

Exceptional thick rich Titanium discovery at Muckanippie

Marmota Limited (ASX: MEU) ('Marmota')

Marmota (ASX:MEU) is very pleased to announce the **discovery of exceptional thick rich titanium mineralisation**, from surface, on Marmota's Muckanippie tenement EL 6166 (100% owned).

In **Figure 1** below, the magnetic target is approximately 1.5km long by 750m wide. The fenceline of 4 drill holes over part of the magnetic anomaly is marked 'A to B' in **Figures 1, 3 and 4**. **Every hole along the fence line yielded exceptional thick rich titanium dioxide (TiO₂):**

28m @ 10.1 % TiO ₂	from 0m (from surface)	[Hole WI-081]	[incl 4m @ 13.3 %]
36m @ 6.2 % TiO ₂	from 0m (from surface)	[Hole WI-080]	[incl 4m @ 10.8 %]
39m @ 4.6 % TiO ₂	from 0m (from surface)	[Hole WI-079]	
24m @ 7.5 % TiO ₂	from 0m (from surface)	[Hole WI-078]	[incl 4m @ 10.3 %]

Figure Overview

- **Figure 1** provides a **detail view** of the titanium discovery over TMI.
- **Figure 2** shows the 4 discovery holes **viewed by a drone** from the air.
- **Figure 3** provides a **cross-section** of the 4 discovery holes, notably showing **excellent geological continuity**.
- **Figure 4** provides a **broader view** of the titanium discovery with adjacent tenements.
- **Figure 5** shows the **location of the titanium discovery** relative to rail lines and Marmota's tenements.

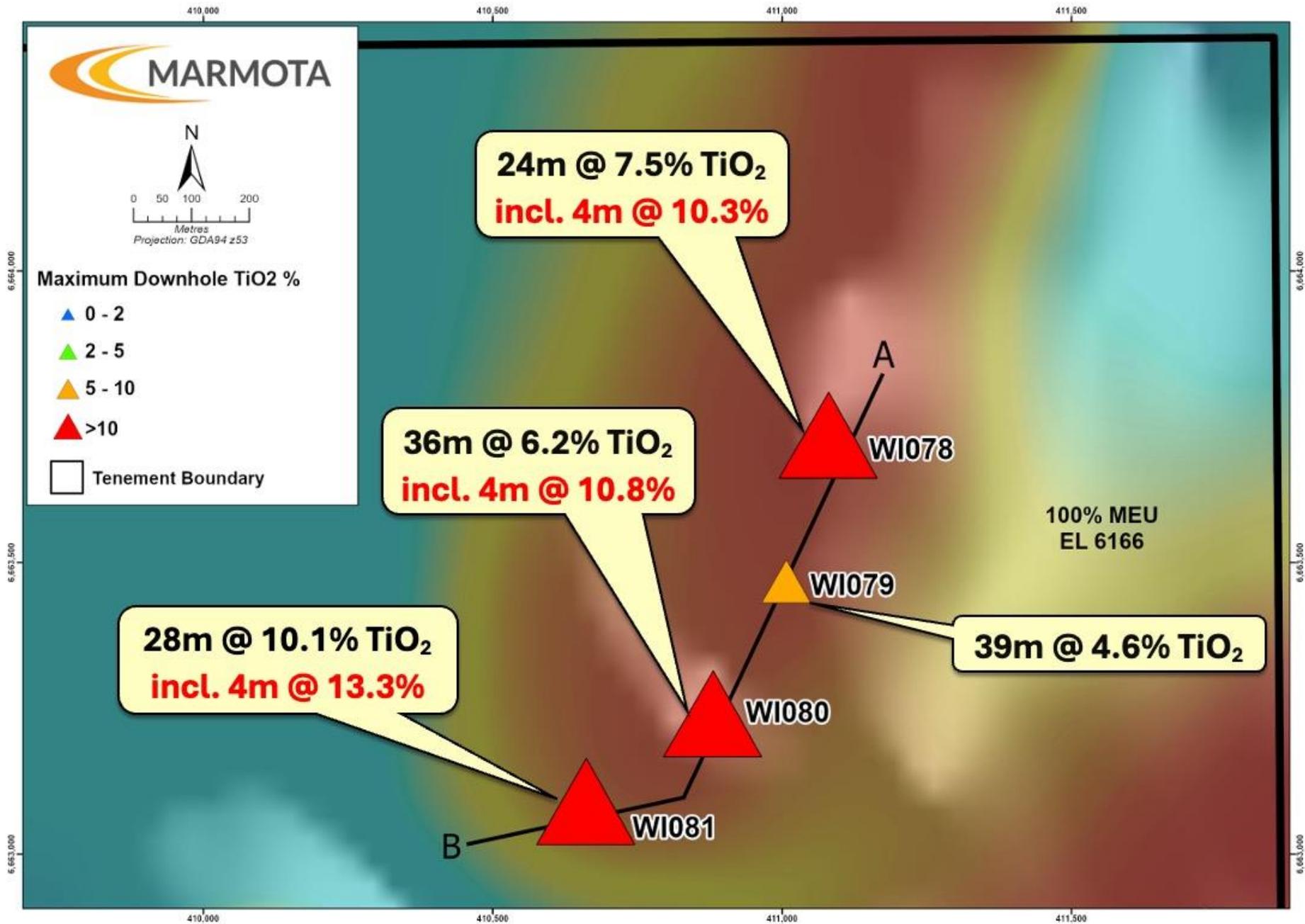


Figure 1: Titanium Discovery on MEU EL 6166 (Muckanippie) over TMI (total magnetic intensity)

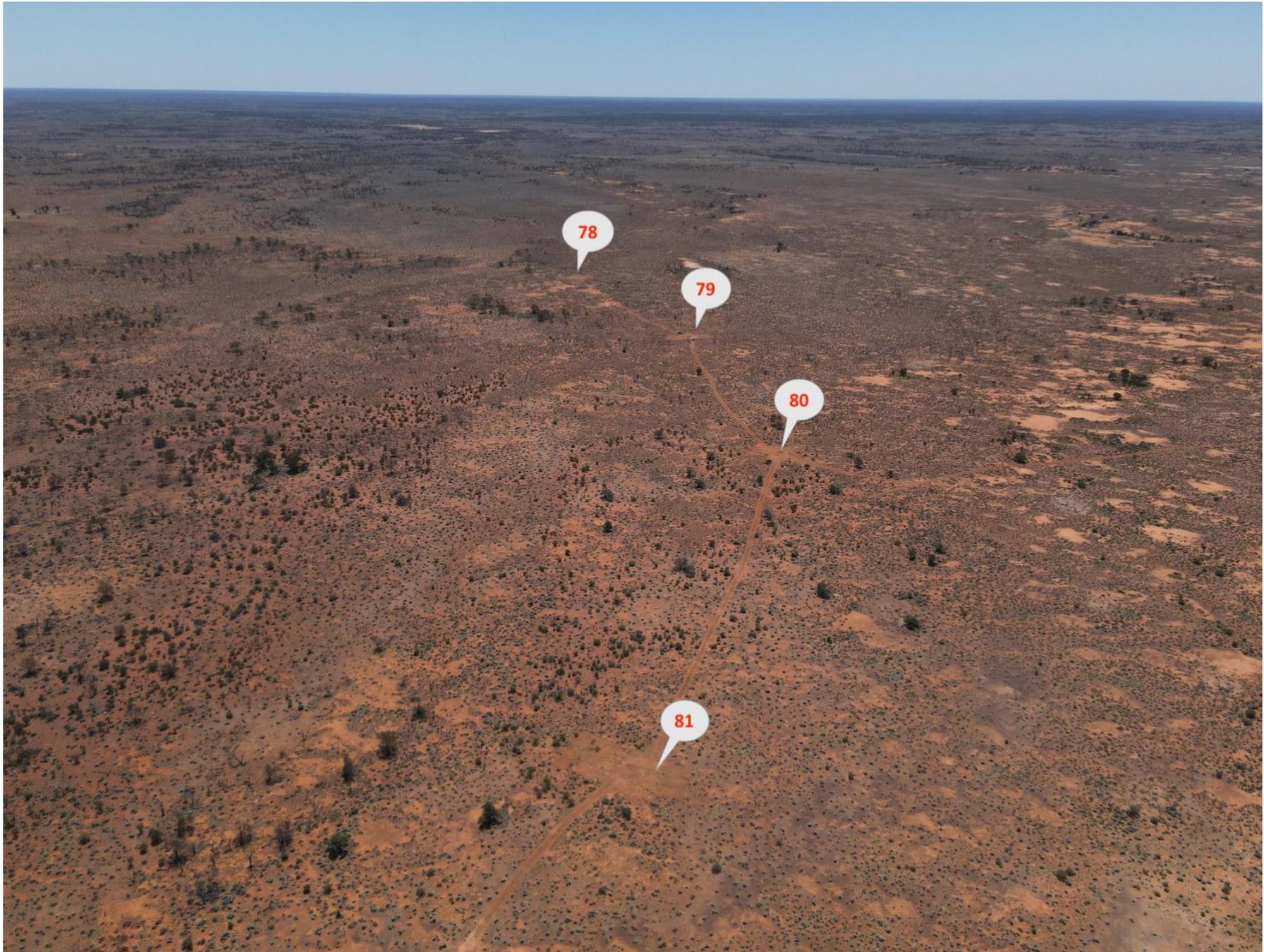


Figure 2: Titanium discovery holes WI-078 to WI-081 (aerial drone view)

Key Points

- Marmota carried out 106 shallow RAB holes (each drilled to refusal) as part of the Rare Earth Element (REE) review on Marmota's Muckanippie tenement EL6166 [see ASX:MEU 20 March 2023, 1 Aug 2023, 15 Jan 2024]. The samples were subsequently assayed for titanium.
- The magnetic target shown in **Figure 1** is approximately 1.5km long by 750m wide. The fenceline of 4 drill holes over part of the magnetic anomaly is marked 'A to B' in **Figures 1, 3 and 4**.
- **Every discovery hole within the fenceline 'A to B' intersected exceptional rich thick Titanium Dioxide (TiO₂).**
- **The rich thick titanium intersections commence essentially from surface.**
- The discovery is **open in all directions**, including at depth.
- Discovery features exceptional **TiO₂ grades over 10%** [see **Table 1**].
- The titanium discovery is **located close to transport infrastructure**, adjacent to both the Adelaide to Darwin rail line, and the Adelaide to Perth rail line [see **Fig. 5**].

Aerial drone footage of the discovery holes at Muckanippie can be viewed here:

https://youtu.be/mOXNfcu_eOA

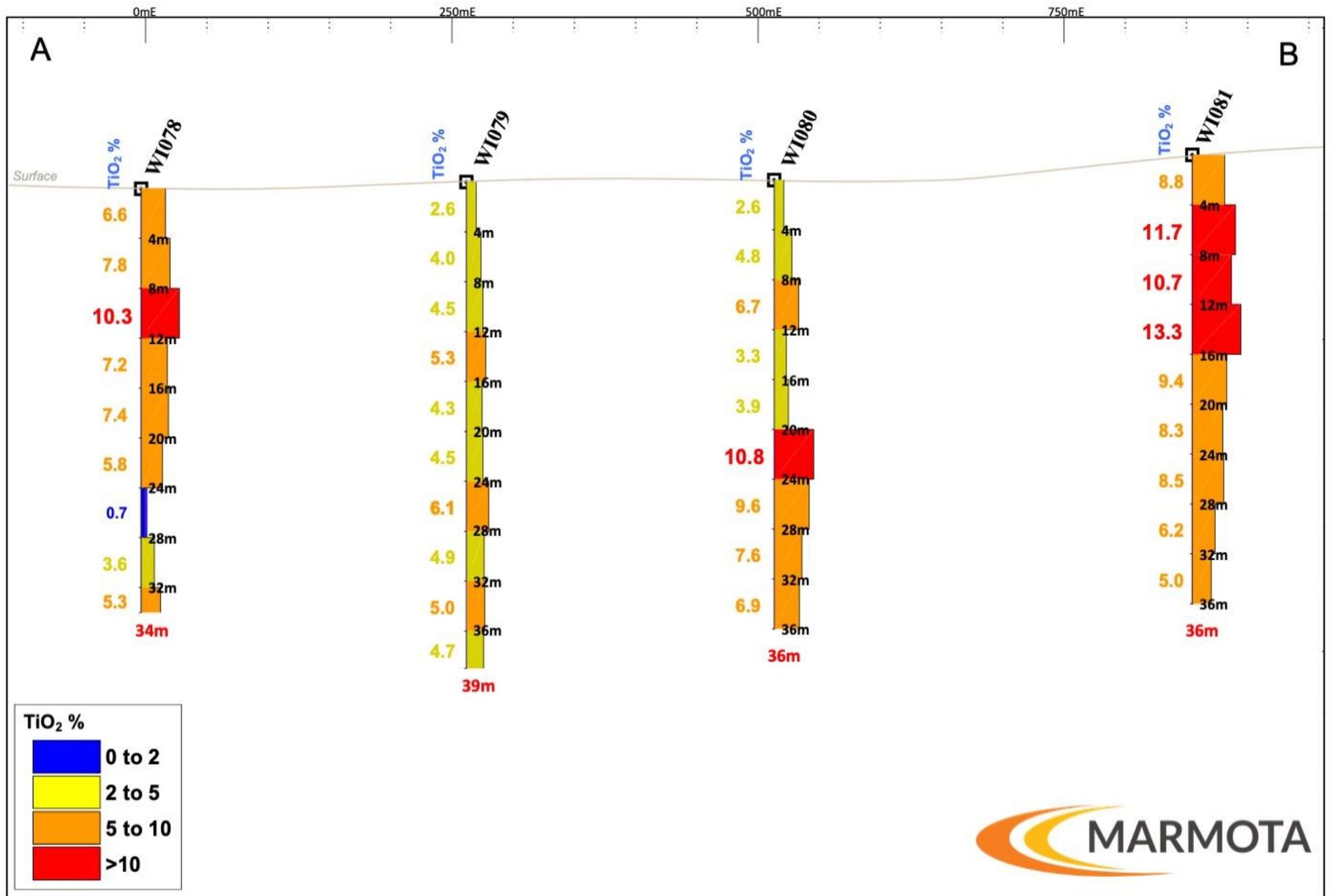


Figure 3: Cross-section through Titanium Discovery Holes: Hole 78 (NE) to Hole 81 (SW)
 [see line A to B in Figure 1]

Relation to Petratherm’s recent titanium discovery

Marmota refers to the ASX announcement of our next door neighbour, Petratherm Ltd (‘Petratherm’) dated 11 September 2024, entitled:

“Exceptional High-Grade Titanium Rich Heavy Mineral Sands Discovered Over Large Area At Muckanippie”
[ASX:PTR 11 Sept 2024].

The **best two Petratherm results**, obtained by re-assaying historic drilling for titanium on the adjacent tenement, were in holes CAR39 and CAR38, namely:

- CAR 39 – **20m @ 4.2% TiO₂** from 4m, including **4m @ 9.1% TiO₂** from 4m
- CAR 38 – **36m @ 4.0% TiO₂** from 0m, including **6m @ 7.8% TiO₂** from 8m

Best Petratherm titanium assay results

Source: ASX:PTR 11 Sept 2024

Every one of the 4 MEU contiguous discovery holes exceeds the above best results:

28m @ 10.1 % TiO ₂	from 0m (from surface)	[Hole WI-081]	[incl 4m @ 13.3 %]
36m @ 6.2 % TiO ₂	from 0m (from surface)	[Hole WI-080]	[incl 4m @ 10.8 %]
39m @ 4.6 % TiO ₂	from 0m (from surface)	[Hole WI-079]	
24m @ 7.5 % TiO ₂	from 0m (from surface)	[Hole WI-078]	[incl 4m @ 10.3 %]

- The Marmota titanium discovery is located approximately 11km to the west of Petratherm’s best holes CAR38 and CAR39 (referred to above).

About Titanium

Geoscience Australia defines **heavy mineral sands** as originally derived from igneous (*e.g.* granite, basalt) or metamorphic (*e.g.* schist) rocks that have been broken down by natural weathering processes, transported in fluvial systems and eventually deposited in placer deposits.

Titanium dioxide is a naturally occurring oxide sourced from ilmenite, rutile and anatase: ilmenite is the most important feedstock in the production of titanium dioxide (TiO₂) and rutile is the most valuable.

Titanium is on Australia's national critical mineral list as well as the critical mineral lists of major trading partners including the US, the EU, India, Japan and South Korea, in part due to its use in electric vehicles, wind technology, battery storage, modern technologies, and national security.

Applications

Titanium dioxide is a very white and opaque compound that reflects 96% of light and absorbs ultraviolet rays. It is thus a core ingredient in products like paint, sunscreen, cosmetics, plastics, automotive coatings and protective coatings.

It is characterised by high strength, light weight and resistance to corrosion, and so is ideally suited to applications in extremely hot environments (like airplane engines), in extremely cold environments (like outer space) and in extremely corrosive environments (like seawater), and thus its use in aerospace, defence, medical and architectural applications. Titanium dioxide boosts the efficiency and durability of photovoltaic cells in solar panels for renewable energy infrastructure. Sodium titanate batteries are the subject of intense development effort due to their safety, financial and environmental benefits over lithium-ion batteries.

Rio Tinto state:

“... because it's lightweight, titanium dioxide can also help reduce fuel consumption, letting planes and cars go farther with less impact on our environment. These same properties are lending it to new applications that reduce carbon emissions – like paint used on buildings to reflect heat and reduce air conditioning energy consumption, and battery and solar technology.”¹

¹ Source: RioTinto: <https://www.riotinto.com/en/products/titanium-dioxide>

Demand

The global titanium dioxide (TiO₂) market is valued at over US\$22 billion in 2024. It is forecast to grow to US\$38 billion by 2033.²

Table 1

Muckanippie North

Significant TiO₂ Intersections **over 6%** [over 4m or larger intervals]

Hole ID	Depth From m	Depth To m	Interval m	Titanium TiO ₂ %		including TiO ₂ %	
WI081	0	28	28m	10.1 %	incl 4m@	13.3 %	from 12m
WI080	0	36	36m	6.2 %	incl 4m@	10.8 %	from 20m
WI078	0	24	24m	7.5 %	incl 4m@	10.3 %	from 8m
WI079	0	39	39m	4.6 %	incl 4m@	6.1 %	from 24m
WI072	0	33	33m	6.9 %	incl 4m@	8.7 %	from 20m
WI095	12	32	20m	8.7%	incl 4m@	11.9 %	from 28m
WI092	20	37	17m	5.4 %	incl 4m@	7.6 %	from 28m
WI088	0	39	39m	4.4 %	incl 4m@	7.0 %	from 12m
WI075	0	39	39m	4.6 %	incl 4m@	6.9 %	from 8m
WI073	0	39	39m	4.2 %	incl 4m@	6.5%	from 0m

See Appendix 2 for hole collar details

[Intersections over 10% TiO₂ in red]

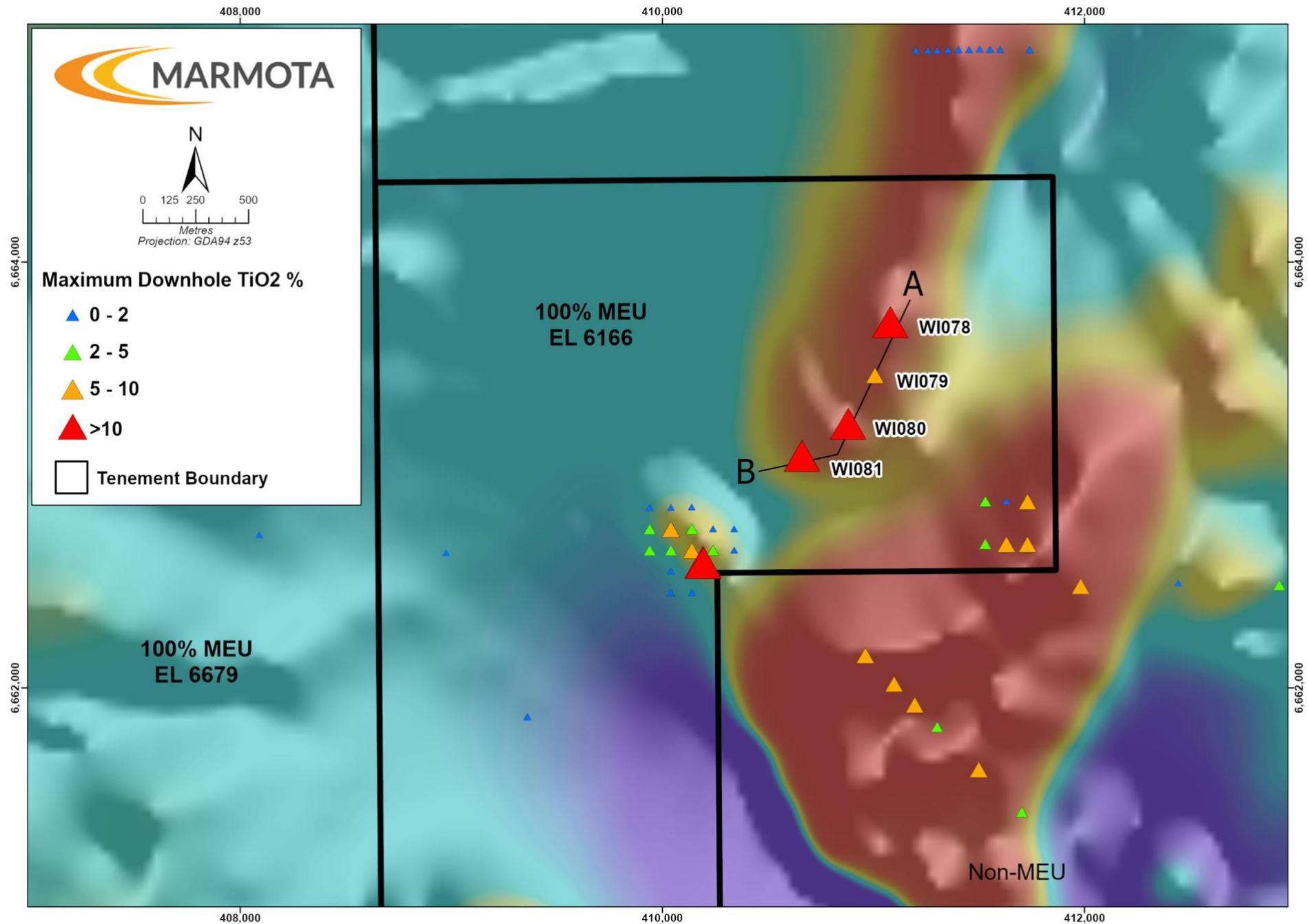


Figure 4: Marmota's Titanium discovery ... with historic results on adjacent tenements

Geological comments: Muckanippie Complex

- The Titanium discovery lies within the Archaean Mulgathing Complex of the Gawler Craton in South Australia.
- The Muckanippie Complex is composed of layered igneous intrusions ranging from ultramafic to felsic (anorthosite) in composition.
- This style of layered complex has been associated with major economic mineralisation, for instance in the Bushveld Complex of South Africa which contains world class deposits of chromium, platinum, palladium and titanium.
- The area shown in Fig.2 (drone image) consists of a low relief alluvial plain. The titanium-rich sedimentary cover overlying the weathered magnetic basement is interpreted to have been transported. This also raises the potential for mineralisation to extend beyond the edges of the magnetic anomaly shown in Fig.1 and Fig.4.

Geological features

- **Excellent geological continuity between holes:** see cross-section in Fig.3.
- **Highest grades near surface**
In conventional titanium rock deposits, the highest TiO_2 grades occur at depth (making mining expensive and processing expensive). By contrast, in Marmota's Muckanippie discovery, the highest TiO_2 grades occur very close to surface [see cross-section in Fig.3], with grades appearing to *decrease* with depth. This is also consistent with the surface layer being transported weathered sands.
- **Low iron content**
End product TiO_2 is bright white, whereas ilmenite is brown or black due to its iron content which requires further processing to remove the iron and turn it into a pure product. The average % iron content of the 4 discovery holes, over the first 24m from the surface, lies in the range 5% to 11%, which appears to be unusually low (good) for a titanium deposit.

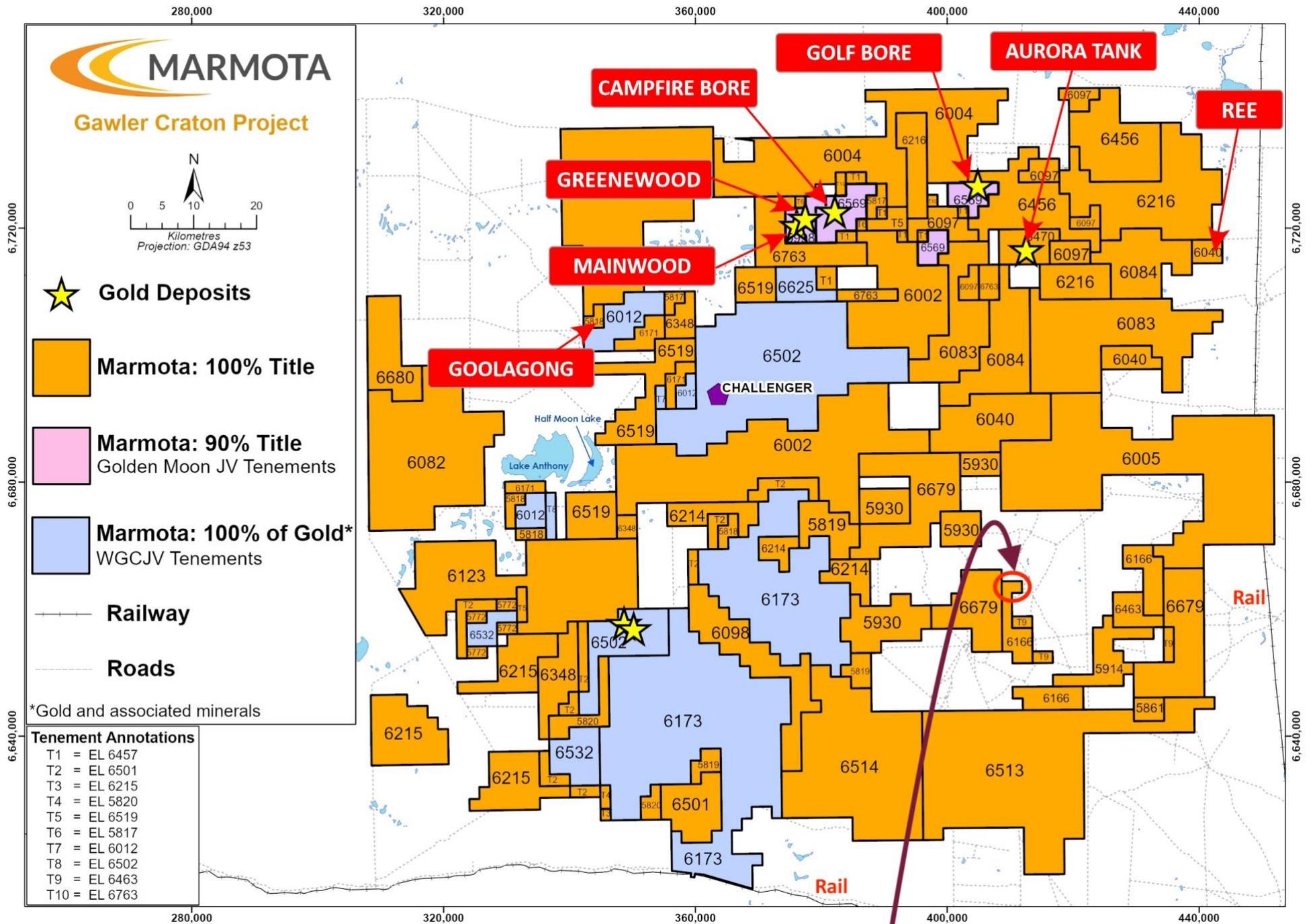


Figure 5: Location of Titanium discovery on Marmota’s Muckanippie tenement EL 6166

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About Marmota Limited

Marmota Limited (ASX:MEU) is a South Australian mining exploration company focused on gold and uranium. Gold exploration is centred on the Company's gold discovery at Aurora Tank that is yielding outstanding intersections in the highly prospective and significantly underexplored Gawler Craton in the Woomera Prohibited Defence Area.

The Company's flagship uranium resource is at Junction Dam adjacent to the Honeymoon mine.

For more information, please visit: www.marmota.com.au

Competent Persons Statement

Information in this Release relating to Exploration Results is based on information compiled by Aaron Brown, who is a Member of The Australian Institute of Geoscientists. He has sufficient experience relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves." Mr Brown consents to the inclusion in this report of the matters based on this information in the form and context in which they appear.

Where results from previous announcements are quoted, Marmota confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

For the purpose of ASX Listing Rule 15.5, the Board has authorised for this announcement to be released.

APPENDIX 1 JORC Code, 2012 Edition – Table 1 report

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"> 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverized to produce a 30 g 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. 	<ul style="list-style-type: none"> Muckanippie (RAB): <ul style="list-style-type: none"> A total of 106 RAB holes were drilled for 3,995 metres. Samples were collected at 1m intervals from the drilling cyclone and stored in separate bags at the drill site. Composite 4m samples were collected using a 50mm PVC tube 'spear' to collect representative samples from bags. Composite samples were an average weight of 3.3 kg which were pulverized to produce sub samples for lab assay. Titanium was tested by Lithium Borate Fusion: an aliquot of sample is fused with lithium metaborate at high temperature in a Pt crucible. The fused glass is then digested in nitric acid and analysed by ICP-MS Only laboratory assay results were used to compile the table of intersections that appears in the report. Results of historic drilling (including on adjacent tenements) has been sourced from SARIG (open source data) which has been compiled and maintained by Department of Energy and Mining. For such data, generally limited information or no information is available for sampling collection methods.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> Drilling method was RAB, with a hole diameters of 146.5 mm. Historic drilling by other companies has been sourced from SARIG where the drill technique has been sourced.
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. 	<ul style="list-style-type: none"> Drill holes and sample depths were recorded in hard copy format during drilling including sample intervals. Qualitative assessment of sample recovery of drill samples was recorded. Sample recoveries were generally high, and moisture in samples minimal.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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"> No relationship is known to exist between sample recovery and grade, in part due to in-ground variation in grade. A potential bias due to loss/gain of fine/coarse material is not suspected. Historic drilling has been sourced from SARIG: no additional information of recovery is known.
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"> Representative drill holes were geologically examined by Marmota geologists. The holes have not been geotechnically logged. Geological logging is qualitative. Historic drilling has been sourced from SARIG including logs where available.
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 representivity 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. 	<ul style="list-style-type: none"> Muckanippie Drilling (RAB): <ul style="list-style-type: none"> Composite samples averaging 3.3 kg were collected for laboratory assay. Samples were collected with a 50mm tube by diagonally spearing individual samples within bags. It is considered representative samples were collected after homogenising of sample through drilling cyclone and unbiased spearing of samples in bags. Laboratory sample preparation includes drying and pulverizing of submitted sample to target of p80 at 75 µm. No samples checked for size after pulverising failed to meet sizing target in the sample batches relevant to the report. Duplicate samples were introduced into the sample stream by the Company. Historic drilling has been sourced from SARIG (open source data), which has been compiled and maintained by Department of Energy and Mining and generally limited information or no information is available for sampling collection methods.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> Muckanippie Drilling (RAB): <ul style="list-style-type: none"> Samples from exploratory holes on Muckanippie tenement were analysed for Titanium using Lithium Borate Fusion and Inductively Coupled Plasma Mass Spectrometry. QAQC methods: <ul style="list-style-type: none"> For all samples, the Company introduced QA/QC samples at a ratio of one QA/QC sample for every 30 drill samples. The laboratory introduced additional QA/QC samples (blanks, standards, checks) at a ratio of greater than 1 QA/QC sample for every 10 samples.

Criteria	JORC Code explanation	Commentary						
		<ul style="list-style-type: none"> ○ Both the Company and laboratory QA/QC samples indicate acceptable levels of accuracy and precision have been established. ○ Duplicates were introduced into the sample stream by the Company. The laboratory completed repeat assays on various samples. ○ Standard samples were introduced into the sample stream by the Company, while the laboratory completed standard assays also. <ul style="list-style-type: none"> ● Historic drilling has been sourced from SARIG (open source data), which has been compiled and maintained by Department of Energy and Mining and generally limited information or no information is available for sampling collection methods or QAQC protocols. 						
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"> ● An alternative company representative has checked the calculation of the quoted intersections. No twinned holes were drilled in the program. ● Assays were reported in Elemental form and converted to relevant oxide using James Cook University's Element-to-stoichiometric oxide conversion factors: <table border="1" data-bbox="1384 774 1899 853"> <thead> <tr> <th>Element</th> <th>Oxide</th> <th>Factor</th> </tr> </thead> <tbody> <tr> <td>Titanium</td> <td>TiO₂</td> <td>1.6681</td> </tr> </tbody> </table>	Element	Oxide	Factor	Titanium	TiO ₂	1.6681
Element	Oxide	Factor						
Titanium	TiO ₂	1.6681						
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"> ● Drillhole coordinate information was collected using a handheld GPS system with an autonomous accuracy of ± 3m utilising GDA 94 Zone 53. ● The area is generally of low topographic relief. Topographic control uses SRTM 90 DEM. ● Where SARIG (open source data) has been shown this information has been plotted in GDA 94 Zone 53 and there is no known accuracy of this historic data. 						
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"> ● Drill hole spacing is irregular as indicated in Appendix 2. 						
Orientation of data in relation	<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> 	<ul style="list-style-type: none"> ● Drill lines were new reconnaissance holes. Therefore, a sampling bias should not have occurred. 						

Criteria	JORC Code explanation	Commentary
to geological structure	<ul style="list-style-type: none"> 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. 	
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Company staff collected all laboratory samples. Samples submitted to the laboratory were transported and delivered by Company staff. Historic Drilling (open source data): the sample security method is unknown
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audit of data has been completed to date.

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"> 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. 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. 	<ul style="list-style-type: none"> Muckanippie (EL 6166) is 100% owned by Marmota Limited. The EL is located approximately 120 km southwest of Coober Pedy in South Australia. There are no third-party agreements, non-government royalties, historical sites or environmental issues. Exploration is conducted within lands of the Antakirinja Matu-Yankunytjatjara Native Title Determination Area. The tenements are in good standing.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Previous exploration drill holes on the tenement included: <ul style="list-style-type: none"> Regional AC by CRA Exploration Pty Ltd (1983) for Kimberlites. Regional RC by South Australia Department of Mines and Energy (1991) focused on basement lithology. Regional RAB by Normandy Exploration Ltd (1997) focused on Gold, Base Metals. Regional RC drilling by Aztec Mining (1998) focused on Gold, Base Metals. Reconnaissance AC, TMI and EM surveys by Uranium SA Ltd (2007) focused on Uranium. Previous RC drilling at the Widgetty prospect by MEU (2015). Drilling AC by Marmota (2023) for Project X. No previous Titanium exploration has occurred within the tenement.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> All drilling occurred within geology of the Christie Domain of the western Gawler Craton. The Christie Domain is largely underlain by late Archaean Mulgathing Complex which comprises meta-sedimentary successions interlayered with Banded Iron Formations (BIF), chert, carbonates and calc-silicates. Marmota targeted near surface mineralisation. See Geology section in ASX release.
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. 	<ul style="list-style-type: none"> The required information on drill holes is incorporated into Appendix 2 to the ASX Release. Historic drilling has been sourced from SARIG (open source data), which has been compiled and maintained by Department of Energy and Mining.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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. 	
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> Muckanippie RAB drilling: <ul style="list-style-type: none"> Any intersections are calculated by simple averaging of 4m Composite Samples. Where aggregated intercepts are presented in the report, they may include shorter lengths of high-grade mineralisation; these shorter lengths are also tabulated. No metal equivalents are reported.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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'). 	<ul style="list-style-type: none"> Drill coverage is considered sufficient to establish approximate true widths, given the current geological understanding of mineralisation dip and strike. Mineralisation intersections are downhole lengths; exact true widths are unknown but are similar to the intersection lengths as the mineralised zones are approximately normal to hole inclinations.
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> See Figures within ASX release
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> A cut-off grade of 6% TiO₂ was applied in reviewing assay results and deemed to be appropriate at this stage in reporting of exploration results. Reporting is considered balanced.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Marmota is currently reviewing results received to date and preparing additional work programs including additional infill and extensional drilling.

APPENDIX 2 Drillhole collar summary: Muckanippie exploration holes

Tenement	Hole ID	Drill Type	Easting (MGA94 z53)	Northing (MGA94 z53)	RL	Dip	Azimuth (Mag)	EOH Depth
Muckanippie	WI001	RAB	409,800	6,659,850	198	-90	0	39
Muckanippie	WI002	RAB	409,900	6,659,850	198	-90	0	39
Muckanippie	WI003	RAB	410,000	6,659,850	198	-90	0	39
Muckanippie	WI004	RAB	410,100	6,659,850	197	-90	0	39
Muckanippie	WI005	RAB	410,200	6,659,850	196	-90	0	33
Muckanippie	WI006	RAB	410,200	6,659,750	196	-90	0	37
Muckanippie	WI007	RAB	410,100	6,659,750	198	-90	0	33
Muckanippie	WI008	RAB	410,000	6,659,750	198	-90	0	39
Muckanippie	WI009	RAB	409,900	6,659,750	198	-90	0	39
Muckanippie	WI010	RAB	409,800	6,659,750	199	-90	0	39
Muckanippie	WI011	RAB	409,800	6,659,650	199	-90	0	39
Muckanippie	WI012	RAB	409,900	6,659,650	199	-90	0	39
Muckanippie	WI013	RAB	410,000	6,659,650	199	-90	0	39
Muckanippie	WI014	RAB	410,100	6,659,650	199	-90	0	39
Muckanippie	WI015	RAB	410,200	6,659,650	197	-90	0	40
Muckanippie	WI016	RAB	410,200	6,659,550	199	-90	0	39
Muckanippie	WI017	RAB	410,100	6,659,550	200	-90	0	39
Muckanippie	WI018	RAB	410,000	6,659,550	201	-90	0	37
Muckanippie	WI019	RAB	409,900	6,659,550	201	-90	0	39
Muckanippie	WI020	RAB	409,800	6,659,549	200	-90	0	39
Muckanippie	WI021	RAB	409,700	6,659,550	201	-90	0	34
Muckanippie	WI022	RAB	409,600	6,659,550	201	-90	0	39
Muckanippie	WI023	RAB	409,500	6,659,550	201	-90	0	38
Muckanippie	WI024	RAB	409,400	6,659,550	203	-90	0	40
Muckanippie	WI025	RAB	409,500	6,659,450	203	-90	0	39
Muckanippie	WI026	RAB	410,200	6,659,450	200	-90	0	38
Muckanippie	WI027	RAB	410,100	6,659,450	201	-90	0	33
Muckanippie	WI028	RAB	410,000	6,659,450	202	-90	0	39
Muckanippie	WI029	RAB	409,900	6,659,450	202	-90	0	34
Muckanippie	WI030	RAB	409,800	6,659,450	202	-90	0	36
Muckanippie	WI031	RAB	409,700	6,659,450	202	-90	0	39
Muckanippie	WI032	RAB	409,600	6,659,450	203	-90	0	39
Muckanippie	WI033	RAB	409,550	6,659,400	205	-90	0	39
Muckanippie	WI034	RAB	410,200	6,659,350	201	-90	0	39
Muckanippie	WI035	RAB	410,100	6,659,350	202	-90	0	39
Muckanippie	WI036	RAB	410,000	6,659,350	202	-90	0	39
Muckanippie	WI037	RAB	409,900	6,659,350	203	-90	0	33
Muckanippie	WI038	RAB	409,800	6,659,350	203	-90	0	35
Muckanippie	WI039	RAB	409,700	6,659,350	203	-90	0	39
Muckanippie	WI040	RAB	409,600	6,659,350	204	-90	0	39
Muckanippie	WI041	RAB	409,500	6,659,350	207	-90	0	39

Muckanippie	WI042	RAB	409,400	6,659,350	210	-90	0	40
Muckanippie	WI043	RAB	409,400	6,659,436	211	-90	0	39
Muckanippie	WI044	RAB	410,200	6,659,250	203	-90	0	39
Muckanippie	WI045	RAB	410,100	6,659,250	205	-90	0	39
Muckanippie	WI046	RAB	410,000	6,659,250	205	-90	0	39
Muckanippie	WI047	RAB	409,900	6,659,250	205	-90	0	35
Muckanippie	WI048	RAB	409,800	6,659,250	204	-90	0	36
Muckanippie	WI049	RAB	409,700	6,659,250	204	-90	0	38
Muckanippie	WI050	RAB	409,600	6,659,250	205	-90	0	39
Muckanippie	WI051	RAB	409,500	6,659,250	206	-90	0	39
Muckanippie	WI052	RAB	409,400	6,659,250	208	-90	0	39
Muckanippie	WI053	RAB	410,200	6,659,150	204	-90	0	39
Muckanippie	WI054	RAB	410,100	6,659,150	206	-90	0	36
Muckanippie	WI055	RAB	410,000	6,659,150	208	-90	0	39
Muckanippie	WI056	RAB	409,900	6,659,150	208	-90	0	39
Muckanippie	WI057	RAB	410,000	6,659,050	213	-90	0	39
Muckanippie	WI058	RAB	409,900	6,659,050	209	-90	0	39
Muckanippie	WI059	RAB	410,200	6,658,850	204	-90	0	33
Muckanippie	WI060	RAB	410,100	6,658,850	204	-90	0	39
Muckanippie	WI061	RAB	410,000	6,658,850	206	-90	0	39
Muckanippie	WI062	RAB	409,900	6,658,850	206	-90	0	34
Muckanippie	WI063	RAB	410,200	6,658,950	204	-90	0	39
Muckanippie	WI064	RAB	410,100	6,658,950	207	-90	0	39
Muckanippie	WI065	RAB	410,000	6,658,950	209	-90	0	39
Muckanippie	WI066	RAB	409,900	6,658,950	208	-90	0	33
Muckanippie	WI067	RAB	410,200	6,659,050	204	-90	0	38
Muckanippie	WI068	RAB	410,150	6,659,100	205	-90	0	38
Muckanippie	WI069	RAB	410,100	6,659,050	208	-90	0	39
Muckanippie	WI070	RAB	409,584	6,660,946	196	-90	0	34
Muckanippie	WI071	RAB	409,360	6,661,867	195	-90	0	39
Muckanippie	WI072	RAB	411,730	6,662,680	191	-90	0	33
Muckanippie	WI073	RAB	411,630	6,662,680	189	-90	0	39
Muckanippie	WI074	RAB	411,530	6,662,680	188	-90	0	39
Muckanippie	WI075	RAB	411,730	6,662,880	185	-90	0	39
Muckanippie	WI076	RAB	411,630	6,662,880	185	-90	0	39
Muckanippie	WI077	RAB	411,530	6,662,880	185	-90	0	34
Muckanippie	WI078	RAB	411,080	6,663,729	186	-90	0	34
Muckanippie	WI079	RAB	411,007	6,663,473	185	-90	0	39
Muckanippie	WI080	RAB	410,880	6,663,252	186	-90	0	36
Muckanippie	WI081	RAB	410,661	6,663,101	188	-90	0	36
Muckanippie	WI082	RAB	410,139	6,662,852	190	-90	0	34
Muckanippie	WI083	RAB	410,040	6,662,850	190	-90	0	34
Muckanippie	WI084	RAB	409,940	6,662,850	191	-90	0	39
Muckanippie	WI085	RAB	410,340	6,662,750	192	-90	0	34
Muckanippie	WI086	RAB	410,240	6,662,750	191	-90	0	35
Muckanippie	WI087	RAB	410,140	6,662,750	191	-90	0	34

Muckanippie	WI088	RAB	410,040	6,662,750	191	-90	0	39
Muckanippie	WI089	RAB	409,940	6,662,750	191	-90	0	39
Muckanippie	WI090	RAB	409,940	6,662,650	191	-90	0	39
Muckanippie	WI091	RAB	410,040	6,662,650	191	-90	0	39
Muckanippie	WI092	RAB	410,140	6,662,650	191	-90	0	37
Muckanippie	WI093	RAB	410,240	6,662,650	192	-90	0	39
Muckanippie	WI094	RAB	410,340	6,662,650	193	-90	0	34
Muckanippie	WI095	RAB	410,190	6,662,600	191	-90	0	34
Muckanippie	WI096	RAB	410,140	6,662,550	191	-90	0	39
Muckanippie	WI097	RAB	410,140	6,662,450	192	-90	0	34
Muckanippie	WI098	RAB	410,040	6,662,450	192	-90	0	39
Muckanippie	WI099	RAB	410,040	6,662,550	191	-90	0	39
Muckanippie	WI100	RAB	409,808	6,655,006	192	-90	0	39
Muckanippie	WI101	RAB	409,423	6,656,887	218	-90	0	39
Muckanippie	WI102	RAB	410,048	6,654,963	207	-90	0	40
Muckanippie	WI103	RAB	410,972	6,656,090	219	-90	0	39
Muckanippie	WI104	RAB	412,035	6,655,076	185	-90	0	39
Muckanippie	WI106	RAB	412,644	6,653,149	193	-90	0	40
Muckanippie	WI107	RAB	411,418	6,653,278	198	-90	0	40

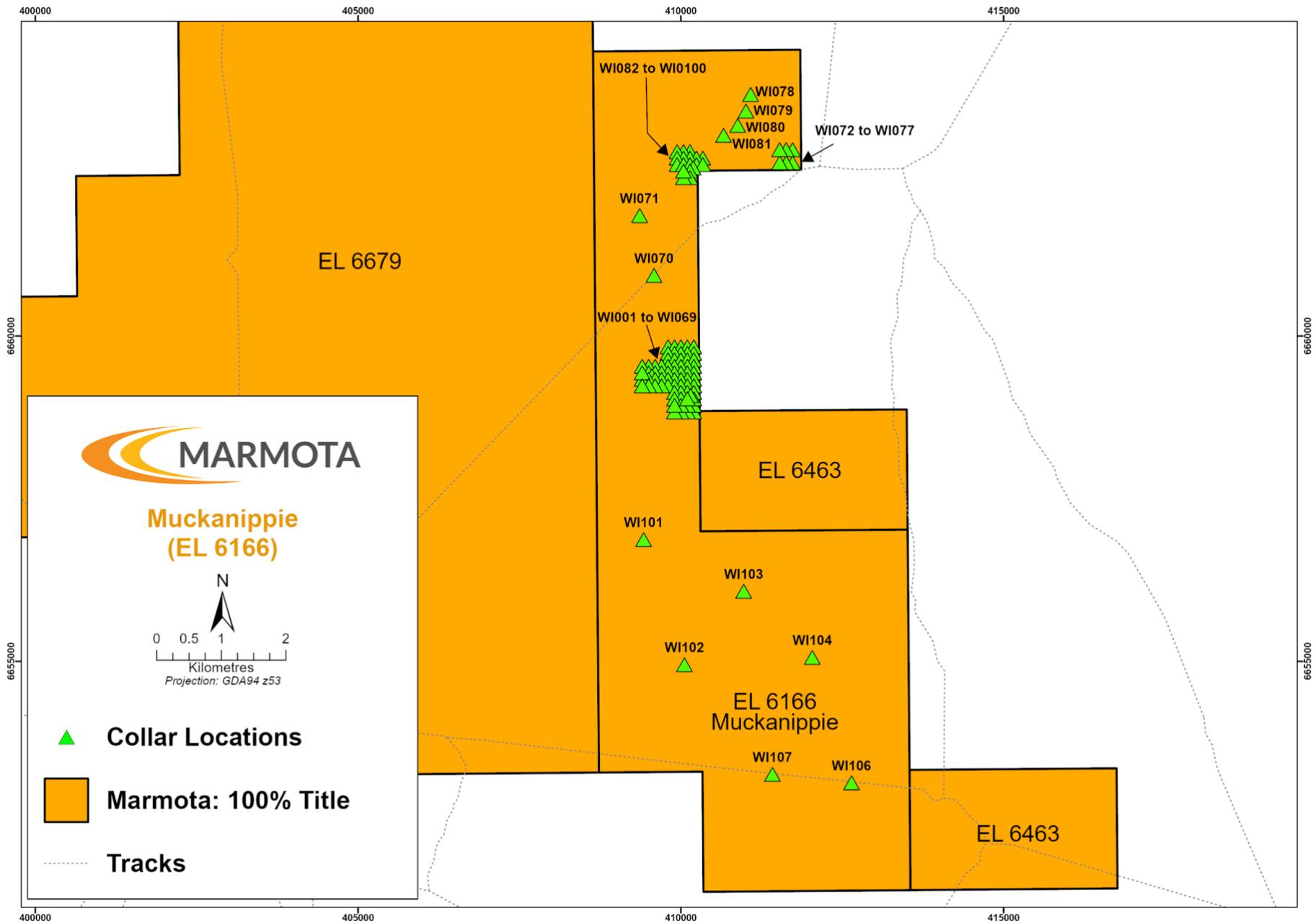


Figure 6: RAB drill holes ▲ Muckanippie (EL 6166)