NYMEX WTI Futures: Overview of Quality Issues

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NYMEX Light Sweet “WTI” Futures

• Background on NYMEX and WTI Futures Contract
  • History
  • Liquidity
  • Quality Specifications

• Update on Adopting Additional Tests
  • Consultation with Industry
History of the Oil Futures Complex

- Heating oil futures 1978
- Crude oil futures 1983
- Unleaded gasoline futures 1984
- Crude oil options 1986
- Heating oil options 1987
- Propane futures 1987
- Unleaded gasoline options 1989
- Natural gas futures 1990
CME Cleared Oil Products

• Crude Oil Swaps (Financially Settled)
  • WTI
  • LLS
  • Mars
  • WTS
  • ASCI

• Physically-Delivered Crude Oil Futures
  • Mars
Light Sweet Crude Oil Futures - Electronic Average Daily Volume

- Total ADV
- Electronic ADV
- % Electronic ADV

Contracts

CME Group
NYMEX Tests for WTI Quality

1. Sulfur: 0.42% or less by weight (ASTM D-4294)

2. Gravity: Not less than 37 degrees API, nor more than 42 degrees API (ASTM D-287)

3. Viscosity: Maximum 60 Saybolt Universal Seconds at 100 degrees Fahrenheit (ASTM D-445 and ASTM D-2161)

4. Reid vapor pressure: Less than 9.5 pounds per square inch at 100 degrees Fahrenheit (ASTM D-5191-96)

5. Basic Sediment, water and other impurities: Less than 1% (ASTM D-96-88 or D-4007)

6. Pour Point: Not to exceed 50 degrees Fahrenheit (ASTM D-97)
Proposed Seven Additional Tests

1. Micro Method Carbon Residue: 2.40% or less by mass (ASTM D4530-07)
2. Total Acid Number (TAN): 0.28 mg KOH/g or less (ASTM D664-09a)
3. Nickel: 8 parts per million (ppm) or less by mass (ASTM D5708-05 Test Method B)
4. Vanadium: 15 ppm or less by mass (ASTM D5708-05, Test Method B)
5. Light Ends <220°F by HTSD: Not more than 19 % by mass (ASTM D7169-05)
6. 50 % Point by HTSD: 470°F- 570°F (ASTM D7169-05)
7. Vacuum Residuum >1020°F by HTSD: Not more than 16 % by mass; (ASTM D7169-05)
Update on Quality Issues

- Discussions Ongoing
  - Positive Feedback
- Details on Reporting
- Implementation with Adequate Notice
Q&A

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