

# Quarterly Activities Report

March 2018



## Highlights

- **Definitive Feasibility Study (DFS) for the Mulga Rock Project confirms robust financials and simple, low cost mining process**
- **Battery minerals provide potential upside for the Mulga Rock Project**
- **Acquisition of Cameco's Alligator River Project in the Northern Territory, the largest granted and permitted tenement package in a world-class uranium province**
- **Maiden Resource for Angularli deposit at the Alligator River Project, the most advanced of many exciting prospects in this under-explored province known to host large uranium deposits with exceptional grade**
- **Vimy team expanded with appointment of US-based Vice President Sales and Marketing**

Vimy Managing Director and CEO, Mike Young, said:

*"This is, without doubt, Vimy's most significant quarterly report. The highlights above demonstrate our commitment to becoming a uranium miner with an exciting pipeline of projects.*

*"Our team's capabilities were bolstered by the appointment of Scott Hyman, our US based VP of sales and marketing. Scott has 30 years experience on both the utility and supply sides and our recent visits to utilities in the US highlighted for me, his deep professional and personal connections with our potential customers.*

*"The importance of the Company's purchase of Cameco's Alligator River Project simply cannot be overstated. The Alligator River Uranium Province is geologically similar to the Athabasca Basin in Canada which is also home to large, high-grade deposits. However, unlike the Athabasca, the Alligator River province is woefully underexplored (see page 6) and so represents that 'last frontier' for new discoveries."*

## Mulga Rock Project Definitive Feasibility Study

On 30 January 2018, Vimy released the Definitive Feasibility Study (DFS) for the Mulga Rock Project (MRP), reinforcing the status of the Project as Australia's largest and most advanced uranium project. The results confirmed a low risk, open pit mining operation that will underpin production of 3.5Mlbs U<sub>3</sub>O<sub>8</sub> per annum for 15 years.

The DFS outlined the Project's competitive cash operating costs, which for the initial five years of operations – the all-important pay-back period – are estimated at US\$25.11/lb U<sub>3</sub>O<sub>8</sub>. Over Life-of-Mine the cash operating costs are forecast to be US\$27.95/lb with a pre-tax NPV<sub>8</sub> at a robust A\$530 million, generating free cash flow of A\$134 million per annum (EBITDA) after royalties. These metrics assume a uranium contract price of \$60/lb U<sub>3</sub>O<sub>8</sub> at the time of first production which is targeted for 2021. The key metrics for the MRP are summarised in Table 1.

### MULGA ROCK DFS PRODUCTION



U<sub>3</sub>O<sub>8</sub> per annum

### MULGA ROCK DFS FINANCIALS



IRR : 25%



**BATTERY MINERAL UPSIDE AT MULGA ROCK**



**ALLIGATOR RIVER PROJECT WORLD CLASS TIER 1 EXPLORATION PACKAGE**



**ALLIGATOR RIVER PROJECT PRO-URANIUM JURISDICTION**



The positive results, which significantly improve upon the Mulga Rock Pre-Feasibility Study (PFS) released in November 2015, along with increasingly favourable market conditions, lay the foundation for Vimy to become Australia's next supplier of uranium oxide and operator of Western Australia's first uranium mine.

Prior to its release, the DFS was revised in light of announcements by the world's largest uranium producers, Cameco Corporation (TSX:CCO), JSC "NAC" Kazatomprom (Kazatomprom) and Orano (formerly Areva), outlining their intention to cut uranium production. The magnitude of these cuts prompted Vimy to reconsider mining optimisation studies and schedules contained within the DFS to ensure it included the most up-to-date metal price assumptions. The production cuts confirmed a widely-held view that current low uranium prices cannot sustain primary uranium production.

This 'supply side strike' is expected to increase by 38% over the next ten years. Based on the future growing demand for nuclear power, existing mines must remain open and new mines need to come on stream.

The DFS included a substantial increase in Ore Reserves at the Mulga Rock Project which was announced to the ASX on 4 September 2017. Approximately 85% of the contained uranium inventory within the optimised pit designs for the Ambassador, Princess and Shogun deposits is classified as Ore Reserves. More importantly, over 90% of the first ten years of production is supported by Ore Reserves. The DFS also included a revised mining plan to maximise metal output during the initial phase of production.

**Table 1 Mulga Rock Project key physical and financial metrics**

	Key Metric	Unit	DFS
 <b>RESOURCE</b>	Life-of-Mine (LOM)	Years	15
	Plant Ore Throughput	Mtpa	2.4
	Run-of-Mine (ROM) Uranium Grade (Years 1-5)	ppm U <sub>3</sub> O <sub>8</sub>	1,010
	ROM Uranium Grade (LOM)	ppm U <sub>3</sub> O <sub>8</sub>	770
 <b>PRODUCTION</b>	Uranium Metallurgical Recovery	%	87.3
	Annual Uranium Production	Mlbs U <sub>3</sub> O <sub>8</sub> pa	3.50
	Total Uranium Production (LOM)	Mlbs U <sub>3</sub> O <sub>8</sub>	47.1
 <b>CAPITAL</b>	Pre-Production Mining Costs (Pre-Strip)	A\$ million	36.3
	Mining, Plant, Infrastructure and Indirects	A\$ million	415.0
	Growth Allowance and Contingency	A\$ million	41.7
	Total Capital	A\$ million	493.0
 <b>OPERATIONS</b>	Exchange Rate	AUD : USD	0.70
	Uranium Cash Operating Cost (Years 1-5)*	US\$/lb U <sub>3</sub> O <sub>8</sub>	25.11
	Uranium Cash Operating Cost (LOM)*	US\$/lb U <sub>3</sub> O <sub>8</sub>	27.95
	Uranium AISC <sup>#</sup> Operating Cost (LOM)	US\$/lb U <sub>3</sub> O <sub>8</sub>	34.00
 <b>PROJECT FINANCIALS</b>	Contract Uranium Price (from 2021 onwards)	US\$/lb U <sub>3</sub> O <sub>8</sub>	60
	Project NPV <sub>8</sub> (inclusive of Royalties, pre-tax)	A\$ million	530
	Project IRR (inclusive of Royalties, pre-tax)	%	25.3
	Payback from Start of Production	Years	3.1

\*Cash operating costs include all mining, processing, maintenance, transport and administration costs, but excludes royalties and sustaining capital. # All-in sustaining costs



## Battery Minerals Provide Upside for the Mulga Rock Project

After the end of the Quarter, on 12 April 2018, the Company announced a potential upside to uranium value at the Mulga Rock Project through base metal by-product credits.

The DFS investigated a stand-alone base metals plant, which formed part of the Mulga Rock Project Pre-Feasibility Study (PFS) released to the ASX on 17 November 2015. The base metals plant is designed to recover copper, zinc, nickel and cobalt as mixed sulphide by-products from the tailings of the uranium plant.

The DFS ultimately focused solely on uranium. However, growing demand for base metals prompted Vimy to review the viability of the base metals plant, with initial indications pointing to greatly improved economics.

At current base metal spot prices, obtained from the London Metal Exchange (LME) but otherwise using the same inputs and assumptions as used in the PFS, Vimy derives a base metals by-product credit of circa US\$4/lb U<sub>3</sub>O<sub>8</sub>. The key metrics and price assumptions used for the PFS are summarised in Table 2.

**Table 2 Mulga Rock Project base metals plant – key physical and financial metrics from the PFS**

	Key metric	Unit	PFS	
	Copper recovery	%	35	
	Zinc recovery	%	48	
	Nickel recovery	%	43	
	Cobalt recovery	%	38	
	Copper metal recovered	LOM tonnes	3,000	
	Zinc metal recovered	LOM tonnes	13,500	
	Nickel metal recovered	LOM tonnes	6,200	
	Cobalt metal recovered	LOM tonnes	2,550	
	Base metals plant direct	A\$ million	37.6	
	Base metals plant indirect	A\$ million	7.6	
	Growth allowance and contingency	A\$ million	6.8	
	Total base metals plant capital	A\$ million	52.0	
	<b>Base metal prices</b>	<b>Real US\$/t</b>	<b>Nov 2015 <sup>1</sup></b>	<b>Mar 2018 <sup>2</sup></b>
	Copper	US\$/t	5,095	6,556
	Zinc	US\$/t	1,821	3,266
	Nickel	US\$/t	9,940	12,903
	Cobalt	US\$/t	28,000	94,050

1. London Metal Exchange spot price quoted on 1 September 2015

2. London Metal Exchange spot price quoted on 27 March 2018

The base metal information in Table 1 above is extracted from ASX announcement entitled “Pre-Feasibility Study Reaffirms Mulga Rock Project as one of Australia’s Leading Undeveloped Uranium Projects” released on 17 November 2015 and is available to view on [asx.com.au](http://asx.com.au) ASX:VMY. Other than in respect of base metal prices the Company confirms that it is not aware of any new base metal information or data that materially affects the base metal information included in the original market announcement and, in the case of estimates of base metal Mineral Resources, that all material assumptions and technical parameters underpinning the base metal estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement, other than in respect of base metal pricing.



## **Acquisition of the Alligator River Project**

On 1 March 2018, Vimy announced that it had entered into a binding Sale Agreement with Cameco Australia Pty Ltd (Cameco) to acquire its Alligator River Project (**ARP**) in Arnhem Land, Northern Territory for a cash consideration of A\$6.5M staged over 30 months.

The project contains the largest granted tenement package in the Alligator River uranium province. This province is considered to be one of the top three uranium exploration districts in the world, with the others being the Athabasca Basin located in Canada, and the Chu-Saraysu and Syrdarya Basins in Kazakhstan.

The tenements are on Aboriginal land vested in the Arnhem Land Aboriginal Land Trust and managed by the Northern Land Council on behalf of the Traditional Landowners. Deeds of Agreement exist for all granted tenure covering exploration activity along with commercial terms and conditions for future mining activity, which ensures that the environment will be protected and that Traditional Landowners and local Aboriginal Communities will benefit from royalties and jobs.

While the Mulga Rock Project remains the Company's core focus, the acquisition of the Alligator River Project provides Vimy with a pipeline of uranium projects from a world-class province. This is an important factor for offtake customers who look to establish long-term relationships with reliable producers.

The acquisition comprises three separate tenement packages covering a total area of 3,865km<sup>2</sup> including 1,600km<sup>2</sup> of granted exploration licences. Figure 1 shows the location of the three tenement packages which are detailed below.

### ***Package 1 (1,675km<sup>2</sup>) – King River-Wellington Range project***

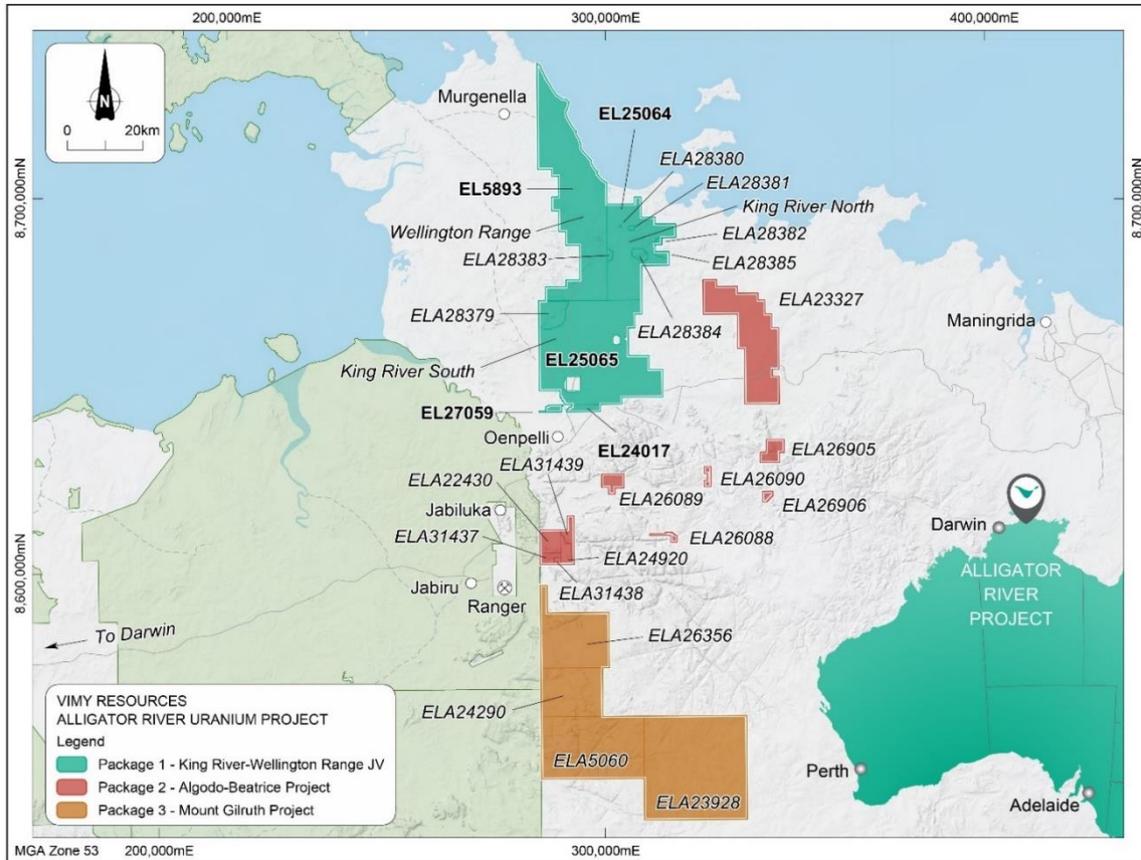
The King River-Wellington Range project has 1,600km<sup>2</sup> of granted tenure and has been actively explored by Cameco for unconformity-related uranium deposits since the early 2000s. Package 1 is the subject of a Joint Venture (JV) with Rio Tinto Exploration Pty Limited (Rio Tinto), a wholly owned subsidiary of Rio Tinto Ltd, with current JV interests of Cameco: 75% / Rio Tinto: 25%. The JV ground hosts the Angularli deposit, as well as a large number of highly prospective targets, at different stages of exploration.

### ***Package 2 (500km<sup>2</sup>) – Algado-Beatrice project***

Package 2, the Algado-Beatrice project, covers a group of exploration applications to the east of the Ranger and Jabiluka deposits, under moderate sandstone cover.

### ***Package 3 (1,690km<sup>2</sup>) – Mt Gilruth project***

The Mt Gilruth project consists of a group of tenement applications to the southeast of the Ranger and Jabiluka deposits.



**Figure 1 Cameco Alligator River Project Tenement Packages**

### World Class Uranium District

The Alligator River uranium province has a proven exploration track record with over 750Mlbs U<sub>3</sub>O<sub>8</sub> in mineral resources (current and mined) and has produced a total of 312Mlbs of uranium over the past 65 years.

The deposits in the Alligator River uranium province are unconformity style that is unique to both the Alligator River and the Athabasca Basin in Canada. These deposits are noted for their large size and exceptional grades and include some of the largest deposits in the world.

The Three-Mine Policy, introduced by the Australian government in 1984 and abandoned in 1996, resulted in limited exploration of uranium in the Alligator River area for approximately twenty years. All exploration licence applications were held in a moratorium during this period. This led to a hiatus in the rate of uranium discoveries within the Alligator River area, in stark contrast to the rate of discovery in the Athabasca Basin, which during the same period saw the discovery of the huge Cigar Lake and McArthur River deposits.

During the due diligence process, Vimy identified and ranked what it sees as key targets for immediate follow-up drilling work and resource estimation. The most advanced of these targets is the Angularli Deposit, and an exciting first milestone was reached shortly after the acquisition with the release of a Maiden Mineral Resource.

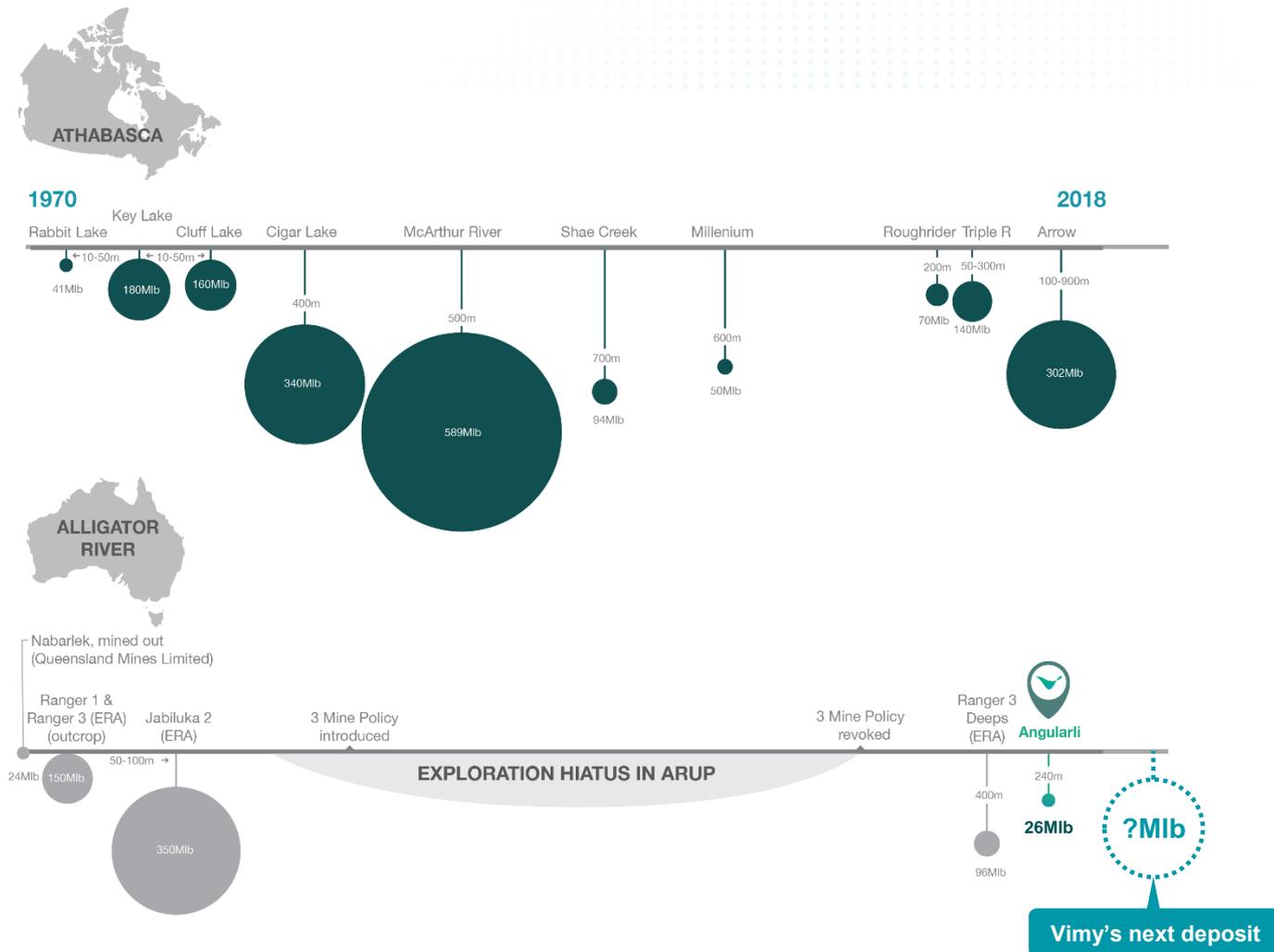


Figure 2 Timeline of Uranium Discoveries in the Athabasca Basin and Alligator River Province

### Maiden Mineral Resource at Angularli Deposit

On 20 March 2018, Vimy announced a maiden Inferred Mineral Resource (Table 3) containing approximately 26Mlbs U<sub>3</sub>O<sub>8</sub> for 0.91Mt at 1.3% U<sub>3</sub>O<sub>8</sub>, at a cut-off grade of 0.15% U<sub>3</sub>O<sub>8</sub>.

Table 3 Alligator River Project Mineral Resource, March 2018<sup>1, 2, 3</sup>

Deposit / Resource	Classification	Cut-off Grade (ppm U <sub>3</sub> O <sub>8</sub> )	Tonnes (Mt) <sup>1</sup>	U <sub>3</sub> O <sub>8</sub> (%) <sup>2</sup>	U <sub>3</sub> O <sub>8</sub> (Mlbs)
Angularli	Inferred	0.10	0.95	1.24	26.0
		<b>0.15</b>	<b>0.91</b>	<b>1.29</b>	<b>25.9</b>
		0.20	0.88	1.33	25.8
		0.25	0.77	1.49	25.2
		0.30	0.72	1.58	24.9

1 t = metric dry tonnes; appropriate rounding has been applied and rounding errors may occur.

2 Using chemical U<sub>3</sub>O<sub>8</sub> composites from drill core

3 Vimy: 75% / Rio Tinto: 25%



Figure 3 shows the location of the Angularli deposit and a number of other advanced exploration targets.

The Angularli resource estimate is supported entirely by chemical assays of diamond drill core. Key diamond drill hole (DDH) intersections include:

- WRD0084 (DDH) 22.9m @ 4.63%  $U_3O_8$  from 244.6m,
- WRD0085 (DDH) 25.4m @ 1.62%  $U_3O_8$  from 235.4m,
- WRD0084 (DDH) 12.3m @ 1.10%  $U_3O_8$  from 228.0m,
- WRD0097 (DDH) 25.4m @ 0.40%  $U_3O_8$  from 224.7m,
- WRD0081 (DDH) 17.4m @ 0.52%  $U_3O_8$  from 209.5m,
- WRD0075 (DDH) 11.8m @ 0.73%  $U_3O_8$  from 231.0m, and
- WRD0073 (DDH) 6.5m @ 1.20%  $U_3O_8$  from 208.5m.

Mineralisation is high-grade in nature, with an average grade of 1.3%  $U_3O_8$  present almost entirely as uraninite ( $UO_2$ ). Grade determination has relied solely on chemical assays of drill core. The mineralised pods extend over approximately 300m along a north-northwest to south-southeast trending mineralised envelope, which dips steeply to the northeast but with a pronounced southerly plunge. Most of the mineral resource is concentrated in a short section of the main mineralised pod (8,701,500 to 8,701,600N).

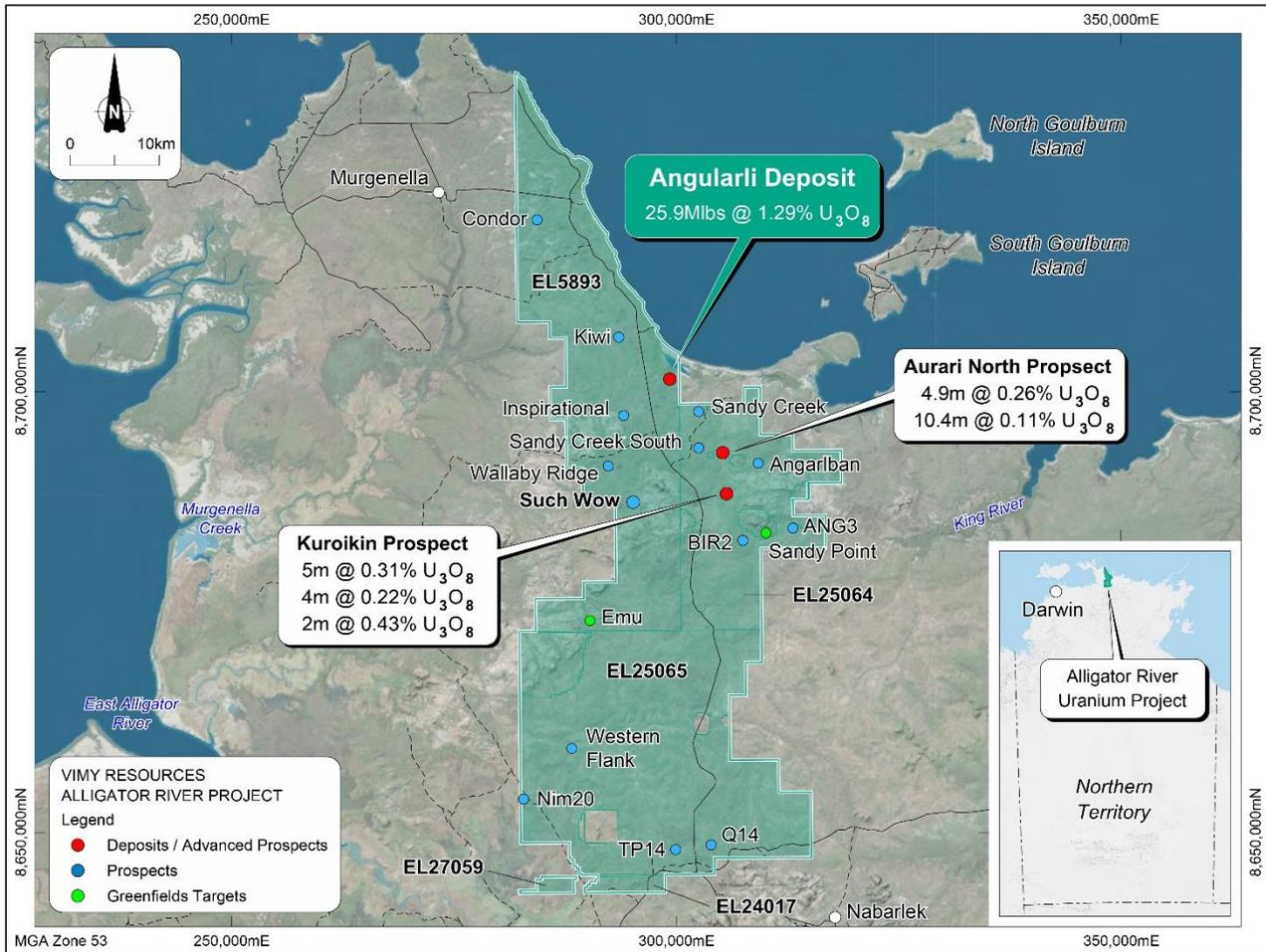
Given the high rate of core recovery within the mineralised zone (greater than 98%), chemical assays are deemed representative samples and have been used for the Mineral Resource estimation.

### Advanced Exploration Prospects

Cameco has invested nearly twenty years in the compilation of a world class exploration package in the Alligator River area. Vimy exploration programs will leverage off this high-quality exploration and data acquisition, including a genetic mineralisation and alteration model which will greatly enhance prospect targeting. As well as the Angularli deposit mentioned above, the model has already identified a number of similar exploration targets.

The Such Wow prospect is located approximately 15km to the south of Angularli. Geophysical and surface chemical surveys have been completed. Rock chip sampling along and around the structural corridor has identified elevated boron, gold and sulphur along a structural feature, analogous to the Angularli deposit. Termite mound sampling has also identified elevated uranium coincidental to the structural feature indicating the potential presence of uranium within the system.

In addition to Such Wow, previous diamond drilling of the Aurari fault trend has defined an approximate 1.5km wide and 12km long fertile corridor, covered by EL25064. The Aurari North prospect has multiple short intercepts in several holes between 100m to 250m depth. Notable intercepts include 4.9m at 0.26%  $U_3O_8$  and 10.4m at 0.11%  $U_3O_8$ . The Kuroikin prospect has vein-style intercepts including 5m at 0.31%  $U_3O_8$ , 4m at 0.22%  $U_3O_8$  and 2m at 0.43%  $U_3O_8$ . These results point to additional potential for shear-hosted mineralisation along NNW-trending fertile fault zones. The location of these prospects is shown in Figure 3.



**Figure 3 Location of the Angularli Deposit and ARP Main Prospects**

### Exploration Target

Vimy also announced on 20 March 2018 an Exploration Target of between 20 and 60Mlbs U<sub>3</sub>O<sub>8</sub> for 1.2-1.8Mt of uranium mineralisation at a grade of 0.75 - 1.5% U<sub>3</sub>O<sub>8</sub> (Vimy 75%).

The potential quantity and grade of the Exploration Target is conceptual in nature. It is important to note that there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

**Table 4 Alligator River Project Exploration Target, March 2018<sup>1, 2, 3</sup>**

Project Area	Tonnes Range (Mt) <sup>1</sup>	Grade Range (%U <sub>3</sub> O <sub>8</sub> )	Metal Range (Mlb U <sub>3</sub> O <sub>8</sub> ) <sup>2</sup>
Angularli	1.2 - 1.8	0.75 - 1.5	20 - 60

<sup>1</sup> t = metric dry tonnes;

<sup>2</sup> Appropriate rounding has been applied, and rounding errors may occur.

<sup>3</sup> Vimy: 75% / Rio Tinto: 25%



## Next steps

### Mulga Rock Project

- Continue to promote the Mulga Rock DFS for negotiations with future offtake partners and to secure project finance
- Updated study on the base metals plant to confirm the business case for incorporating the battery minerals by-products
- Planning and preparation for front end engineering and design phase

### Alligator River Project

- A scoping study on the Angularli project will be carried out to determine the preliminary economics of the deposit
- Drilling of high priority targets using a range of reverse circulation and diamond drilling along repeat structures at the Angularli deposit and Such Wow prospect
- Environmental baseline studies to be initiated at Angularli to streamline permitting timelines

## Appointment of Vice President Sales and Marketing

On 12 February 2018, Vimy appointed Mr Scott Hyman to the new role of Vice President Sales and Marketing, based in the United States. Prior to accepting the position, Scott spent several days with the Vimy team at their office in Perth, Western Australia in a mutual due diligence exercise.

Scott has a wealth of experience in the sale and procurement of uranium. Most recently, he worked for Cameco Inc. in the role of Vice-President Marketing Americas, providing leadership, direction and management for marketing and sales activities both regionally and globally. During his thirteen years at Cameco, Scott was responsible for the sale of uranium and conversion services from Cameco's global production base and gained considerable knowledge in both uranium demand and supply. Prior to his time at Cameco, Scott began his career with the US utility Dominion Energy where he gained an intimate knowledge of the nuclear industry after seventeen years working in a variety of roles, lastly as a Nuclear Fuel Procurement Specialist.

As the Company accelerates negotiations with future offtake partners, Scott will be pivotal to securing offtake agreements sufficient to underpin the financing required for development of the Mulga Rock Project.



## Tenements

Tenement details for the Mulga Rock Project are shown in Table 5. Details of tenements at the Alligator River Project will be listed when legal transfer of the tenements has taken place in the coming months.

**Table 5 Mulga Rock Project tenement details as at 31 March 2018**

Tenement	Nature of Interest	Mineral Field	Interest at Beginning of Quarter	Interest at End of Quarter
M39/1104	Granted	Mt Margaret	100%	100%
M39/1105	Granted	Mt Margaret	100%	100%
E39/876	Granted	Mt Margaret	100%	100%
E39/877	Granted	Mt Margaret	100%	100%
E39/1148	Granted	Mt Margaret	100%	100%
E39/1149	Granted	Mt Margaret	100%	100%
E39/1150	Granted	Mt Margaret	100%	100%
E39/1551	Granted	Mt Margaret	100%	100%
E39/1683	Granted	Mt Margaret	100%	100%
E39/1902	Granted	Mt Margaret	100%	100%
E39/1953	Granted	Mt Margaret	100%	100%
L39/193	Granted	Mt Margaret	100%	100%
L39/219	Granted	Mt Margaret	100%	100%
L39/239	Granted	Mt Margaret	100%	100%
L39/240	Granted	Mt Margaret	100%	100%
L39/241	Granted	Mt Margaret	100%	100%
L39/242	Granted	Mt Margaret	100%	100%
L39/252	Granted	Mt Margaret	100%	100%
L39/253	Granted	Mt Margaret	100%	100%
L39/254	Granted	Mt Margaret	100%	100%
L39/243	Granted	Mt Margaret	Nil	100%
P39/5844	Granted	Mt Margaret	Nil	100%

## Corporate

### Expenditure

Expenditure for the 31 March 2018 Quarter was \$1.9 million, including both exploration/evaluation and corporate/administration activities.

This has reduced from the 31 December 2017 quarter spend of \$2.7 million as the Mulga Rock Project Definitive Feasibility Study was completed in the current quarter. This reduction in quarterly expenditure has continued quarter-on-quarter through 2017 and now into 2018 as this study progressed through to its conclusion.

### Cash at bank

Cash at the end of the 31 March 2018 Quarter amounted to \$5.3 million.

**Mike Young**  
Managing Director and CEO

Tel: +61 8 9389 2700

19 April 2018



## About Vimy Resources

Vimy Resources Limited (ASX: VMY) is a Perth-based resource development company. Vimy's flagship project is the Mulga Rock Project, one of Australia's largest undeveloped uranium resources which is located 290km ENE of Kalgoorlie in the Great Victoria Desert of Western Australia.

Vimy also owns (75%) and operates the largest granted uranium exploration package in the world-class Alligator River uranium district, located in the Northern Territory. Vimy is exploring for large high-grade uranium unconformity deposits identical to those found in the Athabasca Basin in Canada.

### Directors and Management

The Hon. Cheryl Edwardes AM  
Chairman

Mike Young  
CEO and Managing Director

Julian Tapp  
Executive Director

David Cornell  
Non-Executive Director

Mal James  
Non-Executive Director

Andy Haslam  
Non-Executive Director

Dr Vanessa Guthrie  
Non-Executive Director

Ron Chamberlain  
Chief Financial Officer and Company Secretary

Tony Chamberlain  
Chief Operating Officer

Scott Hyman  
Vice President Sales and Marketing

Xavier Moreau  
General Manager, Geology and Exploration



### THE MULGA ROCK PROJECT

RESOURCE OF



90.1  
Milb

U<sub>3</sub>O<sub>8</sub>



The creation of approximately  
**350 direct site jobs**  
IN WESTERN AUSTRALIA

Royalty and payroll tax  
payments of around

**A\$17m**

PER YEAR TO THE  
STATE GOVERNMENT

The amount of uranium produced  
when used in nuclear power plants to  
displace coal fired electricity would  
offset more than



**70 million tonnes**  
of carbon dioxide equivalent  
emissions which is  
**around 13%**  
of Australia's total greenhouse  
gas emissions.



**STATE & FEDERAL  
MINISTERIAL  
APPROVALS**

For a comprehensive view of information that has been lodged on the ASX online lodgement system and the Company website please visit [asx.com.au](http://asx.com.au) and [vimyresources.com.au](http://vimyresources.com.au) respectively.

#### Principal Place of Business

Ground Floor  
10 Richardson Street  
West Perth WA 6005

Postal Address:  
PO Box 23  
West Perth WA 6872

T: +61 8 9389 2700  
F: +61 8 9389 2722  
E: [info@vimyresources.com.au](mailto:info@vimyresources.com.au)

ABN: 56 120 178 949

#### Share Registry

Computershare Investor Services

T: 1300 850 505 (within Australia)  
+61 3 9415 4000 (outside Australia)  
F: +61 3 9473 2500  
W: [www.computershare.com](http://www.computershare.com)  
E: [www.investorcentre.com/contact](http://www.investorcentre.com/contact)