MINREX RESOURCES LIMITED

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2019 FINAL REPORT ON THE

HEEMSKIRK PROJECT

3 April 2012 – 2 April 2019

EL18/2011

AT GRANITE CREEK

TASMANIA, AUSTRALIA

DISTRIBUTION:

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Minrex Resources Limited - Perth

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21st May 2019

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Abstract

This Final Report on the Heemskirk Project (EL18/2011) covers the period 3rd April 2012 to 2nd April 2019, the full seven years of the life of the tenement. The licence was allowed to lapse on the anniversary date of 2nd April 2019.

The area contains numerous small, old workings for tin, both alluvial/colluvial and in basement granite, with minor tungsten, base metals and silver also occurring in the deposits. Minrex Resources Limited acquired the exploration licence as it considered that this large area of granitic terrain was potentially prospective for the discovery of a large low-grade tin deposit, a smaller high grade tin deposit or possibly deposits of other granite-associated metals.

Work during the period of the licence included an initial literature review, assessment of previous exploration in the area, re-processing and analysis of the government airborne magnetic and radiometric geophysical data and five field sampling programs, each of up to three weeks duration, that collected a total of 99 rock samples, 10 stream sediment samples, 68 soil samples and 129 stream sediment concentrate samples.

The field exploration programs were conducted, to collect rock samples from the old workings, stream sediment concentrate samples from creeks, mainly in the west and south of the licence area, and soil samples from the flanks of those streams that had previously returned anomalous stream sediment concentrate results.

The seventh (final) year work program comprised a complete appraisal and review of the results from all of the previous programs, concluding that the outcomes from the exploration completed did not indicate the presence of any significant anomalism and hence that the exploration licence did not warrant any further exploration work.

A total of $25,916 was expended in the seventh year of the tenement, bringing total expenditure, in the term of the licence, by Minrex on the Heemskirk Project (EL18/2011) to $296,419. No further exploration is planned by Minrex and the licence has now been allowed to lapse.

1. Introduction

This final report summarises the results of exploration activities at the Heemskirk Project (EL18/2011), during the period 3rd April 2012 to 2nd April 2019; the full seven year life of the tenement. EL18/2011 was held by Minrex Resources Limited (Minrex) and comprised an area of some 44 km^2, located to the north of Trial Harbour on the west coast of Tasmania, and some 16 km WNW of the township of Zeehan (Figure 1). The licence was allowed to lapse on the 2nd April 2019.

The Heemskirk tin field saw a brief, hectic period of activity in the 1870's – 1880's, with companies spending on equipment rather than ore development, miners and prospectors inconsistently identifying cassiterite and ultimately a lack of capital, remote location and high costs forcing the closure of the field. Subsequent exploration of the area since the 1960's has comprised piecemeal stream and rock chip sampling, along with geological mapping, sampling of the main old workings, the completion of three diamond drill holes, at the old Peripatetic mine, and various airborne geophysical programs. There has been no detailed sampling or field work completed in the area over this period.

While the entire area of EL18/2011 is underlain by the Heemskirk Granite there is little detail or certainty on the phases of granite intrusion, nature of the mineralised structures and detailed mineralogy of the deposits. Overlying the granite, the bulk (over 80%) of the area is covered with a surface layer of quartz-rich organic soil, probably mostly less than 1m thick, which obscures the underlying geology and renders exploration and prospecting for mineralisation difficult, stream valleys are also infilled with deeper alluvial deposits and dense vegetation. The presence of a widely dispersed blanket of alluvial and colluvial tin in the drainages of the area also compounds the exploration complexity.

Minrex has been completing detailed stream sediment concentrate sampling, rock sampling and soil sampling within the Heemskirk area, in an effort to discover previously overlooked large low-grade tin deposits, or smaller high to medium-grade tin deposits. Minrex believed that while the Heemskirk tin field is relatively old, the work previously completed had not been sufficiently systematic or thorough and that potential remained for new discoveries in the area.

By completing detailed stream sediment sampling, augmented by rock sampling at old workings, pits, trenches and outcrops the Company hoped to hone into the areas containing the greatest amount of tin in drainages and hence having the most potential for basement deposits. These higher order target areas were then subjected to detailed soil sampling, and infill stream sediment concentrate sampling, in an attempt to hone into soil covered, large low-grade tin deposits.

The Heemskirk mineral field has never been systematically explored; early mining was piecemeal and subsequent exploration was sparse and, most recently, dominated by remote studies, not groundwork. Minrex completed field sampling programs in EL18/2011 from 2012-19, with the aim of discovering previously overlooked large low-grade tin deposits, or smaller high to medium-grade tin deposits.

However, after the expenditure of $296,419 on exploration programs over the seven year life

of the licence, Minrex now considers that insufficient anomalous results have been returned by the exploration completed and that no clear potential for any significant mineralisation has been indicated by this work.

Figure 1: E18/2011 Location and Tenement Plan.

The datum used throughout this report is GDA94.

2. Review of Previous Work

The first tin was discovered in the Heemskirk area in 1876, sparking a small rush with alluvial leases being taken up for several years thereafter. The first vein tin was found in 1879 with a wave of speculation following with many companies being floated, in spite of the difficult conditions and poor communications. Over 50 companies staked claims over an area of 6,400ha of granitic terrain. The field is thought to have been badly managed and several mines installed expensive processing equipment before mine development and resource definition had fully outlined the mineralisation. This exhausted the available capital and led to the closure of many of the mines before the resources could be fully developed or exploration completed. In addition many of the miners and prospectors were unable to recognise cassiterite leading to the incorrect mining of non-tin-bearing material and, potentially, the overlooking of prospective ground. The mineral field fell into collapse after 1884, with only a dozen mines continuing by the late 1880's.

Government reports on the Heemskirk tin field include Waller, 1902, Waterhouse, 1915, Waterhouse, 1916 and Blissett, 1962. At least three university theses have examined the Heemskirk area from a more academic viewpoint, including Klominsky, 1972, Wells, 1978 and Hazitaheri, 1982 - but without major significant input to exploration of the mineralisation. Part of the area was examined for occurrences of radioactive minerals – Taylor & Burger, 1950.

Mineral Exploration company work in the area commenced in the 1960's with Geophoto Resources (EL7/68) conducting a geochemical drainage program (for copper, lead, zinc, silver, bismuth and molybdenum) in the lease area – a number of lead-zinc and copper-lead-zinc anomalies were returned, and the company then drilling three diamond drill holes at the old Peripatetic mine site – Rattigan, 1968, 1969 & 1970. The Australia and New Zealand Exploration Company also explored the area (EL28/71) for tungsten with a stream sediment sampling program – Callow, 1971.

Goldfields Exploration (Renison) then held the area (EL11/76) for a number of years, completing a major air-photo geological interpretation, Loxton, Hunting & Associates, 1978, and associated field mapping, a geochemical drainage survey (for tin, arsenic, copper, lead, zinc, tungsten, silver, bismuth, molybdenum and fluorine), with a number of highly anomalous tin results (up to 1.5% Sn) being returned – Roberts, 1984. Goldfields also completed sampling and mapping at the Longs Iron Blow prospect and Peripatetic mine sites – Stephenson, 1978 & Roberts, 1981.

New Holland Mining explored the area (EL28/87) in the late 1980's – Cromer, 1988. Various other companies have explored in and around the area in the intervening years, including Stellar Resources.

3. Exploration Completed during the Report Period

Work completed by Minrex, since 2012, has included an initial literature review and field reconnaissance study – Allen, 2012. This included the collection of 23 samples (10 stream sediment samples and 13 rock samples), with the highest stream sediment result being 3,820ppm Sn and for the rock samples 324ppm Sn. In 2012, Minrex also commissioned a re-processing and analysis of the government geochemistry (Figure 2) and airborne geophysical data (magnetic and radiometric) over the Heemskirk area, Muir, 2012 (Figures 3 & 4).

However, none of this data or its imagery gave any clear leads for exploration or targeting of new exploration work.

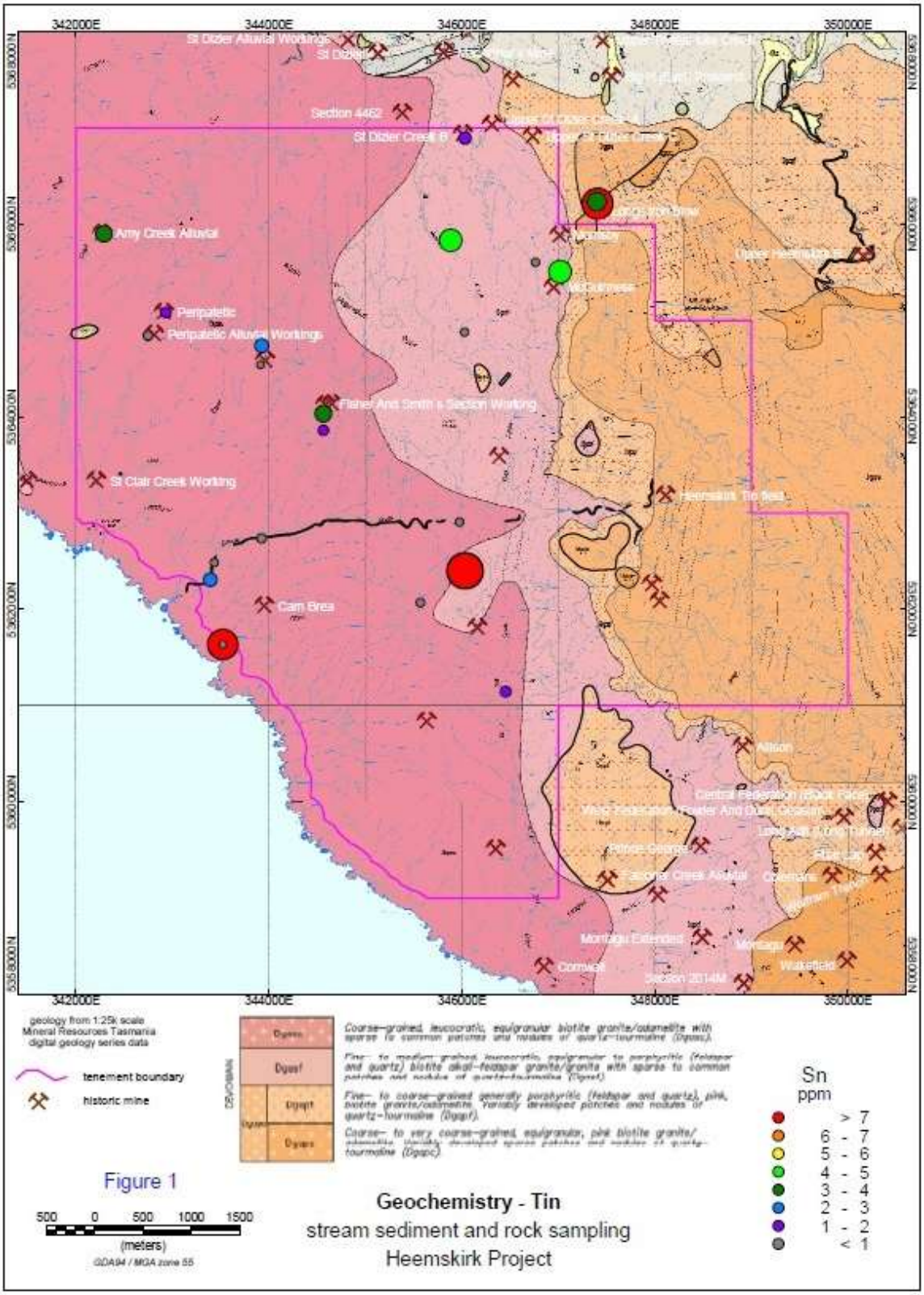

Figure 2: E18/2011 Geology with mine sites and tin geochemistry from pre-2012 exploration

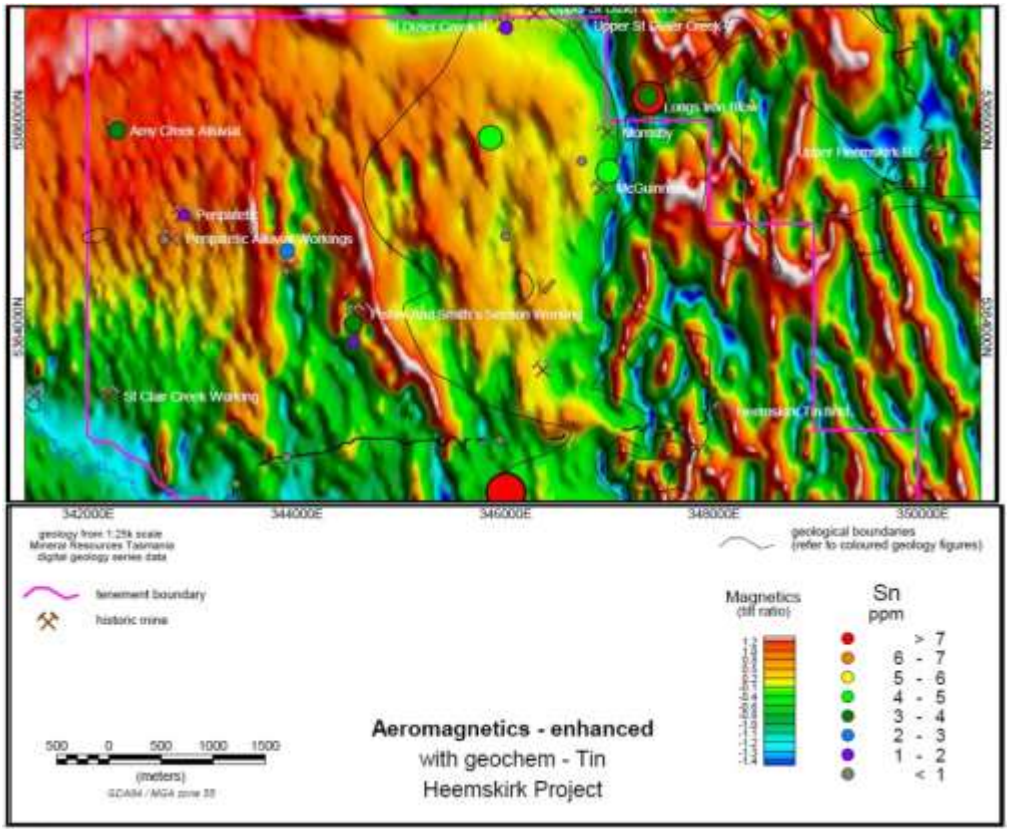

Figure 3: E18/2011 Heemskirk Project Aeromagnetic Image - enhanced

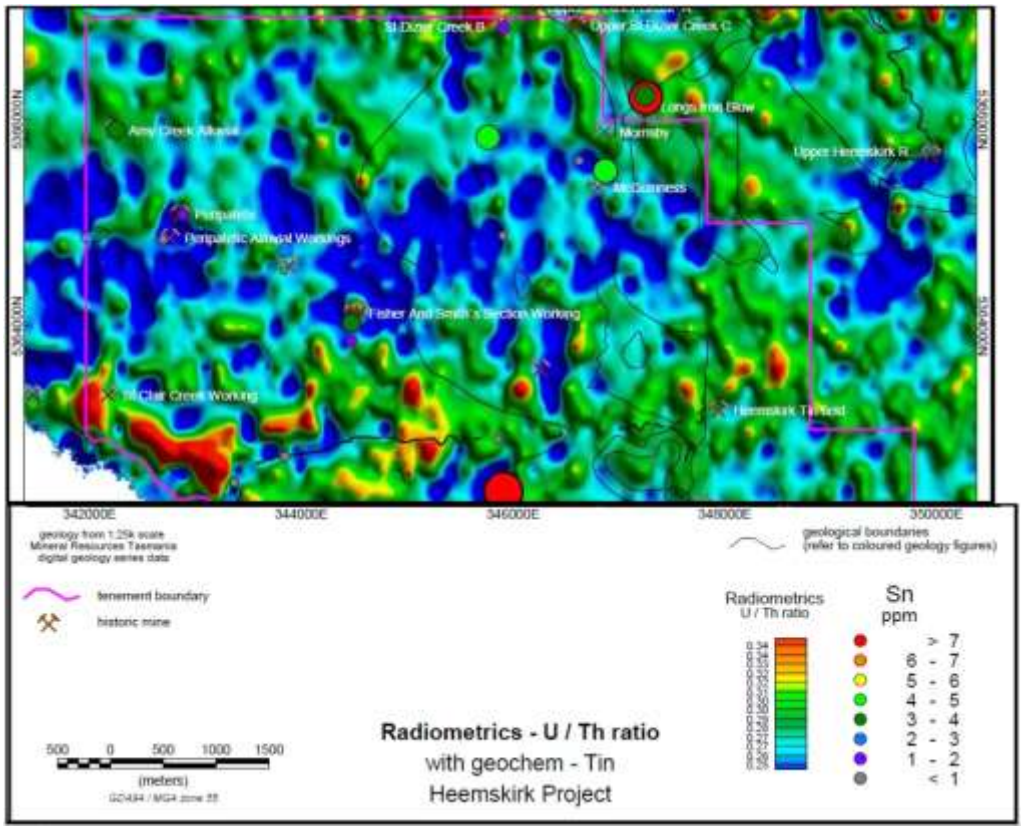

Figure 4: E18/2011 Heemskirk Project Radiometric Image – U/Th ratio

Following the initial review and reconnaissance, a systematic stream sediment concentrate sampling program was commenced over the entire tenement area. For this program, the tenement area was divided into four quadrants (named A to D) with each to be sampled in sequence. The samples were taken by panning and screening large bulk stream sediment samples down to an approximately 100gm sample of heavy minerals. The program commenced with Area A (30 samples) in 2012, Areas B & C were sampled in 2015 (26 in Area B and 23 in Area C, for a total of 49 samples), Area D in 2016 (25 samples), along with infill sampling in Area B in 2016 (18 samples), and the final stream sediment concentrate sampling was in 2017 (with 1 sample from Area D and 6 from Area B). In all a total of 129 stream sediment samples were collected in stream beds, panned down to a small residual heavy minerals concentrate and then, subsequently, submitted for analysis.

Figure 5: View of Typical Heemskirk Terrain

It was also decided to collect rock samples from any old workings, dumps or mines which were seen while taking the stream sediment concentrate samples (Figures 5 & 6). This resulted in the collection of a total of 99 rock samples from various old workings, dumps, pits and trenches and unusual geological formations.

There was an analytical problem identified, in 2015, when trial analysis work using alternative methods confirmed that the early sample analyses were not accurate for tin and tungsten, due to a failure of the mixed acid digest used to adequately digest the mineral cassiterite and, to a lesser extent, some of the tungsten and other minerals present. It was found necessary to re-analyse all 102 of the samples collected by that time, due to concern that their refractory tin minerals were not being accurately analysed by the previous assay method. All samples were subsequently re-analysed by the total-fusion laser ablation of glass beads in 2015, with the new (laser ablation) assays being very much higher grade than the earlier acid digest assay. All sample analysis since has used the laser ablation technique as the standard procedure.

In the fifth year work program, in April-May 2016, a total of some 28 rock samples were collected at the old workings, in Areas B and D, and 43 stream sediment concentrate samples from creeks in Areas D & B, in the west and south of the licence. These samples were all analysed using the laser ablation methodology.

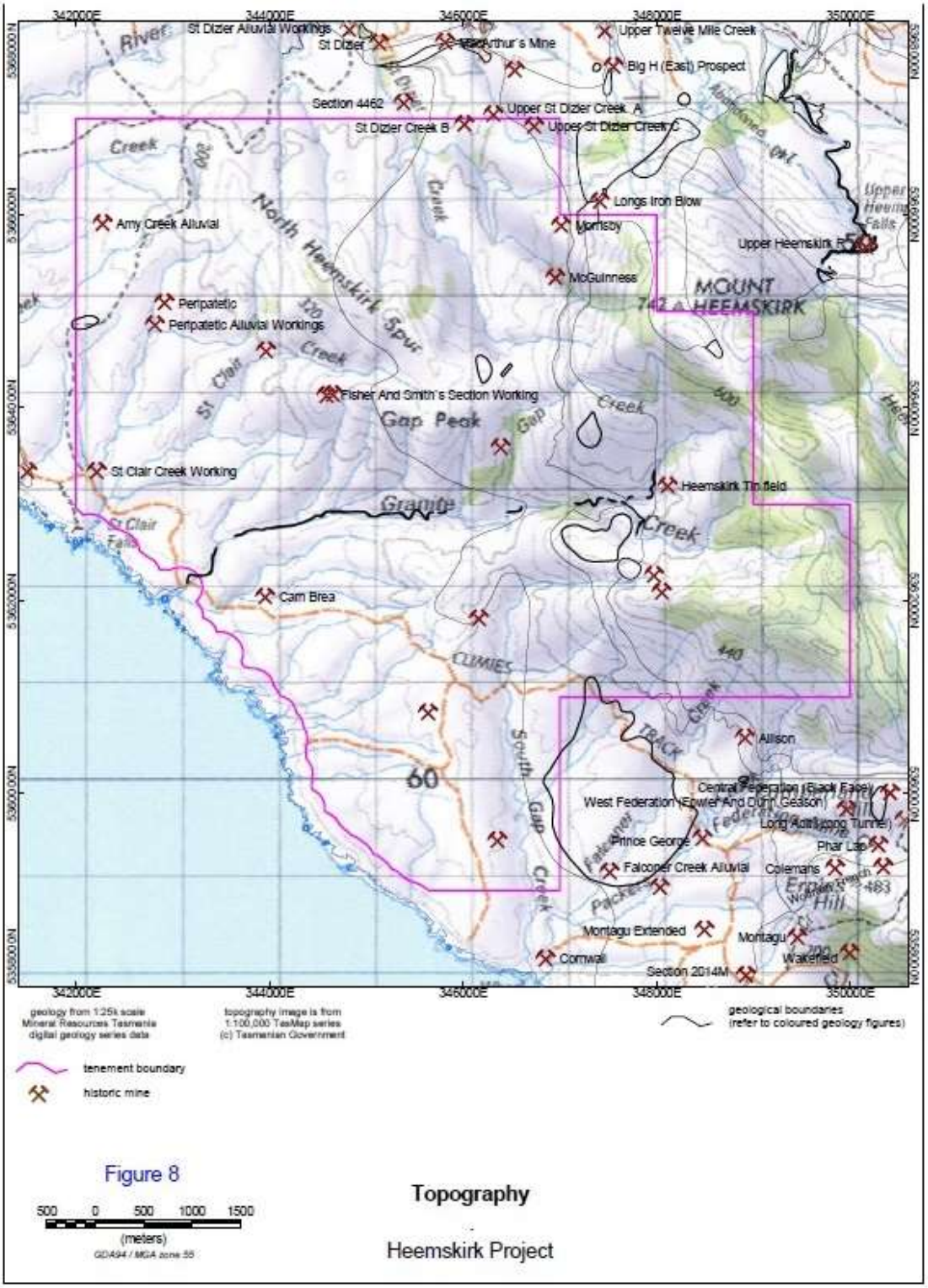

Figure 6: E18/2011 Location of Known Old Workings

In 2017, the exploration program expanded the work to include 58 rock samples from the old Peripatetic, Carn Brea and Fisher & Smith mine workings, along with a further 7 stream sediment concentrate in-fill samples from creeks in the west of the licence, and some 68 soil samples from the flanks of streams that had previously returned anomalous stream sediment concentrate results. The concept behind the 2017 field program was to expand the rock sampling program over the old workings, and other prospective areas, as well as commence soil sampling within the valleys of the streams that held the most anomalous stream sediment concentrate results to date, and, thirdly, to complete a small infill stream sediment sampling program in Areas B & D.

This was the final field program and subsequent work comprised a complete appraisal and review of the results from all of the previous programs and the final conclusion that the results received from the exploration completed did not indicate the presence of any significant anomalism and hence that the exploration licence did not warrant any further exploration work.

Figure 7: Old Peripatetic Mine in Area B during Rock Sampling in EL18/2011

All of the field exploration and sampling programs completed by Minrex utilised local geological and sampling teams that were mobilised, on appropriate occasions and in favourable weather conditions, to complete the geological reconnaissance, sampling and mapping of the Heemskirk Project area. The remote location of the Project area, variable rainfall, difficult access and complications of completing useful work in the area; have hindered completion of the surface work programs at various times. Ron Gregory Prospecting of Tasmania was utilised to complete all of the stream sediment concentrate sampling in Areas A to D, using the same staff and personnel for the sampling and panning. There were often delays in completing the work due to track work being underway, weather conditions, inadequate stream levels for sampling, and even controlled burning, at times.

Figure 8: Panning of Stream Sediment Concentrate Samples 53284 and 53317

All of the exploration work in Areas A to D was completed by the same employees of Ron Gregory Prospecting, as it was considered that it would be advantageous to use the same people, sampling methods and assay types for all of the programs to ensure that the old and new data sets were fully compatible. The same team also collected the rock samples from any old workings, dumps or mines which were seen while taking the stream sediment samples. A large number of rock samples were collected from old workings, especially the Peripatetic Mine (Figure 7).

All of the stream sediment samples, rock samples and soil samples from the licence area were submitted to the Bureau Veritas Laboratory in Perth and were analysed using the total-fusion laser-ablation method.

In total Minrex received laser ablation analyses for 306 samples collected from 2012-2017, from the E18/2011 licence (also some gold by ICP and sulphur by XRF). Of the 306 analyses received, 129 are stream sediment concentrate samples, 99 are rock samples, generally collected from the vicinity of the old workings, 78 are soil samples and 10 are the initial stream sediment samples. The 129 stream sediment concentrate samples have been hand-panned, on site, to concentrate the heavier minerals in the samples and this should result in elevated values for precious metals, base metals, and metal oxide, where these are present in the in-situ stream sediments.

The plan below shows the surface workings and location of rock samples collected at the Peripatetic Mine during the 2017 exploration program.

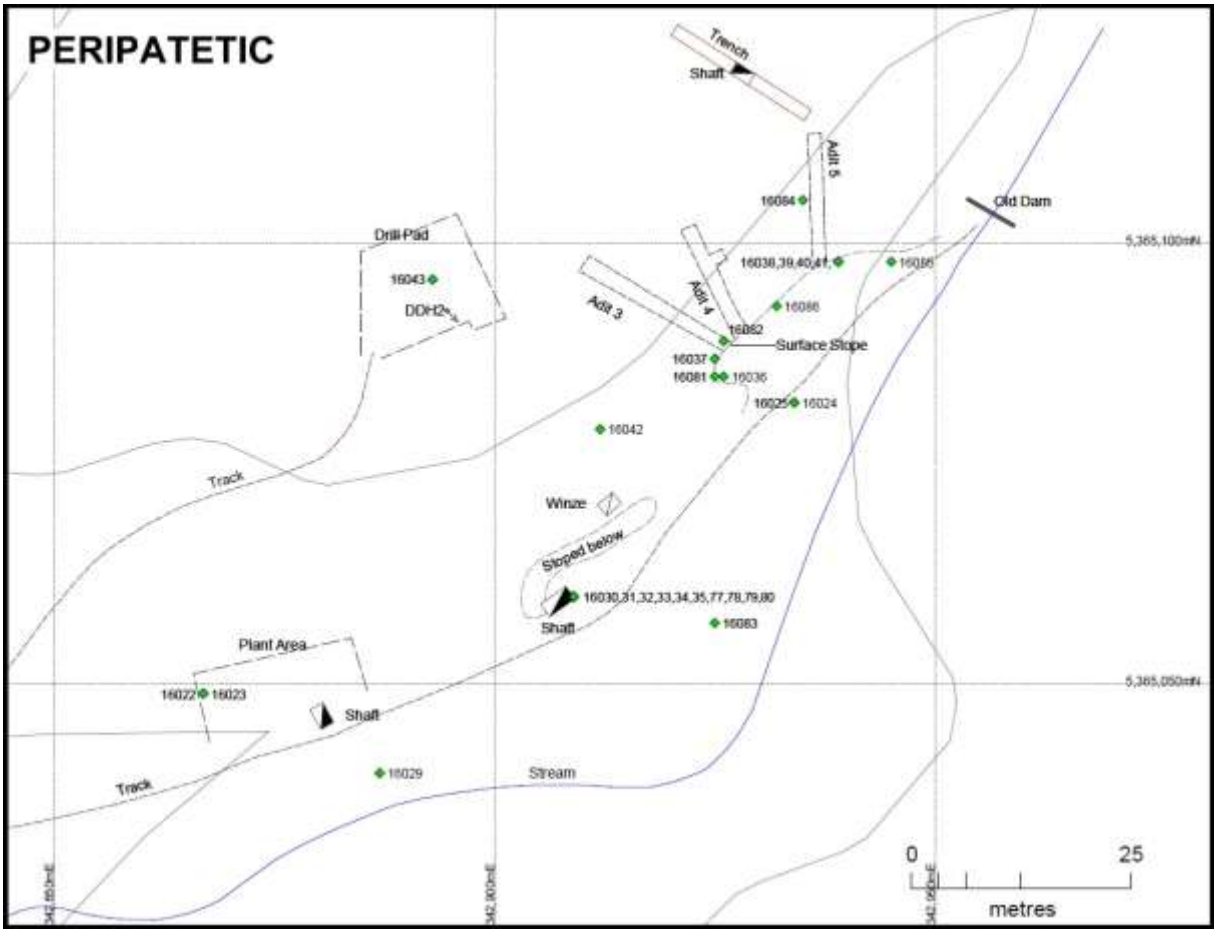

Figure 9: Map of the Peripatetic Mine workings with 2017 sample locations

The plan below shows the results for all of the 129 stream sediment concentrate samples analysed (Figure 10).

The full details of the 10 stream sediment samples and 13 rock samples, collected in 2012, are presented below in Tables 1-4, which show the initial analyses and also the subsequent re-

analyses using the laser ablation assay method. Table 5 shows the results for the 86 rock samples collected at various old workings and prospective sites in the period 2016-2017, while Table 6 shows the details of the 78 soil samples collected in 2017. The details of the 129 panned concentrate stream samples collected from Areas A-D, from 2012-2017, are listed last in Table 7.

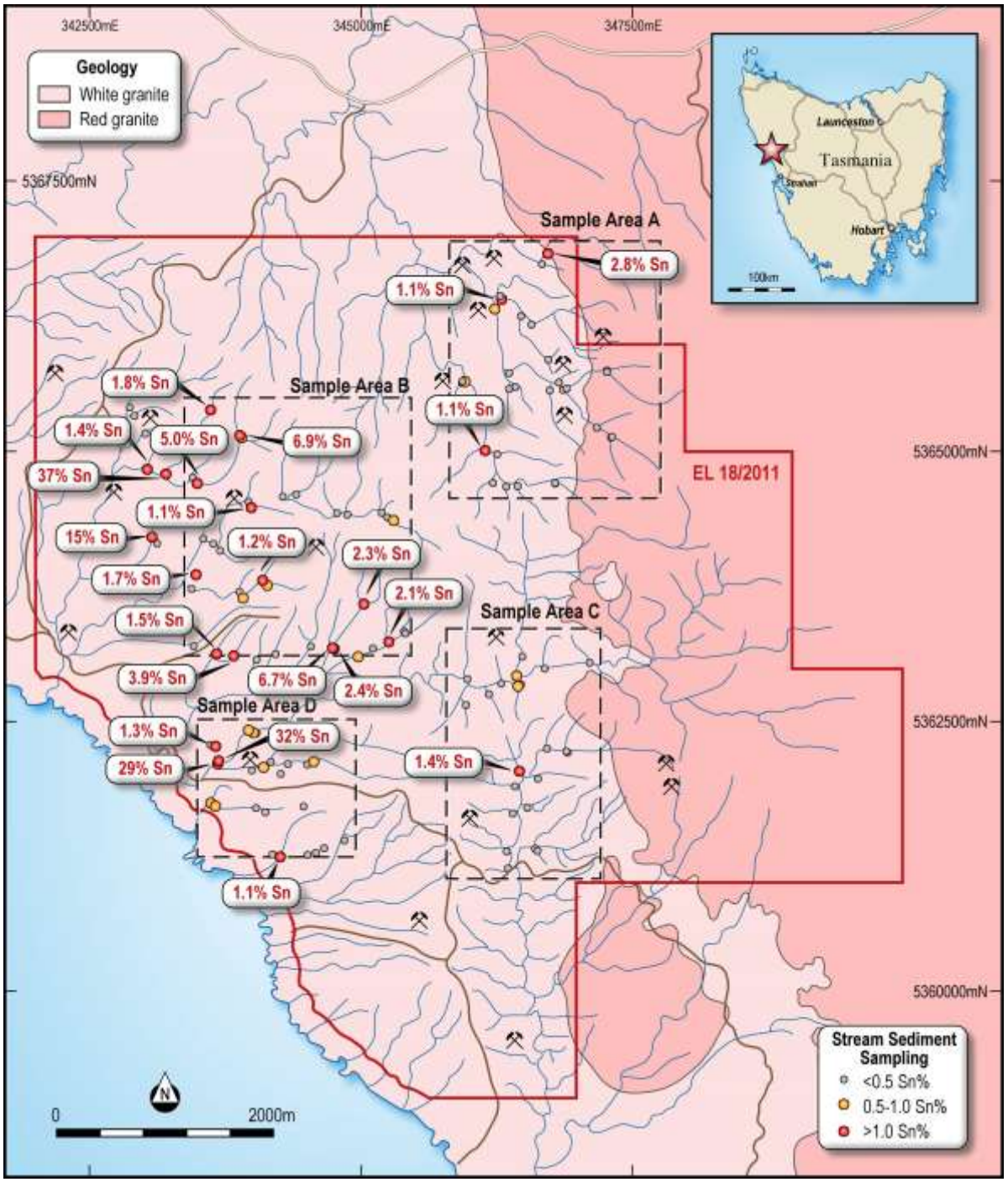

Figure 10: E18/2011 Results from Panned Stream Sediment Samples

Table 1: Assay results for initial 10 stream samples collected in 2012 – analyses (acid digest)

SAMPLE No	EASTING GDA94	NORTHING GDA94	Area	Au_(AR) ppm	Ag ppm	Cu ppm	Mo ppm	Ni ppm	Pb ppm	Sn ppm	Ti ppm	W ppm	Zn ppm
550601	343411	5361452	Near Carn Brea	0	0	2	0	3	0	0.3	0	0.2	6
550602	343323	5362302	Near Climies track	0	0	1	0	0	2	0.5	0	0.6	7
550603	345865	5362723	Central west	0	0	2	0	1	2	0.6	0	0.3	6
550604	346343	5360962	South Gap Creek	0	0.65	5	0	3	72	1.3	0	0.3	319
550605	342635	5364661	Peripatetic Alluv.	0	0	1	0	1	5	0.9	0	0.6	7
550606	342180	5365718	Amy Creek Alluv.	0	0.2	13	2	4	32	3.1	0	1.9	52
550607	345918	5364696	NE Fisher & Smith	0	0	1	0	4	3	0.6	0	1.7	3
550608	343802	5364358	East of Peripatetic	0	0	0	0	1	1	0.3	0	0.4	3
550609	345922	5366711	Western St Dizier	0	0	6	1	1	6	1.8	100	1	20
550610	346652	5365422	SW Mc Guinness	0	0	2	0	3	4	0.6	0	0.4	7

Table 2: Re-assay results for 10 stream samples collected in 2012 – re-analyses (laser ablation)

SAMPLE No	EASTING GDA94	NORTHING GDA94	Area	S_XRF %	Ag_LA ppm	As_LA ppm	Cu_LA ppm	Mo_LA ppm	Pb_LA ppm	Sn_LA ppm	W_LA ppm	Zn_LA ppm
550601	343411	5361452	Near Carn Brea	0.002	0	0.8	4	0.2	2	62.6	1	20
550602	343323	5362302	Near Climies track	0.004	0	1.8	0	0.2	5	39.2	2.85	25
550603	345865	5362723	Central west	0.002	0	1.6	2	0.4	5	11.2	2.15	15
550604	346343	5360962	South Gap Creek	0.035	0.9	14	4	0.4	75	85.8	2.5	370
550605	342635	5364661	Peripatetic Alluv.	0.005	0	1.2	0	0.2	8	589	3.45	15
550606	342180	5365718	Amy Creek Alluv.	0.024	0.2	7.8	14	1.6	48	3820	15.4	85
550607	345918	5364696	NE Fisher & Smith	0.003	0	1.6	2	0.4	4	180	6.8	20
550608	343802	5364358	East of Peripatetic	0.002	0	1	0	0.2	3	7.4	1.65	20
550609	345922	5366711	Western St Dizier	0.007	0	2.4	4	1.4	10	570	10.4	50
550610	346652	5365422	SW Mc Guinness	0.005	0.2	6.4	2	0.8	5	16	2.95	25

Table 3: Assay results for initial 13 rock samples collected in 2012 – analyses (acid digest)

SAMPLE No	EASTING GDA94	NORTHING GDA94	Area	Au_(AR) ppm	Ag ppm	Cu ppm	Mo ppm	Ni ppm	Pb ppm	Sn ppm	Ti ppm	W ppm	Zn ppm
550650	343411	5361452	Near Carn Brea	0	0.5	3	0	3	0	7.4	0	2.2	10
550651	343282	5362124	Near Climies track	0	0.1	2	0	0	4	2.2	0	1	4
550652	343813	5362554	Near Climies Track	0	0	1	0	2	15	0.9	0	0.4	7
550653	345460	5361886	East of Carn Brea	0	0	1	2	2	4	0.7	0	32	6
550654	345922	5362217	Central west	0	0	0	0	1	9	9.2	0	1.2	9
550655	342822	5364900	Peripatetic Mine	0	0.05	1	0	2	13	1.2	0	0.4	5
550656	345772	5365650	Unnamed Pit 1	0	0	2	0	3	1	5	0	77	4
550657	344453	5363849	Fisher & Smith	3	0	1	0	3	7	3.2	0	2.6	16
550658	344454	5363676	Fisher & Smith	0	0	0	0	3	16	1.2	0	0.8	6
550659	343814	5364556	Unnamed Pit 2	0	0.2	3	1	1	6	2.3	0	1.2	8
550660	346907	5365324	McGuinness Mine	1	2	54	4	2	40	5	0	122	4
550661	347295	5366032	Longs Iron Blow	0	0	3	3	0	5	7.6	0	89.1	5
550662	347287	5366052	Longs Iron Blow	0	0	2	0	1	7	3.9	0	21.6	2

Table 4: Re-assay results for 13 rock samples collected in 2012 – re-analyses (laser ablation)

SAMPLE No	EASTING GDA94	NORTHING GDA94	Area	S_XRF %	Ag_LA ppm	As_LA ppm	Cu_LA ppm	Mo_LA ppm	Pb_LA ppm	Sn_LA ppm	W_LA ppm	Zn_LA ppm
550650	343411	5361452	Near Carn Brea	0.003	0.3	0.8	0	0.6	2	451	16	25
550651	343282	5362124	Near Climies track	0.006	0.2	2.2	4	0.4	7	36.4	3.4	25
550652	343813	5362554	Near Climies Track	0.013	0	1.8	6	0.6	22	11.4	6.55	35
550653	345460	5361886	East of Carn Brea	0.003	0	1.6	4	2.2	5	69	847	100
550654	345922	5362217	Central west	0.008	0.2	2	4	0.6	11	324	17.2	65
550655	342822	5364900	Peripatetic Mine	0.01	0.1	2.2	4	0.8	19	486	7.45	30
550656	345772	5365650	Unnamed Pit 1	0.005	0	2.4	0	0.8	2	1230	253	40
550657	344453	5363849	Fisher & Smith	0.003	0.2	1.2	0	0.8	8	686	6.7	55
550658	344454	5363676	Fisher & Smith	0.003	0	0	0	0.8	19	81.4	4.6	80
550659	343814	5364556	Unnamed Pit 2	0.008	0.4	4.2	0	1.6	9	48.6	8.7	70
550660	346907	5365324	McGuinness Mine	1.14	2.1	30100	54	4.8	43	163	355	10
550661	347295	5366032	Longs Iron Blow	0.013	0	47.6	0	3.6	7	243	284	20
550662	347287	5366052	Longs Iron Blow	0.006	0	7.8	0	0.6	9	120	48.9	40

Table 5: Assay results for 86 rock samples collected in 2016-2017 (laser ablation)

SAMPLE No	EASTING GDA94	NORTHING GDA94	Area	Ag_LA ppm	As_LA ppm	Cu_LA ppm	Mo_LA ppm	Pb_LA ppm	Nb_LA ppm	Sn_LA ppm	Sn_LA %	Ta_LA ppm	W_LA ppm	Zn_LA ppm
16001	343891	5362312	W Carn Brea	0	1.2	6	0.6	0		57	0.01		8.75	35
16002	343662	5362259	W Carn Brea	0	0.6	4	0.4	2		541	0.05		6	60
16003	343638	5362274	W Carn Brea	1	926	34	0.6	37		334	0.03		11.1	310
16004	344021	5362069	Carn Brea	0	3.6	18	6	7		94.8	0.01		6.6	65
16005	344001	5362154	Carn Brea	0	2.8	4	0	0		27.8	0.00		1.4	95
16006	344164	5361674	S Carn Brea	0	5.8	12	192	2		23.8	0.00		790	35
16007	343606	5361757	S Carn Brea	0	2.4	0	1.2	3		29	0.00		3.45	70
16008	344597	5364089	Fisher & Smith	1.7	0.4	0	0.8	149		3410	0.34		21.1	100
16009	344597	5364089	Fisher & Smith	0.2	1.2	4	0	33		1790	0.18		12.7	95
16010	344608	5364050	Fisher & Smith	0.4	6	0	0	1210		2290	0.23		8.35	50
16011	344608	5364050	Fisher & Smith	21.3	321	38	0.8	245		25200	2.52		87.8	70
16012	344608	5364050	Fisher & Smith	0.5	9.6	6	0	17		327	0.03		8	100
16013	344608	5364050	Fisher & Smith	0.9	4	0	0.6	10		234	0.02		5.25	20
16014	344608	5364050	Fisher & Smith	3.5	140	82	0.8	228		176	0.02		8.45	50
16015	344574	5364025	Fisher & Smith	0	0.8	0	2	11		258	0.03		8.85	55
16016	344574	5364025	Fisher & Smith	0	0	0	0	6		63.4	0.01		2.7	80
16017	344574	5364025	Fisher & Smith	0	0.8	0	0.4	4		16.4	0.00		2.25	80
16018	344554	5363871	Fisher & Smith	1.4	2.8	6	0.6	3		365	0.04		13.3	65
16019	342713	5365195	Peripatetic	0	0	0	1.8	0		8.8	0.00		7	45
16020	342713	5365195	Peripatetic	0	0	6	2.4	0		33.2	0.00		8.2	40
16021	342713	5365195	Peripatetic	0.2	1.4	0	1.2	0		10.4	0.00		1.9	45
16022	342867	5365049	Peripatetic	0.5	14.6	10	1.6	16		946	0.09		12.9	45
16023	342867	5365049	Peripatetic	0	2	8	1.2	11		18.4	0.00		12.8	20
16024	342934	5365082	Peripatetic	0.4	4.8	12	1.6	22		46.8	0.00		5.2	40
16025	342934	5365082	Peripatetic	0	3.8	44	1.2	17		41	0.00		10.1	75
16026	342729	5365022	Peripatetic	1	27.8	40	1.2	3		394	0.04		20.9	35
16027	342729	5365022	Peripatetic	0.8	1180	24	0.8	7		82.2	0.01		38.2	60
16028	342857	5364653	S Peripatetic	0	6.2	6	1.2	3		75.2	0.01		17.2	45
16029	342887	5365040	Peripatetic	0.7	37.4	30	6	22	20.5	122	0.01	3.44	11.1	45
16030	342909	5365060	Peripatetic	0.3	1.6	6	0.4	8	21.7	69.6	0.01	3.56	42.9	40
16031	342909	5365060	Peripatetic	0	1.2	4	0.6	7	16.8	94.4	0.01	4.32	5.85	45
16032	342909	5365060	Peripatetic	0.1	0.8	8	0	4	24.3	724	0.07	4.06	20.5	20
16033	342909	5365060	Peripatetic	0.2	0.2	2	0	6	18.8	126	0.01	3.31	8.65	15
16034	342909	5365060	Peripatetic	0	0.4	6	0.2	3	25.2	99.6	0.01	4.58	10.9	20
16035	342909	5365060	Peripatetic	0.1	0.8	6	0	5	26	120	0.01	4	8.8	20
16036	342926	5365085	Peripatetic	0.2	7.8	6	1.8	24	20.7	97.6	0.01	3.27	4.3	10
16037	342925	5365087	Peripatetic	0	2	4	0.4	4	14.4	6420	0.64	2.56	25.9	25
16038	342939	5365098	Peripatetic	0	14.4	10	3.2	21	21.6	189	0.02	3.35	12.7	10
16039	342939	5365098	Peripatetic	0	1.2	4	0.4	11	10.1	18.6	0.00	2.78	0.9	80
16040	342939	5365098	Peripatetic	0.2	1.2	4	0.4	1	9.69	730	0.07	2.11	4.8	90
16041	342939	5365098	Peripatetic	0	2	4	0.8	10	13.5	71	0.01	2.86	2.45	65

16042	342912	5365079	Peripatetic	0	0.8	6	0.4	2	8.31	387	0.04	1.72	2.85	10
16043	342893	5365096	Peripatetic	0	1	6	0.8	9	33	47.6	0.00	10.5	1.85	75
16044	344018	5362070	Carn Brea	0	2	4	0.6	0	0.59	5.2	0.00	0.29	0.35	20
16045	344018	5362070	Carn Brea	0.1	1.6	6	0.6	12	1.33	13.6	0.00	0.52	0.6	40
16046	344018	5362070	Carn Brea	0	3	4	40.6	0	1.58	3.8	0.00	0.51	0.55	15
16047	344018	5362070	Carn Brea	0	3	2	13	11	15.8	26.6	0.00	6.48	21.5	20
16048	344018	5362070	Carn Brea	0	0.8	2	2.8	5	20.9	1040	0.10	3.55	11.8	25
16049	344018	5362070	Carn Brea	0	0.8	4	0.4	15	3.41	13.4	0.00	0.97	0.4	50
16050	344018	5362070	Carn Brea	0	3.8	4	1	0	10	125	0.01	1.83	8.05	5
16051	344010	5362093	Carn Brea	0	3.6	4	0.4	17	47.7	9.8	0.00	14.1	13.7	20
16052	344011	5362097	Carn Brea	0	0.4	6	0.4	7	22	126	0.01	3.68	11.8	10
16053	344008	5362108	Carn Brea	0	0.6	6	0.4	6	14.3	26.6	0.00	2.4	2.6	5
16054	344011	5362126	Carn Brea	0	1.2	6	0.2	19	18.7	26.4	0.00	3.03	2.1	30
16055	344011	5362126	Carn Brea	0	0.6	6	0	20	18.7	64.8	0.01	2.68	2.4	10
16056	344011	5362126	Carn Brea	0	0.8	6	0.2	16	16.7	31.4	0.00	3.03	2.2	35
16057	344011	5362126	Carn Brea	0.2	3.4	8	0	21	15.8	19.2	0.00	2.42	2.35	15
16058	344011	5362126	Carn Brea	0.3	1.2	12	0.4	30	19.7	39.2	0.00	3.29	2.85	20
16059	344011	5362126	Carn Brea	0	0.4	4	0	0	6.19	13.2	0.00	0.98	0.85	0
16060	344003	5362163	Carn Brea	0	0.8	4	0.2	0	10.6	162	0.02	1.69	5.1	10
16061	344003	5362163	Carn Brea	0.1	5.2	8	0.8	5	23.4	212	0.02	3.67	7.5	20
16062	344003	5362163	Carn Brea	0.1	8.4	14	1	9	25.1	3900	0.39	3.62	31.4	25
16063	344007	5362158	Carn Brea	0	0.4	6	0.2	5	4.63	246	0.02	0.74	1.1	10
16064	344590	5364100	Fisher & Smith	0.2	1.8	6	1	281	26.6	36.2	0.00	4.39	8.7	40
16065	344590	5364100	Fisher & Smith	0	0.8	6	1.4	5	22.8	157	0.02	4.57	13.8	40
16066	344590	5364100	Fisher & Smith	0.3	1.6	4	1.2	15	21.6	708	0.07	4.24	17.6	40
16067	344590	5364100	Fisher & Smith	0.1	0.8	4	1.2	12	23.1	236	0.02	4.34	16.1	55
16068	344605	5364041	Fisher & Smith	0	2.2	6	1.6	16	18.8	488	0.05	4.56	10.9	95
16069	344605	5364041	Fisher & Smith	0.2	2.4	4	1	8	25.5	525	0.05	5.04	11.4	70
16070	344613	5364046	Fisher & Smith	21.5	492	30	1.8	122	34.6	1150	0.12	6.13	15.6	95
16071	344613	5364046	Fisher & Smith	3.2	80.4	20	1.8	98	20.3	62.4	0.01	3.46	11.4	30
16072	344605	5364052	Fisher & Smith	1.8	4	4	1.4	148	25.2	27800	2.78	4.05	153	75
16073	344605	5364052	Fisher & Smith	0.2	2.4	8	1.4	12	19.8	391	0.04	4.58	11.9	70
16074	344569	5364038	Fisher & Smith	0.2	0.6	4	1.2	8	26.4	133	0.01	4.53	20.3	45
16075	344569	5364038	Fisher & Smith	0.3	1	6	1.8	62	19.4	621	0.06	4.98	17.4	35
16076	344618	5364037	Fisher & Smith	1.5	13.2	26	1	115	27.1	191	0.02	4.84	9.5	45
16077	342909	5365060	Peripatetic	0	0.4	4	1.6	8	32.3	145	0.01	5.5	30.7	50
16078	342909	5365060	Peripatetic	0	0	2	2	8	35	149	0.01	6.68	34.1	50
16079	342909	5365060	Peripatetic	0.2	1.6	14	0.8	12	24.3	61.6	0.01	4.27	7.45	15
16080	342909	5365060	Peripatetic	0.1	0.8	6	1.2	3	30	82.4	0.01	5.45	29.1	40
16081	342925	5365085	Peripatetic	0	1.4	2	1.6	9	51.4	125	0.01	24	13.7	45
16082	342926	5365089	Peripatetic	0	7.4	0	4.6	3	45.7	45900	4.59	11.7	210	25
16083	342925	5365057	Peripatetic	0.1	1.2	8	2	18	18	129	0.01	3.46	8.25	25
16084	342935	5365105	Peripatetic	0.1	3.6	6	1.4	22	22.6	141	0.01	3.73	12.7	10
16085	342945	5365098	Peripatetic	0.1	2	6	1.2	9	22.5	1460	0.15	4.17	20	20
16086	342932	5365093	Peripatetic	0	0.6	0	1.8	2	18.8	14100	1.41	3.57	60.4	30

Table 5 (above): Assay results for 86 rock samples collected in 2016-2017 (laser ablation)

Table 6 (below): Assay results for 68 soil samples collected in 2017

SAMPLE No	EASTING GDA94	NORTHING GDA94	Ag_LA ppm	As_LA ppm	Cu_LA ppm	Pb_LA ppm	Mo_LA ppm	Sn_LA ppm	Sn_LA %	W_LA ppm	Zn_LA ppm	Ta_LA ppm	Nb_LA ppm
16087	343686	5362108	0	1	0	2	0.8	4.6	0.00	2.65	5	1.41	6.54
16088	343761	5362117	0	0.6	0	0	0.6	6	0.00	2.45	5	0.69	2.89
16089	343830	5362154	0	0.8	0	0	0	10	0.00	1.1	0	0.52	3.35
16090	343880	5362215	0.1	0.8	0	4	0.2	19.6	0.00	1.9	0	0.58	2.15
16091	343881	5362292	0	1	0	4	0	9	0.00	0.85	0	0.48	2.7
16092	343922	5362364	0	0.8	0	0	0.4	64.2	0.01	0.95	0	0.79	4.55
16093	343978	5362395	0	0.6	0	0	0.6	9.2	0.00	1.9	0	1.1	5.62
16094	343930	5362413	0	0.4	0	0	0.4	7	0.00	1.3	0	0.79	4.91
16095	343876	5362329	0	0.6	4	0	0.8	33.8	0.00	1.75	0	0.86	5.3
16096	343879	5362233	0	0.4	0	0	0.2	14.4	0.00	0.95	0	0.49	2.48
16097	343807	5362162	0	3	2	3	0.4	42.6	0.00	4.2	5	2.03	14.1
16098	343722	5362113	0	1.2	0	2	0.6	44	0.00	3.05	5	2.12	13
16099	344019	5363394	0	0.4	0	1	0.8	9.4	0.00	0.8	0	1.05	6.02
16100	343968	5363301	0	0.8	0	5	0.4	22.6	0.00	1.55	5	1.83	7.47
16101	343901	5363221	0	0.8	2	2	0.6	15.6	0.00	2.1	5	1.33	8.24
16102	343848	5363138	0	0.8	4	0	0.2	4.4	0.00	0.7	0	0.7	3.24
16103	343788	5363063	0	1.2	0	5	0.4	5.4	0.00	3.25	0	1.92	10.9
16104	343780	5363070	0	1	2	1	0.6	12.6	0.00	2.4	0	1.43	7.73
16105	343849	5363149	0	1	4	1	0.6	12.4	0.00	3.05	5	1.78	7.63
16106	343896	5363233	0	1	0	0	0.6	60.2	0.01	3.35	10	2.6	11.9
16107	343952	5363314	0	0.8	0	2	0.4	69	0.01	2.1	5	1.41	8.63
16108	344002	5363400	0	0.6	2	1	0.6	30.8	0.00	2.55	5	1.5	7.51
16109	344022	5363415	0.1	0.8	0	2	0.4	27.6	0.00	1.55	10	1.17	6.21
16110	344795	5363221	0	0.8	0	2	0.4	11.8	0.00	2.95	5	2.5	12.8
16111	344845	5363306	0	0.6	0	0	0.4	18.6	0.00	3.5	5	2.47	13
16112	344896	5363389	0	1	0	3	0.4	6.4	0.00	3.95	0	3.16	20.8
16113	344962	5363462	0	0.8	0	0	0.4	8.4	0.00	3.2	0	2.64	15.2
16114	345021	5363614	0.1	1	0	7	0.6	16.2	0.00	10.6	15	6.99	42.4
16115	344986	5363680	0	0.8	0	5	0.8	42.2	0.00	8.9	15	5.34	30.7
16116	344967	5363677	0	1	0	3	0.4	6.4	0.00	3.2	10	1.51	8.09
16117	345006	5363610	0	0.8	0	0	0.2	7.6	0.00	3.75	15	2.37	12.9
16118	344988	5363518	0	0.8	0	4	0.6	11	0.00	6.85	10	5.11	32.5
16119	344926	5363441	0.1	1	0	2	0.6	16.2	0.00	6.1	10	6.38	43.3
16120	344863	5363364	0	1.2	0	2	0.2	55.6	0.01	2.85	10	2.59	10.7
16121	344815	5363273	0	0.8	0	1	0.2	58.4	0.01	7.15	10	4.41	26.7
16122	344763	5363196	0	1.2	0	3	0.4	35.6	0.00	6.3	10	3.82	22.4
16123	343876	5365171	0	1	0	3	0.2	6.8	0.00	5.3	5	2.61	15.2
16124	343855	5365167	0	1	0	11	0.8	16.2	0.00	8.15	15	3.52	22.5

16125	343843	5365256	0	1.2	0	6	0.6	8.2	0.00	4.35	10	3.48	21.3
16126	343829	5365242	0.1	0.8	0	5	0.4	9.6	0.00	2.45	10	1.85	9.22
16127	343822	5365303	0	1.2	0	5	0.4	85.6	0.01	3.65	15	3.25	13.8
16128	343829	5365317	0	1	0	5	0.4	70.4	0.01	4.05	10	2.32	13
16129	343647	5365368	0	1	0	1	0.6	13	0.00	1.65	0	0.9	4.65
16130	343615	5365378	0	1.2	0	2	0.2	3.4	0.00	1.7	0	1.28	5.38
16131	343563	5365304	0	1.4	0	1	0.4	10.6	0.00	3.35	15	2.07	9.94
16132	343548	5365312	0	0.8	0	2	0.4	17.4	0.00	3.1	10	2.02	9.11
16133	343542	5365224	0	0.8	0	2	0.4	18.8	0.00	6.25	5	3.24	19.1
16134	343530	5365218	0	0.8	0	2	0.2	3.8	0.00	6.8	5	2.28	14
16135	343514	5365138	0	0.8	0	0	0.4	2.2	0.00	1.25	0	0.61	2.69
16136	343489	5365134	0	0.8	0	2	0	15.8	0.00	13	15	3.51	19.6
16137	343436	5365074	0	0.6	0	0	0.4	60.6	0.01	1.3	0	0.82	3.12
16138	343407	5365099	0	1.2	0	18	0.4	18.6	0.00	5.85	10	1.73	10.5
16139	343360	5365013	0.1	1.2	4	2	1	167	0.02	2.8	10	1.32	6.92
16140	343330	5365038	0	0.8	4	1	0.8	5	0.00	1.3	0	0.63	3.51
16141	343385	5364916	0	0.8	2	1	0.6	6.2	0.00	3.65	5	1.84	10.7
16142	343349	5364941	0	0.8	2	3	0.6	3.2	0.00	1.9	10	1.18	5.65
16143	343305	5364862	0	1.2	0	2	0.6	5.8	0.00	3.45	5	1.91	11.1
16144	343285	5364867	0.1	1.4	0	3	0.6	7	0.00	4.95	10	2.33	14
16145	343219	5364811	0	2.6	0	13	0.6	8.2	0.00	5.9	15	4.28	20.5
16146	343201	5364817	0	0.8	0	2	0.6	15	0.00	6.05	5	3.01	17.8
16147	343257	5364486	0	0	0	3	0	1	0.00	4.85	0	3.35	24.5
16148	343235	5364490	0	0.6	0	2	0.2	5.4	0.00	0.5	0	0.99	5.41
16149	343182	5364421	0	0.8	0	0	0.6	1.8	0.00	1.95	0	0.74	2.62
16150	343157	5364425	0	1	0	0	0	2.2	0.00	2.3	0	0.89	5.05
16151	343117	5364346	0	0.6	0	0	0	3.8	0.00	0.95	0	0.58	2.41
16152	343103	5364342	0	0.6	0	5	0.4	5.4	0.00	1.2	5	1.72	9.14
16153	343097	5364256	0	0.8	0	0	0.4	14	0.00	0.85	0	0.97	4.12
16154	343075	5364255	0	0.8	0	3	0.8	2.8	0.00	2.05	0	1.41	9.98

Table 6 (above): Assay results for 68 soil samples collected in 2017

Table 7 (below): Assay results for 129 panned concentrate stream sediment samples collected in 2012-2017

SAMPLE No	EASTING GDA94	NORTHING GDA94	Area	Ag_LA ppm	As_LA ppm	Cu_LA ppm	Mo_LA ppm	Pb_LA ppm	Sn_LA ppm	Sn_LA %	W_LA ppm	Zn_LA ppm
53201	346721	5366847	Area A	0	4	0	2.4	14	28100	2.81	88.1	15
53202	346729	5366840	Area A	0	5.4	0	0.8	7	2780	0.28	17.7	35
53203	346665	5366748	Area A	0	0.8	2	0.8	7	1940	0.19	12.2	40
53204	346287	5366435	Area A	0	0	4	0.6	11	743	0.07	23.8	15
53205	346294	5366425	Area A	0.1	0	0	1.2	26	11000	1.10	122	30
53206	346229	5366333	Area A	0.2	1.6	0	1.8	17	6610	0.66	199	85
53207	346472	5366268	Area A	0	1.6	0	0.2	4	677	0.07	6.55	30
53208	346570	5366190	Area A	0	2.4	0	0.4	5	248	0.02	10.1	50

53209	346724	5365864	Area A	0.2	2.4	0	0.4	7	487	0.05	9.25	70
53211	346820	5365652	Area A	0	1.2	6	0.6	6	689	0.07	12.2	25
53212	346739	5365581	Area A	0.4	3.2	10	0.4	5	554	0.06	9.35	35
53213	346860	5365584	Area A	0.3	7.2	6	0.6	6	38.8	0.00	7.3	40
53214	346894	5365598	Area A	0	1.6	4	0.8	4	246	0.02	8.95	15
53215	347265	5365761	Area A	0	2.8	2	0.8	6	733	0.07	33.1	20
53216	347266	5365751	Area A	0	2	2	0.6	5	117	0.01	8.75	30
53217	347172	5365235	Area A	0.2	3.2	2	0.8	7	342	0.03	13.6	25
53218	347303	5365144	Area A	0.2	2.8	2	0.8	6	72.2	0.01	8	25
53219	347315	5365150	Area A	0	2.4	0	0.4	6	42.4	0.00	15	20
53221	346359	5365741	Area A	0	2.8	4	0.6	5	916	0.09	29.1	35
53222	346418	5365612	Area A	0	1.2	0	0	5	215	0.02	5.2	30
53223	346361	5365592	Area A	0.1	0.6	0	0.6	5	1750	0.18	15.5	40
53224	345923	5365650	Area A	0	1.2	0	0.4	3	2410	0.24	14.4	35
53225	345956	5365661	Area A	0	0	2	0.6	8	5460	0.55	66.9	40
53226	346140	5365020	Area A	0	0	0	0.4	7	10700	1.07	80.4	35
53227	346252	5364988	Area A	0	1.6	0	0.6	6	3050	0.31	60.6	35
53228	346214	5364719	Area A	0	1.6	0	0.4	4	404	0.04	11	35
53229	346335	5364685	Area A	0	2.2	2	0.2	3	243	0.02	5.85	30
53230	346443	5364690	Area A	0	1.4	0	0.8	7	1560	0.16	109	35
53231	346788	5364715	Area A	0.1	7.6	2	0.8	7	254	0.03	10.9	35
53232	346789	5364723	Area A	0.1	3.4	0	0.8	8	447	0.04	31.4	35
53233	343900	5363655	Area B	0	1.4	2	0.2	2	5370	0.54	25.7	65
53234	343867	5363714	Area B	0	0	0	0.4	3	1390	0.14	8.6	35
53235	343626	5364157	Area B	0	0.6	2	0	4	3270	0.33	17.2	40
53236	343531	5364203	Area B	0	0	0	0.4	3	2130	0.21	13.2	50
53237	343689	5364095	Area B	0	0.4	0	0	2	3940	0.39	14.5	25
53238	344083	5363819	Area B	0	0	4	3.2	4	11800	1.18	44.6	40
53239	344125	5363770	Area B	0	0	4	1	6	5200	0.52	28.4	55
53240	344529	5363206	Area B	0	3.6	0	0.6	3	680	0.07	7	55
53241	344744	5363185	Area B	0	3.6	2	0.6	5	24300	2.43	75.9	55
53242	344744	5363185	Area B	0	0	0	2.4	10	66500	6.65	269	60
53243	345017	5363601	Area B	0	0	0	1.2	9	22600	2.26	100	55
53244	345046	5363594	Area B	0	0	0	0.4	8	6170	0.62	100	35
53245	343445	5363211	Area B	0	1	0	0.2	2	4550	0.46	22.2	40
53246	345295	5364374	Area B	0	0	0	1	8	5810	0.58	89.6	30
53247	345235	5364402	Area B	0	1.2	0	0.4	4	197	0.02	10.1	25
53248	345184	5364445	Area B	0	1	0	0.4	7	867	0.09	14.7	40
53249	344864	5364429	Area B	0	1.8	0	1.2	4	296	0.03	11.2	35
53250	344771	5364442	Area B	0	0	0	0.4	5	2590	0.26	20.4	40
53251	344391	5364614	Area B	0	0.8	0	0.2	4	1450	0.15	12	40
53252	344268	5364593	Area B	0	0.8	0	0.4	2	683	0.07	8.65	50
53253	343433	5364773	Area B	0	0.4	8	0	5	390	0.04	11.4	40
53254	343475	5364719	Area B	0	0.6	4	1.6	17	49500	4.95	213	85
53255	343889	5365140	Area B	0	0	0	0.6	16	7110	0.71	45.1	65

53256	343870	5365161	Area B	0	0	0	0.2	14	69100	6.91	284	90
53257	343950	5364546	Area B	0	0.4	0	0.6	4	2910	0.29	360	50
53257	343950	5364546	Area B	0	0.4	0	0.6	4	2910	0.29	360	50
53258	343975	5364494	Area B	0.2	0.4	0	0	8	10700	1.07	58.3	50
53259	346370	5361130	Area C	0.1	1.8	0	0.2	8	321	0.03	6.25	80
53260	346339	5361307	Area C	0	1.8	4	3.6	5	345	0.03	8.5	40
53261	346601	5361333	Area C	0	1.6	0	0.2	5	1300	0.13	27.9	40
53262	346621	5361311	Area C	0.1	0.4	0	0.4	4	1320	0.13	13.3	35
53263	346393	5361658	Area C	0	2.2	0	0	3	126	0.01	3.55	30
53264	346531	5361709	Area C	0	0.4	0	1	6	2060	0.21	17.8	30
53265	346903	5362223	Area C	0	2	0	0.4	5	481	0.05	15.3	35
53266	346888	5362236	Area C	0	1.6	0	0.4	6	1120	0.11	36.5	75
53267	346714	5362262	Area C	0.2	2.2	0	0.6	8	2080	0.21	58.4	35
53268	346629	5361980	Area C	0.1	0	0	0	11	1630	0.16	22.3	30
53269	346456	5362050	Area C	0	0	0	0.4	14	14200	1.42	94.7	60
53270	346416	5361911	Area C	0	1.8	0	0.4	4	258	0.03	9.15	30
53271	346434	5632934	Area C	0	2.8	0	1	5	5570	0.56	128	50
53272	346470	5362853	Area C	0	1.4	0	0.8	7	1790	0.18	47.4	65
53273	346444	5362835	Area C	0	1.6	0	1.4	11	5400	0.54	109	90
53274	346290	5362854	Area C	0.1	2.4	0	0	6	878	0.09	7.2	30
53275	345962	5362662	Area C	0	1.6	0	0.4	5	1370	0.14	13.5	35
53276	345907	5362707	Area C	0	0	0	0.6	10	9640	0.96	70.5	35
53277	345976	5362903	Area C	0	1.2	0	0.6	9	3270	0.33	100	40
53278	346176	5362766	Area C	0	0.4	0	0.8	8	1210	0.12	25.5	30
53279	347105	5363055	Area C	0	2.2	0	0	5	86	0.01	3.4	35
53280	346690	5363001	Area C	0.2	0.8	0	0.6	10	1250	0.13	39.5	50
53281	346482	5363110	Area C	0.1	2	0	0.6	6	992	0.10	28.7	50
53282	343949	5362430	Area D	0.2	1.4	6	0.8	3	7830	0.783	27.6	60
53283	343999	5362410	Area D	0	1.4	6	1	2	7080	0.708	23.4	50
53284	344017	5362406	Area D	0	2	10	1	5	709	0.0709	7	110
53285	343605	5362288	Area D	0	1.2	8	1	3	764	0.0764	4.2	70
53286	343650	5362278	Area D	0	1.2	6	0.6	2	12600	1.26	41.2	45
53287	343674	5362119	Area D	0	3	0	1.2	4	294000	29.4	1010	20
53288	343995	5362047	Area D	0	0.6	6	0.6	2	737	0.0737	5.4	50
53289	344105	5362081	Area D	0.2	0	12	2.2	3	6150	0.615	29.4	55
53290	344165	5362114	Area D	0	1.2	4	1.6	2	2810	0.281	16.5	55
53291	344249	5362033	Area D	0	0.8	6	0.4	3	2100	0.21	10.4	45
53292	344325	5362105	Area D	0	1.2	6	0.6	2	759	0.0759	4.4	60
53293	344501	5362104	Area D	0	1.8	8	0.8	3	109	0.0109	5.6	50
53294	344548	5362125	Area D	0	0.4	0	0.4	3	8570	0.857	40.2	40
53295	343625	5361738	Area D	0	1.4	8	0.8	2	5630	0.563	18.7	45
53296	343648	5361716	Area D	0.3	1.4	6	0.8	2	6490	0.649	24.1	50
53297	343853	5361705	Area D	0	1.2	8	0.8	2	1060	0.106	4.7	30
53298	344032	5361705	Area D	0	0.8	4	0.8	0	119	0.0119	1.55	40
53299	344113	5361662	Area D	0	0.6	8	1.2	0	556	0.0556	3.55	20

53300	344465	5361730	Area D	0.7	0.4	4	0.6	4	1420	0.142	13.2	40
53301	344181	5361273	Area D	0	1.2	10	1	3	4360	0.436	18.5	55
53302	344268	5361240	Area D	0.3	0.4	0	0	3	10800	1.08	114	40
53303	344502	5361277	Area D	0.2	1.4	8	0.6	2	384	0.0384	5.15	40
53304	344571	5361294	Area D	0.2	1.4	8	0.8	3	1030	0.103	13.3	55
53305	344660	5361338	Area D	0	1	4	0.4	0	1340	0.134	6.3	40
53306	344837	5361402	Area D	0	0.6	8	0.4	2	4580	0.458	18.1	55
53307	345408	5363323	Area B	0.2	2.6	12	1	6	589	0.0589	13.7	60
53308	345397	5363333	Area B	0	3	6	1.2	6	852	0.0852	29.6	65
53309	345255	5363222	Area B	0	2.6	10	1.8	7	21300	2.13	95.7	75
53310	345101	5363184	Area B	0.7	0	4	1.6	3	4180	0.418	19.7	45
53311	344965	5363099	Area B	0	1	0	1	2	6870	0.687	29.7	50
53312	344207	5363125	Area B	0.4	1.6	10	1.2	3	1900	0.19	8.95	60
53313	344032	5363073	Area B	0	1.2	4	0.8	2	1720	0.172	8.25	55
53314	343822	5363116	Area B	0	0.4	6	0.6	2	38600	3.86	165	20
53315	343667	5363129	Area B	0.2	1.2	6	0.6	0	15100	1.51	57.4	45
53316	343431	5363729	Area B	0	0.8	4	2.8	0	2000	0.2	12.5	60
53317	343478	5363866	Area B	0	1.8	0	1.8	6	16800	1.68	98.5	20
53318	343118	5364165	Area B	0	0	0	1.2	0	194	0.0194	3.45	40
53319	343070	5364210	Area B	0	0	0	0.6	0	154000	15.4	394	40
53320	343201	5364811	Area B	0	0.4	0	2	7	370000	37	1010	40
53321	343033	5364830	Area B	0	0	0	0	2	14400	1.44	51.8	10
53322	343008	5365160	Area B	0	0.8	4	0.8	5	4720	0.472	21.6	50
53323	342903	5365338	Area B	0	0	0	1.2	3	582	0.0582	6.65	30
53324	342890	5365407	Area B	0	1.4	6	0.4	3	10800	1.08	21.1	45
53325	343682	5362130	Area D	0.1	2.2	2	1	5	325000	32.50	887	25
53326	345017	5363537	Area B	0	1.4	0	0.4	2	4130	0.41	15.7	50
53327	344984	5363722	Area B	0	1	0	7.2	4	1700	0.17	20.4	60
53328	344956	5363726	Area B	0	0.4	0	1.6	3	4960	0.50	34.6	70
53329	343843	5365316	Area B	0.1	0.6	0	0.8	5	1090	0.11	12.4	55
53330	343839	5365326	Area B	0	0.6	0	0.4	3	3600	0.36	16	70
53331	343628	5365371	Area B	0	1.2	0	3.8	3	17500	1.75	58.8	90

Table 7 (above): Assay results for 129 panned concentrate stream sediment samples collected in 2012-2017

This report comprises the Final Report on exploration completed at the Heemskirk Project (EL18/2011) during the period 3rd April 2012 to 2nd April 2019. The full report comprises one text document (PDF); eight geochemistry files (CSV format), with the rock sample, stream sediment sample, soil sample and stream sediment concentrate sample assay results; and three surface maps showing the stream sediment concentrate sample sites, soil sample sites and rock sample sites, along with drainage and topography, as follows. All co-ordinates are in GDA94 format.

EL182011_201904_F_01_AnnualReport.pdf
EL182011_201904_F_02_GeochemA.csv
EL182011_201904_F_03_GeochemB.csv
EL182011_201904_F_04_GeochemC.csv
EL182011_201904_F_05_GeochemD.csv
EL182011_201904_F_06_GeochemE.csv
EL182011_201904_F_07_GeochemF.csv
EL182011_201904_F_08_GeochemG.csv
EL182011_201904_F_09_GeochemH.csv
EL182011_201904_F_10_StreamMap.pdf
EL182011_201904_F_11_SoilMap.pdf
EL182011_201904_F_12_RockMap.pdf

4. Discussion of Results

Initially, in 2012, Minrex commissioned a re-processing and analysis of the government geochemistry data from old exploration programs and airborne geophysical data (magnetic and radiometric) over the Heemskirk area. However, this data and its imagery was too broad scale and based on too wide-spaced flight lines that gave no clear leads or exploration targets for new exploration work.

During the exploration of exploration licence EL18/2011, from 2012-2019, Minrex collected a total of 306 samples. The initial 10 stream sediment samples and 13 rock samples were analysed by aqua regia for gold, XRF for sulphur and various metals by ICP with a mixed acid digest. Later work demonstrated that the acid digest was not effective for digesting cassiterite and hence the tin and tungsten analyses were under-estimated, by up to ten fold. All subsequent samples were analysed by laser ablation, while the original samples were also re-analysed using the laser ablation method.

Therefore all 306 samples collected by Minrex, from 2012-2017, from the E18/2011 licence, have been assayed by laser ablation analyses. Of the 306 analyses received, 129 are stream sediment concentrate samples, 10 are stream sediment samples, 78 are soil samples and 99 are rock samples, generally collected from the vicinity of the old workings. The stream sediment concentrate samples have been hand-panned, on site, to concentrate the heavier minerals in the samples and this has resulted in elevated values for precious metals, base metals, and metal oxide, where these were present in the in-situ stream sediments.

Exploration work on the licence has taken as its basis the following tenets:-

1. Tin is abundant in the region
2. Tin occurs within the exploration licence
3. Tin has been shed from the Heemskirk Granite during erosion
4. Alluvial/colluvial accumulations of tin have been mined in the past
5. Hard-rock tin occurrences have been mined in the area in the past
6. The area has a thin cover of soil and vegetation which obscures the bedrock
7. Past erosion, glaciation and marine incursions have moved clastic material
8. The Peripatetic and other mines were found by previous explorers
9. There remains some potential for new discoveries of tin mineralisation.

However, the results have been disappointing.

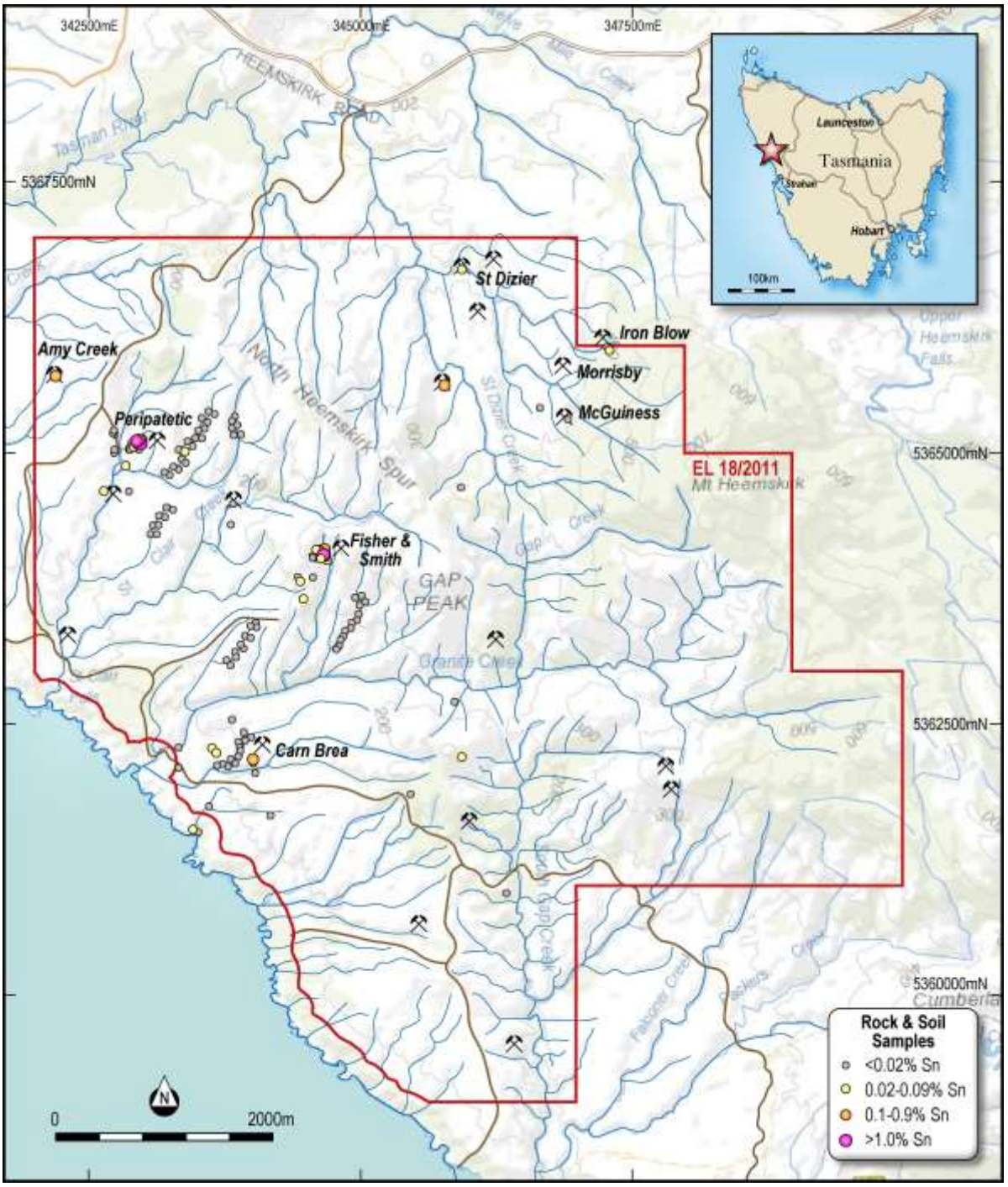

Figure 11: E18/2011 Results showing soil samples taken along drainages (grey dots)

The stream sediment concentrate sampling was completed throughout most of the lease area and this returned tin analysis of up to 37% Sn. It was considered that the best stream sediment concentrate sample results would indicate the best areas for closer examination and with this in mind the November 2017, soil sampling program was conducted within the valley sides of the six most anomalous stream areas. However, this soil sampling failed to return any highly anomalous tin results – the best result being only 167ppm Sn (Figure 11).

Examination of the assays returned from the 129 stream sediment concentrate samples indicates the following conclusions.

Gold and sulphur were only completed on the first stream 79 stream concentrate samples, when the first acid digest analytical method was utilised. Gold averaged just 0.5ppb, with a maximum of 5.4ppb, and sulphur averaged just 0.005%, with a maximum of 0.06%, in these samples. These samples cover most of the licence area and demonstrate that neither gold nor sulphide minerals are present or concentrated in the drainage systems.

Similarly, the values for arsenic, silver, base and other metals are all low in all 129 stream concentrate samples analysed. Silver averages just 0.05ppm (maximum 0.7ppm), arsenic averages just 1.4ppm (maximum 7.6ppm), copper averages 2.5ppm (maximum 12ppm), lead averages 5.4ppm (maximum 26ppm), zinc averages 44ppm (maximum 110ppm) and molybdenum averages 0.8ppm (maximum 3.6ppm). As these metals tend to occur as sulphide minerals, and most have been observed in the basement prospects in the area, there is a strong suggestion that the acidic stream and boggy soil environment within the Heemskirk project area has broken down sulphide minerals, as they are eroded from the basement, and the sulphur and metals in the sulphides have then been taken into solution within these waters.

The above conclusion that metallic sulphide minerals could be being dissolved in the Heemskirk elluvial/alluvial environment suggests that previous stream sediment exploration programs seeking base metals (e.g. Geophoto Resources, 1968, Goldfields, 1984, etc.) may have been ineffective or defective.

Tin is the only metallic element present in the stream sediment concentrate samples at elevated to highly concentrated levels. The average tin assay for all 129 panned concentrate samples is 1.4% tin (14,288ppm) with a highest value of 37% tin. The samples are panned concentrate samples and are therefore higher grade than the in-situ stream sediments; nonetheless, it is clear that tin is relatively abundant in the area and is being concentrated in the drainage systems. Tin levels in the pan concentrate samples averages about 14 times the level in the rock samples from the area.

In 2016, the 43 stream sediment concentrate samples collected were also analysed for uranium, with this element also being at low levels, with an average of 14ppm and a maximum value of 59ppm. Many uraniferous minerals are also relatively soluble in acidic waters and this may explain the low values.

By contrast, examination of the 99 rock and 78 soil samples collected indicates the following conclusions.

Gold and sulphur were only completed on the first 23 rock and soil samples (gold by aqua regia/ICP and sulphur by XRF). Gold values are very low and similar to the stream sediment concentrate samples, averaging just 0.2ppb, with a maximum of 3ppb, suggesting that gold is not present at significant levels in any of the areas tested. On the other hand, sulphur is very much higher in the rock samples (although it is strongly influenced by a single high value), sulphur averages 0.1%, with a maximum of 1.1%. These samples are from just a few of the old workings and demonstrate that sulphide minerals are present in fresh rock (in places), but are probably broken down once released into the drainage systems.

The values for most metals are significantly higher in rock and soil samples than they are in the

stream sediment concentrate samples, demonstrating that most metals are probably being taken into solution by the acidic ground and surface water at Heemskirk. This is especially true for arsenic and silver, which returned values 480 times and 14 times higher, respectively, in rock samples compared to stream sediment concentrates. Silver averaged 1ppm (maximum 21ppm) and arsenic averaged 645ppm (maximum 3%) in the rock and soil samples. The results are skewed by the presence of a single sample containing arsenopyrite (3% As and 1.1%S) but several other rock samples also show the presence of sulphur, arsenic, copper, lead and zinc, suggesting the presence of sulphides in the rock and soil samples, while only very low values are present in the stream sediment concentrate samples.

In the rock and soil samples analysed, copper averages 9ppm (maximum 82ppm), lead averages 47ppm (maximum 1,210ppm), zinc averages 61ppm (maximum 370ppm) and molybdenum averages 5ppm (maximum 192ppm). Compared to the stream sediment concentrate samples the rock samples contain about four times the copper, ten times the lead, and six times the molybdenum, while zinc is only slightly higher and tungsten is the same in both. Again, as most of these metals tend to occur as sulphide minerals, and have been observed in the basement prospects in the area, there is a strong suggestion that the acidic stream environment at Heemskirk is breaking down sulphide minerals and taking sulphur and metals into solution.

Tin values are highly variable in the rock and soil samples, reflecting the fact that the tin occurs in lode and greisen zones within otherwise barren granite country rock. Hence values are highly variable up to a maximum of 2.5% tin in one sample from the old Fisher and Smith workings, although several rock samples contain over 0.1% tin. The main anomalous zone in the stream sediment concentrate sampling is clearly in the west of the licence (in Areas B & D) in the general area of the Peripatetic, Carn Brea and Fisher & Smith workings. A total of 23 of the 129 assay results, from stream sediment concentrate samples, are over 1.0% Sn and another 17 are between 0.5% and 1.0% Sn. A plan showing the 40 assays over 0.5% tin has been prepared and is included below as Figure 10.

A major conclusion is that sulphide minerals and chalcophile elements, while known from basement outcrops and workings, are rare in the stream sediments in the area. Any sulphides generated in the granitic host rocks by greisenization, alteration and veining do not appear to have survived erosion and transport. This suggests that previous exploration programs aiming to test for base metal prospectivity using stream sediment sampling may have been ineffective.

On the other hand, tin is clearly present in the area and has been concentrated in the drainage systems. The main areas of high tin values appear to coincide with the main known workings in EL18/2011 (Peripatetic, Carn Brea and Fisher & Smith workings). However, the degree to which tin has accumulated by erosion of former deposits which may have overlain the current surface, or the amount of lateral dispersal which may have occurred, when the area was a flat coastal plain, prior to the incision by the current young drainage system, remains unclear. There also remains an untested area in the north of the licence which is known to contain significant alluvial deposits at the St Dizier and Amy Creek alluvial deposits.

The full tables of 2012-2017 assay results (by laser ablation), for all 99 rock samples, 78 soil samples, 10 stream sediment samples and 129 panned stream sediment samples are included above as Tables 1-9.

Exploration in the Heemskirk project area was primarily aimed at testing drainage systems with panned concentrate sampling, augmented by selected rock sampling at the known old workings. In the later stages of the exploration, systematic soil sampling was completed around the valleys of the drainage systems with the highest stream sediment concentrate values. In all 68 soil samples were collected in February 2017, with the assay results generally being disappointing, the results have now been further re-assessed resulting in the decision to discontinue further soil or any other sampling programs within the licence area.

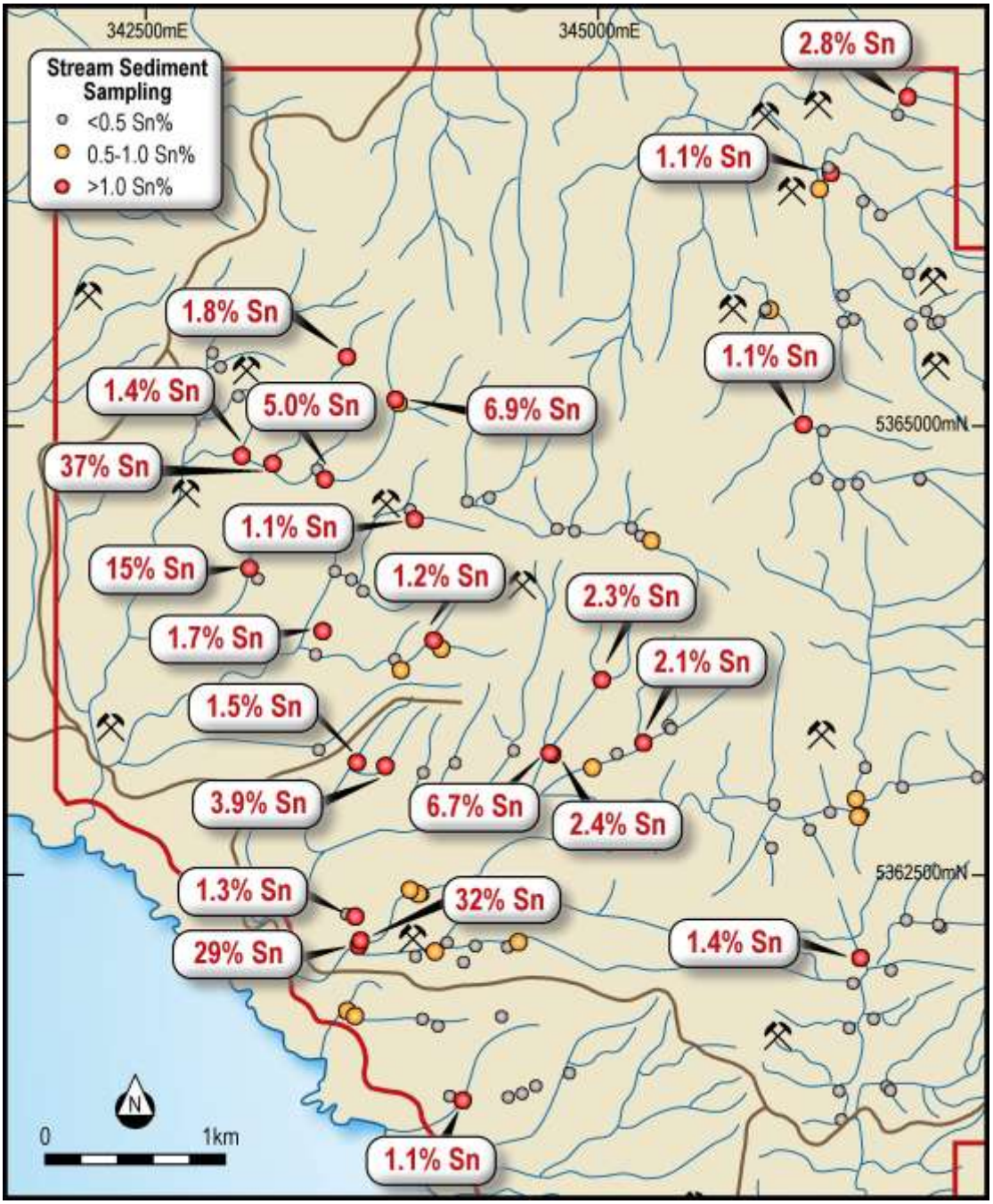

Figure 12: Plan showing Main Anomalous Panned Stream Sediment Sample Areas

5. Conclusions

The exploration activities completed at the Heemskirk project (EL18/2011) tenement by Minrex have included a literature review, assessment of previous exploration results, re-processing and analysis of the government airborne magnetic and radiometric geophysical data, geochemical mapping, surface reconnaissance, mapping and evaluation of old workings. A total of five surface sampling field programs were completed with the collection of 306 samples which have been analysed for multiple metallic elements. A total of 129 hand-panned stream concentrate samples, 99 rock samples, 10 stream sediment samples and 78 soil samples were collected.

Exploration in the Heemskirk project area was primarily aimed at testing drainage systems with panned concentrate sampling, augmented by selected rock sampling at the known old workings. Stream sediment concentrate sampling was completed throughout most of the lease area and this returned tin analysis of up to 37% Sn.

It was considered that the highest stream sediment concentrate sample results would indicate the best areas for closer examination and with this in mind the later soil sampling program was conducted within the valley sides of the six most anomalous stream areas. However, this soil sampling failed to return any highly anomalous tin results – the best result being only 167ppm Sn. In all 68 soil samples were collected in February 2017, with the assay results generally being disappointing, the results have now been further re-assessed resulting in the decision to discontinue further soil or any other sampling programs within the licence area.

A major conclusion of the work completed is that sulphide minerals and chalcophile elements, while known from basement outcrops and workings, are rare in the stream sediments in the area. Any sulphides generated in the granitic host rocks by greisenization, alteration and veining do not appear to survive erosion and transport. This suggests that previous exploration programs aiming to test for base metal prospectivity using stream sediment sampling may have been ineffective.

A total of $25,916 has been expended on the project in the seventh (final) year, versus the commitment made of $57,200. A grand total of $296,419 has now been expended on the Heemskirk project, versus the commitment of $250,600 which was the minimum Mines Department expenditure required for the seven year period.

Minrex has now allowed the Heemskirk Project (EL18/2011) licence to lapse and will not seek a renewal.

6. Environment

Work completed during the past seven years was conducted utilising quad bikes which were driven cautiously on the existing tracks within the tenement area (Figure 5). Access to the stream sediment sample sites, soil sample sites, old workings and general geology was by quad bike and on foot. A total of 306 samples were collected over the seven years of exploration programs, utilising these methods, comprising 129 hand-panned stream concentrate samples (Figure 10), 99 rock samples from old workings (Figure 9), 10 stream sediment samples and 78 soil samples. Any disturbance to stream beds, banks, valley flanks or access points by this hand-held sampling work was restored as soon as the sampling at each individual site was completed.

Every effort has been made to keep vehicle tyres, boots and sampling equipment free of weed seeds and possible plant and animal diseases.

None of these activities are thought to have caused any significant environmental damage or impact. Every care was taken not to damage plants, animals or the landscape and there was no spillage of fuels, rubbish or other chemicals. All equipment, foodstuffs, rubbish and other items have been removed from the licence area at the completion of each program.

Accommodation was at Granville Harbour during the programs, with daily access by quad bike. During the programs there was no camping or residing within the tenement area.

7. Expenditure

In its application for EL18/2011, Minrex Resources Limited undertook to complete a review and interpretation of previous exploration and geophysical data, logging of historic drill core, MMI and rock chip geochemical survey and detailed geological mapping of selected targets; in the first two years of the licence. A minimum expenditure of $26,000 was also set for the first two years and a total of $67,907 was actually expended in the first two years.

In the third year a total of $19,976 was expended on review of the previous work, drafting, reporting, planning and co-ordination for the subsequent exploration program; versus a planned expenditure of $22,000.

In the fourth year a total of $63,607 was expended on review of the previous work, drafting, reporting, planning and conducting an extensive field program of panned concentrate stream sediment sampling; versus a planned expenditure of $31,000.

In the fifth year a total of $56,825 was expended on reviewing the previous work, reporting, planning and conducting two extensive field programs of panned concentrate stream sediment sampling, rock sampling and soil sampling; versus a planned expenditure of $44,000.

In this sixth year a total of $62,188 was expended on reviewing the previous work, reporting, planning and analysing the results of the previous extensive field programs of panned concentrate stream sediment sampling, rock sampling and soil sampling; versus a planned expenditure of $57,200.

In the seventh year only review work and the completion of an independent consultants review were undertaken; with the expenditure of some $25,916, versus a commitment of $70,400.

A total of $296,419 has therefore been expended by Minrex on EL18/2011 in the seven year period, versus an expenditure commitment of $250,600.

Minrex has now allowed the Heemskirk Project (EL18/2011) licence to lapse, on the 3rd April 2019, and has not sought a renewal.

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Keywords

Location:	Heemskirk, Granville Harbour, Granite Creek
Mineralisation type:	Skarn, veins, greisen, sulphides, cassiterite, granite, granite-hosted
Metals:	Tin, tungsten, base metals, copper, molybdenum, silver, arsenic, gold
Exploration methods:	Literature research, aeromagnetic, radiometric, geochemistry, geophysics, geological mapping, rock chip samples, stream sediment samples, panned stream sediment concentrate samples, soil samples, assaying, analyses
Mine/prospect name:	Peripatetic Mine, McGuiness, Iron Blow, Fisher & Smith, Carn Brea, St Dizier Creek, Amy Creek
Stratigraphic Name:	Heemskirk Granite
Lithologic name:	Granite, skarn, vein, greisen
Datum:	GDA94