

An Oil Sands Producer uses Lean Six Sigma to solve “sticky” problems and delivers millions in results

All organizations have them...sticky problems. Problems created by those processes, practices, assumptions, and behaviors that made sense at one-point, but failed to evolve with the organization. In some cases, these problems are complex, and organizations lack the problem-solving skills to adequately address them. In others, the symptoms of the problem are visible but difficult to link back to a specific root cause. In still others, inertia has taken over and the organization simply has not had the time or motivation to step back and challenge their assumptions that create the inefficiencies and loss. All three of these scenarios were present at a large oil sands producer and it was costing them millions of dollars a year. The company partnered with Evolve to solve some of their most significant sticky problems and create capability within the organization to continue addressing these types of problems into the future. In just over a year, the program had delivered more than \$7MM in value back to the business and was on-track to deliver over \$10MM.

Evolve worked with the client to build a program customized to their unique needs. Solving their sticky problems required a fundamental shift in how the organization approached problem solving. It was critical to create a program focused on embedding a different way of thinking, rooted in structured, data-based problem solving. Getting to the real root cause of

issues was the only way to ensure that the problems were eliminated and would not reoccur. It also could not be a one-time initiative or campaign to solve a few specific issues. The program needed to focus on building the capability and culture to create an organization that would continually apply this approach to solve both existing and new problems. Key design criteria for the program included:

- Development of on-site problem-solving capability
- Cross-functional, cross-shift participation to embed Lean Six Sigma principles across the organization (Operations, Engineering, HSE, Support Departments, etc.)
- Practical application to real problems to reinforce learnings and deliver results
- Engagement of site leadership to build ownership and sustainability of the program

BY THE NUMBERS:

Strategic Projects

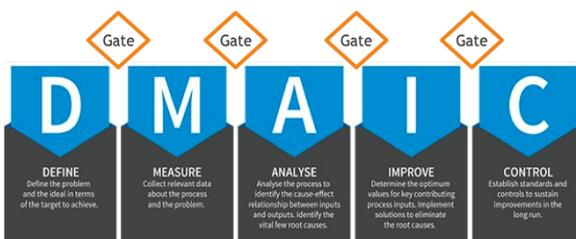
14 projects

Results

\$9.8 MM

Capability Developed through Greenbelt Training

23 Candidates

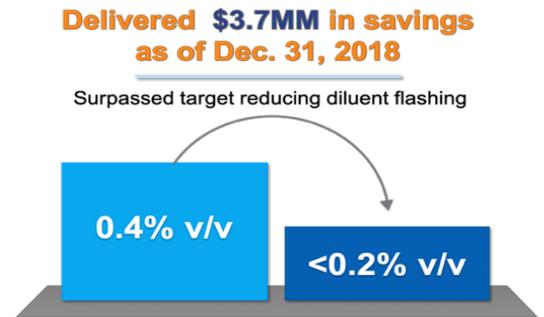


The company selected Lean Six Sigma as its problem-solving approach of choice. Lean Six Sigma provided the structure and rigor that the company desired. The DMAIC Methodology (Define, Measure, Analyze, Improve, and Control) ensured teams applied the necessary level of due diligence at each step in the process, from ensuring the problem was clearly defined to validating the data used to make decisions, to putting the necessary controls in place to ensure the solutions were sustainable. In addition, the Gate Review process ensured key stakeholders were engaged along the way.



One of the benefits of Lean Six Sigma is that it can be applied to solve a wide variety of problems. In this case, the opportunities could be bucketed into three categories: cost reduction, operational improvement, and operational efficiency. Examples of specific projects included:

- Operational improvement - improving the uptime of the Sulphur Recovery Unit to reduce costs, support increased production rates, and ensure environmental compliance.
- Cost reduction - reducing the amount of diluent being lost to the mixed fuel gas system through flashing.
- Operational efficiency - Evaluating the operators' daily tasks to identify value added and non-value added tasks and restructure their day to reduce the amount of non-value added work.



In a little over a year, the organization had delivered significant results and trained 23 individuals in Lean Six Sigma; 15 in the first round of training and eight in a subsequent round. Thirteen of the first-round trainees had completed their projects and achieved Green Belt Certification.



While the value delivered through the training and projects were important, the results would be short-lived without the necessary systems and behaviors to ensure sustainability. This was a primary element to create the cultural shift. The program was designed to engage the leadership and build their understanding of Lean Six Sigma and their role in ensuring its sustainability. Leaders served on the Lean Six Sigma Steering Team and had a key role in defining what Lean Six Sigma would look like in their organization. The

engagement of the leadership to build the program, coupled with the results delivered, helped change the underlying beliefs of the organization and got the organization thinking about solving problems in a different way. By installing a robust management system supported by the right leadership behaviors, the program ensured that Lean Six Sigma and its sustainable results, would continue on into the future.

The purpose of Evolve is to help organizations Thrive, Learn and Grow.

Evolve helps leading energy and chemical companies deliver significant value in capital, production, cost, risk and growth, that continues to improve long term. We believe that consulting interventions should put clients on a different trajectory: a changed belief in what's possible, with the capability and culture for ongoing improvement and agile response to new challenges.

Evolve - The Art of Implementation®. Visit our website at www.evolve.cc.