

# Answers for Well Planning and Construction

Well planning and construction is one of the most demanding jobs in the Oil and Gas industry. While methods and practices vary, the end result should be a well that is safely drilled, smooth, precise, and completed as fast as possible.



**Safe** – No one gets hurt. You know where to expect trouble.



**Smooth** – Design wellbores that are easier to drill, and less expensive to produce and maintain.



**Precise** – Hit the geologic target. Nothing else.

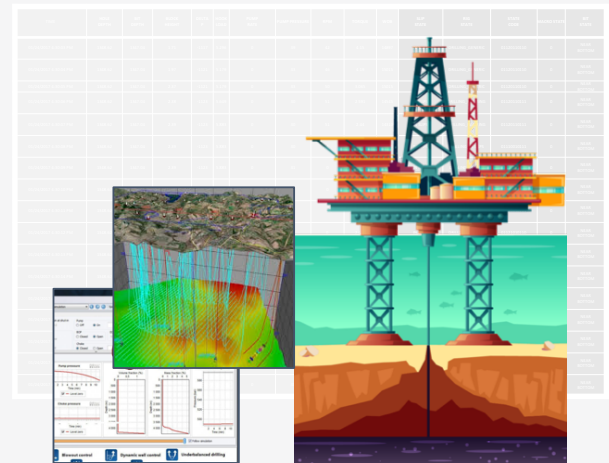


**Fast** – The biggest part of your CAPEX is the drilling rig, 50 percent of your well cost.

## Exploration & Production Companies (E&Ps) have of plenty of data, plenty of analytics, and unbelievably smart people.

- E&Ps were early adopters of instrumenting assets with sensors, and as a result, have vast volumes of semi-structured data on hand that measure dozens of parameters in regular intervals.
- Well planning and construction is supported by SCADA systems, simulation tools, and seasoned experts.
- Using this data and analytics, people make numerous decisions with the goal of optimizing desired outcomes. **However, E&Ps are falling short of operating assets at their maximum capacity.**

**Before any E&Ps can obtain a single drop of oil, they need to deal with data – oceans of data.**



## It's time to make well planning and construction decisions in a vendor-agnostic way.

Data and analytics supplied by oilfield services companies present two barriers to optimizing the well planning and construction process:

- **Siloed** – Oilfield vendor supplied data & applications are siloed unto themselves, missing context and results in wells been more expensive and less safe, smooth, and precise than they ought to be.
- **Biased** – Further, they are inherently biased towards recommending their own products and make it difficult to transition from one vendor to another without loss of continuity.

## Outcomes from an integrated approach to decisioning

By removing data silos and bias from the equation, E&Ps have a more complete picture and the ability to optimize decisions that are in their interest. An integrated approach to data and analytics can help E&Ps realize significant business outcomes:

Based on 25 rig fleet and 20-day wells

**\$4 – 19MM savings per year** Reduced well costs between 1 – 5%

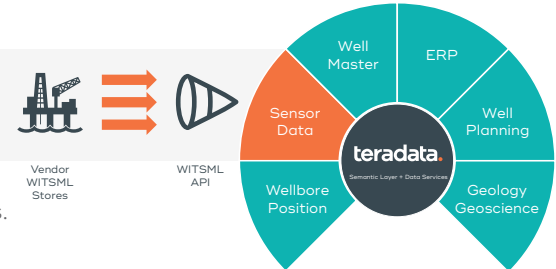

**50% + risk reduction** Avoiding and mitigating problems results in less risk

**10 – 25% reduction in TCO** Smoother wells are cheaper to operate and service

**\$5 – 25MM well NPV improvement per year** Increased production between 5 – 10% as a result of more accurate placement

## A Better Way

A complete view of operations across all data, with powerful, easy-to-use advanced analytics:

Capabilities needed	Teradata Vantage
<b>Integrated data model</b>	<p>The Teradata oil and gas data model abstracts the multitude of oilfield services data providers into a single view.</p> <ul style="list-style-type: none"> <li>• Taxonomy with fully harmonized mnemonics.</li> <li>• Data quality checks and corrections.</li> <li>• Data governance, referential integrity, and ordinality.</li> </ul> 
<b>Pre-build connectors across various vendors and data sources</b>	<p>WITSML connectors and transformation logic to quickly source new data.</p> <ul style="list-style-type: none"> <li>• Parallel ingestion</li> <li>• Industry standards</li> </ul>
<b>Self Service analytics and tools</b>	<p>Powerful, easy to use advanced analytics through SQL and flexible programming languages.</p> <ul style="list-style-type: none"> <li>• Machine Learning</li> <li>• Geospatial</li> <li>• Time series</li> <li>• Graph</li> <li>• Temporal</li> <li>• Statistics</li> </ul> 

For more information on how Teradata can help your organization, contact us at [Teradata.com/contact-us](https://www.teradata.com/contact-us).

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