



QEM



## NEWSLETTER #2

### Julia Creek Vanadium Project

The purpose of this Newsletter is to provide stakeholders with an update on the Julia Creek Project (the Project). QEM Limited (QEM) is an ASX-listed company developing the Project, located in one of the world's richest critical minerals regions, on Wunumara Aboriginal Lands, six kilometres (km) south-east of Julia Creek in the McKinlay Shire, North West Queensland. The Project holds a globally significant vanadium resource and significant hydrocarbon resources, and it will deliver and utilise innovative and sustainable energy solutions.



### DRONE SURVEY UPDATE

QEM has engaged National Drones to conduct an aerial drone survey across the entirety of QEM's Tenements. The purpose of this survey is to baseline the current environmental condition of the tenement along with using the topographic data to conduct a flood modelling study.

National Drones have completed thousands of surveys and inspections since their inception in 2015 and have worked with some of Australia's largest companies across the resources, agricultural and environmental sectors.

The survey will be conducted over 5 days, with the team from National Drones using the Julia Creek Aerodrome as their take-off and landing base. The drone is a fixed wing petrol aircraft that will fly at approximately 300m above ground level during the survey.

National Drones will also conduct a small presentation for the students at the Julia Creek State School on Monday the 20th June.



## SODAR

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The Fulcrum3D Sodar is a fully integrated user friendly wind monitoring system and is delivered complete with its own trailer, solar power supply and communications. The portable monitoring system measures wind speed, direction and inflow angle up to 200m above ground level. The Sodar system will be used for low-cost site prospecting as QEM looks to investigate available wind resources and confirm turbine suitability.

Sodar was delivered and installed on-site on the 17th May.



## SOLAR

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The Fulcrum3D Solar monitoring system is a solar resource monitoring set up that has been designed to operate in the remote and harsh environments common at solar power station sites. The portable, stand-alone monitoring system aims to provide the highest quality solar data in addition to monitoring the performance of the operating power stations. Fulcrum3D's solar system will be used for QEM's site prospecting for a proposed solar farm.

The solar monitoring station was delivered and installed on-site on the 17th May.



## MET MAST

The Fulcrum3D Meteorological Mast (Met Mast) is a 160m tall steel lattice tower designed to accurately record wind speeds and wind conditions for a given area. The mast is fitted with several specialised meteorological instruments which will constantly record and share live data with the project to ensure the on-site conditions are factored into the Projects design parameters.

The steel lattice is approximately 639mm by 639mm wide and is comprised of 52 3-meter span components. The structure is supported by 39 pre-tensioned guy wires at varying radiuses around the base of the mast (maximum radius = 95m). The Mast was fabricated by RAT Engineering in Hughenden and has been transported to Townsville for galvanising and powder coating.

The Met Mast installation will begin on the 20th June with the concrete foundations and anchor blocks being poured on-site. The erection of the mast will commence on the 4th July and should take between 5-10 day.

The data captured by the meteorological mast will provide QEM with enough recorded data to complete the bankable/definitive feasibility study for the renewable project and assists in reducing the Projects uncertainties.

QEM intends to share the data gained from the Met Mast, Sodar and Solar Monitoring station with the Bureau of Meteorology, McKinlay Shire Council and the Julia Creek Aerodrome.



## ENVIRONMENT, SOCIAL AND GOVERNANCE REPORTING

QEM is committed to achieving tangible positive ESG outcomes, and has engaged independent impact monitoring technology company Socialsuite to ensure it can effectively measure, monitor and report on its progress across ESG metrics.

This information will be streamlined with other ESG-related initiatives QEM is undertaking. The implementation of this ESG process demonstrates QEM's tangible commitment to operate in the safest and cleanest way possible, while providing strong and sustained value to our shareholders. ESG reporting enables QEM to assess and further enhance the social and environmental initiatives they are already undertaking and forms the basis of QEM's purpose statement 'Developing a critical minerals project utilising innovative and sustainable energy solutions.'

QEM has set its initial ESG baseline and a tailored action plan that can be sourced from QEMs ASX

announcement dated 31st March 2022 – QEM proactively Adopts the global Standard for ESG Reporting.

## **ENVIRONMENTAL IMPACT STATEMENT (EIS)UPDATE**

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Epic Environmental is progressing the development of an EIS, undertaking extensive baseline studies at Julia Creek and extrapolating data from recently approved vanadium projects in the region. Epic comprises a team of scientists, planners and engineers with demonstrated experience in the collection and interpretation of baseline environmental data for impact assessments and has been active in the region since 2017. In order to understand impacts to environmental values, it is important to understand the baseline, or existing state of the environment.

### *Ecology Baseline*

In March 2022 Epic completed baseline ecology field surveys at the Project site to generate a baseline list of species. The field surveys involved trapping for small mammals, reptiles, bird surveys, vegetation studies and targeted searches for the Julia Creek Dunnart. No Julia Creek Dunnart were found during the survey. Understanding the habitat values of the Project site is important to inform what impact the Project may have on habitat connectivity and fragmentation, species populations and biodiversity in general.



### *Groundwater and Surface Water Baseline*

Groundwater monitoring wells are planned to be installed across the Project site in mid-2022, so that the groundwater baseline environment can be further understood. Monitoring will be limited to the relatively shallow water table aquifers and not anticipated to include the much deeper Great Artesian Basin aquifer. The timing and location of the drilling activities will be dependent on consultation with landowners. Once installed, the groundwater wells will be sampled monthly to obtain a baseline dataset of physiochemical parameters. Opportunistic surface water samples will also be undertaken during the monitoring events.



## **FURTHER INFORMATION**

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If you would like to register as an interested stakeholder please:

- Send your contact details to [info@qldem.com.au](mailto:info@qldem.com.au)
- Call us on +61 7 5646 9553

For more information on this project see <https://www.qldem.com.au/project/>