

# PASMINGO EXPLORATION DIAMOND DRILL HOLE LOG

Hole ID  
OP4

DRILLING			OBJECTIVE			COLLAR SURVEY (AMG)			
Location	TASMANIA		To test bedrock corresponding to the eastern aircore/ground magnetics surface anomaly within the Austral Valley.			AMG mN	5359042.5	Bearing	249.0
Project	OCEANA					AMG mE	362398.1	Dip	60.0
Prospect	AUSTRAL VALLEY					mN		Hole Length	241.4
Design By	M S SAXON					mE		DH Survey Type	Eastman Camera
Logged By	M S SAXON					RL	66.6		
Relogged						DOWNHOLE SURVEY (AMG)			
Commenced	26/6/95					Depth	Bearing	Dip	
Completed	26/6/95					0	249	-60	
Drilled By	EAST COAST DRILLING					30	249	-60	
Drill Rig	LONGYEAR 38					60	249	-60	
SIGNIFICANT CORE LOSS			POOR GROUND CONDITION ZONES			90	249	-60	
From	To	Loss	From	To	Condition	120	249	-61	
			0	79.7	Crotty Quartzite with minor running sand.	150	250	-61.5	
			79.7	241.4	Numerous puggy zones within limestone.	241	248	-62.5	
HOLE SIZE			HOLE CONDITIONS AFTER COMPLETION						
From	To	Size	Collar		2m collar pipe in top of hole				
0.00	77.5	HQ	Steel Casing						
77.5	241.4	NQ	PVC Casing						
			Ground Water						
			Wedge						
			Drill Pad						
SIGNIFICANT INTERSECTIONS									

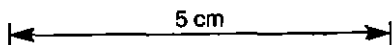
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DESCRIPTION				GRAPHIC			
From	To	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Structures
0.00	5.40	Minor glacials, fractured, broken, puggy.			0		
5.40	7.10	SILTSTONE Khaki, Massive, Non calcareous, cleaved					
7.10	7.90	QUARTZITE Pale grey quartzite; 0.5mm coarse rounded qtz sand with silica cement; lithic clasts common;					
7.90	9.40	SILTSTONE GRADING TO SANDSTONE Khaki, Cleaved siltstone top grades to medium grained sand; puggy weathered zone at unit base;					
9.40	16.50	SANDSTONE WITH MINOR QUARTZITE Mixed khaki and dark grey sandstone; colour mix due to weathering; mottled, irregular; black zones pyritic; fossiliferous in part;		9.4-13.3m pyrite, 1%, disseminated, associated with dark grey zone in siltstone; disseminated and lenses;	10		FIRST CLEAVAGE, R 60, Slaty.
16.50	22.60	SILTSTONE GRADING TO SANDSTONE WITH MINOR QUARTZITE Khaki, Cleaved siltstone grades to 0.25mm medium grained quartz sandstone; rare beds of quartzite as above in puggy matrix; massive; fractured;		16.2-16.5m pyrite, 2%, disseminated, associated with dark grey zone in siltstone; disseminated and lenses;	20		
22.60	28.40	QUARTZITE Pale grey-white quartzite with very minor contorted shale lenses; rounded quartz grains to 0.75mm, typically clear qtz, minor bucky qtz; grains supported; common lithic fragments of siltstone plus black elongate wisps, prob. organic fragments; beds ungraded but beds coarsen down hole; CONTACT: Conformable abrupt,					PRIMARY FABRIC, R 32, PRIMARY FABRIC, R 35.

Stubby horizon

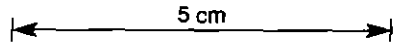
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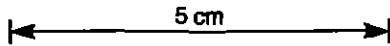
DESCRIPTION				GRAPHIC			STRUCTURES	
From	To	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith		
28.40	33.40	SILTSTONE INTERBEDDED WITH SANDSTONE WITH MINOR QUARTZITE Interbedded kakhi siltstone and medium grained massive quartz sandstone, plus minor pale grey quartzite as above; cm scale lensy bedding to 29.2m with bioturbation at top (uphole facing); beds thicker, more homogeneous below 29.2;				30		PRIMARY FABRIC, A 32. Facing uphole.
33.40	35.00	QUARTZITE Pale, Grey, Mid-pale grey quartzite, comprised of rounded quartz sand grains and qtz cement; very minor silty partings;		32.0-35.8m pyrite, 5%, disseminated, lenses and dissemination of pyrite nodules in dark grey sandstone; dusty pyrite.				
35.00	43.90	SANDSTONE Dark blotchy grey weathered pyritic sandstone; puggy in part, vuggy, leached;		35.8-54.8m pyrite, trace, disseminated.		40		
43.90	47.20	SHALE Gray pgy, possibly post shale; very soft;						
47.20	66.30	SANDSTONE Variably weathered, dark grey to limonitic orange medium to coarse grained (0.25-0.5mm) sandstone; abundant rounded quartz grains; clast supported, siliceous cream matrix in part; clear quartz dominant; puggy in part; typically no bedding lamination; minor gravelly zones; dark grey to 54.8m, then limonitic;		53.4-53.7m 1% galena disseminated in sandstone pore spaces.		50		

WEATHERED POROUS.

PUGGY

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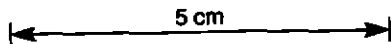
DESCRIPTION				GRAPHIC				
From	To	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Structures	STRUCTURES
66.30	73.50	SANDSTONE Cream to very pale grey fine-medium grained sandstone; quartz grains hosted by cream, non-calcareous matrix which gives color; massive, rare bedding lamination; clear quartz, well sorted;						<p>PRIMARY FABRIC, A 30,</p> <p>FOLD, Probable fold hinge, bedding poorly defined; broad open fold; F1 to LCA approx 90deg;</p> <p>PRIMARY FABRIC, A 45,</p> <p>PRIMARY FABRIC, A 25,</p> <p>FOLD, Fold hinge; broad open fold; F1 to LCA approx 90deg;</p> <p>VEIN, Quartz,</p> <p>PRIMARY FABRIC, A 30,</p> <p>VEIN, Quartz,</p>
73.50	79.70	SILTSTONE Cream siltstone, very similar in appearance to above without visible sand grains; massive to slight mottly/wispy texture; occasional fossils; common puggy crush zones towards base; CONTACT: Gradational,						
79.70	85.00	FAULT ZONE (PUG) Puggy cream clay with minor limonitic staining and isolated clasts of irregular to elongate dark grey sandstone; minor broken vein quartz; margins most puggy with least clasts; CONTACT: Gradational,	Irregular silt clasts					

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DESCRIPTION				GRAPHIC			
From	To	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Structures
65.00	110.90	Dk gry MICRITE with minr wackestone; predominantly limestone, minor zones grade to calcstone; mottled to massive calcitic matrix with finely cryst. dolomite; mottle a result of early-dolomite; fossil poor, sand sized fragments in wackestone 99-102.7m, small corals; stylolites common, darker grey, dolomite poor, anastomosing and irregular; from 100-108m stylolites overprinted by strong cleavage at 10LCA; weathered in part to crm-limonite colour (sideritic?); cmn calcite veins pre-stylolite; common CONTACT: Conformable abrupt,	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">fossil poor, rubbly zone near upper contact.</p>	<p>89.0-89.9m 1% honey sphaerite in veins.</p>	<p>90</p> <p>400</p> <p>110</p>		<p>VEDN, Minor breccia zone, limestone clasts with calcite matrix</p> <p>FIRST CLEAVAGE, A 10, Strong cleavage 100-108m, anastomosing, disrupts calcite veinlets</p>
110.10	124.80	SANDSTONE Pale steel grey fine-medium grained quartz sandstone with calcite/dolomite matrix; occasional quartz grains to 2mm; matrix supported, well rounded grains; typically massive, rare peeding; local tube bioturbation,					

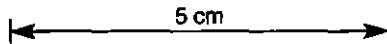
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DESCRIPTION			GRAPHIC					
From	To	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Structures	STRUCTURES
		grains to 2mm; matrix supported, well rounded grains; typically massive, rare bedding; local tube bioturbation, tubes 5mm width; minor vein calcite; CONTACT: Conformable mixed.		113.0-113.5m 5% galena in calcite stockwork breccia veins; trace pyrite.  117.0-117.2m calcite vein with minor sphalerite.				
124.80	133.80	DOLOMICRITE; limestone overprinted by early-dolomite; minor blotchy-banded texture; common irregular stylolites; minor calcite veining;						Fault, A 15, Pug, cataclastic, 15mm width; PRIMARY FABRIC, A 15.
133.80	137.50	NOULAR LIMESTONE; pale grey micritic limestone nodules hosted by dark grey clastic mudstone; nodules attenuated, margins stylolised; fossil poor;						
137.50	142.20	RECRYSTALLIZED CALCITE/DOLomite with minor mineralization; dark grey 'clasts' of early-dolomite hosted by mid grey crystalline dol/calc matrix, or crystalline dol/calc as blotches; sphalerite associated with recryst carbonate; late stage calcite veining; minor		137.2-142.3m 1% disseminated sphalerite assoc. with cal/dolomite alterations.				

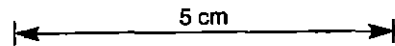
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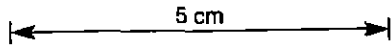
DESCRIPTION				GRAPHIC			
From	To	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Structures
		crystalline dol/calc as blotches; sphalerite associated with recryst carbonate; late stage calcite veining; minor visible fossiliferous and micritic lst;			140		
142.20	156.00	WACKESTONE with minor grainstone and micrite; shelly and rare coral fragments typically coarse sand sized; common fossil legs; gastropod shells intact; minor early-dolomite only;					
					150		FIRST CLEAVAGE, R 17, FIRST CLEAVAGE, R 15, PRIMARY FABRIC, R 25,
156.00	163.70	PUG; grey, minor solid core;			160		
163.70	180.30	DOLOSTONE; massive; strong overprint of early-dolomite, few depositional txt preserved; minor quartz sandstone in upper 1m; precursor micritic; occasional oolitic texture; abundant veins of dolomite and calcite, rare siderite; 10% vein material, strongly veined in part;					

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		DESCRIPTION			GRAPHIC			
From	To	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Structures	STRUCTURES
					170			
180.30	182.20	WACKESTONE grading to micrite; limestone with abundant early-dolomite crystals disseminated in lime matrix; dolomite not detexturing as above; minor bioturbation; common calcite replaced shells;		176.5-178.0 pyrite, 2% as clots assoc. with dolomite veining.	180			173.5-178.5m abundant irregular dolomite veins and breccia zones, all orientations, wall rock fractured.
182.20	184.40	BRECCIA ZONE; angular to subrounded limestone clasts supported by sparry dolomite veins; hydraulically shattered and sealed; sparry dolomite veins rebrecciated and resealed by grey coarsely crystalline dolomite;		182.0-184.4m pyrite, 2% disseminated.				182.2-184.4m breccia zone, dolostone fractured by dolomite veining; 2 vein generations.
184.40	198.90	Massive DOLOSTONE, grading to DDLO-WACKESTONE; dark grey, similar to above breccia zone; slight lamination in part; occasional shelly fragments preserved, calcite replaced; sparry and grey dolomite veining common in upper 3m;			190			185.5-187.0m strong dolomite veining, minor brecciation.
								189.7-189.7m dolomite-siderite vein, dog tooth.
								194.9-195.8m breccia zone, dolostone fractured by dolomite veining.

*dolomite, calcite veining*  
*dolomite veg.*  
*grey ebl/mg*

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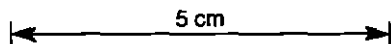
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From	To	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Structures
		sequence; 1st islands preserved in dolostone; geopetal internal sediment present at 227.2m, uphole younging;		224.3-224.3m sphalerite, trace in calcite vein.			
					230		227.2-227.2m geopetal structure, draped internal sediment; uphole younging;
							230.5-231.0m calcite veining, minor brecciation;
233.90	237.10	DOLOSTONE; intense coarsely cryst. dolomitization, no visible precursor texture; minor sphalerite-galena mineralization associated with dolomite; strongly fractured by calcite-siderite veins; veins and stockwork host angular wallrock fragments		233.9-235.7m sphalerite, 1% galena, trace disseminated in wall rock to siderite-calcite veins, none in veins.			235.0-236.2m breccia zone, calcite-siderite veining, angular clasts;
237.10	241.40	DOLOSTONE; early-dolomite with minor preserved shelly texture; moderate veining;		237.5-237.9m sphalerite-galena, trace in vein.			238.7-238.7m geopetal structure, draped internal sediment;
					240		
					250		

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