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**Argus Media Comments to the Federal Trade Commission
On Market Manipulation Rulemaking PO82900
November 18, 2008**

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Executive summary

As one of the leading independent energy pricing services, Argus supports measures to deter unfair business practices. Manipulation of energy markets poses a grave threat to critical elements of the US economy as well as consumers. The establishment of thoughtful and robust checks to ensure transparent and fair markets is clearly appropriate.

In particular, Argus supports the following statements, as set out in the FTC's notice of proposed rulemaking:

- *"... the Commission intends to prohibit manipulative and deceptive conduct without discouraging pro-competitive or otherwise desirable market practices."*
- *"Fraudulent behavior interferes with market signals, reduces transparency in the market, and casts into doubt the very information that allows markets to function properly."*

However, care must be taken to ensure that the pursuit of these goals does not hinder the flow of information that is vital to the efficient and transparent operation of the oil markets. There is a danger of damage to the proper functioning of the oil markets if market participants are concerned that the information they share with price reporting agencies in good faith could be misinterpreted as an attempt to manipulate the markets or otherwise falsely report their trades.

The price reporting agencies are vital to transparency of the oil markets. Argus and other price reporting agencies collect transactional and other data from market participants on a daily basis. Once this information has been verified and tested, Argus publishes price assessments (*see glossary*) derived from this information, as well as analyses and in many cases, the data used to calculate the assessments. These assessments provide the only independent means for evaluating the fair value of a wide range of crude oils and refined products.

The prices are used by the oil industry as the basis for most pricing of crude oil and refined products at all levels, including wholesale and retail markets. By providing unbiased, arms-length assessments of market prices, Argus and other price reporting agencies are a crucial check on the markets and ensure that consumers are not the victims of market manipulation.

Without a free flow of information to pricing services, US oil markets would become more opaque, less efficient and more susceptible to the very abuses the rule seeks to address. Participants would have no way to reliably identify prices for hundreds of grades of crude and products. Poorly functioning markets will act against the interests of the very consumers this law is designed to protect.

To encourage free communication between the industry and price reporting agencies, and liquid, transparent spot markets, Argus considers that any rule must incorporate the following four concepts:

1. The adoption of a specific intent standard instead of a recklessness standard, to help prevent over-cautious interpretation of what types of behavior amount to misconduct, leading to a complete breakdown of market information flows.
2. In any event, the FTC must outline clearly what level of misconduct would be required to prove that erroneous reporting of prices by a company or an individual would amount to manipulation or false reporting.
3. The creation of a safe harbor for companies that contribute data to price reporting agencies, as FERC has done in natural gas markets.
4. Any safe harbor should be broad enough to encompass a variety of price reporting methodologies. The FTC should be wary of favoring any one methodology above another in the interests of competition, which would protect the interests of the consumer.

Where Argus is used

Almost everywhere that an active spot market (*see glossary*) exists in an energy commodity throughout the world, Argus produces price assessments.

Most energy markets are opaque to a great or lesser extent, making price discovery a challenging task. Argus has almost 40 years' experience of employing a variety of methodologies to determine a price that best reflects an industry consensus of market value.

Argus clients include every major US oil company plus most smaller ones, and financial and governmental institutions.

We assess prices in most traded energy markets throughout the world, ranging from crude oil and oil products, through to coal, natural gas, power and emissions.

Argus has produced price indices and assessments for US crude oil and refined products since 1982. Argus is told by major oil companies and independent parties such as brokers that a significant portion of US domestic crude oil is priced using Argus indices and assessments. Argus also has a growing share of the contracts that use published price assessments for refined oil products in the US.

Markets covered by Argus

	Americas	Europe/ Africa	Former Soviet Union	Asia/ Middle East
Crude oil	X	X	X	X
Oil products	X	X	X	X
Natural gas liquids	X	X	X	X
Asphalt	X	X	X	X
Petroleum coke	X	X	X	x
Natural gas	X	X	-	-
Coal	X	X	X	X
Electricity	-	X	-	-
Emissions	X	X	-	X
Freight	X	X	X	X

Spot market prices

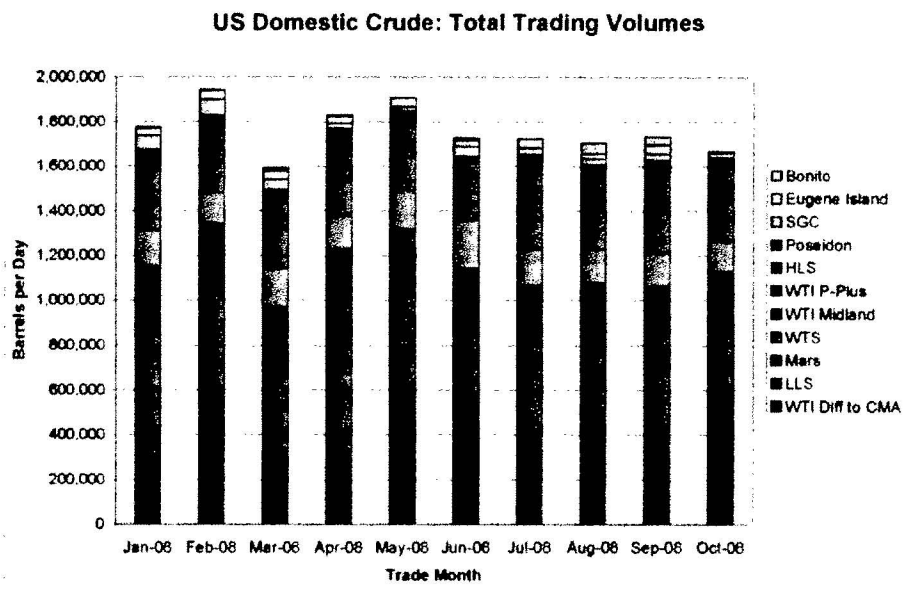
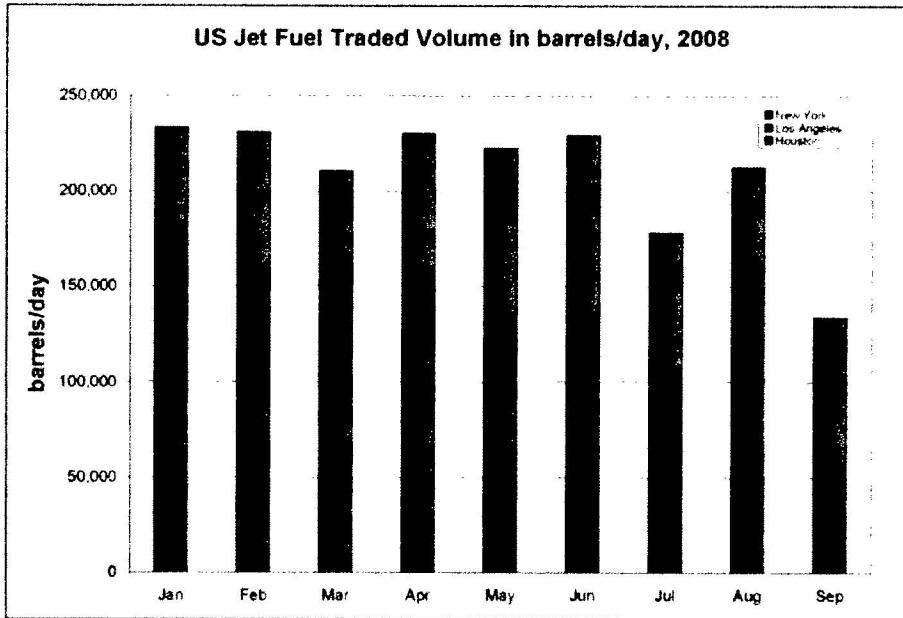
If the flow of information is free and unfettered, markets will respond to price signals and move oil from regions of surplus to those of deficit, or store oil in times of plenty in expectation of shortage ahead. These decisions will be taken because price provides the necessary economic indicator.

The efficient operation of free markets is the best way to protect the interests of American consumers. So when gasoline prices are high in the US, markets can find cheaper sources in regions like Europe or Latin America and import it until such a time as prices start to ease. Equally, markets can allocate resources around the US, so cold weather in the northeast may draw heating oil away from the Gulf Coast.

The prices that provide those economic signals are assembled by the price reporting agencies, not by the futures exchanges or by any other part of the oil trading complex. That is why it is vital that the free flow of information to price reporting agencies is not jeopardized in any way.

The prices reported by Argus reflect values obtained from the spot, or "cash", market. The spot market is where excess physical supply and demand are balanced. Buyers that have excess supply sell on the open market to buyers which have a shortfall of physical oil. The prompt (*see glossary*) nature of delivery in spot market trading enables it to best reflect the near-term value of oil.

But the spot market represents just the "tip of the iceberg" in oil trading. For example, the spot market trade for jet fuel represents about 15% of the total demand for jet fuel in the US (*see US jet fuel traded volumes chart, p7*). Turnover in the spot market for US domestic crude represents just one third of domestic output of 5mn b/d in the lower 48 states (*see US domestic crude: total trading volumes chart, p7*).



The rest of the trading “iceberg” comprises of a network of long-term contracts, “rack” or wholesale sales, and oil exchange agreements. All of these transactions typically reference spot market prices. (One exception is the racks market (*see glossary*) which often still uses a system of posted prices).

In addition to these cash markets for physical oil, there also exist derivatives markets that are used to hedge risk and facilitate physical oil trading. Derivative contracts frequently use spot market indices to settle against or “cash out”. This makes effective price discovery (*see glossary*) in the spot markets crucial for the effective functioning of the wider market. The spot market is considerably smaller than the derivatives markets, with less liquidity and less transparency. For example, the spot market for physical domestic crude at around 1.7 million barrels per day (*see glossary*) is dwarfed by the size of the crude oil futures market, where hundreds of millions of barrels are traded each day.

Cash oil markets are fundamentally different from financial markets. Physical oil markets are constrained by infrastructure. Pipeline and storage and production capacity cannot always fluctuate to meet supply and demand. An analogue to this constraint does not exist in financial markets.

The physical oil markets are also dissimilar because participants always have different information than their counterparties because they know their own production systems. And large companies by virtue of their scale will have a better range of information available to them. A contraction in the free flow of information in the oil markets will therefore have a disproportionate effect on smaller, marginal players and affect large companies less.

The cash market for oil also has little in common with other physical types of energy, such as gas and power. Gas and electricity are single homogenous commodities, with price varying according only to location and timing of delivery.

Oil markets on the other hand are fragmented and fragile. Not every refinery can distill every type of crude that is available to it because of the specific chemical composition of different grades of crude. There are many different types of oil product ranging from asphalt to light ends like propane. Many of these products are not highly fungible: gasoline specifications vary from state to state and between urban and rural regions, meaning that the same gallon of gasoline can not be sold everywhere.

It is precisely in these fragmented regionalized markets that Argus and others play such an important role in determining a transparent price. And it is in markets like this that an information drought will leave buyers and sellers with no point of reference on price.

How price assessments are used by the oil industry and others

The underlying trend in oil prices is indicated by futures contracts (*see glossary*) that trade on Nymex. These include three highly liquid benchmark (*see glossary*) contracts – crude oil, heating oil and gasoline.

It should be noted that most crude oil and refined products trade at differential prices (*see glossary*) to these benchmarks, also known as premiums and/or discounts. This is because the prices of Nymex futures contracts – while liquid and transparent – are not representative of all grades of crude or all specifications of refined products. Different grades of crude and refined products vary widely from the benchmark contracts to which they are linked on the Nymex. This is due to many factors including location, quality, transportation costs and local market conditions.

Argus gathers these differentials for transactions done in the spot market and applies those values to a benchmark futures price to arrive at a final value. So, for example, the Nymex futures contract for West Texas Intermediate crude forms the benchmark for all inland crude oil pricing in North America. All other US crudes are priced at differentials to this contract.

For example, a sour crude (*see glossary*) grade such as Mars usually trades at a discount to the value of the light sweet crude (*see glossary*) Nymex WTI contract. Argus ascertains and publishes this price discount and uses it to assess the outright value of Mars crude. The Nymex settlement price for December WTI on November 14 2008 was \$57.04 per barrel. Argus price discovery revealed that Mars crude traded on the same day at Nymex December WTI minus \$6.375 per barrel. This is called Argus Mars. So the value of Mars on November 14 2008 was Nymex December WTI plus Argus Mars, or $\$57.04 - \$6.375 = \$50.665$ per barrel.

It is Argus' ability to ascertain the value of hundreds of different types of oil every day that makes the information we publish so valuable to the oil industry and related organizations.

In contrast to the three benchmark oil market contracts produced by Nymex, and the undoubted transparency they provide, Argus assesses daily prices for around 300 types of crude oil globally, and some 300 types of oil product in the US alone. This provides the industry with vital intelligence on the value of the entire spectrum of crude and oil products trading in the US market.

The proposed rule, if implemented i) so as to deny market participants and price reporting services a safe harbor and ii) without adopting a specific intent to deceive standard, will bring about a sharp reduction in the submission of pricing information by companies to price reporting agencies like Argus. This will greatly reduce the quality of published price information available and will in turn affect

detrimentally the operations of oil companies, financial trading in oil and indeed of government regulation and taxation of the oil industry.

Energy companies, financial institutions and government agencies make extensive use of Argus prices for indexation (benchmarking) purposes throughout the oil supply chain. The following are examples – not exhaustive – of how Argus prices are used:

- Spot (or “cash”) market contracts – one-time, short-term contracts to buy/sell a specified bulk quantity of oil
- Long-term (or “term”, see glossary) supply contracts – contracts for the supply of a given bulk quantity of oil over a period of time ranging from several months to several years
- Wholesale (“racks”) contracts – Smaller volumes of product sold short or long term to distributors and retailers at prices frequently linked to the spot markets
- Exchange agreements – an arrangement to exchange product in one location for product at another, for example gasoline in Chicago for a different grade of gasoline in Louisiana
- Internal transfer pricing at a company – the value apportioned to oil that is transferred from one part of an oil company to another, for example the transfer of crude oil from Exploration & Production to Refining & Marketing
- Internal performance evaluation – The remuneration of oil traders and other personnel within an oil company is often linked to prices published by price reporting agencies
- Mark to Market and Value at Risk monitoring and analysis – Companies need to value their assets and liabilities on a daily basis. Detailed information that prices specific grades of crude and refined products in particular locations is essential for this purpose
- Settlement of derivative contracts – Many swaps and futures contracts are settled against a spot market index (*see glossary*). The holder of the swaps or futures contract gains or loses money based on the difference between the strike price of the contract and spot market index for a specified period. For example, the Nymex lists a number of swaps that it settles using Argus prices.
- Refinery margin planning and run rates – Refineries use the detailed price information of agencies like Argus to help plan the volume and variety of oil products they should produce.
- Quality banks (*see glossary*), where different crude oils with different values are blended into a single stream – for example the Poseidon quality bank in Louisiana, which aggregates offshore Gulf of Mexico production, uses Argus prices to determine compensation levels for the various companies whose oil is delivered to the facility.
- Taxation – governments reference price indices for a wide variety of taxes including production, excise and export taxes

- Sale of government royalty oil – The US MMS for example uses Argus prices as indices for the sale of crude oil remitted as royalties
- Analysis – oil companies, financial institutions and government organizations like the US Strategic Petroleum Reserve use Argus prices for a wide range of planning and analysis purposes

How Argus assesses oil prices

Argus produces and adheres to strict methodologies for pricing energy. These methodologies vary depending on the characteristics of the market in question, as well as on the opinions of market participants. But they are always detailed and transparent. Current *Argus* methodologies are available to download from www.argusmediagroup.com/methodology and define the parameters of each assessment: technical specifications, location, timing/delivery and volume.

Argus reduces the possibility of price report manipulation, or unintended distortion, by applying intelligent interpretation to the information it receives. And we reserve the right to exclude information we cannot verify or which does not appear to be in accordance with trade in the rest of the market. We are well placed to do this because the significant volume of trading information we gather helps us to identify and exclude errors or rogue data.

If we take the case of crude oil as an example, Argus employs two broad methodological approaches to derive a price:

- intelligent interpretation – based on bids, offers, and transactional information – which is used in the less liquid seaborne cargo markets
- volume-weighted averages of deals done – which is used in the highly liquid pipeline markets.

We gather information from a wide range of sources representing all segments of the market, including but not limited to crude oil producers, trading companies, refiners and brokers.

Argus receives its information on the crude oil markets each day from multiple sources, including transactional data supplied from the back offices (*see glossary*) of major refiners – especially since the implementation of Sarbanes-Oxley compliance procedures – as well as market surveys conducted over the telephone, instant message and email exchanges.

The market surveys seek to be balanced in their approach by obtaining information from buyers and sellers. They are conducted by well-trained specialists who are part of a dedicated team responsible for oil pricing. Many counterparties and brokers send us lists of transactions, complete with counterparty information, volume and timing.

Brokers play an important role in transferring information to the price reporting services, usually at the request of their clients. Argus asks the FTC to do nothing that will impede the supply of information from brokers. It should be noted that brokers in the spot, or cash, oil market do not take positions on their own behalf (unlike in the financial market where this is common practice). The broker in spot

oil markets simply puts a buyer and seller together and takes a fee for doing so. Most of the physical broking in the oil market is still done over the telephone and using instant messaging.

The information we gather is analyzed, verified, and archived in databases. The approach is methodical, standardized and tested against the views of other market participants.

The crude oil trading community in the US has supported Argus' volume-weighted pricing method – which takes account of deals done through the entire day – by reporting large volumes of trade to us every day. Eight of the top ten market participants submit transactional data to us, and the other two have instructed brokers to do so on their behalf. Argus estimates that about 95% of all transactions in the pipeline crude oil spot markets are reported to Argus.

Without price reporting agencies such as Argus, companies would only be aware of transactions in which they were involved. Argus adds transparency to the market by aggregating all transactions and arriving at single volume weighted prices for the day.

In the interests of transparency, these transactions are published – with counterparty names removed – each day in *Argus Americas Crude* (See table, appendix 2). This enables subscribers to audit the index themselves and to raise any concerns they may have in a timely manner.

The information flow from companies to Argus is voluntary and robust. As discussed above, this information is gathered from multiple sources. The information is then checked, verified and analyzed using long-standing expertise and according to a transparent methodology. The volume and spread of information received allows us to publish reliable and accurate price information that is available to market participants and allows the oil market to function effectively.

Argus' concerns about Market Manipulation Rulemaking by the FTC

Argus notes that the FTC's Notice of Proposed Rulemaking (NPRM) would prohibit "the reporting of false or misleading information to government agencies, to third-party reporting services" and adds that "the reporting of false or misleading information to private data reporting services may have an impact on market prices and supply decisions."

While we applaud the sentiment of prohibiting false reporting, Argus has rigorous policies in place designed to prevent false prices from influencing our assessments and indices. In addition, requirements of the Sarbanes-Oxley Act have encouraged firms to report more transactional data from a back office environment, far from the traders who may be incentivized to communicate false information with the intent to distort the index price. Sarbanes-Oxley has had a beneficial effect by raising both the quality and quantity of transactions reported to the index developers.

Our greatest concern is that the rule will harm market transparency, which will damage not only those that work in the oil markets but ultimately consumers, who will end up paying the price of opacity.

From conversations we have had with market participants and their legal advisors, we are already aware of a mounting concern regarding the possible ways in which the FTC rule might be implemented. If the rule does not incorporate a standard of specific intent to deceive as opposed to a standard of recklessness (the latter carrying a risk of liability for inadvertent error), companies trading in the oil markets will consider the risk of liability as a result of communicating with price reporting services to be simply too great. This is not merely speculation on our part. We are already receiving feedback that the level of communication we have previously enjoyed with market participants could be in serious jeopardy if a draconian rule is imposed. In short, market participants fear the prospect of prosecution for market manipulation over an inadvertently erroneous data point and that fear will outweigh their support for the price reporting agencies.

The consequences of such an event would be far reaching. The lack of transactional information on cash market trades would lead to distorted prices, and spreads between types of crudes and regions would be inaccurate. Companies would be unable to make accurate economic decisions based on the reporting agency data. They would then find themselves trading at values that are uneconomic, find their refineries running at negative margins when they should be positive, and make mistaken production decisions that could radically affect supply and prices, to the detriment of consumers. The contract trade part of the "iceberg" would be indexed to these distorted prices and market participants would have no way of correcting the situation.

Such a result would be counterproductive because the goal of the FTC's efforts is to eliminate distortion of market prices. The distortion of the market price caused by a lack of information would almost certainly be worse because it would be more widespread than the distortion of the market price caused by an intended manipulation. It is easier to spot manipulation in the market if the flow of information is allowed to continue.

In addition, should the FTC wish to require a price effect to prove a manipulation has occurred, it would be unable to do so effectively without accurate prices from agencies such as Argus.

Furthermore, a drying up of market information will strengthen the few companies that have access to good information, which tend to be the larger ones. The work of price reporting agencies levels the informational playing field.

These fears are well-founded. We observed how in the natural gas markets of late 2002 and 2003, companies stopped reporting transactions following a series of high profile investigations centered on allegations of false reporting to price reporting agencies. And it was no coincidence that liquidity itself contracted, only recovering after FERC provided data contributors with a "safe harbor" in November 2003.

In order to avoid a strongly negative effect on the supply of information to price reporting agencies, we respectfully request the FTC consider the introduction of a "safe harbor" for the submission of oil market pricing data, similar to that introduced by FERC in the gas and power markets in November 2003. The safe harbor should contain an assumption that data provided to price reporting agencies is submitted in good faith and that inadvertent errors will not result in penalty or prosecution.

But the FTC should avoid following FERC's example in prescribing an approved price index methodology. Different agencies employ a variety of methodologies in the petroleum markets. Methodologies require constant updating in response to new developments. Choice is important and benefits consumers. It is better and more conducive to a pro-competitive environment to let the market decide which methodology it prefers, than to have one imposed by a regulator. Ultimately, the market is in the best position to determine where the most reliable and transparent published information comes from.

Argus also requests that the FTC outline clearly what level of misconduct would be required to prove that erroneous reporting of prices by a company or an individual amounts to manipulation. We believe that many of the industry's current concerns about the forthcoming rule could be allayed if a scienter standard of "specific intent" rather than one of "recklessness" were adopted.

Conclusions

Argus urges the FTC to consider the importance of the effective functioning of the oil market to the interests of consumers. Argus therefore supports any proposed rule on manipulation that incorporates a well-defined standard of specific intent to deceive, and a safe harbor for communication between oil market participants and price reporting agencies. Such provisions will have the following effects:

1. To maintain transparency in the oil market by ensuring that the rule does not discourage the continued publishing of accurate price information for a multitude of crude oil, gasoline and distillate grades;
2. To ensure the continued free flow of oil market information, which is essential in allowing the market to function properly. The definition of the level of intent in market manipulation should prohibit manipulation, but without being so vague that companies stop providing information that is crucial in enabling oil markets to work; and
3. To enable pro-competitive market practices to flourish in the oil industry by providing reliable price signals and safeguards for the communication of information between the oil industry and price reporting agencies.

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Appendix 1: About Argus Media

Argus Media is a leading independent provider of price information, market data and business intelligence for the global petroleum, natural gas, electricity, emissions and coal industries.

Argus is incorporated in the US as Argus Media Inc., a Delaware corporation, which is a wholly owned subsidiary of Argus Media Ltd. established in 1970.

Argus has 250 employees worldwide. Our headquarters is in London, with major offices in Washington, Houston, New York, Moscow, Singapore, Tokyo and Beijing.

Argus is owned by its employees and by the family of its founder. There are no external shareholders. Argus is solely a publishing enterprise and all revenue comes from subscriptions and sales of proprietary pricing data.

Argus staff adhere to a strict ethics policy that forbids them from dealing in energy and commodities or in the stock of energy or commodities companies.

Appendix 2: Argus Americas Crude (extract)

Argus Americas Crude

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Monday 17 November 2008

Americas Crude Deals Done							S/D
Grade	Location	Trade month	Basis month	Differential basis	Differential	Volume (bbl)	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.80	1,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.79	1,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.79	1,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.79	1,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.77	1,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.77	1,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	-0.77	1,152	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.76	1,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	-0.75	1,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.75	1,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.75	1,500	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.75	4,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.75	5,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.75	15,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.74	1,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	-0.74	1,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.74	10,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.73	1,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.73	1,000	
WTI	Cushing Oklahoma	Dec	Dec	CMA Nymex Trade Days	0.72	1,800	
WTI	Cushing Oklahoma	Dec	Dec	ConocoPhillips Posting	+2.58	500	
WTI	Cushing Oklahoma	Dec	Dec	ConocoPhillips Posting	+2.50	1,000	
WTI	Cushing Oklahoma	Dec	Dec	ConocoPhillips Posting	+2.50	1,000	
WTI	Cushing Oklahoma	Dec	Dec	ConocoPhillips Posting	+2.50	2,100	
WTI	Cushing Oklahoma	Dec	Dec	ConocoPhillips Posting	+2.00	4,000	
WTI	Cushing Oklahoma	Dec	Dec	ConocoPhillips Posting	+2.67	2,725	
WTI	Midland Texas	Dec	Dec	WTI	1.00	1,000	
WTI	Midland Texas	Dec	Dec	WTI	3.90	1,000	
WTI	Midland Texas	Dec	Dec	WTI	0.90	1,000	
HLS	Empire Louisiana	Dec	Dec	ConocoPhillips Posting	0.70	500	
HLS	Empire Louisiana	Dec	Dec	WTI	3.25	500	
HLS	Empire Louisiana	Dec	Dec	WTI	3.25	1,000	
HLS	Empire Louisiana	Dec	Dec	WTI	3.25	1,500	
LLS	St James Louisiana	Dec	Jan	LLS	0.00	1,000	
LLS	St James Louisiana	Dec	Jan	LLS	0.15	1,000	
LLS	St James Louisiana	Dec	Jan	LLS	0.15	1,000	
LLS	St James Louisiana	Dec	Dec	WTI	0.85	2,000	
LLS	St James Louisiana	Dec	Dec	WTI	0.90	1,000	
LLS	St James Louisiana	Dec	Dec	WTI	0.75	500	
LLS	St James Louisiana	Dec	Dec	WTI	0.75	500	
LLS	St James Louisiana	Dec	Dec	WTI	0.75	1,000	
LLS	St James Louisiana	Dec	Dec	WTI	0.75	1,000	
LLS	St James Louisiana	Dec	Dec	WTI	0.75	1,000	
LLS	St James Louisiana	Dec	Dec	WTI	0.75	1,000	
LLS	St James Louisiana	Dec	Dec	WTI	0.75	1,000	
LLS	St James Louisiana	Dec	Dec	WTI	0.75	1,000	
LLS	St James Louisiana	Dec	Dec	WTI	-0.60	500	

Americas Crude Deals Done (Continued)							\$/bl
Grade	Location	Trade month	Basis month	Differential basis	Differential	Volume (bbl)	
LLC	St James Louisiana	10	10	WTI	0.35	1,000	
LLC	St James Louisiana	Jan	Jan	WTI	-0.70	1,000	
LLC	St James Louisiana	Jan	Jan	WTI	-0.60	960	
LLC	St James Louisiana	Jan	Jan	WTI	-0.60	1,000	
Mars	Clovelly Louisiana	Dec	Dec	WTI	-7.00	1,000	
Mars	Clovelly Louisiana	Dec	Dec	WTI	-7.00	1,000	
Mars	Clovelly Louisiana	Dec	Dec	WTI	-7.00	1,000	
Mars	Clovelly Louisiana	Dec	Dec	WTI	-7.00	2,000	
Mars	Clovelly Louisiana	Dec	Dec	WTI	-8.00	1,000	
Mars	Clovelly Louisiana	Dec	Dec	WTI	-6.75	1,000	
Mars	Clovelly Louisiana	Dec	Dec	WTI	-6.75	2,000	
Mars	Clovelly Louisiana	Dec	Dec	WTI	-6.60	6,000	
Mars	Clovelly Louisiana	10	10	WTI	-6.60	1,000	
Mars	Clovelly Louisiana	Jan	Jan	WTI	-7.10	2,000	
Poseidon	Houma Louisiana	Dec	Dec	WTI	-7.35	2,000	
Poseidon	Houma Louisiana	Dec	Dec	WTI	-7.20	1,000	
Poseidon	Houma Louisiana	Dec	Dec	WTI	-7.35	2,000	
Southern Green Canyon	Nederland Texas	Dec	Dec	WTI	8.00	1,000	
Thunder Horse	Clovelly Louisiana	Dec	Dec	WTI	-4.50	1,000	
WTG	Midland Texas	Dec	Dec	WTI	-5.50	1,500	
WTG	Midland Texas	Dec	Dec	WTI	-6.50	1,000	
WTG	Midland Texas	Dec	Dec	WTI	-6.50	1,000	
WTG	Midland Texas	Dec	Dec	WTI	-6.50	1,000	
WTG	Midland Texas	Dec	Dec	WTI	-6.50	1,000	
WTG	Midland Texas	Dec	Dec	WTI	-6.50	1,000	
WTG	Midland Texas	Dec	Dec	WTI	-6.50	1,300	
WTG	Midland Texas	Dec	Dec	WTI	-6.50	2,000	
WTG	Midland Texas	Dec	Dec	WTI	-6.50	2,400	
WTG	Midland Texas	Dec	Dec	WTI	-6.50	3,000	
WTG	Midland Texas	Dec	Dec	WTI	-6.40	1,000	
WTG	Midland Texas	Dec	Jan	WTG	-0.60	2,000	



Appendix 3: Glossary

Assessment • The value for a commodity in the *spot market*, as Argus provides for various types of crude oil, refined product or LPGs traded in the US and other major market centers. Such assessments typically serve as an *index* which contracts may refer to for pricing purposes.

Back office • The portion of a company that handles verification of trades and accounting functions related to trades.

Barrels per day • The barrel is the standard measure of volume for crude oil, equivalent to 42 US gallons. Barrels per day is the standard measure of oil flows.

Benchmark • A highly liquid and commoditized product that serves as the starting point for discussions of spot values for related products. A *differential price* is added to the benchmark to account for factors such as differing qualities or locations. In the western hemisphere, West Texas Intermediate (WTI) is the standard benchmark for multiple individual crude streams. The Nymex *futures contracts* for gasoline and heating oil are the usual benchmarks for gasoline, heating oil and some other refined products traded in the Americas.

Differential price • The value of crude or product, expressed as a premium or a discount to the price of the *benchmark*. The differential is meant to take account of quality, timing or location factors that are different when compared to the benchmark. Assessing the value of these differentials each day is one of the most important ways that *Argus* contributes to overall market transparency, allowing for price signals that encourage the flow of oil between regions of surplus to regions of deficit.

Cash market • See *spot market (below)*

Downstream • The portion of industry that deals with the refining of crude oil or the processing of natural gas. Retail marketing functions to consumers, like gasoline stations, are also included in the downstream.

Flat price • The outright price of crude or refined product. In the crude market this is generally expressed as dollars per barrel, while in the products market it is usually cents or dollars per US gallon.

Front office • The portion of a company that handles trading activities directly. Oil traders constitute the front office.

Futures contract • A financial instrument that allows for the trade of a commodity now, but for a time of delivery months or years forward. Nymex light

sweet crude oil, gasoline and heating oil are the core futures contracts in the US, and serve as the *benchmarks* for most US spot oil activity.

Index • In a contract, the price that two parties agree to use as the basis for valuing the product being traded.

Midstream • The portion of industry that deals with the gathering and transportation of supply from the *upstream* to the *downstream*.

Price discovery • Independently ascertaining the price of a commodity through obtaining a wide spread of information from as many participants as possible in a market that is otherwise opaque, and then publishing this price so that it may be used by the whole of the market.

Price reporting agency • A company that specializes in independent valuation of a commodity, as priced in the over-the-counter spot market where visibility and transparency are often more problematic. Some of the major price reporting agencies in crude oil, refined products and LPG are *Argus*, *Platts* and *Opis*.

Prompt • In physical petroleum markets, the timeframe that refers to loading or delivery within the next few days, typically within the next 5-10 days. In futures markets, "prompt" may also refer to the first-month contract currently being traded.

Quality bank • A mechanism that compensates individual contributors to a blended stream for the lower or higher worth of their components, compared to the value of the final blend. Crude oil pipelines picking up oil from multiple fields will use quality banks to pay shippers of higher-quality components at the expense of shippers who are contributing lower-quality components. Quality banks frequently use independent spot prices to establish the value of the individual components in the final blend.

Racks • The wholesale sales locations for refined products, usually handled by a company's marketing department, for loading into trucks which then distribute products to retail locations or consumers. Prices may be derived from an average of other posted rack prices, or from spot-related prices such as those provided by *Argus*.

Sour crude/product • A classification that denotes crude oil or refined product that is relatively high in sulphur content.

Spot market • The market where companies sell excess supply, or buy to cover a shortfall of product. This market allows industry to quickly reallocate volumes that are not committed to *term contracts* or to internal use further *downstream*. The spot market also allows quick and efficient reallocation of product in the midst of unforeseen circumstances with an immediate impact on company

operations. In economic terms, the spot market allows for trade of the marginal unit of *prompt* product, which in turn sets pricing across the wider sphere.

Sweet crude/product • A classification that denotes crude oil or refined product that is relatively low in sulphur content.

Term contract • A long-running arrangement for the sale or purchase of crude oil or products. Such arrangements typically run from a few months to several years. Usually sold by the supply and trading department and representing a large, set volume of oil per day or per month. Most of these contracts are linked to independent spot market assessments such as those provided by *Argus*. Also known as a term deal.

Upstream • The portion of industry that deals with exploration for and production of crude oil or natural gas.

Volume-weighted average • A pricing mechanism in which trades for small volumes of product count proportionally less into the final *index* price, while trades for larger amounts count for more. The *Argus* volume-weighted averages for crude oil are used by much of industry to value contracts for domestic crudes at the US Gulf coast.