



45 Ventnor Avenue  
 West Perth WA 6005  
 Australia  
 (AU) +61 8 9467 1444  
 ABN 86 641 565 139

11 March 2022

## ENCOURAGING VANADIUM EXTRACTION IN METALLURGICAL TESTING

Transition Minerals is pleased to disclose preliminary results of initial metallurgical test work. Vanadium extractions of **90.2%** and **94.0%** have been recorded for hydrochloric acid leaching of the Kiana and Vanadis material, respectively (Figure 1).

Transition Minerals’ Managing Director Mr Toby Foster stated *“these extraction rates are highly encouraging and exceed expectations. While it is early in our process of exploring for vanadium resources, they play a critical role to demonstrate prospects of potential economic extraction.”*

ALS Metallurgy Diagnostic Leaches																	
Project No.:		A23138															
Client:		Transition Minerals															
Project:		Sighter Vanadium Recovery															
Test Description:		Diagnostic Leaches															
Test Number	Feed Sample	Reagent 1	Reagent 2	Test Date	Duration (min)	Temperature (C)	Pulp Density (%)	Final Residue Conc (%)			Final Filtrate Conc (mg/L)			Extraction from Solids (%)			Mass Loss (%)
								V	Fe	Al	V	Fe	Al	V	Fe	Al	
HY12095	KMET	HCl		28-Feb-22	480	90	10	0.03	6.1	13.0	148	30020	1838	90.2	90.5	21.5	44.0
HY12096	VMET	HCl		28-Feb-22	480	90	10	0.05	3.5	7.6	508	28770	748	94.0	93.1	13.9	42.1
HY12108	KMET	H2SO4	HNO3	1-Mar-22	480	90	10	0.13	20.3	9.6	67	17710	1768	42.2	55.3	20.8	27.2
HY12109	VMET	H2SO4	HNO3	1-Mar-22	480	90	10	0.39	22.6	5.4	190	10440	652	34.7	33.5	11.7	15.7
HY12114	KMET	H2SO4	KMnO4	2-Mar-22	480	90	10	0.14	24.9	9.3	52	13110	1484	30.6	38.4	16.0	17.8
HY12115	VMET	H2SO4	KMnO4	2-Mar-22	480	90	10	0.41	24.0	5.3	165	8256	592	29.3	26.2	10.4	12.0

Figure 1: Summary diagnostic leach results.

ALS Metallurgy (Perth) was engaged to undertake vanadium recovery test work on the samples. Diagnostic leaching of crushed and milled samples using high acid concentrations was undertaken over a relatively short period of eight hours at atmospheric pressure and slightly elevated temperature. Further diagnostic leaches applying other methodologies are underway.

The test conditions were selected to investigate two properties of the ore samples, including the oxidation state of the contained vanadium (3, 4 or 5+), and the mineral phase in which it is bound (iron based or silicate). The tests may not all produce a high vanadium extraction, but rather indicate which leach conditions are favourable to achieve this. Subsequent testing will include partially optimised conditions to confirm extractions over the deposit variability to focus on vanadium leach kinetic recovery.

While the initial optimised extraction figures are likely to be higher than those achieved from an economically feasible bulk leach operation, they compare well against other projects globally at various stages of development (Figure 2). They provide confidence to Transition Minerals in the ability to recover vanadium from prospective ore material within its tenements. This preliminary investigation will contribute to future studies that determine the most economically viable recovery method of potential mineral resources within the Transition Minerals' Tablelands Project (Figure 3).

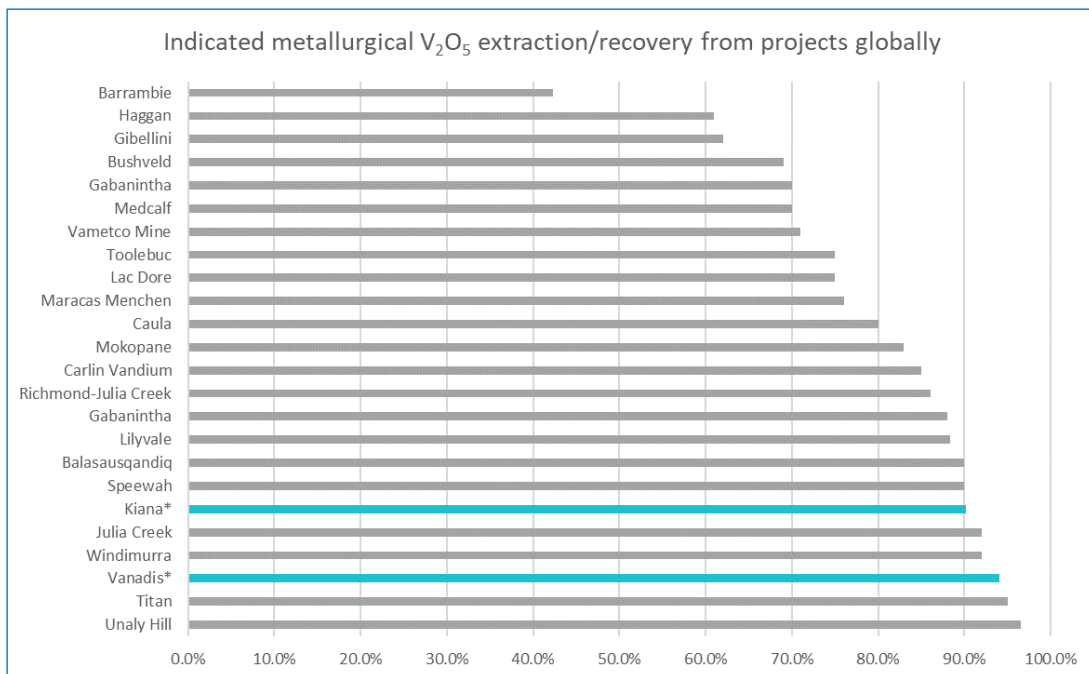


Figure 2: Best vanadium leach extraction results from Kiana and Vanadis, in the context of published extraction or recovery rates from projects globally.

The ongoing metallurgical test work is being carried out on bulk material from the Vanadis prospect and composite samples from the Kiana prospect obtained from surface sampling during the 2021 field programme. The submitted samples' representativity as potential ore material will be investigated during the 2022 drilling programme.

For further information, please contact:

Toby Foster  
 Managing Director  
 (AU) +61 460 344 628  
[t.foster@transitionminerals.com](mailto:t.foster@transitionminerals.com)

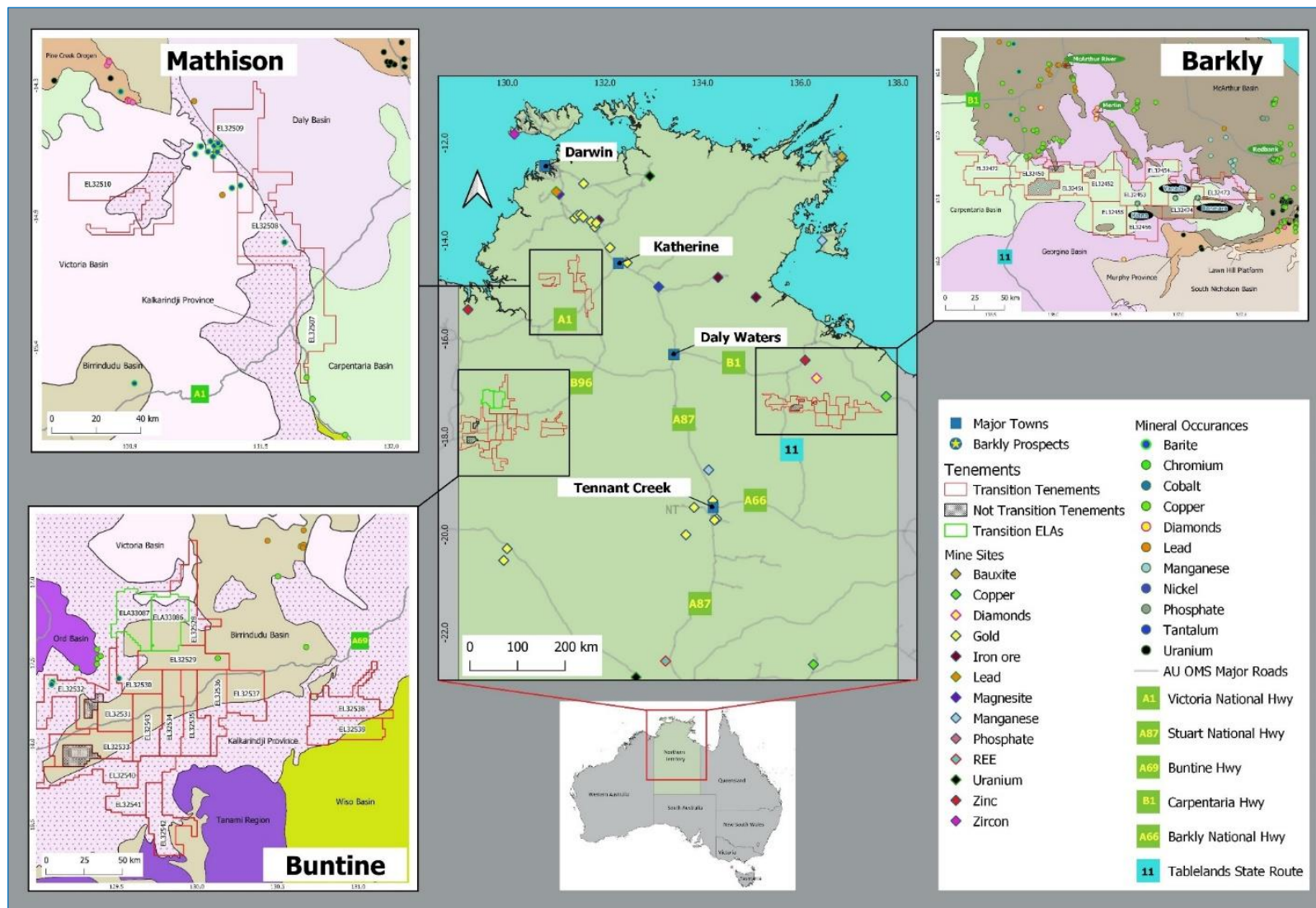


Figure 3: Transition Minerals' Tablelands Project map.