Open File Envelope No. 6754

EL 1343

MONGOLATA

PROGRESS AND FINAL REPORTS TO LICENCE SURRENDER FOR THE PERIOD 29/7/1986 TO 28/1/1989

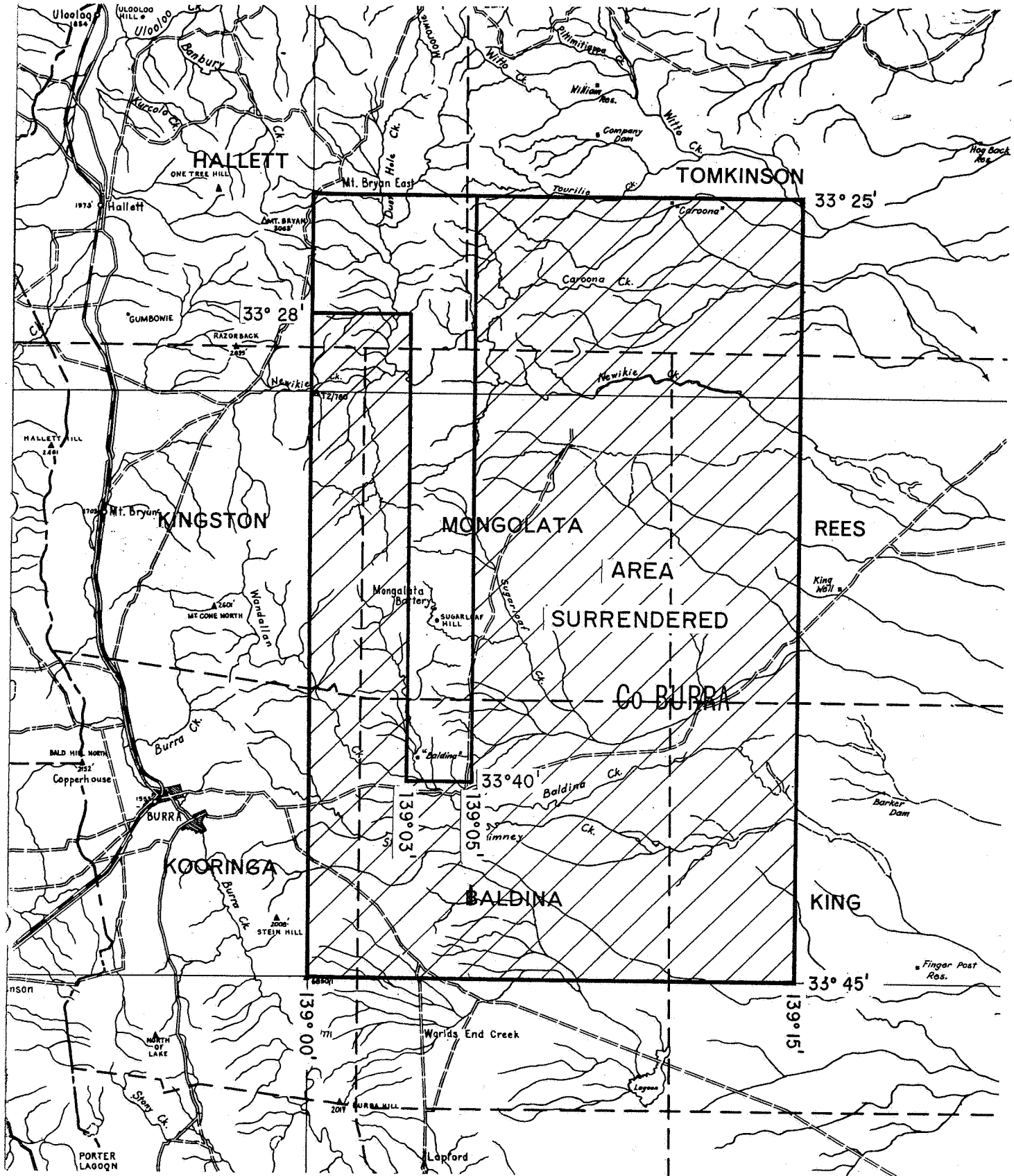
Submitted by
Newmont Holdings Pty Ltd
1989

Enquiries: Customer Services Branch
Minerals and Energy Resources
7th Floor
101 Grenfell Street, Adelaide 5000

Telephone: (08) 8463 3000
Facsimile: (08) 8204 1880

Government of South Australia
Primary Industries and Resources SA

SCHEDULE A



SCALE 1:250,000

KILOMETRES 5 0 5 10 15 20 25 KILOMETRES

APPLICANT: NEWMONT HOLDINGS PTY. LTD.

DM: 67/86

AREA: ~~857~~ 112 square kilometres (approx.)

1:250000 PLANS: BURRA

PARTIAL SURR. 13621

LOCALITY: MONGOLATA AREA – Immediately east of Burra

DATE GRANTED: 29·7·86 DATE EXPIRED: 28·7·~~87~~88 EL No: 1343

~~Part~~ 28.1.09

SOUTH AUSTRALIA

DEPARTMENT OF MINES AND ENERGY

OPEN FILE ENVELOPE NO. 6754

CONTENTS ENVELOPE 6754

TENEMENT: E.L. - Mongolata.

TENEMENT HOLDER: Newmont Holdings Pty. Ltd.

NEWMONT HOLDINGS PTY. LTD.
(INCORPORATED IN VICTORIA)
18TH FLOOR, A.M.P. TOWER
535 BOURKE STREET
MELBOURNE, VICTORIA, 3000

S032/1

MONGOLATA EL 1343,

BURRA 1:250,000 SHEET,

SOUTH AUSTRALIA:

FIRST QUARTERLY REPORT TO 29 OCTOBER 1986

D.G. Jones

November 1986

Distribution:

S.A. Dept. of Mines and Energy (1)
Brisbane (1)
Melbourne (1)

INTRODUCTION

GENERAL

On 4 March 1986, Newmont made application for an Exploration Licence (EL) covering an area known as Mongolata centred about 20 km northeast of Burra. The licence, EL 1343, was issued on 29 July 1986 for a period of one year. It covers an area of 857 sq km over gently folded Upper Proterozoic sediments of the Heysen Supergroup. The principal objective is to search for stratabound gold deposits, although it is recognized that the district also holds potential for base metal deposits.

LOCATION AND ACCESS

The western part of the licence covers freehold land belonging to Baldina and East Bungaree pastoral concerns. The eastern half of the licence is occupied by pastoral leasehold, including all of Poonunda and part of Murong Stations.

Eastern Road and Caroona Road are well-maintained gravelled roads connecting to Burra, while White Road provides good access into the northern part of the licence from Mt. Bryan. Numerous station tracks and cleared fence lines provide four-wheel-drive access to even the most rugged parts of the region.

A very pleasing aspect has been the support and encouragement offered by all the local landowners and occupiers affected by the licence. Their active assistance will greatly facilitate the planned work programme.

GEOLOGY

REGIONAL GEOLOGY

Mongolata lies within the Adelaide Geosyncline, on the central western margin of the Tertiary Murray Basin (Fig. 1). Relatively unaltered sediments of the Farina Subgroup of the Precambrian Umberatana Group have been folded along north-south axes. A gently north-plunging syncline dominates the structural regime in the Mongolata licence area. A strike-slip fault marks the axial plane of a tight anticline immediately east of the Mongolata syncline.

STRATIGRAPHY

Appila Tillite

The oldest recognizable rock in the area is a massive boulder tillite, containing reddish quartzite boulders, which forms a subdued range of low hills east of Poonunda homestead. The Black Hill silver-lead diggings occur within this formation.

Farina Subgroup

Conformably overlying the Appila Tillite and associated green siltstones is a distinctive thin black shale marker, the Tindelpina Shale. This lies at the base of the Tapley Hill Formation, a series of well-laminated siltstones which become progressively more sandy towards the top. The sandy siltstones grade into the Lower Tarcowie Siltstone, a well-bedded feldspathic sandstone which is silicified in places. The upper Tarcowie Siltstone contains calcareous interbeds. A greenish siltstone with fine sandy and limey interbeds overlies the Tarcowie Siltstone, and is equated with the Enorama Shale.

Yerelina Subgroup

The Enorama Shale passes upwards into a thick sequence of pebbly tillite containing carbonate clasts, interbedded with siltstones. This unit, the Pepuarta Tillite, marks the base of the Yerelina Subgroup. Towards the top, a distinctive pebbly feldspathic quartzite forms the Grampus Quartzite unit.

Wilpena Group

The centre of the Mongolata syncline is occupied by the Ulupa Siltstone, a dark green flaggy siltstone with fine sandy interbeds.

STRUCTURE

The rocks have been affected by one major phase of regional deformation. Open folds along north-south axes have a single associated axial plane slaty cleavage developed best in shale units.

EXPLORATION

GENERAL

The principal model for mineralization in the Mongolata EL is a syngenetic stratabound gold deposit, formed in basins during or soon after periods of basin subsidence and instability. Gold deposits of this type are typically very fine-grained and may escape detection by conventional prospecting methods. The deep weathering and extensive Cainozoic cover further complicate exploration. Chemical and mechanical dispersion is depressed by the climatic conditions and low topographic relief. It is proposed to use the BLEG technique to search for fine-grained gold deposits within the Mongolata licence.

THE BLEG TECHNIQUE

The Bulk Leach Extractable Gold (BLEG) technique is designed to upgrade low levels of gold to detectable limits and is effective in a wide range of environments. A metallurgical procedure utilising cyanidation is employed, since cyanidation is extremely effective for accessible forms of fine gold. A very large sample (5 kg) is treated, resulting in a concentration factor which gives about 450 times the orthodox gold geochemical detection limit.

Orientation work around a wide variety of gold deposits shows that the BLEG technique can detect anomalies up to 7 km from the source. A nominal sample interval of 1 km is normally employed. Samples are screened to minus 5 mm, the oversize discarded, and the sample weighed to 5 kg dry weight in suitable sized plastic bags.

The analytical technique involves the following steps:

1. pre-oxidation with hypochlorite
2. cyanidation
3. de-aeration
4. zinc precipitation
5. assaying of zinc precipitate.

If samples are carefully collected using the appropriate procedure, and the requisite precautions are taken by the analytical laboratory, the BLEG technique is extremely cost-effective and allows rapid reconnaissance coverage of large areas. Other advantages include:

1. it uses gold to find gold without relying on pathfinder elements which can be non-specific

2. laboratory sampling error is minimal since a large 5 kg sample is used

3. detection limit is about 0.05 ppb, and low ppb gold values are repeatable.

PRELIMINARY SAMPLING

An initial orientation survey was carried out in the vicinity of the old Mongolata Goldfield, to confirm the effectiveness of the BLEG technique in this environment. Seven BLEG samples were collected. Their locations are plotted on Figure 2. The results (Appendix 1) show that the streams draining the known workings are noticeably anomalous, with values up to 11 ppb Au, compared with a regional background of 0.3 ppb Au.

A review of previous exploration of the old Mongolata field and a brief field inspection, indicates that the old Mongolata field contains numerous small quartz veins developed within the arkosic sandstone. While the arkosic sandstone would not be expected to show pervasive alteration features, any significant alteration should at least produce a significant amount of sericite, additional silica and perhaps kaolin depending upon the amount of alteration and the amount of weathering which had developed. The lack of pervasive alteration is disturbing, particularly when the records of mining and exploration undertaken to date suggest very strongly that the majority of the mineralization is related to supergene processes which may have simply upgraded a very low grade host rock containing 0.1 to 0.2 g/t gold up to an average value of 20 or 30 g/t Au in small and very specific supergene zones.

To test this hypothesis, 18 rock samples were taken from the old workings and analysed for a range of elements (Appendix 2). The results suggest that gold is only enriched in gossanous highly manganiferous zones.

FORWARD PROGRAMME

BLEG sampling on a nominal spacing of 2 km on the western half of the licence will be undertaken during November. Spacing on the eastern half of the licence will be around 10 km, due to the lack of drainage on the flat plains.

TABLE 1

Expenditure for period to 24 October, 1986

	$
Labour and Overheads	6,841
Assaying	483
Consultants (petrology)	42
Supplies - General	242
Field Living	110
Vehicle Operating	146
Travel and Accommodation	1,124
Freight	12
Rentals - S.A. Government	1,493
Application Fee	96
Plans and Drawings	365
Photocpying	92
Telex and Telegram	18
Postage and Air Express	91
General	101
	$11,257

APPENDIX 1

The Australian Mineral Development Laboratories

182 Wittenoom Street
East Perth
Western Australia 6000
Telephone 325 7311
Telex AA94893
In reply quote:

amdel

3/222/0

20 March 1986

Newmont Holdings Pty Ltd,
535 Bourke Street,
MELBOURNE, VIC. 3000.

ATTENTION: Mr. D.G. Jones

REPORT AC P1332/86

YOUR REFERENCE:	Order No. 7200
MATERIAL:	Zinc precipitates
IDENTIFICATION:	As listed
WORK REQUIRED:	Cu Ag Au
DATE RECEIVED:	18 March 1986

Chief Chemist, Perth Laboratory: H.R. Firns

Manager - W.A. Division: N.V. Blesing

Head Office:
Lemington Street, Frewville
South Australia 5063
Telephone: (08) 79 1662
Telex: Amdel AA82520
Pilot Plant:
Osman Place
Thebarton S.A.
Telephone (08) 43 5733
Branch Laboratories:
Melbourne, Vic.
Telephone (03) 645 3093
Townsville, Qld.
Telephone (077) 75 1377

amdel

Analysis code ZINCON Report AC P1332/86 Page G2

Order No. P7200

Sample	Weight	Au	Cu	Ag	Au	Cu	Ag
50920	3.11	1.50	110	3	2.36	0.16	4.25
50921	3.09	7.20	155	3	11.1	0.24	5.25
50922	3.38	2.10	40	2	3.54	0.07	3.00
50923	3.40	0.25	40	3	0.45	0.07	5.75
50924	3.12	7.20	84	4	11.2	0.14	5.50
50925	3.14	2.95	54	3	4.61	0.08	4.00
50926	3.14	0.15	155	12	0.21	0.24	18.8
Detn limit	(0.001)	(0.05)	(2)	(1)	(0.01)	(0.01)	(0.01)
Units	gms	ppm	ppm	ppm	ppb	ppm	ppb

<-------- Values on zinc ------> <-Values on 5Kg spl->

APPENDIX 2

BRMONT AA42650
LABCOM AA89323

Au (As, Mn)
Association

Au enriched in gossanous ex S= material
+ manganiferous zones.

DATE: 1.9.86
FROM: COMLABS
ATTN: DAVID ROYLE

ANALYTICAL REPORT JOB COM861446

SAMPLE	CU	PB	AG	MN	AU		
*							
MB 1	630	10	1	710	160	Byles	gossanous qtz vn
MB 2	34	4	1	780	40		pyritic arkosic sst wallrock
MB 3	85	10	2	990	60		gossanous qtz vn
MB 4	240	12	1	1200	100		gossanous qtz vn / shear
MB 5	30	22	1	4000	300		manganese wad in clay alt'd sst
MGH 1	20	6	1	1750	90	Golden Harp	gossanous qtz vn
MGH 2	14	10	1	820	250		gossanous qtz vn
* MGH 3	32	12	2	1500	3100		limonite only
MGH 4	6	6	-1	180	150		qtz only
MGH 5	12	10	1	330	180		alt'd sst wallrock
* MGH 6	55	28	2	2500	2500		earthy MnO/FeO pod
MW 1	165	26	4	2050	450	Wildildie	~~qtz~~ -limonite vn
MW 2	9	6	-1	180	270		qtz only
MW 3	20	10	1	1900	200		mixed qtz-limonite vn
ME 1	12	14	2	9350	200	East View	ironstone vein + MnO
ME 2	8	12	-1	220	80		white qtz vn only
ME 3	14	16	2	7350	250		massive ironstone vn
ME 4	7	10	1	850	130		silicified spotted sst wallrock.
UNITS	PPM	PPM	PPM	PPM	PPB		
SCHEME	AAS1	AAS1	AAS3	AAS2	AAS5C		

1 OF 2

------------ END OF PAGE ------------

- 2 -

ANALYTICAL REPORT JOB COM861446

SAMPLE	BI	AS	W	SN	SB	MO	BA
MB 1	10	190	35	38	-4	6	-10
MB 2	24	60	10	-4	10	8	115
MB 3	10	310	-10	26	6	8	-10
MB 4	-4	250	25	6	6	7	55
MB 5	16	165	15	-4	14	10	75
MGH 1	55	60	-10	-4	6	10	55
MGH 2	4	75	-10	16	8	9	-10
MGH 3	-4	360	-10	-4	-4	7	-10
MGH 4	18	12	15	-4	-4	14	20
MGH 5	-4	170	-10	-4	10	9	130
MGH 6	32	590	30	-4	12	-2	80
MW 1	16	2250	40	6	-4	-2	20
MW 2	20	50	-10	-4	-4	14	-10
MW 3	4	560	15	-4	18	8	-10
ME 1	-4	65	20	-4	-4	7	50
ME 2	-4	8	-10	12	4	16	10
ME 3	50	210	-10	8	8	6	45
ME 4	16	14	-10	4	8	5	140
UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PPM
SCHEME	XRF1	XRF1	XRF1	XRF1	XRF1	XRF1	XRF1

2 OF 2

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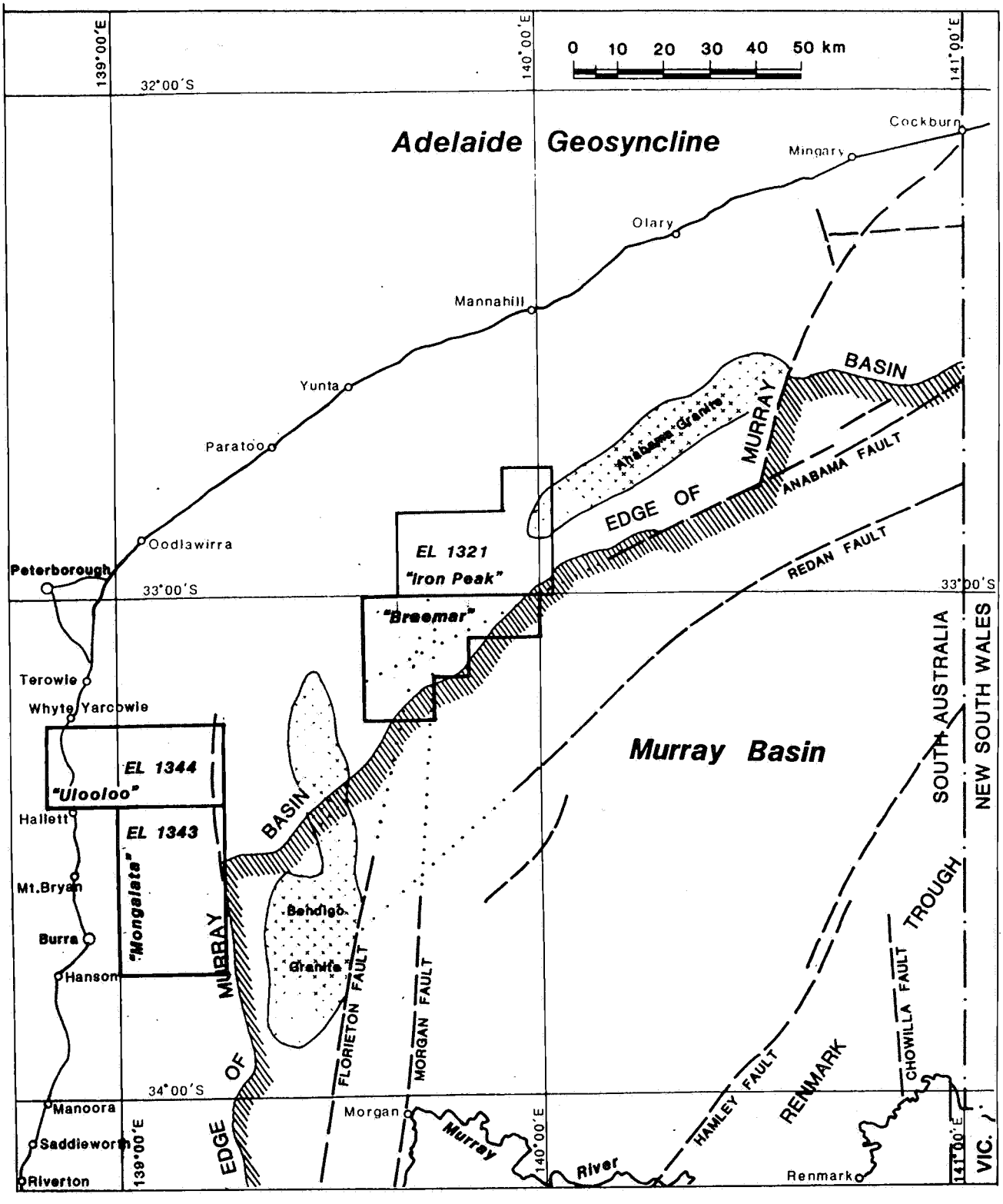
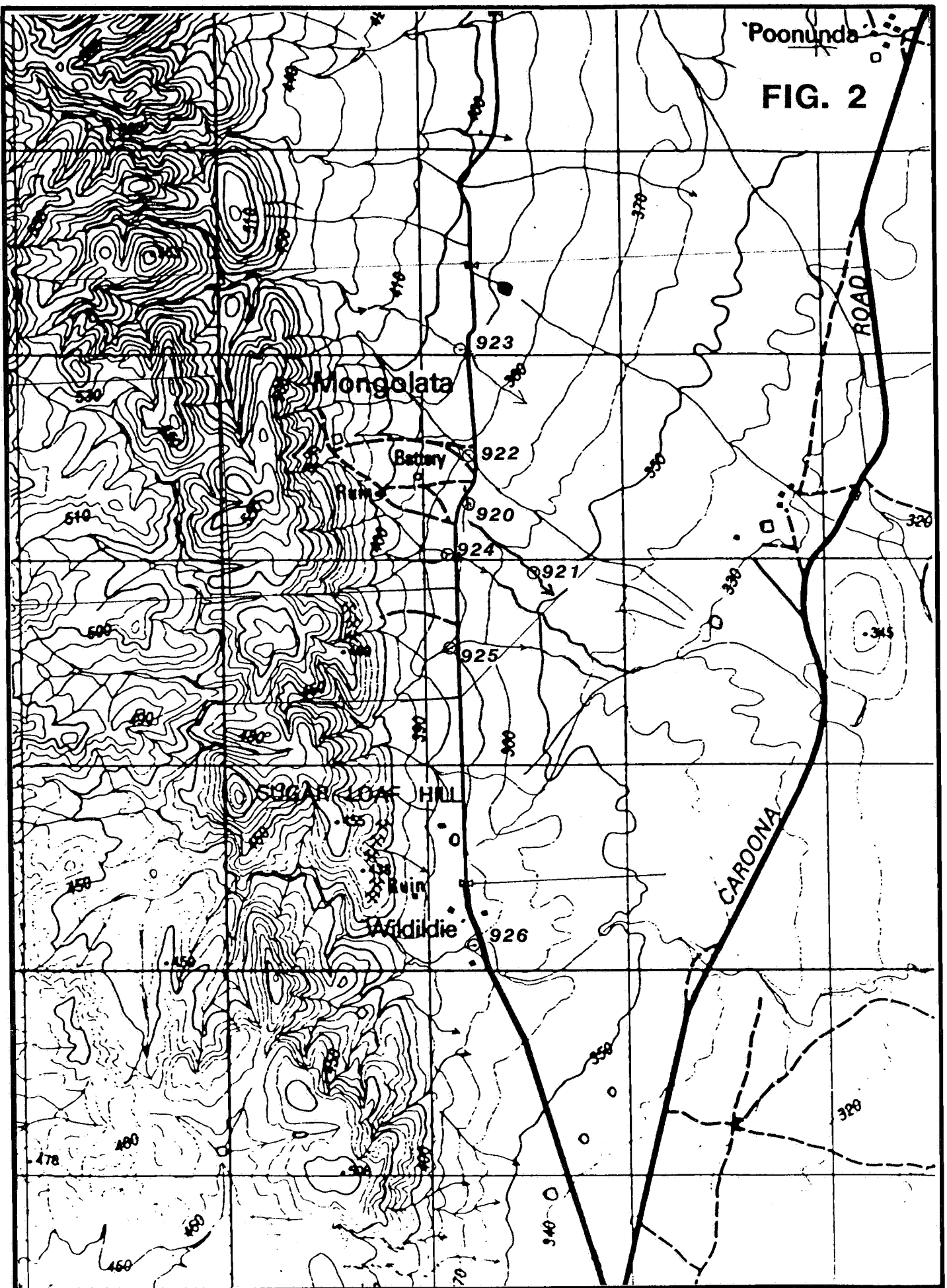
FIG. 1



NORTH	NEWMONT HOLDINGS PTY. LTD.		E.L.1343 "MONGOLATA" Tectonic Setting
	COMPILED DGJ	SCALE Shown	
	DRAWN DGJ	DRAWING No.	
	DATE NOV 1986	FIGURE No.	



NORTH	NEWMONT HOLDINGS PTY. LTD.	
	COMPILED DGJ	SCALE 1:25,000
	DRAWN DGJ	DRAWING No.
	DATE NOV 1986	FIGURE No.

E.L.1343 "MONGOLATA"
Orientation BLEG Sampling

NEWMONT HOLDINGS PTY. LTD.
(INCORPORATED IN VICTORIA)
18TH FLOOR, A.M.P. TOWER
535 BOURKE STREET
MELBOURNE, VICTORIA, 3000

S032/2

MONGOLATA EL 1343,

BURRA 1:250,000 SHEET,

SOUTH AUSTRALIA:

SECOND QUARTERLY REPORT TO 29 JANUARY 1987

D.G. Jones

February 1987

Distribution:

S.A. Dept. of Mines and Energy (1)
Brisbane (1)
Melbourne (1)

EXPLORATION

BLEG Sampling

A total of 150 BLEG samples were collected during the quarter. Emphasis was directed to the western half of the licence, where drainage was well established and the rock units more prospective. Sample density in the western zone was an average of about one sample per 2 sq km. Over the eastern sandy plain, where drainage is poor and the target Farina Subgroup apparently absent, only 40 reconnaissance BLEG samples were collected.

Results

Analytical results are tabulated in Appendix 1 and plotted on Fig. 1 in the map pocket. The drainage from the old Mongolata goldfield is consistently anomalous, with peak values clustered around the Byles workings. However, these values fall away rapidly to less than 0.3 ppb only 3 km downstream. This may indicate that the source of the anomaly is of insufficient size to resist swamping as barren sediment is contributed to the stream load.

Spot anomalies which require followup include a value of 2.25 ppb upstream from "Lesdale" homestead in the northwest corner of EL1343; 2.40 ppb just north of White Hill Road; 1.93 ppb located 6 km due east of "Shamrock" homestead and 1.26 ppb a further 2.5 km south; 1.35 ppb located 6 km due south of Red Banks; and 1.24 ppb located 1.5 km due north of "Thistlebeds" homestead.

Check Analyses

The Mongolata goldfield was used as a case study to check the analytical techniques of competing laboratories as a wide range of assay values was obtained from the seven sample sites (920-926) utilized during preliminary reconnaissance. These sites were re-sampled during the November program. At each site, a 10 kg sample was collected during November and split carefully into two weighed 5 kg portions. One portion was despatched to Perth to the same laboratory as the original reconnaissance samples; the other deliver to an Adelaide laboratory. Results are displayed in Table 1 and Fig. 2, and show a reasonable comparison for the Griffin laboratory in Perth, but very poor correlation between Griffin and the Adelaide laboratory.

Discussion

The Cox Sandstone Member at the base of the Tarcowie Siltstone appears to be the host of the gold mineralization at Mongolata. Drainage from the Cox Sandstone is anomalous through the whole of the known extent of the Mongolata Goldfield, from "Wildildie" homestead in the south through a distance of 10 km to 2 km north of White Hill Road. However, outside this zone the Cox Sandstone, if present, is not anomalous. The spot BLEG anomalies are generally associated with drainage from the Appila Tillite, and at this stage do not appear to be particularly significant.

Future Program

1. Check and infill sampling around spot anomalies.

2. Mapping and sampling the Cox Sandstone Member north of Wildildie.

TABLE 1

COMPARATIVE BLEG ANALYSES, MOONGOLATA

Site No.	Sample No.	Date	Laboratory	Au (ppb)	Ag (ppb)	Cu (ppm)
	920	Feb 86	Griffin	2.36	4.25	0.16
A	731	Nov 86	Griffin	4.50	3.00	0.18
	731	Nov 86	Comlabs	0.3	1	26
	922	Feb 86	Griffin	3.54	3.00	0.07
B	732	Nov 86	Griffin	9.43	3.50	0.16
	732	Nov 86	Comlabs	0.3	1	20
	923	Feb 86	Griffin	0.45	5.75	0.07
C	733	Nov 86	Griffin	0.62	9.75	0.20
	733	Nov 86	Comlabs	1.8	1	22
	924	Feb 86	Griffin	11.2	5.50	0.14
D	747	Nov 86	Griffin	10.7	3.75	0.24
	747	Nov 86	Comlabs	1.7	1	16
	925	Feb 86	Griffin	4.61	4.00	0.08
E	748	Nov 86	Griffin	4.73	5.75	0.18
	748	Nov 86	Comlabs	0.4	1	20
	926	Feb 86	Griffin	0.21	18.8	0.24
F	749	Nov 86	Griffin	1.56	4.00	0.14
	749	Nov 86	Comlabs	0.1	1	22
G	734	Nov 86	Griffin	1.07	3.50	0.10
	734	Nov 86	Comlabs	0.2	1	22
H	735	Nov 86	Griffin	0.24	5.75	0.12
	735	Nov 86	Comlabs	0.1	1	20

DGJ:MJM
27/1/87

EXPENDITURE

	3 months to 24 Jan 87	Total to 24 Jan 87
	$	$
Labour and Overheads	4,156	10,997
Assaying	1,941	2,424
Consultants (petrology)	360	402
Office Rental	569	569
Supplies - General	0	242
Supplies - Sample Preparation	30	30
Field Living	378	488
Vehicle Operating	388	534
Travel and Accommodation	486	1,610
Freight	225	307
Rentals - S.A. Government	0	1,493
Application Fee	0	96
Plans and Drawings	842	1,207
Photocopying	56	148
Stationery	50	50
Power	23	23
Telephone	108	108
Telex and Telegrams	0	18
Postage and Air Express	0	91
General	49	150
	$9,731	$20,987

amdel

Classic Laboratories Pty. Ltd.

The Australian Mineral Development Laboratories

A Wholly-Owned Subsidiary of Amdel

34 BUCKINGHAM DRIVE, WANGARA ESTATE, WANNEROO,
WESTERN AUSTRALIA 6065

Phone: (09) 409 8898 Fax: (09) 409 6317 Telex: Clasab 95452

00018

APPENDIX 1

23/1/87

20th January 1987

Newmont Holdings Pty. Ltd.
18th Floor
535 Bourke Street
MELBOURNE Vic. 3000

Attn: Mr. D.G. Jones

Report - 20310

YOUR REFERENCE:	Order No. 1214
IDENTIFICATION:	As listed
MATERIAL:	Zinc precipitates
WORK REQUIRED:	Au Ag Cu
DATE RECEIVED:	15th January 1987

Chief Chemist, Perth Laboratory: H.R. Firns

General Manager - W.A. Division: K.J. Renton

cc: Perth Met. Labs.

Analysis code ZINCON Report AC 20310/87 Page G1

Order No. 1214

Sample	Au	Cu	Ag
51731	4.50	0.18	3.00
51732	9.43	0.16	3.50
51733	0.62	0.20	9.75
51734	1.07	0.10	3.50
51735	0.24	0.12	5.75
51736	0.54	0.24	6.50
51737	1.37	0.70	19.8
51738	0.98	0.24	5.50
51739	1.61	0.72	37.5
51740	0.56	0.18	6.00
51741	0.53	0.42	9.75
51742	0.53	0.32	11.3
51743	0.41	0.58	25.3
51744	0.26	0.16	5.25
51745	0.17	0.42	43.3
51746	0.15	0.18	3.25
51747	10.7	0.24	3.75
51748	4.73	0.18	5.75
51749	1.56	0.14	4.00
51750	0.45	0.32	6.00
51751	0.92	0.76	14.8
51752	0.24	0.22	3.75
51753	0.19	0.18	4.25
51754	0.13	0.16	3.00
51755	0.41	0.24	5.75
51756	0.06	0.09	2.25
51757	0.11	0.08	2.75
51758	0.19	0.12	3.75
51759	0.13	0.12	3.50
51760	0.24	0.14	8.50
51761	0.24	0.12	5.75
51762	0.47	0.28	27.0
51763	0.30	0.22	7.50
51764	0.09	0.14	5.25
51765	0.17	0.14	4.25
51766	0.08	0.14	5.00
51767	0.11	0.18	5.75
51768	0.21	0.18	16.8
Detn limit	(0.01)	(0.01)	(0.01)
Units	ppb	ppm	ppb

Analysis code ZINCON Report AC 20310/87 Page G2

Order No. 1214

Sample	Au	Cu	Ag
51769	0.30	0.48	31.3
51770	0.30	0.38	49.7
51771	0.17	0.18	10.5
51772	0.09	0.12	1.75
51773	0.17	0.10	3.75
51774	0.08	0.07	2.25
51775	0.36	0.32	34.8
51776	0.36	0.34	12.8
51777	0.19	0.42	33.8
51778	0.62	0.24	10.3
51779	0.43	0.18	13.0
51780	0.34	0.24	14.0
51781	0.28	0.30	13.0
51782	0.26	0.26	8.25
51783	0.11	0.20	10.5
51784	0.32	0.30	17.5
51785	0.43	0.24	11.8
51786	0.19	0.42	55.8
51787	0.39	0.48	28.3
51788	0.15	0.22	9.25
51789	0.30	0.28	19.0
51790	0.09	0.14	12.0
51791	0.23	0.52	34.8
51792	0.36	0.38	36.0
51793	0.08	0.08	28.5
51794	0.17	0.14	7.75
51795	0.08	0.09	5.25
51796	0.23	0.30	58.0
51797	0.15	0.28	15.0
51798	0.24	0.10	4.00
51799	0.13	0.14	10.0
51800	2.40	0.16	3.75
51801	0.92	0.14	3.50
51802	0.41	0.12	3.50
51803	0.23	0.12	2.50
51804	0.24	0.12	2.25
51805	0.19	0.22	6.00
51806	0.09	0.07	1.00
51807	0.26	0.22	8.00
51808	0.17	0.18	4.75
Detn limit	(0.01)	(0.01)	(0.01)
Units	ppb	ppm	ppb

Analysis code ZINCON Report AC 20310/87 Page G3

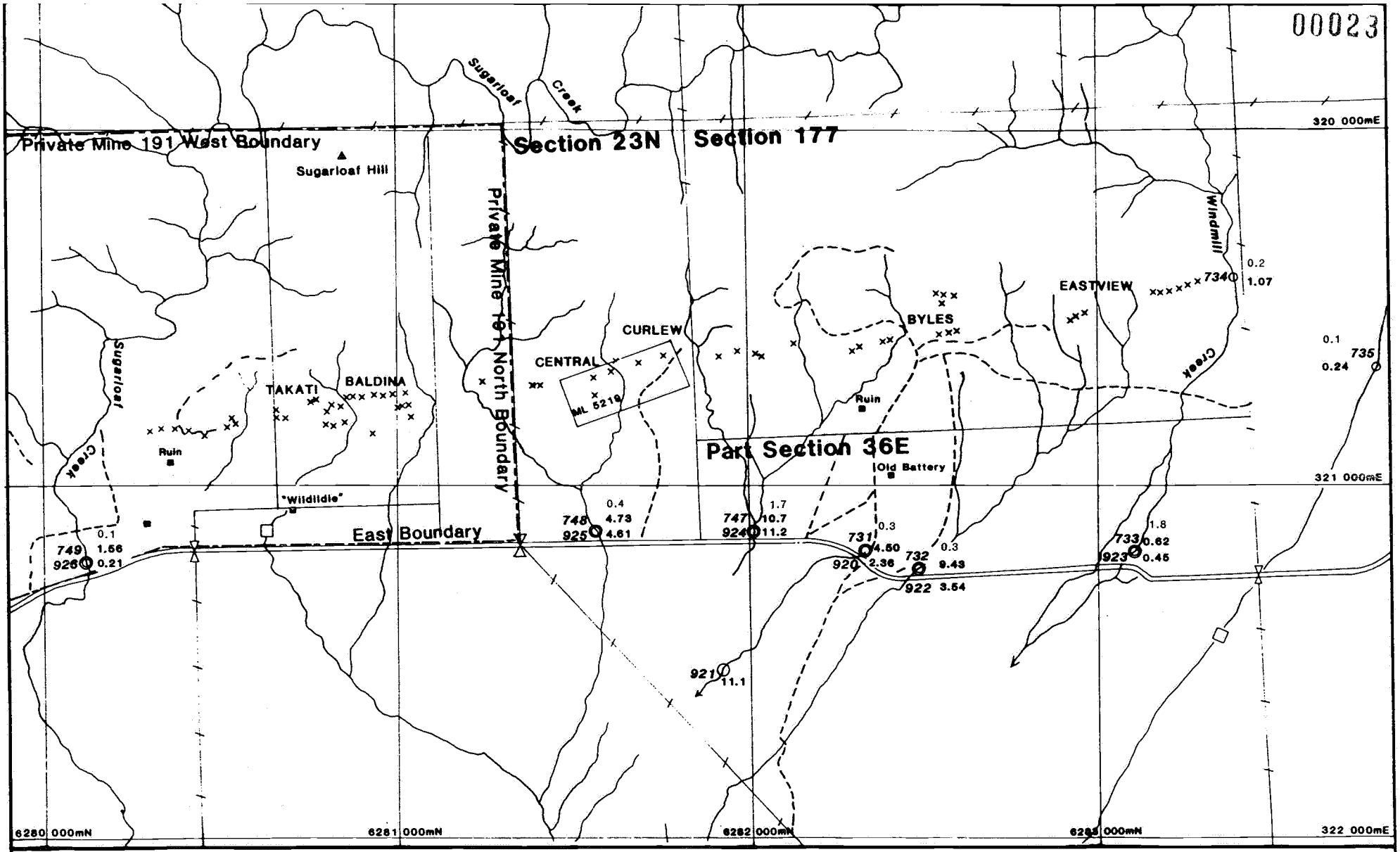
Order No. 1214

Sample	Au	Cu	Ag
51809	0.71	0.64	12.0
51810	0.53	0.24	4.50
51811	0.68	0.22	10.5
51812	0.62	1.25	59.0
51813	0.09	0.16	3.75
51814	0.73	0.60	11.3
51815	1.31	0.72	14.0
51816	0.51	0.18	3.50
51817	0.54	0.70	21.5
51818	0.96	0.24	9.25
51819	0.39	0.18	1.75
51820	1.93	0.34	6.25
51821	0.53	0.54	18.5
51822	0.08	0.16	3.75
51823	0.90	0.50	21.8
51824	0.98	0.32	16.3
51825	0.60	0.62	37.8
51826	0.64	0.36	6.50
51827	0.21	0.09	1.75
51828	0.41	0.16	4.75
51829	0.23	0.08	1.75
51830	0.17	0.09	1.50
51831	0.83	0.50	22.3
51832	0.26	0.14	3.50
51833	0.64	1.10	49.3
51834	0.23	0.28	8.25
51835	0.34	0.68	17.8
51836	0.38	0.18	6.50
51837	0.13	0.32	16.3
51838	0.56	0.70	20.8
51839	1.26	0.52	17.8
51840	0.43	0.42	28.0
51841	0.62	0.58	26.5
51842	0.30	0.24	7.75
51843	0.64	0.26	28.0
51844	0.30	0.14	4.00
51845	0.69	0.54	23.3
51846	0.21	0.14	2.75
51847	0.41	0.22	7.25
51848	1.24	0.72	45.8
Detn limit	(0.01)	(0.01)	(0.01)
Units	ppb	ppm	ppb

Analysis code ZINCON Report AC 20310/87 Page G4

Order No. 1214

Sample	Au	Cu	Ag
51849	0.64	0.56	33.0
51850	0.41	0.44	25.3
51851	0.60	0.34	18.3
51852	0.54	0.22	5.50
51853	0.28	0.22	5.75
51854	0.26	0.22	7.00
51855	0.30	0.28	3.75
51856	0.49	0.18	2.00
51857	0.81	0.18	7.50
51858	0.64	0.50	13.8
51859	0.51	0.22	4.25
51860	1.03	0.60	24.3
51861	0.32	0.18	3.75
51862	0.34	0.18	4.25
51863	0.64	0.24	8.25
51864	0.34	0.54	15.8
51865	0.41	0.18	3.75
51866	0.23	0.12	1.75
51867	0.13	0.09	2.25
51868	1.35	1.05	33.8
51869	0.21	0.16	2.00
54410	0.54	0.26	5.25
54411	0.39	0.26	10.5
54412	0.38	0.42	17.0
54413	2.25	0.16	6.25
54414	0.28	0.40	18.0
54415	0.28	0.18	6.50
54416	0.24	0.56	12.8
54417	0.15	0.14	6.00
54418	0.15	0.14	9.75
54419	0.06	0.18	9.25
54420	0.11	0.10	4.75
54421	0.23	0.06	5.25
54453	0.34	0.32	27.5
Detn limit	(0.01)	(0.01)	(0.01)
Units	ppb	ppm	ppb



Gravelled Road
Track
Fence
Gate
Watercourse
Section Boundary
321 000mE AMG Grid
BYLES Mine Workings
Building
Dam

1.7 ppb Au (Comlabs)
747 10.7 ppb Au (Griffin)
924 11.2 ppb Au (Griffin)

SCALE
0 500 1000 m

FIG. 2

NEWMONT PROPRIETARY LIMITED

COMPILED	DGJ	SCALE	1:10,000
DRAWN	DGJ	DRAWING No.	
NORTH	DATE DEC 1986	FIGURE No	

E.L.1343 "MONGOLATA"
MONGOLATA MINING FIELD
BLEG SAMPLING
GOLD

A3

MONGOLATA
SOUTH AUSTRALIA

SCALE 1:50000

CONTOUR INTERVAL 10 METRES

NEWMONT HOLDINGS PTY.LTD.

PROJECT E.L.1343 MONGOLATA

TITLE **BLEG SAMPLING**
GOLD

6754-1

COMPILED DGJ SCALE 1:50,000

DRAWN DGJ DATE Feb 1987

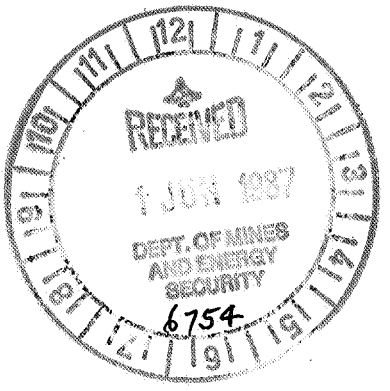
FIG. 1

LEGEND

▬	Gravelled Road
- - - - - - -	Track
⋈	Gate
∼	Watercourse
▪	Building
· 445	Spot Height
315000mE	AMG Coordinate
○ 732 9.43	BLEG Sample Au in parts per billion

The relationship between True North, Grid North and Magnetic North is shown diagrammatically for the centre of this map. Magnetic Value is correct for 1975. Annual Change is 01' Easterly

MONGOLATA EL 1343
BURRA 1:250,000 SHEET
SOUTH AUSTRALIA
THIRD QUARTERLY REPORT
TO 29 APRIL, 1987.



MONGOLATA EL 1343

BURRA 1:250,000 SHEET

SOUTH AUSTRALIA

THIRD QUARTERLY REPORT

TO 29 APRIL, 1987.

D.Z. Royle
May, 1987.

Distribution

S.A. Dept. of Mines & Energy (1)
Brisbane (1)
Melbourne (1)

EXPLORATION

Office Studies

A re-evaluation of existing technical data during the reporting period suggested there is little potential for a large gold target within EL 1343. Newmont, however has received an offer of joint venture from another party and negotiations are underway.

Possible Future Program

1. Follow-up spot BLEG stream sediment anomalies.

2. Aeromagnetic survey of the licence in an attempt to define favourable mineralized structures.

3. Detailed mapping of the Cox Sandstone Member.

4. Reconnaissance RAB drilling of favourable stratigraphy/structure.

EXPENDITURE STATEMENT

Mongolata EL 1343

	3 months to 24 April 87	Total to 24 April 87
Labour & Overheads	2,306	13,303
Assaying	419	4,649
Consultants (petrology)		402
Office Rental		569
Supplies - General	78	242
Supplies - Sample Preparation		30
Field Living		488
Vehicle Operating		534
Travel & Accommodation		1,610
Freight		307
Rentals - S.A. Government		1,493
Application Fee		96
Plans & Drawings		1,207
Photocopying		148
Stationery		50
Power		23
Telephone		108
Telex & Telegrams		18
Postage & Air Express		91
General		150
	2,384	25,518

MONGOLATA EL 1343

BURRA 1:250,000 SHEET

SOUTH AUSTRALIA

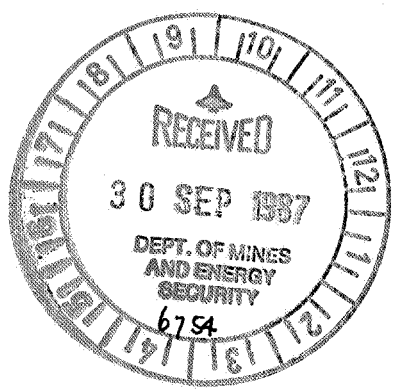
FOURTH QUARTERLY REPORT

TO 29 JULY, 1987.

D.Z. Royle
September, 1987.

Distribution

S.A. Dept. of Mines & Energy
Brisbane (1)
Melbourne (1)



INTRODUCTION

GENERAL

On 4th March 1986, Newmont made application for an Exploration Licence (EL) covering an area known as Mongolata centred about 20 km northeast of Burra. The licence, EL 1343, was issued on 29 July 1986 for a period of one year. It covers an area of 857 sq km over gently folded Upper Proterozoic sediments of the Heysen Supergroup. The principal objective is to search for stratabound gold deposits, although it is recognized that the district also holds potential for base metal deposits.

LOCATION AND ACCESS

The western part of the licence covers freehold land belonging to Baldina and East Bungaree pastoral companies. The eastern half of the licence is occupied by pastoral leasehold, including all of Poonunda and part of Murong Stations.

Eastern Road and Caroona Road are well-maintained gravelled roads connecting to Burra, while White Road provides good access into the northern part of the licence from Mt. Bryan. Numerous station tracks and cleared fence lines provide four-wheel-drive access to even the most rugged parts of the region.

GEOLOGY

REGIONAL GEOLOGY

Mongolata lies within the Adelaide Geosyncline, on the central western margin of the Tertiary Murray Basin (Fig. 1). Relatively unaltered sediments of the Farina Subgroup of the Precambrian Umberatana Group have been folded along north-south axes. A gently north-plunging syncline dominates the structural regime in the Mongolata licence area. A strike-slip fault marks the axial plane of a tight anticline immediately east of the Mongolata syncline.

STRATIGRAPHY

Appila Tillite

The oldest rock unit recognised in the area is a massive boulder tillite, containing reddish quartzite boulders, which forms a subdued range of low hills east of Poonunda homestead. The Black Hill silver-lead diggings occur within this formation.

Farina Subgroup

Conformably overlying the Appila Tillite and associated green siltstones is a distinctive thin black shale marker, the Tindelpina Shale. This lies at the base of the Tapley Hill Formation, a series of well-laminated siltstones which become progressively more sandy towards the top. The sandy siltstones grade into the Lower Tarcowie Siltstone, a well-bedded feldspathic sandstone which is silicified in places. The upper Tarcowie Siltstone contains calcareous interbeds. A greenish siltstone with fine sandy and limey interbeds overlies the Tarcowie Siltstone, and is equated with the Enorama Shale.

Yerelina Subgroup

The Enorama Shale passes upwards into a thick sequence of pebbly tillite containing carbonate clasts, interbedded with siltstone. This unit, the Pepuarta Tillite, marks the base of the Yerelina Subgroup. Towards the top, a distinctive pebbly feldspathic quartzite forms the Grampas Quartzite unit.

Wilpena Group

The centre of the Mongolata syncline is occupied by the Ulupa Siltstone, a dark green flaggy siltstone with fine sandy interbeds.

STRUCTURE

The rocks have been affected by one major phase of regional deformation. Open folds along north-south axes have a single associated axial plane slaty cleavage developed best in shale units.

EXPLORATION

Joint Venture Negotiations

Negotiations on a Joint Venture Agreement with Conquest Mines N.L. has been proceeding and will now encompass the adjoining EL 1344 (Ulooloo). On execution of the Agreement a formal program will include:-

1. Follow-up spot BLEG stream sediment anomalies.

2. Aeromagnetic survey of the licence in an attempt to define favourable mineralized structures.

3. Detailed mapping of the Cox Sandstone Member.

4. Reconnaissance RAB drilling of favourable stratigraphy/structure.

EXPENDITURE STATEMENT

Mongolata EL 1343

	3 Months to 29 July, 87	Project to 24 April, 87
Labour & Overheads	362	13,665
Assaying		4,649
Consultants (petrology)		402
Office Rental		569
Supplies - General		242
Supplies - Sample Preparation		30
Field Living		488
Vehicle Operating		534
Travel & Accommodation	420	2,030
Freight		307
Rentals - S.A. Government		1,493
Application Fee		96
Plans & Drawings		1,207
Photocopying		148
Stationery		50
Power		23
Telephone		108
Telex & Telegrams		18
Postage & Air Express		91
General		150
	$782	$26,300

MONGOLATA EL 1343

BURRA 1:250,000 SHEET

SOUTH AUSTRALIA

QUARTERLY REPORT TO 29TH NOVEMBER, 1987.

D.Z. Royle
December, 1987.

Distribution

S.A. Dept. of Mines & Energy (1) ✓
Brisbane (1)
Melbourne (1)

Introduction

The term for Mongolata EL 1343 has been successfully extended for a further year and will now expire on 28th July, 1988.

Exploration

Joint Venture Negotiations

Work has been delayed due to protracted Joint Venture negotiations with the Agreement due for execution in December, 1987.

Expenditure

Expenditure incurred on Mongolata EL 1343 for the period 1 August, 1987 to 29 November, 1987 was as follows:-

	A$
Salaries & Overheads	663
Property Payments	3,160
PROJECT TOTAL	3,823

CONQUEST MINES NL

EXPLORATION LICENCE NUMBER 1343 - MONGOLATA

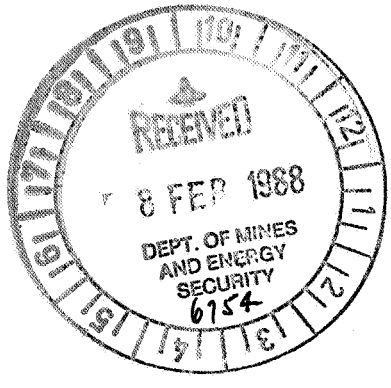
SOUTH AUSTRALIA

QUARTERLY REPORT TO 29TH JANUARY, 1988

C.H.H. Conor,
Senior Geologist,
29th January, 1988.

Distribution

S.A. Dept. Mines and Energy (1)
Conquest Mines NL., Perth (2)
Conquest Mines NL., Adelaide (1)
Newmont Australia Ltd., Melbourne (1)
Newmont Australia Ltd., Brisbane (1)



1. INTRODUCTION

This report concerns Exploration Licence 1343 and relates to activities during the period October 1987 to January 1988. Of significance during this period, following negotiations with Newmont Australia, management of the EL was taken over by Conquest Mines NL. Preliminary exploration activity was commenced by Conquest.

Expenditure for the period is listed in the appendix.

2. WORK EFFECTED

1:40 000 scale SA Lands Department aerial photography was purchased to cover the total EL area. Photo-interpretation has commenced with the objective of producing a geological map to act as a framework for more detailed appraisal.

The Thematic Mapper data tape has been ordered for the scene including EL 1343 and information from this will be used initially in conjunction with the photo-interpretative work mentioned above.

Aquisition of digital aeromagnetic data has been investigated but it has not as yet been released by the BMR. An aeromagnetic data tape and plans have been obtained from WMC.

Following discussion with SADME (Mr. C.M. Horn) the possibility of carrying-out a program involving shallow seismic, in conjunction with SADME, is being considered. The technique is expected to help delineate basement configuration below the alluvial sediments east of the main Mongolata lodes.

3. FUTURE PROGRAM

a) completion of the photo-geology map and some ground truthing. Mapping and sampling of the Cox Sandstone and Appila Tillite.

b) follow-up sampling in the vicinities of previously located BLEG anomalies (Jones, D.G. 1987). Some of these appear related to the Appila Tillite and therefore Mt. Grainger style mineralisation will be investigated.

c) some familiarisation mapping and sampling of the Mongolata gold workings.

d) possible shallow seismic traverses east from Mongolata goldfield.

REFERENCE

Jones, D.G. 1987. Mongolata EL 1343, Burra 1:250 000 Sheet, South Australia. Second Quarterly Report to 29 January, 1987.

APPENDIX

EXPENDITURE. NB. FOR BOTH ULOOLOO AND MONGOLATA ELS

NEWMONT EXPENDITURE OCTOBER 1987 TO DECEMBER 1987

	$
Labour & Overheads	1,992.00
Consultants	692.00
Supplies	(762.00)
Administrative Costs	187.00
EXPENDITURE	2,109.00

Needs clarification

SPLIT 50/50 between EL1343 & EL1344

CONQUEST MINES EXPENDITURE

Labour	10,125.00
Personnel support	1,199.00
Materials	1,612.00
Vehicle	23.00
EXPENDITURE	12,959.00
TOTAL EXPENDITURE	15,068.00

CONQUEST MINES NL

EXPLORATION LICENCE NUMBER 1343 - MONGOLATA

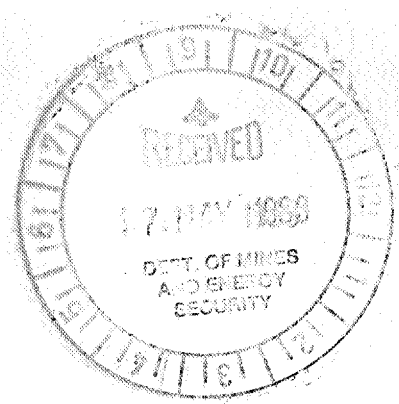
SOUTH AUSTRALIA

QUARTERLY REPORT FROM 30TH JANUARY TO 29TH APRIL, 1988

C.H.H. Conor,
Geological Consultant,
9th April, 1988.

Distribution

S.A. Dept. Mines and Energy (1)
Conquest Mines NL., Perth (2)
Conquest Mines NL., Adelaide (1)
Newmont Australia Ltd., Melbourne (1)
Newmont Australia Ltd., Brisbane (1)



1. INTRODUCTION

This report concerns Exploration Licence 1343 and relates to activities during the period January 1988 to April 1988. During the period office based studies were effected which encompassed the Mongolata area, field investigations were limited to the Mt. Grainger goldfield and to the adjacent Ulooloo area (EL 1344) to the north.

2. WORK EFFECTED

Initial photo-interpretation at 1:40 000 scale resulted in a regional base map which subdivides the area into four separate lithological categories, also it shows structural detail that is obvious from the air. The map will be used as a base to which to tie local detailed mapping and sampling.

The Thematic Mapper data tapes have been purchased and preliminary processing carried out to give a number of images, these will form the basis of regional interpretative work during the next period.

3. FUTURE PROGRAM

A low level, geochemical, gold anomaly is situated 6km east from the Mongolata goldfield (see Fig. 1, Jones, D.G.,1986). This anomaly is called the Dawsons Dam gold anomaly, and extends 6km north to south. Anomalous values, at least in the northern part of the zone, appear to relate to the Black Hill and Gordon and Fuss claims. The drainage containing the anomalous gold is currently separated, by a belt of low values, from that draining the Mongolata goldfield, .

A program of sampling and mapping is planned for the Dawsons Dam area and will be carried during the May-July quarter.

Also during the next quarter, the Landsat TM data will be used as a continuation of the regional study.

As a result of the poor drilling results recently obtained by Conquest Mines in the Mount Grainger area, the prospectivity of the basal tillite lithologies is under question. Therefore regional sampling of the various arkosic units now has low priority.

REFERENCE

Jones, D.G. 1987. Mongolata EL 1343, Burra 1:250 000 Sheet, South Australia. First Quarterly Report to 29 October, 1986.

EXPENDITURE.

CATEGORY	EXPENDITURE ($)
Personnel & Support	416
Technical Services (including geological)	6,557
Contractors	396
Motor vehicle	79
Tenement costs	4,070
Field cost	359
TOTAL	11,877

13/5/88

CONQUEST MINES NL

EXPLORATION LICENCE NUMBER 1343 - MONGOLATA

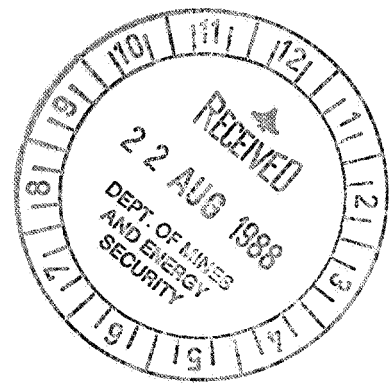
SOUTH AUSTRALIA

QUARTERLY REPORT 30TH APRIL TO 29TH JULY, 1988

C.H.H. Conor,
Geological Consultant,
18th August, 1988.

Distribution

S.A. Dept. Mines and Energy (1)
Conquest Mines NL., Perth (2)
Conquest Mines NL., Adelaide (1)
Newmont Australia Ltd., Melbourne (1)
Newmont Australia Ltd., Brisbane (1)



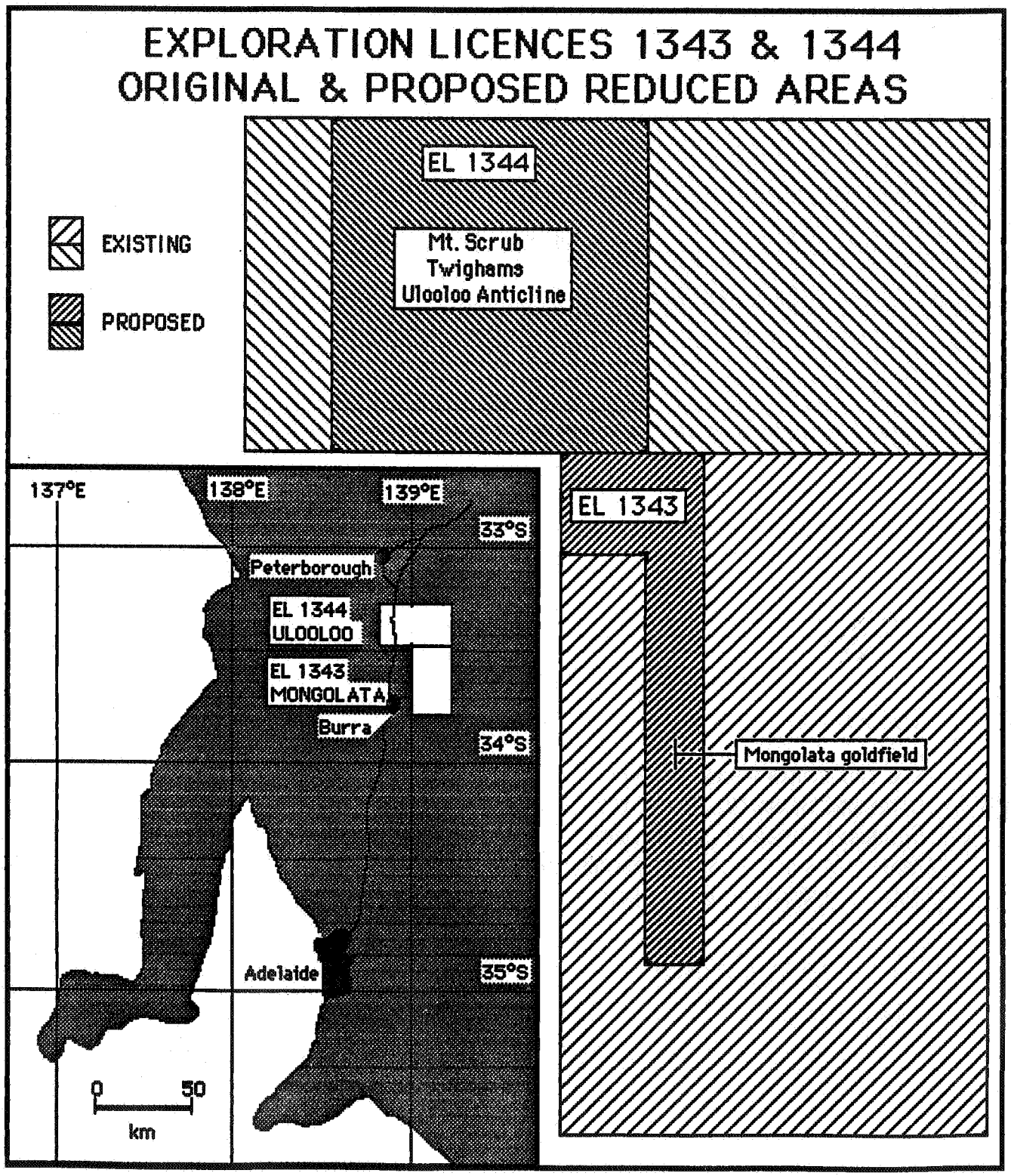
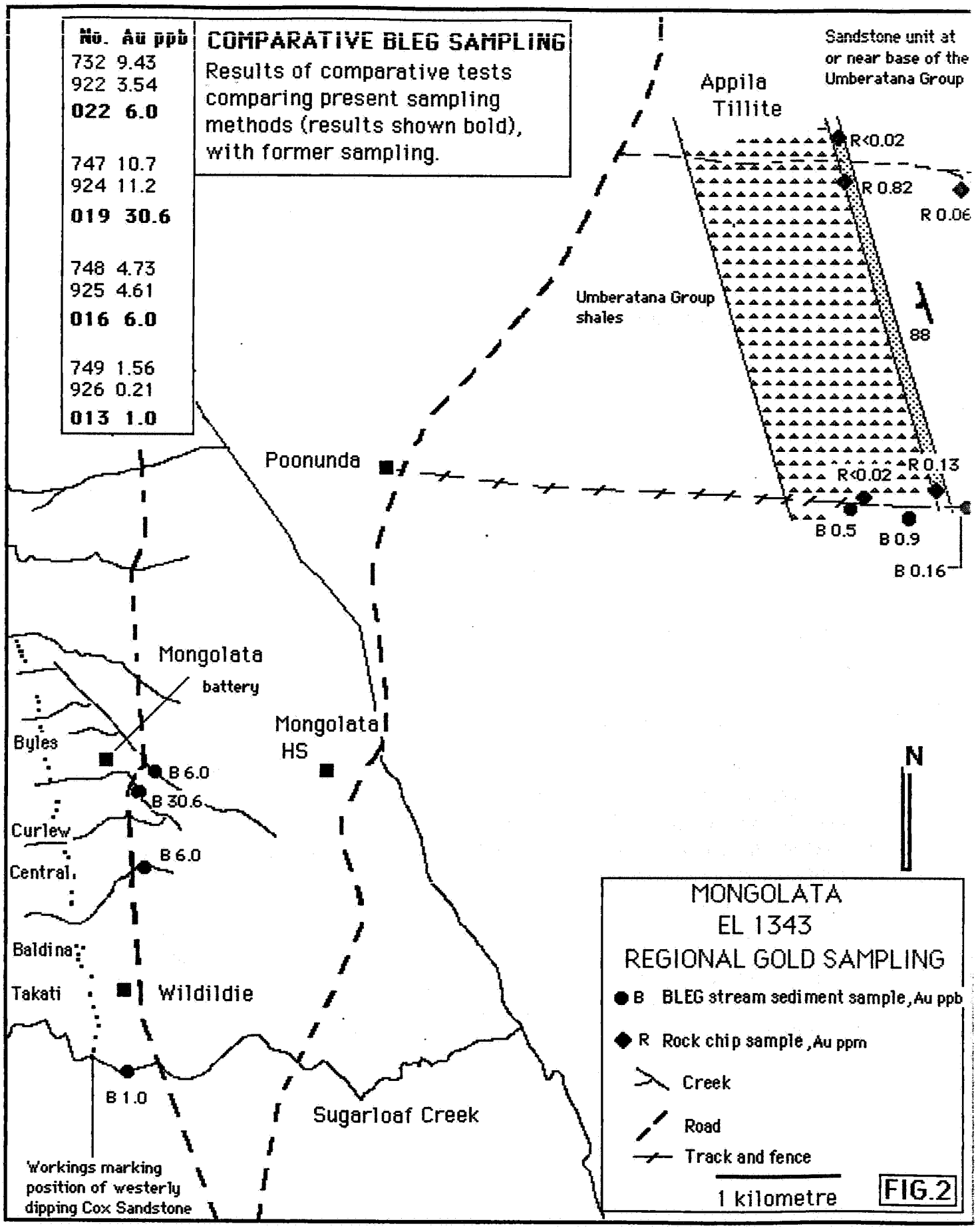

EXPLORATION LICENCES 1343 & 1344
ORIGINAL & PROPOSED REDUCED AREAS
EXISTING
PROPOSED
EL 1344
Mt. Scrub
Twighams
Ulooloo Anticline
EL 1343
137°E
138°E
139°E
33°S
34°S
35°S
Peterborough
EL 1344
ULOOLOO
EL 1343
MONGOLATA
Burra
Mongolata goldfield
Adelaide
0
50
km

FIG.1


No. Au ppb
732 9.43
922 3.54
022 6.0
747 10.7
924 11.2
019 30.6
748 4.73
925 4.61
016 6.0
749 1.56
926 0.21
013 1.0
COMPARATIVE BLEG SAMPLING
Results of comparative tests comparing present sampling methods (results shown bold), with former sampling.
Sandstone unit at or near base of the Umberatana Group
Appila Tillite
R<0.02
R 0.82
R 0.06
Umberatana Group shales
88
Poonunda
R 0.13
R<0.02
B 0.5
B 0.9
B 0.16
Mongolata battery
Mongolata HS
Byles
B 6.0
B 30.6
Curlew
Central
B 6.0
Baldina
Takati
Wildildie
B 1.0
Sugarloaf Creek
Workings marking position of westerly dipping Cox Sandstone
N
MONGOLATA
EL 1343
REGIONAL GOLD SAMPLING
B BLEG stream sediment sample, Au ppb
R Rock chip sample, Au ppm
Creek
Road
Track and fence
1 kilometre
FIG.2

1. INTRODUCTION

This report concerns Exploration Licence 1343 (Mongolata) and relates to activities during the period April to July1988. Regional studies and some detailed field work over a specific area were carried out. Most activity was concentrated upon the adjoining licence area to the north, ie. EL 1344.

29th July represents the termination of the annual period of tenure. Application was made for extension, although over a reduced area (Fig.1).

Expenditure for the period is listed.

2. WORK EFFECTED

REGIONAL STUDIES

Processing of Thematic Mapper data tapes was continued, further images were produced, with the Mongolata Goldfield region being the focus of attention.

LOCAL PROSPECT SIZE STUDIES

Mongolata Goldfield Anomaly

Work was limited to repeating BLEG sampling from creeks draining the area of the Goldfield. The objective of the sampling is to provide a correlation factor between former and current sampling techniques. Results that are available are shown in Figure 2, others are awaited and will be reported at the end of the next quarter. The conclusion to date is that present sampling techniques compare favourably with the previous method.

Contact has been maintained with Mineral Resources Division, SADME, with regard to sampling that the Division has been carrying-out on the Goldfield. Results of this work will be assessed during the next quarter to determine whether follow-up work is justified.

Dawson's Dam Gold Anomaly

A low level stream sediment anomaly was investigated situated east from the Mongolata Goldfield in drainage that is presently separate from that of the Goldfield.

The ridge of ground separating the Dawson's Dam drainage from that at Mongolata is predominantly underlain by the Sturtian Appila Tillite which dips steeply west-southwesterly. There are a number of shallow workings developed within a quartz-veined, ?pyritiferous sandstone unit at or near the base of the tillite. Some of these workings may represent the previously recorded Black Hill claims.

The sandstone unit is shown near the top left-hand corner of Figure 2. The results of three rock chip samples are shown, values are distinctly anomalous although not indicative of economic grades. It is considered probable that the sandstone unit is responsible for the low BLEG anomaly to the east.

The Dawson's Dam area has been relinquished.

3. FUTURE PROGRAM

As mentioned above immediate future work will depend to some extent upon results coming from the SADME sampling program. If those results are favourable follow-up mapping and sampling will be initiated.

During the next quarter, the regional study will be continued through the use of the Landsat TM data.

==========

4. EXPENDITURE

CATEGORY	EXPENDITURE ($)
Personnel & Support	582
Technical Services (including geological)	5,066
Motor vehicle	69
Tenement costs	26
Field cost	412
TOTAL	6,155

C.H.H. CONOR

Env. 6754

00046

CONQUEST MINES N.L.

Registered Office
43 Ventnor Avenue
West Perth W.A. 6005
P.O. Box 886 West Perth
Tel: (09) 322 7710
Fax: (09) 481 6060

Exploration Offices
Kalgoorlie
Tel: (090) 21 6277
Fax: (090)21 7799
Perth
Tel: (09) 364 4722
Fax: (09) 316 1624

26 Sturdee Street,
Linden Park,
S.A. 5065.

5th December, 1988.

The Director-General,
Dept. Mines and Energy,
P.O.Box 151, EASTWOOD,
S.A. 5053.

Attention: Mr. I. Faukes,

Dear Sir,

EL 1343 (MONGOLATA)
QUARTERLY REPORT FOR PERIOD 30TH JULY TO 29TH OCTOBER, 1988

Expenditure figures for Mongolata are contained within the quarterly report or the Ulooloo EL (1344). I duplicate them below for inclusion in your relevant envelope.

Little field work was attempted within the Mongolata EL area during the period, because the results of the current SADME sampling program are awaiting assessment.

A few additional samples were submitted for analysis by the BLEG method, the samples being collected from streams draining the Mongolata Goldfield. The objective of the BLEG program was two-fold to compare, firstly results from different laboratories, secondly results obtained from two types of sediment. The earlier high resolution BLEG sampling by Newmont Australia (1986) demanded the use of 5kg of material collected from active channels and screened to accept -5mm diameter particles. Conquest Mines NL have been using 1kg clay-rich samples, taken from ancient alluvium (?Telford Gravel equivalent) and seived to pass -16 mesh. Some of the results were reported previously (see report for period ending July 29th, 1988), however all are shown tabulated on page 2 for ease of comparison. The table shows that there is good agreement, both, for each of the lithological materials used, and for the results from each laboratory (except the earlier Comlab work, now improved).

TABLE

DETAILED TEST STREAM SEDIMENT BLEG SAMPLING, MONGOLATA GOLDFIELD
Results in ppb Au.

SITE	GRIFFIN/1	GRIFFIN/2	COMLABS/1	COMLABS/2	TETCHEM	SHEEN
	1986, -5MM, 5KG			1988, -16#, 1KG		
1	1.56	0.21	0.1	<0.5	1.0	1.0
2	4.73	4.61	0.4	3.0	6.0	5.0
3	10.70	11.20	1.7	15.0	30.6	20.0
4	4.50	2.36	0.3	5.5	5.4	6.0
5	9.43	3.54	0.3	4.0	6.0	5.0
6	0.62	0.45	1.8	<0.5	0.3	1.0

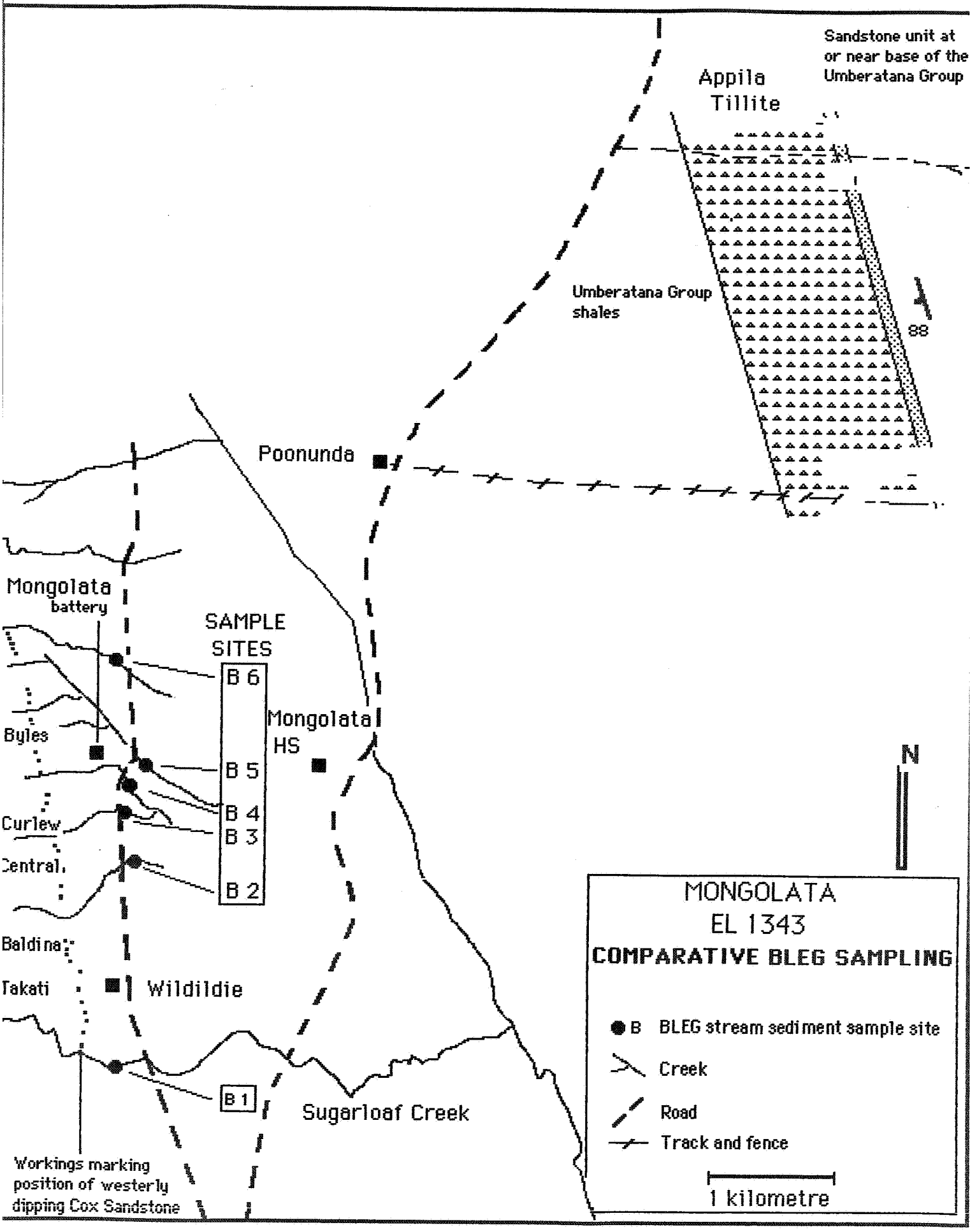
Sample sites are shown in the attached figure.

EXPENDITURE

CATEGORY	EXPENDITURE ($)
Personnel & Support	nil
Technical services (geological)	500
Analytical	83
Motor Vehicle	78
Tenement Cost	305
Field Costs	64
	1,030

Yours sincerely,
CONQUEST MINES NL.,

COLIN. H.H. CONOR,
Geological Consultant.


Sandstone unit at or near base of the Umberatana Group
Appila Tillite
Umberatana Group shales
88
Poonunda
Mongolata battery
SAMPLE SITES
B 6
B 5
B 4
B 3
B 2
B 1
Mongolata HS
Byles
Curlew
Central
Baldina
Takati
Wildildie
Sugarloaf Creek
Workings marking position of westerly dipping Cox Sandstone
N
MONGOLATA
EL 1343
COMPARATIVE BLEG SAMPLING
B BLEG stream sediment sample site
Creek
Road
Track and fence
1 kilometre

AUSTMIN GOLD NL

EXPLORATION LICENCE 1343 - MONGOLATA

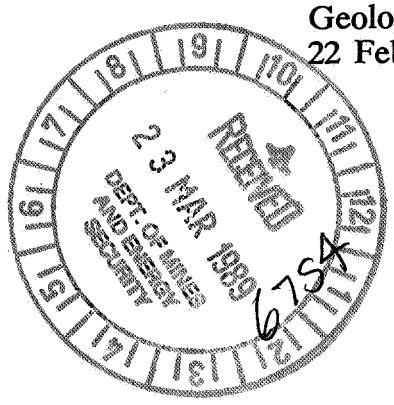
SOUTH AUSTRALIA

QUARTERLY REPORT AND RELINQUISHMENT REPORT FOR THE PERIOD 30 OCTOBER 1988 TO 29 JANUARY, 1989

Distribution

S.A. Dept of Mines and Energy (1)
Austmin Gold NL, Melbourne (1)
C.H. Conor, Adelaide (1)
Newmont Australia Limited, Melbourne (1)
Newmont Australia Limited, Brisbane (1)

C.H.H. Conor
Geological Consultant
22 February 1989



AGO30001

1. INTRODUCTION

This report concerns Exploration Licence 1343 (Mongolata) and relates to activities during the period November 1988 to January 1989. Little work was carried out during the period for two reasons:

1. Management of EL 1343 passed to Austmin Gold NL from Conquest Mines NL.

2. Recent SADME data at the Mongolata Goldfield was assessed.

Since the lease was due to terminate at the end of the period (29/1/89), a request was made, and approved, for the termination date to be advanced to 29th April, 1989.

2. WORK COMPLETED

Work was carried out in testing two low level stream sediment gold anomalies that were originally detected by Newmont Australia (Jones, 1986). One anomaly is 4km east from the Glendare property, 17km north from the Mongolata Goldfield (2.25 ppbAu); the other is south from the fork in Newikie Creek and 9km north from the goldfield (2.4 ppbAu). See attached figure (analytical results are shown in the appended table).

2.1 Glendare Stream Sediment Gold Anomaly

The Glendare anomaly is within a creek draining eastwards across the Pepuarta Tillite and Tarcowie Siltstone (see figure). The Cox Sandstone crops out along the EL boundary. The area occupies the eastern limb of a syncline, the fold axis being to the west.

Repeat sampling failed to duplicate the original result, although one tributary is weakly anomalous (1.0 ppbAu). No lithology appeared prospective; the Cox Sandstone contains only thin buck quartz+chlorite veins in a minor fractured zone within the Tarcowie Siltstone.

Based on the above sampling results, it is thus considered that the presence of a significant gold deposit within the area investigated is most improbable.

2.2 Newikie BLEG Anomaly

As with the Glendare case, the Newikie anomaly is associated with the Pepuarta Tillite, although the situation differs in that the anomalous creek drains eastward off a fold limb with the synclinal axis to the east.

Repeat sampling from the original site produced an anomalous result, although at a reduced level (ie. 2.4:1.0 ppbAu, see figure). At this locality sporadic quartz+siderite±chlorite veins do provide a potentially auriferous lithology. These veins have in the past been explored by pits and may relate to workings named 'The Dope' in SADME records.

Low gold values from both BLEG and rock chip (siderite+quartz veins) samples, together with the sporadic nature of the veins thus indicate that a significant gold deposit is unlikely to be present within the area drained by the creeks shown in the figure.

2.3 Mongolata Goldfield

The decision has been made that Austmin Gold NL will not carry out detailed exploration within the Mongolata Goldfield. This decision comes from the following reasons:

1. Recent sampling by SADME in areas excised from EL 1343 (ie Curlew and the private mine area) produced disappointing results, results in keeping with those of CRA from Byles Mine.

2. Previous mining has high graded the area.

3. A suitable exploration program will be costly (detailed structural mapping, underground, diamond drilling).

It is considered that the chance of discovering a mineable gold resource will be small and, in view of the cost of exploration, the financial risk is considered unacceptable.

4. EXPENDITURE

CATEGORY	EXPENDITURE EL 1343 $
Personnel & Support	3,525.00
Technical Services (including geological)	-
Analytical	660.60
Motor Vehicle	-
Tenement Cost	-
Field Costs	$ 815.47
TOTAL	$5,001.07

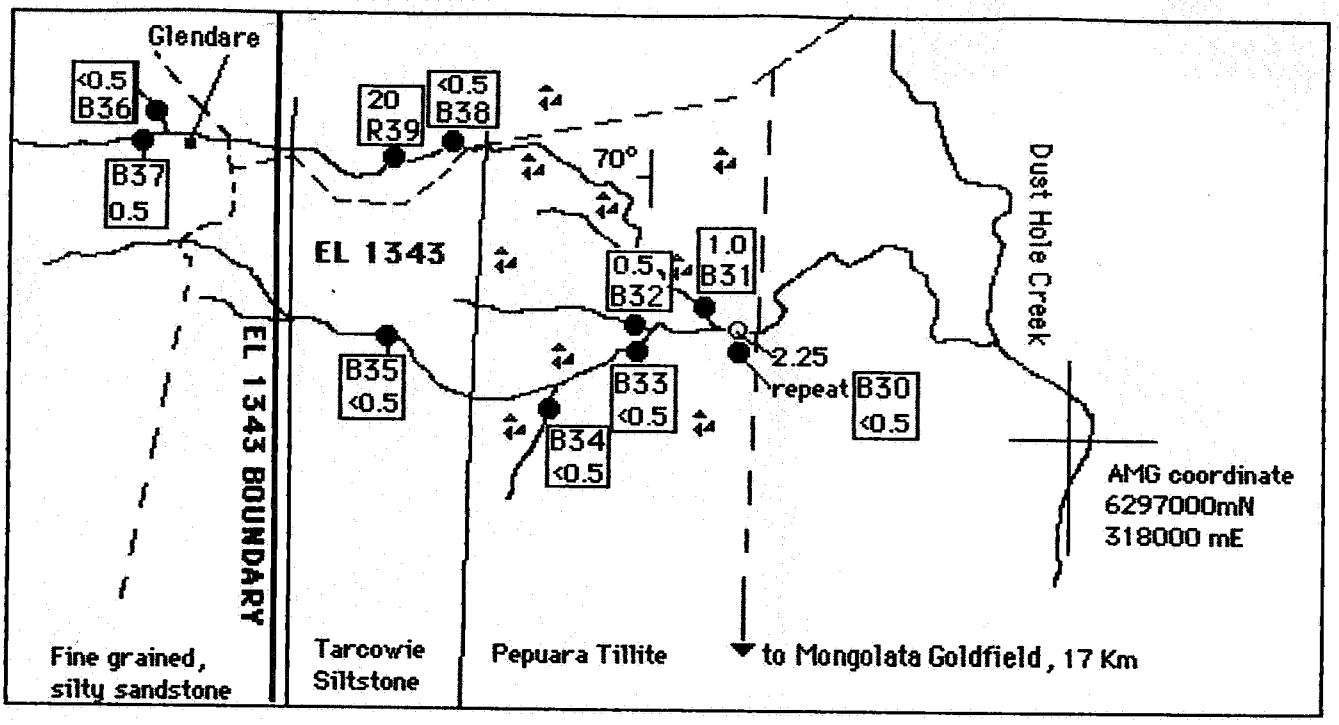
5. REFERENCES

Jones, D.G 1986. Mongolata EL 1343, Burra 1:250,000 Sheet, South Australia: First Quarterly Report to 29 october 1986 (unpublished report).

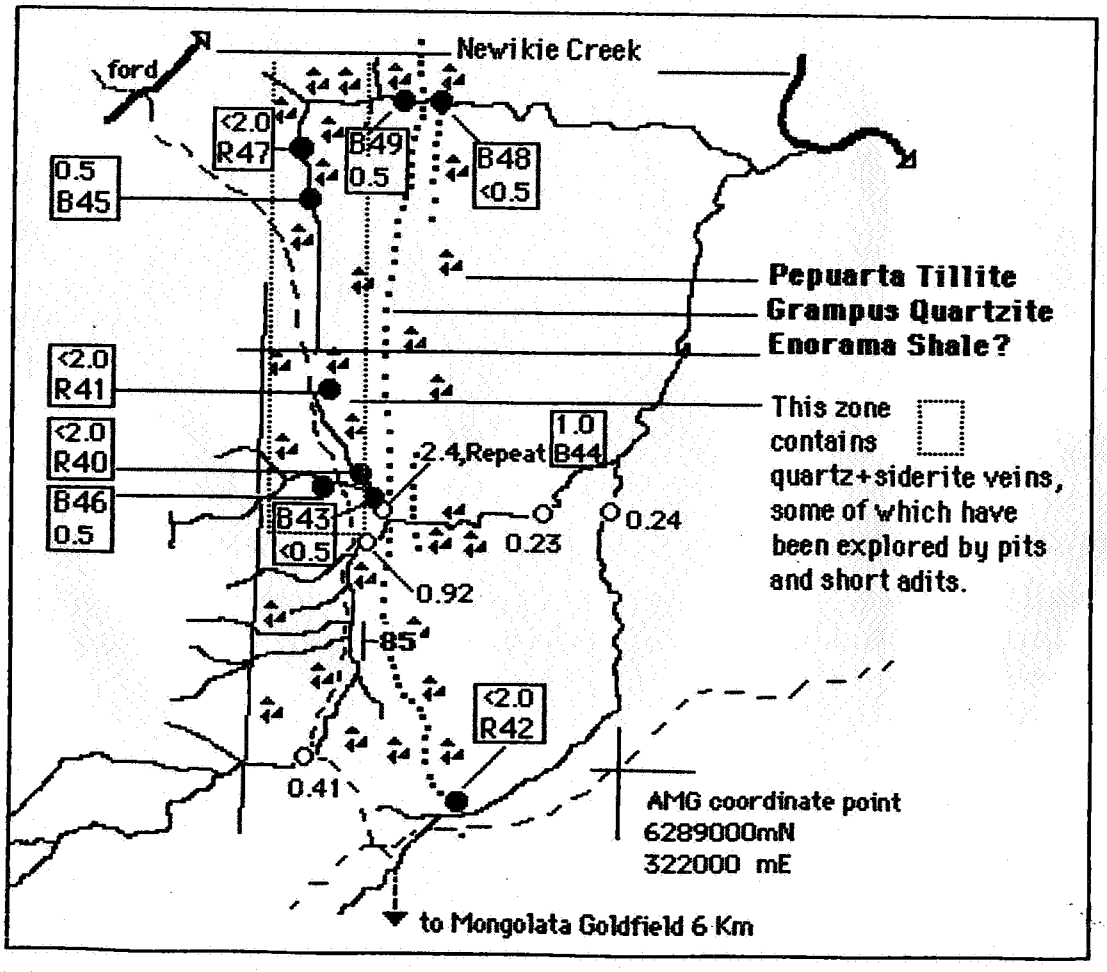
Mayer, T.E.(CRA) 1980-1981. Quarterly Reports on Mongolata EL 616, South Australia. SADME envelope 3848.

EL 1343, MONGOLATA. BLEG & ROCK CHIP SAMPLING

GLENDARE BLEG ANOMALY



NEWIKIE BLEG ANOMALY



N

1 kilometre

Samples prefixed: 3140--

B = BLEG, 0.5 Kg, -16*
R = Rock chip
O = previous N'mont BLEG

Values: ppb Au (Classic Comlabs)

MONGOLATA SAMPLE LISTING

CONQUEST MINES NL

SAMPLE NUMBER	AIR PHOTO LOCATION survey	frame	point	SITE	SAMPLE TYPE	LAB	Au ppm
CQU314001	2414	39	1		BLEG-16*1kg	C.Comlabs	0.0005
CQU314002	2414	39	1		BLEG-16*1kg	Tetchem	0.0016
CQU314003	2414	39	2		rock chip	C.Comlabs	0.12
CQU314004	2414	39	4		BLEG-16*1kg	C.Comlabs	0.0005
CQU314005	2414	39	4		BLEG-16*1kg	Tetchem	0.0009
CQU314006	2414	39	5		rock chip	C.Comlabs	<0.02
CQU314007	2414	39	6		BLEG-16*1kg	C.Comlabs	0.0005
CQU314008	2414	39	6		BLEG-16*1kg	Tetchem	0.0005
CQU314009	2414	98	2		rock chip	C.Comlabs	0.82
CQU314010	2414	98	2		rock chip	C.Comlabs	<0.02
CQU314011	2414	98	3		rock chip	C.Comlabs	0.06
CQU314012	2414	37	1	site 1	BLEG-16*1kg	C.Comlabs	<0.0005
CQU314013	2414	37	1		BLEG-16*1kg	Tetchem	0.0010
CQU314014	2414	37	1		BLEG-16*1kg	Sheen	0.0010
CQU314015	2414	37	2	site2	BLEG-16*1kg	C.Comlabs	0.0030
CQU314016	2414	37	2		BLEG-16*1kg	Tetchem	0.0060
CQU314017	2414	37	2		BLEG-16*1kg	Sheen	0.0050
CQU314018	2414	37	3	site 3	BLEG-16*1kg	C.Comlabs	**0.0150**
CQU314019	2414	37	3		BLEG-16*1kg	Tetchem	**0.0306**
CQU314020	2414	37	3		BLEG-16*1kg	Sheen	**0.0200**
CQU314021	2414	37	4	site 4	BLEG-16*1kg	C.Comlabs	0.0040
CQU314022	2414	37	4		BLEG-16*1kg	Tetchem	0.0060
CQU314023	2414	37	4		BLEG-16*1kg	Sheen	0.0050
CQU314024	2414	37	5	site 6	BLEG-16*1kg	Tetchem	0.0003
CQU314025	2414	37	5		BLEG-16*1kg	C.Comlabs	<0.0005
CQU314026	2414	37	5		BLEG-16*1kg	Sheen	0.0010
CQU314027	2414	37	6	site 5	BLEG-16*1kg	Tetchem	0.0054
CQU314028	2414	37	6		BLEG-16*1kg	C.Comlabs	0.0055
CQU314029	2414	37	6		BLEG-16*1kg	Sheen	0.0060
CQU314030	2414	121	2		BLEG-16*1kg	CComlabs	<0.0005
CQU314031	2414	121	3		BLEG-16*1kg	CComlabs	0.0010
CQU314032	2414	121	6		BLEG-16*1kg	CComlabs	0.0005
CQU314033	2414	121	7		BLEG-16*1kg	CComlabs	<0.0005
CQU314034	2414	121	8		BLEG-16*1kg	CComlabs	<0.0005
CQU314035	2414	121	13		BLEG-16*1kg	CComlabs	<0.0005
CQU314036	2414	121	18		BLEG-16*1kg	CComlabs	<0.0005
CQU314037	2414	121	19		BLEG-16*1kg	CComlabs	0.0005
CQU314038	2414	121	20		BLEG-16*1kg	CComlabs	<0.0005
CQU314039	2414	121	22		Rock chip	CComlabs	0.0200
CQU314040	2414	096	9		Rock chip	CComlabs	<0.0020

SAMPLE NUMBER	AIR PHOTO LOCATION survey	frame	point	SITE	SAMPLE TYPE	LAB	Au ppm
CQU314039	2414	121	22		Rock chip	CComlabs	0.0200
CQU314040	2414	096	9		Rock chip	CComlabs	<0.0020
CQU314041	2414	096	10		Rock chip	CComlabs	<0.0020
CQU314042	2414	096	16		Rock chip	CComlabs	<0.0020
CQU314043	2414	096	8&9		BLEG-16*1kg	CComlabs	<0.0005
CQU314044	2414	096	17		BLEG-16*1kg	CComlabs	0.0010
CQU314045	2414	096	19		BLEG-16*1kg	CComlabs	0.0005
CQU314046	2414	096	20		BLEG-16*1kg	CComlabs	0.0005
CQU314047	2414	096	28		Rock chip	CComlabs	<0.0020
CQU314048	2414	096	29		BLEG-16*1kg	CComlabs	<0.0005
CQU314049	2414	096	30		BLEG-16*1kg	CComlabs	0.0005