

# McCLOSKEY

BY OPIS, A DOW JONES COMPANY

# Coking coal marker price

Methodology and specifications  
Effective February 2022

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## Introduction

This statement of methodology for McCloskey by OPIS, a Dow Jones Company's ["McCloskey"] coking coal price assessments reflects fundamental principles that form the foundation for McCloskey's coal price reporting service. This statement of methodology also includes detailed information on the formation of McCloskey's price assessments and the specifications for the various products assessed.

As coking coal markets change, McCloskey's methodology for assessing coking coal prices will continue to evolve.

The McCloskey coal price assessment services team is comprised of specialist reporters and analysts in London, Singapore, Brisbane, Sydney, Bogota, Kolkata, and the United States. The McCloskey team undertakes price discovery of the physical coking coal markets on a daily basis according to the specifications outlined in this statement of methodology.

For questions regarding Europe, the Middle East, Africa and the Americas coal assessments, please contact Andrew Thompson at [AThompson@opisnet.com](mailto:AThompson@opisnet.com) for questions regarding Asia Pacific coal assessments, please contact Marian Hookham at [MHookham@opisnet.com](mailto:MHookham@opisnet.com). OPIS also has compliance staff independent of the editorial group. For more information, please contact OPIS Risk and Compliance Director at [OPIS\\_compliance\\_team@opisnet.com](mailto:OPIS_compliance_team@opisnet.com).

## McCloskey publications

McCloskey publishes coal market price assessments, market commentary, news, and analysis online through its market and business intelligence platform and in the following publications.

### **McCloskey Coal Report**

Fortnightly news and analysis of the global seaborne coal industry.

### **McCloskey Fax**

Weekly global digest of market intelligence and price updates.

### **McCloskey Newswire**

Intra Day, real-time coal news and data direct to subscriber's screen or mobile devices.

### **China Coal Monthly\***

Monthly report focusing on China's vast coal market.

### **China Coal Daily\***

Daily intelligence and price updates on the Chinese coal industry and markets.

### **Inside Coal and Steel Raw Materials**

Daily intelligence and price updates focusing on the global metallurgical coal markets.

### **Australian Coal Report**

Weekly reports, including in-depth coverage of the Australian Thermal and Met coal industry.

### **Coalfax**

Weekly digest of Australian/APAC coal intelligence and price updates.

### **Indian Coal Report**

Intelligence on the Indian coal, power and steel markets focusing on government policy and regulation.

### **South African Coal Report**

Weekly news and analysis covering the South African coal industry and domestic and international markets.

### **North American Coal Markets Service**

Daily news, analysis and commentary covering the US coal industry and market.

## Methodology overview

McCloskey produces physical price assessments, termed "markers," for the major traded global coking coal hubs. All McCloskey

markers share the following features and standards:

### **Basis of McCloskey coal methodology**

McCloskey assesses the global coal markets using a methodology that has been designed to reflect the way these markets trade. The principle purpose of the methodology is to produce price markers that are fair, consistent and reliable indicators of standard market values in the markets being assessed. As a result, the assessment locations, standard traded units, and other particulars of a marker are determined by industry conventions.

McCloskey uses the trading period deemed by McCloskey, in consultation with the industry, to be the most appropriate to capture market liquidity. In order to be included in the assessment process, deals must meet the minimum volume, delivery, timing and specification requirements as set forth in this Coking Coal Marker Price Methodology and Specifications guide (the "Methodology").

McCloskey markers are informed by data received from active physical coal market participants including physical coal brokers. Market reporters engage with the industry by proactively polling participants for market data. McCloskey will accept market data from all credible market sources, including electronic trading platforms. McCloskey will accept market data by telephone, instant messenger, email or other means.

McCloskey encourages parties that submit market data to submit all of their market data that falls within the stated methodological criteria for the relevant marker. McCloskey encourages all sources of market data to submit transaction data from back office functions. McCloskey will seek to ensure, so far as is able and is reasonable, that transaction data submitted are representative of all the submitter's actual physical concluded fixed-priced transactions.

Throughout all markets, McCloskey is constantly seeking to increase the number of companies willing to provide market data. Market reporters are mentored and encouraged to expand their pool of contacts. The number of entities providing market data can vary significantly from day to day based on market conditions.

### **Judgment guidelines**

As part of the price reporting process, market reporters are required to use their professional judgment, to ensure the reliability of the data and marker compilation process. McCloskey has set forth guidelines throughout this Methodology to ensure that the use of judgment is consistent and fair. These guidelines can be found in the following sections of this Methodology:

- Anomalous or suspicious transactions
- Additional checks and analysis
- Comparative markets
- Transactions and survey weightings

McCloskey has developed a Global Price Reporting Manual that details the process for compiling each specific marker. In addition, McCloskey has developed a programme of training and oversight of market reporters that helps ensure uniformity in the application of judgment. The key elements of this programme include:

1. An initial course of training that explains and defines the parameters for the exercise of judgment
2. Suitably sourced staffing to ensure proper backup for sick days, vacations, etc.
3. Oversight of reporting teams by experienced market editors that are involved in daily mentoring and assisting in the application of judgment
4. A requirement that market editors sign-off on all markers

### **Market data application and thresholds**

The specifications defined in the methodology and data used to compile each marker is deemed to be the most representative for that

market. McCloskey will utilize various types of market data in compiling its markers, including:

- Transactions
- Bids and offers
- Other market information

Transaction information is the preferred source of data for the markers. However, depending on the liquidity of the markets being assessed, other information can be and is used, such as bids and offers and other market information. This can be in combination with transactions, or can substitute transactions, depending on the market liquidity and specific market circumstances.

Consequently, in most markets there will be a relatively higher rank given to transactions over bids and offers and other market information in the compilation process.

McCloskey does not establish strict thresholds based on a count of completed transactions. McCloskey does, however, use transaction levels to determine the weighting between weighted average of price transactions and other market information [see “Transactions and Survey Weightings” below]. A strict adherence to a transaction-based threshold could lead to unreliable and non-representative markers because of the varying logistics found in coal markets, which determine the typical size of the transaction.

In many markets, McCloskey has established minimum tonnage for transactions which will be accepted as market data. For those markers that are not used to settle derivatives, if the submitted data falls below the stated threshold for any reason, McCloskey will follow the procedures outlined elsewhere in this document regarding the exercise of judgment in the price assessment process.

### **Verification of transaction data**

Market reporters carefully evaluate all data gathered before it is used in the price compilation process. These data inputs

include transactions, bids, offers, volumes, counterparties, specifications and any other information that contributes materially to the determination of a marker. Specific to transactions and bids and offers, market reporters seek to verify and validate the price, volume, specifications, and location basis, and with regard just to transactions, the counterparties. Market reporters examine all the reported transactions to avoid duplication.

In order to promote transparency in the coal markets, McCloskey seeks to inform the market of any deals it identifies and significant movements of bids and offers through the Newswire service (daily), the McCloskey Fax (weekly) and through the other relevant McCloskey publications. For some assessments, full details of the transactions verified, including price, basis, delivery/loading period and volume information, are published and are accessible to subscribers. This allows subscribers to cross check and verify the deals against the prices.

### **Scrutiny of transactions**

McCloskey has created guidelines that control the exercise of judgment by its market reporters. Market reporters are trained to identify anomalous or suspicious transactional data that merit further investigation to verify if they are bona fide data for inclusion in the index compilation process. If a transaction has been identified by a market reporter as anomalous or suspicious, it will be escalated to the markets editor. Further checks and analysis will be conducted by the markets editor when an anomalous or suspicious transaction is identified for further examination.

### **Anomalous or suspicious market data**

The following types of market data have been identified by McCloskey as potentially anomalous or suspicious:

- Transactions not transacted at arm’s length, including deals between related parties or affiliates

- Transaction prices that fall outside of the generally observed bids and offers that operated throughout the trading period
- In the absence of observed bids and offers, transaction prices that deviate significantly from transactions seen for that trading period
- Assessments of fair value that fall outside the reasonable parameters set by transactional information
- Transactions that are suspected to be a leg of another transaction or in some way contingent on an unknown transaction [excluding EFP<sup>1</sup> and sleeve trades<sup>2</sup>]
- Transactions, bids and offers that deviate from the typical transaction volumes seen in that market
- Any other transaction details that appear to stray from the usual trading behaviour seen in that market, including, but not limited to:
  - repeated trading activity in periods or pools of potentially low liquidity, such as the margins of the defined trading window (such as very early or very late deals),
  - counterparties not typically seen, – divergent specifications and – unusual delivery locations.
  - or specific delivery location in a port range that may have time specific issues affecting price
- This will include transactions that are identified by other market participants as being, for any reason, potentially anomalous
- Discrepancy in transaction details reported by counterparties

### Additional checks and analysis

The markets editor and market reporter(s) will undertake the following transactional and source analysis when a potentially anomalous or

suspicious transaction is identified for further examination.

They will assess the following transaction-based factors:

- The nature of the linkage of the perceived anomalous or suspicious transaction to other possible transactions
- The differences between counterparties on transactional details
- The impact of other factors on price and/or volume, including scheduling and logistic issues, demurrage issues and credit issues

The markets editor will also assess the following source-based factors:

- Whether the explanation provided by the source for the outlying nature of the transaction is plausible
- The credibility of the sources<sup>3</sup>
- Whether the timing of the provision of information impacts the verification and validation process

Should this process determine that a transaction be excluded from the price assessment process, the markets editor will approve the exclusion and document the rationale. For markers used to settle derivatives, McCloskey has established internal procedures that involve escalating review within McCloskey management and, if necessary, notification and escalation of inquiry within the source's company.

### Comparative markets

There exist tight price correlations between certain coal markets and the premiums and discounts between these markets, which are constantly assessed and compared by market participants. By polling and entering into dialogue with the market, market reporters are able to quantify these relative values.

<sup>1</sup> . An EFP deal is initially executed at a fixed price and is then broken down into two parts: one part being a physical deal done on an index basis, while a paper position of equivalent size is taken in the same direction as the physical deal. This is done in a way that adds up to the same as the strike price and all elements of the EFP deal are executed at the same time.

<sup>2</sup> . Sleeve deals are deals executed using a third-party credit sleeve because the buyer and seller are unable to transact directly because of credit issues. The third-party credit sleeve is not exploiting an arbitrage opportunity.

<sup>3</sup> . Sources will be deemed more credible if they (i) adhere to the reporting standards outlined in this Methodology; (ii) quickly respond to queries from market reporters; and (iii) have staff designated to respond to such queries.

Accordingly, in certain assessments when no relevant or insufficient market data exists, market reporters will make an assessment of market value using some or all of the following comparative metrics.

- Comparison to another market hub for the same quality of coal
- Comparison to a more actively traded but slightly different specification or quality in the same market hub
- Other metrics, such as demand and supply data

### Corrections to markers

If warranted by the circumstances, McCloskey may publish corrections to markers after the publication date. McCloskey will typically correct material errors that arise from the improper entry of information, the erroneous calculation of market data, misreported information or the incorrect application of the stated methodology. However, McCloskey will not retroactively assess markets based solely on new information learned after the publication date of the relevant marker. Corrections to markers will be conducted in accordance with the Price Assessments Correction policy.

### Compliance and ethics

McCloskey has implemented extensive compliance policies and procedures in accordance with the best practices of the price reporting industry. These include a comprehensive ethics policy that applies to all the McCloskey Coal Price Reporting staff. The Code of Ethics Manual is an expression of OPIS' intent to set out ideals for the ethical conduct of Coal Price Reporting personnel in the performance of their coal price assessment activities. This Code of Ethics policy is supported by the Conflicts of Interest Statement.

### Review of methodology

In order to ensure that they are representative of the market being assessed, McCloskey

conducts reviews of its methodologies on both an internal and external basis. McCloskey conducts a formal review of all of its methodologies and attendant documents on at least an annual basis. Externally, McCloskey is in regular contact with market participants as such market participants are not only well-situated to know the particulars of the market, but have a vested interest in the implementation of accurate and relevant methodologies. When conducting its reviews, McCloskey will consider a myriad of factors, including, but not limited to, activity in the market, visibility of market data and current and anticipated industry usage of the marker.

If the review process recommends a material change to the methodology, or termination of an existing benchmark, the markets editor will submit a proposal to McCloskey Editorial management for review.

### Changes to methodology

If either an internal or external review of a methodology results in a potential material change to the methodology or cessation of a benchmark, McCloskey will begin formal procedures for external consultation. Materiality is subject to professional judgment and takes into account the impact of the proposed change on the decision making of stakeholders. The Methodology Changes and Cessation Policy.

### The market

McCloskey markers assess fixed price physical business for delivery or loading largely over a specified period ['the trade window']. To merit inclusion in the McCloskey assessment process, transactional data and survey responses must meet standard specification guidelines. All international traded prices are assessed in US dollars per metric tonne.

## Transactional data

### Daily markers

McCloskey will emphasize transactional data in the formulation of the markers by giving verified and validated trades and certain prescribed bid/offer information precedence.

This transactional data will normally account for 100% of the index compilation data. When available, evidential bids/offers will account for 25% of the transactional data with volume-weighted trades 75%. When no trade data is available, but evidential bid/offer information is available, the evidential bid/offer will be weighted 100%.

'Evidential' bid/offer data is classified as offers at lower values to the previous day's assessed marker or previous trades on the day, or bids at higher values to the previous day's assessed marker or previous trades on the day.

[For example, if yesterday's marker is \$150/t and today sees a trade at \$145/t, but the best offer seen today is \$148/t; in this case the offer would not be classified as 'evidential']

In the absence of either trades or 'evidential' bids and offers that conform to the above standards, McCloskey will roll over the previous day's marker value.

However, in circumstances when feedback is provided from the market that prices being discussed informally in bilateral negotiations have shifted away from the previous day's marker value, indicative bids and offers will be collected from an equal pooling of verified end users, traders and producers in relation to a specific cargo or quality level and used to inform the index.

The decision to use these inputs will be contingent on an overall coalescence of values by market participants.

## Normalization procedure

For the daily markers, McCloskey will use an in-house mathematical model to evaluate realised price differentials between different known brands of hard coking coal within the separate categories of low-vol, mid-vol and second-tier qualities based on traded prices, market participants' assessments and regression analysis.

The prime low-volatile daily Asian indexes and the prime mid-volatile daily Asian indexes will not be normalised against each other, except in circumstances where there is no transactional data for one of the qualities. In this case a 25% loading will be applied from the other index (formed from transactional data) in conjunction with 75% of the previous day's value, derived from that day's relativity.

Material specifications considered in the model are Coke Strength after Reaction (CSR), Max Fluidity, Volatile Matter, Ash, Sulphur, Total Moisture, Phosphorus, Vitritone and CSN.

All price input data collected by price reporters is submitted to the markets editor for evaluation. Data deemed in line with McCloskey's methodology is then normalized to reflect the relevant marker qualitatively. Once all data has been entered into the calculation tool, matrix weightings are applied - in line with McCloskey's practices.

The relativity table is updated regularly to reflect where certain quality grades are transacting relative to each price marker (with the updates published in Inside Coal).

### Weekly markers

McCloskey assesses certain coal markers on a weekly basis. The prices for physical deals for the McCloskey weekly markers are averaged over the week of investigation on a tonnage weighted basis. Trades and bids and offers accepted are those that represent the most economic standard tonne in the market being

assessed. Where available, bids and offers are tracked over the week and the best bids and offers for each active trading month over the week are arithmetically averaged. Currently the weekly markers do not employ a normalization approach.

In addition to tracking physical business, McCloskey also undertakes a weekly survey of the market. McCloskey enters into a dialogue with most of the survey participants using the information McCloskey has built up in terms of deals done and bid and offer values over the week. Market participants are asked where they see the market in terms of deals done and bid/offer levels through the week and where they would assess the market.

The relative value ascribed to trades, bids and offers (when present) and survey depends on levels of activity across the week regarding the transactions. Judgment will be used to assign weightings to trades, bids/offers and survey depending on how representative each is for any given week.

## Transactions and survey weightings

The use of the survey in determining the weekly markers will vary depending on the level of liquidity and the spread of trades and evidential bids and offers across the two active marker months. In the weekly indexes, mid points of the tight markets for each individual month in the index window are calculated over the week. So the best valid bid for month 1 could be submitted on a Monday and the best valid offer for month 1 could be submitted on a Thursday and if they are \$1 or less they will be counted as a tight market. Consequently these bids/ offers could become inverted depending on market movements, and therefore this would be acceptable even if they were more than \$1 apart.

Under normal circumstances with the weekly markers, if there is at least one trade in each of the two active window months, then the volume

weighted average of the trades will comprise 75% of the marker and the survey 25%, unless there are two tight markets, in which case the survey will comprise 0% and the value of the tight markets 25%. If deals are transacted in only one month of the window, then, typically, the volume weighted average and the survey will comprise 50% each of the marker compilation unless there is at least one tight market, in which case the trade weight will be 50%, the tight market 25% and the survey 25%.

If there are no representative trades in the two month window, but there are two tight markets then the tight markets will consist of 50% of the weightings with the survey consisting of 50%. If there is only 1 tight market then the survey will typically comprise 75% of the marker and the average of the tight market 25%. When there are no trades or tight markets, the survey result will be the sole determinant of the marker.

For weekly indexes, in some circumstances and in discussion with the markets editor, these weightings can be adjusted. In such circumstances a reason for the deviation from standard practices will be recorded.

## Marker timing

### Daily markers

To be included in the marker, trades and bids and offers must be executed between 08:00 and 17:00 Singapore time and verified and/or validated by 18:00 Singapore time each day.

### Weekly markers

The cut off point for trades and survey numbers being accepted for inclusion in the formation of the Asian markers is 18:00, Singapore time, on Friday. The cut off point for trades and survey numbers being accepted for inclusion in the formation of the Atlantic markers is 16:00 US East Coast time on Thursday. Deals done after this time will not be included in the weekly markers compilation.

On days before major holidays the index trade and survey deadlines may be brought forward in line with market participants working schedules. These days are usually over the Christmas/New Year period. Market participants will be informed of any such changes to assessment times.

### Trade window and monthly rollovers

For the daily Asian markers, the active trade window is a rolling period covering loading within the next 10-60 days for FOB trades and delivery in the next 14-74 days for CFR trades.

The weekly Atlantic active window covers two months and starts one month ahead of the current month and rolls over after the close of business on the last working Friday of the month. Where there are cases when that Friday is a UK public holiday, the active window rolls over on the previous working day.

For example, this means that the 2nd November 2015 was the first assessment day for the active window which was made up of December, 2015 and January, 2016.

### Weekly and monthly averages

The daily markers are compiled every working day, except in the case of a Singapore bank holiday. The weekly average of the daily markers are compiled on a Friday or, in the event of a Singapore public holiday being on a Friday, the weekly average of the daily markers are published on the preceding working day.

The monthly average of the weekly Asian markers are compiled from markers published on each and every Friday within the calendar month or, in the event of a Singapore public holiday on the Friday, the weekly markers published on the preceding working day.

The monthly average of the weekly Atlantic markers are compiled on and published on each and every Friday within the calendar month or, in the event of a Singapore public holiday on the Friday, the weekly markers are published on the preceding working day.

## Daily coking coal markers

### MCC1 Australian FOB low-vol PHCC

McCloskey publishes a daily marker assessing the price of high quality low-volatile prime hard coking coal being loaded into vessels at the main East Coast Australian ports. Prices are assessed on a Free on Board (FOB) basis. McCloskey will use its in-house mathematical model to normalize market price data inputs to the specifications shown below:

- CSR: 71 (70 min)
- Volatile Matter [ad]: 20% [21.5% max]
- Max Fluidity: 180 ddpm
- Total moisture [ar]: 10%
- Ash [ad]: 10% [11% max]
- Sulphur [ad]: 0.55% [0.8% max]
- Phosphorus [ad]: 0.05%
- Vitrinite: 65%
- CSN: 9

The minimum cargo size is 25,000t – though smaller parcels of a minimum 12,500t may be considered, if there is a lack of evidential transactional data and the deals are logical and validated.

### MCC2 Australian FOB mid-vol PHCC

McCloskey publishes a daily marker assessing the price of high quality mid-volatile, high fluidity, prime hard coking coal being loaded into vessels at the main East Coast Australian ports. Prices are separately assessed on a Free on Board (FOB) basis. McCloskey will use its in-house mathematical model to normalize market price data inputs to the specifications shown below:

- CSR: 68 (67 min)
- Max fluidity: 1,000 ddpm
- Volatile matter [ad]: 22.5% [21.5%-25%]
- Ash [ad]: 9.5% [11% max]
- Sulphur [ad]: 0.5% [0.8% max]
- Total moisture [ar]: 10%
- Phosphorus [ad]: 0.04%
- Vitrinite: 63%
- CSN: 8.5

The minimum cargo size is 25,000t – though smaller parcels of a minimum 12,500t may be considered, if there is a lack of evidential transactional data and the deals are logical and validated.

### **MCC3 Australian FOB second-tier HCC**

McCloskey publishes a daily Australian “second-tier” hard coking coal FOB marker, which assesses the price of a basket of Australian brands loaded into vessels at the main East Coast Australian ports. McCloskey will use its in-house mathematical model to normalize market price data inputs to the specifications shown below:

- CSR: 62 [min 55]
- Max fluidity: 120 ddpm
- Volatile matter [ad]: 21.5% [19%-28%]
- Ash [ad]: 8% [10% max]
- Sulphur [ad]: 0.4%
- Total moisture [ar]: 11%
- Phosphorus [ad]: 0.07%
- Vitrinite: 50%

The minimum cargo size is 25,000t – though smaller parcels of a minimum 12,500t may be considered, if there is a lack of evidential transactional data and the deals are logical and validated.

### **MCC4 China CFR low-vol PHCC**

McCloskey publishes a daily marker assessing the price of high quality low-volatile hard coking coal being delivered into North China ports. Prices are assessed on a Cost and Freight Rate (CFR) delivery to China. McCloskey will use its in-house mathematical model to normalize market price data inputs to the specifications shown below:

- CSR: 71 [70 min]
- Volatile Matter [ad]: 20% [21.5% max]
- Max fluidity: 180 ddpm
- Total moisture [ar]: 10%
- Ash [ad]: 10% [11% max]
- Sulphur [ad]: 0.55% [0.8% max]
- Phosphorus [ad]: 0.05%
- Vitrinite: 65%

- CSN: 9

The minimum cargo size accepted for inclusion is 50,000 t, though smaller parcels of a minimum 25,000t may be considered, if there is a lack of evidential transactional deals and the deals are logical and validated.

### **MCC5 China CFR mid-vol PHCC**

McCloskey publishes a daily marker assessing the price of high quality mid-volatile, high fluidity, hard coking coal being delivered into North China ports. Prices are assessed on a Cost and Freight Rate (CFR) to China, basis Jingtang. McCloskey will use its in-house mathematical model to normalize market price data inputs to the specifications shown below:

- CSR: 68 [67 min]
- Max fluidity: 1,000 ddpm
- Volatile matter [ad]: 22.5% [21.5%-25%]
- Ash [ad]: 9.5% [11% max]
- Sulphur [ad]: 0.5% [0.8% max]
- Total moisture [ar]: 10%
- Phosphorus [ad]: 0.04%
- Vitrinite: 63%
- CSN: 8.5

The minimum cargo size accepted for inclusion is 50,000 t, though smaller parcels of a minimum 25,000t may be considered, if there is a lack of evidential transactional deals and the deals are logical and validated.

### **MCC6 China CFR second-tier HCC**

McCloskey publishes a daily “second tier” hard coking coal CFR marker, which assesses the price for imported coking coal into North China region, basis Jingtang. The price assesses coal falling within the following specifications:

- CSR: 62 [min 55]
- Max fluidity: 120 ddpm
- Volatile matter [ad]: 21.5% [19%-28%]
- Ash [ad]: 8%; [10% max]
- Sulphur [ad] 0.4%
- Total moisture [ar]: 11%
- Phosphorus [ad]: 0.07%
- Vitrinite: 50%

The minimum cargo size accepted for inclusion is 50,000t, though smaller parcels of a minimum 25,000t may be considered, if there is a lack

evidential transactional deals and the deals are logical and validated.

### Normalising specifications for Daily Asian coking coal marker

Name	Price term	CSR	Max fluidity [ddpm]	Volatile matter [ad]	Ash S [ad]	Sulphur [ad]	Total moisture [ar]	Phosphorus	Vitrinite	CSN	Loading/ delivery
MCC1	FOB	71	180	20%	10%	0.55%	10%	0.05%	65%	9	East Coast Australia
MCC2	FOB	68	1,000	22.5%	9.5%	0.5%	10%	0.04%	63%	8.5	East Coast Australia
MCC3	FOB	62	120	21.5%	8%	0.4%	11%	0.07%	50%	-	East Coast Australia
MCC4	CFR	71	180	20%	10%	0.55%	10%	0.05%	65%	9	Basis Jingtang, China
MCC5	CFR	68	1,000	22.5%	9.5%	0.5%	10%	0.04%	63%	8.5	Basis Jingtang, China
MCC6	CFR	62	120	21.5%	8%	0.4%	11%	0.07%	50%	-	Basis Jingtang, China

Source: McCloskey

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To consider a coking coal as a prime hard coking coal or a hard coking coal for use in index setting it will typically need to meet the following quality specifications below:

### Specification parameters for low-vol PHCC, mid-vol PHCC and second-tier HCC

	CSR	Volatile matter [ad]	Ash [ad]	Sulphur [ad]
Low-vol PHCC	70 min	21.5% max	11% max	0.8% max
Mid-vol PHCC	67 min	21.5%-25%	11% max	0.8% max
Second-tier HCC	55 min	19%-28%	10% max	0.4%

Source: McCloskey

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Consideration will be given to any coking coal product with some specifications that are atypical to the specification parameters, if its price performance or market recognition can be verified as being in line with other coking coal products within the prime hard low-vol, prime hard mid-vol or second-tier groupings.

- Volatile matter [ad]: 33-37%
- Ash [ad]: 8% max
- Sulphur [ad]: 1% max
- Max fluidity: 20,000 ddpm (min)
- Reflectance: > 0.90 mean max

The minimum cargo size is 10,000t.

### MCC8 US East Coast FOB high-vol A

The MCC 8 (FOB) marker is a weekly marker that assesses the US high vol A coking coal export market, basis East Coast ports. This marker reflects the following quality parameters:

- Volatile matter [ad]: 30-33%
- Ash [ad]: 8% max
- Sulphur [ad]: 1% max
- Fluidity: 30,000 ddpm (min)
- Reflectance > 1.03 mean max

The minimum cargo size is 10,000t.

## Weekly coking coal markers

### MCC7 US East Coast FOB high-vol B

The MCC 7 (FOB) marker is a weekly marker that assesses the US high-vol B coking coal export market, basis East Coast ports. This marker reflects the following quality parameters:

McCloskey assesses coals loaded out of the US east coast export terminals of Hampton Roads and Baltimore with the following quality specifications (dry basis):

### **MCC9 US East Coast FOB mid-vol**

The MCC 9 (FOB) is a weekly marker that assesses the US mid vol coking coal market, basis East Coast ports. This marker reflects the following quality parameters:

- Volatile matter (ad): 22-30%
- Ash (ad): 8% max
- Sulphur (ad): 1% max
- Fluidity: 1,500 ddpm (min)
- Reflectance > 1.18 mean max

### **MCC10 US East Coast FOB low -vol**

The MCC 10 (FOB) is a weekly marker that assesses the US low-vol coking coal market, basis East Coast ports. This marker reflects the following quality parameters US low-vol FOB marker will be renamed MCC 10 (FOB) and will reflect the following quality parameter:

- Volatile matter (ad): 16-22%
- Ash (ad): 8% max
- Sulphur (ad): 1% max
- Fluidity: 50 ddpm min
- Reflectance: > 1.40 mean max

The minimum cargo size is 10,000t.

McCloskey normalises the price of these cargoes to reflect logistics or port differentials. In these instances, McCloskey canvasses opinion from market participants to establish a consensus on differentials at the time of each transaction.

### **Australian FOB semi-soft coking coal**

McCloskey publishes a weekly FOB marker assessing the price of Australian semi-soft coking coals being loaded into vessels at the main East Coast Australian ports adhering to the following specifications:

- Fixed Carbon: 51-54%
- CSN: 5-6
- Volatile Matter (ad): 33-35%
- Fluidity: 150-500ddpm
- Total moisture (ar): <9.5%
- Ash (ad): 9-10%
- Sulphur (ad): <0.6%
- Phosphorus (ad): <0.025%

### **Australian FOB low-vol PCI**

McCloskey publishes a weekly marker assessing the price of low-volatile matter PCI being loaded into vessels at the main East Coast Australian ports. Prices are assessed on a Free on Board (FOB).

The marker is defined by the following typical specifications:

- Energy: 7,400 kc GAD (min)
- Volatile Matter (ad): 18% max
- Total Moisture (ar): 10% max
- Ash (ad): 8-10%
- Sulphur (ad): 0.65% max

### **MCC 11 Mongolian Coking Coal #5**

The Mongolian Coking Coal #5 is a weekly marker assessing the price of Mongolian Coking Coal #5 sold from Shaheyi, Tangshan region. Prices are assessed on a Free on Truck (FOT) basis and in RMB currency. The active trade window is a rolling period covering loading within the next 30 days. The minimum cargo size is 5,000 t. The price will be assessed in RMB and an equivalent USD price will be published. The currency conversion used will be Bank of China middle rate on the day of publication [https://www.boc.cn/sourcedb/whpj/enindex\\_1619.html](https://www.boc.cn/sourcedb/whpj/enindex_1619.html). This marker reflects the following quality parameters:

- CSR: 60 min
- Volatile Matter (ad): 25-28%
- Ash (ad): 10.5% max
- Sulphur (ad): 0.7% max
- G index: 80

### **Rizhao FOB coke**

The McCloskey coke FOB Rizhao marker assesses the price of Chinese-produced coke for loading out of the port of Rizhao. The Coke FOB Rizhao price assesses coke with the following quality specifications (dried basis):

- Ash: 12%
- Sulphur: 0.6% max
- M40: 80 min
- CSR: 60>

### **Coke CIF ARA 65/63**

The McCloskey Coke CIF ARA 65/63 marker assesses the price of coke for delivery into the Northwest European ports of Amsterdam, Rotterdam and Antwerp. The minimum cargo size is 10,000 t. The CIF ARA price assesses coke with the following quality specifications (dried basis):

- Ash: 12.5% max
- Sulphur: 0.6% max
- Total Moisture: 5% max
- M40: 80 min
- CSR: 65 typical/63 min

### **Coke FOB Barranquilla 65/63**

The McCloskey Coke FOB Barranquilla 65/63 marker assesses the price of Colombian-produced coke for loading out of the port of Barranquilla. The minimum cargo size is 10,000 t. The Coke FOB Barranquilla 65/63 price assesses coke with the following quality specifications (dried basis):

- Ash: 12.5% max
- Sulphur: 0.75% max
- Total Moisture: 7% max
- M40: 82 min
- CSR: 65 typical/63 min

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