MANCALA PTY LTD A.C.N. 056 204 267 | **DIAMOND DRILL RECORD** | **LSM1**

18030

OBJECTIVE : To test the intersection of the Mines Dept. hole DDH1 of 1937, as interpreted by David O'Connor, 1993, and southern extensions of Long Struggle and Caxton Reefs.

RESULT : Located Long Struggle Reef at 156.15-156.35m: 12.8g/t Au (repeat 13.4g/t Au). Caxton Reef position indicated at 194m.

DEPTH : 250.7m

HOLE SIZE: TT46

COMMENCED: 2nd March 1994

COMPLETED: 29th March 1994

Depth	Direction	Dip
0	098.5 AMG	0
5	098.5 AMG	0
99	099.5	-1
195	099.5	-2

FROM	TO	DESCRIPTION	ALT	CD	ROCK TYPE	MINERALISATION
0.0	2.1	Quartzite sandstone with quartz veins parallel to and across the core grey in colour.			qtz sst	
2.1	2.7	Grey quartz sandstone with black siltstone interbeds. Intensely cut by quartz veins, some minor bleaching.			qtz sst/sltst	Pyrite also present.
2.7	5.0	Black siltstone with grey quartz sandstone interbeds. Quartz veining is cross-cutting, parallel and right angles to the core. Some iron staining.			*sltst/sst*	
5.0	5.3	Bleached, grey-green sandstone. Iron staining (oxidation) on the broken ends.	blchd		sst	
5.3	5.6	Grey sandstone with quartz veining that has been folded. Some bleaching around the veins.			sst	
5.6	10.5	Grey quartz sandstone with 40cm black siltstone bed at 5.6 - 6m. Sandstone inclusions within the siltstone. Grey sandstone contains quartz veins parallel to and right angles to the core. Bedding obtuse to core.			qtz sst	
10.5	14.5	*Black siltstone with quartz veins parallel to, right angles and across* the core. Some approx. 1cm wide. 3cm quartz vein at 13.5m plus a 4cm quartz vein at 14.4m. Sharp contact with quartz sandstone at 14.5m. *Bedding parallel to core.*			sltst	
14.5	18.9	Grey quartz sandstone. Quartz and pyrite veining. At 17.15m there is a 10cm quartz vein. At 14.5 the contact is sharp, indicating a change in facing. Now going up sequence.			qtz sst	
18.9	44.8	Grey quartz sandstone interbedding with black siltstone, interbeds range from a few cm through to 1.5-2m in thickness. The siltstone/sandstone contacts all indicate drilling up sequence. Bedding is oblique to the core. Facing changes a number of times.			qtz sst/sltst	
18.9	25.3	The drilling is up sequence.				
25.3	44.8	Facing indicates drilling down sequence.				
28.6	28.7	Quartz vein with a 3cm alteration zone.				Pyrite is present in quartz vein.
34.2	34.4	2 Quartz veins (3 & 7cm wide) separated by an alteration zone.				*Pyrite is present within the quartz veins.*
36.55	36.70	Quartz vein (7cm wide) with iron staining and brecciation. Surrounded by additional quartz veins.				
37.0	37.2	10cm quartz-pyrite vein. 7cm zone of siltstone with quartz-pyrite vein with siltstone inclusions.				Pyrite vein.
37.2	37.6	*Siltstone with iron oxidation.*			sltst	
37.7	40.3	Bedding parallel to core.				
40.0	40.3	Oxidation of the core. Iron staining predominant in the grey sand-	oxdn			

180031

40.0	40.3	Oxidation of the core. Iron staining predominant in the grey sandstone units.	oxdn			
44.8	49.4	Grey sandstone with quartz veins parallel to the core.			sst	
44.9	45.4	Iron staining in the sandstone (quartzite).				
49.2	49.4	Whispy quartz-pyrite veins within sandstone-siltstone interbeds. Sandstone has been altered.				
49.4	89.0	Black siltstone interbedded with a grey sandstone. Facing down sequence. Small quartz veins parallel & right angles to the core. Sandstone is uniform throughout. 54.6m: 1.5cm quartz vein in grey sandstone. 57.3m: 1.5cm quartz vein in grey sandstone. 59.4m: 1.5cm quartz vein in grey sandstone. 61.4m: 1.5cm quartz vein in grey sandstone. 62.15m: 1.5cm quartz vein in grey sandstone.			sltst/sst	
63.2	63.6	Sandstone is brown. Bleached by iron staining.				
68.45	68.85	Bedding nearly parallel to the core				
69.55	70.15	Sandstone/siltstone breccia. Iron stained quartz vein within it.			sst bx	
70.6	71.0	Grey to brown sandstone with siltstone interbeds cross cut by quartz and pyrite veins.			sst	Small amount of galena.
72.0	72.05	Black siltstone interbeded cut by quartz-pyrite vein.				
75.35	75.45	Breccia 5cm wide. Grey sandstone on either side. Clasts of sandstone in a quartz-calcite-chlorite matrix. Small calcite veins also present. Breccia clasts are angular and vary from 3cm to a few mm.			bx	
At 76.9		Facing changes. Now going up sequence.				
85.2	85.7	Grey sandstone has been bleached. One calcite vein cutting core at 85.6m.	blchd			
86.2	87.0	Quartz veining in black siltstone, run parallel and right angles to the core.				
87.6	87.70	7cm quartz-pyrite calcite vein. Some minor brecciation. At contact between siltstone and sandstone.				
89.0	94.0	Grey sandstone with black siltstone interbeds. Quartz and pyrite veins parallel and right angles to core. A little bleached in some places around the veins.			sst-sltst	
94.0	109.5	Quartz sandstone (grey) with small interbeds of black siltstone. Quartz veining is present throughout. Several generations of quartz veining evident.			qtz sst	
94.5	94.58	Quartz and pyrite with calcite associated. Appears to occur at contact of sandstone and siltstone.				
94.25	94.5	Bleached grey sandstone prior to the vein mentioned above. Calcite/chlorite may be associated.				
96.0	96.2	Quartz-pyrite veining parallel to the core.				
96.35	96.45	Quartz vein (1.5cm wide) with chlorite inclusions.				
96.55	96.65	Quartz veining within quartz sandstone. Contains galena, pyrite min. which chlorite appears to be associated with the veining.				
96.8	97.85	Grey sandstone with arsenopyrite within the host rock.				
97.2	97.35	Quartz vein with galena & pyrite associated. Arseno-pyrite in the surrounding host rock.				
97.45	97.6	Quartz vein with galena and pyrite. Arseno-pyrite assocaited with the sandstone.				
99.7	99.75	Quartz vein with galena and pyrite associated.				
0.5	101.5	Broken black siltstone with quartz vein parallel to the core.				Pyrite and galena present in the vein.

100.5	101.5	Broken black siltstone with quartz vein parallel to the core. Calcite/sericite/chlorite associated and present within the siltstone.				Pyrite and galena present in the vein.
101.55	102.3	Quartz veining with pyrite, arseno-pyrite and chlorite in sandstone.				
103.7	103.8	Quartz veining with small stockwork veining within grey sandstone.				
104.3	104.45	Quartz veining with pyrite and chlorite.				
109.0	250.7	Quartz sandstone with interbedded black siltstone. *Small quartz* veins occur throughout.				
109.6	109.7	Broken zone within siltstone some quartz veining.			bx	
110.65	110.70	*Quartz vein with pyrite.*				
112.8	112.9	Broken zone within siltstone.				
118.2	118.3	Broken area in siltstone.				
122.9	123.1	Quartz vein with pyrite in quartz sandstone.				
123.8	123.85	Quartz vein with pyrite at contact.				
123.6	123.8	Broken quartz zone in sandstone.				
123.85	124.0	Siltstone with small veins beside vein above.				
129.7	130.9	Quartz veining in quartz sandstone with pyrite.				
130.8	130.9	Siltstone clasts in a shear type zone within quartz sandstone.				
136.15	136.2	Quartz vein within grey quartz sandstone.				
146.0	146.1	Broken zone within siltstone (minor brecciation).				
146.8	146.85	Quartz vein with pyrite within siltstone.				
146.85	-	Contact with sandstone interbed.				Quartz also present.
147.0	147.1	*Quartz vein with pyrite and carbonate within sandstone.*				
152.25	152.3	Calcite veining within siltstone clasts as a breccia.				
154.0	154.1	Sharp contact between siltstone and sandstone indicate going up through the sequence.				
156.15	156.35	Quartz, calcite and pyrite veining in siltstone. Long Struggle Reef.			L.S. Reef	156.15-156.35m Strong pyrite mineralisation.
156.35	156.4	Broken siltstone.				156.35-156.75m Semi massive aspy in sil matrix.
159.3	-	Sharp contact between siltstone and sandstone. Up sequence.				
161.15	161.2	Quartz vein with siltstone clasts. Breccia with pyrite.			bx reef	*Pyrite in reef.*
172.4	172.6	Broken siltstone zone.				
176.7	-	May have been a change in facing.				
186.4	-	Facing up sequence.				
194.05	194.35	Breccia reef, ptigmatic folded quartz vein lower end. Caxton Reef.				Pyrite is also present.
202.35	202.65	Siltstone clasts within grey quartz sandstone.				
204.8	-	*Sharp contact of siltstone and sandstone. Indicates facing up* sequence.				
229.0	229.2	Quartz breccia within sandstone. Galena and arseno-pyrite present.				Minor pyrite and galena.
248.95	249.00	Quartz vein with minor pyrite, galena? in siltstone.				
249.05	250.0	Quartz stockwork type veining in quartz sandstone with galena, pyrite and arseno-pyrite.				
249.7	249.8	Broken zone in siltstone.				
249.8	249.85	Intense quartz veining in siltstone.				
249.85	249.95	Broken zone in siltstone.				
235.0	235.1	Quartz vein, and pyrite within siltstone bed.				
236.1	236.15	Quartz vein in siltstone.				
		End of Log				