



Case Study Kenmare

KENMARE

Client Background

Kenmare Resources plc has been a mining and exploration company since 1972. The company is a member of the FTSE 250 Index and has a primary listing on the London Stock Exchange and a secondary listing on the Irish Stock Exchange. The principal activity of the Group is the operation of the Moma Mine, which is located on the north east coast of Mozambique. The Moma Mine extracts heavy minerals, Rutile, Zircon, Ilmenite and other derivatives from beach sand through a sequence of wet and dry separation processes. The sand is pumped into the process from dredges operating in artificially created freshwater ponds just off the coastline.



“This will give us a more structured process to manage the development and improvement of our maintenance plans.”

Gert Diedericks, Maintenance Manager

Key Challenges

- Intent to improve interfacing to their financial management system.
- Absence of an asset criticality model, made it difficult to objectively quantify the relative importance of assets. Asset care plans were therefore developed primarily based on OEM recommendations and experience gained at the mine with limited differentiation between more and less important assets.
- Lacking a formal asset care plan development process, asset care plans varied in detail and tasks were not linked to failure modes, making it difficult to build up a comprehensive reliability basis that addresses all failures experienced at the mine.
- Special resource and MRO item requirements were not linked to asset care plans leading to sub-optimal planning and materials management practices and service.



Performance Improvement

- Model and tool to quantify asset criticality – giving direction to asset care plan improvement activities.
- Improved asset care plan quality leading to:
 - increased equipment availability
 - reduced risk
 - optimised maintenance cost, material management and labour utilisation.
- Asset care plan development and improvement activities are placed in a managed environment where actions are focused and improvements are sustained.
- Traceability of asset care plan tasks that can be linked to specific failures that should be prevented.

Tools and Technology

The following modules of On Key:

- Asset Register
- Asset Care Plan Developer
- Maintenance Manager.

The following business processes are implemented through the ACC Service:

- Asset Care Plan Development, to develop a set of asset care plans based on the criticality of assets
- Optimum Maintenance Mix methodology, to do focused development based on asset criticality.

The Asset Care Plan Development business process was introduced. The client and Pragma ACC personnel were enabled to implement the business process through the use of On Key's Asset Care Plan Developer module. The intervention consisted of the following activities:

- Develop a suitable criticality model for the client's requirements and configure in On Key.
- Perform criticality analysis on a selected section of the client's operation in On Key.
- Select a couple of critical assets (equipment level) to break down into suitable components for FMEA analysis. No work was performed at Asset Type level although the client was exposed to the concept and was informed that this would be regarded as a best practice for the same/very similar equipment working under the same operational conditions.
- Perform FMEA analysis, tactic selection and basic task development in On Key.