7.0 EXPLORATION 1990 MINERAL PROSPECTS

The mineralised deposits at Moline are mostly associated with north or north west trending regional structures.

The Bonnie Line and El Dollarado are in the north east of the Project Area (Figure 16). To the south west is the Hercules Line with Lo, Kendergarden, Highway, Eagle, Birdie, Hercules, School, Milo, Redback, Arm and Viv's Prospects. The Moline Line begins in the north with Fourex, then Four Pit, Moline, Trig, Trig South and Eureka. Further south west is the Tumbling Dice Line, which begins in the north with Stockyard, Swan, Gold, Zebra, Emu, Crow, Tumbling Dice, Divot, Cornwall, High Chinese and has Low Chinese in the south. Further west are the Dingo, Waterhole, Paw Paw and Simple Dreams Prospects. The Banana and Mango Prospects are in the north.

In this section the exploration results from 1990 are documentation on each of the gold prospect areas.

7.1 El Dollarado

El Dollarado is to the north of the Kakadu Highway some 2.5 kilometres north east of the Moline Plant (Figure 16). Previous work in this area included gridding and a very limited rock chip sampling programme. Past mining is evident in this area, with two shafts and an adit to the east accessing one of these shafts.

During 1990 the area was mapped at a scale of 1:1000 and a comprehensive rock chip sampling programme was undertaken (Figures 17 and 18). Low level gold values were recorded in close proximity to the old workings, the mineralisation being hosted by sheared and stockworked siliceous siltstones and quartz.

Further mapping and rock chip sampling was conducted along strike to the north, but with one minor exception (0.22 g/t Au), all analysis results were less than 0.01 g/t Au. The potential for gold mineralisation in this area appears to be confined to the area of old workings.

7.2 Bonnie Line

The Bonnie Line is a north west - south east trending ridge some 2 kilometres south east of the Moline Plant and east of the Wandie - Mt. Diamond road (Figure 16). Previous work in this area included gridding, soil geochemistry and a limited rock chip sampling programme.

During 1990 the area was mapped and a comprehensive rock chip sampling programme consisting of approximately 80 samples was undertaken. Results of this sampling programme outlined four anomalous zones of gold (Figure 19).

Anomaly A

Anomaly A is situated towards the north of the Bonnie Line in the vicinity of 14100N, 14800E. The anomaly has an almost east - west orientation and appears to cross-cut the regional strike. It is hosted in a sheared and brecciated/stockworked quartz-greywacke. Apart from the presence of ferruginous sulphides, galena is also evident.

Anomaly B

The anomaly is located along a ridge over a strike length of some 800 metres, with a possible extension northwards represented by some lower grades. The anomalous samples were typically from a sheared and stockwork veined, iron rich, silicified shale/siltstone/chert with associated massive quartz.

Anomaly C

Anomaly C is located in the middle west section of the Bonnie Line, and like Anomaly B has an approximate north - south orientation. It is hosted by a ferruginous, silicified and stockworked quartz-siltstone. This anomaly is situated in a relative topographic low with the mineralisation outcropping on the west side of the ridge.

Anomaly D

This anomaly is situated at the southern end of the Bonnie Line in undulating topography. Similar to Anomaly A, the mineralisation appears to cut the regional strike of bedding in an almost east-west direction. It occurs in an iron rich stockworked and veined greywacke with minor quartz - greywacke - siltstone breccias.

No follow up work on these anomalies has so far been undertaken.

7.3 Hercules Line

The gold deposits of the Hercules Line are a variable group centred around the Hercules (historically Northern Hercules) deposit.

Associated with the Hercules deposit are the Central and Western Hercules Lode Systems. Unlike the bulk of the gold mineralisation in the Project Area, the Hercules Lode system strikes north - south and is discordant (40 - 50°) with the axial planes of the folded host rocks. The host rocks are coarse grained clastic sediments, greywackes, sandstones and mudstones, compared with the finely laminated carbonaceous shales, cherts and carbonate rocks, which host the Moline and Tumbling Dice Lines.

North of the Hercules Pit are the predominantly north striking Kendergarden, Birdie and Eagle Lodes. South of the Hercules, the clastic sediments are overlain by finely laminated graphitic shales and nodular cherts, which host the School, Milo, Redback, Viv's and Arm gold deposits. The strike of this line of gold mineralisation changes from north at the Hercules to north-west at the Arm Prospect in the south (Figure 16).

7.3.1 LO

This Prospect is located north of the Hercules Pit. There were a number of shallow stopes on north trending shear zones. The shears and strike of the old workings cross-cut the stratigraphy (310° S - steep dip SW).

Exploration of this area took the form of ditchwitch trenching either side of the old workings. This work (10 trenches and 195.2m) outlined a N - W trending mineralised zone (Figure 20).

7.3.2 Kendergarden

Located north of Hercules (Figure 16), this Prospect consisted of a north - south striking shallow underhand stope approximately 18m long. Previous reverse circulation drilling of this prospect had intersected significant gold mineralisation below the old workings and in a second zone 25m south along strike.

During 1990, a total of 16 ditchwitch trenches and 525m of trenching was carried out around the old Kendergarden workings (Figure 21). This programme was followed up with 27 airtrack drill holes ranging from 6 - 8m deep (Figures 22 to 36).

7.3.3 Birdie

The Birdie Prospect is located between Hercules and Kendergarden. The prospect is centred on a 3m shaft sunk into a north striking steeply west dipping shear zone. Four ditchwitch trenches were cut for a total 58m of trenching (Figure 37). A total of 10 airtrack holes and 75m of drilling was completed (Figure 38 to 43).

7.3.4 Eagle

The Eagle Prospect consisted of a series of shallow under hand stopes striking north, and several shafts over a strike

length of 225m. The area was mapped at 1:1000 (Figure 44), and rock chip geochemical samples were collected. One excavation trench(Ken 1) was cut to follow up the rock chip anomalies.

A total of 9 ditchwitch trenches and 176m of trenching was carried out (Figure 45). This work indicated some narrow 1 - 2m wide mineralised zones with the best result 2.4m @ 2.6 g/t Au.

7.3.5 School

The School Prospect area covers the area from the south of Hercules Pit (locally known as Crossroads) to the Milo Prospect (Figure 16). Unlike Hercules this zone is hosted by asymmetrically folded graphitic shales, and nodular cherts.

During 1990 six reverse circulation holes were drilled from within the School Pit (Figure 46) and between the School Pit and the Hercules Pit (Figures 47 to 51).

The logs of these holes BRC 50, 55, 65, 66, 69 and 72 are included in Appendix IV.

7.3.6 Milo Prospect

The Milo Prospect is located immediately south of Moline Dam (Figure 16). Rock chip sampling in the area produced anomalous results, and they were followed up with 4 ditchwitch trenches totalling 74m (Figure 52A). These trenches intersected a relatively weakly mineralised zone.

10.8m	@	1.69 g/t Au
2.4m	@	1.95 g/t Au
2.4m	@	0.94 g/t Au

7.3.7 Viv's Prospect

Located south of Milo Pit (Figure 52A), initial exploration involved 3 ditchwitch trenches totalling 51m. Results from two of these trenches :

	3m	@	2.82 g/t Au
and	2m	@	4.44 g/t Au

were encouraging. The ditchwitch trenches were followed up with 13 airtrack holes totalling 97.5m (Figures 53 to 56).

7.3.8 Redback Prospect

This Prospect is located south of Viv's Prospect. Exploration during 1990 involved clearing of topsoil and cutting eight ditchwitch trenches totalling 106m (Figure 52B). Several anomalous zones were intersected:

3m	@	2.35 g/t Au
2m	@	2.05 g/t Au

The trenching was followed up with 13 airtrack holes totalling 97.5m. The results of these holes are shown in Figures 57 to 60.

7.3.9 Arm Prospect

The Arm Prospect is located on the southern end of the Hercules Line immediately south of Redback. Exploration during 1990 involved cutting 5 ditchwitch trenches totalling 73.5m and 29 airtrack holes totalling 217.5m. The trench results (Figure 42B) were encouraging and included :

6m	@	2.31 g/t Au
2m	@	1.87 g/t Au
4m	@	1.80 g/t Au
3m	@	1.15 g/t Au
3m	@	1.81 g/t Au

The follow up airtrack drilling also produced some significant results :

ARM 1006	6m @ 7.70 g/t Au
ARM 1009	5m @ 5.50 g/t Au
ARM 1012	4m @ 7.30 g/t Au
ARM 1015	3m @ 3.43 g/t Au
ARM 1022	2m @ 8.08 g/t Au
ARM 1034	5m @ 2.60 g/t Au

These holes are shown in Figures 61 to 69.

Reverse circulation hole BRC 86 (Appendix IV and Figure 70) was drilled immediately south of the Arm Prospect.

7.4 Moline Line

7.4.1 Fourex

Fourex is located north of Four Pit (Figure 16) on the Moline Line of prospects. It comprises in the south, a steep north facing slope making access difficult. Previous work in the area included gridding, wide spaced costeaning and limited reverse circulation drilling.

During 1990 the area was mapped in detail at a scale of 1:250 (Figures 71 to 72) and a comprehensive rock chip sampling programme consisting of 20 samples was undertaken. Results of this mapping and sampling programme outlined several anomalous zones of gold which were followed up by excavator trenching. A total of 7 excavator trenches, totalling 387 metres of costeans were completed in this area.

The trenches confirmed the presence of anomalous gold values trending north westerly in this area, and two reverse circulation holes were drilled to test these extensions, the locations of which can be seen on Figure 71 and 72. The geological log and assay information for these holes are in Appendix IV.

Drill hole BRC 111 on Section 15675N (Figure 76) intersected 2 m @ 0.20 g/t Au and 2m @ 0.5 g/t Au at a depth of 14 - 16 and 31 - 33 metres respectively. Drill hole BRC 112 on Section 15725N (Figure 80) intersected 2m @ 1.10 g/t Au at a depth of 10 -12 metres.

As a follow up to this reverse circulation drilling a 15 hole air track drilling programme was conducted in this area. Figures 71 and 72 indicate the location of these holes. Although several of these holes intersected significant gold mineralisation, the distribution appears discontinuous and irregular and further follow up work will be required to determine the overall potential of this area. Figures 73 to 80 are cross sections through this area.

Base metal data on this area is very limited with only occasional reverse circulation hole intersections having been assayed for lead and zinc. Notable assays are listed in Table 7

TABLE 7 Pb - Zn ASSAYS

HOLE No.	INTERSECTION (m)	Pb (ppm)	Zn (ppm)
MRC 248	26 - 27	770	4850
MRC 4	31 - 33	880	6850
	35 - 36	862	8900
	46 - 47	520	5600

7.4.2 Trig South

Trig South is located south of Trig and Moline Prospects (Figure 16) on the Moline Line of prospects. It is on the western slope of the main ridge extending south from Moline. Previous work in this area included two reconnaissance costeans and four reverse circulation holes.

During 1990 the area was mapped in detail at a scale of 1:500 (Figure 81) and a comprehensive rock chip sampling programme was undertaken. This programme encountered anomalous gold values which were followed up by excavator trenching. A total of 10 excavator trenches, totalling 160.5 metres of costeans were completed in this area (Figure 81).

Four reverse circulation holes (BRC 64, 77, 79 and 41) totalling 148m were drilled immediately north of the Trig South area. A summary of these holes are included in Appendix IV.

The trenches were investigating two separate anomalous gold zones, one of which can be traced over a strike length of at least 150 metres and is open to the north and south. To determine the down dip potential of this anomaly, a 25 hole air track drilling programme was undertaken. The location of the holes is shown on Figure 81. Figures 82 to 93 show these holes in cross section. The results of this drilling programme were disappointing and do not reflect the encouraging results achieved by trenching. The poor airtrack drilling results may in part have been due to sampling problems. This area is still considered to have potential and more follow up work will be undertaken.

7.4.3 Fosters

The Fosters Prospect covers an area which includes any southern continuation of the Moline and Hercules Line south of Trig south and Arm Pit respectively (Figure 16). Previous work in this area included gridding, reconnaissance costeaning and five reverse circulation drill holes.

During 1990 the area was mapped at a scale of 1:1000 (Figure 94) and a detailed rock chip sampling programme was undertaken. This programme highlighted anomalous gold values extending south from the Moline -

Trig ridge and another, 200 metres to the west. These anomalies were followed up by excavator trenching, as was the possible southern continuation of Arm Pit. A total of 16 excavator trenches, totalling 348.6 metres of costeans were completed in this area (Figure 94).

A six hole air track drilling programme was conducted at the southern end of the Moline - Trig ridge to investigate the sub surface gold mineralisation. Figures 96 to 100 show these holes in cross section, the results were generally disappointing.

To investigate the south strike extension potential of the Arm - Redback - Viv's and Milo Prospects, two reverse circulation drill holes were drilled on Section 13625N (Figure 101). The geological log and assay information for these holes are in Appendix IV. BRC 089 intersected 0.20 g/t Au at 14 - 15 metres and 0.28 g/t Au at 19 - 21 metres depth. BRC 090 recorded no mineralisation and appears to have been too shallow to intersect the down dip continuation of the anomalous gold intersected by BRC 089.

Within the Fosters Prospect considerable potential exists for further small mineralised areas to be delineated.

7.4.4 Eureka

The Eureka Prospect covers an area to the south of Fosters and east of the Cornwall Prospect on the Moline Line (Figure 16). Previous work in this area included gridding, a limited rock chip sampling programme and reconnaissance costeaning.

During 1990 the area was mapped at a scale of 1:1000 (Figures 102 and 103) and a detailed rock chip sampling programme was commenced. This programme delineated two parallel zones where anomalous gold values were recorded. As a follow up to this rock chip sampling, excavator trenching

was undertaken. A total of 11 excavator trenches, totalling 450.9 metres of costeans were completed in this area (Figures 102 and 103).

Results from this trenching programme suggests that the western anomalous zone has probably got more continuity and grade than the eastern zone. Further follow up work will be required to confirm this. The significance of a 100mm wide galena vein in trench AN 273 cannot be determined until further work is undertaken.

7.5 Tumbling Dice Line

The Tumbling Dice Line of deposits are hosted by strongly sulphitic carbonaceous shales and cherts including nodular cherts. The gold mineralisation is closely related to north west trending shear zones within asymmetric, overturned tightly folded strata. In the south, Cornwall and High Chinese, the sedimentary sequence has more coarser grained greywackes and sandstones.

7.5.1 Stockyard

This Prospect is located on the northern bank of O'Neil Creek, in fact the southern extension of the Prospect disappears into the alluvium of O'Neil Creek (Figure 16).

United Uranium rediscovered some shallow pits at Stockyard in the late 1960's. In 1969 four holes were drilled and while all intersected sulphides, holes PDH2 and PDH4 intersected mineralisation of interest.

TABLE 8 STOCKYARD DRILL RESULTS - UNITED URANIUM

HOLE No.	FROM	TO	WIDTH	Au g/t	Ag g/t	Pb %	Zn %	Cu %
PDH2	36.75	38.1	1.53	--	12.4	0.17	1.79	0.02
	45.72	50.29	4.57	0.13	13.4	N/S	1.76	N/S
PDH4	18.3	19.8	1.52	3.6	348	0.03	0.15	0.85

This work was followed up with a soil geochemical and induced polarisation survey and an additional 6 drill holes in 1970. None of the results were reported in full and only one interval was highlighted.

DDH4 0.75m @ 3.6 g/t Au
286.1 g/t Ag

In 1989 Cyprus, on behalf of the Moline Joint Venture took rock chips of gossanous material over a strikelength of 450m. The eight samples collected had the following values :

	Range	Ave.
Au	0.18 - 11.75 g/t	3.39 g/t
As	0.37 - 6.1%	1.99%
Zn	0.05 - 0.34%	0.21%
Pb	0.02 - 5.1%	0.69%
Cu	0.03 - 1.0%	0.22%
Ag	2.0 - 266g/t	43.9g/t

This was followed up in 1990 by an expanded programme of mapping and rock chip geochemistry. Figures 104 and 105 show the results of the expanded geological mapping and rock chip geochemical programme at Stockyard.

A total of 11 costeans and 240m of trenching was carried out at Stockyard. The two southern trenches intersected gossanous lode material, which included 1.3m @ 7.63 g/t Au, and 7.8m @ 1.03 g/t Au (either side of a 1.6m stoped out section).

The channel sampling of other trenches yielded anomalous zinc assays (+0.5%) over widths up to 10m. The results of channel sampling are shown in Figure 104 and 105

Two reverse circulation holes BRC 113 and BRC 114 were drilled during July 1990. The results are included in Appendix IV and Figures 106 and 107 show the holes in cross-section. Drill hole BRC 114 intersected 15m of 1.21 g/t Au from 22 - 37 m including 5m @ 2.47 g/t Au. The interval 25 - 27m averaged 0.95% Zn.

7.5.2 Swan Prospect

The Swan Prospect had been mapped, costeaned and sampled by previous exploration programmes in the area. This work and trenching carried out during 1990 are shown in Figure 108. During February 1990 two holes were drilled at the Swan Prospect to follow up previous trench and drill hole information.

TABLE 9 SWAN PROSPECT FEBRUARY 1990 R.C. DRILLING

HOLE No.	FROM	TO	WIDTH (m)	Au g/t
BRC 82	15	20	5	8.16
BRC 35	20	26	6	3.03

In July 1990 a 6 hole reverse circulation programme was carried out to test the depth and strike extent of the gold mineralisation.

TABLE 10 SWAN PROSPECT JULY 1990 R.C. DRILLING

HOLE No.	FROM	TO	WIDTH (m)	Au g/t
BRC 70	4	7	3	2.53
BRC 73	2	8	6	3.05
BRC 68	26	30	4	0.98
BRC 74	2	6	4	0.22
BRC 75	15	16	1	0.99
BRC 83	28	29	1	1.69

These drill holes are shown in cross-sections Figures 109 to 113 The July drilling indicated the Swan Prospect had limited potential for a major deposit of gold mineralisation. A shallow pit was designed to mine this deposit and mining commenced in November 1990.

7.5.3 Gold Prospect

Previous exploration, namely a trench on line 15000N intersected 5m @ 6.3 g/t Au. Follow up reverse circulation drilling (MRC 53) failed to intersect significant gold mineralisation.

During February 1990 an additional shallow reverse circulation hole BRC 32 (Figure 114 and Appendix IV) failed to intersect any significant gold mineralisation.

Several ditchwitch trenches were cut to follow up the trench results. One of these intersected significant mineralisation south of the original trench intersection (Figure 115). At this stage the gold reserve potential seems restricted.

7.5.4 Zebra

The Zebra Prospect is located south of Swan. Three ditchwitch trenches DZ1 - 3 and an excavator trench, TDS 1 were cut to

follow up the anomalous gold and arsenic rock chip results (Figure 116). Grades achieved in the ditchwitch and excavator trenches were not sufficiently encouraging to warrant further exploration.

7.5.5 Emu

The Emu Prospect is located north of the Tumbling Dice Pit (Figure 16). A total of eleven excavator trenches (188m) were cut in the area and three reverse circulation holes were drilled to intersect the mineralised zone at depth (Figure 117).

The complete results for BRC 42 (Figure 118) and BRC 44 and 45 (Figure 119) are included in Appendix IV. During 1990 a relatively shallow pit was designed to mine the Emu mineralised zone and by year's end the pit was well advanced.

7.5.6 Tumbling Dice

The bulk of the pre development exploration work on Tumbling Dice Pit had been completed prior to 1990. During 1990, some infill reverse circulation drilling was carried out prior to pit development.

Drill holes BRC 48, 49, 43, 71, 81, 87 and BRC 76 (Figures 120 to 122) were drilled within the planned pit boundaries to assist in mine planning.

Reverse circulation drilling was also carried out south of the Tumbling Dice Pit in search of extensions to the known mineralised zones. Holes BRC 20 (Figure 123); BRC 52, 53 and 54 (Figure 124); BRC 108 (Figure 125); and BRC 57 and 58 (Figure 126) were drilled in this area. Of significance are the results of BRC 108. This hole intersected 21m @ 1.08 g/t Au, 1.9% Zn, 0.27% Pb and 6.9 g/t Ag between 79 - 100m. This interval included 98 - 100. 2m @ 3.59 g/t Au, 8.25% Zn,

1.65% Pb and 49 g/t Ag. This southern extension to Tumbling Dice Pit has been called Lay Prospect. BRC 30 and 36 (Appendix IV) were drilled to the north-west of the Tumbling Dice Pit.

7.5.7 Crow Prospect

Crow Prospect is located south east of Tumbling Dice. Initially three reverse circulation holes were drilled on the Prospect (BRC 18, 60 and 62) (Figures 127 to 129). Ditchwitch trenching of bedrock followed (Figure 130). The eight trenches totalling 156m were cut over a strike length of 70m. Gold mineralisation was patchy but significant mineralisation was outlined, including :

Trench 3/7	5m @ 3.5 g/t Au
Trench 3/5	7m @ 2.4 g/t Au
Trench 3/1	9m @ 2.08 g/t Au
	(Figure 128)

A total of 33 airtrack holes (262.5m) were completed at Crow (Figures 131 to 142) to define the mineralised zones at depth.

Mining of the Crow gold deposit commenced during 1990 within a small shallow pit.

7.5.8 Divot

The Divot Prospect is located south of Lay Prospect (Figure 16). Initially rock chip geochemistry indicated anomalous gold mineralisation and this was confirmed with an excavator trench (TUS 9) (Figure 143). Two reverse circulation drill holes BRC 106 and 107 were drilled to follow up the trench results (Figures 144 and 145).

Drill hole BRC 107 intersected two mineralised zones including 4m @ 2.85 g/t Au and 3m @ 2.36 g/t Au.

A total of six ditchwitch trenches (72.4m) were cut to expose the gold mineralisation intersected by BRC 107 at the surface (Figure 146). This work failed to intersect any economically significant

gold mineralisation

7.5.9 Cornwall Prospect

The Cornwall Prospect area was mapped by chain and compass to produce the 1:1000 scale geological and rock chip sample plans (Figures 147 to 148). Many rock chip samples anomalous for gold were obtained from this phase of exploration. Gold mineralisation was found to be associated with strongly limonitic quartz veins within shear zones and from the gossanous rims of massive white quartz veins.

An excavation trenching programme was undertaken over the anomalous rock chip sample locations. The location of the trenches and results of the channel sampling of the trenches is shown in Figures 148 to 149.

Two areas were selected for evaluation with reverse circulation drilling : Cornwall 1 and Cornwall 2 areas. A total of 24 reverse circulation holes and 1,044m was drilled at Cornwall 1 and 2 reverse circulation holes and 82m drilled at Cornwall 2. The results of two drilling programmes at Cornwall 1 and two drill holes at Cornwall 2 are shown in Figures 149 to 164.

7.5.10 High Chinese

This area is located south east of Cornwall on the southern side of Eureka Creek. The topography is very steep and access is difficult. Previous work on the area consisted of a soil geochemical survey, following up early indications of gold from alluvial workings and several shallow hardrock pits.

During 1990 the High Chinese area was mapped on 1 :1000 scale (Figures 150 and 165 to 170) and a comprehensive rock chip sampling programme undertaken. The numerous low level gold anomalies were followed up by costeaning. A total of 51

excavator trenches and 2,040.5m of trenching was undertaken in this evaluation programme. The results indicated gold mineralised zones were sporadic and irregular. The results of sampling of the excavator trenches and the locations of seven reverse circulation holes drilled to follow up the trench results can be seen in Figures 150 and 165 to 170). The best result was 2m @ 2.31 g/t Au in BRC 98. The High Chinese reverse circulation drill holes are shown in cross-section in Figures 171 to 177 The results from drilling were disappointing.

7.6 Waterhole Prospect

The Waterhole Prospect is located approximately 4.2 kms WSW of the Moline Plantsite (Figure 16).

Prior to the 1990 programme, Cyprus had carried out soil geochemistry and ground magnetic surveys of the exploration area, and drilled 15 reverse circulation drill holes.

Initially the geological mapping and rock chip geochemistry at Waterhole was extended along strike in the hope of locating additional mineralised zones (Figures 178 and 179). The rock chip anomalies were followed up with excavator trenching, with twelve trenches cut totalling 519.7m. A summary of the channel sampling results are shown in Table 11.

In July 1990 a total of 7 reverse circulation drill holes and 365m were completed. Significant results from this programme are included in Table 12 and the holes are shown in cross section in Figures 180 to 184.

TABLE 12 SUMMARY OF REVERSE CIRCULATION DRILLING WATERHOLE

DRILL HOLE No.	FROM	TO	WIDTH (m)	AVE. Au g/t
BRC 2	45	47	2	0.59
BRC 16	7	13	6	0.67
BRC29	26	28	2	1.86
	36	38	2	1.64
	46	48	2	0.88
BRC 34	47	48	1	1.33
BRC 103	13	15	2	1.74
	30	35	2	1.74
	44	46	2	0.89
BRC 104	19	34	15	0.74
BRC 105	24	25	1	1.32

TABLE 11 WATERHOLE PROSPECT TRENCH RESULTS

Trench No.	North	East From	East To	Length	Significant Results Au g/t	Au g/t		Au g/t
WH 1	14198	9673	9727.9	56.9	12.8 - 15.8m	2.00	18.4 - 20m	0.34
WH 2	14149	9648.2	9703.2	55.7	6.9 - 10.4m	1.00		
WH 3	14023	9610	9674.7	61.4	3.7 - 8.1m	0.37	19.9 - 21.1m 24.6 - 26.6m	3.0 2.61
WH 4	13977	9545.5	9644.9	99.6	28.6 - 38.8m	0.44	77.1 - 78.4m 78.4 - 82.4m	1.10 0.38
WH 5	13878.5	9517.5	9557.6	39.8	23.1 - 25.9m	0.26		
WH 6	13852	9507	9543.5	36.5	30.2 - 31.8m	0.44		
WH 7	13694	9524	9552.4	28.4	14.7 - 20.9m	0.47		
WH 8	13424	9501	9529	28.0	1.2 - 7.7m	0.25		
WH 9	13400	9505	9528.3	23.3	8.8 - 10.7m	0.37	10.7 - 13.1m	1.99
WH 10	13371	9501.5	9529.8	28.3	NIL			
WH 11	14378	9688	9730.3	42.3	N/A			
WH 12	14448	9724	9769.2	45.2	N/A			
TOTAL				519.7				

A 41 hole air track programme totalling 548m was completed over the Waterhole area in November 1990. A summary of the more significant results is shown in Table 13. The holes are shown in cross section (Figure 187 to 200) and in plan on Figures 185 and 186.

TABLE 13 SIGNIFICANT AIRTRACK DRILL RESULTS

HOLE No.	FROM (m)	TO (m)	WIDTH (m)	Au g/t
2001	10	13	3	0.50
2010	1	9	8	0.63
2011	2	7	5	0.55
2012	2	8	6	0.49
2023	4	10	6	0.67
2029	4	17	13	10.1
2030	5	18	13	1.54
2035	1	3	2	0.98
	11	15	4	0.92
2006	1	5	4	1.29
2007	6	8	2	0.89
2008	4	6	2	1.14
2009	4	6	2	1.69
2020	1	3	2	1.21
	8	14	6	0.71
2021	4	14	10	0.95
2027	4	9	5	0.89
2028	6	10	4	2.05
2031	1	3	2	0.84

7.7 Simple Dreams

Simple Dreams Prospect is located approximately 4.5 kms south west of Moline. The area had been mapped on 1:1000 scale (Figure 147, 148), soil geochemistry had been carried out on the area and a reverse circulation drilling programme carried out.

During 1990, a further 11 shallow reverse circulation drill holes totalling 373m were completed at the Prospect (Figure 201 to 209). The results of the reverse circulation drilling programme failed to indicate any significant extensions to the known mineralised zones.

A ditchwitch programme of 8 trenches totalling 90m was completed to examine the surface expression of the Simple Dreams lodes (Figure 210). The topography in the north of the prospect was too steep for ditchwitch evaluation and eight airtrack holes totalling 144m were completed. The location of this work is shown in Figure 210 and the drill hole cross sections in Figure 211 - 218.

7.8 Dingo

The Dingo Prospect is 1.5 kilometres west of the Tumbling Dice Line and about 1.5 kilometres north of Waterhole (Figure 16). Previous work in this area included gridding, soil geochemistry, rock chip sampling and a 13 hole reverse circulation drilling programme, over the 600 metre strikelength of the gossanous outcrop.

During 1990 the Dingo Prospect was mapped at a scale of 1:1000 and a comprehensive rock chip sampling programme was undertaken (Figures 219 and 220). This programme identified mineralised gossanous outcrops for a further 300 metres north and identified the main structure over a total strike length of 2,400 metres. As a follow up to this sampling a total of 17 excavator trenches, totalling 687.9 metres of costeans were completed in this area (Figures 219 and 220).

With the assay information gained from the trenching a 5 hole reverse circulation drilling programme was conducted over the central section of the Prospect. To further establish continuity of grade, a 25 hole air track drilling programme was completed. Figures 221 to 228 show the drill holes in cross section.

The drilling has identified apparently continuous mineralisation over a strike length of between 25 and 50 metres and up to 3 - 4 metres wide. To confirm the continuity of this mineralisation, ditchwitch trenching will be required.

Some of the original rock chip samples from this area recorded high levels of lead, the highest being 4.45% Pb. From the 1990 reverse circulation drilling programme zinc levels up to 0.7% Zn were intersected. This makes the Dingo area a potential target for base metal investigation.

7.9 Woodstock

This prospect is located south of Mango Pit (Figure 16). Anomalous gold, arsenic and zinc rock chip samples were collected over a strike length of up to 700m (Figure 229).

TABLE 14 ROCK CHIP GEOCHEMISTRY - WOODSTOCK

	Au	As	Zn
RJT 031	1.36	1880	265
PK 88	14.20	320	N/S
RJT 032	1.00	730	68
RJT 026	4.00	2750	138
RJT 020	3.55	380	

The gold mineralisation was associated with gossanous chert veins within calcareous and carbonaceous shales.

Eight excavator costeans totalling 314.5m (Figure 229) were cut over a strikelength of 600m. Gold assays from the channel sampling of the costeans were consistently low, with only one interval exceeding 1 g/t Au.

7.10 Big "W" (MCN 2526 - 2529)

The Big "W" anticline is located 13 kilometres to the south west of the Moline Mine Site (Figure 230). It comprises very steep country, forming a north - south escarpment along the eastern boundary of the Cullen Granite. Previous work in the area included considerable stream sediment, soil and rock chip sampling.

During 1990 the area was mapped at a scale of 1:1000 (Figures 231 to 233) and a comprehensive rock chip sampling programme was undertaken. Anomalous gold values were recorded in several areas, but the sporadic nature of this mineralisation will require further work to determine its structural distribution.

7.11 Base Metal Evaluation

The gold mineralisation hosted by the South Alligator Group carbonaceous shales, nodular cherts and carbonate units is polymetallic, with sphalerite, galena, silver and minor chalcopyrite associated with gold.

7.12.1 Moline Pit

At Moline the pit has been shown to be strongly sulphitic both from reverse circulation drilling (Table 14) and from ditchwitch trenching of the pit floor.

TABLE 15 MOLINE DRILL HOLE DATA BASE METAL RESULTS

HOLE No	SECTION	FRM m	TO m	WTH m	Au g/t	Ag g/t	Pb %	Zn %
MRC 55	14850 N	49	52	3	2.39	3.0	0.01	0.70
MRCD256	14850 N	57	60	3	2.44	6.0	0.02	1.25
MDD 208	14800 N	36	46	10	2.11	25.8	0.41	1.43
MRC 60	14800 N	59	65	6	3.80	4.2	0.03	0.41
MRCD236	14800 N	58	65	7	2.00	4.0	0.03	0.87
MRCD213	14750 N	31	39	8	2.00	23.5	0.03	1.85
MRCD253	14750 N	62	65	3	1.66	4.0	0.01	1.80
MRCD279	14750 N	67	69	2	6.98	12.0	0.20	5.47
MRC 64	14700 N	26	36	10	3.34	113	1.13	0.36
MRC 16	14700 N	39	48	9	1.35	3.0	0.04	0.59
MRCD207	14650 N	41	49	8	2.45	8.0	0.63	1.11

HOLE No	SECTION	FRM m	TO m	WTH m	Au g/t	Ag g/t	Pb %	Zn %
MRC 55	14850 N	49	52	3	2.39	3.0	0.01	0.70
MRC 73	14600 N	24	32	8	2.75	15.1	0.78	0.55
MRCD69	14600 N	63	69	6	2.48	26	0.40	1.40
MRCD 6	14600 N	90	100	10	1.77	1.0	0.01	0.46
MRCD 71	14550 N	31	42	11	4.24	19.1	0.14	0.95
MRCD255	14550 N	45	60	15	3.41	7.3	0.04	0.59
MRCD278	14550 N	78	82	4	5.33	16.8	0.19	1.42
MRC 15	14550 N	35	38	3	1.02	3.0	0.01	0.86

7.12.2 Tumbling Dice

Drilling at Tumbling Dice has been relatively shallow to date and very few of the holes drilled have been analysed for base metals. However Table 16 summarises the results of three drill holes, which have intersected significant sulphide mineralisation.

TABLE 16 TUMBLING DICE REVERSE CIRCULATION DRILLING DATA

HOLE No.	FROM (m)	TO (m)	WIDTH (m)	Au	Zn	Pb	Ag
MRC 522	45	55	9	2.01	0.96	0.09	6.5
MRC 558	36	44	8	2.05	2.53	0.35	10.3
BRC 108	79	100	21	1.08	1.9	0.27	6.9

The 98 - 100m interval of BRC 108 averaged 3.6 g/t Au, 8.25% Zn, 1/65% Pb and 4.9 g/t Ag.

7.12.3 Stockyard Prospect

The Stockyard Prospect was discovered in the 1960's by United Uranium. Two shallow reverse circulation holes were drilled during 1990.

BRC 114 2m @ 0.85 g/t Au
0.95% Zn

BRC 113 4m @ 1.04% Zn
0.36% Pb
5 g/t Au

7.12.4 Other Areas

The exploration of several prospects for gold has yielded significant base metal analysis results. In most cases the holes have been shallow and the results generally incomplete. Several results are listed in Table 17.

TABLE 17 MISCELLANEOUS BASE METAL DRILL HOLE INTERSECTIONS

PROSPECT	HOLE No	FRM m	TO m	WTH m	Au g/t	Ag g/t	Zn %	Pb %
TRIG	MRC623	37	43	6.0	3.91	150	0.31	1.0
FOUR	MRC 49	37	46	9	2.44	8.5	1.5	0.15
WATERHOLE	MRC515	45	46	1 *	0.1	6	2.45	0.94
SIMPLE DREAMS	MRC511	17	18	1 *	1.29	--	0.02	3.21
SCHOOL	MRC366	40	41	1 *	1.97	237	0.06	5.80

* only interval assayed for base metals.

Rock chip geochemical sampling at Dingo and Eureka Prospects has yielded significant base metal anomalies.

8.0 EXPLORATION EXPENDITURE

A total of $1,058,963 was spent by Moline Management Pty Ltd on exploration of the Moline Tenements in the period 1st January 1990 to 31st January 1991. Table 18 is an estimate of the distribution of the exploration expenditure between the various groups of tenements. In some instances (EL4508 and 4492), exploration expenditure had been incurred on the expired tenements in the previous year by Cyprus Gold. The bulk of exploration expenditure (74.2%) was on MLN 1059 area, an area which commenced the reporting period as ERL's 75 and 76.

TABLE 18 EXPLORATION EXPENDITURE 1990 / 91

ITEM	EL6537	EL4508	EL6599	EL4492	EL7028	EL5674	EL4894	EL6121	MLN1059 ERL'S 75 & 76	MCN3630 - 31	MCN2526 - 29	MCN2332 - 35	MCN1925-26 3182-87 3089-98	MCN1908-13 2435-38 2442-57 2461 2944-75 2978-95 3042-56 3062-76 3872-77	PROJECT TOTAL
Geological	3500	0	2450	0	17300	700	1300	5000	129918	2500	1750	1250	6000	21000	192668
Field Asstant Sampler/Surveyor	5500	0	1600	0	1000	500	500	3200	61482	1000	1000	500	2000	6000	79332
Stores	650	0	550	0	3200	150	150	800	14036	400	400	200	1100	8000	29636
Tenement Rent	0	0	450	0	400	400	400	400	101620	400	400	400	600	2000	107470
Freight	0	0	0	0	0	0	0	0	1395	0	0	0	0	0	1395
Travel & Accom.	700	0	1000	0	61	100	100	1000							2961
Expl. Drilling Reverse Circ. Air Track									 89649 12132					5000	0 94649 12132
Excavator Trench.									15319					20000	35319
Drill Pads									19529					8000	27529
Reports	100	0	200	0	1000	100	100	500	2654	500	500	100	1000	3000	9754
Rehabilitation									9002					8000	17002
Drafting	300	0	300	0	500	200	200	350	15780	500	500	200	1000	5000	24830
Dozer/Grader	0	0	750	0	0	0	0	1500	10093	0	0	0	0	9000	21343
Motor Vehicle	1000	0	1200	0	1500	500	1000	700	7360	1000	1000	1000	3000	9000	28260
Assays	630	0	500	0	900	0	500	1000	180697	750	700	500	2000	9000	197177
Admin. Exp.	1750	0	2240	0	2000	1050	1550	3650	77194	1550	2050	1550	5200	13000	112784
Camp Exp.	500	0	1000	0	3000	500	1000	1000	20353	750	1500	500	3000	12000	45103
Legal									1119						1119
Ditchwitch									18500						18500
	9680	0	12240	0	31100	4200	6800	19100	785793	9550	10000	6300	25200	139000 1058963	1058963