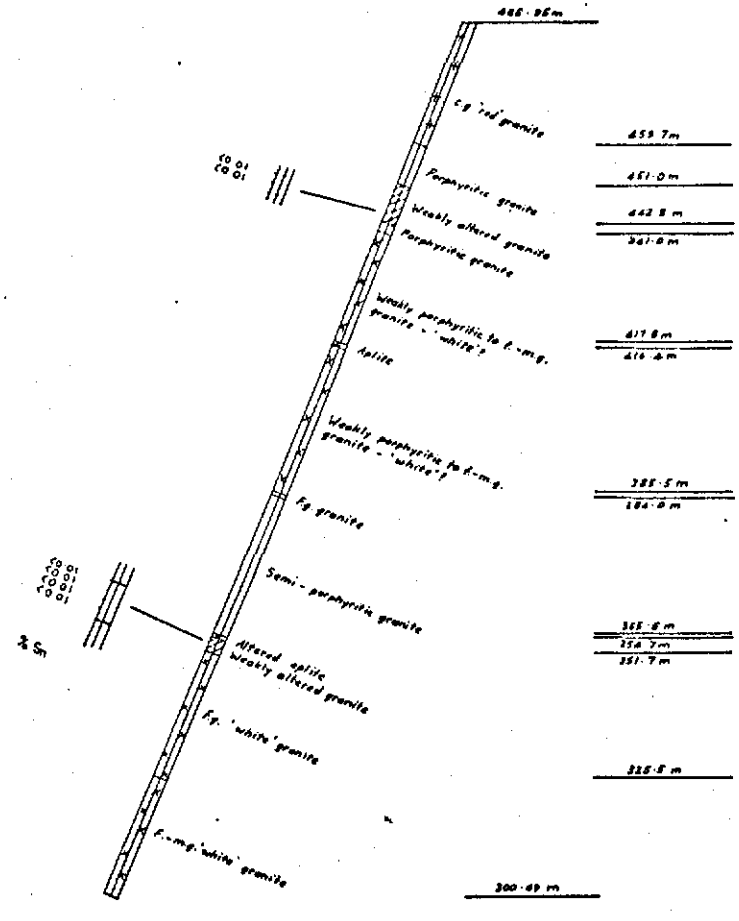
HOLE No FED 17 SCALE

DIAMOND DRILL HOLE PLOT



5 cm

PLAN



DIP PROFILE

078

DIAMOND DRILL RECORD

HOLE NUMBER : FED 17

LOGGED BY : P.R.

XWPS

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag	% WO3
0.0	28.2	27.3	97	BIOTITE GRANITE													
				Pink-grey, coarse grained comprising 60% feldspars, 30-35% quartz, 5-10% black biotite. Feldspars predominantly pink K-feldspar 5-15mm diameter, lesser pale green sericitized plagioclase 4-10mm. Rarely sericitized rims (plagioclase?) around pink K-feldspar(?) cores. Quartz, grey, 2-8mm. Biotite flakes, 1mm, occasionally chloritized. Very minor black tourmaline in isolated grains or small clots and thin quartz-tourmaline veins. Competent core - rare clay-coated joints.												
				13.2 - 17.5 Slightly more altered cf. above - plagioclases more strongly sericitized, K-feldspars white, biotite chloritized. Includes coarse grained quartz-tourmaline alteration veins at 13.6m (VCA ~10°, 2cm thick), 15.6m (VCA 5°, 1-2cm thick, trace pyrite) and 16.3m (VCA 10°, 4cm thick).												
				22.7 - 22.8 Siliceous greisen, grey-green, coarse grained, trace pyrite, gradational contacts.													
				Sharp contact, irregular, ~80° to c.a.													
28.2	37.7	9.5	100	PORPHYRITIC GRANITE													
				Pink, comprising variable amounts quartz and feldspar phenocrysts, 3-10mm diameter, in fine grained (≤1mm grainsize) groundmass of quartz, feldspars and minor partly chloritized biotite. Feldspars mostly pink K-feldspar, lesser yellow-green argillized/sericitized plagioclase. Texture varies from strongly porphyritic to almost equigranular, fine grained (i.e. few phenocrysts) or medium grained (i.e. many phenocrysts and/or coarser grained groundmass). Broken along few joints (JCA'S 10-30°).												
				Gradational contact.													
37.7	46.6	8.9	100	WEAKLY ALTERED GRANITE				(ppm)									
				Pale grey-green, comprising fine grained (<0.5mm - 1mm), weakly sericitized groundmass - pale green, white and yellow feldspars, quartz, minor chloritized biotite - containing numerous coarse grained (semi-pegmatitic) clots - 2-6mm grainsize, quartz and feldspar, minor tourmaline, fluorite and pyrite, crystals often projecting into a central cavity. Includes few, thin (5-10mm) dark		43.0	44.0	30	<0.01					0.003	1	<0.01
							45.0	20	<0.01						0.001	2	<0.01

919080

079

DIAMOND DRILL RECORD

HOLE NUMBER : FED 17

LOGGED BY : P.R.

NWPS

INTERVAL (m) FROM	INTERVAL (m) TO	RECOVERY m	RECOVERY %	DESCRIPTION	FORM.	% Sn. FROM	% Sn. TO	% Sn. TOTAL	% Sn. ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn	% Bi.	g t Ag	% WO
				olive green alteration veins with trace pyrite, VCA 5-10°, and one thin (1-3mm) tourmaline vein at 43.6m, VCA 5°, with a 3cm thick grey-green greisenous selvedge, trace pyrite. Rare black tourmaline quartz nodules, 1-2.5cm diameter. Broken along few, variously oriented joints, JCA's mostly 10-4.5°.														
				46.5 Fine grained, grey nodule >5cm wide, comprising large white and yellow feldspar phenocrysts (1-15mm across), some with included biotite flakes, in a very fine grained grey groundmass including abundant biotite. Xenolith?														
				Gradational contact.													
46.6	48.6	2.0	100	PORPHYRITIC BIOTITE GRANITE Pink-grey, comprising pink and yellow feldspar (K-feldspar, argillized plagioclase respectively) and lesser grey quartz phenocrysts (2-15mm) set in a finer grained groundmass with abundant (5-10% of total) black biotite. Phenocryst content decreasing downwards. Some pink feldspar phenocrysts rimmed by yellow feldspar. Includes one possible xenolith(?) - 1cm diameter, round, biotite-rich, minor feldspar.														
				Gradational contact.													
48.6	73.7	25.1	100	WEAKLY PORPHYRITIC TO EVEN GRAINED GRANITE Pink-grey, fine to medium grained (grainsize 0.5 - 2mm). Phenocrysts same as above but generally rarer. Mineral content similar to above except biotite less abundant (2-5%). Includes several thin (0.5cm) grey-green tourmaline-quartz veins with thin, siliceous selvedge, VCA 10°. Rare black tourmaline-quartz nodules 1-3cm diameter.														
				Sharp, very irregular contact.													
73.7	74.7	1.0	100	APLITE Pink-grey, very fine grained - almost aphanitic. Comprises feldspar, quartz, minor (<2%) biotite.													
				Gradational, lower contact.													

9190 81

DIAMOND DRILL RECORD

HOLE NUMBER : [illegible] 17

LOGGED BY : F.P.

NWPS

INTERVAL (m) FROM	INTERVAL (m) TO	RECOVERY m	RECOVERY %	DESCRIPTION	FORM.	% Sn. FROM	% Sn. TO	% Sn. TOTAL	% Sn. ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% B.	g/t Ag	% WO3
74.7	108.0	23.3	100	WEAKLY PORPHYRITIC TO EVEN GRAINED GRANITE													
				Pale yellow, rarely pink, fine to medium grained. Same as 48.6 - 73.7 except plagioclases yellow or green-yellow (weakly argillized) and K-feldspar white to pale yellow, quartz-tourmaline nodules slightly more abundant and larger (1 - >5cm diameter), few thin (<1 - 3mm) black tourmaline veins at low angles to c.a. Broken along few, variously oriented joints.												
				94.6 - 94.9 Dark, grey-green alteration, around black clayey, joint with minor pyrite, true thickness 10cm, JCA 15°												
				101.0 - 101.3 Dark, grey-green sericitic alteration vein with trace pyrite, 2-3mm thick, VCA 5°.												
				Sharp contact at ~80° to c.a.													
108.0	108.9	0.9	100	FINE GRAINED GRANITE													
				Pale yellow-grey, grainsize varies from <0.5mm to 3mm, mostly <1mm. Comprises pale yellow, grey-green (weakly argillized, sericitized respectively) feldspars, grey quartz, minor biotite. Graphic texture(?) - fine quartz intergrown with relatively coarse feldspar.												
				Irregular but sharp contact at ~30° to c.a.													
108.9	140.5	31.2	99	SEMI-PORPHYRITIC GRANITE													
				Pale yellow and pink, phenocryst size 3-10mm, groundmass grainsize 1-2mm. Comprising yellow (argillized), pink, white and minor green (sericitized) feldspars, lesser quartz, minor (~5%), mostly chloritized biotite. Pink colouration appears to be secondary. Very minor black tourmaline in veinlets or thin veins (VCA's 0-20°) and rare quartz-tourmaline nodules. Broken along few joints, JCA's 10-30°, some clay-coated.												
				111.0 - 111.3 Alteration vein comprising quartz, sericite, tourmaline, central, thin pyritic, clay seam. True thickness 3-4cm, VCA 5-10°. Increased argillization of granite both sides of vein. Badly broken.												
				115.7 Very irregularly shaped vein(?) of biotite varies from 1mm - 2cm thick. May mark a contact - grainsize												

DIAMOND DRILL RECORD

HOLE NUMBER : FE 17

LOGGED BY P.E.

081

NAPS

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S	% Pb.	% Zn.	% B.	oz/t Ag	% WO
				is finer below cf. above VCA ≈45°.													
				121.0 - 121.3 Black tourmaline-quartz alteration vein, 3cm thick, VCA ~15°.													
				131.9 Aplite vein, grey, very fine grained (almost aphanitic), few feldspar and quartz phenocrysts (average 3mm), 3cm thick, VCA ~50°.													
				139.8 - 139.9 Aplite, yellow-grey, contacts ~70° to c.a.													
				139.9 - 140.1 Black tourmaline-quartz vein with central clayey black seam, 3cm thick, VCA 5°, badly broken.				(ppm)									
140.5	141.3	0.5	63	ALTERED APLITE		140.5	141.5	10	<0.01						0.002	1	<0.01
				Grey-green, very fine grained. Top 10cm feldspars visible, below that point, feldspars replaced by sericite. Quartz preserved. 0.3cm core loss.													
				Gradational contact.													
141.3	144.7	3.4	100	WEAKLY ALTERED GRANITE		141.5	142.5	10	<0.01						0.002	1	<0.01
							143.5	10	<0.01						0.002	1	<0.01
				Pale grey-green and yellow, mottled, same as 37.7 - 46.6m except more black tourmaline, less fluorite and pyrite in coarser grained clots. Broken along rough joints.			144.7	<10	<0.01						0.001	2	<0.01
				Gradational contact.													
144.7	173.0	28.3	100	FINE GRAINED GRANITE													
				Pale grey with slight greenish tinge (weak sericitization?), pale yellow-grey. Grainsize varies: very fine grained 144.7 - 147.5, fine grained 147.5 - 166.0, very fine grained 166.0 - 172.2m. Numerous black tourmaline-quartz nodules and patches, generally in irregular shapes, fine grained, 1-3cm diameter. Broken along few, variously oriented joints. Rare pyrite specks.													
				161.2 - 164.9 Badly broken along several clayey joints near parallel to c.a. Minor tourmaline.													

DIAMOND DRILL RECORD

HOLE NUMBER FED 17

LOGGED BY J.R.

082

NAPS

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g r Ag	% WO
				169.4 - 170.2 Broken along clayey yellow joints near parallel to c.a.													
				Gradational transition to:													
173.0	200.0	27.0	100	FINE TO MEDIUM GRAINED GRANITE													
				Pale grey, pale yellow-grey, fine grained 173.0 - 176.8m, gradational transition to medium grained below 176.8m. Comprises white, pale yellow, pale pink (in medium grained granite) and pale green feldspars, grey quartz, minor (<5%) black biotite or chlorite after biotite. Minor black tourmaline in quartz-tourmaline nodules 1-8cm diameter, tending smaller and less frequent downwards. Several thin (0.5cm) siliceous greisen-style veins ± minor pyrite (VCA's 30° and 60°). Broken along few variously oriented rough joints, some yellow-clay-coated.												
				END OF HOLE 200.0m.													

9190884