U-Gas News Report

Unconventional Gas Activities in the World

www.cedigaz.org Published by Cedigaz Edited by Thierry Rouaud

N° 43 – March 2010

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RUSSIA : CBM production launched in Kuzbass coal basin (correction)

A reader informed us that in the previous Ugas News Report, in the article UG42-4, the yearly CBM output of 1.5 tcm a year indicated by RIA Novosti about Kuzbass CBM project was wrong. Gazprom has published the following press release on February 12, 2010.

The Kuzbass CBM resource base is estimated at 13 trillion cubic meters, which secures its large-scale production (beyond the mine fields) as a separate natural resource.

The Taldinskoye CBM field is located in the central part of the Erunakovsky geological-economic area of the Kuznetsky basin within the Novokuznetsky and Prokopyevsky Districts of the Kemerovo Oblast 65 kilometers to the north of the city of Novokuznetsk. The field's C1+C2 gas reserves approved by the Russian Natural Resources and Ecology Ministry in May 2009 account for 45.8 billion cubic meters.

In 2005 Gazprom established a research and testing site for the CBM production technology development in the eastern part of the Taldinskoye field. The researchers from Gazprom promgaz created Russia's first CBM production technology there. 31 international and Russian patents were received across the entire process cycle from exploration to utilization of CBM. Two-thirds of the equipment items used during the pilot project execution were made in Russia.

In 2009 pilot operation of seven exploratory wells was launched at the first pilot production area of the Taldinskoye field. Gazprom dobycha Kuznetsk, a fully-owned subsidiary of Gazprom, is the license owner.

During the plateau period, annual CBM production in Kuzbass is planned to reach some 4 billion cubic meters, with a subsequent increase to 1821 billion cubic meters in the long term so as to meet gas demand in other Western Siberia's southern regions. (Gazprom press release, February 12, 2010)

COALBED METHANE & COAL SEAM GAS

EXPLORATION - DISCOVERIES

AUSTRALIA : Exoma reviews prospectivity of its CSG plays in Galilee Basin –– UG43-1

Exoma Energy Limited recently completed an extensive review of the prospectivity of its five Galilee Basin ATP's which cover over 26,000 Km^2 of coal seam gas and shale gas acreage in central Queensland as it prepares for the first phase of its initial drilling program. Work completed to date has confirmed Exoma's belief that its coal seam gas areas alone could host well in excess of 20 Tcf of gas resource.

The Company has identified 5 initial drilling locations in highly prospective ATP 1008 in close proximity to the AGL/Eastern Corporation Rodney Creek and Glenaras pilot projects. The Company also believes the magnitude of the resource is capable of underpinning future infrastructure and export facilities. (Scandinavian Oil Gas Magazine, March 9, 2010)

AUSTRALIA : WestSide Corporation and Mitsui E&P Australia to jointly exploit CSG in Northeastern Queensland –– UG43-2

WestSide Corporation Ltd is set to make the jump to producer, after striking a deal with Japanese giant Mitsui to exploit a reserve in Queensland's Bowen Basin. Under the deal WestSide will take a 51 per cent stake in the joint venture with Mitsui E&P Australia Pty Ltd, a wholly-owned subsidiary of Japan's Mitsui & Co Ltd. The two companies plan to jointly exploit the Dawson coal seam gas fields in the Bowen Basin in Northeastern Queensland. WestSide Chief Angus Karoll compared the acquisition to other recent coal seam gas buyouts, showing that its cost per petajoule of proved and probable (2P) resources was 28 cents, compared to much higher rates elsewhere. The coal seam gas assets it is buying a controlling interest in have 60 petajoules of proved reserves and 186 petajoules of 2P reserves. (AAP, March 4, 2010)

AUSTRALIA : Central Petroleum reports CSG discovery in the Pedirka Basin –– UG43-3

Central Petroleum Limited, as operator recently notified the Northern Territory Department of Resources (DOR) of the discovery status of coal seam gas exploration well CBM107001 in EP 107 in central Australia's Pedirka Basin. Central holds a 70% interest and is Operator in EP 107, through wholly-owned subsidiary Merlin Energy Pty Ltd, and is in JV with Petroleum Exploration Australia Limited (20%) and Red Sky Energy (NT) Pty Ltd (10%). (Mining Weekly, March 4, 2010)

CHINA : CNPC receives official approval to work with foreign coalbed methane partners –– UG43-4

China National Petroleum Corp. has been recently authorized to jointly develop coal bed methane projects with foreign partners said, Yu Baocai, a vice general manager of CNPC, ending a monopoly previously held by China United Coalbed Methane Co. (CUCBM). CNPC said in February 2010 it planned to increase its focus on alternative energy sources, including coal bed methane, fuel ethanol and oil sands. Royal Dutch Shell and ConocoPhillips are among majors having coal seam gas acreage in China, along with smaller companies such as Green Dragon Gas Ltd. China's proven reserves of coal bed methane have reached 170 billion cubic meters, 70% higher than the 2005 level, said the Ministry of Land and Resources. China's current CBM production capacity is 2.5 billion cubic meters a year, with actual annual output at 700 million cubic meters. In November 2009, CNPC's first major coal bed methane project went into service. The facility, in the Qinshui basin in Shanxi province, has a capacity of 850,000 cubic meters of gas a day. CNPC aims to establish a CBM-based gas production capacity of 4.5 billion cubic meters a year by 2015 in Shanxi. (Dow Jones, March 6, 2010)

PRODUCTION

AUSTRALIA : Australia Pacific LNG and QGC agree CSG joint development plan and gas sales agreements –– UG43-5

Australia Pacific LNG and QGC Pty Limited, a BG Group business, recently agreed a framework for the development of jointly owned coal seam gas tenements ATP 648P and ATP 620P in South East Queensland. The parties have also entered into conditional gas sales agreements to support the development of both Australia Pacific LNG and QGC's LNG projects. Origin's Managing Director, Mr Grant King said Australia Pacific LNG expects to sell around 190 PJ of gas over an initial ramp up period of around two years to QGC under the agreements.

Annual volumes sold to QGC are expected to reduce to average 25 PJ over the balance of the initial 20 years contract period. The CSG tenements are operated by QGC with Australia Pacific LNG's permit interests being 31.25% for ATP 648P and 40.625% for ATP 620P. (Downstream Today, February 24, 2010)

CHINA : Far East Energy announces progress of winter CBM drilling program –– UG43-6

Far East Energy Corporation announced recently that it has achieved significant progress in its winter drilling program, designed to increase gas production from its Shouyang 1H Pilot Area in anticipation of gas sales in the second half of 2010. Specifically, the Company has completed five of the initially planned eight total wells to be drilled in the program. Far East is in discussions with three separate parties (two pipelines and one CNG company) regarding the potential off-take and sale of gas produced from the 1H Pilot Area. All gas sales will be negotiated by Far East and its partner, China United Coalbed Methane (CUCBM). The two pipeline companies are planning to lay lines of approximately 18 inches in diameter near the Shouyang 1H Pilot Area. An 18-inch line would have the capacity to transport between 30 and 50 million cubic feet of gas per day from Shouyang to the provincial capital (Taiyuan) or other destinations. These developments could enable Far East to initiate gas sales as early as the third quarter of 2010. (Far East Energy press release, February 18, 2010)

RESERVES

CHINA : Green Dragon announces 2009 year end CBM reserves –– UG43-7

Green Dragon, involved in the production of CBM gas and the distribution and sale of wholesale gas in China, announced recently its' 2009 year end gas reserves and value estimate conducted by NSAI: total gas in place of 25.5 Tcf, with 32.9 Bcf of net 1P reserves, 261.3 Bcf of net 2P reserves and 2,333.1 Bcf net 3P reserves. Mr. Randeep Grewal, Chairman and CEO of Green Dragon Gas, said Today's reserve report reflects Green Dragon's exceptionally strong asset position in China.

Today the Group is the one of the largest independent CBM companies in China, with a resource base of over 25.5 Tcf of gas in place. We already have the drilling technology, distribution and sales infrastructure in place which will allow us to fully exploit our strong asset position and dramatically increase production and sales 18 fold over the medium term. (Green Dragon press release, March 5, 2010)

COMPANIES

AUSTRALIA : CNPC and Shell jointly bidding for Arrow Energy –– UG43-8

Jiang Jiemin, president of China National Petroleum Corporation (CNPC), confirmed recently that the CNPC and Royal Dutch Shell Plc are jointly bidding for Arrow Energy, the Australian coal-bed gas supplier. "The bid is still in its initial phase and we currently have no timetable," Jiang said. Arrow has reserves of 6,150 petajoules of coal-bed gas. Yu Baocai, vice-general manager of the CNPC has also noted that coal-bed gas would play an important role in the company's new energy strategy. (People's Daily, March 9, 2010)

SHALE GAS

EXPLORATION-DISCOVERY

EUROPE : TNK-BP eyes unconventional gas opportunities in Eastern Europe –– UG43-9

TNK-BP is considering unconventional gas opportunities in Eastern Europe. That's a game changer, chief operating officer Bill Schrader said. TNK-BP is looking at former Soviet republics where we can bring technology that we have, or even BP has, in exploiting tight gas, Schrader said. Ukraine and other eastern European countries are possible areas, and the company is assessing the geological potential, he said.

We would like to do more gas, Schrader said. We would like to do it even outside Russia where the technology and the experience we have actually make strategic sense. TNK-BP plans to produce about 11.6 billion cubic meters of gas this year. Of that, only 2.7 billion cubic meters will be produced at its Rospan International gas unit. TNK-BP could pump 3.2 billion cubic meters in 2010 while the potential is estimated at as much as five times higher, Schrader said. (Bloomberg, March 1, 2010)

EUROPE : ExxonMobil sees shale gas potential –– UG43-10

Richard Guerrant, Exxon's director of Europe, Russia and the Caspian, said recently We have to have realistic expectations about being able to extract commercial quantities of natural gas from these unconventional resources. Given the increasing dependence of Europe on imported natural gas, the incentive to tap locally sourced unconventional gas is clear, Guerrant said. There are a number of areas across the continent that may have commercial possibilities. Studying the rocks is the biggest challenge to European unconventional gas production, Guerrant said. There's potential for significant gas production in Europe he added. (Upstream Online, March 3, 2010)

POLAND : Chevron acquires shale gas exploration rights –– UG43-11

Chevron recently acquired rights to explore for natural gas in Poland. Chevron said the exploration acreage is in the Grabowiec concession in the southeastern part of the country. The company also said that in December 2009, it was awarded three five-year exploration licences in the adjacent Zwierzyniec, Kransnik and Frampol concessions, to explore for shale gas. (Upstream Online, February 25, 2010)

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POLAND : Talisman Energy and San Leon sign gas shale agreement –– UG43-12

A farm out has been recently signed between the San Leon Polish subsidiary Oculis Investments Sp. z o.o. and Talisman Energy Inc. for the exploration of shale gas in the Baltic Basin onshore Poland. Under the agreement, Talisman will drill one well across each of Oculis' three concessions with the option to follow up with a further three wells should the data encourage further development. Talisman will be assigned a 60% interest in each concession, reducing to 30% if it doesn't elect to drill the optional second well. Based upon San Leon's initial technical evaluation of the shale gas potential of the Silurian and Ordovician rocks in the Baltic Basin the play has an estimated potential of 4.0-6.0 Tcf of recoverable natural gas across San Leon Energy's acreage. Currently Oculis has two concessions, Braniewo and Gdansk West, totalling more than 1,820 km2. Oculis has an additional concession application pending which would add an additional 600 km2. (Oilvoice, March 2, 2010)

SOUTH AFRICA : Sasol applies to explore for shale gas in the Karoo Basin –– UG43-13

Sasol recently applied to explore for shale gas in the Karoo, together with Chesapeake Energy and Statoil ASA. The application is for an onshore right to search for the natural shale-based gas. Sasol CEO Pat Davies said "If there is shale gas in the Karoo, and if it's economically extractable, that will provide opportunities to supply gas into our own facilities or to on-sell it to others. It's a great business opportunity, but a long-term one".

Sasol Petroleum International (SPI) MD Ebbie Haan said that the additional gas resource potentially provides Sasol with a low carbon feedstock. "It's an exploration licence and thereafter we will look at the economics and what it means in hardware and that will be a longer-term project," Haan said. The exploration application, which was submitted in November 2009, may take a year to process. (Mining Weekly, March 9, 2010)

PRODUCTION

UNITED STATES : Authorities to investigate environmental impact of shale gas production –– UG43-14

U.S. lawmakers announced recently an investigation of a drilling method that has allowed companies to tap abundant supplies of natural gas in shale beds but has also generated complaints about polluted drinking water. Some Congress members want to give the Environmental Protection Agency (EPA) authority to regulate hydraulic fracturing technology. The U.S. House Energy and Commerce Committee said it was investigating the impact of the technology on the environment and public health, and the EPA said it would start working with Congress to study the matter. Committee chairman, Representative Henry Waxman said "This investigation will help us better understand the potential risks this technology poses to drinking water supplies and the environment, and whether Congress needs to act to minimize those risks," he said. The committee is seeking information from eight energy companies that use hydraulic fracturing to extract oil and natural gas from unconventional sources, including shale rock. The lawmakers also asked for information from five smaller fracking companies that make up a growing share of the market: Frac Tech Services, Superior Well Services, Universal Well Services, Sanjel Corporation and Calfrac Well Services. (Reuters, February 18, 2010)

GAS HYDRATE

EXPLORATION-DISCOVERY

CHINA : China to move ahead on methane hydrate exploration in Qinghai Province –– UG43-15

Provincial Governor Luo Huining said recently that China's western Qinghai Province, containing major deposits of the country's methane hydrate will see increased explorations for this emerging clean energy. The plateau province plans to allow large energy companies along with researchers to tap this new source of energy while minimizing environmental threats, Luo said. Hydrates reserves on the Qinghai-Tibet Plateau are estimated to equal at least 35 billion tonnes of oil. "Qinghai has just started the exploration," Luo said. "The key problem is that we still do not have the correct technologies." (Xinhua, March 6, 2010)

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