1. Broad Equity Markets Year-to-Date
   Indexed to 12 Months Ago
   120
   Shanghai Composite
   S&P/TSX Composite
   Dow Jones
   Increased Coronavirus fears weigh on the market.

2. Performance of Oil and Gas Equities Year-to-Date
   Indexed to 12 Months Ago
   130
   ARC Junior E&P Index
   S&P 500 E&P
   S&P/TSX E&P Index

3. Oil & Gas Service Equities Year-to-Date
   Indexed to 12 Months Ago
   120
   Philadelphia Service Index
   PSAC Canadian Index

4. Canadian Currency Exchange
   Indexed Daily Close Values; Rolling 24-Month History
   120
   $US/$Cdn

Recent price drops will impact industry cash flow.

Global equity markets fell dramatically last week.

WTI fell more than $8.50/B last week.

OPEC will meet later this week to discuss a cut.

Current Canadian rig count is above last year.

Recent price drops will impact industry cash flow.

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North American crude oil prices can sometimes disconnect from global prices depending on regional supply and demand dynamics. 
*Source: Bloomberg*

The differential should reflect quality differences and transportation costs. Greater discounts can result from infrastructure or refinery outages. 
*Source: Bloomberg*

Rail is expected to grow as the pipelines have hit the limit for moving additional barrels of crude oil, and supply is still growing. 
*Source: National Energy Board*

The advancement of drilling and completion methods is increasing US crude oil production. 
*Source: Bloomberg, U.S. Energy Information Administration*
11 Alberta Oil Production
Monthly; Conventional and Oil Sands

Most of Canada’s oil production comes from Alberta; split between oil sands and conventional production.

Source: Alberta Energy Regulator

12 OPEC Oil Production
Monthly; Rolling 60-Month History

OPEC’s production levels relative to its sustainable and spare capacity influences global crude prices. Note: scale has been expanded.

Source: Petroleum Intelligence Weekly

13 Global Oil Supply-Demand Balance
Quarterly; 2010 to Present

Negative numbers indicate a global crude shortfall, while positive numbers indicate an oversupply.

Source: International Energy Agency

14 Long and Short Contracts - WTI
Managed Money - Futures

Long contracts take the position that WTI oil price will increase, while short contracts expect a decline.

Source: Bloomberg, U.S. Commodity Futures Trading Commission

15 US Crude Oil Imports
Weekly Data; 2013 to Present

Crude oil imports from Canada are taking market share from overseas imports.

Source: U.S. Energy Information Administration

16 US Exports of Crude Oil and Refined Products
Weekly Data; 2013 to Present

The US exports more refined products than crude oil. With the rapid growth of tight oil, most export growth should come from crude oil exports.

Source: U.S. Energy Information Administration
US crude oil stock levels can affect crude oil prices. Stock levels for the current year are represented by the blue line. 
Source: U.S. Energy Information Administration

Refinery utilization rates change the supply of refined products, impacting price. Utilization for the current year is blue. 
Source: U.S. Energy Information Administration

Tracking US oil drilling by major play provides insight into the composition of US oil supply and growth trends. 
Source: Baker Hughes

Natural gas liquids have become critical contributors to producer’s cash flow. Prices are influenced by the price of oil as well as local supply and demand. 
Source: Bloomberg, ARC Financial Corp.
23 Near-Month North American Natural Gas Prices
Daily Prices; Rolling 12-Month History

Near-month prices at AECO track Henry Hub prices, the exchange rate and the cost of transportation. Local factors can also affect price.
Source: Bloomberg

24 US Natural Gas Futures
Nymex (Henry Hub) 2020 to 2022

Forward contract prices are plotted against months in the calendar year. Years are distinguished by color and symbol coding.
Source: Bloomberg

25 Long and Short Contracts – Henry Hub
Managed Money - Futures

Long contracts take the position that Henry Hub gas price will increase, while short contracts expect a decline.
Source: U.S. Commodity Futures Trading Commission

26 Canadian Natural Gas Futures
AECO Hub (Bloomberg Estimate) 2020 to 2022

AECO forward prices mimic Henry Hub futures minus a differential.
Source: Bloomberg

27 Global Natural Gas Prices
Japanese LNG, UK NBP, Henry Hub; Average Monthly Prices

International natural gas prices strongly impact the economics of proposed LNG projects.
Source: Bloomberg, Japanese Ministry of Economy, Trade and Industry

28 US Coal and Natural Gas Power Generation Cost
Converted to a $/MWh Equivalent

This graph illustrates when it may be economic to begin coal-gas switching in power generation. Average power plant efficiencies are assumed.
Source: Bloomberg
Closing Spot Prices at North American Natural Gas Hubs
Superimposed on Relative Physical Volumes Traded

North America has an integrated natural gas market. Prices are determined by regional supply and demand, and pipeline flows.

Source: Bloomberg

Pipeline Flows Out of Western Canada
Daily; Historical Tracks and Current Year Levels

The ability of gas producers to move gas out of the WCSB to eastern markets and the US is a major factor in local natural gas prices.

Source: Various Pipeline Companies

US Natural Gas Exports – Excluding Canada
Daily; Historical Tracks and Current Year Levels

Between exports to Mexico and LNG shipments, the US is growing as a natural gas exporter. Robust US supply growth has driven this trend.

Source: Bentek
Weekly natural gas demand is directly tied to the weather. The current year is in dark blue. 
Source: National Oceanic and Atmospheric Administration

US production started ramping up in late 2007 and continues to grow year over year. 
Source: Bentek

Weekly gas storage reports provide a snapshot of supply and demand. Current year changes are represented by the blue line. 
Source: U.S. Energy Information Administration

The EIA reports changes in US natural gas inventories held in underground storage facilities on a weekly basis. 
Source: U.S. Energy Information Administration
38 Alberta Natural Gas Demand
TransCanada Intra-AB Deliveries; Current Year and Historical Tracks

Alberta natural gas demand has grown steadily in recent years, largely driven by new oil sands demand and power generation projects.
Source: TransCanada Pipelines

39 Western Canadian Natural Gas Storage Levels
Weekly; Current Year and Historic Tracks

Canada’s natural gas storage level provides a good metric if the country is well stocked. Abnormally high or low storage can affect the basis.
Source: Bloomberg

40 Weekly Canadian Oil and Gas Drilling Activity
Baker Hughes Drilling Rig Count; Current Year and Historical Tracks

Unlike US drilling activity, Canadian rigs are dispatched seasonally. Capital allocation by operators is driven by views of future oil and gas prices.
Source: Baker Hughes

41 US Gas Drilling Activity
Baker Hughes Gas Rig Counts; 2017 to Present

Tracking US gas drilling by major play provides insight into the composition of US gas supply and growth trends.
Source: Baker Hughes

42 Alberta Crown Land Sales – Excluding Oil Sands
Year-over-Year; Cumulative

Land prices are an important component of F&D costs. In Alberta, sales of petroleum and natural gas rights are held every two weeks.
Source: Alberta Department of Energy

43 Canadian Cumulative Well Completions
Current Year vs Years Prior

Relative year-over-year drilling activity is highlighted in this chart. Cumulative well completions for the current year are shown in blue.
Source: Daily Oil Bulletin/JWN
Canadian Industry Metrics: Historical Data and Forecast

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<tr>
<th>Price</th>
<th>Production Volume</th>
<th>Capital Inflow</th>
<th>Reinvestment</th>
<th>Drilling</th>
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<td>MBOE/d AECO</td>
<td>MBOE/d (@ 6:1)</td>
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