

# BI in **Upstream** Oil and Gas

**Asset management**

A Brytlyt Use Case

## Lease Operating Statements

A Lease Operating Statement is a report that covers an oil and gas property and provides detail on production volumes, revenues, associated lease operating expenses, taxes and other expenses. These statements are key to commercial decision making.

## The Customer

An independent upstream operator in the energy sector, specialising in data-driven exploration and production. The operator is a TIBCO Spotfire user, a visualisation platform common within the energy sector. Whilst TIBCO Spotfire is used extensively in oil and gas, other visualisation tools like Tableau and PowerBI are also used.

## The Challenge

To interactively visualise large datasets at speed using tools such as TIBCO Spotfire, PowerBI and Tableau. These datasets are large with hundreds of millions of rows that include geospatial data and are aggregated to produce daily Lease Operating Statements.

Current visualisation tools being used are not capable of handling the scale of data required. The result is delays of hours just loading data into the visualisation platform. However, the visualisation tool itself is an industry staple and gold standard, with functionality tailored to meet the needs of the energy industry. Users would like to keep the visualisation tools and solutions they are already using.

The goal was not to replace this visualisation tool but rather to improve upon it by accelerating the performance capability of the underlying database.

## The Solution

A GPU accelerated database like Brytlyt's can load, query and deliver results on hundreds of millions of rows in milliseconds. This is a transformational improvement on what is currently used today.

The Brytlyt solution can be deployed either as on-prem or in the cloud, giving the operator the option to source and allocate their own GPU resource to maximise availability and speed.

Brytlyt is a PostgreSQL database. Using PostgreSQL connectors, the Brytlyt database can supercharge third party visualisation platforms.

It is quick and easy to load data directly from the operator's data source directly into GPU memory using a data loading function from within Brytlyt. Users can continue using their visualisation platform of choice by simply switching to the inbuilt PostgreSQL connector all visualisation platforms have today.

The Brytlyt database performs all the heavy lifting, with queries sent directly from the visualisation tool to the database, allowing the user to access insight in real time.

## The Results

In a real-world reference case study, a Brytlyt database is being used to power a solution in production.

Performance tests show a massive improvement in time from hours to milliseconds for generating Lease Operating Statement (LOS).

The client no longer has any issues whatsoever in dealing with daily LOS data, and in an industry when time very much equals money, the vast reduction in latency of this process equates to direct financial gain.

The improvement accessing Lease Operating Statement in real-time translates into faster more accurate decision making. This in turn having a direct impact on the bottom line of the operator.

## About Brytlyt

Brytlyt is a global market leader with a mission to transform the way organisations obtain value through data. We innovate and create next-generation technology solutions for our clients, to solve tomorrow's data problems as well as today's.

Brytlyt is the fastest and most advanced GPU accelerated database in the world – with a comprehensive analytics visualisation workbench with in-database deep learning and AI capabilities. The platform seamlessly integrates with your existing systems to accelerate your workloads and empower speed of thought analytics for billion-row datasets.

We work with global partners in a range of sectors including TIBCO, Accenture, IBM, Nvidia.