SAVANNA MINERAL RESOURCES PTY LTD

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MT GRACE RESOURCES NL

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BATCHELOR PROJECT
NORTHERN TERRITORY

E.L. 9501

ANNUAL REPORT
FOR PERIOD

13th September 1998 to 12th September 1999

3rd Year of Tenure

Volume 3 of 9

Appendices V – VII
Metallurgical Reports

Compiled by:
B J UREN

Copies:
(1) Batchelor
(2) Perth
(3) Department of Mines & Energy

Annual Report EL9501 BJU0097

CR 1996 – 0739

APPENDIX V

Diamond Drill Hole Logs

PROJECT: BATCHELOR MAGNESITE — MT. GRACE RESOURCES N.L.

PROSPECT: WINCHESTER E.L. 9501

LOG OF DIAMOND DRILL HOLE

HOLE NUMBER: MD-1

R.L. SURFACE: ....m

COLLAR ABOVE SURFACE: ..2..m

R.L. DATUM: ....m

FINAL DEPTH: 101.6 m

LOCAL GRID CO-ORDINATES: ....mN ....mE ANGLE FROM HORIZONTAL: 60° AZIMUTH: 356°M

A.M.G. CO-ORDINATES: 8 556 691.88 mN 723 467.77 mE 1 : 250 000 SHEET NAME: .... CODE: .... FINAL DEPTH: 101.6 m

Type of sample	S.G.	Assay Sample No.	Assays on cut core & geochemistry on core chips, fillets or precollars (unless otherwise indicated)	Sample interval	Core recovered	Sample depth	Core size / Water level	Graphic log	Description of core	Total sulphide content %	Fracture log	% core loss
Reverse Circulation		25786					R.C. Precollar		Dark Grey CLAY SOIL			
		25787							Light Brown BALLING CLAY			
		25788							Medium Brown Wet STICKY CLAY			
		25789										
		25790							Medium Brown Damp BALLING CLAY			
		25791							Medium Brown Damp Fine GRAVEL & CLAY			
		25792							Dark Brown Damp Medium Grained GRAVEL & CLAY			
		25793							Dark Grey & Red-Brown BALLING CLAY			
		25794							CAVITY + Minor BALLING CLAY			
		25795				10			+ Medium Brown SOFT CLAY with Magnesite fragments			
		25796							Medium Red-Brown, White & Light Grey Slightly Weathered Medium-Coarsely Crystalline MAGNESITE			
		25797							Dark Purple & White Fresh Medium-Coarsely Crystalline MAGNESITE			
		25798										
		25799				16.1			+ Bright Red-Brown Hematitic SHALE			
		29001				15.1			A3 17.2-18.0m			
		29002				16.1			Light-Medium Grey Fine-Medium Grained CRYSTALLINE MAGNESITE with minor-common White Coarsely Crystalline irregular knots/veinlets of Magnesite & occasional irregular knot of Dark Red-Brown Carbonate. 17m Possible relic bedding @ 50° to C.A. β Angle N.A.			
		29003				17.2			Distinct Irregularly Sheared Contact			
		29004				18.1			Dominantly "Dark & Red-Brown Brecciated Fine Grained CARBONATE. Fragments are very angular of various sizes - 1m. Auto brecciation with knots of white Coarsely Crystalline MAGNESITE making the bulk in place.			
		29005				19.2			Distinct Irregular Contact.			
		29006				20.4			Medium Grey & White Coarsely Crystalline MAGNESITE with vague possible relic bedding @ 40° to C.A. (β N.A.) & with occasional knot of light Yellow-brown translucent medium TALC with less pronounced foliation. 18.3m Smooth, slightly undulate, shear surface @ 50° to C.A. β N.A.			
		29007				21.55			Distinct Contact @ 30° to C.A. β N.A.			
		29008				22.7			Medium & Dark Grey & Light-Red-Brown Fine-Medium-Coarsely Crystalline MAGNESITE with abundant white coarsely crystalline MAGNESITE in irregular veins. The vein filling is significantly coarser than the host & the white colour is ubiquitous for the vein material. "Occasional relic bedding? is present in the medium fine grained matrix @ ~30° to C.A. (β N.A.)			
		29009				23.8			21.7m Minor fine grey knots of Hematite. 22.15-22.25m Light Yellow-Green Massive Bladey TALC			
		29010				24.9			23.8m 3mm wide jagged veinlet of Hematite ~10° to bedding			
		29011				26.1			25.8m Clay filled jagged fracture ~60° to C.A. Irregular but distinct contact			
		29012				27.3			Medium Grey Medium-Fine Grained Crystalline MAGNESITE with occasional coarsely crystalline white irregular vein of Magnesite. Indistinct Contact.			
		29013				28.45						
		29014				29.5			Light-Medium Grey & Light-Dark Red-Brown Medium Grained Bladey Crystalline MAGNESITE highly brecciated with "infill" of white coarsely & medium grained crystalline MAGNESITE. The breccia is dominantly auto brecciated & composed of fragments of host rock but occasional fragments that may be exotic occur. These are dark green chlorite & have a large size range, are angular & of low sphericity. Occasional irregular shaped block of light yellow-green talc is present. The white magnesite is clearly veining & brecciating the grey & red-brown material. The red-brown colour appears to be alteration with some chert being partly grey & partly red-brown with a gradational/patchy colour change.			
		29015				30.5			29.9m Smooth "Ductile" Undulate Shear - Strike 100° Dip 80°S			
		29016				31.5			31.2m Very jagged Irregular Talcose Shear - Strike ~090° Dip ~70°S.			
		29017				32.5			37.6m Jagged Black Chlorite Coated Shear - Strike 325° Dip 55° S.W. Lineation 35° Dip to 230°			
		29018				33.5			37.5m Bedding @ 35° β 290°			
		29019				34.5						
		29020				35.5						
		29021				36.5						
		29022				37.5						
		29023				38.5						
		29024				39.55			INDISTINCT CONTACT			
		29025				40.6			Light Red-Brown & Light-Dark Grey (Dominantly Light Grey) Bladey Massive Fine-Grained Crystalline MAGNESITE with very irregular commonly coarsely crystalline veins of Magnesite. The light red-brown unaltered appears in part to be altered light grey material as previously described.			
		29026				41.6			37.5m Possible relic bedding Strike 030° Dip 90° - In grey magnesite			
		29027				42.6			40.9m " " " " 040° Dip 65°E " "			
		29028				43.6			41.6-41.6m Minor irregular knots & veinlets of medium yellow green massive Talc			
		29029				44.6			42.1-42.2m " " " "			
		29030				45.6			43.1m Smooth Planar Shear - Chlorite coated - Strike 090° Dip 45°S			
		29031				46.6			46.8m Possible relic bedding in grey Magnesite Strike 320° Dip 50°W			
		29032				47.6						
		29033				48.6			48.2-48.6m Strongly Autobrecciated			
		29034				49.6			[illegible]			
		29035				50.6			[illegible]			
		29036				51.6			[illegible]			
		29037				52.6			[illegible]			
		29038				53.6			[illegible]			
		29039				54.6			[illegible]			
		29040				55.6			[illegible]			
		29041				56.6			[illegible]			
		29042				57.6			[illegible]			
		29043				58.6			[illegible]			
		29044				59.6			[illegible]			
		29045				60.6			[illegible]			
		29046				61.6			[illegible]			
		29047				62.6			[illegible]			
		29048				63.6			[illegible]			
		29049				64.6			[illegible]			
		29050				65.6			[illegible]			
		29051				66.6			[illegible]			
		29052				67.6			[illegible]			
		29053				68.6			[illegible]			
		29054				69.6			[illegible]			
		29055				70.6			[illegible]			
		29056				71.6			Dominantly replaced by banded TALC 71.55-71.6m White Fissure Quartz - FAULTED CONTACT - Probably at 90° to core axis			
		29057				72.0						
		29058				73.6			Dark Grey Fine Grained Bladey MAGNESITE. Some fine banding which may be relic bedding occurs @ 72.6m - close to core axis & curvilinear			
		29059				74.6			73.6m - Strike ~000°, Dip 80°W 74.0m - Strike ~330°, Dip 85°W Distinct but irregular contact sub ll to relic bedding			
		29060				75.6			[illegible]			
		29061				76.6			[illegible]			
		29062				77.6			[illegible]			
		29063				78.6						
		29064				79.6						
		29065				80.6			Distinct Contact @ 70° to C.A. - β N.A.			
		29066				81.6			Dark Grey Fine Grained Bladey MAGNESITE. Some fine banding which may be relic bedding occurs @ 80.5m - Sub parallel to core axis 81.5m - 20° to core axis. β N.A. Distinct Contact			
		29067				82.6						
		29068				83.6						
		29069				84.6			Distinct Contact @ 45° to C.A. β N.A.			
		29070				85.6			Dark Grey Fine Grained Bladey MAGNESITE			
		29071				86.6			87.0m Possible relic bedding @ 60° to C.A. β N.A.			
		29072				87.6						
		29073				88.6						
		29074				89.6						
		29075				90.6			Dark Grey Fine Grained Bladey MAGNESITE with inclusions of Light Red-Brown Medium Grey coloured material with very irregular coarser white coarsely crystalline Magnesite. These inclusions are @ 90.65 - 91.7m, 92.8 - 93.15m, 93.35 - 93.55m, 93.55 - 96.45m			
		29076				91.6						
		29077				92.6						
		29078				93.6						
		29079				94.6						
		29080				95.6						
		29081				96.6						
		29082				97.6						
		29083				98.6			Dominantly White Very Coarsely Crystalline Massive MAGNESITE with minor-common knots/veinlets of Light Red-Brown Medium Grey Medium-Fine Grained Crystalline Magnesite. Relic bedding may be seen at these intervals @ 100.0m where good red-brown alteration in version & strike 040° dip 60° N.W.			
		29084				99.6						
		29085				100.6						
		29086				101.6						

CR 1999 - 0439

PROJECT: BATCHELOR MAGNETITE

PROSPECT: WINCHESTER EL-9501

MT. GRACE RESOURCES N.L.
LOG OF DIAMOND DRILL HOLE

HOLE NUMBER: MD-2

R.L.SURFACE: ..... m

COLLAR ABOVE SURFACE: 0 m

R.L. DATUM: ..... m

FINAL DEPTH: 140.8 m

LOCAL GRID CO-ORDINATES: ..... mN ..... mE ANGLE FROM HORIZONTAL: 60° AZIMUTH: 356°M

A.M.G. CO-ORDINATES: 8,556,445.85 mN 723,419.60 mE 1 : 250 000 SHEET NAME: ..... CODE: .....

Type of sample	S.G.	ASSAY SAMPLE No. (ASSAYS ON CUT CORE & GEOCHEMISTRY ON CORE CHIPS FILLETS OR PRECOLLARS unless otherwise indicated)	SAMPLE INTERVAL	CORE RECOVERED	SAMPLE DEPTH (DEPTH 3 METRES PRECLAR)	CORE SIZE WIDTH (mm)	GRAPHIC LOG	DESCRIPTION OF CORE	TOTAL SULPHIDE CONTENT % (1 4 10 64)	FRACTURE LOG % (4 10 64 Breaks/m)	% CORE LOSS (10 50)
		25801						+ Black Soil — Medium Orange-Brown BALLING CLAY			
		25802									
		25803						Medium Orange-Brown CRUMBLY CLAY			
		25804									
		25805						Medium Brown STIFF CLAY			
		25806									
		25807						Medium Brown Wet STICKY CLAY			
		25808									
		25809						Medium-Dark Brown GRAVELLY WET CLAY			
		25810						Light Orange-Brown FLUFFY CLAY			
		25811						Light Orange-Brown & Dark Brown FLUFFY CLAY			
		25812									
		25813			13.0			Dark Brown CRUMBLY CLAY			
		25814	1.0		14.0			Very Poor Return			
		25815	0.8		14.8			+ Minor Clay Contamination — Dark Purple & White Fresh Medium Grained CRYSTALLINE MAGNETITE			
		29085	1.0		15.8	HQ		+ Light-Medium Grey Aphanitic DOLOMITE — Light Purple & White Fresh Medium Grained CRYSTALLINE MAGNETITE			
		29086	1.0		16.8			Light & Dark Purple & Medium Grey Medium-Fine Grained Blocky MAGNETITE with abundant white coarsely crystalline vein of magnesite. Veins brecciate, include irregular angular fragments of country rock. Veins have no preferred orientation & give a mottled texture. Minor-rare knots of yellow-green & dark purple massive talc			
		29087	1.0		17.8						
		29088	1.0		18.8						
		29089	1.0		19.8						
		29090	1.0		20.8		20				
		29091	1.1		21.9						
		29092	1.3		23.2			As Above but with only minor veining of white coarsely crystalline Magnesite.			
		29093	1.3		24.5			INDISTINCT CONTACT			
		29094	1.2		25.7			Medium Grey Medium to Very Coarse grained Pinolite (i.e. tabular interlocking grains) textured, blocky MAGNETITE with Talc as light yellow-brown & light grey-green subhedral irregular knots of Talc & minor irregular veinlets of coarsely crystalline magnesite.			
		29095	1.2		26.9						
		29096	V.0		28.0			Dark Purple & White Fresh Medium Grained Blocky Massive CRYSTALLINE MAGNETITE			
		29097	1.0		29.0						
		29098	1.0		30.0		30				
		29099	1.0		31.0						
		29100	1.0		32.0		40				
		29101	1.0		33.0						
		29102	1.0		34.0						
		29103	1.0		35.0						
		29104	1.0		36.0						
		29105	1.0		37.0						
		29106	1.0		38.0						
		29107	1.0		39.0						
		29108	1.0		40.0		40				
		29109	1.0		41.0						
		29110	1.0		42.0		100				
		29111	1.0		43.0						
		29112	1.0		44.0						
		29113	1.0		45.0						
		29114	1.0		46.0						
		29115	1.0		47.0						
		29116	1.0		48.0						
		29117	1.0		49.0		50				
		29118	1.0		50.0						
		29119	1.0		51.0						
		29120	1.0		52.0		80				
		29121	1.0		53.0						
		29122	1.0		54.0						
		29123	1.0		55.0						
		29124	1.0		56.0						
		29125	1.0		57.0						
		29126	1.0		58.0						
		29127	1.0		59.0						
		29128	1.0		60.0		60				
		29129	1.0		61.0						
		29130	1.0		62.0		90				
		29131	1.0		63.0						
		29132	1.0		64.0						
		29133	1.0		65.0						
		29134	1.0		66.0						
		29135	1.0		67.0						
		29136	1.0		68.0						
		29137	1.0		69.0						
		29138	1.0		70.0		70				
		29139	0.95		71.0						
		29140	1.35		72.5						
		29141	1.50		73.9						
		29142	1.0		74.9						
		29143	1.0		75.9						
		29144	1.0		76.9						
		29145	1.0		77.9						
		29146	1.0		78.9						
		29147	1.0		79.9						
		29148	1.0		80.9		80				
		29149	1.0		81.9						
		29150	1.0		82.9		90				
		29151	1.0		83.9						
		29152	1.0		84.9						
		29153	1.0		85.9						
		29154	1.0		86.9						
		29155	1.0		87.9						
		29156	1.0		88.9						
		29157	1.0		89.9						
		29158	1.0		90.9						
		29159	1.0		91.9						
		29160	1.0		92.9						
		29161	1.0		93.9						
		29162	1.0		94.9						
		29163	1.0		95.9						
		29164	1.0		96.9						
		29165	1.0		97.9						
		29166	1.0		98.9						
		29167	1.0		99.9						
		29168	1.0		100.9		100				
		29169	1.0		101.9						
		29170	1.05		102.95		110				
		29171	1.05		104.0						
		29172	1.05		105.05						
		29173	1.05		106.1						
		29174	1.05		107.15						
		29175	1.05		108.2						
		29176	1.05		109.25						
		29177	1.05		110.3						
		29178	1.05		111.35						
		29179	1.05		112.4						
		29180	1.05		113.45						
		29181	1.0		114.45						
		29182	1.0		115.4						
		29183	1.0		116.4						
		29184	1.0		117.4						
		29185	1.0		118.4						
		29186	0.9		119.3						
		29187	1.1		120.4		120				
		29188	1.1		121.5						
		29189	1.1		122.6						
		29190	1.2		123.8						
		29191	1.0		124.8						
		29192	1.0		125.8						
		29193	1.0		126.8						
		29194	1.0		127.8						
		29195	1.05		128.85	130						
		29196	1.05		129.9						
		29197	1.05		130.95						
		29198	1.15		132.1						
		29199	1.2		133.3						
		29200	1.1		134.4						
		29201	1.0		135.4						
		29202	1.0		136.4						
		29203	1.0		137.4						
		29204	1.0		138.4						
		29205	1.0		139.4						
		29206	1.0		140.4						

Standing Water Table 9m @ 24/8/99

LEGEND
Natural fractures /metres of core
Distance between fractures in centimetres

CALIBRATION OF EASTMAN UNIT No. Magnetic North

Sample Dispatch Advice Nos:-

EASTMAN CAMERA SURVEYS

DOWN HOLE DEPTH metres	DIP Degrees	COMPASS READING Degrees	GRID AZIMUTH Degrees	DOWN HOLE DEPTH metres	DIP Degrees	COMPASS READING Degrees	GRID AZIMUTH Degrees
40	58½	336					
80	58½	336					
120	60½	355					

LOGGED BY: S.J. GREEN
DATE LOGGED: SEPTEMBER 1999
DRILL TYPE: 30 TYPE
DRILLERS: M. NEWBERRY - STANLEY
START: 7/8/99
FINISH: 7/8/99
TRACED:
CHECKED:
SCALE 1 : 250 DRG NUMBER

HOLE No. MD-2