BILLITON AUSTRALIA
THE METALS DIVISION OF
THE SHELL COMPANY OF AUSTRALIA LIMITED

EL 5056 McKINLAY RIVER EAST
ANNUAL REPORT
FOR THE PERIOD ENDING 14.10.88

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SUMMARY

A regional mapping and rock chip sampling programme has been conducted over this tenement as part of a larger scale programme covering the entire McKinlay Joint Venture area. While it is too early to fully assess the potential of the area, it is evident from the structural and lithological elements present within the tenement that there exists good potential for gold and silver-lead mineralisation. More detailed follow-up is planned.

CONTENTS

LIST OF FIGURES

1.0 INTRODUCTION

EL 5056, McKinlay River East was granted to Coronation Hill Gold Mines NL (C.H.G.M) on 15.10.87 for a period of 3 years. Billiton Australia, the Metals Division of the Shell Company of Australia Limited, entered into a Joint Venture agreement with C.H.G.M (McKinlay JV), which includes this tenement, on 1.7.88.

The tenement is located approximately 20km northwest of Pine Creek and access is gained by several tracks which lead off the Burrundie Siding Road.

2.0 GEOLOGY & MINERALISATION

The tenement is underlain by interbedded siltstones, shales and greywackes of the Early Proterozoic Burrell Creek Formation of the Finniss River Group, and granitoids of the Early Proterozoic Cullen Batholith. The Burrell Creek Formation is extensively deformed, with evidence of at least three major episodes of deformation being seen. There is also some evidence of shearing, probably related to the major north-northwesterly trending Pine Creek Shear Zone which passes close to the western part of the tenement.

The geology of the JV area as a whole has been described in considerable detail in the Annual Report for Exploration Licence 4816 by Coronation Hill Mines NL, September, 1988 and this information will not be repeated here. Readers are referred to this report for details on stratigraphy, depositional environment, thermal history and structural history.

No major mining activity has been conducted within the area of this EL but several old gold and silver lead mines occur within other tenements included in the JV area to the west of EL 5056. These mines, i.e. the McKinlay and Flora Belle silver-lead mines and the Elizabeth gold mine, are described in the abovementioned report on EL4816 and will not be described in detail here. Some unnamed alluvial gold and small hard rock silver-lead workings occur within the tenements.

Work within the JV area generally, has defined two main styles of mineralisation, the first is associated with bedding parallel faults and consists of narrow high grade quartz - limonite and gossan lodes, generally in the more shaley units, while the second consists of cross-cutting sheeted to stockwork quartz-limonite veining, generally in the more brittle siltstone and greywacke units.

3.0 WORK COMPLETED

Work to date on this EL has been conducted as part of a general study on the JV area as a whole and has consisted of:

- Geological and Structural Mapping
- Reconnaissance Rock Chip Sampling

4.0 RESULTS

As already mentioned, results of the detailed structural study have already been described in detail in the annual report on EL 4816 and so will not be repeated here. The geological and structural map is presented in figure 2. The rock chip sampling was limited within this EL (Figs. 3 & 4), and returned a best result of 0.48g/t Au from an area of mapped gossanous veining.

A detailed regional stream sediment sampling programme is planned before the next phase of more detailed follow-up.

5.0 CONCLUSIONS

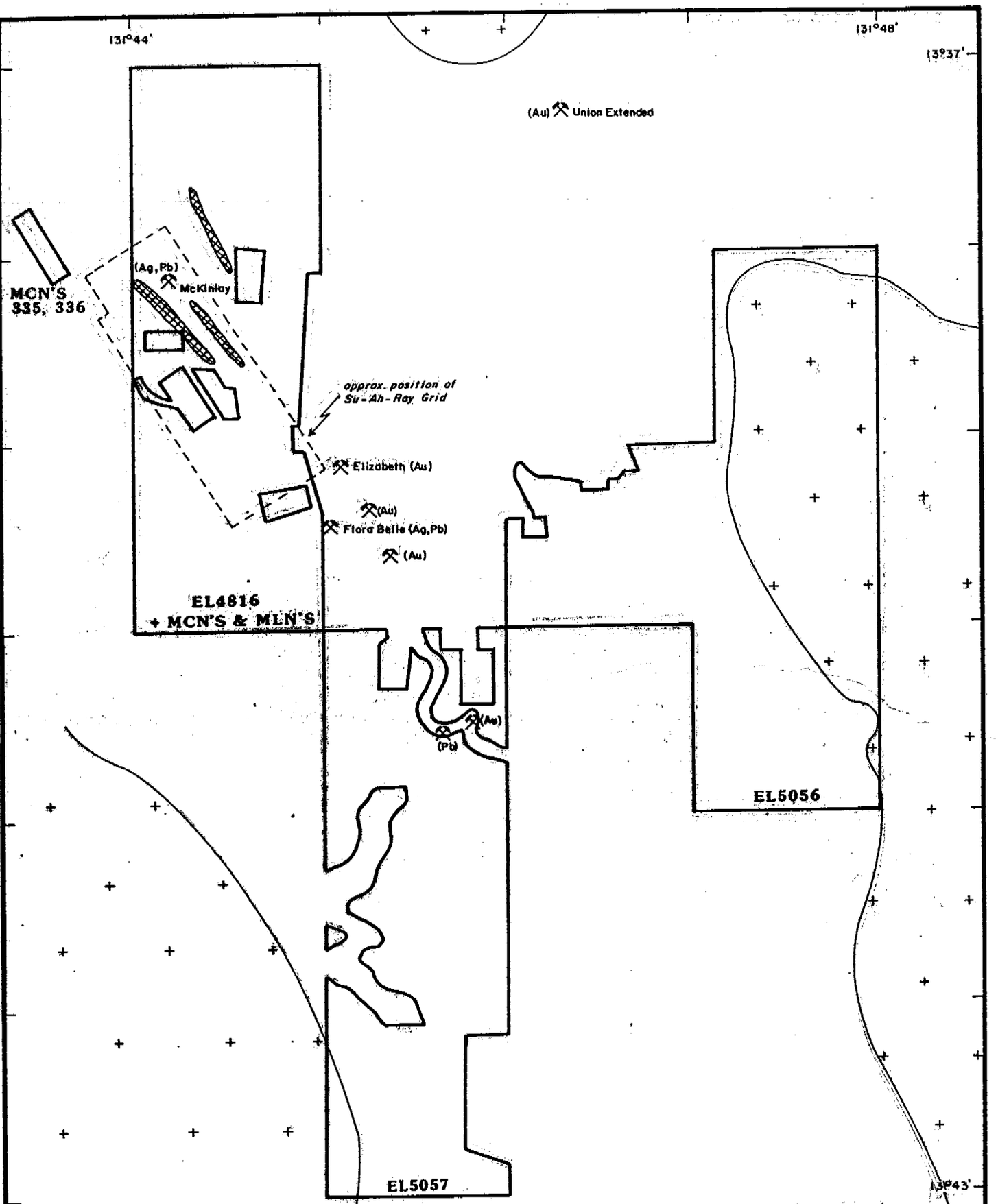
Due to the early stages of work conducted on this EL, it is not possible to fully assess the potential of the area for gold and silver-lead mineralisation at this time. Results of the detailed stream sediment and rock chip sampling programme may define areas of interest which will require follow-up by grid based mapping, sampling and drilling as is currently being conducted within other areas of the JV to the west.

EXPLORATION LICENCE 5056
EXPENDITURE INCURRED BY ZAPOPAN NL
FOR THE PERIOD 15.10.87-30.6.88

	$
Geologist	3,775.00
Vehicle & Accomodation	2,100.00
Assays	100.00
Airfare (part of)	334.00
Consumables	25.00
Airphotos	50.00
Fuel & Servicing	60.00
Overheads	955.00
TOTAL	7,399.00

EXPENDITURE LICENCE 5056
EXPENDITURE INCURRED BY BILLITON AUSTRALIA
FOR THE PERIOD 1.7.88-14.10.88

	$
Regional Staffing Costs	362.00
Regional Office Support	10.00
Head office management, administration technical services	42.00
TOTAL	414.00
TOTAL	**7,813.00**



Billiton Australia

The Minerals Division of the Shell Company of Australia Limited

Project: MCKINLAY J.V. NORTHERN TERRITORY

Title: **OVERVIEW PLAN**

Author	A.J.T.	Date	10/88	Scale	1:50 000
Drawn	K.S.J.	Office	CNS	Revised	Date
Drawing No.	C/HJ20/01X				Fig. No.

131° 45'

Springhill Rd

Snaddens Creek

Boomleera Siding

Mt Wells Battery Rd

SU AH RAY PROSPECT

ZAPPO PROSPECT

PIE IN THE SKY PROSPECT

ELIZA PROSPECT

Mc Kinlay River

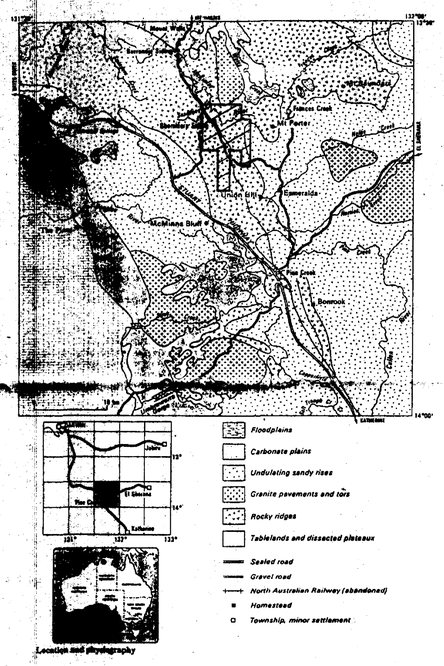
North Australian Railway (abandoned)

T.N.

M.N.

13° 45'

131° 45'



Legend

F3 Anticline.

Fault.

with horiz displacement

Gossan.

Prospect. SU AH RAY

Mc KINLAY TENEMENT AREA

0 500 1000 metre

Scale 1 : 10,000 (Approx)

GOLD ASSAY VALUES (Gms per tonne)

STRUCTURAL CONTROLS IN MINERALISED AREA

CR88/441A

GEOL. R. ALLEN | DATE. 14 JULY 1988 | FIG. 4.

131° 45'

LEGEND

Burrell Creek Formation

- Unit 3 coarsely bedded greywake
- Unit 2 interbedded psammites and pelites
- Unit 1 red schist
- Qtz area of vein quartz float
- gossan
- geological boundary
- 70 strike and dip of bedding
- 60 strike and dip of schistosity
- vertical schistosity
- F_3 anticlinal axis
- mine
- alluvial workings
- treatment plant
- costean
- trend line
- secondary road
- vehicle track
- abandoned railway

mineral occurrence

- Au Au - gold
- Ag Ag - silver
- Pb Pb - lead

Mc Kinlay Granite

Extensive Alluvial & Eluvial Workings

Union Extended Mine

Snaddens Creek

Boomleera Siding

Mt Wells Battery Rd

Springhill Rd

Mc Kinlay Mines Ag Pb

Alluvial and Eluvial Workings

Mount Porter Granite

alluvial flat

alluvial dump

Au Sn alluvial dumps

Elizabeth Mine Au

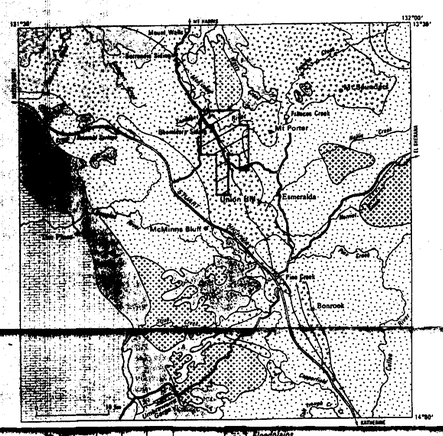
Floss Belle Mine Ag Pb

Mc Kinlay River

North Australian Railway (abandoned)

T.N.

M.N.



Location and physiography

131° 45'

Mc KINLAY TENEMENT AREA

0 500 1000 metre

Scale 1 : 10000 (Approx)

STRUCTURAL GEOLOGY.

CR88/441A

GEOL. R. ALLEN	DATE. 14 JULY 1988	FIG. 2.

131° 45'

Springhill Rd

Snaddens Creek

Boomleera Siding

Mt Wells Battery Rd

T.N.

MN.

Springhill Rd

Springhill Rd.

M^c Kinlay River

EL 4816

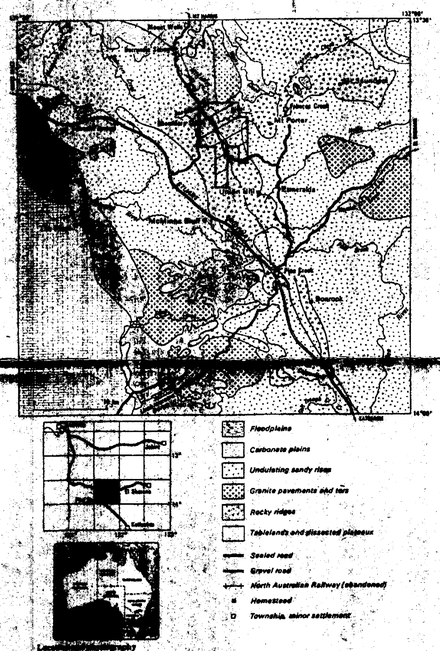
13° 40'

EL 5056

North Australian Railway (abandoned)

EL 5057

131° 45'



M^c KINLAY TENEMENT AREA

0 500 1000 metre

Scale 1 : 10,000 (Approx)

SAMPLE LOCATION.

TENEMENT BOUNDARY.

CR88/441A

GEOL. R. ALLEN	DATE. 14 JULY 1988	FIG. 3.