

Argus US Crude Prices Explained

Companies in the US crude market are increasingly using Argus prices in term contracts, spot deals and transfer pricing. The reason for this shift is the wide gap between the Argus assessment method and the method used by the publisher of the traditional benchmark. This document summarizes some of the key elements of the Argus methodology.

The Argus Weighted Average

Argus US crude prices represent the market over the course of the entire trading day. We are committed to confirming every deal, every counterparty, and every volume. Argus seeks to be transparent, so we publish the price and volume of every deal we discover through the course of the trading day (see table).

At the end of the day, Argus produces a volume-weighted average of deals done for 13 different crude markets. Every deal that Argus is able to confirm with volume is included in the Argus Weighted Average.

In order to protect against manipulation, Argus requires that the total volume transacted in a grade be 1,000 b/d or higher on a given day in order to calculate the volume weighted average. When volumes are below this minimum, the average will default to represent the midpoint of the low and high assessments. This minimum prevents small deals from setting the price in an illiquid market.

Although not as active as it once was, the US crude market clearly has enough liquidity to support this method.

DEALS DONE

4 Jan 2007

WTI Cash

Feb	-0.04	893
Feb	-0.04	893
Feb	-0.04	893
Feb	-0.04*	1,786
Feb	0.00*	893
Feb	+0.01*	893
Feb	+0.01*	893
Feb	+0.01*	893
Feb	+0.01	893
Feb	+0.01	893
Feb	+0.01	893
Feb	+0.01	893
Feb	+0.01	893
Feb	+0.01	893

WTI Cash Roll

Feb/Mar	-0.97	893
Feb/Mar	-0.94*	893

WTI CMA (Cal)

Feb	-1.27	3,000
Feb	-1.25*	1,000

WTI CMA (Merc)

Feb	-1.38	1,000
Feb	-1.36	2,000
Feb	-1.35	2,000
Feb	-1.33	2,000
Feb	-1.32	2,000
Feb	-1.30	2,000
Feb	-1.25	1,000
Feb	-1.24	1,000
Feb	-1.23	2,000

WTI CoP P-Plus

Feb	+2.02	500
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WTI Shell P-Plus

Feb	+2.02	500
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WTI Midland

Feb	+0.40	1,000
Feb	+0.40	1,000
Feb	+0.40	1,000
Feb	+0.42	2,000

WTS

Feb	-4.80	1,000
Feb	-4.70*	500
Feb	-4.65	1,000
Feb	-4.60	1,000
Feb	-4.60	1,000
Mar	-4.85	1,000

LLS

Feb	+2.20	7,500
Feb	+2.25	500
Feb	+2.25	1,000
Feb	+2.25	1,000
Feb	+2.25	1,000
Feb	+2.25	1,000
Feb	+2.25	1,000
Feb	+2.25	1,000
Feb	+2.25	2,000
Feb	+2.25	2,000
Feb	+2.25	2,000
Feb	+2.25	10,000
Feb	+2.30	1,000
Mar	+1.95	2,000
Mar	+1.95	2,000
Mar-Jun	+1.75	500

HLS

Feb LLS	+1.05	1,000
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Eugene Island

Feb	-2.00	714
Feb	-2.00	1,000
Feb	-2.00	1,000
Feb	-1.95	1,000

Poseidon

Feb	-6.25	2,000
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Mars

Apr	-6.50	2,000
Apr	-6.50	1,000
Feb	-6.90	1,000

Feb	-6.90	2,000
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Feb	-6.85	1,000
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Feb	-6.85	1,000
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Feb	-6.85	2,000
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Feb	-6.85	2,000
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Feb	-6.85	2,000
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Feb	-6.85	2,000
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Feb	-6.80	1,000
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Feb	-6.80	3,000
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Feb	48.71*	893
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Mar	-7.30	2,000
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Mar	-7.20	2,000
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Mar	-7.20	2,000
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Mar	-7.10	1,000
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Mar	-7.10	2,000
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Mar	-7.10	2,000
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*HoustonStreet

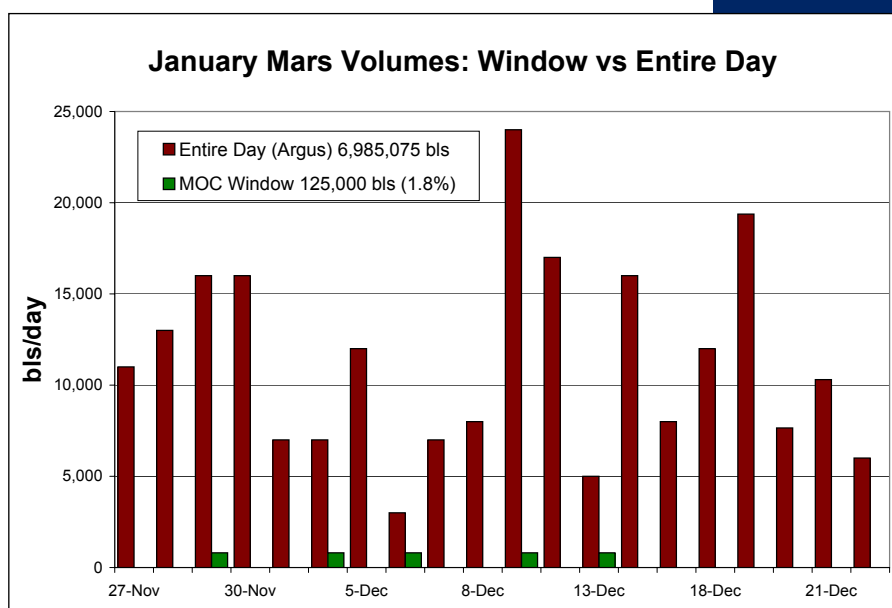
The Narrow Window Concept

In contrast, the competing methodology assesses crude in a narrow window ending at 2:15pm CST, known as the market-on-close or MOC. The volumes transacting in the window for Mars crude have been only a fraction of the total since its launch in 2005. During the December 2006 trade month, only 75,000 bbls of Mars traded in the window, less than 1% of the total of 9.1 mn bbls traded. During the January 2007 trade month, less than 2% traded in the window. In spite of this clear lack of support from industry, this window methodology was expanded to all US and Latin crude on 3 January 2007.

The industry is opposed to the concept of narrow pricing windows for a variety of reasons. Windows exclude many legitimate companies dealing in physical oil that cannot channel their business into that narrow zone. The window is also an inadequate means of assessing illiquid markets. Crude trades at a differential to WTI throughout the day, and industry appears content to use WTI to lay off fixed price risk.

The Argus Alternative

Due to the vast difference in methodologies, numerous US producers and refiners are regularly closing deals on an Argus Weighted Average basis. Grades that have traded on an Argus basis include Mars, LLS, HLS, Eugene Island, WTI P-Plus, WTI Midland, WTS, Poseidon, Bonito and Southern Green Canyon. Even the US MMS regularly tenders and sells crude on an Argus basis.



Argus Weighted Average

January Trade Month while prompt

	Wtd Avg Diff	Wtd Avg Price	Volume (b/d)
WTI P-Plus	+1.983		102,201
WTI Diff to CMA	-1.316		377,839
WTI Midland	+0.358	62.559	122,201
LLS	+2.763	64.963	358,139
HLS	+1.536	63.739	63,611
Eugene Island	-1.277	60.924	48,605
Bonito	-0.654	61.547	20,800
Mars	-6.349	55.852	294,785
Poseidon	-6.219	55.982	90,295
SGC	-5.935	56.266	18,200
WTS	-4.541	57.660	188,871
Total Volume			1,685,547

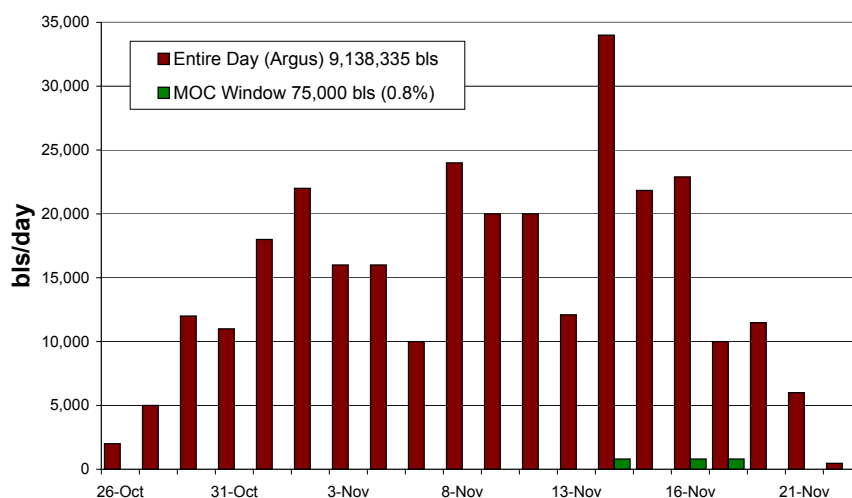
Who is Argus?

Argus has assessed crude prices since 1970, and has over 200 staff in offices in Houston, Washington, London, Moscow, Singapore, Beijing, Dubai, and Tokyo. Argus also publishes market prices in refined products, NGL's, coal, gas, power, and emissions.

Argus prices are used extensively to price term, spot, and swap business worldwide. In addition to US domestic crude, other markets using Argus include North Sea crude, Latin American crude, US fuel oil, European gasoline, European and Asian LPG, and many others.

Argus publishes the daily *Argus Americas Crude* and *Argus Crude* reports. We also have an extensive price and deal database, and distribute our reports and price data through numerous vendors as well as direct from Argus. Samples and trials of our products are available.

December Mars Volumes: Window vs Entire Day



Argus publishes its complete methodology for pricing online at www.argusmediagroup.com. This document explains how we arrive at our prices and all the volume, location, and quality assumptions behind the prices. You are also welcome to contact our staff and arrange a visit so we can explain the methodology as it applies to your particular business.

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