



METHODOLOGY AND SPECIFICATIONS GUIDE

Russian Domestic Market

(Latest Update: March 2012)

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GENERAL TERMS AND CONDITIONS

GENERAL

Platts introduced daily assessments of the Russian domestic market for crude and products in 2006. The key price formation centers in Platts' Russian domestic crude assessments are Moscow and Surgut, while in its products coverage assessments are made basis Ufa and Moscow.

As for its international oil assessments, Platts uses a market-on-close assessment methodology, recognizing that prices are a function of time and that the outright price will vary with market conditions on a daily and intraday basis. Bids and offers for Russian domestic crude grades are published on Platts Global Alert electronic screen service page 3 <PGA003> and for Russian oil products on page 5 <PGA005>.

Platts specifications guide provides details of specifications currently reflected in the daily assessments. Because standards are evolving, however, Platts reserves the rights to change specification parameters at short notice. Platts welcomes feedback and suggestions on any aspects of specifications and assessments to elza_turner@platts.com, simon_thorne@platts.com, jorge_montepeque@platts.com and pricegroup@platts.com.

PRICE UNITS

All the primary bulk product prices in Russia are in Roubles per metric tonne (mt). The minimum fluctuation in price is Rb5/mt for crude oil and all products. All bids and offers must be made incrementally and each increment must not exceed Rb 25/mt. However, the daily assessment has no minimum or maximum daily fluctuation as compared with the previous day assessment.

TIME OF ASSESSMENT

Platts Russian domestic crude and products assessments reflect the transactable value prevailing at 16.30:00 Moscow time. The assessment methodology reflects values on a market-on-close basis. Trading activity, including bids/offers and transactions, is covered during the typical operating hours of the Russian markets with market values determined precisely at 16.30:00 Moscow time.

Platts tracks outright and spread levels through the day and these levels may have a bearing on final assessment levels, depending on transparency and the patterns of liquidity over the day.

All market activity is viewed in light of its market relevance, repeatability and transparency. Transactions between related parties or transactions that do not meet Platts high standards for transparency, verifiability and repeatability may not be taken into account.

BIDS/OFFERS

Platts considers transactions, bid/offer levels and market indications that are reflective of typical conditions and originating from sources deemed reliable.

Details of bids/offers and deals for European oil products are provided on Platts electronic screen service Platts Global Alert on PGA003 (crude oil: yahoo ID plattsruscrude or +44 (0)20 7176 6176) and PGA005 (oil products: yahoo ID plattsrusproducts or +44 (0)20 7176 6104).

Bids and offers must in principle be open to any reputable and creditworthy counterparty.

Platts will exclude transactions, bids/offers or any market indications when these appear to be unrepresentative of the market, or unrepeatable. Deals done below the level of prevailing bids or above the level of prevailing offers (i.e., selling through the bid or buying through the offer) will not be reflected in Platts assessments.

EXECUTABILITY

Platts only takes into account bids and offers where trading participants have demonstrated that those bids and offers are firm and executable. For the purposes of its assessments, Platts considers in its assessment process bids and offers that have been communicated to reporters/price specialists before 15.45:00 Moscow time..

Platts considers in its assessment incremental price changes made to applicable bids or offers up to but no later than 16.15:00 Moscow time, after which only deals will be considered. Platts may change the parameters of these time cut-offs as markets evolve.

Platts takes into account bids/offers that are executable under normal circumstances. Where provisions in the bid or offer make it difficult or impossible to execute, the bid or offer will not be considered in the assessment.

PERFORMANCE

Platts considers only those transactions, bids or offers where market participants perform under typical contractual terms.

Platts accepts that individual companies may have trading limits with counterparties and other factors, including legal issues between companies, may prevent companies from trading with each other. Such counterparty issues will be dealt with on a case-by-case basis.

Platts will take appropriate steps to ensure the integrity of its assessments if issues of non-performance should arise.

INCREMENTABILITY

Price changes to bids and offers are considered in the assessment process where the improvements in the price of bids and offers are incremental in nature. Typically the increments considered would be of a maximum of Rb25/mt but Platts may vary these parameters depending on market conditions. Price changes made very rapidly, that do not allow a counterparty to execute, will be disregarded.

Please note that market participants may withdraw bids/offers at any point, provided no counterparty has expressed an intention to execute the bid/offer. Also market participants may back away from the price non-incrementally.

REPEATABILITY

Bids, offers and transactions are viewed against the broader supply/demand generated by those bids/offers and transactions. Hence if a low price offer generates too much demand, Platts may determine in its editorial process that the market value is higher than the level offered. Likewise if a high bid generates too much supply and the buyer is unable to buy all the volume that is offered, Platts in its editorial process may determine that the market value is lower than the level bid.

SPREADS

Platts typically reflects fixed price deals, bids and offers in its assessments. Platts also uses bids/offers and transactions on a floating price basis. Platts may use additional indications as appropriate including the market value of spread relationships with other oil grades. In certain illiquid markets, it may establish values based on freight differentials to more liquid benchmarks.

TIMING

Assessments reflect FIP (free in pipe) deliveries on crude oil and FCA (freight carrier alongside) deliveries on oil products. Crude oil assessments typically reflect deliveries for the month following publication. In November, for instance, Platts will assess crude delivered in December. The export scheduling typically finalizes by the 25th of the month prior to delivery but trading of domestic barrels may continue up to around the 5th of the month of delivery. Platts' assessments will reflect volumes trading for delivery the month following publication. For example, the crude oil Urals assessments for December would be published up to November 30th or closest prior working day. Trading activity during the month of loading will be reported as per normal in Platts publications but will not be considered in the assessment process.

Oil products assessments reflect deliveries 5-25 days ahead, normalized to the mid-point of this range.

PAYMENT TERMS

Payment typically is as per standard commercial practice within Russia which is pre-payment, i.e. before the delivery/shipment takes place. Where different terms are given this will be allowed for in the assessment process.

EMBEDDED OPTIONS

Platts overall objective is to reflect the transactable value of the commodity assessed. In cases where the apparent value of the commodity includes extra optionalities and the intrinsic value of the commodity is masked, Platts may use its editorial judgement to factor out such extraneous elements from the value of the commodity, or it may decide not to use the bid, offer or transaction in its assessment process.

Optionalities that typically mask the value of the commodity include loading or delivery options held by the buyer or seller, volume option tolerances exercisable by the buyer or seller or quality specifications among others.

LOADING/DELIVERY LOCATION

The key price formation centers in Platts' Russian domestic crude assessments are Moscow and Surgut, while in its products coverage assessments are made basis Ufa and Moscow.

PARCEL SIZE

Platts seeks to reflect bids/offers and transactions typical of each of the markets it reflects. Because trading patterns vary over time, Platts defines the typical parcel sizes reflected under the individual assessments, but these may vary according to market conditions. Where a range of cargo sizes is considered, Platts will reflect typical cargo sizes prevailing in the market at the time of the assessment.

FREIGHT DIFFERENTIALS

Platts may take into account prevailing freight rate levels in establishing relative values. Where a market has become illiquid, Platts may routinely determine FIP or FCA values from those prevailing in nearby markets.

SEASONALITY

The switch in diesel qualities from summer to winter grade and vice versa may have a significant impact on diesel prices in Russia.

Platts generally announces a phase-in period for the summer and winter grades, in which the incoming seasonal grade is given an increasing weighting in the assessment on a pro-rata basis.

DATA CODES

Each Platts assessment is identified in the electronic databases by a 7-character data code. These are listed in the table on page 4 of this document.

CRUDE OIL OUTRIGHT VALUES AND NETBACKS

Crude oil trading across the Russian domestic market follows a cyclic pattern. Trading cycles occur normally in the course of five days at the end of the month, when deals are done for crude oil parcels for delivery in the following month. Market participants start discussing spot price levels around 16th day of the month, after export duties for the following month are announced. During the rest of the month – from the 1st to around 15th - the market is illiquid.

Platts assesses the Russian domestic crude oil based on spot assessments during the period of trading activity, while simultaneously calculating the netback values. Once trading is completed, Platts assesses the differential between the Russian domestic spot price and the netback. After the trading cycle finishes, the differential prevailing during the days of trading activity is assessed and fixed for the following month when there is no trading – typically 1st to 15th. During that time Platts assesses the Russian domestic crude oil as a sum of the netback on the day and the fixed differential.

The Russian domestic crude oil assessment represents the value of the crude oil on 16:30 Moscow time. The netback is derived from Urals assessments in the Mediterranean and Northwest Europe. Urals crude oil is traded at the international markets as a differential to Dated Brent and assessed daily by Platts as a sum of that differential and Forward Dated Brent.

As all Platts assessments are on 16:30 London time and Russian domestic crude oil assessments are for 16:30 Moscow time, there is a need to determine the route assessments – Forward Dated Brent and consequently Urals – on 16:30 Moscow time.

Firstly, Platts takes ICE front-month Brent futures and EFP value on 16:30 Moscow time. The sum of the two components gives an indication for the Cash Brent value on 16:30 Moscow time.

Secondly, the latest CFDs values are added to the achieved Cash Brent to get a Forward Dated Brent.

Thirdly, the result Forward Dated Brent is added to the previous trading day's Urals 80,000 mt FOB Novorossiisk and Urals FOB Primorsk to obtain Urals FOB prices on 16:30 Moscow time.

Finally, the formula for Russian crude oil netbacks is the following:

Urals FIP Surgut = the average of:

$((\text{Urals } 80,000 \text{ mt FOB Novorossiisk on } 16:30 \text{ Moscow time minus Russia's crude oil export duty for the following month minus Novorossiisk transshipment}) * \text{USD/Ruble Forex rate on } 16:30 \text{ Moscow time minus Transneft's Surgut-Novorossiisk pipeline cost}) * \text{VAT}$

$((\text{Urals FOB Primorsk on } 16:30 \text{ Moscow time minus Russia's crude oil export duty for the following month minus Primorsk transshipment}) * \text{USD/Ruble Forex rate on } 16:30 \text{ Moscow time minus Transneft's Surgut-Primorsk pipeline cost}) * \text{VAT}$

For more details regarding Dated Brent, Forward Dated Brent, CFDs, EFP and Urals, please, refer to Platts Crude Oil Methodology and Specifications Guide on www.platts.com

Effective February 20, 2012 Platts has split the Russian domestic crude oil assessment in a spot price, a netback and a differential.

CRUDE OIL

URALS FIP UFA

Quality: Urals (GOST R 51858 - 2002). API gravity is approximately 31-33 degrees (specific density at 15°C is 0.8545 - 0.8744 g/cm³) normalized to 32 degrees (0.8654 g/cm³). The sulfur content reflects normal pipeline quality typically 1.3%. Maximum paraffin content is 6%. Maximum water content is 0.5%. Maximum salt content is 300 mg/dm³.

Size: Parcels of 5,000 mt and over are used for the assessment.

Location: Basis is FIP (free in pipeline) Ufa.

Timing: Typically export scheduling is finished by the 25th of the month prior to the traded month and domestic trading may continue approximately until the 5th of the traded month. Platts assessments reflect volumes trading for delivery the month following publication.

Other: Platts currently reflects values based on pipeline differentials from Surgut to the delivery location.

Database details:

Dispatch Category	RA
12 Char. Symbol	AAUDG0000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUDG00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FTP KR PL12 RTR SAR TLR
Description	Urals FIP Ufa Rb/Mt

URALS FIP SURGUT

Quality: Urals (GOST R 51858 - 2002). API gravity is approximately 31-33 degrees (specific density at 15°C is 0.8545 - 0.8744 g/cm³) normalized to 32 degrees (0.8654 g/cm³). The sulfur content reflects normal pipeline quality typically 1.3%. Maximum paraffin content is 6%. Maximum water content is 0.5%. Maximum salt content is 300 mg/dm³.

Size: Parcels of 5,000 mt and over are used for the assessment.

Location: Basis is FIP (free in pipeline) Surgut.

Timing: Typically export scheduling is finished by the 25th of the month prior to the traded month and domestic trading may continue approximately until the 5th of the traded month. Platts assessments reflect volumes trading for delivery the month following publication.

Other: N/A

Database details:

Dispatch Category	RA
12 Char. Symbol	AAUDH0000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUDH00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FTP KR PL12 RTR SAR TLR
Description	Urals FIP Surgut Rb/Mt

URALS FIP MOSCOW

Quality: Normal Urals pipeline quality as specified for Ufa and Surgut above.

Size: Parcels of 5,000 mt and over are used for the assessment.

Location: Basis is FIP (free in pipeline) Moscow.

Timing: Typically export scheduling is finished by the 25th of the month prior to the traded month and domestic trading may continue approximately until the 5th of

the traded month. Platts assessments reflect volumes trading for delivery the month following publication.

Other: N/A

Database details:

Dispatch Category	RA
12 Char. Symbol	AAUDJ0000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUDJ00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FTP KR PL12 RTR SAR TLR
Description	Urals FIP Moscow Rb/Mt

URALS FIP SAMARA

Quality: Normal Urals pipeline quality as specified for Ufa and Surgut above.

Size: Parcels of 5,000 mt and over are used for the assessment.

Location: Basis is FIP (free in pipeline) Samara.

Timing: Typically export scheduling is finished by the 25th of the month prior to the traded month and domestic trading may continue approximately until the 5th of the traded month. Platts assessments reflect volumes trading for delivery the month following publication.

Other: Platts currently reflects values based on pipeline differentials from Surgut to the delivery location.

Database details:

Dispatch Category	RA
12 Char. Symbol	AAUNI0000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUNI00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FTP KR PL12 RTR SAR TLR
Description	Urals FIP Samara Rb/Mt

URALS FIP NIZNEVARTOVSK

Quality: Normal Urals pipeline quality as specified for Ufa and Surgut above.

Size: Parcels of 5,000 mt and over are used for the assessment.

Location: Basis is FIP (free in pipeline) Nizhnevartovsk.

Timing: Typically export scheduling is finished by the 25th of the month prior to the traded month and domestic trading may continue approximately until the 5th of the traded month. Platts assessments reflect volumes trading for delivery the month following publication.

Other: Platts currently reflects values based on pipeline differentials from Surgut to the delivery location.

Database details:

Dispatch Category	RA
12 Char. Symbol	AAUNJ0000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUNJ00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FTP KR PL12 RTR SAR TLR
Description	Urals FIP Nizhnevartovsk Rb/Mt

URALS FIP VOLGOGRAD

Quality: Normal Urals pipeline quality as specified for Ufa and Surgut above.

Size: Parcels of 5,000 mt and over are used for the assessment.

Location: Basis is FIP (free in pipeline) Volgograd.

Timing: Typically export scheduling is finished by the 25th of the month prior to the traded month and domestic trading may continue approximately until the 5th of the traded month. Platts assessments reflect volumes trading for delivery the month following publication.

Other: Platts currently reflects values based on pipeline differentials from Surgut to the delivery location.

Database details:

Dispatch Category	RA
12 Char. Symbol	AAUNK0000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUNK00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FTP KR PL12 RTR SAR TLR
Description	Urals FIP Volgograd Rb/Mt

URALS FIP NOVOROSSIISK

Quality: Normal Urals pipeline quality as specified for Ufa and Surgut above.

Size: Parcels of 5,000 mt and over are used for the assessment.

Location: Basis is FIP (free in pipeline) Novorossiisk.

Timing: Typically export scheduling is finished by the 25th of the month prior to the traded month and domestic trading may continue approximately until the 5th of the traded month. Platts assessments reflect volumes trading for delivery the month following publication.

Other: Platts currently reflects values based on pipeline differentials from Surgut to the delivery location.

Database details:

Dispatch Category	RA
12 Char. Symbol	AAUNL0000000
9 Char. Symbol(s)	.

7 Char. Symbol	AAUNL00
Earliest	Date 26-JUN-2006
Vendors	BLM CQI DRI EMS FTP KR PL12 RTR SAR TLR
Description	Urals FIP Novorossiysk Rb/Mt

URALS FIP NIZHNIY NOVGOROD

Quality: Normal Urals pipeline quality as specified for Ufa and Surgut above.

Size: Parcels of 5,000 mt and over are used for the assessment.

Location: Basis is FIP (free in pipeline) Nizhnii Novgorod.

Timing: Typically export scheduling is finished by the 25th of the month prior to the traded month and domestic trading may continue approximately until the 5th of the traded month. Platts assessments reflect volumes trading for delivery the month following publication.

Other: Platts currently reflects values based on pipeline differentials from Surgut to the delivery location.

Database details:

Dispatch Category	RA
12 Char. Symbol	AAUNM0000000
9 Char. Symbol(s)	-
7 Char. Symbol	AAUNM00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FTP KR PL12 RTR SAR TLR
Description	Urals FIP Nizhniy Nov Rb/Mt

URALS FIP RYAZAN

Quality: Normal Urals pipeline quality as specified for Ufa and Surgut above.

Size: Parcels of 5,000 mt and over are used for the assessment.

Location: Basis is FIP (free in pipeline) Ryazan.

Timing: Typically export scheduling is finished by the 25th of the month prior to the traded month and domestic trading may continue approximately until the 5th of the traded month. Platts assessments reflect volumes trading for delivery the month following publication.

Other: Platts currently reflects values based on pipeline differentials from Surgut to the delivery location.

Database details:

Dispatch Category	RA
12 Char. Symbol	AAUNN0000000
9 Char. Symbol(s)	-
7 Char. Symbol	AAUNN00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FTP KR PL12 RTR SAR TLR
Description	Urals FIP Ryazan Rb/Mt

URALS FIP YAROSLAVL

Quality: Normal Urals pipeline quality as specified for Ufa and Surgut above.

Size: Parcels of 5,000 mt and over are used for the assessment.

Location: Basis is FIP (free in pipeline) Yaroslavl.

Timing: Typically export scheduling is finished by the 25th of the month prior to the traded month and domestic trading may continue approximately until the 5th of the traded month. Platts assessments reflect volumes trading for delivery the month following publication.

Other: Platts currently reflects values based on pipeline differentials from Surgut to the delivery location.

Database details:

Dispatch Category	RA
12 Char. Symbol	AAUNO0000000
9 Char. Symbol(s)	-
7 Char. Symbol	AAUNO00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FTP KR PL12 RTR SAR TLR
Description	Urals FIP Yaroslavl Rb/Mt

URALS FIP PRIMORSK

Quality: Normal Urals pipeline quality as specified for Ufa and Surgut above.

Size: Parcels of 5,000 mt and over are used for the assessment.

Location: Basis is FIP (free in pipeline) Primorsk.

Timing: Typically export scheduling is finished by the 25th of the month prior to the traded month and domestic trading may continue approximately until the 5th of the traded month. Platts assessments reflect volumes trading for delivery the month following publication.

Other: Platts currently reflects values based on pipeline differentials from Surgut to the delivery location.

Database details:

Dispatch Category	RA
12 Char. Symbol	AAUNP0000000
9 Char. Symbol(s)	-
7 Char. Symbol	AAUNP00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FTP KR PL12 RTR SAR TLR
Description	Urals FIP Primorsk Rb/Mt

GASOLINE

PREMIUM UNL FCA BASIS UFA

Quality: RON is 95 and the MON is 85. Specific density at 15°C is 0.725 - 0.780 g/cm³. Maximum lead content is 0.01% g/dm³. Maximum sulphur content is 0.05%.

Size: Parcels of 1,000-5,000 mt each normalized to 1,000 mt.

Location: Reflects material sold FCA in the Privolzhsky Federal District. The assessment basis is FCA Ufa. Material from other origins in the Privolzhsky Federal District is normalized to Ufa basis on an incremental freight differential.

Timing: Reflects deliveries 5-25 days ahead, normalized to the mid-point of this range.

Other: N/A

Database Details:

Dispatch Category	RM
12 Char. Symbol	AAUDL0000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUDL00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FUT KR PL12 RTR SAR TLR
Description	Prem Unl FCA PFD Rb/Mt

PREMIUM UNL FCA BASIS MOSCOW

Quality: RON is 95 and the MON is 85. Specific density at 15°C is 0.725 - 0.780 g/cm³. Maximum lead content is 0.01% g/dm³. Maximum sulphur content is 0.05%.

Size: Parcels of 1,000-5,000 mt each normalized to 1,000 mt.

Location: Reflects material sold FCA in the Central Federal District. The assessment basis is FCA Moscow. The assessment reflects spot activity in the Central Federal District, with the value normalized to Moscow basis.

Timing: Reflects deliveries 5-25 days ahead, normalized to the mid-point of this range.

Other: N/A

Database Details:

Dispatch Category	RM
12 Char. Symbol	AAUDQ00000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUDQ00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FUT KR PL12 RTR SAR TLR
Description	Prem Unl FCA CFD Rb/Mt

REGULAR UNL FCA BASIS UFA

Quality: RON is 92 and the MON is 83. Specific density at 15°C is 0.725 - 0.780 g/cm³. Maximum lead content is 0.01% g/dm³. Maximum sulphur content is 0.05%.

Size: Parcels of 1,000-5,000 mt each normalized to 1,000 mt.

Location: Reflects material sold FCA in the Privolzhsky Federal District. The assessment basis is FCA Ufa. Material from other origins in the Privolzhsky Federal District is normalized to Ufa basis on an incremental freight differential.

Timing: Reflects deliveries 5-25 days ahead, normalized to the mid-point of this range.

Other: N/A

Database Details:

Dispatch Category	RM
12 Char. Symbol	AAUDM00000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUDM00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FUT KR PL12 RTR SAR TLR
Description	Reg Unl FCA PFD Rb/Mt

REGULAR UNL FCA BASIS MOSCOW

Quality: RON is 92 and the MON is 83. Specific density at 15°C is 0.725 - 0.780 g/cm³. Maximum lead content is 0.01% g/dm³. Maximum sulphur content is 0.05%.

Size: Parcels of 1,000-5,000 mt each normalized to 1,000 mt.

Location: Reflects material sold FCA in the Central Federal District. The assessment basis is FCA Moscow. The assessment reflects spot activity in the Central Federal District, with the value normalized to Moscow basis.

Timing: Reflects deliveries 5-25 days ahead, normalized to the mid-point of this range.

Other: N/A

Database Details:

Dispatch Category	RM
12 Char. Symbol	AAUDR000000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUDR00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FUT KR PL12 RTR SAR TLR
Description	Reg Unl FCA CFD Rb/Mt

NORMAL UNL FCA BASIS UFA

Quality: RON is 80 and the MON is 76. Specific density at 15°C is 0.700 - 0.750 g/cm³. Maximum lead content is 0.01% g/dm³. Maximum sulphur content is 0.05%. The assessment will also consider A - 76 grade GOST 2084 - 77 as it has similar specifications.

Size: Parcels of 1,000-5,000 mt each normalized to 1,000 mt

Location: Reflects material sold FCA in the Privolzhsky Federal District. The assessment basis is FCA Ufa. Material from other origins in the Privolzhsky Federal District is normalized to Ufa basis on an incremental freight differential.

Timing: Reflects deliveries 5-25 days ahead, normalized to the mid-point of this range.

Other: N/A

Database Details:

Dispatch Category	RM
12 Char. Symbol	AAUDN0000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUDN00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FUT KR PL12 RTR SAR TLR
Description	Norm Unl FCA PFD Rb/Mt

NORMAL UNL FCA BASIS MOSCOW

Quality: RON is 92 and the MON is 83. Specific density at 15°C is 0.725 - 0.780 g/cm³. Maximum lead content is 0.01% g/dm³. Maximum sulphur content is 0.05%.

Size: Parcels of 1,000-5,000 mt each normalized to 1,000 mt.

Location: Reflects material sold FCA in the Central Federal District. The assessment basis is FCA Moscow. The assessment reflects spot activity in the Central Federal District, with the value normalized to Moscow basis.

Timing: Reflects deliveries 5-25 days ahead, normalized to the mid-point of this range.

Other: N/A

Database Details:

Dispatch Category	RM
12 Char. Symbol	AAUDS0000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUDS00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FUT KR PL12 RTR SAR TLR
Description	Norm Unl FCA CFD Rb/Mt

DIESEL**DIESEL 0.05% BASIS UFA**

Quality: Summer - 0.05% - 62: Maximum sulphur content is 0.05%. Minimum flash point is 62°C. Specific density at 20°C is 0.860 g/cm³. Minimum cetane number is 45.

Winter - 0.05% -35: Maximum sulphur content is 0.05%. Maximum pour point is -35°C. Specific density at 20°C is 0.840 g/cm³. Minimum cetane number is 45.

Size: Parcels of 1,000-5,000 mt each normalized to 1,000 mt.

Location: Reflects material sold FCA in the Privolzhsky Federal District. The assessment basis is FCA Ufa. Material from other origins in the Privolzhsky Federal District is normalized to Ufa basis on an incremental freight differential.

Timing: Reflects deliveries 5-25 days ahead, normalized to the mid-point of this range.

Other: N/A

Database Details:

Dispatch Category	RM
12 Char. Symbol	AAUD00000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUD000
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FUT KR PL12 RTR SAR TLR
Description	Diesel 0.05 FCA PFD Rb/Mt

DIESEL 0.05% BASIS MOSCOW

Quality: Summer - 0.05% - 62: Maximum sulphur content is 0.05%. Minimum flash point is 62°C. Specific density at 20°C is 0.860 g/cm³. Minimum cetane number is 45.

Winter - 0.05% -35: Maximum sulphur content is 0.05%. Maximum pour point is -35°C. Specific density at 20°C is 0.840 g/cm³. Minimum cetane number is 45.

Size: Parcels of 1,000-5,000 mt each normalized to 1,000 mt.

Location: Reflects material sold FCA in the Central Federal District. The assessment basis is FCA Moscow. The assessment reflects spot activity in the Central Federal District, with the value normalized to Moscow basis.

Timing: Reflects deliveries 5-25 days ahead, normalized to the mid-point of this range.

Other: N/A

Database Details:

Dispatch Category	RM
12 Char. Symbol	AAUDT00000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUDT00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FUT KR PL12 RTR SAR TLR
Description	Diesel 0.05 FCA CFD Rb/Mt

FUEL OIL

LSFO FCA BASIS UFA

Quality: Maximum sulphur content is 1.5%. Maximum specific gravity is 0.991 g/ml. Maximum viscosity at 100°C is 50 cSt (6.8 Engler). Minimum flash point is 65°C. Maximum water content is 1%. Maximum pour point is 42°C. Maximum ash content is 0.14%. Minimum NCV kJ/kg is 40,530.

Size: Parcels of 1,000-5,000 mt each normalized to 1,000 mt.

Location: Reflects material sold FCA in the Privolzhsky Federal District. The assessment basis is FCA Ufa. Material from other origins in the Privolzhsky Federal District is normalized to Ufa basis on an incremental freight differential.

Timing: Reflects deliveries 5-25 days ahead, normalized to the mid-point of this range.

Other: N/A

Database Details:

Dispatch Category	RM
12 Char. Symbol	AAUDP0000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUDP00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FUT KR PL12 RTR SAR TLR
Description	LSFO FCA PFD Rb/Mt

LSFO FCA BASIS MOSCOW

Quality: Maximum sulphur content is 1.5%. Maximum specific gravity is 0.991 g/ml. Maximum viscosity at 100°C is 50 cSt (6.8 Engler). Minimum flash point is 65°C. Maximum water content is 1%. Maximum pour point is 42°C. Maximum ash content is 0.14%. Minimum NCV kJ/kg is 40,530.

Size: Parcels of 1,000-5,000 mt each normalized to 1,000 mt.

Location: Reflects material sold FCA in the Central Federal District. The assessment basis is FCA Moscow. The assessment reflects spot activity in the Central Federal District, with the value normalized to Moscow basis.

Timing: Reflects deliveries 5-25 days ahead, normalized to the mid-point of this range.

Other: N/A

Database Details:

Dispatch Category	RM
12 Char. Symbol	AAUDU00000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUDU00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FUT KR PL12 RTR SAR TLR
Description	LSFO FCA CFD Rb/Mt

M-100 FCA BASIS UFA

Quality: Maximum sulphur content is 3.5%. Maximum specific gravity is 0.991 g/ml. Maximum viscosity at 100°C is 50 cSt (6.8 Engler). Minimum flash point is 65°C. Maximum water content is 1%. Maximum pour point is 42°C. Maximum ash content is 0.14%. Minimum NCV kJ/kg is 39,900.

Size: Parcels of 1,000-5,000 mt each normalized to 1,000 mt.

Location: Reflects material sold FCA in the Privolzhsky Federal District. The assessment basis is FCA Ufa. Material from other origins in the Privolzhsky Federal District is normalized to Ufa basis on an incremental freight differential.

Timing: Reflects deliveries 5-25 days ahead, normalized to the mid-point of this range.

Other: N/A

Database Details:

Dispatch Category	RM
12 Char. Symbol	AAUNU00000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUNU00
Earliest Date	26-JUN-2006
Vendors	BLM CQI DRI EMS FUT KR PL12 RTR SAR TLR
Description	3.5% FO M-100 FCA PFD Rb/Mt

M-100 FCA BASIS MOSCOW

Quality: Maximum sulphur content is 3.5%. Maximum specific gravity is 0.991 g/ml. Maximum viscosity at 100°C is 50 cSt (6.8 Engler). Minimum flash point is 65°C. Maximum water content is 1%. Maximum pour point is 42°C. Maximum ash content is 0.14%. Minimum NCV kJ/kg is 39,900.

Size: Parcels of 1,000-5,000 mt each normalized to 1,000 mt.

Location: Reflects material sold FCA in the Central Federal District. The assessment basis is FCA Moscow. The assessment reflects spot activity in the Central Federal District, with the value normalized to Moscow basis.

Timing: Reflects deliveries 5-25 days ahead, normalized to the mid-point of this range.

Other: N/A

Database Details:

Dispatch Category	RM
12 Char. Symbol	AAUNV00000000
9 Char. Symbol(s)	.
7 Char. Symbol	AAUNV00
Earliest Date	26-JUN-2006
Latest Date	10-AUG-2006
Vendors	BLM CQI DRI EMS FUT KR PL12 RTR SAR TLR
Description	3.5% FO M-100 FCA CFD Rb/Mt

RUSSIAN DOMESTIC MARKET ASSESSMENTS AND NETBACKS

Quote	Daily Prices		Monthly Averages		Assessment PGA Pages		Commentary PGA Pages
	Low-High		Low-High	Mean	Daily	Monthly	
Crude oil							
Urals FIP Surgut	AAUDH00-AAUDH00		AAUDH03-AAUDH03	AAUDH03	<PGA1226>	<PGA1227>	<PGA1293>
Urals FIP Moscow	AAUDJ00-AAUDJ00		AAUDJ03-AAUDJ03	AAUDJ03	<PGA1226>	<PGA1227>	<PGA1293>
—FIP Price—							
Nizhnevartovsk	AAUNJ00-AAUNJ00		AAUNJ03-AAUNJ03	AAUNJ03	<PGA1226>	<PGA1227>	<PGA1293>
Samara	AAUNI00-AAUNI00		AAUNI03-AAUNI03	AAUNI03	<PGA1226>	<PGA1227>	<PGA1293>
Volgograd	AAUNK00-AAUNK00		AAUNK03-AAUNK03	AAUNK03	<PGA1226>	<PGA1227>	<PGA1293>
Novorossiysk	AAUNL00-AAUNL00		AAUNL03-AAUNL03	AAUNL03	<PGA1226>	<PGA1227>	<PGA1293>
Nizhniy Novgorod	AAUNM00-AAUNM00		AAUNM03-AAUNM03	AAUNM03	<PGA1226>	<PGA1227>	<PGA1293>
Ryazan	AAUNN00-AAUNN00		AAUNN03-AAUNN03	AAUNN03	<PGA1226>	<PGA1227>	<PGA1293>
Ufa	AAUDG00-AAUDG00		AAUDG03-AAUDG03	AAUDG03	<PGA1226>	<PGA1227>	<PGA1293>
Yaroslavl	AAUNO00-AAUNO00		AAUNO03-AAUNO03	AAUNO03	<PGA1226>	<PGA1227>	<PGA1293>
Primorsk	AAUNP00-AAUNP00		AAUNP03-AAUNP03	AAUNP03	<PGA1226>	<PGA1227>	<PGA1293>
Crude oil netbacks							
Urals FIP Surgut	AAWIE00-AAWIE00		AAWIE03-AAWIE03	AAWIE03	<PGA1226>	<PGA1227>	<PGA1293>
Urals FIP Moscow	AAWHV00-AAWHV00		AAWHV03-AAWHV03	AAWHV03	<PGA1226>	<PGA1227>	<PGA1293>
—FIP Price—							
Nizhnevartovsk	AAWHW00-AAWHW00		AAWHW03-AAWHW03	AAWHW03	<PGA1226>	<PGA1227>	<PGA1293>
Samara	AAWIB00-AAWIB00		AAWIB03-AAWIB03	AAWIB03	<PGA1226>	<PGA1227>	<PGA1293>
Volgograd	AAWIG00-AAWIG00		AAWIG03-AAWIG03	AAWIG03	<PGA1226>	<PGA1227>	<PGA1293>
Novorossiysk	AAWHX00-AAWHX00		AAWHX03-AAWHX03	AAWHX03	<PGA1226>	<PGA1227>	<PGA1293>
Nizhniy Novgorod	AAWHY00-AAWHY00		AAWHY03-AAWHY03	AAWHY03	<PGA1226>	<PGA1227>	<PGA1293>
Ryazan	AAWIA00-AAWIA00		AAWIA03-AAWIA03	AAWIA03	<PGA1226>	<PGA1227>	<PGA1293>
Ufa	AAWIF00-AAWIF00		AAWIF03-AAWIF03	AAWIF03	<PGA1226>	<PGA1227>	<PGA1293>
Yaroslavl	AAWIH00-AAWIH00		AAWIH03-AAWIH03	AAWIH03	<PGA1226>	<PGA1227>	<PGA1293>
Primorsk	AAWHZ00-AAWHZ00		AAWHZ03-AAWHZ03	AAWHZ03	<PGA1226>	<PGA1227>	<PGA1293>
Crude oil differential	AAWHU00		AAWHU03	AAWHU03	<PGA1226>	<PGA1227>	<PGA1293>
Gasoline							
FCA Privolzhsky Federal District/Basis Ufa							
Prem Unl	AAUDL00-AAUDL00		AAUDL03-AAUDL03	AAUDL03	<PGA1346>	<PGA1347>	<PGA1396>
Reg Unl	AAUDM00-AAUDM00		AAUDM03-AAUDM03	AAUDM03	<PGA1346>	<PGA1347>	<PGA1396>
Norm Unl	AAUDN00-AAUDN00		AAUDN03-AAUDN03	AAUDN03	<PGA1346>	<PGA1347>	<PGA1396>
FCA Central Federal District/Basis Moscow							
Prem Unl	AAUDQ00-AAUDQ00		AAUDQ03-AAUDQ03	AAUDQ03	<PGA1346>	<PGA1347>	<PGA1396>
Reg Unl	AAUDR00-AAUDR00		AAUDR03-AAUDR03	AAUDR03	<PGA1346>	<PGA1347>	<PGA1396>
Norm Unl	AAUDS00-AAUDS00		AAUDS03-AAUDS03	AAUDS03	<PGA1346>	<PGA1347>	<PGA1396>
Diesel							
FCA Privolzhsky Federal District/Basis Ufa							
Diesel 0.05	AAUD000-AAUD000		AAUD003-AAUD003	AAUD003	<PGA1440>	<PGA1441>	<PGA1495>
FCA Central Federal District/Basis Moscow							
Diesel 0.05	AAUDT00-AAUDT00		AAUDT03-AAUDT03	AAUDT03	<PGA1440>	<PGA1441>	<PGA1495>
Fuel oil							
FCA Privolzhsky Federal District/Basis Ufa							
Low Sulfur Fuel Oil	AAUDP00-AAUDP00		AAUDP03-AAUDP03	AAUDP03	<PGA1556>	<PGA1557>	<PGA1596>
Fuel oil 3.5% M-100	AAUNU00-AAUNU00		AAUNU03-AAUNU03	AAUNU03	<PGA1556>	<PGA1557>	<PGA1596>

RUSSIAN DOMESTIC MARKET ASSESSMENTS AND NETBACKS

Quote	Daily Prices		Monthly Averages		Assessment PGA Pages		Commentary PGA Pages
	Low-High		Low-High	Mean	Daily	Monthly	
FCA Central Federal District/Basis Moscow							
Low Sulfur Fuel Oil	AAUDU00-AAUDU00		AAUDU03-AAUDU03	AAUDU03	<PGA1556>	<PGA1557>	<PGA1596>
Fuel oil 3.5% M-100	AAUNV00-AAUNV00		AAUNV03-AAUNV03	AAUNV03	<PGA1556>	<PGA1557>	<PGA1596>
Refined products netbacks: Diesel							
Moscow via St Peter	AAWRP00-AAWRP00		AAWRP03-AAWRP03	AAWRP03	<PGA1430>	<PGA1431>	N/A
Moscow via Ventpils (pipe)	AAWRR00-AAWRR00		AAWRR03-AAWRR03	AAWRR03	<PGA1430>	<PGA1431>	N/A
Yaroslavl via St Peter	AAXKP00-AAXKP00		AAXKP03-AAXKP03	AAXKP03	<PGA1430>	<PGA1431>	N/A
Yaroslavl via Ventpils (pipe)	AAXKR00-AAXKR00		AAXKR03-AAXKR03	AAXKR03	<PGA1430>	<PGA1431>	N/A
NORSI via Novorossiisk	AAXKA00-AAXKA00		AAXKA03-AAXKA03	AAXKA03	<PGA1430>	<PGA1431>	N/A
Syzran via Novorossiisk	AAXKI00-AAXKI00		AAXKI03-AAXKI03	AAXKI03	<PGA1430>	<PGA1431>	N/A
Syzran via Ventpils (pipe)	AAWJQ00-AAWJQ00		AAWJQ03-AAWJQ03	AAWJQ03	<PGA1430>	<PGA1431>	N/A
Komsomolsk via Nakhodka	AAWRJ00-AAWRJ00		AAWRJ03-AAWRJ03	AAWRJ03	<PGA1430>	<PGA1431>	N/A
Khabarovsk via Nakhodka	AAWRD00-AAWRD00		AAWRD03-AAWRD03	AAWRD03	<PGA1430>	<PGA1431>	N/A
Ufa via Ventpils (pipe)	AAWJT00-AAWJT00		AAWJT03-AAWJT03	AAWJT03	<PGA1430>	<PGA1431>	N/A
Kirishi via Primorsk (pipe)	AAWJM00-AAWJM00		AAWJM03-AAWJM03	AAWJM03	<PGA1430>	<PGA1431>	N/A
Omsk via Novorossiisk	AAWKQ00-AAWKQ00		AAWKQ03-AAWKQ03	AAWKQ03	<PGA1430>	<PGA1431>	N/A
Omsk via Ventpils (pipe)	AAWJO00-AAWJO00		AAWJO03-AAWJO03	AAWJO03	<PGA1430>	<PGA1431>	N/A
Refined products netbacks: ULSD							
Yaroslavl via Primorsk (pipe)	AAWJZ00-AAWJZ00		AAWJZ03-AAWJZ03	AAWJZ03	<PGA1430>	<PGA1431>	N/A
NORSI via Primorsk (pipe)	AAWJX00-AAWJX00		AAWJX03-AAWJX03	AAWJX03	<PGA1430>	<PGA1431>	N/A
Kirishi via Primorsk (pipe)	AAWJV00-AAWJV00		AAWJV03-AAWJV03	AAWJV03	<PGA1430>	<PGA1431>	N/A
Refined products netbacks: Jet fuel							
Moscow via Ventpils	AAWKB00-AAWKB00		AAWKB03-AAWKB03	AAWKB03	<PGA1430>	<PGA1431>	N/A
Refined products netbacks: Gasoline							
Moscow via Vysotsk	AAWRT00-AAWRT00		AAWRT03-AAWRT03	AAWRT03	<PGA1340>	<PGA1341>	N/A
Yaroslavl via Vysotsk	AAXKT00-AAXKT00		AAXKT03-AAXKT03	AAXKT03	<PGA1340>	<PGA1341>	N/A
NORSI via Novorossiisk	AAXKE00-AAXKE00		AAXKE03-AAXKE03	AAXKE03	<PGA1340>	<PGA1341>	N/A
NORSI via Vysotsk	AAWIN00-AAWIN00		AAWIN03-AAWIN03	AAWIN03	<PGA1340>	<PGA1341>	N/A
Syzran via Novorossiisk	AAXKL00-AAXKL00		AAXKL03-AAXKL03	AAXKL03	<PGA1340>	<PGA1341>	N/A
Komsomolsk via Nakhodka	AAWRL00-AAWRL00		AAWRL03-AAWRL03	AAWRL03	<PGA1340>	<PGA1341>	N/A
Khabarovsk via Nakhodka	AAWRF00-AAWRF00		AAWRF03-AAWRF03	AAWRF03	<PGA1340>	<PGA1341>	N/A
Kirishi via Vysotsk	AAWIW00-AAWIW00		AAWIW03-AAWIW03	AAWIW03	<PGA1340>	<PGA1341>	N/A
Ufa via Vysotsk	AAWJE00-AAWJE00		AAWJE03-AAWJE03	AAWJE03	<PGA1340>	<PGA1341>	N/A
Omsk via Vysotsk	AAWJC00-AAWJC00		AAWJC03-AAWJC03	AAWJC03	<PGA1340>	<PGA1341>	N/A
Refined products netbacks: Fuel oil							
Moscow via St Peter	AAWRN00-AAWRN00		AAWRN03-AAWRN03	AAWRN03	<PGA1550>	<PGA1551>	N/A
Yaroslavl via St Peter	AAXKN00-AAXKN00		AAXKN03-AAXKN03	AAXKN03	<PGA1550>	<PGA1551>	N/A
NORSI via Novorossiisk	AAXKC00-AAXKC00		AAXKC03-AAXKC03	AAXKC03	<PGA1550>	<PGA1551>	N/A
Syzran via Novorossiisk	AAXKG00-AAXKG00		AAXKG03-AAXKG03	AAXKG03	<PGA1550>	<PGA1551>	N/A
Komsomolsk via Nakhodka	AAWRH00-AAWRH00		AAWRH03-AAWRH03	AAWRH03	<PGA1550>	<PGA1551>	N/A
Khabarovsk via Nakhodka	AAWRB00-AAWRB00		AAWRB03-AAWRB03	AAWRB03	<PGA1550>	<PGA1551>	N/A
Kirishi via Vysotsk	AAWJG00-AAWJG00		AAWJG03-AAWJG03	AAWJG03	<PGA1550>	<PGA1551>	N/A
Ufa via Vysotsk	AAWJK00-AAWJK00		AAWJK03-AAWJK03	AAWJK03	<PGA1550>	<PGA1551>	N/A
Omsk via Vysotsk	AAWJI00-AAWJI00		AAWJI03-AAWJI03	AAWJI03	<PGA1550>	<PGA1551>	N/A

REFINED PRODUCTS NETBACKS

Platts introduced daily assessments for oil products basis Russian refineries in August 2011. The assessments are netback calculations derived from international oil product assessments for Northwest Europe, the Mediterranean and Asia.

For its international oil assessments, Platts uses a market-on-close assessment methodology, recognizing that prices are a function of time and that the outright price will vary with market conditions on a daily and intraday basis.

The methodology explained in this document and used to derive the netback values for oil products basis Russian refineries provides details of all inputs and calculations. Platts specifications guide provides details of specifications currently reflected in the daily assessments. Because standards are evolving, however, Platts reserves the rights to change specification parameters at short notice.

The netback values take into account the clean and dirty freights from St Petersburg, Vysotsk and Ventspils to Rotterdam, from Novorossiisk to Genoa, from Nakhodka to Singapore, as well as port costs at Rotterdam. Platts also takes into account Russia's export duty for light and heavy products; transshipment costs for discharging from railcar and loading on tanker and in the case of

Ventspils transshipment costs include pipeline fees in Latvia and Lithuania; railway freight costs per 55 mt railcar obtained from a wide range of industry sources; Transnefteprodukt's pipeline costs from Russian refinery to Latvian border; Rb/USD exchange rate; Russia's excise duties for diesel, gasoline and Russia's VAT.

TIME OF ASSESSMENT

The basis input assessments represent values of the refined products and freight calculations in Europe and Asia on 16:30:00 London time and 16:30:00 Singapore time, respectively.

REGIONAL RUSSIAN NETBACK VALUE CALCULATION

The netback values are calculated for refineries in the five regions of Russia: the Moscow and Yaroslavl refineries in the Central Federal District, the Kirishi refinery in the Northwest Federal District, the Nizhny Novgorod, Syzran and Ufa refineries in the Privolzhsky Federal District, Omsk refinery in the Siberian Federal District and the Komsomolsk and Khabarovsk refineries in the far east of Russia.

Oil products netbacks for Russian refineries

Refinery	Port	Transportation	Onshore Route	Waterbourne route	Underlying marker
Diesel netbacks					
Moscow	St Petersburg	Rail	Yanichkino–Avtovo	St Petrsburg–Rotterdam	Gasoil 0.1% Barge FOB Rotterdam
Moscow	Ventspils	Pipeline	Moscow–Ventspils	Ventspils–Rotterdam	Gasoil 0.1% Barge FOB Rotterdam
Yaroslavl	St Petersburg	Rail	Novoyaroslavskaya–Avtovo	St Petrsburg–Rotterdam	Gasoil 0.1% Barge FOB Rotterdam
Yaroslavl	Ventspils	Pipeline	Yaroslavl–Ventspils	Ventspils–Rotterdam	Gasoil 0.1% Barge FOB Rotterdam
NORSI	Novorossiisk	Rail	Zelecino–Grushevaya	Novorossiisk–Genoa	Gasoil 0.1% Cargo CIF Med
Syzran	Novorossiisk	Rail	Syzran I–Grushevaya	Novorossiisk–Genoa	Gasoil 0.1% Cargo CIF Med
Syzran	Ventspils	Pipeline	Syzran–Ventspils	Ventspils–Rotterdam	Gasoil 0.1% Barge FOB Rotterdam
Komsomolsk	Nakhodka	Rail	Dzemgi–Krabovaya	Nakhodka–Singapore	Gasoil 0.25% Cargo FOB Singapore
Khabarovsk	Nakhodka	Rail	Khabarovsk I–Krabovaya	Nakhodka–Singapore	Gasoil 0.25% Cargo FOB Singapore
Ufa	Ventspils	Pipeline	Ufa–Ventspils	Ventspils–Rotterdam	Gasoil 0.1% Barge FOB Rotterdam
Kirishi	Primorsk	Pipeline	Kirishi–Primorsk	Primorsk–Rotterdam	Gasoil 0.1% Barge FOB Rotterdam
Omsk	Novorossiisk	Rail	Kombinatnaya–Grushevaya	Novorossiisk–Genoa	Gasoil 0.1% Cargo CIF Med
Omsk	Ventspils	Pipeline	Omsk–Ventspils	Ventspils–Rotterdam	Gasoil 0.1% Barge FOB Rotterdam
ULSD					
Yaroslavl	Primorsk	Pipeline	Yaroslavl–Primorsk	Primorsk–Rotterdam	ULSD Barge FOB Rotterdam
NORSI	Primorsk	Pipeline	Nizhny Novgorod–Primorsk	Primorsk–Rotterdam	ULSD Barge FOB Rotterdam
Kirishi	Primorsk	Pipeline	Kirishi–Primorsk	Primorsk–Rotterdam	ULSD Barge FOB Rotterdam
Jet fuel					
Moscow	Ventspils	Rail	Yanichkino–Ventspils (export)	Ventspils–Rotterdam	Jet fuel Barge FOB Rotterdam
Gasoline					
Moscow	Vysotsk	Rail	Yanichkino–Vysotsk	Vysotsk–Rotterdam	Eurobob FOB ARA Barge
Yaroslavl	Vysotsk	Rail	Novoyaroslavskaya–Vysotsk	Vysotsk–Rotterdam	Eurobob FOB ARA Barge
NORSI	Novorossiisk	Rail	Zelecino–Grushevaya	Novorossiisk–Genoa	Prem Unl 10 ppm Cargo FOB Med
NORSI	Vysotsk	Rail	Zelecino–Vysotsk	Vysotsk–Rotterdam	Eurobob FOB ARA Barge
Syzran	Novorossiisk	Rail	Syzran I–Grushevaya	Novorossiisk–Genoa	Prem Unl 10 ppm Cargo FOB Med

Oil products netbacks for Russian refineries

Refinery	Port	Transportation	Onshore Route	Waterbourne route	Underlying marker
Gasoline					
Komsomolsk	Nakhodka	Rail	Dzemgi–Krabovaya	Nakhodka–Singapore	Gasoline 92 Unl Cargo FOB Singapore
Khabarovsk	Nakhodka	Rail	Khabarovsk I–Krabovaya	Nakhodka–Singapore	Gasoline 92 Unl Cargo FOB Singapore
Kirishi	Vysotsk	Rail	Kirishi–Vysotsk	Vysotsk–Rotterdam	Eurobob FOB ARA Barge
Ufa	Vysotsk	Rail	Chernikovka–Vostochnaya–Vysotsk	Vysotsk–Rotterdam	Eurobob FOB ARA Barge
Omsk	Vysotsk	Rail	Kombinatskaya–Vysotsk	Vysotsk–Rotterdam	Eurobob FOB ARA Barge
Fuel oil					
Moscow	St Petersburg	Rail	Yanichkino–Avtovo	St Petersburg–Rotterdam	Fuel Oil 3.5% Barge FOB Rotterdam
Yaroslavl	St Petersburg	Rail	Novoyaroslavskaya–Avtovo	St Petersburg–Rotterdam	Fuel Oil 3.5% Barge FOB Rotterdam
NORSI	Novorossiisk	Rail	Zelecino–Grushevaya	Novorossiisk–Genoa	Fuel Oil 3.5% Cargo FOB Med
Syzran	Novorossiisk	Rail	Syzran I–Grushevaya	Novorossiisk–Genoa	Fuel Oil 3.5% Cargo FOB Med
Komsomolsk	Nakhodka	Rail	Dzemgi–Krabovaya	Nakhodka–Singapore	HSFO 380 CST 4% Cargo FOB Singapore
Khabarovsk	Nakhodka	Rail	Khabarovsk I–Krabovaya	Nakhodka–Singapore	HSFO 380 CST 4% Cargo FOB Singapore
Kirishi	Vysotsk	Rail	Kirishi–Vysotsk	Vysotsk–Rotterdam	Fuel Oil 3.5% Barge FOB Rotterdam
Ufa	Vysotsk	Rail	Chernikovka–Vostochnaya–Vysotsk	Vysotsk–Rotterdam	Fuel Oil 3.5% Barge FOB Rotterdam
Omsk	Vysotsk	Rail	Kombinatskaya–Vysotsk	Vysotsk–Rotterdam	Fuel Oil 3.5% Barge FOB Rotterdam

UNDERLYING MARKERS SPECIFICATION

DIESEL

DIESEL NORTHWEST EUROPE BASIS SPECIFICATIONS: The netback of diesel for Russian refineries is derived from barge assessments, which represent heating oil grades with a specific gravity of 0.845 g/ml and a maximum sulfur content of 0.1%, delivered on an FOB Rotterdam basis in barge lots of 1,000mt to 2,000mt basis 3-15 days (Monday and Tuesday) and 5-15 days (Wednesday through Friday) from the date of publication

DIESEL MEDITERRANEAN BASIS SPECIFICATIONS: The netback value is derived from the assessed value of Gasoil 0.1% cargoes CIF Med and reflects Spanish B+C for heating oil use with a SG of 0.845 g/l. The assessment reflects 25,000 to 30,000 mt cargoes for delivery into Genoa 10-25 days from date of publication.

DIESEL SINGAPORE BASIS SPECIFICATIONS: The netback is derived from the assessed value of Gasoil 0.25% sulfur FOB Singapore Cargoes and represents heating oil grades with specific gravity of 0.84 g/ml with a maximum sulphur content of 0.25%. The assessments reflect parcels of 150,000 to 250,000 bbl each loading FOB Singapore 15-30 days from date of publication.

ULSD

ULSD NORTHWEST EUROPE BASIS SPECIFICATIONS: The netback is derived from barge assessments, which represent German spec diesel with a maximum sulphur content of 10 ppm. The typical density is basis 0.845 g/ml (actual SG ranges from 0.82 to 0.845 g/ml), delivered on an FOB Rotterdam basis in barge lots of 1,000mt to 2,000mt basis 3-15 days (Monday and Tuesday) and 5-15 days (Wednesday through Friday) from the date of publication

JET FUEL

JET FUEL NORTHWEST EUROPE BASIS SPECIFICATIONS: The netback is derived from barge assessments, which represent jet fuel of standard commercial Jet-A1 specifications, as defined by UK Ministry of Defence in DEFSTAN 91/91 latest issue and the Joint Fueling System Checklist with typical 0.3% maximum sulphur and specific gravity of 0.775-0.840 g/ml, 38 degrees C minimum flash point and minus 47 degrees C maximum freeze point. The assessment represents jet fuel delivered on an FOB Rotterdam basis in barge lots of 2,000mt to 5,000mt basis 3-15 days (Monday and Tuesday) and 5-15 days (Wednesday through Friday) from the date of publication

GASOLINE

GASOLINE NORTHWEST EUROPE BASIS SPECIFICATIONS: The netback of gasoline basis the Russian refineries is derived from the assessed value of Eurobob gasoline barges FOB ARA and represents German grade with maximum sulfur 10 ppm, specific gravity of 0.755 g/ml. The RON is 95 and the MON is 85. Aromatic limit is 35 max. EN228 after the addition of 4.8% of ethanol. The barge assessments reflect parcels of 1,000 to 5,000 mt each loading FOB ARA basis 3-15 days (Monday and Tuesday) and 5-15 days (Wednesday through Friday) from the date of publication.

GASOLINE MEDITERRANEAN BASIS SPECIFICATIONS: The netback of gasoline basis the Russian refineries is derived from the assessed value of Premium gasoline 10 ppm Cargoes FOB Med and represents EN 228 95 RON meeting Italian, French, and Spanish specifications. The RON is 95 and the MON is 85. The specific gravity for Mediterranean assessments is 0.755 g/ml. Aromatics limit is 35 max. The assessment reflects 25,000 to 30,000 mt cargoes for loading in Italy 10-25 days from date of publication.

GASOLINE SINGAPORE BASIS SPECIFICATIONS: The netback of gasoline basis the Russian refineries is derived from the assessed value of Gasoline 92 Unleaded FOB Singapore and reflects quality with RON 92 and maximum sulfur 0.05%. The assessments reflect parcels of 50,000 to 150,000 bbl each loading FOB Singapore 15-30 days from date of publication.

FUEL OIL

FUEL OIL NORTHWEST EUROPE BASIS SPECIFICATIONS: The netback of fuel oil basis the Russian refineries is derived from the assessed value of Fuel Oil 3.5% barges FOB basis Rotterdam and reflects RMG 380 bunker grade material. Typical specifications are 3 to 4% sulfur content, specific gravity of 0.991 g/ml, and viscosity of around 380 centistokes at 50 degrees C. Barge assessments reflect parcels of 2,000 to 5,000 mt loading FOB Rotterdam basis 3-15 days (Monday and Tuesday) and 5-15 days (Wednesday through Friday) from the date of publication.

FUEL OIL MEDITERRANEAN BASIS SPECIFICATIONS: The netback of fuel oil basis the Russian refineries is derived from the assessed value of Fuel Oil 3.5% cargoes FOB Med and the typical quality reflected is 3.5% maximum sulphur with 380 cst max viscosity and 0.991 density. The assessments reflects parcels of 25,000 to 30,000 mt each loading basis Italy 10-25 days from date of publication.

FUEL OIL SINGAPORE BASIS SPECIFICATIONS: The netback of fuel oil basis the Russian refineries is derived from the assessed value of HSFO 380 CST 4% FOB Singapore and the typical quality reflected is 4.0% maximum sulphur with 380 cst max viscosity and 0.991 density. The assessments reflect parcels of 20,000 to 40,000 mt each loading FOB Singapore 15-30 days from date of publication.

UNITS OF MEASUREMENT

The Platts Russian Refinery Netbacks are published in roubles per metric ton and US dollars per metric ton.

PUBLICATION SCHEDULE

The assessments that feed into the final netbacks are produced at Platts' reporting centers across the world.

Each office follows local holiday schedules, and consequently there are days where one or more of the assessments carried in the index is not published.

The netback values are published in accordance with the UK holiday schedule.

When the Singapore market is not assessed on a particular day, the netback values in the Far East will be based on the previous working day's spot assessments.

APPENDIX I – CRUDE

Table 1 – Requirements and test methods for crude oil

Property	Units	Limits	
		Min	Max
Density at 20°C	g/cm ³ , max	0.895	
Sulphur content	%, max	1.8	
Paraffin content	%, max	6.0	
Salt content	mg/dm ³	300	
Water and sediments	%, max	1.2	
Fractional yield	%, min		
—up to 200°C		21	
—up to 300°C		41	
—up to 350°C		50	

APPENDIX II – GASOLINE

Table 1 – Requirements and test methods for premium grade unleaded gasoline

Property	Units	Limits	
		Min	Max
Research octane number, RON		95	-
Motor octane number, MON		85	-
Lead content	g/dm ³	-	0.01
Density (at 15°C)	kg/m ³	725	780
Sulfur content	%	-	0.05
Oxidation stability	minutes	360	-
Existent gum content	mg/100ml	-	5
Appearance		clear and bright	
Benzene content	%	-	5
Copper strip corrosion	rating		class 1

Table 2 – Requirements and test methods for regular grade unleaded gasoline

Property	Units	Limits	
		Min	Max
Research octane number, RON		92	-
Motor octane number, MON		83	-
Lead content	g/dm ³	-	0.01
Density (at 15°C)	kg/m ³	725	780
Sulfur content	%	-	0.05
Oxidation stability	minutes	360	-
Existent gum content	mg/100 ml	-	5
Appearance		clear and bright	
Benzene content	%	-	
Copper strip corrosion	rating		class 1

APPENDIX II – GASOLINE (cont.)

Table 3 – Requirements and test methods for normal grade unleaded gasoline

Property	Units	Limits	
		Min	Max
Research octane number, RON		80	-
Motor octane number, MON		76	-
Lead content	g/dm ³	-	0.01
Density (at 15 oC)	kg/m ³	700	750
Sulfur content	%	-	0.05
Oxidation stability	minutes	360	-
Existent gum content	mg/100 ml	-	5
Appearance		clear and bright	
Benzene content	%	-	5
Copper strip corrosion	rating	class 1	

Table 4 – Volatility classes

Property	Units	Class				
		1	2	3	4	5
Vapour pressure	kPa, min	35	45	55	60	80
	kPa, max	70	80	90	95	100
% evaporated at 70°C	%, min	10	15	15	15	15
	%, max	45	45	47	50	50
% evaporated at 100°C	%, min	35	40	40	40	40
	%, max	65	70	70	70	70
% evaporated at 180°C	%, min	85	85	85	85	85
Final Boiling Point FBP	°C, max	215	215	215	215	215
Distillation residue	%, max	2	2	2	2	2
Evaporation	index, max	900	1000	1100	1200	1300
Overpoint	°C, min	35	35	nil	nil	nil
Distillation limit 10%	°C, max	75	70	65	60	55
Distillation limit 50%	°C, max	120	115	110	105	100
Distillation limit 90%	°C, max	190	185	180	170	160

APPENDIX III – DIESEL

Requirements and test methods for diesel

Property	Limits	
	Summer (L)	Winter (Z)
1. Cetane number, min	45	45
2. Distillation:		
—50% recovered at, C, max	280	280
—96% recovered at, C, max	360	340
3. Kinematic viscosity at 20°C, mm ² /s (cSt)	3.0 - 6.0	1.8 - 5.0
4. Pour point, C, max, for climatic zone:		
—temperate zone	-10	-35
—cold zone	-	-45
5. Cloud point, C, max, for climatic zones:		
—temperate zone	-5	-25
—cold zone	-	-35
6. Flash point (closed cup), C, min:		
—for locomotive and vessel diesel engines and gas turbines	62	40
—for general purpose diesel engines	40	35
7. Sulfur content, %, max	0.05	0.05
8. Sour sulfur, %, max	0.0008	0.0068
9. Hydrogen sulphide	nil	nil
10. Copper strip test	passes	passes
11. Water soluble acids, alkali	nil	nil
12. Gum, mg/100cm ³ , max	25	25
13. Acidity, mg KOH/100 cm ³ , max	5	5
14. Iodine number, g/100 g of gasoil, max	5	5
15. Ash content, %, max	0.008	0.008
16. Coking ability of 10% residue, %, max	0.2	0.1
17. Filtration factor, max	2	2
18. Sediments	nil	nil
19. Water	nil	nil
20. Density at 20°C, kg/m ³ , max	860	840
21. CFPP, C, max	-5	-

APPENDIX IV – FUEL OIL

Requirements and test methods for high sulphur and low sulphur fuel oil grades

Property	Limits	
	M-100	LSFO
Specific density g/ml	0.991	0.991
Maximum viscosity @ 80c Engler	16	16
Minimum flash point °C	65	65
Maximum pour point °C	42	42
Maximum ash %	0.14	0.14
Maximum water % v/v	1	1
Maximum sulphur %	3.5	1.5
Minimum NCV kcal/kg	9600	9700
Maximum asphaltines %	8	6
Minimum NCV kJ/kg	39,900	40,530