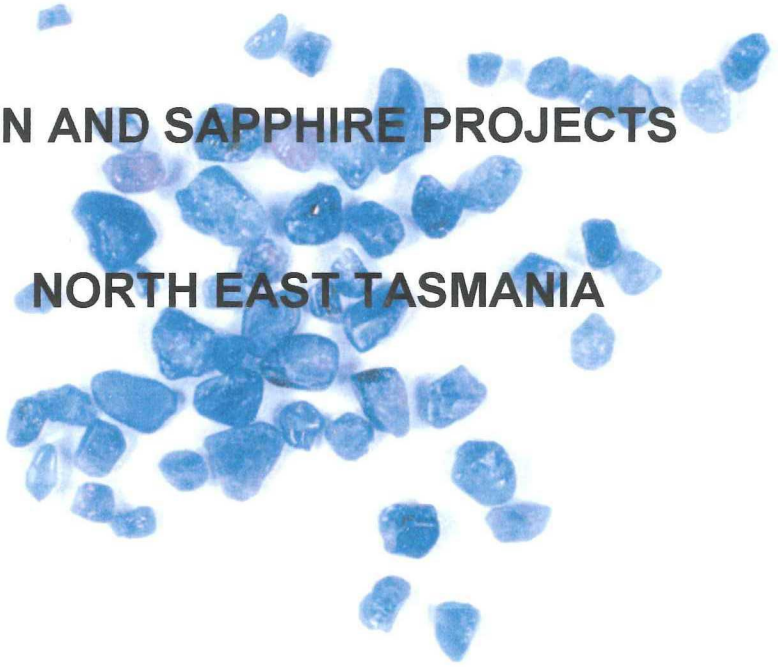
MINERAL HOLDINGS AUSTRALIA PTY., LIMITED



TIN AND SAPPHIRE PROJECTS

NORTH EAST TASMANIA

PREPARED BY:

Niugini Resources Pty., Limited

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DATE PREPARED:

17th August 2002

MINERAL HOLDINGS AUSTRALIA PTY., LIMITED

GREAT NORTHERN PLAINS TIN TENEMENTS

1	**RINGAROOMA BAY**	**- MEL T - 2**
2	**GREAT NORTHERN PLAINS**	**- EL 19 / 1993**
3	**BOWLERS LAGOON**	**- RL 15 / 1987**
4	**BRAITHWAITES**	**- RL 23 / 1987**
5	**ABERFOYLE**	**- EL 38 / 1997**
6	**SCOTIA**	**- EL 32 / 2001**

SEE FIGURE 1 FOR LOCATION OF THESE TENEMENTS

SUMMARY

The Mineral Holdings tenements encompass a tenement in Commonwealth waters in offshore Ringarooma Bay, an Exploration Licence tenement encompassing some nearshore and onshore resources, two Retention Licence tenements covering substantial onshore resources and two Exploration Licence tenements encompassing prospective onshore resource areas.

Historical records quote a resource base of in excess of 300 million m^3 at grades of between 64 and 200 gm / m^3 Sn with only limited reference to accessory mineral contents. A recent recalculation of the onshore resource within the Great Northern Plains tenements indicates a resource base of 41.8 million m^3 at 199.1 gm / m^3 SnO_2 plus accessory mineral components including 100 gm / m^3 Ilmenite, 100 gm / m^3 rutile, 100 gm / m^3 zircon, 10 mg / m^3 gold, 1.2 gm / m^3 Ta_2O_5 and 1 gm / m^3 sapphire. The offshore tenements are historically quoted as containing 199 million m^3 at an average grade of 200 gm / m^3 Sn (154 gm / m^3 SnO_2) but with substantially higher grades of accessory minerals.

In addition to these larger resource areas the onshore exploration Licence tenements are also reported to contain in excess of 37 million m^3 of tin bearing alluvium at grades of between100 and 200 gm / m^3 SnO_2.

Recent assessments of old data indicates that by allowing for the removal of barren sandy overburden the grades of these deposits can be substantially upgraded and thus the overall economic viability also substantially upgraded. This is particularly evident in the Great Northern Plains deposits where the reassessment while reducing the resource volume has increased grade from 64.0 to 199.1 grams / m^3. Similar results can be achieved by deleting barren overburden from the Scotia and Scoloch Leads although in those instances the increase in grades is more substantial.

A full schedule of the current resource base is given in the attached tabulation.

Considerable work remains to be undertaken particularly in respect of recalculation and delineation of the various Great Northern Plain satellite resources, of identification of accessory mineral components and mining feasibility studies. It is believed that such studies will increase the satellite resource base from the historical figure of 9,300 tonnes of contained Sn to in excess of 15,000 tonnes of contained Sn.

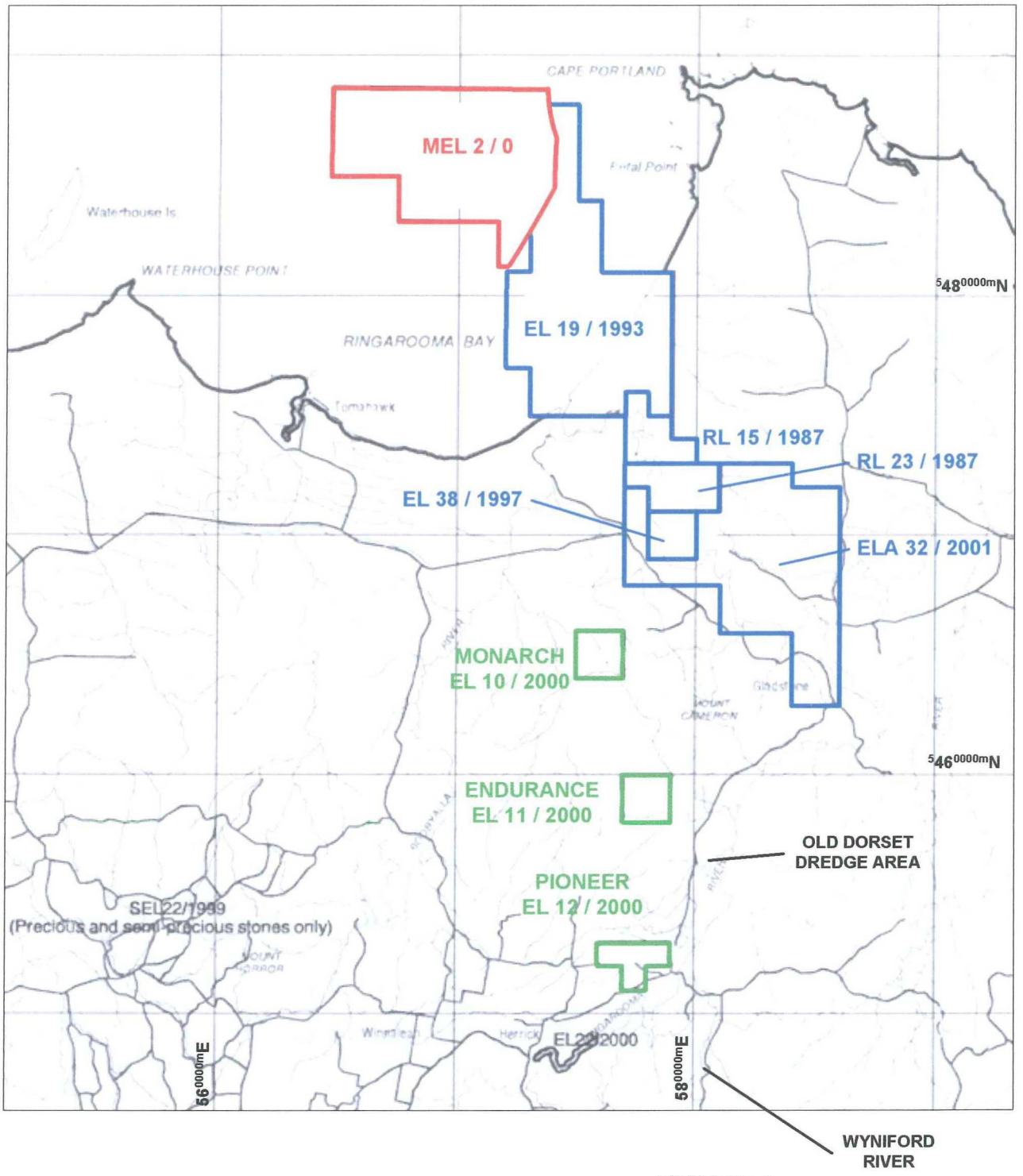

FIGURE 1

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MINERAL HOLDINGS AUSTRALIA PTY., LIMITED

TITLE

TENEMENT LOCATION PLAN
ALLUVIAL TIN PROJECT AREAS
NORTH EASTERN TASMANIA

FILENAME	DRAWN BY	DATE
FIGURE 1.VSD	*Niugini Resources P/L*	20/01/2002
SCALE	PAGE	REVISED
1:250,000	1 OF 1	02/04/2002

MINERAL HOLDINGS AUSTRALIA PTY., LIMITED

MIDDLE RINGAROOMA TIN TENEMENTS

1	**MONARCH PROJECT**	**- EL 10 / 2000**
2	**ENDURANCE PROJECT**	**- EL 11 / 2000**
3	**PIONEER PROJECT**	**- EL 12 / 2000**
4	**WYNIFORD RIVER RESOURCE AREA**	**- PART SEL 22 / 1999**
5	**DORSET FLATS AND ENVIRONS**	**- PART SEL 22 / 1999**

SEE FIGURE 1 FOR LOCATION OF THESE TENEMENTS

SUMMARY

The three Exploration Licence tenement areas (Items 1 to 3) encompass resources stated to contain 3,994.2 tons of SnO_2 concentrate. It is considered that further exploration and resource re-assessment would enhance the resource base to a total figure of 5,050 tonnes of SnO_2 concentrate.

In the area around Endurance, Pioneer and the Wyniford River previous exploration has defined resources containing 369.6 tonnes of SnO_2 concentrate. Prospectivity of these areas is high and it is not unreasonable to expect that further exploration could increase the resource base to in the order of 1,940 tonnes of SnO_2 concentrate.

In addition to the cassiterite component recent studies indicate that all the resource areas contain significant accessory mineral components, specifically, rutile, ilmenite, zircon, gold, tantalite and a most significant sapphire gem component.

MONARCH PROJECT - EL 10 / 2000

1 TENURE:

Exploration Licence 10 / 2000 - Mineral Holdings Australia Pty., Limited

Area: 4 sq. km.

Expiry: 08/12/2005

2 GEOLOGICAL SETTING:

Granite based alluvial tin deposit lying on the lower slopes and proximal terraces to the north-western flank of the Mt Cameron granite massif. Alluvial profile consists of humic topsoil underlain by a thick clay horizon overlying a basal sandy to cobbly granite based gravel containing the economic cassiterite concentrations.

3 RESOURCE:

Previous drilling by BHP and BMI in the 1960's was re-assessed by AMDEX Mining in 1980 who quoted a resource figure of:

2,437,032 m^3 at 296.7 grams / m^3 of 70% Sn concentrate at a 200 gram / m^3 cut-off. (723 tonnes contained SnO_2)

This figure included the barren clay horizon lying on top of the cassiterite bearing basal layer.

MHAP/L check tested the deposit and recalculated the resource excluding the barren clay overburden, the resource is now quoted as:

An Indicated Mineral Resource for A, B and E Lenses of -

556,751 Bank Cubic Metres (bcm) at 1.220 kg / bcm of 70% concentrate at a 200 gram/bcm cut-off (679 tonnes contained SnO_2)

An Indicated Mineral Resource for D Lens of –

59,100 bcm at 139 grams/bcm of 70% Sn concentrate at a 100 gm/bcm cut-off (8.2 tonnes contained SnO_2)

Both resource areas also contain Zircon as ZrO2 at grades of 19 gm/bcm

and

Rutile and Ilmenite as Ti O2 at grades of 48gm/bcm

4 ACCESSORY MINERALS:

Rutile, zircon and ilmenite are common accessory minerals. Gold has been reported but to date not quantified. Sapphire observed and historically reported but not quantified. Tantalite reported in analyses of tin concentrates.

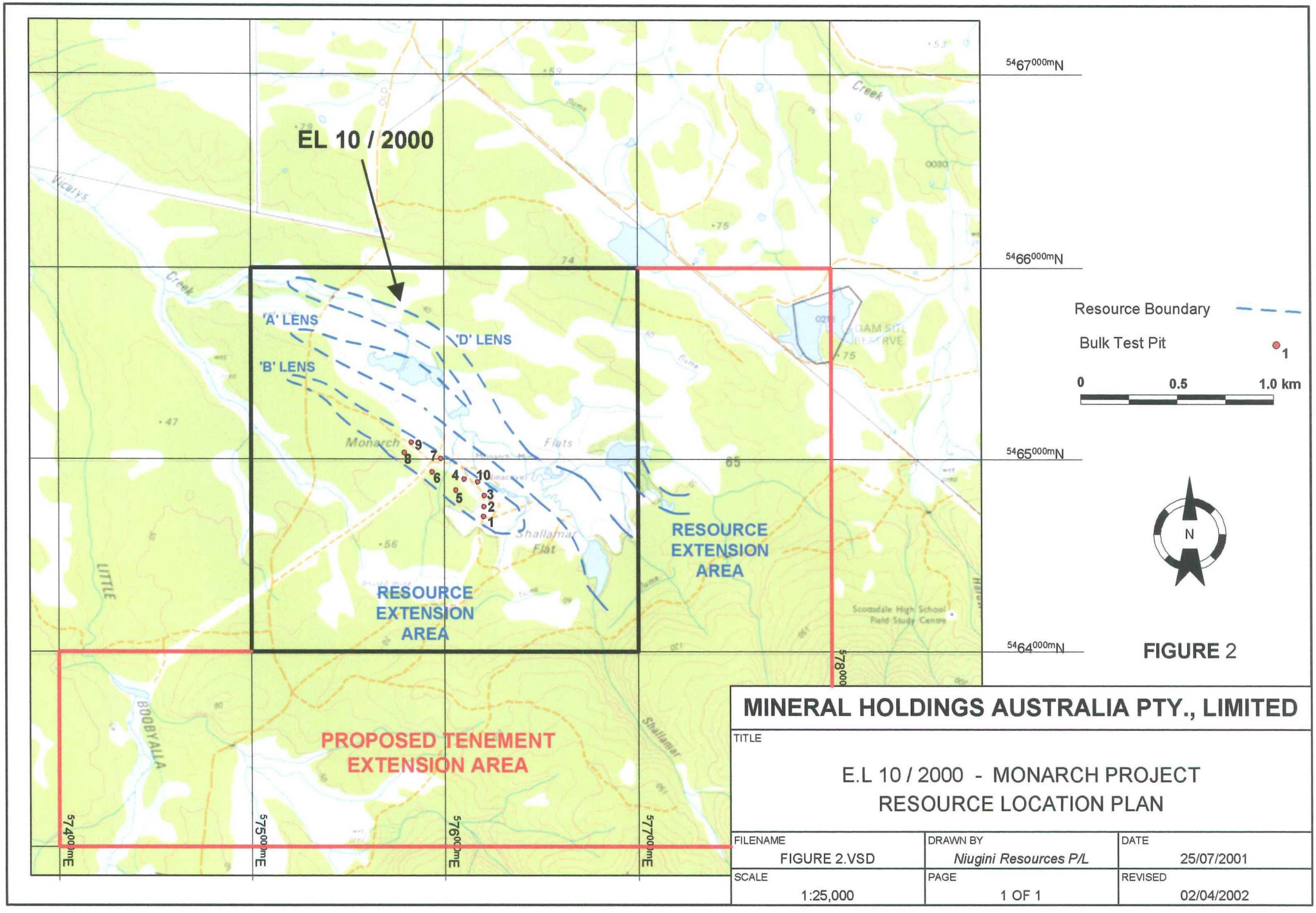


FIGURE 2

MINERAL HOLDINGS AUSTRALIA PTY., LIMITED

TITLE

E.L 10 / 2000 - MONARCH PROJECT
RESOURCE LOCATION PLAN

FILENAME	DRAWN BY	DATE
FIGURE 2.VSD	*Niugini Resources P/L*	25/07/2001
SCALE	PAGE	REVISED
1:25,000	1 OF 1	02/04/2002

5 EXPLORATION AND RESOURCE POTENTIAL:

Extensions to the known resource are indicated to the east, south-east and south back up the drainage system towards the slopes of Mt Cameron. The current resource lenses are open in those directions. See Figure 2.

6 MINING STRATEGY:

Access is excellent, all weather, adequate water supplies exist in the immediate vicinity of the resource and 240 volt mains power several miles to the north along the Bridport to Gladstone road.

Previous mining used hydraulic monitors, gravel pumps and sluice boxes. BMI improved these techniques by introducing a dragline. All methods used to date would have introduced high losses of tin to tailings due to the inability of machinery to selectively mine the cassiterite-bearing horizon, specifically by the failure to remove the barren sticky clay from the treatment circuit and by basement dilution.

The use of modern gravity circuits and strip mining incorporating controlled stripping of barren clay horizons using hydraulic excavators will improve recoveries of not only the cassiterite but also the accessory heavy minerals, zircon, rutile, ilmenite, gold and sapphire.

7 RECOMMENDATION:

The Licence should be extended to the east, south and west by making application for an additional six blocks encompassing the possible resource extensions.

Audit the current resource to check accuracy of old data and resource block outlines.

ENDURANCE PROJECT - EL 11 / 2000

1 TENURE:

Exploration Licence 11 / 2000 - Mineral Holdings Australia Pty., Limited

Area: 4 sq. km.

Expiry: 08/12/2005

2 GEOLOGICAL SETTING:

A historically significant alluvial tin deposit lying along, and immediately adjacent to, the northern face of the Mt Cameron granite massif. The alluvial profile consists of humic topsoil underlain by thick clay and sand horizons overlying a basal sandy to cobbly granite based gravel containing the economic cassiterite concentrations. The deposit derives its tin load in part from the Mt Cameron granites and also from the ancestral Ringarooma River of which the resource is considered to be part.

3 RESOURCE:

Previous drilling by BHP and BMI in the 1960's was re-assessed by AMDEX Mining in 1980 who quoted a resource figure of:

6,775,399 cubic metres at an average grade of 250.4 grams/cubic metre of 70% Sn concentrate at a cut-off of 200/100 grams / cubic metre.

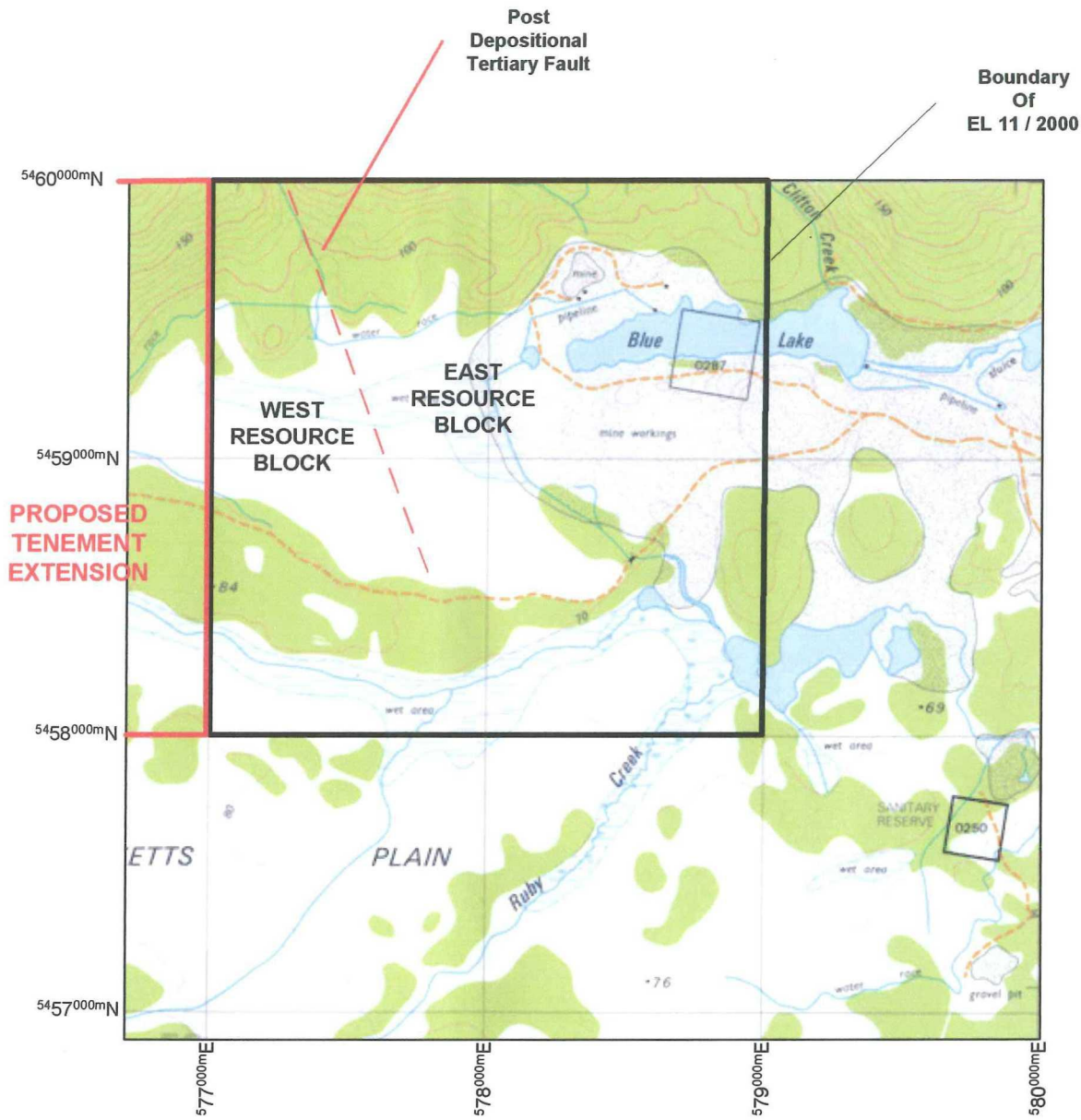
(1,672 tonnes of SnO_2 concentrate)

This resource was contained in two resource blocks, specifically the block east of the Tertiary Fault; and the block west of the Tertiary Fault. This figure included the barren clay-sand horizon lying on top of the cassiterite bearing basal layer.

MHAP/L believe that a thorough re-assessment of the Endurance database and a re-calculation of the resource figures will, while resulting in a diminishing of the total volume will result in an increase in the amount of contained SnO_2. This will be achieved by expansion of the area of the resource outside current boundaries and increasing the grade of ore intersections.

4 ACCESSORY MINERALS:

Rutile, zircon and ilmenite are common accessory minerals. Gold has been reported but to date not quantified although previous production places content at around 10mg / m^3. Sapphire observed and historically reported but not quantified. Tantalite reported in analyses of tin concentrates.



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SCALE

FIGURE 3

N

MINERAL HOLDINGS AUSTRALIA PTY., LIMITED

TITLE

E.L 11 / 2000 - ENDURANCE PROJECT
TOPOGRAPHIC AND TENURE PLAN

FILENAME	DRAWN BY	DATE
FIGURE 3.VSD	*Niugini Resources P/L*	23/01/2002
SCALE	PAGE	REVISED
1:25,000	1 OF 1	02/04/2002

5 EXPLORATION AND RESOURCE POTENTIAL:

Extensions to the known resource are indicated to the west towards the Boobyalla River stream system and proximal along the boundaries of the current resource channel. See Figure 3.

6 MINING STRATEGY:

Access is excellent, all weather, adequate water supplies exist in the immediate vicinity of the resource and 240 volt mains power several miles to the east along the Pioneer to Gladstone road.

Previous mining used hydraulic monitors, gravel pumps and sluice boxes. Water was pumped to site from the Ringarooma River. BMI improved these techniques by introducing a dragline and scrapers to remove some overburden and a jig plant to improve recoveries. All methods used to date would have introduced high losses of tin to tailings due to the inability of machinery to selectively mine the cassiterite-bearing horizon, specifically by the failure to remove the barren sticky clay from the treatment circuit. Further there was apparently some difficulty in recognising the cut-off between granite basement and the cassiterite bearing granite based gravels resulting in significant basement dilution

The use of modern gravity circuits and strip mining incorporating controlled stripping of barren clay horizons using hydraulic excavators will improve recoveries of not only the cassiterite but also the accessory heavy minerals, zircon, rutile, ilmenite, gold and sapphire.

7 RECOMMENDATION:

The Licence should be extended to the west by making application for an additional two blocks encompassing the possible resource extensions.

Audit the current resource to check accuracy of old data and resource block outlines and recalculate the resource to exclude the thick barren surface layers.

PIONEER PROJECT - EL 12 / 2000

1 TENURE:

Exploration Licence 12 / 2000 - Mineral Holdings Australia Pty., Limited

Area: 4 sq. km.

Expiry: 08/12/2005

2 GEOLOGICAL SETTING:

A historically significant, past producing alluvial tin deposit lying immediately adjacent to, and west of, the Ringarooma River at Pioneer Township. The deposit is considered to have been developed at the outwash point of the Wyniford River Lead into the ancestral Ringarooma River floodplain. The deposit derives its tin load in part from the Blue Tier granite bodies that lie at the head of the Wyniford River and also in part from reworking of older high-level Tertiary gravel deposits.

3 RESOURCE:

Exploration by AMDEX Mining in the 1970's and 80's resulted in the delineation of a significant resource quoted by them as being:

5,448.353 cubic metres at an average grade of 347.5 grams/cubic metre of 70% Sn concentrate at a cut-off of 200 grams / cubic metre.

(1,635 tonnes of SnO_2 concentrate)

It is understood that this resource includes barren overburden.

MHAP/L have not at this time reviewed the database however it is considered likely that a re-assessment will result in a significant increase in the quantity of contained cassiterite.

4 ACCESSORY MINERALS:

Rutile, zircon and ilmenite are common accessory minerals. Gold has been reported but to date not quantified although previous production places content at around 10mg / m^3, similar in fact to recoveries from the old Endurance mining operation. Sapphire observed and historically reported but not quantified. The tins shed tailings at Pioneer contain abundant sapphire. Tantalite reported in analyses of tin concentrates.

5 EXPLORATION AND RESOURCE POTENTIAL:

Extensions to the known resource are indicated to the west towards the Boobyalla River stream system along the old Wyniford Lead and proximal along the boundaries of the current resource channel. See Figure 4.

6 MINING STRATEGY:

The deposit lies immediately adjacent to Pioneer Township. Access is excellent, all weather, adequate water supplies exist in the immediate vicinity of the resource and 240 volt mains power is available at Pioneer.

Previous mining used hydraulic monitors, gravel pumps and sluice boxes. Water was pumped to site from the Ringarooma River. AMDEX improved these techniques by introducing a jig plant to improve recoveries. All methods used to date would have introduced high losses of tin to tailings due to the inability of machinery to selectively mine the cassiterite-bearing horizon, specifically by the failure to remove the barren sticky clay from the treatment circuit.

The use of modern gravity circuits and strip mining incorporating controlled stripping of barren clay horizons using hydraulic excavators will improve recoveries of not only the cassiterite but also the accessory heavy minerals, zircon, rutile, ilmenite, gold and sapphire.

7 RECOMMENDATION:

The Licence should be extended to the west and north by making application for an additional five blocks encompassing the possible resource extensions along the old Lead.

Audit the current resource to check accuracy of old data and resource block outlines and recalculate the resource to exclude the thick barren surface layers.

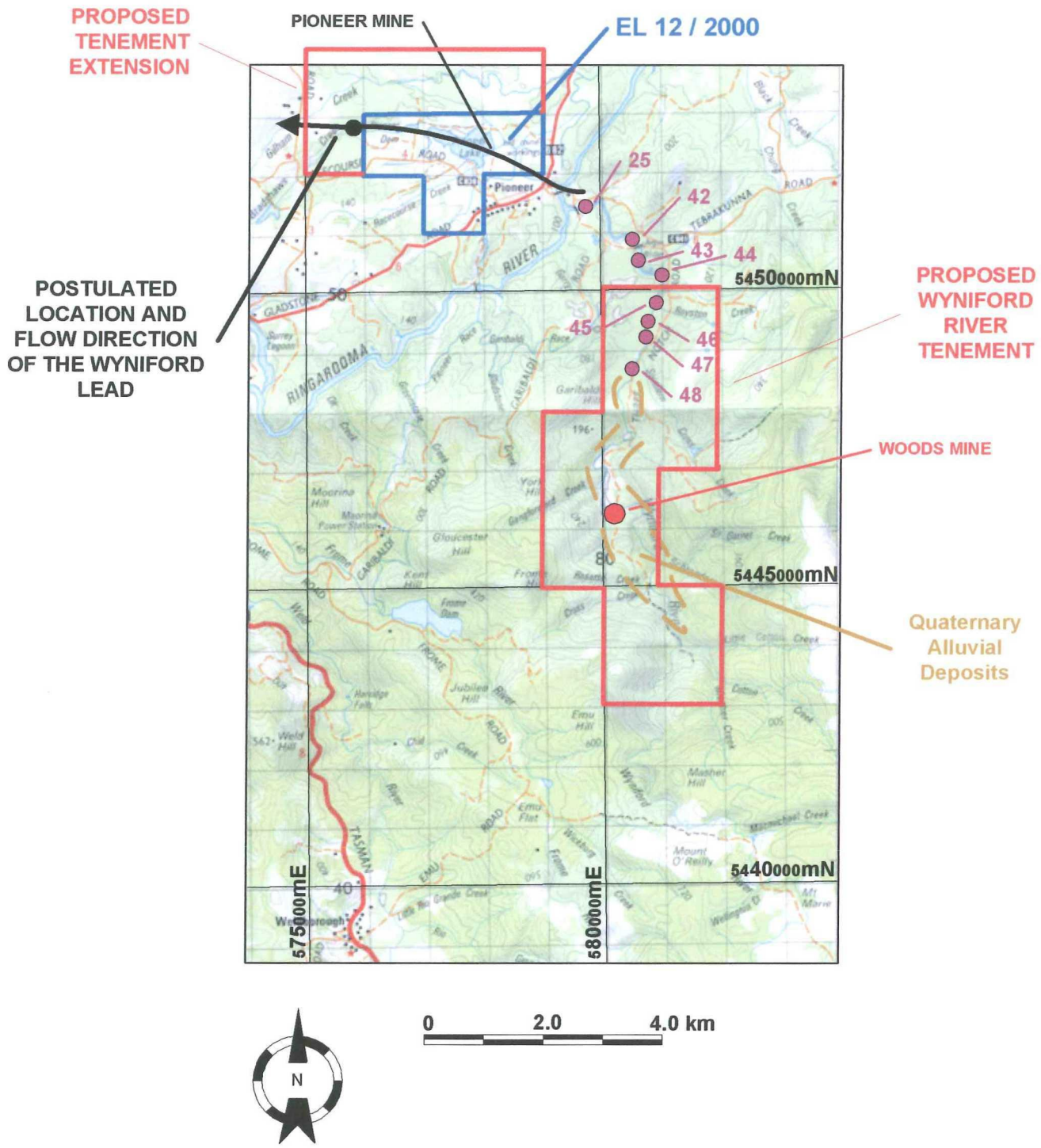


FIGURE 4

42 Reconnaissance Samples

MAP: Australian Metric Grid

MINERAL HOLDINGS AUSTRALIA PTY., LIMITED

TITLE

EL 12 / 2002 AND SEL 22 / 1999
PIONEER AND WYNIFORD RIVER PROSPECTS

FILENAME	DRAWN BY	DATE
FIGURE 4.VSD	*Niugini Resources P/L*	20/09/2001
SCALE	PAGE	REVISED
1:100,000	1 OF 1	02/04/2002

PROJECTS WITHIN SEL 22 / 1999

OCCURING IN CLOSE PROXIMITY TO PIONEER AND ENDURANCE PROJECT AREAS

1 TENURE:

Exploration Licence 22 / 1999 - Mineral Holdings Australia Pty., Limited

Area: N/A

Expiry: 08/09/2005

2 GEOLOGICAL SETTING:

A historically significant, past producing alluvial tin deposits occur at two locations, specifically:

i In the Dorset Flats area including the Eastern Leads, Swains deposits occurring in the area between the Pioneer and Endurance deposits. These are in part older high-level Tertiary gravels related to the ancestral Ringarooma River system that may be in part lacustrine; and

ii The Wyniford River tin deposits, a sequence of recent cobble and boulder gravel deposits occurring as terraces adjacent to the Wyniford River south of Pioneer.

3 RESOURCE:

Texins Development conducted exploration in the areas in the 1970's and 80's. Work included churn drilling and pitting. Exploration delineated some tin bearing resource areas, specifically:

i 386,000 m^3 containing 143 tonnes of SnO_2 concentrate in the Wyniford River system;

ii 171,000 m^3 containing 66 tonnes of SnO_2 concentrates at Swains Creek to the south east of the Dorset Flats; and

iii 542,834 m^3 containing 161 tonnes of SnO_2 concentrates at the Dorset Flats.

In addition the area west of the old Dorset Flats dredge ground, the Eastern Leads is also considered to be highly prospective for the discovery of additional resources.

4 ACCESSORY MINERALS:

Rutile, zircon and ilmenite are common accessory minerals. Gold has been reported but to date not quantified although previous production places content at around 10mg / m^3, it is reported that gold recoveries from the Dorset Dredge paid all operating power costs.

Sapphire observed and historically reported but not quantified. Excellent cornflower blue gems have been observed in local collections and large stones are reported to have been recovered from jig beds during tin clean-up. Tantalite reported in analyses of tin concentrates.

5 EXPLORATION AND RESOURCE POTENTIAL:

Extensions to the known resource are indicated at Swains Creek, at the Dorset Flats and in the Eastern Leads. The Wyniford River is considered to have excellent potential to yield resource extensions and a valuable accessory sapphire content. See Figure 4.

6 MINING STRATEGY:

The Dorset Flats deposits lies immediately adjacent to the Pioneer to Gladstone road Township. Access is excellent, all weather, adequate water supplies exist in the immediate vicinity of the resource and 240 volt mains power is available at the road. The Wyniford River resources are accessed from Pioneer by an all weather forestry road. Water supply is excellent but power will have to be generated.

Previous mining used hydraulic monitors, gravel pumps and sluice boxes and by dredging (the Dorset Dredge). Water was pumped to site from the Ringarooma River. The Wyniford River was mined in the early 1980's using conventional earthmoving methods using excavators and trucks and modern jig based gravity plants.

The use of modern gravity circuits and strip mining incorporating controlled stripping of barren clay horizons using hydraulic excavators will improve recoveries of not only the cassiterite but also the accessory heavy minerals, zircon, rutile, ilmenite, gold and sapphire.

7 RECOMMENDATION:

The areas of specific interest should be secured under a smaller EL type tenure. Preliminary exploration and test work can be conducted under the SEL tenement.

MINERAL HOLDINGS AUSTRALIA PTY., LIMITED

MIDDLE RINGAROOMA TIN TENEMENTS

RECENT EXPLORATION RESULTS

During 2001 MHAP/L conducted a small bulk-testing programme at the Monarch Project. This resulted in the re-calculation of the resource base. This was undertaken by deleting the thick clay overburden from the calculations. While this resulted in a decrease in overall volume and contained tin it illustrated that the removal of overburden would result in a more rapids rate of return of capital.

The small treatment plant used by MHAP/L while not ideally suited to the recovery of accessory minerals did provide ample evidence that rutile, zircon and ilmenite can be recovered from these deposits if minor modifications are made to the gravity circuit. Heavy ragging of the jigs precluded high recoveries of the lighter accessory heavy minerals.

Sapphire has long been reported from all these deposits however until 2001 no effort was made to test and quantify the content. Preliminary results from Monarch were poor due probably to the fact that the Monarch does not derive its alluvial sediment load from a naturally sapphire bearing area. Further it is now apparent that many of the parcels of stone available to MHAP/L have been picked through and many of the larger gems removed. Large gems have been historically reported from all except the Monarch deposit.

Preliminary data suggest that in many of the other deposits sapphire is present in the 1 to 2 grams / m^3 range. Of that content some 20% was determined to be of gemmy, fine cornflower blue colour, those grades equate to an approximate value of between $3.00 to $6.00 per m^3. A parcel of sapphire was recently heat-treated, preliminary results were highly successful and it appears that a further 10% of the non-gem material can be successfully treated to produce a blue gem material. The inclusion of a gem recovery section in the circuit has the potential to substantially upgrade the prospectivity of the resources.

Gold is regularly reported in most deposits and has historically been a valuable component of heavy mineral concentrates. Grades of 10 mg/m3 appear the norm.

Recent studies indicate that both the magnetic and non-magnetic fraction of the cassiterite concentrates contain Ta and Nb. These appear to occur as one of the minerals of the tantalite – columbite series either as discrete mineral particles or locked within grains of cassiterite.

RESOURCE & PROSECTIVITY STATEMENTS

MINERAL HOLDINGS AUSTRALIA PTY., LIMITED \1

TENEMENT	HISTORICAL RESOURCES			CURRENT RESOURCES			PROSPECTIVITY		
	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes SnO_2	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes SnO_2	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes SnO_2
MONARCH: EL 10 / 2000	2,440,000	300	732	556,751 59,100 *615,851*	1,220 139 *19 Zircon* *48Titanium* *	**679.0** **8.2** *11.7* *30.0*	614,851 # 250,000 * *865,851*	1,116 1,500 *50 Zr* *100 Ti*	**687.2** **375.0** *43.3* *86.6*
ENDURANCE: EL 11 / 2000	5,437,385	308	1,672	5,437,385	308	**1,672**	1,750,000 # *1,750,000*	1,250 *50 Zr* *100 Ti* *10 mg Au*	**2,188** *87.5* *175* *17.5 kg*
PIONEER: EL 12 / 2000	5,448,353	300	1,635	5,448,353	300	**1,635**	1,500,000 # *1,500,000*	1,200 *50 Zr* *100 Ti* *10 mg Au*	**1,800** *75.0* *150.0* *15.0 kg*
TOTALS				**11,501,589**	**347.5**	**3994**	**4,115,851**	**1,227**	**5,050**

NOTE: *** Titanium in this instance refers to combined Rutile / ilmenite as TiO_2**

TENEMENT	HISTORICAL RESOURCES			CURRENT RESOURCES			PROSPECTIVITY		
	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes SnO_2	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes SnO_2	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes SnO_2
GNPLAINS: EL 19 / 1993 RL 15 / 1987 RL 23 / 1987 EL 38 / 1997 SEL 22 / 1999	**GNPlains –** 108,600,000	64.0	**6,950**	108,600,000	64.0	**6,950**	54,300,000	192.5	**10,453**
				Aberfoyle – 1,530,000	147.0	**225**	750,000 #	440.0	**330**
				Taylors – 210,000	166.0	**35**	105,000 #	500.0	**52.5**
				McGregors – 6,880,000	127.0	**875**	3,440,000 #	380.0	**1,310**
				Black Duck – 4,200,000	109.5	**460**	2,100,000 #	333.0	**700**
				Scoloch – 8,400,000	133.0	**1,117**	4,200,000 #	405	**1,700**
				Scotia – 12,100,000	136.2	**1,646**	6,050,000 #	365.0	**2,200**
				New Dorset – 4,500,000	124.0	**558**	2,250,000 #	378.0	**850**
				Delta –			1,500,000	130.0	**195**
				Dugard -			4,000,000	120.0	**480**
GNPLAINS: (Continued)				**Other –**			2,500,000	150.0	**375**
TOTAL						**11,866**			**18,645.5**

TENEMENT	HISTORICAL RESOURCES			CURRENT RESOURCES			PROSPECTIVITY		
	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes
ACCESSORY GNPLAINS: (Continued)							*73,200,000*	*50 Zr* *100 Ti* *3 mg Au* *Sapphire* *1 gm / m^3*	*3,660* *7,320* *2,196 kg* *73,200 kg*

 # - Indicates that the resource base requires recalculation to exclude barren overburden.

*** - Indicates extension to known resource base.**

TENEMENT	HISTORICAL RESOURCES			CURRENT RESOURCES			PROSPECTIVITY		
	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes SnO_2	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes SnO_2	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes SnO_2
OFFSHORE: EL 19 / 1993 (Part) T2 / MEL	199,000,000	200.0	**39,800**	199,000,000	200.0	**39,800**	250,000,000 *250,000,000*	250 *50 Zr* *100 Ti* *5 mg Au* *Sapphire* *Unknown*	**62,500** *12,500* *25,000* *1,250 kg*

NOTE: No allowance made for Ta_2O_5 / Nb_2O_5 content that from old analyses is assumed to average 2.5 gm/m^3.

SUMMARY

TIN RESOURCES - MONARCH – ENDURANCE PIONEER – GREAT NORTHERN PLAIN – OFFSHORE

TENEMENT	HISTORICAL RESOURCES			CURRENT RESOURCES			PROSPECTIVITY		
	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes SnO_2	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes SnO_2	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes SnO_2
M/E/PIONEER:	13,325,738	303.0	**4,040**	11,501,589	347.5	**3994**	4,115,851	1,227	**5,050**
GNPLAINS:	108,600,000	64.0	**6,950**	146,420,000	81.0	**11,866**	81,195,000	230.0	**18,645.5**
OFFSHORE:	199,200,000	200.0	**39,800**	199,200,000	200.0	**39,800**	250,000,000	250	**62,500**
TOTAL	321,125,738		**50,790**	357,121,589		**55,660**	335,310,851		**86,195.5**

SUMMARY

ACCESSORY MINERAL COMPONENT – MONARCH – ENDURANCE – PIONEER - GNPLAINS

TENEMENT	HISTORICAL RESOURCES			CURRENT RESOURCES			PROSPECTIVITY		
	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes
M/E/PIONEER:				615,851	19 Zr 48 Ti	**11.7** **30.0**	*4,115,851*	*50 Zr* *100 Ti* *10 mg Au*	***205.8*** ***411.6*** ***32.0***
GNPLAINS:							*73,200,000*	*50 Zr* *100 Ti* *0.03 g Au* *Sapphire* *1 gm / m^3*	***3,660*** ***7,320*** ***2,196 kg*** ***73,200 kg***
OFFSHORE:							*250,000,000*	*50 Zr* *100 Ti* *5 mg Au* *Sapphire* *Unknown*	***12,500*** ***25,000*** ***1,250 kg***
TOTAL							327,315,851	*Zr* *Ti* *Au* *Sapphire*	***163,658*** ***32731.6*** ***3,478 kg*** ***+73,200 kg***

NOTE: No allowance made for Ta_2O_5 / Nb_2O_5 content that from old analyses is assumed to average 2.5 gm/m^3.

SEL 22 / 1999 - GEM TENEMENT

TENEMENT	HISTORICAL RESOURCES			CURRENT RESOURCES			PROSPECTIVITY		
	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes
GEMSTONES: SEL 22 / 1999									
	Weld River:				Sn 0.5 to 205		500,000	Sn 600.0	**300**
								Zr 100	*50*
								Ti 100	*50*
								Sapphire 5	*2500 kg*
							750,000	Sn 150	**112.5**
								Zr 150	*112.5*
								Ti 150	*112.5*
								Sapphire 5	*3,750 kg*
	Wyniford River:			351,848	Sn 320	**112.6**	1,000,000	Sn 600	**600**
				34,500	Sn 870	**30**	100,000	Sn 1000	**100**
							1,100,000	*Zr 100*	*110*
								Ti 200	*220*
								Sapphire 5	*5,500 kg*
	Middle Ringarooma River:			**Swains:** 171,000	386	**66**	500,000	Sn 380	**190**
								Zr 50	*25*
								Ti 100	*50*
								Au 10 mg	*5 kg*
								Sapphire 2.5	*1,250 kg*
				Dorset Flats: 542,834	297	**161**	1,500,000	Sn 350	**525**
								Zr 50	*75*
								Ti 100	*150*
								Au 10 mg	*15 kg*
								Sapphire 2	*3,000 kg*

SUMMARY

GEM TENEMENT (C0NTINUED)

TENEMENT	HISTORICAL RESOURCES			CURRENT RESOURCES			PROSPECTIVITY		
	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes	VOLUME m^3	GRADE gm/m^3	CONCENTRATE Tonnes
	Middle Ringarooma River:			**Eastern Leads:**			3,500,000	Sn 150 *Zr 50* *Ti 100* *Au 10 mg* *Sapphire 1*	**525** *175* *350* *35 kg* *3,500 kg*
	George River:			**St Helens:** Tertiary Leads			5,000,000	Sn 150 *Zr 25* *Ti 50* *Sapphire 2.5*	**750** *125* *250* *12,500 kg*
				Upper George R			+1,000,000	*Zr 25* *Ti 50* *Sapphire 2.5*	*25* *50* *2,500 kg*
	Other Areas:			**Musselroe River:**			+1,100,000	*Unknown* *No data*	
				Other Tertiary Leads:			+1,500,000	*Unknown* *No data*	
TOTALS				1,100,182		**369.6**			**Sn 3,102.5** *Zr 697.5* *Ti 1,232.5* *Au 55 kg* *Sapphire 34,500 kg*

MINING AND TREATMENT

1 SUMMARY

Northeast Tasmania has a long history of alluvial tin mining from small sluicing operations, larger gravel pumping hydraulic mines and floating dredge mining operations.

Traditionally the larger mines have been developed in deeper alluvial deposits, that is deposits buried beneath considerable thicknesses of barren overburden. The flat topography of the Great Northern Plains district coupled with thick overburden sequences meant that many operations ceased not because of low tin grades but because operators were unable to get water to the working face and in some instances remove sand tailings from the working face. This is particularly so around the fringes of the Great Northern Plains, in particular at Aberfoyle, McGregor's, Taylor's and the Canary workings.

Since the World War II mining and treatment methods have altered from earlier hydraulic sluice based ventures. The advent of better pumps mechanised earthmoving machines and modern jig based gravity plants have altered the way some of the projects have been developed. Since the mid 1960's deposits such as the Monarch, Endurance and Pioneer have all been exploited using more modern mining and treatment methods. In these three cases mining ceased with substantial resources remaining intact basically because of a dramatic slump in world tin prices in the early 1980's associated with a rigidly applied production quota system.

Since closure of these operations there have been several attempts to re-assess the resource base however in most if not all cases workers continued to include barren overburden into the tin bearing resource.

In recent years Mineral Holdings have commenced an active program of data acquisition and the Company now has a considerable database of information dating back to the earliest drilling, circa 1906, on the Great Northern Plains. While Mineral Holdings through their consultants have commenced re-assessing this material, and some of the project resources have been substantially upgraded, much work remains to be completed prior to a final mining feasibility being produced.

2 MINING TECHNIQUES

The nature of the various projects varies considerably from massive blanket like, deeply buried deposits such as the Great Northern Plain, offshore dredge projects to the more conventional shallow alluvial deposits such as the Wyniford River, Monarch and Weld River areas.

In 1995 N.A.Macarthur produced a Pre-feasibility Review for several of the projects but most specifically the onshore areas of the Great Northern Plain. A. J. Mason subsequently updated the Review in 2000.

Specifically these authors reviewed a number of mining techniques and arrived at preliminary mining costs. The methods reviewed include:

i Single Bucket Ladder Dredge:

This unit has a high initial capital cost (Around $20 million for a new unit) and is estimated to have a unit operating cost of around $1.68 / m^3.

ii Overburden Stripping and Smaller Dredge:

Stripping of overburden ahead of dredging reduces pond depth and thus capital costs. Based on similar operations in New Zealand the estimated unit operating cost is assumed to be around $1.59 / m^3.

iii Double Ladder Dredge:

A prototype of this type of dredge was trialed at Grey River in New Zealand. While initially more expensive than a conventional dredge, the unit operating cost proved to be between $1.40 and $1.50 / m^3.

iv Backhoe Mining:

Conventionally the backhoe is pontoon mounted and feed direct to a floating treatment plant. Unit costs vary from \$1.44 / m^3 where the stripping ratio is around 2.4:1 to \$2.22 / m^3 where the stripping ratio is 1:1.

While all techniques have merit there are a number of other alternatives available including:

a Strip mining using scrapers, large bulldozers or large hydraulic excavators and mining using conventional backhoe, trucks or gravel pumps.

b Removal of overburden by dragline and mining of wash by conventional methods.

To date no thorough feasibility study has been completed however as a preliminary indicator included in this text are some preliminary estimates for the commissioning and operation of a 100 m^3 / hour alluvial mining operation using backhoe/bulldozers and jig based gravity plants. Costs for this type of mining vary from lows of \$2.50 / m^3 to up to \$10.00 / m^3 dependant on a number of variables including, overburden to ore ratios, grade, water availability, labour availability, location, access and infrastructure.

3 TREATMENT TECHNIQUES

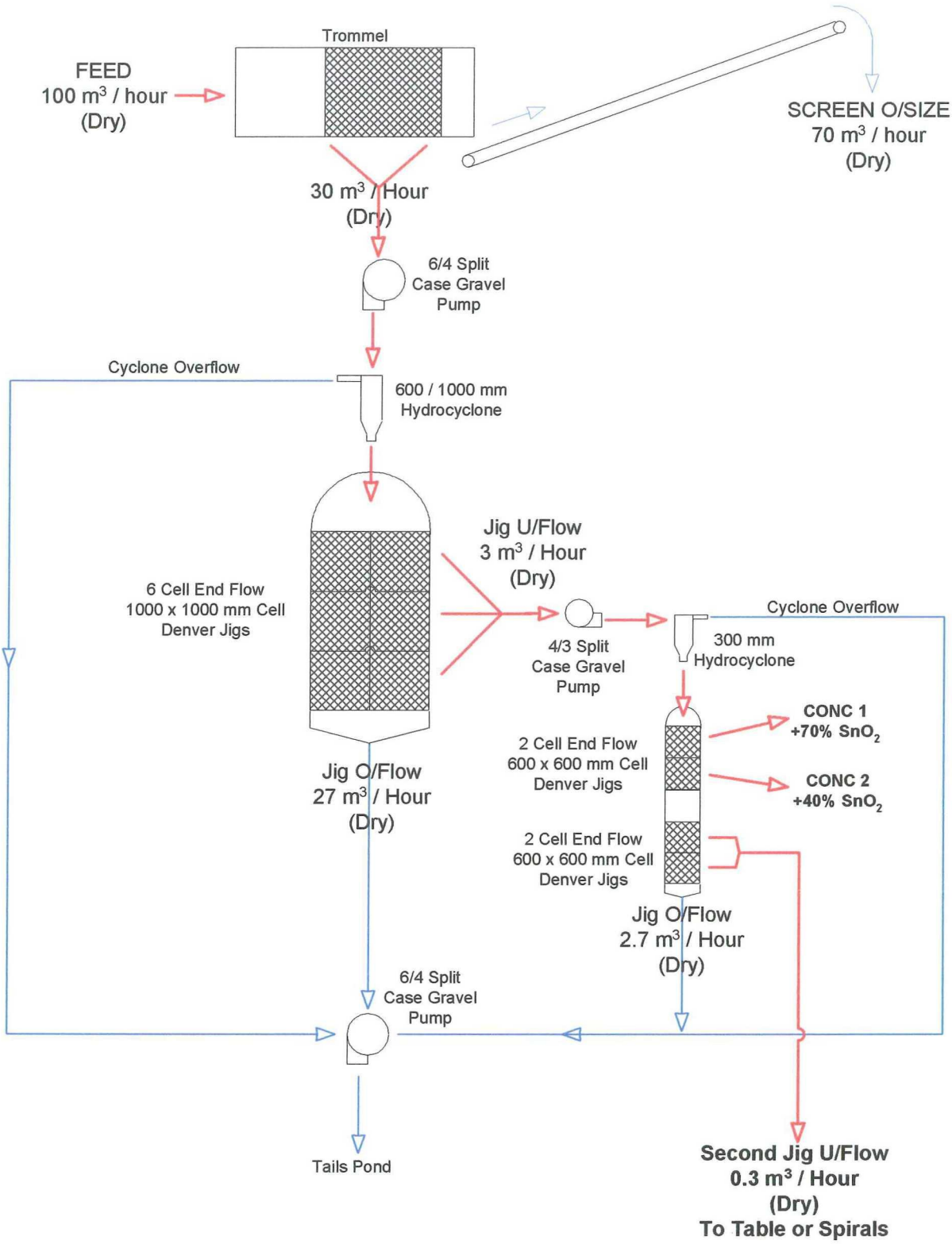
In most alluvial tin mining operations and historically in the Ringarooma district tin recovery has been the prime metallurgical objective. Most if not all of the operations including the Dorset Dredge at is various locations, Endurance and Pioneer gold has been recovered as a by-product of the tin shed clean-up circuit. Figure 1 depicts a rather conventional tin treatment flowsheet where the plant produces a primary 70% SnO2 concentrate plus a second or middling requiring special tin-shed clean-up using sluices, tables, etc.

A plant of this size and type is estimated to cost in the order of $700,000.00 although the availability of excellent second hand plant would reduce this figure considerably.

The recognition by Mineral Holdings of a complex assemblage of accessory heavy minerals including gold, sapphire, ilmenite, rutile, zircon and tantalite has substantially increased the value per cubic metre of the alluvial deposits. Mining costs will be static and it is of importance to any operator to consider extracting maximum value from the metres mined by including in the circuit recovery methods for the additional minerals.

A more complex circuit is depicted in Figure 2 and the ratios of the various products of such plant in Figure 3. It can be seen from the flowsheet that the circuitry is more complex and includes additional equipment required to recover the lighter heavies such as zircon, ilmenite, rutile and sapphire. Gold, tin and tantalite represent the simplest of the heavies to extract.

It is difficult to estimate the cost of such plant and it would be strongly recommended that metallurgical expertise be sought to design and balance the flowsheet so as to maximise and simplify recoveries. Preliminary costs are placed at around $1.25 million.

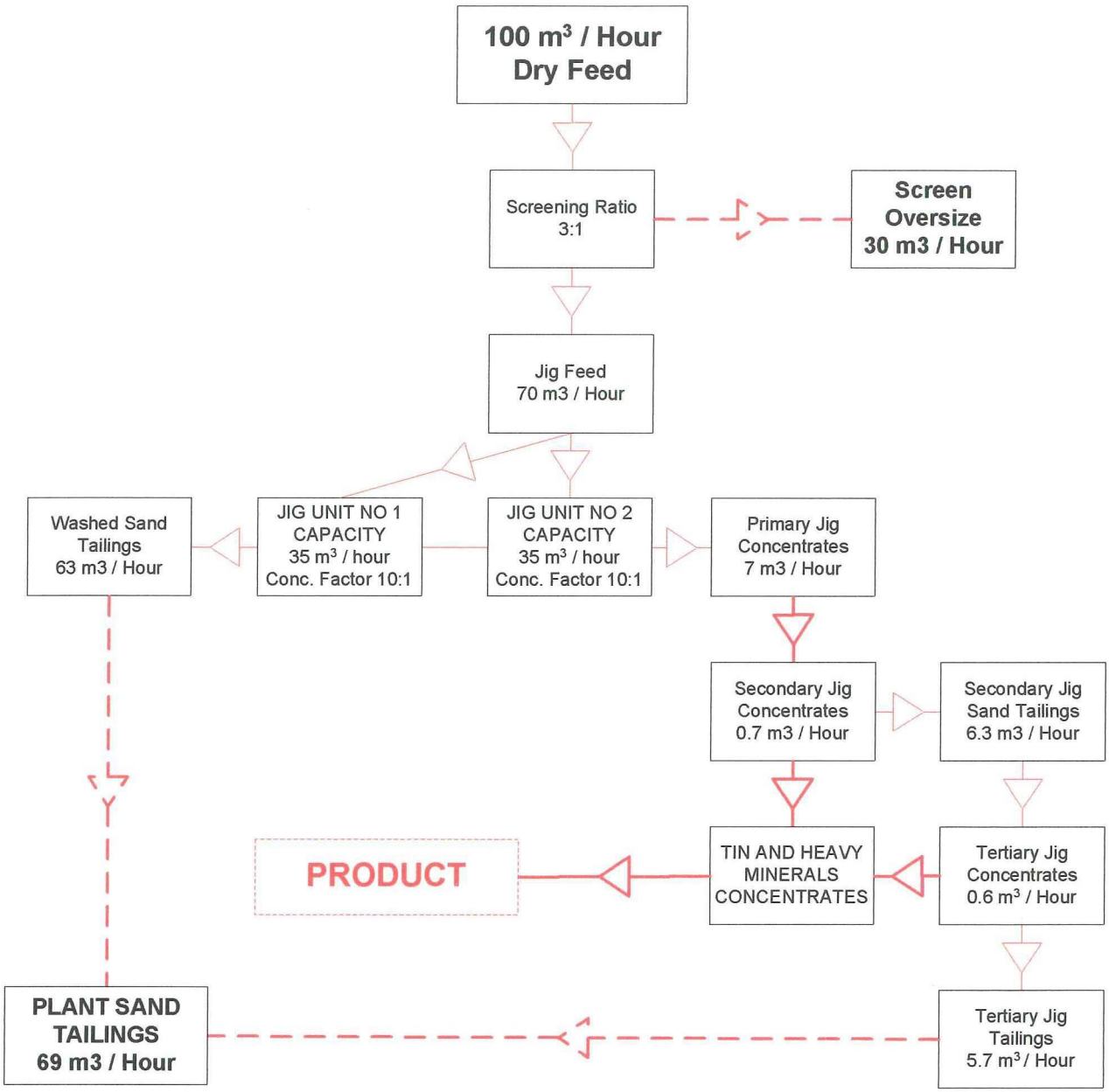


NIUGINI RESOURCES PTY., LIMITED

TITLE

SCHEMATIC TREATMENT FLOWSHEET
ALLUVIAL TREATMENT PLANT
100 M³ PER HOUR CAPACITY

FILENAME	LABEL	DATE
Alluvial Plant 100	FIGURE 1	1/08/2002
SCALE	DRAWN BY	REVISED
1: 1	N. Kinnane	21/08/2002

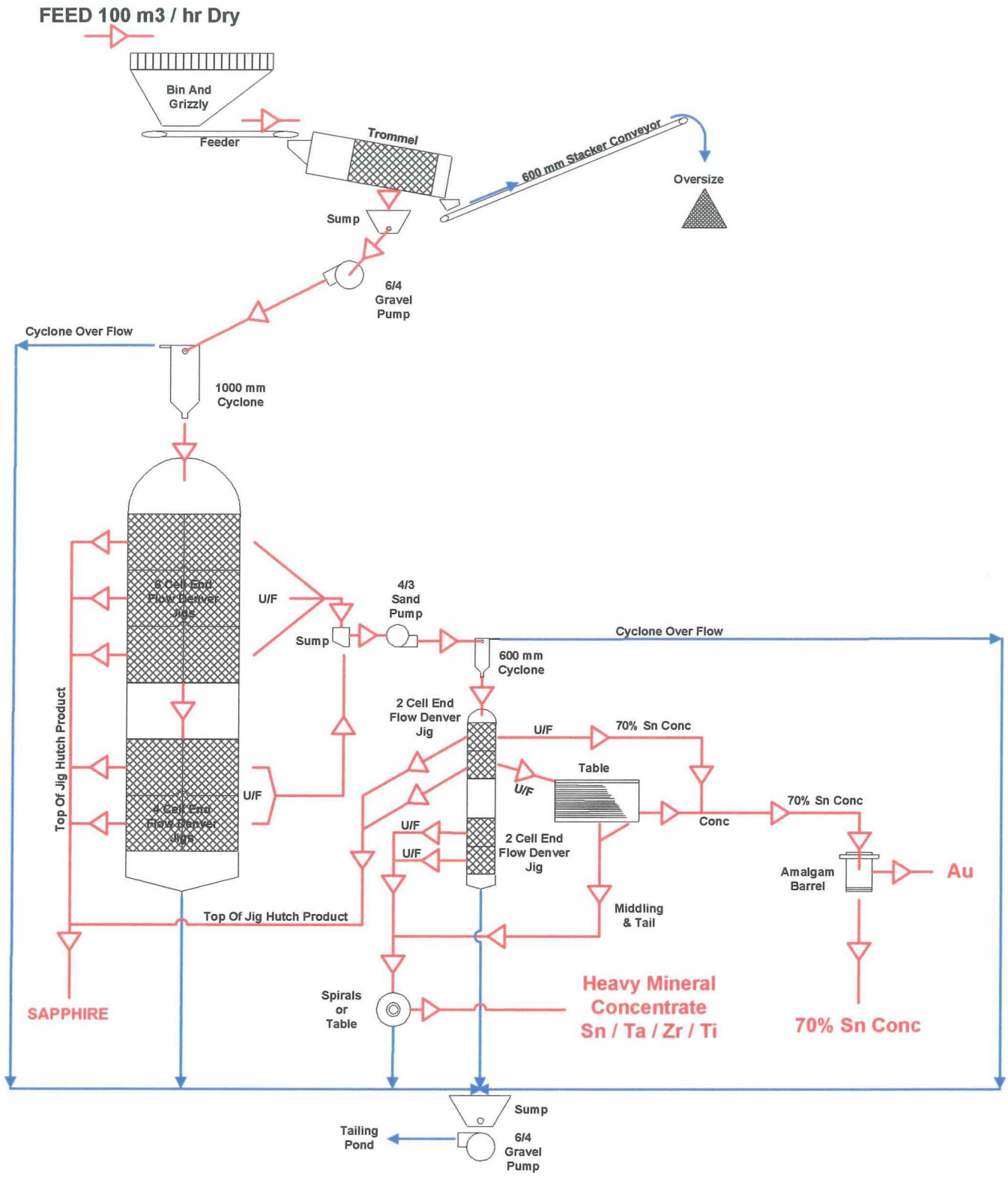


NIUGINI RESOURCES PTY., LIMITED

TITLE

ALLUVIAL TREATMENT FLOWSHEET
CONCENTRATION RATIOS AND PRODUCTS
100 m³ / HOUR DRY FEED

FULL FILENAME	LABEL	DATE
Conc Ratios 100	**FIGURE**	**2/08/2002**
SCALE	DRAWN BY	REVISED
1: 1	**N. Kinnane**	**3/08/2002**



NIUGINI RESOURCES PTY., LIMITED

TITLE

SCHEMATIC TREATMENT FLOWSHEET
ALLUVIAL TREATMENT PLANT
100 M^3 PER HOUR CAPACITY

FILENAME	LABEL	DATE
Alluvial Plant 100 Ver 2	FIGURE	2/08/2002
SCALE	DRAWN BY	REVISED
1: 1	N. Kinnane	3/08/2002

PLAN 12

ASSESSMENT

1 SUMMARY

Given the highly variable nature of various of the deposits economic parameters including CAPEX and Operating Costs have been applied to three cases.

Unlike many alluvial resource areas the general Ringarooma valley area has an excellent infrastructure base including power, water and road network. In this instance it will not be necessary to establish a major camp facility and by using contract earthmoving services no major workshop facilities will be required.

a Great Northern Plain:

In this instance the value per cubic metre of the Great Northern Plains resource has been calculated and applied against the estimated Unit Operating Costs for a two dredge or pre-stripping operation, that is, the barren overburden removed prior to ore extraction. Specifically:

Estimated Resource Value	$4.40 / m^3
Estimated Unit Operating Cost	$1.70 / m^3
Net Surplus	**$2.70 / m^3**

In this instance the expected surplus assumes that every effort is made to recover, in addition to cassiterite, all other accessory minerals. Clearly the attached tabulation indicates the significance of the sapphire component of the mineral assemblage.

It is expected that similar costs and surplus figures could be achieved using a "Dry Mining" method.

b Ringarooma Valley Deposits:

Included here are the Great Northern Plains fringe areas such as Aberfoyle, McGregor's, Taylor's, Braithwaite's and Scotia where current resource grades can be increased by the pre-stripping of barren overburden.

The accompanying tabulations reflect preliminary estimates for the installation and operation of a conventional "Dry Mining" operation and gravity treatment at a rate of 100 LCM / hour. It has been assumed that the tin grades average 1 kg / m^3 and the balance of the heavy mineral components are as for the Great Northern Plain. This may not be the case in deposits such as the Scotia where the economic resource is contained in a restricted channel deposit. In this instance higher accessory mineral grades than those quoted can be expected.

In the case applied a surplus of around $4.20 / m^3 can be expected leading to an annual profit before tax of between $1.6 and $1.7 million.

c The Monarch Project:

While this deposit currently has only a limited two year resource life there is potential for the development of satellite resources. The attached calculations indicate that at a feed rate of 100 LCM / Hour.

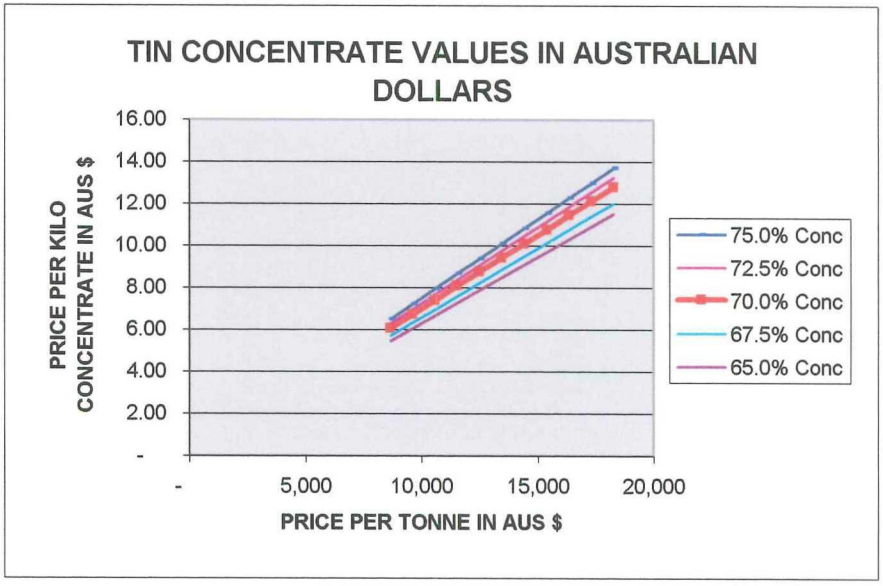
Preliminary cash flow estimates indicate that profit surplus of in the order of $2.7 million per annum can be achieved.

ALLUVIAL MINING CASH FLOW ANALYSIS

PARAMETER DATA SHEET - TIN

COMMODITY	UNIT	PRICE										
TIN:												
Metal	Aus $ / Tonne	**8,654**	9,615	10,577	11,538	12,500	13,462	14,423	15,385	16,346	17,308	18,269
Conc. 75% Sn	$ / Kilo	6.49	7.21	7.93	8.65	9.38	10.10	10.82	11.54	12.26	12.98	13.70
Conc. 72.5% Sn	$ / Kilo	6.27	6.97	7.67	8.37	9.06	9.76	10.46	11.15	11.85	12.55	13.25
Conc. 70% Sn	$ / Kilo	**6.06**	6.73	7.40	8.08	8.75	9.42	10.10	10.77	11.44	12.12	12.79
Conc. 67.5% Sn	$ / Kilo	5.69	6.32	6.95	7.59	8.22	8.85	9.48	10.12	10.75	11.38	12.01
Conc. 65% Sn	$ / Kilo	5.45	6.06	6.66	7.27	7.88	8.48	9.09	9.69	10.30	10.90	11.51

Penalties	Percent	For every percent below 70% deduct 0.1%				
	Percent	Standard Deduction for assay below 70% deduct 1.5%				
Exchange Rate	US $ = $A	0.52				
Insurance	Percent	12	CASE UNDER CONSIDERATION			**5.93**
Lease Rate *(Of New Price / Year)*	Percent	42	DATE PRICE VALID	1st August 2002		
Plant Throughput	LCM / Hour	150				
Discount Rate		15%				
CPI Increases	%/Annum	5%				
Depreciation Rate	% Annum	20%				
Customs	% Value	10%				
Refinery Charges	US $ / Kilo	Standard	0.078	0.104	**0.13**	0.26



ALLUVIAL MINING CASH FLOW ANALYSIS

PARAMETER DATA SHEET - GOLD - AUST DOLLARS

PARAMETER	UNIT	PRICE										
Gold Price	Aus $ / oz	480.77	528.85	576.92	596.15	**605.77**	615.38	625.00	634.62	644.23	653.85	663.46
Gold Price	Aus $ / gram	15.46	17.00	18.55	19.17	**19.48**	19.79	20.09	20.40	20.71	21.02	21.33
Silver Price	Aus $ / oz	7.69	8.08	8.46	8.85	**9.23**	9.62	10.00	10.38	10.77	11.15	11.54
Silver Price	Aus $ / gram	0.25	0.26	0.27	0.28	**0.30**	0.31	0.32	0.33	0.35	0.36	0.37
Grams / Ounce	31.1035											
Exchange Rate	Kina / US $	0.4										
	Aust $ / US $	0.52										
(Namib Dollar)	N$ /US $	0.2										
Insurance	Percent	12										
Royalty	Percent	2.5										
Lease Rate *(Of New Price / Year)*	Percent	42										
Plant Throughput	LCM / Hour	50										
Discount Rate		15%										
CPI Increases	%/Annum	5%										
Depreciation Rate	% Annum	20%										
Refinery Charges	% Net	2.50%										
Customs	% Gross	1										

CASE UNDER CONSIDERATION **10 mg / m^3**

VALUE PER M^3 **0.19**

DATE PRICE VALID 1st September 1998

ALLUVIAL MINING CASH FLOW ANALYSIS

PARAMETER DATA SHEET - TANTALITE - AUS DOLLARS

COMMODITY	UNIT	PRICE								
TANTALITE:										
Price per Long Ton	Aus $	115,384.62	120,192.31	125,000.00	**129,807.69**	130,769.23	131,250.00	131,730.77	132,211.54	132,692.31
Price per Tonne	Aus $	113,573.08	118,305.29	123,037.50	**127,769.71**	128,716.15	129,189.38	129,662.60	130,135.82	130,609.04
Conc. 60% Ta_2O_5	Aus $ / Kilo	113.44	118.18	122.91	**127.64**	128.59	129.06	129.53	130.01	130.48

Exchange Rate	US $ = $A	0.52			
	$N =$ US	0.2			
Insurance	Percent	12			
Lease Rate *(Of New Price / Year)*	Percent	42			
Plant Throughput	LCM / Hour	150			
Discount Rate		15%			
CPI Increases	%/Annum	5%			
Depreciation Rate	% Annum	20%			
Customs	% Value	10%			
Refinery Charges	US $ / Kilo	Standard	0.104	**0.13**	0.26

THIS CASE CONCENTRATE VALUE / $ /GRAM **0.13**

CASE UNDER CONSIDERATION

DATE PRICE VALID 1st September 1998

RESOURCE VALUE ASSESSMENT
GREAT NORTHERN PLAINS AREA

COMMODITY	PRICE $ Aust / tonne	UNIT PRICE / GRAM	GRADE IN GRAMS PER CUBIC METRE	VALUE PER CUBIC METRE
Sn Metal	$8,650.00	$0.009	199.10	$1.79
Zircon	$960.00	$0.001	100	$0.10
Rutile	$960.00	$0.001	100	$0.10
Ilmenite	$580.00	$0.0006	100	$0.06
Gold	$600.00 / oz	$19.20	10 mg	$0.19
Tantalite	$132.00 / kg	$0.13	1.20	$0.16
Sapphire	$10.00 gram gem	$10.00	1.00 0.2 gm gem	$2.00
				$4.40

TABLE 4

RESOURCE VALUE ASSESSMENT

MONARCH DEPOSIT

SnO2? and not Sn?

COMMODITY	PRICE $ Aust / tonne	UNIT PRICE / GRAM	GRADE IN GRAMS PER CUBIC METRE	VALUE PER CUBIC METRE
Sn Metal	$8,650.00	$0.009	1,220.0	$10.98
Zircon	$960.00	$0.001	19	$0.02
Rutile	$960.00	$0.001	48	$0.05
Ilmenite	$580.00	$0.0006	48	$0.03
Gold	$600.00 / oz	$19.20	10 mg	$0.19
Tantalite	$132.00 / kg	$0.13	1.20	$0.16
Sapphire	$10.00 gram gem	$10.00	1.00 0.2 gm gem	$2.00
				$13.43

ALLUVIAL MINING CASH FLOW ANALYSIS

CASH FLOW PARAMETERS

THIS CASE			NUMERIC	VALUE/GM	VALUE /LCM
GRADE	Sn	1.0 Kg / LCM	1		5.93
	Au	10mg / m3	10	19.48	0.19
	Ta_2O_5	1.20 gm / m^3	1.2	0.13	0.15
	Zr	100 gm/m^3		0.001	0.10
	Ti	200 gm/m^3		0.0016	0.32
	Sapphire	0.2 gm / m3		10.00	2.00
	TOTALS				8.70
PRODUCTION		100 LCM / Hour			
SHIFT		1*10*6			
HOURS		2,586 Per Annum			
DEPRECIATION APPLIED		20% / Annum			
CPI APPLIED		5% / Annum			

ALLUVIAL MINING CASH FLOW ANALYSIS

CASH FLOW PARAMETERS

COST AREA	TIN		GOLD		TANTALITE		ZIRCON	Ti	SAPPHIRE	TOTALS
	UNIT	VALUE	UNIT	VALUE	UNIT	VALUE				
Quantities										
Waste		200,000		200,000		200,000	200,000	200,000	200,000	
Ore		387,875		387,875		387,875	387,875	387,875	387,875	
Rehandle Waste	2%	4,000	2%	4,000		4,000	4,000	4,000	4,000	
Rehandle Ore		N/A		N/A		N/A	N/A	N/A	N/A	
Metal Content	Kilos	387,875	gms gms	3,879	gms	465,450	38,787,500	77,575,000	77,575	
Revenue		2,299,203.65		75,542.22		59,349.40	38,788	124,120	775,750	
TOTAL		***2,299,203.65***		***75,542.22***		***59,349.40***	***38,788***	***124,120***	***775,750***	***3,372,752.77***

ALLUVIAL MINING CASH FLOW ANALYSIS

SUMMARY PROFIT / LOSS - 100 LCM / HOUR

ITEM	ANNUAL CASH FLOW				
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
INCOME:					
Conc. Returns	3,372,752.77	3,372,752.77	3,372,752.77	3,372,752.77	3,372,752.77
TOTAL	***3,372,752.77***	***3,372,752.77***	**3,372,752.77**	**3,372,752.77**	**3,372,752.77**
COSTS:					
Variable Operating Costs					
Salaries / Wages	307,558.68	322,936.61	339,083.44	356,037.61	373,839.49
Messing / Accommodation					
Administration	92,000.00	96,600.00	101,430.00	106,501.50	111,826.58
Travel	7,600.00	7,980.00	8,379.00	8,797.95	9,237.85
Insurance - Camp					
Insurance - Treatment Plant	31,200.00	32,760.00	34,398.00	36,117.90	37,923.80
Maintenance - Camp					
Maintenance - Treatment Plant	35,880.00	37,674.00	39,557.70	41,535.59	43,612.36
Camp Depreciation					
Treatment Plant Depreciation	53,500.00	53,500.00	53,500.00	53,500.00	53,500.00
Machinery Costs:					
Earthmoving Costs	680,800.62	714,840.65	750,582.69	788,111.82	827,517.41
Treatment Plant Costs	123,631.28	129,812.84	136,303.48	143,118.66	150,274.59
Insurance	129,080.00	135,534.00	142,310.70	149,426.24	156,897.55
Installation Costs:					
Treatment Plant	67,600.00	0	0	0	0
Camp	64,600.00	0	0	0	0
Earthmoving	28,800.00	0	0	0	0
Exploration:					
Annual	30,000.00	15,000.00	15,750.00	16,537.50	17,364.38
ROYALTIES:					
Estimated at 2.5% Net	84,318.82	84,318.82	84,318.82	84,318.82	84,318.82
TOTAL COSTS	***1,736,569.39***	***1,630,956.92***	***1,705,613.83***	***1,784,003.58***	***1,866,312.82***
NET PROFIT / LOSS	***1,636,183.37***	***1,741,795.85***	**1,667,138.94**	**1,588,749.19**	**1,506,439.95**

THIS CASE		
GRADE	1 kg / LCM	Tin
VALUE /LCM	$8.70	
PRODUCTION	100 LCM / Hour	
SHIFT	1*10*6	
HOURS	2,586	Per Annum
DEPRECIATION APPLIED		20% / Annum
CPI APPLIED		5% / Annum