



Olinto Gomes de Souza
Senior Geologist

Finding black gold in Brazil

Petrobras uses SAS Analytics to find oil – with record results

Industry

Oil and Gas

Business Issue

Analyze massive amounts of data in order to accurately identify areas likely to produce oil.

Solution

Constructing analytic models with SAS makes it possible for Petrobras to identify rock breaks that produce oil or gas, significantly increasing the output of oil and helping to recuperate hydrocarbon supplements.

Benefits

Using SAS, Petrobras has achieved record results, including a daily record output of 2,000,238 of oil on Dec. 25, 2007. The previous record was 1,000,912 barrels.

Imagine that your job is to analyze packages of rocks with geological ages between 5 million and 150 million years. Your company relies on the results of your analyses to make multimillion-dollar investments in constructing oil wells at sea. Feel the weight of the responsibility?

Simply put, that is the daily challenge of the senior geologist at Petrobras, Olinto Gomes de Souza. His challenge is to undertake projects of this nature and manipulate vast volumes of data.

“Our people work with huge quantities of data and the vagueness related to that data,” says de Souza, who uses SAS Business Intelligence in his analyses. “Our challenge is finding new technologies that are going to solve our problems.”

“Petrobras is one of the companies that has used SAS in Brazil the longest – more than 15 years,” says Maurício Sant’ Anna, Oil and Gas Marketing Manager for SAS. He relates that, over time, Petrobras has increased its needs due to acquisitions or the availability of new analytic solutions. “This year, SAS will be present in a strategic area of Petrobras, helping with the managerial analyses of the company.”

“We began to use SAS in 1986, still on the mainframe,” says de Souza. “The importance of the analytical solutions resides mainly in the fact that SAS has proven to be dependable in 100 percent of the cases. There is nothing in the market that matches that performance.” Using SAS, Petrobras achieved a daily record output of 2,000,238 barrels of oil

on Dec. 25, 2007. The previous record was 1,000,912 barrels.

SAS® fuels growth at Petrobras

Petrobras also uses SAS to support decision-making processes, which has improved project profitability. Constructing analytic models makes it possible for Petrobras to identify rock breaks that produce oil or gas, significantly increasing the output of oil and helping to recuperate hydrocarbon supplements.

Petrobras’ goal for 2020 is to become one of the five largest integrated energy companies in the world. SAS Analytics have contributed to this goal by enabling Petrobras technicians to create statistical models. “Our people are free to analyze huge volumes of data,” explains de Souza.

One way that Petrobras uses SAS to make decisions is in the area of terrestrial output. Although more than 80 percent of the oil produced by Petrobras in Brazil comes from maritime fields, terrestrial output is also a significant contributor. On average, terrestrial fields have produced around 230,000 barrels of oil daily. That volume of output is possible because of SAS software, which enables technicians to evaluate and prolong the life of mature fields. Using SAS, the company foresees considerable growth in terrestrial outputs.

Accelerated growth

The history of Petrobras unfolds simultaneously with the exploitation of Brazilian oil. The company began the

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21st century acting as an integrated oil operator, responsible for exploring, producing, refining, commercializing and transporting oil within Brazil and across the globe. In addition to its commercial aims, Petrobras maintains numerous social and environmental programs. The company embodies more than 100 production platforms, 16 refineries, 30,000 kilometers in rights and more than 6,000 fuel stations.

Petrobras headquarters are in Rio de Janeiro; it also has offices in Saviar, Brasilia and São Paulo. Petrobras is positioning itself for the future in the highly competitive energy industry with cutting-edge technology from SAS. The use of SAS will help the company achieve its strategic goals of expansion, internationalization, profit value and productivity.



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