

ASX Announcement

1 October 2019



Excellent Geochemistry Results – Alligator River Project

Highlights:

- Multiple and significant uranium anomalies below shallow cover
- Results confirm Vimy's geological models and exploration methods
- Jabiluka-style mineralisation targeted
- High priority drill targets for 2020

Vimy Resources Limited (ASX: VMY) ("Vimy" or "the Company") is pleased to announce the results of an extensive geochemical "termitaria" sampling program at the Southern Flank, part of the Wellington Range-King River Joint Venture (78% Vimy Resources, 22% Rio Tinto Exploration Pty Limited) at the Alligator River Project, Northern Territory.

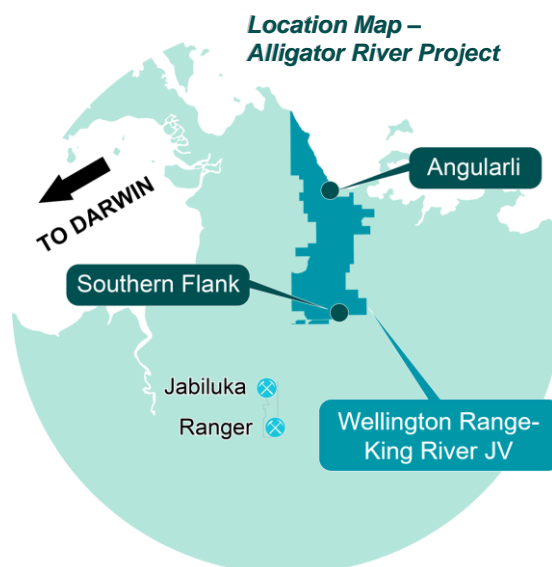
The termitaria geochemical program comprised the collection of over 900 termite mound samples over 12.5km². The results defined several coherent and distinct uranium anomalies in an area with a geological setting similar to that of the world-class Jabiluka and Ranger deposits.

Mike Young, CEO of Vimy Resources, said *"We are very excited by these results and in particular we're drawn to the tenor, and spatial distribution of the results in relation to the regional structural and geological setting."*

"The termitaria sampling at Southern Flank has identified several very large anomalies in a region we previously identified as prospective for Jabiluka-Ranger-style targets. Excellent access and shallow cover will allow us to drill-test this area in 2020."

"The program is a great example of the "Alligator River Exploration Toolkit" which was developed by our geologists, some of whom are ex-Cameco and have extensive experience at the Alligator River Project and the similar unconformity uranium deposits in Saskatchewan's Athabasca Basin."

The Alligator River Project is the largest granted and largely untested tenement package in the Alligator River Uranium Province, one of the top three uranium districts in the world. A maiden mineral resource and a positive scoping study were completed on the Angularli Deposit and released to the ASX in September 2018.

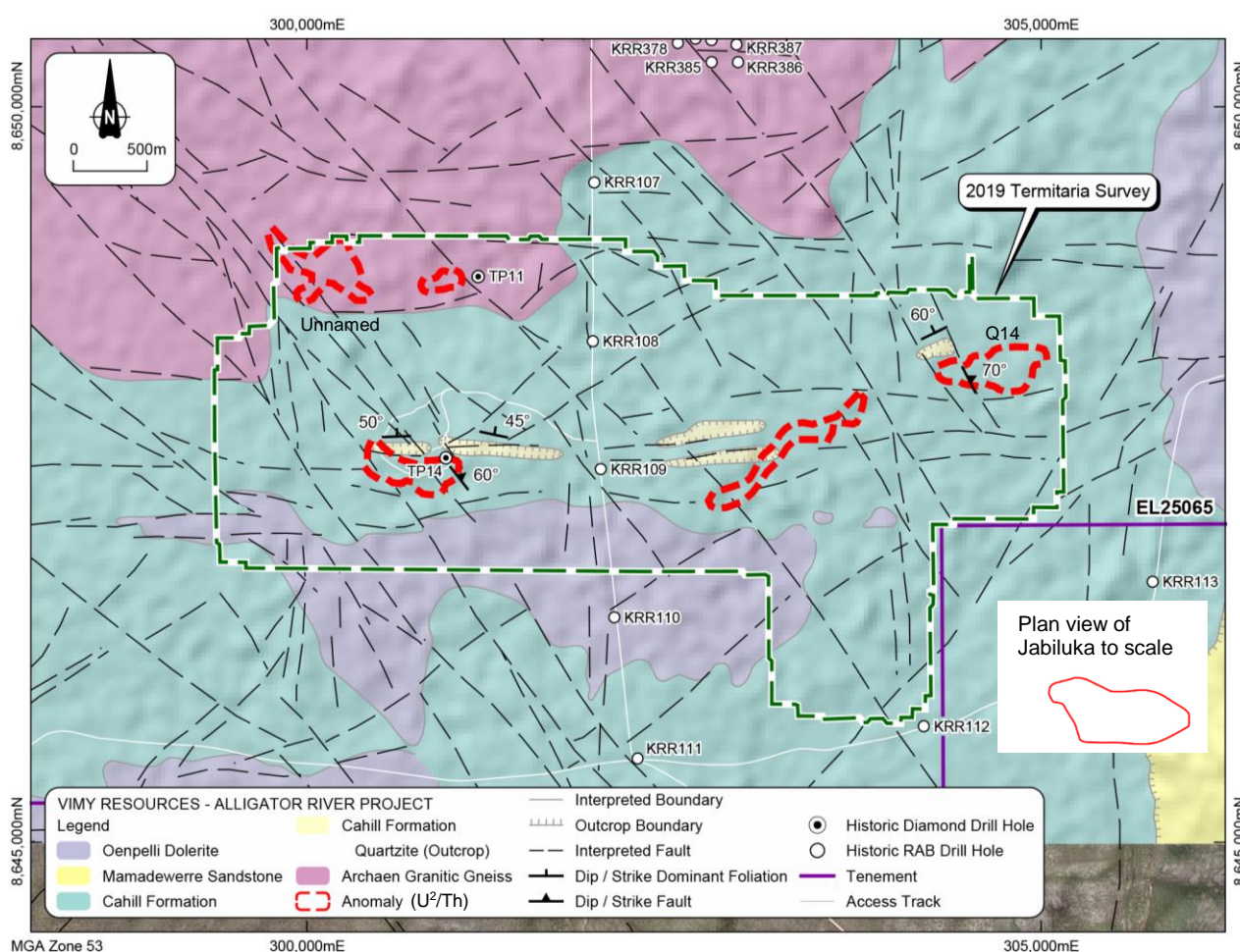




Termitaria sampling at Southern Flank

The Southern Flank area is located in the southern part of the Wellington Range-King River JV project. It lies approximately 17 km to the northwest of the historic Nabarlek mine and is crossed by the major access roads in the region. (The Nabarlek uranium mine operated successfully between 1980-1988 and produced 24Mlbs U_3O_8 from 550,000 tonnes of ore at an average grade of 1.84% U_3O_8 . It has since been successfully decommissioned and the site fully rehabilitated.)

Based on regional geology, structural interpretation and radiometrics, Vimy targeted the Southern Flank as it has a geological setting similar to the Jabiluka and Ranger deposits, 42km to the southwest. Owing to the shallow cover, and thin weathering profile, Vimy identified the prospect as an ideal geological setting for the application of termite mound (termitaria) geochemical sampling as a first-pass exploration technique.



The termitaria sampling program was carried out along a nominal 100 x 200m grid, with local 100 x 100m infill, covering a total of 12.5km² within an overall 6 x 3km corridor (Figure 1 and Figure 2).

The bedrock at Southern Flank comprises Cahill Formation metasedimentary rocks, a key host rock in the Alligator River Uranium Province, in contact with Archaean gneisses (Figure 1). The more competent gneiss creates a rheological contrast with the Cahill Formation and is an important structural feature for the Jabiluka-Ranger deposits model (Figure 3).

At Jabiluka, an east-west trending, reverse fault zone cross-cuts the basement sequence and controls uranium and gold mineralisation. Vimy has interpreted similar east-west trending faults in the Southern Flank area during geological mapping and analysis of airborne geophysical data (Figure 2). The east-west faults are offset by several northwest to north striking faults which are the same orientation as the fault zones hosting uranium mineralisation at the Nabarlek and Angularli deposits.

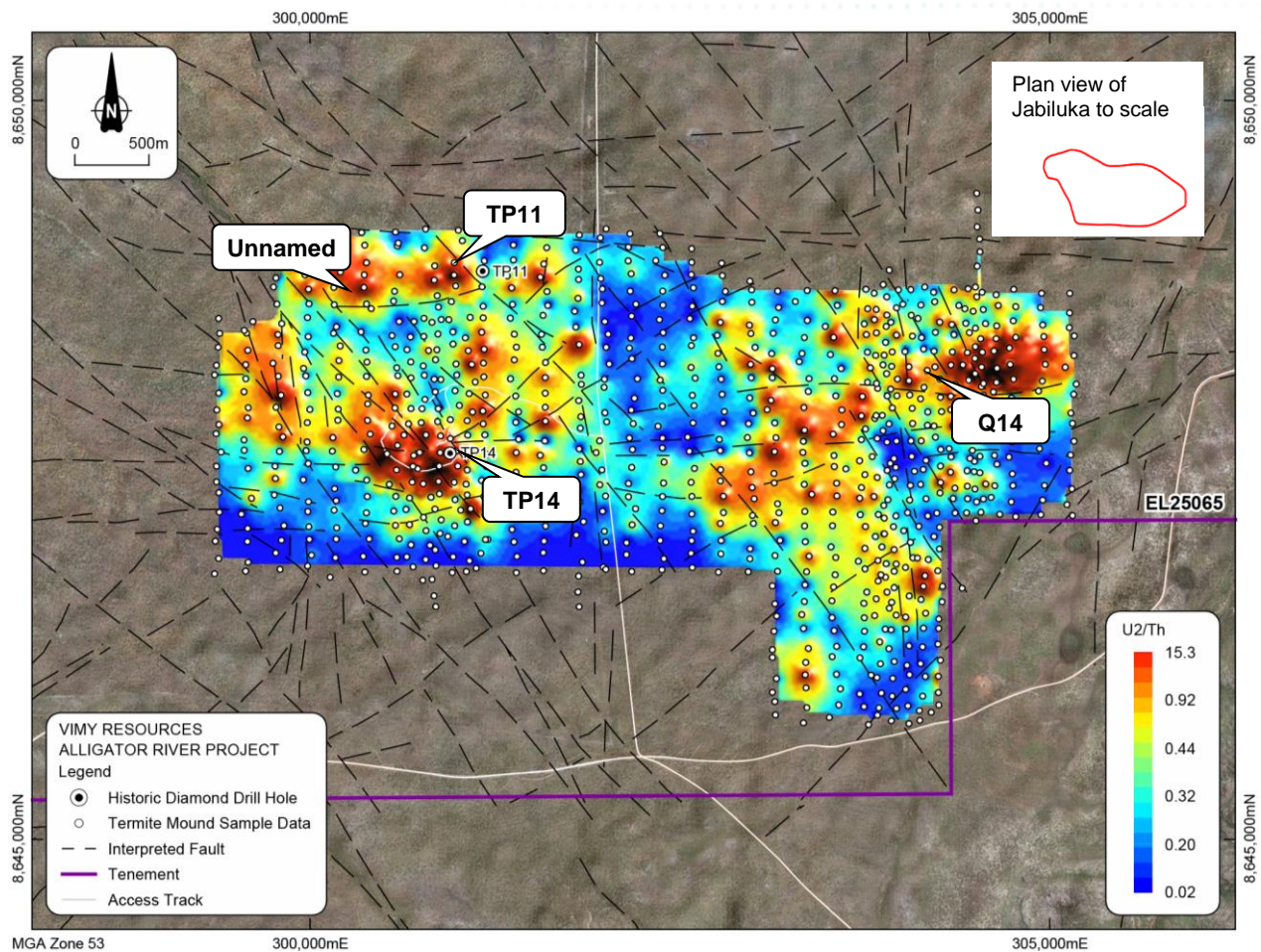


Figure 2: Gridded U^2/Th termite mound data for the Southern Flank area

The termitaria anomalies are defined using a threshold of $U^2/Th > 1$ (ten times background) and show strong spatial association with the previously identified structural features (Figure 2). A detailed explanation of termitaria sampling is provided in Appendix 1.

The two most pronounced anomalies are coincident with, but extend beyond, airborne radiometric anomalies (U^2/Th ratio), and include:

- Q14: about 750-800m long and 300m wide, trending east-west, with a peak U^2/Th greater than 16
- TP14: about 600m long and 200m wide, trending west-northwest to east-southeast with a peak U^2/Th greater than 12

Another two pronounced anomalies further north straddle the contact between the Archaean gneisses and the Cahill Formation metasediments:

- TP11: about 250-300m long narrower anomaly to the west of a single historical drill hole
- Unnamed anomaly to the west of TP11, up to 800m in length and trending northwest-southeast

Since the Mamadawerre Sandstone has not been identified in the Southern Flank area and the basement host rocks are covered only by a thin layer of alluvium and transported material, only shallow (<200m) drilling will be required to test those anomalies. Basement weathering comprises a 20 to 30m deep, leached weathering profile, preserved below the alluvium.



Historic exploration was carried out by Union Carbide in the early 1970s using costeans, auger drilling, and two shallow diamond holes. Costeaming and drilling identified strongly altered, veined and brecciated Cahill Formation and returned a peak assay of 0.19% U_3O_8 in a 5cm vein.

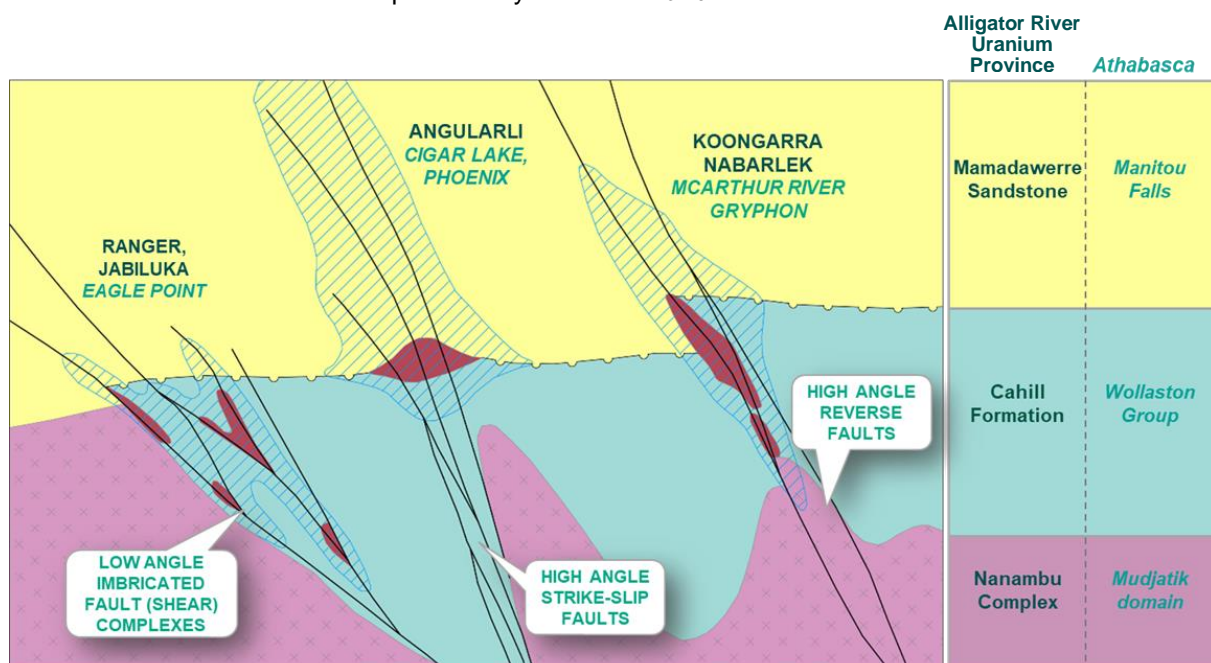


Figure 3: Geological setting of unconformity-related deposits

Next Steps

Vimy is in the process of recovering and analysing the historical Union Carbide data, including the core, and will provide a further, more detailed update following that assessment. That announcement will also include the results of recent surface mapping, further geophysical interpretation, and the passive seismic survey carried out over the area during the 2019 dry season. The results will be used to generate drill targets for the 2020 field season.

Results from other work programs carried out across the remainder of the Alligator River Project will be announced over the coming months including the results of ore sorting test work at the Angularli deposit, to get underway in 4Q2019.

The field season at Alligator is now complete and the camp is in the process of being closed for the wet season.

Mike Young
Managing Director and CEO

Tel: +61 8 9389 2700

1 October 2019

COMPETENT PERSON STATEMENTS

The information relating to the exploration results was compiled by Xavier Moreau, who is a Member of the Australian Institute of Geoscientists. Mr Moreau is a full-time employee and shareholder of Vimy Resources. Mr Moreau has sufficient experience, relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking, to qualify as a Competent Person as defined in the JORC code. Mr Moreau consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.



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 240km ENE of Kalgoorlie in the Great Victoria Desert of Western Australia.

Vimy also owns (78%) 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
Non-Executive Chairman

Mike Young
CEO and Managing Director

David Cornell
Non-Executive Director

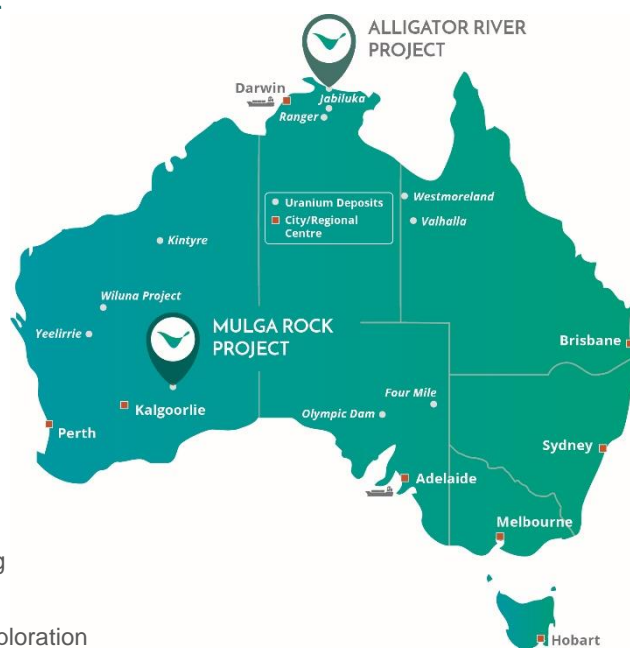
Dr Tony Chamberlain
Non-Executive Director

Marcel Hilmer
Chief Financial Officer
and Company Secretary

Julian Tapp
Chief Nuclear Officer

Scott Hyman
Vice President Sales and Marketing

Xavier Moreau
General Manager, Geology and Exploration



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 and vimyresources.com.au respectively.

Principal Place of Business

First Floor
1209 Hay 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

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
E: www.investorcentre.com/contact



**WORLD CLASS TIER 1
EXPLORATION PACKAGE**



**PRO-URANIUM
JURISDICTION**



**BOARD APPROVAL
FOR NEXT PHASE**



Appendix 1 - Termite Mound Sampling

Established vegetation is a useful sampling medium in exploration because water potential differences between the leaves and roots drive water movement upward, transferring metals (including uranium) dissolved in the water from below the ground to the surface. As a result, the trace metal concentration in vegetation usually reflects the composition of the substrate, with the metals becoming fixed into the tree tissue.

Past surveys have shown that termite mounds recycle a wide range of elements stored by the surrounding vegetation, and present a more practical, safe, yet similarly effective sampling medium.

This is the result of termites feeding on the uranium-enriched organic material, with the ingested uranium then incorporated into the organic glue used by termites to cement the mounds (Figure A-2).

Figure A-1: Termite mound sampling at the Southern Flank, Peter Henderson (Vimy), July 2019

The impermeable outer clay carapace then prevents leaching of the uranium which is fixed in the mound during the high rainfall associated with the wet season. This feature explains why termite mounds represent a better sampling media than the surrounding soil in the Northern Territory's tropical environment.

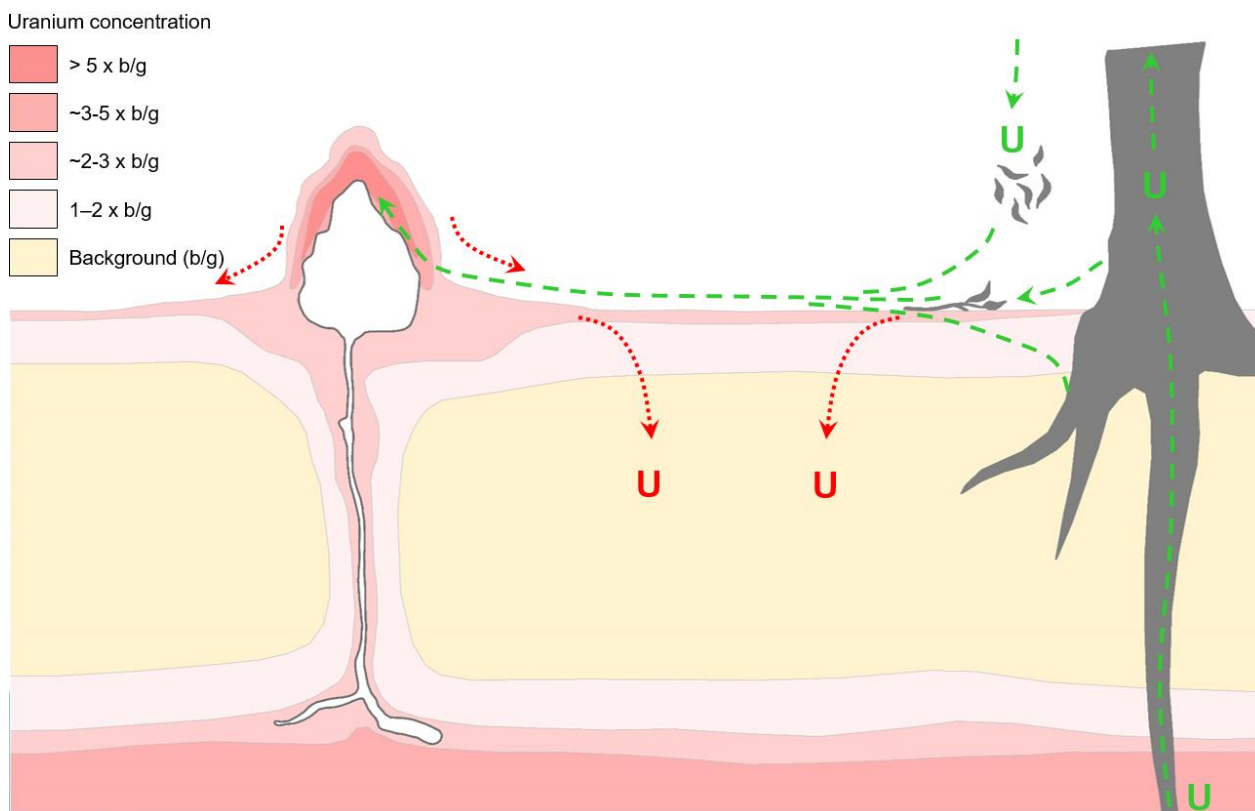


Figure A-2: Conceptual uranium mobilisation process in the Alligator River Project near-surface environment

Appendix 1

JORC Code, 2012 Edition – Table 1 Southern Flank Exploration update, September 2019

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i> <i>Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i> 	<ul style="list-style-type: none"> Sampling involved the collection of about 0.5kg of inner termite mound material per sample, using a machete to remove the hard outer carapace.
Drilling techniques	<ul style="list-style-type: none"> <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i> 	<ul style="list-style-type: none"> Not applicable

Appendix 1

JORC Code, 2012 Edition – Table 1 Southern Flank Exploration update, September 2019

Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> Not applicable
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> The level of termite activity was recorded in the field, along with the mound height and colour.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<p>Field Based Work</p> <ul style="list-style-type: none"> No sub-sampling or sieving was carried out on site. Samples were collected in pre-numbered calico bags, and stored in 150 microns plastic bags, and transported in drums to the laboratory by company personnel.

Appendix 1

JORC Code, 2012 Edition – Table 1 Southern Flank Exploration update, September 2019

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i> <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> Standards were inserted on a 1 in 20 basis, while in the field. The laboratory maintained routinely inserted internal standards as well as carrying out laboratory duplicates. QA/QC routines have been developed for a number of elements of interest; the repeatability of uranium proved excellent, despite the generally low concentration. Samples were pulverised at the laboratory to a nominal grind size of P90 75µm (with a 1:20 check), and subjected to an aqua regia digest, followed by multi-element (54) ICP OES and MS analyses, with wet sample weights also recorded. Barren quartz washes were also inserted on a 1 in 20 basis.
Discussion of relative accuracy/ confidence		<ul style="list-style-type: none"> Sample location data was derived from handheld GPS but the visible footprint of the sample and spacing between samples provides a good visual check of termite mounds sampled.
Portable XRF Logging		<ul style="list-style-type: none"> Not applicable
Verification of sampling and assaying	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> The data presented has not been adjusted but a U²/Th ratio was used to better discriminate uranium anomalies from a background with naturally elevated Th and U concentrations. Industry-standard data entry, validation, and storage processes were followed in handling those results, with electronic and physical records of sampling retained on-site and in Vimy's head office.
Location of data points	<ul style="list-style-type: none"> <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> Handheld GPS readings are typically accurate to +/-5 m (horizontally) in the conditions that prevail in the Southern Flank area. All co-ordinates are reported in the GDA94 datum, zone 53.

Appendix 1

JORC Code, 2012 Edition – Table 1 Southern Flank Exploration update, September 2019

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> The sampling grid was based on a nominal 100 x 200m spacing (dependent on termite mound availability), with localised sub-sampling to 100 x 100m.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i> 	<ul style="list-style-type: none"> The traverses were oriented N-S, at a right angle to the main stratigraphic boundaries in the metamorphic basement.
Sample security	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> Appropriate chain of custody of samples was maintained throughout, up to delivery at Intertek's East Arm processing facilities.
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> No audit or reviews of sampling techniques and data were carried out, with the sampling and analytical protocols reliant on past orientations surveys carried out by the CSIRO.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i> <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i> 	<ul style="list-style-type: none"> The Southern Flank area is located on EL25065 in Arnhem Land, about 250km to the east of Darwin. Viva Resources Pty Ltd, a wholly-owned subsidiary of Vimy Resources Limited (Vimy), enjoys conditional beneficial ownership of 78% of the Angularli deposit project area, following the execution of a binding purchase agreement with Cameco Australia (ASX announcement dated 1 March 2018). EL25065 is located on Aboriginal Land, with existing covenants administered by the Northern Land Council (NLC) on behalf of Traditional Owners.

Appendix 1

JORC Code, 2012 Edition – Table 1 Southern Flank Exploration update, September 2019

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgement and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> EL25065, on which the Southern Flank is located, was granted in 2011. The Southern Flank area was first explored between 1970 and 1972 by Union Carbide within the completion of several costeans, 36 shallow auger holes and two shallow diamond drill holes, TP11 and TP14 (Figure 1). In the area of TP14, a peak result of 250 ppm U_3O_8 was returned from a costean and 189 ppm U_3O_8 from an auger hole. TP14 was planned to drill under the anomalous costean intersecting a sequence of variably chlorite-hematite altered Cahill meta-pelitic rocks. The northwest and east-west trending fault zones and their intersection were not tested. The second hole, TP11, was drilled to test a northwest-striking quartz breccia mapped at the surface, with a quartz-sericite-pyrite-hematite altered and veined breccia zone intersected between 36 and 48m. Surface sampling yielded a peak assay result of 99 ppm U_3O_8, associated with a uranium secondary mineral. TP11 intersected a quartz-sericite-pyrite-hematite altered and veined breccia zone between 36 and 48m. A sericite-pyrite alteration zone around 63m contained a 5cm wide zone of uranium mineralisation, with a peak assay result of 1,886 ppm U_3O_8. Other than for a limited reconnaissance mapping of the airborne radiometric anomaly, no historic work has taken place at the Q14 prospect.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The bedrock at Southern Flank comprises Cahill Formation metasedimentary rocks, an important host rock in the Alligator River Uranium Province, in contact with Archaean gneisses (Figure 1). The more competent gneiss creates a rheological contrast with the Cahill Formation and is an important structural feature for the Jabiluka-Ranger deposits model.
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> Not applicable

Appendix 1

JORC Code, 2012 Edition – Table 1 Southern Flank Exploration update, September 2019

Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul style="list-style-type: none"> <i>In reporting Exploration Results, weighting averaging techniques, maximum and minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i> <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> Not applicable
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i> 	<ul style="list-style-type: none"> Not applicable
Diagrams	<ul style="list-style-type: none"> <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> An appropriate set of plan views has been used to illustrate the known geological setting of the anomalies present in the Southern Flank area. Further detail will be made available in a subsequent announcement, once compiled.
Balanced reporting	<ul style="list-style-type: none"> <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i> 	<ul style="list-style-type: none"> Balanced reporting has been achieved through disclosure of the exploration rationale, nature and extent of the sampling program and graphic representation of all results available.
Other substantive exploration data	<ul style="list-style-type: none"> <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i> 	<ul style="list-style-type: none"> Not applicable

Appendix 1

JORC Code, 2012 Edition – Table 1 Southern Flank Exploration update, September 2019

Criteria	JORC Code explanation	Commentary
<i>Further work</i>	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> A subsequent announcement will integrate those results to other datasets and highlight areas suitable for future drilling.