

September 2020 Quarterly Activities Report

Maiden drilling at Yalgoo Gold Project delivers exceptional initial results as Firefly consolidates its regional position and strengthens prospective Paterson copper project

YALGOO GOLD PROJECT, WA

- Maiden drilling program commenced at the newly-acquired Yalgoo Gold Project, comprising up to 10,000m of drilling to validate and expand existing Resources and test multiple exploration targets.
- Outstanding results from first phase of Reverse Circulation (RC) drilling program, with assays including:
 - 6m at 244.9g/t from 50m, incl. 1m at 1,439.55g/t from 51m and 1m at 16.95g/t from 55m (FMRC0008)
 - 13m at 3.65g/t from 113m, incl. 4m at 9.19g/t from 119m (FMRC0010)
 - 9m at 1.32g/t from surface, incl. 1m at 4.76g/t from 7m, 1m at 3.49g/t from 96m, 2m at 1.87g/t from 101m and 1m at 2.66g/t from 105m (FMRC0009)
 - 4m @ 1.24g/t from 3m and 1m at 5.76g/t from 69m (FMRC0007)
 - 48m @ 1.71g/t from 33m, incl. 6m @ 5.28g/t from 35m and 9m @ 2.4g/t from 70m, 1m @ 5.72g/t from 93m and 2m @ 21.98g/t from 107m (porphyry vein) (FMRC0004)
 - 4m @ 3.63g/t from 38m, incl. 1m @ 11.3g/t from 38m, and 1m @ 1.04g/t from 47m and 1m @ 1.07g/t from 64m (FMRC0001)
- Second phase of RC program, comprising 4,000m of RC drilling to follow-up on possible extensions to the very-high grade “structural” mineralisation seen in initial drilling, already completed, with assay results expected in mid-November 2020.
- Acquisition of the strategic Holland tenement package containing additional untested historical high-grade gold mines in the Yalgoo goldfield.

PATERSON COPPER-GOLD PROJECT, WA

- Heritage Agreements successfully negotiated with both the Martu and Nyangumarta People as the Traditional Owners of the Paterson Copper-Gold Project in Western Australia, paving the way for the commencement of exploration activities.
- Sixth tenement application secured immediately north of the now granted central tenement holding, adding to Firefly’s large highly-prospective Paterson Cu-Au Project footprint.

CORPORATE

- Experienced mining executive Ashley Pattison appointed to the board as a non-executive director.
- Cash reserves as at 30 September 2020 of \$2.6 million.
- Subsequent to the end of the Quarter, the Company completed a strongly-supported \$6m capital raising to accelerate gold drilling at Yalgoo.

Firefly Managing Director, Simon Lawson, said: *"Following our transformational acquisition of the Yalgoo Gold Project last quarter, the Firefly team charged ahead with its maiden exploration program during the September quarter with the first phase delivering exceptional results, providing us with confidence that this is a richly-endowed gold field with huge potential."*

*"We were particularly pleased to have intercepted a new zone of high-grade mineralisation outside of the existing historic resource envelope at the Melville Deposit, with a spectacular intercept of **6m @ 244.91g/t** including a remarkable zone of **1m @ 1,439.55g/t** within the new mineralised position."*

"We are now awaiting assay results from our second phase of drilling, in which we are testing potential extensions to the high-grade results from the first phase, as well as validating additional sections of the existing Resource and initial testing of new targets. The results of the multi-phase drilling programs will feed into a maiden JORC 2012 Resource for the Melville deposit."

"Outside of Yalgoo, we were also very pleased during the Quarter to have reached mutual agreements with the Traditional Owners at our Paterson copper-gold project to secure access to this highly prospective project area. With these agreements now in place we will begin planning for our ground-based exploration activities in the coming months, with an initial focus on the shallow Wanderer copper-gold prospect."

YALGOO GOLD PROJECT

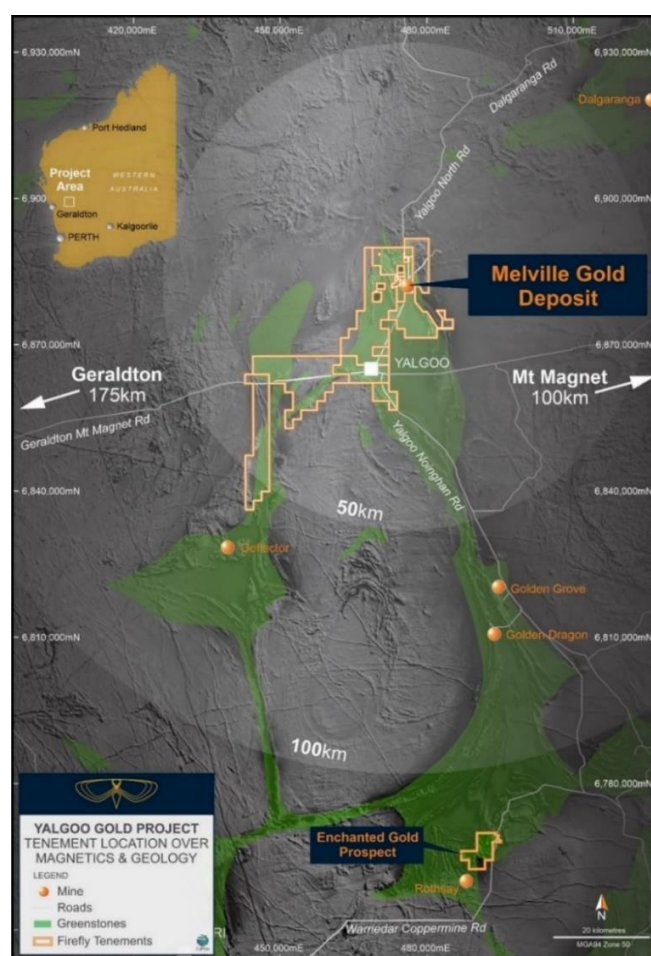


Figure 1. Firefly's Yalgoo Gold Project illustrating regional-scale tenure of the under-explored greenstone belt and proximity to multiple gold-specific and gold-capable process plants.

Following the receipt of POW approvals, Firefly commenced its maiden drilling program at the Yalgoo Gold Project in early August.

The program comprises up to 10,000m of Reverse Circulation (RC) drilling across the main Melville Gold Deposit and the Don Bradman Gold Prospect to the south of Melville.

The drilling will be conducted in “mini-campaigns” comprising several stages of 2,000m-3,000m per stage with roughly four weeks between each stage. The staged approach is designed to allow assays from each preceding stage to be returned and be fully evaluated by the Firefly geology team so that the following phase of drilling can be targeted most effectively.

The first 2,000-3,000m was also designed to validate the historical resource information and ultimately provide the confidence required to estimate and sign-off a JORC-2012 compliant Mineral Resource over the main Melville Gold Deposit. Subsequent stages will be primarily targeted at further resource definition and extension drilling at the Melville Gold Deposit and other nearby satellite targets.

Results from the first phase of drilling were announced during the Quarter (refer to ASX:FFR announcements dated 7 September 2020 and 16 September 2020 for further details), delivering spectacular high-grade intercepts with highlights including:

- **6m at 244.9g/t from 50m** including **1m at 1,439.55g/t from 51m** and 1m at 16.95g/t from 55m, 14m at 1.00g/t from 58m including 1m @ 2.61g/t and 1m @ 3.73g/t, and 2m @ 1.06g/t from 106m to the end-of-hole (in a mineralised porphyry unit) (FMRC0008)
- **13m at 3.65g/t from 113m** including **4m at 9.19g/t from 119m** (FMRC0010)
- 9m at 1.32g/t from surface including 1m at 4.76g/t from 7m, 1m at 3.49g/t from 96m, 2m at 1.87g/t from 101m and 1m at 2.66g/t from 105m (FMRC0009)
- **48m @ 1.71g/t from 33m**, including **6m @ 5.28g/t from 35m** and **9m @ 2.4g/t from 70m**, 1m @ 5.72g/t from 93m and 2m @ 21.98g/t from 107m (porphyry vein) (FMRC0004)
- **4m @ 3.63g/t from 38m**, including **1m @ 11.3g/t from 38m**, and 1m @ 1.04g/t from 47m and 1m @ 1.07g/t from 64m (FMRC0001)

Holes FMRC0007 - FMRC0010 were drilled outside the historical resource envelope at Melville, highlighting strong potential to upgrade and grow the resource base at Yalgoo.

All four of these holes intersected mineralised porphyry, high-grade gold in porphyry-associated quartz veining and/or wide intersections of mineralised porphyry-related wallrock alteration. FMRC0008 also ended in mineralised porphyry at 108m (2m @ 1.06g/t).

The first 10 Firefly drill-holes demonstrate the potential for a mixture of large-scale, high tonnage BIF and porphyry-hosted gold mineralisation, as well as high-grade quartz-hosted gold mineralisation at the Melville Gold Deposit.

The next phase of the multi-pronged 10,000m drill program, comprising ~4,000m of RC drilling initially targeting the new mineralised position identified on the eastern margin of the current historical resource, including possible strike extensions of the very high-grade intercepts seen in the first phase of drilling, took place in September.

The second phase included holes designed to further validate sections of the historical resource in preparation for a maiden resource update for the Melville Gold Deposit to JORC 2012 compliance. Importantly, exploration drilling is also planned test the "Melville Corridor" northward toward a shallow and potentially broad mineralised porphyry seen in historical RAB drilling 200m-400m north of the Melville Gold Deposit (see Figure 2). Assay results for the 33 holes completed as part of the second phase are still pending.

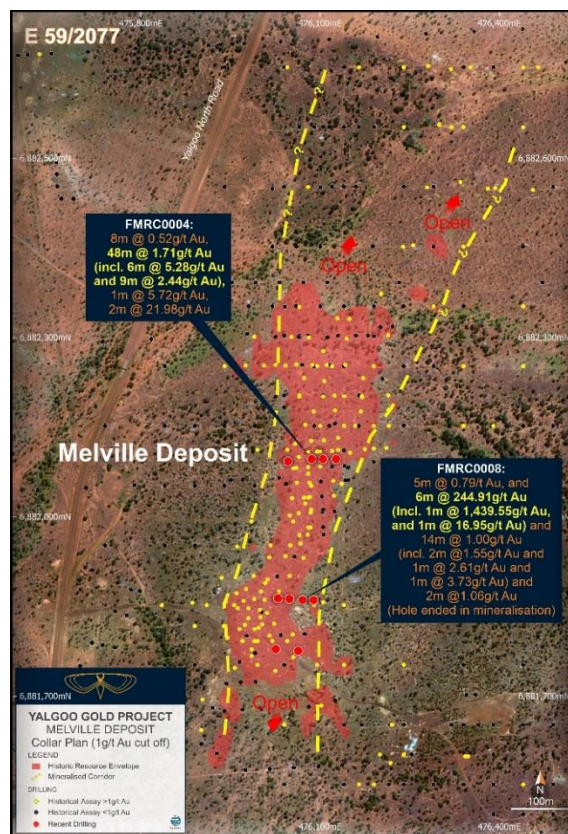


Figure 2. Plan view of the Melville Gold Deposit with historic drilling and recent Firefly RC drill-hole locations (first phase drilling shown).

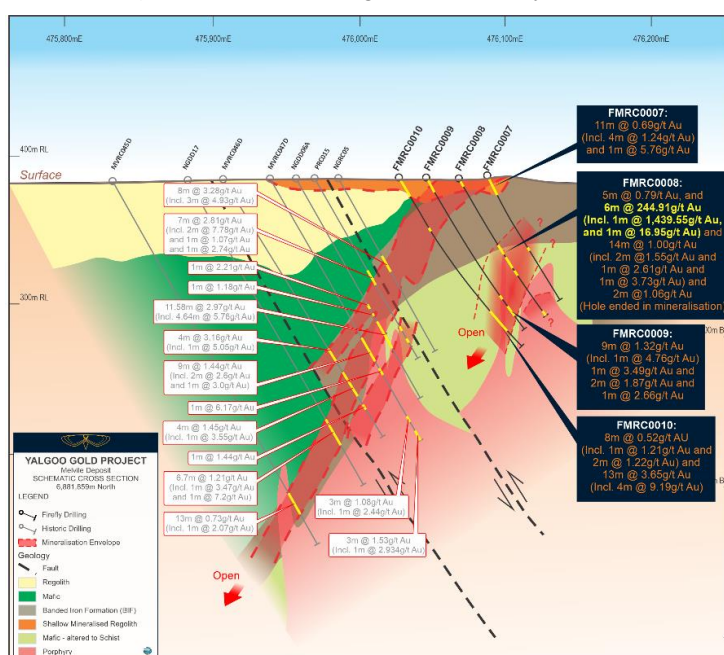


Figure 3. Geological cross-section of the Melville Gold Deposit showing recent Firefly drill-holes (6,881,859mN)

Expansion of the Yalgoo Gold Project

During the Quarter, Firefly acquired a strategic tenement package containing additional untested historical high-grade gold mines in the Yalgoo goldfield ("the Holland Acquisition").

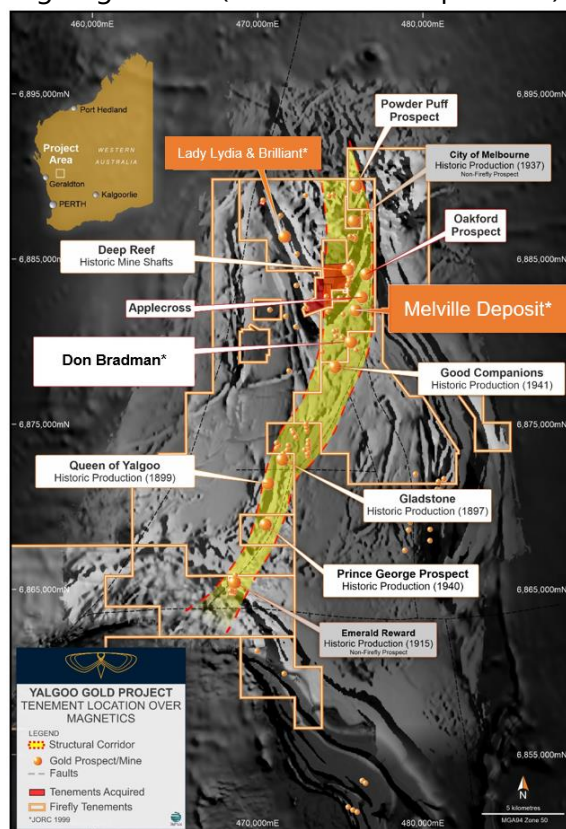


Figure 4. Yalgoo Gold Project location map showing existing Firefly YGP tenure with the new Holland Acquisition ground (shown in red).

The new acquisition covers 4.5km² of folded greenstone bedrock stratigraphy containing at least four historical high-grade gold mines (shafts) and a number of alluvial gold "patches" thought to be derived from the weathering of the related outcropping mineralised structures (Figure 4). Firefly management has validated the presence of both hard-rock and alluvial gold during due diligence conducted on the Holland Acquisition.

The acquisition includes five tenements, two Mining Leases, and three Prospecting Leases, located immediately along-strike from the two main mineralised trends at Yalgoo, namely the Brilliant or "Northwest" and the Melville or "North" trends as well, as the folded inflection point between the two trends which may represent a significant regional-scale gold target in itself.

Holland Tenements Acquisition

The total consideration for the Holland Acquisition was \$250,000 cash which has been paid in full to the vendor, a private syndicate, and Firefly Resources now holds the five tenements and has 100% ownership of all plant, equipment and infrastructure. There are no royalties payable over the five new tenements except the 2.5% levied by the State Government.

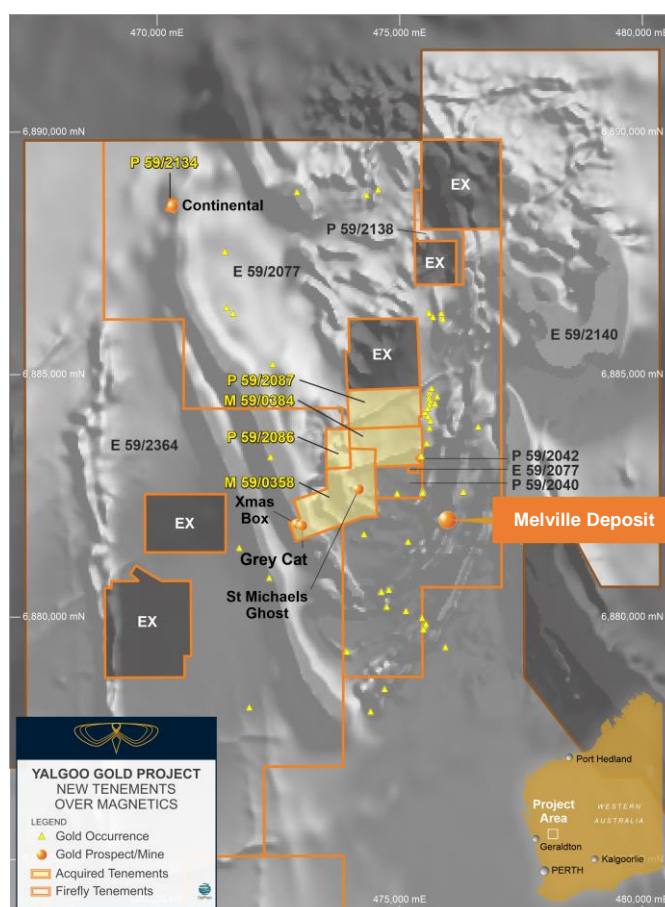


Figure 5. Holland Acquisition tenements (shown in yellow) and associated historical gold mines in the centre of the Yalgoo Gold Project.

In addition to the strategically located tenements, the Holland Acquisition includes a significant amount of mining and processing equipment and infrastructure, including a fully-operational 25-30tph gold process plant "washplant", a Caterpillar 950F front-end loader and a Mercedes Benz dump-truck, production water-bore, water storage and pumping equipment, several generators, a covered workshop and sea-containers and a full "off-grid" 3-person accommodation facility.



Figure 6. Fully operational 25-30tph "wash-plant" acquired as part of the acquisition.



Figure 7. View from feed hopper along feed conveyor to wash-plant.

Tribute Mining Agreement

Following the completion of the Yalgoo Project acquisition, Firefly also advised that it had executed a Tribute Mining Agreement with Yalgoo Lithex Pty Ltd (**Yalgoo Lithex**) over a limited area of shallow mineralisation at Melville, known as the “Melville Laterite” in accordance with the previously disclosed terms of the acquisition. Firefly will provide updates on the proposed mining activities of Yalgoo Lithex over the Melville Laterite as their work activities progress. Firefly retains a 10% profit share arrangement with Yalgoo Lithex over the defined area of shallow laterite mineralisation at Melville as part of the terms of the recent Yalgoo Gold Project transaction.

PATERSON COPPER-GOLD PROJECT, W.A. (FIREFLY 100%)

The Paterson Project is located in the world-class Paterson Province of northern Western Australia and covers approximately 600km² across three separate tenement packages – northern, central and southern. Each tenement group sits in highly prospective locations either containing, or located directly along-strike from, existing copper-gold prospects.

The Paterson Province hosts several major copper and gold operations, including the Nifty copper mine and the world-class Telfer gold mine, and has more recently seen a number of exciting new copper-gold discoveries, at Winu (Rio Tinto) and Havieron (Greatland Gold, now joint ventured with Newcrest) (see Figure 8).

During the Quarter, Firefly successfully negotiated Heritage Agreements with both the Martu and Nyangumarta People as the Traditional Owners at the Paterson Project, paving the way for the commencement of exploration activities.

Firefly commenced negotiations with the Traditional Owners in 2018. These negotiations have now been finalised and favourable heritage agreements have been signed with the Traditional Owner parties.

Following the completion of this process, the WA Department of Mines, Infrastructure, Resources and Safety (DMIRS) has granted the tenements to Firefly Resources. Firefly can now commence ground-based activities and start planning for initial drilling activities (see ASX: FFR announcement dated 12 February 2019).

Firefly has identified the Wanderer Copper-Gold Prospect – located in its Central Tenements project area, and first discovered by CRA in 1987 targeting basement-unconformity uranium deposits – as its key advanced prospect and initial “walk-up” drill target. Recent geophysical work has also highlighted the prospectivity of the Wanderer target and nearby areas and illustrated a number of coincident targets to be followed up (see Figures 9 and 10).

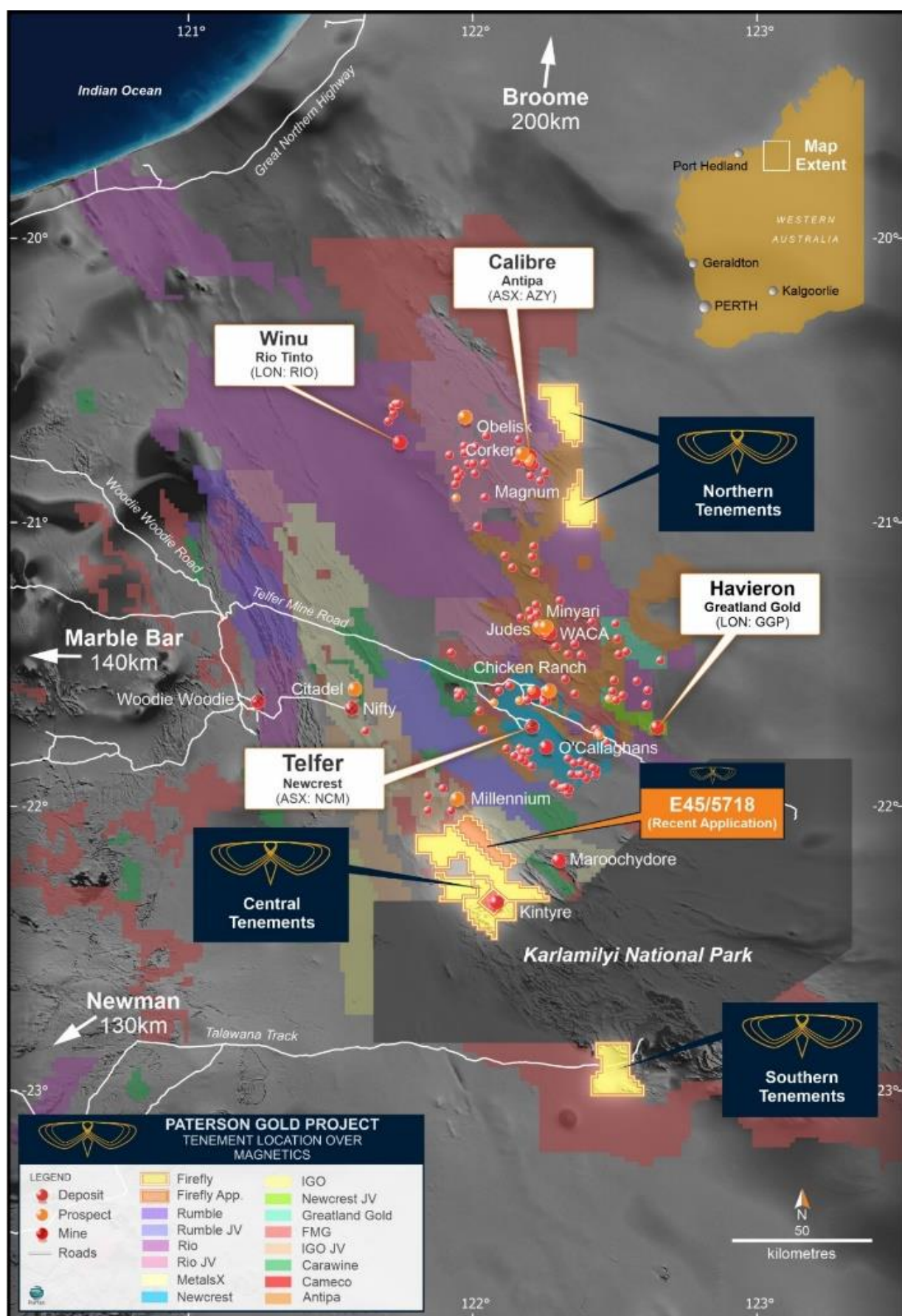


Figure 8. Firefly's Paterson Copper-Gold Project illustrating tenure across the three project areas and other regional areas of interest.

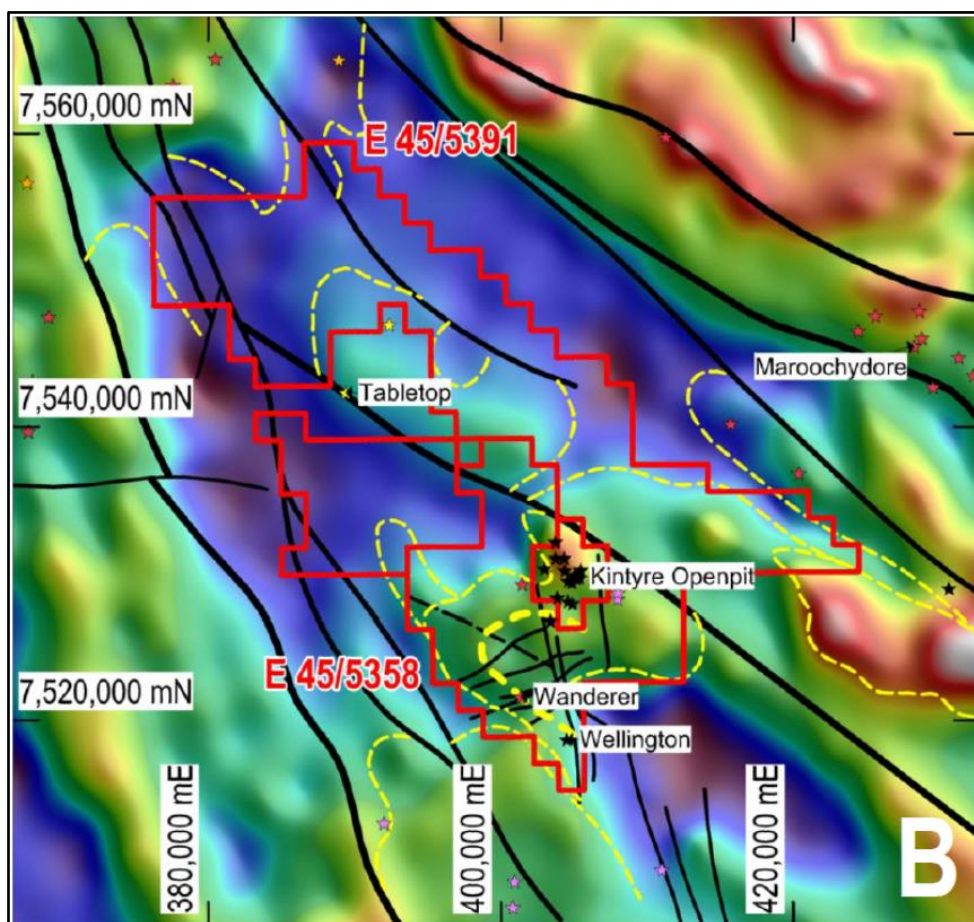


Figure 9. Regional gravity over Firefly's Central Tenements tenure illustrating large scale semi-circular folding of stratigraphy in the area (dashed yellow line).

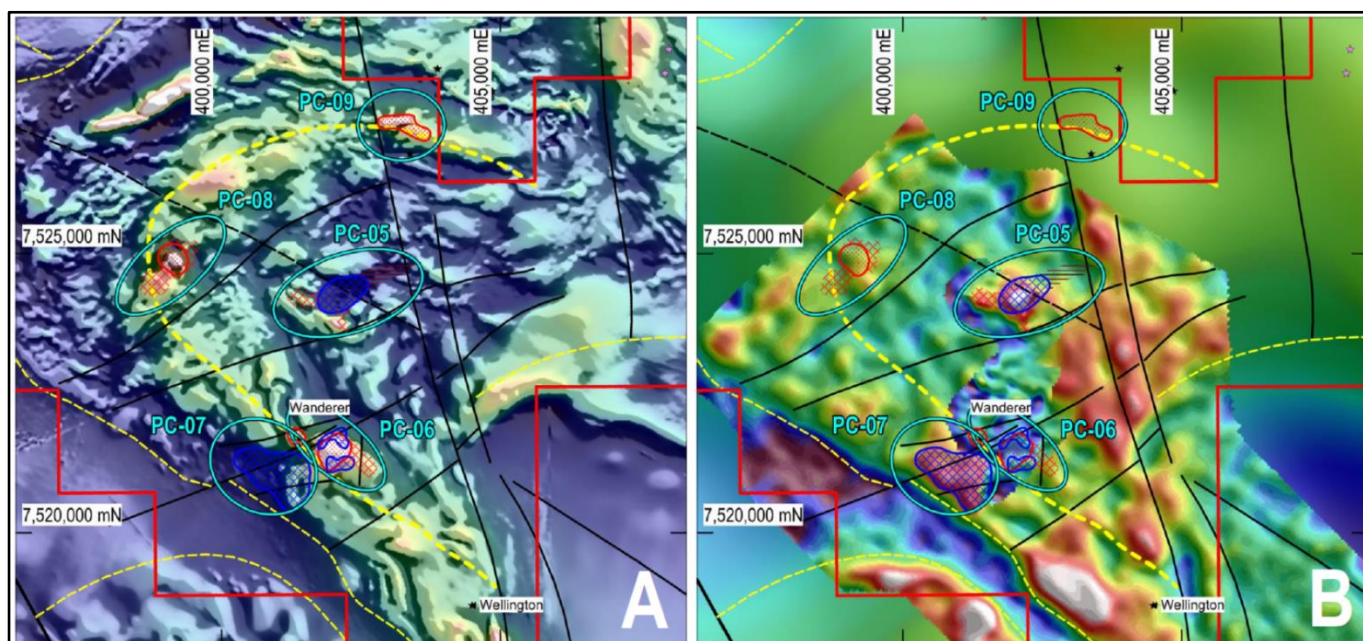


Figure 10. RTP magnetics (left) and Gravity (right) illustrating a number of coincident low magnetic/high gravity targets on Firefly granted tenure (blue hashed areas).

FORRESTANIA GOLD-LITHIUM PROJECT, WA (FIREFLY 100%)

Firefly owns a highly prospective tenement package covering a total area of >1,000km² in the Southern Forrestania Greenstone belt – one of Australia's last under-explored major greenstone belts.

The Southern Forrestania region has been overlooked as a gold exploration play, with many operators in the region focusing historically on nickel and base metal exploration despite ~1.2Moz of production from the Bounty Gold Mine.

Firefly's Forrestania tenure includes historical high-grade gold mines with mineralised rock dumps and geophysical extensions to proven high-grade gold structures.

No exploration activities were undertaken at the Forrestania Gold-Lithium Project during the September 2020 Quarter given the Company's focus on the identification and acquisition of more advanced gold exploration/development opportunities. A number of POWs are either already in place or in application for both the Crossroads and Kit Kat Gold prospects, giving Firefly the flexibility to progress these targets as required.

CORPORATE

Board Changes

Following the recent completion of the acquisition of the Yalgoo Gold Project from Aurum Minerals Pty Ltd (**Aurum**) (see ASX: FFR announcement, 31 July 2020), Firefly has appointed experienced mining executive Ashley Pattison, to its board as a non-executive director.

As a result of the acquisition, a number of shareholders of Aurum have become major shareholders in Firefly, with the right to appoint a representative to the Company's board. Mr Pattison was the founder of Aurum.

Mr Pattison is a Chartered Accountant with over 20 years' experience in the resource sector across corporate finance, strategy and project operations. Having lived and worked in several countries, he has gained substantial exposure to exploration and producing operations in Australia and South America. He has also held senior executive positions including as Managing Director of a number of listed and private mining companies over the past 10 years and also as CEO of a listed mining service company.

More recently, he was the founder of PC Gold Pty Ltd (a private equity vehicle with an advanced open pit gold asset in the Northern Territory), Aurum (acquired by Firefly Resources) and Maroon Gold Pty Ltd (a private equity vehicle that consolidated a number of gold assets in the Charters Towers region of Queensland and commenced production in 2019).

He is currently the Executive Chairman of PC Gold Pty Ltd and Managing Director of Tristar Nominees Pty Ltd, a consulting business to resource companies.

Concurrently with Mr Pattison's appointment, long-serving Firefly Director Mr John Hutton has advised his intention to step down from the board to continue his focus on new projects in the exploration sector and to manage the new growth of his other business commitments.

Mr Hutton previously served as the Chairman of Firefly and its predecessor company, Marindi Metals, and has provided over 10 years of dedicated and valued service to the Company and its shareholders.

Share Placement

Subsequent to the end of the Quarter, Firefly received firm commitments to raise \$6 million through a strongly-supported share placement to expand and accelerate its ongoing drilling and exploration programs at the Yalgoo Project.

The Placement, comprising the issue of 40 million fully-paid ordinary shares at \$0.15 per share, was undertaken to existing and new sophisticated and professional investors. A number of existing or strategic shareholders of Firefly are subscribing for a total of \$3 million, or 50%, of the Placement.

The Placement price of \$0.15 per share represents:

- A 12% discount to the last traded price of \$0.17 per share;
- A 14% discount to the 10-day VWAP (\$0.175 per share); and
- A 9% discount to the 15-day VWAP (A\$0.165 per share).

The Placement Shares were allotted on 9 October 2020 under the Company's existing placement capacity pursuant to ASX Listing Rule 7.1 and 7.1A.

CPS Capital acted as Lead Manager to the Placement. A capital raising fee of 6% (excluding GST) on all funds raised was paid to the Lead Manager. Subject to shareholder approval, CPS Capital, or its nominees, will be granted a total of 16,000,000 Corporate Options post completion of the Placement at \$0.25 each with an expiry date of 18 months from the date of issue.

Following completion of the Placement, Firefly currently has ~\$8 million in cash reserves and a total of 299,789,532 fully-paid ordinary shares on issue.

The proceeds of the Placement will be used to expand the ongoing RC drilling program at the Yalgoo Gold Project in WA. Specifically, the funds will be used to:

- Underpin an expanded drill program with 1 RC rig to focus on resource drilling at the Melville Gold Deposit with a view to establishing a JORC 2012 compliant Mineral Resource, testing the recently identified high-grade position on the eastern margin of the historic resource, and testing possible extensions of the deposit and new discoveries to the north;
- Underpin the addition of a second RC rig to focus on drilling across the Brilliant and Lady Lydia historic resources, follow-up numerous historic gold workings which have never been drill tested and test exposed mineralised porphyry unites on the recently acquired Holland leases;
- Underpin a maiden heli-supported drill program at the Wanderer copper-gold prospect, 250km east of Newman, where Firefly recently secured the grant of the tenements (see ASX: FFR announcement dated 23 September 2020); and
- To provide additional working capital for potential regional strategic acquisitions, ongoing exploration at the Forrestania Gold Project in WA and for general working capital purposes.

Coronavirus (COVID-19) Pandemic Update

Firefly is continuing to proactively manage the impacts of the Coronavirus pandemic through the implementation of measures aimed at ensuring the safety of its personnel and the public.

The measures implemented across the Company are designed to ensure that all relevant activities can continue to allow Firefly to progress its current exploration and corporate activities with minimal impact to its staff and contractors and at the lowest possible cost.

To date there has been no significant impact on the Company or its exploration activities.

Financial Position

Firefly Resources had total cash reserves of \$2.6 million as at 30 September 2020. Subsequent to the end of the quarter, the Company completed a strongly-supported \$6m capital raising (before costs) to accelerate gold drilling at Yalgoo. Firefly currently has ~\$8 million in cash reserves.

Summary of Cashflows

The Quarterly Cashflow Report is prepared on a consolidated basis and includes the cash inflows and cash outflows of Firefly and its subsidiaries. Cash and cash equivalents were \$2.6 million at the end of the quarter compared to \$0.9 million as at 30 June 2020.

Exploration and evaluation expenditure for the Yalgoo Gold Project leading into the maiden drill program resulted in cash outflows of \$290K in the quarter, whilst exploration expenditure on the Forrestania Gold Project and the Paterson Copper-Gold Project was lower at approx. \$34K and \$78K respectively. Other exploration expenditure came up to approx. \$34K for the quarter.

Staff costs remained relatively low at approx. \$38K and administration and corporate costs were slightly higher at approx. \$278K in the quarter due to transaction costs for the acquisition of Aurum Minerals.

Payments to Related Parties of the Company and their associates comprised director fees and superannuation of approx. \$55K.

Authorised by:

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Competent Persons Statement

The information in this announcement that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information reviewed, collated and compiled by Mr Simon Lawson, a full-time employee and the Managing Director of Firefly Resources Ltd. Mr Lawson is a professional geoscientist and Member of The Australian Institute of Mining and Metallurgy and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources, and Ore Reserves. Mr Lawson consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

Table 1 – Tenements as at 30 September 2020

Projects	Tenement Number	Area (blocks)	Registered Holder	Status	Interest
Forrestania	E74/586	20	Forrestania Pty Ltd	Granted	100%
Forrestania	E74/591	69	Forrestania Pty Ltd	Granted	100%
Forrestania	E74/627	4	Forrestania Pty Ltd	Granted	100%
Forrestania	E74/2313	5	Forrestania Pty Ltd	Granted	100%
Forrestania	E74/2345	20	Forrestania Pty Ltd	Granted	100%
Forrestania	E74/2346	20	Forrestania Pty Ltd	Granted	100%
Forrestania	E74/2348	70	Forrestania Pty Ltd	Granted	100%
Forrestania	E77/2364	20	Forrestania Pty Ltd	Granted	100%
Forrestania	E74/2600	21	Firefly Resources Limited	Application	-
Forrestania	M77/549	73.53 HA	Forrestania Pty Ltd	Granted	100%
Oakover	E52/3577	54	Forrestania Pty Ltd	Granted	100%
Edgerton	E52/3756	4	Firefly Resources Limited	Granted	100%
Paterson	E45/5358	68	Firefly Operations Pty Ltd	Granted	100%
Paterson	E45/5391	174	Firefly Operations Pty Ltd	Granted	100%
Paterson	E45/5396	76	Firefly Operations Pty Ltd	Granted	100%
Paterson	E45/5397	51	Firefly Operations Pty Ltd	Granted	100%
Paterson	E45/5407	87	Firefly Operations Pty Ltd	Granted	100%
Paterson	E45/5718	48	Firefly Operations Pty Ltd	Application	-
Yalgoo	E59/2077	24	Yalgoo Exploration Pty Ltd	Granted	100%
Yalgoo	E59/2140	37	Yalgoo Exploration Pty Ltd	Granted	100%
Yalgoo	E59/2230	11	Yalgoo Exploration Pty Ltd	Granted	100%
Yalgoo	E59/2252	34	Yalgoo Exploration Pty Ltd	Granted	100%
Yalgoo	E59/2284	6	Yalgoo Exploration Pty Ltd	Granted	100%
Yalgoo	E59/2295	47	Yalgoo Exploration Pty Ltd	Granted	100%
Yalgoo	E59/2363	1	Yalgoo Exploration Pty Ltd	Granted	100%

Projects	Tenement Number	Area (blocks)	Registered Holder	Status	Interest
Yalgoo	M59/358	185.15 HA	C. A. Holland	Granted	100%
Yalgoo	M59/384	98.185 HA	C. A. Holland	Granted	100%
Yalgoo	P59/2040	64 HA	MMPS Pty Ltd	Granted	100%
Yalgoo	P59/2042	2 HA	MMPS Pty Ltd	Granted	100%
Yalgoo	P59/2086	39 HA	J.T. Larsen	Granted	100%
Yalgoo	P59/2087	119 HA	J.T. Larsen	Granted	100%
Yalgoo	P59/2134	4.04 HA	J.T. Larsen	Granted	100%
Yalgoo	P59/2138	48.82 HA	Yalgoo Exploration Pty Ltd	Granted	100%
Yalgoo	P59/2158	43.74 HA	Yalgoo Exploration Pty Ltd	Granted	100%
Yalgoo	E59/2456	8	Firefly Resources Limited	Application	-
Yalgoo	E59/2457	49	Firefly Resources Limited	Application	-
Yalgoo	E59/2458	38	Firefly Resources Limited	Application	-
Yalgoo	E59/2459	40	Firefly Resources Limited	Application	-
Yalgoo	E59/2460	41	Firefly Resources Limited	Application	-
Yalgoo	E59/2468	4	Firefly Resources Limited	Application	-
Yalgoo	E59/2469	3	Firefly Resources Limited	Application	-
Yalgoo	E59/2470	3	Firefly Resources Limited	Application	-
Yalgoo	E59/2471	2	Firefly Resources Limited	Application	-
Yalgoo	E59/2478	46	Firefly Resources Limited	Application	-

Table 2 – Tenement Changes for the September 2020 Quarter

Changes in Tenements	Tenement Number	Nature of Interest	Interest at beginning of quarter	Interest at end of quarter
Interests in mining tenements lapsed, relinquished or reduced	P77/4069	Relinquished	Granted	Nil
Interests in mining tenements acquired, transferred or increased	E59/2284	Granted	Nil	100%
	E59/2230	Granted	Nil	100%
	P59/2158	Granted	Nil	100%
	E59/2252	Granted	Nil	100%
	E59/2295	Granted	Nil	100%
	E59/2478	Application	Nil	-
	E59/2468	Application	Nil	-
	E59/2469	Application	Nil	-
	E59/2470	Application	Nil	-
	E59/2471	Application	Nil	-
	E59/2457	Application	Nil	-
	E59/2458	Application	Nil	-
	E59/2459	Application	Nil	-
	E59/2460	Application	Nil	-
	E59/2456	Application	Nil	-
	E77/2716	Application	Nil	-