

# THE BURGOS BASIN



EXPLORATION & PRODUCTION

**While much of Mexico's proven 8.85 tcm (17.7 tcf) of natural gas** is located in reservoirs in the south, most of the country's potential reserves are in the north. In an effort to boost gas production, Pemex has turned to these northern regions of the country, particularly the Burgos Basin, to increase its overall production. Production operations at Burgos have effectively halved Mexico's dependence on imports, which reached as high as 2.83 mcm (1 bcf) per day in 2005. Current production from the basin is 40 mcm (1.4 bcf) per day, which accounts for roughly 25 percent of Mexico's total natural gas output.

The Burgos Basin is in Tamaulipas state, located in the northeast along the Gulf of Mexico just south of the US border, extending both onshore and offshore. The Burgos assets are comprised mostly of non-associated gas trapped in geologically straightforward and relatively shallow sandstone reservoirs. In 2008 the manager of Pemex's Burgos Integral Asset estimated that the field contained 141.6 bcm (5 tcf) of exploitable reserves with a potential of as much as 283 bcm (10 tcf). As of January 2011, 2,737 active gas wells have been drilled in the basin and it is expected to continue to produce gas at current production rates for another 12 years.

While Burgos contains a number of Mexico's most promising reserves, production declined 13 percent in 2010. Pemex currently estimates that output will drop a further 11 percent in 2011. These reductions partially stem from security concerns in the surrounding region. Pemex has long faced sabotage and siphoning of its products from its extensive but vulnerable pipeline network. In 2010 organised crime began targeting oil and gas personnel. In May 2010 members of the Zeta group kidnapped five Pemex workers in Nuevo Ciudad Guerrero while simultaneously seizing control of the Giganto Numero Uno well. In addition, workers from service providers Schlumberger, Weatherford, Halliburton and Petrobras, have also been subject to kidnappings, intimidation and extortion.

In response to these threats Pemex has brought in security consultants and taken to purging its website of images and information about its managers. Many international companies have forbidden their workers from venturing into in dangerous northern areas. Lost productivity due to violence and theft, coupled with low international gas prices, has raised the cost of production and reduced revenues, creating a disincentive for further drilling. In February 2011 Pemex announced that drilling activity in 2011 would be 42-percent lower than in 2010, mostly due to a scale back of operations at Burgos.

- Location: northeast Mexico, adjacent to US border
- 2010 Production: 40 mcm (1.4 bcf) per day
- Projected 2011 production: 35 mcm (1.25 bcf) per day
- Share of total Mexican gas production: approximately 25 percent
- Number of wells drilled to date: 2,737
- Service providers: Schlumberger, Halliburton, Weatherford, Petrobras, Teikoku Oil, Grupo Diavaz
- Total Pemex investment 2011: \$1.6 billion
- Production decline in 2010: 13 percent
- Estimated production decline in 2011: 11 percent



photo courtesy of Pemex