

CASE STUDY

Supermajor oil & gas producer achieves \$45mm risk reduction through RCM Implementation

MaxGrip conducts an RCM Analysis for a global oil & gas company with offshore platforms and helps them improve the availability of their assets to 91% while reducing maintenance deferrals.



ABOUT THE CLIENT

INDUSTRY: OIL & GAS
REGION: AMERICAS

SITE: OFFSHORE PLATFORM
TIMELINE: 2019 - ONGOING

MaxGrip's client, an oil and gas supermajor, is an offshore pioneer that powers the globe and continually pushes the envelope in the design, construction, and operation of world-class oil and gas producing assets. They operate multiple offshore platforms in North America. These platforms are used to extract and process petroleum and natural gases - which are then distributed globally.

THE CHALLENGE

The client faced challenges in establishing a defined PM strategy on their offshore platform in North America because the site features multiple assets. Each of these assets which houses thousands of pieces of equipment and instruments.

The maintenance strategy in-place prioritized equipment maintenance based on internal procedures, including a time-scheduled and zero-based strategy. However, they found that these methods made it easy to overlook **critical failure scenarios**. This would lead to a domino effect of unscheduled deferrals and unnecessarily high maintenance costs on critical equipment. With high production rate, a critical equipment failure can potentially lead to millions of dollars in losses.

After trying multiple strategies and not seeing the targeted availability, they decided to conduct an RCM analysis with MaxGrip to determine the optimal strategy to implement across the entire site that would help meet the targeted availability and provide cost savings.

DEVELOPING A COMPREHENSIVE SCOPE

To start the project, MaxGrip made it a top priority to help the client identify gaps within their foundational data, including their SAP CMMS, asset registry data, and procedures. This prefaced an RCM analysis, which is a cost-effective method to gather information on the most critical and problematic areas in an equipment. These gatherings are then used to develop a like-equipment strategy. MaxGrip then provided the client a comprehensive scope that included a(n):

- CRITICALITY ANALYSIS & FOUNDATIONAL DATA REVIEW
- RCM ANALYSIS
- RELIABILITY STRATEGY LIBRARY DEVELOPMENT

(contd.)

MAXGRIP'S SOLUTIONS

RCM STUDY BY THE NUMBERS (AS OF Q2 2021)

11

UNITS STUDIED

250

CRITICAL EQUIPMENT ANALYZED

282

REDESIGN IMPROVEMENTS AND SPARE
RECOMMENDATIONS IDENTIFIED

729

EXISTING TASKS VALIDATED

86

LOW-VALUE TASKS CLEARED

299

NEW TASKS ADDED

Develop a solid foundation from which to build on

Before a formal RCM analysis, MaxGrip's consultant led workshops with on-site engineers to get an up-close understanding of problematic areas and the equipment to target. After conducting a full **CMMS and asset registry review**, the consultant identified mismatches between the engineering drawings and the CMMS. With these findings, the consultant then presented improvements to the management of change (MOC) process to reduce inconsistencies in their CMMS.

Lay out the blueprint for timeliness and accuracy

With a better grasp and understanding of their problematic areas, MaxGrip performed an **RCM Analysis** on the most critical units to discover key areas to prioritize. This provided the client with a high-level overview of replicable scenarios across the entire site. This analysis also laid down the blueprint for ensuring the timeliness and accuracy of the PMs performed on critical equipment.

By extending the strategy across all units, it guaranteed cost savings while maintaining system functionality. As an add-on to go "above and beyond", MaxGrip also provided recommendations for the storage of Critical Spare Parts in the event of equipment failure.

Instill a culture of reliability

In addition to the analysis, MaxGrip led **RCM workshops** on-site with key personnel to establish a generic **Reliability Strategy Library** within the CMMS system, which created documentable and deployable strategies across all the assets on site.

THE RESULTS

A tailored, deployable maintenance blueprint

Through MaxGrip's expertise in identifying the most critical areas within a single equipment, the client now held the blueprint for a structured PM strategy that improved maintenance task orders and drastically reduce risk.



The right partnership = 91% availability

In partnering with MaxGrip, the client gained deeper insights into which equipment to prioritize and how to properly mitigate the risk of these units failing. Since the start of the project, the asset has seen 4% increase in availability over 3 years and achieved 91% availability with more improvements to come.

Bottom-line

\$45mm USD

IN CUMULATIVE RISK REDUCTION

MaxGrip is a global Asset Performance Management consultancy that enables asset-intensive organizations to improve their bottom line by optimizing asset performance and accelerating digital transformation. Our experts work with leaders in a broad range of industries, including Oil & Gas, FMCG, Power Generation & Distribution, Water and Wastewater, Infrastructure and Metals and Mining.



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