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AUSTRALIAN CONSOLIDATED INDUSTRIES LTD.

MINERAL RESOURCES DIVISION

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REPORT ON D.D.H.15 - MURRAY'S REWARD PROSPECT — M.H. McIntyre.

37 154

SUMMARY

D.D.H.15 at Murray's Reward Prospect was completed at a depth of 106.68 metres.

A weakly mineralized zone consisting of slightly chalcopyritic quartz was intersected between 85.36 and 94.49 metres, this interval containing an average of 730 ppm Cu over an estimated true thickness of 7.3 metres. The mineralized zone dips about 85° towards the west.

Leaching of sulphides and considerable core loss have combined to obscure the nature and grade of the mineralized zone.

Drilling costs directly attributable to D.D.H.15 totalled $2,947 at an average cost of $27.60 per metre.

D.D.H.15 - MURRAY'S REWARD PROSPECT

Grid reference	435 347N, 319 533E
Collar R.L.	204.2 metres
Angle	60°
Bearing	N 69°E - true
Date drilled	3.12.71 to 5.12.71
Drilling rate	17.8 metres per shift.

1. OPERATIONAL DETAILS:

1.1 Drilling Details

D.D.H.15 at Murrays Reward Prospect was commenced on December 3, 1971 and NW casing was seated at 1.52 metres. The drillhole advanced to 54.86 metres with the airmast attachment of the Longyear 38 drilling. NW casing was seated at 54.86 metres and the hole advanced to 94.49 with NQWL diamond coring equipment.

Caving and broken ground was cased off with BW casing at 94.49 metres and the hole was completed with BQWL equipment at a depth of 106.68 metres.

On completion of the drillhole the NW and BW casing was successfully recovered but the NW casing became tightly jammed and 39.62 metres of NW casing together with a NW casing shoe could not be recovered.

1.2 Drilling Conditions

The drill runs and core recovery are tabulated in Appendix A.

Air drilling advanced without incident to 54.86 metres at which depth diamond core drilling commenced.

Core recovery above the mineralized zone was commonly 100 per cent and averaged 94 per cent in the interval 54.86 to 85.36 metres. Similarly, core recovery below the mineralized zone averaged 95 per cent.

Core recovery in the mineralized zone was low, averaging only 46 per cent in the interval 85.36 to 94.49 metres even with the use of the triple tube core barrel. Much of the core loss can be attributed to the fragmentary nature of the quartzose material which could not be satisfactorily retained in the core barrel.

The overall core recovery averaged 86 per cent.

1.3 Drillhole deviation

The results of the acid etch inclination surveys were as follows:

Collar	60°
30.5 metres	57°
61.0 metres	47°
91.4 metres	43°

1.4 Drilling costs

Costs attributable to D.D.H.15 totalled $2946.91, made up as follows:

Air drilling	$ 617.38
Diamond drilling (NQ)	1109.36
Diamond drilling (BQ)	323.64
Casing	150.87
Surveys	32.00
Material abandoned in hole	601.66
Sundry	112.00
TOTAL	$2946.91

The average cost was $27.60 per metre.

2. GEOLOGY

The complete drill log is presented in Appendix B and may be summarised as follows:

AIR DRILLING
0 to 54.86 metres.

DIAMOND DRILLING
54.86 to 67.97 metres
Carbonaceous and graphitic slate and shale containing a few pyritic quartz veins. Rare traces of chalcopyrite occur in pyritic quartz veins below about 66 metres.

67.97 to 85.36 metres
Carbonaceous and graphitic slate containing many irregular and discontinuous pyritic quartz veins and veinlets. Vein material becomes more common and the unit becomes darker and more completely deformed as the base is approached. Traces of chalcopyrite are associated with quartz and dolomite veins.

85.36 to 88.39 metres Mineralized Quartz Zone.
Fragmentary white quartz containing minor amounts of dolomite and traces of pyrite and chalcopyrite. Low core recovery.

88.39 to 90.83 metres Mineralized quartzose zone
Fragmentary and cavernous quartz-chlorite-dolomite containing minor pyrite and rare chalcopyrite. Low core recovery.

90.83 to 94.49 metres Mineralized quartzose zone
Fragmentary quartz, quartzite and quartzose sediments containing rare chalcopyrite. Low core recovery.

94.49 to 106.68 metres
Chloritic and carbonaceous slate and shale.

3. SAMPLES AND ASSAYS

Ten core samples and one composite sludge sample were assayed with the following results

Core Samples

Intersection Metres	Interval Metres	Sample No. BAL	Assay Value per cent. Cu
70.86 to 73.45	2.59	1463	0.095
73.45 " 76.05	2.60	1464	0.070
76.05 " 80.01	3.96	1465	0.055
80.01 " 83.52	3.51	1466	0.012
83.52 " 85.34	1.82	1467	0.036
85.34 " 88.39	3.05	1468	0.090
88.39 " 90.98	2.59	1469	NOT RECEIVED
90.98 " 94.49	3.51	1470	0.058
94.49 " 96.93	2.44	1471	0.021
96.93 " 99.52	2.59	1472	0.015

Inspection of the core sample assay values indicates an anomalous but sub-economic concentration of copper within the quartzose mineralized zone. The "true" assay value of the mineralized zone has been obscured by:

a) leaching of the sulphides
b) considerable core loss
c) loss (in assay laboratory) of sample BAL 1469

A composite sludge sample (BAL 1473) collected from between 85 and 91 metres returned an assay value of 4200 ppm Cu which suggests that friable sulphides in the quartz were washed out during drilling resulting in a depletion of sulphides in the recovered core.

It is considered that the true grade of the mineralized zone lies within the limits 730 to 4200 ppm Cu.

4. CONCLUSION

D.D.H. 15 at Murrays Reward Prospect intersected a slightly cupriferous quartzose zone of sub-economic grade. Evaluation of the nature and grade of this zone has been hampered by considerable core loss.

APPENDIX A

DDH 15 DRILL RUNS AND CORE RECOVERY

37 157

INTERSECTION (METRES)	CORE RECOVERY	
	METRES	PERCENT
54.86 to 55.47	0.61	100
55.47 " 56.69	1.22	100
56.69 " 57.60	0.91	100
57.60 " 58.52	0.91	100
58.52 " 60.04	1.52	100
60.04 " 63.09	3.05	100
63.09 " 64.92	1.83	100
64.92 " 65.98	1.06	100
65.98 " 67.97	1.98	100
67.97 " 69.34	1.37	100
69.34 " 70.86	1.52	100
70.86 " 72.99	1.67	79
72.99 " 73.45	0.38	83
73.45 " 75.43	1.98	100
75.43 " 77.10	1.67	100
77.10 " 78.47	1.06	78
78.47 " 79.99	1.22	80
79.99 " 82.14	2.13	100
82.14 " 83.51	1.37	100
83.51 " 85.18	1.06	64
85.18 " 85.64	0.46	100
85.64 " 86.25	0.46	75
86.25 " 87.47	0.30	25
87.47 " 88.08	0.15	25
88.08 " 89.00	0.15	17
89.00 " 89.30	0.08	25
89.30 " 89.61	0.10	34
89.61 " 90.22	0.30	50
90.22 " 90.83	0.15	25
90.83 " 91.23	0.30	100
91.23 " 91.44	0.10	34
91.44 " 92.35	0.76	83
92.35 " 92.96	0.64	100
92.96 " 93.72	0.15	20
93.72 " 95.39	0.61	36
95.39 " 96.16	0.77	100
96.16 " 96.91	0.75	100
96.91 " 97.67	0.76	100
97.67 " 98.91	1.24	100
98.91 " 99.52	0.61	100
99.52 " 100.28	0.76	100
100.28 " 100.74	0.46	100
100.74 " 101.19	0.45	100
101.19 " 102.25	1.06	100
102.25 " 103.47	1.22	100
103.47 " 104.85	1.38	100
104.85 " 105.31	0.46	100
105.31 " 106.52	1.21	100