**MARKET OVERVIEW:**

1/9/2020 - Oil futures had a choppy Thursday and whatever happens tomorrow, the big winners this week appear to be the exchanges, thanks to very brisk volumes. Refiners are having a rough January and marketers got some relief from some much-hoped-for wholesale price breaks in the last 48 hours.

February WTI lost 5cts bbl and settled at $59.56/bbl. Expect to see quite a bit of conversation about whether the top of the eventual 2020 market was seen when prompt WTI fetched $65.65/bbl just a couple of days ago. Similarly, Brent calmed down with late day quotes at $65.37/bbl almost $6.50/bbl below the weekly high.

Based on CFTC data, gasoline appears to be the most overbought energy contract, but the data doesn't show whether bets on higher prices are concentrated in winter, spring, summer or calendar positions. February RBOB closed up 0.39cts/gal today at $1.6527/gal and the spot market in New York Harbor is only about $4.17/bbl above March Brent. If adjusted for RINs' costs, the gasoline crack for merchant refiners is only about $3.60/bbl, hardly reflecting traditional excess.

**FEEDSTOCKS:**

Refiners and traders in the North Atlantic are now looking at a midwinter landscape where IMO-compliant bunker fuel (No. 6 oil with less than 0.5% sulfur) fetches a price that yields six times the margin available for winter gasoline.

OPIS confirmed yesterday that 0.5% sulfur max VLSFO (Very Low Sulfur Fuel Oil, or No. 6 residual fuel) saw Northeastern deals consummated at $24/bbl over the front-month Brent number.

Diesel, which represented the “cut” of the barrel that many analysts speculated might be the biggest beneficiary of IMO, commanded a margin of about $16.50/bbl over Brent, with a preressive outright number of $81.90/bbl.

RBOB, which typically slides during winter until spring turnarounds and the shift to a much more difficult to manufacture low-RVP summer blend, was just $4/bbl above Brent, with a measly value of $1.6525/gal.

(Continued on Page 2)
OPIS Other Gulf Coast Feedstock and NGL Assessments (cts/gal)

<table>
<thead>
<tr>
<th>Product</th>
<th>Low</th>
<th>High</th>
<th>Avg</th>
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<tbody>
<tr>
<td>Naphtha (Domestic Full-Range)</td>
<td>140.75</td>
<td>141.75</td>
<td>141.25</td>
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<tr>
<td>Diff to W-Borne Unl</td>
<td>-23.00</td>
<td>-22.00</td>
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<tr>
<td>Naphtha (Domestic 40N-A)</td>
<td>144.75</td>
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<td>145.25</td>
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<tr>
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<td>-18.50</td>
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<td>Naphtha (Offshore 40N+A)</td>
<td>144.25</td>
<td>145.25</td>
<td>144.75</td>
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<tr>
<td>Diff to W-Borne Unl</td>
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<td>-19.00</td>
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<td>Paraffinic Naphtha ($/mt)</td>
<td>525.35</td>
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<td>Mt. Belvieu N. Gasoline ($/mt)</td>
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OPIS U.S. Gulf Coast Refined Product Values (cts/gal)

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<thead>
<tr>
<th>Product</th>
<th>Waterborne Prompt</th>
<th>Waterborne Forward</th>
<th>Colonial Pipe Prompt</th>
<th>Colonial Pipe Forward</th>
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<tr>
<td>Unleaded Regular</td>
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<td>162.26</td>
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<tr>
<td>CBOB</td>
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<tr>
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<tr>
<td>Jet 54</td>
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<td>187.56</td>
<td>186.76</td>
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<tr>
<td>ULSD</td>
<td>186.76</td>
<td>187.76</td>
<td>186.76</td>
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OPIS USGC Crack Spreads

<table>
<thead>
<tr>
<th>USGC Prompt Crack Spreads to WTI Crude Crack Spread</th>
<th>Cash (cts/gal)</th>
<th>Crack ($/bbl)</th>
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</thead>
<tbody>
<tr>
<td>70/30 UNL/ULSD</td>
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<td>12.18</td>
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<tr>
<td>UNL</td>
<td>163.7700</td>
<td>9.22</td>
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<tr>
<td>ULSD</td>
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<td>19.09</td>
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<td>70/30 CBOB/No. 2</td>
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<tr>
<td>CBOB</td>
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<tr>
<td>No. 2</td>
<td>178.7600</td>
<td>15.52</td>
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<table>
<thead>
<tr>
<th>USGC Forward Crack Spreads to WTI Crude Crack Spread</th>
<th>Cash (cts/gal)</th>
<th>Crack ($/bbl)</th>
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<tr>
<td>70/30 UNL/ULSD</td>
<td>171.4320</td>
<td>12.56</td>
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<tr>
<td>UNL</td>
<td>164.5200</td>
<td>9.66</td>
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<tr>
<td>ULSD</td>
<td>187.5600</td>
<td>19.34</td>
</tr>
</tbody>
</table>

30-Day Trends (cts/gal)

Full-Range Naphtha vs. Heavy 40N+A Naphtha

USGC Jet vs. ULSD vs. Full-Range Naphtha

So, does this represent the new IMO world, and will refinery executives trumpet the high returns for VLSFO in upcoming earnings reports?

Not likely, say most analysts that OPIS talked to. The problem is that simple light sweet crude refiners can't make a lot of VLSFO unless they run very expensive sweet crudes that have heavier gravity and yield a reasonable No. 6 oil. Many of the worldwide crude grades that are the best choices for a high-compliant residual fuel fetch large premiums to other benchmarks or have other problems such as high metals or high acid.

Two of the crude oil blends banded about as attractive, for example, are Doba crude from Chad and some other blends from Angola. But suspicions are that these high-priced heavy sweet crudes represent only a percentage point or two of global blends. In the U.S., refiners running Uinta crude might be able to manufacture a compliant No. 6 oil, but that crude is mostly run by Salt Lake City processors with no means to move marine fuel to tidal water.

Thus, some refinery executives may use conference calls to point out that they are doing better than standard crack spread metrics, but it's tough to trumpet a fuel that might represent just 5% or 10% (or less) of refinery yields.

"This will not be the new normal," one refinery analyst told OPIS, adding that refiners "need to make their money on the large cuts of the barrel, whether it be distillate or gasoline."

There is speculation that more distillate molecules will find their way into residual fuel as well. The diversion of vacuum gasoils from cat crackers hasn't impacted gasoline inventories, but it may play a role in lower total motor fuel output.

IN THE USGC SPOT MARKET . . .

USGC 70/30 cracks versus WTI firmed today by approximately $0.15-$0.25/bbl, with weaker distillate cracks partially offsetting a stronger gasoline crack.

The USGC waterborne unleaded crack (13.5-lb. RVP, or M4 unleaded) versus February WTI improved by 42cts/bbl to $9.22/bbl.

The USGC waterborne high sulfur No. 2 (HS) crack slipped by 18cts/bbl to $15.52/bbl, and the USGC ULSD crack weakened by 39cts/bbl to $19.09/bbl.

The USGC HS 70/30 crack gained 24cts/bbl to $11.11/bbl, and the USGC ULSD 70/30 crack gained 17cts/bbl to $12.18/bbl.
OPIS International Feedstocks Intelligence Report

January 9, 2020

OPIS West Coast Spot Feedstocks Values

<table>
<thead>
<tr>
<th>Product</th>
<th>Range (cts/gal)</th>
<th>Diff to 70/30 (cts/gal)</th>
<th>Diff to WTI ($/bbl)</th>
<th>Diff to ANS ($/bbl)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>High</td>
<td>Avg</td>
<td>Low SPF</td>
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<tr>
<td>Low Sulfur VGO</td>
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<td>185.45</td>
<td>184.450</td>
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<td>High Sulfur VGO</td>
<td>179.45</td>
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<tr>
<td>Light Cycle Oil*</td>
<td>160.55</td>
<td>162.55</td>
<td>161.550</td>
<td>-36.45</td>
</tr>
</tbody>
</table>

* Diff to L.A. ULSD

USGC-to-USWC Arbitrage (cts/gal)

U.S. West Coast LSVGO vs. USGC LSVGO

In the Gulf Coast VGO spot market: In the absence of reported spot market activity, OPIS today left unchanged from Wednesday all USGC VGO assessments versus February WTI. VGO at current price levels remains unattractive as feedstock for FCCs but does offer hefty margins when fed into hydrocrackers considering the higher distillate yields of the latter units.

Similarly, in the Gulf Coast naphtha market, the domestic 40 N +A heavy naphtha assessment was left unchanged at 19.00-18.00cts/gal under USGC waterborne unleaded, delivered basis, in the absence of reported spot market activity.

IN GASOLINE

U.S. GULF COAST gasoline prices spent the day tilting lower, but the larger losses seen toward the beginning of the day gave way to much lighter losses heading into the last trading day of the week.

Prompt Cycle 5 gasoline products scheduled today with action relatively thin given the deadline. Most basis levels were heading lower by enough to counteract the small Merc gains, but conventional gasoline did see a little buying interest that helped buoy prices. Outright prices followed suit, with most products seeing or staying near some of the lowest values in the last few weeks.

Prompt CBOB was heard done early at 6.75cts beneath the February futures contract, but traded multiple times at 7cts and 7.50cts below the Merc later in the day - finishing the session at the lower end of that range. That put basis levels down about 0.85cts, enough to counter futures and see prices shake off 0.36cts to $1.58145/gal - some of the lowest values since the middle of December.

Premium CBOB was traded at a 9ct premium to February futures, off a half-penny from yesterday. Cash prices shrugged off 0.11cts to $1.7427/gal, sticking close to Wednesday's mean. The 13.5-lb. RVP "F4" RBOB traded at 6.50cts and 6.75cts under the February RBOB futures contract, seeing about the same 0.85ct drop in trading value as CBOB. Outright, prices shuffled down almost a half-penny to $1.58645/gal, marking the first back-to-back, sub-$1.60/gal sessions in just over three weeks.

The 15-lb. RVP RBOB also saw action today, widening the gap to its lower-RVP counterpart. A deal was heard at 7cts under February futures contract, but traded multiple times at 7cts and 7.25ct discounts. That widened the spread between the two products to a half-penny from the flat relationship seen for the last several sessions. Prices saw a deeper plunge, dropping 0.985cts to $1.58145/gal.

Conventional gasoline bucked the downward trend seen through the rest of the region for gasoline prices, with a deal at 2.75cts beneath the February NYMEX contract rising basis levels a half-penny from Wednesday. That added to the push from futures and saw prices gain 0.89cts to $1.6252/gal - but still record a second straight day in the low-$1.60s - much lower than the $1.70- plus marks seen just on Monday.

(Continued from Page 2)

OPIS USWC Crack Spreads ($/bbl)

OPIS USWC Refined Products (cts/gal)

OPIS East Coast (NYH Barge) Refined Products (cts/gal)

OPIS East Coast Heavy Fuels Products ($/bbl)

(Continued on Page 4)
OPIS International Feedstocks Intelligence Report

Page 4 of 6  © OPIS, an IHS Markit company

Looking forward, the move to Cycle 6 overnight will see basis levels get some small moves higher of 0.50cts-0.75cts with the contango structure in the market.

Colonial Pipeline line space for Line 1, the main gasoline line, remained at the 0.75ct premium to tariffs seen yesterday. NEW YORK HARBOR gasoline spot prices closed today's session within close range of the multiweek lows seen yesterday. Prompt barge and Buckeye RBOB gasoline edged 0.04cts/gal higher, for a mean cash price of $1.6517/gal. Prior to yesterday’s steep decline, the last time mean prices fell below this mark was on Dec. 12. Basis differentials weakened to 0.10cts/gal beneath the February NYMEX RBOB futures contract, with barge supplies for loading from Jan. 12 onward offered at "flat" to the Merc today.

Looking ahead, January "any timing" barrels - which are indicative of end-month levels - also saw differentials come off, with supplies heard and confirmed trading at 0.35cts/gal and 0.40cts/gal beneath the February screen.

February RBOB ratables - which deliver throughout the month of February - were talked in a narrow range on either side of 1.35cts/gal beneath the March screen, softening the basis a touch relative to yesterday's mean level.

CBOB for prompt barge and Buckeye loading saw trade premiums narrow to 0.30cts/gal above February RBOB futures. Looking ahead, non-prompt Jan. 16-17 Buckeye barrels were heard trading at 0.25cts/gal above the screen. Turning to offline Colonial Pipeline material, cash trade levels softened for newly prompt Cycle 2 CBOB 13.5-lb. RVP gasoline, with trades heard at 0.50cts/gal, 0.35cts/gal and 0.25cts/gal above the February Merc.

RBOB 15.0-lb. RVP gasoline for prompt Cycle 1 delivery held steady at 0.75cts/gal above February RBOB futures, with an offer out in the marketplace at 1.25cts/gal above the screen, and no bids or trades seen.

Conventional gasoline “M4” for prompt Cycle 1 delivery was talked around 4cts/gal above the February Merc. U.S. MIDWEST gasoline spot prices showed mixed movement, with Group 3 sub-octane gasoline sliding to fresh three-week low as CBOB basis levels rose to their highest in a month.

GROUP 3 prompt sub-octane gasoline (V-grade) differentials declined 1.25cts to minus 8.50cts/gal against February RBOB futures. Outright prices slipped 0.86cts to $1.5677/gal, the lowest in three weeks.

CHICAGO January Cycle 2 CBOB basis levels rose 0.75cts to minus 7.25cts/gal against February RBOB futures, the highest level since early December. Prompt- cycle barrels traded at minus 5.50cts via the Buckeye Complex, with other locations valued lower. Outright prices added 1.14cts to $1.5802/gal.

January Cycle 2 RBOB differentials dipped a penny to minus 3cts under the screen amid softer offer levels. Spot prices faded 0.61cts to $1.6227/gal.

IN DISTILLATES

U.S. GULF COAST spot distillate prices decreased by at least a half-cent on Thursday, bringing cash values to some of their lowest marks since mid-December.

Ultra-low-sulfur diesel moved to Cycle 5 last night, and those newly prompt barrels changed hands at an 8.75ct/gal discount to February NYMEX ULSD futures, diminishing basis levels by 0.25cts/gal compared to yesterday's ending mean differential. Those weaker trades compounded NYMEX selling, as outright mean prices hit a one-month low, declining by 1.06cts/gal at
$1.8626/gal at the close of the session. Prompt ultra-low-sulfur heating oil was talked around a 2.10ct/gal discount to ULSD, placing outright mean prices at $1.8416/gal at day's end.

Today was the final day to book Cycle 4 high-sulfur diesel material into Colonial Pipeline, and prompt supplies were talked around 17.50cts/gal below the Merc, narrowing the discount by 0.25cts/gal versus Wednesday's mean. Futures weakness eased outright mean prices by 0.56cts/gal, at $1.7751/gal at closing. Like with ULSD, high-sulfur diesel cash values are also at their lowest level since December.

Cycle 5 jet fuel was heard and confirmed transacting between 8-8.25ct/gal Merc discounts, ending at the low end of that range. Today's activities squashed basis levels by 0.20cts/gal compared to yesterday's closing mean differential. Outright mean prices dropped to $1.86885/gal, a loss of around 0.89cts/gal at day's end.

Line space on Colonial Pipeline's Line 2 - the main shipping line for distillates - was discussed at about a 1.75ct premium to pipeline tariffs, 0.25ct loftier than Wednesday's closing level.

NEW YORK HARBOR distillates spot prices moved lower again today, although those declines were relatively modest when compared to yesterday's steep losses.

ULSD for prompt barge loading slipped 1.035cts/gal, for a mean cash price of $1.94435/gal - the lowest mean price seen since Dec. 11. Basis differentials softened, with prompt barge material trading at 0.40cts/gal beneath February NYMEX ULSD futures. Barge ULSD was also heard trading at 0.75cts/gal beneath the screen today, further weakening cash trade levels.

Buckeye ULSD continued to be gauged at a 0.20cts/gal premium to barge ULSD, amid hushed cash trade. Offline unrestricted prompt Cycle 1 ULSD changed hands at 1ct/gal beneath the February Merc. Looking to future cycles, unrestricted Cycle 2 ULSD also traded at the same level.

ULSHO for prompt barge and Buckeye loading continued to be talked at 2.50cts/gal beneath February ULSD futures, while offline ULSHO for prompt Cycle 1 delivery was a touch stronger, at a 2.40cts/gal Merc discount.

Jet fuel for prompt barge and Buckeye loading slipped 0.56cts/gal, to a mean cash price of $1.9476/gal, as futures declines outweighed stronger cash trade levels. Buckeye supplies were most recently gauged at 0.25cts/gal beneath the February screen. Likewise, offline jet fuel saw its basis firm, with newly prompt Cycle 2 supplies last discussed on either side of a 0.25cts/gal discount to February ULSD futures.

U.S. MIDWEST distillates products prices softened over the course of the day, but steeper losses seen early in the session narrowed to declines within a penny.

GROUP 3 prompt ULSD (X-grade) differentials dipped 0.13cts to minus 8.88cts/gal against February ULSD futures, with deals at minus 8.75cts and minus 9cts. Outright prices fell 0.94cts to $1.8614/gal, the lowest in four weeks.

Group 3 prompt jet fuel (Q-grade) spot prices came off 0.81cts to $1.9751/gal with premiums steady at plus 2.50cts over the screen.

CHICAGO January Cycle 2 ULSD basis levels bumped up 0.50cts to minus 18cts/gal against February ULSD futures. Cycle 2 barrels traded at minus 26cts on the Badger Pipeline, at minus 13.75cts on the Wolverine Pipeline and at minus 12.50cts and minus 10cts via the Buckeye Complex. Outright prices dipped 0.31cts to $1.7701/gal, the lowest since October.

Looking ahead, January Cycle 3 ULSD traded at minus 12cts via the Buckeye Complex.

Chicago prompt-cycle jet fuel spot prices declined 0.81cts to $1.8701/gal, a fresh one-month low, with discounts steady at minus 8cts under the screen.

RESIDUAL FUEL:

U.S. Gulf Coast and East Coast residual fuel prices were lower Thursday while swaps edged higher. The front-month Feb. WTI contract edged down 5cts to $59.56/bbl.

Gulf Coast spot 3% for the front end was assessed at $41.55-$41.65/bbl, up $0.90-$41.00/bbl Wednesday. The physical East Coast price ranges were assessed at $94.90-$95.00/bbl for 0.3% low pour. 1% was assessed at $78.85-$78.95/bbl and 3% was assessed at $44.05-$44.15/bbl.

In the East Coast swaps market, 1% front-month swaps for February were unchanged at $74.70/bbl. March gained $0.30/bbl to $73.00/bbl. On the Gulf Coast, 3% swaps for February climbed $0.80/bbl to $42.65/bbl and March rose $0.85/bbl to $42.20/bbl.

NEWS:

***Sonatrach Awards $3.7 Billion Refinery Contract to Samsung, Tecnicas***

Algerian state-oil firm Sonatrach has awarded to Samsung Engineering Co. and Tecnicas Reunidas a $3.7 billion contract to build a refinery in Hassi Messaoud.

The Engineering, Procurement and Construction (EPC) lump-sum turn-key deal for a 110,000 barrel a day (b/d) refinery is to be completed in 52 months, or sometime in 2025, Samsung said in a statement on Thursday.

Samsung said its stake in the deal is worth about $1.6 billion and the rest is held by Tecnicas.

Algeria currently has crude and condensate refining of 637,500 b/d, which is well short of its around 1.05 million b/d of crude oil output capacity.

The country's refining sector lacks complexity despite recent upgrade investments, leading to relatively high volume of fuel oil output, according to IHS Markit's "Algeria - Infrastructure" report in November 2019.

The government has reiterated its priority to increase domestic production of gasoline in order to reduce reliance on imports, which are becoming increasingly expensive, especially with the depreciation of the Algerian Dinar, the report showed. It highlighted that both greenfield and expansion projects remain highly uncertain.
Algeria exported 571,000 b/d of crude oil, while domestic demand totaled at 431,400 b/d in 2018, according data from the Organization of the Petroleum Exporting Countries (OPEC).

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