

CASE STUDY**MAINTENANCE LABOR COST REDUCTION OF \$900K ANNUALLY FOR LNG PLANT**

For their Australian site, a multinational energy company wanted to gain insights in their maintenance performance and to validate their belief in a strong business case to improve the maintenance strategies for their LNG plant. MaxGrip was brought in to do an Asset Improvement Mapping (AIM) to identify improvement potential to optimize maintenance and realize a reduction in cost.

The supermajor produces natural gas and is a large exporter of liquefied natural gas to other countries.

CHALLENGE: MAINTENANCE COST AND QUALITY AUDIT

The oil and gas company wanted to gain better insight into their maintenance cost and wanted to get advice on how to implement sustainable improvements on their asset performance.

The focus for this Australian site was on the quality of maintenance; whether the right maintenance was allocated to the right equipment, based on prioritization and criticality of the assets. In addition, safeguarding the safety and integrity of the plant was an obvious fundamental precept.

SUMMARY

Challenge: Maintenance Cost and Quality Audit

Gain better insights in the maintenance cost and the quality of work (right maintenance allocated to the right equipment allocated)

Approach: Asset Improvement Mapping

- The assessment included a site-wide EAM data analysis based on MaxGrip's measure comparison chart
- Data deep-dive for ten equipment groups

Results: 10-20% labor cost reduction possible

- Improvement plan with roadmap and calculated savings and ROI
- \$900k annual savings on labor cost
- Return on Investment within three months
- More potential savings on spare parts, tools, etc.

APPROACH: ASSESSMENT OF IMPROVEMENT POTENTIAL

During the Asset Improvement Mapping we assessed what should be done to address their specific challenges and meet the business goals. Based on our successful work method, we mapped out the situation, set priorities and conditions for success. All the work was done remotely. In the end, we provided this energy company with a business case with substantiated KPIs and the Return on Investment (ROI). We also included a realistic roadmap starting off with concrete quick wins.

Step 1: Preparation and project management

The preparation stage started with defining the goals and scope of the project together with the client. We created a detailed planning with weekly progress meetings and clear update reports with tracked progress.

Step 2: Collecting Enterprise Asset Management (EAM) data

The next step focused on gathering EAM data and other information such as blueprints, criticality rankings, maintenance strategy documents and the workorder history of the last five years. The data and information were needed to do an analysis of the current condition. We also carried out a remote plant walk-down.

Step 3: Data analysis

This stage actually consisted of two parts. A first data assessment for the entire plant and a deep-dive analysis on ten selected equipment groups.

We performed the site-level assessment based on our own measure comparison list. The MaxGrip data measure list was built on many years of experience in EAM data analysis. The long list of measures also contains best practice KPIs which we use to compare the data to the expected standards. The result was an interim report that shows the overall asset health and maintenance quality.

Based on the preliminary report we selected ten equipment groups that underwent a deep-dive analysis. These could be assets of which, for example, the reliability is low, have high failure cost or which don't have compliancy safeguarded. For these equipment groups, our consultants analyze whether you are working as you should compared to the existing plant maintenance strategy documentation and the MaxGrip data measure list.

Step 4: Improvement plan and business case

The outcome is a concrete improvement plan, with the low-hanging fruit specified as the first stage to improvements. The final report out also includes a substantiated business case with KPIs and Return on Investment specified.

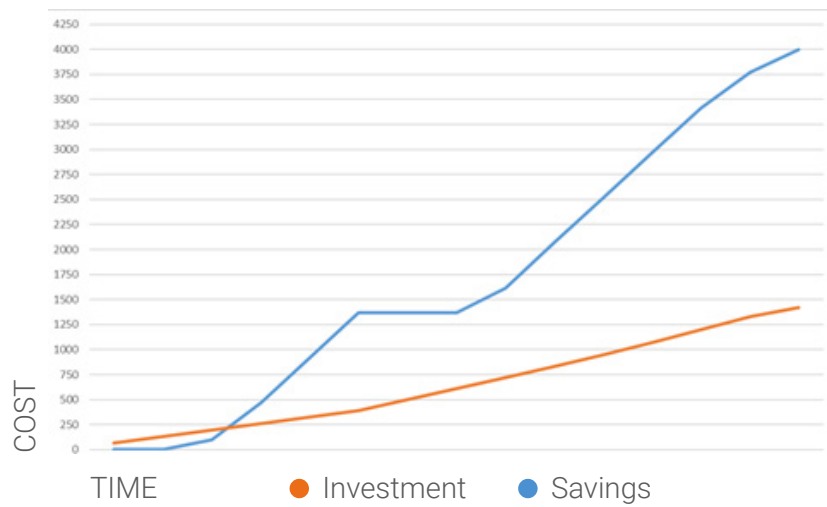
“Having done projects in the oil & gas industry for more than seven years, I can safely say that the business can benefit from a maintenance data analysis. EAM data can tell a lot about maintenance quality and can be a real cost driver for organizations. Additionally, usually it's a minimally invasive project that can be done remotely and delivers concrete improvements quickly.”

Ernstjan Meinen, MaxGrip consultant

RESULTS: \$900K YOY AND QUICK ROI

With a throughput time of only a few weeks, the Asset Improvement Mapping showed clear improvement potential for the maintenance organization to become more efficient and therewith contribute to a better asset performance.

The assessment identified that the maintenance organization can spend a minimum of 10-20% fewer man hours, saving \$900k annually. That is excluding savings on parts, tools, planning and scheduling and isolation work. If this company decides to take the next steps, the ROI is reached within three months.



ABOUT MAXGRIP

MaxGrip consultants enable organizations in asset-intensive industries to achieve continuous improvements on their asset performance, also using the power of Digital Transformation. MaxGrip embraces APM 4.0 with a maintenance track record of over twenty years in industries like Oil & Gas, Food & Beverages and Utilities & Infrastructure. We operate on all continents and have a global presence with our main offices in the Netherlands (HQ), USA, and Malaysia.

WOULD YOU LIKE TO KNOW MORE?



Mark Mulder
VICE PRESIDENT OIL & GAS
+31 30 747 01 38
mark.mulder@maxgrip.com