South Mount Cameron EL Asset Evaluation

EL22/2002, EL27/2001, EL21/2002

Exploration Summary July 07 to April 08

Assets:

South Mt Cameron

Moorina

Main Creek

Reference Site:

Riverside Alluvial Mine

Exploration:

Dr Brett Teale

Dr Brian New

Mr Alistair Nicholas

Mr Colin Robinson

Contractors

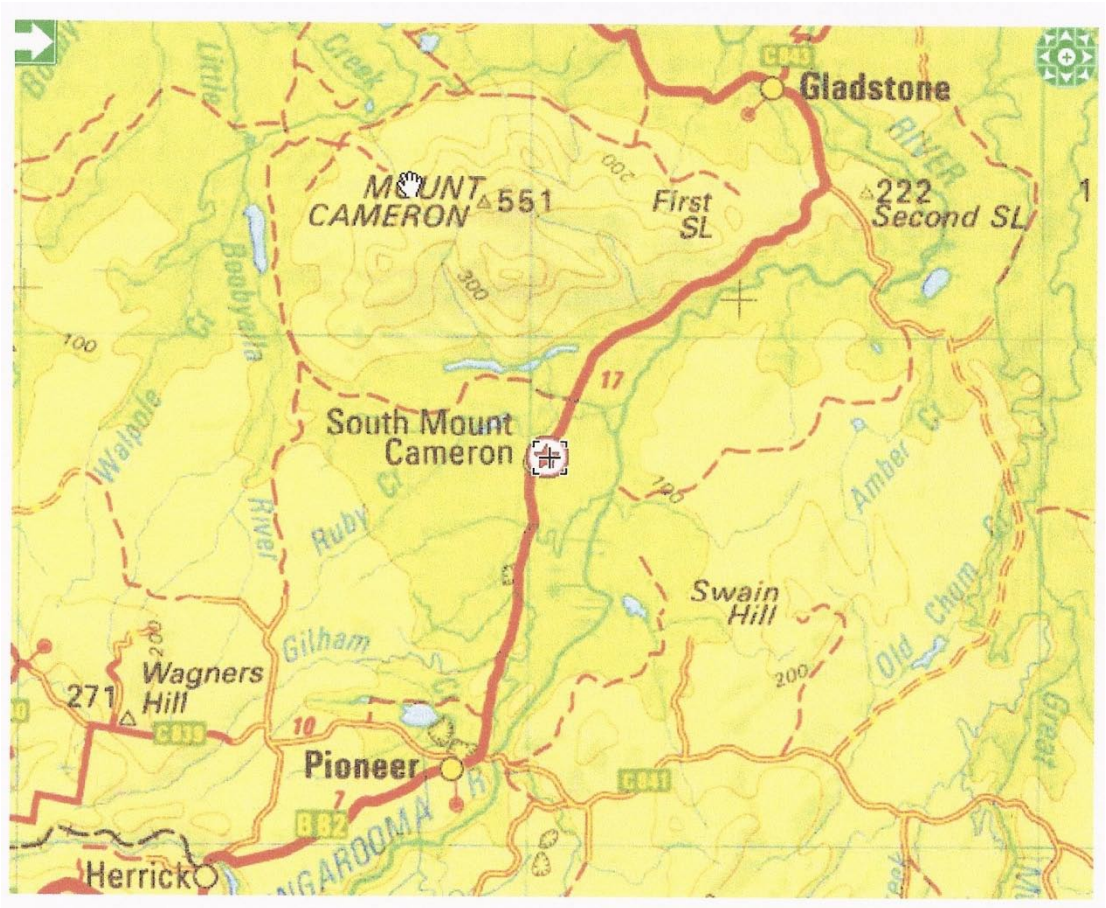
Report Date: 20 May 2008

Background:

South Mount Cameron, Moorina and Main Creek are situated in North East Tasmania, south of Gladstone and North of Derby on ground with a strong history of alluvial tin recovery. Cyclic fluctuations in price and improved methods of recovery have increased the economic potential of the region. The potential for sale of the Riverside Alluvial site to KML requires further resources to be identified within viable transport proximity to justify investment and acquisition.

Comprehensive Background is available in the Attached Consultants Report.

Location:



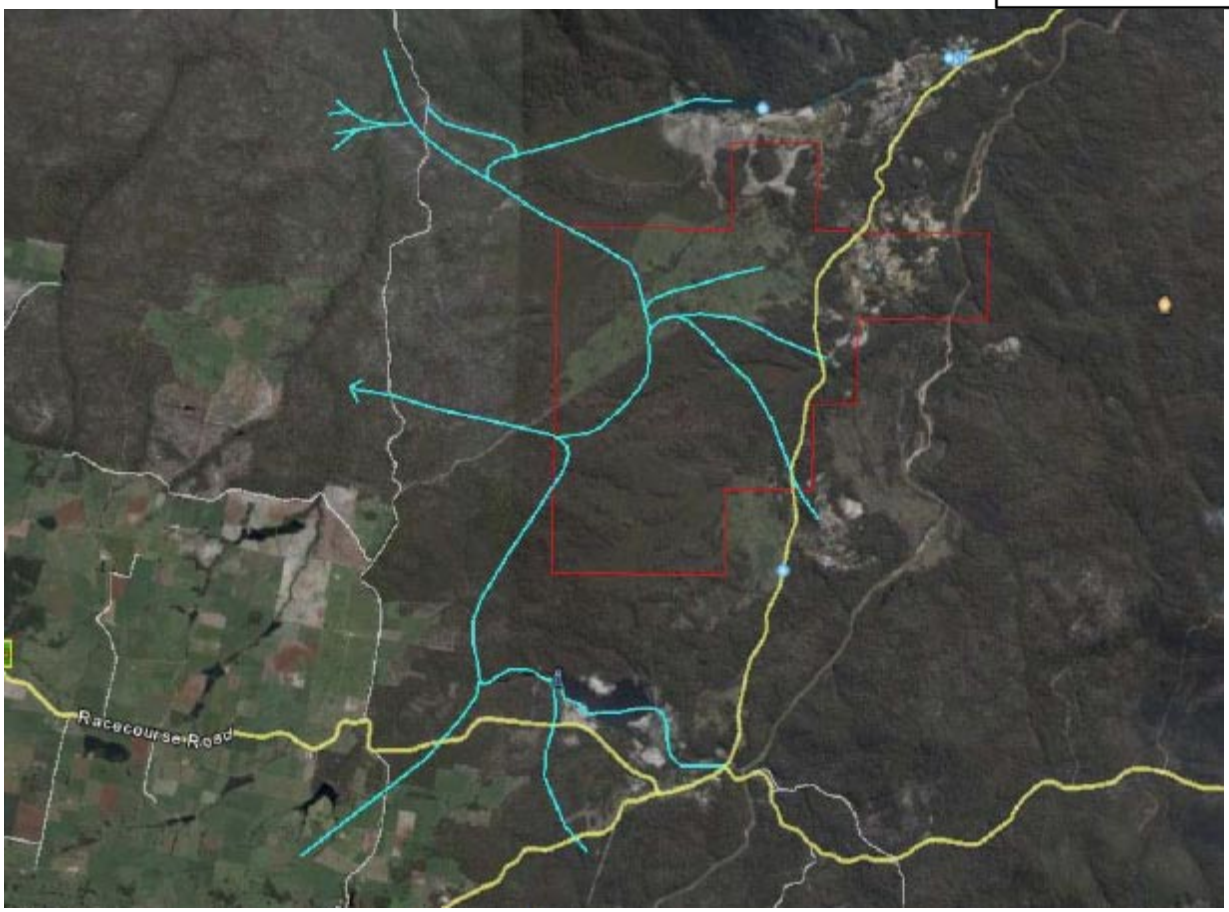
Historical Summary:

Mines in the region has produced significant amounts of tin concentrate sporadically from 1876 through to the early 1980's using sluice and dredge operations on alluvial ground. The most significant of these mines are placed within a 16km radius of the tenements currently under assessment, with several within 2km of the reference site.

Important North East Tasmania Deep Leads / Alluvial Deposits

Lead	Mine	Details
Cascade Lead	Briseis Mine, Derby	21,120 t Sn 1876 – 1960 3 basalt flows totalling 60m cover 95m of fluvial sediments. Approx half of the tin recovered occurred within the basal 10m. Average grade 0.59 kg/m^3
Wyniford R	Pioneer Mine	9,195 t concentrate containing ~6400t Sn to 1929. 66 t of SnO_2 1966-1972. Basalt eroded exposing 35m of gravel. Grade from 0.75 kg/m^3 in early workings to 0.26 kg/m^3 in 1928.
Branxholm	Arba Mine	Worked to 58m including 15m overburden. Average grade 0.3 kg/m^3 of 70% Sn.
Valley Lead		Top 14m worked for an average grade of 0.4 kg/m^3. Boring to 37m indicated the unworked lower sections grade ~0.5 kg/m^3 of 70% Sn.
Clifton	Endurance Mine Monarch Mine	Produced ~3,050 t of tin to 1970. In May 1970 reserves were quoted at 4Mm^3 containing 0.2 kg/m^3 of 70% Sn. Opened in 1970. Had then reserves of 2.2Mm^3 of 0.13 kg/m^3 of 70% Sn. Blue Metal Industries Mining purchased the deposits in 1970. 74 t of tin from 1970-1972
Scotia/Northern Plains (Gladstone)		Initial investigations indicated 8.4 Mm^3 of wash containing 0.11 kg/m^3 of 70% Sn.
Pleistocene – Recent Leads	Adjacent to the current Ringarooma River	Deposits up to 4.5m deep mined by the Dorset Dredge. Over 18 years of continuous working at Dorset Flats, production was 2,450 t of high grade tin cons and 700 fine ozs of gold from 23 Mm^3. Moved 1963 to the New Dorset area near Gladstone onto reserves of 17.57 Mm^3 of wash valued at 0.07 kg/m^3 of 72-74% Sn and 0.334 grains of gold/m^3. From 1963-1971 treated 8,903,900 m^4 for 840 t of tin concentrates.

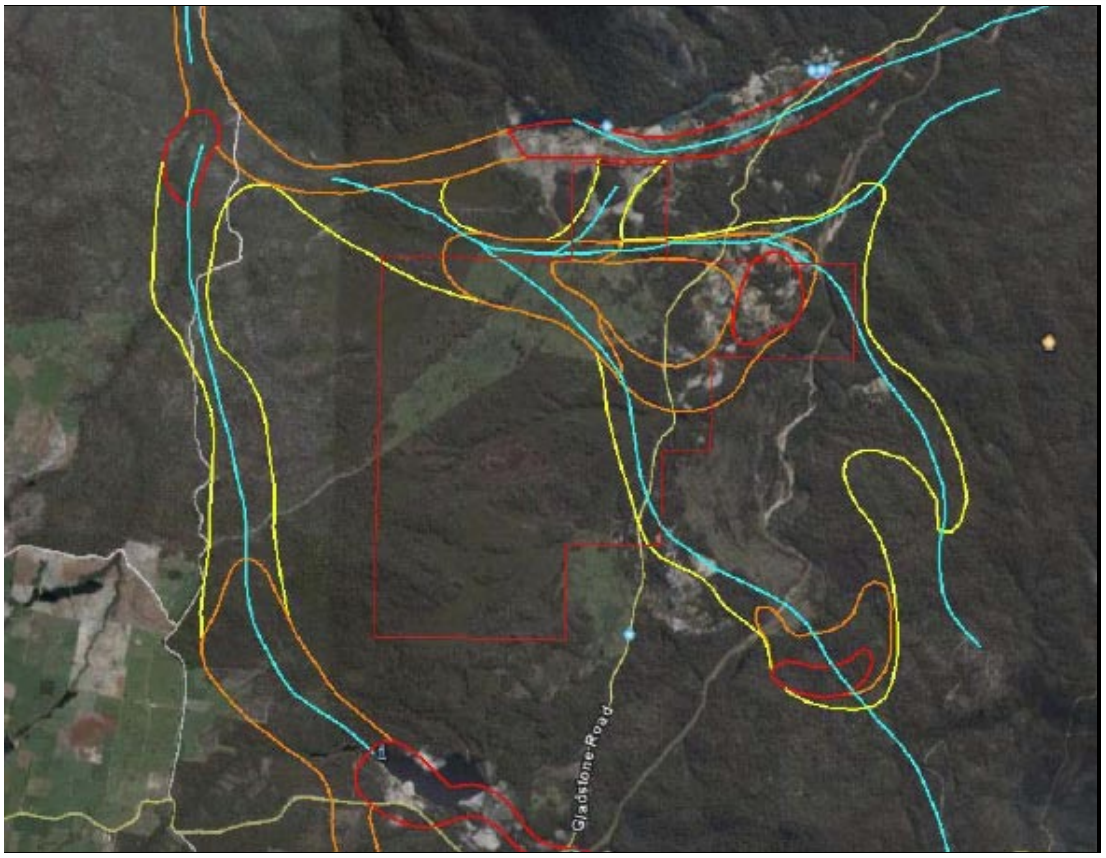
Previous geological reports have highlighted the significance of the paleochannels within the South Mount Cameron region and their direct relationship to the locations of all significant leads identified in the region so far. Mapping of basement RL across the region has assisted in identifying the location of paleochannels within the Ringarooma basin and allowed modelling of historic flows. Paleochannels, highlighted in light blue in the image below, show significant correlation to the current outflow locations.



The existence of a downwarp and marine inundation, RL of the current “ferricrete” layers across multiple locations versus basement RL, and placement of the lead locations currently known allow predictive modelling of the regions with the highest probability of cassiterite mineralisation. These have been mapped in the image below showing leads in red, areas of possible extension in orange and those areas worthy of further investigation or of likely sub-economic grades in yellow.

The MapInfo reference image shows the correlation of the paleochannel locations with existing mines, leads and drill collars, supporting this model as most likely to identify regions of high likelihood for mineralisation.

KML intends to focus the majority of exploration expenditure within these areas of interest, and current acquisitions and applications are in place to secure tenure to this ground.


Gladstone Road

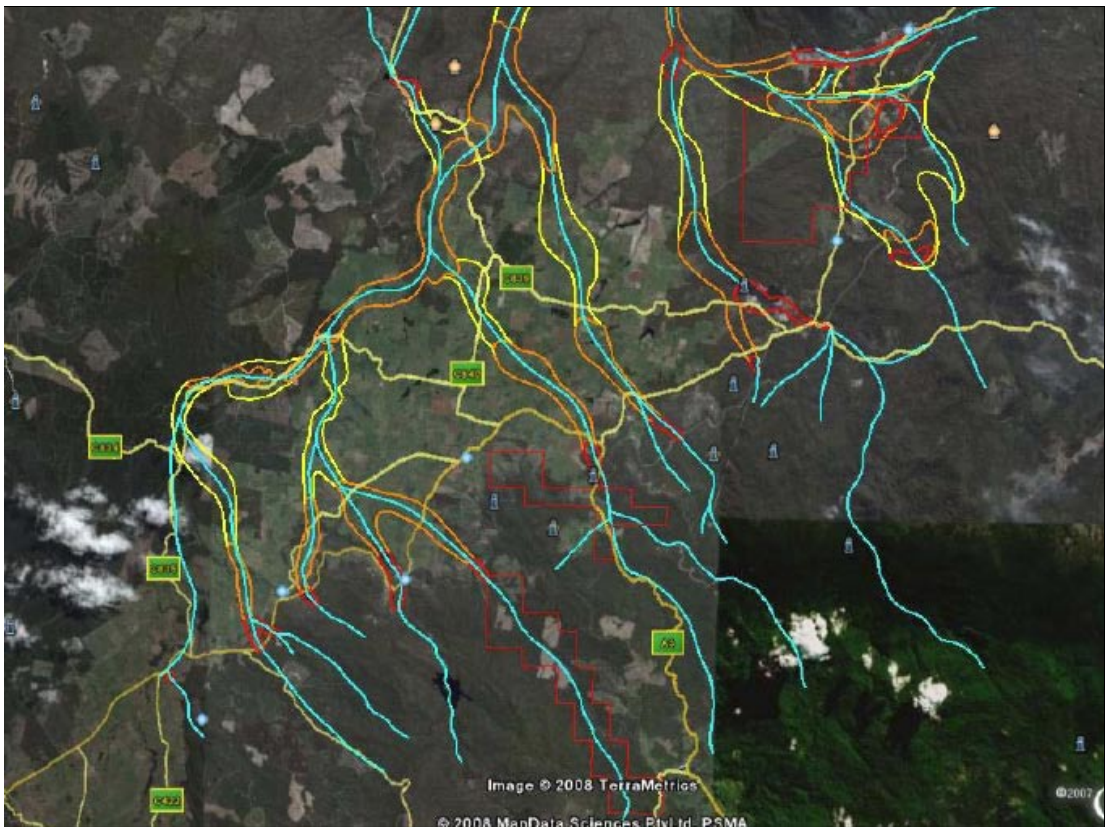


Image © 2008 TerraMetrics
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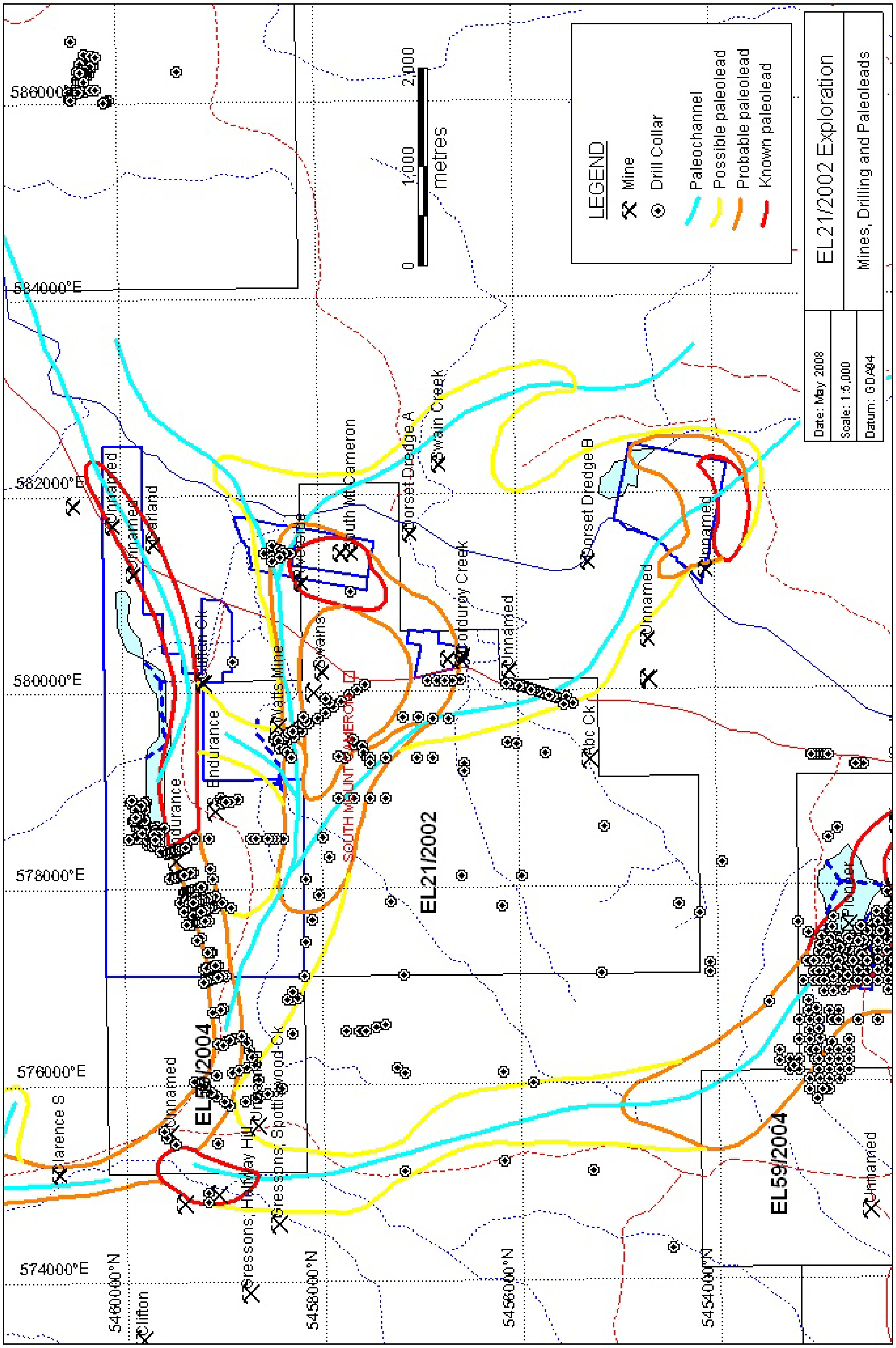

EL21/2002 Exploration
Mines, Drilling and Paleoleads
Date: May 2008
Scale: 1:5,000
Datum: GDA94
LEGEND
Mine
Drill Collar
Paleochannel
Possible paleolead
Probable paleolead
Known paleolead
0
1,000
2,000
metres
EL21/2002
EL59/2004
EL58/2004
SOUTH MOUNT CAMERON
584000°E
582000°E
580000°E
578000°E
576000°E
574000°E
5460000°N
5458000°N
5456000°N
5454000°N
Swain Creek
Dorset Dredge A
Dorset Dredge B
South Mt Cameron
Corduroy Creek
Abc Ck
Clifton
Endurance

Reference Site:

The tenement holder, Mr Alistair Nicholas of CreekCo, expressed his belief that the reference site at South Mount Cameron contained some 600 tonnes of cassiterite, (KML pers. comm.)

This belief was based on a number of factors, but primarily on the examination of the geological and topographic map where a comparison was made between the area mined by the Dorset Dredge and that under lease at South Mount Cameron. The dredge was reported to have recovered some 450 tonnes of cassiterite from its mined area and, it was considered on the increased area that the potential would be for a further 200 tonnes of cassiterite at a grade between ¾ lb/cubic yard to 1 lb/cubic yard, (445g/m^3 – 593g/m^3). [It is worth noting that the area estimated is much larger than that covered by the evaluated leases]

Dredge grades are unknown, but mined depths in the Ringarooma wash are reported to be in the order of 23 ft to 30 ft (7m – 9m approx.)

CreekCo opened a mine pit (approximately 40 metres x 35 metres) and treated +7,100 cubic yards of the wash through the plant for a recovery of 435 g/cubic metre (~11.7 ounces/cubic yard). The open cut was based on a pitted area encompassing some 9 sampled pits which revealed panned grades from 300 g/m^3 to 3000 g/m^3, [information supplied by A. Nicholas]. All the wash was the “Deep Wash” referred to in the text, deposited on the banks and bars within existing embayments on the margin of the old river system.

Reference Site Resource:

The area tested and evaluated covered some 25 ha [from Line 10 to Line 30] of which 10.6 hectares has been identified as prospective. This area was tested by 4 costeans at 100m intervals and 15 pits at 100m intervals and 50m centres.

As outlined, many factors combined to complicate the evaluation programme, the main problems being the 3 historical mining phases and the contained water within the deep wash. Despite those setbacks, it is possible to apply an ore resource to the tested area and to those prospective areas within the lease area that remain to be tested.

Volume Estimation

Areas and volumes of the tested zone have been calculated on the basis of both the survey map and the Robinson mapping, and takes into account the extent of the underlying and outcropping granite within that zone.

- Area Tested: 10.6 ha = 106,000 m^2
- Wash Depth Range: 2.7m to 7.0m
- Average Depth Wash: 5.0m
- Estimated Volume of Wash in Tested Area = 530,000 cubic metres

Grade Estimation

Grade estimation is primarily based on the costean and benched pits results from the plant throughput. Correlation with the adjacent pits has been used, particularly to verify basement and wash trends, and where there are obvious anomalies in the recovered cassiterite. The estimated grade also takes into account historical data.

Costean	Treated m^3	Kg Recovered	Grade g/cubic m	Comments
14	409	92.3	225.7	
14B	116	53.7	463.0	Pipeline to Lease margin
18	316.6	163.8	517.4	
22B	112	40.75	363.8	
22C	10	8.25	825.0	Includes Bird's Eye Wash
26B	196	64.0	326.5	Maiden Ground and Amdex Tails
26C	79	42.0	531.6	
Total	**1238.6**	**464.8**		

The weighted average grade from the above costeans is 341.87 g/m^3.

The author believes that this grade misrepresents the value of the property.

From the mapping, sampling and evaluation programme, the result from Costean 14 is anomalous and skewed downwards. It was also observed during processing that while beginning economically, grades dramatically lowered over some 45 metres of the costean and then improved to the west. Mapping of the costean in relation to the adjacent pits revealed that the majority of the costean was dug over a granite high, which has been seen, both in this programme and historically, to give low grades. The grades are seen to increase in pits both to the north and south of the costean.

For those reasons, it is considered best to exclude the values recovered from Costean 14.

The weighted average grade (excluding Costean 14) is **449.0 g/m^3 of 70% SnO_2**

This estimated grade sits better with both observed and historical data available, and is the one used for this evaluation.

Tonnage Estimation

On the basis of the estimated volume and the estimated grade, the prospective tonnage contained within the 10.6 ha tested is 240 tonnes of cassiterite.

In summary, the tested area is estimated to contain 240 tonnes of cassiterite within 530,000 cubic metres of wash.

This resource falls within the “Indicated Mineral Resource” Category of the JORC Code of the Aust.IMM, AIG and Minerals Council of Australia.

Exploration Sites:

Grade estimations in the additional prospective sites available on the ELs have been essentially defined through review of the Company Reports and available in silico data sourced from historical records and drill data.

Historical drill data compiled and assessed were as recent as 20 years ago but extend to data that is in excess of 50 years and therefore cannot be used as JORC data for any resource defined.

Additional sites of direct interest available on the ELs include;

- Clifton Lead
- Endurance Tails
- Eastern Lead/Ruby Creek Flats
- Gunn's Quarry (Western Zone)
- ABC Creek
- Corduroy Creek to Dorset Dressing Shed
- Harmon/Watt's mine
- Moorina
- Mains Creek

While these sites have not been tested by equivalent means to the reference site, additional work was carried out to assess and map the geological features not highlighted in the historic reports. Additional features and potential of each site assessed is discussed below.

Exploration Approach Applied

Due to the lack of exploration plan across the ELs, minimal impact techniques were used to confirm, and/or draw into question grades published in the Company reports.

In silico compilation of the available data and digitisation of the past records were used to assemble regional maps of the known features, historic stream flows based on basement features, paleochannel locations and the locations of known and productive leads. Data assembled supporting regional prospectivity of the abovementioned sites was then tested through sampling.

Geophysics, through seismic survey, was excluded from the initial assessment due to the possibility of ambiguous definition of the decomposed basement. This was raised in past reports and significant basement data was available through drill profiling of the region. Additional useful data was unlikely to be achieved in the short term through this approach.

Sampling was undertaken through the collection of pan samples. These were collected at available faces or at 500mm depth using hand tools where no face or feature was apparent.

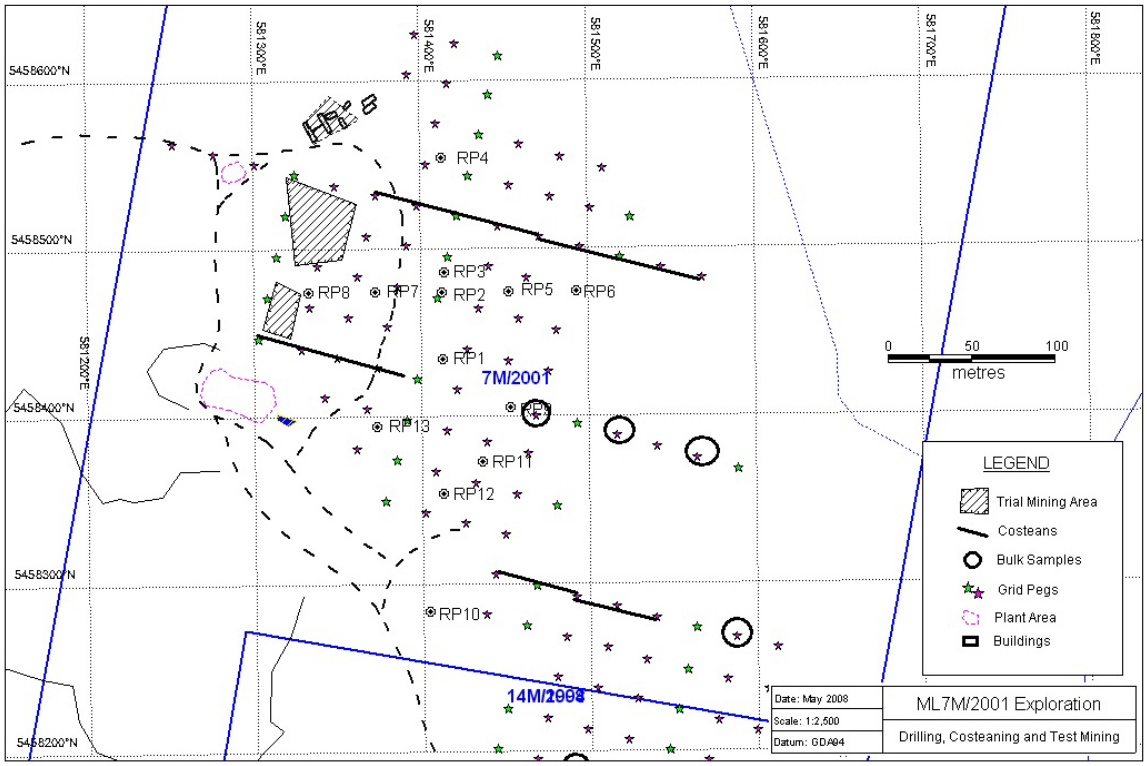
These included creek and river banks, creek sediments, alluvial plains and historic mine faces and eroded faces.

Drilling to Bulk Sampling Comparison

KML has undertaken bulk sample testing at the reference site as a means of direct comparison of the existing drill grades at Riverside and the true values recoverable from the site. Personal Communications with expert drillers with experience on alluvial sites has highlighted the possible inadequacies of the past techniques used on site. They stated that variability in the grades may be introduced by both the equipment type utilised and the technique of the operator themselves. Results may be artificially decreased overall along the depth or significant high grading may occur in the final metres due to gravity effects on the cassiterite itself in the fluid medium.

Sampling of the site at Riverside has shown an average grade of 449g/m^3 (range: 225-825g/m^3). Previous percussion drill results across the area showed significant variance from actual grades.

Drill Hole	Drill Grade g/m3	Costean	Treated m^3	Kg Recovered	Grade g/m3	Variance to Actual
RP4	100	14	409	92.3	225.7	-55%
RP3	257	14B	116	53.7	463.0	-45%
RP7	202	18	316.6	163.8	517.4	-61%
RP8	68	Test Pit	1628	870	534.2	-87%



Based on this data, KML considers that the grades stated by the contractor and used in the past records may be significantly understated to actual. KML therefore considers the numbers available for review to reflect the minimal grade achievable for said ground using auger, percussion and RC drilling techniques. The inventory number quoted in the summary may be underestimated by up to 85%, with an average of 50% increase in the inventory to that in the table considered conservative.

Exploration Sites

Clifton Lead

Drilling carried out by Amdex in 1980 across the Clifton and Endurance region highlighted a reworked lead running essentially North-South from the mine cut of the Endurance site. Drilling grades from 8.3g/m^3 to 1148g/m^3 with an average grade across the mineralised sediments of 318.4g/m^3.

The volume of mineralised wash recoverable from the defined zone, at an average grade of 318g/m^3 would produce 95 tonnes of concentrate from 300,000 m^3 of wash.

Panning of 2 samples selected from the drill locations showing high grades at surface were tested by panning. These results while fractionally lower than those defined by Amdex still support economic grades.

Endurance Tails

Sampling of the Endurance Tails directly to the North of the Clifton, on the Northern margin of the EL, showed no recoverable tin in the samples taken.

Previous reports suggest that the tailings dumps may be mineralised, however, due to the shallow nature of the current sampling, the course nature and depth of the tails (see below), residual tin in the upper layers versus the underlying maiden ground would be expected to be disparate.

Sampling of the tails to full depth through an excavator and truck operation is recommended for bulk sampling of the resource. Due to the uniform size of the tails, plant modifications and regulated feed rates would need to be investigated for sampling. Due to the volume of tails readily available for reprocessing, a costs benefit analysis would be imperative to ensure economic viability of any such operation.

Gunn's Quarry (Western Zone)

Areas within the defunct Gunn's Quarry have been previously assessed by Alistair Nicholas for grade and potential depth of wash. Site visits to review the personal communications about this site's potential highlighted the remaining maiden ground extends across the South Eastern sector of the SMC EL with potential extension both East and South of the site covered by the current EL.

Grades were quoted to be as high as 2 lb/yd (~983g/m^3), however, the average grade across the area would be taken to reflect that of the reference site (less than 500m away) being about half of this at 450g/m^3.

Some “bird’s eye” wash remains at surface suggesting that some areas remain untouched by the Amdex scraper operations. Total volume of maiden wash in the area may reach 200,000m^3. Disturbed wash, used for gravel extraction by the previous operators, has not been tested and the potential for an additional 150,000 to 200,000 m^3 of mineralised gravels (grades to be determined).

The existing potential at the Gunn’s Quarry site is for a minimum of 90 tonnes of concentrate.

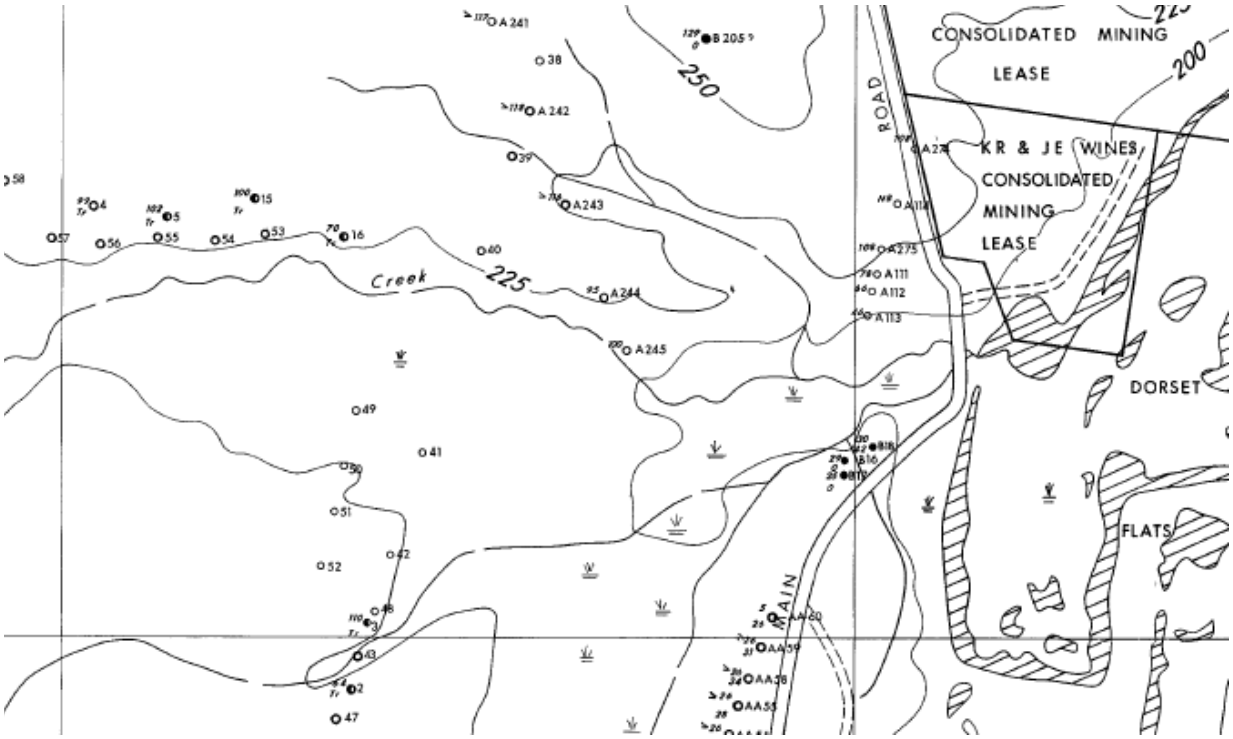
ABC Creek

The area currently known as ABC Creek represents a large alluvial prospect with minimal and marginal drilling occurring at its periphery. Grades drawn from these holes were highly variable and warrant reinvestigation. Based on the findings of the Drilling to Bulk Sample Comparison, grades in excess of 200g/m^3 are viable in the ABC Creek area. A conservative estimate based on 3 metres of wash overlaying 2 to 4 metres of sterile ground delineates a potential volume of 250,000+ m^3 of wash.

The inferred inventory for ABC Creek, using conservative figures, would produce approximately 50 tonnes of concentrate from this ground.

Corduroy Creek to Dorset Dressing Sheds

Corduroy Creek through to the Dorset Dressing Shed site represents a large alluvial prospect with minimal and marginal drilling occurring at its periphery. Grades drawn from these holes were again highly variable and warrant reinvestigation.



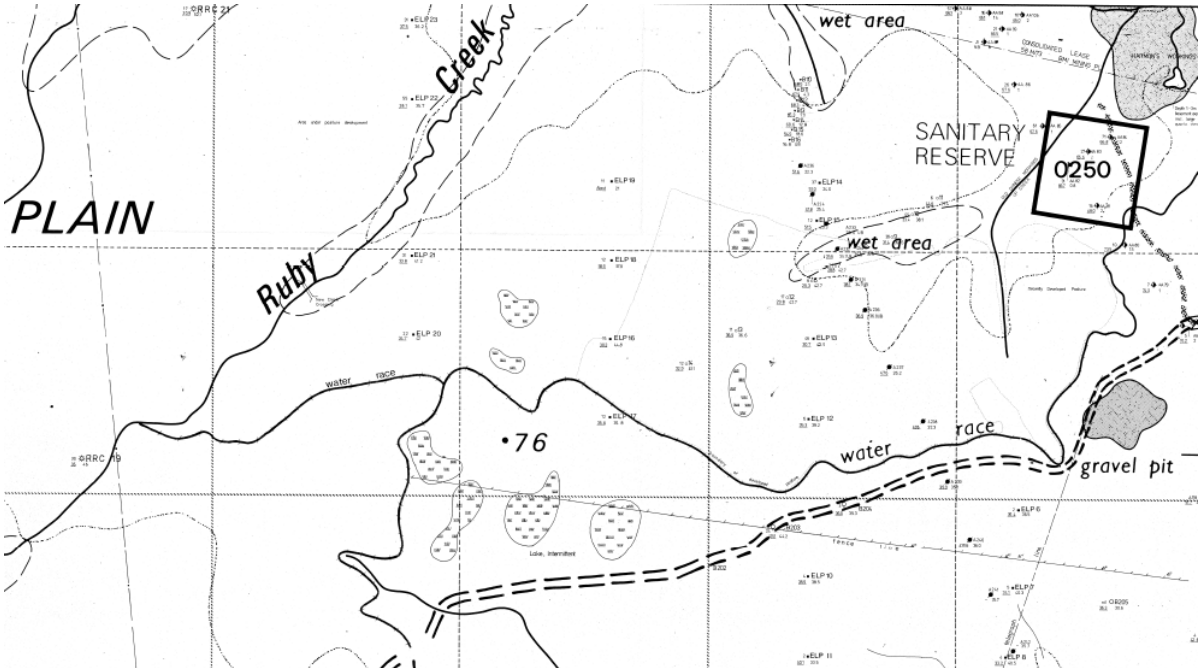
Based on the findings of the Drilling to Bulk Sample Comparison, grades in excess of 200g/m^3 are viable. A conservative estimate based on 3 metres of wash overlaying 2 to 4 metres of sterile ground delineates a potential volume of 100,000+ m^3 of wash.

The inferred inventory for Corduroy Creek, using conservative figures, would produce approximately 20 tonnes of concentrate from this ground.

Eastern Leads/Ruby Creek Flats

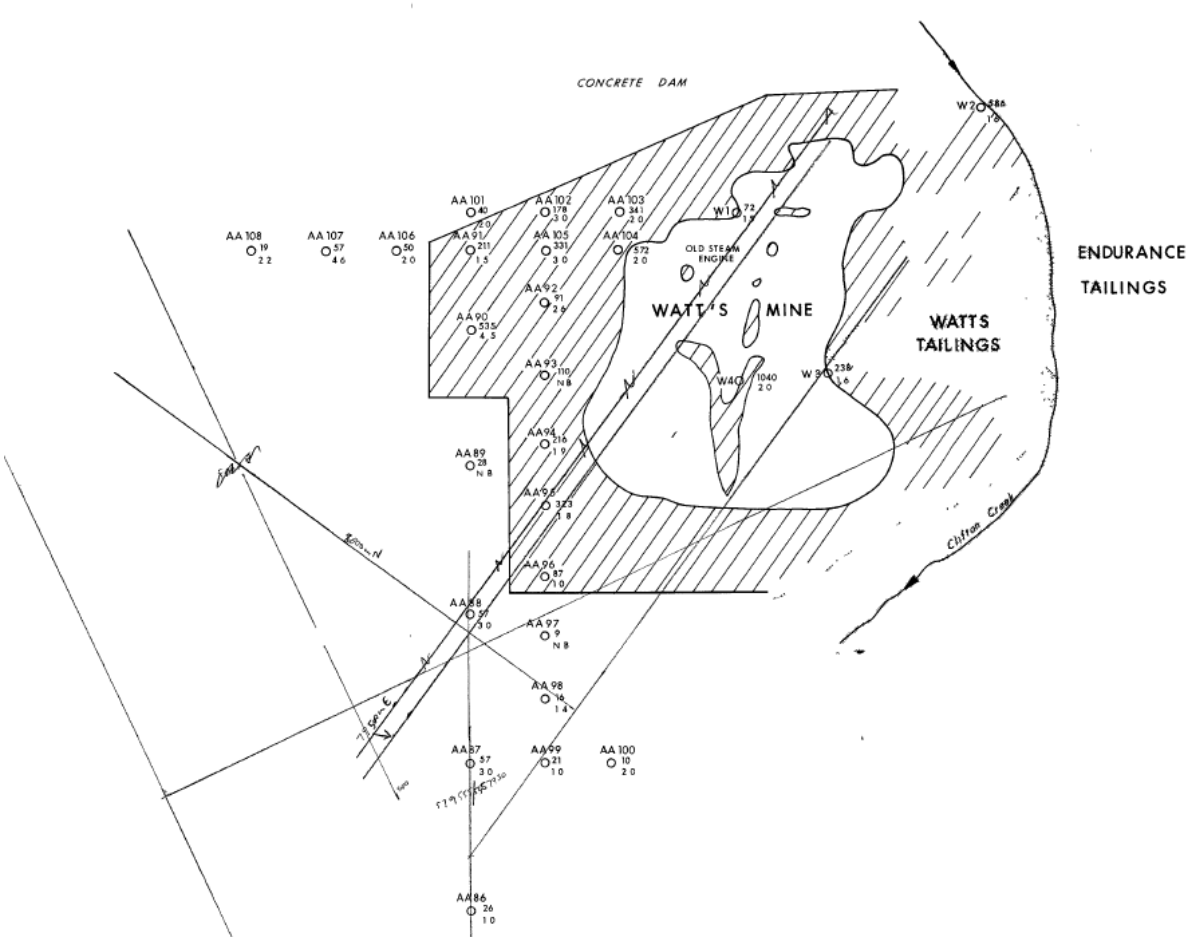
Historical records for Ruby Creek Flats and/or the Eastern Leads show estimates varying significantly in grade from 150g/m^3 to as high as 1900g/m^3 from Ruby Creek samples. Pan samples collected from the areas immediately surrounding Ruby Creek showed an average grade of 210g/m^3, however, the possibility of higher grades closer to the lead have not been discounted. Previous estimates of the alluvial wash available run as high as 20,000,000 m^3. KML believes this should be discounted by 50% based on the undulating nature of the basement observed at the nearby reference site at Riverside. Therefore an available volume was set to 10,000,000m^3 of wash.

Therefore, a conservative estimate based on 10,000,000 m^3 of wash would infer an inventory for the Eastern Leads and Ruby Creek Flats of approximately 2100 tonnes of concentrate from this ground.



Harmon/Watt's Mine

The Harmon/Watt's mine area has been previously worked to minimal depth with a high probability of residual mineralisation. Previous records indicate the possibility of 45,000 m^3 at an average grade of 420g/m^3. The ground surrounding Watt's should be amenable to producing 20 tonnes of concentrate.



The regional topography and botany of the Harmon/Watt's area is essentially grasslands with minimal significant vegetation. Mineralisation occurs from surface with a maximum depth not exceeding 5 metres. This would be amenable to operations.

Bulk sample operations would be required to confirm average grade across the area and determine suitability for processing.

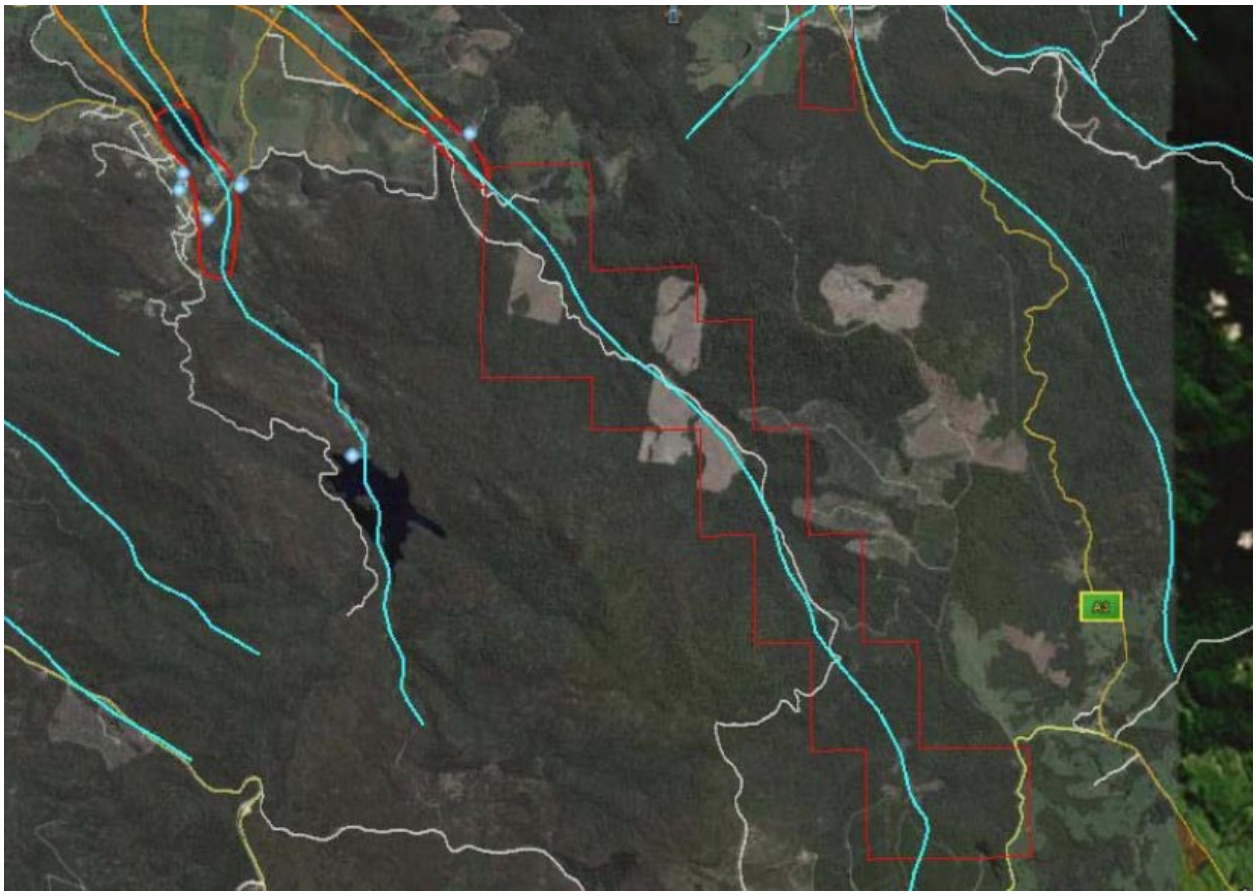
Moorina

Pan sampling of the stream sediments at the two extremes of the tenement have shown potential across the river system at this location. Minimal exploration was carried out at this site in favour of the regions directly surrounding Riverside. Additional work will be implemented almost immediately at this site to determine the viable approach to prove up and extract the available resource. This work will be undertaken in both the active river system and the paleo terraces to determine the highest achievable recovery with as minimal impact on the system as possible. Testing of the sediment depth will need to be determined prior to any inventory being offered.

Mains Creek

Previous reports on Main Creek highlight significant variance in the grade range from 280-1340g/m^3. Panning of the creek sediments and exposed terrace face at two locations in Mains Creek showed highly variable results which broadly correlated with the results range previously stated. Volume of wash available for extraction in the region is relatively low and difficult to extract by comparison to that achievable on the northern plains areas. This site may be amenable to bulk sample extraction using a 15t/h unit and light mechanised machinery eg. Bobcats/backhoes.

Potential for this area to add to the available inventory is limited and therefore any estimate on extractable tonnage has been excluded.



Summary:

Acquisition of the SMC Alluvial site will need to be supplemented by additional feed from ancillary sites in order to ensure viability of the overall operation and a mine life of >5years. Available resources grading above the economic threshold of 200g/m^3 on the current ELs are summarised below.

Site	Grade g/m^3	Volume m^3	Tonnes SnO_2
Riverside	449	850,000	380
Gunn's	450	200,000	90
Harmon/Watt's	420	45,000	20
Clifton Lead	318	300,000	95
ABC Ck	200	250,000	50
Corduroy Ck to Dorset	200	225,000	45
Eastern Leads/Ruby Creek	210	10,000,000	2100
Inventory Total	**249.67(min)**	**11,870,000**	**2780+**

Application for the Banca EL, covering 172km^2, will also take in additional inventory at Banca, East Banca White Rocks, Mains Lead, Boobyalla flats and the areas surrounding the Chung Lead.

The current plant structure available to KML, and the preferred method of extraction, defines an average grade above 200g/m^3 as viable for extraction at the three year average tin price of US$15,000.

KML will index grade control of feed to the current tin price and seek to process lower grade inventory where available to supplement feed.

KML would expect to achieve 150t/plant/year across the inventory.

References:

1. Mr Alistair Nicholas, Personal Communications.
2. MRT Website
3. Technical Report, EL2/77, 8 September 1980. RA Munro and K Morrison
4. Annual Report on Exploration, EL19/93 and T2-MEL, 28 August 2000, D McP Duncan
5. The Endurance Project, EL11/2000, 18 December 2001, N Kinnane
6. Alluvial Tin Project, Amdex Review, 27 February 1981, J Newton-Smith
7. Amdex Ringarooma Joint Venture, 11 March 1982, BD Mellor
8. Quarterly Report, EL2/77, 21 December 1981, BD Mellor
9. Surrender Report, EL2/77, February 1985, RWL Shaw
10. Annual Report, EL2/77, February 1983, BD Mellor
11. Six Monthly Report, EL2/77, 31 May 1979, L McDonald
12. Six Monthly Report, EL2/77, 8 June 1982, RAA Munro
13. Annual Report, EL2/77, 7 February 1984, RAA Munro

Appendix 1:

Consultant Geologist's Report on SMC EL

Colin Robinson

[B.Sc. M.Sc. M.AusIMM]

Consulting Geologist

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AUSTRALIA

BRIEF INSPECTION REPORT
MT CAMERON ALLUVIAL WORKINGS
MT CAMERON
NORTH EAST TASMANIA

C.J. Robinson
August 2007

BRIEF

The author was contracted by Dr Brett Teale, Managing Director of Kangaroo Metals Limited to inspect the Mt Cameron alluvial mine, workings and adjacent areas and to report on same for the company.

The inspection took place in company with the owner of Creekco, Mr Alistair Nicholas, on the 22 and 23 August, 2007.

LOCATION AND ACCESS

The mine and workings are located in north east Tasmania, some 80 km in a direct line north east from Launceston and some 140 km by bitumen road from the same point.

Access is via the A3 from Launceston to Scottsdale, proceeding east through Branxholm and Derby to the Pioneer turnoff and then through Herrick and Pioneer. The turnoff to the operation is some 5 km from Pioneer towards Gladstone, then on a dirt formed road for 1.5 km to the plant site.

TENURE

CreekCo hold a number of Mining Leases covered by their South Mt Cameron EL. The lease areas and that area adjacent to the leases were the only tenements examined during this inspection.

CreekCo also hold two EL's to the east of Derby covering deep leads.

GEOLOGY

For a discussion of the regional geology, one is referred to the seminal work of Nye (1924).

At first it was the mining of the eluvial (residual, detrital) deposits formed on the Blue Tier and Scottsdale granites and associated greisen veins which accounted for much of the early production. The deposits were up to 12 metres thick with an average grade of about 0.2 kg/m^3 of 70% tin.

The majority of the tin production however came from the deep leads formed by the Ringarooma River and its tributaries during the Tertiary. The leads consist of fluviatile conglomerate, sandstone and clay beds which have been dated as Late Oligocene – Early Miocene. As is the case with deep leads in eastern Australia, uplift during the middle Tertiary was accompanied by basalt lava flows which covered the system of leads and forced the original river off its course.

Extensive alluvial and deep lead deposits have been worked in the zone from Branxholm to Mount Cameron, with early spectacular results. Some families were producing 60 tons of high grade concentrates per month with grades of 76 lbs/cubic yard. More than 40,000 tons of metallic tin have been produced. The important leads are, (Ingram, 1976):

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Pleistocene – Recent Leads	Adjacent to the current Ringarooma River	Deposits up to 4.5m deep mined by the Dorset Dredge. Over 18 years of continuous working at Dorset Flats, production was 2,450 t of high grade tin cons and 700 fine ozs of gold from 23 Mm^3. Moved 1963 to the New Dorset area near Gladstone onto reserves of 17.57 Mm^3 of wash valued at 0.07 kg/m^3 of 72-74% Sn and 0.334 grains of gold/m^3. From 1963-1971 treated 8,903,900 m^4 for 840 t of tin concentrates.

INSPECTION

CreekCo (Alistair Nicholas) owns a mobile track mounted plant on their lease at South Mount Cameron treating virginal ?Pleistocene wash material in a small pit adjacent to the Ringarooma River. The operation is currently idle as Alistair is employed elsewhere. The company own a number of granted mining leases and Exploration Licences over sections of the leads.

The area inspected was that surrounding the mobile plant and extending west from that area to the potential deposits contained within the surrounding EL.

The Plant

Alistair Nicholas has designed and built a compact mobile alluvial plant with a throughput capability of +1000 m^3/day. The plant was specifically designed to treat the remnant and deep lead material contained within that company's tenements. The plant is designed to be excavator fed with the whole plant moving within designated "ore paddocks" parallel to the river, with the oversize and sand tailings being returned to the excavated areas.

The opportunity to value-add the oversize pebble and cobble tailings has resulted in the plant being located on the edge of the wash zone, and fed by truck. As a result, a bin and nozzle have been added to the system, and a truck placed beneath the oversize conveyor to remove and stack the pebble content.

Essentially, the mobile plant consists of a feed trough attached to the chain drive trommel fitted with wire screens. Oversize material reports direct to a short swivel conveyor. Undersize is gravity fed via a distributor box to two of 3 hutch cross-flow Inverell Jigs. Jig backwater is supplied via gravity tank. Concentrates from the two primary jigs report to a bin attached to a Warman pump and fed direct to a secondary 2 hutch cross-flow Inverell jig. All sand tails gravity to a flexible pipe leading away from the back of the plant. Concentrates from the 1st hutch of the secondary jig are drummed ready for sale at 74-76% Sn. The second hutch concentrates are returned to the circuit.

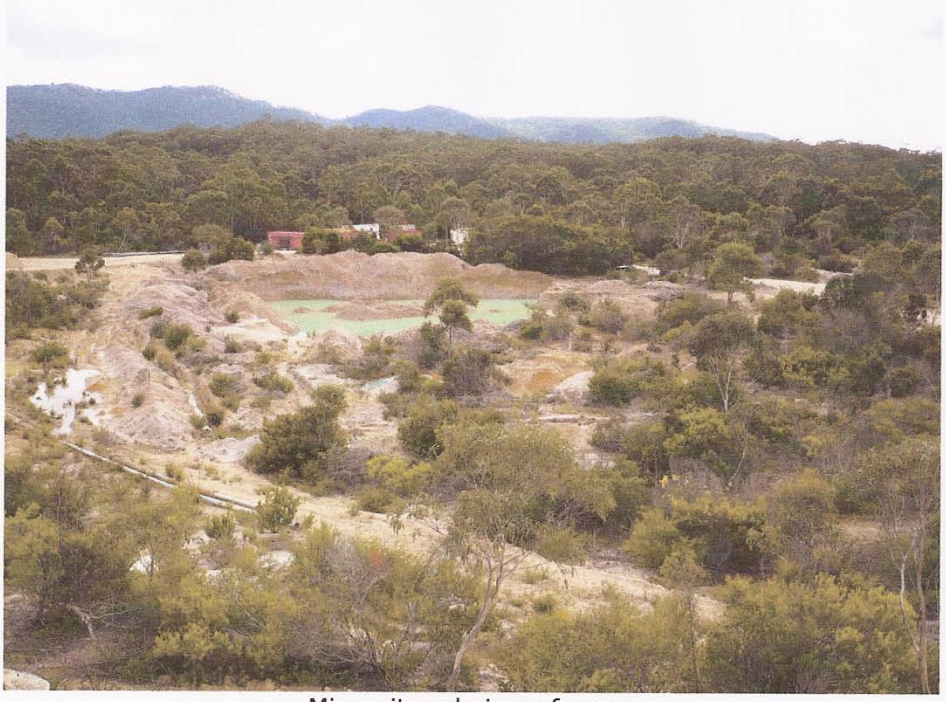
The whole plant is mounted on 30 tonne excavator tracks. Water is supplied via 8/6 HydroTitan pump.

CreekCo has produced a short DVD showing the plant in operation.

Camp

A functional camp site is suitable for a couple of personnel. With little expenditure the facilities can be enlarged to accommodate exploration personnel.

General view of plant



Mine pit and view of camp

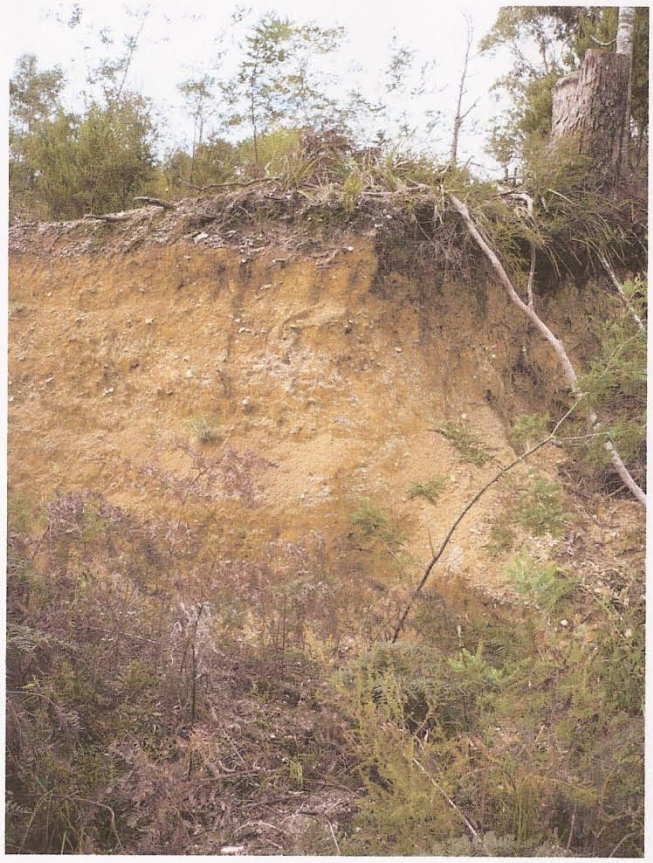
The Deposits

From Alistair's descriptions, there existed (and in places still do exist) a number of wash types.

In the earliest times (late 1800's) mining was restricted to the top wash and to those lower wash types that were able to be sluiced. Sluicing by its very nature requires high pressure water delivered via a nozzle or nozzles to break up the ground, a suitable slope to the ground to enable the conditioned material to "run" to concentrating areas – usually sluice boxes, and a further suitable area for tailings to be stored and stacked. Some of these original workings still exist in places where sufficient pressure could be obtained to sluice the ground material.

Interestingly, remnant wash in these areas is topped by a shallow (1-2 foot), small white pebble wash type referred to as **"bird's eye wash"**. This material was and is quite rich, and easily mined.

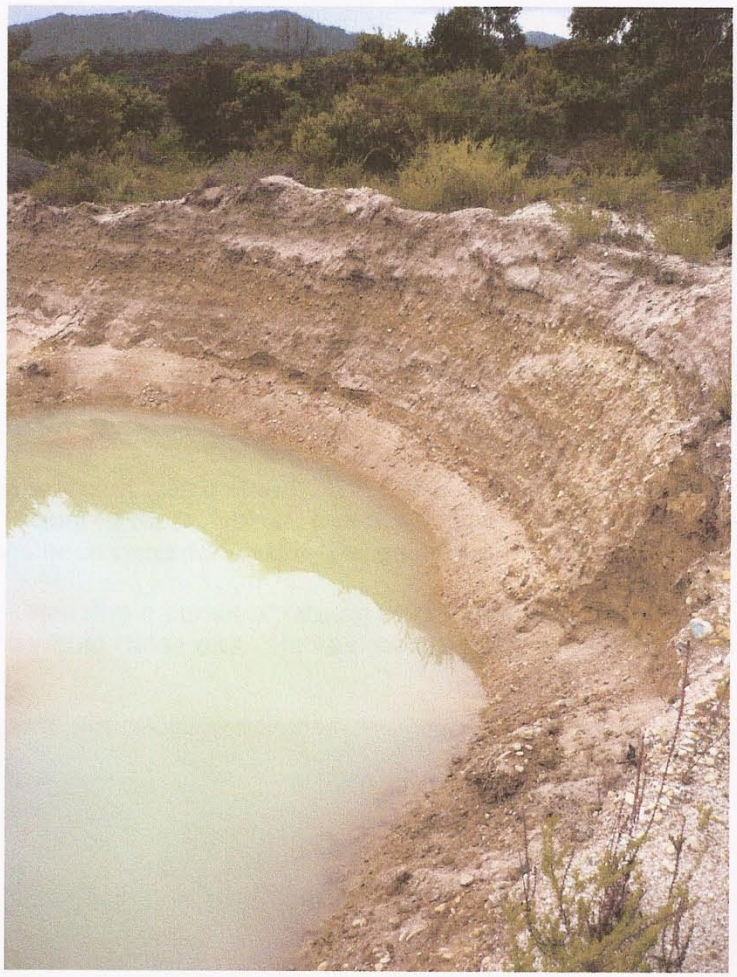
Remnant "bird's eye" wash on top of weathered granite; old sluiced area; Original vegetation



Remnant shallow "bird's eye" wash on top of unworked
wash horizons – east of plant site
Gullies have been sluiced

It was the shallow "bird's eye" wash that was targeted by the Amdex-Triako operation in the early 1970's. Much of the area covered by this wash type was cleared of vegetation and then mined by scrapers which delivered the wash to stockpile where it was sluiced through sluice boxes. The tailings were then seemingly evenly pushed over the scraped areas. Subsequently, these disturbed areas were reforested under a Government scheme.

Very little of this material appears to remain throughout the area and, if it does, would only exist beneath undisturbed forest areas.



Amdex Tailings covering Basal wash

Tin losses from the Amdex-Triako operation were very dramatic, as would be expected using these recovery methods, and provide the second wash type – the **"Amdex tailings"**. They are quite extensive, and cover the area almost completely to a shallow depth. Grades reported by Alistair approximate 0.2-0.3 kg/m^3 cassiterite.

This mining activity was followed by small-scale miners who sought to mine the richer portions of the tailings at the "drop-off" points at the ends of the sluice boxes. Quite interestingly, the tailings spreadings by the dozer had actually evened out the grade of the material.

Mining of these tailings and treating them through sluice boxes again, exposed a lower or **"Basal Wash"** below a thin grey clay layer with humus. The wash is grey to yellow, indicating that there has been some lateritisation occurring, yet remaining very friable with little clay. The wash is well structured and stratified, commonly referred to as imbricate, horizontally stratified material.

This is the wash material currently being mined and treated by CreekCo, displaying approximately 40% oversize (> 10mm). The pebbles/cobbles are generally flat, elongate and well travelled. The best description would be shingle. Tails water settles well and quickly.

The basal wash varies in thickness with depths to the full length of the excavator arm at 6 -8 metres. Grades also vary, but are consistently above 0.6 kg/m^3, with high grade patches. Basement is granite.

A sample of the material was panned. The cassiterite is brown/amber with a number of accessories including topaz, spinel, monazite, zircon, pink garnet, xenotime and zircon. Gold has been recorded in the test pans and from the plant.

Alistair Nicholas has dug a series of pits on specified lines and sampled material from different depths within those pits. He has meticulously recorded his findings.

Basal Wash exposed in mine pit

Recent wash is exposed in the Ringarooma River and was mined by the Dorset Dredge elsewhere with some success. This wash type is the major quantifiable volume material in the area. This section of the river was not mined by the dredge and has probably not been tested.

The water table in the river is high, which poses considerable difficulty in the assessment of the wash. Drilling would be the only reliable testing method.

Recent Wash Ringarooma River – humus layer probably indicative of older wash beneath

The final wash type was discovered by one of Alistair's colleagues while sluicing the Amdex tailings. Mining uncovered a narrow, shallow gutter or channel seemingly traversing the basal wash, trending E-W and with values to 5 kg/m^3. The gutter deepens in its easterly extension towards the Ringarooma River and has not been located. There is no evidence to suggest this is simply a reworking of the basal wash.

COMMENTS & SUGGESTIONS

Plant

Alistair has developed a very successful mobile plant for this area, and he is to be congratulated. It is a pleasure to see the great deal of thought he has put into the operation. With only little modification, the plant would be suitable for all areas and wash types seen. Should an area be located with clay content, then the material will require more residual time in the trommel, and a section could be easily "blinded" and fitted with lifters to act as a scrubber section.

The value-adding of the cobble/pebble content should be followed up. Alistair's comments on the trade relationship with Victoria could see the oversize product delivered into the heart of the city. A study of the landscaping market and the exposed aggregate market should be carried out. The economics and viability will then determine whether the plant would be better operated as a true mobile or to continue with the cost of running a haul truck. The mobile system certainly lends itself to an easier cleanup and rehabilitation process. If the decision is made to continue with the excavator/truck feed system, then a plant site will need to be found where the tailings can be dispersed over sterile ground.

Ore Types / Sampling

As part of the process leading to mining, Alistair has dug a number of excavator pits through the property into the basal wash. These pits have been evaluated and sampled, with a number of comments made on values and gold occurrence. All pits are dry which is a bonus for sampling.

While they can still be located, all the pits should be mapped and Alistair's information recorded on those maps. Sections should be made where applicable. To date, the R/E factor (Recovery to Estimate) is >1, showing that the testing is conservative.

This process is vital when KM conduct a bulk test of the tested area as part of the purchase procedure.

I would recommend a continuation of the pitting to basement in the basal wash area, with the recording of sample values over lithological changes; e.g. the Amdex Tails, followed by either 1m interval sampling to basement, or sampling on the previously mentioned lithology. To be recorded would be volume of sample, volume of oversize, tin concentrate weight, presence of gold, accessory minerals and types and estimated proportions etc etc. In other words the normal range of information acquired in assessing alluvial deposits. Samples should also be subjected to sieve analysis to determine possible source of heavies and the direction of travel.

The plant area is only one of several areas scraped by the Amdex-Triako group, and a considerable resource could be built up over a relatively short period of time.

I have tested the second hutch concentrates with a scintillometer with the result that the xenotime, monazite and zircon content double the background reading. The high grade tin concentrates show no response. It may be worth hiring a scintillometer to walk the area, as the edges, margins and perhaps gutters could be located in this way.

Regional & Local Studies

From my initial surfing, a great deal of information is potentially available from Tasmanian Archives in relation to dredge sampling, Amdex-Triako drilling, and early geological studies from the work of Nye to Jack and other workers. Alistair has probably gleaned much of this information and has it in his possession. Other contemporary companies are concentrating on the potential of the lower Ringarooma towards the estuary and talking up the potential of those areas. There are probably studies carried out by field people in unravelling the Mt Cameron leads as well as others covered by CreekCo tenements. It is certainly time to revisit all that information.

Recommendation

The Mt Cameron prospect is one of the best tin prospects I have seen in many years.

I believe KM should carry out a supervised bulk test of portion of the ground evaluated by CreekCo prior to continuing to deal finalisation.

Following satisfaction with the bulk test, I would instigate the sampling programme.

C.J. ROBINSON
August 2007

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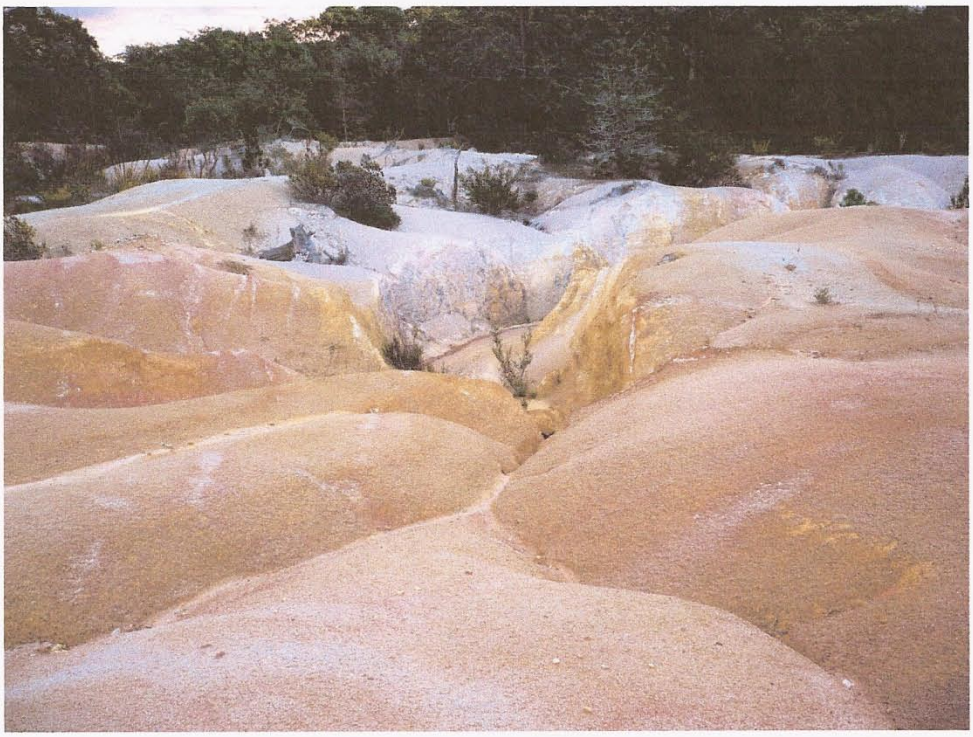
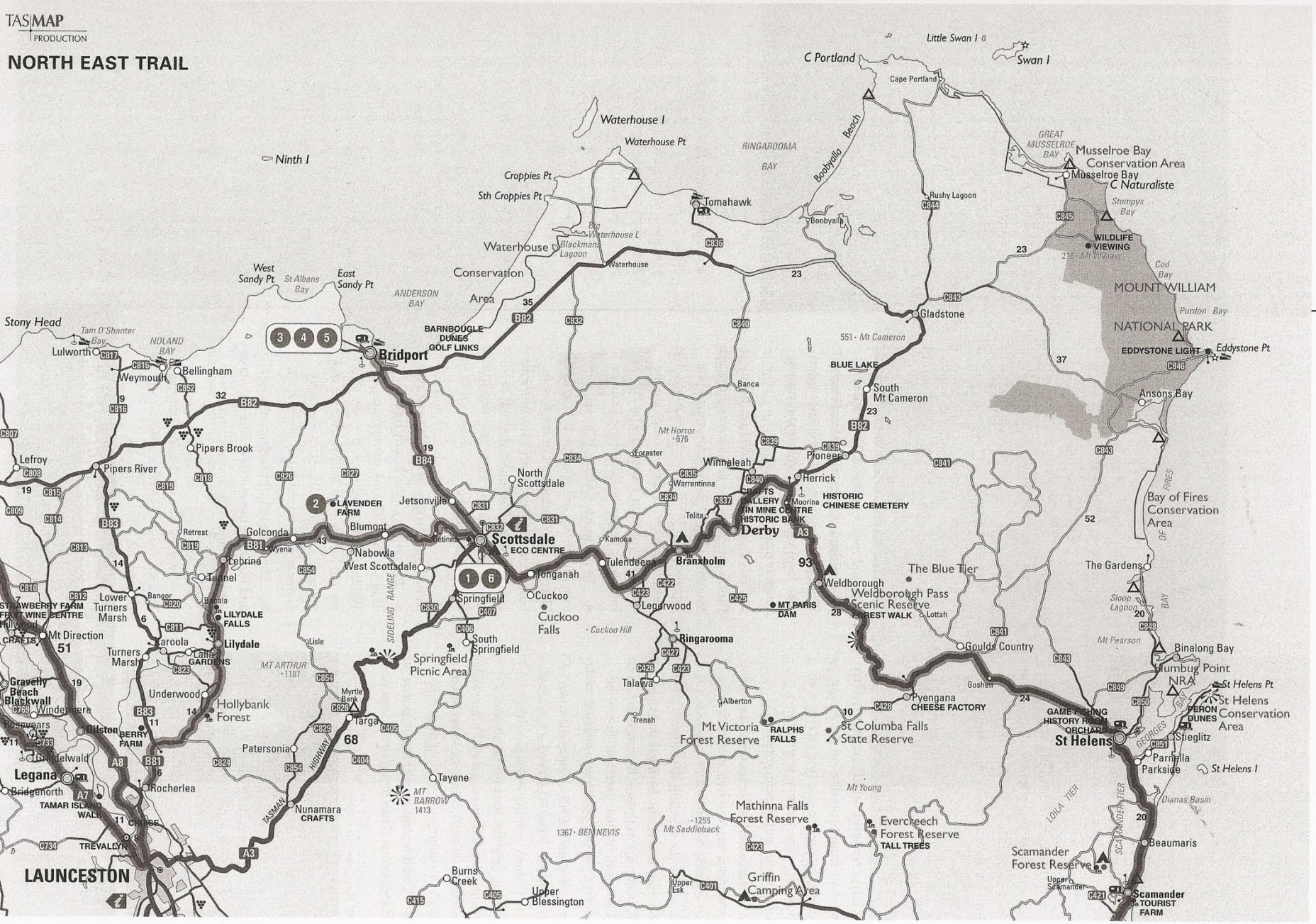
Nye, P.B., 1924: The Sub-Basaltic Tin Deposits of the Ringarooma Valley. *Geol. Surv. Tas., Bull. 35.*

Old ground sluiced paddock to granite



Completely stripped ground showing gutter development


TASMAP
PRODUCTION
NORTH EAST TRAIL
Little Swan I
C Portland
Swan I
Cape Portland
Waterhouse I
Waterhouse Pt
RINGAROOMA BAY
Boobyalla Beach
GREAT MUSSELROE BAY
Musselroe Bay Conservation Area
Musselroe Bay
C Naturaliste
Ninth I
Croppies Pt
Sth Croppies Pt
Tomahawk
Rushy Lagoon
Boobyalla
Stumpys Bay
WILDLIFE VIEWING
Big Waterhouse L
Blackmans Lagoon
Waterhouse
Waterhouse Conservation Area
West Sandy Pt
St Albans Bay
East Sandy Pt
ANDERSON BAY
MOUNT WILLIAM NATIONAL PARK
Cod Bay
Purdon Bay
EDDYSTONE LIGHT
Eddystone Pt
Stony Head
Tam O'Shanter Bay
NOLAND BAY
Lulworth
Weymouth
Bellingham
BARNBOUGLE DUNES GOLF LINKS
Bridport
Gladstone
551 · Mt Cameron
BLUE LAKE
Banca
South Mt Cameron
Ansons Bay
Mt Horror · 676
Forester
Winnaleah
Pioneer
Herrick
Warrentinna
Moorina
HISTORIC CHINESE CEMETERY
CRAFTS GALLERY TIN MINE CENTRE HISTORIC BANK
Derby
Telita
Pipers Brook
Lefroy
Pipers River
LAVENDER FARM
Jetsonville
North Scottsdale
Scottsdale
ECO CENTRE
Retreat
Golconda
Blumont
Nabowla
West Scottsdale
Lebrina
Tunnel
Kamona
Tulendeena
Branxholm
Bay of Fires Conservation Area
The Blue Tier
The Gardens
Weldborough
Weldborough Pass Scenic Reserve
FOREST WALK
MT PARIS DAM
Lottah
Sloop Lagoon
Bay of Fires
Longanah
Cuckoo
Cuckoo Falls
Cuckoo Hill
Springfield
Legerwood
Ringarooma
Goulds Country
Mt Pearson
Binalong Bay
Humbug Point NRA
St Helens Pt
PERON DUNES
St Helens Conservation Area
Lower Turners Marsh
Bangor
Bagala
LILYDALE FALLS
Lilydale
Laroola
Lilydale GARDENS
Turners Marsh
Lisle
SIDELING RANGE
South Springfield
Springfield Picnic Area
MT ARTHUR · 1187
Talawa
Alberton
Trenah
Pyengana CHEESE FACTORY
GAME FISHING HISTORY ROOM ORCHARD
St Helens
Stieglitz
Parnella
Parkside
St Helens I
Gravelly Beach
Blackwall
Windermere
Underwood
Hollybank Forest
Myrtle Bank
Targa
Mt Victoria Forest Reserve
RALPHS FALLS
St Columba Falls State Reserve
Mt Direction
Direction
Rosevears
Hillston
BERRY FARM
Patersonia
HIGHWAY
Tayene
Mt Young
Dianas Basin
Legana
Bridgenorth
TAMAR ISLAND WALL
Rocherlea
MT BARROW 1413
TASMAN
Nunamara CRAFTS
Mathinna Falls Forest Reserve
1367 · BEN NEVIS
Mt Saddleback · 1255
Evercreech Forest Reserve
TALL TREES
LOILA TIER
Scamander Forest Reserve
Beaumaris
Scamander TOURIST FARM
TREVALLYN
LAUNCESTON
Burns Creek
Upper Blessington
Griffin Camping Area
Upper Esk
Upper Scamander

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Appendix 2:

KML Expenditure July 07- Feb 08

Exploration Expenses: July 07-Feb08

Field Surveys	Brett Teale		$72/hr	$6336.00
	Brian New		$100/hr	$4000.00
	Dr Roger Taylor		$50/hr	$1200.00
	Colin Robinson (Alluvial Consultant)		$74/hr Oct Survey	$4996.21
			Feb Mapping	$3253.58
Accommodation Launceston				$3420.00
Airfares BNE-LST-BNE				$6200.00
Aerial Photos (Stereoscopic and enlargements)				$596.75
MRT CD Data				$0.00
Data Review (MRT downloads)		Brett Teale	$72/hr	$8100.00
		Brian New	$100/hr	$7500.00
Data Digitisation (Maps and Drill)		Brett Teale	$72/hr	$2700.00
Sample Analysis (ALS, Townsville)			Sn, Ti, Fe	$78.28
Field Staff	4 x staff			$27,000.00
Accommodation at Winneleah				$5025.00
Vehicle Hire	Staff vehicle			$3608.24
	Alternate vehicle			$1917.00
Survey Equipment				$822.00
Total:				**$86,753.06**

Proposed Exploration Program: Feb 08-Feb09

Field Surveys	Brett Teale		$8,000.00
	Brian New		$12,000.00
	Consultant/Field Staff		$40,000.00
Geophysical-Seismic Survey			$50,000.00
Trenching		2m x12.5m x 400	$32,000.00
Bulk Sample Processing		$10/tonne	$25,000.00
Accommodation			$10,000.00
Flights			$8,000.00
Vehicle Hire			$6,000.00
Heavy Equipment Leasing			$29,500.00
Total:			**$220,500.00**