S&P Global
Platts

Oil

Methodology and Specifications Guide

Platts Analytics Global Crude Refinery Values and Netbacks

Latest update: July 2021

INTRODUCTION

Platts' methodologies are designed to produce price assessments that are representative of market value, and of the particular markets to which they relate. Methodology documents describe the specifications for various products reflected by Platts' assessments and indexes, the processes and standards Platts adheres to in collecting data, and the methods by which Platts arrives at final assessment values for publication.

Platts discloses publicly the days of publication for its price assessments and indexes, and the times during each trading day in which Platts considers transactions in determining its assessments and index levels. This schedule of publication is available on Platts' website, at the following link: http://www.platts.com/HolidayHome.

The dates of publication and the assessment periods are subject to change in the event of outside circumstances that affect Platts' ability to adhere to its normal publication schedule. Such circumstances include network outages, power failures, acts of terrorism and other situations that result in an interruption in Platts' operations at one or more of its worldwide offices. In the event that any such circumstance occurs, Platts will endeavor, whenever feasible, to communicate publicly any changes to its publication schedule and assessment periods, with as much advance notice as possible.

All Platts methodologies reflect Platts' commitment to maintaining best practices in price reporting.

Platts' methodologies have evolved to reflect changing market conditions through time and will continue to evolve as markets change. A revision history, a cumulative summary of changes to this and future updates, is included at the end of the methodology.

How this methodology statement is organized

This description of methodology for indexes and assessments is divided into seven major parts (I-VII) that parallel the entire process of producing the end-of-day price values.

- Part I describes what goes into Platts indexes and price values, including details on what data market participants are expected to submit, the process for submitting data, criteria for timeliness of market data submissions, as well as the components of published data.
- Part II describes any security and confidentiality practices that Platts uses in handling and treating data, including the separation between Platts price reporting and its news reporting.
- Part III is a detailed account of how Platts collects bids, offers, trades and other market data, and what Platts does with the data to formulate its indexes and assessments. It includes descriptions of the methods that Platts uses for reviewing data, and the methods used to convert raw data into indexes and assessments, including the procedures used to identify anomalous data. This section describes how and when judgment is applied in this process, the basis upon which transaction data may be excluded from a price assessment, and the relative importance assigned to each criterion used in forming the price assessment. This section describes the minimum amount of transaction data required for a particular price assessment to be published, and the criteria for determining which values are indexes, and which are assessments, based on reported transactions and other market information. Finally, this section describes how Platts addresses assessment periods where one or more reporting entities submit market data that constitute a significant proportion of the total data upon which the assessment is based.
- Part IV explains the process for verifying that published prices comply with Platts' standards.
- Part V lays out the verification and correction process for revising published prices and the criteria Platts uses to determine when it publishes a correction.
- Part VI explains how users of Platts assessments and indexes can contact Platts for clarifications of data that has been published, or to share a complaint. It also describes how to find out more about Platts' complaints policies.
- Part VII is a list of detailed specifications for the trading locations and products for which Platts publishes indexes or assessments in this commodity. This section describes why specific units of measurement are used, and what conversion factors are used to move between units of measurement, where relevant.

PART I: DATA QUALITY AND DATA SUBMISSION

Platts' objective is to ensure that the submission of transactional information and other data inputs that editors use as the basis for their price assessments is of the highest quality. Ensuring that data used in Platts assessments is of high quality is crucial to maintaining the integrity of Platts' various price assessment processes.

Platts Analytics Yields and Netbacks is a valuation system built on Platts daily assessments for refined petroleum and petrochemical products, and refinery models constructed by Platts Analytics.

As such, Platts standards concerning data quality and data submission in the underlying refined petroleum and petrochemical prices can be found in the specification guides for those commodities.

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PART II: SECURITY AND CONFIDENTIALITY

Data is stored in a secure network, in accordance with Platts' policies and procedures. The actual weightings given to particular products in a refining center—for example, the amount of gasoline from Urals refined in the Mediterranean—will remain proprietary.

PART III: CALCULATING INDEXES AND MAKING ASSESSMENTS

The purpose of Platts Analytics Yields and Netbacks is to provide an estimate of the value of the products produced from refining a barrel of crude in seven major refining regions, with a netback to the origination point of the crude, based on prevailing freight rates where applicable.

The choice of crudes modeled in each of the regions varies depending upon the grades of crude generally refined in that region. Some crudes are modeled in 2 modes in a region, cracking and coking. Some crudes are modeled in only one mode since they would not be processed in the other mode. For example, Brent, WTI and Bonny Light are rarely put through a coker.

Platts Analytics builds proprietary refinery simulation models for all of the crudes based on assays and other information, to represent what each crude will yield in a region's typical coking or cracking refinery. The main difference among regional models is dictated by regional product specifications and regional refinery complexities.

By plugging Platts' daily assessments into the Platts Analytics models, Platts Analytics Yields and Netbacks provides a refining value estimate for all of the crudes modeled at an individual location and refinery configuration. Product assessments are converted to a $/barrel figure where necessary, and that product's percentage of the total yield is multiplied by its price to provide a valuation. So if the Platts Analytics Yields and Netbacks model determines that ULSD is 15% of the output of a barrel of Brent refined in a typical cracking refinery on the US Atlantic Coast, the daily Platts ULSD assessment, expressed in $/barrel, will be multiplied by 0.15. The output of that calculation will be added to similar calculations for all products produced from that barrel. The final number, less refinery variable operating costs, is the refining value for that crude. The Platts crude price assessment is not part of determining the crude's yield. For example, to determine the cracking yield of Brent in Northwest Europe, only product assessments and operating costs are utilized; the price of Brent is not. However, note that the crude netback minus its spot price gives you the refinery margin.

Crude needs to be transported from an originating port or pipeline terminal. In the case of freight, Platts takes its daily dirty tanker assessments for relevant routes, such as UK Continent to US Gulf, which is expressed as a percentage of the Worldscale 100 rate for a specific route. Worldscale 100 is expressed in $/mt. The assessment is then divided by 100 and multiplied against the Worldscale 100 flat rate for a specific route. So if the Worldscale 100 rate for a given route is $7 per metric ton, and the Platts' dirty tanker assessment for that route is 150, $7 is multiplied by 1.5, for a figure of $10.50 per metric ton. The barrels per metric ton ratio for a specific crude is then divided into $10.50 to produce a $/barrel freight figure.

Where spot tanker rates are not relevant, such as for US pipeline grades, a regular survey of current pipeline tariffs will be conducted by Platts to keep transportation variables current. Where crude is sold on a delivered basis, no freight component will be calculated.

The Platts Analytics models include variable costs for purchased fuel gas, electricity and catalyst and chemicals. These costs are specific to each crude, in each region, in a specific operating mode (coking or cracking). The purchased fuel gas and electricity usages for each crude are multiplied by the latest Platts assessment much like the product yields are multiplied by the Platts assessment. The total operating costs are then subtracted from the product yield values to result in the crude yield value.

Platts is constantly reevaluating this model, discussing industry feedback and trends to make the Platts Analytics Yields and Netbacks valuations more accurate.

Where Platts Analytics Yields and Netbacks can be found

Platts Analytics Yields and Netbacks calculations are produced every day for all locations. They are available through several Platts' products.

Crude Oil Marketwire: All yields and netbacks will be found in Crude Oil Marketwire. All crudes from all seven refining centers are published each day.

Platts Global Alert: All yields and netbacks will be found in Global Alert. All crudes from all seven refining centers are published each day.

Platts Oilgram Price Report: The Weekly Feeder Crudes table reflect Monday through Friday weekly averages of daily yields, netbacks and relevant crude prices.

Components of the model

Listed below in Part VII are each of the individual refining regions, the crudes modeled in each of those areas, and various cost and other input factors assumed in the Platts Analytics model.

PART IV: PLATTS EDITORIAL STANDARDS

All Platts' employees must adhere to the S&P Global Code of Business Ethics (COBE), which has to be signed annually. The COBE reflects S&P Global's commitment to integrity, honesty and acting in good faith in all its dealings.

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In addition, Platts requires that all employees attest annually that they do not have any personal relationships or personal financial interests that may influence or be perceived to influence or interfere with their ability to perform their jobs in an objective, impartial and effective manner.

Market reporters and editors are mandated to ensure adherence to published methodologies as well as internal standards that require accurate records are kept in order to document their work.

Platts has a Quality & Risk Management (QRM) function that is independent of the editorial group. QRM is responsible for ensuring the quality and adherence to Platts' policies, standards, processes and procedures. The QRM team conduct regular assessments of editorial operations, including checks for adherence to published methodologies.

S&P Global's internal auditor, an independent group that reports directly to the parent company's board of directors, reviews the Platts' risk assessment programs.

PART V: CORRECTIONS

Platts is committed to promptly correcting any material errors. When corrections are made, they are limited to corrections to data that was available when the index or assessment was calculated.

Platts crude yields and netbacks reflect the underlying petroleum, petrochemical, natural gas, power and transportation prices available at the time of publication. When underlying prices are corrected, Platts will consider corrections to its yields and netbacks on a case by case basis.

PART VI: REQUESTS FOR CLARIFICATIONS OF DATA AND COMPLAINTS

Platts strives to provide critical information of the highest standards, to facilitate greater transparency and efficiency in physical commodity markets.

Platts customers raise questions about our methodologies and the approach we take in our price assessments, proposed methodology changes and other editorial decisions in relation to our price assessments. These interactions are strongly valued by Platts and we encourage dialogue concerning any questions a customer or market stakeholder may have.

However, Platts recognizes that occasionally customers may not be satisfied with responses received or the services provided by Platts and wish to escalate matters. Full information about how to contact Platts to request clarification around an assessment, or make a complaint, is available on our website, at: http://www.platts.com/ContactUs/Complaints.

If you seek further information please contact Platts Oil Analytics at Globaloilanalytics@spglobal.com.

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PART VII: DEFINITIONS OF THE TRADING LOCATIONS FOR WHICH PLATTS PUBLISHES DAILY INDEXES OR ASSESSMENTS

US GULF COAST

Assessment	YIELDS CODE	Mavg	Pavg	Wavg	NETBACKS CODE	Mavg	Pavg	Wavg	MARGINS CODE	CURRENCY	UOM
Agbami Cracking	AGGCY00	AGGCY03		AGGCY04	AGGCN00	AGGCN03		AGGCN04	AGGCM00	US $	Barrels
Arab Berri Cracking	BEGCY00	BEGCY03		BEGCY04	BEGCN00	BEGCN03		BEGCN04	BEGCM00	US $	Barrels
Arab Heavy Coking	AHGOY00	AHGOY03		AHGOY04	AHGON00	AHGON03		AHGON04	AHGOM00	US $	Barrels
Arab Heavy Cracking	AHGCY00	AHGCY03		AHGCY04	AHGCN00	AHGCN03		AHGCN04	AHGCM00	US $	Barrels
Arab Light Coking	LIGOY00	LIGOY03		LIGOY04	LIGON00	LIGON03		LIGON04	LIGOM00	US $	Barrels
Arab Light Cracking	LIGCY00	LIGCY03		LIGCY04	LIGCN00	LIGCN03		LIGCN04	LIGCM00	US $	Barrels
Arab Medium Coking	MEGOY00	MEGOY03		MEGOY04	MEGON00	MEGON03		MEGON04	MEGOM00	US $	Barrels
Arab Medium Cracking	MEGCY00	MEGCY03		MEGCY04	MEGCN00	MEGCN03		MEGCN04	MEGCM00	US $	Barrels
Bakken Cracking	BKGCY00	BKGCY03		BKGCY04	BKGCN00	BKGCN03		BKGCN04	BKGCM00	US $	Barrels
Basrah Heavy Coking	BHGOY00	BHGOY03		BHGOY04	BHGON00	BHGON03		BHGON04	BHGOM00	US $	Barrels
Basrah Light Coking	BLGOY00	BLGOY03		BLGOY04	BLGON00	BLGON03		BLGON04	BLGOM00	US $	Barrels
Basrah Light Cracking	BLGCY00	BLGCY03		BLGCY04	BLGCN00	BLGCN03		BLGCN04	BLGCM00	US $	Barrels
Bonny Light Cracking	YLGCY00	YLGCY03		YLGCY04	YLGCN00	YLGCN03		YLGCN04	YLGCM00	US $	Barrels
Brent Cracking	BRGCY00	BRGCY03		BRGCY04	BRGCN00	BRGCN03		BRGCN04	BRGCM00	US $	Barrels
Cabinda Coking	CBGOY00	CBGOY03		CBGOY04	CBGON00	CBGON03		CBGON04	CBGOM00	US $	Barrels
Cabinda Cracking	CBGCY00	CBGCY03		CBGCY04	CBGCN00	CBGCN03		CBGCN04	CBGCM00	US $	Barrels
Castilla Blend Coking	CSGOY00	CSGOY03		CSGOY04	CSGON00	CSGON03		CSGON04	CSGOM00	US $	Barrels
Eagle Ford Cracking	EAGCY00	EAGCY03		EAGCY04	EAGCN00	EAGCN03		EAGCN04	EAGCM00	US $	Barrels
Escalante Cracking	ECGCY00	ECGCY03		ECGCY04	ECGCN00	ECGCN03		ECGCN04	ECGCM00	US $	Barrels
Forties Cracking	FTGCY00	FTGCY03		FTGCY04	FTGCN00	FTGCN03		FTGCN04	FTGCM00	US $	Barrels
Isthmus Cracking	ISGCY00	ISGCY03		ISGCY04	ISGCN00	ISGCN03		ISGCN04	ISGCM00	US $	Barrels
LLS Coking	LLGOY00	LLGOY03		LLGOY04	LLGON00	LLGON03		LLGON04	LLGOM00	US $	Barrels
LLS Cracking	LLGCY00	LLGCY03		LLGCY04	LLGCN00	LLGCN03		LLGCN04	LLGCM00	US $	Barrels
Marlim Coking	MLGOY00	MLGOY03		MLGOY04	MLGON00	MLGON03		MLGON04	MLGOM00	US $	Barrels
Marlim Cracking	MLGCY00	MLGCY03		MLGCY04	MLGCN00	MLGCN03		MLGCN04	MLGCM00	US $	Barrels
Mars Coking	MRGOY00	MRGOY03		MRGOY04	MRGON00	MRGON03		MRGON04	MRGOM00	US $	Barrels
Mars Cracking	MRGCY00	MRGCY03		MRGCY04	MRGCN00	MRGCN03		MRGCN04	MRGCM00	US $	Barrels
Maya Coking	MYGOY00	MYGOY03		MYGOY04	MYGON00	MYGON03		MYGON04	MYGOM00	US $	Barrels
Maya Cracking	MYGCY00	MYGCY03		MYGCY04	MYGCN00	MYGCN03		MYGCN04	MYGCM00	US $	Barrels
Mesa Cracking	MSGCY00	MSGCY03		MSGCY04	MSGCN00	MSGCN03		MSGCN04	MSGCM00	US $	Barrels
Napo Coking	NPGOY00	NPGOY03		NPGOY04	NPGON00	NPGON03		NPGON04	NPGOM00	US $	Barrels
Olmeca Cracking	OLGCY00	OLGCY03		OLGCY04	OLGCN00	OLGCN03		OLGCN04	OLGCM00	US $	Barrels
Oriente Coking	ORGOY00	ORGOY03		ORGOY04	ORGON00	ORGON03		ORGON04	ORGOM00	US $	Barrels
Poseidon Cracking	PDGCY00	PDGCY03		PDGCY04	PDGCN00	PDGCN03		PDGCN04	PDGCM00	US $	Barrels
Saharan Blend Cracking	SHGCY00	SHGCY03		SHGCY04	SHGCN00	SHGCN03		SHGCN04	SHGCM00	US $	Barrels
Syncrude Cracking	SYGCY00	SYGCY03		SYGCY04	SYGCN00	SYGCN03		SYGCN04	SYGCM00	US $	Barrels

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US GULF COAST

Assessment	YIELDS CODE	Mavg	Pavg	Wavg	NETBACKS CODE	Mavg	Pavg	Wavg	MARGINS CODE	CURRENCY	UOM
Urals Coking	URGOY00	URGOY03		URGOY04	URGON00	URGON03		URGON04	URGOM00	US $	Barrels
Urals Cracking	URGCY00	URGCY03		URGCY04	URGCN00	URGCN03		URGCN04	URGCM00	US $	Barrels
Vasconia Coking	VCGOY00	VCGOY03		VCGOY04	VCGON00	VCGON03		VCGON04	VCGOM00	US $	Barrels
WCS ex-Hardisty Coking	WHGOY00	WHGOY03		WHGOY04	WHGON00	WHGON03		WHGON04	WHGOM00	US $	Barrels
WCS ex-Nederland Coking	WNGOY00	WNGOY03		WNGOY04	WNGON00	WNGON03		WNGON04	WNGOM00	US $	Barrels
WTI Cracking	WTGCY00	WTGCY03		WTGCY04	WTGCN00	WTGCN03		WTGCN04	WTGCM00	US $	Barrels
WTS Coking	WSGOY00	WSGOY03		WSGOY04	WSGON00	WSGON03		WSGON04	WSGOM00	US $	Barrels
WTS Cracking	WSGCY00	WSGCY03		WSGCY04	WSGCN00	WSGCN03		WSGCN04	WSGCM00	US $	Barrels

US Gulf Coast

Calculated crudes: Agbami, Arab Berri, Arab Heavy, Arab Light, Arab Medium, Bakken, Basrah Light, Bonny Light, Brent, Cabinda, Eagle Ford, Escalante, Forties, Isthmus, LLS, Marlim, Mars, Maya, Mesa, Olmeca, Poseidon, Saharan Blend, Syncrude, Urals, WTI, WTS, Basrah Heavy, Castilla Blend, Napo, Oriente, Vasconia, WCS ex-Hardisty, WCS ex-Nederland

Product slate

The following products are assumed as the oil products produced by the refinery. In all cases, Platts spot daily assessments are inputted, except where noted.

Propane non-LST Mt Belvieu

Butane non-LST Mt Belvieu

Isobutane non-LST Mt Belvieu

Naphtha Cargo FOB US Gulf Coast

Gasoline CBOB 93 USGC Houston

Gasoline CBOB 87 USGC Houston

Gasoline RBOB 91.4 USGC Houston

Gasoline RBOB 83.7 USGC Houston

Jet Kero 54 USGC Waterborne

ULSD USGC Waterborne

Gasoil No.2 USGC waterborne

FO No6 1.0%S USGC Waterborne

USGC HSFO Waterborne

Petroleum Coke FOB US Gulf Coast 6.5% High Sulfur

Variable operating costs

- Henry Hub TDt Com
- ERCOT Houston M2MS Pk
- Renewable Volume Obligations
- Catalyst and chemicals

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US ATLANTIC COAST

Assessment	YIELDS CODE	Mavg	Pavg	Wavg	NETBACKS CODE	Mavg	Pavg	Wavg	MARGINS CODE	CURRENCY	UOM
Agbami Cracking	AGACY00	AGACY03		AGACY04	AGACN00	AGACN03		AGACN04	AGACM00	US $	Barrels
Arab Light Cracking	LIACY00	LIACY03		LIACY04	LIACN00	LIACN03		LIACN04	LIACM00	US $	Barrels
Bakken Cracking	BKACY00	BKACY03		BKACY04	BKACN00	BKACN03		BKACN04	BKACM00	US $	Barrels
Bonny Light Cracking	YLACY00	YLACY03		YLACY04	YLACN00	YLACN03		YLACN04	YLACM00	US $	Barrels
Brent Cracking	BRACY00	BRACY03		BRACY04	BRACN00	BRACN03		BRACN04	BRACM00	US $	Barrels
Cabinda Cracking	CBACY00	CBACY03		CBACY04	CBACN00	CBACN03		CBACN04	CBACM00	US $	Barrels
CPC Blend Cracking	CPACY00	CPACY03		CPACY04	CPACN00	CPACN03		CPACN04	CPACM00	US $	Barrels
Forties Cracking	FTACY00	FTACY03		FTACY04	FTACN00	FTACN03		FTACN04	FTACM00	US $	Barrels
Saharan Blend Cracking	SHACY00	SHACY03		SHACY04	SHACN00	SHACN03		SHACN04	SHACM00	US $	Barrels
Urals Cracking	URACY00	URACY03		URACY04	URACN00	URACN03		URACN04	URACM00	US $	Barrels

US Atlantic Coast

Calculated crudes: Agbami, Arab Light, Bakken, Bonny Light, Brent, Cabinda, CPC Blend, Forties, Saharan Blend, Urals

Product slate

The following products are assumed as the oil products produced by the refinery. In all cases, Platts spot daily assessments are inputted, except where noted.

Propane non-LST Mt Belvieu

Butane non-LST Mt Belvieu

Gasoline Prem RBOB NY Barge

Gasoline RBOB NY Barge

Gasoline Prem CBOB NY Barge

Gasoline CBOB NY Barge

Jet Kero New York Harbor Barge

ULSD New York Harbor Barge

Gasoil No.2 New York Harbor Barge

FO No.6 0.3% LP New York Harbor Delivered Cargo

FO No.6 0.7% New York Harbor Delivered Cargo

FO No.6 1.0% New York Harbor Delivered Cargo

FO No.6 3.0% New York Harbor Delivered Cargo

Variable operating costs

- TX Eastern M-3 TDt Com
- PJM West M2MS Pk
- Renewable Volume Obligations
- Catalyst and chemicals

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US MIDCONTINENT

Assessment	YIELDS CODE	Mavg	Pavg	Wavg	NETBACKS CODE	Mavg	Pavg	Wavg	MARGINS CODE	CURRENCY	UOM
Bakken Cracking	BKTCY00	BKTCY03		BKTCY04	BKTCN00	BKTCN03		BKTCN04	BKTCM00	US $	Barrels
Syncrude Cracking	SYTCY00	SYTCY03		SYTCY04	SYTCN00	SYTCN03		SYTCN04	SYTCM00	US $	Barrels
WCS Coking	WCTOY00	WCTOY03		WCTOY04	WCTON00	WCTON03		WCTON04	WCTOM00	US $	Barrels
WTI Cracking	WTTCY00	WTTCY03		WTTCY04	WTTCN00	WTTCN03		WTTCN04	WTTCM00	US $	Barrels
WTS Cracking	WSTCY00	WSTCY03		WSTCY04	WSTCN00	WSTCN03		WSTCN04	WSTCM00	US $	Barrels
WTS Coking	WSTOY00	WSTOY03		WSTOY04	WSTON00	WSTON03		WSTON04	WSTOM00	US $	Barrels

US Midcontinent

Calculated crudes: Bakken, Syncrude, WTI, WTS, WCS

Product slate

The following products are assumed as the oil products produced by the refinery. In all cases, Platts spot daily assessments are inputted, except where noted.

Propane Conway pipeline

Butane Conway pipeline

Isobutane Conway pipeline

Gasoline CBOB Chicago Pipe

Gasoline PBOB Chicago Pipe

Gasoline RBOB Chicago Pipe

Jet Kero FOB Chicago Pipe

ULSD FOB Chicago Pipe

FO No6 1.0%S USGC Waterborne

USGC HSFO Waterborne

Variable operating costs

- Chicago CG TDt Com
- NI Hub M2MS Pk
- Renewable Volume Obligations
- Catalyst and chemicals

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US WEST COAST

Assessment	YIELDS CODE	Mavg	Pavg	Wavg	NETBACKS CODE	Mavg	Pavg	Wavg	MARGINS CODE	CURRENCY	UOM
ANS Coking	ANWOY00	ANWOY03		ANWOY04	ANWON00	ANWON03		ANWON04	ANWOM00	US $	Barrels
ANS Cracking	ANWCY00	ANWCY03		ANWCY04	ANWCN00	ANWCN03		ANWCN04	ANWCM00	US $	Barrels
Arab Light Coking	LIWOY00	LIWOY03		LIWOY04	LIWON00	LIWON03		LIWON04	LIWOM00	US $	Barrels
Arab Medium Coking	MEWOY00	MEWOY03		MEWOY04	MEWON00	MEWON03		MEWON04	MEWOM00	US $	Barrels
Baken Cracking	BKWCY00	BKWCY03		BKWCY04	BKWCN00	BKWCN03		BKWCN04	BKWCM00	US $	Barrels
Basrah Heavy Coking	BHWOY00	BHWOY03		BHWOY04	BHWON00	BHWON03		BHWON04	BHWOM00	US $	Barrels
Basrah Light Coking	BLWOY00	BLWOY03		BLWOY04	BLWON00	BLWON03		BLWON04	BLWOM00	US $	Barrels
Castilla Blend Coking	CSWOY00	CSWOY03		CSWOY04	CSWON00	CSWON03		CSWON04	CSWOM00	US $	Barrels
Maya Coking	MYWOY00	MYWOY03		MYWOY04	MYWON00	MYWON03		MYWON04	MYWOM00	US $	Barrels
Napo Coking	NPWOY00	NPWOY03		NPWOY04	NPWON00	NPWON03		NPWON04	NPWOM00	US $	Barrels
Oriente Coking	ORWOY00	ORWOY03		ORWOY04	ORWON00	ORWON03		ORWON04	ORWOM00	US $	Barrels
Vasconia Coking	VCWOY00	VCWOY03		VCWOY04	VCWON00	VCWON03		VCWON04	VCWOM00	US $	Barrels

US West Coast

Calculated crudes: ANS, Bakken, Arab Light, Arab Medium, Basrah Heavy, Basrah Light, Castilla Blend, Maya, Napo, Oriente, Vasconia

Product slate

The following products are assumed as the oil products produced by the refinery. In all cases, Platts spot daily assessments are inputted, except where noted.

Propane non-LST Mt Belvieu

Butane non-LST Mt Belvieu

Isobutane non-LST Mt Belvieu

Gasoline CARBOB 88.5 Los Angeles CA Pipeline

Gasoline CARBOB 84 Los Angeles CA Pipeline

Gasoline Prem Unl Los Angeles CA Pipeline

Gasoline Unl 84 Los Angeles CA Pipeline

Jet Kero Los Angeles CA Pipeline

ULSD No2 CARB Diesel Los Angeles CA Pipeline

ULSD (EPA) Los Angeles CA Pipeline

Bunker FO 380 CST 3.5% Ex-Wharf Los Angeles

Bunker FO 380 CST 3.5% Ex-Wharf Los Angeles

Petroleum Coke FOB US West Coast 3% Mid Sulfur

Variable operating costs

- SoCal Gas TDt Abs
- South Path 15 M2MS Pk
- Renewable Volume Obligations
- Catalyst and chemicals

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NORTHWEST EUROPE

Assessment	YIELDS CODE	Mavg	Pavg	Wavg	NETBACKS CODE	Mavg	Pavg	Wavg	MARGINS CODE	CURRENCY	UOM
Agbami Cracking	AGNCY00	AGNCY03		AGNCY04	AGNCN00	AGNCN03		AGNCN04	AGNCM00	US $	Barrels
Arab Berri Cracking	BENCY00	BENCY03		BENCY04	BENCN00	BENCN03		BENCN04	BENCM00	US $	Barrels
Arab Heavy Cracking	AHNCY00	AHNCY03		AHNCY04	AHNCN00	AHNCN03		AHNCN04	AHNCM00	US $	Barrels
Arab Light Cracking	LINCY00	LINCY03		LINCY04	LINCN00	LINCN03		LINCN04	LINCM00	US $	Barrels
Arab Medium Cracking	MENCY00	MENCY03		MENCY04	MENCN00	MENCN03		MENCN04	MENCM00	US $	Barrels
Azeri Light Cracking	ZLNCY00	ZLNCY03		ZLNCY04	ZLNCN00	ZLNCN03		ZLNCN04	ZLNCM00	US $	Barrels
Basrah Light Cracking	BLNCY00	BLNCY03		BLNCY04	BLNCN00	BLNCN03		BLNCN04	BLNCM00	US $	Barrels
Bonny Light Cracking	YLNCY00	YLNCY03		YLNCY04	YLNCN00	YLNCN03		YLNCN04	YLNCM00	US $	Barrels
Brent Cracking	BRNCY00	BRNCY03		BRNCY04	BRNCN00	BRNCN03		BRNCN04	BRNCM00	US $	Barrels
Cabinda Cracking	CBNCY00	CBNCY03		CBNCY04	CBNCN00	CBNCN03		CBNCN04	CBNCM00	US $	Barrels
CPC Blend Cracking	CPNCY00	CPNCY03		CPNCY04	CPNCN00	CPNCN03		CPNCN04	CPNCM00	US $	Barrels
Dubai Cracking	DBNCY00	DBNCY03		DBNCY04	DBNCN00	DBNCN03		DBNCN04	DBNCM00	US $	Barrels
Eagle Ford Cracking	EANCY00	EANCY03		EANCY04	EANCN00	EANCN03		EANCN04	EANCM00	US $	Barrels
Ekofisk Cracking	EKNCY00	EKNCY03		EKNCY04	EKNCN00	EKNCN03		EKNCN04	EKNCM00	US $	Barrels
Forties Cracking	FTNCY00	FTNCY03		FTNCY04	FTNCN00	FTNCN03		FTNCN04	FTNCM00	US $	Barrels
Iran Heavy Cracking	BHNCY00	BHNCY03		BHNCY04	BHNCN00	BHNCN03		BHNCN04	BHNCM00	US $	Barrels
Johan Sverdrup Cracking	JSNCY00	JSNCY03		JSNCY04	JSNCN00	JSNCN03		JSNCN04	JSNCM00	US $	Barrels
Kirkuk Cracking	KRNCY00	KRNCY03		KRNCY04	KRNCN00	KRNCN03		KRNCN04	KRNCM00	US $	Barrels
LLS Cracking	LLNCY00	LLNCY03		LLNCY04	LLNCN00	LLNCN03		LLNCN04	LLNCM00	US $	Barrels
Maya Cracking	MYNCY00	MYNCY03		MYNCY04	MYNCN00	MYNCN03		MYNCN04	MYNCM00	US $	Barrels
Oman Cracking	OMNCY00	OMNCY03		OMNCY04	OMNCN00	OMNCN03		OMNCN04	OMNCM00	US $	Barrels
Saharan Blend Cracking	SHNCY00	SHNCY03		SHNCY04	SHNCN00	SHNCN03		SHNCN04	SHNCM00	US $	Barrels
Urals Cracking	URNCY00	URNCY03		URNCY04	URNCN00	URNCN03		URNCN04	URNCM00	US $	Barrels
WTI MEH Cracking	WTNCY00	WTNCY03		WTNCY04	WTNCN00	WTNCN03		WTNCN04	WTNCM00	US $	Barrels

Northwest Europe

Calculated crudes: Agbami, Arab Berri, Arab Heavy, Arab Light, Arab Medium, Azeri Light, Basrah Light, Bonny Light, Brent, Cabinda, CPC Blend, Dubai, Eagle Ford, Ekofisk, Forties, Iran Heavy, Johan Sverdrup, Kirkuk, LLS, Maya, Oman, Saharan Blend, Urals, WTI MEH

Product slate

The following products are assumed as the oil products produced by the refinery. In all cases, Platts spot daily assessments are inputted, except where noted.

Propane FOB ARA

Butane FOB ARA

Naphtha FOB Rdam Barge

Gasoline Prem Unleaded 10ppmS FOB AR Barge

Gasoline CBOB NY Barge NETBACK NWE

Gasoline RBOB NY Barge NETBACK NWE

Jet FOB Rdam Barge

ULSD 10ppmS FOB ARA Barge

Gasoil .1%S (1000ppm) FOB ARA Barge

Straight Run 0.5-0.7%S FOB NWE Cargo

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FO 1%S FOB NWE Cargo

FO 3.5%S FOB NWE Cargo

Petroleum Coke FOB US Gulf Coast 6.5% High Sulfur

Variable operating costs

- Zeebrugge 1-Mo Eur/Gj
- NW Europe Baseload from Dutch TTF Gas 1-Mo
- Catalyst and chemicals

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MEDITERRANEAN

Assessment	YIELDS CODE	Mavg	Pavg	Wavg	NETBACKS CODE	Mavg	Pavg	Wavg	MARGINS CODE	CURRENCY	UOM
Agbami Cracking	AGMCY00	AGMCY03		AGMCY04	AGMCN00	AGMCN03		AGMCN04	AGMCM00	US $	Barrels
Arab Heavy Cracking	AHMCY00	AHMCY03		AHMCY04	AHMCN00	AHMCN03		AHMCN04	AHMCM00	US $	Barrels
Arab Light Cracking	LIMCY00	LIMCY03		LIMCY04	LIMCN00	LIMCN03		LIMCN04	LIMCM00	US $	Barrels
Arab Medium Cracking	MEMCY00	MEMCY03		MEMCY04	MEMCN00	MEMCN03		MEMCN04	MEMCM00	US $	Barrels
Azeri Light Cracking	ZLMCY00	ZLMCY03		ZLMCY04	ZLMCN00	ZLMCN03		ZLMCN04	ZLMCM00	US $	Barrels
Basrah Light Cracking	BLMCY00	BLMCY03		BLMCY04	BLMCN00	BLMCN03		BLMCN04	BLMCM00	US $	Barrels
Bonny Light Cracking	YLMCY00	YLMCY03		YLMCY04	YLMCN00	YLMCN03		YLMCN04	YLMCM00	US $	Barrels
Cabinda Cracking	CBMCY00	CBMCY03		CBMCY04	CBMCN00	CBMCN03		CBMCN04	CBMCM00	US $	Barrels
CPC Blend Cracking	CPMCY00	CPMCY03		CPMCY04	CPMCN00	CPMCN03		CPMCN04	CPMCM00	US $	Barrels
Eagle Ford Cracking	EAMCY00	EAMCY03		EAMCY04	EAMCN00	EAMCN03		EAMCN04	EAMCM00	US $	Barrels
Forties Cracking	FTMCY00	FTMCY03		FTMCY04	FTMCN00	FTMCN03		FTMCN04	FTMCM00	US $	Barrels
Iran Heavy Cracking	BHMCY00	BHMCY03		BHMCY04	BHMCN00	BHMCN03		BHMCN04	BHMCM00	US $	Barrels
Johan Sverdrup Cracking	JSMCY00	JSMCY03		JSMCY04	JSMCN00	JSMCN03		JSMCN04	JSMCM00	US $	Barrels
Kirkuk Cracking	KRMCY00	KRMCY03		KRMCY04	KRMCN00	KRMCN03		KRMCN04	KRMCM00	US $	Barrels
LLS Cracking	LLMCY00	LLMCY03		LLMCY04	LLMCN00	LLMCN03		LLMCN04	LLMCM00	US $	Barrels
Oman Cracking	OMMCY00	OMMCY03		OMMCY04	OMMCN00	OMMCN03		OMMCN04	OMMCM00	US $	Barrels
Saharan Blend Cracking	SHMCY00	SHMCY03		SHMCY04	SHMCN00	SHMCN03		SHMCN04	SHMCM00	US $	Barrels
Urals Cracking	URMCY00	URMCY03		URMCY04	URMCN00	URMCN03		URMCN04	URMCM00	US $	Barrels

Mediterranean

Calculated crudes: Agbami, Arab Heavy, Arab Light, Arab Medium, Azeri Light, Basrah Light, Bonny Light, Cabinda, CPC Blend, Eagle Ford, Forties, Iran Heavy, Johan Sverdrup, Kirkuk, LLS, Oman, Saharan Blend, Urals

Product slate

The following products are assumed as the oil products produced by the refinery. In all cases, Platts spot daily assessments are inputted, except where noted.

Propane FOB W Med Ex-Refinery/Storage

Butane FOB West Med Coaster

Naphtha FOB Med Cargo

Gasoline Prem Unleaded 10ppmS FOB Med Cargo

Gasoline CBOB NY Barge NETBACK MED

Gasoline RBOB NY Barge NETBACK MED

Jet FOB Med Cargo

ULSD 10ppmS FOB Med Cargo

Gasoil 0.1%S FOB Med Cargo

FO 1%S FOB Med Cargo

FO 3.5%S FOB Med Cargo

Petroleum Coke FOB US Gulf Coast 6.5% High Sulfur

Variable operating costs

- Zeebrugge 1-Mo Eur/Gj
- NW Europe Baseload from Dutch TTF Gas 1-Mo
- Catalyst and chemicals

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SINGAPORE

Assessment	YIELDS CODE	Mavg	Pavg	Wavg	NETBACKS CODE	Mavg	Pavg	Wavg	MARGINS CODE	CURRENCY	UOM
Agbami Cracking	AGSCY00	AGSCY03		AGSCY04	AGSCN00	AGSCN03		AGSCN04	AGSCM00	US $	Barrels
Arab Berri Cracking	BESCY00	BESCY03		BESCY04	BESCN00	BESCN03		BESCN04	BESCM00	US $	Barrels
Arab Heavy Cracking	AHSCY00	AHSCY03		AHSCY04	AHSCN00	AHSCN03		AHSCN04	AHSCM00	US $	Barrels
Arab Light Cracking	LISCY00	LISCY03		LISCY04	LISCN00	LISCN03		LISCN04	LISCM00	US $	Barrels
Arab Medium Cracking	MESCY00	MESCY03		MESCY04	MESCN00	MESCN03		MESCN04	MESCM00	US $	Barrels
Basrah Light Cracking	BHSCY00	BHSCY03		BHSCY04	BHSCN00	BHSCN03		BHSCN04	BHSCM00	US $	Barrels
Bonny Light Cracking	YLSCY00	YLSCY03		YLSCY04	YLSCN00	YLSCN03		YLSCN04	YLSCM00	US $	Barrels
Cabinda Cracking	CBSCY00	CBSCY03		CBSCY04	CBSCN00	CBSCN03		CBSCN04	CBSCM00	US $	Barrels
Castilla Cracking	CSSCY00	CSSCY03		CSSCY04	CSSCN00	CSSCN03		CSSCN04	CSSCM00	US $	Barrels
Dalia Cracking	DLSCY00	DLSCY03		DLSCY04	DLSCN00	DLSCN03		DLSCN04	DLSCM00	US $	Barrels
Dubai Cracking	DBSCY00	DBSCY03		DBSCY04	DBSCN00	DBSCN03		DBSCN04	DBSCM00	US $	Barrels
Duri Cracking	DRSCY00	DRSCY03		DRSCY04	DRSCN00	DRSCN03		DRSCN04	DRSCM00	US $	Barrels
Eagle Ford Cracking	EASCY00	EASCY03		EASCY04	EASCN00	EASCN03		EASCN04	EASCM00	US $	Barrels
ESPO Cracking	ESSCY00	ESSCY03		ESSCY04	ESSCN00	ESSCN03		ESSCN04	ESSCM00	US $	Barrels
Forties Cracking	FTSCY00	FTSCY03		FTSCY04	FTSCN00	FTSCN03		FTSCN04	FTSCM00	US $	Barrels
Kimanis Cracking	KISCY00	KISCY03		KISCY04	KISCN00	KISCN03		KISCN04	KISCM00	US $	Barrels
LLS Cracking	LLSCY00	LLSCY03		LLSCY04	LLSCN00	LLSCN03		LLSCN04	LLSCM00	US $	Barrels
Mars Cracking	MRSCY00	MRSCY03		MRSCY04	MRSCN00	MRSCN03		MRSCN04	MRSCM00	US $	Barrels
Maya Cracking	MYSCY00	MYSCY03		MYSCY04	MYSCN00	MYSCN03		MYSCN04	MYSCM00	US $	Barrels
Minas Cracking	MNSCY00	MNSCY03		MNSCY04	MNSCN00	MNSCN03		MNSCN04	MNSCM00	US $	Barrels
Oman Cracking	OMSCY00	OMSCY03		OMSCY04	OMSCN00	OMSCN03		OMSCN04	OMSCM00	US $	Barrels
Qua Iboe Cracking	QBSCY00	QBSCY03		QBSCY04	QBSCN00	QBSCN03		QBSCN04	QBSCM00	US $	Barrels
Saharan Blend Cracking	SHSCY00	SHSCY03		SHSCY04	SHSCN00	SHSCN03		SHSCN04	SHSCM00	US $	Barrels
Tapis Cracking	TPSCY00	TPSCY03		TPSCY04	TPSCN00	TPSCN03		TPSCN04	TPSCM00	US $	Barrels
Tupi Cracking	LUSCY00	LUSCY03		LUSCY04	LUSCN00	LUSCN03		LUSCN04	LUSCM00	US $	Barrels
Urals Cracking	URSCY00	URSCY03		URSCY04	URSCN00	URSCN03		URSCN04	URSCM00	US $	Barrels
WTI MEH Cracking	WTSCY00	WTSCY03		WTSCY04	WTSCN00	WTSCN03		WTSCN04	WTSCM00	US $	Barrels

Singapore

Calculated crudes: Agbami, Arab Berri, Arab Heavy, Arab Light, Arab Medium, Basrah Light, Bonny Light, Cabinda, Castilla, Dalia, Dubai, Duri, Eagle Ford, ESPO, Forties, Kimanis, LLS, Mars, Maya, Minas, Oman, Qua Iboe, Saharan Blend, Tapis, Tupi, Urals, WTI MEH

Product slate

The following products are assumed as the oil products produced by the refinery. In all cases, Platts spot daily assessments are inputted, except where noted.

Propane Refrigerated CFR Japan 30-45 days

Butane Refrigerated CFR Japan 30-45 days

Naphtha FOB Spore Cargo

Gasoline Unl 97 FOB Spore Cargo

Gasoline Unl 92 FOB Spore Cargo

Jet Kero FOB Spore Cargo

Gasoil .001%S (10ppm) FOB Spore Cargo

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Gasoil .05%S (500ppm) FOB Spore Cargo

Gasoil .25%S (2500ppm) FOB Spore Cargo

FO 180 CST 2.0%S FOB Spore Cargo

FO 180 CST 3.5%S FOB Spore Cargo

FO 380 CST 3.5%S FOB Spore Cargo

LSWR Mixed/Cracked FOB Indonesia Cargo

Petroleum Coke FOB US Gulf Coast 6.5% High Sulfur

Variable Operating Costs

- Purchased electricity (Singapore retail rates)
- Catalyst and chemicals

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REVISION HISTORY

July 2021: Platts Analytics Global Crude Refinery Values and Netbacks methodology and specification guide launched.

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