

Open File Envelope

No. 716

SML 134

MOUNT MARGARET – NILPINNA AREA

**PROGRESS REPORTS TO LICENCE EXPIRY/RENEWAL
FOR THE PERIOD 1/11/1966 TO 31/10/1968**

Submitted by
North Broken Hill Ltd
1968

© 4/2/1977

This report was supplied as part of the requirement to hold a mineral or petroleum exploration tenement in the State of South Australia.
PIRSA accepts no responsibility for statements made, or conclusions drawn, in the report or for the quality of text or drawings.
This report is subject to copyright. Apart from fair dealing for the purposes of study, research, criticism or review as permitted under the Copyright Act, no part may be reproduced without written permission of the Chief Executive of Primary Industries and Resources South Australia, GPO Box 1671, Adelaide, SA 5001.

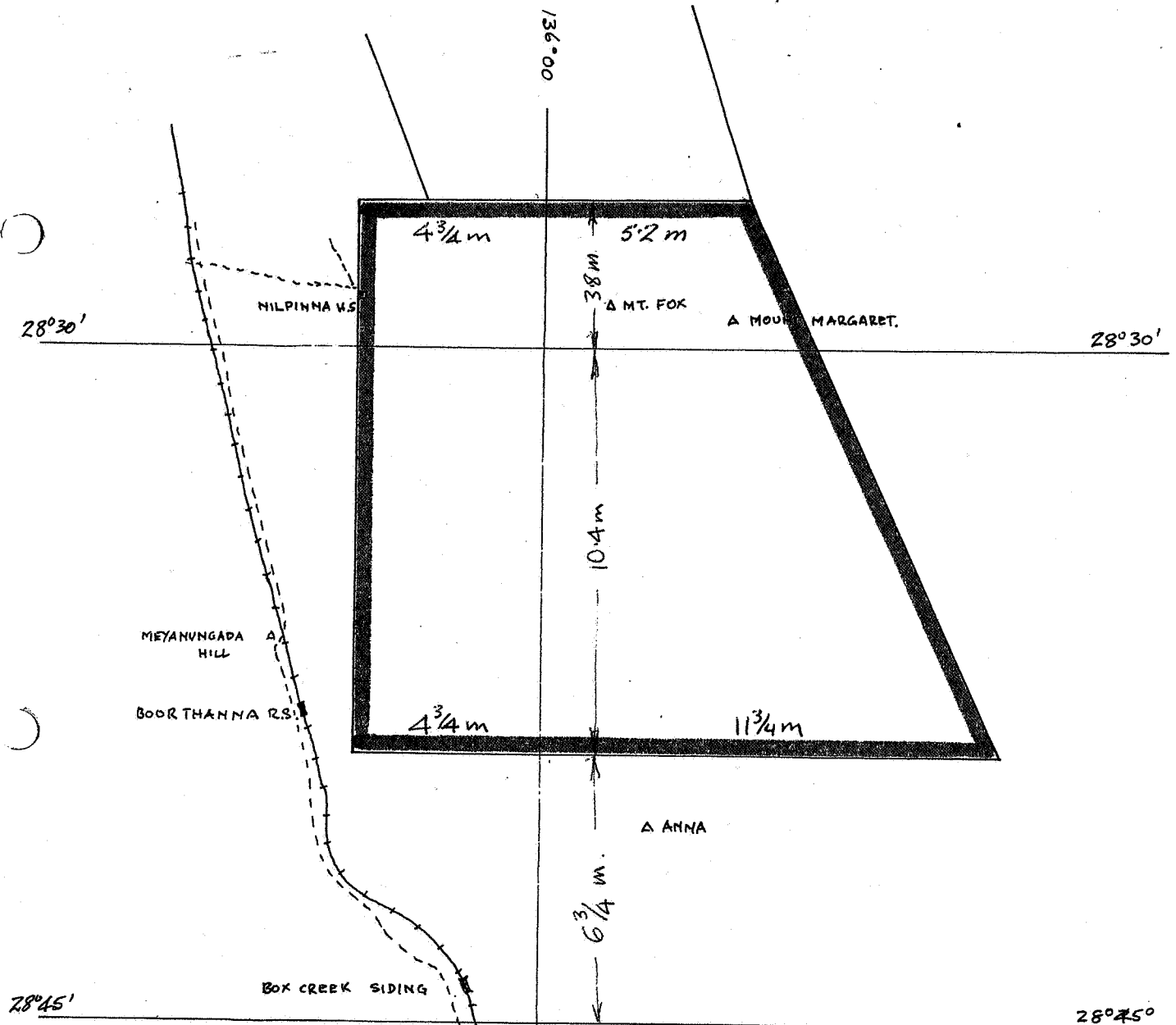
Enquiries: Customer Services Branch
Minerals and Energy Resources
7th Floor
101 Grenfell Street, Adelaide 5000

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



Government of South Australia
Primary Industries and Resources SA

1 0 2 4 6 8 10 12 14
MILES



NOTE: MEASUREMENTS IN RED
SCALED OFF APPLICATION PLAN.

NORTH BROKEN HILL LTD.

VIDE 1629/66
255

D.M. 1629/66

S.M.L. 134

TENEMENT: S.M.L. 134

TENEMENT HOLDER: North Broken Hill Ltd.

REPORTS:

North Broken Hill 1967. S.M.L. 134,
Nilpinna- Mount Margaret Area. Three monthly
report on exploration: period 1st November
1966 to 31st. January 1967. (pgs. 2-3)

Plans:

Sample Localities, S.M.L. 134 (pg. 4)

NorthBroken Hill, 1967. S,M.L.134, Mount Margaret-Nipinna
Area. Report on Exploration for period 1st February 1967 to
30th. April 1967. No Plans. (pg. 5)

North Broken Hill, 1967 S.M.L. 134, Mount Margaret-Nilpinna
District. Report on Exploration for the period Three Months
Ended 31st July 1967. No Plans . (pg.6)

NorthBroken Hill, 1967 S.M.L. 134, Mount Margaret-Nilpinna
District. Report on Exploration for the period Three Months
Ended 31st. October 1967. No Plans. (pg. 7)

North Broken Hill, 1968. S.M.L. 134, Mount Margaret-Nilpinna
Area. Report onExploration for the period Three Months Ended
31st. January, 1968. No Plans. (pg. 8)

North Broken Hill, 1968 S.M.L. 134, Mount Margaret-Nilpinna
Area. Report on Exploration for the period Three months
Ended 30th. April 1968. No Plans. (pg. 9)

North Broken Hill, 1968.S.M.L. 134, Mount Margaret-Nilpinna
Area. Report on Exploration for the period Three Months
Ended 31st. July 1968. No Plans. (pg. 10)

en- 7/16

P.R.I.
002

NORTH BROKEN HILL LIMITED
(Incorporated in the State of Victoria)

SPECIAL MINING LEASE NO. 131

NILPINNA-MOUNT MARGARET AREA

THREE-MONTHLY REPORT ON EXPLORATION : PERIOD
1ST NOVEMBER 1966 TO 31ST JANUARY 1967

A few days were spent in the area during November by a geologist inspecting the Coominaree, War Loan and Last Chance mines. Six chip samples were collected from these localities and analysed for copper.

<u>Sample No.</u>	<u>Width</u> <u>(feet)</u>	<u>Location</u>	<u>%Cu.</u>
PDC.11		"Coominaree North" - along creek bed.	0.40
PDC.13	Dump	Near pits and shaft - "Coominaree South".	3.95
PDC.14	Dump	"War Loan" Mine - to west of open cut.	3.26
PDC.16	5	Across northern end of main open cut - "War Loan".	4.32
PDC.17	8	"Last Chance" Mine - face of open cut adjacent to shaft.	2.00

The localities of most of these samples are shown on the attached sketch map, which is not to any exact scale.

Two technical assistants established a camp near Nilpinna Station during November and carried out orientation geochemical sampling along streams adjacent to the "War Loan" and "Last Chance" Mines. Samples were submitted to McPhar Geophysics Proprietary Limited for analysis for Pb, Zn, Cu and Ni by atomic absorption spectrograph.

The sampling party was temporarily withdrawn from the field for the summer season, but will return after next Easter. Results of the geochemical surveys of this area and Special Mining Lease 125 are being compiled at the Company's Albury office under the direction of our geochemist. The base maps are overlays to enlargements of aerial photographs at a scale of one inch equals 20 chains.

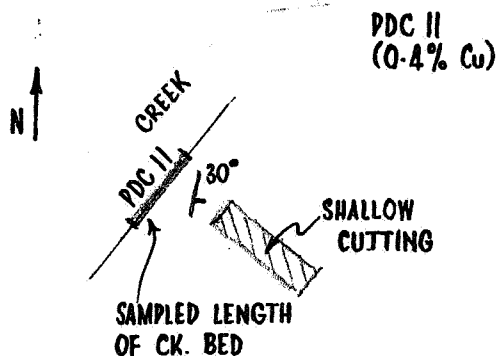
Broken Hill,
13th February 1967.
GWC/BA.

SAMPLE LOCALITIES

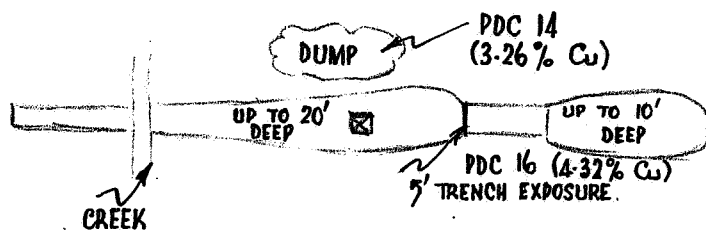
004

S.M.L. 134

1. COOMINAREE N.



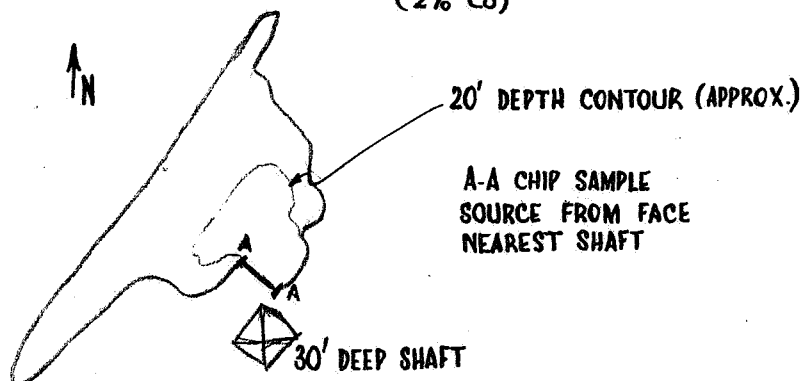
2. WAR LOAN CROSSCUT



APPROX.
N →

3. LAST CHANCE 8'

(2% Cu)



- 716
D.R. 2
005

NORTH BROKEN HILL LIMITED
(Incorporated in the State of Victoria)

SPECIAL MINING LEASE NO. 131
MOUNT MARGARET-NILPINNA AREA

REPORT ON EXPLORATION FOR PERIOD 1ST
FEBRUARY 1967 TO 30TH APRIL 1967

No field work was carried out during the period because of the hot summer conditions. All geochemical data collected to date has been compiled on plans under the supervision of the Company's Geochemist at our Albury office.

Plans and overlays, for Cu., Pb., Zn., and Ni., have been produced showing the drainage geochemical surveys conducted in the immediate vicinities of the "War Loan", "Last Chance" and "Coominaree" Mines.

At present a field party is in the Peake area in S.M.L.125. Work will soon commence in the vicinity of "Coominaree" where a drainage survey at 400 feet sample intervals will be conducted within one mile radius of the old mine workings - that is, on parts of both S.M.L.125 and S.M.L.131.

Similar extended surveys will be carried out also at the "Last Chance" and "War Loan" Mines.

Stream sampling at one-quarter mile intervals between the "Last Chance" and "Coominaree" Mines is planned.

The Company's Senior Geologist (Exploration) and Geochemist have departed for the area, where they will spend one week inspecting anomalous regions and co-ordinating the programme.

Broken Hill,
1st May 1967.
RDB/BA.

ENV 716

P R 3

006

NORTH BROKEN HILL LIMITED
(Incorporated in the State of Victoria)

SPECIAL MINING LEASE NO.134 : MOUNT
MARGARET-NILPINNA DISTRICT

REPORT ON EXPLORATION FOR THE PERIOD
THREE MONTHS ENDED 31ST JULY 1967

Approximately 1,700 samples were collected in the area. The areas sampled were:-

- (i) Around the Coominaree Mines.
- (ii) Between the War Loan and Last Chance Mines and south to the southern boundary of the lease.
- (iii) The western drainage area of the lease.

Sampling of the eastern drainage of the Mount Margaret Range has commenced.

Initial plotting of results was done in the field. Final plotting, interpretation and calculation of thresholds were carried out at the Albury Office by the Company's geochemist.

The field party in the area has been increased to four to expedite the collection of samples.

A plan showing the work completed to date in S.M.L.134 and the adjacent S.M.L.125 is enclosed.

Broken Hill,
15th August 1967.
RDB/BA.

-Env. 41.6
P R 4
007

NORTH BROKEN HILL LIMITED
(Incorporated in the State of Victoria)

SPECIAL MINING LEASE NO.134 :
MOUNT MARGARET-NILPINNA DISTRICT

REPORT ON EXPLORATION FOR THE PERIOD
THREE MONTHS ENDED 31ST OCTOBER 1967

The Company's exploration party, comprising four technical assistants, carried out geochemical surveys on this lease and S.M.L.125 during the period. The base camp was located near Nilpinna Homestead.

Because of the onset of the hotter months, it was decided to withdraw the party in mid-October. During 1967 a total of 4777 samples was collected on the two leases, and all reconnaissance stream sediment geochemical sampling has been completed.

In the Coominaree Mine area, 258 soil samples were collected on a grid pattern, while in the War Loan Mine area, 297 soil samples were taken on a ridge and spur geochemical survey.

During the summer months all results will be plotted under the supervision of the Company's Supervising Geochemist at our Albury Office. After evaluation of the results a decision will be made whether or not follow-up more detailed investigations will be warranted. A preliminary evaluation suggests that the Peake Mine area (S.M.L. No.125) provides the most encouraging results to date, but as yet analytical results of many of the samples collected late in the year have not been received.

If further work is considered to be warranted, it will probably comprise initially induced polarization surveys, further soil grid geochemical surveys and mapping and sampling of any old workings, to which access can be made. This would take place in April 1968.

NORTH BROKEN HILL LIMITED
(Incorporated in the State of Victoria)

ENV 716.

PRS

008

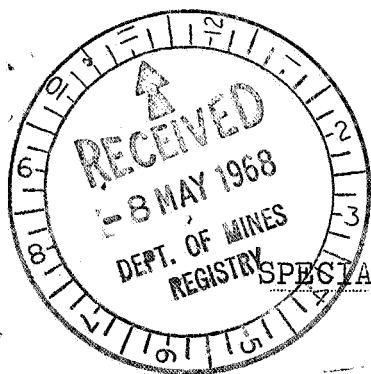
SPECIAL MINING LEASE NO.134
MOUNT MARGARET-NILPINNA AREA

REPORT ON EXPLORATION FOR THE PERIOD THREE
MONTHS ENDED 31ST JANUARY 1968

Evaluation of geochemical results has continued at the Company's Albury Office.

The results of soil surveys in the "War Loan" and "Coominaree" Mine areas have been plotted. Initially, work in the next season will be concentrated in the vicinity of these two mines, geological mapping and detailed geochemical surveys being proposed. Follow-up drainage surveys on an anomaly near Mount Fox are also proposed.

Broken Hill,
14th February 1968.
RDB/BA.



NORTH BROKEN HILL LIMITED
(Incorporated in the State of Victoria)

Env 176
ENV 837
009

SPECIAL MINING LEASE NO.134 : MOUNT MARGARET-NILPINNA AREA

Report on Exploration for the period
three months ended 30th April 1968.

Further evaluation of the results of the geochemical surveys completed during 1967 was carried out by the Supervising Geochemist, following receipt of additional check analyses and cold extractable copper analyses.

Several small areas, previously considered anomalous, namely anomaly 10/2, West Anna, anomaly 10/3, Last Chance and anomaly 10/4, South Anna, can be discarded as possible anomalies, following repeat Cu analyses.

It was also concluded that the Mount Fox anomaly, No. 9/1, may be the most significant one within the special lease. Consequently, it was decided to investigate this further early in the 1968 season rather than following up anomalies in the vicinity of the Coominaree and War Loan mines as previously. The Mount Fox anomaly covers $1\frac{1}{2}$ square miles and has a copper contrast to threshold of 0.3 to 5.0.

During the end of the period a party consisting of one geologist and two technical assistants left Broken Hill to set up a camp at Tarlton Springs. Follow-up geochemical surveys and geological mapping will be carried out over the Mount Fox anomaly. The Supervising Geochemist also spent several days on the prospect.

The stream sediment survey plans are being redrafted at a scale of one inch equals 20 chains, using the one-mile geological series sheets as base plans. Copies of these plans will be forwarded when they are completed, and they will supersede the plans previously submitted.

Broken Hill,
1st May 1968.
GWC/LJ.

NORTH BROKEN HILL LIMITED
(Incorporated in the State of Victoria)

P010

SPECIAL MINING LEASE NO.134 : MOUNT
MARGARET-NILPINNA AREA

REPORT ON EXPLORATION FOR THE PERIOD
THREE MONTHS ENDED 31ST JULY 1968

Geological mapping and detailed geochemical sampling were carried out on the Mount Fox area geochemical anomaly, which had been indicated by previous reconnaissance stream sediment sampling. The earlier work had shown copper values up to 4 times regional threshold over an area measuring $1\frac{1}{4}$ miles by $\frac{1}{4}$ mile adjacent to a granitic intrusion. However, the follow-up work downgraded the prospect by showing that the copper was localized in pockets close to the igneous contact, and overall pyrite is the dominant sulphide present. It is believed that the copper was derived from volcanic rocks, and possibly remobilized by the granitic intrusive.

Geological mapping at a scale of one inch equals 100 feet and several widely spaced reconnaissance induced polarization surveys were completed in the vicinity of the Coominaree and War Loan workings. Substantial i.p. anomalies have been indicated and further follow-up i.p. work is planned. It is not clear whether the anomalies result from copper mineralization or from rocks containing concentrations of other conductors such as graphite.