CME Group and the Benefits of the Tighter WTI Specifications

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Denver, May 23, 2018

COQA – CCQTA Joint Meeting



Agenda

- Update on the Phase-in of the additional WTI tests
- The benefits of adopting the COQA WTI specs
 - Mid-continent Refiners benefit from stable and certain quality
 - Stable WTI Quality will <u>transform</u> the global market
 - A "New Era" will dawn for global refiners
 - Uniform and stable WTI quality will drive efficiency in the global market
 - New supply sources will increase competition globally
 - A massive fungible pool of stable WTI will energize the global marketplace



Brief History of the WTI Spec Change

2010

- Initial concerns emerge about the impact of Canadian imports on US crude oil quality
- The U.S. Crude Oil Quality Association (COQA) makes recommendations related to WTI
 quality specs for discussion and adoption by the refiners and pipeline operators

2016

- As concerns increase about WTI quality, COQA creates a Domestic Sweet Monitoring Program Subcommittee to analyze and publish data on the current quality of WTI
- CME Group becomes a funding member of the Domestic Sweet Monitoring Program, and actively supports testing efforts in collaboration with its oil industry customers

2017

- Over 100 random samples of Domestic Sweet were analyzed and reviewed
- Terminal operators Enterprise and Enbridge approve the new tests
- On Monday 11 December, CME Group announced the revision of the WTI rulebook to adopt the new tests effective from January 2019 (12 months notice)

2019

The revised WTI rulebook will come into effect for the January 2019 contract month

Update on the Phase-in of WTI tests

- On-track for Jan 2019 start for the additional WTI tests
- Cushing Terminals doing additional testing to prepare
 - Enterprise has stepped up quality assurance program
 - Enbridge and Plains continue their enhanced testing
- Enforcement will be handled by the Cushing terminals
 - CME will defer to the expertise of the terminal operators
- Cushing Terminals will be fully-prepared in Jan 2019



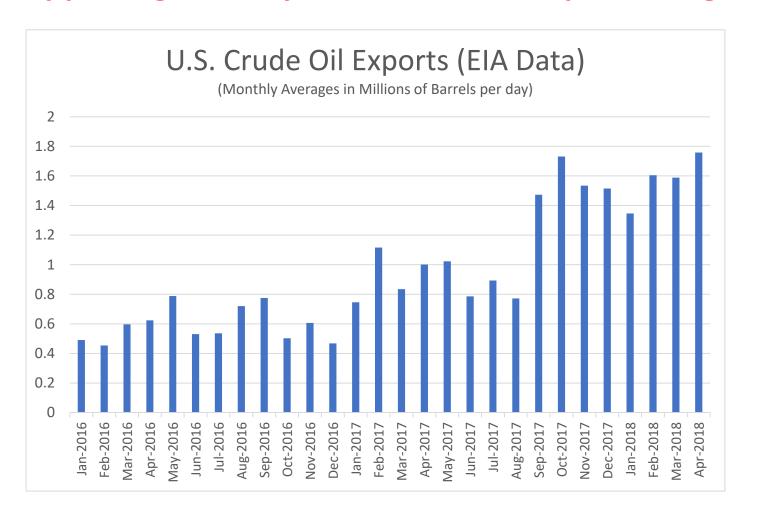
Benefits of adopting the additional WTI tests

- Mid-continent Refiners benefit from stable quality and certainty
- Stable WTI quality will <u>transform</u> the global marketplace
 - Uniform WTI quality will drive the Export market
 - Why? Global refiners will benefit just like Mid-con refiners
 - Uniform and Fungible WTI pool will promote efficiency and transparency in the market like never before
 - Better Transparency with <u>crudemonitor.us</u>

Stable WTI quality will <u>transform</u> the global market

- A fungible pool of stable WTI will energize the Asian and European refiners who are thirsty for new supply sources
- Over 4 million barrels per day of WTI-type crude oil is produced in Permian, Eagle Ford, Bakken, DJ Niobrara, and Oklahoma
- Stable and certain WTI quality will create a powerhouse in the global marketplace with a <u>massive</u> fungible pool of crude oil
- Uniformity in WTI quality will drive efficiency in the Export market with more competition and transparency like never before
- A "New Era" will dawn for global refiners

It is Happening Already: U.S crude oil exports surge







Infrastructure is expanding to meet the export surge

HOUSTON In-Bound Pipeline Capacity: 3.3 Million Barrels/Day

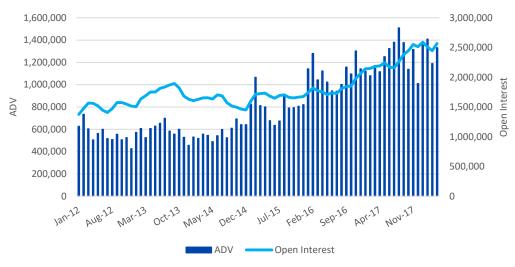
Incoming Pipelines	Capacity	Owner
Seaway Pipeline (from Cushing)	850,000	Enterprise/Enbridge
MarketLink Pipeline (from Cushing)	700,000	TransCanada
Dakota Access Pipeline (DAPL)	520,000	Energy Transfer Partners
BridgeTex Pipeline (from Midland, TX)	350,000	Magellan
Longhorn Pipeline (from Midland, TX)	250,000	Magellan
Enterprise Eagle Ford Pipeline	350,000	Enterprise
Kinder Morgan Pipeline (from Eagle Ford)	250,000	Kinder Morgan



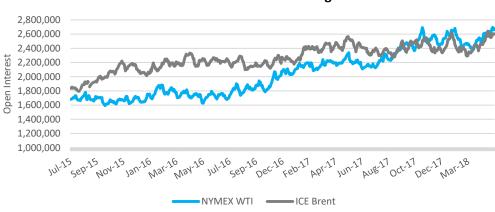
WTI Futures: Global Crude Oil Benchmark

- WTI Crude Oil Futures (CL) broke the single-day open interest record this month with 2,706,686 lots outstanding on May 11, 2018
- Average open interest this month, May 2018, is currently at 2.68MM lots MTD, a new record
- Volume remains strong with 1.33MM WTI Futures contracts traded per day in 2018 YTD
- Monthly average daily volume in CL
 +18% in Q1 2018 vs. Q1 2017

WTI Futures Volumes Climb and Open Interest Hits Record Levels

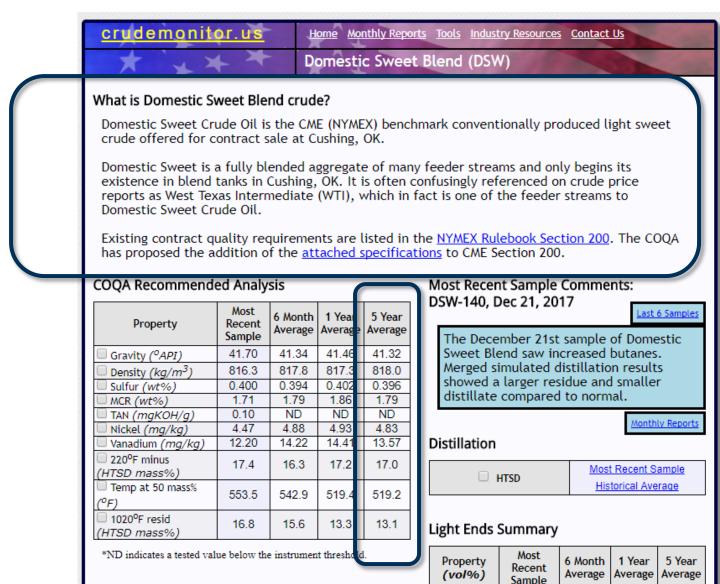


NYMEX WTI Open Interest Surpasses ICE Brent's as International Markets Push for WTI Hedge





Plug for crudemonitor.us: TRANSPARENCY



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