

Reduction of Variability Drives Benefits Over \$700M at Shell

Company: Shell Exploration & Production West | **Sector:** Oil & Gas |

Location: New Orleans, Louisiana USA |

Services Provided: Work Management, Materials Management, Asset Healthcare, Contract Services Management |

Client Testimonial: "The way that people even think about work has changed and it's changed for the better"

- John C Lebas Jr. P.E., Logistics Manager |



SITE:

A number of oil and natural gas production units in the Gulf of Mexico, Southern Texas and the Rocky Mountains. The project was based at Shell Exploration & Production (SEPCo) headquarters in New Orleans, LA.

CHALLENGE:

Prior to working with SAMI, SEPCo had initiated several attempts to improve facility maintenance operations. These initiatives failed to gain adequate traction within the organization to institutionalize the work processes and discipline required to achieve the desired asset reliability and maintenance performance. Additionally, several initiatives were underway that were aimed at improving operating process reliability. SEPCo management came to the conclusion that asset reliability and process reliability are interdependent. They decided that an integrated initiative aimed at both process and equipment reliability would improve the pace and penetration of the implementation.

HOW WE HELPED:

We began our work with an assessment of the current state of the maintenance practices as part of a Focused Results Delivery (FRD) process. The purpose of the FRD was to establish an aligned vision and clear accountabilities for measurable performance improvement and addressed the weaknesses in strategy, processes, methods and tools commonly used to manage assets at SEPCo operating locations. We then developed a strategic plan that included operational initiatives to improve SEPCo's processes, systems and practices. Once we had a strategy, we developed a detailed implementation plan that would provide cycles of learning throughout the organization by using a wave approach.

Working as part of an integrated cross functional management team we developed and installed:

- A Work Management System (Phase I) including:
 - * A planning process for maintenance activities
 - * A scheduling process to manage maintenance activities
 - * An organizational structure to support the work
 - * Managing and performance indicators
 - * SAP functionality to capture data, establish equipment hierarchy, and develop reports to manage maintenance functions
- A Materials Management Initiative (Phase I) with the

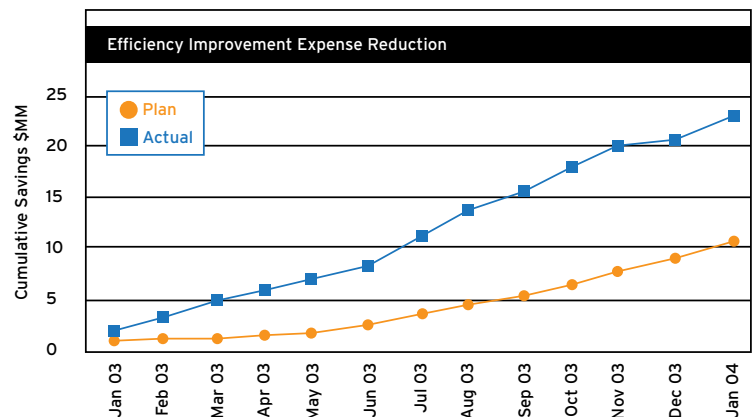
following elements:

- * Critical spare parts lists for each asset
- * Initiate the development of Bill Of Materials for each asset
- * Develop a warehousing strategy
- Contract Services Management (Phase I) including:
 - * Contractor management process
 - * Contractor selection process
 - * Contractor usage process
- Asset Healthcare (Phase II)
 - * Root Cause Analysis of Equipment & Process related failures
 - * Equipment Owner Concept to establish line level hands-on owners/improvers of equipment performance
 - * Equipment History Capture and Data Management to support equipment performance analysis

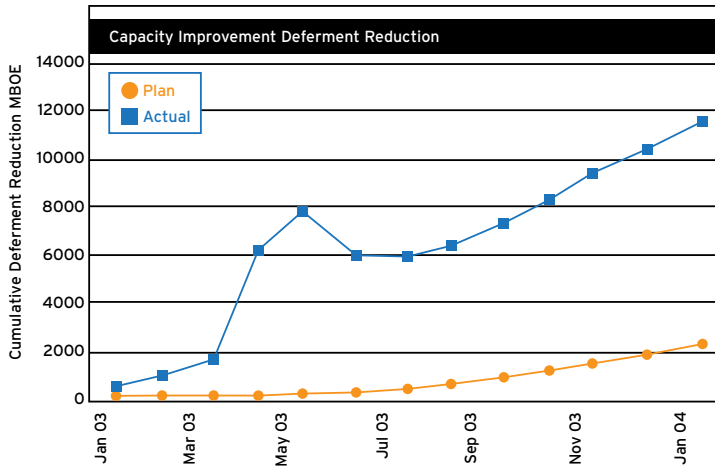
RESULTS:

The results exceeded the projections and the potential upside forecasted in the business case. The Strategic Plan identified gaps and recommended actions and a business case to invest \$12M to achieve \$250M. The benefits captured reached \$26M USD in expense savings and \$700M USD in production cash-flow improvement. In addition, there were major improvements in the key process metrics and leading indicators with manpower utilization reaching 57% and a 45% reduction in reactive work. All existing facilities were certified successful.

Cumulative Expense Savings Reached 26 Million USD



Reduction in Lost (Deferred) Production Value > \$1 Billion USD



CLIENT TESTIMONIALS:

“SAMI’s willingness to get out there and work elbow to elbow and become one of the guys in the field helping with the overall cultural change and improvement effort is a real strength”

- Dwight Johnston, Operations Services Manager

“SAMI as an organization has a lot of strengths. Clearly their leadership is solid and understands their objectives in what they are trying to achieve. Their approach to working with companies is very much one of collaboration and very much one of making sure they deliver what the customer and what the company they are working with is looking to achieve.”

-Jon Unwin, Operations Manager

“The improvements that we achieved through this project working with SAMI are very clear. We have much lower levels of production deferment now than we had prior to the beginning of the work and we know with higher accuracy and a higher level of confidence what the causes of the deferment that we have today are and that’s important to allow us to continue to improve”

-John C Lebas Jr. P.E., Logistics Manager

“If I would compare this project with all similar projects we have done in this area; the main difference is that this one has proven to be sustainable. We’re in a three year journey and typically previous efforts would ramp up to half a year and then would basically go back to 0 because we did not manage to sustain it. In this case, we have chosen a cultural change where we have the cultures integrated with the executors. That, I think, is the big change of this particular project compared to previous ones.

-Ernst Den Hartigh, Operations Services Manager