

**Lottah Mining Pty Ltd (on behalf of Dundas
Mining Pty Ltd)
Annual Report on Exploration
EL 43/1992 “Melba Flats”
April 2018 to April 2019**

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April 2019**

Abstract

Lottah Mining Pty Ltd is the management company for Dundas Mining Ltd which bought out Allegiance Mining Pty Ltd and is in the process of reopening the Avebury nickel + cobalt mine.

The focus on exploration on EL 43/1992 has been a thorough compilation of historical exploration and mining activity.

That work has reached a stage where all relevant reports have been listed and downloaded.

Further, a compilation of all previous drilling including collar co-ordinates, downhole surveys and assays has been compiled into an ACCESS database.

The Melba tenements (EL 43/1992 and RL 5/2009) are of great significance to the reopening of the Avebury nickel + cobalt mine.

It had been planned to carry out further detailed compilation work, i.e. surface geochemistry and geophysics as well as 3D modelling of workings and geology leading to drill target identification, however, that work will now be postponed to the 2019/20 reporting year.

An advanced deal with a company wishing to both offtake the nickel + cobalt concentrate produced by the mine and to provide finance towards both its reopening and for exploration on the associated tenements including EL 43/1992 fell over when the potential offtaker/financer withdrew late in the piece meaning that exploration work was reduced. Negotiations are current with other offtaking/financing companies.

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1.0 Introduction

EL 43/1992 “Melba Flats” is a category 1 exploration licence held by Allegiance Mining Pty Ltd, a subsidiary of Dundas Mining Pty Ltd. Lottah Mining Pty Ltd is managing and operating the project on behalf of Dundas Mining Pty Ltd.

1.1 Location and access

EL 43/1992 covers an area of 6 km² on Tasmania’s west coast between Zeehan and Renison Bell. Access to the tenement is achieved from the Murchison Highway. Access within the tenements is limited to a few tracks and old tram lines.

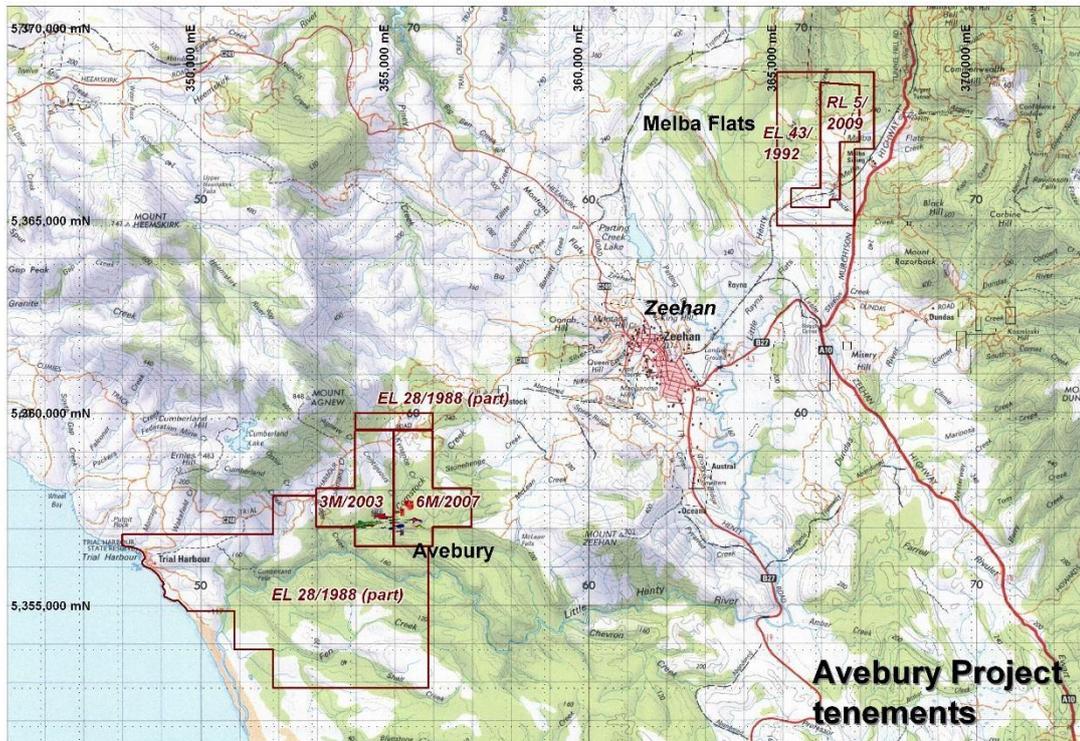


Figure 1.1: EL 43/1992 location. Coloured symbols within the ML’s are the solid wireframe shapes of the Avebury ore lenses.

1.2 Land status and usage

The whole of EL 43/1992 is classified as Permanent Timber Production Zone Land.

1.3 Tenure

EL 43/1992 was granted in 1992 to CRA Exploration who became Rio Tinto in 1998.

In 1999 Rio Tinto sold the tenement to Allegiance Mining Pty Ltd, the current licence holder.

In October 2007 a 10-year mining lease 2M/2007 was excised from the exploration licence.

Upon purchasing Allegiance Mining Pty Ltd in 2008 the new owners OZ Minerals applied for and was granted the conversion of Mining Lease 2M/2007 to a Retention Licence RL5/2009.

In mid-2017 Dundas Mining Pty. Ltd. acquired the Avebury Nickel Mine and associated tenements by a friendly take-over of Allegiance Mining Pty. Ltd. in which name the tenements remain. The sale was completed on the 7th July, 2017.

A Summary of the tenement history of tenement holdings in the Melba Flats area is listed below in Table 1.1 and diagrams of previous tenement areas are included as appendices.

Table 1.1 Melba Flats Area Tenement History

Melba Flats				
Year		Tenement	Tenement Name	Company
From	To			
2017	2018	EL43/1992	Melba Flats	Dundas
2017	2018	RL5/2009	Melba Siding	Dundas
2010	2017	EL43/1992	Melba Flats	MMG
2010	2017	RL5/2009	Melba Siding	MMG
2009	2009	EL43/1992	Melba Flats	OZ
2009	2009	ML2/2007	Melba Siding	OZ
2008	2008	ML2/2007	Melba Siding	Allegiance
1999	2008	EL43/1992	Melba Flats	Allegiance
1998	1998	EL43/1992	Melba Flats	Rio
1992	1997	EL43/1992	Melba Flats	CRAE
1987	1992	SR1987 No 216	Incl. Melba Flats	
1975	1975	SPL127	Cuni	
1976	1987	EL15/1976	Dundas	CSR
1962	1973	EL2/1962	Cuni/Five Mile	EZ

1.4 Exploration focus

Dundas Mining Pty Ltd have acquired the Avebury nickel and cobalt Mine with a view to reopen the operation in the near term and so Dundas Mining Pty. Ltd.'s focus is primarily Nickel+/-Cobalt mineralisation suitable for treatment in the Avebury mill. Dundas Mining Pty. Ltd. is also interested in any commodities of commercial value.

2.0 Geology Melba Flats Area

The geology of the Melba Flats area has been repeatedly summarised since the discovery of nickel ore in the early 1890's. The following is an amalgamation of the substantial body of work accumulated on the area's geology to date, with particular attention paid to Newnham's 2000 Annual Report as it's clarity and succinctness are difficult to surpass.

The Melba Flats area is dominated by a turbiditic sequence composed of mudstones, siltstones, sandstones and volcanoclastics which is correlated with the Cambrian Crimson Creek Formation. This sequence is generally thought to strike north-south and dip moderately to the east, except in the north near Genet's Winze where the strike is observed as curving to the northeast and dipping more to the southeast.

These sediments have been intruded by a series of parallel gabbroic dykes or sills attributed to the Serpentine Hill and Razorback Ultramafic bodies or perhaps associated with the Henty Dyke Swarm. The intrusives are noted to be dominantly concordant to sediment bedding, dipping at approximately 50 degrees to the east, with localised discordant zones. Typically narrow, the gabbros often display chilled or brecciated margins and are probably disrupted by cross faulting in the north and south.

Lenses of nickel and copper sulphide mineralisation (up to 75m in length and from 0.5-5.0m thick) have developed within these gabbro bodies intermittently over four kilometres of strike length. This mineralisation is typically disseminated and often increases in concentration on the western contacts. Composition is dominated by pentlandite, millerite, chalcopyrite and pyrite with cobalt, gold and PGE's associated with the nickel-copper sulphides.

Previous mining and drilling suggest that the lenses may have limited depth extents, but this is open to substantial debate, as cross faulting is a definite possibility and petrology suggests that the sulphides are hydrothermal in origin and the possibility of a larger magmatic source at depth has been mentioned.

3.0 Review of Previous Work in the Melba Flats Area

The following detailed review was done for the whole Melba Flats area and takes in both EL 43/1992 as well as RL 5/2009 which was excised from the grater EL 43/1992 in 2008. In many instances exploration was carried out over both areas though with a focus on the deposits located within RL 5/2009.

Since the discovery of nickel ore in the Melba Flats area in around 1893, a substantial amount of work has been carried out in the area, a tabulated chronological summary of which is included below (Table 3.1) with a more detailed tabulation including references included as Appendix 2.

The mining and exploration history of the Melba Flats area reportedly begins in June of 1893 when Mr J. Dixon, amongst a number of others, marked out and was granted a licence for nickel. This initial flurry of activity was somewhat short lived, with nickel ore being of less interest than silver-lead ore at the time, thought to be the result of marketing, development and transport difficulties.

A renewal of interest in the area is recorded from 1911 to 1914, with a number of prospects being worked to produce small quantities of copper-nickel ore. These include North Cuni, Vaudeau, Devereaux, South Cuni, Blowfly and Mosquito workings. Extracted tonnages during this time reportedly ranged from 50 to nearly 3,000 with grades varying from 4-18.1% Cu and 5.5-17% Ni.

Intermittent mining resumed in the late 1920s, with North Cuni re-opening and Genet's Winze being established, along with shallow drilling by the Copper-Nickel Mining Company. A slow but steady state of activity followed including the drilling, government evaluations of the area and the re-opening of Vaudeau workings, until the nickel revival of the early 1950s.

This revival was purportedly attributed to a search for possible nickel supplies within the Commonwealth by Metal Scrap and Byproducts Ltd, parent company to Eagle Metals NL. A burst of drilling, metallurgical testing and early geophysical surveys followed with varying success.

The 1960's heralded the beginning of systematic exploration in the west of Tasmania. Rio Tinto investigated the Cuni area with aerial magnetics, magnetometer and soil surveys after carrying out a drilling review and in 1965 the Electrolytic Zinc Company of Australasia Limited (EZ) began exploring the Melba Flats area as part of exploration licence EL2/1965. Over the course of almost a decade, EZ carried out geophysical surveys, geochemical surveys, detailed geological mapping, diamond drilling and petrological studies in the area.

In 1976 CSR began exploring the Melba Flats area as part of EL15/1976 and by 1987 their examination of the area included bedrock, soil and stream sediment geochemical surveys, magnetics, ground magnetics, IP and resistivity surveys, diamond drilling and petrology.

The Division of Mines and Mineral Resources (Tasmanian Department of Resources and Energy) exempted the area (SR1987/216) from the Mining Act in 1987 to facilitate detailed follow-up work on the potential of Platinum Group Elements at Melba Flats. Following the completion of this in 1991, the exploration division of CRA began examining the ground as part of exploration licence EL43/1992. Additional soil, bedrock and rock chip sampling surveys were completed over the next 3 years along with follow-up geophysical surveys, diamond drilling and completion of an Honours Project on the geological setting of the mineralisation by Greenhill in 1995.

Following the merger of CRA with Rio Tinto, a joint venture with Allegiance Metals was entered into in 1997 passing the primary operation of exploration at Melba Flats (and Avebury area) over to Allegiance. In the subsequent decade, Allegiance drilled nearly 60 diamond drill holes, carried out additional and infill geophysical surveys, mapping, trenching and sampling of Melba, resulting in the estimation of an indicated resource of 83,000t at 0.7% Ni, 0.6% Cu and 0.02% Co, and an

inferred resource of 12,000t at 1.2% Ni, 3.3% Cu and 0.04% Co. Subsequently a mining lease, ML2/2007, was applied for and granted over the central area of the exploration tenement.

Drilling and other investigations continued at Melba Flats up to and during the takeover of Allegiance by Zinifex and the subsequent merger between Zinifex and Oxiana to form OZ Minerals, however in the aftermath of the 2008 Global Financial Crisis, activities on the prospect virtually ceased as MMG took over OZ Minerals and a retention licence (RL5/2009) over the Melba Mining Lease, was applied for and granted.

As with EZ and Rio Tinto in the past, the Melba Flats deposits were again assessed as not being of adequate quality or quantity to cross MMG cost benefit thresholds. As such there has been minimal activity on the retention licence up to its sale (along with the Avebury Nickel Mine and other associated tenements) to Dundas Mining in 2017.



Figure 3.1: Melba Flats area showing current tenements, historic drill holes (blue dots) and prospects (green = nickel +/- copper, blue = lead, silver, zinc) on MRT 1:25,000 geology

Table 3.1. Melba Flats Tenement Activity Summary

Year	Company	Tenement	Activities
1893			Discovery
1894			Nickel Reward Workings
1912	Dundas-Cuni Mining Company		North Cuni Workings begun
	Copper-Nickel Prospecting Syndicate		Vaudeau workings begun
1914	Dundas-Cuni Mining Company		North Cuni Workings closed
	Copper-Nickel Prospecting Syndicate		South Cuni Workings closed
	Copper-Nickel Prospecting Syndicate		Blowfly workings closed
1926	Department of Mines and Explosives		Mosquito workings closed
1929			Vaudeau workings closed
1930	Copper-Nickel Mining Company		Investigating prospectivity
	Government Department		Genet's working opened
1931			North Cuni workings re-opened
1932	Copper-Nickel Mining Company		Drilling
1933	Government Department		Drilling Recommendations
1938	Australian Nickel N.L.		Genet's workings closed
1940	Gold Mines of Australia		North Cuni works closed
1948	Lead Nickel Mining Company		Summary Report
1951	Bureau of Mineral Resources		Work Proposal
1952	Government Department		Economic Evaluation
	Eagle Metals N.L.		Vaudeau workings re-opened
1953			Drilling
1955(?)	Montana Silver-Lead Company N.L.		Vaudeau workings closed
1956	Government Department		Geophysical Surveys
1956 (?)	Montana Silver-Lead Company N.L.		Summary Report
1957	Bureau of Mineral Resources		Nickel revival
	Government Department		Drilling
	Montana Silver-Lead Company N.L.		Flotation Tests
1957 (?)	Montana Silver-Lead Company N.L.		Drilling Report
1958 (?)			Flotation Tests
1960	Rio Tinto		Geophysical Surveys
			Geological & Thin Section Report
			Core Logging Report
			Core Logging Report
			Core Logging Report
			Drilling
			Ore Investigation
			Drilling Review
			Magnetometer Survey

			Aerial mag
			Soil Sampling
1965	EZ	EL2/1965	Magnetometer Survey
			Magnetic Susceptibility Tests
			Drilling
1966			Drilling
1967			Magnetometer Survey
			Drilling
1968			Magnetometer Survey
			Geochemical Surveys
1969			Petrology & Mineralogy
1970			IP-Resistivity Survey
			Detailed Geological Mapping
1971			Geochemical Soil Sampling
			Turam Electromagnetic Surveys
			Magnetometer Surveys
1972	Diamond Drilling		
	Geochemical Survey		
1973	Soil Survey		
	Magnetometer Survey		
1975		SPL127	Review of Cuni Deposits
1977	CSR	EL15/1976	Mineralogical/Geochemical Appraisal
			Drainage Sampling
1978			Mineralogical Examination and Petrographic survey
			Bedrock sampling (Auger)
1979			Soil Sampling
			Drainage Sampling
1980			Diamond Drilling
			Petrology
			Soil Sampling (Auger)
1982			Magnetics
			VLF-EM
			Infill aeromagnetics
			Soil Sampling
1983			Drainage Sampling
			Magnetics
			VLF-EM
			DIGHEM
			Reduction of Licence area
1984			Ground Magnetic Survey
			CSAMT
	VLF-EM Resistivity		
	Geochemistry		
1985	Fixed Wing Magnetic Survey		
	Ground Magnetic Survey		
	Diamond Drilling		
	Soil Sampling		
	IP Survey		
1986	Licence renewed		
1987	Relinquished Licence		
	Minor thin section work		
1988	Tas Dep Mines	SR1987 No 216	Gravity Survey
1993	CRAE	EL43/1992	Fixed Wing Airborne TEM (QUESTEM) Survey

		Review of Tasmanian Mines Department Gravity Data
		Soil Sampling
		Rock Chip Sampling
		Petrology
		Diamond Drilling
		Petrology
		Whole Rock Geochem (Dolerite)
		Rock Chip Sampling
		Soil and Bedrock sampling (Auger)
		Bedrock sampling (Wacker)
		Ground PROTEM Survey
		Ground Magnetic Survey
		IP-Resistivity Survey
		Heliborne magnetic and Radiometric Survey
		Drilling review
		Diamond Drilling
		Soil Sampling
		Honours Project (Phil Greenhill)
		Heliborne magnetic Survey
		Application for partial Licence surrender
		Joint Venture agreement with Allegiance
		Archaeological Survey
1994		
1995		
1997	Rio Tinto	
1998	MRT	
1999		
2000		Diamond Drilling
		Downhole Geophysics
		Geophysics
		Geophysics Interpretation Report
		Petrology
		Aerial Photography
		Photogrammetric Plans
2001		Diamond Drilling
		Gradient Array IP Survey
		Grid Establishment
2002	Allegiance	Diamond Drilling
		Trenching
		Sampling
		Outcrop Mapping
2003		
2004		Diamond Drilling
2005		Resource Estimation
		Petrology
		Drill Hole Collar Surveys
		Gradient Array IP Survey
2006		Evaluation of Geophysical Data
		Data Review
2007		Diamond Drilling
2007		Mining Lease Application
2008		Diamond Drilling

		EL43/1992, ML2/2007	Trenching
2009	OZ		Aerial Photography
			Diamond Drilling
2010	MMG	RL5/2009	Geochemical Investigation
		EL43/1992	3D Magnetic data Inversion
	CRH	EL20/2002	Soil Survey ("Melba Flats" South), Airborne EM
2011	GHD (MMG)	EL43/1992, RL5/2009	Botanical survey and fauna habitat assessment
		RL5/2009	Aerial LIDAR
2012	MMG	EL43/1992, RL5/2009	Aerial LIDAR
		EL43/1992	Minor geochemical work
2014		EL43/1992, RL5/2009	Aerial LIDAR
2015			Photogrammetric Survey
			Masters Project Completion

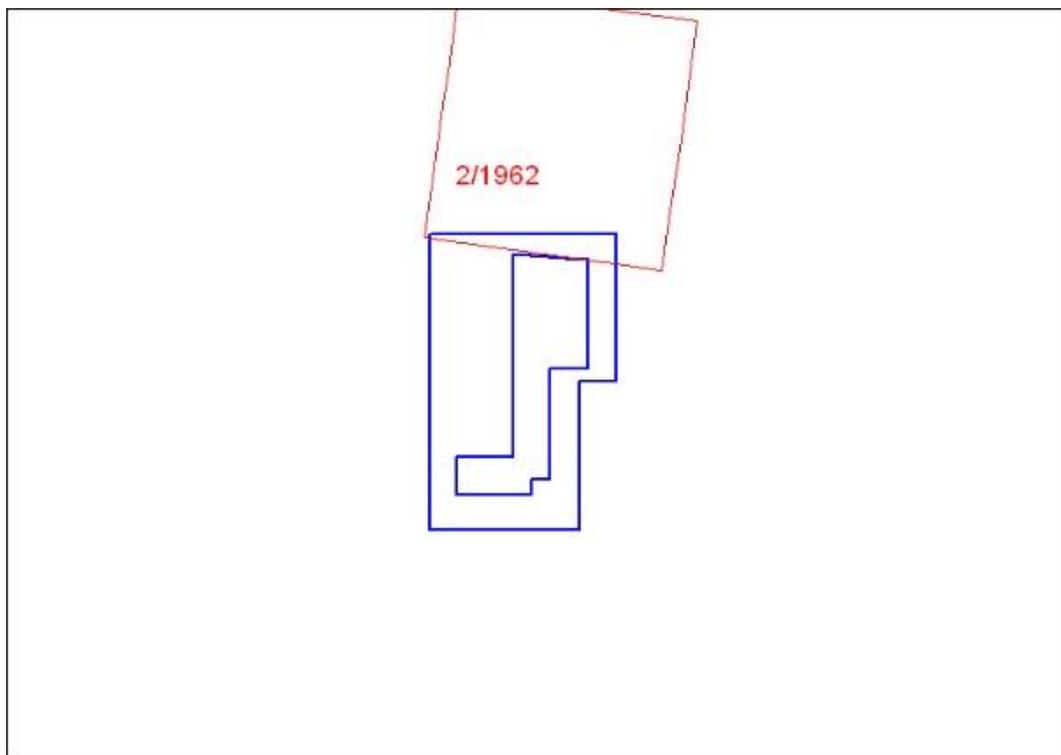


Figure 3.2. Historic tenement EL2/1962 with respect to the Melba tenements i.e. RL 5/2009 (inner blue shape) and EL 43/1992 (surrounding blue shape)

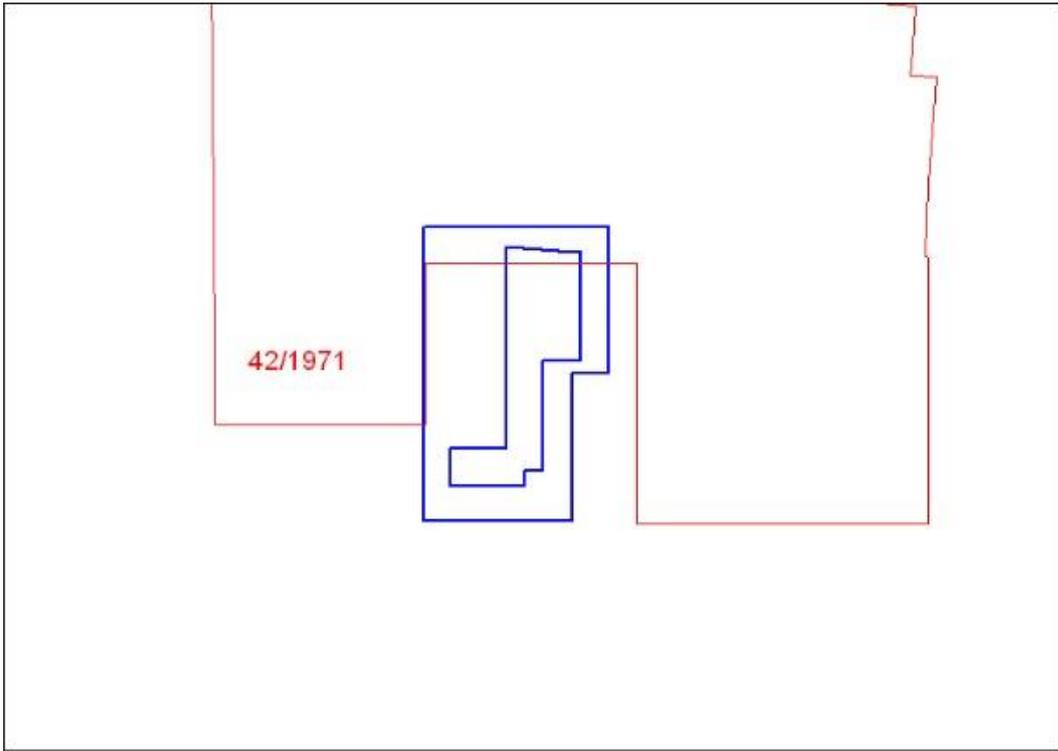


Figure 3.3. Historic tenement EL42/1971 with respect to the Melba Flats tenements

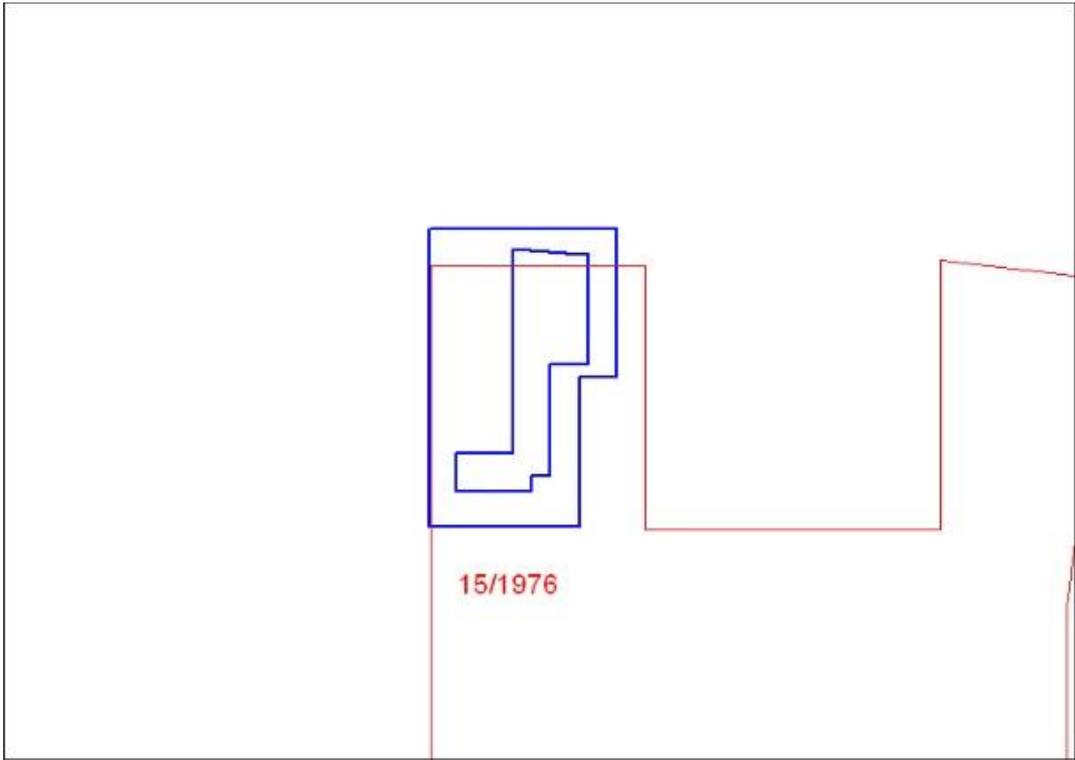


Figure 3.4. Historic tenement EL15/1976 with respect to the Melba Flats tenements

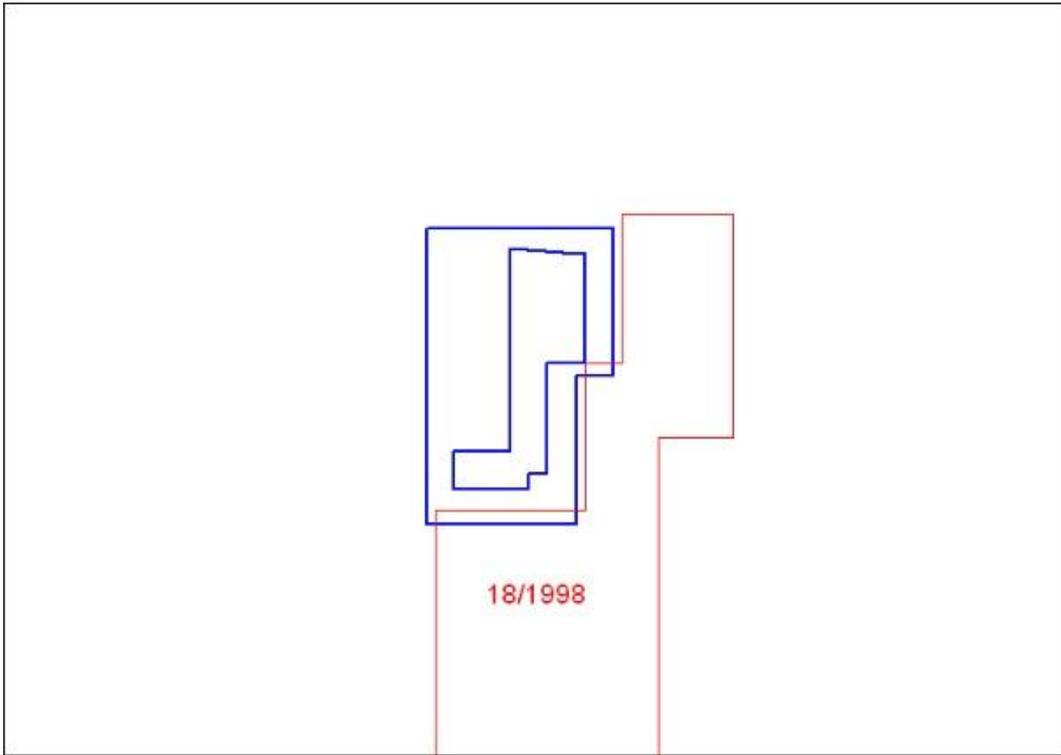


Figure 3.5. Historic tenement EL18/1998 with respect to the Melba Flats tenements

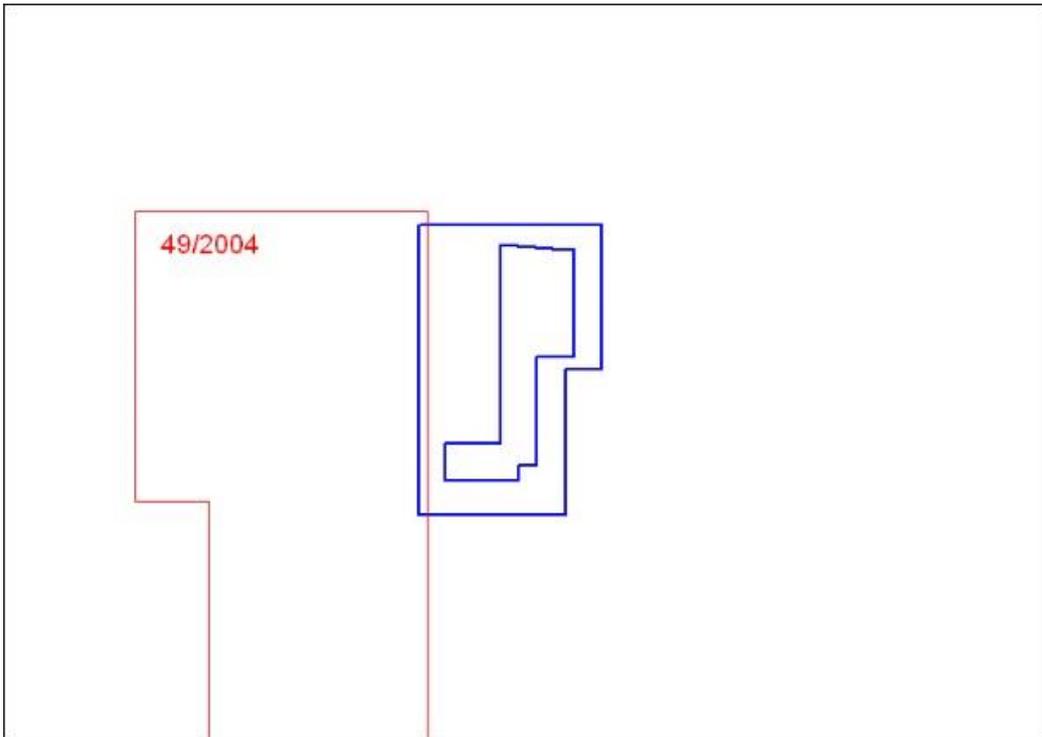


Figure 3.6. Historic tenement EL49/2004 with respect to the Melba Flats tenements

4.0 Exploration completed during the reporting period April 2018 to April 2019

Although no on-ground exploration activities have been carried out during the reporting period, a thorough review of previous exploration has recently been completed. This has involved the downloading and appraisal of over 170 reports.

This work has been in conjunction with RL 5/2009.

The work to date has consisted of

- Defining all relevant tenements which have covered the area (see tables 1.1 and 3.1 and figures 3.2 to 3.6)
- MRT database search for all relevant historical reports (see references)
- Download all relevant reports (see references and appendix A)
- List all relevant reports (see appendix A)
- Initial appraisal all historical reports (see appendix A)
- MRT database search for all drill holes within the Melba Flats tenements area (see figure 3.1)
- Compilation of all historical drill hole data i.e.
 - collar co-ordinates
 - downhole surveys
 - assays
- into an ACCESS database

5.0 Discussion

Compilation work is ongoing. Next step is a compilation of surface survey (i.e. geochemical, geological and geophysical) locations and anomalies followed by 3D modelling of old workings, drill holes, geology and said anomalies in order to define specific drill targets.

Given the easterly dip of the lodes which outcrop on RL 5/2009 these targets are likely along the eastern part of EL 43/1992, however, the Dunkley Tram regional scale magnetic anomaly beneath the western portion of EL 43/1992 is also a potential drill target.

6.0 Proposed Works Programme 2019/20 year

It is proposed to continue the compilation work as discussed i.e.

Compilation of surface surveys (i.e. geochemical, geological and geophysical)

- locations, and
- anomalies

followed by

- 3D modelling of
 - old workings,
 - drill holes,
 - geology, and geophysical and geochemical anomalies

in order to define specific drill targets

Drill better of these targets (250m in total proposed)

7.0 Expenditure

	\$
Geology	4,000
Geochemistry	0
Geophysics	0
Remote Sensing	0
Drilling	0
Gridding	0
Land Access	0
Rehabilitation	0
Feasibility Studies	0
Other	1,244
Administration	500
Total	5,744

8.0 Environmental

There has been no exploration activity on the tenement and therefore no environmental disturbance. There are believed to be no outstanding liability issues.

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Appendix A. Detailed Melba Flats Work History (including references).

Year	Activities	Details	Report #	Tenement	Company
1893	Discovery	J. Dixon marks out and is granted 40 acre lease for nickel (along with many others)	UR1952_72-97		
1894	Nickel Reward Workings	Shaft likely <6m	75_1147, UR1952_072-97		
1911	Bulk Sample of Ore	17% Ni, 6.45% Cu	75_1147		
1912	North Cuni Workings begun		75_1147		Dundas-Cuni Mining Company
1912	Vaudeau workings begun	25.3m trenching of ore at surface, then 5 exploratory drillholes	75_1147		Copper-Nickel Prospecting Syndicate
1912 (?)	Devereaux Prospect	Unknown shaft depth. Assays @ 5.5% Ni, 18.1% Cu	75_1147		
1914	Mining	Up to 1914 710t of ore shipped to Europe. But between 1912 & 1914 a syndicate sold 2,820t of ore: 8-11% Ni, 4-14% Cu	75_1147		
1914	North Cuni Workings closed	24.4m shaft	75_1147		Dundas-Cuni Mining Company
1914	South Cuni Workings closed	1189t produced. 23m shaft. Lode driven 29m south	75_1147		Dundas-Cuni Mining Company
1914	Blowfly workings closed	280t produced. Shaft to 10.7m	75_1147		Copper-Nickel Prospecting Syndicate
1914	Mosquito workings closed	52t produced (minimal records)	75_1147		Copper-Nickel Prospecting Syndicate

1914	Vaudeau workings closed	38.7m shaft. Levels opened at 21.3m and 37m. Stopes: 2,500t with 10.4% Cu	75_1147		Copper-Nickel Prospecting Syndicate
1926	Investigating prospectivity	Melbourne Cu-Ni Mine	UR1926_028-29		Department of Mines and Explosives
1928	Mining	207t of ore	75_1147		Copper-Nickel Mining Company
1929	Genet's working opened		75_1147		
1929	North Cuni workings re-opened	drove north along lode for 45m and south for 25-30m	75_1147		Copper-Nickel Mining Company
1930	Drilling	"DH1-8"	69_0563		Copper-Nickel Mining Company
1930	Drilling Recommendations		UR1930_75-77		Government Department
1931	Genet's workings closed		75_1147, UR1952_072-97		Copper-Nickel Mining Company
1932	North Cuni works closed		75_1147, UR1952_072-97		Copper-Nickel Mining Company
1933	Summary Report	Summary of Workings, Stakeholders, Ore reserves etc	UR1933_132-137		Government Department
1933	Work Proposal		UR1933_56_58		Government Department
1933	Economic Evaluation		UR1933_45_46		Government Department
1938	Vaudeau workings re-opened	278t containing 1975t Ni & 11.19t Cu	75_1147		Australian Nickel N.L.
1940	Drilling	"DH9-17" Drilled by The Tasmanian Department of Mines	75_1147, 69_0563, UR1941_027-30		Gold Mines of Australia
1948	Vaudeau workings closed	750t but no market. Total Production estimated at 3,900t	75_1147, UR1952_072-97		Lead Nickel Mining Company
1951	Geophysical Surveys	Self potential, EM, Magnetic (?)	75_1147, 69_0563		Bureau of Mineral Resources
1952	Summary Report		UR1952_36-43		Government Department

1952	Nickel revival	Investigation of possible supplies of Ni within the Commonwealth by Metal Scrap and Byproducts Ltd (Eagle Metals 'parent' company)	UR1952_72-97		Eagle Metals N.L.
1953	Drilling	EM1-EM5	75_1147, 69_0563		Eagle Metals N.L.
1955(?)	Flotation Tests	Flotation tests on core samples. High recovery but low overall grade? Difficulties with small quantities of test material	TR1_53_54		Montana Silver-Lead Company N.L.
1956	Drilling Report	Inconsistent marking/naming of core/hole IDs, missing mineralised core, disturbed core etc	UR1956_056-57		Government Department
1956 (?)	Flotation Tests	Flotation tests on 'dump' material	TR1_54_59		Montana Silver-Lead Company N.L.
1957	Geophysical Surveys	Self potential, EM, Magnetic (?)	69_0563		Bureau of Mineral Resources
1957	Geological & Thin Section Report	Rock samples and thin sections	UR1957_028-29		Government Department
1957	Core Logging Report	Missing Core etc.	UR1957_018		Government Department
1957	Core Logging Report	Missing Core etc.	UR1957_004		Government Department
1957	Core Logging Report	Missing Core etc.	UR1957_002		Government Department
1957	Drilling	Drilling of 18 holes (M6-M23) by Tas Mines Department for Montana Silver-Lead between 1955 and 1957	75_1147, 69_0563		Montana Silver-Lead Company N.L.

1957 (?)	Ore Investigation	More flotation tests	TR2_156_162		Montana Silver-Lead Company N.L.
1958 (?)	Drilling Review		TR3_11_27		Rio Tinto
1960	Magnetometer Survey		60_0311		Rio Tinto
1960	Aerial mag		60_0311		Rio Tinto
1960	Soil Sampling		60_0311		Rio Tinto
1965	Magnetometer Survey	northern part of EL ??	69_0568	EL2/1965	EZ
1965	Magnetic Susceptibility Tests	???	69_0568	EL2/1965	EZ
1965	Drilling	MFP109-MFP113	69_0563	EL2/1965	EZ
1966	Drilling	MFP114-MFP122	69_0563	EL2/1965	EZ
1967	Magnetometer Survey		67_0490	EL2/1965	EZ
1968	Drilling	MFP124-MFP132	69_0563, 68_0537, 68_0536	EL2/1965	EZ
1968	Magnetometer Survey		68_0537	EL2/1965	EZ
1968	Geochemical Surveys		68_0537	EL2/1965	EZ
1969	Petrology & Mineralogy	by AMDEL	69_0568	EL2/1965	EZ
1970	IP-Resistivity Survey	by McPhar	70_0643	EL2/1965	EZ
1971	Detailed Geological Mapping		71_0811	EL2/1965	EZ
1971	Geochemical Soil Sampling	samples taken at 50ft intervals along every line in the 'melba grid'	71_0811	EL2/1965	EZ
1971	Turam Electromagnetic Surveys	by Seigel Associates	71_0811	EL2/1965	EZ
1971	Magnetometer Surveys	by Scintrex	71_0811	EL2/1965	EZ
1972	Diamond Drilling	MFP173-MFP177	73_0940	EL2/1965	EZ
1972	Geochemical Survey		73_0940	EL2/1965	EZ
1973	Soil Survey	North Melba Flats-Argent Tunnel area	73_0965	EL2/1965	EZ
1973	Magnetometer Survey	Norther part of licence adjacent to Renison	73_0965	EL2/1965	EZ
1975	Review of Cuni Deposits		75_1147	SPL127	
1977	Mineralogical/Geochemical Appraisal	Heavy Metal Concentrates	78_1303	EL15/1976	CSR
1978	Drainage Sampling		79_1335	EL15/1976	CSR
1978	Mineralogical Examination and Petrographic survey		78_1251	EL15/1976	CSR

1979	Bedrock sampling (Auger)	4 lines re-opened and sampled at 10m intervals	80_1417	EL15/1976	CSR
1979	Soil Sampling	3.7 km were sampled on four lines at 10m intervals	80_1417	EL15/1976	CSR
1979	Drainage Sampling	follow up to previous sampling with closer spacing	80_1494	EL15/1976	CSR
1980	Diamond Drilling	CG1 and CG2	81_1599	EL15/1976	CSR
1980	Petrology	Petrology on CG1 & CG2	81_1599	EL15/1976	CSR
1982	Soil Sampling (Auger)	5 lines cut, surveyed and augered at 10m intervals	83_1928, 82_1684	EL15/1976	CSR
1982	Magnetics		83_1928	EL15/1976	CSR
1982	VLF-EM		83_1928	EL15/1976	CSR
1982	Infil aeromagnetics	In conjunction with Department of Mines	83_1928	EL15/1976	CSR
1983	Soil Sampling		83_2004, 83_1989	EL15/1976	CSR
1983	Drainage Sampling		83_2004, 83_1989	EL15/1976	CSR
1983	Magnetics	Aeromagnetics and ground magnetics	83_2004, 83_1989	EL15/1976	CSR
1983	VLF-EM		83_2004, 83_1989	EL15/1976	CSR
1983	DIGHEM		83_2004	EL15/1976	CSR
1984	Reduction of Licence area	reduced by 21.78 square Km	84_2175	EL15/1976	CSR
1984	Ground Magnetic Survey	two lines, N-S, 25m interval readings	85_2455	EL15/1976	CSR
1984	CSAMT	?	85_2455	EL15/1976	CSR
1984	VLF-EM Resistivity		84_2161	EL15/1976	CSR
1984	Geochemistry	Drainage Sampling	84_2157	EL15/1976	CSR
1985	Fixed Wing Magnetic Survey	100m E-W lines at 70m clearance (closely spaced, low-level)	86_2584	EL15/1976	CSR
1985	Ground Magnetic Survey		86_2584	EL15/1976	CSR
1985	Diamond Drilling	CG3, CG4, CG5, CG6	86_2584	EL15/1976	CSR

1985	Soil Sampling		86_2584	EL15/1976	CSR
1985	IP Survey		86_2584	EL15/1976	CSR
1986	Licence renewed	Final 12 month period renewal	87_2679	EL15/1976	CSR
1987	Relinquished Licence		94_3554	EL15/1976	CSR
1987	Minor thin section work	30 sections on 1986 Cuni drill core examined briefly for tin	87_2679	EL15/1976	CSR
1988	Gravity Survey	3 traverses	94_3554	SR1987 No 216	Tas Dep Mines
1993	Fixed Wing Airborne TEM (QUESTEM) Survey	Poor data quality	94_3554	EL43/1992	CRAE
1993	Review of Tasmanian Mines Department Gravity Data		94_3554	EL43/1992	CRAE
1993	Soil Sampling	129 Soil samples (semi regional)	94_3554	EL43/1992	CRAE
1993	Rock Chip Sampling	60 Rock Chip Samples	94_3554	EL43/1992	CRAE
1993	Petrology		94_3554	EL43/1992	CRAE
1994	Diamond Drilling	MF01-MF05 (North Cuni-Genet's Winze)	95_3729	EL43/1992	CRAE
1994	Petrology	14 Rock chip & 21 core samples	95_3729	EL43/1992	CRAE
1994	Whole Rock Geochem (Dolerite)	6 samples of host dolerite	95_3729	EL43/1992	CRAE
1994	Rock Chip Sampling	44 Rock chip samples	95_3729	EL43/1992	CRAE
1994	Soil and Bedrock sampling (Auger)	934 Soil (B&C Horizon) and bedrock samples. Hand auger.	95_3729	EL43/1992	CRAE
1994	Bedrock sampling (Wacker)	118 bedrock wacker samples	95_3729	EL43/1992	CRAE
1994	Ground PROTEM Survey	North Cuni-Genet's Winze grid	95_3729	EL43/1992	CRAE
1994	Ground Magnetic Survey	10.5 line Km data (North Cuni-Genet's Winze), 9 line Km of data (Nickel Reward - Vaudeau grid)	95_3729	EL43/1992	CRAE
1994	IP-Resistivity Survey	2.8 line Km of data (North Cuni-Genet's Winze, South	95_3729	EL43/1992	CRAE

		Cuni prospect areas)			
1994	Heliborne magnetic and Radiometric Survey	110 line Km of data: 40m spaced E-W line over 1.6x2.8km area over Melba	95_3729	EL43/1992	CRAE
1995	Drilling review	Maher, 1996 App1	96_3884	EL43/1992	CRAE
1995	Diamond Drilling	MF06-MF07 (Nickel Reward-Vaudeau)	96_3884	EL43/1992	CRAE
1995	Soil Sampling	1180 soil samples. Multi element analysis	96_3884	EL43/1992	CRAE
1995	Honours Project (Phil Greenhill)	Geological Setting and Mineralisation of the Cuni Cu-Ni Deposits	96_3884	EL43/1992	CRAE
1995	Heliborne magnetic Survey	Melba Flats included in wider exploration tenement survey	96_3884	EL43/1992	CRAE
1997	Application for partial Licence surrender		97_3994, 98_4130, 98_4123	EL43/1992	Rio Tinto
1997	Joint Venture agreement with Allegiance		97_3994, 98_4130, 98_4123	EL43/1992	Rio Tinto
1998	Archaeological Survey		ASR1998_01	EL43/1992	MRT
1999	Diamond Drilling	MF10	99_4295	EL43/1992	Allegiance
2000	Diamond Drilling	MF11-MF12	00_4422	EL43/1992	Allegiance
2000	Downhole Geophysics	Down-hole geophys by Outer Rim (Appendix 4)	00_4422	EL43/1992	Allegiance
2000	Geophysics	Nickel Reward surface geophysical survey (Appendix 4/5).	00_4422	EL43/1992	Allegiance
2000	Geophysics Interpretation Report	Interp report by Flagstaff (Appendix 5)	00_4422	EL43/1992	Allegiance
2000	Petrology	MF11 Petrology by CMS	00_4422	EL43/1992	Allegiance
2000	Aerial Photography		00_4422	EL43/1992	Allegiance

2000	Photogrammetric Plans		00_4422	EL43/1992	Allegiance
2001	Diamond Drilling	MF11-MF21. Trenching results	02_4654a	EL43/1992	Allegiance
2001	Diamond Drilling	MF13	01_4532	EL43/1992	Allegiance
2001	Gradient Array IP Survey	IP Report as Appendix	01_4532	EL43/1992	Allegiance
2001	Grid Establishment		01_4532	EL43/1992	Allegiance
2002	Diamond Drilling	MF11-MF21	02_4654	EL43/1992	Allegiance
2002	Trenching		02_4654	EL43/1992	Allegiance
2002	Sampling		02_4654	EL43/1992	Allegiance
2002	Outcrop Mapping		02_4654	EL43/1992	Allegiance
2003	Diamond Drilling	MF22-MF26	03_4848	EL43/1992	Allegiance
2004	Diamond Drilling	MF27-MF64 (not all drilled in this reporting year, see 2005)	04_5011	EL43/1992	Allegiance
2005	Diamond Drilling	MF27-MF64.	05_5162	EL43/1992	Allegiance
2005	Resource Estimation	Indicated and Inferred resource by Mick McKeown: Details and parameters used listed in McKeown report (Appendix).	05_5162	EL43/1992	Allegiance
2005	Petrology	Petrology Report by SKM (Appendix)	05_5162	EL43/1992	Allegiance
2005	Drill Hole Collar Surveys	Collar survey 'campaign': theodolite traverse, Peter Diprose.	05_5162	EL43/1992	Allegiance
2006	Gradient Array IP Survey	IP on 25m centres. Results in Appendix	06_5293	EL43/1992	Allegiance
2006	Evaluation of Geophysical Data		06_	EL43/1992	Allegiance
2006	Data Review		06_	EL43/1992	Allegiance
2007	Diamond Drilling	MF65-MF78	07_5465	EL43/1992	Allegiance
2007	Mining Lease Application		07_5465	EL43/1992	Allegiance
2008	Diamond Drilling	MF79-MF89	08_5626	EL43/1992 , ML2/2007	Allegiance
2008	Trenching	Trenching at Devereaux and	08_5626	EL43/1992 , ML2/2007	Allegiance

		North Cuni (Nic Turner)			
2008	Aerial Photography		08_5626	EL43/1992 , ML2/2007	Allegiance
2009	Diamond Drilling	MF94-MF107, also logging and assaying of MF90-MF93	09_5838	EL43/1992 , ML2/2007	OZ
2010	Geochemical Investigation	Magmatic Ni-Cu Sulphides in Mafic Sills at Melba Flats, Western Tasmania - A Geochemical Investigation. Crawford & Keays, 2010	10_6179	RL5/2009	MMG
2010	3D Magnetic data Inversion		10_6113	EL43/1992	MMG
2010	Soil Survey ("Melba Flats" South), Airborne EM	5, 1Km east-west lines. 50m spacing. 20m between samples along lines. Slight anomaly corresponding with 'gossanous ironstone' outcrop.	10_6000	EL20/2002	CRH
2011	Botanical survey and fauna habitat assessment		11_6340	EL43/1992 , RL5/2009	GHD (MMG)
2011	Aerial LIDAR	1 Km line spacing	11_6339	RL5/2009	MMG
2012	Aerial LIDAR		12_6527	EL43/1992 , RL5/2009	MMG
2012	Minor geochemical work	Comparison with Rayne gabbros. Conclusions: Rayne gabbro more fractionated than Melba gabbros	12_6406	EL43/1992	MMG
2014	Aerial LIDAR		14_6899	EL43/1992 , RL5/2009	MMG
2014	Photogrammetric Survey		14_6899	EL43/1992 , RL5/2009	MMG

2015	Masters Project Completion	Petrogenesis of the gabbroic sillhosting magmatic Ni-Cu-PGE sulphides at Melba Flats, Marcus Phua (Melbourne University)	15_	EL43/1992 , RL5/2009	MMG
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