



## CONSMIN WOODIE WOODIE MINE PILBARA, WESTERN AUSTRALIA

Consmine Australia is a high-grade producer of manganese ore at the Woodie Woodie mine operation. Manganese is mainly used in the production of steel. The Woodie Woodie mine is a 24-hour, seven-day operation and runs with a crew of 400 on site at any time.

The harsh environment of Western Australia's Pilbara region tests all equipment, from massive dump trucks and fixed facilities like wash plants to lighting rigs, small-scale electronics and even clothing and footwear.

### SITUATION

The Woodie Woodie mine was operating on a dated analog radio set-up with lots of coverage black spots. The mine had twice started investments in radio upgrades to fix coverage issues, but the roll-outs were not successful. In one case, the gear was simply not up to the environment.

Besides issues with coverage and ruggedness, there were also concerns over the fact that there was no single channel across the entire site. This meant issues with getting authorization to enter an area, and potentially serious delays in the event of emergencies because the response team was on a separate channel.

### RESPONSE

To provide the Woodie Woodie mine with full coverage across the entire site, a six-site Tait DMR Tier 3 system was implemented, with five sites on transportable skids. The transportable sites are self-contained, with solar collectors serving battery banks capable of powering their site for up to six days.

Through Tait Unified Vehicle, the radio system is integrated with the mine's third-party lightning alert service to auto-trigger and help ensure blast and other vulnerable areas are clear well ahead of strikes.

The DMR system also enables advanced features such as GeoFencing and over-the-air programming (OTAP). GeoFencing enables radios to automatically switch channels as users cross from one zone to another, and with the OTAP ability of Tait EnableFleet, channel groups and GeoFencing rules can quickly be updated and rolled out.



AUSTRALIA

LOCATION



MINING

EXPERTISE

### SOLUTION OVERVIEW

- ▶ Tait DMR Tier 3
- ▶ Six sites, five on transportable skids
- ▶ 175 TP9300 Portable radios and 190 TM9300 Mobile radios
- ▶ Tait Unified Vehicle to generate automatic alert tones
- ▶ Logic Wireless Crosswire Dispatch and GPS mapping software



## OUTCOMES

The new Tait DMR Tier 3 system provides full coverage across the mine and allows supervisors to monitor their areas from anywhere on site. The new radio system is set up to closely resemble the way the analog system was organized, so user training was minimized.

**"The change was pretty well seamless and the uptake was phenomenal. People very quickly became used to it."**

– Erle Metcalf, Principal ICT, Consmin

The migration to Tait DMR has enabled the mine to review and often simplify its emergency planning and safety procedures, because many of them were based on the limitations of the old system, which needed quite complicated workarounds.

The integrated lightning alerts and GeoFencing safety features are two of eight feature enhancements the mine has planned as a result of the new system's capabilities. Tait EnableFleet has enabled Woodie Woodie to roll out any updates to the radio network much faster and more efficiently.

**"The over-the-air programming ability of Tait EnableFleet is another significant benefit, in the speed at which we can deliver things like new channel groups and GeoFence updates"**

– Jonathan Collyer-Petale, ICT Project Coordinator, Consmin

Because of past failures, this time it had to be right – the project had no other option but success. Full communications across the entire site, safety, ruggedness, reliability, ease of transition and the system's ability to support future safety and efficiency initiatives were all elements in the decision for a Tait DMR solution.

## BUSINESS BENEFITS

- ▶ Coverage across the entire mining site
- ▶ Enhanced safety features with integrated lightning strike alerts and GeoFencing
- ▶ Improved connectivity and custom applications & integrations with Tait Unified Vehicle
- ▶ Efficient fleet management with Tait EnableFleet
- ▶ Rugged equipment that can withstand the harsh environment
- ▶ Minimal need for user training leading to optimal uptake
- ▶ Based on open standards for interoperability and freedom of choice

**"With our new Tait Tier 3 system, our supervisors can monitor their areas from anywhere on site, and in the event of an emergency, we are assured of still being OK, with full coverage across the entire site."**

– Erle Metcalf, Principal ICT of Consmin