

U-Gas News Report

Unconventional Gas Activities in the World

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COALBED METHANE & COAL SEAM GAS

EXPLORATION - DISCOVERIES

INDONESIA : CBM Asia reports test results from first CBM well in South Sumatra

— UG₄₂₋₁

CBM Asia, PT Medco Energi Internasional Tbk, Ephindo Ilthabi CBM Holdings Inc. and Batavia Energy, Inc announced recently results from the CBM-SE-02 coalbed methane test well in the Sekayu Production Sharing Contract block, located in the South Sumatra Basin. Core Laboratories has completed a comprehensive analysis of two coals sampled from the CBM-SE-02 well. These tests indicate the methane storage capacity at the relatively shallow sample depth (1074-1082 feet) ranges from 75 to 85 standard cubic feet per ton, computed on a dry, ash-free basis. CBM Asia President and CEO Al Charuk noted that "recent analyses conducted by Core Laboratories on the CBM-SE-02 coal samples confirm the gas storage potential at the Sekayu PSC. In addition, the highly favourable 500-millidarcy permeability measured in this well is an excellent indication of reservoir quality, comparable to permeability found in Wyoming's prolific Powder River CBM basin". (Money Central, February 2, 2010)

NEW ZEALAND : Solid Energy to extend CSG exploration programme at Taranaki

— UG₄₂₋₂

Solid Energy will extend its Taranaki coal seam gas exploratory drilling programme to focus on the northern part of the Stratford district. Three exploration holes will be drilled in the Tahora-Tangarakau area

during February and March 2010. The drilling is expected to further define Solid Energy's coal resources and the potential for coal seam gas. (Energy Business Review, February 2, 2010)

PRODUCTION

AUSTRALIA : University of Queensland and Santos sign coal seam gas research agreement — UG₄₂₋₃

The University of Queensland and Santos recently signed a Memorandum of Understanding to foster research and education programs which will help the development of Queensland coal seam gas and its related industries. UQ's Executive Director, Business Engagement, Professor Gordon Dunlop said "UQ is in a position to provide the industry with new insights, ideas and results that will contribute towards more efficient utilisation of coal seam gas resources, improve the environmental profile of the industry, and assist in dealing with community issues".

Professor Dunlop said: “We expect to commence new, large research projects with Santos in the areas of reservoir characterisation, gas extraction, gas processing, water engineering, environmental sustainability and social engagement in which the University has significant expertise”. (UQ News Online, February 11, 2010)

RUSSIA : CBM production launched in Kuzbass coal basin — UG42-4

Russian President Dmitry Medvedev took recently part in a ceremony to launch production of coalbed methane gas in southwest Siberia. Coalbed methane reserves in Russia’s Siberian Kuzbass coal basin are estimated at 13.1 trillion cubic

meters. A total of 30 wells are planned to be bored in the region in 2010 and 128 wells will be opened annually starting from 2011. The design capacity of the project is 1.5 tcm a year. (RIA Novosti, February 12, 2010)

RESERVES

AUSTRALIA : Eastern Star Gas announces more reserves for Narrabri — UG42-5

Eastern Star Gas announced recently a massive upgrade to known gas reserves for their Narrabri coal seam gas resource. Independent analysis of the company’s exploration data has determined ‘proven and probable’ (2P) gas reserves to be 152 per cent of original estimates. EGS chief commercial officer Roland Sleeman said the analysis seems to indicate a viable and commercial gas resource that would more than supply the rapidly increasing NSW demand for gas for at least the next 30 years.

Mr Sleeman said the immediate implications of the Bibblewindi West pilot producing so well, so early was the accelerated expansion of the company’s Wilga Park power station, west of Narrabri. “We will be upgrading Wilga Park from the current seven megawatts capacity to 16 megawatts immediately, with plans to lift capacity to 40 MW by early 2011,” he said.

Mr Sleeman said “NSW currently imports about 90 per cent of its gas needs and gas energy power stations will be the only way to meet our immediate energy needs in the next decade. (Northern Daily Leader, February 7, 2009)

SHALE GAS

EXPLORATION - DISCOVERIES

EUROPE : Realm Energy negotiating on more shale gas play — UG42-6

Realm Energy recently entered into direct and exclusive negotiations for petroleum and natural gas rights with a European Government in which the Company has identified a potential large-scale shale gas opportunity. These lands cover an area extent of over 182,000 hectares. Management

is working toward reaching final agreement on these lands in the near future. Realm Energy is collaborating with Halliburton Consulting in evaluating high potential shale deposits throughout Europe and select emerging countries. (Marketwire, February 9, 2010)

UKRAINE : EuroGas acquires unconventional gas concessions — UG42-7

EuroGas recently acquired three unconventional gas concessions by EuroGas Ukraine Ltd., in which EuroGas holds a 30% stake with options to increase its shareholding to 100%. Eastern Ukraine The acquisition of three additional unconventional gas concessions completes the

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acquisition program, announced by the Company in the fall 2008, for a total of five unconventional gas.

The five unconventional gas concessions held by EuroGas Ukraine Ltd. under a Joint Activity Agreement with Nadra Luganshchiny Ltd., a wholly-owned subsidiary of NT, cover an area of 512 square kilometers.

The largest concession (Marijewvskogo Poligon) encompasses 251 square kilometers and may alone contain -- according to a 1998 report prepared by Montan-Consulting GmbH for the World Bank -- at least 15.1 billion cubic meters of gas. A comparable report by AFC (Alternate Fuel Centre), a subsidiary of the Ukrainian Ministry of Coal in Kiev, estimates the methane gas reserves at Marijewvskogo Poligon to be approximately 24 billion cubic meters.

In addition to the CBM reserves in coal seams and sandstone layers, all concessions areas may also contain lower formations containing shale gas. Discussions are currently being held with a Canadian drilling company to start a drilling program in 2010 with horizontal drilling equipment. Western Ukraine In September 2009, EuroGas' affiliated company EuroGas GmbH signed a Memorandum of Understanding to explore for unconventional gas, such as shale and CBM gas, in the Lublin Basin in Western Ukraine. (Energy Business Review, January 29, 2010)

UNITED STATES : Mitsui and Anadarko in joint venture for Marcellus Shale gas —

— UG₄₂₋₈

Anadarko Petroleum Corporation announced recently details of a joint-venture agreement with Mitsui E&P USA, a subsidiary of Japan's Mitsui & Co. Mitsui E&P USA will pay \$1.4 billion to become a 32.5% partner in Anadarko's Marcellus Shale assets, primarily located in north-central Pennsylvania. According to Jim Hackett, chairman and chief executive officer of Anadarko, the transaction reflects the value of Anadarko's fairway position in the Marcellus Shale, which has a gross unrisks resource potential of more than 30 trillion cubic feet of natural gas, and spans more

than 715,000 gross acres. According to the New York State Department of Environmental Conservation, the entire Marcellus Shale formation is estimated to contain between 168 trillion to 516 trillion cubic feet of natural gas but it is not yet known how much gas will be commercially recoverable. The joint-venture agreement is effective January 1, 2010. Closing of the transaction is subject to applicable regulatory approvals and other contractual conditions, and is anticipated on March 15, 2010. (Risk.net, February 18, 2010)

PRODUCTION

CHINA : Ministry plans to increase shale gas production — UG₄₂₋₉

China's Ministry of Land and Resources said recently that the country plans to increase shale gas production capacity by 15 billion cubic meters to 30 bcm per year. China aims to discover 20 to 30 large-scale mining blocks with a combined proven shale gas reserve of 1 tcm by 2020. However, the country has limited experience in exploring for shale gas. Thus, major Chinese oil and gas companies are seeking cooperation with foreign counterparts on shale gas mining technologies. (Commodity Online, February 18, 2010)

UNITED STATES : Authorities want know more about environmental impact of fracturation process — UG₄₂₋₁₀

Henry Waxman, the Democratic chairman of the House energy committee, recently sent eight companies information requests about the chemicals they use in fracturing fluids and their potential impact on the environment and human health. "Hydraulic fracturing could help us unlock vast domestic natural gas reserves once thought unattainable," said Mr Waxman. "As we use this technology in more parts of the country on a much larger scale, we must ensure that we are not creating new environmental and public health problems." Mr Waxman said initial

information received by his committee from the largest hydraulic fracturing companies - Halliburton, BJ Services and Schlumberger - showed that all apart from Schlumberger had used diesel fuel in the fracturing fluids between 2005 and 2007. Mr Waxman said this "potentially" violated a voluntary agreement the companies had made with environmental regulators to cease using diesel. The companies were told to produce documents detailing their practices by March 5, 2010. (Financial Times, February 19, 2010)

UNITED STATES : Pennsylvania Governor wants to tax gas wells — UG₄₂₋₁₁

Pennsylvania Governor Ed Rendell wants to charge drillers 5 percent of the value of gas at the wellhead plus 4.7 cents per 1,000 cubic feet of gas, starting July 1, 2010. The plan would raise \$160.7 million in the first year and \$1.8 billion over five years. The "severance" tax is modelled on that used in West Virginia, where gas production rose 20 percent from 2002 to 2007, indicating that the tax is no deterrent to development, Rendell said. The tax proposal must pass the state legislature and could face opposition in the Senate. An official from Chesapeake Energy, one of the biggest operators in the Marcellus said that the industry would oppose any attempt to

replicate the West Virginia tax in Pennsylvania. Rendell argued that Pennsylvania is the only major fossil-fuel-producing state that doesn't have such a tax, and that the proposal would be less onerous to drilling companies than taxes levied by 28 other states. "Natural gas companies are accustomed to paying a severance fee," Rendell said in a statement accompanying the fiscal 2011 budget. Rendell added that energy companies had confirmed their ability to pay the tax by recently agreeing to pay twice what was expected for gas leases on state forest land. "If they believe there's gold in them there shale, we can tax it," Rendell said. (Reuters, February 9, 2010)

GAS HYDRATE

EXPLORATION - DISCOVERIES

CANADA : Mallik pilot gives promising results on gas hydrate production — UG₄₂₋₁₂

The report, recently released by the U.S. National Research Council, summarizes the promising research conducted over the past three years at the Mallik methane hydrate site in the Mackenzie Delta near Inuvik, N.W.T., about 1,200 kilometres north of Whitehorse. While the full results of the experimental tapping of the Mallik resource "remain confidential at this time," the report states, extraction efforts "demonstrated sustained methane production" and generated "continuous gas flow" during tests, with "rates generally ranging from 2,000 to 4,000 cubic metres per day".

"The existence of such a large and as-yet untapped methane hydrate resource has provided a strong global-research incentive to determine how methane from methane hydrate might be produced as a technically safe, environmentally compatible, and economically competitive energy resource," states the U.S. report. Japan and South Korea are at forefront of methane-hydrate research, and a Japanese energy firm has been a key player in the tests being performed at the Mallik site. In January 2010, just before leaving office, former U.S. president George W. Bush issued a sweeping White House directive on Arctic issues that highlighted the potential importance of methane hydrate as a future energy source for the country.

"Defining with certainty the area of the Arctic seabed and subsoil in which the United States may exercise its sovereign rights over natural resources such as oil, natural gas, methane hydrates, minerals and living marine species is critical to our national interests in energy security, resource management. (The Calgary Herald, February 4, 2010)

SOUTH KOREA : Drilling for gas hydrates to be started in April 2010 — UG42-13

The Ministry of Knowledge Economy announced recently that South Korea will start exploratory drilling for gas hydrates off its east coast in April 2010 as part of a drive to acquire alternative energy resources. South Korea carried out its first exploratory drilling for gas hydrates in 2007. A drill ship from Britain's Fugro Synergy

will be used for the second operation south of Ulleung Island off the east coast. Ministry officials believe the deposit of gas hydrates may reach 600 million tons, enough to meet the country's natural gas demands for up to 30 years. They plan to commercially extract gas hydrates from 2015. (AFP, February 16, 2010)

UNITED STATES : New mapping method helps find hydrate in the Gulf of Mexico — UG42-14

A Baylor University researcher has used a new search method that he adapted for use on the seafloor to find methane hydrate in a portion of the Gulf of Mexico. Dr. John Dunbar, associate professor of geology at Baylor, and his team used an electrical resistivity method to acquire geophysical data at the site, located roughly 50 miles off the Louisiana coast.

The Baylor researchers were able to provide a detailed map of where the methane hydrate is located and how deep it extends underneath the seafloor. Located in the Mississippi Canyon, the site is about 3,000-feet-wide and 3,000-feet under water. Scientists have been researching the site since 2001, but have not been able to ascertain where the hydrate is located nor how much is there until now.

“The conventional search methods have been fairly effective in certain situations, but the resistivity method is a totally different approach,” Dunbar said. “The benefit to the resistivity method is it shows the near-bottom in greater detail, and that is where the methane hydrate is located in this case. (Smart Economy, February 3, 2010)

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