



STELLAR RESOURCES LIMITED
Rubicon Min Tech Ventures Pty Ltd

EL 46/2003 HEEMSKIRK
ANNUAL REPORT FOR THE PERIOD
10 JANUARY 2015 – 9 JANUARY 2016

Compiled by/Author: R.K. Hazeldene

DATE: January 2016

DISTRIBUTION:
Mineral Resources Tasmania, a Division of the
Department of Infrastructure, Energy and Resources - Hobart
Stellar Resources Ltd - Melbourne

Stellar Resources Limited
(ACN 108 758 961)
Level 17, 530 Collins Street,
Melbourne,
Victoria, 3000.

ABSTRACT

This Annual Report for EL 46/2003, Heemskirk, covers the period from 10 January 2015 to 9 January 2016.

The Heemskirk licence area contains historical occurrences of copper, tin and gold. Previous exploration in the area includes extensive stream sediment sampling, especially in the central and southern areas, geological mapping and a range of geophysical surveys, which have revealed numerous anomalies. Some of these anomalies have been drill tested and some remain untested or inadequately drilled, the licence area is prospective for the discovery of base metal mineralisation.

With Stellar Resources' focus on the Heemskirk Tin Project at Zeehan the tin prospects on EL 46/2003 have assumed more significance. In particular the St Dizier Prospect has become a priority target due to its potential as an alternative source of tin ore for a Zeehan tin processing plant.

During 2015 a number of exploration targets were reviewed and prioritized. The St Dizier metallurgical test work was completed which allowed finalisation of the St Dizier mine scoping study.

A surface water flow monitoring station was established on St Dizier Creek in May 2015 and weekly flow monitoring has continued throughout the year since.

Total expenditure on EL46/2003 during 2015 totalled **\$161,133**

TABLE OF CONTENTS

ABSTRACT	2
1. INTRODUCTION.....	5
1.1. EXPLORATION RATIONALE & GEOLOGICAL SETTING.....	5
1.1.1. Geological Setting	5
1.2. LICENCE.....	6
1.3. LOCATION OF LICENCE	7
1.4. LAND TENURE	8
2. REVIEW OF PREVIOUS WORK	11
3. ACTIVITIES COMPLETED DURING THE REPORTING PERIOD	12
3.1. EXPLORATION ACTIVITIES	12
3.1.1. Review of Exploration Targets	12
3.2. MINING STUDIES.....	13
3.2.1. Metallurgical Testwork	13
3.2.2. Mine Scoping Study.....	14
3.3. ENVIRONMENTAL STUDIES.....	15
3.3.1. Surface Water Flow Monitoring	15
4. DISCUSSION OF RESULTS	17
4.1. EXPLORATION ACTIVITIES	17
4.1.1. Review of Exploration Targets	17
4.2. MINING STUDIES.....	18
4.2.1. Metallurgical Testwork	18
4.2.2. Mine Scoping Study.....	19
4.3. ENVIRONMENTAL STUDIES.....	20
4.3.1. Surface Water Flows.....	20
4.4. FUTURE WORK.....	21
5. ENVIRONMENT	23
6. EXPENDITURE.....	24
7. REFERENCES.....	25
<i>Keywords.....</i>	26

List of Tables

Table 1. St Dizier: Summary of Tin Balance (based on outcomes for Composite 2+3).....	18
Table 2. EL46/2003, 2015 Expenditure Breakdown.....	24

List of Figures

Figure 1. EL46/2003, Location Map with Main Prospects	7
Figure 2. EL46/2003, Public Land Classification.....	9
Figure 3. EL46/2003, Regional Geology (MRT).....	10
Figure 4. EL46/2003, Exploration Target Location Map.....	16
Figure 5. EL46/2003, St Dizier Deposit, Scoping Study Project Layout Plan	22

APPENDICES

1. St. Dizier Metallurgical Testwork, 2015 Final Report – Worley Parsons (Digital)
2. St Dizier - Tin Deposit Open Cut Mining - Scoping Study - Polberro Consulting (Digital)
3. Gauge Board Setup Details, St Dizier Creek & Webber Creek – Aquatic Science
4. Surface Water Creek Flows

1. INTRODUCTION

1.1. EXPLORATION RATIONALE & GEOLOGICAL SETTING

The licence covers the southern end of the Arthur Lineament and the northern and eastern contacts and aureole of the Heemskirk Granite. The northern granite aureole hosts the St Dizier magnetite-tin Skarn Deposit and several other small skarns and is considered prospective for other similar deposits. In the southeast the aureole also hosts the Avebury Nickel Deposit. The Heemskirk Granite itself also hosts several small greisen deposits, some of which are in the EL.

In the north the EL covers the southern end of the Arthur lineament, including the Bowry Formation. The Bowry Formation hosts scattered stratiform magnetite-pyrite-chalcopyrite-gold mineralisation. At Alpine significant copper mineralisation has been delineated. A VTEM survey has identified other targets, which warrant follow up exploration.

The licence is considered highly prospective for magnetite-pyrite-chalcopyrite-gold mineralisation in the north, for magnetite-tin skarn deposits in the aureole of the Heemskirk Granite and for tin greisen deposits in the granite in the southwest.

With Stellar's focus on the Heemskirk Tin Project at Zeehan the tin prospects in EL 46/2006 have assumed more importance as a potential source of mill feed for the proposed tin treatment plant at Zeehan. Activities during 2015 focused on the St Dizier Deposit with completion of the metallurgical testwork and finalisation of the mine scoping study.

1.1.1. Geological Setting

EL46/2003 covers part of the Meso-proterozoic rocks of the Zeehan-Waratah belt (mainly Oonah and Crimson Creek Formations) including the southern end of the Arthur Lineament Metamorphic Complex and the Dundas Trough. The Devonian Heemskirk Granite, a fractionated biotite granite - muscovite granite, intrudes these rocks. The interaction of this granite with reactive host rocks is the source of skarns and is thought to be the source of most of the base metal mineralisation in the Zeehan area.

The Proterozoic Oonah Formation rocks are mainly quartzite and shale but there are also some carbonate rich beds. All of these rocks have been regionally metamorphosed with some adjacent to the granite being affected by contact metamorphism. There are some Cambrian sedimentary and ultramafic rocks southeast of the licence, which have also been affected by the granite. These host the Avebury Nickel Deposit.

North of the Heemskirk Granite the Proterozoic rocks have a northwest trend, paralleling the Heemskirk Anticlinorium. To the west, where visible, a sequence of Palaeozoic rocks form the north trending Duck Creek-Healy Creek Synclinal Zone but most of this portion of the tenement is obscured by Tertiary basalts and alluvial deposits. Jurassic dolerites of the Eureka Cone Sheet also cover a portion of the Proterozoic rocks along the northeast edge of the tenement.

The St Dizier Deposit is located at the western end of a 3km long skarn that parallels the east – west trending granite contact. To the east along the skarn are the Central and Big H prospects. The St Dizier Deposit is a carbonate metasomatic skarn hosted in hornfelsed Precambrian sedimentary rocks on the northern edge of the Devonian Heemskirk Granite. The deposit forms a roof pendant located in a tight synformal trough on the surface of the granite. Hornfelsed quartzite forms the hangingwall to the skarn and hornfelsed slates the footwall. The skarn is a vertically dipping, east-west striking stratabound body extending to a depth in excess of 200m from surface. Mineralisation extends over a 400 metre strike length and varies between 3 and 40 metres in thickness. The skarn consists of magnetite-serpentinite-diopside and actinolite with minor pyrrhotite-pyrite-arsenopyrite-cassiterite-schoenfliesite-sheelite-bismuthinite. Tin mineralisation is zoned with dominantly cassiterite in the west and increasing amounts of schoenfliesite and other exotic tin species to the east.

1.2. LICENCE

Tenement number: 46/2003

Tenement name: Heemskirk

Tenement location: The licence consists of two blocks, following the 2008 relinquishment of the central part of the licence (Figure 1). The northern block (129.5km²) is centred 24 km northwest of Zeehan with main road access from the Heemskirk Road, which passes centrally through the block. The southern block (12.5km²) is centred 7km west of Zeehan with access from the Trial Harbour Rd in the south of the block. Most of the EL area is Crown Land with approx. 5% being private agricultural land.

The crown land is covered by areas of nothofagus and eucalyptus rainforest, dry eucalyptus forest, scrub, heathland and button grass plain. Access is provided by the Heemskirk Road from Zeehan, the Trial Harbour Road, the Granville Harbour Road, the Corinna Road to Waratah in the north, and old bush tracks. Some areas of the licence are only accessible by foot.

Reporting period: 10 January 2015 to 9 January 2016.

Licence date: 10 February 2015 to 9 February 2016.

Tenement holder: Rubicon Min Tech Ventures Pty Ltd., a wholly owned subsidiary of Stellar Resources Ltd.

1.3. LOCATION OF LICENCE



Figure 1. EL46/203, Location Map with Main Prospects

1.4. LAND TENURE

SCHEDULE

LAND DISTRICT: MONTAGU
VICINITY: HEEMSKIRK RIVER (centred 24km NW, and 7km W of ZEEHAN)
MUNICIPALITY: WEST COAST
TENEMENT: EXPLORATION LICENCE 46/2003 142km²
HOLDER: RUBICON MIN TECH VENTURES PTY. LTD.

Northern block:

Commencing at a northwest corner at grid coordinates 335 000 metres E 5 380 000 metres N, thence grid east to 344 000 metres E, grid south to 5 375 000 metres N, again grid east to 345 000 metres E, again grid south to 5 373 000 metres N, again grid east to 347 000 metres E, again grid south to 5 371 000 metres N, again grid east to 349 000 metres E, again grid south to 5 369 000 metres N, again grid east to 349 000 metres E, again grid south to 5 366 000 metres N, again grid west to 347 000 metres E, again grid north to 5 367 000 metres N, again grid west to 339 000 metres E, to a point 200 metres inland from the high water mark on the West Coast of Tasmania, thence in a general north-westerly direction 200 metres inland from, and parallel to, that high water mark to 334 000 metres E, again grid north to 5 378 000 metres N, again grid east to 335 000 metres E aforesaid, thence again grid north to the point of commencement.

Southern block:

Commencing at a northwest corner at grid coordinates 352 000 metres E 5 363 000 metres N, thence grid east to 357 000 metres E, grid south to 5 362 000 metres N, again grid west to 354 000 metres E, again grid south to 5 358 000 metres N, again grid west to 352 000 metres E, thence again grid north to the point of commencement.

Coordinate datum - AGD66, AMG Zone 55.

EXCLUSIONS

- (a) Any land owned or leased by the Commonwealth of Australia.
- (b) Mining Leases amounting to 79ha (more or less) which were applied for or in force prior to the date of application for this licence.
- (c) Areas of private land which either have been, or are in the process of being, purchased by the Crown under the Regional Forest Agreement - Private Forests Reserves Program and / or private land over which the landowners have agreed, or are in the process of agreeing, to place a covenant or management agreement for conservation purposes under the Regional Forest Agreement - Private Forests Reserves Program.

LAND TENURE

The area comprises:

- Private Property
- Crown land
- Multiple Use State Forest
- Mount Heemskirk Regional Reserve
- Four Mile Beach Regional Reserve
- MDC Informal Reserves
- HEC Land

The licence area contains areas, which are listed (including listed on an interim basis) on the Register of the National Estate kept under the *Australian Heritage Commission Act 1975*.

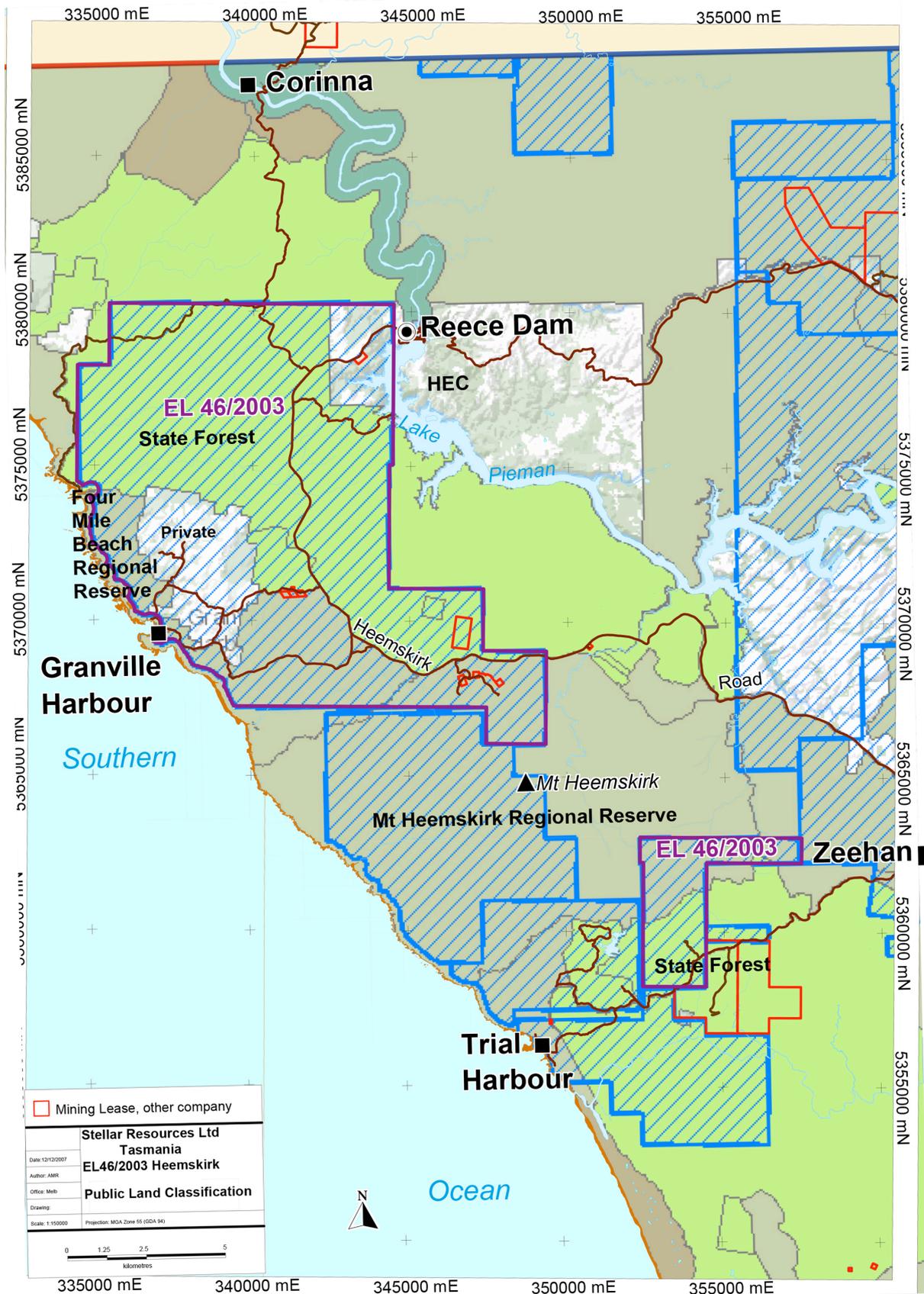


Figure 2. EL46/2003, Public Land Classification

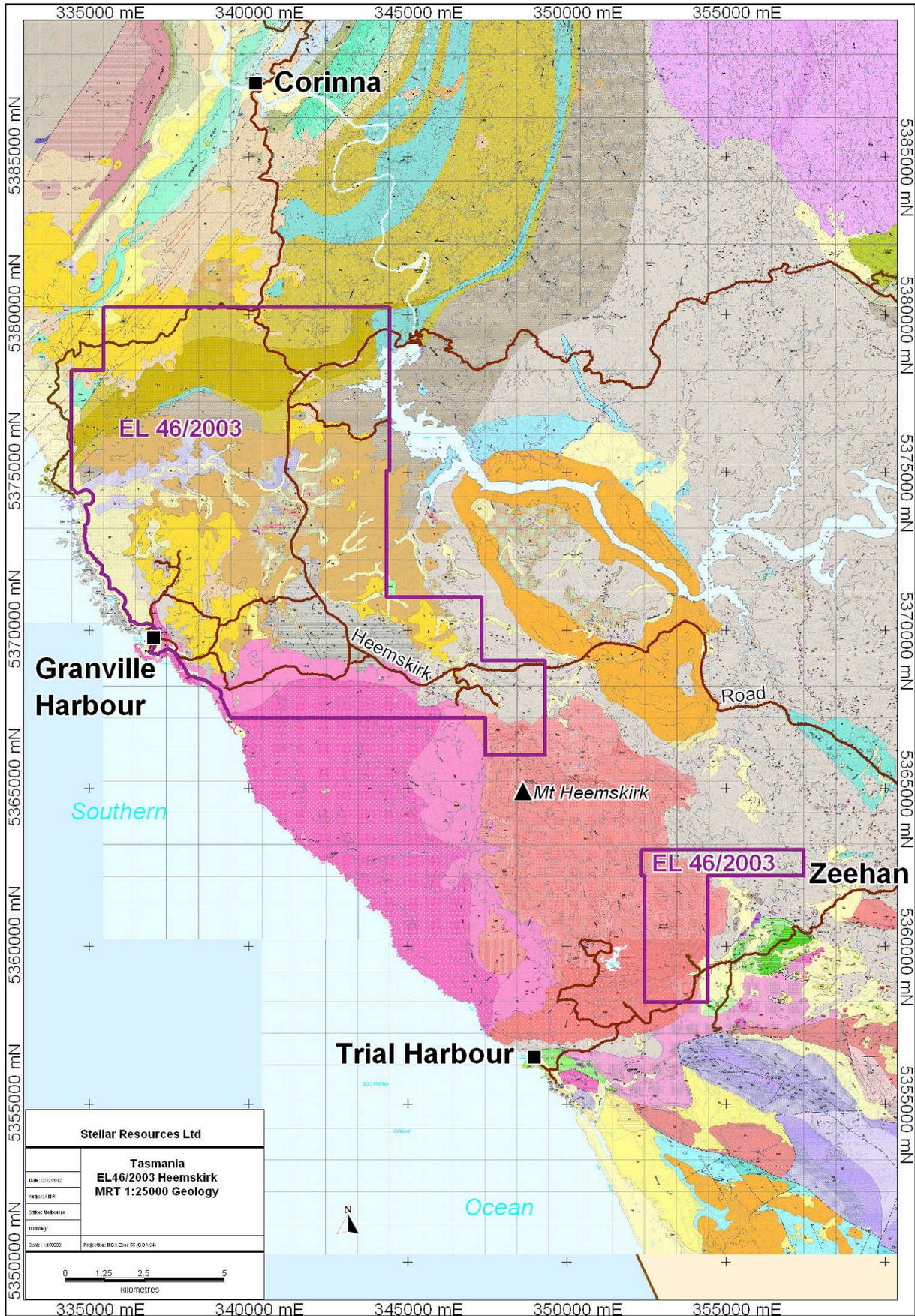


Figure 3. EL46/2003, Regional Geology (MRT)

2. REVIEW OF PREVIOUS WORK

Stellar Resources Exploration Work:

2005 - 2010: MRT digital geology and geophysics datasets, DPIWE topographic data as well as data captured from open-file company reports were reviewed. The capture of information from previous tenement holders (CRAE, Aberfoyle, Cominco, Placer, Minops, Pickands Mather, ACI, "Consolidated Syndicate", ANZECO, Geophoto Resources, Goldfields/RGC, Geopeko, New Holland Mining, Outokumpu, Goldstream Mining and Titan Resources) from MRT open-file reports has been completed.

2006: Drilling: 1 DD hole at East Granville
16 DD holes at the Alpine Prospect

2007: Drilling: 3 DD holes at Alpine Prospect
7 RC holes at North Gourlay's Ck. Prospect
3 DD holes at St. Dizier Deposit
1 DD hole at Devises Prospect

Geophysics: Aeromagnetics survey over area north of 5399800mN, in northern part of EL.

2008: Geophysics: VTEM Survey over Bowry Formation/Gourlay's Ck area in northwest of EL.

2009: Partial relinquishment of portion of Licence deemed unprospective.

2010: Geophysics: Re-interpretation of Geophysical data
Ground magnetic survey of Gourlay's Ck south targets.

2011: Drilling: 2 DD holes at Gourlay's Ck south targets.

2012: Capture of remaining MRT open-file data.

2013: Database development and resource modelling of St Dizier Deposit.

2014: Resource Estimate Release, St Dizier Deposit
Geochemical Surveys, St Dizier Deposit
Environmental Studies, St Dizier Deposit
Archaeology Survey, St Dizier Deposit
Costeaming & Bulk Sampling, St Dizier Deposit
Drilling: 6 DD holes, One (BH01) at Big H Prospect and five (ST04 – ST08) at St Dizier
Metallurgical Testwork, St Dizier Deposit
Mine Planning & Project Scoping Study, St Dizier Deposit

2015: Completion of Metallurgical Testwork, St Dizier Deposit
Completion of Mine Planning & Project Scoping Study, St Dizier Deposit
Surface water flow monitoring
Review of exploration targets

3. ACTIVITIES COMPLETED DURING THE REPORTING PERIOD

3.1. EXPLORATION ACTIVITIES

3.1.1. Review of Exploration Targets

Consultant geologist Ken Morrison was commissioned to review greenfield exploration targets on EL 46/2003. In order to justify expenditure the targets will have the potential to contribute tin ore to the current Heemskirk Project mining plan by adding either significant tonnes of equivalent ore or by producing a higher-grade cassiterite product for blending.

The review focused on three targets (refer to Figure 4 for locations):

- the 11,000 magnetic anomaly,
- remnant St Dizier-Tasman alluvials in the northern EL block, and
- the South Heemskirk greisen prospects in the southern block.

Numerous other prospects and exploration anomalies exist within the EL but they have all been downrated due to either previous Stellar exploration results, lack of convincing tin geology or severe logistical and environmental obstacles to cost effective greenfields exploration.

3.2. MINING STUDIES

3.2.1. Metallurgical Testwork

The full Metallurgical Report is appended in digital form as Appendix 1. Procedures are summarised below.

The metallurgical testwork program was undertaken on samples collected from St Dizier for the purposes of preliminary scoping/concept level flowsheet development, and preliminary assessment of potentially achievable metallurgical performance. This metallurgical testwork program represents the first program completed in recent times (only limited testwork has been completed on the St Dizier deposit since the 1960's).

Key aims of the program were to:

- Understand likely achievable overall grade/recovery response and treatment issues
- Develop an appropriate flowsheet
- Understand how this project potentially fits with the Heemskirk Tin project currently being developed by Stellar Resources.

The testwork program was largely carried out by ALS Metallurgy Burnie laboratory with metallurgical supervision, assistance and input to Stellar Resources provided by Worley Parsons.

The testwork program was carried out on a series of 4 composite samples generated from samples collected from the St Dizier site.

These samples were:

- Saint Dizier Bulk Composite (Composite 1)
This was produced from several tonnes of material excavated from the western costean.
- Composite 2
This was produced from drillcore from interval 20.3 – 50.0m in metallurgical drill hole ST06 (sample numbers 290657 – 290685).
- Composite 3
This was produced from drillcore from interval 57.0 – 88.0m in metallurgical drill hole ST06 (sample numbers 290693 – 290721).
- Composite 4
This was produced from drillcore from interval 106.0 – 114.0m in metallurgical drill hole ST06 (sample numbers 290737 – 290744)
- Composite 2+3
This sample was produced by combining composites 2 and 3 in equal weights.

Mineralogy and characterization testwork were carried out on the Bulk Composite and Composites 2, 3 and 4.

The testwork program consisted of:

- Sample characterization (bulk sample and drill hole composites)
- Comminution testing (bulk sample only)
- Magnetic Separation bulk sample and drill hole composites)
- Gravity Separation (bulk sample and drill hole composites)
- Gravity concentrate dressing including Sulphide flotation, magnetic separation and concentrate leaching (drill hole composites only)
- De-slime (drill hole composites only)
- Tin flotation (drill hole composites only)

The conceptual block flowsheet consisted of primary grinding to a relatively coarse grind size (P80~250 to 350 µm) followed by wet magnetic separation to remove magnetite ahead of gravity separation.

Magnetic separation consisted of roughing followed by regrind and cleaning of the magnetic product. This was largely focused on minimising tin losses to the magnetite concentrate, while reducing the quantity of magnetite in the feed to the gravity circuit to more manageable levels. The combined rougher and cleaner non-mags products from the magnetic separation testwork formed the feed to the gravity separation testwork.

The gravity circuit considered, consisted of classification of the circuit feed into coarse and fine fractions to allow separation concentration of these, to produce a crude concentrate suitable for upgrade via the dressing circuits. In addition to cassiterite, other high SG minerals present (pyrite, magnetite and siderite) were also strongly concentrated in the gravity circuit, and were expected to be the major diluents present in the crude concentrate produced. As such the dressing circuit was aimed at upgrading the concentrate to saleable Sn grades by removing these via sulphide flotation, magnetic separation and acid leaching.

Fine material exiting the gravity circuit was deslimed, prior to sulphide scavenger flotation and tin flotation.

3.2.2. Mine Scoping Study

The full Scoping Study Report carried out by Alan Fudge of Polberro Consulting is appended in digital form as Appendix 2. The study procedures and scope are summarised below.

The work completed by Polberro is a scoping level study into the viability of an open cut operation recovering tin from the St Dizier tin/magnetite skarn mineralisation east of Granville Harbour in Western Tasmania.

The scope of the study was to determine the scale and viability of a potential open cut recovering a tin product at St Dizier to add value to the Heemskirk Tin Project. It was assumed that the St Dizier operation would form a component of the Heemskirk Tin Project and that all material recovered from the St Dizier operation would be processed at the Heemskirk processing facility as defined in the Heemskirk Tin Pre-Feasibility Study.

The scoping study reports with respect to mineral resources, geotechnical conditions, operating cost parameters and pit optimisation and design.

A geotechnical review to permit pit geometry assessment was conducted on the data available and subsequently optimal pit shells were generated with Threedify Flow Pit pit optimisation software. Sensitivity analysis was conducted and an optimal pit shell derived for a process recovery level of 50%. This pit shell was subsequently used to design an actual pit, with benches, berms and a 15m wide haul road. Pit depth at St Dizier is restricted to between 50m and 70m depth by the practical limitation of providing a haul road for a relatively small steeply dipping deposit.

3.3. ENVIRONMENTAL STUDIES

3.3.1. Surface Water Flow Monitoring

Water consultants, Aquatic Science, set up a gauge board water flow monitoring station on Dt. Dizier Creek, immediately upstream of the tunnel to the Tasman River on 19/5/15. A detailed description of the site is appended as Appendix 3.

The purpose of the station being to monitor water flows in St Dizier Creek prior to potential mining in the catchment. The data generated is significant as there will be creek diversion requirements associated with any future mine development. The flow data generated will be used to verify catchment yield and rates of change in river flow. The flow data will also provide more accurate mass load calculation for water auditing within the catchment.

Flow levels have been monitored and recorded on a weekly basis, along with monitoring stations for the Heemskirk Project, since installation.



Figure 4. EL46/2003, Exploration Target Location Map

4. DISCUSSION OF RESULTS

4.1. EXPLORATION ACTIVITIES

4.1.1. Review of Exploration Targets

11,000 Prospect

This prospect is a small discrete magnetic high at the northern end of Donnelly's magnetite skarn, on the eastern contact of the Heemskirk Granite. The geological setting and magnetic response of the area is similar to that of the St Dizier – Big H trend. Magnetite skarn hosted high sulphide tin mineralisation is exposed at Donnelly's in old workings held under mining lease by McDermott's.

The 11,000 Prospect has no workings or exploration drilling but is well covered by historic soil and stream sediment geochemistry, which generated weak and limited extent anomalism. A recent field check confirmed that the site is heavily overgrown with regrowth scrub, with no outcrop but a scattering of float fragments. The rocks are heavily oxidized limonitic magnetite skarn and testing with a Niton XRF gave several weak tin hits up to 500 ppm, sufficient to account for the locally elevated soil and stream sediment values.

There is no evidence that 11,000 or any other part of the Donnelly's skarn trend could add anything useful to the St Dizier resource. The 11,000 Prospect is small, weakly tin mineralised, hosted in a magnetite skarn and would require a road through a belt of rainforest, or helicopter support and a new walking track, to enable drilling. Existing geochemistry does not warrant drilling.

St Dizier-Tasman Lead Alluvials

Remnants of the early alluvial tin mining in and adjoining St Dizier Creek and the Tasman River remain. They are contained within Tertiary sediments. Although these deposits are small and fragmented they would be easy to explore and evaluate with an excavator and either a portable jig plant or a pan concentrate sampling program.

The main attraction of the alluvial target is the potential to recover a relatively clean, low sulphide, high grade cassiterite concentrate suitable for blending with St Dizier ore. Pan concentrates with a high proportion of visible cassiterite sand can still be recovered from the abandoned workings in the Tasman River alluvial mine and the prospective ground is within 1.5 km of the St Dizier resource

Southern Block

A 13 km² portion of EL 46/2003 is centred on the summit of Mt Agnew and covers the eastern contact of the Heemskirk Granite forming Mt Agnew. All known mineralisation is contained within the southern 4 km² of the block, where a NE-SW trending prospective corridor runs parallel to a contact between a pink fine porphyritic biotite granite and a pink coarse equigranular biotite granite. The prospective corridor contains a series of old tin and base metal/silver workings and some soil and IP anomalies defined by modern era exploration.

A significant, and apparently untested, tin in soil anomaly exists approximately 250 metres SW of the old Globe Adit, which was driven on a vein of galena, chalcopyrite and tetrahedrite mineralisation. The tin in soil anomaly consists of a zone of >500ppm Sn samples on a SE trending ridge and it appears to be closed on all sides by low grade values. The location is not down slope of any known workings and is above any possible contamination from drainage. A field check of the site confirmed that there is no evidence of mullock or tracks where ore spillage could be a contaminant.

The area is heavily overgrown with regrowth scrub and no decent outcrop or float was seen in the prospective area. The access track to the Globe workings is cut into granite outcrop and exposes abundant alteration in the form of an open network of veins and a range of veins and patches of tourmaline, quartz, greisen, aplite and quartz porphyry. This geology supports the notion of a prospective corridor of fractionated facies close to the boundary between two suites of granitic intrusions. The separation of the tin in soil anomaly from the silver-lead workings can be interpreted as a metal zonation effect.

The anomaly should be tested by soil and stream sediment sampling. It will require some track cutting due to the heavy scrub.

4.2. MINING STUDIES

4.2.1. Metallurgical Testwork

The full Metallurgical Report is appended in digital form as Appendix 1. Results are summarised below.

Considerable variability in the properties of the various samples used in this program was observed. Given this it is recommended to assess the variability across the St Dizier deposit, to allow the results from the current program to be put into perspective in terms of the likely treatment response of the overall deposit.

Overall tin deportment based on the outcomes of the testwork program is summarised in Table 1 below.

Table 1. St Dizier: Summary of Tin Balance (based on outcomes for Composite 2+3)

Stream	Sn Distribution
ROM	100%
Magnetic con	18%
Gravity tail	5%
Slime tails	16%
Sulphide scavenger con	5%
Tin float tails	13%
Gravity con	29%
Tin flotation con	15%
Total final concentrate	43%

Losses to the magnetic concentrate are inherently high due to the very fine association of cassiterite with magnetite.

Losses to slimes are also expected to be inherently high due to both the fine grain size of cassiterite and the very high hardness of the ore.

A final gravity concentrate grade (post dressing and leaching) of 49.7% Sn was demonstrated on Composite 2+3. With further optimisation of sulphur rejection in the sulphide dressing circuit, final gravity concentrate grades of approximately 55% are expected to be readily achievable.

Tin flotation concentrate grades produced were modest. However, with further optimisation, particularly around sulphur, talc and slimes rejection, it is expected that improved grade/recovery response will be achievable in tin flotation. Since siderite is the major diluent present in the tin flotation concentrate, this is expected to upgrade significantly across concentrate leaching.

With further optimisation, approximately 45% to something <50% Sn recovery may be achievable.

4.2.2. Mine Scoping Study

The full Scoping Study Report is appended in digital form as Appendix 2. Results are summarised below.

At the projected process recovery of 50% the pit optimisation study indicates that there is potential for a pit at St Dizier to add value to the Heemskirk Tin Project but not to be viable as a stand-alone project excepting that toll milling has not been investigated in this study.

At projected process recovery levels of greater than 50% the optimization process indicates that there is potential for a St Dizier project to add to overall project value including pro-rata repayment of Heemskirk Tin Project processing plant capital attributable to St Dizier ore.

The project is highly sensitive to process recovery in terms of profitability, mined tonnage and pit dimensions - final process recovery should be determined prior to proceeding to a full feasibility study for St Dizier.

Maximum pit depth is constrained by ore body size and geometry which limits the provision of haulage access beyond 1110/1120m RL for the PR 50% base case.

At a process recovery of 50% a Mining Inventory of 424,000 tonnes at 0.86% Sn can be recovered from the open cut. In order to recover this inventory 1.75 million tonnes of waste must be mined and stockpiled.

A St Dizier open cut utilising a process recovery of 50% has the potential to generate a project NPV of \$10.34m.

A starter pit – within the final pit limits of any pit design should be utilized to obtain geotechnical data to confirm pit geometry parameters and to obtain a smoothed ore/waste ratio production schedule for the project life.

The St Dizier project represents a small scale project that has the potential to add value to the Heemskirk Tin project and may be reviewed in that light when metallurgical recovery rates are better known – it does not represent a viable stand alone project at the base case process recovery of 50%.

4.3. ENVIRONMENTAL STUDIES

4.3.1. Surface Water Flows

Results of weekly surface water flow monitoring are appended as Appendix 4.

4.4. FUTURE WORK

Activities on EL46/2003 will continue to focus on the St Dizier Deposit during 2016 but some work will be carried out on other prospects.

Likely work will include:

- Further metallurgy test work.
- Ongoing environmental studies including:
 - a detailed topographic survey of the project area,
 - surface & subsurface hydrology studies (including piezometer installation),
 - surface & subsurface water chemistry studies,
 - geotechnical studies (including geotechnical drilling),
 - extended archaeological survey and
 - extended rock geochemistry testing
- Possibly drill testing of other proximal targets along the St Dizier Skarn.

5. ENVIRONMENT

The ST07 sump has been filled in. The access track requires drainage and scarification.

The ST08 site and track requires backfilling and recontouring. This will be carried out during the first quarter of 2016, weather permitting.

6. EXPENDITURE

2015 expenditure on EL46/2003 totals **\$161,133**. See expenditure break down below in Table 2.

Table 2. EL46/2003, 2015 Expenditure Breakdown

Transaction Report Rubicon Limited			
Printed At: 14/12/2015 10:34:13 AM			
Job No	Job Details	Department	
Tran. Date		Doc Ref - Description	Amount
Job Code: 6501	EL 46/2003 Heemskirk	D1	
	1053	Technical	\$27,059.17
	1054	Labour	\$5,426.22
Phase Total	105	STAFF COSTS	\$32,485.39
	1061	Professional Technical	\$6,243.75
Phase Total	106	CONTRACT PERSONNEL	\$6,243.75
	1072	Geoscientist	\$7,773.94
	1074	Other	\$4,548.00
	1075	Environmental	\$3,599.82
Phase Total	107	CONSULTANT PERSONNEL	\$15,921.76
	1161	Analytical/Sample analysis	\$45,490.00
Phase Total	116	ASSAYS	\$45,490.00
	1251	Vehicle Costs All	\$2,814.03
	1252	Office Costs	\$47.73
	1253	Field Operations Consumables	\$113.23
	1255	Equipment Hire	\$500.00
Phase Total	125	SUPPORT COSTS	\$3,474.99
	1503	Pegging Application Forms	\$843.60
	1505	Rents/ Other Utilities	\$7,628.24
Phase Total	150	TENEMENT COSTS	\$8,471.84
	1551	Meals and Accomodation	\$385.41
Phase Total	155	TRAVEL	\$385.41
	1651	Administration	\$48,660.00
Phase Total	165	OVERHEADS	\$48,660.00
Report Total:			\$161,133.14

7. REFERENCES

- Effler, M. 1982. Explanatory Report of the Geological Map of the Northern Mt Heemskirk Granite/Granville Harbour. CRA Exploration Proprietary Limited, Geopeko Limited. MRT Open File Report.
- Hazeldene, R.K. 2008 EL 46/2003, Heemskirk, Annual Report for the Period 10 January 2007 – 9 January 2008.
- Hazeldene, R.K. 2009 EL 46/2003, Heemskirk, Annual Report for the Period 10 January 2008 – 9 January 2009.
- Hazeldene, R.K. 2015 EL 46/2003, Heemskirk, Annual Report for the Period 10 January 2014 – 9 January 2015.
- Hazeldene, R.K. 2010 & Rigg, A.R. EL 46/2003, Heemskirk, Annual Report for the Period 10 January 2009 – 9 January 2010.
- Hazeldene, R.K. 2011 & Rigg, A.R. EL 46/2003, Heemskirk, Annual Report for the Period 10 January 2010 – 9 January 2011.
- Hazeldene, R.K. 2012 & Rigg, A.R. EL 46/2003, Heemskirk, Annual Report for the Period 10 January 2011 – 9 January 2012.
- Hazeldene, R.K. 2013 & Rigg, A.R. EL 46/2003, Heemskirk, Annual Report for the Period 10 January 2012 – 9 January 2013.
- Hazeldene, R.K. 2014 & Rigg, A.R. EL 46/2003, Heemskirk, Annual Report for the Period 10 January 2013 – 9 January 2014.
- Hazeldene, R.K. 2015 EL 46/2003, Heemskirk, Annual Report for the Period 10 January 2014 – 9 January 2015.
- Heithersay, P.S. 1983. Progress Report EL 1/77, Tasmania. Granville East Prospect, “11000” Prospect, Big Rocky Creek Prospect. Geopeko Limited, a division of Peko-Wallsend Operations Limited, CRA Exploration Proprietary Limited. MRT Open File Report.
- Heithersay, P.S., 1982. Sumpston, J.D.H. Progress Report EL 1/77, Granville East Prospect, Gourlay’s Creek Prospect. Geopeko Limited, a division of Peko-Wallsend Operations Limited, CRA Exploration Proprietary Limited. MRT Open File Report.
- Leaman, D. E. 1988. EL 28/87 Granville Harbour - Regional Geophysical Review for New Holland Mining NL. MRT Open File Report.
- Leaman, D. E., 2003. Richardson, R.G. A Geophysical Model of the Major Tasmanian Granitoids. MRT, Tasmanian Geological Survey Record 2003/11.
- Mineral Resources Tasmania. 2003. Mineral exploration opportunities in Tasmania. A summary of opportunities for mineral exploration and mineral resource development in Tasmania. February 2003.
- Parkinson, R. G. 1993. Zeehan No.2. EL 34/88. Report on Exploration in Relinquished Areas for the Period 9/12/88 to 9/11 93. CRA Exploration Pty Limited. November 1993. MRT Open File Report.
- Rombouts, M.J. 1983. Annual Report Exploration Licence 47/71, Queen Hill, Tasmania for 12 Months to December 21, 1983. Aberfoyle Exploration Proprietary Limited, Gippsland Oil and Minerals NL. MRT Open File Report.

Keywords

Location: Heemskirk
Mineralisation environment: Skarns, Greisens
Minerals: Chalcopyrite, Gold, Cassiterite, Arsenopyrite, Magnetite
Exploration methods: Geochemistry, Costeaning, Bulk sampling, Drilling
Mine/prospect name: St Dizier & Big H
Stratigraphic name: Oonah Formation, Arthur Metamorphic Complex, Bowry Formation, Heemskirk Granite
Lithologic name: sandstone, quartzite, phyllite, schist, granite, magnetite-serpentinite-diopside skarn, quartz
Geological Province: Dundas Trough, Arthur Lineament
Geological age: Lower Neoproterozoic, Palaeozoic

STELLAR RESOURCES LTD

January 2015

RL 5/1997 Zeehan – Report on 2015 program

APPENDICES

STELLAR RESOURCES LTD

January 2016

EL 46/2003, St Dizier – Report on 2015 program

Appendix 3: Gauge Board Setup Details, St Dizier Creek & Webber Creek



R.Eriksen and D.Ray
 122Karratha Drive
 Sandford
 Tasmania 7020
 Ph: (03) 62 44 5000
 Mob: 0429 488 404
 Email:
dray@aquaticscience.com.au
reriksen@aquaticscience.com.au

ABN 12 367 035 320

May 27th, 2015

Memo – Gauge board setup details, St Dizier Creek above Tunnel and Webber Creek 100 Upstream of Old Rail Line.

St Dizier Creek above Tunnel

The purpose of this site is to monitor the flow in St Dizier Creek prior to potential mining in the catchment. The data generated will be important as there maybe river diversion requirements associated with future mine planning options. The flow data generated can be used to verify catchment yield and rates of change in river flow. The flow data will also provide more accurate mass load calculation for water auditing within the catchment.

The site selection for the gauge was made by Entura and further detail is provided in the report, ‘St Dizier Creek flow estimate report, September 2014’.

Item Description	Value
Date of Measurements	19-May-2015
Gauge board ‘0’ point below benchmark (m)	0.921
Cease to flow level measured (Gauge Board height m)	+0.017

Source: Measurements taken with Laser level

Installation Notes

Item	Rating	Rational
Flow Control	Fair	Flow is restrained by competent rock outcrop in pool where gauge board is placed. There is some loose rock on the base of the control point that may alter the level flow relationship with time. Also makes the measurement of the cease to flow level imprecise. Bend in river after control, not ideal.
Gauge Board Stability	Fair	The gauge board is secured to weathered granite with similar consistency to clay. Due to moss the material does appear to be competent rock. There is potential for movement and the height of the gauge board relative to the

benchmark should be checked periodically. There is a possibility gauge board will be removed in flood, but is protected by embankment. 5 anchor points have been used to overcome the above issues.

Benchmark Excellent

The benchmark is installed in solid rock (bottom right of Figure with blue oval around approximate location).

Safety Reasonable

Due to the presence of the tunnel downstream s gauging during higher flows via wading could be hazardous. Assessment will have to be made prior to each gauging. Entura may need to be contracted for higher flow rating curve development if required.



Figure 1 – St Dizier gauge board with benchmark bottom right on rock outcrop.

Webber Creek 100 m upstream of old railway track

The Webber Creek is located in a valley that is well suited to a tailings dam, given current knowledge. The site is not ideal as the creek runs through a wooded flood plain with very few rock outcrops. The Creek is named after John's golden retriever (thought this is important to save future historian a lot of trouble).

Item Description	Value
Date of Measurements	20-May-2015
Gauge board '0' point below benchmark (m)	1.085
Cease to flow level measured (Gauge Board height m)	+0.051

Source: Measurements taken with Laser level

Installation Notes

Item	Rating	Rational
Flow Control	Poor	Flow is restrained earthen control and is likely to move with time. Gaugings are recommended while this flow station is used.
Gauge Board Stability	Fair	The gauge board is driven into rocky ground with pole driver. The pole may move if hit by log during flood. The gauge board has a slight lean, but this is not likely to lead to substantive error in measurement.
Benchmark	Poor	The benchmark is installed in earth as no suitable Rock could be found. The benchmark is a long bolt hammered into the ground in an endeavor to provide stability.
Safety	Requires attention	The nearby rotten tree needs to be cleared to ensure that they do not fall on samplers. Once this work is carried out the site will be relatively safe with normal precautions associated with remote sites.



Figure 2 – Webber Creek gauge board with benchmark top middle on earthen mound.

STELLAR RESOURCES LTD

January 2016

EL 46/2003, St Dizier – Report on 2015 program

Appendix 4: Surface Water Creek Flows

Site >>>	St Dizier Ck. Gauge Depth (m)	Pea Soup Ck. Gauge Depth (m)	Webber Ck. Gauge Depth (m)
Date & Time			
27/5/15			
11.32	0.248		
12.05		0.167	
12.25			0.057
2/6/15			
10.42	0.409		
11.15		0.243	
11.35			0.152
9/6/15			
10.00	0.650		
10.30		0.360	
10.55			0.228
16/6/15			
10.10	0.322		
10.35		0.200	
11.00			0.123
24/6/15			
11.15	0.315		
11.40		0.203	
12.07			0.127
30/6/15			
9.55	0.470		
10.20		0.205	
10.35			0.135
7/7/15			
10.10	0.365		
10.35		0.208	
11.35			0.145
14/7/15			
9.45	0.500		
10.10		0.243	
10.30			0.141

Site >>>	St Dizier Ck. Gauge Depth (m)	Pea Soup Ck. Gauge Depth (m)	Webber Ck. Gauge Depth (m)
Date & Time			
21/7/15			
9.50	0.262		
10.15		0.193	
10.40			0.108
28/7/15			
9.45	0.730		
10.11		0.320	
10.31			0.231
4/8/15			
10.00	0.430		
10.30		0.288	
10.50			0.127
11/8/15			
10.00	>1.00		
10.25		0.480	
10.45			0.305
18/8/15			
10.05	0.470		
10.30		0.280	
10.45			0.178
25/8/15			
10.05	0.318		
10.30		0.214	
10.45			0.131
1/9/15			
9.50	0.242		
10.20		0.213	
11.15			0.113
8/9/15			
10.05	0.409		
10.25		0.265	
11.10			0.171

Site >>>	St Dizier Ck. Gauge Depth (m)	Pea Soup Ck. Gauge Depth (m)	Webber Ck. Gauge Depth (m)
Date & Time			
15/9/15			
9.55	0.238		
14.51		0.210	
15.11			0.121
22/9/15			
9.30	0.885		
10.00		0.211	
10.15			0.168
29/9/15			
9.51	0.249		
10.11		0.182	
10.31			0.112
6/10/15			
10.10	0.198		
10.30		0.181	
10.50			0.102
13/10/15			
10.10	0.189		
10.35		0.177	
11.25			0.101
20/10/15			
9.55	0.188		
10.20		0.180	
10.35			0.101
27/10/15			
10.00	0.162		
10.30		0.187	
11.10			0.101
3/11/15			
10.02	0.109		
9.30		0.197	
11.34			0.098

Site >>>	St Dizier Ck. Gauge Depth (m)	Pea Soup Ck. Gauge Depth (m)	Webber Ck. Gauge Depth (m)
Date & Time			
10/11/15			
9.30	0.179		
9.55		0.180	
10.15			0.098
16/11/15			
9.50	0.163		
10.20		0.171	
10.36			0.098
25/11/15			
9.30	0.442		
9.50		0.198	
10.10			0.159
1/12/15			
10.00	0.453		
10.20		0.173	
10.40			0.118
8/12/15			
8.30	0.201		
9.00		0.151	
9.30			0.098
15/12/15			
9.20	0.201		
9.45		0.100	
10.05			0.098