IVL Concludes US$2 Billion Acquisition of Huntsman’s Integrated EO & PO Assets

January 3rd, 2020
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**Transaction Highlights**

**Huntsman EO & PO Assets**

- **Capacity:**
  - 3.01 MMTPA
  - 0.02 MMTPA
  - 0.12 MMTPA

- **Locations:**
  - Chocolate Bayou, TX
  - Port Neches, TX
  - Ankleshwar, India
  - Botany, NSW, Australia

- **Chemicals:**
  - Surfactants & LAB
  - EOA
  - Olefins
  - EO
  - EG
  - PO
  - MTBE

**Key Highlights:**

1. **Well-invested integrated asset base, with well-built infrastructure and expansion capabilities**
2. **Integrated value chain, with USGC attractive feedstock positions**
3. **Strong market positions across a diverse range of complementary chemistries**
4. **Favorable industry market dynamics with consistent growth trends**
5. **Synergies of ~$100M within 3 years; ~$30M within 12-18 months**
6. **Purchase price of $2.0B and up to $76M of deferred pension obligations, which corresponds to an EV/EBITDA multiple of 5.7x (excluding synergy) based on LTM 3Q19 financials**
7. **Transaction funded through debt and cash on hand; strong cash flow allows rapid deleveraging**

**Key Figures:**

- **1,200 Colleagues**
- **3.1 MMTPA Annual Capacity**
- **5 Production sites**
- **3 Countries**
Integrated Oxides & Derivatives Transformation: Integration from Shale Gas to End Products

### Feedstock

1. **EO/EG**
   - Ethylene
   - Ethane (from Shale Gas)

2. **PO/Oxyfuel**
   - Alcohol, NH₃, C₆, N-Paraffin
   - C₃, C₄, Methanol (from Shale Gas)

### Production Sites

1. **IVOG**
   - Cracker
   - EO/EG

2. **IVOL**
   - Cracker
   - EO/EG

3. **Spindletop**
   - Cracker
   - EO/EG
   - Surfactants
   - PO/Oxyfuel

### Products

1. **EG**
   - (680 kt)

2. **PEO**
   - (175 kt)

3. **Ethylene**
   - (Negligible)

4. **LAB/Surf./EOA**
   - (569 kt)

5. **PO/Oxyfuel**
   - (249 kt/782 kt)

### End-Uses

- Polyester Resin
- Home & Personal Care
- Polyurethane
- Fuel
- Agrochem.
- Oil & Gas
- Polyurethane
- Fuel

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**Note 1:** Product volumes represent combined 2018 sales; IVOL ethylene volume on a pro-forma basis.
Benefiting from US Cost Advantage & PO Technology Position

Global Ethylene Cash Cost ($/ton)

Global Integrated MEG Cash Cost ($/ton)

Global PO Cash Cost ($/ton)

Note: 2019 cash cost for Ethylene and MEG; Avg. 2014-18 cash cost for PO
Source: IHS, Nexant, IVL Analysis
## Favorable Industry and End Market Dynamics

### Macro Trends
- Population growth
- Proliferation of herbicide-resistant seeds

### Spindletop Advantage
- Global footprint supports market growth
- Customer relationships
- Innovation and new products

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agrochemicals</td>
<td>Population growth, Proliferation of herbicide-resistant seeds</td>
</tr>
<tr>
<td>Fuels &amp; Lubricants</td>
<td>Stricter emission standards, electrification, better fuel economy</td>
</tr>
<tr>
<td>Home &amp; Personal Care</td>
<td>Sustainability, energy &amp; water efficiency trends, Growth opportunity in developing countries</td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>US shale industry growth</td>
</tr>
<tr>
<td>Polyurethanes</td>
<td>Automotive light-weighting, comfort energy efficiency, Furniture lifestyle/durability, Insulation/energy efficiency</td>
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### Expected End Market Growth
- **6%**
- **3%**
- **2-3%**
- **6%**
- **4-5%**

Source: IHS, Woodmac, IVL Analysis
Strong EBITDA Generation Amidst Global Chemical Downturn: ~60% of EBITDA Resilient to Cyclicality

Spindletop EBITDA ($M)

- Huntsman EBITDA from Spindletop operations **$360M in LTM 3Q19** after IVL adjustments
- 1Q20 to be impacted by PO/Oxyfuel unit planned turn around and trading losses (to ease supply impact to customers)

- Geo-advantaged USGC feedstock
- Synergies of ~$100M within 3 years

Note: Surfactants includes surfactants, EOA and LAB; IVL adjustments to Huntsman reported EBITDA to take into account of Turnaround and Inspection costs inline with IVL reporting policies and other adjustments; the numbers include certain IVL analysis by segment which might be different from Huntsman numbers
Source: Adjusted EBITDA from discontinued operations as reported by Huntsman and IVL Analysis
**Expected Synergy Benefits of ~$100M Within 3 Years**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Action Plan</th>
<th>Outcome ($M)</th>
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<tbody>
<tr>
<td>Cost Reduction</td>
<td>▪ Corporate Overheads and SG&amp;A Savings</td>
<td>CAPEX: -</td>
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<tr>
<td></td>
<td></td>
<td>Benefits: $30M/year</td>
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<td>▪ Yield Improvement</td>
<td>CAPEX: $15M</td>
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<td>▪ Reliability Enhancement</td>
<td>Benefits: $10M/year</td>
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<td></td>
<td>▪ Ethylene Integration with IVOL</td>
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<td></td>
<td>▪ Tolled EG Capacity Release for Captive</td>
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<tr>
<td>Operational &amp; Supply Chain Optimization</td>
<td>▪ New Specialty Surfactant Project</td>
<td>CAPEX: $230M</td>
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<tr>
<td></td>
<td>▪ PEO Expansion at Port Neches</td>
<td>Benefits: $60M/year</td>
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Source: IVL Analysis
For more information contact us on:

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## Limited Impact from TPC Incident

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<tr>
<th>Impact</th>
<th>Assessment &amp; Action</th>
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<tr>
<td><strong>Physical</strong></td>
<td>• Very little damage to Spindletop PO/Oxyfuel related equipment</td>
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<td></td>
<td>• Expect minimal repairs (costs on Seller’s account)</td>
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<td><strong>Operational</strong></td>
<td>• Turnaround preponed to Dec 2019</td>
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<td>• Unit back online by 12 Mar 2020 (originally planned for 8 Apr 2020; as such, no effect on 2020 planned production volume)</td>
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<td><strong>Financial</strong></td>
<td>• Overall one-time EBITDA impact to IVL ~$10M(^1)</td>
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**Note 1:** Required to purchase material to meet supply obligations.  
Source: Huntsman and IVL