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EXPLORATION LICENCE 7/89

CLIFF H WHITEHEAD

ANNUAL REPORT 1989/90 (1st YEAR)

Cliff H Whitehead.

4th April 1990.

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EXPLORATION LICENCE No. 7/89

MOINA DISTRICT

C H WHITEHEAD - ANNUAL REPORT - YEAR 1 1989/90

Circulation:-

-Mines Department, Hobart

-CHW

Cliff H Whitehead

4th April 1990

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EXPLORATION LICENCE 7/89 - C H WHITEHEAD

ANNUAL REPORT - 1989/90 - YEAR 1

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C H WHITEHEAD

501004

EXPLORATION LICENCE 7/89 MOINA DISTRICT

ANNUAL REPORT 1989/90 - YEAR 1

INTRODUCTION & SUMMARY

Exploration Licence 7/89 was granted on 5th May 1989, and embraces an area of 2 sq kms of the Moina District in the central regions of Tasmania.

The licencee has, since 1982, been in partnership with G.A. Lavell (Moina Mining Industries) working mining leases 31M/83 and 22M/85which are enclosed by E.L. 7/89. The licencee is also the holder of an adjacent E.L. (No. 26/85 - Cethana).

The E.L. licence area was acquired over ground assessed to be geologically favourable for extensions of eluvial/alluvial ground containing cassiterite, wolframite and bismuthinite, which hopefully would prove up additional reserves to supplement those already demarcated in the above mining leases (Iris, Pig & Whistle, Lawklemlaw).

Work to date, during the first year term of a proposed 2 year programme of work,has consisted of a general literature review of past geological and/or exploration investigations, photogeology, reconnaissance and detailed geologic mapping, geochemical soil/rock sampling, scout and systematic power auger drilling of eluvial and alluvial ground plus pan concentrate test work on the acquired samples.

Surface geologic mapping and photogeologic work was successful in providing a better understanding of the various models/types of Sn/WO3/Bi mineralisation not only on the area covered by the E.L, but also within the general geological setting.

This work, in conjunction with soil sampling and auger drilling also permitted a delineation of potential mineralised eluvial/alluvial ground, namely at:-

- South of the Iris Mine
- SE of ML 31M/83
- Moina Deep Lead extensions

These three areas were considered to be of sufficient size potential to justify systematic surface sampling/auger drilling investigations.

The initial examinations south of the Iris Mine proved disappointing with regard variable and low concentrations of cassiterite; SE of ML 31M/83 work showed payable alluvial ground had a variable overburden cover and was narrow and inconsistent in grades; and, the Moina Deep Lead extension area proved to be too deep for investigations by power auger.

Future exploration work will include a continuation of the above investigations plus an evaluation of alluvial ground north of All Nations, and a study of the hard rock mineral potential of the Bismuth Creek fault zone and Dolcoath Hill Geophysics anomaly.

A. OVER-REVIEW, E.L. 7/89

A1. Location - Land Tenure

Exploration Licence 7/89 was granted on 5th May 1989 covering an area of 2sq kms within the Land District of Devon in the vicinity of Moina in Central Tasmania.

The E.L. area embraces mining leases 31M/83 and 22M/85 (approx 82Ha) of which C. H. Whitehead is part holder.

The licence area is comprised of State Forest with no private land present.

As shown in Figure 1, the E.L. is situated between Lake Cethana to the east and Lake Gairdner to the west. Sealed road access is readily available from Devonport, Wilmot/Burnie and now the West Coast/Tullah.

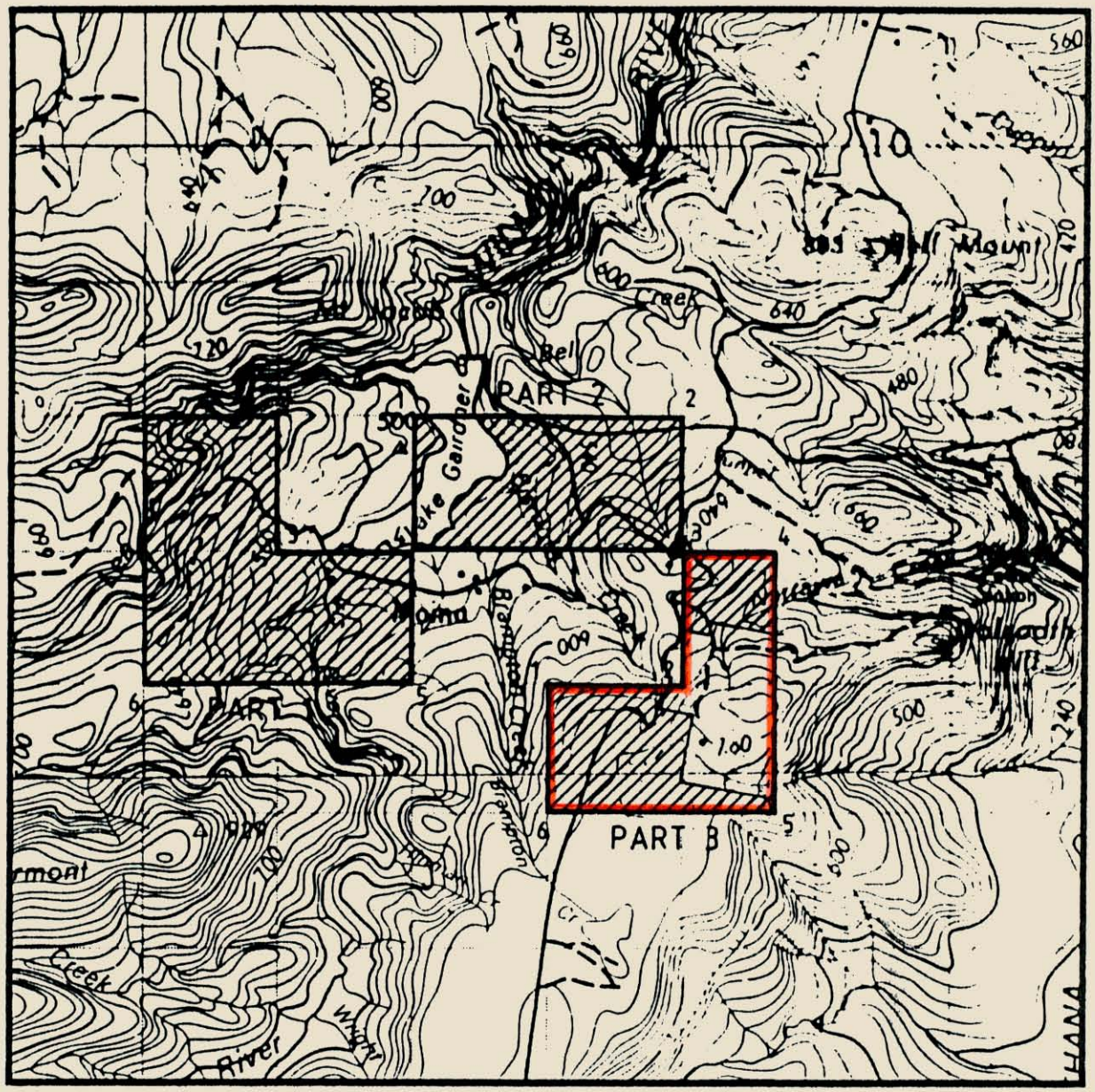
The E.L. tenement is favourably transgressed by innumerable forestry tracks, and could be topographically described as gently undulating and furnished with both forest regrowth and scrub.

A.2 Previous Exploration - Investigations

The general Moina district, including the area currently covered by E.L. 7/89, has been extensively investigated and prospected in the past. Mt. Lyell Mining & Railway Co. had a strong interest during the period 1970-74, and from that time to as recently as 1988, the area was part of E.L. 7/74 formely held by Comalco and various J.V's involving the Shell Co of Australia, and CRA Exploration Pty Ltd.

006 501007 FIGURE N° 1.

ETA 58



= EXPLORATION LICENCE. 7/89.

MOINA ETA - 7 SKM

FORMERLY PART OF E.L. 7/74 (MINERALS)

Scale 1:50,000 0 2 4 km

DEPARTMENT OF MINES - TASMANIA

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Comalco carried out detailed grid geological/geochemical work over the specific area of EL 7/89. Their work primarily centered around investigating possible extensions of the Moina Skarn, and included drilling two diamond drill holes along the Bismuth Creek fault zone in the vicinity of the Iris Mine (SM25 and SM26).

More recently (1988) CRA during an extension period of EL 7/74 carried out a detailed programme of gold exploration in and arond the Moina skarns including the area embraced by EL 7/89.

A3. Regional Geology

The licence area occurs immediately to the south and west of the Dolcoath Devonian Granite. This stock has intruded and and altered a sequence of the Cambrian and Ordovician rocks which include:

- Cambrian volcanics - The BULL CREEK FORMATION - consisting of massive, light to dark quartz feld spar tuffs, plus agglomerates, cherts and greywackes.
- Ordovician - ROLAND CONGLOMERATE - approx 30m thick, consisting of siliceous conglomerates, quartzites and siltstones
- MOINA SANDSTONE - white sandstones containing shale units, which are often pyritic.
- GORDON LIMESTONE - limestone in places completely replaced by flourite/magnetite or sphalerite skarns

Overlying the above sequence is an intermittent cover of Tertiary basalt and pyroclastics.

The licence area is traversed by a portion of the SE trending Bismuth Creek Fault Zone which to the N W has cut through the main Moina Skarn and apparently had a controlling influence on mineralisation at that location.

A4 Mineralisation

All mineralisation in the area is basically related to the Devonian Dolcoath granite emplacement, and its intrusive effects on the Mid-Upper Cambrian to Ordovician sequences. This has resulted in a number and variety of mineralised models affecting a range of metallic and non metallic commodites - Au, Sn, WO3, Zn, Bi, Mo, fluorite, topaz and beryl.

Most common mineralised models are:-

- Quartz vein systems
- Skarn zones (magnetite and calc-silicate rich)
- Stockwork/quartz stringer system
- Greisen zones
- Alluvial/eluvial deposits

The most investigated deposit in the district is the old Shephard & Murphy (Moina) mine which consists of a fluorite, tin, tungsten skarn with 26 million tonnes of ore at 18%CaF2, 0.1%Sn and 0.111 whcih is currently held under Retention Licence status (RL 8810) by CRA Exploration and the Shell Co.

A number of small to medium sized mining operations/workings prevail in the district - the most notable within EL 7/89 are:-

- All Nations Mine - wolframite and molybdenite
- Iris Mine - Sn, WO3 & Bi
- Pig & Whistle - WO3
- Lawklemlaw - WO3.

B - EXPLORATION OBJECTIVES - PHILOSOPHY - PROGRAMME

The prime objective of the proposed exploration work in the licence area would be to prove up additional resources of eluvial/alluvial ground to supplement known reserves of cassiterite and wolframite currently being mined at the Iris Mine (ML No. 31M/83).

Specifically the exploration aims would be:-

- To evaluate the tonnage and grades of known extensions of ELUVIAL material containing tin and tungsten mineralisation immediately west of the IRIS MINE.

- To evaluate reserves/grade of Sn/WO3 ALLUVIAL ground at 2 areas

  - Extreme SE of the EL (SE of the Iris Mine)
  - North of the EL (N of All Nations)

- To investigate the possible Sn/WO3 content of the Moina Deep Lead extensions from the Shephard & Murphy Mine.

- To study the hard rock mineral potential of the Bismuth Creek fault zone and the Dolcoath Hill Geophysics anomaly.

The more specific aims of the above mentioned proposals were as follows-

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- ELUVIAL GROUND

Eluvial material containing Sn, WO3 and Bi mineralisation currently mined at the Iris Mine was believed to extend to the west of ML 31M/83 and south of ML 22M/85. Spot reconnaissance sampling indicated payable values, but contained mineralisation to be fine in nature, but a high ratio of Sn to WO3. Surface sampling, auger drilling or trenching would be required to sustematically evaluate continuity of grade and extent of these deposits.

- ALLUVIAL GROUND -

Two areas were demarcated for investigation:

-S of the operating ML's in the extreme SE corner of E. L. 7/89. In 1979 Comalco (E.L. 7/74) drilled a few hand auger holes at the location with interesting results, quote - "some alluvium rich in coarse cassiterite and wolframite occurs at 2600E/900S and 925S in ground of approx 1m depth".

- Tin bearing alluvial occurs north of the licence in the head water zone of Narrawa Creek. However its extent and continuity require investigation initially by reconnaissance surface sampling followed up by systematic power augering.

-MOINA DEEP LEAD 'EXTENSION'

The Moina Deep Lead worked uupstream from the Shephard & Murphy mine carried high cassiterite and wolframite values, the source of which is believed (Comalco 1978) to be upstream in the area between Water Licence 7W/83 and the Iris Mine. This possibility was to be investigated, initially by power augering, and possibily air track drilling.

-HARDROCK GEOLOGIC STUDIES

Two areas were proposed for study:-

- A study of possible mineralisation associated with the SE extension of the Bismuth Creek Fault Zone. Data fom Comalco (1974/78, drilll holes SM25 and 26) plus more recent CRA (1988) geochemical/geophysical work would be coordinated before initiation of field work.

- The Dolcoath Hill aeromagnetic anomaly (CRA 1988) and its relationship to known surface geology would be investigated.

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C - EXPLORATION PROGRAMME COMPLETED

The overall proposed 2 year exploration programme was initiated during the current term and the following work completed.

C1. Geologic Mapping

Photogeological interpretations, and both reconnaissance and detailed geologic mapping have been completed within E.L. 7/89 (including mining leases) and the general surrounding area. A better understanding of the local geology, characteristics/variability of mineralisation, and delineation of potential mineralised eluvial and/or alluvial ground was attained.

A general geologic succession of the area has previously been documented, but briefly Cambrian and Ordovician formations in the licence area occur as part of the southern limb of a broad and open E-W trending syncline. The formations themselves have been intruded by Late Devonian Dolcoath biotite granite just to the east of the EL. On the surace it has a stock like appearance but plunges westwards from Dolcoath Hill to extend beneath Moina, and therefore probably occurs at a relatively shallow depth beneath the licence area.

Mineralisation within EL 7/89 is genetically associated with the emplacement of the Dolcoath Granite

At the All Nations and Pochins Prospect, en echelon quartz veins with associated wolframite and minor bismuth, pyrite and molybdenite occur extensively within Ordovician Moina Sandstone (quartz sandstones-siltstones).

The Lawkemlaw and Pig & Whistle Sn/WO3 workings have been developed at the contact, between the Roland Conglomerate and the Cambrian quartz porphyries. Mineralisation associated with this contact, and numerous stringers/stockwork type mineralisation of WO3/Sn/Bi in the formation of rich eluvial deposits of wolframite and cassiterite such as at the Iris Mine, plus the development of aluvial deposits to the south and south west.

The extent and degree of contained mineralisation in these eluvial/alluvial pockets of ground was investigated as indicated below.

C2. Alluvial Ground

Power auger drilling on a scout basis was originally undertaken in the SE extremities of the EL, in particular between old Comalco grid lines 2600 and 2800E. The depth of alluvial was found to be extremly variable (0.5 to 3.0m), as likewise was the presence of sandy overburden and actual nature of mineralisation, or lack of it in the alluvial gravels.

Systematic auger drilling and shallow soil sampling was completed at 5m intervals between 850S and 950S along grid line 2600E. All samples collected were screened and the 1/4" fraction pan concentrated for Sn/WO3 content estimates.

Results were extremely disappointing and Comalco reports (Aug 1979) of alluvium rich coarse cassiterite were not proven.

The 1988 grid lines were reestablished SW of the Iris Mine. On a 10m spacing, these lines were systematically drilled (2.5 to 3.0m depths) by power augering. Samples have been split, half retained for future possible assay, and remaining half were screened and pan concentrated for estimation of Sn, WO3 content. Only fine cassiterie mateial in non-economic concentrations were present, and no extensions of the Iris mine eluvial to the south of the dam road appears apparent.

Eluvial ground west of the Iris Mine is still being sampled.

C3. Moina Deep Lead

Power auger drilling was attempted over the Moina Deep Lead in the area between the Water Licence 7W/83 and the Iris Mine. Only the flanks of the lead were penetrated, showing Tertiary clays and sands. Within the more central sections of the lead, a deeper penetrating form of drilling will have to be undertaken (airtrack drilling).

C4. Magnetic Surveys

A ground magnetic survey is being run along the western margin of the Iris eluvial mine, across the Bismuth Creek Fault towards the Water Licence 7W/83. Grid lines are spaced at 25m intervals and readings taken at 5m intervals.

D. PROPOSED WORK PROGRAMME

efforts will be continued to complete the original exploration objectives of the licence area. This work would include:-

- To finalise a delineation and evaluation of the economic viability of the Sn - WO3 - Bi eluvial ground west of the Iris Mine.

- Evaluate potential reserves of Sn/WO3 material in the northern section of E.L. 7/89, north of the All Nations Mine. (Work will include grid line establishment, scout reconnaissance and power auger drilling).

- Finalise the ground magnetic surveys at the Iris Mine, the eluvial ground west, and the Bismuth Creek Fault Zone.

- Initiate ground magnetic surveys over the Dolcoath Hill Anomaly.

- Evaluate overall results of the 2 year programme.

EXPLORATION LICENCE 7/89 - MOINA DISTRICT

C. H. WHITEHEAD

SUPPLEMENTARY RESULTS - ANNUAL REPORT YEAR 1

Overleaf are provided details and results of work completed within E.L. 7/89 during the Year 1989/90.

Specific attention has been paid to the following:-

1. Geologic Mapping - results to date are shown on preliminary Plan No. 5/89.

2. Delineation of potential mineralised eluvial and/or alluvial ground is likewise shown on Plan No. 5/89.

3. Soil sampling/power augering. Results are compliled for the following separate areas:-

   - SE of ML. 31M/83 - Alluvial Ground, Figure 1.
   - SW of the Iris Mine - Eluvial Ground, Figure 2.
   - Moina Deep Lead, Figure 2.

Drill locations are also shown on Plan No. 5/89.

4. Ground magnetic survey. As previously stated in the annual report this work is currently underway, and results acquired have not been compiled.

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E.L. 7/84, MOINA.

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SOUTH-EAST OF M.L. 31M/83 - ALLUVIAL GROUND

POWER AUGER DRILLING

(INTERMEDIATE SOIL SAMPLING)

POWER AUGER HOLE N°	GRID LINE COORDINATES E.	GRID LINE COORDINATES S.	AMG GRID COORDINATES N.	AMG GRID COORDINATES E.	DEPTH DRILLED m	PAN CONCENTRATES REMARKS
C1	2600E	900S	405140N	4246OOE	2·60	NIL
C.2	2600E	925S	5127N	4579E	2·75	COARSE TIN (1%)
C.3	2600E	950S	5092	4594	3·10	FINE TIN/NEGLIGIBLE
C.4	2600E	975S	5067	4566	3·00	FINE TIN.
C.5	2500E	900S	5166	4510	2·10	NEGLIGIBLE
C.6	2500E	925S	5142	4504	2·50	COARSE TIN (2%)
C.7	2700E	850S	5165	4715	1·50	NIL
C.8	2700E	875S	5141	4707	3·10	NIL
C.9	2700E	900S	5124	4702	2·90	NIL
C.10	2700E	925S	5092	4694	3·30	FINE, NEGLIGIBLE
C.11	2700E	950S	5066	4691	3·20	FINE TIN LITTLE WOLFRAMITE
C.12	2800E	900S	5066	4800	2·90	NIL
C.13	2800E	950S	5043	4766	2·80	NIL

TOTAL N° HOLES = 13

METRES DRILLED = 35·95m

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LOCATION OF POWER AUGER SAMPLING

FIGURE N° 1

SE. OF ML 311/83 - ALLUVIAL GROUND

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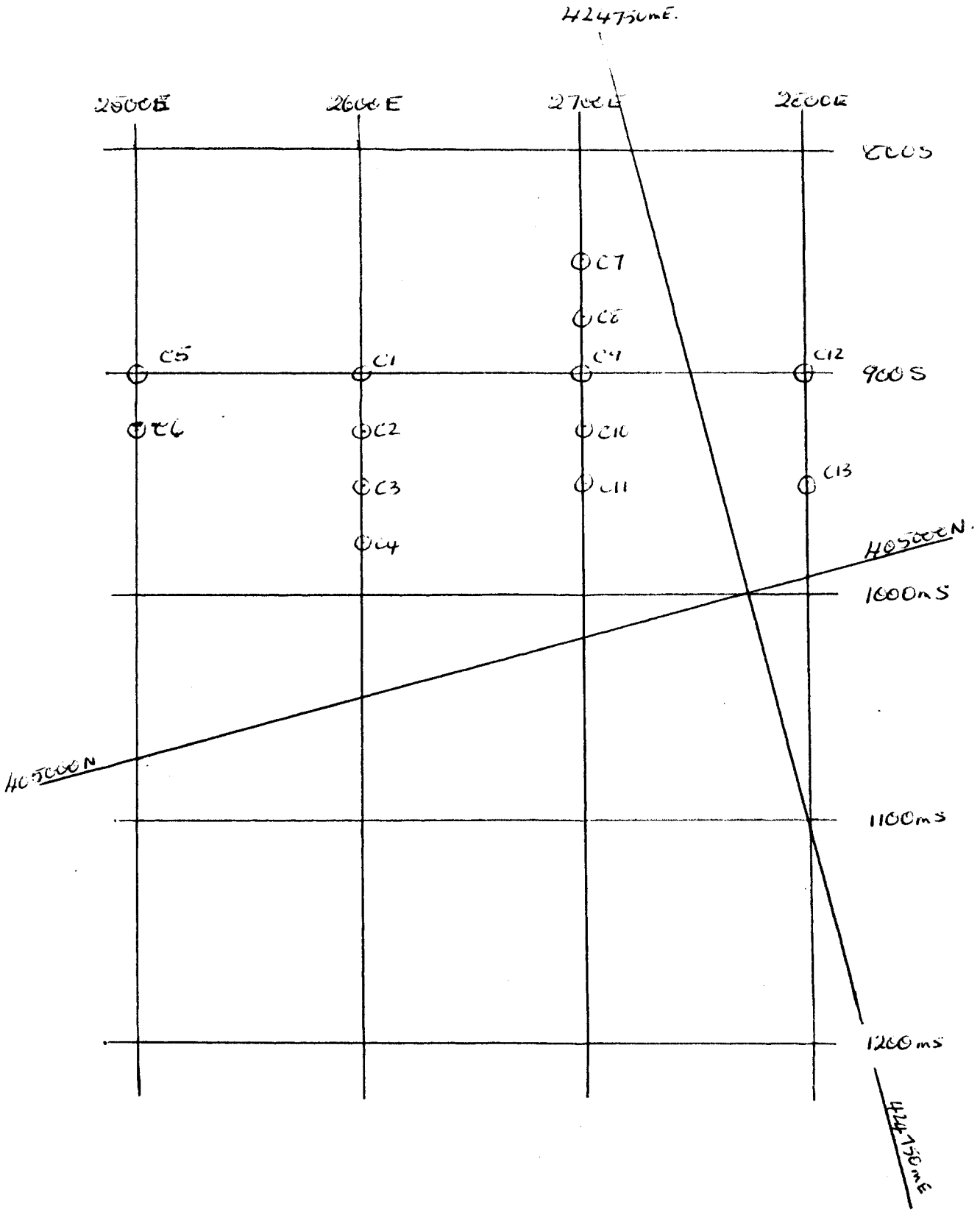

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POWER AUGER DRILLING - E.L. 7/67 1969/90.

ELUVIAL GROUND

501021

HOLE N°	GRID LINE COORDINATES E.	GRID LINE COORDINATES S.	AMG GRID COORDINATES N.	AMG GRID COORDINATES E.	DEPTH DRILLED m	MAIN CONCENTRATES REMARKS
S.W.1	2000	700	540 5422	42 4070	1·20	TIN (0·5%)
S.W.2.	2000	750	5437	405E	0·95	NEGLIGIBLE
S.W.3	2000	800	5392	4046	2·30	NEGLIGIBLE
S.W.4	2050	750	5424	4108	2·20	FINE TIN (0·5%)
S.W.5	2050	800	5380	4096	1·80	NEGLIGIBLE
S.W.6.	2100	700	5462	4168	2·10	FINE TIN (0·5%)
S.W.7	2100	750	5415	4155	1·90	FINE TIN (0·5%)
S.W.8	2100	800	5368	4143	2·50	NEGLIGIBLE.
S.W.9.	2100	850	5317	4132	2·50	FINE TIN (0·2%)
S.W.10.	2100	900	5270	4120	2·50.	FINE TIN (0·2%)
S.W.11.	2100	950	5220	4108	1·50	NEGLIGIBLE
S.W.12.	2100	1000	5170	4098	1·50	NEGLIGIBLE

TOTAL N° OF HOLES - 12

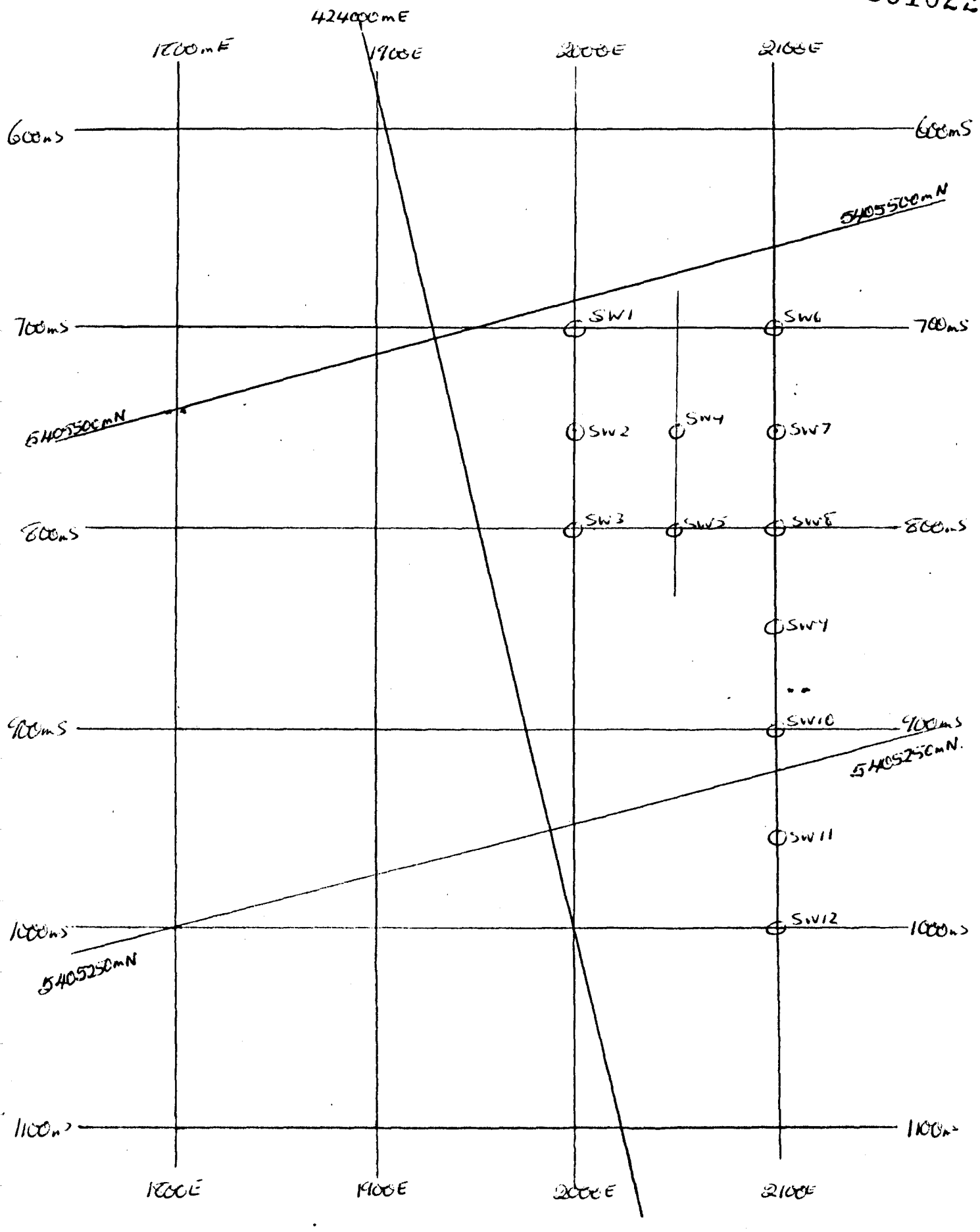
TOTAL METRES DRILLED - 22·95m

021

FIGURE N°2.

SOUTH WEST OF IRIS MINE - ELUVIAL GROUND

501022



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POWER AUGER DRILLING — E.L. 7/89 1989/90.

MOINA DEEP LEAD

Please refer PLAN 6/89 + FIGURE 2.

HOLE N°	GRID LINE COORDINATES		AMG GRID COORDINATES		DEPTH DRILLED
	E	S	N	E.	m.
DL.1.	2000	850	6405342	424036	2·85
D.L.2.	2000	900	6405292	424023	3·30
DL.3.	2000	950	6405245	424012	3·95
D.L.4	1900	992	6405220	423904	2·25
D.L.5	1900	950	6405272	423914	3·75
D.L.6.	1900	923	6405296	423921	3·00
DL.7	1900	900	6405320	423926	2·40
DL.8	1900	850	6405370	423938	1·40
DL.9	1900	800	6405417	423950	2·45
DL.10.	1800	650	6405586	423887	2·40
DL.11	1800	675	6405562	423880	2·60
DL 12	1800	700	6405546	423875	2·70
DL 13	1900	750	6405468	423962	2·40
DL 14	1900	700	6405514	423974	1·80
DL 15	1900	650	6405562	423986	2·40

N° OF HOLES = 15

TOTAL METRES DRILLED = 39·65m.

023 POWER AUGER DRILLING - E.L. 7/84 1984/90.

MOINA DEEP LEAD

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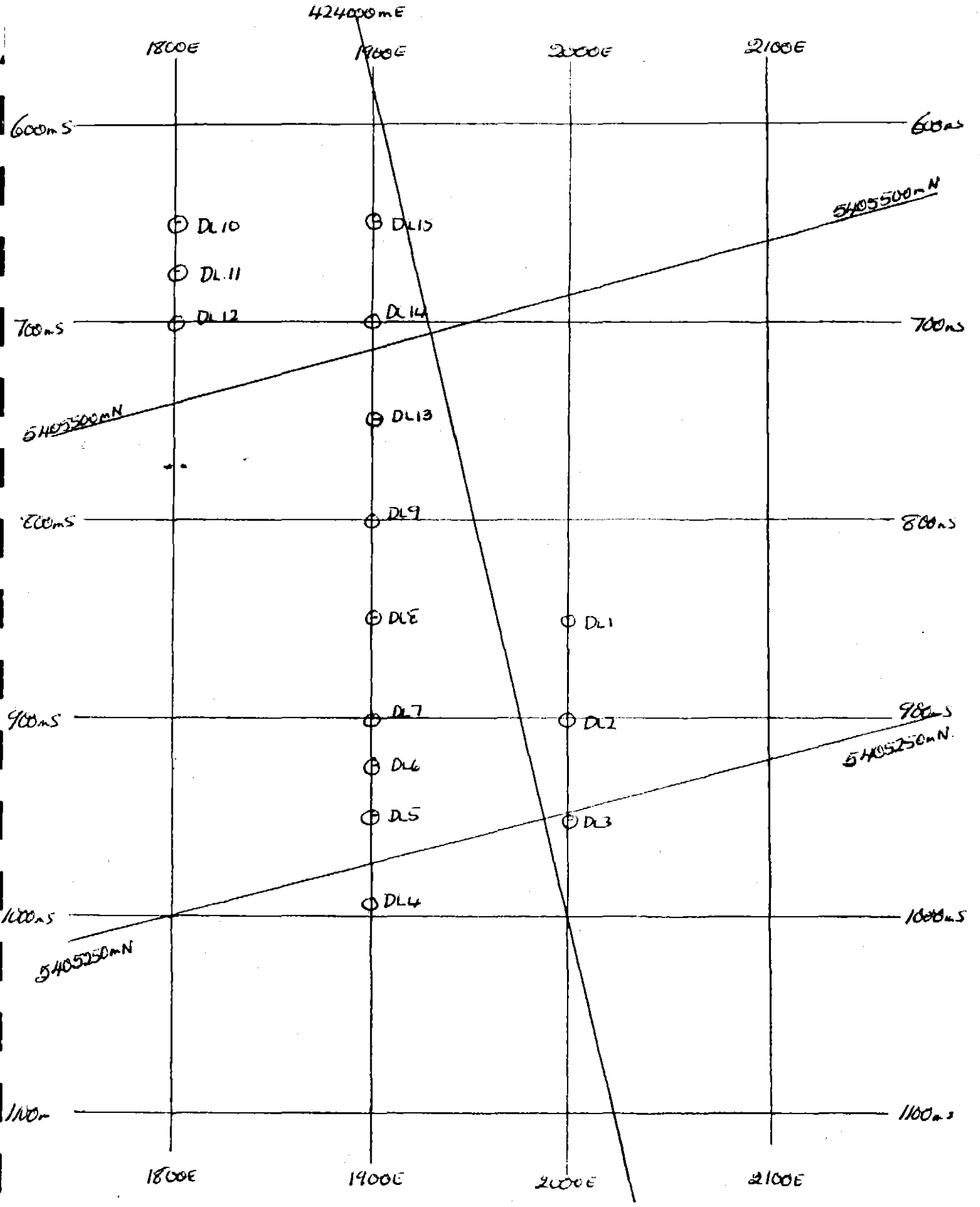
HOLE N°	DEPTH m	SAMPLE DESCRIPTION	PAN CONCENTRATE. (TIN CONTENT EST).
D.L. 1.	0.00 - 2.00	BASALT RUBBLE	—
	2.00 - 2.85	CLAY - SAND	FINE TIN (0.1-0.2%)
D.L. 2.	0.00 - 1.80	BASALT RUBBLE	—
	1.80 - 3.20	CLAY, LITTLE SAND	INSIGNIFICANT
	3.20 - 3.30	COARSE GRIT, GRAVEL	FINE TIN (0.2%)
D.L. 3.	0.00 - 2.50	BASALT RUBBLE	—
	2.50 - 3.95	SAND/GRIT	FINE TIN (0.3%)
D.L. 4	0.00 - 1.90	SURFACE RUBBLE	—
	1.90 - 2.25	BLUE CLAY.	NIL
D.L. 5	0.00 - 2.10	BASALT, SURFACE RUBBLE	—
	2.10 - 3.75	CLAY, FINE SAND.	NIL
D.L. 6.	0.00 - 2.45	BASALT, SURFACE RUBBLE	—
	2.45 - 3.00	BLUE CLAY	NIL.
D.L. 7.	0.00 - 1.90	SURFACE RUBBLE	
	1.90 - 2.40	CLAY, SAND	FINE TIN, INSIGNIFICANT
D.L. 8	0.00 - 1.00	SURFACE RUBBLE	—
	1.00 - 1.40	CLAY	NIL
D.L. 9.	0.00 - 1.90	BASALT, SURFACE RUBBLE	—
	1.90 - 2.45	CLAY, SAND	FINE TIN.
D.L. 10	0.00 - 2.40	BASALT RUBBLE	—
D.L. 11.	0.00 - 2.60	BASALT RUBBLE	—
D.L. 12	0.00 - 2.70	BASALT RUBBLE	—
D.L. 13	0.00 - 1.00	OVERBURDEN	—
	1.00 - 2.40	SAND/CLAY	FINE TIN (0.1%)
D.L. 14	0.00 - 1.20	BASALT	—
	1.20 - 1.80	SAND/GRIT	NIL
D.L. 15.	0.00 - 1.00	BASALT	—
	1.00 - 2.40	CLAY, SAND	NIL

FIGURE 2

MOINA DEEP LEAD - E.L 7/87 (1989/90)



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E.L. 8/88
RENISON LTD.
MT. JACOB

E.L. 38/87
CYPRUS GOLD AUST. CORP.

E.L. 10/88
NORANDA

E.L. 10/88
NORANDA

ETA

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ABERFOYLE RES.

MT. CLAUDE

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GAIRDNER

E.L. 7/74
C.R.A. EXPL. & SHELL CO.

LAKE
CETHANA

MOUNT STORMONT

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RENISON LTD.

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C.H. WHITEHEAD

LAKE
CETHANA

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C.R.A. EXPL. P/L.

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CETHANA

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OLIVER HILL

Wilmot Mo, Pb, Cu.

Bell Mount Au

Narrawa Reward Au

Squid Au, As, Cu, Pb.

Higgs Au

Poveys

Sayers

Blacks

Picketts

Shepherd and Murphy Bi, W, Sn, Mo.

W.

All Nations Bi, W, Mo.

Lawson + Rileys

Pig + Whistle

Lawkenlaw

Iris Sn, W.

Dolcoath Bi, W, Mo

Wilmot Power Station

Cethana Power Station

Round Hill Ag, Pb, Cu, Zn.

Mn.

Hidden Treasure W, Mo, Bi.

Tin Spur

Premier W, Sn, Cu.

Devonian Au, Ag, Pb.

P CLAIM D. WALLACE

Bridle Veil Falls

Sundown

Dooley Ck.

To Sheffield

To Cradle Mtn.

5 410 000m N
5 408 000m N
5 406 000m N
5 404 000m N
5 402 000m N
5 400 000m N

420 000m E
422 000m E
424 000m E
426 000m E
428 000m E
430 000m E
432 000m E
434 000m E

LEGEND

- Road Surfaced
- Vehicular Track
- Track
- Mineral Lease Granted
- Mineral Lease Under Application
- Exploration Licence Under Application

90-3112.

90-3112.

501026

TN GN MN

5 cm

SCALE 1:20,000

MOINA MINING INDUSTRIES

MOINA-DOLCOATH GRANITE DISTRICT

EXPLORATION LICENCE 7/89.

DRAWN: C.H.W.	SCALE: 1:20,000	PLAN
TRACED: T.G.D.S.	DATE: August 1988	

90-3112

026

EXPLORATION LICENCE 7/89

MOINA DISTRICT 501027

CLIFF H WHITEHEAD

PLAN N° 5/89

DATE FEB. 1990 (PRELIMINARY) SCALE 1:2500

4246000mE

5406500N

4247000mE

5406500N

M.L 22M/85

HEC LINE

5406000N

BASE-LINE

EXPLORATION LICENCE 7/89

BISMUTH CREEK FAULT ZONE

5406000mN

MINING LEASE 17/60

LAWKEMLAW

PIG AND WHISTLE

LAWSON AND RILEY

400mS

CRADLE MOUNTAIN ROAD

CH WHITEHEAD GROUND MAGNETIC GRID SURVEY

IRIS MINE MILL

SHAFT

OLD MILL

IRIS MINE

SMD 27 (COMALCO)

DAM

SMD 26 (COMALCO)

SHAFT

DL10

DL11

DL12

DL13

DL14

DL15

DL9

DL8

DL7

DL6

DL5

DL4

DL1

DL2

DL3

SW1

SW2

SW3

SW4

SW5

SW6

SW7

SW8

SW9

SW10

SW11

SW12

M.L 31M/83

800mS

WATER LEASE 7W/83

CH WHITEHEAD & A LAVELL

5406500mN

ELUVIAL AREA S.W. OF ML 31M/83

BISMUTH CREEK FAULT ZONE

MOINA DEEP LEAD

DAM

C6

C1

C2

C3

C4

C7

C8

C9

C10

C11

C12

13

SE ML31/83 ALLUVIAL AREA

800S

5405000N

HEC LINE

4246000mE

4247000mE

5405000N

400S

5405500N

LEGEND

V V = TERTIARY BASALT

ORDOVICIAN

= MOINA SANDSTONE

= ROLAND CONGLOMERATE

CAMBRIAN

= PORPHYRY (PALE GREY)

= QUARTZ BIOTITE PORPHYRY

= QUARTZ VITRIC TUFF

= POTENTIAL WCL/SN ELUVIAL/ALLUVIAL GROUND

= IRIS ELUVIAL MINE (POWER AUGURED)

EL 7/89 1989/90 EXPLORATION

DL12 DL13 = MOINA DEEP LEAD (POWER AUGER LOCATIONS)

SW1 SW2 = SW OF ML 31M/83 (ELUVIAL)

CU CS = SE OF ML 31M/83 (ALLUVIAL)

= COMALCO SOIL SAMPLE GRID

= IRIS MINE CH WHITEHEAD GROUND MAGNETIC SURVEY

= EL 7/89

50 40 30 20 10 0 50 100 150 200 250m

5 cm