JAGUAR MINERALS LIMITED

JAGUAR MINERALS LIMITED
WILSON RIVER PROJECT
EL 23/2003
ANNUAL REPORT FOR THE PERIOD
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MAP SHEETS: SK55-3 BURNIE
Map 1:50/100,000: Macintosh.
Map 1:25,000, Luina 3640

EXECUTIVE SUMMARY

The Wilson River Project is located in NW Tasmania about 65 kilometres SW of Burnie and 10 kilometres SW of Waratah. The geology of the Wilson River area contains a central band of allochthonous Cambrian serpentinised ultramafic rocks, porphyritic bonninitic basalts and andesites of the Heazelwood Ultramafic Complex. Siltstones, greywackes, mudstones and tholeiitic basalts of the Early Cambrian turbiditic Cleveland-Waratah association occur to the west of the allochthonous terrain. The Devonian Meredith Granite intrudes the sequence to the south and east of the tenement area.

During the period covered by this report four diamond holes (WRD14-WRD17) were drilled for a total of 1150m, an Induced polarisation survey was carried out, and a program of fieldwork was completed. The drill program tested the strike extent of mineralisation targeted in the previous reporting year. The soil geochemical anomaly straddles the contact between the Cambrian Heazelwood Ultramafic Complex and the Meredith Granite. Holes were sited to test the strike and dip potential of the mineralisation within WRD08 and several untested geochemical anomalies.

Holes WRD14-WRD17 all intersected lead zinc mineralisation, although at low grade. The fieldwork completed at Wilson River identified several structures which have since been utilised to explain the absence of higher grade mineralisation in some of the holes completed. The Induced Polarisation survey did not identify mineralisation in the predicted locations due to the highly conductive nature of the ultramafic bodies found in the vicinity

Exploration by Jaguar Minerals in 2008-2009 will focus upon locating massive sulphide and high metal tenor mineralisation within the 2.8 kilometre long geochemical anomaly. To refine the search for buried massive sulphides, Down Hole Electromagnetic Geophysics will be employed to locate any conductive bodies in the vicinity of the probed holes.

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1.0 INTRODUCTION

The Wilson River Project is located in NW Tasmania about 65km SW of Burnie and 5km SE of Luina, the township for the historical Cleveland tin-copper mines. The area lies within the Meredith Range Regional Reserve and is overlain by high quality wilderness.

Exploration during the period covered by this report includes:

- Four Diamond holes (WRD14-WRD17) were drilled for a total of 1150m, using a track mounted drill rig.
- Geological logging and recording of downhole lithologies, structural data, and other physical properties of the core.
- Cutting and assaying of selected intervals within the four diamond holes.
- Induced Polarisation Survey
- 125m spaced infill soil sampling of the previously sampled 250m spaced soil traverses.
- Local geological mapping survey.
- The cutting of walking tracks through the thick vegetation to provide access for the Induced Polarisation surveys, Down Hole Electromagnetic surveys, and soil sampling surveys.
- Construction of a four wheel drive access track.
- Clearing and later rehabilitation of four drill pads.
- Compilation, processing, interpreting and reporting of results.

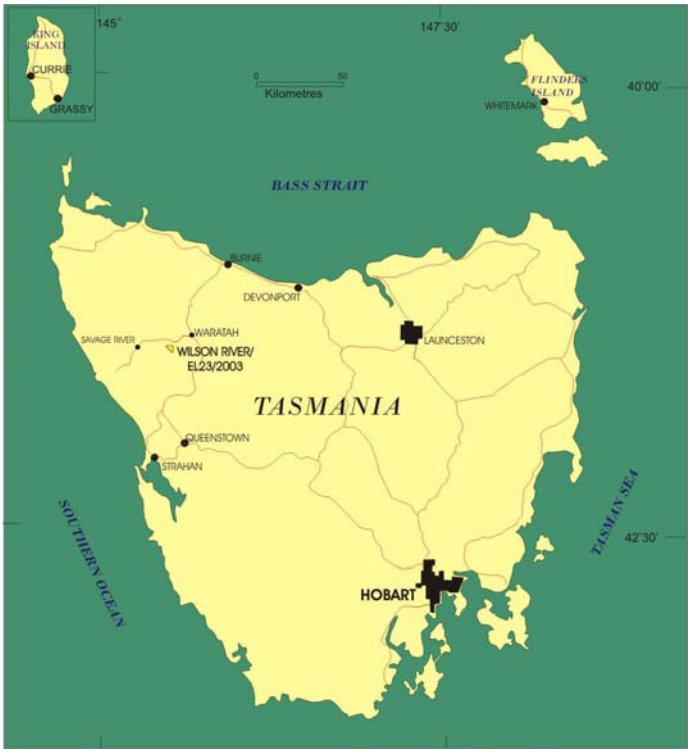

Figure 1. Location Map, Wilson River Project.

2.0 LOCATION

EL 23/2003, Wilson River, NW Tasmania, is located, 10 kilometres south west of Waratah, Figures 1 and 2. Access is gained from Betts Track, an old logging track that comes off the Waratah – Savage River bitumen road, for a distance of 4.5 km Figure 2. Betts Track is marked on the Luina 1:25K topographic map (3640).

All coordinates used in this report use the AGD_1966 AMG Zone_55 Map Datum.

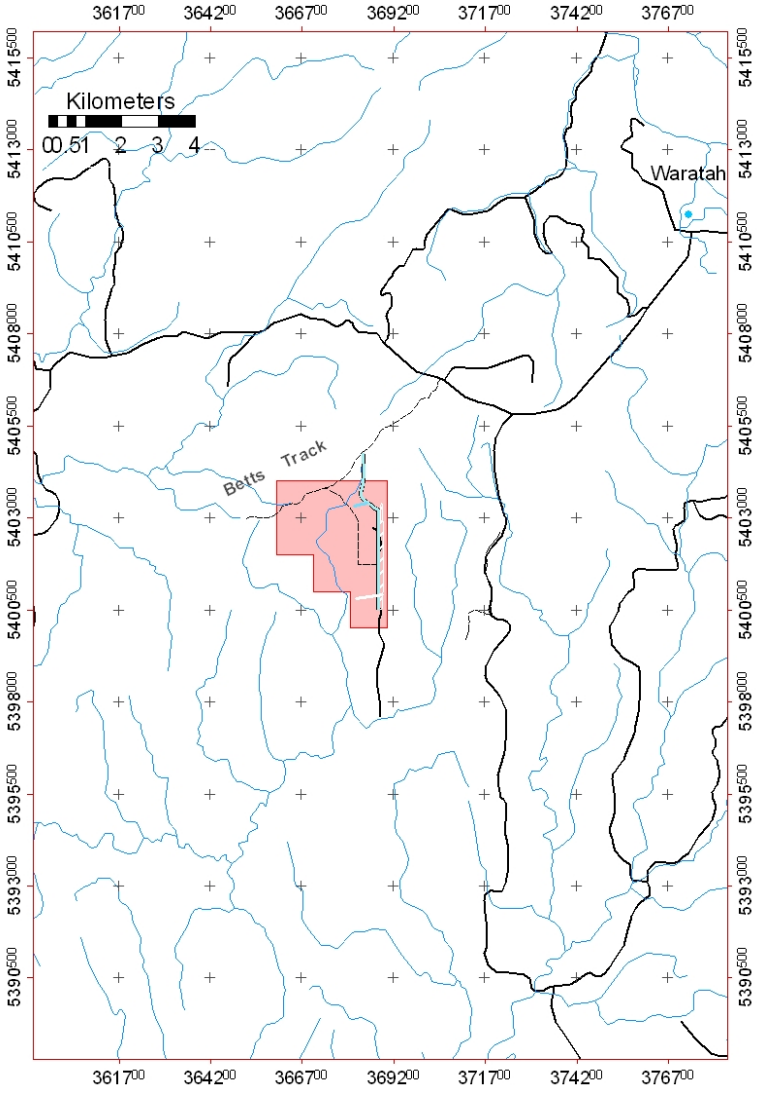

Figure 2. Location map showing Waratah and EL23/2003.

3.0 TENEMENT SUMMARY

The Wilson River project consists of ELA 23/2003 with an area of 9 km^2. Jaguar Minerals obtained the tenement in 2004, from Herald Resources who had an option to purchase agreement with the tenement holder, New Challenge Resources Pty Ltd. Land tenure within EL 23/2003 is of the Meredith Range Regional Reserve with a very small area on the extreme eastern boundary managed as a Forest Community.

4.0 GEOLOGY

4.1. Regional Geology

The oldest rocks in the area consist of Proterozoic and Early Cambrian porphyritic andesitic lavas, serpentinised ultramafics, gabbro and minor sedimentary rocks. Proterozoic turbidites and early Palaeozoic rocks may be entirely allochthonous (i.e. over-thrust) though there is general agreement that only the Early Cambrian assemblage of ultramafics, sediments and basalts is allochthonous. Allochthon emplacement was from the east and occurred at much the same time as metamorphism and deformation in the Arthur Lineament and in the terrane that lies east of the Mt Read Volcanics. Collectively, these events marked the initial phase of the Tyennan Orogeny (≅ Delamerian Orogeny). Volcanism and unstable clastic sedimentation occurred during the remainder of the Tyennan Orogeny, which persisted to the end of Cambrian times. The orogeny was followed by stable conditions in the Ordovician, when shelf carbonates were deposited, and these stable conditions continued into Siluro-Devonian times with the accompanying deposition of clastic sediments and minor carbonates.

Another period of folding called the Tabberabberan Orogeny took place in the Devonian and was a prelude to widespread granitoid intrusion that continued into the Carboniferous. Relatively undeformed cover rocks of Carboniferous to Cainozoic age overly the granitoids. Granite and adamellite are more abundant than granodiorite in the granitoid intrusions, which were emplaced at high crustal levels and have narrow contact aureoles. Both I-type and S-type granitoids are present and some phases have been grouped as magnetite-series, others as ilmenite-series. Tourmaline may be common either in nodules or as quartz-tourmaline greisen. Fluorite, topaz, cassiterite and sulfides may also be present. The chemical and isotopic characteristics of the granitoids indicate that they were derived by partial melting of a range of different igneous and sedimentary source rocks of mostly Palaeoproterozoic to Mesoproterozoic age. Some of the melts subsequently underwent crystal fractionation.

Northwestern Tasmania is a richly mineralised region that is a significant province for tin-tungsten deposits, which are associated with the Devonian to Carboniferous granitoids. Polymetallic silver lead zinc deposits form haloes around centres of Devonian tin mineralisation. Major tin deposits of the iron sulphide replacement type fall within the 4 km granite isobath, many near the 1 km contour, as do the more significant silver lead zinc vein deposits, for example Magnet mine situated 7km North of EL23/2003. The Avebury nickel deposit is a newly recognised style of granitoid-related mineralisation that has extended the prospectivity of the Cambrian ultramafic complexes beyond the previously known, small occurrences of nickel sulfides, chromite and platinoids. The Avebury deposit is hosted in ultramafic rocks near the contact of the Heemskirk Granite. Sulfur-bearing hydrothermal fluids emanating from the granite are thought to have mobilised nickel in the ultramafics and to have facilitated the concentration of the metal. Northwestern Tasmania is also a significant province for polymetallic base metal and gold deposits of middle to late Cambrian age, which occur in the Mount Read Volcanics. Substantial mineral deposits of apparently older age

(?Neoproterozoic) occur in the Arthur Lineament. These include magnetite-pyrite and magnesite-dolomite.

4.2 Local Geology

In EL23/2003 the Devonian Meredith Granite has intrusive contacts with part of the Early Cambrian, allochthonous suite of ultramafics, sedimentary rocks and basalts. The Early Cambrian rocks in the tenement consist of porphyritic volcanics, an ultramafic succesion, gabbro, and minor sedimentary rocks. Boninitic compositions characterise the lavas, which include basalt and high magnesium andesite and interlayered breccia. Two phases of the Meredith Granite are present. A less felsic phase in the east that is called the Wombat Creek phase, and a more felsic phase in the west that makes up a large part of the Meredith Granite outside of EL23/2003. The Wombat Creek phase is an equigranular to sparsely porphyritic, biotite adamellite with minor hornblende, while the western phase consists of very coarse grained biotite granite with numerous intrusions of porphyritic biotite granite (McClenaghan, in prep.). The Wombat Creek phase is I-type whereas the western, felsic phase is S-type. Quartz-tourmaline greisen is common in the felsic phase on a regional basis.

4.3 Structure and mineralisation

Regional geophysical interpretation indicates that the Meredith Granite dips north beneath the Early Cambrian rocks in EL23/2003 Wilson River (Leaman and Richardson, 2003), drilling programs conducted in EL23/2003 suggest the Meredith granite also dips West underneath the Cambrian units. There are no reported historical prospects within the tenement, although a shallow scraping has been recorded by Jaguar Minerals in the north east of the tenement, The old workings of the Cleveland tin-copper mine (carbonate replacement) are located some 4 km to the North West while the old South Bischoff tin field is located 3 km to the east in the Wombat Creek adamellite. Tin greisen was mined in the South Bischoff field. Scattered, fracture related lead-zinc-silver prospects are present in Early Cambrian rocks a few kilometres to the north.

5.0 WORK COMPLETED

5.1 Historical mineral exploration

It appears that the only significant round of previous work in EL23/2003 Wilson River was by Aberfoyle whose focus was tin (Joyce 1980a,b; 1981). The company gridded the area after obtaining elevated tin and zinc values in stream sediments and after unusual circular features were identified by air photo interpretation. They had also flown a Dighem survey. Apparently results from the grid-based work were not sufficient to encourage further exploration though elevated tin was found in outcropping magnetite (?skarn). Rock and soil samples were analysed for tin (Sn) , wolfram (W), copper (Cu), lead (Pb), zinc (Zn), rubidium (Rb), strontium (Sr), bismuth (Bi), molybdenum (Mo) and arsenic (As), but not for nickel (Ni).

Past exploration in the Luina area, especially between Cleveland tin-copper mine and the Magnet lead-silver (Ag)-zinc mine, both now closed, was undertaken by Aberfoyle Exploration in the period 1963 to 1993. EZ, Cleveland Tin, Comstaff, BHP, Placer Exploration, Pasminco/MPI Gold investigated the Magnet Mine and Environs for a range of lead-zinc, copper, tin and gold (Au) targets. Details and references for these past investigations are described in Chapter 8.

5.2 Previous Exploration by Jaguar Minerals within EL23/2003.

In June 2005, Jaguar Minerals sampled 15 soil sample lines on a 250m x 50m sample grid. (Busbridge, 2005). A total of 228 soil samples and 27 rock chip samples were collected. These samples were submitted to ALS laboratories in Perth for 36 element analysis by ICPMS (ALS method ME-MS81). Assays are located in (Busbridge, 2005).

Following leveling, re-processing and re-interpretation of the soil geochemistry database, a 2.8-kilometre long zinc-lead-silver anomaly was identified. The anomaly straddles the contact between the Cambrian Heazelwood Ultramafic Complex and the Meredith Granite.

Four helicopter supported diamond holes (WRD01-WRD04) were drilled for a total of 405.2m in 2005-2006. Their locations, with respect to the regional aeromagnetics, are shown on Figure 3.

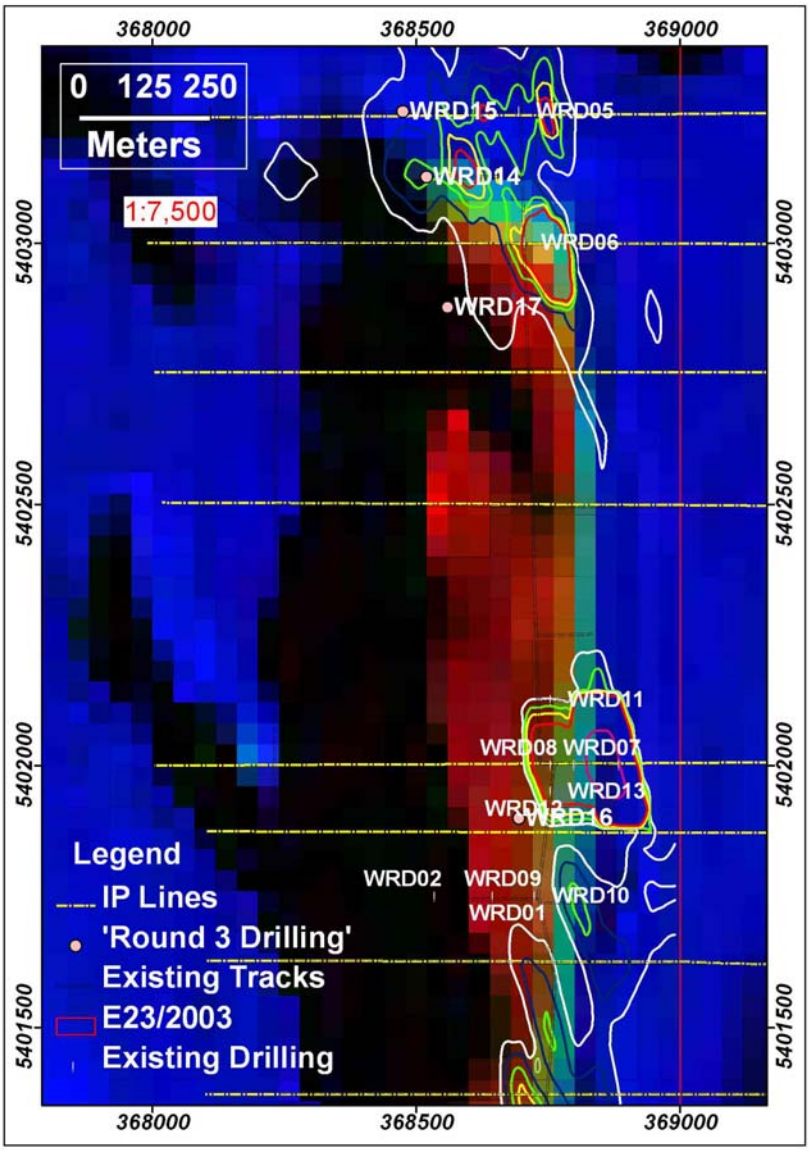

Figure 3. Diamond Drill Hole Locations on the aeromagnetic image, with Pb in soil anomalies.

WRD03 intersected 5 separate intervals assaying more than 1% zinc and each displaying visible coarse grained sphalerite and galena. Chalcopyrite is rare and occurs as free euhedral grains associated with galena. The mineralisation occurs within 10m of the ultramafic granite contact and is hosted within a dolomite and quartz rich series of veins. Textures vary from cherty to brecciated vein style. Host is a skarniferous and brecciated ultramafic and granite shear zone. WRD04 also intersected anomalous zinc and lead in a pervasively potassium altered porphyritic to equigranular phase of the Meredith Granite. Significant assays are listed in Table 2 of Busbridge, 2006.

In the 2006-2007 field season nine diamond drill holes (WRD05-WRD13) were drilled for a total of 1406m, targeting previously intercepted mineralization and geochemical anomalies defined in the previous year. The locations of the holes with respect to regional aeromagnetics are displayed in Figure 3. One hundred and seventy soil samples were collected on 125m spaced infill lines within EL23/2003, with sample spacing at 50m, and fifteen rock chip samples were taken. All samples were despatched to Genalysis Laboratories in Adelaide for analysis. Elements Ag, As, Bi, Mo, Pb, Sn were analysed via Genalysis method BT/MS (aqua regia digest with an Inductively Coupled Plasma Mass Spectrometry) while Ca, Cr, Cu, Fe, Mn, Ni, S, Zn were analysed via BT/OES (aqua regia digest with an Inductively Coupled Plasma Optical Emission Spectrometry), (Busbridge, 2007)

5.3 Exploration by Jaguar Minerals during the Period covered by this report.

5.3.1. Diamond Drilling and Assaying.

In the 2007-2008 field season four diamond drill holes (WRD14-WRD17) were drilled for a total of 1150m. OME Drilling conducted the drilling without any significant incidents. A four wheeled drive access track was prepared by Solly Investments Pty Ltd, for a total of six kilometres, which gave access to the drill pads (also prepared by Solly Investments Pty Ltd). During the drilling of holes WRD14 to WRD17 drilling contractors commuted on a daily basis from Waratah. Diamond core was transported by road to Waratah upon the completion of each hole. The core was then subjected to the following process:

- The core was marked up and joined where possible.
- Core recovery was calculated.
- Lithologically and structurally logged.
- Each core tray was digitally photographed and catalogued.
- Magnetic susceptibility readings taken at one-meter intervals.
- Selected core was cut into half core for sampling in one-meter intervals. Samples were submitted to Genalysis Laboratories in Adelaide for analysis.
- Core trays were then re palletted for transport to the core storage facility in Waratah.

Holes evaluated the strike and dip potential of the mineralisation encountered within the previously drilled WRD05-WRD13. Several positions of higher order geochemistry within the soil geochemical anomaly were also drilled. Collar coordinates and hole depths are shown in Appendix 1 and illustrated in Figure 3. Significant intersections are listed in Table 1.

Drill section 5401950N Figure 4, illustrates the relationship between the mineralisation and the alteration zone hosted at the ultramafic and granite contact. These rocks include the two major original rock types,

- A strongly silica-chlorite-sericite-epidote-biotite altered granite,
- A strongly actinolite-altered ultramafic rock.

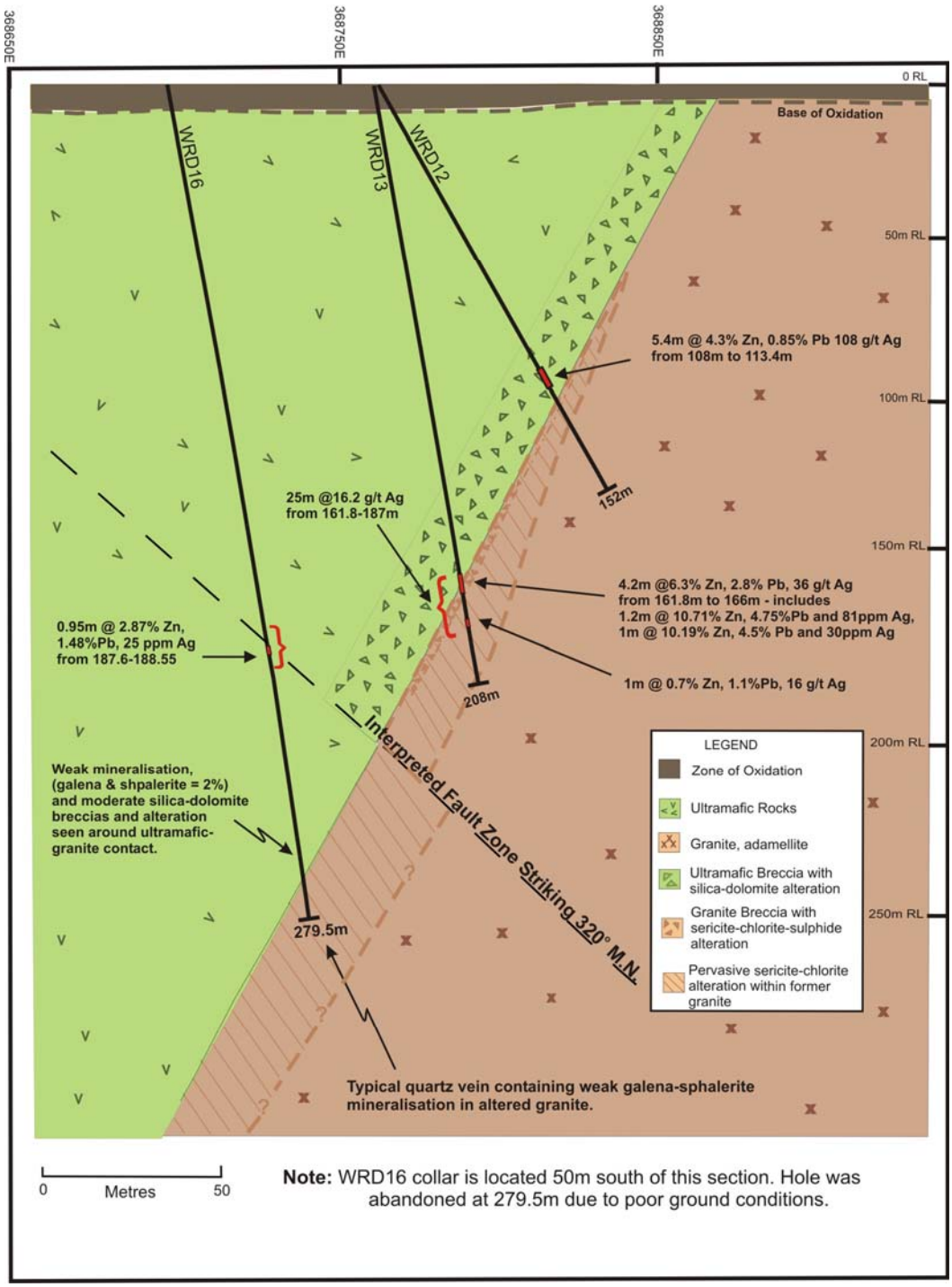

Figure 4. Cross section 5402000N, showing the relationship of the mineralisation to the ultramafic – granite contact zone.

Table 1. Significant assays from WRD14 to WRD17 at Wilson River, Tasmania

Hole ID	From (m)	To (m)	Width (m)	Significant Assays, Zinc %	Significant Assays, Lead %	Significant Assays, Silver ppm	Significant Assays, Copper %
WRD14	137	140	3	0.93		27.3	0.93
	284.7	285.5	0.8	3.74	2.88	43	
WRD15	229	235	6	1.31	1.22	11.8	
WRD16	187.6	188.55	0.95	2.87	1.48	25	
WRD17	268	270	2	2.16	1.37	13	

The dominant alteration mineral assemblages in the ultramafic in the mineralisation zone are an earlier silicification, and a later overprinting carbonate (dolomite) alteration. Accompanying this alteration is a pervasive brecciation and veining of the rocks. Both vein and massive style sphalerite, galena and minor chalcopyrite fuchsite mineralisation is present close to the granite within the more intensely altered and brecciated rock types Figure 5. Accompanying pervasive propylitic alteration assemblages in the granite are quartz carbonate veins containing sphalerite and galena.

Figure 5. Semi massive galena sphalerite mineralisation within hole WRD13.

Observed and mapped North West trending faults are interpreted to have faulted out mineralisation in WRD16 (located 50m south of previously drilled WRD 13 which reported 4.2m of 10% combined Zn and Pb), in which mineralization at the ultramafic granite contact zone was weak. It should be noted however that minor mineralisation was reported in the

cross cutting north west fault, located 100m up-hole of the ultramafic granite contact, this was reported in WRD17 also.

All downhole assay, survey and lithological data is provided in Appendix 1. Digital photographs of all core trays is located in Appendix 2.

5.3.2. Resistivity/ Induced Polarisation Survey

In January 2008 a Resistivity/Induced Polarisation (IP) survey was conducted over Wilson River in order to delineate further conductive sulphide bodies at depth. 1m wide lines were prepared by Ron Gregory Prospecting, the survey was completed by S. J. Geophysics, and the data was processed by Flagstaff Geoconsultants (Appendix 3). Ten lines were prepared on a spacing of 250 meters for a total of 15 line kilometres using chainsaws. The IP data was collected using a pole-dipole method. Electrodes constituted a pit dug every 50m along the IP line, occupying an area of $1m^2$ and to a depth of 50cm, with foil placed at the bottom which inturn was connected to a cental 10kV generator. After use all electrode sites were back filled and levelled. Figure 6 displays the prepared IP lines.

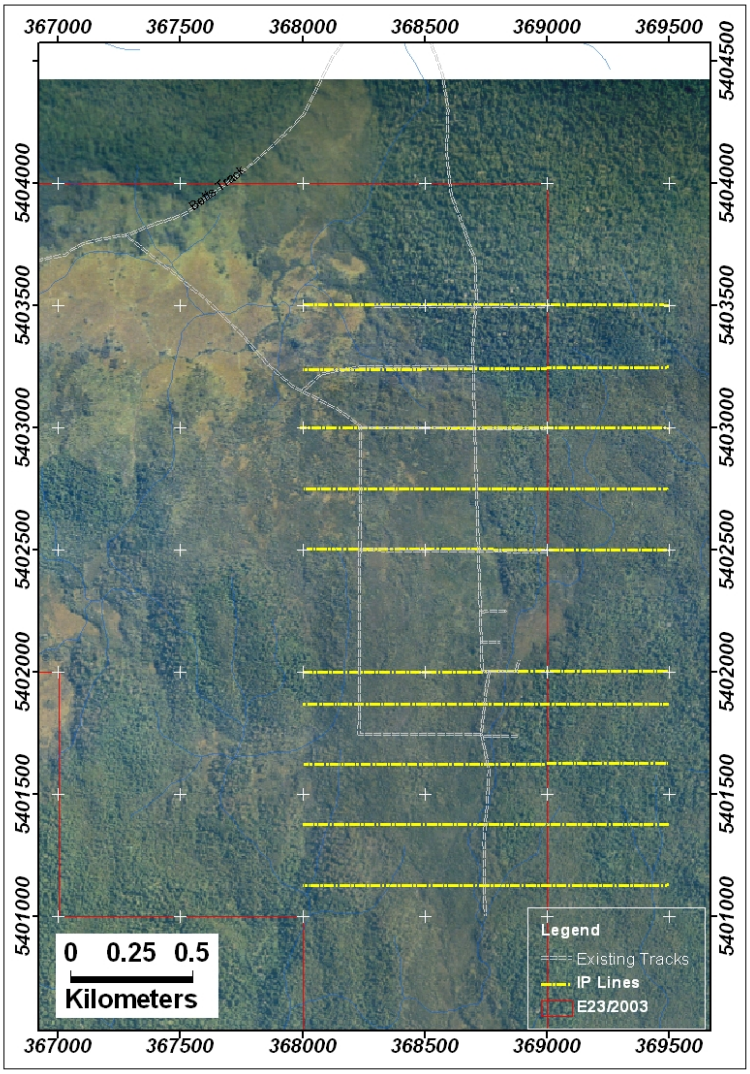

Figure 6. IP lines displayed on aerial photograph.

Results of the IP survey did not delineate any potential targets at depth due most likely to the highly conductive nature of the ultramafic host rock (illustrated as the large red body in the Conductivity Section in Figure 7), and the narrow mineralisation zones, which the IP survey may not have been able to delineate. Full processed data is available in Appendix 3.

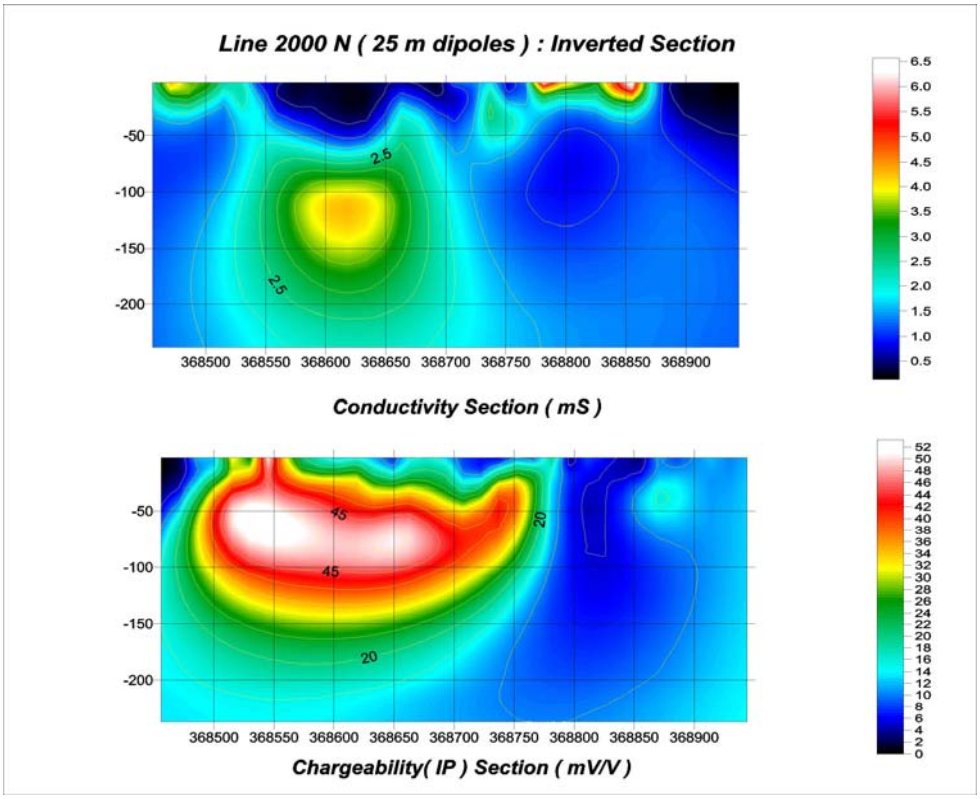

Figure 7. Resistivity/ Induced Polarisation image from Line 54032000 North at Wilson River showing highly chargeable ultramafic body to the west.

5.3.3. Local mapping program

In June 2008 a two week local mapping program was conducted in order to gain a better understanding of the local geology. Results of the mapping are displayed below in Figure 8.

Mapping units within the ultramafic-mafic succession were split into “orthopyroxene dominant”, and “harzburgite-dominant”, both successions having undergone severe metamorphism. Coarse orthopyroxene mesocumulates have been recorded from Wilson River with single orthopyroxene crystals occurring up to 5cm in length.

The main features observed from the local mapping program were a series of north west striking faults offsetting stratigraphy within the Cambrian ultramafic-mafic succession. These north west striking faults have become obvious structures observed within the diamond drill hole core, and it is proposed that one of the faults is responsible for offsetting the southerly plunging mineralisation seen at Wilson River, hosted on the contact between the Devonian Meredith granite, and the Cambrian ultramafic-mafic succession.

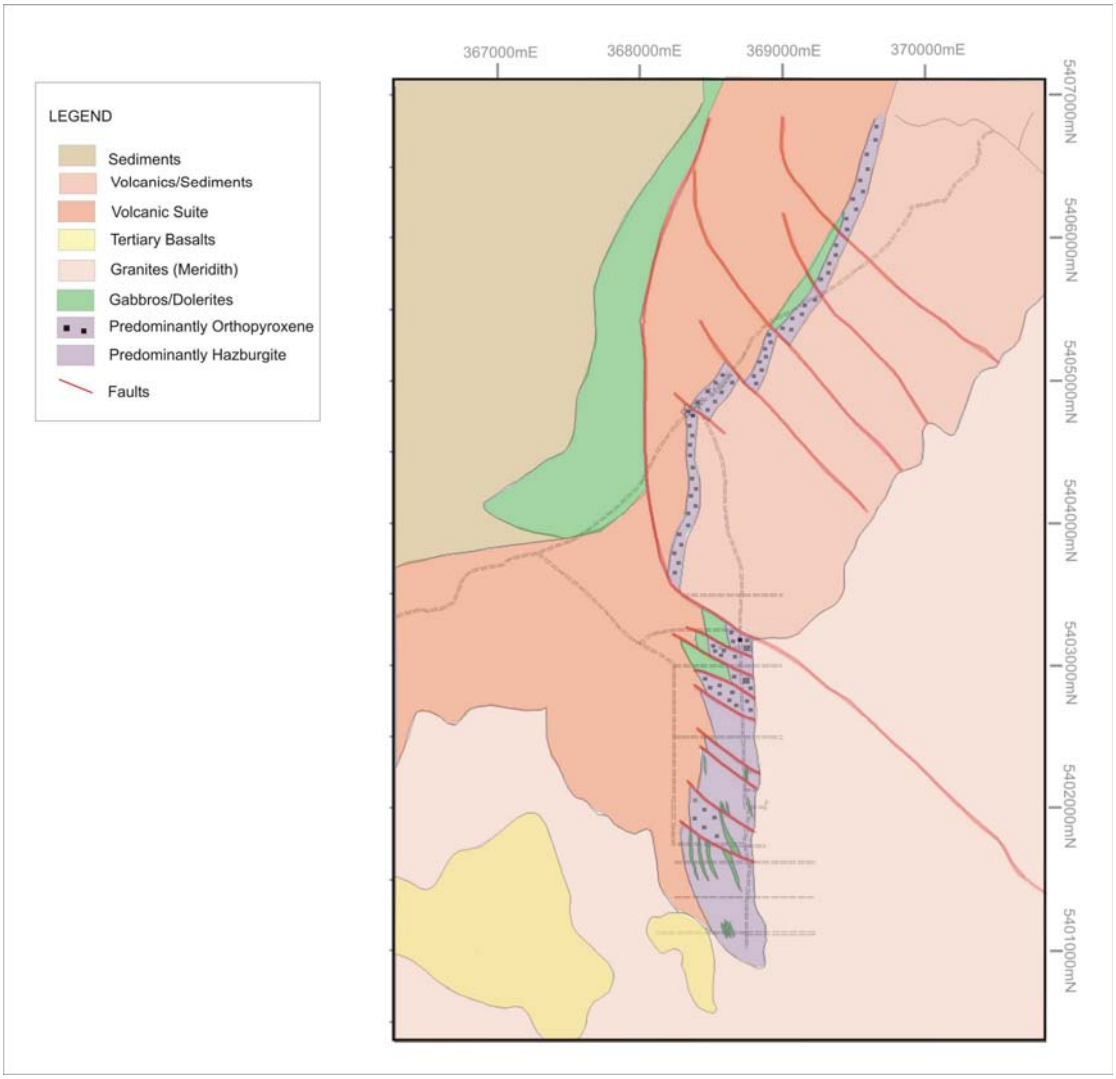

Figure 8. Geological mapping of the area highlights a number of cross cutting structures within the tenement.

5.3.4. Infill Soil Sampling and Rock chip sampling.

One hundred and fifty two soil samples were collected on 125m spaced infill lines within EL23/2003 Figure 9. Sample spacing was 50m and 25m over target horizons. Lines were planned to cover the prospective ultramafic – granite contact. Samples weighing 200 – 300 grams were collected from 10-20 cm deep holes dug with a pelican pick. As the samples were very wet, no sieving was employed. Holes were back filled when the sample was taken. All samples were despatched to Genalysis Laboratories in Adelaide for analysis. Elements Ag, As, Bi, Mo, Pb, Sn were analysed via Genalysis method BT/MS (aqua regia digest with an Inductively Coupled Plasma Mass Spectrometry) while Ca, Cr, Cu, Fe, Mn, Ni, S, Zn were analysed via BT/OES (aqua regia digest with an Inductively Coupled Plasma Optical Emission Spectrometry). Assays and spatial data for the soils and rock chips are located in Appendix 4.

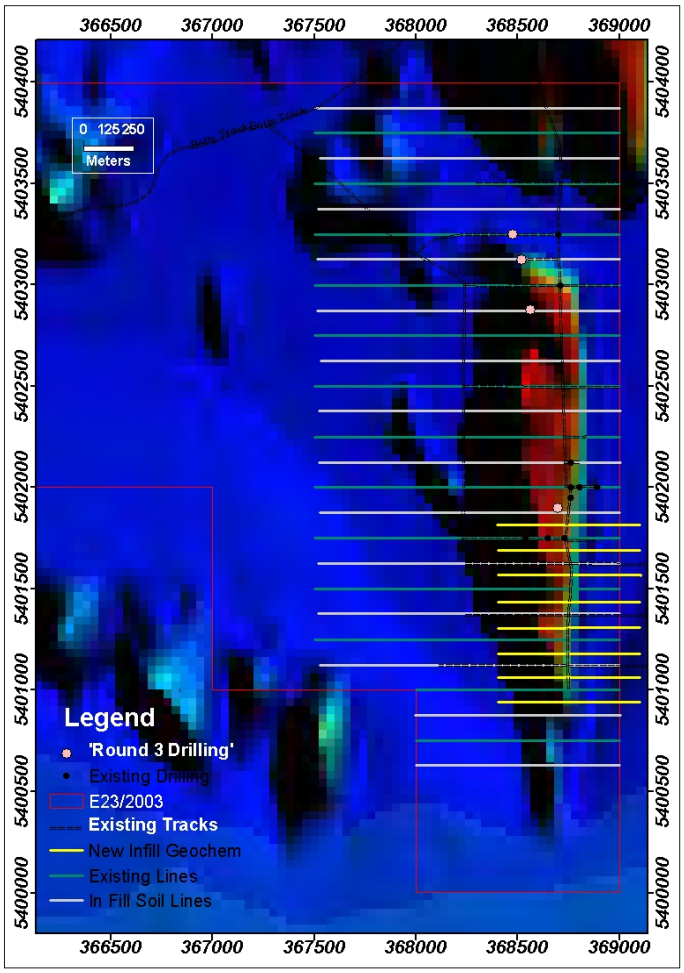

Figure 9. Infill Soil Traverses on the aeromagnetic image.

Zinc and lead soil geochemical contours for the total soil sampling database (infill and original 250m lines) are illustrated in Figures 10 and 11 respectively.

Fifty three rock chip assays were also collected, 35 being despatched to Genalysis Laboratories in Adelaide, and 18 being despatched to Burnie Labs in Burnie. Assays and spatial data are located in Appendix 4.

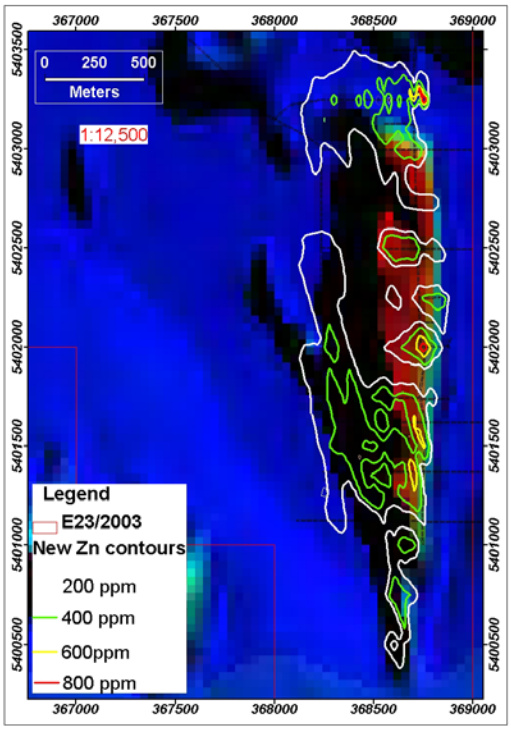

Figure 10. Zn soil geochemistry.

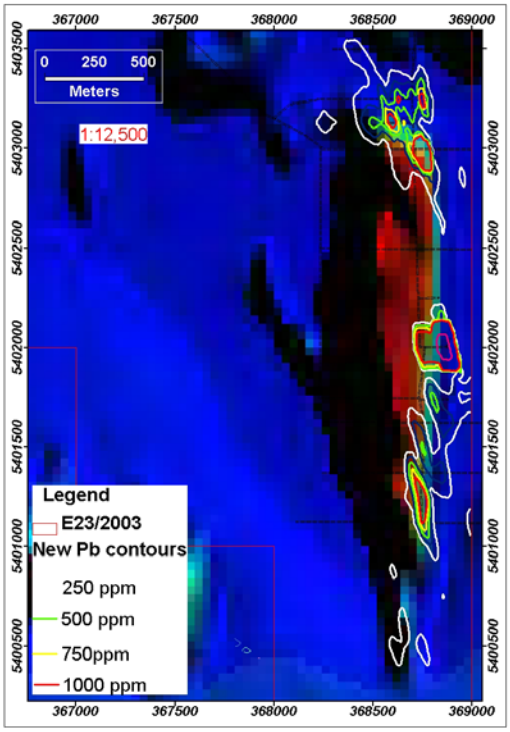

Figure 11. Pb soil geochemistry.

5.3.5. Rehabilitation.

All gravel pits dug for the four wheeled drive access track have been back filled with the exception of a few left for emergency purposes. Rubbish has been removed from drilling operations while the rehabilitation of water traps and drainage channels used in the drilling process have been left until the drill pads are finished with. Drill pads will be completely rehabilitated by leveling, back filling of water sumps, covering and reseeding, once the drill pads are completely finished with. All soil sample locations have been back filled and covered over.

6. EXPENDITURE

Table 2. Table of expenditure 2007-2008.

Description	Expenditure	Comment
Salaries, wages and oncosts, geological consultants, contractors.	$302,492	Geologist, technicians, field crew.
Geophysics	$104,194	IP Survey
Stationery, computers	$1,180	Data processing, plan printing
Drilling	$226,390	4 Diamond Holes, 1150m
Drilling assays	$6,613	Plasma spectometry analysis.
Soil, rock chip assays	$7,348	152 soil samples
Track Construction	$186,162	
Helicopter support	$2,960	
Other consumables	$1,932	Freight, sample bags, core trays and blocks
Equipment, vehicle hire	$66,286	Quad bikes, chain saws, Camp, Messing equipment
Fuel, Oil	$1,455	Vehicles and generators
Travel	$11,601	Field Crew
Accommodation, consumables, telephone, internet.	$48,420	Messing, accommodation costs for field crew
Tenement costs	$2,964	Track rehabilitation
Rehabilitation	30,000	
Storage costs	$10,025	Core storage.
Total	**$1,010,022.00**	

7. CONCLUSIONS AND RECOMMENDATIONS

During this reporting period, Jaguar Minerals have conducted geophysical and geochemical fieldwork in order to locate further mineralisation zones, along with a local mapping program to try and better understand the local geology, and have drilled four diamond drill holes to test the extent of mineralisation reported previously.

Results of the geophysics were inconclusive due to the conductive nature of the ultramafic body found at Wilson River. The geochemistry program was utilised to obtain a better understanding of the southernmost anomaly. The mapping program delineated a series of north west striking faults offsetting the stratigraphy within the ultramafic-mafic body.

Although drilling intersected mineralisation in all four holes, it was low grade, and the recently discovered north-west striking faults have been utilised in generating a model to explain the lack of economic mineralisation.

Exploration by Jaguar Minerals in 2008-2009 will focus upon locating massive sulphide and high metal tenor mineralisation within the 2.8 kilometre long geochemical soil anomaly. With a better understanding of the structural environment, new targets can be generated in relation to where it is interpreted that mineralized fluids may been mobilised to.

To refine the search for buried massive sulphides, DHEM geophysics is planned during the coming year. The program will test three of the four holes drilled in this reporting period. Any off-hole conductors found by the DHEM will be modeled, with the possibility of further drilling to test the new targets.

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Appendix 1. Drilling and Soil Geochemistry Data.

EL232003_200810_02_dhcollar.txt	Diamond hole locations
EL232003_200610_03_dhassay.txt	Down hole assays
EL232003_200810_02_dhsurvey.txt	Down hole survey

Appendix 2. Photographs of WRD14, WRD15, WRD16, WRD17.

Appendix 3. IP Survey Interpretation Report_2008

Appendix 4. Infill Soil Geochemical and Rock Chip Geochemical Assay Results_2008.