Overview

• CCQTA Introduction
• Membership and Benefits
• Project Overview
• Key Activities on Active Projects
• Update on joint CCQTA/COQA June meeting in Fort McMurray, AB.
CCQTA Introduction

• Canadian Crude Quality Technical Association
• Founded in 1996, the CCQTA is a registered not-for-profit association formed to:
  – Facilitate the resolution of common crude oil quality issues through collaborative research
  – Develop and run “industry research projects”
  – Improve industry knowledge and awareness of crude oil quality
• 76 member companies
  – Refineries/Producers/Midstream/Pipelines/Suppliers
  – Canada, US, International
  – 20 Active Research Projects, 13 completed/closed projects
  – Many projects involved more than a single phase
• For more information, visit: www.ccqta.com
Production vs Refining

• Crude Oil Production Quality
  → Heavier feed (bitumen blends)
  → Lighter feed (Shale plays)
  → changing contaminants
  → Production Process developments
  → Fractionating additives
  → complex crude blends
  → Diluent variability

• Refinery Processing Demands
  → Higher throughputs
  → Longer run lengths
  → More complex/sensitive units
  → Tighter Refined product specifications
  → Seeking more predictability
  → More environmental pressure

Feedstock Quality vs Refinery Quality capabilities pushed in different directions. Technical understanding allows Industry Efficiency and Operational Excellence. **CCQTA facilitates technical analysis and understanding.**
Association Membership and Benefits

• **Pay Annual Dues**
  – $6,000 CDN for companies with more than 5 employees
  – $600 CDN with 5 or less employees.

• **Members can participate in any project and have full access to all CCQTA sponsored work**

• **Approximately 70% of annual fees dedicated to CCQTA sponsored project work.**
Project Types

• **CCQTA Sponsored Activities**
  - All CCQTA members have access to project reports, data, presentations meeting minutes
  - 11 active status + 4 maintenance status projects
  - 3 Sub-Committees

• **Member Sponsored Projects**
  - There are presently no active member sponsored projects.
  - Legacy projects were paid for by individual members to investigate a specific topic. Data was initially available to project sponsors only.
  - 5 years after closing date, project data becomes available to all members.
# CCQTA PROJECTS

## CCQTA PROJECTS

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<td>1. Additive Impact/Screening</td>
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<td>2. Crude Compatibility Method</td>
<td>2. Bitumen Blend Viscosity</td>
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<td>4. H₂S PVT</td>
<td>4. Condensate Quality</td>
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<td>5. Light Oil Fouling</td>
<td>5. Crude Oil Flammability</td>
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<td>7. Pipeline Corrosion</td>
<td>7. Iron Fouling</td>
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<td>8. Pipeline Sour Service</td>
<td>8. NGL Contamination</td>
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<td>9. PUB Transport and Processing</td>
<td>9. Oil Sands Bitumen Processability (3)</td>
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<td>10. Toluene Insoluble Organic Material (TIOM)</td>
<td>10. TAN (4)</td>
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<td>11. Water Content in Crude Oil</td>
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## Sub-Committees

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<th><strong>Sub-Committees</strong></th>
<th><strong>Maintenance Status</strong></th>
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<td>1. Condensate Quality</td>
<td>1. Phosphorus in Crude</td>
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<td>2. Light Ends Characterization</td>
<td>2. Single Phase Sampling Program</td>
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<td>3. Sampling</td>
<td>3. TVP/RVP</td>
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<td>4. VLE Method Development</td>
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Active Projects

Recent Updates

Amine in Crude

Published an Information Bulletin on the impacts of scavenger use.

Crude Oil Compatibility

ASTM method currently in concurrent ballot (Main D02 & SC D02.14)

Emulsion Characterization

 Analyzed tank bottom material(s) and provided direction to shippers on disposal of bottoms into crude.
Active Projects

Key Activities

H2S PVT

Developed equipment for field measurement of H$_2$S in vapor phase. Field testing to begin early this year.

Light Oil Fouling

Project to investigate the potential role of heavy oil on light oil stabilization.

Organic Chlorides

Study underway to understand the causes of “false positives” with ASTM D4929 procedure B during heavy oil testing.
Active Projects

Key Activities

**Pipeline Corrosion**

Continue testing crudes/diluent for $O_2$ & $CO_2$ content. Potential ASTM method?

**Sour Service**

Gathering field experience data to assist in a ballot application for the addition of an exclusion to NACE MR0175/ISO 15156, for transmission pipelines transporting “stabilized” crude oil.

**PUB Transport & Processing**

New project focusing on assessing the risks associated with transporting and processing partially upgraded bitumen.
Active Projects

Key Activities

TIOM

Continue work to identify potential sources of Toluene Insoluble Organic Materials. Currently investigating asphaltene/clay interactions.

Water Content in Crude

Issued a white paper on test method capabilities and limitations. Includes discussion and consideration on “fit for purpose” method selection.

Light Ends Characterization

Joint testing involving CCQTA/ITC/CQI to identify proper sampling and testing methods of crudes/diluent when focussed on light ends testing.
Additional Project Information @ CCQTA.com

More details on project objectives, activities, milestones and next steps available on the CCQTA website and in the quarterly CCQTA newsletter.

www.ccqta.com
CCQTA/COQA
2020 Joint Meeting

• Fort McMurray, Alberta
• June 10-11, 2020
• June 10th — Guided tour of Suncor Oil Sands facility and Oil Sands Discovery Center plus BBQ lunch.
• June 11th — Full day conference including speakers, lunch, dinner and a social event.
• More details, including registration information, available on both CCQTA & COQA websites
CCQTA/COQA
2020 Joint Meeting

• Sponsorship opportunities
  – June 10
    • BBQ Lunch ~$3,000 (sponsored)
    • Oil sands discovery center admission ~ $1,000 (available)
  – June 11
    • Conference breaks ~ $1,000 (available)
    • Lunch ~ $4,000 (sponsored)
    • Dinner ~ $7,000 (available – single or co-sponsor)
    • Social Event $2,500 (available)

  – First come first served basis
CCQTA/COQA 2020 Joint Meeting

- **Vendor Opportunities at Conference**
  - **Booths**
    - Available: 6
    - Size: 10’ x 10’
  - **Cost**
    - $1,000 per booth
  - **Time**
    - 07:00 to 23:00
  - First come first served basis
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