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ARGUS CASPIAN MARKET

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LAST UPDATED: SEPTEMBER 2010

The most up-to-date Argus Caspian Market methodology is available on www.argusmedia.com

Introduction

The *Argus Caspian Market* report is a weekly market report that covers the crude and products markets of the Caspian region and the central Asian countries. This includes the relevant areas of Russia, Kazakhstan, Azerbaijan, Turkmenistan, Iran, China, Uzbekistan, Kyrgyzstan, and Tajikistan.

The publication features price assessments for key regional grades of crude and products, market analysis, changes in transportation tariffs, freight rates and other export related expenses, trade and industry news. It is available every Wednesday at 18.00 am (Moscow time).

Market overview

Caspian Crude Market

The Caspian region and the Central Asian states of Kazakhstan, Uzbekistan, Turkmenistan, and Azerbaijan produce 120mn t of crude and export 100mn t per year. Russia also develops Caspian oil fields and exports crude out of the region.

The main export destinations for the Caspian crudes are the basins of the Black and Mediterranean Seas, China and Iran. Deliveries are handled by national oil companies, international majors, and traders. In addition Kazakhstan imports some 4.5mn t of Russian crude per year for processing at Pavlodar refinery.

Caspian Products Market

The Caspian region and Central Asian refineries produce around 20-25mn t of products per year and export 10-12mn t. The balance of exports and domestic consumption are heavily dependent on seasonality and are subject to strict government regulation. Gasoline demand peaks in the summer driving season whereas diesel peaks in spring and autumn as it meets agricultural machinery demand. Fuel oil consumption for heating and power generation reaches its highs in winter.

The majority of products exports are handled by rail with destinations in Europe, the Middle East, Ukraine, China, Iran and Central Asia, or are delivered to Black Sea ports. Rail and truck cargos are usually 1,000-5,000t sold basis fca, cpt, or daf. Tanker deliveries are 15,000-45,000t and change hands on fob or cif terms.

In Turkmenistan all export products are sold exclusively through the commodity exchange. Cargoes are offered by Turkmen refineries on fob, fca, or daf terms with prices linked to Mediterranean benchmarks.

The cargo sizes of Caspian crude and products are limited by the deadweight of tankers operating on cross-Caspian routes and the depth at port terminals. Crude usually trades in 4,500-12,000t cargoes and products in 3,000-9,000t parcels.

Crude quotations

The *Argus Caspian Market* contains price assessments for different grades of crude oil. The report also contains market commentary for

the various regional markets including Kazakh crude sold at Aktau, at Batumi and at Makhachkala; pipeline deliveries to China; Turkmen and Azeri grades; Russian Urals, sold at various locations.

Argus Caspian Market report contains the following weekly snapshot crude assessments:

North Sea Dated
 Urals cif Med (80kt)
 CPC Blend cif Med
 Kumkol cif Med
 Kumkol daf Alashankou
 BTC Blend cif Med
 Saharan Blend cif Med
 Zarzantin fob Sehra
 Es Sider fob Lybia
 Syrian Light fob Syria
 Iran Light fob Sidi Kerir
 Iran Heavy fob Sidi Kerir
 Suez Blend for Ras Shukeir
 Basra Light fob Sidi Kerir
 Kirkuk fob Ceyhan
 Tengiz cif Augusta

The international prices are taken from Argus Crude. For a detailed explanation of the methodology behind the international crude assessments see the Argus Crude Methodology.

In addition to the crudes assessed according to the Argus Crude Methodology the Argus Caspian Market report also includes a quotation for Kumkol at the Russian-Kazakh border. The price assessment for Kumkol China is assumed to have the following specifications: 42°API, 0.40% typical sulphur, daf Alashankou, balance of current month, 30,000t tranche (see table 1).

Netback price quotations

Along with market assessments *Argus* also calculates comparable netback prices for various grades of crude and products. These are calculated by subtracting assessed transportation and associated costs from the market price. Netbacks do not include ballast, port demurrage, bank loan expenses or market structure. When assessing netbacks the following parameters are used:

Prices

Pricing data is based on daily quotations published in *Argus Crude*, *Argus European Products*, *Argus US Products* or *Argus Asia-Pacific Products*. The published methodologies for these reports are available at www.argusmedia.com.

There is no standard approach to calculating price differentials for crude exported from Kazakhstan. The discounts to relevant quotations are agreed through negotiations between buyers and sellers based on an exporter's costs on a specific route.

According to common trading practices, Urals, Kumkol, CPC Blend, and BTC Blend crude prices are linked to North Sea Dated quotations through a differential reflecting differences in the quality and the market situation for various grades of crude.

When Kazakh crude is exported through the Russian pipeline system the grade delivered to Russian ports is Urals (Russian Export Blend).

Freight

Argus publishes daily prices on the international shipping spot market for crude and petroleum products in the *Argus Freight* report and cross-Caspian freight rates in the *Argus Caspian Market* report. These price assessments reflect typical and repeatable freight rates discussed in the market.

Actual freight costs (monetary value of payment for marine transportation per unit of cargo) for the same voyage may vary depending on the type of charter party, age and technical condition of the vessel, and other specifications.

For a detailed explanation of the methodology behind the international freight assessments see the Argus Freight methodology on www.argusmedia.com.

From 1 January 2008 charterers in Baltic and North seas are paying additional fees for operating in sulphur emissions control area (SECA). The per mile cost of the SECA charge is set every year and is published in Argus Neftransport monthly.

Insurance

Insurance premium for a tanker cargo varies depending on age and technical features of the vessel, size and reputation of the exporter, and contract terms.

Demurrage

The rate of demurrage is agreed in negotiations between the charterer and the ship owner based on current market conditions and industry practices.

From 2003 demurrage related costs for exports of crude from the Black Sea ports have risen significantly due to delays in vessels' passing the straits of Bosphorus and the Dardanelles. Stricter navigation rules in the Straits introduced by Turkey, including daytime passage only, leads to considerable demurrage of tanker tonnage, which in its turn climbs up as the day gets seasonally shorter.

Demurrage costs in the Straits are assessed daily and multiplied by the number of days delay in both directions, north bound and south bound, above two days.

Independent inspection

The fees charged by independent laboratories for quality and quantity analysis for crude cargoes are assessed regularly according to the trading practices.

For a detailed explanation of the methodology behind the transportation tariffs and other associated costs assessments see the Argus

Neftransport methodology on www.argusmedia.com.

Losses

In accordance with international trading practices crude prices include losses in transit associated with shipping a cargo by sea. For a detailed explanation of the methodology behind the transportation tariffs and other associated costs assessments see the Argus Neftransport methodology on www.argusmedia.com.

Terminal costs

The cost of handling cargoes at sea and on-shore terminals is determined mostly by the commercial policies of owners or operators of transshipment facilities. Argus assesses the cost of transshipment based on data provided by terminal operators where it is available.

Transshipment rates at terminals of the CIS and the Baltic states are published in *Argus Neftransport* monthly. Where official data are unavailable transshipment costs assessments are made on the basis of recently obtained valid information received through the survey of market players involved in transshipping operations such as shippers, port authorities, trading and freight-forwarding companies.

Inland transportation tariffs

Argus publishes inland transportation tariffs based on data received from pipeline and rail operators where it is available. Tariff rates and tariff policies analysis in countries of the former Soviet Union are published in *Argus Neftransport*.

Where official data are unavailable transportation costs assessments are made on the basis of recently obtained valid information received through the survey of market players involved in transshipping operations such as shippers, transportation and freight-forwarding companies.

The transit of Kazakh crude via the Russian pipeline system is regulated by an intergovernmental agreement signed in 2002. Pipeline tariffs are determined on the basis of the tariff policies of pipeline companies of the CIS states.

Argus calculates the financial efficiency of exports by taking into account rail tariffs for transportation of liquid oil cargoes using operator-owned RTCs (rail tank cars) with deadhead return fees included.

The calculation of tariffs is based on the "Tariff Policies of Railways of the CIS and Baltic Countries".

The calculation makes the following assumptions:

- type of shipment – carload (RTC);
- number of RTCs in a shipment – 1;
- number of axes, RTC – 4;
- RTC load – 60t;
- fuel oil RTC capacity – 66t;
- domestic Russia deadhead return tariff includes VAT.

Kumkol China (table 1)					
Grade	typical °API	typical Sulphur %	Basis/Location	Timing	Cargo size
Kumkol China	42	0.40	daf Alashankou	Balance of current month	30,000t

The tariffs for transportation of gasoil and diesel in Russia include the guarding cost with VAT included.

Tariffs for transportation of cargoes in Azerbaijan and Georgia are determined based on the data from freight forwarders. Railways of these countries grant significant tariff preferences to some freight forwarding firms. Actual cost of liquid oil cargoes transportation in these countries may be considerably different from the officially announced tariff.

Swap fee

When Caspian crude is exported to Iran, operator receives an equivalent volume of Iranian Light crude in the Mideast Gulf. The cost of such swap operation is assessed regularly and published in the Argus Caspian Market report.

Trading margin

Usually in oil trading the value of the trader's commission is not disclosed. According to Argus estimates trading tanker cargoes is efficient if the associated margin makes from \$0.20/bl to 1pc of the cargo value. This rate is implicitly integrated in contracts.

Operating margin

An exporter may incur additional costs in connection with the consolidation of a tanker cargo at a load port. If the exporter is not able to consolidate a cargo using his own resources he may sell the crude to an intermediary, which could act in the capacity of an operator for consolidation of volumes from various producers into the tanker cargo.

Products price quotations

The Argus Caspian Market report publishes price quotations of various refined products produced in Caspian countries and sold at both domestic and export markets. Argus also calculates prices for products delivered from Russia to Kazakhstan by adding transportation costs to the respective prices at Russian refineries. These prices are published in the daily Argus Russian Motor Fuels report.

Argus publishes the following weekly snapshot prices in the international bulk spot market for petroleum products:

Diesel 50ppm cif Med
 Russian gasoil 0.1pc cif Med
 Russian gasoil 0.1pc cif NWE
 French heating oil 0.1pc cif Med
 French heating oil 0.1pc cif NWE
 Fuel oil 3.5pc cif Med
 VGO 0.5pc fob Med
 VGO 0.5pc cif NWE

For a detailed explanation of the methodology behind the international petroleum product assessments see the Argus European Products methodology on www.argusmedia.com.

Domestic products in Kazakhstan

Argus publishes weekly prices for gasoline (Ai 76/80, Ai 92/93, Ai 95/96), diesel fuel (summer and winter grades), jet fuel and fuel oil prices on the domestic market in Kazakhstan (see table below). The prices at three refineries in Pavlodar, Chimkent and Atyrau are published each Wednesday in the Argus Caspian Market report.

The market information on deals done, bids and offers levels are collected daily by personal contacts, telephone, electronic mail and messengers. A cross-section of buyers and sellers are consulted and the market information cross-referenced with active market participants. A consensus value of bid and offer levels is then determined and used to generate prices for Kazakh oil products.

Products quality standards in Kazakhstan			
Refinery	Atyrau	Chimkent	Pavlodar
Mogas Ai80	TU 38.001165-2003	TU 38.001165-2003	CT AO 39334881-001-2006
Mogas Ai93	GOST 2084-77	TU 38.001165-2003	CT AO 39334881-001-2006
Mogas Ai95	–	TU 38.001165-2003	CT AO 39334881-001-2006
Diesel summer grade	GOST 305-82	GOST 305-82	GOST 305-82
Diesel winter grade	GOST 305-82	GOST 305-82	GOST 305-82
Jet fuel	GOST 10227-76	GOST 10227-76	GOST 10227-76
Fuel Oil M100	GOST 10585-99	GOST 10585-99	GOST 10585-99

Sulphur content of Kazakh fuel oil	
Refinery	Sulphur, pc
Atyrau	1
Chimkent	0.5
Pavlodar	2

Bunker fuel quality standards			
Specifications	MGO		IFO-30
	Baku	Aktau	Baku
Sulphur, pc	0.15	0.2	0.2
Viscosity, cst	6	9	30

The minimum cargo size is 60t, timing – 10–20 days ahead, basis fca at Pavlodar, Chimkent and Atyrau refineries with 100pc pre-payment. The values are presented in US dollars per tonne. When offer prices of product vary significantly between refiners and traders at the same location, Argus determines the most competitive price range. Some producers have limitations on fuel deliveries to certain regions.

The quality of oil products generally meets Kazakh or producer's standards (see table below). However, refineries may offer products of differing quality even within the same company. The market does not have a common price adjustment methodology based on product quality. If the quality of products supplied through a specific transaction (or when defining demand and supply levels), fails to match the quality listed in this methodology, the price differential is based on existing commercial practices.

Bunker fuel in Caspian ports

Argus provides weekly prices for bunker fuels in Caspian ports of Baku (Azerbaijan) and Aktau (Kazakhstan), including low-sulphur fuel oil (IFO-30) and low-viscosity marine gasoil (MGO). These prices are published each Wednesday in the Argus Caspian Market report.

The market information on deals done, bids and offers levels are collected daily by personal contacts, telephone, electronic mail and messengers. A cross-section of buyers and sellers are consulted and the market information cross-referenced with active market participants. A consensus value of bid and offer levels is then determined and used to generate prices for marine fuels.

The minimum cargo size is 50t, timing – 1-30 days ahead, basis fob Baku and fob Aktau with payment terms of maximum 30 days after. The values are presented in US Dollars per tonne.

Central Asia products assessments

Argus publishes weekly prices for gasoline (A80, A92), diesel (summer 0.2pc sulphur) and fuel oil (<1pc sulphur) supplied to Kyrgyzstan and Tajikistan as well as gasoline (A80) and diesel (summer 0.2pc sulphur) supplied to Afghanistan. The cargoes assessed are delivered by rail from refineries in Russia, Kazakhstan, Uzbekistan and Turkmenistan.

The market information on deals done, bids and offers levels is collected weekly by personal contacts, telephone, electronic mail and messengers. A cross-section of buyers and sellers are consulted and the market information cross-referenced with active market participants. A consensus value of bid and offer levels is then determined and used to generate prices for Central Asian oil products.

The minimum cargo size is 20t, timing – 10–30 days ahead. The values are presented in US dollars per tonne. When offer prices of product vary significantly between refiners and traders at the same location, Argus determines the most competitive price range. The prices for Monday are published each Wednesday in the Argus Caspian Market report.

Weekly prices in Central Asia			
Product	Grade	Basis	Country
Gasoline	A80	cpt Lugovaya	Kyrgyzstan
Gasoline	A80	cpt Kudukli	Tajikistan
Gasoline	A80	daf Ghalaba/Khairatan	Afghanistan
Gasoline	A92	cpt Lugovaya	Kyrgyzstan
Gasoline	A92	cpt Kudukli	Tajikistan
Gasoil	summer 0.2pc	cpt Lugovaya	Kyrgyzstan
Gasoil	summer 0.2pc	cpt Kudukli	Tajikistan
Gasoil	summer 0.2pc	daf Ghalaba/Khairatan	Afghanistan
Fuel oil	1pc	cpt Lugovaya	Kyrgyzstan
Fuel oil	1pc	cpt Kudukli	Tajikistan