DEPARTMENT OF MINES — TASMANIA

DIAMOND DRILL CORE RECORD

497 D43

Hole No. 120

Drilled by GLINDEMANN & KITCHING

Core Recovery 74%

Geological Logging by — T. MUNRO

Area of Operation SAVAGE RIVER, TAS.

Location of Site 22134 N ; 20300 E

Date Commenced 30 - 5 - 1966

Date Completed 8 - 7 - 1966

Reduced Level of Site 882.5

Bearing of Hole 90°

Dip of Hole 0 -45°00' | 200' -44° | 400' -44°30' | 600' -45° | 700' -45°

Bore Depth 725.5'

42 015

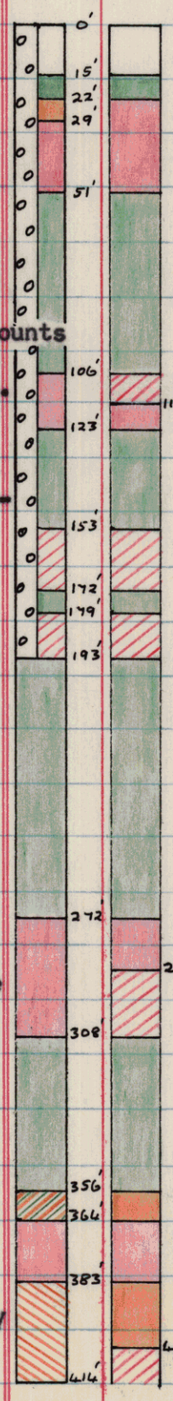
AMG Co-ords: 350986E 5404936N.

Reg No 2095.

No Core held.

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION	ASSAY RESULTS								
Date 1966	From	To	Core Recov.	From	To	Description	Core Sample	~~Sample No.~~	~~From~~ From Ft.	~~To~~ To Ft.	CRUDE Wt. %Fe	Wt. Recovery	CONCENTRATE (-325 Mesh) %Fe	%SiO_2	%Ni	%TiO_2
30/5	0	5.0	2.5	0.0	15.0	OVERBURDEN			0	15	O'burden					
31/5	5.0	29.2	13.8			Ironstone scree, partly cemented, with			15	22	Amph.					
1/6	29.2	40.2	9.3			some decomposed amphibolite.			22	29	63.24	54.95	69.52	0.22	0.081	0.190
2/6	40.2	50.0	9.7	15.0	22.0	AMPHIBOLITE CLAY			29	40	64.14	83.74	70.74	0.26	0.033	0.140
3/6	50.0	66.2	14.5			Decomposed amphibolite with some zones			40	51	61.86	79.09	70.74	0.32	0.029	0.145
4/6	66.2	90.5	19.1			containing ferruginous cement.			51	106	(Amph.)					
5/6	90.5	100.0	5.5	22.0	29.0	MAGNETITE (MEDIUM)			106	115	54.52	70.93	70.99	0.43	0.026	0.260
6/6	100.0	128.8	13.5			Fine to medium-grained with moderate amounts			115	123	55.50	68.43	70.99	0.47	0.045	0.36
7/6	128.8	138.5	5.3			of pyrite distributed in blebs and stringers.			123	153	Amph.					
9/6	138.5	150.0	4.9			Fairly oxidised, weakly magnetic, containing			153	172	52.24	67.29	71.41	0.56	0.033	0.205
10/6	150.0	160.9	3.6			voids and puggy amphibolite - clay - filled -			172	179	Amph					
13/6	160.9	167.8	2.5			joints.			179	193	52.89	65.76	71.33	0.55	0.045	0.195
14/6	167.8	184.4	7.1	29.0	50.0	MAGNETITE (RICH)			193	272	Amph					
16/6	184.4	214.0	17.3			Fine to medium grade, massive in parts,			272	288	57.86	71.85	70.68	0.66	0.029	0.375
17/6	214.0	219.6	3.2			with minor pyrite distributed in blebs and			288	308	50.68	63.70	70.35	0.82	0.032	0.60
18/6	219.6	234.9	6.3			stringers and minor tremolite - actinolite			308	356	Amph.					
20/6	234.9	268.2	14.2			and talc. Limonite on fracture planes.			356	364	42.93	49.85	70.02	0.66	0.054	0.480
21/6	268.2	298.8	16.6			Massive unoxidised zone from 35.5 - 43.5.			364	383	56.80	69.78	70.02	0.77	0.043	0.62
22/6	298.8	320.2	14.7			Very broken zones from 44.0 - 45.8, 47.2 -			383	403	33.13	37.92	69.86	1.23	0.041	0.58
23/6	320.2	341.0	17.6			50.2. Soft puggy serpentine (?) - rich zone										
24/6	341.0	385.4	33.2			48.0 - 48.4. Ore generally slightly										
25/6	385.4	414.0	13.9			oxidised.										
2/7	414.0	434.1	18.5	50.0	51.4	MAGNETITE (RICH)										
4/7	434.1	461.7	25.6			Fine to medium grained, massive in										
5/7	461.7	528.0	56.1			parts with minor pyrite, tremolite -										
6/7	528.0	589.8	60.4			actinolite and talc (?). Ore is moderately										

SCALE: 1" = 50'



LEGEND

RICH >	55%Fe	MEDIUM LEAN >	22%Fe
MEDIUM RICH >	44%Fe	LEAN >	11%Fe
MEDIUM >	33%Fe	AMPHIBOLITE <	11%Fe
		ZONE OF OXIDATION	

498 043

42 016

DRILL RECORD

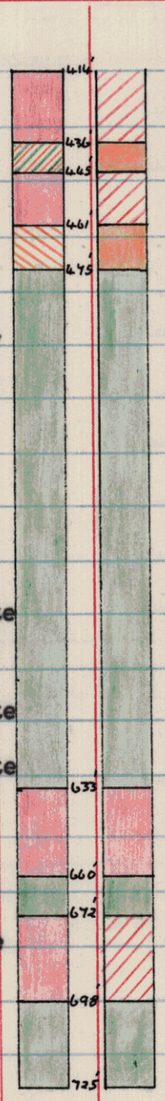
Date 1966	From	To	Core Recov.
7/7	589.8	680.0	88.9
8/7	680.0	725.5	41.8
	END OF HOLE		

GEOLOGICAL LOG

From	To	Description
50.0	51.4	Cont.... oxidised with limonite on fracture planes. Some voids and leached joints. Ore is very oxidised and is weakly magnetic in zone 50.9 - 51.4.
51.4	106.0	AMPHIBOLITE Generally fine-grained with hard, fairly massive zones from 63.2 - 68.5, 81.0 - 83.0 and 98.0 - 105.5. Soft, broken and decomposed clayey zones throughout. Amphibolite contains minor pyrite, epidote, serpentine and disseminated magnetite. Pyrite occurs disseminated and in blebs associated (?) with epidote and serpentine. Thin epidote and feldspathic veinlets throughout. Hematite and serpentine on fracture planes. Medium grained zone from 54.0 - 79.0. Zone of rich magnetite from 81.0 to 83.0 with minor pyrite and tremolite - actinolite.
106.0	123.0	MAGNETITE (RICH) From 106.0 to 115.0 is a medium ore zone which is fairly coarse grained and moderately weathered with fair amounts of tremolite - actinolite and minor pyrite and talc. From 115.0 to 123.0 is rich magnetite ore. Fine to medium grained, massive in parts with moderate pyrite and tremolite - actinolite and minor talc. Fairly oxidised ore with some clay development. Serpentine and clay on fracture planes. From 121.0 to 123.0 ore is completely disaggregated to a greenish-black sand.
123.0	150.0	AMPHIBOLITE Fine-grained, well broken with moderate

GEOLOGICAL SECTION

Core Sample



ASSAY RESULTS

Sample No. From Ft.	To Ft.	CRUDE %Fe	CRUDE Wt. Recovery	CONCENTRATE (-325 Mesh) %Fe	%SiO_2	%Ni	%TiO_2
403	414	46.93	56.98	70.35	1.08	0.041	0.245
414	425	52.23	61.17	70.02	0.95	0.052	0.52
425	436	54.85	65.49	70.01	0.83	0.060	0.495
436	445	36.19	38.29	70.09	0.99	0.066	0.40
445	461	53.71	65.71	70.17	0.79	0.048	0.495
461	475	39.28	46.67	70.01	1.06	0.036	0.26
475	633	Amph.					
633	648	56.56	72.14	69.84	0.74	0.036	0.34
648	660	55.34	70.38	69.44	0.97	0.031	0.30
660	672	Amph.					
672	685	52.73	65.15	70.17	0.83	0.052	0.21
685	698	48.25	59.69	69.60	1.14	0.032	0.350
698	725	Amph.					

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42 017

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS										
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To								
				123.0	150.0	Cont.... epidote and serpentine minor pyrite and one particle of chalcopyrite clay zones 123.0 - 124.6, 126.8 - 131.5, 131.8 - 132.5 very oxidised medium-grade ore 130.6 - 130.8. Rich ore decomposed to greenish-black sand 131.8 - 132.0. Brecciated zone 24.6 - 25.6 containing fair amounts of serpentine, moderate pyrite and minor epidote. Epidote veinlets throughout and serpentine on fracture - planes.													
				150.0	153.0	AMPHIBOLITE Fine-grained, well broken with moderate to fair amounts of epidote and serpentine.													
				153.0	172.0	MAGNETITE (MEDIUM RICH) Fine to medium-grained, quite oxidised with a few small slightly oxidised zones. Moderate pyrite, and minor tremolite - actinolite, talc and serpentine decomposed clayey zones throughout.													
				172.0	179.0	AMPHIBOLITE Fairly fine-grained, massive in parts, mainly broken with some clay / zones. Talc - magnetite - rich clay zone 177.3 - 178.8. Thin epidote veinlets throughout and black oxidised chlorite (?) on fracture planes.													
				179.0	193.0	MAGNETITE (MEDIUM RICH) Fine to medium grained, fairly broken, with moderate pyrite and tremolite - actinolite, and minor talc. Serpentine on fracture planes. Moderately oxidised. 0.3" fibrous tremolite - actinolite zone at 189'. Pyrite - rich zone 192 - 193. Broken,													

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DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS			
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To	
				179.0	193.0	Cont..... serpentine - rich zone 189 - 191.						
				193.0	214.0	AMPHIBOLITE						
						From 193.0 to 198.0 amphibolite is fine-grained, broken and sheared. Shear surfaces are serpentine coated and slickensided and very irregular in direction, but maintain a low (0^{o} - 20^{o}) Delta Angle. Amphibolite is only slightly oxidised, contains minor pyrite, and has some clay on fracture planes.						
						From 198.0 - 214.0 amphibolite is fairly fine-grained, massive in parts, unoxidised, moderately altered, containing moderate amounts of epidote in disseminations and veinlets. A few quartzofeldspathic veins up to 0.3" wide hematite on fracture planes.						
				214.0	272.0	AMPHIBOLITE						
						Fine to medium-grained, hard, fairly massive with moderate epidote and minor pyrite. Thin epidote, quartzofeldspathic, and some serpentine veinlets throughout. Hematite on fracture planes. Medium - grade magnetite zone from 258.5 to 262.5 containing fair amounts of tremolite - actinolite and moderate pyrite.						
				272.0	308.0	MAGNETITE (RICH)						
						Fine to medium - grained, fairly massive, hard, with moderate tremolite - actinolite and moderate pyrite disseminated throughout in blebs, small pods up to 0.3", aggregates and stringers from 305.0 to 308.0 is a lean magnetite zone with fair amounts of tremolite - actinolite and serpentine, and						

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DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS										
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To								
				272.0	308.0	Cont.... moderate pyrite in blebs, aggregates and stringers. Irregular Delta Angle 30° - 40°.													
				308.0	341.0	AMPHIBOLITE From 308.0 - 335.0 fine grained, massive with moderate epidote. Moderately altered hematite on fracture planes. From 335.0 to 341.0 amphibolite is slightly sheared, more broken and has minor to moderate pyrite. Slickensided serpentine on fracture planes. Fine to medium-grained magnetite zones 328.0 - 331.5 and 317.5 - 318.5 (Talc on fracture planes). Broken zone 340.5 - 341.5											
				341.0	356.0	AMPHIBOLITE Fairly fine - grained, massive in parts, slightly sheared with moderate serpentine and minor pyrite and magnetite. Pyrite is disseminated in blebs, bands and aggregations. Serpentine on fracture planes. Consistent Delta Angle of Fracture Planes = 60°. Thin epidote and serpentine veinlets throughout.											
				356.0	364.0	MAGNETITE (LEAN) Fine to medium - grained, broken, with fair amounts of tremolite - actinolite, moderate serpentine and moderate coarse - grained pyrite disseminated in blebs and stringers with a tendency to irregular alignment (Delta Angle = 45°).													
				364.0	383.0	MAGNETITE (RICH) Fine to medium-grained, generally massive with minor tremolite - actinolite and minor to moderate pyrite disseminated in blebs, aggregates and stringers with a tendency to													

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS										42 020
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To								
				364.0	383.0	Cont..... alignment (Delta Angle = 45°) Most fracture planes clean, some with serpentine coating. Delta Angle of Fractures 0°, 30°, 45°.													
				383.0	414.0	MAGNETITE (MEDIUM - LEAN) Fine to medium-grained, broken, consisting of irregular rich zones and fine-grained amphibolite zones. Minor pyrite. Slickensided tremolite - actinolite on fracture planes. Some leached joints. Some zones sheared and broken. Barren amphibolite zone 383.0 - 388.0. Irregular brecciated texture from 388.0 - 394.0 with magnetite lenses and associated pyrite traversed and separated by ferromagnesians.												
				414.0	436.0	MAGNETITE (RICH) Fine to medium grained, massive in parts with moderate pyrite disseminated in blebs, stringers, pods and aggregates, minor tremolite - actinolite, talc and serpentine. Irregular alignment of minerals with Delta Angle = 70° aggregated pods of pyrite up to 0.3" in zone 418 - 419.												
				436.0	445.0	MAGNETITE (LEAN) Partially banded fairly fine-grained magnetite with fair amounts of tremolite - actinolite and moderate pyrite disseminated in blebs, bands and stringers with a tendency to alignment (Delta Angle = 50°). Ore fairly massive. Light green serpentine on fracture planes. Epidote-rich amphibolite zone 444.0 to 444.5.												
				445.0	461.0	MAGNETITE (RICH) Fairly fine-grained, massive, with minor to moderate pyrite disseminated in blebs and													

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DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS			
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To	
				445.0	461.0	Cont.... stringers and Delta Angle of Alignment = 40°, Incipient or rehealed fractures common. Some serpentine on fracture planes. Small patches of medium - grained amphibolite with replacement - like (?) boundaries with the magnetite. Incipient fractures throughout.						
				461.0	475.0	MAGNETITE (MEDIUM-LEAN) From 461.0 to 465.0 are aligned blebs and thin stringers of fine-grained magnetite and pyrite throughout a pale - green tremolite - actinolite - rich host. Delta Angle of alignment = 70° From 465.0 to 475.0 is rich fairly fine-grained magnetite with moderate tremolite - actinolite and minor pyrite and talc. 3" of fibrous actinolite at 466. Talc crystals up to 0.2" in cavity filling at 467'.						
				475.0	633.0	AMPHIBOLITE Fairly fine-grained 475 - 486; fine-grained 524 - 536, 580 - 581, 586 - 588; and medium - grained 486 - 524, 536 - 580, 581 - 586, 588 - 633. Amphibolite massive, moderately altered, mainly tremolite - actinolite with fair amounts epidote and moderate feldspar. Thin epidote, hematite and pink feldspathic veinlets throughout. Hematite and slickensided serpentine on fracture planes. Incipient joints throughout with Delta Angles of 20°, 40°, 50°. Contact zones 524 - contact sharp, planar, D.A. = 50° 523 - brecciated zone with fine-grained tremolite - actinolite - rich amphibolite and medium - grained amphibolite breccia. 536 - sharp, Delta Angle = 70°, Alignment of minerals at contact.						

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS 42 022										
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To								
				475.0	633.0	Cont.... Movement (?) 580, 581 fairly sharp, some alignment of minerals. Small stringers of magnetite and pyrite 580 - 581.													
				633.0	660.0	MAGNETITE (RICH) Fairly fine - grained, massive, with minor tremolite - actinolite and pyrite disseminated in irregular blebs and stringers. Leached veins and joints. Amphibolite zone 647 - 648. Sharp boundary at 660.													
				660.0	672.0	AMPHIBOLITE Fairly fine-grained, hard, massive with quartzofeldspathic veinlets throughout. Incipient joints. Hematite on fracture planes. 671.5 - 672.0 is sheared with slickensides.													
				672.0	680.0	MAGNETITE (RICH) Fairly fine-grained magnetite with moderate fine-grained pyrite and tremolite - actinolite disseminated in blebs and thin stringers with a tendency to alignment (Delta Angle = 80°). Pale - green serpentine on fracture planes.													
				680.0	698.0	MAGNETITE (RICH) Fairly fine-grained with moderate pyrite and tremolite - actinolite disseminated in blebs and stringers with a tendency to Alignment (Delta Angle variable - 50° at 693') incipient fractures and leached joints. Irregularly banded lean zone 687 - 689 with Delta Angle 45° - 70°.													
				698.0	725.5	AMPHIBOLITE Fine - grained, fairly massive with serpentine, epidote, quartz-rich, and													

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DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS			
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To	
				698.0	725.5	Cont... hematite veins throughout. Incipient fractures throughout. Hematite and serpentine on fracture planes. Rich magnetite zones 704 - 705, 706 - 707. Contact at 698 is sharp with slickensided serpentine. END OF HOLE.						