

DIAMOND DRILL CORE RECORD

485 043

Hole No. 119
 Drilled by ASSOCIATED DIAMOND DRILLERS
 Core Recovery 76%
 Geological Logging by—
D. J. PERKIN, T. MUNRO

Area of Operation SAVAGE RIVER TASMANIA
 Location of Site 15°E ALONG TRAV. 2750S; 73°N
 Date Commenced 8-12-'65
 Date Completed 21-12-'65
 COORDINATES: 20,298N; 149,149E

Reduced Level of Site 894.9
 Bearing of Hole 270°
 Dip of Hole 0° 200' 400' 600' 800'
-55° -51°00' -47°30' -46°30' -45°
 Bore Depth 800'

Ref No 2094

42 002

A 29297

AMG Co-Ords: 350940 E 5404390 N

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS							
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	CRUDE	CONCENTRATE (+325 Mesh)				
									From Ft.	To Ft.	%Fe	Wt. Recovery	%Fe	%SiO ₂	%Ni	%TiO ₂
1965																
8/12	0.0	8.5	2.9	0.0	4.0	OVERBURDEN.			0	4	Overburden					
9/12	8.5	23.0	11.5	4.0	110.0	AMPHIBOLITE			4	110	(Amph)					
10/12	23.0	30.0	3.2			Fairly fine-grained, massive;			110	117	51.25	65.44	69.41	0.025	0.170	
11/12	30.0	51.0	16.7			From 4.0 to 11.0, moderately oxidised,			117	155	(Amph)					
13/12	51.0	71.0	19.0			greenish-brown in colour.			155	169	19.29	18.75	66.18	0.031	0.280	
14/12	71.0	97.0	25.5			From 11.0 to 23.0, only slightly oxidised.			169	196	(Amph)					
15/12	97.0	118.5	29.7			Brown and black oxidised hematite and chlorite			196	208	31.88	33.28	66.34	0.062	0.220	
16/12	118.5	131.0	12.4			film on fracture planes. Moderately altered			208	219	16.30	10.28	66.99	0.079	0.165	
17/12	131.0	167.0	35.3			with quartz, hematite and epidote veinlets			219	234	(Amph)					
18/12	167.0	201.0	32.9			disseminated throughout. Moderately hard			234	243	18.89	16.23	68.92	0.053	0.150	
20/12	201.0	215.0	13.4			schistose zone 9.0 - 10.0 (Delta Angle = 20°)			243	257	(Amph)					
21/12	215.0	247.5	30.4			Altered schist host? and spotted zone with			257	267	22.11	25.64	66.34	0.042	0.280	
22/12	247.5	259.5	11.8			porphyroblasts of actinolite and epidote with			267	278	22.68	25.60	68.20	0.067	0.195	
23/12	259.5	278.0	17.7			a tendency to alignment (Delta Angle = 25°)			278	289	41.64	48.67	69.73	0.037	0.260	
31/12	278.0	296.5	14.2			from 20.5 - 21.5. Fairly broken zone 17.0 -			289	323	(Amph)					
3/1	296.5	330.5	32.7			20.0.			323	331	22.76	25.67	69.49	0.054	0.130	
4/1	330.5	368.5	32.1			From 23.0 - 30.0 amphibolite is only			331	345	38.90	48.34	70.30	0.046	0.175	
5/1	368.5	396.3	21.7			slightly oxidised, fine grained, massive, slightly			345	351						
6/1	396.3	409.8	11.5			altered with minor epidote and hematite			351	357						
7/1	409.8	449.0	9.2			veinlets throughout. Limonite film along fracture			357	363						
8/1	449.0	460.5	8.0			planes. Fairly broken core.			363	369						
10/1	460.5	474.0	10.5			From 30.0 to 110.0, generally massive			369	375						
11/1	474.0	494.0	14.4			with occasional sheared zones, moderately			375	381						
12/1	494.0	505.0	9.4			altered with moderate amounts of epidote,			381	387						
13/1	505.0	528.7	18.4			hematite, minor quartz and occasional pyrite			387	393						
14/1	528.7	556.9	13.5			and magnetite stringers and occasional blebs			393	399						
15/1	556.9	586.3	18.4			disseminated throughout. Tendency for			399	400						

LEGEND

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

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS							
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From From Ft.	To To Ft.	CRUDE Wt. %Fe	Recovery	CONCENTRATE (-325 Mesh)		
												%Fe	%SiO ₂	%Ni	%TiO ₂	
17/1	586.3	619.0	25.2	4.0	110.0	Continued.... mineral alignment in places. Fairly broken	400	400	345	355	30.10	32.86	68.52	0.057	0.180	
18/1	619.0	674.0	40.2			and schistose zones 38.5 - 42.0, 65.7 - 66.8,			355	370	30.10	27.69	68.44	0.080	0.190	
19/1	674.0	712.0	29.5			90.0 - 92.0 and 104.0 - 106.3. Hematite and			370	387	26.39	29.24	68.76	0.048	0.155	
20/1	712.0	757.0	32.4			chlorite film on fracture planes.	437	437	387	404	61.68	78.27	71.34	0.037	0.165	
21/1	757.0	800.0	15.1	110.0	117.0	<u>MAGNETITE (RICH)</u>	447	447	404	421	62.14	78.94	71.18	0.044	0.175	
	<u>END OF HOLE</u>					Fairly fine-grained, massive with minor	457	457	421	437	59.72	75.53	70.62	0.056	0.180	
						amounts of pyrite, tremolite - actinolite	477	477	437	447	(Amph)					
						and talc disseminated throughout in blebs	494	494	447	457	30.91	32.16	69.89	0.073	0.09	
						and occasional stringers.	506	506	447	457	30.91	32.16	69.89	0.073	0.09	
				117.0	155.0	<u>AMPHIBOLITE.</u>	524	524	457	477	54.24	69.60	70.78	0.018	0.125	
						Fine-grained, massive, fairly altered;	529	529	457	477	54.24	69.60	70.78	0.018	0.125	
						From 117.0 to 131.0 amphibolite has	539	539	477	494	59.48	74.68	71.39	0.028	0.105	
						minor quartz, hematite, magnetite, pyrite and	549	549	477	494	59.48	74.68	71.39	0.028	0.105	
						epidote veinlets throughout. Talc associated	562	562	494	506	(Amph)					
						with pyrite-rich zone 122.1 - 122.5. Tendency	571	571	506	524	59.24	76.73	70.65	0.031	0.09	
						to crystal alignment 129.5 - 131.0. Hematite	577	577	506	524	59.24	76.73	70.65	0.031	0.09	
						and chlorite film on fracture planes.	587	587	524	539	(Amph)					
						From 131.0 - 155.0 amphibolite has blebs	604	604	539	549	46.45	54.95	69.60	0.079	0.110	
						and stringers of epidote and pyrite disseminated	621	621	539	549	46.45	54.95	69.60	0.079	0.110	
						throughout with an occasional tendency to	621	621	549	562	32.37	29.26	68.95	0.100	0.170	
						alignment along pre-existing fracture planes	661	661	549	562	32.37	29.26	68.95	0.100	0.170	
						(Delta Angle = 30°-40°). Slightly schistose	661	661	562	571	(Amph)					
						in parts.	678	678	562	571	(Amph)					
				155.0	169.0	<u>MAGNETITE (LEAN)</u>	661	661	571	577	52.52	64.27	71.14	0.047	0.185	
						Fine-grained, massive with fair amounts	678	678	577	587	(Amph)					
						of serpentine, moderate tremolite - actinolite,	701	701	587	604	53.66	67.62	71.06	0.043	0.135	
						minor pyrite and occasional talc disseminated	710	710	587	604	53.66	67.62	71.06	0.043	0.135	
						throughout with an occasional tendency to	710	710	604	621	57.06	69.80	71.63	0.053	0.135	
						alignment along pre-existing fracture planes	710	710	604	621	57.06	69.80	71.63	0.053	0.135	
						(Delta Angle = 30°-40°). Slightly schistose	748	748	621	661	(Amph)					
						in parts.	748	748	621	661	(Amph)					
						From 131.0 - 155.0 amphibolite has blebs	757	757	661	678	61.75	77.60	71.63	0.043	0.100	
						and stringers of epidote and pyrite disseminated	757	757	661	678	61.75	77.60	71.63	0.043	0.100	
						throughout with an occasional tendency to	783	783	678	701	(Amph)					
						alignment along pre-existing fracture planes	783	783	678	701	(Amph)					
						(Delta Angle = 30°-40°). Slightly schistose	783	783	701	710	50.26	62.43	70.57	0.059	0.530	
						in parts.	783	783	701	710	50.26	62.43	70.57	0.059	0.530	
				155.0	169.0	<u>MAGNETITE (LEAN)</u>	800	800	710	730	41.28	49.51	70.33	0.056	0.580	
						Fine-grained, massive with fair amounts	800	800	710	730	41.28	49.51	70.33	0.056	0.580	
						of serpentine, moderate tremolite - actinolite,	800	800	730	748	40.87	48.04	70.98	0.057	0.365	
						minor pyrite and occasional talc disseminated	800	800	730	748	40.87	48.04	70.98	0.057	0.365	
						throughout with a slight tendency to	800	800	748	757	(Amph)					
						alignment (Delta Angle = 25°-30°) Barren	800	800	748	757	(Amph)					
						altered amphibolite zone from 166.0 - 167.8.	800	800	757	775	30.75	32.65	71.14	0.060	0.250	
							800	800	757	775	30.75	32.65	71.14	0.060	0.250	
				169.0	196.0	<u>AMPHIBOLITE</u>			775	783	53.25	67.90	71.06	0.057	0.245	
						Fine-grained, hard and massive, fairly			775	783	53.25	67.90	71.06	0.057	0.245	
									783	800	(Amph)					

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS												
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To										
				169.0	196.0	Continued.... altered with veins of quartz together with transgressive hematite veinlets and minor epidote and actinolite veinlets throughout.															
				196.0	219.0	<u>MAGNETITE (LEAN)</u> Fine-grained, massive with fair amounts of serpentine, moderate tremolite-actinolite and minor pyrite with a tendency to alignment (Delta Angle = 30°-40°). Barren, altered amphibolite zones occur 207.0 - 210.0 and 211.0 - 212.0.															
				219.0	234.0	<u>AMPHIBOLITE</u> Massive, fairly altered with blebs and stringers of epidote and occasional pyrite disseminated throughout. Magnetite and pyrite-rich lean zone 228.3 - 229.0. Fairly broken zone 229.0 - 230.5.															
				234.0	243.0	<u>MAGNETITE (LEAN)</u> Fine-grained, massive with fair amounts of serpentine, moderate tremolite-actinolite and minor pyrite throughout with a tendency to alignment (Delta Angle = 30°-40°). Barren amphibolite zone 236.7 - 238.0.															
				243.0	257.0	<u>AMPHIBOLITE</u> Fine grained, massive with minor epidote and pyrite disseminated throughout in blebs and occasional veinlets occasional quartz veins throughout. Magnetite - rich lean zone 249.2 - 250.1. Chlorite and hematite film along fracture planes.															
				257.0	278.0	<u>MAGNETITE (LEAN)</u> Fine grained, massive with fair amounts of serpentine, moderate tremolite - actinolite, minor pyrite and occasional															

42 004

489 043

A 29297

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS										
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To								
				331.0	345.0	Continued.... (Delta Angle = 40°-50°). A few carbonate veins present. Broken zone from 343.5 to 345.0.													
				345.0	387.0	<u>MAGNETITE (LEAN)</u> Fairly fine-grained magnetite with moderate pyrite disseminated in blebs and stringers throughout an altered serpentine-rich amphibolite, also containing tremolite-actinolite, chlorite and epidote. • Barren epidote-rich amphibolite zone with actinolite veins 345.0 • 347.0. Rich magnetite 353.4 • 356.4 with hematite and serpentine film on slickensided fracture planes. Pyrite-rich zone 360.2 • 361.4. Barren, epidote • serpentine • rich zones from 361.4 • 362.2 368.4 • 372.7 and 379.0 • 379.3. Moderately broken core.													
				387.0	437.0	<u>MAGNETITE (RICH)</u> Fine to medium-grained with moderate amounts of pyrite and serpentine and minor tremolite • actinolite, talc, and some chalcopyrite blebs (at 413.0). Alignment of pyrite stringers irregular. Serpentine, tremolite-actinolite and occasional talc on fracture planes. Core moderately broken from 387.0 • 426.0, and quite massive from 426.0 to 437.0.													
				437.0	447.0	<u>AMPHIBOLITE</u> Fine-grained, fairly massive, fairly altered containing minor epidote and serpentine with minor pyrite and magnetite disseminated throughout in blebs and stringers with a tendency to alignment (Delta Angle = 30°)													

42 006

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS												
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To										
				437.00	447.0	Continued.... Serpentine on fracture planes amphibolite on fracture planes. Amphibolite very weakly magnetic. Core fairly broken.															
				447.0	457.0	<u>MAGNETITE (MEDIUM-LEAN)</u> Fairly fine-grained magnetite disseminated in blebs, bands and stringers through a serpentine-rich altered amphibolite also containing minor pyrite. (Delta Angle of Banding = 40°) Core moderately broken.															
				457.0	494.0	<u>MAGNETITE (RICH)</u> Fairly fine-grained, fairly massive, with moderate amounts of pyrite and minor serpentine disseminated in blebs and stringers throughout. Tremolite-actinolite and serpentine on fracture planes. Barren amphibolite zone 470.5 - 474.0 core quite broken.															
				494.0	506.0	<u>AMPHIBOLITE</u> Fine-grained, fairly massive, fairly altered with moderate serpentine and minor epidote serpentine on fracture planes. Core moderately broken.															
				506.0	524.0	<u>MAGNETITE (RICH)</u> Fine to medium-grained, fairly massive with moderate amounts of pyrite and minor serpentine disseminated throughout in blebs and stringers with a tendency to mineral alignment (Delta Angle = 20° - 40°). Serpentine and hematite on fracture planes. Core broken from 520.0 - 521.0 and 523.0 - 524.4. Barren, serpentine-rich amphibolite zone 508.0 - 508.7. Serpentine and fibrous tremolite - actinolite - rich zone 523.7 - 524.2.															

42 007

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS										
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To								
				524.0	529.0	<u>AMPHIBOLITE</u> Fine-grained, massive with minor epidote and talc disseminated throughout. Some epidote and hematite veinlets. Fracture planes generally have thin films of serpentine, talc and hematite.													
				529.0	539.0	<u>AMPHIBOLITE</u> Fine-grained, massive with minor epidote and talc disseminated throughout. Some epidote and hematite veinlets. Fracture planes generally have thin films of serpentine, talc and hematite.													
				539.0	549.0	<u>MAGNETITE (RICH)</u> Fine to medium - grained, fairly broken with moderate pyrite and serpentine, minor talc and perhaps tremolite - actinolite aligned in blebs, bands and stringers (Delta Angle = 30°-40°). Most fracture planes are clean but some have thin films of serpentine and talc.													
				549.0	562.0	<u>MAGNETITE (MEDIUM-LEAN)</u> Fine-grained, with moderate pyrite and serpentine and minor tremolite - actinolite distributed in alternating bands and aligned stringers and blebs. (Delta Angle of Banding = 30°-40°). Core fairly massive generally but broken in zones 557.0 - 559.0, 560.0 - 561.0 and 562.0 - 563.0. Fracture planes have serpentine, talc, and minor tremolite coatings with some slickensides and occasional smeared pyrite. Barren amphibolite zone 554.7 - 555.3 containing													

42 008

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS													
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To											
				587.0	621.0	<u>MAGNETITE (RICH)</u> Fine-grained, quite broken, with moderate pyrite and minor serpentine and tremolite = actinolite distributed in blebs and stringers with a tendency to alignment (Delta Angle = 40°-50°). Serpentine and talc on fracture planes. Massive amphibolite zone, 601.8 - 604.6. Moderately broken amphibolite, 606.7 - 608.8. Broken, sheared amphibolite zone, 618.0 - 619.0 with thick serpentine coatings and sheared pyrite on fracture planes. Broken zones 587.0 - 591.0, 592.0 - 593.4, 594.0 - 595.0.																
				621.0	661.0	<u>AMPHIBOLITE</u> Fine = grained, quite massive, slightly altered, homogeneous, with moderate epidote in veinlets and disseminated in small grains, and small amounts of pyrite, occasional quartzofeldspathic or quartz-carbonate veins throughout - up to 0.3" thick (Delta Angle = 20°-40°). Many rehealed fractures (at 624' Delta Angle fractures = 20°). Slickensided fractres planes with hematite and some serpentine films.																
				661.0	678.0	<u>MAGNETITE (RICH)</u> Fairly fine-grained; quite broken, with moderate to minor pyrite, minor serpentine, tremolite = actinolite and talc distributed in blebs and irregular stringers, small amounts of pyrrhotite at 673.6, and small tremolite-actinolite-rich zones at 671.0 and 677.8. Moderate talc from 672.6 - 672.8 and 675.6 - 676.2. Poor core recovery																

42 010

494
943

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS										
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To								
				661.0	678.0	Continued..... - Core shows grinding. Serpentine, talc and tremolite = actinolite on fracture planes.													
				678.0	701.0	<u>AMPHIBOLITE</u> Fine = grained, massive in parts, fairly altered, with moderate serpentine and epidote, minor pyrite and small amounts of pyrrhotite. Some thin epidote and quartz-rich veins. Small medium grade magnetite zone 688.0 = 688.4 with slight banding (Delta Angle = 60°) Broken zones 685.0 = 686.6, 687.0 = 688.0.													
				701.0	748.0	<u>MAGNETITE (MEDIUM)</u> Fairly fine-grained, massive in parts but generally broken, with equal amounts of pyrite, serpentine and tremolite = actinolite and minor talc generally magnetite and pyrite occur in granular masses with tremolite = actinolite and serpentine filling interstices giving the core a spotted appearance. From 701.0 to 732.0 oxidation is slight and from 732.0 to 748.0 moderately to fairly oxidised with a pitted surface. Most fracture planes clean, but some have irregular films of serpentine and less frequently tremolite = actinolite. Poor core recovery 732.0 = 748.0. Massive amphibolite zone 728.8 = 732.2 with moderate serpentine and minor pyrite and epidote. 732.6 = 733.2 tremolite = rich zone 733.2 = 734.2 sheared serpentine-rich amphibolite. 745.3 = 745.9 weathered clayey zone													

42 011

495
043

A 29297

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS									
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To							
				701.0	748.0	Continued..... From 725.6 to 728.8 is a fairly lean banded core zone with fair amounts of tremolite - actinolite and serpentine (Delta Angle = 20°). Massive zones 706.4 - 709.4, 717.0 - 718.0, 719.0 - 721.0 and 735.0 - 737.0.												
				748.0	757.0	<u>AMPHIBOLITE</u> Fine-grained, fairly massive, fairly altered with moderate epidote distributed throughout in veins and irregular blotches. Thin quartz-rich veins and hematite veinlets. Serpentine and hematite on fracture planes.												
				757.0	783.0	<u>MAGNETITE (MEDIUM)</u> Fine to medium-grained, fairly oxidised with a well-pitted surface, with moderate tremolite - actinolite, minor pyrite and small amounts of talc. The magnetite occurs chiefly as granular aggregates with tremolite-actinolite mainly filling the interstices. Core quite broken due to oxidation and decomposition of minerals and drilling. The magnetite is of medium-rich grade but also included is an amphibolite horizon from 762.2 to 765.6. This is fine-grained, massive in parts, with moderate epidote, minor pyrite and small amounts of dark iron silicates. Small tremolite - actinolite - rich zone 760.8 - 761.0 with slight tendency to alignment of minerals (Delta Angle = 50°). Core recovery very poor (26%).												
				783.0	800.0	<u>AMPHIBOLITE</u> Fine to medium - grained, fairly altered, well broken and partly decomposed												

42 012

