CASE STUDY

Unlocking $1M in asset optimization with Octave Asset Risk Analyzer

Key facts:

Company: Midstream oil & gas operator

Industry: Midstream oil & gas

Region: North America

Octave products used: Octave Asset Risk Analyzer, Attune APM *(HxGN APM)*

Key benefits:

- Over $1M USD in savings identified through targeted maintenance strategies and interventions
- Smarter, data-driven decision-making with actionable insights from reliability analysis and mean time between failure (MTBF) benchmarking
- Scalable framework for continuous improvement, adaptable across asset classes and future reliability initiatives

A midstream oil and gas operator struggled with inefficiencies in asset reliability and maintenance. Outdated reliability studies, inconsistent preventive maintenance practices and incomplete work order data limited the effectiveness of its Enterprise Asset Management (EAM) system. Without a clear business case to justify the investment, the organization continued to face rising costs, unreliable performance and missed opportunities for improvement.

Challenges faced

The operator's legacy processes created obstacles to efficiency and reliability:

- Outdated reliability-centered maintenance (RCM) studies were not operationalized, limiting their impact on current strategies.
- Condition monitoring was not used for analysis and work order (WO) data lacked completeness, especially in cost tracking.
- Inconsistent preventive maintenance (PM) schedules reduced efficiency and created unnecessary maintenance work.
- No clear business case for asset performance management (APM), making it difficult to justify investment in reliability solutions.

Goals

The operator set to modernize its approach to asset management with a focus on building a quantifiable business case for change. Leadership wanted to better leverage existing data, including work orders and condition monitoring, to identify risks, pinpoint underperforming assets and calculate their true impact. A key objective was to establish a roadmap for optimizing asset strategies based on failure analysis and MTBF calculations, while also creating a scalable framework that could be applied across asset classes. Ultimately, the organization sought to move from reactive, inconsistent practices to a proactive, data-driven model that could demonstrate measurable ROI and long-term reliability improvements.

Predictive strategy in action

To address these goals, the operator utilized Asset Risk Analyzer, a free Octave tool that helps reliability teams benchmark performance, assess risk and prioritize improvements across large asset populations.

The deployment focused on four major steps:

Business case development

The first step was to prove the value of asset performance management (APM). Using Asset Risk Analyzer, the team conducted a risk assessment using historical work order data from Oracle. This assessment:

- Classified work orders by failure type.
- Calculated MTBF across key asset groups.
- Addressed gaps in cost data by extrapolating labor hours against work orders.

Risk assessment and opportunity

With the business case framework established, the operator evaluated asset performance against industry standards, which:

- Benchmarked MTBF values to identify underperforming assets.
- Identified high-risk exposure and large opportunity costs across 179 assets.
- Discovered an optimization opportunity valued at $1M USD.

Asset class analysis

Next, the team performed deep dives across multiple asset classes.

- Pump analysis revealed chronic offenders representing ~0.5% of the maintenance budget.
- Fan analysis uncovered a previously unknown issue causing repeat failures and costly repairs.

Strategy optimization roadmap

Finally, the operator developed a roadmap for long-term strategy refinement in order to:

- Establish dynamic failure classification and continuous MTBF calculations.
- Design comparisons between preventative maintenance (PM) schedules and actual failure data to refine strategies over time.

Proven value

Using Asset Risk Analyzer, the midstream operator gained a clear view into asset health and risk exposure. The analysis uncovered:

- Opportunities for over $1M USD in potential savings through PM optimization and targeted interventions.
- Reliability insights, even with imperfect data, by identifying chronic offenders and failure trends.
- A scalable methodology that can extend across asset classes and incorporate production impact analysis.
- Early evidence that aligning preventive maintenance with actual asset conditions leads to smarter prioritization and greater operational efficiency.

These findings provided leadership with measurable evidence of value and a strong business case for taking the next step.

Looking forward

The insights uncovered with Asset Risk Analyzer provide both a compelling business case and a clear roadmap for adopting Attune APM. Rather than relying on outdated, one-time reliability studies, the operator can now pursue a continuous, predictive approach that

embeds optimization strategies into everyday operations. With Attune APM, the company can evolve from analysis into action, driving sustained reliability improvements, strengthening efficiency and building a scalable framework that supports long-term asset performance.

Visit our website to learn more about Asset Risk Analyzer.

About Octave

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property and assets – for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.