Liquids Pipelines

Guy Jarvis
President, Liquids Pipelines
Key Messages

• Fundamentals continue to drive growth
• Focused on project integration and asset optimization
• Excellent progress on market access strategy
• Extensive cost effective expansion opportunities
Safety and Operational Reliability

Over the past 10 years, we’ve transported 14 billion barrels, with a safe delivery record of 99.9993%

Our goal is **100 per cent** safe operations and zero incidents and we continually strive towards that objective.

### Ensuring Liquids Pipelines Integrity (2010 – 2013)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Liquids Pipelines Integrity Digs</th>
<th>Number of Liquids Pipelines Inspections</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>10</td>
<td>94</td>
</tr>
<tr>
<td>2011</td>
<td>11</td>
<td>150</td>
</tr>
<tr>
<td>2012</td>
<td>12</td>
<td>170</td>
</tr>
<tr>
<td>2013</td>
<td>13</td>
<td>211</td>
</tr>
</tbody>
</table>
WCSB Crude Supply

Source: CAPP – Crude Oil Forecast, Markets and Pipelines (June 2014)
Bakken Crude Supply and Pipeline Takeaway Capacity

Range of External Forecasts

- High Case
- Low Case

Enbridge - Sandpiper
Enbridge - Bakken
3rd Party Pipes
Local Refining

3rd-Party Proposed
North American Pricing Differentials

Peak Differentials
1 Year ended September 19, 2014

- WCS - Maya: (34.41)
- WCS – Pacific: (54.03)
- Alberta Light – WTI: (21.17)
- Alberta Light - Brent: (33.57)

Pricing Based on 52 week average ended September 19, 2014 (Crude Prices: USD/bbl)
ENB Target Markets

PADD III, Eastern Canada & PADD I hold the bulk of displaceable oil supply

Sources: StatsCan, EIA, Enbridge Internal Forecasts
Canadian diluent demand growth remains strong as production continues to increase.

US policy allowing processed/stabilized condensate exports to international markets.

Sources: Wood Mackenzie, 2014 / Enbridge Internal Estimates
Net available supply to Enbridge assumes Keystone XL, Energy East and one West Coast Pipeline are built.

Design capacity reflects Alberta Clipper Expansions in service during 2015.
Maximizing available capacity enhances customer value and contributes to CTS earnings.

<table>
<thead>
<tr>
<th>Sources of ex-Gretna capacity erosion in 2013</th>
<th>kbdp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary pressure restrictions</td>
<td>~130</td>
</tr>
<tr>
<td>Operational inefficiencies:</td>
<td></td>
</tr>
<tr>
<td>• Commodity pooling/terminal optimization</td>
<td>~150</td>
</tr>
<tr>
<td>• Scheduling management/non-performance penalties</td>
<td></td>
</tr>
<tr>
<td>Heavy maintenance/expansion program</td>
<td>Episodic</td>
</tr>
<tr>
<td>• Schedule coordination</td>
<td></td>
</tr>
<tr>
<td>Light/Heavy crude slate versus line allocations</td>
<td>~400</td>
</tr>
<tr>
<td>Upstream/downstream bottlenecks</td>
<td>~40</td>
</tr>
<tr>
<td></td>
<td>~700</td>
</tr>
</tbody>
</table>
Mainline Capacity Optimization – Current Status/Outlook

Optimization efforts are closing the gap between available capacity and design hydraulic capacity

Current Design Capacity*: 2,500 kbpd

- Pressure restriction removal
- Elimination of operational inefficiencies
- Crude slate balance improvement

* Excludes Alberta Clipper Expansions

<table>
<thead>
<tr>
<th>Year</th>
<th>ex-Gretna kbpd</th>
<th>~1,800</th>
<th>+60</th>
<th>+150</th>
<th>+130</th>
<th>~2,100</th>
<th>+70</th>
<th>+120</th>
<th>~2,300*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td></td>
<td>~1,800</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid 2014</td>
<td></td>
<td></td>
<td>+60</td>
<td>+150</td>
<td>+130</td>
<td></td>
<td>+70</td>
<td>+120</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Excludes Alberta Clipper Expansions
Mainline Capacity Optimization – Temporary System Optimization

Temporary actions are in place to squeeze out additional available capacity

<table>
<thead>
<tr>
<th>Temporary action</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drag reducing agent</td>
<td>~45 kbdp</td>
</tr>
<tr>
<td>Temporary crude slate reallocation</td>
<td>~40 kbdp</td>
</tr>
<tr>
<td>Interline flexibility connections</td>
<td>as required</td>
</tr>
<tr>
<td>Overall potential, if required</td>
<td>~100+ kbdp</td>
</tr>
</tbody>
</table>
Edmonton to Hardisty

• 36” – 180 km Pipeline
  - Edmonton to Hardisty
  - 800 kbpd capacity

• Edmonton South Terminal
  - Terminal facilities
  - 3 transfer laterals
  - 5 – 550 kbbl tanks

• In Service - 2015

Total Secured Capital = $1.8 B
Line 3 Replacement

Increases system reliability and flexibility

Total Secured Capital = $7.5 B
Three major initiatives provide 1.7 MMbpd of increased market access and diversification.

Incremental Market Access by 2017:
+1.0MMbpd of Heavy;
+0.7MMbpd of Light
Enbridge’s Western USGC Access is the linchpin for Canadian liquids development

Total Secured Capital = $5.4 B

Western USGC Access Projects

<table>
<thead>
<tr>
<th>Western USGC Access Projects</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mainline Expansions</td>
<td></td>
</tr>
<tr>
<td>- Alberta Clipper</td>
<td>In-progress</td>
</tr>
<tr>
<td>- Southern Access</td>
<td>Completed</td>
</tr>
<tr>
<td>2. Flanagan South</td>
<td>November 2014</td>
</tr>
<tr>
<td>3. Seaway Acquisition &amp; Reversal</td>
<td>Completed</td>
</tr>
<tr>
<td>4. Seaway Twin</td>
<td>Completed</td>
</tr>
</tbody>
</table>
# Market Access – Eastern Access

## Enhances security of supply and refinery competitiveness

<table>
<thead>
<tr>
<th>Eastern Access Projects</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Line 5 Expansion</td>
<td>Completed</td>
</tr>
<tr>
<td>2. Spearhead North Expansion</td>
<td>Completed</td>
</tr>
<tr>
<td>3. Line 6B Replacement</td>
<td>Completed</td>
</tr>
<tr>
<td>4. Line 9A Reversal</td>
<td>Completed</td>
</tr>
<tr>
<td>5. Line 9B Reversal</td>
<td>2014</td>
</tr>
<tr>
<td>6. Toledo Pipeline Twin</td>
<td>Completed</td>
</tr>
</tbody>
</table>

Total Secured Capital = $3.2 B

- ENB Funded
- EEP/ENB Joint Funded
Market Access – Light Oil Market Access

Competitive transportation cost to multiple markets for Canadian light oil and Bakken producers relative to differentials

LOMA Projects | Timing
--- | ---
1. Mainline Expansions | 2014 / 2015
2. Line 9 Expansion | 2014
3. Line 6B Expansion | 2015
5. Southern Access Extension | 2015
7. Sandpiper | 2017

Total Secured Capital = $6.0 B
Largest Oil Sands Service Provider

Total Secured Capital = $6.0 B

Regional Oil Sands Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Athabasca Twin</td>
<td>2017</td>
</tr>
<tr>
<td>2. AOC Hangingstone Lateral</td>
<td>2015</td>
</tr>
<tr>
<td>4. Woodland Pipeline Extension</td>
<td>2015</td>
</tr>
<tr>
<td>5. JACOS Lateral</td>
<td>2016</td>
</tr>
<tr>
<td>6. Wood Buffalo Extension</td>
<td>2017</td>
</tr>
<tr>
<td>7. Norlite Diluent Pipeline</td>
<td>2017</td>
</tr>
<tr>
<td>8. Norealis Pipeline</td>
<td>2014</td>
</tr>
<tr>
<td>9. Sunday Creek Terminal</td>
<td>2015</td>
</tr>
</tbody>
</table>
Primary Transportation Choice for Bakken Producers

- Sandpiper provides access to premium eastern PADD II market
- Marathon is anchor shipper
- Sandpiper is expandable by 160 kbpdp through horsepower upgrades

Total Secured Capital = $2.6 B

Enbridge Mainline
- Saskatchewan System (ENF)
- North Dakota System
- Bakken Expansion Project
  - 145 kbpdp (In-service)

Bakken Access Program (well connections)
- 145 kbpdp (In-service)

Berthold Rail
- 80 kbpdp (In-service)

Sandpiper
- 225/375 kbpdp (Clearbrook / Superior)
Capacity post 2017

Continue to dominate PADD II and grow market access to premium markets

- 2850 kbdp
- +250 kbdp
- +50 kbdp
- +375 kbdp
- +800 kbdp
- +300 kbdp

Light
Heavy

Easten Canada & PADD I

PADD III
Established and Scalable Foothold in Regional Oil Sands

- Large portfolio allows flexibility for production forecasts
- Footprint and optionality advantageous to all producers
Continued Growth Potential

**Mainline expansions facilitated by scalable market access options**

### Crude Asset Expansion Opportunities
1. Flanagan South (+200 kbpdp Heavy)
2. SAX Expansion (+150 kbpdp Light)
3. Line 9 Expansion (+70 kbpdp Light)
4. Sandpiper Expansion (+160 kbpdp Light)
5. Seaway Expansion (+200 kbpdp Heavy)

### Diluent Asset Expansion Opportunities
1. Southern Lights (+100 kbpdp)
2. Norlite (+200 kbpdp)

### New Build/Acquisition Opportunities
1. Eastern USGC
2. Northern Gateway (+525 kbpdp Heavy)
3. Line 61 Twin (+530 kbpdp Light)
Key Takeaways

- Execution and integration of secured growth progressing
- System optimization efforts contribute to earnings
- Unparallelled asset base and strong fundamentals will extend growth
- Enbridge is providing capacity and market access to our customers in a challenging environment
Q&A

Guy Jarvis
President, Liquids Pipelines