Caspian Sea shows promise and disappointments

OPERATORS ARE POSTING mixed results in the Caspian Sea, with apparently huge discoveries in the northern areas but significantly less than exciting exploration in the southern region, causing some operator groups to opt out of their licenses and future drilling plans. Despite that, there are two other development projects moving ahead in the southern Caspian Sea. Ongoing disagreements over maritime boundaries by the five bordering countries resulted in two of them agreeing to their own joint development of several fields. However, the dispute is far from over.

For drilling contractors, those who make the commitment to a captive market, where generally once a rig is in the water it will never leave, there is sufficient opportunity for long-term work. **Maersk Contractors** is building a semisubmersible that will be completed in Baku, and **KCA Deutag** recently began drilling on the Caspian's first artificial island. Two more artificial islands will be built to develop the field.

AGREEING TO DISAGREE

The break up of the Soviet Union created four new states with borders along the Caspian Sea: Russia, Azerbaijan, Kazakhstan and Turkmenistan. Iran is the fifth country with Caspian Sea shoreline. The disagreement among the countries is how to divide the sea. Iran wants to divide the Caspian into five roughly equal shares. Turkmenistan supports that type of demarcation.

Russia, Azerbaijan and Kazakhstan favor dividing the Caspian utilizing the country's shoreline as the boundary.

Last April for the first time the presidents of the five countries met in the capital of Turkmenistan to try to find a solution to the boundary dispute. Previous meetings ended without progress on the issue and, as a result, there was little expectation that anything would come from the recent meetings of the heads of each country.

The meeting ended the following day with no agreement, each country holding onto its positions regarding dividing the Caspian Sea.

However, shortly after that meeting, Russia and Kazakhstan leaders agreed to jointly develop three fields along their mutual maritime boundaries, the Kurmengaz, Tsentralnoye and Khvalynskoye fields. The agreement is expected to be finalized and signed this summer. Russian President Vladimir Putin was reported as saying that Russia would seek out additional bilateral agreements with other countries if all of the Caspian Sea states could not hammer out their disagreements.

COLD AND HOT RESULTS

Exploration in several areas of the southern Capsian Sea, notably offshore Azerbaijan, have met with less than desirable results: dry holes and noncommercial quantities of hydrocarbons. As a result, several operators have relinquished their licenses, including **ExxonMobil**, which recently relinquished its Oguz concession due to dismal results. However, the operator continues its participation in five other production sharing agreements (PSA) in Azerbaijan.

TotalFinaElf and **Agip** earlier decided to end their production sharing commitments to Azerbaijan state oil company **SOCAR** for the same reason as ExxonMobil: dismal drilling results.

SOUTHERN CASPIAN

However, there are several fields offshore Azerbaijan in various stages of development. Both are led by **BP**, which is lead operator for the **Azerbaijan International Operating Company** (AICO) which operates the Azeri/Chirag/Guneshi (ACG) united fields. BP is also the operator for the Shah Deniz field offshore Azerbaijan.

BP is operator of four exploration and development contracts in the Azerbaijan sector of the Caspian. They include the Azeri-Chirag-Gunashli oil field; the Shah Deniz gas and condensate field; the Araz-Alov-Sharg exploration area; and the Inam exploration area.

BP is exploring in two areas, Araz-Alov-Sharg, which lies in water depths of 300-1,000 m, and Inam, situated in shallower waters ranging from 40 to 750 m.

KCA Deutag Rig T-47 is drilling for ENI-Agip on an artificial island in the Caspian Sea. The sloping sides of the island are designed to push the ice upward to generate rubble rather than allowing the ice to move across the island.

BP also is developing two fields, the previously mentioned ACG field and the Shah Deniz. In August 2001, Phase I of the ACG field development was sanctioned with gross CAPEX of approximately \$3.4 billion. Phase II of ACG is expected to be sanctioned during the third quarter this year with gross CAPEX of about \$4.9 billion. The Baku-Tblisi-Ceyhan (BTC) pipeline project is expected to be sanctioned this July with gross CAPEX of about \$2.9 billion.

The ACG field was discovered before the break up of the Soviet Union. The PSA for the area became known as the Contract of the Century. The field is being developed via early production from the

Chirag portion of the field (first oil was produced in 1997). Phase I oil is targeted for production in early 2005 and Phase II oil in 2006 and Phase III oil targeted in 2008. ACG field recoverable reserves are about 5.3 billion barrels.

Oil from ACG is primarily transported via the Baku-Supsa pipeline to the Black Sea where BP's partners lift their shares of the oil and take them to their own markets.

The Shah Deniz field Stage I project is targeted for sanction during the third quarter 2002 with gross CAPEX of approximately $3.2 billion. First gas is expected to be produced in 2005. BP and its partners have signed a sales and purchase agreement with Turkey, Azerbaijan and Georgia for gas to be delivered to the countries beginning in late 2005.

NORTHERN CASPIAN

The northern section of the Caspian Sea is where much excitement has been generated lately with the discovery and appraisal of the Kashagan field offshore Kazakhstan in an ENI-Agip operated concession that is currently under development. The shallow water field is estimated by some to contain 20 billion barrels of oil, with reserves estimated as high as 50 billion barrels of oil. Partners in the concession include ExxonMobil, **Shell**, **British Gas**, TotalFinaElf, **Phillips** and Inpex.

The Kashagan field is being explored and appraised with wells drilled from several artificial islands. The latest development well, KE 5, is the first to be drilled from an artificial island. Previous wells were drilled from **Parker Drilling's** modified barge, the Sunkar.

Spudding of the KE 5 appraisal well formally completed the installation and commissioning of the facility, which includes KCA Deutag's T-47 land rig. The 3,000 hp T-47 was previously contracted to BP for drilling in its Wytch Farm field that included several extended reach wells with a horizontal departure of up to approximately 35,000 ft. The rig was upgrade substantially to enable it to drill throughout the winter months in Arctic equivalent conditions.

"The wells are quite deep, high pressure wells," said **Ian Lane**, Operations Director for KCA Deutag's Caspian Sea operations, "Which is why a large rig is required."

Development plans may also include extended reach wells from the artificial island.

The facilities provided by KCA Deutag include a self-contained accommodation facility that is much more akin to a North Sea or offshore equivalent that that of a typical land rig. The entire facility is fitted with full fire and gas detection, PA facilities as well as a comprehensive waste treatment plant. All ancillary drilling equipment, whether mud processing plan, silos of ice class (Canadian) Arktos escape vehicles, are housed in heated "tents".

"Much of the installation was completed

during an extreme Kazakhstan winter, with up to 120 staff and contractors onsite," Mr Lane said. "Equipment was transported by barge behind an ice-breaker through the ice bound Caspian Sea."

"One of the features of the island," Mr Lane continued, " is its sloping sides, which are designed to push ice upwards to generate ice rubble rather than allowing it to move across the island."

NEW MAERSK SEMISUBMERSIBLE

Maersk Contractors is building a new $275 million semisubmersible for the Caspian Sea that is contracted to ExxonMobil for three years. Delivery is scheduled for spring, 2004. The rig was initially to drill off Azerbaijan where ExxonMobil recently had drilled dry holes and relinquished the license to SOCAR. According to **Jens Madsen** with Maersk, however, ExxonMobil will still utilize the semisubmersible upon delivery in 2004.

The rig's pontoons and columns are being fabricated in Singapore and transported to a shipyard in Baku. There the pontoons will be assembled, the columns raised and the deck, which is being fabricated in Baku, will be installed. The rig will be rated to drill in about 3,30 ft of water.

"We will be working in about 500 m of water," Mr. Madsen said, "and eventually working in up to 1,000 m."

There basically are two depressions in the Caspian, one south of Baku is about 1,000 m, which is the deepest, and one north of Baku that is about 700 m, according to Mr Madsen.

OTHER OFFSHORE RIGS

GlobalSantaFe, while not the owner, has joint ventures with SOCAR to operate two semisubmersibles, the Dada Gorgud and Istiglal.

"They are presently the only two semisubmersibles of international standard in the Caspian," said **Roger Hunt**, Executive Vice President of Marketing for GlobalSantaFe.

"The Istiglal has been totally rebuilt from an existing hull," Mr Hunt continued, "and the Dada Gorgud has gone through four refurbishments.

Both rigs are rated to drill in approximately 1,500 ft of water. The Dada Gorgud is contracted to BP while the Istiglal is working for ExxonMobil.

Transocean was the first offshore drilling contractor to bring a Western-specification rig into the Caspian with the jackup Trident 20. This rig was partially fabricated in the **Keppel FELS** yard in Singapore and then transported to KFELS Baku where additional components were fabricated and the rig was assembled.

"Once there you are locked there," Mr Madsen said. "You are a believer in the market and you stay, or you don't go there." ■