

# **OILGRAM PRICE REPORT**

Volume 99 / Number 41 / March 3, 2021 / Prices effective March 2, 2021

### CERAWEEK: Permian Basin oil growth may hinge on ExxonMobil, Chevron activity: Sheffield

- Basin capable of 200,000 b/d growth for some years
- Pioneer, with Parsley add, now has 20 rigs in basin
- Majors greatly reduced Permian rigs in past year

Houston—A return to oil production growth in the Permian Basin during the next few years will largely depend on how the major oil producers there, particularly Chevron and ExxonMobil, pace their activity in the West Texas and southeast New Mexico play, Pioneer Natural Resources CEO Scott Sheffield said March 2.

The basin's oil production is capable of growing 5%, or 200,000 b/d, per year, said Sheffield in a panel discussion at the CERAWeek by IHS Markit energy conference.

"It can do that for several years," Sheffield said. "A big factor is what majors like ExxonMobil and Chevron do."

The Permian Basin, the largest oil reservoir in the US, currently produces around 4.18 million b/d and about 12 Bcf/d of natural gas, according to S&P Global Platts Analytics.

Still, that is down from a little under 5 million b/d in January 2020 due to lower demand stemming from the coronavirus pandemic.

Pioneer, which is nearly a pure-play Permian operator, closed its acquisition of Parsley Energy in January, bulking up its already large size in the basin. The combined company is now running 20 rigs, Sheffield said – nearly 10% of all the rigs in that basin.

But ExxonMobil and Chevron have pulled back considerably, Sheffield said. ExxonMobil currently has eight rigs in the basin, versus 57 in first-quarter 2020, while Chevron is at five rigs, down from 17 in from Q1 2020.

(continued on page 11)

#### VLCC DEMAND REMAINS SLOW DESPITE CRUDE RALLY



#### **MARKET ANALYSIS**

International crude: ADNOC cuts April term supply by 5%	2
Americas crude: US LOOP sour deliveries up 205,000 barrels	4
Gasoline: NWE crack spread strengthens	5
Diesel: European demand slows	5
Marine fuel: Turnarounds to support Shanghai/Zhoushan	6
Jet: Colonial freezes nominations to Charlotte	7
Feedstocks: Asia naphtha premium firm with downstream	8
Gas liquids: Aramco raises isobutane content in butane	8
Tankers: PG-Japan LR1 rates bearish	10
Refinery undates	14

#### **NEWS HEADLINES**

## Russia likely to push for output increase, but support OPEC+ cohesion

- Gap between Russia, Saudi fiscal breakevens lower than prepandemic
- Some US shale oil production costs now lower than Russia's

*Moscow*—Analysts expect Russia to seek further increases to its crude output quota under the OPEC+ agreement at meetings this week while continuing to support cooperation within the group.

### Neste scales up renewables business with acquisition of Bunge's plant in Rotterdam

- Deal to boost Neste's feedstock processing capacity
- Facility linked to Neste's existing biodiesel plant
- Eyes 4.5 mil mt/year renewables capacity by Q1 2023

London—Finnish refiner and clean fuels producer Neste has completed its acquisition of Bunge Loders Croklaan's vegetable oil processing plant in Rotterdam, as it looks to scale up its renewable raw material pretreatment, it said March 2.

### OIL FUTURES: Crude prices retreat amid expectations of rising OPEC+ supply

- OPEC+ expected to increase April supply by 500,000 b/d
- Crude structure weakens as prompt slip 6% on week
- Texas lifts pandemic capacity restrictions

*New York*—Crude oil futures settled lower March 2 as concerns of rising global supply continued to add bearish pressure.

#### **MARKET ANALYSIS**

#### INTERNATIONAL CRUDE

- CPC loadings hit highest level since March 2020
- ADNOC cuts uniform across grades to Asia
- Urals demand weakens, discount widens

#### ADNOC cuts April term supply by 5%

Abu Dhabi National Oil Co has informed its term customers of supply cuts across all of its crude oil grades for April-loading cargoes by 5%, trade sources told S&P Global Platts on March 2.

Last month, ADNOC had informed its customers that lift contracted monthly volumes - known as term lifters - that it would cut the quantity available for export in March by 15% for Upper Zakum and Murban, by 10% for Umm Lulu and by 20% for Das Blend, Platts reported earlier.

The cuts in term supply by the state-owned producer have become common due to over production in August last year and a pressing need to curb production and remain within limits of the OPEC+ supply cut agreement.

"Last month cuts were around 15-20% and much more significant. This month's cuts are within tolerance [level] and will have almost no effect [on buying intent]," said a trader with a South East Asian refinery.

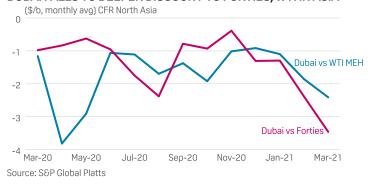
Some noted that with lesser cuts to term volume, this could result in Asian refiners reducing their purchases on the spot market.

"Japan's spot demand shall decrease slightly. Last month, spot buying was high due to larger ADNOC and Saudi [term supply] cuts," said a trader with a North Asian refinery.

Meanwhile, oil supply increase beckons post the OPEC+ meet on March 4 while refinery maintenance persists across most Asian countries.

"It's difficult to predict what comes from the producers cartel, though I expect they produce and supply more to make up for [future] demand increase and to offset the high-pace oil price increase," said the trader with a North Asian refinery.

#### DUBAI FALLS TO DEEPER DISCOUNT TO FORTIES, WTI IN ASIA



#### Dubai falls on sluggish demand

Benchmark cash Dubai slipped at the Asia market close on March 2, amid rising uncertainty for May-loading barrels.

S&P Global Platts assessed May cash Dubai at a premium of

#### **DATA INSIDE THIS ISSUE**

#### Product price assessments

ASIð	17
China	17
Fujairah	17
Arab Gulf	17
Asia product premium/discount assessments	17
Platts Index	17
European bulk	18
West Africa products	18
Renewable fuels	18
European feedstocks and blendstocks	18
New York	19
USAC CPL Linden	19
U.S. Buckeye pipeline	20
Chicago pipeline	20
Group Three	20
Marine Fuel	20
U.S. Gulf Coast	21
U.S. Gulf Coast	22
U.S. Gulf Coast pipeline cycles	22
West Coast pipeline	23
West Coast waterborne	23
Latin America	24
Caribbean cargoes	24
Trinidad product postings	24
Gas liquids	24
Crude price assessments	
Asia Pacific/Middle East spot crude assessments	25
International	26
Asia	26
North Sea	26
West Africa	26
London	27
Mediterranean	27
Canada	27
Platts Euro denominated crude oil assessments	27
United States	28
US domestic crude assessments London close	28
US crude assessments Singapore close	28
Canadian spot crude assessments	29
Crude oil postings	29
Delivered-Asia spot crude assessments	29
Latin America crude	29
Daily OPEC basket price	29
Spot tanker rates	30
Platts futures assessments Singapore MOC	30
Platts futures assessments	30
Futures settlements	31
Five-Day Rolling Averages	32
US wholesale posted prices effective Mar 2	33
Feeder crudes: February 22-February 26	34
Feeder crudes	35
Feeder crudes	36
Weekly crude assessments	36

\$1.085/b to the same-month Dubai futures at the close on March 2, down by 22.5 cents/b from the close on March 1.

May cash Oman was valued at a premium of \$1.09/b to front-month Dubai futures, down by 23 cents/b from the close on March 1.

The Middle East crude oil market awaits fresh demand cues as concerns amid subdued Asian demand and increased oil supplies post the OPEC+ meeting weigh on sentiment.

Meanwhile, term allocations by Abu Dhabi National Oil Co. were issued to Asian buyers for April, with a 5% cut across grades.

The cuts are unlikely to compel buyers to buy up cargoes on the spot market, some market participants said.

"Japan's spot demand shall decrease slightly. Last month, spot buying was high due to larger ADNOC and Saudi [term supply] cuts," said a trader with one North Asian refinery.

Increased oil supplies on the back of high oil prices and curbed Asian buying appetite specifically from China threaten to curb trade activity in the month ahead, traders said.

"It is still the beginning of the month and nothing has traded yet. We are still observing the outcome of OPEC+ meeting," said the trader with the North Asian refinery.

The Platts Market on Close assessment process on March 2 saw twenty-two 25,000 barrel Dubai partials and three Oman partials traded.

The Dubai partials were traded with Total, Unipec, Reliance and Hengli on the sell side, and PetroChina, Lukoil and Koch on the buy side.

All three Oman partials were traded between Unipec and PetroChina.

### Kazakhstan's CPC loadings bounce back

Loadings of Kazakhstan's CPC crude blend bounced back in February from a multi-year low the previous month to reach 1.55 million b/d, the highest level since March 2020, according to data from the pipeline operator.

The increase was underpinned by the two highest-producing Kazakh fields – Tengiz and Kashagan – which contributed 698,000 b/d and 386,000 b/d, respectively, their highest levels since March last year, the Caspian Pipeline Consortium data showed. Loadings hit a low of 1.05 million b/d in January.

Oil production by the Caspian nation has been broadly on the rise in recent years, but has been curbed by its participation in OPEC+ cuts in the last year.

In January, Kazakhstan is thought to have achieved a cut of nearly 300,000 b/d in its overall oil production from an October 2018 baseline, with output of around 1.4 million b/d, but was granted a slight easing of its quota for February and March.

The CPC pipeline, which transports oil across southern Russia to load at the Black Sea port of Novorossiisk, is Kazakhstan's main export route to international markets and accounts for about two thirds of the country's oil production.

However, loading volumes do not correspond exactly with the country's crude production levels, in particular because part of the production from one contributing field, Karachaganak, is in the form of condensate, which is not covered by the OPEC+ cuts.

Kazakh oil accounts for about 90% of the overall CPC flow, with Russia also using the pipeline for its Caspian Sea production.

The Tengiz field, operated by a Chevron-led consortium, has a nameplate capacity of 600,000 b/d, but has proved capable of producing at considerably higher rates. It is also undergoing a \$45 billion expansion project, expected to lift crude output capacity to 850,000 b/d and overall hydrocarbon production capacity to 1 million b/d. The project is due for completion in mid-2023, but has suffered pandemic-related delays.

OPEC+ nations are due to meet on March 4 to discuss the future of their production cuts, from April and perhaps beyond.

#### Brent CFD backwardated despite soft prompt demand

The North Sea market remained backwardated on March 2 despite limited prompt demand for physical cargoes.

According to broker reports, the March 8-12 Brent contracts for difference week was trading at a 44 cents/b premium to April 5-9.

That compared with a backwardation of 56 cents/b assessed by S&P Global Platts on March 1.

The backwardation across the markets is also encouraging refiners to draw from inventories rather than buy fresh crude cargoes.

In Urals, values were trending lower as slow demand continued to pressure the high sulfur grades amid increased availability of prompt Urals

Tradeable value for Northwest European Ural was at Dated Brent minus \$2.65/b as offers dropped on the lack of demand.

"The Urals program was some 40 cargoes and you are seeing quite a few prompt availabilities. It is hard to say where value is when there is no real demand. Offers right now are around [Dated Brent] minus \$2.35/b, so I think you can get below this level [to] around minus \$2.45," the trader said.

The arbitrage to the East remained closed with the spread between Dated Brent and Dubai crude limiting arbitrage opportunities.

#### China's WAF demand falters on wide Brent-Dubai EFS

West African grades on Chinese demand saw slow trading, sources said March 2, with the majority of Angola's April schedule unsold.

With the front-month Brent-Dubai exchange of futures for swaps contract trading over \$2.50/b through the last week, the relative strength in Brent benchmarks has discouraged Asian refiners from buying Brent-linked grades, sources said.

"The [Persian Gulf] market is not strong, so WAF is very expensive comparatively. [Russian] ESPO is cheap now also because of Dubai," a trader said.

Further penalizing West African grades, backwardation in Dated Brent has discouraged longer-haul flows in Asia, according to traders. In addition, Chinese refiners have been drawing oil from storage and there was still an ample supply of unsold March-loading crude.

All six April-loading cargoes of China-focused Djeno crude from Republic of Congo were unsold, as well as two March cargoes and some crude already loaded and floating off China, a trader said.

In the Nigerian market, levels have been similarly hit by Brent backwardation, but flows to India have remained healthy, according to traders

India's IOC issued its first tenders for May crude this week, with the refiner seeking West African cargoes loading May 1-10, traders said.

Looking forward, Vietnamese refiners could become more

significant buyers of West African crude as the country's domestic crude production continues to decline due to naturally aging fields, while state-run Binh Son Refining and Petrochemical finds Nigerian and Angolan grades cheaper than Southeast Asian oil.

BSR told S&P Global Platts the company was testing Qua Iboe crude from Nigeria and Cabinda crude from Angola for its Dung Quat refinery.

The trial was part of BSR's strategy to diversify its feedstock choices and reduce dependence on domestic grades including Bach Ho, the company said.

#### **AMERICAS CRUDE**

#### US LOOP sour deliveries up 205,000 barrels

Over 855,000 barrels of sour crude oil was delivered from the Louisiana Offshore Oil Port in February, an increase of 205,00 barrels on the month, LOOP reported.

Monthly LOOP Sour deliveries have increased steadily since October, and February represented the most deliveries reported since August last year when 790,000 barrels were taken out of storage at the facility. Before pandemic lockdowns took hold last year, LOOP deliveries reached 810,000 barrels in February 2020.

Deliveries of the grade, which consists of a blend of Poseidon, Mars and Basrah, Kuwaiti and Arab Medium crudes, have increased as market conditions have steadily shifted into backwardation.

That often can disincentivize market participants from storing crude and gives more incentive to taking crude out of storage. Refinery usage also has been growing, although winter storms in February took

a bite out of consumption as some Gulf Coast refineries were forced to close. Power outages impacted Texas' refinery capacity, with as much as 4.4 million b/d offline during the week of Feb. 18. Most refineries have begun restarting, but effects may linger until mid-March.

The average API gravity for LOOP Sour in February was 29.91 degrees - lighter than January's average of 29.67 degrees; and sulfur content averaged 2.04%, which was more sour than the month prior's average of 1.92%.

#### Loop storage auction

LOOP and Matrix Markets sold 150 of the 9,300 capacity allocations contracts that were offered during its monthly crude storage auction on March 2.

Physical Forward Agreements, which gives the purchaser the right to store 1,000 barrels for one month at LOOP were auctioned for the front month of April through the second quarter of 2022. Fifty PFAs for the first quarter of 2022 were sold at 5 cents/b during the most recently auction.

In February Matrix sold 1,275 LOOP Capacity Allocation Contracts, which included Physical Forward Agreements ranging in price from 5 cents/b to 10 cents/b.

#### Matrix pipeline platform

Matrix also announced the launch of a new secondary market platform through which participants can buy and sell unused capacity crude oil pipeline capacity.

The platform, called Matrix Pipeline Marketplace, allows owners to post unused capacity for sale and those seeking pipeline space can

#### S&P Global

**Platts** 

#### OILGRAM PRICE REPORT

ISSN: 0163-1292

Contact Platts support: support@platts.com; Furone & Middle Fast: +44-20-7176-6111: Asia Pacific: +65-6530-6430

Managing Editor

nbino, james.bambino@spglobal.com Senior Editor Benjamin Morse, benjamin.morse@spglobal.com

Oil Manager, US Richard Swann

Oil Manager, London

Head of Pricing & Market Insight Dave Ernsberge

Platts President

Manager, Advertising Sales

Advertising Email: advertising@spglobal.com; Tel: +1-720-264-6618

Oilgram Price Report is published every business day in New York and Houston by Platts, a division of S&P Global, registered N Y 10038

Officers of the Corporation: Richard E. Thornburgh, Non-Executive Chairman Doug Peterson, President and Chief Executive Officer; Ewout Steenbergen, Executive Vice President, Chief Financial Officer; Steve Kemps, Executive Vice President, General Counsel

© 2021 S&P Global Platts, a division of S&P Global Inc. All rights reserved.

The names "S&P Global Platts" and "Platts" and the S&P Global Platts logo are trademarks of S&P Global Inc. Permission for any commercial use of the S&P Global Platts logo must be granted in writing by S&P Global Inc.

You may view or otherwise use the information, prices, indices, assessments and other related information, graphs, tables and images ("Data") in this publication only for your personal use or, if you or your company has a license for the Data from S&P Global Platts and you are an authorized user, for your company's internal business use only. You may not publish, reproduce, extract distribute, retransmit, resell, create any derivative work from and/or otherwise provide

access to the Data or any portion thereof to any person (either within or outside you company, including as part of or via any internal electronic system or intranet), firm or entity, including any subsidiary, parent, or other entity that is affiliated with your company, without S&P Global Platts' prior written consent or as otherwise authorized under license from S&P Global Platts. Any use or distribution of the Data beyond the express uses authorized in this paragraph above is subject to the payment of additional fees to S&P Global Platts

S&P Global Platts, its affiliates and all of their third-party licensors disclaim any and all warranties, express or implied, including, but not limited to, any warranties of merchantability or fitness for a particular purpose or use as to the Data, or the results obtained by its use or as to the performance thereof. Data in this publication includes independent and verifiable data collected from actual market participants. Any user of the Data should not rely on any information and/or assessment contained therein in making any investment, trading, risk management or other decision. S&P Global Platts, its affiliates and their third-party licensors do not guarantee the adequacy, accuracy, timeliness and/or completeness of the Data or any component thereof or any communications (whether written, oral, electronic or in other format), and shall not be subject to any

damages or liability, including but not limited to any indirect, special, incidental, punitive or consequential damages (including but not limited to, loss of profits, trading losses and loss of goodwill).

ICF index data and NYMEX futures data used herein are provided under S&P Global Platts commercial licensing agreements with ICE and with NYMEX. You acknowledge that the ICE index data and NYMEX futures data herein are confidential and are proprietary trade secrets and data of ICF and NYMEX or its licensors/suppliers. and you shall use best efforts to prevent the unauthorized publication, disclosure or copying of the ICE index data and/or NYMEX futures data

Permission is granted for those registered with the Copyright Clearance Center (CCC) to copy material herein for internal reference or personal use only, provided that appropriate payment is made to the CCC, 222 Rosewood Drive, Danvers, MA 01923, phone +1-978-750-8400. Reproduction in any other form, or for any other purpose, is forbidden without the express prior permission of S&P Global Inc. For article eprints contact: The YGS Group, phone +1-717-505-9701 x105 (800-501-9571 from the U.S.)

For all other queries or requests pursuant to this notice, please contact S&P Global Inc. via email at support@platts.com.

post their requests for capacity.

The initial rollout of Marketplace will include space postings for the Shell Zydeco, TC Energy Marketlink, Philips 66 Gray Oak, Enterprise/Enbridge Seaway and Magellan Bridetex pipelines, all of which move crude from various points to the US Gulf Coast. Matrix plans to add more available pipelines to Marketplace each week.

In an announcement Matrix said participants can execute transactions directly on the platform and allows users to publish prices, define timings and set injection and delivery points. Users also can use the platform to lift any counteroffer and receive notifications when a counteroffer has been made.

#### **GASOLINE**

#### NWE crack spread strengthens

The European market weakened in terms of outright price March 2 but its crack was supported on export demand and the upcoming transition to summer-spec gasoline.

US Atlantic Coast and West Africa were strong drivers of export demand. Similarly, bullish news surrounding the coronavirus vaccine rollout and return from lockdowns could further strengthen the NWE market.

These forces have helped strengthen gasoline's relationship to crude oil. The Northwest European front-month gasoline crack spread was assessed at \$10.15/b, up 35 cents/b on the day.

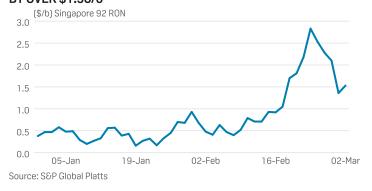
In tenders, South Africa's Engen was heard seeking 35,000 mt of 95 RON gasoline.

According to the tender document, the company is seeking to load the cargo either over March 10-12 from the Mediterranean or over March 22-24 from the Persian Gulf or Singapore/Malaysia.

Engen's tender closes on March 2, with same day validity.

The front month April FOB Singapore 92 RON gasoline crack against Brent swaps was pegged early March 2 at levels between \$6.65/b and \$6.75/b, up slightly from the \$6.61/b that was assessed at the close of Asian trade March 1, according to indications from brokers.

#### SINGAPORE GASOLINE CRACK FAVORS DUBAI OVER BRENT BY OVER \$1.50/b



#### US Gulf Coast grades hold highs

The 12.5 RVP CBOB rose 1.15 cents/gal, to a two years high of 186.14 cents/gal, and the differential against the NYMEX RBOB futures added 1.8 cents/gal, to minus 7.5 cents/gal.

"Refinery problems due to freeze persist," a broker said.

Regional sources said refinery operations are not stable yet and the availability of material is not clear.

Interest for reformulated grades added support and regular RBOB outright prices rose 1.65 cents/gal, to 189.14 cents/gal, 3 cents above CBOB.

The 11.5 RVP Premium RBOB traded at futures plus 5.25 cents/gal during the Platts Market On Close Process, and the outright price dropped 40 points/gal, to 189.89 cents/gal.

On the Atlantic Cost, Colonial Pipeline CBOB was the most active grade, and settles 1.45 cents/gal over the last close, at NYMEX April RBOB minus 4 cents/gal. Unleaded 87 conventional and RBOB were unchanged, at futures minus 4.2 cents/gal, and futures minus 5.2 cents/gal, respectively.

Winter RBOB and CBOB barges of 15 RVP on New York Harbor fell 30 points, to futures minus 8.85 cents/gal, based on an offer heard futures minus 8.75 cents/gal for March 7 barrels.

Market activity for 15 RVP has been dwindling over the past week as the upcoming transition to 13.5 RVP spring grade approaches.

"I've never seen it trade past Feb 28th in 20 years," a market source said, referring to 15 RVP RBOB.

In the Midwest, Tulsa suboctane was unchanged at April futures plus 2.25 cents/gal, based on a standing offer at April futures plus 2.5 cents/gal in Platts Market on Close assessment process. Tulsa premium 91, shed 50 points, narrowing the regrade over suboctane to 24.75 cents/gal. The regrade was heard offered at 25 cents/gal. Weekover-week, the regrade has widened 12.5 cents/gal, which a market source said was due to lower stocks.

Generic Pipeline and Wolverine Pipeline CBOB were assessed both at 1.25 cents/gal above last close, to NYMEX April RBOB futures minus 12.5 cents/gal on a trade for Wolverine Pipeline CBOB heard at this level.

Generic Pipeline RBOB, Buckeye Complex CBOB and RBOB were unchanged at April futures minus 10.5 cents/gal in absence of new competitive information.

On West Coast, Portland suboctane rose 1.5 cents/gal, to April futures minus 0.25 cent/gal, as it was heard done and rebid flat to April futures.

March Los Angeles CARBOB differentials shed 75 points, to NYMEX April RBOB futures plus 4.25 cents/gal, based on an offer heard at April futures plus 4.5 cents/gal.

Week-over-week, Los Angeles CARBOB differentials have shed 4 cents/gal. A market source said this decline was due to imports.

San Francisco CARBOB rose 25 points, to April futures plus 2 cents/gal, based on a trade at this level.

#### **DIESEL**

#### European demand slows

Demand for cargoes in Switzerland was heard around 15% lower on year, depending on the region, according to a source in the barge market.

Even low barge freight rates were struggling to entice buyers, with low freight costs normally a good incentive to fill storage tanks,

however storage tanks were already full and unable to take more product, he said.

The Mediterranean ULSD market was well supplied, according to a second source, with the low ULSD price meaning some market participants were using ULSD to cover 0.1%S gasoil shorts.

However, "nowadays, you can still buy 0.1% even from [Northwest Europe] and land at better prices [in the Med] than if you bought diesel," he said, explaining that ULSD was still comparably strong.

Traders continued to report activity on unusual arbitrage routes, largely driven by the refining outages on the US Gulf Coast. ULSD from East of Suez markets was moving straight past Europe and West Africa and heading for the US Atlantic Coast or South America in some cases, sources said, with some pausing around West Africa for several weeks and only small volumes remaining in Europe.

Typical flows from the US Gulf Coast to Europe remained thin, with only around 80,000 mt of ULSD set to arrive in March so far, including one 40,000 mt cargo sent in the past seven days, according to to cFlow, Platts trade flow software, on the day.

The Medium Range tanker Sti Mystery loaded 40,000 mt of ultra low sulfur diesel and was bound for Antwerp, Belgium, with the MR Silver Gwen already on the water carrying ULSD, cFlow showed.

Meanwhile, around 120,000 mt of European ULSD was sent to the US Atlantic Coast in the week to March 2, with MR tankers Atlantic Breeze, Nord Gainer and Stena Important each taking around 40,000 mt from the Amsterdam-Rotterdam-Antwerp hub, taking total volumes sent in February to 410,000 mt, the data showed.

In West Africa, prices for ULSD were heard to be weakening due to plentiful availability in the region and more set to arrive, including VLCC Silverstone which is thought to be carrying at least 62,800 mt of ULSD, according to commodity information firm Koler.

#### EUROPEAN ULSD AT GROWING PREMIUM TO USGC ATTRACTS IMPORTS



#### UK imports rise 40% on month

The UK imported 821,732 mt of diesel in February, up 40% from January but 6.1% lower year on year, according to data from commodity information company Kpler.

Around 60.7% of the imports came from the Baltics, 22.7% from Scandinavia, and 10.5% from the Amsterdam-Rotterdam-Antwerp hub, the data showed.

February imports of Baltic-origin diesel dropped slightly from January, when they represented a 67.9% share of UK imports, despite reportedly better availability of Baltic diesel meeting UK specifications including a 10,000 particulate count. Baltic supply of UK specification

diesel was reported tight in December and early January, with many cargoes coming in over the 10,000 particulate limit, traders told S&P Global Platts previously.

UK diesel demand was very weak in February, up to around 25% lower year on year, due to the country being under a strict coronavirus lockdown for the duration of the month, traders said.

However, UK diesel demand is expected to "shoot up" in March and April in response to easing lockdown restrictions set out by the UK government in late February, one trader said.

CIF NWE basis UK diesel cargoes were assessed at a \$5/mt premium over front-month ICE LSGO futures March 1, down from \$7.50/mt a month earlier.

#### Narrower Singapore EFS could increase supply

A rise in the Singapore March EFS to minus \$1.40/mt at 0700 GMT March 2 from minus \$2.29/mt March 1 could lead to Persian Gulf and India-origin volumes preferring to head to Asia.

"We do see more exports [of gasoil] from these two places," a Singapore-based trader said March 2, referring to a raft of sell tenders seen in recent days.

Against this background, more spot supplies of gasoil were seen offered into the market, with Bahrain's Bapco and India's MRPL issuing sell tenders for cargoes this week.

The former is offering 40,000-60,000 mt of 10 ppm sulfur gasoil for loading from Sitra over April 1-4 in a tender that closes March 2, with validity till March 4, while MRPL has offered 65,000 mt of 10 ppm sulfur high speed diesel for loading from New Mangalore over March 20-22, market sources said. MRPL's tender is to close March 3, with same-day validity.

Over in China, Sinopec Guangzhou Petrochemical plans to boost gasoil, jet fuel exports in March to ease oil product inventory pressure while lifting throughput, a refinery source said March 2. The refinery plans to export 50,000 mt of gasoil in March, surging 72% from about 29,000 mt in the previous months, according to the source.

"The barrels have no where to go, so [the plant has] to export them," the source said, adding that their crude throughput lifted to 1.08 million mt this month.

#### MARINE FUEL

#### Turnarounds to support Shanghai/Zhoushan

The Shanghai and Zhoushan marine fuel 0.5%S delivered bunker fuel prices are expected to firm due to strong demand coupled with turnarounds in March and April, bunker industry sources said on March 2.

"Some refineries are under maintenance in March and April. Output [of bunker fuel from domestic refineries] will be reduced," said a bunker supplier in China. "Normally, March is a good demand season after the Chinese New Year. Factory operations come back to normal," the supplier added.

Zhoushan marine fuel 0.5%S delivered price was assessed at \$517/mt, a \$3/mt premium to Singapore marine fuel 0.5%S delivered bunker fuel. The premium was last higher at \$4/mt on Jan. 14, S&P Global Platts data showed.

Likewise, Shanghai marine fuel 0.5%S delivered price was assessed at \$522/mt, an \$8/mt premium to Singapore marine fuel 0.5%S delivered bunker fuel, with the premium last higher at \$11/mt on Jan. 13, according to Platts data.

About 50 million mt/year of refining capacity at six state-owned refineries – five from Sinopec and one from CNOOC – is expected to be shut in the March-April period while May would also witness some maintenance, albeit at a relatively lower capacity level, latest industry data and information collected by Platts showed.

As a result, domestic production is likely to drop to 500,000 mt/month in March-April, while it went up to 700,000 mt/month in the end of last year, the bunker supplier said.

In comparison, China's 0.5% sulfur fuel oil production was at about 640,000 mt/month in March-April 2020, according to Longzhong Information.

#### More imports

China-based bunker suppliers would need to import more fuel oil to make up for the supply shortage, a fuel oil trader said. "They don't want to have inventories on this backwardation situation, but they have to import because they have customers."

China's bunker demand is about 1.2 million mt/month. Bunker suppliers import fuel oil from Singapore regularly, market sources said.

The costs of imported cargoes are higher than domestically produced cargoes, industry sources said. In addition, a recent surge in Aframax tanker freight rates raised import costs.

The Worldscale rate for a dirty Aframax cargo from the Persian Gulf to Far East rose to Worldscale 80 on March 1. It was last higher at w82.5 on June 9, 2020, Platts data showed.

#### Fujairah bunker weaken 7-month low

Weak demand for delivered 380 CST high sulfur bunker fuel grade in the Middle Eastern port of Fujairah pressured its premium to benchmark FOB Singapore high sulfur fuel oil cargo assessments to a 7-month low of 41 cents/mt on March 1, Platts data showed.

The premium had fallen 99 cents/mt from the previous session and it was last lower at minus \$1.66/mt on July 8, 2020, Platts data showed.

Since the global marine fuels market transitioned to the use of low sulfur bunker fuel as the primary fuel in January last year, in adherence with the IMO 2020 mandate, relatively smaller regional bunkering hubs have found it difficult to carry on maintaining storage and delivery infrastructure to meet a small volume of HSFO demand.

Although Fujairah is a large enough main port in the Middle East to continue high sulfur bunker fuel supply, demand has been poor in recent months, traders said.

As a result, some suppliers have stopped offering HSFO.

"We have dropped out for now [in supplying HSFO]. Market was not healthy enough, frequent poor pricing meant we could not be confident to sell at a profit in the time available," one bunker supplier said.

In contrast, at the world's largest bunkering hub of Singapore, sales of high sulfur bunker fuel in January surged 47.9% year on year to 1.13 million mt, the highest monthly volume at the port since the transition to bunker fuel with a maximum sulfur limit of 0.5%S.

Fujairah's monthly bunker volume fell almost 18% to about

575,000 mt in 2020 from 700,000 mt in 2019, Platts had reported.

Fujairah does not report its bunker volumes publicly and the port did not respond to a request for comment.



#### Colonial freezes nominations to Charlotte

Colonial Pipeline issued both allocation and freeze notices for its spur line supplying North Carolina's Charlotte Douglas Airport on March 2, suggesting an uptick in jet fuel nominations not seen for the hub since the early months of the coronavirus pandemic.

The pipeline operator first issued an allocation notice for Cycle 16 of Line Loc-3G, an offshoot of Line 2, the main refined products artery carrying middle distillates from the Texas Gulf Coast to Greensboro, North Carolina.

This marked the first allocation for the spur line since May 2020, when Colonial allocated Cycle 24. At this time, the line had been allocated for over a year, according to historical data from the pipeline operator.

Following its allocation notice for Cycle 16, Colonial then issued a freeze notice for Cycles 11-15 on March 2, a move not seen since Cycle 6 in 2019.

A nomination freeze occurs when new nominations are no longer being accepted. The pipeline is allocated when requests for nominations exceed capacity.

"The volumes shipped on Colonial Pipeline are a result of customer demand, and Colonial does not provide public comment on market changes," said a representative from Colonial on March 2.

Market feedback confirmed that the spur line is not a multi-product pipeline but instead is dedicated specifically to jet fuel as it runs directly to the Charlotte Douglas airport.

Jet fuel shippers have been impacted by a substantial decline in demand for air travel, and by extension, jet fuel during the coronavirus pandemic. Paper arbitrage economics have discouraged shippers from sending jet fuel from the Gulf Coast up Colonial Pipeline in 2021, with shippers positioned to lose an average of 2.17 cents/gal throughout the quarter, according to S&P Global Platts data. This estimation assumes shipping costs at 6.50 cents/gal.

Platts assessed jet fuel taken off Colonial Pipeline at NYMEX April ULSD futures minus 15.75 cents/gal on March 2, down 25 points from the prior session. Outright pricing, meanwhile, was seen at \$1.6506/gal, down 1.36 cents/gal on the day.

#### **EUROPEAN JET STALLS ON THE ROAD TO RECOVERY**



In 2020, Charlotte Douglas recorded passenger throughput at 27.2 million individuals, down 46% from the year prior. The hub saw a less severe drop in passenger numbers than the country as a whole during the pandemic, with passenger throughput at US airports down 62% in 2020 to 322 million individuals, according to data from the Transportation Security Administration.

A representative for Charlotte Douglas Airport was not immediately available for comment.

#### January passenger demand remains depressed

Air passenger traffic in January was 72.0% below the equivalent level in 2019, worse than December 2020's year-on-year 69.7% decline, International Air Transport Association data showed March 2.

Comparisons with January 2020 were not meaningful because of the impact of coronavirus, IATA said in a statement.

Total domestic demand was down 47.4% compared with January 2019 levels. In December, it was down 42.9% on the year-ago month. This decline was largely due to stricter domestic travel controls in China over the Lunar New Year holiday, IATA said.

International passenger demand in January was 85.6% below January 2019, compared with the 85.3% year-on-year decline in December, IATA said.

Analysts at S&P Global Platts Analytics also noted the downturn in global air traffic associated with restrained holiday travel, in addition to the Lunar New Year decreases. However, many of these temporary factors seem to be reversing, they said. Vaccine deployment and continued containment of COVID-19 cases will help support air travel over the summer, the analysts said.

For air cargo, IATA data for January for showed that air cargo demand returned to January 2019 levels for the first time since the onset of the crisis. January demand also showed strong month-to-month growth from December 2020 levels.

"Even so, jet fuel demand will not recovery to 2019, pre-pandemic levels, in 2021 or 2022," Platts Analytics said.

Lately, many countries have tightened air travel restrictions, and in some cases, have renewed border closures, or extended them to combat new COVID-19 variants. Accordingly, Platts Analytics trimmed growth in jet demand for 2021 to 1.4 million b/d, and it remains 23% below pre-pandemic levels.

S&P Global Platts assessed CIF NWE jet fuel cargoes average at an average premium of around \$20.65/mt over the front-month ICE low-sulfur gasoil future in January, down from a \$43.20/mt premium on average in January 2019.

There is hope that so called-vaccine passports will enable people to travel more easily over the summer.

However, many traders warn that a significant recovery for jet fuel demand is not yet in sight, or unlikely to happen even in the third quarter as they expect the resumption of long-haul travel to lag behind.

Short-haul flight are estimated to account for around 80% of flights in Europe but 20% of jet fuel demand, while long-haul represent 20% of flights but 80% of jet fuel demand, in non-pandemic times.

"Fuel demand recovery depends on long-haul recovery," a trader said. "We will see maybe summer 50% of flight demand versus 2019. But it doesn't mean 50% of jet demand, and moreover, Europeans will be flying onboard more efficient aircrafts that use less fuel." The forward curve shows increasingly bullish sentiment. Platts assessed the CIF NWE jet fuel cargo differential swap versus the front-month ICE LSGO futures contract for the front month at \$15.50/mt on March 2 and December 2021 at \$31.00/mt. Platts assessed the December 2022 swap at \$38.75/mt.

#### **FEEDSTOCKS**

#### Asia naphtha premium firm with downstream

Asian naphtha was firm on strong downstream margins and this pushed the spot to MOPJ premium to \$11.50/mt March 2, up from its 30-day average of \$7.60/mt, according to Platts data.

Buying activity kicked off for H2 April delivery cycle into North Asia, with YNCC heard to have issued a purchase tender for H2 April delivery, sources said.

Demand for naphtha as a petrochemical feedstock remained healthy on the back of the recent rebound in ethylene margins, due to the return of Chinese ethylene buyers. This boosted the spread between CFR Northeast Asia ethylene and C+F Japan naphtha up by \$161.125/mt on the week to \$472.875/mt at the March 1 Asian close, Platts data showed.

The spread has been above the typical breakeven level for non-integrated producers of \$300/mt since Feb. 22, and has remained above the typical breakeven level for integrated producers of \$250/mt since May 12, 2020, Platts data showed.

Concurrently, aromatics margins had improved, and BTX producers were considering raising run rates on the improved margin.

Also, the key spread between paraxylene CFR Taiwan/China marker and C+F Japan naphtha has remained above the \$200/mt mark since Feb. 15, which may prompt splitters to increase run rates as well, sources said.

The naphtha market strength was also reflected in the CFR Japan naphtha physical crack against front-month ICE Brent crude futures, which rallied to a six-week high of \$110.50/mt on March 1 Asian close, up \$8.475/mt day on day, Platts data showed.

The crack was last higher on Jan. 15 at \$110.65/mt, Platts data showed.

#### **GAS LIQUIDS**

#### Aramco raises isobutane content in butane

Saudi Aramco has updated the quality specifications of its LPG exports, raising the isobutane content in butane by 3% to a maximum limit of 32%, an Aramco official told an industry conference March 2.

In effect, the normal butane content is reduced to a minimum limit of 65% from 68%, Aramco marketing manager Ali Alam said, adding that the changes will take effect "in the near future" within 2021.

Another update is adding the residue content test into the Saudi LPG specification using ASTM D7756, which is the gas chromatography testing method that measures residues down to 10 ppm, Alam said, speaking during the online International LPG Seminar 2021.

This test will cover exports of propane and butane loading from Jua'ymah and Yanbu (propane A-140 and butane A-160).

"And we hope this change will help you when you decide to take your LPG cargo to Japan next time," he said, adding that the changes have been made with the assistance of Japanese counterparts following "a long journey."

Alam also said that Saudi domestic LPG demand, especially for the petrochemical sector, has been growing, with the sector making up 90% of domestic LPG demand, while the residential sector accounts for 8%.

Saudi Arabia is the world's second-largest consumer of LPG for petrochemical sector, Alam said.

Aramco supplies more than 1 million mt/month of LPG to 18 petrochemical plants on the kingdom's east and west coasts, of which 70% is propane.

"Which is why we tend to export about 50:50 (propane:butane ratio, slightly heavier on the butane side," he said.

#### Petchem demand

Higher domestic petrochemical demand for LPG feedstock also followed Aramco's 70% acquisition of Saudi Basic Industries, or SABIC, last June.

At the end of 2018, SABIC's total annual production was 75.3 million mt, including 61.8 million mt of petrochemical and specialty products.

Aramco and SABIC combined recorded petrochemical production of nearly 90 million mt, including agri-nutrient and specialty products, in 2019.

Propane makes up 63% of Saudi LPG production in 2018 and butane 35%.

Domestic demand – of which Saudi Arabia ranks fourth after China, the US and India – takes up 67% of production and the excess of 33% is exported.

Alam did not reveal the kingdom's latest LPG export figures.

Trade sources recently said that in Aramco's acceptances of term LPG nominations for March loadings, exports are estimated to exceed 550,000 mt, though not more than 600,000 mt. Others said total exports were limited to around 520,000 mt.

Even at 600,000 mt, March exports are lower than before the voluntary Saudi decision at the Jan. 5 OPEC+ meeting to cut crude production by 1 million b/d in both February and March.

Saudi Aramco's LPG exports across the year were 7.9 million to 8.1 million mt – or a monthly average of 6.6 million mt – before it decided on the crude cuts, according to market estimates. But the Saudi cuts were not expected to persist into April, as analysts said the OPEC+ reductions will likely ease by 500,000 b/d.

Limited Saudi exports of propane, recovering Chinese PDH demand, and a lull in Indian and Indonesian demand for mixed propane/butane cargoes have kept Saudi CP propane swap at a premium of \$25/mt to butane on March 2, according to brokers.

#### BW LPG expects VLGC rates to remain weak

BW LPG expects the Very Large Gas Carrier market to be under pressure in second-quarter 2021 after freight rates sank in late January.

VLGC rates on the major Persian Gulf-Japan route fell to near eightmonth lows at \$38.50/mt March 1, persisting on the sharpest decline in two decades, after hitting near six-year highs at \$119/mt on Jan. 12, S&P Global Platts data showed.

Rates on the Houston-Japan route slid to \$72/mt Feb. 24, also near

eight-month lows, after touching around five-year highs at \$173/mt on Jan. 1, Platts data showed.

"Q3's strong 'V-shape' recovery in VLGC freight rates continued in Q4, supported by robust US LPG exports, widening LPG price arbitrage due to strong heating demand from Asia, and long-waiting times for transits at the Panama Canal. At its peak, rates jumped to over \$100,000/day," BW LPG, associated with global shipping major BW Group, said in its fourth quarter 2020 financial report.

Despite the recent correction in VLGC rates, "we continue to hold a positive outlook for the medium term VLGC market. This is driven by continued high shipping inefficiencies, resilient US LPG production, gradual recovery in Middle East production and strong underlying demand for LPG," it said.

The report said at the start of Q3 2020, LPG demand from propane dehydrogenation plants and steam cracking started to recover on improving margins, and the commissioning of new Chinese dehydro plants.

US LPG production also remained resilient despite low upstream activities.

Global LPG exports by key exporters fell in 2020 due to weak oil prices and OPEC+ production cuts, except for North America, where exports rose 14% at 46 million mt.

BW LPG lifted 7.5 million mt from the US, or 16.2% of total North American LPG exports, the report said.

Chinese LPG seaborne imports fell 5.6% on the year at 18.6 million mt in 2020, on lower retail demand and increased domestic production.

However, several new dehydro plants came onstream in 2020, adding incremental demand.

The second-largest LPG importer India remained the most consistent driver of LPG demand, led by the retail sector, BW LPG said, with imports projected to grow 34% up to 2025.

India's seaborne LPG imports rose 11% on the year at 16.3 million mt in 2020, it said.

Southbound traffic reported 14-day delays in late-December 2020 due to COVID-19 restrictions, and seasonally strong LNG and container ship transits via the Panama Canal, the report said.

Heavy drydocking schedules, delays at discharging ports and bunkering ports as well as weather disruptions in the US loading ports also supported the VLGC freight market in 2020, it added.

#### LPG duel-fuel propulsion

BW has 46 VLGCs in its fleet, or 15% of the global total.

Last year, it retrofitted three VLGCs – BW Gemini, BW Leo and BW Orion – the world's first VLGCs to be LPG-propelled. These are the first of BW LPG's \$130 million commitment to retrofit 15 VLGCs with LPG dual-fuel propulsion technology as part of its zero-carbon aim.

Globally, 305 VLGCs are on the water, with two ships delivered to date in 2021.

Another 42 ships are on the orderbook, or 14% of the global fleet, with 17 ships due for delivery this year, 15 units in 2022, and 10 in 2023, BW LPG said.

Separately, Grieg Shipbrokers said in a February report that several newbuild orders for fully-refrigerated ships were signed in the first two months of this year, led by Medium Gas Carriers, or MGCs, which saw eight firm orders registered.

The past six months have seen the strongest order intake for MGCs since 2015, with the orderbook now standing at 24 ships, it said.

VLGC contracting rose slightly into 2021, with eight orders versus 23 for full-year 2020, Grieg said.

Despite the recent strong order intake of fully refrigerated ships, the orderbook-to-fleet ratios are far below the two previous peaks of 2006-07 and 2014-16, respectively, it added.

The expansion and renewal of coaster and Handysize fleet have been much slower, leading to aging of the small gas carrier fleet.

The orderbook-to-fleet ratio for 1,000-8,000 cu m gas carriers has fallen to 3%. For the 8,000-22,000 cu m segment, ships under construction comprise 3% of the current fleet, Greig added.

#### **TANKERS**

#### PG-Japan LR1 rates bearish

The East of Suez LR1 tanker rates were lower March 2 due to a dearth of cargoes though owners expect them in the next few days.

Bunkers are still expensive but there is not enough demand for charterers to push up rates.

Market participants said the bunker fuel and tanker freight rates are not moving in tandem, making it difficult to arrive at mutually acceptable fixtures.

Several market participants resumed chartering activity as South Korea opened after a public holiday but demand is still limited.

"There aren't any new fixtures but the LR1s are becoming softer again," said a broker in Singapore.

Demand is slow but owners are seeking much higher rates as the supply is tighter for prompt dates, said a chartering source.

"It's a slow day but cargoes will come up since mid-month cargo stems have not been covered at all," said a broker in north Asia. It's just the second day of the month and routine demand remains to be seen, the broker said.

Unless more demand comes, the LR1 rates are expected to be under downward pressure.

Among fixtures heard, an LR1 the STI Prestige was placed on subjects by Trafigura at \$425,000 for March 10 gasoline loading on the Quanzhou-Singapore route, with an option to discharge in West Africa at \$1.35 million, sources said.

In the LR2s, the Minerva Indiana was placed on subjects by ENOC at \$1.45 million for March 6 diesel loading on the Dalian-West Africa route, they said.

In the MRs, owners are pushing for higher rates due to the ongoing rise in bunker prices but not everyone is succeeding.

The week started off on a good note in Southeast Asia with three or four cargoes quoted for loading in the March 8-10 window, said a broker in Singapore. The market sentiment is stable with a fixture on the Singapore-Australia route concluded at w140, basis 35,000 mt, said an MR broker. Demand is slightly slower in north Asia as charterers have upsized their cargoes and switched to LRs after rates increased, the broker said.

If demand continues to trickle in, there will be a general resistance from owners, also on the back of a steady market in Persian Gulf and west coast India.

#### US Aframaxes may see correction ahead

Aframax and Suezmax shipowners with tonnage in the Americas held their breath as several sources saw a downward turn approaching, while VLCC owners may gain leverage in negotiations thanks to a tighter list and high bunker prices.

Freight for the Aframax trans-Atlantic routes and USGC-East Coast Canada run dropped w7.5 points on the day, to be assessed at w115 and w120, respectively, whereas local freight remained unchanged on the day at w155 for the East Coast Mexico-USGC route.

The market split occurred as shipowners struggled to lock in the longest employment possible for their ships, while rates remained on the high side. Sources saw a likely drop in rates going forward, as the dire weather and port closures that have harassed the market and left charterers competing for tonnage smooth themselves out.

"Fog is no longer an issue, refineries are slowly coming back online, so probably starting next week, we will start to see the market soften (...). Itineraries will firm, position list will lengthen. But for now, the market is still pretty hot," a shipbroker said.

Three ships were booked for the USGC-Transatlantic route at w115, the Sea Jaguar, China Dawn and Chrysalis.

Valero placed a Minerva to-be-nominated ship on subjects for the ECMexico-USGC route at w157.5, with laycan dates March 5-7, as a replacement for the Sea Vine.

Although the deal was a prompt replacement, most sources called the market near that level, as a drop in local freight lagged behind the drop in mid-haul voyage freight.

"Everyone knows this market level won't last much longer, so [shipowners] prefer to go trans-Atlantic and lock in the current rate for longer (more return) instead of going on local/short voyages. So there's a lot of competition for trans-Atlantic, charterers need a premium to talk owners into local business," the shipbroker said.

Trades in the paper market showed expected Aframax freight recovery toward the end of 2021, as 15,000 mt traded for the Aframax USGC-UKC Forward Freight Agreement second quarter of 2021 contract at \$14.11/mt, or w83, before 380,000 mt traded at \$15.13/mt, or w89, for the Q3 2021 contract, and 70,000 mt traded for the Q4 2021 contract at \$17.85/mt, or w105.

The Suezmax segment continued to see a steady stream of cargo inquiry over the day, however rates were mostly rangebound.

Expectations that freight for long-haul voyages East would tick higher were confirmed after ExxonMobil booked the Trinity late March 1 for a Texas-Singapore run at lump sum \$3 million, loading March 8-10.

Nayara was said to be out in the market looking for a ship to lift a 130,000 mt cargo on a Covenas-West Coast India run on March 22-24.

Trans-Atlantic freight was assessed at w60 for both Caribbean and USGC loading ships.

Freight could take a slight downward turn after seeing freight tick higher while receiving cargoes from a strong Aframax market, according to market participants.

"We could start to attract ballasters to the region on these rates and start seeing more available tonnage for late March dates," a shipowner said.

#### Mediterranean Handysizes higher

Freight rates on the Handysize Mediterranean market reached a 10-month high on March 1 amid bad weather expectations and tonnage tightness on both the cross-Mediterranean and the Black Sea.

The Black Sea-to-Mediterranean 30,000 mt run was assessed at \$21.87/mt on March 1, up \$11.19/mt month on month when the run was assessed at \$10.68 on Feb. 1, 2020.

The run was last assessed at these levels on May 13, 2020, at \$21.04/mt, according to data from S&P Global Platts. "Bad weather was the starting factor in the increase," a broker said.

"Charterers were afraid they would not find tonnage for their cargoes and started fixing very forward, which led to tonnage tightness."

Three deals were reported at w215 on the Black Sea-to-Mediterranean run on March 2, w5 points above last done on March 1, with market participants believing the market could still gain another w5 to w10 points.

"The market is extremely tight, and owners are being very bullish," another broker said.

"There are no ships around, so we expect the next done to be higher." However, market participants believed the increase in rates to start slowing down as cargo output remained steady, reducing the space for further increase.

"The cargoes in the market are supporting higher freight rates, but not driving that increase," the second broker added.

One European feedstocks trader suggested that the rise in freight would be short lived.

"I think this is partly a momentum from shipowners trying to hike rates. My chartering department thinks that this will lose steam pretty quickly and go back to normal values", the trader said. Owners were reported offering tonnage at w230 for Black Sea-to-Mediterranean run on March 2. Only one cargo from Tupras was reported left on the market from the Black Sea for laycan start date March 11, with little options available for fixing.

#### **NEWS**

## CERAWEEK: Permian Basin oil growth may hinge on ExxonMobil, Chevron activity: Sheffield ...from page 1

#### Big factor in Permian growth

"They're a big factor in how the Permian will grow over time," he said. A few years back, those two majors had set aggressive Permian oil growth targets to achieve before the mid-2020s. Chevron aimed at hitting 900,000 b/d by the end of 2023 and ExxonMobil projected it would clock in at 1 million b/d in the basin by 2024.

And Pioneer, under a different CEO, had also set a target of 1 million boe/d of oil and gas production by 2026, which would have included 700,000 b/d of crude. In 2016, just before the target was set, Pioneer produced an average of 133,000 b/d of oil.

However, Sheffield, who had retired at the end of 2016 as founding CEO of Pioneer after nearly 20 years, returned to the company's helm in 2019 and set a more modest growth target in line with industry's concern at the time about the perils of double-digit production growth. Instead, calls for greater shareholder returns and capital discipline

were emerging that would lure back investors who had fled the sector.

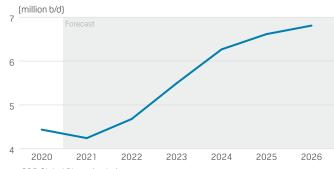
But a more ominous threat would bring the lofty output figures planned by Chevron and ExxonMobil, and others, to a screeching halt as the pandemic quashed oil demand. Even with oil prices currently around \$60/b, a flat to modest-growth production mentality has taken hold to the point that producers say they are making plenty of cash to not only fund their budgets but to return hefty amounts they earn to shareholders.

#### Returns 40% of cash to investors

For example, in the same CERAWeek panel, ConocoPhillips CEO Ryan Lance said his company returns 40% of its cash flow to shareholders.

"We as an industry can't do what we did over the last decade and expect investors to come our way," said Lance, referring to the high-production growth mentality during the shale oil boom, when US production was growing some years at more than 1 million b/d.

#### PERMIAN OIL OUTPUT POISED TO GROW IN COMING YEARS



Source: S&P Global Platts Analytics

"There's uncertainty on demand and supply coming back, but the Permian has some of the lowest-cost reserves and the lowest greenhouse gas emissions," Lance said.

Besides rewarding shareholders, producers should allocate capital only to the lowest-cost plays, he said. ConocoPhillips's sources of supply are less than \$40/b, he said.

ConocoPhillips closed its acquisition of Concho Resources in January which more than quadrupled its production in the Permian to around 400,000 boe/d.

In Q4 2020, just before closing the transaction, ConocoPhillips produced 88,000 boe/d from the Permian.

— <u>Starr Spencer</u>

## Russia likely to push for output increase, but support OPEC+ cohesion

- Gap between Russia, Saudi fiscal breakevens lower than prepandemic
- Some US shale oil production costs now lower than Russia's

Moscow—Analysts expect Russia to seek further increases to its crude output quota under the OPEC+ agreement at meetings this week while continuing to support cooperation within the group.

With talks getting underway ahead of a full OPEC+ meeting on March 4, "I think Russia will seek to obtain a negotiated increase in output volumes for at least six months," George Voloshin, head of the Paris branch of Aperio Intelligence, said.

"Russia has long been advocating for a change of strategy as long as there are signs global oil demand is on track for steady recovery."

S&P Global Platts Analytics meanwhile said: "As was the case at the two most recent meetings in December and January, Russia will prioritize maintaining its share of the global oil market as demand recovers, but not at the expense of OPEC+ cohesion."

Since the beginning of 2021 Russia's output quota has increased gradually from its August-December 2020 level of 8.99 million b/d. It rose by 125,000 b/d in January, a further 65,000 b/d in February, and a further 65,000 b/d for March.

Russia's relatively strong economic position compared to other OPEC+ members has helped it to secure these increases. Analysts expect this to continue, with Russia's flexible ruble exchange rate to the US dollar, as well as a lower fiscal breakeven oil price continuing to support its position.

"Russia's macroeconomic position is strong enough to warrant an increasingly procyclical stance within OPEC+ predicated on global recovery this year. It's in the best position compared to large fellow producers and will seek to take advantage of that," Voloshin said.

The difference between Russia and Saudi Arabia's fiscal breakevens has narrowed during the coronavirus pandemic, however, which some analysts see as supportive for ongoing cooperation through OPEC+.

"The narrowing of the two OPEC+ leaders' respective fiscal requirements likely portends greater cohesion on production strategy than would have been the case even in 2019, when the gap exceeded \$30/b," Platts Analytics said.

Platts Analytics puts Saudi Arabia's fiscal breakeven price at \$75/b Brent in 2021, down from \$86/b in 2020. It estimates Russia's fiscal breakeven price is \$64/b Brent in 2021, down from \$75/b in 2020. This has risen significantly from the pre-pandemic estimate of \$51/b in 2018-2019.

#### Cost concerns

Improvements to cost efficiency among US shale producers will also be a consideration influencing Russia's approach to cuts under the OPEC+ agreement over the coming months.

VTB Capital estimates shale oil companies managed to reduce lifting costs by 65% in 2014-20, compared to Russian producers' cut of around 34%.

"What is yet to be realized and understood, we think, is that in 2020 the US shale industry caught up with, and in some areas even overtook, Russian oils in terms of the cost of oil production," VTB Capital analysts said in a Feb. 9 research note.

Since the beginning of OPEC+ cooperation, Russian oil producers have repeatedly cited the risk of US oil producers taking market share as a reason to be cautious in agreeing to large-scale, long-term cuts.

— Rosemary Griffin

### Neste scales up renewables business with acquisition of Bunge's plant in Rotterdam

- Deal to boost Neste's feedstock processing capacity
- Facility linked to Neste's existing biodiesel plant
- Eyes 4.5 mil mt/year renewables capacity by Q1 2023

London—Finnish refiner and clean fuels producer Neste has completed its acquisition of Bunge Loders Croklaan's vegetable oil processing plant in Rotterdam, as it looks to scale up its renewable raw material pretreatment, it said March 2.

The Bunge facility, located next to Neste's existing Rotterdam biorefinery, consists of a pretreatment facility for plant-based oils and fats, a tank farm, jetties and has a pipeline connection to Neste's nearby biodiesel site.

"We are committed to increasing the share of waste and residues to 100% of Neste's total renewable raw material inputs at the latest by 2025, and growing our production platform to help customers reduce greenhouse gas emissions by 20 million mt annually by 2030," Neste president and CEO Peter Vanacker said in a statement.

Neste has moved away from traditional oil refining and refocused its business on producing renewable diesel, sustainable aviation fuel and feedstock for polymers and chemicals, into a production platform for renewables.

Neste is hoping to expand its renewables annual nameplate production capacity to 4.5 million mt/year by the first quarter of 2023 from current levels of 3.2 million mt/year.

Neste has been active in the Netherlands since 2011 when the Rotterdam facility for renewable products started operations.

#### Renewables strategy

"The completion of this acquisition is an important step forward in delivering on Neste's global growth strategy in renewables," Vanacker said. "It allows us to accelerate the scaling up of our renewable raw material pretreatment capacity, which is an important driver for expanding the use of waste and residue feedstocks and increasing our feedstock flexibility."

Neste is one of the largest producers of renewable diesel in the world. It increased its production capacity to 3 million mt in 2019 from 2.7 million mt, with production sites in Porvoo, Finland, Singapore and Rotterdam. In 2019, 80% of its renewable diesel was made from wastes and residues.

Lats year, Neste said it did not expect oil product demand to recover to pre-pandemic levels, which is why it changed its business model to ensure the competitiveness of its oil product business.

The Finnish company has emerged as one of the key producers of sustainable aviation fuel (SAF), with a current capacity of 100,000 mt/year. It is aiming to produce some 1.5 million mt/year of SAF by 2023.

— <u>Eklavya Gupte</u>

### OIL FUTURES: Crude prices retreat amid expectations of rising OPEC+ supply

- OPEC+ expected to increase April supply by 500,000 b/d
- Crude structure weakens as prompt slip 6% on week
- Texas lifts pandemic capacity restrictions

*New York*—Crude oil futures settled lower March 2 as concerns of rising global supply continued to add bearish pressure.

NYMEX April WTI settled down 89 cents at \$59.75/b and ICE May Brent declined 99 cents to \$62.70/b.

"The energy market is bracing for more supply to come into the market, but continued vaccine optimism and global reopening hopes will likely limit most of the downward pressure with oil prices," OANDA senior market analyst Edward Moya said in a note. "It is hard to imagine a scenario that has oil prices rising higher ahead of the [March 4 OPEC+] meeting, but if that does happen, energy traders will be looking for a 'buy the rumor, sell the news' reaction for WTI crude."

Several OPEC+ members, chiefly Russia, are expected to push for a loosening of quotas when the group meets March 4.

OPEC Secretary General Mohammed Barkindo said OPEC and its allies need to remain disciplined with their oil production to ensure its full recovery even as the global economy continues to rebound from the pandemic.

S&P Global Platts Analytics forecasts the OPEC+ group will agree to a collective quota increase of 500,000 b/d in April with Russia's share of the increase around 125,000 b/d.

Under the current agreement, OPEC and nine allies are cutting a collective 7.2 million b/d of production, which can be eased by up to  $500,000 \, \text{b/d}$  each month.

Crude prices settled March 2 down around 6% from their most recent peak on Feb. 25.

Forward structure continued to weaken amid expectations of future supply increases. Year-ahead WTI settled at a \$4.80/b discount to the front-month contract, in from a peak of \$5.85/b on Feb. 25, while the discount for year-ahead Brent futures narrowed to \$4.45/b, in from \$6.65/b on Feb. 26.

NYMEX April RBOB settled 65 points lower at \$1.9364/gal and April ULSD declined 1.11 cents to \$1.8081/gal.

#### Texas lifts pandemic restrictions

Texas Governor Greg Abbott on March 2 issued an executive order rescinding previous pandemic capacity restrictions on businesses and ending a statewide mask mandate.

The Texas Department of State Health Services reported 1,637 confirmed new COVID-19 infections on March 1, the lowest since Sept. 28.

While the lifted mandate is likely to prompt some additional oil demand, Texas mobility was already relatively unfazed by the orders. Apple Mobility data shows that the seven day moving average of driving activity in the state on March 1 was around 0.5 percentage point higher than it was during the same period last year, just prior to the first wave of pandemic lockdowns.

Diesel demand could see some additional upside, however as Apple data shows that Texas transit demand remains more than 46 percentage points behind year-ago levels as of March 1.

<u> — Chris van Moessner</u>

### CERAWEEK: Brazil, Colombia adjusting upstream portfolios as energy transition strategy

- Ecopetrol increasing gas participation to 35% of upstream portfolio by 2030
- Brazil concentrating on ultra-deepwater; laying ground for gas investments
- Mexico to continue importing gas from US despite reserves

Mexico City —The state oil companies of Brazil and Colombia are beginning to focus on gas in order to adjust to energy transition, while Mexico keeps its dependency on imports, executives said March 2 on the second day of CERAWeek by IHS Markit.

Colombia's Ecopetrol is increasing the competitiveness of its portfolio to avoid stranded assets and diversifying into natural gas, said Juan Manuel Rojas, the company's corporate vice president of strategy and business development.

"We are increasing the participation of gas to the overall upstream portfolio from 20% today to 35% by the end of 2030," Rojas said.

The company is also accelerating the decarbonization of its operations and diversifying. It has announced the first renewable power generation projects and will analyze energy transmission, he said.

Petrobras is abandoning the onshore and shallow-water operations to concentrate in deepwater and ultra-deepwater, where the company feels it has a competitive advantage, said Rafael Chaves Santos, chief strategy officer.

"We are focusing our portfolio on ultra-deepwater, pre-salt, where lifting costs are \$4/b and selling assets in shallow water, where costs are higher," Chaves Santos said.

The company has also identified there will be an increase in the production of associated gas in the future, which could stop the region's dependency on imports, but said there needs to be a regional view to the issue.

"This market needs a lot of investment in infrastructure, and that takes time. We must have very stable rules for private investment to flow," Chaves Santos said, adding that the dependency on imports will not change in the short term.

Mexico, in contrast, will continue to depend on gas from the US, despite its huge reserves and potential, said Ulises Hernandez-Romano, CEO of Pemex' trading arm PMI.

"The low price of the gas in the US has made it difficult for nonassociated gas projects in the country to take off, but the potential is there," Hernandez-Romano said, adding that for those reserves to be exploited, a big shift from the government's policy is needed.

— Sheky Espejo

## CERAWEEK: API weighs embracing price on carbon emissions

- API draft statement backs 'economy-wide carbon pricing'
- API publicly supports Paris Agreement, methane emission regulations
- John Kerry objects to emissions, not fossil fuels

Houston—The US oil sector's top lobbying arm is considering endorsing a price on carbon on carbon emissions for the first time as

it seeks a foothold to compromise with the new Biden administration's more aggressive approach in combating climate change.

American Petroleum Institute CEO Mike Sommers said March 1 at the virtual CERAWeek by IHS Markit that API membership is embracing the US' return to the Paris climate accord and he emphasized that API supports the regulation of methane emissions, which is particularly an issue with associated gas in the Permian Basin and other regions.

However, API also is asking its membership to consider supporting a price on carbon dioxide emissions for the first time. Such a so-called carbon tax has been a non-starter within API and the Republican Party for years, including under the Trump administration. API's support would be contingent on an "economy-wide" approach and not a policy specifically aimed at the energy sector.

A draft statement by API that has not yet been approved – and was first reported by The Wall Street Journal – says API would support federal intervention on "economy-wide carbon pricing as the primary government climate policy instrument to reduce CO2 emissions while helping keep energy affordable, instead of mandates or prescriptive regulatory action."

An API statement this week concluded, "our efforts are focused on supporting a new US contribution to the global Paris agreement."

A carbon price has been backed for years by the top European oil and gas companies and, in 2017, ExxonMobil first said it publicly supported some form of carbon pricing proposal. However, there remains a big difference between backing a carbon price in theory as opposed to agreeing on a specific price tag with the Biden administration and Congress. And, until possibly now, API and most of the smaller and more mid-sized members of the lobbying firm have resisted any type on carbon tax.

Sommers also emphasized at CERAWeek that oil and gas still will represent nearly half of the global energy by 2040 and that so-called "net-zero" emissions pledges are aspirational for now because the necessary technologies either do not exist yet or are not cost effective.

The White House under President Joe Biden administration already is toughening the standards on greenhouse gas emissions.

Biden on Feb. 26 moved to reestablish the Obama-era price tag on the social cost of greenhouse gas emissions. Biden would put the price back at \$51/mt of carbon emissions, which is the same as during the Obama administration, after former President Trump set the range much lower at a range of just \$1-\$7/mt.

The White House also made it clear the cost is likely to move higher in a year after its new interagency work group makes new recommendations in January 2022 for the economic impact of carbon dioxide pollution.

Speaking at CERAWeek, John Kerry, Biden's special presidential envoy for climate, emphasized that the president is not trying to destroy the oil and gas sector.

"I don't object to fossil fuels," Kerry said. "I object to the byproducts, namely carbon dioxide and methane."

That is the same tone struck by Occidental Petroleum CEO Vicki Hollub at CERAWeek on March 2 when she said, "We should not be talking about eliminating fossil fuels. What we really need to talk about is eliminating emissions."

— <u>Jordan Blum</u>

#### **REFINERY UPDATES**

#### Lytton, Australia

- Owner: Ampol
- Overall capacity (b/d): 109,000 b/d

**Notes:** Ampol, formally known as Caltex Australia, will complete the comprehensive review of its 109,000 b/d Lytton refinery by the end of H1 2021, which would provide an indication on the refinery's future in Australia, the company said in a statement on its website.

The review will come amid a challenging refining landscape even in early 2021, with "headwinds including Australian dollar strength" and "ongoing COVID-19 related travel restrictions impacting fuel volumes," the company said in a statement.

In 2020, Australian refineries have announced their shut, with BP's Kwinana refinery and Exxon Mobil's Altona refinery, leaving Australia with only two refineries – Ampol's Lytton refinery in Brisbane and Viva Energy's refinery in Geelong, Victoria.

The 120,000 b/d Geelong refinery in fact, noted that it would delay the decision to close its refinery until at least July 2021, in line with the terms put forth it is agreement with the Australian federal government for a payment lifeline, Platts previously reported.

"Under the grant, the Company will receive a minimum payment of 1 cent per litre for production of primary transport fuels (gasoline, diesel and jet) refined from crude oil at Geelong Refinery," a December statement from Viva Energy said. Ampol notably, has not taken up the grant by the Federal government.

Against this backdrop, Ampol has expects domestic fuel sales to remain tepid even throughout 2021, at around 13.5 bn liters to 14 bn liters, marginally changed from the 13.6 bn liters it had sold in 2020 and still lagging behind the 16.3 bn liters it had sold in 2019.

The tepid domestic sales of refined oil products comes as a result of sustained poor demand for international travel, which makes up "75% of Ampol's jet volumes in 2019" according to the statement from Ampol.

Source: company

#### Guangzhou, China

- Owner: Sinopec Guangzhou Petrochemical
- Overall capacity (b/d): 264,000 (13.2 million mt/year)
- Duration: March

**Notes:** Sinopec Guangzhou Petrochemical plans to boost gasoil, jet fuel exports in March to ease oil product inventory pressure while lifting throughput, a refinery source said March 2.

The refinery plans to export 50,000 mt of gasoil in March, surging 72% from about 29,000 mt in the previous months, according to the source. Jet fuel exports, on the other hand, were seen at 95,000 mt in March, compared to 35,000 mt in the previous months.

About half of the jet fuel volume will be exported by cargo to overseas, and the rest will be send to Guangzhou Baiyun International Airport to fuel international flights, the source added.

"The barrels have no where to go, so that [the plant has] to export

them," the source said, adding that their crude throughput lifted to 1.08 million mt this month.

The throughput volume can be translated into 96% utilization rate of the refinery, higher than 94% in February and 91% in January.

However, it slashed its gasoline exports by more than half to 10,000 mt in March from about 21,000 mt in the previous months.

Market sources said domestic gasoline demand recovered, as traffic volume increased following easing pandemic restrictions.

Source: Refinery source

#### Sendai, Japan

Owner: ENEOS

Overall capacity: 145,000 b/d

Units affected: All units

Units capacity: 145,000 b/d

Duration: Shut late Feb. 13

**Notes:** Japan's largest refiner ENEOS said March 2 it plans to restart its 145,000 b/d Sendai refinery in northeast Japan in the first half of April, which has been suspended since the strong earthquake offshore Fukushima late Feb. 13.

"We are proceeding with restoration works with the aim of restarting the Sendai refinery in the first half of April, resuming not only the crude distillation unit but also the secondary units," a company spokeswoman said. She did not disclose further details.

At the Sendai refinery, all units were automatically shut after the magnitude 7.3 earthquake hit offshore Fukushima at a depth of 55 km at 11:08 pm local time (1408 GMT) Feb. 13. Right after the earthquake, waterborne and rack shipments of fuel oil were suspended, but rack shipments of fuel oil resumed on Feb. 20 and waterborne shipments restarted on Feb. 27.

"Currently, we continue to ship all types of oil product by waterborne and rack," the spokeswoman said.

Source: Company spokeswoman

#### Dangote, Nigeria

Owner: Dangote Industries

Overall capacity: 650,000 b/d

**Notes:** The Dangote plant in Lagos, Nigeria – which at 650,000 b/d will be Africa's largest refinery – is expected to start commissioning next January, according to project head Devakumar V.G. Edwin, an executive director at Dangote Industries.

Edwin told S&P Global Platts on March 1 that overall progress is now 90% complete, including design, engineering and procurement, with construction work around 70% complete.

"Out of the balance 30%, approximately 8% are roads and rails, which will not affect the completion and commissioning of the plant," he added.

Edwin said despite delays caused by the coronavirus pandemic in 2020, work has been picking up. "We are targeting for mechanical completion by the end of this year and the commissioning to start in

January next year," he said.

Edwin has said previously that the refinery would reach full capacity within six months of the start of commissioning.

The start-up date for the refinery has been repeatedly delayed, after the company first announced the project in 2013.

The plant will yield 327,000 b/d of gasoline, 244,000 b/d of gasoil/ diesel, 56,000 b/d of jet fuel/kerosene as well as 290,000 mt/year of propane/LPG when fully operational, according to a Dangote presentation given at an industry event last year.

It will also produce 830,000 mt/year of polypropylene, 600,000 mt/year of slurry, 290,000 mt/year of propane and 38,000 mt/year of sulfur.

Nigeria currently relies heavily on imports for its oil product needs, importing around 1 million-1.25 million mt/month of gasoline due to inadequate domestic refining capacity. All the refineries, with combined nameplate capacity to refine 445,000 b/d of crude oil, are currently shut down.

#### Numaligarh, India

- Owner: Bharat Petroleum Corporation Limited
- Overall capacity: 3 million mt/year (60,000 b/d)

**Notes:** State-run Bharat Petroleum Corp. Ltd has decided to sell off its stake in the Numaligarh refinery in the eastern state of Assam as part of its strategy to move ahead with privatization, oil ministry officials said March 2.

BPCL will sell its 61.65% share at a price of around \$1.4 billion to a consortium of Oil India Ltd., Engineers India Ltd., and the local Assam government.

Currently, OIL holds 26% equity in Numaligarh Refinery Ltd, while the Assam has government has a 12.35% stake in NRL.

OIL is a state-run company, with interests in upstream and downstream activities, primarily in the northeast region of the country. Both OIL and EIL are state-run companies.

The decision to exit from the Numaligarh refinery was taken by the BPCL board at a meeting on March 1.

The transaction is subject to approval from BPCL shareholders, the company said in a regulatory filing.

With the decision to exit the Numaligarh refinery, BPCL will be left with three refineries – Mumbai, Kochi and Bina – ahead of its privatization.

The Indian government has decided to sell its entire controlling stake of 52.98% in BPCL, the country's No. 2 fuel refiner.

NRL produces Euro 6 grades of both diesel, and gasoline. In January, it ran at 98%, compared with 152% a year ago month. For April-January, its run rate stood at 89%, compared with 76% in

the same period a year before.

NRL has plans to raise its capacity to 9 million mt/year by 2024. Its expansion plans include setting up a crude oil pipeline from Paradip in Odisha on India's east coast to the landlocked northeast at Numaligarh, with a product pipeline set to run from Numaligarh to Siliguri, adjacent to the Nepal border, in West Bengal.

Sources: Oil ministry officials

### El Dorado, Arkansas

Owner: Delek USCapacity: 83,000 b/d

Unit: Penex UnitUnit capacity: 23,500 b/d

Duration: Feb. 27

**Notes:** Delek US reported on Feb. 27 a fire in a unit at its 83,000 b/d El Dorado, Arkansas, plant, but said in a statement there was no impact to operations.

"The facility was in the process of undergoing turnaround activity, so there are no operational impacts to Delek US or Delek Logistics," the

company said.

The general maintenance, cleaning and inspection turnaround had been scheduled to begin later in the first quarter.

Delek US moved up planned work at the refinery to mid-February after the recent polar vortex impacted operations. The plant is expected back online early April, the company said on its Feb. 24 fourth-quarter results call.

The fire was in the Penex unit, which is a type of isomerization unit. Isomers add octane to transportation fuels. According to the Energy Information Administration, the refinery has the capacity to make 7,500 b/d of isopentane and isohexane.

Sources: Delek US, Energy Information Administration

#### ASIA, MAR 2

			Mid	Change
Singapore (PGA page 2002)				
(\$/barrel)				
Naphtha	PAAAP00	63.57-63.61	63.590	-2.590
Jet kerosene	PJABF00	65.21-65.25	65.230	-3.200
Gasoil	POABC00	68.14-68.18	68.160	-3.120
Gasoil 10 ppm	AAOVC00	68.14-68.18	68.160	-3.120
Gasoil 50 ppm	AAPPF00	68.00-68.04	68.020	-3.100
Gasoil 0.05% S	AAFEX00	67.04-67.08	67.060	-3.050
Gasoil 0.25% S	AACUE00	66.77-66.81	66.790	-3.050
Gasoil 50 ppm disc/prem	ААРРН00	-0.330.29	-0.310	-0.070
Mogas 92 unl	PGAEY00	68.34-68.38	68.360	-3.030
Mogas 95 unl	PGAEZ00	69.81-69.85	69.830	-2.980
Mogas 97 unl	PGAMS00	70.93-70.97	70.950	-3.330
CFR Naphtha	AAOVF00		61.900	-2.570
Naphtha pap. (bal month)	AAPLD00	62.48-62.52	62.500	-2.500
Naphtha pap. (Apr)	PAAAQ00	61.43-61.47	61.450	-2.500
Naphtha pap. (May)	PAAAR00	60.58-60.62	60.600	-2.500
Kerosene pap. (bal month)	AAPLE00	65.56-65.60	65.580	-3.190
Kerosene pap. (Apr)	PJABS00	65.93-65.97	65.950	-3.140
Kerosene pap. (May)	PJABT00	66.12-66.16	66.140	-3.080
Gasoil pap. (bal month)	AAPLF00	68.31-68.35	68.33	-3.040
Gasoil pap. (Apr)	POAFC00	68.32-68.36	68.340	-3.010
Gasoil pap. (May)	POAFG00	68.21–68.25	68.230	-2.980
(\$/mt)				
FO 180 CST 2%	PUAXS00	376.19-376.23	376.210	-15.710
HSFO 180 CST	PUADV00	367.91-367.95	367.930	-15.370
180 CST disc/premium	AAGZF00	0.90-0.94	0.920	+0.170

#### CHINA, MAR 2 (PGA page 2010)

(\$/mt)			Mid	Change
South China FOB				
Unl 92 RON	AAICW00	569.25-573.25	571.250	-25.250
South China, C&F				
Jet kerosene	РЈАВQ00	524.75-528.75	526.750	-25.250
Gasoil	POAFA00	508.50-512.50	510.500	-22.500
Hong Kong				
Fuel oil 380 CST	PUAER00	386.50-387.50	387.000	-15.000

#### FUJAIRAH, FOB, MAR 2 (PGA page 2018)

	(· p-g)		
(\$/mt)		Mid	Change
Naphtha	NFJSA00	577.670	-21.230
HSF0 380 CST	AFUJQ00	355.130	-12.440
(\$/barrel)			
Gasoline 95 unleaded	AFUJA00	71.360	-3.150
Gasoline 92 unleaded	RFJFS00	69.020	-3.070
Kerosene	AFUJF00	64.990	-3.090
Gasoil 10 ppm	AFUJP00	67.350	-3.060
Gasoil	AFUJK00	67.350	-3.060

			Mid	Change
Singapore (continued)(PGA page	es 2002 & 2	2655)		
(\$/mt)				
HSF0 380 CST	PPXDK00	363.80-363.84	363.820	-14.770
HSFO 180 CST pap. (bal month)	AAPML00	367.98-368.02	368.00	-15.150
HSFO 180 CST pap. (Apr)	PUAXZ00	364.48-364.52	364.500	-16.350
HSFO 180 CST pap. (May)	PUAYF00	362.48-362.52	362.500	-16.300
MTBE	PHALF00	653.00-655.00	654.000	-29.000
C&F Japan (PGA page 2006)				
(\$/barrel)				
Jet kerosene	PJAAN00	67.11-67.15	67.130	-3.200
Mogas unl	PGACW00	70.36-70.40	70.380	-3.030
(\$/mt)				
Naphtha	PAAAD00	577.00-582.25	579.625	-22.500
Nph 2nd 1/2 Apr	PAAAE00	586.50-587.00	586.750	-22.500
Nph 1st 1/2 May	PAAAF00	581.75-582.25	582.000	-22.500
Nph 2nd 1/2 May	PAAAG00	577.00-577.50	577.250	-22.500
FOB Japan				
(\$/barrel)				
Gasoil	РОЈАР00		67.380	-3.030
C+F Australia (PGA page 2004)				
(\$/barrel)				
Mogas 92 unl	AACZF00	71.14-71.18	71.160	-3.030
Mogas 95 unl	AACZH00	72.61–72.65	72.630	-2.980
Jet kerosene	AAFIY00	68.22-68.26	68.240	-3.200
Gasoil 10 ppm	AAQUD00	71.33-71.37	71.350	-3.120

#### ARAB GULF, FOB, MAR 2 (PGA page 2004)

(\$/mt)			Mid	Change
Naphtha	PAAAA00	555.00-560.25	557.625	-22.260
Naphtha LR2	AAIDA00	559.50-564.75	562.125	-22.500
HSF0 180 CST	PUABE00	357.18-357.22	357.200	-16.000
HSF0 380 CST	AAIDC00	353.07-353.11	353.090	-15.400
(\$/barrel)				
95 RON unleaded	AAICY00	67.55-67.59	67.570	-2.950
92 RON unleaded	AAGJA00		66.100	-3.000
Kerosene	PJAAA00	63.58-63.62	63.600	-3.180
Gasoil 10 ppm	AAIDT00	66.41-66.45	66.430	-3.100
Gasoil 0.05% S	AAFEZ00	66.11–66.15	66.130	-3.100
Gasoil 0.25% S	AACUA00	65.66-65.70	65.680	-3.100
Gasoil	POAAT00	66.41-66.45	66.430	-3.100

#### ASIA PRODUCT PREMIUM/DISCOUNT ASSESSMENTS

PJACU00  AACQ100	-0.47/-0.43	Mid	Change
PJACU00 AACQI00	-0.47/-0.43		
AACQI00	-0.47/-0.43		
AACQI00		-0.450	-0.030
	-1.56/-1.52	-1.540	-0.020
POAIC00	-0.19/-0.15	-0.170	-0.090
AAOVG00	0.1.0/ 0.1.0	-0.300	-0.050
PPXDI 00	2 04/2 08	2 060	+0.970
	2.0 1/2.00	2.000	- 0.010
90 200 1)			
ΡΊΔΟΥΘΘ	0.83/0.87	0.850	+0.050
			-0.050
		0.000	-0.050
POAID00	0.73/0.77	0.750	-0.050
PPXDM00	-4.13/-4.09	-4.110	+0.600
AAXJA00	6.98/7.02	7.000	0.000
ААХЈВ00	2.98/3.02	3.000	+1.000
006)			
PAADI00	11.25/11.75	11.500	0.000
ege 2012)			
AARBQ00		568.560	-25.600
AAQWI00		574.070	-24.870
AAQWK00		560.790	-22.170
AAQWM00		502.820	-25.120
AAQW000		506.880	-23.610
AAQWQ00		487.100	-22.560
AAQWS00		485.090	-22.560
AARBP00		66.890	-3.010
AAQWH00		68.340	-2.960
ООСИОАА		62.310	-2.460
AAQWL00		63.650	-3.180
AAQWN00		66.520	-3.100
AAQWP00		65.380	-3.030
AAQWR00		65.110	-3.030
	PPXDL00 ge 2004)  PJACV00 AAIDU00 AACUC00 POAID00 PPXDM00  AAXJA00 AAXJB00 006)  PAADI00 AAQWI00 AAQWI00 AAQWI00 AAQWG00 AAQWG00 AAQWG00 AAQWG00 AAQWH00	PPXDL00 2.04/2.08 ge 2004)  PJACV00 0.83/0.87 AAIDU00 0.73/0.77 AACUC00 -0.02/0.02 POAID00 0.73/0.77 PPXDM00 -4.13/-4.09  AAXJA00 6.98/7.02 AAXJB00 2.98/3.02  OOG)  PAADI00 11.25/11.75 gge 2012)  AARBQ00 AAQWI00	PPXDL00 2.04/2.08 2.060  ge 2004)  PJACV00 0.83/0.87 0.850  AAIDU00 0.73/0.77 0.750  AACUC00 -0.02/0.02 0.000  POAID00 -4.13/-4.09 -4.110  AAXJA00 6.98/7.02 7.000  AAXJB00 2.98/3.02 3.000  006)  PAADI00 11.25/11.75 11.500  aarbordon 574.070  AAQWI00 500.790  AAQWI00 500.800  AAQWI00 500.800  AAQWI00 487.100  AAQWI00 487.100  AAQWI00 500.800  AAQWI00 500.800  AAQWI00 500.800  AAQWI00 60.800  AAQWI00 60.800

<sup>\*</sup>Mean of Platts. \*\*=Differential to FOB Arab Gulf HSFO 180 CST.

#### PLATTS INDEX, MAR 2 (PGA page 115)

			unange
Platts Jet Fuel Index	PJGL000	185.03	-4.110

The Platts Jet Fuel Index is calculated using daily assessments of Jet fuel spot prices in relevant regional centers. These values are compared with average spot prices in the base period (Index value of year 2000 = 100%) to generate a percentage figure reflecting the overall rise or fall in markets compared to the base period.

(\$/mt)			Mid	Change			Mid	Change
(PGA page 1114)								
	Cargoes	FOB Med basis Italy			Cargoes	CIF Med basis Genoa	e/Lavera	
Prem unl 10 ppm	AAWZA00	593.75-594.25	594.000	-6.750	AAWZB00	601.75-602.25	602.000	-7.25
Naphtha physical	PAAAI00	548.75-549.25	549.000	-11.500	РАААН00	559.50-560.00	559.750	-12.25
Jet av. fuel	AAIDL00	515.25-515.75	515.500	-7.000	AAZBN00	529.25-529.75	529.500	-8.00
ULSD 10 ppm	AAWYY00	510.25-510.75	510.500	-8.000	AAWYZ00	520.00-520.50	520.250	-8.75
Gasoil 0.1%	AAVJI00	501.25-501.75	501.500	-7.500	AAVJJ00	511.50-512.00	511.750	-8.25
1% fuel oil	PUAAK00	428.00-428.50	428.250	-10.750	PUAAJ00	440.50-441.00	440.750	-10.75
3.5% fuel oil	PUAAZ00	344.50-345.00	344.750	-10.500	PUAAY00	356.75-357.25	357.000	-10.50
(PGA page 1110)								
	Cargoe	s FOB NWE			Car	goes CIF NWE basis A	ARA	
Gasoline 10 ppm					AAXFQ00	610.50-611.00	610.750	-7.500
Naphtha swaps					РААА ЈОО	558.75-559.25	559.000	-11.250
Naphtha physical					PAAAL00	567.25-567.75	567.500	-13.000
Jet kerosene	PJAAV00	522.50-523.00	522.750	-8.000	РЈААЏ00	530.75-531.25	531.000	-8.00
ULSD 10 ppm	AAVBF00	509.50-510.00	509.750	-9.000	AAVBG00	519.50-520.00	519.750	-9.000
Diesel 10 ppm NWE	AAWZD00	510.75-511.25	511.000	-9.000	AAWZC00	521.25-521.75	521.500	-9.00
Diesel 10 ppm UK					AAVBH00	522.25-522.75	522.500	-9.000
Diesel 10 ppm UK cargo	es				AUKDA00		523.000	-9.000
CIF NWE - original (Fren								
Gasoil 0.1%	AAYWR00	501.25-501.75	501.500	-8.500	AAYWS00	514.00-514.50	514.250	-8.500
1% fuel oil	PUAAM00	422.50-423.00	422.750	-10.750	PUAAL00	432.75-433.25	433.000	-10.750
3.5% fuel oil	PUABB00	338.00-338.50	338.250	-10.000	PUABA00	351.50-352.00	351.750	-10.000
(PGA pages 1112 & 1380)								
	Barges F	OB Rotterdam						
98 RON unl	AAKOD00	630.50-631.00	630.750	-7.500				
Prem unl	PGABM00	604.75-605.25	605.000	-6.750				
Reformate	AAXPM00		613.750	-7.500				
Eurobob	AAQZV00	593.50-594.00	593.750	-7.500				
E10 Eurobob	AGEFA00		599.750	-5.750				
Naphtha physical	PAAAM00	563.25-563.75	563.500	-13.000				
Jet kerosene	РЈАВА00	528.25-528.75	528.500	-12.250				
Diesel 10 ppm*	AAJUS00	515.25-515.75	515.500	-9.250				
Gasoil 50 ppm	AAUQC00	511.50-512.00	511.750	-9.250				
Gasoil 0.1%*	AAYWT00	507.25-507.75	507.500	-6.500				
DMA MGO 0.1%*	LGARD00		509.000	-14.000				
1% fuel oil	PUAAP00	421.25-421.75	421.500	-10.750				
3.5% fuel oil	PUABC00	353.00-353.50	353.250	-10.000				
3.5% 500 CST fuel oil	PUAGN00	351.00-351.50	351.250	-10.000				
380 CST	PUAYW00	378.50-379.50	379.000	-7.000				
*FOB Amsterdam-Rotterdan	n Antworo							

Channe

		1110	Onlonge
West Africa cargoe	<b>S</b> (PGA page 1122)		
	FOB.	NWE	
Gasoline	AAKUV00	604.750	-7.250
	CIF Wes	st Africa	
Gasoline	AGNWC00	623.000	-7.250
	FOB STS V	Vest Africa	
Gasoil 0.3%	AGNWD00	521.250	-9.250

Mid

	- (1	,,	Change	ĺ
Northwest Europe	!			
SAF	BJNWA00	1865.137	+5.168	
HV0	HVNWA00	1715.147	+3.354	
USWC				
SAF w/ credits	ASAFA00	1711.111	+1.700	
SAF w/o credits	ASAFB00	308.516	-13.984	
RD w/ credits	ARDFA00	1617.501	+1.071	
RD w/o credits	ARDFB00	51.365	-15.025	
Southeast Asia				
SAF	ASFAA00	1727.660	+2.040	
HV0	HVSAB00	1585.330	-0.640	

#### PLATTS EURO DENOMINATED PRODUCT ASSESSMENTS

Mar 2			Mid	Change
			14110	Change
Cargoes CIF NWE/ba	isis ARA (€/mt)	(PGA page 1116)		
Nap phy	AAQCE00	469.85-470.26	470.057	-11.486
Jet	AAQCF00	439.62-440.03	439.824	-7.293
Cargoes FOB NWE (P	'GA page 1116)			
1%	AAQCG00	349.95-350.37	350.162	-9.440
Barges FOB Rotterd	əm (€/mt) (PGA	page 1118)		
Prem unl	AAQCH00	500.91-501.33	501.118	-6.348
10 ρρm*	AAQCI00	426.78-427.19	426.986	-8.311
Gasoil 0.1%*	AAYWY00	420.15-420.57	420.359	-6.020
DMA MGO*	LGARE00		421.602	-12.243
3.50%	ААQСК00	292.39-292.80	292.595	-8.732
3.50% 500 CST	PUAG000	290.73-291.15	290.938	-8.730
			Mid	Change
Cargoes CIF West Af	rica (€/mt) (PGA	v page 1116)		
Gasoline	AANWC00		516.027	-6.785
Cargoes FOB NWE W	est Africa (€/m	t) (PGA page 1116)		
Gasoline	AGNWA00		500.911	-6.762
Cargoes FOB STS We	est Africa (€/mt	(PGA page 1116)		
Gasoil 0.3%	AGNWE00		431.749	-8.317

Euro/US\$ forex rate: 1.2073. Platts Euro denominated European and US product assessments are based on market values and a Euro/US\$ forex rate at 4:30 PM local London time. \*FOB Amsterdam-Rotterdam-Antwerp.

#### FUROPEAN FEEDSTOCKS AND BLENDSTOCKS

EURUPEAN FEEDSTUCKS AND BLENDSTUCKS										
				Change						
CIF Northwest Europe cargo (\$/mt) (PGF page 1760)										
VGO 0.5-0.6%	AAHMZ00	467.75-468.75	468.250	-9.250						
VGO 2%	AAHND00	460.75-461.75	461.250	-9.500						
FOB Northwest Europe	cargo (\$/mt)	1								
VGO 0.5-0.6%	AAHMX00	454.00-455.00	454.500	-9.500						
VGO 2%	AAHNB00	447.00-448.00	447.500	-9.500						
Straight Run 0.5-0.7%	PKABA00	451.00-452.00	451.500	-9.000						
FOB Black Sea cargo (\$	/mt)									
VGO 0.8%	ABBAD00		442.750	-9.500						
VGO 2%	ABBAC00		436.000	-9.500						
CIF Mediterranean carg	o (\$/mt)									
Straight Run 0.5-0.7%	AAJNT00		460.000	-10.750						
VGO 0.8%	ABBAB00		458.250	-9.500						
VGO 2%	ABBAA00		451.250	-9.500						
FOB Rotterdam barge (\$	\$/mt)									
MTBE*	PHALA00	665.50-666.00	665.750	-15.250						
VGO 0.5-0.6%	AAHNF00	444.25-445.25	444.750	-9.500						
VGO 2%	AAHNI00	437.50-438.50	438.000	-9.500						
*FOB Amsterdam-Rotterdam	n-Antwerp.									

#### NEW YORK, MAR 2 (PGA page 152)

			Mid	Change					Mid	Change				Mid	Change	
		Cargo (¢/gal)				RVP		Barge (¢/gal)				RVP	Diff	ferentials to NYM	1EX	
Unl 87	AAMHG00	191.09-191.19	191.140	-0.650	AAMHGRV	15.0										
CBOB							AAWBL00	184.74-184.84	184.790	-0.950	AAWBLRV	15.0	AANYX14	-8.850	-0.300	
Prem CBOB							AAWLC00	195.49-195.59	195.540	-1.150	AAWLCRV	13.5	AANYX16	1.900	-0.500	
Unl RB0B	AAVKS00	186.24-186.34	186.290	-0.950	AAVKSRV	15.0	AAMGV00	184.74-184.84	184.790	-0.950	AAMGVRV	15.0	AANYX15	-8.850	-0.300	
Prem RB0B							AAMGY00	195.49-195.59	195.540	-1.150	AAMGYRV	13.5	AANYX17	1.900	-0.500	
Jet fuel							PJAAW00	165.01-165.11	165.060	-1.360			ADIGA00	-15.750	-0.250	
LS jet kero							PJABJ00	184.26-184.36	184.310	-1.110			ADIHA00	3.500	0.000	
ULS kero							AAVTI00	191.01-191.11	191.060	-1.110			ADJKH00	10.250	0.000	
No. 2							POAEG00	162.51-162.61	162.560	-1.110			ADIA000	-18.250	0.000	
ULSD							AATGX00	180.96-181.06	181.010	-0.810			ADIZA00	0.200	+0.300	
ULS heating oil							AAXPX00		168.310	-1.110			ADIAQ00	-12.500	0.000	
	С	argo ex-duty (¢/gal)	)*			RVP										
Unl 87	AASAA00	175.34-175.44	175.390	-1.270	AASAARV	15.0										
Unl RBOB	AASAF00	170.52-170.62	170.570	-1.570	AASAFRV	15.0										
		(\$/barrel)					D	ifferential vs 1s stri	iρ(\$/barrel)	)						

	0.	or go on out, (wigor)	,					
Unl 87	AASAA00	175.34-175.44	175.390	-1.270	AASAARV	15.0		
Unl RBOB	AASAF00	170.52-170.62	170.570	-1.570	AASAFRV	15.0		
		(\$/barrel)					Differential vs 1s st	rip(\$/barrel)
No. 6 0.3% S hi pr	PUAAE00	77.97-77.99	77.980	-0.280		AAUGA00	14.57-14.59	14.580
No. 6 0.3% S lo pr	PUAAB00	77.97-77.99	77.980	-0.280		AAUGB00	14.57-14.59	14.580
No. 6 0.7% S max	PUAAH00	68.13-68.15	68.140	-0.250		AAUGC00	4.73-4.75	4.740
No. 6 1% S max	PUAA000	63.15-63.17	63.160	-1.180		AAUGD00	-0.250.23	-0.240
No. 6 1% S max 1s strip	AAUGG00	63.39-63.41	63.400	-1.180				
USAC HSFO	PUAAX00	55.36-55.38	55.370	-0.940		AAUGF00	-8.048.02	-8.030
No. 6.1 S max pap bal M	AARZS00	63.35-63.45	63.40	-1.150				
No. 6 1.0% S pap 1st M	PUAXD00	63.35-63.45	63.400	-0.550				
No. 6 1.0% S pap 2nd M	PUAXF00	62.80-62.90	62.850	-0.550				
No. 6 1.0% S pap qtrly	PUAXG00	62.82-62.92	62.870	-0.530				

<sup>\*</sup>These assessments reflect gasoline cargoes sold on a delivered, ex-duty basis New York, excluding import duty and import taxes/fees.

#### USAC CPL LINDEN\*, MAR 2 (PGA page 410)

	<b>,</b> (, , )									
(¢/gal)		Mid	Change	Differentials to NYMEX		Change		Cycle		RVP
Unl 87	ACXPW00	189.440	-0.650	AANYX40	-4.200	0.000	ACRQWCY	11	ACRQWRV	13.5
CBOB	ABXPW00	189.640	+0.800	AANYX41	-4.000	+1.450	ABRQWCY	11	ABRQWRV	14.5
RB0B	ADXPW00	188.440	-0.650	AANYX42	-5.200	0.000	ADRQWCY	11	ADRQWRV	13.5
Jet kero 54	AAXPV00	165.060	-1.360	ADIJA00	-15.750	-0.250	AAXPVCY	11		
ULS heating oil	AAXPU00	169.560	-1.110	ADIAR00	-11.250	0.000	AAXPUCY	11		
ULSD	AAXPW00	183.910	-1.160	ADLAA00	3.100	-0.050	AAXPWCY	11		

<sup>\*</sup>Assessments reflect shipments on the next full pipeline cycle after the prompt cycle

185.49-185.59

196.24-196.34

AAUAT00

#### PRODUCT PRICE ASSESSMENTS

#### U.S. BUCKEYE PIPELINE, MAR 2 (PGA page 310)

(¢/gal)			Mid	Change		RVP	Differentials to NYMEX	Change
Unl RBOB	AAMHB00	184.74-184.84	184.790	-0.950	AAMHBRV	15.0	-8.850	-0.300
Prem RB0B	AAMHZ00	195.49-195.59	195.540	-1.150	AAMHZRV	13.5	AANYX36 1.900	-0.500
CBOB	AAPSY00	184.74-184.84	184.790	-0.950	AAPSYRV	15.0	AANYX33 -8.850	-0.300
CBOB prem	AAPSZ00	195.49-195.59	195.540	-1.150	AAPSZRV	13.5	AANYX34 1.900	-0.500
ULSD	AATHF00	180.96-181.06	181.010	-0.810			ADIYA00 0.200	+0.300
Jet fuel	AAJNL00	165.01-165.11	165.060	-1.360			ADIEA00 -15.750	-0.250
LS jet/kero	AAJNN00	184.26-184.36	184.310	-1.110			ADIFA00 3.500	0.000
						RVP		
Laurel								

-0.950

-1.150

**AAUASRV** 

AAUATRV

15.0 AANYX29

13.5 AANYX30

185.540

196.290

All RVP references are after ethanol

Unl CBOB

Prem CB0B

### ${\tt ATLANTIC\,RESID/CONTRACT\,CARGOES\,POSTED\,PRICES,}$

#### MAR 2 (PGA page 564)

(\$/barrel) Global	No. 4 Fuel
Boston 0.5%	PRALB00 98.30
Boston 1.0%	PRALD00 93.40
	No. 6 Fuel
Boston 0.5%	PRAMN00 96.60
Boston 1.0%	PRAMD00 85.60

Source: Global Montello Group Corp.

-8.100 -0.300

2.650 -0.500

#### CHICAGO PIPELINE, MAR 2 (PGA page 160)

(¢/gal)			Mid	Change		RVP	Differentia	Is to NYMEX	Change
Unleaded 87	PGACR00	182.09-182.19	182.140	+0.600	<b>PGACRRV</b>	13.5	AANYX98	-11.500	+1.250
Unleaded 89	PGAAX00	189.19-189.29	189.240	+0.600	PGAAXRV	13.5			
Prem. unl 91	PPASQ00	199.84-199.94	199.890	+0.600	PPASQRV	13.5	AANY100	6.250	+1.250
CB0B	AAREL00	181.09-181.19	181.140	+0.600	AARELRV	13.5	AANY101	-12.500	+1.250
PBOB	AAUEU00	201.84-201.94	201.890	-0.650	AAUEURV	13.5	AANY103	8.250	0.000
RBOB	PPARH00	183.09-183.19	183.140	-0.650	PPARHRV	13.5	AANY102	-10.500	0.000
Jet fuel	РЈААГОО	177.01-177.11	177.060	-1.110			ADILA00	-3.750	0.000
ULS No. 1	PJACD00	209.51-209.61	209.560	-0.360					
ULSD	AATHA00	189.51-189.61	189.560	-0.360			ADLAI00	8.750	+0.750

#### CHICAGO BUCKEYE COMPLEX, MAR 2 (PGA page 160)

(¢/gal)		Mid	Change		RVP	Differen	tials to NYMEX	Change
CBOB	ACBAA00	183.140	-0.650	ACBAARV	13.5	ACBAB00	-10.500	0.000
RBOB	ACBAC00	183.140	-0.650	ACBACRV	13.5	ACBAD00	-10.500	0.000
ULSD	ACBAE00	189.560	-0.360			ACBAF00	8.750	+0.750

#### CHICAGO WOLVERINE PIPELINE, MAR 2 (PGA page 160)

(¢/gal)		Mid	Change		RVP	Differe	ntials to NYMEX	Change	
CBOB	AGCWA00	181.140	+0.600	<b>AGCWERV</b>	13.5	AGCWB00	-12.500	+1.250	
ULSD	AGCWC00	189.560	-0.360			AGCWD00	8.750	+0.750	

#### GROUP THREE, MAR 2 (PGA page 160)

(¢/gal)			Mid	Change		RVP	Differentia	els to NYMEX	Change
Sub-octane	AAXIX00	195.84-195.94	195.890	-0.650	AAXIXRV	8.5	AANYX01	2.250	0.000
Prem. unleaded	PGABD00	220.59-220.69	220.640	-1.150	PGABDRV	8.5	AANYX02	27.000	-0.500
ULSD	AATHB00	201.01-201.11	201.060	+1.890			ADLAB00	20.250	+3.000
Jet fuel	PJAAI00	175.01-175.11	175.060	-1.610			ADIKA00	-5.750	-0.500
No. 1	РЈАСВ00	224.76-224.86	224.810	+1.890					

#### MARINE FUEL (PGA page 30)

		\$/mt	Change
0.5% FOB Singapore cargo	AMFSA00	478.290	-20.700
0.5% FOB Fujairah cargo	AMFFA00	477.280	-18.850
0.5% FOB Rotterdam barge	PUMFD00	465.500	-5.000
0.5% FOB US Gulf Coast barge	AUGMB00	477.250	-2.500
0.5% Dlvd US Atlantic Coast barge	AUAMB00	480.750	-1.750
0.5% FOB Mediterranean cargo	MFFMM00	465.000	-7.000
0.5% CIF Mediterranean cargo	MFCMM00	476.000	-7.000
		\$/barrel	
0.5% FOB US Gulf Coast barge	AUGMA00	75.160	-0.390
0.5% Dlvd US Atlantic Coast barge	AUAMA00	75.710	-0.270
	vs FC	380 MOPS stri	ρ (\$/mt)
0.5% FOB Singapore cargo	AMOPA00	116.530	-4.960
	vs MF	0.5% MOPS str	ip (\$/mt)
0.5% FOB Singapore cargo	FOFSB00	2.330	+0.080
0.5% FOB Singapore Bal mo	FOFS000	476.800	-20.650
0.5% FOB Singapore M1	FOFS001	473.850	-20.900
0.5% FOB Singapore M2	F0FS002	471.600	-20.650
0.5% FOB Singapore MOPS Strip	FOFSA00	475.960	-20.780

#### U.S. GULF COAST, MAR 2

U.S. GULF CUAST, MAI	1 2																
			Mid	Change			Mid	Change						ľ	Mid Change		
Houston (PGA page 156)																	
		Pipeline (¢/gal)			Differ	ential to NYME	EX			Cycle		RVP		Waterborne (¢/gal)			RVP
Unl 87	PGACT00	188.59-188.69	188.6	40 +1.150	AANY105		-5.000	+1.800	PGACTCY		<b>PGACTRV</b>	11.5	PGACU00	190.59-190.69 190	.640 +1.150	<b>PGACURV</b>	11.5
Unl 89	PGAAY00	191.39-191.49	191.4	40 +1.150					PGAAYCY	15	PGAAYRV	11.5	PGAAZ00	193.39-193.49 193		PGAAZRV	11.5
Prem unl 93	PGAJB00	195.59-195.69	195.6	40 +1.150	AANYX76		2.000	+ 1.800	PGAJBCY	15	PGAJBRV	11.5	PGAIX00	197.59-197.69 197	.640 +1.150	PGAIXRV	11.5
CB0B 87	AARQU00	186.09-186.19	186.1	40 +1.150	AANYX77		-7.500	+1.800	AARQUCY	15	AARQURV	12.5	AAWES00	188.09-188.19 188	.140 +1.150	AAWESRV	12.5
CB0B 93	AARQV00	192.09-192.19	192.1	40 +1.150	AANYX78		2.000	+ 1.800	AARQVCY	15	AARQVRV	12.5					
RB0B 83.7	AAMFB00	189.09-189.19	189.1	40 +1.650	AANYX79		-4.500	+2.300	AAMFBCY	15	AAMFBRV	11.5					
RB0B 91.4	AAMNG00	198.84-198.94	198.8	90 -0.400	AANYX80		5.250	+ 0.250	AAMNGCY	15	AAMNGRV	11.5					
Jet/kero 54	РЈАВООО	162.76-162.86	162.8	10 -1.860	ADIAS00		-18.000	-0.750	РЈАВОСҮ	16			РЈАВМ00	164.26-164.36 164	.310 -1.860		
Jet/kero 55	РЈАВР00	163.26-163.36	163.3	10 -1.860	ADIAZ00		-17.500	-0.750	РЈАВРСҮ	16			PJABN00	164.76-164.86 164	.810 -1.860		
ULS Kero	AAVTL00	169.76-169.86	169.8	10 -1.860	ADICA00		-11.000	-0.750	AAVTLCY	16			AAVTK00	171.26-171.36 171	.310 -1.860		
ULSD	AATGY00	178.91-179.01	178.9	60 -0.960	ADIQA00		-1.850	+0.150	AATGYCY	15			AATGZ00	180.16-180.26 180	.210 -0.960		
No. 2	POAED00	162.51-162.61	162.5	60 -1.110	ADIAA00		-18.250	0.000	POAEDCY	15			POAEE00	167.01-167.11 167.	.060 -1.110		
ULS Heating Oil	AAXFD00	165.71-165.81	165.7	60 -1.560	ADIAI00		-15.050	-0.450	AAXFDCY	15							
	Waterbor	ne vs prompt pipe	eline (¢	:/gal)													
Jet Spread	AUSGL00		1.5	0.000													
ULSD Spread	AUSGN00		1.2	50 0.000													
No. 2 Spread	AUSGM00			0.000													
		FOB Cargo (¢/gal	n		FOF	Cargo (\$/mt)	ı										
Export ULSD	AAXRV00	TOD Congo (¢/goi		20 -1.260	AAXRW00		516.350	-3.940									
Export OLOB					AAARWOO		310.550	3.540									
LILOD M. C.		o vs forward pipe															
ULSD Mexico	AUSGH00			00 0.000													
ULSD Brazil	AUSGA00			50 0.000													
ULSD EN590	AUSGB00		2.0														
Jet A	AUSGC00		1.5														
Jet A-1	AUSGD00		2.0														
		Pipeline Gasoline								Cycle							
Line 1	AAXTA00			50 -0.050					AAXTACY								
Line 3	AAXTB00			0.000					AAXTBCY								
Line 1+3	AAXTC00		-0.8	50 -0.050					AAXTCCY	15							
	Colonial	Pipeline Distillate:															
Line 2	AAXTD00			50 0.000					AAXTDCY								
Line 3	AAXTE00		0.0	0.000					AAXTECY	15							
Line 2+3	AAXTG00		-0.5	50 0.000					AAXTGCY	15							
		(\$/barrel)			Differential v	s USGC HSFO	strio (\$/	barrel)					U	ISGC HSFO Strip (\$/bar	rel)		
Slurry Oil	PPAPW00	63.85-63.87	63.8	60 -1.420	AAUGS00	10.24-10.26									•		
No. 6 1.0% S 6 API	PUAAI00	64.58-64.60		90 -0.870	AAUGT00	10.97-10.99											
USGC HSF0	PUAFZ00	53.85-53.87		60 -1.420	AAUGU00	0.24-0.26	0.250						AAUGW00	53.60-53.620 53	.610 -0.930		
RMG 380	PUBDM00	53.85-53.87		60 -1.420	AAUGV00	0.24-0.26	0.250										
USGC HSFO swap BalMo(Mar)	AARZT00	53.55-53.65		60 -0.950													
USGC HSFO swap M1(Apr)	PUAXJ00	53.50-53.60		50 -1.100													
USGC HSFO swap M2(May)	PUAXL00	53.15-53.25		00 -1.100													
USGC HSFO swap Q1(Q2 21)	PUAXN00	53.10-53.20		50 -1.100													
(PGA page 330)																	
	licco	RVP Adjustments	( th/0 a l	)													
CBOB -1 psi	AGLOB00	NVI AUJUSTINETIES		00 0.000													
Prem CBOB -1 psi	AGLOCOO		1.0														
CBOB +1 psi	AGLOCOO AGLOAOO			00 +0.100													
Prem CBOB +1 psi	AGHOA00			00 +0.100													
теттовов т раг	AUHUAUU		-1,41	00 10.100													

#### U.S. GULF COAST

U.S. GULF CUAST								
			Mid	Change		Mid	Change	Mid Change
(PGF page 760)								
		Waterborne (¢/gal)	)		Diff vs USGC wa	aterborne 87 (¢/gal)		
FOB Naphha Cargo	AAXJP00	143.45-143.55	143.500	0 -2.750				
FOB Naphha Cargo (\$/mt)	AAXJU00	542.45-542.55	542.500	0 -10.250				
Naphtha USGC vs	ANAPD00		-16.500	0 -2.250				
Naphtha MOPJ (\$/mt)								
DAP LSR Naphtha Parcel	AAXQK00		143.000	0 -2.750				
DAP LSR Naphtha Parcel (\$/m	t) AAXQM00	į	573.430	0 -11.030				
DAP LSR Naphtha Parcel diff*	AAXQN00		5.000	0.000				
Naphtha barge	AALPG00	171.59-171.69	171.640	0 +1.150	AASGZ00	-19.000	)	
Heavy naphtha barge	AALPI00	174.59-174.69	174.640	0 +1.150	AASHD00	-16.000	)	
MTBE	PHAKX00	197.00-197.10	197.050	0 +5.600				
								Diff vs USGC pipeline 87 (¢/qal)
Alkylate*	AAXBA00	2	200.010	0 +2.060	AAFIE00	10.000	+2.000	AAXBD00 12.000 +2.000
Raffinate*	AAXBB00		170.010	0 +0.060	AAJMU00	-20.000	0.000	AAXBEØØ -18.000 0.000
Reformate*	AAXBC00	2	218.010	0 +0.060	00VMCAA	28.000	0.000	AAXBF00 30.000 0.000

LSR = Light Straight Run. \*=DAP barge. \*\*= Diff to Mont Belvieu non-Targa natural gasoline.

Note: Platts line space assessments reflect the physical trade of gasoline or distillates at two locations agreed upon by the parties along the Colonial Pipeline between Pasadena, Texas, and Linden, New Jersey. The assessments represent the premium or discount paid by a buyer while taking refined product off the line at one location while giving product to the seller at another.

#### U.S. GULF COAST PIPELINE CYCLES, MAR 2 (PGA page 156)

(¢/gal)		<u>Pipeline</u>	Mid		<u>Cycle</u>		RVP			<u>Pipeline</u>	Mid		<u>Cycle</u>	<u>RVP</u>
Gasoline														
Unl-87	AAELC00	188.59-188.69	188.640	AAELCCY	15	AAELCRV	11.5	ULSD	00WCUAA	178.56-178.66	178.610	AAUJWCY	16	
Unl-87	AAELD00	186.59-186.69	186.640	AAELDCY	16	AAELDRV	11.5	ULSD	AAUJX00	178.06-178.16	178.110	AAUJXCY	17	
Unl-87	AAELE00	188.34-188.44	188.390	AAELECY	17	AAELERV	9.0	ULSD	00YCUAA	177.56-177.66	177.610	AAUJYCY	18	
Unl-87	AAELF00	187.59-187.69	187.640	AAELFCY	18	AAELFRV	9.0	ULSD	AAUJZ00	177.06-177.16	177.110	AAUJZCY	19	
Unl-87	AAELG00	186.84-186.94	186.890	AAELGCY	19	AAELGRV	9.0	ULSD	AAUKD00	176.56-176.66	176.610	AAUKDCY	20	
Unl-87	AAELH00	186.09-186.19	186.140	AAELHCY	20	AAELHRV	9.0	No. 2	AAELW00	162.51-162.61	162.560	AAELWCY	15	
CB0B 87	AARQW00		184.890	AARQWCY	16	AARQWRV	12.5	ULS heating oil	AAXFJ00	165.71-165.81	165.760	AAXFJCY	15	
CB0B 87	AARQX00		186.640	AARQXCY	17	AARQXRV	10.0	ULS heating oil	AAXFK00	165.36-165.46	165.410	AAXFKCY	16	
CB0B 87	AARQY00		185.890	AARQYCY	18	AARQYRV	10.0	ULS heating oil	AAXFL00	164.86-164.96	164.910	AAXFLCY	17	
CB0B 87	AARQZ00		185.140	AARQZCY	19	AARQZRV	10.0	ULS heating oil	AAXFM00	164.36-164.46	164.410	AAXFMCY	18	
CB0B 87	AARQA00		184.390	AARQACY	20	AARQARV	10.0	ULS heating oil	AAXFN00	163.86-163.96	163.910	AAXFNCY	19	
Distillates								ULS heating oil	AAXFP00	163.36–163.46	163.410	AAXFPCY	20	
Jet kero	AAELQ00	162.76-162.86	162.810	AAELQCY	16			Forward pipeline stri	iρ					
Jet kero	AAELR00	162.26-162.36	162.310	AAELRCY	17			ULSD 15-30 Day	AUSGI00		176.660			
Jet kero	AAELS00	161.76-161.86	161.810	AAELSCY	18			ULSD 21-35 Day	AUSGJ00		176.370			
Jet kero	AAELT00	161.76-161.86	161.810	AAELTCY	19			ULSD 7-21 Day	AUSGK00		177.070			
Jet kero	AAELU00	161.76-161.86	161.810	AAELUCY	20			Jet Fuel 15-30 Day	AUSGE00		162.200			
Jet kero	AAELV00	161.76-161.86	161.810	AAELVCY	21			Jet Fuel 21-35 Day	AUSGF00		162.130			
ULSD	AAUJV00	178.91-179.01	178.960	AAUJVCY	15			Jet Fuel 7-21 Day	AUSGG00		162.310			

#### WEST COAST PIPELINE, MAR 2 (PGA page 158)

			Mid	Change		RVP			Mid	Change
California										
(¢/gal)		Los Angeles						Differential to NYMEX		
Unl 84	AAUHA00	196.84-196.94	196.890	-1.400	AAUHARV	10.0	AANYX84		3.250	-0.750
Prem unl 90	PGABG00	214.34-214.44	214.390	-1.400	PGABGRV	10.0	AANYX85		20.750	-0.750
CARBOB	ААКҮЈ00	197.84-197.94	197.890	-1.400	AAKYJRV	6.0	AANVX00	4.20/4.30	4.250	-0.750
CARBOB prem	AAKYL00	215.34-215.44	215.390	-1.400	AAKYLRV	6.0	AANYX86		21.750	-0.750
Jet fuel	РЈААР00	169.76-169.86	169.810	-1.110			AANVY00	-11.05/-10.95	-11.000	0.000
ULS (EPA) diesel	POAET00	192.26-192.36	192.310	-1.110			AANVZ00	11.45/11.55	11.500	0.000
CARB diesel	POAAK00	190.51-190.61	190.560	-1.110			AANWA00	9.70/9.80	9.750	0.000
								Differential to RBOB frontl	ine	
CARBOB paper 1-mo							AAKYR00	1.95/2.05	2.000	0.000
CARBOB paper 2-mo							AAKYS00	2.25/2.30	2.250	0.000
(¢/gal)		San Francisco						Differential to NYMEX		
Jnl 84	PGADG00	195.59–195.69	195.640	-0.400	PGADGRV	13.5	AANYX87		2.000	+0.250
Prem unl 90	PGAB000	213.59-213.69	213.640	-0.400	PGABORV	13.5	AANYX88		20.000	+0.250
CARBOB unl	AAKYN00	195.59-195.69	195.640	-0.400	AAKYNRV	6.0	AANYX89		2.000	+0.250
CARBOB prem	AAKYP00	213.59-213.69	213.640	-0.400	AAKYPRV	6.0	AANYX90		20.000	+0.250
Jet Fuel	РЈАВС00	169.76-169.86	169.810	-1.110			ADINA00		-11.000	0.000
ULS (EPA) diesel	POAEY00	181.76-181.86	181.810	-1.110			ADLAE00		1.000	0.000
CARB diesel	POAAL00	181.76–181.86	181.810	-1.110			ADLAF00		1.000	0.000
Other West										
(¢/gal)		Phoenix						Differential to NYMEX		
CBG/RBOB unl	AADDP00	199.59-199.69(a)	199.640	-1.400	AADDPRV	8.0	AANYX91		6.000	+-0.750
CBG/RBOB prem	PPXDJ00	207.59–207.69(b)	207.640	-1.400	PPXDJRV	8.0	AANYX92		14.000	-0.750
Northwest										
(¢/gal)		<u>Seattle</u>						Differential to NYMEX		
Jnl 84	AAXJE00	193.34-193.44	193.390	+0.850	AAXJERV	15.0	AANYX93		-0.250	+1.500
Prem unl 90	AAXJF00	212.34-212.44	212.390	+0.850	AAXJFRV	15.0	AANYX94		18.750	+1.500
Jet fuel	РЈАВВ00	169.76-169.86	169.810	-1.110			ADIOA00		-11.000	0.000
ULS (EPA) diesel	AAUEX00	183.36-183.46	183.410	-1.360			ADLAH00		-1.150	0.000
(¢/gal)		<u>Portland</u>						Differential to NYMEX		
Unl 84	AAXJC00	193.34-193.44	193.390	+0.850	AAXJCRV	13.5	AANYX95		-0.250	+1.500
Prem unl 90	AAXJD00	212.34-212.44	212.390	+0.850	AAXJDRV	13.5	AANYX96		18.750	+1.500
ULS (EPA) diesel	AAUEY00	184.51-184.61	184.560	-1.360			ADLAG00		3.750	-0.250
(a)=84 octane; (b)=90 octane										

#### WEST COAST WATERBORNE, MAR 2 (PGA page 158)

(¢/gal)			Mid	Change
Unl 87	PGADI00	196.84-196.94	196.890	-1.400
Jet fuel	PJABI00	168.76-168.86	168.810	-1.110

LATIN AMERICA, FOB,	MAR 2	PGA page 164)					
, ,	`	\$/barrel	Mid	Change			
Argentina							
ULSD CIF	AAXWZ00		72.580	-0.470			
Colombia	70001200		. 2.000	00			
		55 50 55 03	FF 000				
FO 1.75% S FOB	PPAR000	55.59–55.61	55.600	-0.950			
Diluent Naphtha Ex-Ship	AAXYB00		59.690	-0.890			
Ecuador							
F0 2.2% S F0B	PPASL00	51.59-51.61	51.600	-0.950			
RON 93 CIF	AAXYC00		75.380	+0.180			
ULSD CIF	AAXWF00		72.050	-0.510			
Peru							
Naphtha FOB	PAAAS00	68.33-68.35	68.340	+0.200			
F0 1.6% S F0B	PPARK00	53.29-53.31	53.300	-0.950			
Natural Gasoline FOB	AAXWD00		56.140	-1.220			
ULSD CIF	AAXWY00		72.300	-0.510			
						Peso/liter	Change
Mexico cargo							Ū
Gasoline CIF Eastern Mexico	AAXWA00		73.690	-0.060	AATFH00	9.550	-0.010
Gasoline CIF Rosarito	AATFA00		76.190	-0.090	AATFK00	9.880	-0.010
Gasoline CIF Lazaro Cardenas	AATFD00		75.730	-0.080	AATFN00	9.820	-0.010
ULSD CIF Eastern Mexico	AAXWE00		69.660	-0.530	AATFI00	9.030	-0.070
ULSD CIF Rosarito	AATFB00		71.360	-0.730	AATFL00	9.250	-0.100
ULSD CIF Lazaro Cardenas	AATFE00		71.810	-0.510	AATF000	9.310	-0.070
Jet CIF Eastern Mexico	AATFG00		69.330	-0.470	AATFJ00	8.990	-0.060
Jet CIF Rosarito	AATFC00		72.060	-0.500	AATFM00	9.340	-0.070
Jet CIF Lazaro Cardenas	AATFF00		71.560	-0.490	AATFP00	9.280	-0.060
OADIDDEAN OADOOE	. FOD 1	44D 0					
CARIBBEAN CARGOES	o, FUB, N	<b>1AK 2</b> (PGA page 1					
		<b>.</b>	Mid	Change			
Jet kerosene	PJAAD00	<b>\$/mt</b> 550.41–550.47	550.440	-3.750			
Jet Refuserie	PJAADOO	¢/gal	330.440	-3.730			
Jet kerosene	PJAAD10	164.30–164.32	164.310	-1.120			
		\$/barrel					
No. 6 2.0% S	PUAAS00	54.12-54.14	54.130	-1.140			
TOUNDAD DOODUCT D	OCTINO	C					
TRINIDAD PRODUCT P	OSTING	<b>5</b> (PGA page 466)					
Effective date 01Mar21							
		¢/gal					
Mogas 92 RON Unleaded	PPRAE00	215.00					
Mogas 95 RON Unleaded	PPRAF00	220.00					
Dual Purpose Kerosene	PPRAB00	186.00					
Gasoil 45 Cetane 0.1%S	PPRAC00	188.00					
		\$/b					
Bunker C Fuel Oil	PPRAA00	66.00					
Source: Paria							

#### GAS LIQUIDS (¢/gal), MAR 2 (PGA page 780)

			Mid	Change
		Mont Belvieu		3
Ethane/propane	PMUDA05	16.950-17.050	17.000	-0.625
Ethane purity	PMUDB05	21.950-22.050	22.000	-0.625
Ethane mo. 2	AAWUC00	22.325-22.425	22.375	-0.375
Propane	PMAAY00	97.200-97.300	97.250	+0.250
Propane LST	PMABQ00	97.325-97.425	97.375	+1.000
Propane mo. 2	AAWUD00	97.200-97.300	97.250	+0.250
Propane mo. 2 LST	AAWUE00	90.325-90.425	90.375	-5.625
Normal butane non-LST	PMAAI00	109.950-110.050	110.000	+5.750
Butane LST	PMABR00	108.700-108.800	108.750	+3.250
N-Butane mo. 2	AAWUF00	99.450-99.550	99.500	+2.250
Isobutane	PMAAB00	107.450-107.550	107.500	+3.250
Natural gasoline LST	AAIVF00	138.700-138.800	138.750	-2.750
Natural Targa	PMABW05	139.200-139.300	139.250	-2.000
Natural non-Targa	PMABY05	137.950-138.050	138.000	-2.750
Nat gasoline mo. 2 non-Targa	AAWUG00	136.450-136.550	136.500	-1.750
		Conway		
Ethane/propane	PMAA000	25.950-26.050	26.000	+0.500
Propane	PMAAT00	89.700-89.800	89.750	-2.250
Normal butane non-LST	PMAAD00	95.950–96.050	96.000	+2.000
Isobutane	PMAAA00	123.950-124.050	124.000	+2.000
Natural gasoline	РМААQ00	139.450-139.550	139.500	0.000
		Other hubs		
Hattiesburg propane	AALBC00	99.200–99.300	99.250	+0.250
		(\$/mt)		
Waterborne FOB USGC propane	AAXIM00	494.630–494.650	494.640	+3.490
FOB USGC propane vs. Mt Belvieu	AAXI000	18.230–18.250	18.240	0.000
VLGC freight rates Houston to NWE	AAXIQ00	36.990–37.010	37.000	0.000
VLGC freight rates Houston to Japan	AAXIS00	66.990–67.010	67.000	0.000
		<u>(¢/gal)</u>		
Waterborne FOB USGC propane	AAXIN00	94.930–94.950	94.940	+0.670
FOB USGC propane vs. Mt Belvieu	AAXIP00	3.450-3.550	3.500	0.000
VI CC freight rates Houston to NIME	AAXIR00	7.050-7.150	7.100	0.000
VLGC freight rates Houston to NWE VLGC freight rates Houston to Japan				

#### **CRUDE PRICE ASSESSMENTS**

#### ASIA PACIFIC/MIDDLE EAST SPOT CRUDE ASSESSMENTS (\$/barrel), MAR 2

		Assessment (Asi	an MOC) Mid	Change	· <b>,</b> ,	Diffs (Asian MOC	() Mid	Change	Diff to Dat	ted Brent (A:	sian MOC) Change		Assessn	nent (London Mid	MOC) Change
Condensate								Ü		PGA page 2212	-			(PGA page 2213	-
						Diff to Dubai									
NW Shelf	PCAGX00	64.45-64.49	64.470	-2.660	405600	1 00/1 70	1.050	0.050	AAPAI00	2.100	-0.050		ААРАНОО	65.040	-1.350
DFC Qatar LSC	ADFCA00 AARBB00	61.90–61.94 61.60–61.64	61.920 61.620	-2.660 -2.660	ADFCB0 AARBD0		1.650 1.350	-0.050 -0.050	ADFCC00 AARBC00	0.120 -0.180	-0.100 -0.100		ADFCD00 AARBA00	62.600 62.300	-1.260 -1.260
South Pars	AARAV00	57.40-57.44	57.420	-2.660	AARAXO		-2.850	-0.050	AARAW00	-4.380	-0.100		AARAU00	58.100	-1.260
						Diff to ICP									
Senipah	AAE0E00	64.70-64.74	64.720	-2.660	AAEOK0		1.900	-0.050	AAPBE00	2.350	-0.050		AAPBD00	65.290	-1.350
Light										PGA page 2214	4)			(PGA page 2215	)
						Diff to ICP									
Cossack	PCAGZ00	64.00-64.04	64.020	-2.660					AAPAC00	1.650	-0.050		AAPAB00	64.590	-1.350
Gippsland	PCACP00	61.10-61.14	61.120	-2.660					AAPAU00	-1.250	-0.050		AAPAT00	61.690	-1.350
Tapis Belida	PCACB00 PCAFL00	63.40–63.44 61.20–61.24	63.420 61.220	-2.610 -2.660	PCAFMO	0.85/0.95	0.900	-0.050	AAOZW00 AAPBQ00	1.050 -1.150	0.000 -0.050		AAOZV00 AAPBP00	63.990 61.790	-1.300 -1.350
Kutubu	PCAFJ00	64.45–64.49	64.470	-2.660	PCAFNO	0.03/0.33	0.300	-0.030	AAPAE00	2.100	-0.050		AAPAD00	65.040	-1.350
Handil Mix	PCABE00	62.40-62.44	62.420	-2.660	PCABF0	1.20/1.30	1.250	-0.050	AAPBI00	0.050	-0.050		AAPBH00	62.990	-1.350
Attaka	PCAAJ00	61.00-61.04	61.020	-2.660	PCAAK0		0.050	-0.050	AAPBC00	-1.350	-0.050		AAPBB00	61.590	-1.350
Ardjuna	PCACQ00	55.20–55.24	55.220	-2.610	PCACR0		-2.750	0.000	AAPBG00	-7.150	0.000		AAPBF00	55.790	-1.300
Banyu Urip	PCAFQ00		64.470	-2.610	PCAQQ0		0.600	0.000	AAPBU00	2.100	0.000		AAPBR00	65.040	-1.300
Sakhalin Blend	AARBN00	61.60-61.64	61.620	-2.610	AADCNO	Diff to Dubai 1.30/1.40	1.350	0.000	AARDN00	-0.180	-0.050		AAREN00	62.300	-1.210
Sokol	AAKBNOO AASCJOO	62.75–62.79	62.770	-2.610	AARCN0 AASCK0		2.500	0.000	AARDNOO AAPAOOO	0.180	-0.050		AAREN00	63.450	-1.210
Kikeh	AAWUH00	64.40-64.44	64.420	-2.610	AAJCKO	L.40/L.00	2.000	0.000	AA0ZY00	2.050	0.000		AAOZX00	64.990	-1.300
Miri Light	PCABQ00	64.20-64.24	64.220	-2.610					AAPAS00	1.850	0.000		AAPAR00	64.790	-1.300
Labuan	PCABL00	64.55-64.59	64.570	-2.610					AAPAQ00	2.200	0.000		AAPAP00	65.140	-1.300
Kimanis	AASCL00		64.820	-2.610					AASCM00	2.450	0.000		AASCN00	65.390	-1.300
Medium										(PGA page 2216				(PGA page 2217	
Nanhai	PCAFR00	56.65-56.69	56.670	-2.610					AAPAG00	-5.700	0.000		AAPAF00	57.240	-1.300
Minas*	PCAB000	62.00.62.04	60.065	-2.790					*******	0.550	0.050		AAPAZ00	60.635	-1.480
Nile Blend Widuri*	PCAFE00	62.90–62.94	62.920 55.550	-2.660 -2.860					AAPAM00	0.550	-0.050		AAPAL00 AAPBN00	63.490 56.120	-1.350 -1.550
Daging	PCAI 200	58.90-58.94	58.920	-2.660					AAPAW00	-3.450	-0.050		AAPAV00	59.490	-1.350
Cinta*	PCAAX00		57.230	-2.915									ААРВЈ00	57.800	-1.605
Su Tu Den	AARAR00	63.30-63.34	63.320	-2.610					AARAS00	0.950	0.000		AARAQ00	63.890	-1.300
Bach Ho	PCAHY00	65.15–65.19	65.170	-2.610					AAPAK00	2.800	0.000		ААРАЈ00	65.740	-1.300
Heavy										PGA page 2218	3)			(PGA page 2219	)
						Diff to ICP									
Dar Blend	AARAB00	66.25–66.29	66.270	-2.660					AARAC00	3.900	-0.050		AARAA00	66.840	-1.350
Shengli Duri	PCABY00 PCABA00	65.05–65.09 68.05–68.09	65.070 68.070	-2.660 -2.660	PCABB0	a 4.50/4.60	4.550	-0.050	AAPAY00 AAPBM00	2.700 5.700	-0.050 -0.050		AAPAX00 AAPBL00	65.640 68.640	-1.350 -1.350
Vincent	AARAK00	00.03-00.03	75.270	-2.660	PCADDO	4.30/4.00	4.550	-0.030	AARAL00	12.900	-0.050		AARAJ00	75.840	-1.350
*Market Parity Price.	7811011100			2.000					781101200	12.000	0.000		701101500	10.010	
Market Parity Price.															
						(PGA page 2220)			D:e	fta Dubai	(PGA pag	ge 2202)			
Murban M1	AAKNL00	61.58-61.62	61.600	-2.800	AAKUB0	Spread vs OSP 0.10/0.20	0.150	0.000	AARBZ00	<u>f to Dubai</u>	1.330	-0.190			
Murban M2	MBNSA00	01.30-01.02	61.080	-2.610	AARUDO	0.10/0.20	0.130	0.000	AARBZ00		1.330	-0.190			
Murban M3	MBNSB00		60.510	-2.580											
Al Shaheen	AAPEV00	61.35-61.39	61.370	-2.820					AAPEW00	1.05/1.15	1.100	-0.210			
Upper Zakum	AAOUQ00	61.35-61.36	61.355	-2.835	AAOUR0		0.000	0.000						nt (Asian MOC	
Umm Lulu	AUFAA00	01.00.01.07	61.550	-2.800	AUFAB0		0.150	0.000		North Asia	-1-		PCAQA00	62.185	-2.845
Das Blend Qatar Land	AAXOF00 AAKNP00	61.23–61.27 61.08–61.12	61.250 61.100	-2.800 -2.800	AAXPF0 AAKUJ0		0.150	0.000		CFR North Asia	SIO		PCAQI00 PCAQJ00	61.570 62.180	-2.590 -2.850
Qatar Marine	AAKNP00 AAKNR00	61.18–61.22	61.200	-2.850	AAKUJ0 AAKUH0		-0.050	+0.050		um CFR North	n Asia		PCAQ300 PCAQB00	62.165	-2.845
Banoco Arab Medium	AAKNT00	61.03–61.07	61.050	-2.850	AAKUD0		-0.050	+0.100		ne CFR North			PCAQC00	62.010	-2.870
Basrah Light M1	AALZA00	-	61.950	-2.850	AALZE0		-0.200	+0.100	Murban CF	R North Asia			PCAQE00	62.380	-2.810
Basrah Light M2	AALZB00	_	61.350	-2.850	AALZF0		-0.100	+0.100		ht CFR North	Asia		PCAQK00	62.180	-2.860
Basrah Medium M1	BSMAM01		61.700	-2.850	BSMBM0		0.700	0.000		North Asia			PCAQD00	62.940	-2.600
Basrah Medium M2 Basrah Heavy M1	BSMAM02 AALZC00	-	61.100 60.750	-2.850 -2.850	BSMBM0 AALZJ0		0.500	0.000	Porties CFI Dalia CFR I	R North Asia			PCAQF00	65.700 63.705	-2.740 -2.845
Basrah Heavy M2	AALZC00		60.100	-2.850	AALZJO AALZKO		0.750	0.000		FR North Asia	a .		PCAQG00 PCAQH00	64.650	-2.740
SSSIGIT ICOVY I'IL	AALLEDOO		55.100	2.000	MALZRO	_	0.100	0.000	WITTELL		-		GOITON 1	5-1.050	2.170

#### **CRUDE PRICE ASSESSMENTS**

INTERNATIONAL, MAR	2			
(\$/barrel)			Mid	Change
(PGA page 2210)				
Dubai (May)	РСААТ00	61.35-61.36	61.355	-2.835
Dubai (Jun)	PCAAU00	60.83-60.85	60.840	-2.640
Dubai (Jul)	PCAAV00	60.26-60.28	60.270	-2.610
MEC (May)	AAWSA00	61.35-61.36	61.355	-2.835
MEC (Jun)	AAWSB00	60.83-60.85	60.840	-2.640
MEC (Jul)	AAWSC00	60.26-60.28	60.270	-2.610
Oman (May)	PCABS00	61.35-61.37	61.360	-2.840
Oman (Jun)	AAHZF00	60.83-60.85	60.840	-2.650
Oman (Jul)	AAHZH00	60.26-60.28	60.270	-2.620
Oman cash/OSP (May)	PCABT00	-0.230.19	-0.210	-0.180
(PGA page 1212)				
Brent (DTD)	PCAAS00	64.05-64.06	64.055	-1.570
DTD NSL	AAOFD00	64.05-64.06	64.055	-1.570
Dated Brent (CIF)	PCAKM00		64.725	-1.565
Brent (May)	PCAAQ00	63.71-63.73	63.720	-1.370
Brent (Jun)	PCAAR00	63.15-63.17	63.160	-1.180
Brent (Jul)	PCARR00		62.520	-1.110
North Sea Basket	AAGIZ00	64.21-64.22	64.215	-1.565
(PGA page 218)				
Brent/WTI 1st	AALAU00	3.32/3.34	3.330	-0.250
Brent/WTI 2nd	AALAV00	3.18/3.20	3.190	-0.100
Brent/WTI 3rd	AALAY00		3.080	-0.090
Brent EFP (May)	AAGVX00	0.17/0.19	0.180	-0.040
Brent EFP (Jun)	AAGVY00	0.19/0.21	0.200	0.000
Brent EFP (Jul)	AAMVY00		0.200	0.000
Swaps(PGA page 2658)				
Dubai (Apr)	AAHBM00	60.82-60.86	60.840	-2.640
Dubai (May)	AAHBN00	60.25-60.29	60.270	-2.610
Dubai (Jun)	AAHB000	59.62-59.66	59.640	-2.560
MOG (Apr)	AAHZP00	60.82-60.86	60.840	-2.650
MOG (May)	AAHZR00	60.25-60.29	60.270	-2.620
MOG (Jun)	AAHZT00	59.62-59.66	59.640	-2.570
Oman/Dubai Swap (Apr)	AAIHJ00	-0.02/0.02	0.000	-0.010
Oman/Dubai Swap (May)	AAIHL00	-0.02/0.02	0.000	-0.010
Oman/Dubai Swap (Jun)	AAIHN00	-0.02/0.02	0.000	-0.010

#### ASIA (\$/barrel), MAR 2 (PGA page 2210)

			Mid	Change
Brent (May)	PCAJG00	63.08-63.12	63.100	-2.700
Brent (Jun)	PCAJI00	62.42-62.46	62.440	-2.660
Brent (Jul)	РСАЈ000		61.760	-2.630
Brent(DTD)	AAXPG00		63.635	-2.715
Brent/Dubai	AAJMS00	1.74/1.75	1.745	+0.135
WTI (Apr)	AAFFU00	59.88-59.92	59.900	-2.690
WTI (May)	AAFFW00	59.65-59.69	59.670	-2.670
WTI (Jun)	AAFFY00	59.18-59.22	59.200	-2.640

#### NORTH SEA, MAR 2 (PGA page 1212)

(\$/barrel)			Mid	Change	<u>Sprea</u>	d vs fwd Dated Bre	ent Mid	Change
Dated Brent Diff					AAXEZ00	0.71/0.72	0.715	-0.005
BNB	AAVJA00	64.12-64.14	64.130	-1.570	AAVJB00	0.78/0.80	0.790	-0.005
Forties	PCADJ00	64.13-64.14	64.135	-1.575	AAGWZ00	0.79/0.80	0.795	-0.010
Oseberg	PCAEU00	64.33-64.35	64.340	-1.565	AAGXF00	0.99/1.01	1.000	0.000
Ekofisk	PCADI00	64.24-64.26	64.250	-1.560	AAGXB00	0.90/0.92	0.910	+0.005
Troll	AAWEX00	64.48-64.50	64.490	-1.565	AAWEY00	1.14/1.16	1.150	0.000
Statfjord	PCAEE00	63.68-63.70	63.690	-1.565	AAGXD00	0.34/0.36	0.350	0.000
Flotta Gold	PCACZ00	62.43-62.45	62.440	-1.565	AAGXH00	-0.91/-0.89	-0.900	0.000
Duc	AAWEZ00	63.88-63.90	63.890	-1.565	AAWFL00	0.54/0.56	0.550	0.000
Grane Blend	PCALA00		63.040	-1.515	PCALB00		-0.300	+0.050
Johan Sverdrup	AJSVA00		62.540	-1.565	AJSVB00		-0.800	0.000
Statfjord (CIF)	AASAS00	64.61-64.63	64.620	-1.565	AASAT00	1.29/1.31	1.300	0.000
Gullfaks (CIF)	AASAU00	64.51-64.53	64.520	-1.565	AASAV00	1.19/1.21	1.200	0.000
Alvheim (CIF)	ALVHA00		64.970	-1.565	ALVHB00		1.650	0.000
Asgard (CIF)	ASGCA00		63.170	-1.565	ASGCB00		-0.150	0.000
North Sea Dated Strip	AAKWH00	63.33-63.35	63.340	-1.565				
(\$/barrel)					<u>Spread</u>	d vs fwd CIF Dated	Brent	
Dated Brent (CIF)	AAVJG00		64.725	-1.565	AAVJF00		1.405	0.000
BNB (CIF)	PCAKP00		65.230	-1.570	AAVJC00		1.910	-0.005
Forties (CIF)	PCAKR00		64.915	-1.430	AAHXC00		1.595	+0.135
Oseberg (CIF)	PCAKT00		65.075	-1.565	AAHXD00		1.755	0.000
Ekofisk (CIF)	PCAKV00		64.895	-1.560	AAHXB00		1.575	+0.005
Troll (CIF)	AAXJ000		65.230	-1.565	00NCXAA		1.910	0.000
North Sea CIF Dated Strip	AAHXE00		63.320	-1.565				

### WEST AFRICA, MAR 2 (PGA pages 1230 and 1232) (\$/barrel)

Nigeria								
Bonny Light	PCAIC00	62.47-62.51	62.490	-1.305	AAGXL00	-0.46/-0.44	-0.450	0.000
Qua Iboe	PCAID00	62.37-62.41	62.390	-1.305	AAGXN00	-0.56/-0.54	-0.550	0.000
Forcados	PCABC00	62.52-62.56	62.540	-1.305	AAGXP00	-0.41/-0.39	-0.400	0.000
Agbami	AAQZB00	61.62-61.66	61.640	-1.305	AAQZC00	-1.31/-1.29	-1.300	0.000
Escravos	AAEIZ00	62.47-62.51	62.490	-1.305	AAGXR00	-0.46/-0.44	-0.450	0.000
Brass River	ААЕЈВ00	62.27-62.31	62.290	-1.305	AAGXV00	-0.66/-0.64	-0.650	0.000
Akpo	PCNGA00	61.57-61.61	61.590	-1.305	PCNGB00	-1.36/-1.34	-1.350	0.000
Bonga	PCNGC00	62.52-62.56	62.540	-1.305	PCNGD00	-0.41/-0.39	-0.400	0.000
Usan	AAXUQ00		62.690	-1.305	AAXUR00		-0.250	0.000
Erha	AAXU000		62.740	-1.305	AAXUP00		-0.200	0.000
Egina	AFONA00		63.090	-1.305	AFONB00		0.150	0.000
Angola								
Cabinda	PCAFD00	62.72-62.76	62.740	-1.355	AAGXT00	-0.21/-0.19	-0.200	-0.050
Nemba	AAQYZ00	61.87-61.91	61.890	-1.355	AAQZA00	-1.06/-1.04	-1.050	-0.050
Dalia	AAQYX00	62.82-62.86	62.840	-1.355	AAQYY00	-0.11/-0.09	-0.100	-0.050
Girassol	AASNL00	63.22-63.26	63.240	-1.355	AASJD00	0.29/0.31	0.300	-0.050
Hungo	AASLJ00	62.37-62.41	62.390	-1.355	AASJF00	-0.56/-0.54	-0.550	-0.050
Kissanje	AASLK00	62.82-62.86	62.840	-1.355	AASJE00	-0.11/-0.09	-0.100	-0.050
Pazflor	PCNGG00	63.02-63.06	63.040	-1.355	PCNGH00	0.09/0.11	0.100	-0.050
Plutonio	PCNGI00	62.47-62.51	62.490	-1.355	PCNGJ00	-0.46/-0.44	-0.450	-0.050
Ghana								
Jubilee	AAXUS00		62.690	-1.305	AAXUT00		-0.250	0.000
Republic of Congo								
Djeno	PCNGE00	61.97-62.01	61.990	-1.355	PCNGF00	-0.96/-0.94	-0.950	-0.050
Chad								
Doba	AAXUU00		63.990	-1.305	AAXUV00		1.050	0.000
30-60 Day Dtd strip	AAXRK00	62.93-62.95	62.940	-1.305				

Mid

Change

Spread vs fwd DTD Brent Mid

Change

AAGLU00

AAGLV00

AALCZ00

AALDA00

0.05/0.07

-0.06/-0.04

-0.20/-0.18

-0.37/-0.35

5wk (Jun)

6wk (Jun)

7wk (Jun)

8wk (Jun)

#### **CRUDE PRICE ASSESSMENTS**

LONDON, MAR 2 (PGA page 1214)								
(\$/barrel)		Brent CFD	Mid	Change		Dated Swap	Mid	Change
1wk (Jun)	PCAKA00	0.99/1.01	1.000	-0.090	OOVNCAA	64.15/64.17	64.160	-1.270
2wk (Jun)	PCAKC00	0.49/0.51	0.500	-0.280	AAJOS00	63.65/63.67	63.660	-1.460
3wk (Jun)	PCAKE00	0.20/0.22	0.210	-0.390	AAJOU00	63.36/63.38	63.370	-1.570
4wk (Jun)	PCAKG00	0.15/0.17	0.160	-0.430	AAJOW00	63.31/63.33	63.320	-1.610

AAJPC00

AAJPE00

AALAW00

AALAX00

-0.290

-0.270

-0.250

-0.250

0.060

-0.050

-0.190

-0.360

#### MEDITERRANEAN, MAR 2 (PGA names 1220, 1222, 1234)

(\$/barrel)	3:,, .20 1)		Mid	Change		Spread vs fwd DTD Brent	Mid	Change
Med Dtd Strip	AALDF00	63.32-63.34	63.330	-1.580		<u></u>		290
BTC Dtd Strip	AAUFI00	63.29-63.30	63.295	-1.560				
15-45 Day Dtd Strip	AALGM00	63.18-63.19	63.185	-1.525				
Urals (Rdam)	PCAFW00	60.81-60.85	60.830	-1.760	AAGXJ00	-2.51/-2.49	-2.500	-0.180
Urals (Med)	PCACE00	61.26-61.30	61.280	-1.780	AAGXX00	-2.06/-2.04	-2.050	-0.200
Urals (Ex-Baltic)	AAGZT00	59.89-59.92	59.905	-1.760	AAHPI00	-3.43/-3.42	-3.425	-0.180
Urals FOB Novo Suez	AAGZS00	60.23-60.27	60.250	-1.780	ААНРН00	-3.09/-3.07	-3.080	-0.200
Urals FOB Novo Afra	AAOTH00	59.58-59.62	59.600	-1.660	AAOTI00	-3.74/-3.72	-3.730	-0.080
Urals (Primorsk)	AAWVH00	59.86-59.90	59.880	-1.760	AAWVI00	-3.46/-3.44	-3.450	-0.180
Urals (RCMB)	AALIN00	61.99-62.02	62.005	-1.770				
Iranian Light FOB Kharg Island (Med)	AILKA00		61.630	-1.540	AILKB00		-1.700	+0.040
Iranian Heavy FOB Kharg Island (Med)	AIHKA00		60.080	-1.540	AIHKB00		-3.250	+0.040
Es Sider	PCAC000	61.36-61.40	61.380	-1.980	AAGYH00	-1.96/-1.94	-1.950	-0.400
Siberian Lt	AAGZW00	62.01-62.05	62.030	-1.780	ААНРК00	-1.31/-1.29	-1.300	-0.200
Səhərən Bld	AAGZY00	62.91-62.95	62.930	-1.580	AAHPN00	-0.41/-0.39	-0.400	0.000
Azeri Lt	AAGZX00	64.23-64.26	64.245	-1.410	ААНРМ00	0.94/0.96	0.950	+0.150
Azeri Lt FOB Ceyhan Suez	AAUFM00	63.61-63.63	63.620	-1.410	AAUFN00	0.32/0.33	0.325	+0.150
Azeri Lt FOB Ceyhan Afra	AAUFK00	63.21-63.23	63.220	-1.365	AAUFL00	-0.08/-0.07	-0.075	+0.195
Azeri Lt FOB Supsa	AATHM00	62.67-62.70	62.685	-1.300	AATHN00	-0.62/-0.60	-0.610	+0.260
BTC FOB Ceyhan	AAUFH00	63.41-63.43	63.420	-1.390	AAUFJ00	0.12/0.13	0.125	+0.170
Suez Blend	PCACA00	58.45-58.48	58.465	-1.750	AAGYD00	-4.87/-4.86	-4.865	-0.170
Kirkuk	AAEJD00	62.11–62.15	62.130	-1.780	AAGYF00	-1.21/-1.19	-1.200	-0.200
Syrian Lt	ААНММ00	62.81-62.84	62.825	-1.390	AALOU00	-0.51/-0.50	-0.505	+0.190
Syrian Hvy	AAHMN00	57.63-57.66	57.645	-1.740	AALOV00	-5.69/-5.68	-5.685	-0.160
CPC Blend CIF	AAGZU00	60.81-60.85	60.830	-1.530	AAHPL00	-2.51/-2.49	-2.500	+0.050
CPC Blend FOB Suez	AALVX00	59.91-59.94	59.925	-1.530	AALVZ00	-3.41/-3.40	-3.405	+0.050
CPC Blend FOB Afra	AAOFV00	59.33-59.37	59.350	-1.425	AAOFW00	-3.99/-3.97	-3.980	+0.155
(PPE page 1616)								
Urals Med CFD (Mar)	AAMDU00	-1.41/-1.39	-1.400	-0.290	CPC Blend CFD (Mar) AAOFX00		-2.000	0.000
Urals Med CFD (Apr)	AAMEA00	-1.11/-1.09	-1.100	-0.200	CPC Blend CFD (Apr) AAOFY00		-1.600	+0.100
Urals Med CFD (May)	UMCM003	-1.11/-1.09	-1.100	-0.200	CPC Blend CFD (May) AAOFZ00		-1.600	+0.100
Urals NWE CFD (Mar)	UNCM001	-2.11/-2.09	-2.100	-0.400				
Urals NWE CFD (Apr)	UNCM002	-2.11/-2.09	-2.100	-0.400				
Urals NWE CFD (May)	UNCM003	-1.76/-1.74	-1.750	-0.300				

#### CANADA, MAR 2 (PGA page 230)

(\$/barrel)		Mid	Change
33-63 Day Dated Strip AALE	<b>500</b> 62.88–62.89	62.885	-1.300
Terra Nova AAJU	H00 62.77–62.80	62.785	-1.300
Hibernia AAJK	к <b>00</b> 62.92–62.95	62.935	-1.300
White Rose AAV3	x00 63.67–63.70	63.685	-1.300
	Spread vs fwd DTD Brer	<u>nt</u> Mid	Change
Terra Nova	J00 -0.11/-0.09	-0.100	0.000
Hibernia AAJK	M00 0.04/0.06	0.050	0.000
White Rose AAV3	y00 0.79/0.81	0.800	0.000

#### PLATTS EURO DENOMINATED CRUDE OIL ASSESSMENTS (€/barrel) (PGA page 1252)

63.21/63.23

63.10/63.12

62.96/62.98

62.79/62.81

63.220

63.110

62.970

62.800

-1.470

-1.450

-1.430

-1.430

Mar 2			Mid	Change
Dated Brent	AAPYR00	53.05-53.06	53.055	-1.380
Dated Brent (CIF)	PCAKN00		53.611	-1.379
Urals (Mediterranean)	AAPYS00	50.74-50.77	50.755	-1.555
WTI (Apr)	AAPYT00	50.16-50.18	50.170	-1.055
WTI MEH (Apr)	AAYSA00		51.371	-1.097
Mars (Apr)	AAPYU00	50.24-50.26	50.250	-0.600

Euro/US\$ forex rate: 1.207. Platts Euro denominated crude oil assessments are based on market values and a Euro/US\$ forex rate at 4:30 PM local London time.

#### **CRUDE PRICE ASSESSMENTS**

#### UNITED STATES (\$/barrel), MAR 2 (PGA pages 210, 214 & 230)

			Mid	Change
Platts AGS	AGSAA00		61.380	-0.680
WTI (Aρr)	PCACG00	59.74-59.76	59.750	-0.890
WTI (May)	PCACH00	59.56-59.58	59.570	-0.850
WTI (Jun)	AAGIT00	59.16-59.18	59.170	-0.790
WTI EFP (Aρr)	AAGVT00	-0.01/0.01	0.000	0.000
WTI EFP (May)	AAGVU00	-0.01/0.01	0.000	0.000
WTI EFP (Jun)	AAGVV00	-0.01/0.01	0.000	0.000
Light Houston Sweet	AAXEW00		61.050	-1.040
Light Houston Sweet M2	AAYRY00		60.820	-1.000
LOOP Sour (Apr)	AALSM01		59.750	-0.440
LOOP Sour (May)	AALSM02		59.570	-0.400
LOOP Sour (Jun)	AALSM03		59.170	-0.340
Eagle Ford Marker	AAYAJ00		61.990	-0.660
Mars (Apr)	AAMBR00	59.84-59.86	59.850	-0.440
Mars (May)	AAMBU00	59.66-59.68	59.670	-0.400
Mars (Jun)	AAMBX00	59.26-59.28	59.270	-0.340
Mars/WTI (Apr)	AAGWH00	0.09/0.11	0.100	+0.450
Mars/WTI (May)	AAKTH00	0.09/0.11	0.100	+0.450
Mərs/WTI (Jun)	AAMBO00	0.09/0.11	0.100	+0.450
LOOP/WTI (Apr)	AALOM01		0.000	+0.450
LOOP/WTI (May)	AALOM02		0.000	+0.450
LOOP/WTI (Jun)	AALOM03		0.000	+0.450
LOOP/Mars (Apr)	AALPM01		-0.100	0.000
LOOP/Mars (May)	AALPM02		-0.100	0.000
LOOP/Mars (Jun)	AALPM03		-0.100	0.000
Dated Brent	AAQBF00	63.23-63.25	63.240	-1.100
P-Plus WTI	PCACI00	3.70/3.72	3.710	-0.070
P-5 WTI	AAFEN00		56.300	-1.090
WTI-Delta	AAEJK00	0.32/0.34	0.330	-0.070
Kern River	PCABJ00	61.26-61.28	61.270	-0.850

#### US DOMESTIC CRUDE ASSESSMENTS LONDON CLOSE

(PGA page 1240)		\$/barrel	Mid	Change
WTI (Aρr)	AAQAR00	60.56-60.58	60.570	-1.180
WTI (May)	AAQAT00	60.38-60.40	60.390	-1.120
WTI (Jun)	AAQAV00	59.96-59.98	59.970	-1.080
WTI MEH (Apr)	AAYRZ00		62.020	-1.230
WTI MEH (May)	AAXYD00		61.790	-1.170
LLS (Apr)	AAQBB00	62.91-62.93	62.920	-0.980
LLS (May)	AAQBD00	62.58-62.60	62.590	-0.870
Mars (Apr)	AAQAX00	60.66-60.68	60.670	-0.630
Mars (May)	AAQAZ00	60.48-60.50	60.490	-0.670
		Spread	Mid	Change
WTI (Aρr)	AAQAS00	<u>Spread</u> -0.01/0.01	<b>Mid</b> 0.00	Change 0.000
WTI (Apr) WTI (May)	AAQAS00 AAQAU00	_		•
		-0.01/0.01	0.00	0.000
WTI (May)	AAQAU00	-0.01/0.01 -0.01/0.01	0.00	0.000
WTI (May) WTI (Jun)	AAQAU00 AAQAW00	-0.01/0.01 -0.01/0.01	0.00 0.000 0.000	0.000 0.000 0.000
WTI (May) WTI (Jun) WTI MEH (Apr)	AAQAU00 AAQAW00 AAYTA00	-0.01/0.01 -0.01/0.01	0.00 0.000 0.000 1.450	0.000 0.000 0.000 -0.050
WTI (May) WTI (Jun) WTI MEH (Apr) WTI MEH (May)	AQQAU00 AQQAQ00 AQYAQ0 AQYAQ0	-0.01/0.01 -0.01/0.01 -0.01/0.01	0.00 0.000 0.000 1.450 1.400	0.000 0.000 0.000 -0.050 -0.050
WTI (May) WTI (Jun) WTI MEH (Apr) WTI MEH (May) LLS (Apr)	AAQAU00 AAQAW00 AAYTA00 AAYWA00 AAQBC00	-0.01/0.01 -0.01/0.01 -0.01/0.01 -0.01/0.01	0.00 0.000 0.000 1.450 1.400 2.350	0.000 0.000 0.000 -0.050 -0.050 +0.200

			Mid	Change		Spread vs WTI	Mid	Change
WTI Midland	PCACJ00	60.54-60.56	60.550	-1.040	AAGVZ00	0.79/0.81	0.800	-0.150
WTI Midland (2nd month)	AAYZA00		60.470	-0.900	AAXXF00		0.900	-0.050
LLS (1st month)	PCABN00	62.09-62.11	62.100	-0.690	AAGWN00	2.34/2.36	2.350	+0.200
LLS (2nd month)	AAURC00	61.76-61.78	61.770	-0.600	AAURD00	2.19/2.21	2.200	+0.250
HLS (1st month)	PCABD00	61.74-61.76	61.750	-1.440	AAGWP00	1.99/2.01	2.000	-0.550
HLS (2nd month)	AAURE00	61.41-61.43	61.420	-1.350	AAURF00	1.84/1.86	1.850	-0.500
WTS (1st month)	PCACK00	60.24-60.26	60.250	-1.040	AAGWB00	0.49/0.51	0.500	-0.150
WTS (2nd month)	AAURG00	60.16-60.18	60.170	-0.900	AAURH00	0.59/0.61	0.600	-0.050
WTI MEH	AAYRG00		61.050	-1.040	AAYRH00		1.300	-0.150
WTI MEH (2nd month)	AAXXE00		60.820	-1.000	AAYYA00		1.250	-0.150
Poseidon	ААВНК00	59.09-59.11	59.100	-0.440	AAGWL00	-0.66/-0.64	-0.650	+0.450
Eugene Island	PCAFC00	60.19-60.21	60.200	-0.440	AAGWD00	0.44/0.46	0.450	+0.450
Thunder Horse Blend	AAWZK00	60.39-60.41	60.400	-0.440	AAWZL00	0.64/0.66	0.650	+0.450
Wyoming Sweet	PCACM00	59.94-59.96	59.950	+0.610	AAGWR00	0.19/0.21	0.200	+1.500
Basrah Light	AAEJH00	62.81-62.83	62.820	-0.990	AAGWV00	3.24/3.26	3.250	-0.140
Bonito	PCAIE00	60.19-60.21	60.200	-0.440	AAGWF00	0.44/0.46	0.450	+0.450
SGC	AASOI00	59.14-59.16	59.150	-0.440	AASOJ00	-0.61/-0.59	-0.600	+0.450
					Spre	ad vs NYMEX WTI C		
ANS (Cal)	PCAAD00	62.54-62.58	62.560	-0.720	AAGWX00	3.13/3.15	3.140	+0.100
WCS ex-Cushing	AAWTY00	55.66-55.68	55.670	-0.820	AAWTZ00	-3.76/-3.74	-3.750	0.000
WCS ex-Nederland	AAYAY00		56.720	-0.970	AAYAX00		-2.700	-0.150
Bakken Williston	AAXPP00		59.920	+0.630	AASRX00		0.500	+1.450
Bakken Guernsey	AASRR00	59.96-59.98	59.970	+0.630	AASRV00	0.54/0.56	0.550	+1.450
Bakken Clearbrook	AASRU00	60.21-60.23	60.220	-0.920	AASRW00	0.79/0.81	0.800	-0.100
Bakken USGC Pipe	ABAKA00		60.970	-1.020	ABAKB00		1.550	-0.200
Americas Crude Marker (Apr)	AAQHN00	59.09-59.11	59.100	-0.440				
Americas Crude Marker (May)	AAQH000	58.91-58.93	58.920	-0.400				
Americas Crude Marker (Jun)	ААОНР00	58.51-58.53	58.520	-0.340				
Thums	PCACD00	62.88-62.90	62.890	-0.860				
Line 63	PCABM00	65.85-65.89	65.870	-0.880				
P-Plus Line 63	PCAFV00	2.39/2.41	2.400	0.000				
					Spre	ad vs Eagle Ford Yi	ield	
Eagle Ford postings avg.	ААҮАН00		56.710	-1.120	AAYAI00		-5.280	-0.460
	F	OB USGC			FOB	USGC Spread vs NY		
Platts AGS	AGSAA00		61.380	-0.680	AGSAC00	•	1.820	+0.170
Bakken	ABAKC00		61.180	-0.680	ABAKD00		1.620	+0.170
Eagle Ford Crude	AAYAT00		60.600	-0.680	AAYAU00		1.040	+0.170
Eagle Ford Condensate	AAYAR00		59.650	-0.680	AAYAS00		0.090	+0.170
WTI	AAYBA00		61.380	-0.680	AAYAZ00		1.820	+0.170
	FOB USGC Spre	ad vs Dated Brent						
Platts AGS	AGSAB00		-0.990	+0.370				
Bakken	ABAKE00		-1.190	+0.370				
Eagle Ford Crude	AEFCA00		-1.770	+0.370				
Eagle Ford Condensate	AEFCB00		-2.720	+0.370				
WTI	AWTUA00		-0.990	+0.370				
US CRUDE ASSESSMEN	ITS SINGAPO	ORF CLOSE						
(\$/barrel)		01001	Mid	Change				
, ,								
(PGA page 2208)								
LOOP Sour (Apr)	AAZDA00		59.450	-2.590				
LOOP Sour (May)	AAZDB00		59.220	-2.570				
LLS (Apr)	AAZDC00		62.050	-2.690				
LLS (May)	AAZDD00		61.620	-2.820				
Southern Green Canyon	AAZDE00		58.850	-2.590				
Journal II Green Conyon	AAZDE00		30.030	-2.080				

61.350

61.070

AAZDF00

AAZDG00

-2.740

WTI MEH (Apr)

WTI MEH (May)

#### **CRUDE PRICE ASSESSMENTS**

#### **CANADIAN SPOT CRUDE ASSESSMENTS, MAR 2**

ONINDINITOI OI OI	ODLAC	,00001101110,1	I/ \I \ L	
(PGA pages 230 & 232)		C\$/cu m	Mid	Change
Lloyd Blend	AALRM00	387.685-387.843	387.764	-4.620
Mixed Sweet	AALRT00	451.558-451.717	451.638	-11.994
Light Sour Blend	AALRZ00	449.178-449.337	449.257	-9.997
Midale	AAUCD00	442.037-442.195	442.116	-9.973
Condensates	AALSH00	485.280-485.439	485.360	-1.358
Syncrude Sweet Prem.	AASOL00	477.346-477.504	477.425	-0.536
WCS	AAPP000	383.717-383.876	383.797	-4.606
Cold Lake	AASZY00	382.924-383.083	383.003	-4.604
		\$/barrel		
Lloyd Blend	AALRK00	48.860-48.880	48.870	-0.420
Mixed Sweet	AALRR00	56.910-56.930	56.920	-1.320
Light Sour Blend	AALRX00	56.610-56.630	56.620	-1.070
Midale	AAUCC00	55.710-55.730	55.720	-1.070
Condensates	AALSF00	61.160-61.180	61.170	+0.030
Syncrude Sweet Prem.	AASOK00	60.160-60.180	60.170	+0.130
WCS	AAPPN00	48.360-48.380	48.370	-0.420
Cold Lake	AASZX00	48.260-48.280	48.270	-0.420
	<u>S</u>	pread vs Canada Basi	<u>s</u>	
Lloyd Blend	AALRP00	-10.560/-10.540	-10.550	+0.400
Mixed Sweet	AALRV00	-2.510/-2.490	-2.500	-0.500
Light Sour Blend	AALSD00	-2.810/-2.790	-2.800	-0.250
Midale	AAUCE00	-3.710/-3.690	-3.700	-0.250
Condensates	AALSJ00	1.740/1.760	1.750	+0.850
Syncrude Sweet Prem.	AASOM00	0.740/0.760	0.750	+0.950
WCS	AAPPP00	-11.060/-11.040	-11.050	+0.400
Cold Lake	AASZZ00	-11.160/-11.140	-11.150	+0.400

<sup>\*</sup>Canada Basis: See explanation at http://www.platts.com/

#### DELIVERED-ASIA SPOT CRUDE ASSESSMENTS (\$/barrel) (PGA page 2238)

			( ( , , , , , , , , , , , , , , , ,	( or (page 2200)	Dif	f to Dubai	Diff to	o Asian Dat	ted Brent
US Delivered-Asia Spot Crudes		Mid	Change		Mid	Change		Mid	Change
WTI Midland (DES Singapore)	WTMSA00	62.540	-2.610	WTMSD00	2.900	-0.050	WTMSB00	1.390	-0.070
WTI Midland (DES Yeosu)	WTMYA00	63.040	-2.610	WTMYD00	3.400	-0.050	WTMYB00	1.890	-0.070
Brazil Delivered-Asia Spot Crudes									
Tupi (DES Qinadao)	LUODA00	63.540	-2.510	LUODD00	3.900	+0.050	LUODB00	2.390	+0.030

#### LATIN AMERICA CRUDE (\$/barrel), MAR 2 (PGA page 280)

		FOB Crude	Mid	Change		Diff to WTI strip		iff to Futures Brent strip	3	Diff to Dated Brent strip
Oriente	PCADE00	58.14–58.18	58.160	-1.510	PCAGU00	-1.300	AAXBW00	-3.980	ААХВН00	
Vasconia	PCAGI00	59.77-59.81	59.790	-0.670	PCAGR00	0.330	AAXCB00	-2.350	AAXBN00	-2.365
Roncador	AAQTL00	58.97-59.01	58.990	-0.670	ААОТКОО	-0.470	AAXBT00	-3.150	AAXAY00	-3.165
Escalante	PCAGC00	63.62-63.66	63.640	-0.770	PCAG000	4.180	AAXBS00	1.500	AAXAX00	1.485
Loreto	PCAGH00	57.24-57.28	57.260	-1.510	PCAGQ00	-2.200	AAXBV00	-4.880	AAXBG00	-4.895
Mesa 30	AAITB00	59.82-59.86	59.840	-0.670	AAITH00	0.380	AAXCC00	-2.300	AAXB000	-2.315
Santa Barbara	AAITD00	61.74-61.78	61.760	-1.060	AAITJ00	2.300	AAXBU00	-0.380	AAXAZ00	-0.395
Marlim	AAITF00	59.02-59.06	59.040	-0.670	AAITL00	-0.420	AAXBY00	-3.100	AAXBJ00	-3.115
Napo	AAMCA00	56.79-56.83	56.810	-0.860	AAMCD00	-2.650	AAXBX00	-5.330	AAXBI00	-5.345
Castilla Blend	AAVEQ00	58.27-58.31	58.290	-0.670	AAVEQ01	-1.170	AAXBZ00	-3.850	AAXBK00	-3.865
Magdalena	AAWFR00	56.67-56.71	56.690	-0.670	AAWFS00	-2.770	AAXCA00	-5.450	AAXBL00	-5.465
Liza	ALIZA00		62.090	-0.720	ALIZD00	2.630	ALIZC00	-0.050	ALIZB00	-0.065
Latin America WTI strip	AAXBP00		59.460	-0.860						
Latin America Futures Brent strip	AAXBQ00		62.140	-0.770						
Latin America Dated Brent strip	AAXBR00		62.155	-0.885						

#### DAILY OPEC BASKET PRICE (\$/barrel) (PGA page 207)

Change 11Mar AAEUQ00 64.240 -0.130

The daily OPEC basket price represents an index of the following 11 grades: Algeria's Saharan Blend, Indonesia's Minas, Iranian Heavy, Iraq's Basra Light, Kuwait's Export, Libya's Es Sider, Nigeria's Bonny Light, Qatar's Marine, Saudi Arabia's Arab Light, Murban of the UAE and Venezuela's BCF 17.

#### **CRUDE OIL POSTINGS**

DCADFOO	Plains										
DEADEGO	Plains										
DCADEGO				<u>Shell</u>			Sunoco			<u>Valero</u>	
PSADFOS	56.23*	02MAR21	PSADI09	56.40*	02MAR21	PSADG09	56.25*	02MAR21	PSACS09	56.25*	02MAR21
PSAED09	55.23	02MAR21	PSAEG09	56.74	02MAR21	PSAEE09	51.25	02MAR21			
PSAM009	54.73	02MAR21	PSAMQ09	54.73	02MAR21	PSAMP09	54.75	02MAR21	PSATF09	58.38	02MAR21
PSUS191	56.23	02MAR21	PSANX09	56.15	02MAR21	PSANW09	56.25	02MAR21			
PSAPL09	46.58	02MAR21	PSUS112	48.88	02MAR21				PSAPE09	55.25	02MAR21
PSAQZ09	53.33	02MAR21									
AALBB00	51.73	02MAR21									
						PSUS100	56.25	02MAR21			
						PSUS110	55.25	02MAR21			
	Phillips66			FlintHIs						Coffey	
PSACP09	56.37*	02MAR21	AAUQN00	56.25	02MAR21				PSUS066	56.25	02MAR21
PSAD009	56.23	02MAR21									
PSAMC09	55.12	02MAR21									
PSASL09	56.17	02MAR21							PSUS064	56.25	02MAR21
									PSUS060	50.00	02MAR21
			PSUS264	53.50	02MAR21						
			PSUS261	47.00	02MAR21						
	PSAMO09 PSUS191 PSAPL09 PSAQZ09 AALBB00 PSACP09 PSACP09 PSAMC09	PSADF09 56.23* PSAED09 55.23 PSAM009 54.73 PSUS191 56.23 PSAPL09 46.58 PSAQZ09 53.33 AALBB00 51.73  Phillips66 PSACP09 56.37* PSAD009 56.23 PSAMC09 55.12	PSADF09         56.23*         02MAR21           PSAED09         55.23         02MAR21           PSAM009         54.73         02MAR21           PSUS191         56.23         02MAR21           PSAPL09         46.58         02MAR21           PSAQ209         53.33         02MAR21           AALBB00         51.73         02MAR21           Phillips66           PSACP09         56.37*         02MAR21           PSAD009         56.23         02MAR21           PSAMC09         55.12         02MAR21	PSADF09 56.23* 02MAR21 PSADI09 PSAED09 55.23 02MAR21 PSAEG09 PSAM009 54.73 02MAR21 PSAM099 PSUS191 56.23 02MAR21 PSANX09 PSAPL09 46.58 02MAR21 PSUS112 PSAQ209 53.33 02MAR21 AALBB00 51.73 02MAR21  PSACP09 56.37* 02MAR21 PSAD009 56.23 02MAR21 PSAD009 56.23 02MAR21 PSAMC09 55.12 02MAR21 PSASL09 56.17 02MAR21 PSASL09 56.17 02MAR21	PSADF09   56.23*   02MAR21   PSADF09   56.40*	PSADF09   56.23*   02MAR21   PSADI09   56.40*   02MAR21     PSAED09   55.23   02MAR21   PSAEG09   56.74   02MAR21     PSAM009   54.73   02MAR21   PSAMQ09   54.73   02MAR21     PSAUD19   56.23   02MAR21   PSANX09   56.15   02MAR21     PSAUD19   46.58   02MAR21   PSUS112   48.88   02MAR21     PSAUD19   53.33   02MAR21     AALBB00   51.73   02MAR21     PSAUD19   56.37*   02MAR21     PSAUD19   56.23   02MAR21     PSAUD19   56.23   02MAR21     PSAUD19   56.23   02MAR21     PSAUD19   56.23   02MAR21     PSAUD19   56.24   02MAR21     PSAUD19   56.17   02MAR21     PSUS264   53.50   02MAR21     PSUS264   53.50   02MAR21     PSUS264   53.50   02MAR21     PSAUD19   56.25   02MAR21     PSAUD19   56.17   02MAR21     PSAUD19   56.17   02MAR21     PSUS264   53.50   02MAR21     PSUS264   53.50   02MAR21     PSUS264   53.50   02MAR21     PSAUD19   56.25   02MAR21     PSAUD19   5	PSADF09   56.23*   O2MAR21   PSADF09   56.40*   O2MAR21   PSADF09	PSADF09   56.23*   O2MAR21   PSADF09   56.40*   O2MAR21   PSADF09   56.25*	PSADF09   56.23*   02MAR21   PSADF09   56.40*   02MAR21   PSADF09   56.25*   02MAR21	PSADF09   56.23*   02MAR21	PSADF09   56.23*   02MAR21

<sup>\*</sup>P-5 WTI is a crude oil postings-based index as of 5:30 p.m. local New York time. Posted prices by the following companies are used in the index: Phillips66, Plains, Sunoco, Shell, and Valero. Postings available at presstime. Companies listed are representative of key crude oil purchasers.

	ute		Cina (mt)		WS		Data (#/mi
From	То		Size (mt)		WS		Rate (\$/mt
Clean							
(PGT page 1910)							
Med	UKC	PFADCSZ	30k	PFADC10	140.00	TCABA00	15.51
Med	USAC	PFACWSZ	37k	PFACW10	112.50	TCABC00	17.73
Med	Med	PFADBSZ	30k	PFADB10	130.00	TCAAY00	7.15
UKC	UKC	PFALYSZ	22k	PFALY00	163.75	TCABV00	8.60
UKC	USAC	PFAMASZ	37k	PFAMA00	112.50	TCABX00	14.85
UKC	USGC	PFAMBSZ	37k	PFAMB00	107.50	TCACA00	19.45
BSea	Med	PFABXSZ	30k	PFABX00	140.00	TCAAP00	14.80
(PGT page 2920)							
AG	India	PFABMSZ	35k	PFABM10	168.00	TCAAF00	11.73
AG	Japan	PFABNSZ	35k	PFABN10	113.00	ТСААН00	23.80
Sing	Japan	PFAEBSZ	30k	PFAEB10	140.00	TCABP00	14.55
Sing	HK	PFAKWSZ	30k	PFAKW10	340.00*	TCADI00	11.33
(PGT page 2922)							
AG	Japan	PFAEYSZ	55k	PFAEY10	90.00	TCAAI00	18.95
AG	Japan	PFAMTSZ	75k	PFAMT00	75.00	ТСААЈ00	15.80
Carib Carib	USGC USAC	PFANZSZ PFALTSZ	50k 70k	PFANZ00 PFALT10	147.50 145.00	TDABA00 TDAAY00	13.41 13.73
	USAU	PFALTSZ	7UK	PFALT10	145.00	TDAAY00	13.73
(PGT page 1960)							
Med	Med	PFAJPSZ	80k	PFAJP10	115.00	TDABL00	9.10
Med	USGC	PFAJOSZ	80k	PFAJ010	80.00	TDABU00	15.51
UKC	UKC	PFAKDSZ	80k	PFAKD10	95.00	TDACD00	6.49
UKC	USAC	PFAKESZ	80k	PFAKE10	65.00	TDACG00	8.98
(PGT page 1970)							
WAF	USGC	PFAIASZ	130k	PFAIA10	50.00	TDACV00	9.89
UKC	USGC	PFAHNSZ	135k	PFAHN10	45.00	TDACH00	8.17
Med	USGC	PFAHGSZ	135k	PFAHG10	45.00	TDABS00	8.73
(PGT page 2970)							
AG	Asia	PFAJDSZ	80k	PFAJD10	85.00	TDAAC00	14.57
(PGT page 2980)							
AG	Asia	PFAOCSZ	270k	PFAOC00	30.00	TDAAB00	5.94
AG	USGC	PFAOGSZ	280k	PFA0G00	18.25	TDAAN00	6.78
values are in lun	nosum						
PLATTS FU	TURES ASSESSI	MENTS SINGAP	ORE MOC, MA	<b>AR 2</b> (PGA page 703)			
NYMEX RBOB (	:/gal)			NYMEX NY ULSE	) (¢/gal)		
Apr		XNRBA01	191.450	Apr		XNHOA01	179.520
May		XNRBA02	190.480	May		XNHOA02	178.800
lun		VNDDAGO	100 670	lup		VAULOAGO	170 210

#### PLATTS FUTURES ASSESSMENTS, MAR 2

NYMEX light sweet crude (\$/bar	<b>rrel)</b> (PGA page 70'
---------------------------------	----------------------------

NYMEX light sweet cr	ude (\$/barrel) (PGA page 701)	
	CME 2:30 PM E	T settlement
Apr	AAWS001	59.750
May	AAWS002	59.570
Jun	AAWS003	59.170
Jul	AAWS004	58.650
	Platts 2:30 PM ET fu	itures assessmen
Apr	NYCRM01	59.770
May	NYCRM02	59.600
Jun	NYCRM03	59.200
Jul	NYCRM04	58.670
	CME 2:30 PM vs Pla	tts 2:30 PM spread
Apr	AAWD001	-0.020
May	AAWD002	-0.030
Jun	AAWD003	-0.030
Jul	AAWD004	-0.020
NYMEX RBOB (¢/gal) (	PGA page 701)	
	CME 2:30 PM E	T settlement
Apr	AARS001	193.640
May	AARS002	192.540
Jun	AARS003	190.590
	Platts 2:30 PM ET fu	ıtures əssessmen
Apr	NYRBM01	193.800
May	NYRBM02	192.720
Jun	NYRBM03	190.780
	CME 2:30 PM vs Pla	tts 2:30 PM spread
Apr	AARD001	-0.160
May	AARD002	-0.180
Jun	AARD003	-0.190
NYMEX NY ULSD (¢/ga	al) (PGA page 701)	
	CME 2:30 PM E	T settlement
Apr	AAHS001	180.810
May	AAHS002	180.150
Jun	AAHS003	179.560
	Platts 2:30 PM ET fu	ıtures assessmen
Apr	NYHOM01	180.810
May	NYHOM02	180.160
Jun	NYHOM03	179.580
	CME 2:30 PM vs Pla	tts 2:30 PM spread
Apr	AAHD001	0.000
May	AAHD002	-0.010
Jun	AAHD003	-0.020
ICE Brent crude (\$/ba	rrel) (PGA page 703)	
	Platts 2:30 PM ET fu	ıtures əssessmen
Мау	AAQBG00	62.720
Jun	ААQВН00	62.190
	·	

	Platts 2:30 PM ET fu	tures assessment
May	AAQBG00	62.720
Jun	ААQВН00	62.190
Jul	AAXZZ00	61.590
Aug	AAYALOO	61.100

178.310

XNHOA03

188.670

XNRBA03

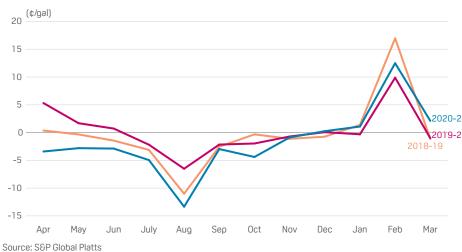
Jun

NYMEX   NMCL081   S9.75   -0.89   59.45   61.21   409629   398080	<b>FUTURES S</b>	FUTURES SETTLEMENTS, MAR 2												
Apr 21 NMCL002 59.57 -0.89 59.45 61.21 409629 398080  May 21 NMCL002 59.57 -0.85 59.23 60.98 112279 295738  Jun 21 NMCL003 59.17 -0.79 58.77 60.51 106620 282357  Jun 21 NMCL004 58.65 -0.73 58.20 59.91 33470 173913  Total NMCL009 58.65 -0.73 58.20 59.91 33470 173913  Total NMCL000 18.081 -0.0111 1.7882 1.8406 44367 134531  May 21 NMH0002 1.8081 -0.0111 1.7882 1.8406 44367 134531  May 21 NMH0002 1.8015 -0.0099 1.7811 1.8326 24762 67778  Jul 21 NMH0003 1.7956 -0.0098 1.7757 1.8260 18766 70739  Jul 21 NMH0004 1.7920 -0.0096 1.7737 1.8206 4014 21526  Total NMH0000 1.7920 -0.0096 1.7737 1.8206 4014 21526  Total NMH0000 1.8934 -0.0055 1.9063 1.9651 48232 126172  May 21 NMR8001 1.9364 -0.0055 1.9063 1.9651 48232 126172  May 21 NMR8002 1.9254 -0.0079 1.8982 1.9532 39095 82396  Jun 21 NMR8003 1.9059 -0.0085 1.8800 1.9332 29052 63844  Jul 21 NMR8000 1.8800 -0.0092 1.8569 1.9067 11236 29381  Total NMR8000 2.839 +0.06 2.757 2.857 97336 177057  Apr 21 NMR8000 2.839 +0.06 2.759 2.890 40785 213660  Jun 21 NMR8000 2.839 +0.06 2.759 2.890 40785 213660  Jun 21 NMR6001 2.839 +0.06 2.798 2.890 40785 213660  Jun 21 NMR6003 2.924 +0.05 2.852 2.935 17207 77491  Jul 21 NMR6003 2.924 +0.05 2.852 2.935 17207 77491  Jul 21 NMR6003 2.924 +0.05 2.852 2.935 17207 77491  Jul 21 NMR6003 2.924 +0.05 2.852 2.935 17207 77491  Jul 21 NMR6003 2.924 +0.05 2.852 2.935 17207 77491  Jul 21 NMR6003 2.924 +0.05 2.852 2.935 17207 77491  Jul 21 NMR6003 2.924 +0.05 2.852 2.935 17207 77491  Jul 21 NMR6003 2.924 +0.05 2.852 2.935 17207 77491  Jul 21 NMR6003 2.924 +0.05 2.852 2.935 17207 77491  Jul 21 NMR6004 2.977 +0.05 2.910 2.984 18735 71941  Total NMR6006 2.884 7878 7888 7898 78988			Settlemen	t Change	Low	High	Volume*	Open inter	est	PNT***				
May 21         NMCL080         59.57         -0.85         59.23         60.98         112279         295738           Jun 21         NMCL083         59.17         -0.79         58.77         60.51         106620         282957           Total         NMCL080         58.65         -0.73         58.20         59.91         33470         173913           NYMEX NY ULSD (\$/gal) (PGA page 705)           Apr 21         NMH0081         1.8081         -0.0111         1.7882         1.8406         44367         134531           May 21         NMH0082         1.8015         -0.0099         1.7811         1.8326         24762         67778           Jun 21         NMH0089         1.7956         -0.0098         1.7757         1.8260         18766         70739           Jul 21         NMH0089         1.7920         -0.0096         1.7737         1.8260         4014         21526           Total         NMR8801         1.9364         -0.0065         1.9063         1.9651         48232         126172           May 21         NMR8802         1.9254         -0.0079         1.8982         1.9532         39095         82396           Jun 21         NMR8802	NYMEX Light s	weet crude (\$	S/barrel) (PG	A page 705)										
Jun 21         NNCL084         59.17         -0.79         58.77         60.51         106620         282357           Jul 21         NNCL084         58.65         -0.73         58.20         59.91         33470         173913           Total         NNCL086         58.65         -0.73         58.20         59.91         33470         173913           NYMEX NY ULSD (\$/94]) (PGA page 705)           Apr 21         NHH0081         1.8081         -0.0111         1.7882         1.8406         44367         134531           May 21         NHH0083         1.7956         -0.0099         1.7811         1.8326         24762         67778           Jul 21         NHH0084         1.7920         -0.0098         1.7757         1.8260         4014         21526           Total         NHH0088         1.7737         1.8206         4014         21526           NYMEX RBOB unleaded gasoline (\$/gal) (PGA page 705)           NYMEX RBOB unleaded gasoline (\$/gal) (PGA page 705)           Apr 21         NNRB0801         1.9364         -0.0079         1.8982         1.9532         39955         82396           Jun 21         NNRB0801         1.9065         1.8000	Apr 21	NMCL001	59.75	-0.89	59.45	61.21	409629	398080						
Jul 21	May 21	NMCL002	59.57	-0.85	59.23	60.98	112279	295738						
Nymexary UlsD (\$/gal) (PGA page 705)   Nymexary UlsD (\$	Jun 21	NMCL003	59.17	-0.79	58.77	60.51	106620	282357						
NYMEX NY ULSD (\$/gal) (PGA page 705)   NHH00e1	Jul 21	NMCL004	58.65	-0.73	58.20	59.91	33470	173913						
Apr 21 NH0001 1.8081 -0.0111 1.7882 1.8406 44367 134531 May 21 NH0002 1.8015 -0.0099 1.7811 1.8326 24762 67778 Jun 21 NH0003 1.7956 -0.0098 1.7757 1.8260 18766 70739 Jul 21 NH0004 1.7920 -0.0096 1.7737 1.8260 4014 21526  Total NH0000 105495 XNH0000 7490  NYMEX RBOB unleaded gasoline (\$/gal) (PGA page 705)  Apr 21 NH8001 1.9364 -0.0065 1.9063 1.9651 48232 126172 May 21 NH8002 1.9254 -0.0079 1.8982 1.9532 39095 82396 Jun 21 NH8003 1.9059 -0.0085 1.8800 1.9332 29052 63844 Jul 21 NH8004 1.8800 -0.0092 1.8569 1.9067 11236 29381 Total NH80004 1.8800 -0.0092 1.8569 1.9067 11236 29381 Total NH80004 2.839 +0.06 2.757 2.857 97336 177057  May 21 NH80002 2.875 +0.06 2.798 2.890 40785 213660 Jun 21 NHN0002 2.875 +0.06 2.798 2.890 40785 213660 Jun 21 NHN0004 2.997 +0.05 2.910 2.984 18735 71941 Total NHN00004 2.977 +0.05 2.910 2.984 18735 71941 Total NHN00004 2.977 +0.05 2.910 2.984 18735 71941 Total NHN00004 2.977 +0.05 2.910 2.984 18735 71941 Total NHN00004 5.958 -1.12 59.58 59.58 0 0  DME Oman crude (\$/barrel)** (PGA pages 702 6 2710)  May 21 Nano XDA0001 61.21 -1.43 61.21 61.85 1489 723 Jun 21 DM00003 60.08 -1.27 60.08 60.08 690 0  Aug 21 DM00004 59.58 -1.12 59.58 59.58 0 0  Total DM00000 2.860 5 -1.34 60.65 60.65 690 0  LICE Brent (\$/barrel) (PGA page 704)  May 21 ICLL001 62.70 -0.99 62.51 64.13 317482 663221 Jun 21 ICLL002 61.58 -0.75 61.16 62.81 76755 226133  Aug 21 ICLL003 61.58 -0.75 61.16 62.81 76755 226133  Aug 21 ICLL004 61.08 -0.68 60.61 62.28 38872 124597	Total	NMCL000					829407		XNCLP00	13620				
Apr 21 NH0001 1.8081 -0.0111 1.7882 1.8406 44367 134531 May 21 NH0002 1.8015 -0.0099 1.7811 1.8326 24762 67778 Jun 21 NH0003 1.7956 -0.0098 1.7757 1.8260 18766 70739 Jul 21 NH0004 1.7920 -0.0096 1.7737 1.8260 4014 21526  Total NH0000 105495 XNH0000 7490  NYMEX RBOB unleaded gasoline (\$/gal) (PGA page 705)  Apr 21 NH8001 1.9364 -0.0065 1.9063 1.9651 48232 126172 May 21 NH8002 1.9254 -0.0079 1.8982 1.9532 39095 82396 Jun 21 NH8003 1.9059 -0.0085 1.8800 1.9332 29052 63844 Jul 21 NH8004 1.8800 -0.0092 1.8569 1.9067 11236 29381 Total NH80004 1.8800 -0.0092 1.8569 1.9067 11236 29381 Total NH80004 2.839 +0.06 2.757 2.857 97336 177057  May 21 NH80002 2.875 +0.06 2.798 2.890 40785 213660 Jun 21 NHN0002 2.875 +0.06 2.798 2.890 40785 213660 Jun 21 NHN0004 2.997 +0.05 2.910 2.984 18735 71941 Total NHN00004 2.977 +0.05 2.910 2.984 18735 71941 Total NHN00004 2.977 +0.05 2.910 2.984 18735 71941 Total NHN00004 2.977 +0.05 2.910 2.984 18735 71941 Total NHN00004 5.958 -1.12 59.58 59.58 0 0  DME Oman crude (\$/barrel)** (PGA pages 702 6 2710)  May 21 Nano XDA0001 61.21 -1.43 61.21 61.85 1489 723 Jun 21 DM00003 60.08 -1.27 60.08 60.08 690 0  Aug 21 DM00004 59.58 -1.12 59.58 59.58 0 0  Total DM00000 2.860 5 -1.34 60.65 60.65 690 0  LICE Brent (\$/barrel) (PGA page 704)  May 21 ICLL001 62.70 -0.99 62.51 64.13 317482 663221 Jun 21 ICLL002 61.58 -0.75 61.16 62.81 76755 226133  Aug 21 ICLL003 61.58 -0.75 61.16 62.81 76755 226133  Aug 21 ICLL004 61.08 -0.68 60.61 62.28 38872 124597	NYMEX NY ULS	SD (\$/gal) (PGA	page 705)											
May 21         NMH00e2         1.8015         -0.0099         1.7811         1.8326         24762         67778           Jun 21         NMH00e3         1.7956         -0.0098         1.7757         1.8260         18766         70739           Jul 21         NMH00e4         1.7920         -0.0096         1.7737         1.8260         4014         21526           Total         NMH00e0         1.7920         -0.0096         1.7737         1.8260         4014         21526           NYMEX R808 unleaded gasoline (\$/gal) (PGA page 705)           Apr 21         NMR8091         1.9364         -0.0065         1.9063         1.9651         48232         126172           May 21         NMR8092         1.9254         -0.0079         1.8982         1.9532         39095         82396           Jun 21         NMR8093         1.9059         -0.0085         1.8800         1.9067         11236         29381           Total         NMR8094         1.8800         -0.0092         1.8569         1.9067         11236         29381           NYMEX Natural Gas (\$/MMBtu) (PGA page 705)           Apr 21         NMNG090         2.875         +0.06         2.757         2.85				-0.0111	1 7882	1 8406	44367	134531						
Jun 21	•													
Dul 21														
NYMEX RBOB unleaded gasoline (\$/gal) (PGA page 705)														
Apr 21         NMRB001         1.9364         -0.0065         1.9063         1.9651         48232         126172           May 21         NMRB002         1.9254         -0.0079         1.8982         1.9532         39095         82396           Jun 21         NMRB003         1.9059         -0.0085         1.8800         1.9332         29052         63844           Jul 21         NMRB004         1.8800         -0.0092         1.8569         1.9067         11236         29381           Total         NMRB004         1.8800         -0.0092         1.8569         1.9067         11236         29381           Total         NMRG004         2.839         +0.06         2.757         2.857         97336         177057           May 21         NMNG002         2.875         +0.06         2.798         2.890         40785         213660           Jun 21         NMNG003         2.924         +0.05         2.852         2.935         17207         77491           Jul 21         NMNG004         2.977         +0.05         2.910         2.984         18735         71941           Total         NMNG0004         2.977         +0.05         2.910         2				0.0000				2.020	XNHOP00	7490				
Apr 21         NMRB001         1.9364         -0.0065         1.9063         1.9651         48232         126172           May 21         NMRB002         1.9254         -0.0079         1.8982         1.9532         39095         82396           Jun 21         NMRB003         1.9059         -0.0085         1.8800         1.9332         29052         63844           Jul 21         NMRB004         1.8800         -0.0092         1.8569         1.9067         11236         29381           Total         NMRB004         1.8800         -0.0092         1.8569         1.9067         11236         29381           Total         NMRG004         2.839         +0.06         2.757         2.857         97336         177057           May 21         NMNG002         2.875         +0.06         2.798         2.890         40785         213660           Jun 21         NMNG003         2.924         +0.05         2.852         2.935         17207         77491           Jul 21         NMNG004         2.977         +0.05         2.910         2.984         18735         71941           Total         NMNG0004         2.977         +0.05         2.910         2	NYMEX RBOB I	ınleaded oasc	oline (\$/oal)	L(PGA nane 70	15)									
May 21         NMRB002         1.9254         -0.0079         1.8982         1.9532         39095         82396           Jun 21         NMRB003         1.9059         -0.0085         1.8800         1.9332         29052         63844           Jul 21         NMRB004         1.8800         -0.0092         1.8569         1.9067         11236         29381           Total         NMRB004         1.8800         -0.0092         1.8569         1.9067         11236         29381           NYMEX Natural Gas (\$/MBtu) (PGA page 705)           May 21         NMNG001         2.839         +0.06         2.757         2.857         97336         177057           May 21         NMNG002         2.875         +0.06         2.798         2.890         40785         213660           Jun 21         NMNG003         2.924         +0.05         2.852         2.935         17207         77491           Jul 21         NMNG004         2.977         +0.05         2.910         2.984         18735         71941           Total         NMNG000         61.45         -2.78         2940         228371         XNNGP00         6358           DMC Omarcule (\$/barre						1 0651	18232	126172						
Jun 21	<u> </u>													
Jul 21														
Total         NMRB000         151212         XNRBP00         12422           NYMEX Natural Gas (\$/MMBtu) (PGA page 705)           Apr 21         NMNG001         2.839         +0.06         2.757         2.857         97336         177057           May 21         NMNG002         2.875         +0.06         2.798         2.890         40785         213660           Jun 21         NMNG003         2.924         +0.05         2.852         2.935         17207         77491           Jul 21         NMNG004         2.977         +0.05         2.910         2.984         18735         71941           Total         NMNG000         2.984         18735         71941           Total         NMNG000         2.984         18735         71941           May 21 Asia         XDOA001         61.45         -2.78         2940           May 21         DMOQ001         61.21         -1.43         61.21         61.85         1489         723           Jun 21         DMOQ001         60.65         -1.34         60.65         60.65         690         0           Jul 21         DMOQ003         60.0														
NYMEX Natural Gas (\$/MMBtu) (PGA page 705)  Apr 21			1.0000	0.0032	1.0303	1.5001		23301	XNRBP00	12422				
Apr 21         NMNG001         2.839         +0.06         2.757         2.857         97336         177057           May 21         NMNG002         2.875         +0.06         2.798         2.890         40785         213660           Jun 21         NMNG003         2.924         +0.05         2.852         2.935         17207         77491           Jul 21         NMNG004         2.977         +0.05         2.910         2.984         18735         71941           Total         NMNG000         2.910         2.984         18735         71941           Total         NMNG000         2.910         2.984         18735         71941           Total         NMNG000         2.910         2.984         18735         71941           May 21 Asia         XD0A001         61.45         -2.78         2940         228371         XNNGP00         6358           May 21 DMOQ001         61.21         -1.43         61.21         61.85         1489         723         3           Jul 21 DMOQ002         60.65         -1.34         60.65         60.65         690         0         0         0           Total         DMOQ002         59.58         -1.12							-							
May 21         NMNG002         2.875         +0.06         2.798         2.890         40785         213660           Jun 21         NMNG003         2.924         +0.05         2.852         2.935         17207         77491           Jul 21         NMNG004         2.977         +0.05         2.910         2.984         18735         71941           Total         NMNG000         228371         XNNGP00         6358           DME Oman crude (\$/barrel)** (PGA pages 702 & 2710)         ***         2940           May 21 Asia         XD0A001         61.45         -2.78         2940           May 21         DM0Q001         61.21         -1.43         61.21         61.85         1489         723           Jun 21         DM0Q002         60.65         -1.34         60.65         60.65         690         0           Jul 21         DM0Q003         60.08         -1.27         60.08         60.08         690         0           Total         DM0Q004         59.58         -1.12         59.58         59.58         0         0           Total         DM0Q004         59.58         -1.12         59.58         59.58         0         0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>														
Jun 21	·													
Jul 21														
Total         NMNG000         228371         XNNGP00         6358           DME Oman crude (\$/barrel)** (PGA pages 702 € 2710)           May 21 Asia         XDOA001         61.45         -2.78         2940           May 21         DMOQ001         61.21         -1.43         61.21         61.85         1489         723           Jun 21         DMOQ002         60.65         -1.34         60.65         60.65         690         0           Jul 21         DMOQ003         60.08         -1.27         60.08         60.08         690         0           Aug 21         DMOQ004         59.58         -1.12         59.58         59.58         0         0           Total         DMOQ000         2869         XDOQP00         0           ICE Brent (\$/barrel) (PGA page 704)           May 21         ICLL001         62.70         -0.99         62.51         64.13         317482         663221           Jun 21         ICLL002         62.18         -0.84         61.84         63.50         177215         369698           Jul 21         ICLL003         61.58         -0.75         61.16         62.81         76755         226133           Aug														
DME Oman crude (\$/barrel)** (PGA pages 702 & 2710)           May 21 Asia         xDOA@01         61.45         -2.78         2940           May 21         DMOQ@01         61.21         -1.43         61.21         61.85         1489         723           Jun 21         DMOQ@02         60.65         -1.34         60.65         690         0           Jul 21         DMOQ@03         60.08         -1.27         60.08         60.08         690         0           Aug 21         DMOQ@04         59.58         -1.12         59.58         59.58         0         0           Total         DMOQ@06         2869         xDOQP@0         0           ICE Brent (\$/barrel) (PGA page 704)           May 21         ICLL@01         62.70         -0.99         62.51         64.13         317482         663221           Jun 21         ICLL@02         62.18         -0.84         61.84         63.50         177215         369698           Jul 21         ICLL@03         61.58         -0.75         61.16         62.81         76755         226133           Aug 21         ICLL@04         61.08         -0.68         60.61         62.28         38872         124597		NMNG004	2.977	+0.05	2.910	2.984		71941						
May 21 Asia         xDOA@01         61.45         -2.78         2940           May 21         DMOQ@01         61.21         -1.43         61.21         61.85         1489         723           Jun 21         DMOQ@02         60.65         -1.34         60.65         60.65         690         0           Jul 21         DMOQ@03         60.08         -1.27         60.08         60.08         690         0           Aug 21         DMOQ@04         59.58         -1.12         59.58         59.58         0         0           Total         DMOQ@06         2869         XDOQP@0         0           ICE Brent (\$/barrel) (PGA page 704)           May 21         ICLL@01         62.70         -0.99         62.51         64.13         317482         663221           Jun 21         ICLL@02         62.18         -0.84         61.84         63.50         177215         369698           Jul 21         ICLL@03         61.58         -0.75         61.16         62.81         76755         226133           Aug 21         ICLL@04         61.08         -0.68         60.61         62.28         38872         124597	lotal	NMNG000					228371		XNNGP00	6358				
May 21         DMOQ001         61.21         -1.43         61.21         61.85         1489         723           Jun 21         DMOQ002         60.65         -1.34         60.65         60.65         690         0           Jul 21         DMOQ003         60.08         -1.27         60.08         60.08         690         0           Aug 21         DMOQ004         59.58         -1.12         59.58         59.58         0         0           Total         DMOQ000         2869         XDOQP00         0           ICE Brent (\$/barrel) (PGA page 704)           May 21         ICLL001         62.70         -0.99         62.51         64.13         317482         663221           Jun 21         ICLL002         62.18         -0.84         61.84         63.50         177215         369698           Jul 21         ICLL003         61.58         -0.75         61.16         62.81         76755         226133           Aug 21         ICLL004         61.08         -0.68         60.61         62.28         38872         124597	DME Oman cru	de (\$/barrel)*	** (PGA pages	702 & 2710)										
Jun 21         DMOQ0e2         60.65         -1.34         60.65         60.65         690         0           Jul 21         DMOQ0e3         60.08         -1.27         60.08         60.08         690         0           Aug 21         DMOQ0e4         59.58         -1.12         59.58         59.58         0         0           Total         DMOQ0e0         2869         XDOQPe0         0           ICE Brent (\$/barrel) (PGA page 704)           May 21         ICLL0e1         62.70         -0.99         62.51         64.13         317482         663221           Jun 21         ICLL0e2         62.18         -0.84         61.84         63.50         177215         369698           Jul 21         ICLL0e3         61.58         -0.75         61.16         62.81         76755         226133           Aug 21         ICLL0e4         61.08         -0.68         60.61         62.28         38872         124597	May 21 Asia	XD0A001	61.45	-2.78			2940							
Jul 21         DMOQ003         60.08         -1.27         60.08         60.08         690         0           Aug 21         DMOQ004         59.58         -1.12         59.58         59.58         0         0           Total         DMOQ000         2869         XDOQP00         0           ICE Brent (\$/barrel) (PGA page 704)           May 21         ICLL001         62.70         -0.99         62.51         64.13         317482         663221           Jun 21         ICLL002         62.18         -0.84         61.84         63.50         177215         369698           Jul 21         ICLL003         61.58         -0.75         61.16         62.81         76755         226133           Aug 21         ICLL004         61.08         -0.68         60.61         62.28         38872         124597	May 21	DM0Q001	61.21	-1.43	61.21	61.85	1489	723						
Aug 21         DMOQ004         59.58         -1.12         59.58         59.58         0         0           Total         DMOQ000         2869         XDOQP00         0           ICE Brent (\$/barrel) (PGA page 704)           May 21         ICLL001         62.70         -0.99         62.51         64.13         317482         663221           Jun 21         ICLL002         62.18         -0.84         61.84         63.50         177215         369698           Jul 21         ICLL003         61.58         -0.75         61.16         62.81         76755         226133           Aug 21         ICLL004         61.08         -0.68         60.61         62.28         38872         124597	Jun 21	DMOQ002	60.65	-1.34	60.65	60.65	690	0						
Total DMOQ000 2869 XDOQP00 0  ICE Brent (\$/barrel) (PGA page 704)  May 21 ICLL001 62.70 -0.99 62.51 64.13 317482 663221  Jun 21 ICLL002 62.18 -0.84 61.84 63.50 177215 369698  Jul 21 ICLL003 61.58 -0.75 61.16 62.81 76755 226133  Aug 21 ICLL004 61.08 -0.68 60.61 62.28 38872 124597	Jul 21	DMOQ003	60.08	-1.27	60.08	60.08	690	0						
CE Brent (\$/barrel) (PGA page 704)  May 21	Aug 21	DMOQ004	59.58	-1.12	59.58	59.58	0	0						
May 21         ICLL001         62.70         -0.99         62.51         64.13         317482         663221           Jun 21         ICLL002         62.18         -0.84         61.84         63.50         177215         369698           Jul 21         ICLL003         61.58         -0.75         61.16         62.81         76755         226133           Aug 21         ICLL004         61.08         -0.68         60.61         62.28         38872         124597	Total	DM0Q000					2869		XDOQP00	0				
Jun 21         ICLL002         62.18         -0.84         61.84         63.50         177215         369698           Jul 21         ICLL003         61.58         -0.75         61.16         62.81         76755         226133           Aug 21         ICLL004         61.08         -0.68         60.61         62.28         38872         124597	ICE Brent (\$/ba	errel) (PGA page	e 704)											
Jun 21         ICLL002         62.18         -0.84         61.84         63.50         177215         369698           Jul 21         ICLL003         61.58         -0.75         61.16         62.81         76755         226133           Aug 21         ICLL004         61.08         -0.68         60.61         62.28         38872         124597	May 21	ICLL001	62.70	-0.99	62.51	64.13	317482	663221						
Jul 21         ICLL003         61.58         -0.75         61.16         62.81         76755         226133           Aug 21         ICLL004         61.08         -0.68         60.61         62.28         38872         124597	-	ICLL002												
Aug 21 ICLL004 61.08 -0.68 60.61 62.28 38872 124597														
	Aug 21	ICLL004	61.08	-0.68	60.61	62.28	38872	124597						
									XILLP00	21169				

		Settlement	Change	Low	High	Volume*	Open inter	rest	PNT***
ICE BWAVE (	Brent weighted	futures avera	ige)(\$/bar	<b>rel)</b> (PGA ρa	ge 704)				
May 21	XIBW001	64.67							
Jun 21	XIBW002	63.87							
BWAVE data r	efer to previous d	ау.							
ICE WTI (\$/b	arrel) (PGA page 7	<b>'</b> 04)							
Apr 21	ICIC001	59.75	-0.89	59.47	61.21	31515	49126		
May 21	ICIC002	59.57	-0.85	59.38	60.96	49087	49240		
Jun 21	ICIC003	59.17	-0.79	58.96	60.46	54987	69555		
Jul 21	ICIC004	58.65	-0.73	58.38	59.88	32157	26118		
Total	ICIC000					202307		XIICP00	5504
ICE low sulfu	ır Gəsoil (\$/mt)	(PGA page 704)							
Mar 21	ICL0001	517.75	-9.00	508.25	521.75	55436	110504		
Apr 21	ICL0002	518.75	-9.00	509.50	523.00	105693	176220		
May 21	ICL0003	519.75	-8.50	510.00	523.50	59219	104060		
Jun 21	ICL0004	519.50	-8.50	509.50	523.25	46491	107948		
Total	ICL0000					391787		XILOP00	6632

\*Volume, open interest and PNT reflect prior trading day. PNT reflect volume for Privately Negotiated Trades or off-exchange.
\*\*Oman settlements are Post Close settlements. \*\*\*Privately Negotiated Trade values found on PGA page 710

#### NYMEX RBOB STRUCTURE FOLLOWS SEASONAL WEAKNESS



Source: CQG

#### FIVE-DAY ROLLING AVERAGES, FIVE DAYS ENDING MARCH 2

Nashtha (DOL)			Conversion	
Naphtha (PGA page 34)		\$/barrel		¢/gal
Singapore	PAAAP00	65.23–65.27	(/.42)	155.30–155.40
Singopore	TARRI OU	\$/mt	(/12)	¢/qal
Japan C/F	PAAAD00	594.15–599.35	(/3.78)	157.18–158.56
Arab Gulf	PAAAA00	571.86-577.06	(/3.78)	151.29–152.66
CIF NWE physical	PAAAL00	583.90-584.40	(/3.78)	154.47-154.60
Rotterdam barge	PAAAM00	579.90–580.40	(/3.78)	153.41-153.54
FOB Med	PAAA100	561.60-562.10	(/3.78)	148.57-148.70
CIF Genoa	PAAAH00	574.65–575.15	(/3.78)	152.02-152.16
<u> </u>	7700000	¢/gal	(/00)	\$/mt
US Gulf FOB cargo	AAXJP00	146.40 -146.50	(*3.54669)	553.50 -553.60
US Gulf DAP LSR parcel	AAXQK00	145.95	(*4.0083)	585.01
Jet Kerosene (PGA page 35)			,	
Cot Not Cook (1 O/1 page 33)		\$/mt		¢/gal
CIF NWE cargo	PJAAU00	544.50-545.00	(/7.89)	164.31-164.46
Rotterdam barge	РЈАВА00	545.40-545.90	(/7.89)	164.58-164.74
FOB Med	AAIDL00	526.05-526.55	(/7.89)	158.75-158.90
CIF Genoa	AAZBN00	543.00-543.50	(/7.89)	163.86-164.01
Carib cargo	РЈААДОО	567.34-567.40	(/7.7)	175.65-175.67
		¢/gal		\$/mt
US Gulf water	РЈАВМ00	169.72-169.82	(*.42)	562.40-562.74
US Gulf pipe	РЈАВООО	168.22-168.32	(*.42)	557.43-557.77
NY barge	РЈААШ00	170.61-170.71	(*.42)	563.00-563.33
LA pipeline	РЈААР00	173.42-173.52	(*.42)	553.20-553.52
Group 3	PJAAI00	181.16-181.26	(*.42)	600.31-600.65
Chicago	РЈААГОО	180.73-180.83	(*.42)	598.91-599.24
Crude Oil, FOB Source				
		\$/barrel		
West Texas Int	PCACG00	61.72–61.74		
NYMEX Crude	XNCL001	62.11		
Mars	AAMBR00	61.43–61.45		
Brent (DTD)	PCAAS00	65.81–65.82		
Brent (First month)	PCAAQ00	65.84–65.86		
Dubai (First Month)	PCAAT00	63.60–63.61		
Oman (First Month)	PCABS00	63.60–63.62		
Urals CIF med	PCACE00	63.27–63.30		
WTI Posting Plus	PCACI00	3.64 –3.66		
Gasoline, U.S. Market (PGA page 36)				
(¢/gal)		<u>Unleaded</u>		<u>Premium</u>
US Gulf water	PGACU00	189.07–189.17	PGAIX00	197.01–197.11
US Gulf pipe	PGACT00	187.07–187.17	PGAJB00	195.01–195.11
Group 3			PGABD00	218.05–218.15
LA Pipeline			PGABG00	214.23–214.33
SF Pipeline	PGADG00	198.23-198.33	PGAB000	216.23-216.33
Chicago	PGACR00	183.44-183.54	PPASQ00	201.19–201.29
NYMEX UnI	XNRB001	189.33		

Gasoline, Intl. Market			Conversion	
		Prem (\$/mt)		¢/gal
R'dam Barge Prem unl	PGABM00	610.40-610.90	(/3.51)	173.90-174.05
Gasoil/Heating Oil (PGA page 32)				
		\$/barrel		¢/gal
Singapore	POABC00	70.89-70.93	(/.42)	168.78-168.88
Arab Gulf	POAAT00	69.14-69.18	(/.42)	164.61-164.71
		\$/mt		¢/gal
0.1 CIF ARA	AAYWS00	527.85-528.35	(/3.133)	168.64-168.80
50 ppm Rotterdam barge	AAUQC00	526.05-526.55	(/3.133)	168.07-168.23
0.1 Rotterdam barge	AAYWT00	519.45-519.95	(/3.133)	165.96-166.12
0.1 FOB NWE	AAYWR00	514.80-515.30	(/3.133)	164.47-164.63
0.1 CIF Med	AAVJJ00	526.35-526.85	(/3.133)	168.16-168.32
(PGA page 33)				
		¢/gal		\$/barrel
L.A. LS diesel	POAET00	196.62-196.72	(*3.07)	603.61-603.92
S.F. LS diesel	POAEY00	185.72-185.82	(*3.07)	570.15-570.46
		¢/gal		\$/mt
NY barge	POAEG00	167.01-167.11	(*3.15)	526.07-526.38
US Gulf water	POAEE00	171.57-171.67	(*3.08)	528.42-528.73
US Gulf pipe	POAED00	167.07-167.17	(*3.08)	514.56-514.87
NYMEX NY ULSD	XNH0001	187.17	(*3.08)	589.59
Low Sulfur Resid Fuel Oil (PGA page 38)				
		\$/mt		\$/barrel
CIF ARA 1%	PUAAL00	444.00-444.50	(/6.35)	69.92-70.00
Rot bar 1%	PUAAP00	432.50-433.00	(/6.35)	68.11-68.19
NWE FOB 1%	PUAAM00	433.75-434.25	(/6.35)	68.31–68.39
Med FOB 1%	PUAAK00	440.15-440.65	(/6.35)	69.31-69.39
		\$/barrel		\$/mt
NY Cargo .3% HP	PUAAE00	79.77–79.79	(*6.7)	534.46-534.59
NY Cargo .3% LP	PUAAB00	79.77–79.79	(*6.7)	534.46-534.59
NY Cargo .7% Max	PUAAH00	69.70-69.72	(*6.5)	453.06-453.19
NY Cargo 1% Max	PUAA000	65.22–65.24	(*6.5)	423.96–424.09
US Gulf 1%	PUAAI00	66.68–66.70	(*6.11)	421.44–421.57
Hi Sulfur Resid Fuel Oil (PGA page 39)				
		\$/mt		\$/barrel
Singapore 180	PUADV00	379.98–380.02	(/6.35)	59.84–59.85
Singapore 380	PPXDK00	374.88–374.92	(/6.35)	59.04–59.04
Arab Gulf 180	PUABE00	370.18–370.22	(/6.35)	58.30-58.30
CIF ARA 3.5%	PUABA00	363.05-363.55	(/6.35)	57.17–57.25
NWE FOB 3.5%	PUABB00	349.50-350.00	(/6.35)	55.04-55.12
Med FOB 3.5%	PUAAZ00	355.65-356.15	(/6.35)	56.01-56.09
CIF Med 3.5%	PUAAY00	366.95-367.45	(/6.35)	57.79-57.87
		\$/barrel		\$/mt
USAC HSF0	PUAAX00	57.35-57.37	(*6.35)	364.17-364.30
USGC HSF0	PUAFZ00	55.65-55.67	(*6.35)	353.40-353.53
Carib 2.0%	PUAAS00	56.07-56.09	(*6.4)	358.85–358.98

#### **US WHOLESALE POSTED PRICES EFFECTIVE MAR 2**

PADD 1	<u>Unleaded</u>	<u>Midgrade</u>	<u>Premium</u>	<u>Kerosene</u>	Diesel No.2	<u>ULSD</u>
llbany, NY	DR198ZY 184.45-187.66	DM198ZY 189.20-198.80	DP198ZY 196.95-218.80	DK198ZY 207.50-217.25		DU198ZY 187.99–195.53
llentown	DR235ZY 185.20-189.03	DM235ZY 189.98–204.87	DP235ZY 198.30-227.66		DH235ZY -	DU235ZY 188.50-192.03
lanta	DR048ZY 179.40-204.95	DM048ZY 191.25-204.35	DP048ZY 200.30-237.02			DU048ZY 184.50-186.61
ltimore (a)	DR123ZY 181.85-193.56	DM123ZY 186.55-206.44	DP123ZY 195.00-245.44	DK123ZY 202.00-223.07	DH123ZY -	DU123ZY 184.75-196.58
ghamton	DR200ZY 188.40-200.25	DM200ZY 199.26-204.60	DP200ZY 198.38-211.13			DU200ZY 191.55-195.25
ston (a)	DR121ZY 183.05-186.45	DM121ZY 186.85-191.70	DP121ZY 193.35-197.45	DK121ZY 228.95-228.95		DU121ZY 189.65-197.19
arleston	DR250ZY 187.15-199.68	DM250ZY 199.55-202.25	DP250ZY 226.30-234.39			DU250ZY 191.00-200.41
arlotte	DR169ZY 179.30-188.00	DM169ZY 190.00-205.00	DP169ZY 193.63-235.00			DU169ZY 184.00-187.87
irfax (a)	DR299ZY 181.80-200.88	DM299ZY 196.01-220.88	DP299ZY 211.80-249.10			DU299ZY 183.19-189.89
eensboro				DK171ZY 229.85-229.85		DU171ZY 184.01-186.51
emi	DD0247V 100 10 100 70	DH024TV 100 00 100 0F	DD024TV 100 40 000 00	DK0242A 000 05 000 05	DU039ZY 190.71-193.40	DU0247V 107.70 100.00
w Haven (a)	DR034ZY 182.10-190.76	DM034ZY 186.00-199.35	DP034ZY 192.40-220.32	DK034ZY 228.65-228.65	DH034ZY -	DU034ZY 187.70-193.22
w York City (a)	DR204ZY 185.51-185.65	DM204ZY 189.99-190.50	DP204ZY 196.15-198.21	DK4002X 010 E0 010 E0		DU204ZY 190.82-208.61
wark (a)	DR189ZY 179.45-186.71	DM189ZY 182.95-192.56	DP189ZY 188.00-213.56	DK189ZY 218.59–218.59		DU189ZY 183.50-189.22
rfolk (a)	DR300ZY 181.80-192.75	DM300ZY 197.33-209.75	DP300ZY 216.46-247.88			DU300ZY 185.50-188.39
ando	DR041ZY 187.70-194.95	DM041ZY 198.28-212.95	DP041ZY 213.50-244.55		DUI 407V	DU041ZY 189.35-194.47
iladelphia (a)	DR242ZY 181.00-184.81	DM242ZY 185.53-192.25	DP242ZY 193.65-200.27	DIVO 4277V	DH242ZY -	DU242ZY 186.99-198.94
tsburgh	DR243ZY 177.45-196.75	DM243ZY 190.78-216.18	DP243ZY 203.85-236.93	DK243ZY -	DH243ZY -	DU243ZY 186.66-201.21
vidence (a)	DR248ZY 183.21-203.25	DM248ZY 188.65-216.25	DP248ZY 192.88-235.50			DU248ZY 191.01-192.56
tland	DR126ZY 185.40-190.58	DM126ZY 190.10-195.10	DP126ZY 196.00-201.33		DH126ZY -	DU126ZY 190.60-195.28
leigh						DU168ZY 186.25-186.25
hmond	DR301ZY 180.80-194.05	DM301ZY 197.38-215.88	DP301ZY 209.05-249.05	DK301ZY 231.00-231.00		DU301ZY 185.25-189.44
vannah	DR054ZY 194.05-197.85	DM054ZY 206.10-214.85	DP054ZY 244.75-244.85			DU054ZY 195.20-195.95
artanburg	DR252ZY 179.50-188.25	DM252ZY 188.63–205.25	DP252ZY 197.39-236.25			DU252ZY 184.10-187.10
mpa					DU045ZY 187.85-191.78	
DD 2						
erdeen	DR253ZY 196.63-202.44	DM253ZY 205.25-211.44	DP253ZY 213.25-220.78			DU253ZY 215.45-220.56
pe Girardeau	DR144ZY 191.12-199.72		DP144ZY 202.52-261.00			DU144ZY 198.94-199.60
attanooga	DR260ZY 180.59-195.78	DM260ZY 192.98-212.78	DP260ZY 198.40-245.78			DU260ZY 183.25-186.22
icago (a)	DR075ZY 178.17-186.83	DM075ZY 199.40-200.17	DP075ZY 231.32-239.40	DK075ZY 233.16-239.10		DU075ZY 191.60-196.59
eveland	DR212ZY 180.07-184.25	DM212ZY 198.56-200.80	DP212ZY 222.56-242.56	DK212ZY 287.80-287.80		DU212ZY 194.46-203.85
lumbus	DR213ZY 180.00-193.43	DM213ZY 197.00-218.43	DP213ZY 222.50-257.43	DK213ZY 279.35-279.35		DU213ZY 199.83-209.56
iluth	DR138ZY 202.00-204.00	DM138ZY 212.03-214.07	DP138ZY 230.66-235.28			DU138ZY 214.83-218.55
es Moines	DR059ZY 189.46-201.34	DM059ZY 198.05-232.10	DP059ZY 207.09-240.10			DU059ZY 208.30-218.81
etroit	DR130ZY 178.95-187.90	DM130ZY 197.72-215.32	DP130ZY 241.05-253.41	DK130ZY 234.75-234.75		DU130ZY 193.02-198.46
rgo _	DR174ZY 198.70–203.43	DM174ZY 205.35-215.54	DP174ZY 211.85-222.10			DU174ZY 212.90-225.21
een Bay	DR313ZY 191.00-191.00	DM313ZY -	DP313ZY 226.00-226.00	DK313ZY -		DU313ZY 207.10-207.10
dianapolis	DR088ZY 175.63-180.94	DM088ZY 187.95-207.75	DP088ZY 207.90-232.70	DK088ZY 287.00-287.00		DU088ZY 193.62-197.06
ensas City	DR099ZY 188.50-196.56	DM099ZY 197.71-210.42	DP099ZY 224.94-252.10			DU099ZY 206.70-214.80
noxville	DR261ZY 180.04-189.75	DM261ZY 186.33-206.75	DP261ZY 194.75-232.33	DK261ZY -		DU261ZY 184.35-186.70
ilwaukee	DR316ZY 182.45-187.00	DM316ZY 193.35-202.45	DP316ZY 209.60-242.45	DK316ZY 232.70-232.70		DU316ZY 196.61-202.80
inneapolis/St.Paul	DR141ZY 189.10-199.60	DM141ZY 196.60-213.61	DP141ZY 207.85-221.51	DK141ZY 241.95-241.95		DU141ZY 206.75-219.60
dahoma City	DR226ZY 187.25-202.14	DM226ZY 196.40-221.39	DP226ZY 201.96-224.75			DU226ZY 205.35-216.90
naha	DR185ZY 189.56-199.84	DM185ZY 200.64-232.81	DP185ZY 204.86-236.81			DU185ZY 210.49-217.17
oux Falls	DR256ZY 192.10-200.33	DM256ZY 198.10-234.33	DP256ZY 206.83-217.38			DU256ZY 209.35-216.84
. Louis (a)	DR154ZY 188.14-191.03	DM154ZY 194.00-215.63	DP154ZY 198.14-239.03			DU154ZY 201.21-209.50
DD 3						
ouquerque	DR192ZY 206.75-214.00	DM192ZY 225.75-234.00	DP192ZY 249.00-254.00			DU192ZY 214.25-229.50
narillo	DR265ZY 196.00-197.75	DM265ZY 212.00-212.50	DP265ZY 232.75-233.00			DU265ZY 207.50-210.15
ton Rouge	DR115ZY 180.88-190.75	DM115ZY 196.95-206.83	DP115ZY 220.25-231.33			DU115ZY 183.88-186.05
mingham	DR003ZY 177.80-189.32	DM003ZY 183.95-207.45	DP003ZY 191.35-248.32	DK003ZY 219.47-219.47		DU003ZY 184.20-186.55
rpus Christi	DR275ZY 191.43-192.25	DM275ZY 206.43-207.50	DP275ZY 237.43-238.75			DU275ZY 187.63-189.25
las/Ft.Worth (a)	DR276ZY 187.60-192.48	DM276ZY 204.65-223.85	DP276ZY 217.63-241.50			DU276ZY 194.14-204.65
uston (a)	DR416ZY 183.07-190.75	DM416ZY 195.94-219.98	DP416ZY 211.78-237.25	DK416ZY 224.60-224.60		DU416ZY 185.03-210.50
tle Rock	DR009ZY 182.32-201.70	DM009ZY 190.49-224.74	DP009ZY 208.50-277.73			DU009ZY 189.02-211.78
w Orleans	DR119ZY 179.30-181.70	DM119ZY 196.79-202.35	DP119ZY 218.25-233.79			DU119ZY 182.05-186.21
Antonio	DR289ZY 191.00-192.25	DM289ZY 205.67-210.50	DP289ZY 227.25-240.05			DU289ZY 194.30-200.1
DD 4						
ings (b)	DR162ZY -		DP162ZY 226.37-228.20			DU162ZY 218.60-220.44
sper (b)	DR321ZY 199.93-199.98		DP321ZY 234.93-235.37		DU321ZY* 218.65-220.92	
nver	DR028ZY 193.05-204.75	DM028ZY 214.83-224.15	DP028ZY 241.07-246.00			DU028ZY 206.20-223.95
It Lake City	DR298ZY 190.37–201.52	DM298ZY 207.20-217.52	DP298ZY 223.04-236.00			DU298ZY 230.42-242.00
.DD 5						
acortes	DR305ZY 210.50-213.10	DM305ZY 236.64-242.10	DP305ZY 246.50-249.10			DU305ZY 184.80-189.75
s Vegas (e)	DR196ZY 206.00-214.00	DM196ZY 216.00-225.25	DP196ZY 223.00-237.75			DU196ZY 202.00-216.9
s Angeles(e)	DR022ZY 238.77-239.13	DM022ZY 252.77-256.50	DP022ZY 266.79-270.13			DU022ZY 232.00-237.55
oenix	DR012ZY 242.00-245.00	DM012ZY 256.90-261.00	DP012ZY 273.15-277.00			DU012ZY 216.38-234.15
rtland	DR233ZY 195.00-205.00	DM233ZY 227.40-229.65	DP233ZY 234.40-240.00			DU233ZY 196.00-208.00
nFranEBay (e)	DR025ZY 234.25-247.58	DM025ZY 247.50-269.58	DP025ZY 259.72-278.20			DU025ZY 225.50-232.03
eattle/Tacoma	DR308ZY 197.60-198.65	DM308ZY 226.60-227.65	DP308ZY 233.60-234.65			DU308ZY 190.95-196.10
ookane	DR309ZY 187.61-189.70	DM309ZY 204.70-205.52	DP309ZY 219.29-236.65			DU309ZY 199.68-202.50

All prices are provided by DTN. Discounts or temporary allowances offered by individual companies are not included in posted prices. Prices are unbranded unless noted. Prices are conventional gasoline unless noted. All prices in cts/gal. (a)=RFG. (b)=Branded postings (e)=CARB gasoline/No.2 oil \*=Low Sulfur Diesel

#### FEEDER CRUDES: FEBRUARY 22-FEBRUARY 26, 2021

## Turner, Mason & Company | CONSULTING ENGINEERS

Summer				<u>Frei</u>	<u>ight</u>	<u>Crackin</u>	g netback	Coking	<u>Spot</u>			
US Gulf (PGA page 834)	EV444.00	71 204	EV44700	71.000	TDDAGGO	0.000		70.404		71.000	*********	62.102
Arab Berri	FYAAL00 FYABR00	71.304 66.466	FYAAJ00 FYABP00	71.880	TDDAC00	0.880	FNAAL00 FNABR00	70.424	FNAAJ00 FNABP00	71.000 67.892	AAIGY00	63.182
Arab Liebt		68.706		68.832 70.256	TDDAJ00	0.940		65.526 67.806		69.356	AAIGV00	62.832
Arab Light	FYACP00		FYACN00		TDDAR00		FNACP00		FNACN00		AAIGP00	
Arab Medium	FYADV00	67.148	FYADT00	69.322	TDDAZ00	0.920	FNADV00	66.228	FNADT00	68.402	AAIGS00	62.132
Bakken	FYASG00	72.548	EV4E700	70.104	TDDRP00	7.920	FNASG00	64.628		60.020	AASRU04	62.108
BCF 22	FYAFB00	67.296	FYAEZ00	70.124	TDDBL00	2.104	FNAFB00	65.192	FNAEZ00	68.020		
BCF 24	FYAFJ00	67.992	FYAFH00	70.680	TDDB000	2.088	FNAFJ00	65.904	FNAFH00	68.592		00.000
Basrah Light	FYAGD00	68.880	FYAGB00	70.066	TDDBS00	1.830	FNAGD00	67.050	FNAGB00	68.236	AAXD004	63.236
Bonny Light	FYAGR00	75.054			TDDBX00	0.494	FNAGR00	74.560			PCAA000	64.178
Brent	FYAHT00	72.712	FYAHR00	71.808	TDDCB00	2.610	FNAHT00	70.102	FNAHR00	69.198	PCAAP10	65.747
Cabinda	FYAIF00	76.372	FYAID00	72.362	TDDCF00	1.396	FNAIF00	74.976	FNAID00	70.966	PCAFD10	64.578
Eagle Ford	FYASC00	71.846			TDDRQ00	1.420	FNASC00	70.426			AAYAJ04	64.626
Escalante	FYAKJ00	79.788	FYAKH00	71.058	TDDCV00	4.982	FNAKJ00	74.806	FNAKH00	66.076	AAIIN00	65.277
Forcados	FYAKX00	76.592			TDDCY00	0.524	FNAKX00	76.068			PCABC10	64.158
Isthmus	FYAMR00	70.622	FYAMP00	71.528	TDDDJ00	0.774	FNAMR00	69.848	FNAMP00	70.754	PCADY00	62.626
Kuwait	FYANL00	67.952	FYANJ00	69.632	TDDDL00	1.110	FNANL00	66.842	FNANJ00	68.522	PCABK00	64.106
LLS	FYANP00	74.648	FYANN00	73.714	TDDQW00	0.950	FNANP00	73.698	FNANN00	72.764	AAIIQ00	64.862
Marlim	FYAUG00	76.666	FYAUE00	72.472	TDDGK00	2.140	FNAUG00	74.526	FNAUE00	70.332	AAITF04	61.377
Mars	FYAOB00	68.874	FYANZ00	70.712	TDDQY00	0.360	FNAOB00	68.514	FNANZ00	70.352	AAIIM00	62.082
Мауа	FYAOJ00	63.546	FYA0H00	67.810	TDDDP00	0.830	FNAOJ00	62.716	FNAOH00	66.980	PCADB10	61.276
Merey	FYA0Z00	64.728	FYA0X00	69.074	TDDDT00	2.206	FNAOZ00	62.522	FNAOX00	66.868		
Mesa	FYAPL00	72.372	FYAPJ00	71.594	TDDDV00	2.002	FNAPL00	70.370	FNAPJ00	69.592	AAIZY00	62.377
Olmeca	FYAQF00	71.384	FYAQD00	71.498	TDDDY00	0.840	FNAQF00	70.544	FNAQD00	70.658	AAIJS00	64.576
Troll	FYATL00	74.660	FYATJ00	73.300	TDDEP00	2.316	FNATL00	72.344	FNATJ00	70.984	AAIJD00	66.288
Ural	FYAUK00	69.454	FYAUI00	71.458	TDDFM00	2.438	FNAUK00	67.016	FNAUI00	69.020	PCACE10	62.784
WCS			FYASI00	68.108	TDDRS00	8.570			FNASI00	59.538	AAPPN04	50.778
WTI	FYATX00	72.672	FYATV00	71.422	TDDRH00	1.620	FNATX00	71.052	FNATV00	69.802	PCACG10	62.272
US Atlantic Coast (PGA page 814)												
Arab Heavy	FYABN00	67.546	FYABL00	69.538	TDDAM00	0.920	FNABN00	66.626	FNABL00	68.618	AAIGV00	61.782
Arab Light	FYACL00	69.586	FYACJ00	71.100	TDDAU00	0.880	FNACL00	68.706	FNACJ00	70.220	AAIGP00	62.832
Arab Medium	FYADR00	68.192	FYADP00	70.082	TDDBC00	0.900	FNADR00	67.292	FNADP00	69.182	AAIGS00	62.132
Bakken	FYASE00	73.234	TTADTOO	10.002	TDDRN00	7.500	FNASE00	65.734	THAD OU	00.102	AASRU04	62.108
Bonny Light	FYAGP00	75.194			TDDBZ00	1.206	FNAGP00	73.988			PCAA000	64.178
Brass River	FYAHB00	72.906			TDDEW00	1.146	FNAHB00	71.760			PCAEB00	63.978
Brent	FYAHP00	73.378	FYAHN00	72.990	TDDCC00	0.940	FNAHP00	72.438	FNAHN00	72.050	PCAEDOO PCAAP10	65.747
Cabinda	FYAIB00	77.034	FYAHZ00	73.354	TDDCH00	1.316	FNAIB00	75.718	FNAHZ00	72.038	PCAFD10	64.578
Ekofisk				73.408		0.870						
Forcados	FYAKB00 FYAKV00	74.548 76.548	FYAJZ00	73.406	TDDCS00 TDDDA00	1.226	FNAKB00	73.678 75.322	FNAJZ00	72.538	PCADH00 PCABC10	66.006
			EVAL BOO	70.100			FNAKV00		FNAL BOO	70.000		
Hibernia	FYALT00	73.986	FYALR00	73.196	TDDDE00	0.916	FNALT00	73.070	FNALR00	72.280	AAJKK04	64.605
Oriente	FYAQR00	69.344	FYAQP00	70.536	TDDED00	2.210	FNAQR00	67.134	FNAQP00	68.326	PCADE10	61.275
Stratfjord	FYASN00	73.868	FYASL00	73.154	TDDEL00	0.940	FNASN00	72.928	FNASL00	72.214	AAIIP00	65.459
Troll	FYATH00	75.366	FYATF00	74.362	TDDEQ00	0.860	FNATH00	74.506	FNATF00	73.502	AAIJD00	66.288
US West Coast (PGA page 844)												
ANS	FYAAD00	76.992	FYAAB00	76.192			FNAAD00	76.992	FNAAB00	76.192	PCAAA10	64.800
Bakken	FYASK00	77.892			TDDRT00	6.500	FNASK00	71.392			AASRU04	62.108
Basrah Light	FYAGL00	74.588	FYAGJ00	74.588	TDDBW00	1.230	FNAGL00	73.358	FNAGJ00	73.358	AAXD004	63.236

#### FEEDER CRUDES (CONTINUED)

## Turner, Mason & Company | CONSULTING ENGINEERS

Summer	Cracki	ing yield	Coking yield		Fre	ight	Crackin	g netback	Coking	netback	Spo	ot
US West Coast (PGA page 844)												
Escalante	FYAKN00	86.624	FYAKL00	75.980	TDDCW00	4.900	FNAKN00	81.724	FNAKL00	71.080	AAIIN00	65.277
Kern River	FYAMV00	82.926	FYAMT00	79.710	TDDGM00	1.710	FNAMV00	81.216	FNAMT00	78.000	AAIIR00	62.464
Line 63	FYANX00	79.044	FYANV00	76.364	TDDGN00	0.150	FNANX00	78.894	FNANV00	76.214	AAIJT00	68.312
Minas	FYATC00	83.298	FYATA00	78.430	TDDG000	3.158	FNATC00	80.140	FNATA00	75.272	PCAB010	62.779
Mixed Lt Swt	FYARD00	75.556	FYARB00	74.070	TDDGP00	2.070	FNARD00	73.486	FNARB00	72.000	AALRR04	59.268
Oriente	FYAQV00	74.304	FYAQT00	74.084	TDDEC00	2.166	FNAQV00	72.138	FNAQT00	71.918	PCADE10	61.275
THUMS	FYASZ00	77.682	FYASX00	77.238	TDDGQ00	0.000	FNASZ00	77.682	FNASX00	77.238	AAIIU00	64.086
US Midcontinent (PGA page 824)												
Bakken	FYASA00	73.116			TNASA00	3.480	FNASA00	69.636			AASRU04	62.108
Bow River			FYAGV00	71.542	TDDRL00	4.190			FNAGV00	67.352		
LLS	FYANT00	75.138	FYANR00	74.740	TNANT00	1.020	FNANT00	74.118	FNANR00	73.720	AAIIQ00	64.862
Mixed Lt Sr	FYAPX00	68.872	FYAPV00	71.072	TNAPX00	2.420	FNAPX00	66.452	FNAPV00	68.652		
Mixed Lt Swt	FYAQZ00	73.252	FYAQX00	73.548	TNAQZ00	4.000	FNAQZ00	69.252	FNAQX00	69.548	AALRR04	59.268
Syncrude	FYAUR00	74.730			TNAUR00	4.000	FNAUR00	70.730			AASOK04	61.068
WCS			FYAVG00	68.272	TDDRL00	4.190			FNAVG00	64.082	AAPPN04	50.778
WTI	FYAUB00	72.816	FYATZ00	72.458	TNAUB00	1.880	FNAUB00	70.936	FNATZ00	70.578	PCACG10	62.272
WTS	FYAUJ00	69.654	FYAUH00	72.338	TNAUJ00	2.640	FNAUJ00	67.014	FNAUH00	69.698	PCACK10	63.082
Caribbean (PGA page 806)												
BCF 22	FYAET00	63.686	FYAER00	65.826	TDDBN00	0.374	FNAET00	63.312	FNAER00	65.452		
BCF 24	FYAFF00	64.482	FYAFD00	66.480	TDDBQ00	0.368	FNAFF00	64.114	FNAFD00	66.112		
Escalante	FYAKE00	74.328	FYAKC00	67.358	TDDEY00	3.922	FNAKE00	70.406	FNAKC00	63.436	AAIIN00	65.277
Isthmus	FYAMN00	66.774	FYAML00	68.306	TDDDK00	0.604	FNAMN00	66.170	FNAML00	67.702	PCADY00	62.626
Мауа	FYA0F00	61.132	FYAOD00	63.994	TDDDR00	0.620	FNAOF00	60.512	FNAOD00	63.374	PCADB10	61.276
Merey	FYAOV00	62.006	FYAOT00	64.048	TDDDU00	0.502	FNAOV00	61.504	FNAOT00	63.546		
Mesa	FYAPD00	66.868	FYAPB00	68.120	TDDFB00	0.460	FNAPD00	66.408	FNAPB00	67.660	AAIZY00	62.377
Olmeca	FYAQB00	67.054	FYAPZ00	68.992	TDDEA00	0.578	FNAQB00	66.476	FNAPZ00	68.414	AAIJS00	64.576
Singapore (PGA page 2814)												
Al Shaheen	TYEAA04	64.364			TNEFA00	0.586	TNEAA04	63.778			AAALS04	63.462
Arab Heavy	FYABH00	62.750			TDDA000	0.546	FNABH00	62.204			AAIGX00	63.756
Arab Light	FYACF00	64.062			TDDAW00	0.520	FNACF00	63.542			AAIGR00	64.456
Arab Medium	FYADL00	63.038			TDDBE00	0.530	FNADL00	62.508			AAIGU00	64.206
Attaka	FYADX00	66.230			TDDBG00	1.940	FNADX00	64.290			PCAAJ10	63.118
Das Blend	FYDSH00	64.658			TDDCQ00	0.496	FNDSH00	64.162			AAX0F04	63.250
Dubai	FYAJN00	64.850			TDDCQ00	0.496	FNAJN00	64.354			PCAAT10	63.444
Duri	FYAJR00	74.176			TDDCR00	1.290	FNAJR00	72.886			PCABA10	70.208
Forties	TYEAD04	64.978			TNEFD00	2.314	TNEAD04	62.664			PCADJ10	65.791
Kuwait	FYANF00	63.324			TDDDN00	0.476	FNANF00	62.848			PCABK00	64.106
Minas	FYAPR00	70.122			TDDDX00	1.180	FNAPR00	68.942			PCAB010	62.779
Murban	FYAPY00	65.160			TDDCQ00	0.496	FNAPY00	64.664			PCAD000	63.592
Oman	FYAQL00	64.296			TDDEB00	0.466	FNAQL00	63.830			PCABS10	63.468
Qatar Dukhan	FYARA00	64.844			TDDBE00	0.530	FNARA00	64.314			PCADQ00	63.090
Qatar Marine	FYARE00	65.000			TDDBE00	0.530	FNARE00	64.470			PCADR00	63.310
Tapis	FYAST00	66.456			TDDE000	0.850	FNAST00	65.606			AAIIW00	65.018
Upper Zakum	TYEAG04	64.184			TNEFR00	0.486	TNEAG04	63.698			AAUZU04	63.444

#### FEEDER CRUDES (CONTINUED)

### Turner, Mason & Company | CONSULTING ENGINEERS

	Crackir	ng yield	Cokir	ıg yield	Fre	eight	Crackin	g netback	Coking	netback	Spo	t
Summer												
Italy (PGA page 1824)												
Arab Heavy	FYABD00	65.494			TDDAI00	0.650	FNABD00	64.844			AAIGW00	63.432
Arab Light	FYACB00	66.332			TDDAQ00	0.620	FNACB00	65.712			AAIGQ00	64.232
Azeri Light	FYAEF00	71.104			TDDBH00	0.670	FNAEF00	70.434			AAEIX00	65.877
Eagle Ford	TYEAC04	65.622			TNEIF00	1.754	TNEAC04	63.868			AAEF004	63.076
Es Sider	FYAKD00	68.638			TDDCU00	0.508	FNAKD00	68.130			PCAC010	63.668
Iran Heavy	FYALZ00	66.904			TDDDF00	0.150	FNALZ00	66.754			AIHKA04	61.864
Iran Light	FYAMH00	67.228			TDDDH00	0.144	FNAMH00	67.084			AILKA04	63.414
Kirkuk	FYAMU00	66.626			TDDFF00	0.742	FNAMU00	65.884			AAIIX00	64.168
Light Houston Sweet	TYEAF04	67.438			TDIFR00	-0.418	TNEAE04	67.856			AALHS04	63.812
Saharan Blend	FYAR000	66.994			TDDFG00	0.446	FNAR000	66.548			PCABU00	64.678
Suez Blend	FYAU000	66.530			TDDRF00	1.544	FNAU000	64.986			PCACA10	60.370
Urals	FYATR00	67.142			TDDES00	0.884	FNATR00	66.258			AAIJU00	62.784
WCS			TYEAI04	64.958	TDYFR00	10.718			TNEAI04	54.240	AAPPN04	50.778
Zuetina	FYAUL00	68.496			TDDEU00	0.598	FNAUL00	67.898			PCACN00	64.247
Amsterdam-Rotterdam-Anty	werp (PGA page 1814)											
Arab Heavy	FYAAV00	66.406			TDDAN00	0.660	FNAAV00	65.746			AAIGW00	63.432
Arab Light	FYABT00	68.020			TDDAV00	0.630	FNABT00	67.390			AAIGQ00	64.232
Arab Medium	FYACZ00	66.900			TDDBD00	0.640	FNACZ00	66.260			AAIGT00	63.832
Azeri Light	FYAEB00	72.812			TDDBI00	1.180	FNAEB00	71.632			AAEIX00	65.877
Basrah Light	FYAFP00	68.220			TDDBU00	1.130	FNAFP00	67.090			AAXD004	63.236
Brass River	FYATS00	69.712			TDDRE00	1.062	FNATS00	68.650			PCAEB00	63.978
Brent	FYAHF00	70.364			TDDCD00	1.172	FNAHF00	69.192			PCAAP10	65.747
Eagle Ford	TYEAB04	67.108			TNEBF00	1.254	TNEAB04	65.854			AAEF004	63.076
Ekofisk	FYAJV00	71.344			TDDCT00	0.868	FNAJV00	70.476			PCADH00	66.006
Flotta Gold	FYAKP00	68.498			TDDCX00	0.928	FNAKP00	67.570			PCACY00	64.109
Forties	FYALB00	68.748			TDDEZ00	1.192	FNALB00	67.556			PCADJ10	65.791
Gullfaks	FYALF00	71.854			TDDDC00	0.828	FNALF00	71.026			AAIJA00	66.283
Iran Heavy	FYALV00	68.024			TDDDG00	0.284	FNALV00	67.740			AIHKA04	61.864
Iran Light	FYAMD00	68.864			TDDDI00	0.278	FNAMD00	68.586			AILKA04	63.414
Kirkuk	FYATU00	68.234			TDDGH00	2.396	FNATU00	65.838			AAIIX00	64.168
Light Houston Sweet	TYEAE04	69.206			TDEFR00	3.654	TNEAF04	65.552			AALHS04	63.812
Kuwait	FYAMX00	67.410			TDDDM00	0.670	FNAMX00	66.740			PCABK00	64.106
Murban	FYATQ00	69.160			TDDRB00	0.610	FNATQ00	68.550			PCAD000	63.592
Saharan Blend	FYATY00	68.922			TDDGI00	1.536	FNATY00	67.386			PCABU00	64.678
Statfjord	FYASD00	71.006			TDDEK00	1.172	FNASD00	69.834			AAIIP00	65.459
Urals	FYATN00	68.502			TDDET00	1.058	FNATN00	67.444			PCACE10	62.784
Zuetina	FYAUC00	70.700			TDDGJ00	1.536	FNAUC00	69.784			PCACN00	64.247

WEEKLY CRUDE ASSESSMENTS, MAR 2 (PGA page 1805)

***************************************	TELICE ON OPEN COLOUR INTO ET ON POGE 1000)													
	•		Change				Change				Change			
Amna	PCADW00	64.397	+1.770	Gippsland*	PCACP10	63.218	+2.072	Nemba	AALAP00	63.728	+1.896			
Brega	PCADX00	64.797	+1.770	Sarir	PCABW00	62.147	+1.770	Girassol	AALAR00	65.078	+1.896			
Cinta*	PCAAX10	60.614	+1.197	Sirtica	PCABZ00	63.647	+1.770							
Decine*	2011740	C1 0F0	.0.400	Cuez Dlend*		CO 270	. 1 100							

This table provides weekly \$/barrel assessments for those crudes in the previous version of the Feeder Crudes table that are not in the current version. Crudes with (\*) represent the five-day average of grades assessed daily. Other crudes are set as differentials to five-day averages of key benchmarks.\*-Average of daily assessments.