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TASMANIA MINES N.L.

EXPLORATION LICENCE 17/68

REPORT A - Proposed Work Programme & Expenditures
4th November, 1986 to 3rd November, 1987

REPORT B - Completed Work Programme
4th November, 1985 to September 15th, 1986

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REPORT B/86

TASMANIA MINES N.L.

EXPLORATION LICENCE NO. 17/68

PRELIMINARY SUMMARY REPORT OF COMPLETED WORK PROGRAMME AND STATEMENT OF EXPLORATION EXPENDITURES

PERIOD: NOVEMBER 4, 1985 to SEPTEMBER 15, 1986

REPORT A/86

TASMANIA MINES N.L.

EXPLORATION LICENCE 17/86

PROPOSED WORK PROGRAMME AND ESTIMATED EXPENDITURES

PERIOD - 4TH NOVEMBER, 1986 to 3RD NOVEMBER, 1987

EXPLORATION LICENCE 17/68

INTRODUCTION & SUMMARY:

In support of an application for the renewal of E.L. 17/68 for a further period of 12 months from November 4th, 1986, Tasmania Mines N.L. submit details of a proposed work programme and estimated exploration expenditures for the period in question.

The proposed programme of exploration work is confined to the area embraced by E.L.17/68, and exclusive of any mine geologic/pre-production work being carried out in the area covered by Consolidated Lease 105M/77. It is envisaged that proposed activities would be continuous throughout the twelve month period, and is in fact a continuation of ongoing activities currently underway by Tasmania Mines N.L.

Estimated exploration expenditures for the proposed work programme to November 3rd, 1987 are calculated at $155,250. Application is made for the renewal of exploration rights for the entire area of 75sq.kms at present covered by E.L.17/68. Attached Plan No. 1 shows the location of proposed exploration activities.

In support of this application, an additional report(Attached Report B) summarises preliminary details of the nature and results of work completed during the initial ten month period of the current term of E.L.17/68. For the 12 month period ending July 1, 1986, total actual exploration expenditure amounted to $154,504.

The nature of the proposed exploration programme for the forthcoming year is essentially designed to fully evaluate the overall potential of the E.L. area prior to the eventual relinquishment of the E.L. Licence on November 3, 1987.

Proposed work is two fold in nature, details of which are as follows:-

1. EXPLORATORY DRILLING PROGRAMMES.

Drilling of an exploratory nature is proposed for the entire 12 month period, and will be concentrated in areas where previous surface explorative work has been finalised and successful in outlining potential

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zones of magnetite skarn buried beneath Tertiary basalt and sediments. Exploration drilling is required to confirm both the presence of these subsurface skarns and of course investigate the possibility of associated tungsten mineralisation.

The drilling programme would be completed by utilising the in-house Tasmania Mines N.L. drill rig and crew.

Areas proposed for investigation would include the following:- (please refer to attached plan).

a) Between Location L.5 and Eastern Ridge
b) North of Location L.5
c) Location L.1
d) Hampshire Silver Mine
e) North of the Kara North 266 Zone
f) Kara North Magnetite Anomaly
g) Hampshire Magnetite Skarn
h) Location L.13

Dependent upon progressive results, the above proposed exploratory drilling programmes could be modified at any time during the 12 month period. If successful results are obtained, and more extensive infill drilling is required, supplementary budgets will be requested, and if obtained, outside drill contractors will be hired.

2. SURFACE EXPLORATION INVESTIGATIONS:

Ground surveys, both regional and detailed are planned at the following areas and regions -(please refer to accompanying plan). The surveys are proposed in the outlying sections of the E.L. area over areas which require final assessment prior to E.L. relinquishment.

a) Limestone Creek area - a continuation of the 1985/86 surface exploration work, namely an evaluation of known wollastonite units. This work will consist of detailed geologic mapping, structural interpretation and detailed sampling of calc-silicate units in the area.

b) Mt. Misery region - a general geologic appraisal, supplemented by a regional pan concentrate geochemical sampling programme of the regions drainage.

c) Kara No. 2 East and South Skarn Zones - An overall geologic - geophysical evaluation of those skarns in the extreme western sections of the E.L. - both skarns scantily examined in previous exploration programmes.

3. GENERAL:

It is envisaged the overall programme of work proposed above could be completed within the twelve month period in question. The surface exploration investigations are anticipated to be completed by one exploration field crew over a 5 - 6 month period. Ideally this section of work would be finalised during the first half of the year.

4. ESTIMATED EXPENDITURE:

It is believed that the required Department of Mines minimum expenditure for an E.L. covering an area of 75 sq.kms($37,500) will be exceeded.

Although the proposed work programme and estimated expenditures are both subject to modifications and changes dependent upon unforseen circumstances, it is estimated that the exploration expenditures for the above programme during the twelve month period to November 3, 1987 will total $155,250.

A breakdown of this proposed total project expenditure is as follows:

a)	Diamond drilling	$120,250
b)	Surface exploration work	$35,000

CLIFF H. WHITEHEAD,
for
TASMANIA MINES N.L.

29th September, 1986.

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PRELIMINARY REPORT OF COMPLETED WORK PROGRAMME AND STATEMENT OF EXPENDITURES

EXPLORATION LICENCE NO. 17/68

PERIOD - 4TH NOVEMBER, 1985 to 15TH SEPTEMBER, 1986

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January - June, 1986

PRELIMINARY REPORT - E.L.17/68

4th November, 1985 to 15th September, 1986

1. INTRODUCTION AND SUMMARY:

In support of an application for the renewal of E.L.17/68 for a further period of twelve months from November 4, 1986, the following report itemises details of work completed, and actual expenditures incurred, during the initial 10 months of the current term of E.L.17/68.

A final annual report compiling details and results of the work programme will be presented to the Department of Mines on completion of the current term of the exploration licence(namely November 3rd, 1986). The current report should be regarded as preliminary and summary in form,.

Exploration work has been continuous since mid November, 1985, and activities have been designed at completing an overall evaluation of the economic potential of the 75sq. kms covered by the E.L. Work programmes have been twofold in nature, either surface exploration surveys or drilling programmes. The attached plan shows the specific location of areas worked during the current term.

In summary, the results of exploration have to date been extremely encouraging. The most significant results are:-

- identifying a new area of tungsten mineralisation by exploratory drilling. The area in question occurs along the eastern limb of the Kara synform between previously recognised skarn zones of Location L.5 and the Eastern Ridge.
- two of three surface or near surface magnetite skarns(Kara South and Eastern Ridge) have by evaluation drilling resulted in additional reserves of scheelite bearing ore which could be extracted by open-pit methods.

- a new magnetite skarn zone was identified and partially examined by diamond drilling at Kara No.2.
- surface exploration surveys both of a localised and regional nature were completed as planned. Work at both Location L.1, and in the region between L.5 and Eastern Ridge, was of sufficient promise to justify recommending further work, including investigations by drilling.

Work completed during the current term has been of such a nature as to assist in the evaluation of areas of sufficient economic potential to qualify for conversion to mineral leases. An additional six mineral leases peripheral to the existing Consolidated Lease 105M/77, and covering 469 hectares, have been delineated for immediate M.L. application.

Total actual exploration expenditures within Exploration Licence 17/68 for the financial year ending June 30th, 1986 amounted to $154,503.

2. NATURE OF WORK:

During the current term, exploration investigations were initiated in earnest in mid December 1985. Although investigations primarily revolved around an assessment of tungsten potential, additional work has also been directed at further evaluating the possible economic potential of known magnetite and wollastonite deposits within the E.L. area.

The format of tungsten exploration work has been as follows:-

- Surface exploration activities of either a localised or a regional nature. Three locations and two regions were investigated. The type of work completed included a combination of geologic mapping, geochemical(soil, rock, pan concentrate) and ground magnetic surveys, with the intention of reaching a stage to evaluate the need for possible subsurface(drilling) activities.

- Drilling Programmes:

  Either: Exploratory Drilling, the objective being to investigate the tungsten potential of partially delineated or suspected zones of magnetite skarn buried beneath Tertiary cover,

  Or: Evaluation drilling, to be undertaken at known near surface scheelite bearing skarn zones to evaluate their tonnage/grade qualifications and possible open pit mining potential.

The above surface exploration work was completed on a contract basis hiring two exploration field crews and supervising geologist. Drilling programmes were completed by utilising Tasmania Mines N.L. drill rig and crew, again supervised by a contract geologist.

3. SURFACE EXPLORATION WORK:

3A Localised Surveys:

3A.1 Kara No. 2 Main Skarn:

During the current term an overall exploration appraisal of the Kara No. 2 Main Skarn Zone, and its bordering granite/greisenous contracts has been completed.

Primary objectives were:

- to evaluate the skarns potential as a possible source of high grade unoxidised magnetite ore,
- an investigation of the tin content of the skarn zone,
- an assessment of the possible tin and/or tungsten potential of greisenous zones in the N.W. sections of the area.

Work completed consisted of:

- review of all previous field data, reports, plans, etc - i.e. Department of Mines, Anzeco, McIntyre Mines, Tasminex N.L., and Savage River,
- establishing a field grid system over an area of approximately 1,100m by 250m. This consisted of a N-S base line and E-W traverse lines spaced at 50 metre intervals,

- delineating the skarn zone,
- topographical survey of the area,
- detailed mapping of the magnetite zones in the skarn. i.e. classification of the magnetite zones in accordance to their magnetite content, lithologies, and degree of oxidation,
- detailed ground magnetic survey, readings taken at 5m intervals along all E - W traverse lines,
- geochemical pan concentrate sampling of the regions drainage in and around the N, NE, and NW sections of the main skarn.
- soil sampling the western contact of the granite/skarn and greisenous zones,
- trenching and systematic sampling along the western margin of the skarn.(Traverse Lines 4S, 4N and 10N)
- diamond drilling in south-central sections of the skarn.

Results of work showed:

- low to negative tungsten anomalism within the skarn-zone. Low order scheelite counts were only observable in the extreme margins of the granite bordering the skarn,
- previously completed(1964) Mines Department ground magnetic surveys at Kara No. 2 indicated the presence of a number(6) of magnetic anomalies. The current magnetic survey showed significant differences to the Mines Department interpretations and format of magnetic 'highs'. More significantly a new strongly developed magnetic high was delineated to the south of the area covered by the Mines Department survey.

  This 'high' covered an area of approx. 200 x 150m size, and was covered by a swampy button grass plain. As will be shown in Sec.4B.1 of this report, the area has subsequently been investigated by two diamond drill holes, DDH's 505 and 506. High grade magnetite skarn was proved, but lacking the presence of any associated tin, tungsten or base metal mineralisation or anomalism.

- pan concentrate sampling in and around Kara No. 2 showed three anomalous tin zones, namely,
  - along the WNW margin of granite skarn
  - along the western margin of the recently delineated ground magnetic high in the south central section of the skarn,

- within an alluvial area NE of Kara No.2. With followup, more detailed investigation, this area was proven to be too small and shallow for further consideration.,

- trench sampling of the western margin of the skarn immediately bordering (10 - 12m) the granite revealed a narrow(3 - 5m) zone of anomalous(max. 8000ppm) tin content.

Plans and full compilation of exploration data and results will accompany the final annual report.

3A.2 Horizontal Creek Area:

This area is located east of the Bobs Bonanza skarn, and south of the Eastern Ridge deposit. It covers an area of approx. 1100m by 450m size.

The objectives of investigations were to:-

- investigate the unexplained source of scheelite grain counts of previous reconnaissance pan concentrate sampling of the Horizontal Creek drainage,
- assess the possible potential of two narrow skarn zones identified in the southern sections of the area,
- investigate the possibility of northerly strike extensions of these skarn zones.

Exploration work completed in the area included:-

- cutting E - W traverse lines across the entire area. These lines were spaced at 50m intervals,
- completing a ground magnetic survey(readings at 5m intervals) and geologic observations over the gridded area,
- complete a detailed pan concentrate sampling programme of all available drainage patterns,
- undertaking U.V. lamping of the Horizontal Creek drainage channel,
- finalise a topographical survey, and tie in with previous Eastern Ridge and Bobs Bonanza base topographical plans.
- shallow diamond drilling(DDH500 - 504)

Overall results were classified as disappointing.

Scheelite dispersal in the Horizontal Creek drainage now appears to be shed from the granitic eastern contact which follows the main N - S creek of the area. Subsequent U.V. lamping failed however to confirm the presence of scheelite in any exposed granite.

The isolated skarns to the south of the area showed no associated tin or tungsten anomalism, nor did they show any strike extensions to the north.

Drilling provided more accurate information re the extent and nature of the eastern contact of the Bobs Bonanza skarn zone. The granite appeared more discordant in nature than previously anticipated, and the extent and quality of the magnetite material in the skarn was disappointing.

In conclusion, the area is evaluated as having little additional economic potential, and the location is one which could be considered as a potential overburden/waste dump site for the nearby Kara No. 1 mine operation.

3A.3 Location L.1:

This is a partially exposed magnetite skarn zone located in the extreme N.E. corner of the E.L. licence area, bordering the main Housetop granite intrusive.

The prime objective of surface explorative work was to reach a 'decision stage' as to whether the skarn had any mineralised potential, and if subsurface drilling would be justified at a later date.

Surface work completed included the following:-

a) Grid establishment, N - S traverse lines established at 25m intervals,
b) systematic geochemical soil sampling at 10m intervals along the above traverse lines, with routine Sn, WO_3. Mo and Pb analysis of these samples,

c) follow-up additional 5m spaced geochemical soil sampling of an anomalous Zn zone delineated during the above initial geochemical work,
d) geological mapping of the skarn area,
e) pan concentrate sampling of the skarn drainage and general random panning of skarn eluvial material.
f) shallow percussion drilling(maximum depth 21m) across the south - central section of the skarn.

The results of the work proved extremely encouraging.

The extent of the skarn has now been delineated and its spatial relationship with the northerly exposed granite intrusive can now be established more accurately.

Systematic soil sampling revealed favourable values, up to 170ppmW, 1120ppm Sn, 165ppm MO and 175ppm Pb. The density of sampling has been such as to provide reliable interpretations of geochemical anomaly trends and pinpoint future targets justifying subsurface investigations.

3B Regional Surveys:

3B.1 Location L.5 to Eastern Ridge:

This prospective region extends for a strike distance of 1.4kms between the two abovementioned skarn deposits. The region is entirely covered by Tertiary sequences, but regional geologic interpretations would indicate it to coincide with the eastern limb of the Kara synform structure affecting buried metamorphic Ordovician sequences. Initial reconnaissance ground magnetic surveys showed a subtle expression of buried N - S striking magnetite zones within these buried Ordovician sequences.

Exploration work carried out during the current period involved grid establishment and detailed ground magnetic surveys/topographical surveys in order to provide a better definition/interpretation

of subsurface geology, plus optimise specific locations of drill sites and targets of buried magnetite skarn.

Seven such potential drill target areas were investigated, namely at 6600N, 6700N, 7070N, 7100N, 7250N, 7300N, and 7550N. Following magnetic survey interpretation, it was anticipated that at these locations, the depth of the Tertiary basalt/sediment cover would vary from between 45m and 80m thickness. The general attitude of the Ordovician sequences was interpreted as dipping west at an angle between 55^{o} and 70^{o}.

(N.B. Exploratory diamond drilling was subsequently initiated at three of the above locations. Each proved successful in defining magnetite skarn zones, two of which contained associated tungsten mineralisation of ore grade quality.)

3B.2 Valentines Area:

Regional(and localised) surveys were conducted and finalised over the S.S.W. trending zone of Ordovician sequences(Moina Sandstone and Transition Series) extending from the Kara South prospect to the southern border of the Exploration Licence area.

Work completed included base map preparation, air photo interpretation, aeromagnetic data evaluation, reconnaissance and ground magnetic surveys, geologic mapping and pan concentrate sampling.

Both mapping and magnetic surveys outlined and better delineated the Ordovician Transitional Series in the region. Although these were slightly metamorphosed/altered, where exposed, no associated tungsten anomalism was apparent or detected.

Pan concentrate sampling of the regions overall drainage system likewise revealed negative tin and tungsten values, and no further work is planned for the region in the immediate future.

4. DRILLING PROGRAMME:

4A Evaluation Drilling:

This type of drilling was completed at three locations, namely Kara South, Eastern Ridge and Bobs Bonanza. The objective was to investigate and block out tonnages of scheelite bearing ore (X, Y or F ore types) of potential open pit mining extraction.

Before drilling it was believed that each of the above deposits could have potential for additional reserves in the order of 20,000 to 45,000 tonnes of open pit ore material. Better definition of continuity of WO_3 grades within the ore lenses was a main priority of investigation.

Each of the above skarn deposits are within close proximity (minus 1.2km distance) of the new Kara No. 1 processing plant.

This evaluation drilling was undertaken by remobilisation of the Tasmania Mines N.L. Joy Sullivan diamond drill rig utilising an in-house drill crew. Diamond drilling was supplemented when and if required by the utilisation of air track drills operating at the Kara No. 1 mine operation.

4A.1 Kara South:

Objective: To investigate by drilling the tonnage/grade potential of known surface mineralisation along the eastern flank of the Kara South deposit. The main objective of drilling was to define the extent of down dip mineralisation from surface exposures and an investigation of grade variability/continuity with the ore lens.

Nature of work:

- 78 shallow air track drill holes with a total drilled meterage of 593.50metres were drilled. The holes, in general, were spaced at 5m intervals along drill lines spaced at 15m intervals.

- Drill samples were collected at either 1.5 to 3.0m intervals.
- Total number of samples was 228, all samples being lithologically logged and assayed for WO_3.
- The area was geologically mapped, and a reconnaisance ungridded ground magnetic survey ran over the area in question.
- All above results were utilised in conjunction with past surface exploration observations and diamond drill programmes. (McIntyre Mines).

Ore Block Evaluation:

- Mineralised ore lenses were blocked out(cut off grade 0.2% WO_3) and plotted on bench plans at 2.5m intervals, and shown on drill sections.
- Ore volumes were plani metered, and tonnage/grade calculations were made on a level x level basis, and subdivided into five separate ore blocks.
- Two separate zones of mineralisation were delineated. namely Zone A from 4285N - 4570N, and Zone B at 4410N.
- Zone A varies in width from 4.5 - 14.0m, strikes 345^{o} and dips west at 55^{o} - 65^{o}. Enclosing rocks are grey siltstones/quartzites (east) and sandstones(west). with the host horizon being a garnet - diopside - magnetite skarn. Magnetite content was low order 5 - 25%).

Results of Work:

- A total of 59,039 tonnes of Y ore grading 0.437% WO_3 have been calculated.
- This was subdivided as follows:
  - 23,463 tonnes of indicated Y ore @ 0.394%WO_3
  - 35.576 tonnes of measured Y ore @ 0.465% WO_3
- Zone A consisted of 42,802 tonnes @ 0.461% WO_3
- Zone B consisted of 16,237 tonnes @ 0.373%WO_3

- On a level x level basis, Zone A mineralisation showed consistent tonnages with a slight decrease of grade with depth.
  - 522.5 Level - 5,816 tonnes @ 0.488% WO_3
  - 520.0 Level - 11,926 tonnes @ 0.393% WO_3
  - 517.5 Level - 11,858 tonnes @ 0.561% WO_3
  - 515.0 Level - 11,874 tonnes @ 0.396% WO_3
  - 512.5 Level - 12,567 tonnes @ 0.371% WO_3

Mining aspects:

- Above tonnages would definitely be classified of open pit mining extraction.
- The maximum mining depth from surface would be 12.5 m.
- The waste ore:strip ratio is approx. 0.5:1.0

Further possible investigations:

- Upgrade Zone A indicated reserves to a measured category by additional infill air track drilling.
- Investigate the strike extensions of the identified Zone B mineralisation.

4A.2 Eastern Ridge:

Evaluation drilling at this location primarily involved an examination/evaluation of the "Upper Skarn Unit" south of East Kara Creek between Section Lines 6210N and 6293N,(i.e. a 83m strike length).

Both diamond and percussion drilling was undertaken, and during the study, drill results were supplemented by mapping and/or trench sampling.

As a result of this work, it was evaluated that between Levels 475.0 and 492.5, a total of 43,376 tonnes of X and Y ore grading 0.449%WO_3 would be readily available by low stripping ratio open pit mining.

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At this stage, these reserves would be classified as INDICATED, and would be divisible into 32,393 tonnes of partially weathered ore(Y) and 10,983 tonnes of weathered (X) material.

In addition, and over the same investigated strike length, supplementary geological reserves classified as INFERRED(39,339 tonnes) and POSSIBLE (57,120 tonnes) could also be available. It would however be unlikely these could be extracted by open pit methods of a low strip ratio.

4A.3 Bobs Bonanza:

Core and air track drilling was completed at this skarn location with two objections in mind:

- East Skarn Zone: Shallow core drilling was completed to investigate the possible potential of lowgrade scheelite mineralisation, and/or high grade open pit magnetite ore reserves within the east zone.
  DDH's 500 to 504 - total meterage 116.40m - were drilled between 5670N and 5850N. Results showed that the western contact of the Horizontal Creek granite body was more discordant and near surface than previously interpretated, and thereby limiting potential magnetite reserves to the zone north of 5800N. South of that co-ordinate, the area could be regarded as a potential overburden/waste dump site.

  The area south of 5670N towards the main Kara access road and new mill site was trenched and air track drilled in a reconnaisance/random fashion. Extensive weathering of the zone downgraded the skarn's potential as a source of magnetite. This area could now be utilised as a stockpile site for the Kara No. 1 treatment plant.

- 'Mined'Skarn Zone: Air track drilling was undertaken at the southern limits of the Bobs Bonanza 'mined area'. A total of 36 holes totalling 321 metres were completed.

  The drilling and subsequent assays showed that no down-dip or strike extensions of any mineable widths of ore were apparent. No further exploration or mine work is proposed in this area.

4B Exploratory Drilling;

Exploration drilling had been planned in the E.L. area over previously recognised surface or delineated subsurface targets of magnetite skarn which had previously been untested for possible associated WO_3 mineralisation. Three such locations/areas have or are being investigated during the current exploration programme.

4B.1 Kara No. 2 Main Skarn Zone:

Diamond drill holes DDH's 505 and 506, of 72.40m and 82.30m respectively, were completed over the recently delineated magnetic high anomaly located during surface exploration surveys in the south-central sections of the "Main Skarn Zone". Drilling was undertaken on grid section line No. 7S, the drill pad being located on swampy ground in the central part of a button grass plain.

The holes showed a strong development of a magnetite diopside skarn forming part of a shallow(50 - 60m depth) saucer shaped body resting upon the main mass of the Devonian Housetop Granite. The skarn was extensively weathered to a depth of 30m. Geochemical assays of the skarn showed no significant mineral/metal anomalism.

4B.2 Location L.5 to Eastern Ridge:

Detailed ground magnetic surveys in the above region had accurately delineated the trend of the Ordovician Transitional Series(potential host for magnetite skarn development) buried beneath Tertiary cover. The surveys were also orientated in order to optimise interpretations of subsurface pre-Tertiary geologic attitudes, specific drill targets and drill site geometry.

DDH's 508 and 509 were collared to investigate one such target at 7070N.

Drill objectives were primarily threefold:-

- to prove interpretations of geology, namely an estimated 70 - 80m cover of Tertiary basalt and sediments overlying the Ordovician Series, and in particular the Transition Series interpretated to dip west at 55^{o} - 70^{o}.

- to prove the Transition Series contained magnetite skarn zones, estimated to be of narrow width(5 - 10m) and of medium magnetite content(30 - 40%Fe).

- to investigate possible tungsten mineralisation associated with the magnetite skarn zones.

DDH508, 85 - 90m depth, proved the correct interpretation of pre-Tertiary geology, and the presence of the Ordovician Transitional Series, but however only a very poor development of magnetite skarn. Significantly 'specks' of scheelite were identified in partially weathered diopside skarns.

DDH509, was collared at the same drill site location, but angled more steeply(85^{o}E) to investigate the favourable host horizon at a lower depth along the border of the neighbouring granite intrusive body E.O.H. was at 95.00m.

The results were encouraging in that the hole intersected magnetite skarn between a drill depth of 81.40m and 86.50m and more significantly contained high grade scheelite mineralisation, namely:-

DDH 509 - 81.40m to 84.50m, 3.10m @ 1.10%WO_3
- 84.50m to 86.50m, 2.00m @ 0.415%WO_3

An additional drill tartet along the same subsurface trench in the region was investigated at 7280N, i.e. 210m due north along strike from the above drill holes.

Drill objectives were again identical and results of DDH510 were likewise successful. Intersected Ordovician sequences(marbles,

skarns) buried beneath approx. 100m of Tertiary basalt and sediments were shown to contain well developed magnetite and associated scheelite mineralisation. Assays of this material are as follows:-

DDH510 - 137.50 to 139.50, 2.0m @ 0.21% WO_3
139.50 to 141.00m, 1.5m @ 0.44% WO_3
141.00 to 143.50, 2.50m @ 0.66% WO_3

A third drill target in the region is being drilled (DDH 511) at 6740N , north of the Eastern Ridge deposits. The core has not been logged as yet.

5. ADDITIONAL INVESTIGATIONS:

5A Wollastonite Studies:

An initial assessment of known wollastonie occurrences at the Limestone Creek Area in the central sections of E.L.17/68 was completed by ZETETIC- consulting economic geologists during October / November 1985.

The work completed was preliminary(literature review, reconnaissance surveys/ sampling), but recommendations were made that a more detailed appraisal(drilling) of the deposit was justified to assess the deposits economic viability.

However, prior to drilling , it was decided to complete more thorough surface exploration work in the area. This would include geologic mapping, geologic structural interpretation and, intensive sampling of all calc-silicate exposures. This work was initiated in February 1986, but had to be terminated prior to completion due to other priority work and lack of manpower.

Specific drill core samples of various calc-silicate rock suites from various drilled skarn locations in E.L.17/68,

especially Location L.5 and the Kara North Magnetite Anomaly have been submitted for mineralogical and petrological examinations. In addition, during the current term, bulk samples of surface exposed wollastonite material have been subjected to metallurgical test work at both the Department of Mines' Laboratories, Launceston, and by Abermet, Burnie.

5B. Magnetite Investigations:

These have been two fold:-

a) Completion of a preliminary "first pass" review and evaluation of the potential MAGNETITE RESOURCES of the Kara(E.L.17/68) properties. Special emphasis was placed on whether these resources would be of sufficient magnitude and quality to provide an immediate or future economic source of supply of magnetite for use as either blast furnace metallurgical iron, heavy medium magnetite or for use in the cement industry.

An in-base report summarising this review was completed on 26th November, 1985.

b) The suitability of magnetite from various E.L. skarn zones at Kara for use as a dense heavy medium in coal preparation has been studies.

The delineation of reserves of high grade magnetite zones at potential open pit deposits of skarn on the Kara Properties has been attempted, and from these deposits, seven samples were prepared and collected for detailed laboratory test work at the Australian Coal Industry Research Laboratories, Maitland, N.S.W.

Four of these samples are considered representative of magnetite zones at the Kara No. 1 deposit(see lines 5780N, 5820N, 5860N, and 5900N) and the remaining samples were representative of the Companion Skarn Zone, the Kara North Magnetite Anomaly and the Bobs Bonanza East Skarn Zone.
All seven bulk samples received favourable results.

6. GENERAL:

- Consolidated Mineral Lease 26M/64 formerly held by A. & D. Pearson over the Kara No. 2 Main Skarn deposit was surrendered in May, 1985. On 15th January, 1986, the surrendered area was pegged by Tasmania Mines N.L., and application made for the 90 acre parcel of land in question to be incorporated within E.L.17/68.

- Steps have been initiated to convert sections of E.L.17/68 to mineral leases. Six such M.L.'s are planned, covering 469 hectares, and these would envelop known tungsten resources/ deposits at Kara North, Kara South, Eastern Ridge extensions and Location L.5. The proposed mineral leases surround the existing Consolidated Mineral Lease C.L.105M/77.

7. EXPLORATION EXPENDITURES:

Actual exploration expenditures incurred by Tasmania Mines N.L. for the twelve month period ending July 2, 1986 amounts to $154,503. Attachment "A" itemises details of these exploration expenditures. This total does not include mine geological expenditures incurred at the Kara No. 1 mine operation.

CLIFF H. WHITEHEAD,
for
TASMANIA MINES N.L.

29th September, 1986

ATTACHMENT "A"

STATEMENT OF EXPLORATION EXPENDITURE - E.L.17/68

Tasmania Mines N.L. incurred the following exploration expenditure within Exploration Licence 17/68 during the twelve month period ending July 1, 1986:

General Exploration	-	49,396.13
Geology	-	38,230.70
Geochemistry	-	3,816.95
Geophysics	-	11,285.06
Diamond Drilling	-	34,566.83
Percussion Drilling	-	5,257.80
Drafting	-	63.40
Surveying	-	808.83
Assays	-	2,258.11
Research	-	689.21
Transportation	-	5,742.56
Reporting / Administration	-	1,528.40
Tenure	-	200.00
Magnetite	-	559.92
Wollastonite	-	100.00
TOTAL		$154,503.90

ATTACHMENT "B"

E.L. 17/68 - DRILLING STATISTICS, JANUARY TO JUNE, 1986

A. DIAMOND DRILLING:

Hole No.	Location	Depth Drilled (m)
DDH500	BOBS BONANZA-E. Skarn	23.10
DDH501	" " "	22.80
DDH502	" " "	29.00
DDH503	" " "	11.30
DDH504	" " "	30.20
DDH505	KARA NO. 2 MAIN SKARN	72.40
DDH506	" " " " "	82.30
DDH507	EASTERN RIDGE	78.70
DDH508	L.5 to EASTERN RIDGE	85.90
DDH509	" " " "	95.00
DDH510	" " " "	150.00
DDH511	" " " "	108.00
TOTAL METRES		788.70

B. AIR TRACK DRILLING:

	NO. OF HOLES	METRES DRILLED
LOCATION L.1	10	81
EASTERN RIDGE	7	102
KARA SOUTH	78	593.50
BOBS BONANZA	36	321
TOTAL	131	1,097.5m

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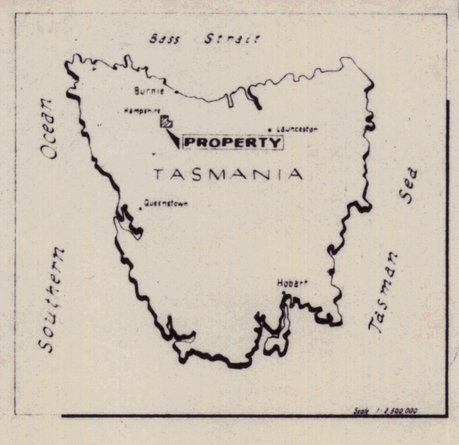
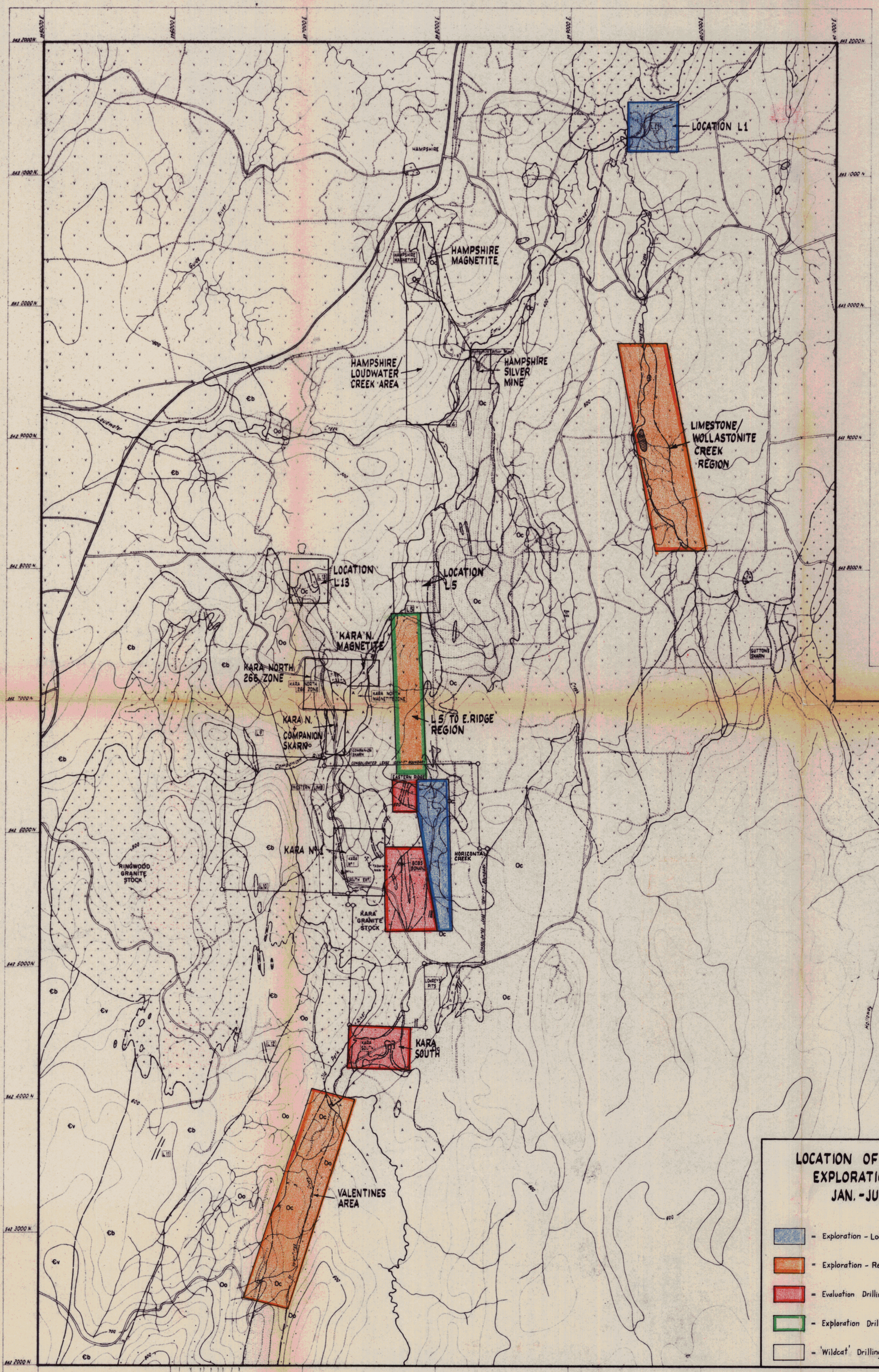
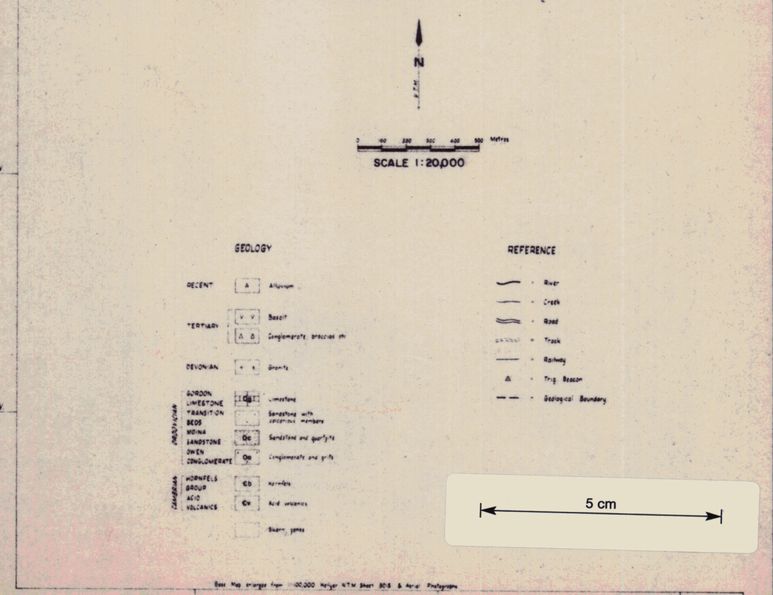
PLAN N° 86/10A



E. L. 17/68 - KARA PROPERTIES

EXPLORATION PROGRAMME - JAN. TO JUNE 1986





LOCATION OF COMPLETED EXPLORATION WORK JAN. - JUNE 1986

- = Exploration - Localised investigations
- = Exploration - Regional
- = Evaluation Drilling
- = Exploration Drilling
- = 'Wildcat' Drilling

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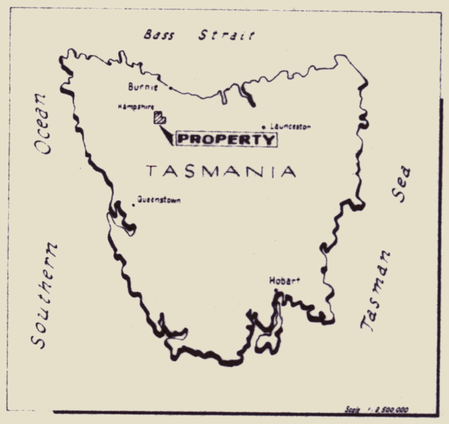

TASMANIA MINES N.L.

E.L. 17/68 - KARA PROPERTIES

LOCATION L1

HAMPSHIRE MAGNETITE

HAMPSHIRE/ LOUDWATER CREEK AREA

HAMPSHIRE SILVER MINE

LIMESTONE/ WOLLASTONITE CREEK REGION

LOCATION L13

LOCATION L5

KARA N. MAGNETITE

KARA NORTH 268 ZONE

KARA N. COMPANION SKARN

L5 TO E. RIDGE REGION

HORIZONTAL CREEK

KARA No 1

RINGWOOD GRANITE STOCK

KARA GRANITE STOCK

KARA SOUTH

VALENTINES AREA

SUTTONS SKARN

HOUSETOP GRANITE

KARA No 2 MAIN ZONE

KARA No 2 EAST ZONE

KARA No 2 SOUTH ZONE

SCALE 1:20,000

5 cm

E.L. 17/68

PROPOSED WORK PROGRAMME

NOV. 1986 - OCT. 1987

= Exploration - Localised investigations

= Exploration - Regional

= Evaluation Drilling

= Exploration Drilling

= 'Wildcat' Drilling