



## Dundee Precious Metals Tsumeb (DPMT)

Evaluation of Shunting Locomotives



### Background

Project Value: NAM\$5 000 000 | February – May 2015

Dundee Precious Metals Tsumeb (DPMT) operates a complex copper concentrate smelter near the town of Tsumeb, Namibia.

The primary transport of product between the plant and the Port of Walvis Bay is by rail. DPMT wanted to procure a new shunting locomotive to facilitate the movement and placement of rail wagons during loading and off-loading processes at the smelter.

An enquiry for a shunting locomotive, including a user requirement specification (URS), associated deliverables, and general requirements was provided to prospective suppliers. The enquiry was followed up by a site visit of interested parties to the plant.

RCE was appointed to determine the functional suitability and perform a high-level technical evaluation, including recommendations, of the locomotive offerings received.

### Key Features

The evaluation of shunting locomotive offerings comprised the following:

- Determination of the degree of compliance of the functional specification of the locomotives offered to the published URS prepared by DPMT;
- Analysis and confirmation of DPMT’s core technical requirements;
- A high-level technical evaluation of the locomotive offerings based on RCE’s applicable knowledge-base, practical user experience as well as subject matter research by a railway and rolling stock specialist.

### Services Provided

Using first principles, RCE Consultants determined the locomotive’s essential operational requirements. Inputs included operational information provided by DPMT and other Consultants, a site layout plan as well as an operational process description.

The locomotive offerings were studied and evaluated in terms of the requirements, as amended and supplemented by RCE. Illustrative tables were developed for ease of reference, aimed at comparing the different offerings.

Comparisons included compliance to DPMT’s URS and technical specifications, focusing on core functionalities and equipment. Actual end-user experiences and perceptions were obtained via direct communications with owners, operators, equipment manufacturers and local suppliers of the applicable equipment.

Additional subject matter research was performed enabling RCE to provide DPMT with an informed recommendation on the most suitable shunting locomotive offering.

### Outcome

RCE provided DPMT with an informed evaluation of the operational suitability of all the locomotive offerings for their specific application and operating environment.

The shunting locomotive, as recommended by RCE Consultants, has been in use successfully at DPMT for a considerable period of time.