

## **“Syntroleum Corp. asserts 2nd Singapore patent against Neste Oil”**

By Syntroleum Corp., *Biodiesel Magazine*, June 6, 2013

Syntroleum Corp. filed suit against Neste Oil Singapore Pte Ltd. with the High Court of Singapore asserting its Singapore Patent No. 169053 entitled “Hydrocracking Process for Biological Feedstocks and Hydrocarbons Produced Therefrom.” In the court filings for Suit 510 of 2013, Syntroleum alleges that Neste “operates a renewable diesel refinery at 1 Tuas South Lane, Singapore 637301, that processes biorenewable feedstocks to produce hydrocarbon products such as renewable diesel fuel and bionaphtha,” which Syntroleum alleges “falls within at least Claim 1 of the Patent.” Syntroleum's patent issued on May 31, 2013, and expires on August 21, 2028.

Syntroleum's action against Neste is not the first dispute between the parties in Singapore. On Feb. 7, 2013, Syntroleum filed suit against Neste with the High Court of Singapore asserting its Singapore Patent No. 172045 entitled “Even Carbon Number Paraffin Composition And Method of Manufacturing Same.” In the court filings for Suit 120 of 2013, Syntroleum alleged that Neste’s “operation at its renewable diesel refinery in Singapore involves the processing of a biorenewable feedstock to produce a hydrocarbon composition having at least 75 percent (by weight) even carbon number paraffins” which Syntroleum alleges “is claimed at the very least, in claim 22 of the Patent.”

Read more: <http://www.biodieselmagazine.com/articles/9143/syntroleum-corp-asserts-2nd-singapore-patent-against-neste-oil>

## **“Carbon Sciences to Build Its First GTL Plant”**

*Environmental Leader*, June 18, 2013

Carbon Sciences says it is focusing on Oklahoma as the location of its first gas-to-liquids (GTL) plant, which will turn natural gas into cleaner-burning gasoline.

The company is evaluating several sites in the Tulsa area, CEO Bill Beifuss says. Carbon Sciences needs about 15 acres to build a modular miniGTL plant.

Its miniGTL plant will allow the matching of the equipment to the quantity of natural gas, as well as allow for portability if gas flow declines over time, the company says. Unlike large-scale GTL plants, such as those developed by Shell and Sasol that require large gas fields, a miniGTL

plant in the 1,000 to 2,000 barrel per day range can be built to monetize small to medium size fields, which account for nearly 40 percent of gas fields in the world.

The company estimates that a miniGTL plant producing about 1,000 barrels per day of transportation fuel can be contained in as few as 60 modules. A modular design enables rail car or truck transportation and installation to remote sites with limited infrastructure. Modular construction additionally will allow the company to manufacture in low-cost production centers and then transport the modules to the gas field, resulting in a substantial cost savings over on-site construction, Carbon Sciences says.

In addition to its first-generation miniGTL plant, the company is also developing a proprietary technology to enable a second-generation GTL plant that it says will produce even cleaner gasoline by using captured CO<sub>2</sub> or low value, high CO<sub>2</sub> content natural gas as part of the process.

Read more: <http://www.environmentalleader.com/2013/06/18/carbon-sciences-to-build-its-first-gtl-plant/>

### **“Natural gas liquids facility XTO Energy opens in Butler”**

By Andrew Gretchko., *Pittsburgh Post-Gazette*, June 19, 2013

XTO Energy Inc. opened a new facility in Butler County on Tuesday that will recover natural gas liquids from Marcellus Shale drilling.

The Renfrew plant encompasses 340 acres, 40 miles of connecting pipeline and two gas compressor stations. It is the first of its kind in the Appalachia region for XTO, a Fort Worth, Texas, energy company that is a subsidiary of ExxonMobil.

"The facility will add value to XTO and Butler County," said Tim McIlwain, senior vice president, production operations, stressing the economic growth that the plant would bring to southwestern Pennsylvania.

XTO plans to employ 15 at the facility, "a mixture of local hires and transfers from other regions," according to J.D. Estes, the company's media adviser.

Natural gas liquids, such as ethane and butane, have maintained their value even as the cost of natural gas remains low. Propane and methane also will be separated at the facility.

Read more: <http://www.post-gazette.com/stories/business/news/natural-gas-liquids-facility-xto-energy-opens-in-butler-692225/>

Related article\*

## **\* “XTO Energy opens natural gas liquids recovery facility in Butler County, PA”**

By XTO Energy, *Oil & Gas Financial Journal*, June 24, 2013

XTO Energy Inc., a subsidiary of ExxonMobil, has opened a facility in southwestern Pennsylvania to recover marketable liquids from the natural gas produced in Butler County, the company said June 17.

The 340-acre facility is the first of its kind for XTO in the Appalachia region and includes 40 miles of connecting pipeline. Two gas compressor stations feed the facility, which is designed to treat approximately 125 million cubic feet of natural gas per day.

“The facility will add value to XTO and Butler County,” said Tim McIlwain, senior vice president, production operations for XTO. “It allows valuable liquids to be separated from natural gas and provides economic growth in southwestern Pennsylvania.”

At the peak of construction, 170 local and regional contractors were on site each day. XTO will employ 15 permanent employees to run the operation.

Butler County is a vital part of XTO’s Appalachia division. In the past four years, 50 wells have been drilled over 46,000 net acres in the county.

Read more: <http://www.ogfj.com/articles/2013/06/xto-energy-opens-natural-gas-liquids-recovery-facility-in-butler-county-pa.html>

## **“GE, Rosneft form Russian oil and gas development joint venture”**

By PennEnergy Editorial Staff, *PennEnergy*, June 21, 2013

GE (NYSE: GE) and Rosneft, one of the world’s leading oil companies, signed a strategic agreement to establish a joint venture focused on developing local expertise and technology solutions for the growing oil and gas sector in the Russian Federation. The agreement, which will strengthen both GE and Rosneft manufacturing and commercial capabilities, is part of GE’s plan to invest \$1 billion in the oil and gas industry in Russia by 2020.

GE Chairman and CEO Jeff Immelt and Rosneft Management Board President and Chairman Igor Sechin signed the strategic cooperative agreement at the St. Petersburg International Economic Forum 2013.

GE Chairman and CEO Jeff Immelt said: “GE is proud to collaborate with Rosneft, the world’s biggest public oil company, and help continue efforts to modernize its industrial infrastructure. GE is committed to delivering local and leading-edge technological solutions to our customers that drive productivity and growth, and in Rosneft we have a strong partner. We are confident that GE’s participation in the large-scale projects, such as arctic offshore field development, will help development of Russia’s oil and gas industry.”

The agreement expands on the parties' memorandum of understanding (MOU) signed in June 2012 and covers four main business activities:

1. Monetizing Gas—turning natural gas into commercial products—including large- and small-scale liquefied natural gas (LNG), compressed natural gas (CNG) and gas-to-liquids (GTL).
2. Refining gas and petrochemicals.
3. Developing offshore and subsea technologies, including Arctic activities.
4. Enhancing production, including the use of artificial lift technologies.

As part of the agreement, GE and Rosneft also will pursue two other key initiatives: the establishment of a Research and Development Center and an Application Engineering and Training Center in Russia. With their focus on technology innovation, these two centers will help both companies to sustainably grow the oil and gas industry.

Read more: <http://www.pennenergy.com/articles/pennenergy/2013/06/ge-rosneft-form-russian-oil-and-gas-development-joint-venture.html>

## **“Russian, Australian partners announce coal-based gas-to-liquids project”**

By Natalia Skorlygina, Kommersant, *Russia Beyond the Headlines*, June 21, 2013

**Russia's YakutMineral, owned by the tycoon Roman Abramovich, and Australia's Linc Energy have signed an agreement to conduct a feasibility study for a new underground coal gasification facility in the Russian Far East. The coal gas will then be used to produce liquid fuel.**

YakutMineral, which is controlled by Roman Abramovich via his Ervington Investments company, and Australia's Linc Energy have signed an agreement to conduct a feasibility study for a gas-to-liquids (GTL) project in Chukotka, the Australian company said today. If the project succeeds, Chukotka could well see the end of its ongoing fuel shortages and even swing into surplus.

There are many companies developing GTL technologies – but Linc Energy is one of the very few to generate fuel gas by underground coal gasification, not in a reactor but directly in the coal seam. The company already operates a facility with several gas generators and a pilot GTL plant. Mr. Abramovich visited that plant last autumn, when he came to meet the company's executives and learn more about its business.

Linc has now revealed that the purpose of the visit and the subsequent contacts was to assess the potential for implementing the company's technology in the northeast of Russia. “Chukotka has a lot of locked coal reserves, and a large demand for liquid fuels, which currently relies on imports,” Linc said in a press release. “Using the underground coal gasification and gas-to-liquids technology (UCG-GTL) can help Chukotka to reduce its reliance on imports, and potentially even to become a net exporter, once the production capacity has been ramped up.”

The Russian and Australian partners will pursue a joint project in this area if they can find a coal field suitable for underground gasification, Linc says.

Read more: [http://rbth.asia/business/2013/06/21/russian\\_australian\\_partners\\_announce\\_coal-based\\_gas-to-liquids\\_proje\\_47473.html](http://rbth.asia/business/2013/06/21/russian_australian_partners_announce_coal-based_gas-to-liquids_proje_47473.html)

## **“Sasol tells US lawmakers its GTL projects could be energy ‘game changer’”**

By Terence Creamer, *Creamer Media*, June 21, 2013

South African energy and chemicals group Sasol told US Congressional subcommittees this week that its proposed 96 000 bl/d gas to liquids (GTL) facility, earmarked for development in Louisiana, will be a ‘game changer’ for the US energy sector and will represent one of the largest ever foreign direct manufacturing investments in the US.

The JSE-listed group is considering GTL projects and a world-scale ethane cracker with a combined investment value of between \$16-billion and \$21-billion over the coming several years.

Addressing a joint hearing of the House of Representatives subcommittees on energy and power and commerce, manufacturing and trade, senior group executive for global chemicals and North American operations André de Ruyter testified that the solution would add transport fuels and chemical products to the spin-offs arising from the country’s now abundant gas resources.

The country’s gas production and reserves have increased markedly with the widespread adoption of hydraulic-fracturing technology, which has made it possible to exploit shale gas resources. Hitherto, the gas has been deployed primarily in the power generation market and there is a move to develop infrastructure for the export of liquefied natural gas (LNG).

The subcommittees convened the hearing to discuss the role the energy boom is having on the country’s manufacturing sector, with concerns being expressed by some industrialists that a too rapid approval of LNG export terminals could undermine the manufacturing revival, which was being underpinned by the availability of well-priced natural gas.

Sasol, which produces fuels and chemicals from coal and gas using its proprietary Fischer–Tropsch technology, announced in December that it would proceed with front-end engineering and design (FEED) for an \$11-billion to \$14-billion GTL investment at its existing Lake Charles chemical complex, located near Westlake, in Louisiana. The facility, comprising two 48 000 bl/d GTL plants, could be commissioned by around 2020 or 2021.

Read more: <http://www.engineeringnews.co.za/article/sasol-tells-us-lawmakers-its-gtl-projects-could-be-energy-game-changer-2013-06-21>

Related article\*\*

## **\*\* “Sasol North America Issues \$21B Contracts For GTL Plant Construction”**

By Mzwandile Jacks, *Ventures*, June 24, 2013

VENTURES AFRICA – Sasol North America, a unit of South Africa’s petrochemicals giant, Sasol, is allotting contracts for the construction of a \$16–\$21 billion gas to liquids (GTL) plant in Louisiana, US, the Digital Journal reported on Monday.

According to the Digital Journal, the first production when the first phase of the plant is finished would be 48,000 barrels a day of diesel fuel.

The construction of separate mini-GTL plants by Velocys and CompactGTL, is also on-going, needing only a fraction of the above-mentioned capital outlay.

“Mini-GTL plants enhance GTL progress in other countries where many natural gas sources around the world are too small to support larger facilities,” according to Digital Journal.

It is against this background that SMI’s 16th GTL conference taking place in October this year in London will be tackling topics related to GTL’s latest developments.

It will host the world’s leading experts on GTL including Sasol North America, Chevron Nigeria, Shell, BP and Exxon Mobil.

Read more: <http://www.ventures-africa.com/2013/06/sasol-north-america-issues-21b-contracts-for-gtl-plant-construction/>

## **“US Primus commissioning syngas-to-gasoline demo plant”**

By Tracy Dang, *ICIS News*, June 21, 2013

HOUSTON (ICIS)--US Primus Green Energy is commissioning its STG+ syngas-to-gasoline demonstration plant in Hillsborough, New Jersey, which is expected to begin operations later this fall to produce 10,000 gal/year of fuel, an executive said on Thursday.

Primus has a 6 bbl/day pilot plant at the site that produces 93-octane gasoline and chemical samples but uses it for testing purposes only, said George Boyajian, vice president of business development.

The company is discussing financing options with potential partners to build its first commercial plant, with groundbreaking targeted for 2014, Boyajian said during an interview.

The plant is expected to produce 25m gal/year of fuel beginning in 2016.

Syngas is a fuel gas mixture composed primarily of hydrogen (H<sub>2</sub>) and carbon monoxide (CO). It can be used as an intermediate to reform methane-rich natural gas or biomass and produce ammonia or methanol.

Early gas-to-liquids (GTL) technologies include Fischer-Tropsch (FT), which converts syngas into a hydrocarbon mixture that requires conversion, separation and purification.

Another common technology – methanol-to-gas (MTG) – converts syngas to methanol, into a mixture of methanol and the intermediate dimethyl ether (DME) and then into gasoline and water.

However, Primus's STG+ process combines previous methanol synthesis and MGT processes into a single-loop process that converts syngas directly to gasoline without producing intermediate liquids, Boyajian said.

"Syngas is produced with a H<sub>2</sub>-CO ratio of 2.1:1, and it is cleaned to remove carbon dioxide [CO<sub>2</sub>] and sulphur," he said.

The STG+ technology takes the syngas through a catalytic, thermochemical process of four reactors – methanol synthesis, DME synthesis, gasoline synthesis and then gasoline treatment – before the mixture is separated into water and gasoline.

Primus said its technology minimised complexity, improves product quality and increases yield. The STG+ process converts more than 35% of syngas by mass into liquid fuels and more than 70% of by mass of natural gas.

Read more: <http://www.icis.com/Articles/2013/06/21/9680618/corrected-us-primus-commissioning-syngas-to-gasoline-demo-plant.html>

## **“Lubrizol to Provide Cold Weather Additives for Greyrock Energy's High Performance Synthetic Diesel Fuel”**

By Greyrock Energy, Inc. (Press Release), *The Sacramento Bee*, June 24, 2013

WEST SACRAMENTO, Calif., June 24, 2013 -- /PRNewswire/ -- Greyrock Energy, Inc. announces today that it has entered into an agreement for Lubrizol to supply cold weather diesel fuel additives for Greyrock's groundbreaking, distributed natural gas-to-liquids (GTL) technologies. The additives will allow Greyrock to meet seasonal and regional specifications for diesel fuels sold and distributed in the continental United States.

"Our distributed natural gas-to-liquids platform produces a zero sulfur, high quality diesel fuel that significantly exceeds ASTM D975 standards in critical areas such as cetane, sulfur and lubricity," explains Robert Schuetzle, Greyrock chief executive officer. "The custom additive package developed by Lubrizol will ensure that our diesel fuel meets the different regional and seasonal specifications in all U.S. markets. We are very excited about this partnership."

As an R&D leader of advanced additive technologies, Lubrizol helps customers bring differentiated fuels to the market. Through this engagement with Greyrock, Lubrizol is expanding its leadership into synthetic fuels produced from natural gas.

"Lubrizol expertise in cold flow technology will help enable year-round production and effectiveness of Greyrock's new diesel fuel technology," explains John Taracha, Lubrizol diesel additives product manager. "This partnership will help contribute to the increased availability of domestic fuel production and provide for flexibility of its use during the critical winter season."

Read more: <http://www.sacbee.com/2013/06/24/5519175/lubrizol-to-provide-cold-weather.html>

## **“Supreme Court won't block sales of 15% ethanol”**

By Matthew Daly, *USA Today*, June 24, 2013

WASHINGTON (AP) — Will drivers nationwide be pulling up to gas station pumps that sell E15 now that the Supreme Court has declined to block sales of the fuel that is a gas blend containing 15% ethanol?

In a word: No. The reasons why are a bit more complex but have to do with the potential damage to older cars and motorcycles that E15 can do and the industry's opposition to making the switch nationwide to the cheaper and cleaner fuel.

Refiners, food producers, restaurants and some environmental groups have fought governments efforts to require increasing amounts of ethanol in gasoline blends the next few years.

The industry has argued that the the damage to motorcycles and aging cars along with the upward prices it will put on food impose an unnecessary economic burden on consumers.

"The ever-increasing ethanol mandate has become unsustainable, causing a looming crisis for gasoline consumers," says Bob Greco, a senior official with the American Petroleum Institute who met with the White House about the issue. "We're at the point where refiners are being pressured to put unsafe levels of ethanol in gasoline, which could damage vehicles, harm consumers and wreak havoc on our economy."

However, the Supreme Court on Monday rejected an effort by the API, the oil industry's chief lobby group, to block sales of E15. The justices left in place a federal appeals court ruling that dismissed challenges by the API and trade associations representing food producers, restaurants and others.

The court's decision confirms that the gas blend can be sold at gas stations nationwide, giving individual businesses and consumers the choice of whether to use it. Currently, most gas blends sold continue about 10% ethanol. The E15 blend is available is only sold in about 20 stations in Midwest states and is unlikely to spread from coast to coast anytime soon.

Read more: <http://www.usatoday.com/story/money/cars/2013/06/24/ethanol-gasoline-damage-cars-motorcycles/2451971/>

## **“Alaska: Cook Inlet well encounters liquids shows”**

By OGJ editors, *Oil & Gas Journal*, June 25, 2013

Buccaneer Energy Ltd., Sydney, paused drilling at 5,600 ft at its Cosmopolitan-1 well in Alaska’s Cook Inlet after encountering hydrocarbon liquids shows in the Lower Tyonek formation about 400 ft higher than expected.

The company will run wireline logs and pressure tests and take sidewall cores before drilling ahead. It will set casing at 5,485 ft before drilling through the Lower Tyonek and into the proven oil-bearing Starichkof and Hemlock formations and reach target depth of 8,000 ft after drilling the prospective West Foreland formation.

The well has penetrated three primary gas zones totaling 175 ft in which logging while drilling equipment indicated good resistivity, permeability, and porosity. The results need to be confirmed with wireline logs and flow testing, if warranted. No flow tests are planned for the oil formations.

The current plan is to take cores in the oil formations to augment known reservoir data. The objective of this coring operation is to further optimize the future oil plan of development.

The gas zones were all accompanied with a sharp increase in gas relative to background gas measurements. Generally, gas levels over background gas amounts increased by a multiple of 5-10, measured resistivity from 10-30 ohms, and permeability and porosity characteristics would indicate production-capable sands based on previous basin experience, Buccaneer said.

Read more: <http://www.ogj.com/articles/2013/06/alaska-cook-inlet-well-encounters-liquids-shows.html>