



# Channoil Newsletter

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*Channoil Consulting*  
**“Putting our  
experience  
to work for you”**

## BIOFUELS WILL 2ND GENERATION TECHNOLOGY ARRIVE IN TIME TO SAVE EU RENEWABLES POLICY?

The EU's biofuel policy runs the risk of unsettling agricultural markets and causing harm to the environment as high prices encourage the ramping up of feedstock production in third countries, unless new technology can come to the rescue. [see page 2](#)

## EUROPEAN SECURITY OF SUPPLY: IS THERE A PROBLEM?

Phil Nutman reviews recent events regarding Russian oil and gas suppliers to Europe and analyses their implications. [see page 3](#)



*Philip Nutman*



*Managing Director,  
Ben Holt*

## RUSSIAN OIL EXPORTS - NEW PATTERNS OF GROWTH

While there have been a few key themes underlying the large increases in oil exports from Russia in recent years, the picture for the coming years may be quite different, *writes Ben Holt.* [see page 5](#)

## OIL SUPPLY & TRADING - THE NEED FOR EXPERT WITNESSES

When a trading deal goes wrong, the actions of the parties involved often sort out the men from the boys. Early advice from our experts can secure a favourable outcome. [see page 7](#)

## TRAINING & DEVELOPMENT — NEXT STOP GENEVA!

Following the success of its practical, lively and reality-based development programmes elsewhere, Channoil is to run an oil valuation, trading and price risk management course in Geneva [see page 9](#)

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## BIOFUELS: WILL 2ND GENERATION TECHNOLOGY ARRIVE IN TIME TO SAVE EU RENEWABLES POLICY? BY STEWART JAMES

***The EU's biofuel policy runs the risk of unsettling agricultural markets and causing harm to the environment as high prices encourage the ramping up of feedstock production in third countries, unless new technology can come to the rescue.***

With biodiesel trading at close to \$1,000 per tonne, a premium of over \$450 per tonne over conventional ultra low sulphur diesel, someone should be making a lot of money!

UK retailers don't believe the consumer will pay a premium for the (typically 5%) bio blend so it is retailed at parity with conventional fossil diesel. The tax allowance of 20 p/litre (about \$450 per tonne) leaves nothing for the retailer apart from a small VAT benefit.

Car manufacturers haven't approved the use of biodiesel in other than 5% blends. Even so, in Germany, Europe's largest biodiesel market, 2/3 is sold in pure form. Buyers are mainly commercial users. It is priced at a discount to fossil diesel, which suggests that only the current 100% tax relief keeps the business viable.

Biodiesel producers' margins - especially on the high value rapeseed oil - are claimed to be no better than break-even, so the present winners seem to be the seed growers and crushers who produce the feedstocks for biodiesel plants: rapeseed, soyabean, sunflower and palm oil.

European biodiesel volumes continue to grow rapidly. Laggard countries failing to keep up with EU targets may follow Germany's lead in the adoption of mandatory levels for biofuels. With the EU now proposing a 10% biofuels target for 2020, there is clear evidence of the growth trend continuing. But where will all this product come from?

If the high growth rate is to be maintained,

Europe must import increasing quantities of vegetable oils as feedstocks for biodiesel plants with consequent effects on prices and food markets. This will reinforce the already well-expressed concerns over the negative environmental effects in third-countries as they look to ramp up production.

The situation on bioethanol for gasoline blending also looks uncertain. Since Europe has a substantial gasoline surplus, any development in European use of bioethanol directly in gasoline, will result in increased gasoline exports to the US, supported by EU subsidy. There is also the potential of EU countries competing with the US for third-country ethanol supplies.

To find an escape from this conundrum – destroying the planet to save the planet, hopes are pinned on so-called 2<sup>nd</sup> generation biofuels: producing fuels from non-food crops (cellulose-rich biomass such as wood and tall grasses) and at low cost.

One route being progressed for biodiesel is the BTL (biomass to liquids) sequence of biomass gasification, Fischer Tropsch hydrocarbon synthesis followed by hydrocracking and distillation to maximise diesel production. The later stages are the same as oil refining processes. A small plant using this technology should be completed in Germany later this year.

In the US, the Department of Energy is assessing bids for the first commercial plant for the production of cellulosic ethanol, with hoped for completion in 2012.

Will commercially viable new technology arrive in time? If it does, will it make the early plants redundant?

## EUROPEAN SECURITY OF SUPPLY: IS THERE A PROBLEM?

BY PHIL NUTMAN

**In our last Newsletter, we discussed the prospects for further interruptions to natural gas supplies to Europe this year in a possible repeat of the Ukraine-Russia dispute that affected pipeline volumes last January (see 'Another Gas Winter of Discontent?' Edition 3: Autumn 2006). Well, there has indeed been a further interruption to European energy supplies from Russia this year, albeit thankfully short-term. Only it was oil and not gas, and it was Belarus and not Ukraine. Nevertheless, the media has been in overdrive – and Channoil was invited to comment<sup>1</sup> – with everyone wanting to know the answer to the question, 'Are our energy supplies secure?'**

The trend for oil and gas supply to meet Europe's needs is clear – the EU is increasingly dependent on imports to meet its demand and (depending on where about one sits within Europe) a primary source of this oil and gas is Russia. The enlarged EU has an annual natural gas demand of around 480bcm and, with a decreasing indigenous reserve base, relies on imports to meet 280bcm of this – approaching 60% of its total needs. Of these gas imports, Russian pipeline supplies amount to well over 40% – the vast majority of which transits through Ukraine and the remainder via Belarus. The Nordstream cross-Baltic gas pipeline may help to diversify slightly the reliance on these transit routes, but the overall impact will be to increase Europe's reliance on Russian gas supplies.

The picture is slightly different on the oil side but the message is much the same. Europe's net import of crude and oil products amounts to approximately

500MT/year and one-half of this is sourced from Russia. Of this Russian oil, about one-third is transported by pipeline through Belarus and it was when crude supplies through Belarus were affected that concerns were raised.

Of course, the impact on energy security varies greatly from one European country to another. Sat here in London it is easy to be blasé about the situation, given that the UK does not yet take any gas from Russia and at around 7% Urals crude supplies represents only a small proportion of its refining needs. But the anxiety felt in Warsaw and, increasingly, Berlin is much more real, given their respective and increasing reliance not only on oil and gas from Russia but also on pipelines through transit states. Compare the fairly muted response from European leaders to last winter's gas crisis to the high profile statements made this time around by Chancellor Merkel, partly because of her broader role during Germany's stint of EU Presidency but also reflecting Germany's particular relationship with Russia on energy matters. Surely the joint venture approach to the Nordstream gas pipeline project was meant to alleviate security concerns?

In reality, the 90-day compulsory stock holding for oil meant that a reduced pipeline flow for 2 or 3 days had little impact on the markets of Europe. The problem is that nobody knows at the time how long such interruptions are likely to continue. Beyond this, the incidents to date have related to disputes between Russia and former soviet states but it appears that

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## EUROPEAN SECURITY OF SUPPLY: IS THERE A PROBLEM?

BY PHIL NUTMAN

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Europe's nervousness is growing about the future and the possibility of its import dependence being used more directly against it. To be fair, Moscow denies this and points out that the recent disputes have related to the historical anomalies that they been addressing whereby Russia has undercharged former soviet states for oil and gas supplies compared to prices charged to nations outside the FSU. Economically at least, everything that the Russians have been doing in recent months can be justified.

Europe's feelings of anxiety have been intensified by recent events such as the majors (both western owned and privately held Russian companies) relinquishing to the state part of their interests (and control) in hydrocarbon-related development projects stretching from Sakhalin in the east to the proposed Bourgas-Alexandropulos crude pipeline in the west. Furthermore, it does appear that the steps taken by the Kremlin are – quite understandably – geared towards enhancing their own market position. In this way, they are reflecting the current global trend during this time of high oil prices where producer nations are increasing their stakes in their most valuable asset (just consider the recent actions taken by the Bolivian and Venezuelan governments, for example).

It should not be forgotten, of course, that there is also a balance of interests in the relationship between Russia and Europe. Russia needs to supply oil and gas to Europe – and so generate large amounts of foreign currency – almost as much as Europe needs to be supplied. This argument could be challenged

though when we consider that the seller's interests can be maintained in a low supply/high price scenario, a solution that the European buyers do not want to hear! The emergence of China and the Far East market as a viable export option for Russia also helps us to understand why Chancellor Merkel decided that the time was right for Europe's voice to be heard.

Note 1: Channoil Director Philip Nutman was Guest Speaker on the CNBC Europe Squawkbox programme discussing European Energy Supply Issues. Videos can be viewed at <http://www.cnbc.com/id/15840232?video=151016056> (Russian gas) and <http://www.cnbc.com/id/15840232?video=133013950> (Bourgas-Alexandropulos).

## RUSSIAN OIL EXPORTS — NEW PATTERNS OF GROWTH

BY BEN HOLT

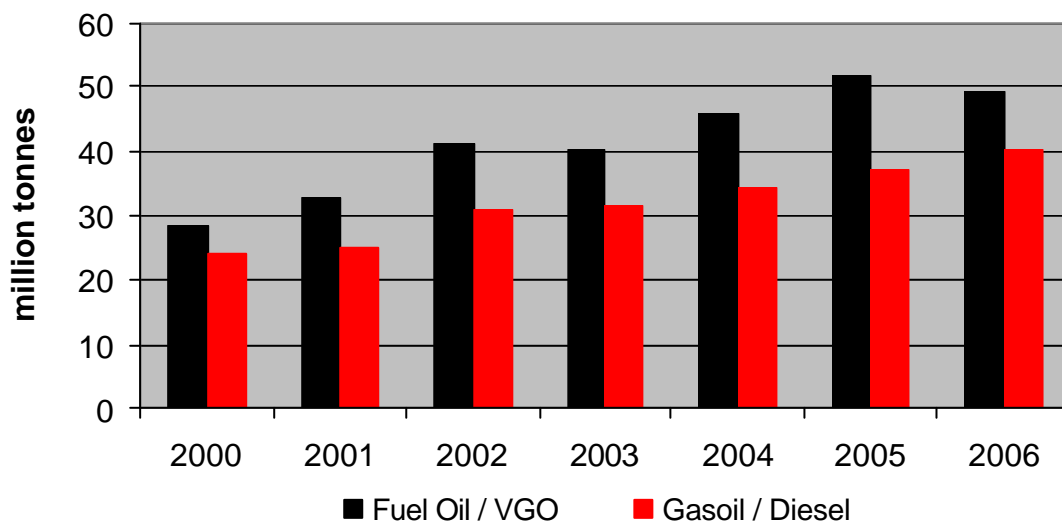
While there have been a few key themes underlying the large increases in oil exports from Russia in recent years, the picture for the coming years may be quite different, *writes Ben Holt.*

Crude oil export growth has been predominantly through Primorsk in the Baltic, where the challenges of winter ice have been overcome to achieve output of over 65 mt in 2006, the terminal having opened as recently as 2002.

Oil product export growth has also been strong, especially since higher oil prices and a new export duty regime in 2004 brought an incentive to refine more crude oil, even on a topping basis, in order to export products rather than crude.

This has led primarily to greater fuel oil and gasoil exports. FSU fuel oil exports West increased from 40 mt in 2003 to almost 52 mt in 2005 (49 mt in 2006). These incremental fuel oil exports, mainly high sulphur material, have been moved out of European waters, notably to Singapore and China. Seaborne FSU gasoil exports West have also grown significantly, from 32 to 40 mt per annum since 2003.

**Seaborne Baltic / Black Sea FSU Product Exports**



The growth trends for the future look somewhat different.

Russia's Trade Ministry forecasts further growth in crude exports, from 252 mt in 2006 to 271 mt in 2010, but only a small increase in product exports, from 104 to 105 mt in 2010.

### Crude oil

Russian plans for long term large-scale export expansion are now being concentrated on Asia-Pacific markets. Transneft's Eastern Siberia- Pacifica Ocean project is

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## **R U S S I A N O I L E X P O R T S — N E W P A T T E R N S O F G R O W T H**

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planned to transport up to 55 mta of crude oil along its 4000 km route to a terminal where exports on vessels up to 300 kt will be feasible. Another pipeline, from Kazakhstan to Western China with a feed line from Russia, started up last year and pumped 2.2 mt in 2006. The Sakhalin projects have started to export crude oil and Rosneft is to upgrade and de-bottleneck its Pacific Komsomolsk Refinery to 7 mta.

The future trends for exports to Western markets may be more subtle, unless Russia cuts down Belarus's lucrative oil processing for export, some 13 mt in 2005. Crude exports from Primorsk may be extended at the expense of supply to Belarus. If Russian refineries can be made to run more of the poorer quality crude oils currently included in Urals Blend, its value may move closer to that of Brent.

Most NW European refineries have now switched the majority of their sour crude slates to Russian crude oil, though there will be further moves away from sweet crude processing like that underway at ConocoPhillips' 11 mta Wilhelmshaven plant.

Crude oil output via the Black Sea can only be increased with a Bosphorus by-pass route, and it seems likely that two will be developed for crude oil in the next few years by players with different interests; Bourgas-Alexandroupolis for up to 35 mta led by Russian State entities, and Samsung-Ceyhan by an axis spearheaded by companies with Kazakh oil reserves.

### **Products**

Fuel oil exports are now largely constrained by logistics, especially in winter when rivers are frozen. Players are reluctant to invest in fuel oil logistics, given that Russian refineries are investing in upgrading to reduce fuel oil make, so that exports may have peaked.

EU sulphur specifications for diesel will have moved to 10 ppm by 2009 and for gasoil to 0.1% in 2008. Many Russian refiners are installing more desulphurisation capacity but the logistics challenge in exporting ultra low sulphur oil is also significant, requiring segregated systems in most cases. Transnefteprodukt is developing a ULS pipeline to Russian Baltic terminals, to be supplied from up to 16 refineries. Some suppliers are trying to organise dedicated railcar systems for exports to the Black Sea. For higher sulphur gasoil exported from Russia, further processing in European markets will often be necessary.

There is a healthy, growing market for LPG in many parts of Central and Eastern Europe, from Finland and Poland down to Turkey, and this is now being recovered in greater quantities from wet gas produced in CIS countries. Several new export terminals are under development or planned, for example at Tagan Rog and Tuapse on the Russian Black Sea coast, and at Sillamae in Estonia, so Russian LPG exports could reach 5 mta by the end of the decade.

So the focus for Russian oil exports, both East and West, will increasingly be on quality as well as quantity, responding to the changes in demand patterns in international markets.

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## OIL SUPPLY AND TRADING - THE NEED FOR EXPERT WITNESSES

BY COLIN ALLCARD & CHARLES DALY

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**When a trading deal goes wrong, the actions of the parties involved often sort out the men from the boys. Cases end up in litigation for a number of reasons. A prime one is ego. Neither party wants to admit that it made a mistake.**

The parties consult their legal advisers and the case develops a momentum of its own. Once claims are served in court or to an arbitration panel, the process will go on until either it is settled out of court or the case is heard. In any event the costs will be high.

A regular area of Channoil's business is advising on disputes that have arisen between parties involved in international oil supply and trading, such as trading companies, ship owners, P&I clubs, insurance companies and official receivers.

Many cases are settled out of court in the interests of mitigating legal and other expenses. However, the level of settlement for a particular party will depend not only on the power of the legal arguments and capabilities of the legal team, but also on the strength of the technical, commercial and operational arguments, as presented by the appointed industry experts to the case.

Cases often arise as a result of claimed breach of contract or failure to perform due to a number of factors. These may include:

- ◆ Non-conformity or off-specification product; failure to deliver product meeting the contractual description or specification criteria
- ◆ Contamination with other products,

components, water, denaturants

- ◆ Non-adherence to volume tolerances or shortage (excessive losses)
- ◆ Arrival of vessel outside the charter party laydays or breakdown of equipment or machinery on vessel, having operational and commercial implications for the receiver

Channoil experts are experienced in oil refining, supply, trading, risk management and shipping and are therefore well versed in both commercial and technical matters that arise in case analysis and reviews. Although we assign specific experts to cases based on their relevant expertise and knowledge, they operate as part of the Channoil team. Using our collegiate approach they therefore benefit from being able to draw on the broader experience base of other team members and a peer challenge process is usually undergone prior to presentation of expert findings and reports.

Our unique capabilities can be summarised as:

- ◆ Highly experienced in international oil trading with first hand commercial and technical knowledge of crude, products and shipping
- ◆ Experienced independent practitioners in expert witness work and giving evidence at arbitration/ trial hearings
- ◆ Ready access to market reports, historical price and shipping data
- ◆ In depth technical knowledge of the oil industry, quality issues and blending, shipping,

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## **OIL SUPPLY AND TRADING - EXPERT WITNESS ACTIVITIES**

**BY COLIN ALLCARD & CHARLES DALY**

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banking/ payments and independent inspection

- ◆ Experience of evaluating options/ optimising mitigation actions
- ◆ Network of market contacts in the trading and shipping businesses
- ◆ Knowledge of 'the tricks of the trade'

### **Prevention is obviously better than cure:**

Several of our clients have requested us to review their supply/ trading operations and to report on compliance with industry best practice. We have also supported improvement of business processes to ensure their processes and systems are secure and not exposing the company to undue market, performance and financial risks.

### **Nevertheless, sometimes things go wrong:**

In our experience, there is often considerable benefit in obtaining advice from industry experts early on in a potential litigation issue to ensure strategies are set from the outset that are designed to secure the best potential outcome. The correct approach to a problem at the beginning should result in a stronger position if the matter proceeds to litigation.

If the case comes to court, again, setting appropriate strategies is critical as is correctly addressing other case matters such as preparation of Witness Statements, supporting documentation and witness interviews.

If in doubt, give us a call!

## TRAINING & DEVELOPMENT — NEXT STOP GENEVA!

A wide range of development programmes is now required by companies to expand the skills and knowledge of their staff. Channoil is meeting this need, providing tailored programmes for companies in the Asian and European markets. In the past six months these have ranged from broad insights to the upstream and downstream oil and gas industry, to advanced oil trading programmes and strategic market analysis. The pictures show delegates at work in syndicates in one of our recent programmes for TNK-BP in Moscow.



We are now launching a new industry open programme on oil markets, trading, risk management and quality in Geneva. A growing number of international trading entities and support organisations are basing their European trading in Switzerland, creating a need for market understanding for their many recent recruits. Channoil's training consultants, with current industry insight and a wealth of experience, both in traded oil markets and in delivering stimulating seminars, are ideally equipped to provide this programme.



The Geneva course entitled "Essentials of Crude Oil and Product Quality, Value, Trading and Price Risk Management" is scheduled for 28-30 March. For further details, see below contact information and a full course information / registration details can be e-mailed upon request.

**For more information on upcoming courses, contact us on:**  
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### Upcoming courses...

28-30 March	Essentials of Crude Oil and Product Quality, Value, Trading and Price Risk Management	Geneva
25-27 April	Mechanics & Operations of International Crude Oil & Petroleum Products Trading & Price Risk Management ( <i>Energy Institute</i> )	Moscow
Late May	Oil Terminal Management ( <i>Vostock Capital</i> )	Amsterdam / Rotterdam
7-8 June	Fuel Oil & Bunker Trading ( <i>Vostock Capital</i> )	St Petersburg
18-21 June	Mechanics & Operations of International Crude Oil & Petroleum Products Trading & Price Risk Management ( <i>Energy Institute</i> )	Almaty