



Bits In Glass
Unlock Your Potential

CASE STUDY

**LOWERED ASSET LIFECYCLE
COSTS BY \$100,000 PER DAY**

BACKGROUND

about the client

The client is an integrated energy company engaged in the exploration for, as well as development and production of, oil and gas products -- including crude oil, bitumen, petroleum, and natural gas.

The company has operations across Canada, the United States, and Asia.



***“Bits In Glass helped turn our business unit from a cost center to a revenue center.*”**

Not only was there a 200% return on investment, but we were also able to meet very aggressive timelines and deliver more business functions than we originally identified.”

- Lead, Business Optimization

RESULTS

FROM 190+ DAYS TO 50 DAYS



FASTER CYCLE TIMES

Cycle times were reduced from an average of **192 days down to 50 days, a 74% reduction**, leading to faster time to production and increased capacity to drill more oil wells.



SAVING \$100,000 PER DAY

LOWERED COSTS

The new streamlined asset lifecycle management process lowered costs by **up to \$100,000 per day**, providing a total annual cost savings of \$15 million.



\$22 MILLION NETBACK NEW REVENUE

INCREASED REVENUE

Better process management led to increased production, **quickly realizing \$22 million** of netback new revenue.



ELIMINATED 800,000 LINES OF CODE

IMPROVED EFFICIENCY

Eliminated 800,000+ lines of code across systems, leading to dramatic operational efficiencies and employee satisfaction.



5 STAGES

ASSET LIFECYCLE
MANAGEMENT



1 REQUEST TO DRILL

Address all regulatory rights and issues before drilling an oil well



2 REQUEST COMPLETION

Plan for and address all regulatory rights and issues for sub-surface activities after drilling



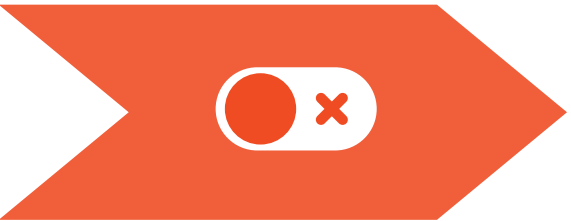
3 PIPELINE WORK REQUEST

Plan and execute pipeline tie-ins or build new pipelines and/or pipeline facilities



4 GAS MIGRATION

Manage toxic gasses at well sites to keep residents safe and meet local regulations



5 REQUEST TO RETIRE

Identify which pipelines are inactive and need to be retired

CHALLENGES

This initial stage of asset management always involves many departments, from engineering through to legal, and includes numerous resources. It’s also a time-sensitive process as it’s revenue-generating.

The company’s approach was highly manual involving a mix of disconnected paper, email, and system-based processes, making it complicated and expensive. Plus, competitors were completing this process faster and at a lower cost.

After a hole has been drilled in the ground, energy companies need to complete the drilled hole in order to begin production from it, acquire land rights and permits for access to surface and subsurface activities, and adhere to regulatory variances across regions.

The client performed everything manually, requiring vast amounts of paperwork, spreadsheets, and an aging legacy system with outdated functionality. This made the process costly, inefficient, and prone to regulatory and operational risks from human error.

This stage of asset management requires capturing, tracking, and reporting on all activities required for approval to construct, repair, or upgrade pipeline infrastructure and facilities.

The company had spent many years building and supporting SAP legacy applications to manage this highly complex workflow for coordinating thousands of employees across locations and departments.

Custom SAP modules became increasingly costly to maintain and the time-to-value was slow, thereby creating constant delays and challenges meeting regulatory targets.

To ensure toxic gasses are vented safely from oil wells and away from residential and commercial centers, there are regulatory measures that oil and gas companies need to monitor and comply with. Failure to comply results in public hazard, increased scrutiny, and potential production halts.

The client was using inefficient paper-based processes with manual routing from person to person that created critical delays and increased the risk of public safety issues from potential gas leaks.

This final stage of the asset management process also involves collaboration across multiple departments.

No prior decision making process or system had ever been implemented, so the company needed the ability to make informed decisions on retaining, suspending, or retiring a pipeline.

Information regarding oil wells was held in a siloed manner across various departments, with the inability to pull and present this information to decision makers in a ‘single pane of glass’.

5 STAGES

ASSET LIFECYCLE MANAGEMENT



1 REQUEST TO DRILL

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3 PIPELINE WORK REQUEST

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SOLUTIONS

Using Appian’s low-code workflow capabilities, we built a fully automated inter-departmental process and eliminated the previous mix of paper & system based processes.

Now, all affected departments are automatically notified of tasks they need to complete and real-time insights and tracking details are provided to help measure cycle times and identify bottlenecks for future improvements.

Automating this initial stage of the process also allowed the client to meet complex regulatory requirements that differed based on geography and the specifics of the oil well being drilled.

CHALLENGES

The company’s approach was highly manual involving a mix of disconnected paper, email, and system-based processes, making it complicated and expensive. Plus, competitors were completing this process faster and at a lower cost.

What used to be handled manually with paper forms, documents, and spreadsheets is now completed digitally, with automated notifications and hand-offs to various departments and stakeholders.

Users can also track the progress of this stage with real-time visibility into the status of different tasks and permits.

Because of Appian’s low-code nature, the client was able to re-use the process built for stage one, and easily configure the changes needed for stage two, accelerating the development time and enabling implementation in a matter of weeks.

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We replaced the custom SAP legacy applications the client had in place with a true case management process within Appian, providing a ‘single pane of glass’ that seamlessly displays information from disparate systems into one integrated and actionable view.

By getting rid of custom applications, the client now has greater flexibility to adapt the process to ever-changing regulatory requirements without compromising core functionality or incurring significant development costs.

The company had spent many years building and supporting SAP legacy applications to manage this highly complex workflow for coordinating thousands of employees across locations and departments. Custom SAP modules became increasingly costly to maintain and the time-to-value was slow, thereby creating constant delays and challenges meeting regulatory targets.

We enabled the client to eliminate human error by automating this critical process that could save lives in the event of toxic gas accumulation.

Complex business rules and criteria are now easily configurable, providing the emergency response team with greater visibility and notifications on toxic gas levels and their management.

In addition to managing the safety of residents and field technicians, the client is now better able to meet strict regulatory protocols and quickly adapt to changing market conditions.

The client was using inefficient paper-based processes with manual routing from person to person that created critical delays and increased the risk of public safety issues from potential gas leaks.

Appian’s rich integration capabilities allows the client to pull information from disparate sources in real-time, which provides visibility into field asset information as it evolves over time. Plus, they can better manage the assets as they approach and meet the end of their production life.

These integrations also allowed key stakeholders to use the data in an actionable manner, facilitating better informed decision making.

No prior decision making process or system had ever been implemented, so the company needed the ability to make informed decisions on retaining, suspending, or retiring a pipeline. Information regarding oil wells was held in a siloed manner across various departments, with the inability to pull and present this information to decision makers in a ‘single pane of glass’.



GET BIG ON YOUR TEAM!

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