



## Terotek and Lihir Gold Limited

### Situation

The Lihir Gold Operation is a significant mining operation on the Lihir Island Group, in the east of New Ireland province, Papua New Guinea. In 2007 it was producing 780,000oz/per annum, owned and operated by Lihir Gold Limited (LGL), a Papua New Guinea registered business with further mining interests in Papua New Guinea, Australia and West Africa.

LGL had programmed a future \$US 1.2B plant upgrade, with the objective of growing capacity to more than 1,000,000oz/per annum. The workforce is comprised of many different cultures with the majority coming from the immensely diverse cultures of Papua New Guinea and a mix from the region dominated by the South China Sea. Management positions were largely Westernised. The company held a long term belief in developing the national capability to self-direct and manage and invested in workforce coaching programs and positions.

The operation had been struggling with the condition of their aging plant, and were frequently surprised by both asset and systemic failures. At that time, LGL were entirely reactive and largely ineffective in planning, scheduling and executing plant maintenance. Employees were not clear on their purpose, role, accountabilities, responsibilities and duties. The maintenance schedule in particular, comprised of jobs that were duplicates, unclear, ambiguous, had been scheduled multiple times, were not planned, and there was a high percentage of planning rework. In short - work management was broken and the Planning Coordinator set out to change this.

### Starting the Journey

Terotek were engaged in 2008 to develop a series of training packages to establish a baseline from which to align and grow the knowledge of the multi-national workforce. The scope included both Plant and Mine operations and the package was to have utility across the remaining mining interests.

Training alone however, was not going to achieve the long term intent of enabling the organisations work management process as there were many gaps in the process that needed to be overcome.

### Further Actions

Terotek continued to be engaged helping overcome gaps to enable work management, providing practical support including:

- Coaching and mentoring.
- Materials handling.
- Organisational structure alignment.
- Master data alignment.
- Maintenance optimization and data purification.
- Construct plant and equipment maintenance strategies.
- Maintenance budgeting support.
- Transition and post go live support from E6 to SAP.
- Long term planning for major rebuild events.
- Planning support to the execution phase of Total Plant Shut.

### Benefits

- Engaged empowered employees.
- Improved communication.
- Improved visibility of maintenance strategies.
- Improved materials management.
- Improved consistency and quality of resource balanced schedule.
- Work management enabled.
- Improved forecasting and budgeting.



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### About Terotek

We are the Asset Management health professionals specialising in the planning and implementation of asset health solutions developing inspired, enabled and actively engaged workforces as part of an effective Asset Management strategy.

We aim to develop long-term strategic partnerships with our clients in order to deliver low risk, high value services at reasonable cost.

Terotek's mission is to engage and partner with organisations, in order to provide the most effective strategic asset management alignment, planning and execution services.

Our service range leverages the framework of the ISO 55001 Asset Management Standard and the discipline of PRINCE2 Project Management. These two cornerstones underpin an approach best described as "best for your business", in that they ensure project alignment with your asset management program, and business objectives to assure business, technical and scope risk are all appropriately managed. Targeted benefits include reductions in uncertainty and waste, and improvements in reliability and throughput.

### Experience

Each member of our consultant team has been selected for: their base skills in workplace training and coaching; and their broad spectrum of experiences from tactical and operational through to strategic levels of asset management. Our consultants all have appropriate experience in planning and implementation of asset management change. They are seasoned practitioners, specifically selected for their work ethics. They are backed by our capable technical support team.

### Client References

*"I found the content and presentation very clear and easy to understand for all levels of maintenance personnel. I have been through a few similar workshops and training courses over the years however this was possibly the most useful with the content very well structured and easy to retain."*

D. Ungureanu | Chief Engineer  
Maintenance | LGL

*"Terotek can best be summed up as a results driven company. Their consultative capability, mingled with a can do muck-in work ethic enables them to get the right things done. They have ability to empathise with a client and to steer and share in the team effort to overcome any difficulties. In part the success of the project was Terotek's ability to build positive working relationships with a diverse range of cultures and appointments within a business. Terotek were able to achieve this through the ability to research, adapt and overcome along with the honesty and integrity in which they conduct their business. All of the Terotek personal selected to work on the project delivered more than was expected of them."*

L. Townsend | Planning Coordinator | LGL

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