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Teck Resources' Frontier Oil Sands Project Shows Reckless Disregard for Financials

Bases Project Viability on Overly Optimistic Oil Price Forecasts

Summary

The Joint Review Panel's (JRP) decision back in July 2019 to approve Teck Resources' misconceived Frontier Oil Sands Mine Project represents a reckless disregard for the facts regarding oil prices in Canada and the financial viability of the project. During its administrative hearings, the JRP ignored, or rejected, ample evidence that current prices for Canadian oil are highly unlikely to be in excess of $95 per barrel for the long-term, as claimed in Teck's application. A broad survey of market forecasts, including those conducted by the U.S. government, Canada's own National Energy Board (NEB), oil and gas majors and industry consultants demonstrates a consensus that oil prices will remain stagnant over the long term. And Teck Resources recently disclosed to investors that oil prices will be in the $60 to $70/bbl range for "decades to come."[1] Therefore, the JRP based its decision on a highly misleading financial forecast. It conferred upon Teck Resources significant development rights for a project with poor financial prospects that will have adverse consequences for taxpayers and the environment.

Background

The Frontier Oil Sands Mine Project ("Frontier Project" or "project") is a greenfield investment of Teck Resources Limited (Teck), a Canadian-based company located in Vancouver, British Columbia. The project, when fully operational in 2037, is expected to produce 260,000 barrels of oil per day (bpd), or 3.2 billion barrels[2] over a 41-year life cycle.[3] Teck estimates that the cost of the project will be

[1] Teck. Investor Relations presentation. December 2019.
[2] Teck Resources, Teck Resources Limited Responses to Joint Review Panel Information Request Package 5, Section 5.1, p. 5-10, May 17, 2018.
[3] Ibid., Section 5.1, p. 5-4.

$20.6 billion, with most of the capital expended during Phase 1 of the project (2020 through 2026).

It is anticipated that the project will produce $54 billion in royalties and taxes, $11.8 billion in federal corporate taxes, and $68 million in local property taxes.[4] The project is expected to support 2,500 permanent employees.[5]

Teck Resources is a diversified resource company with a market capitalization of $13.09 billion in assets and annual revenues of $12 billion in 2017.[6] The company has a portfolio of copper, zinc, coal, oil sands, and other mineral resources in Canada, the United States, Chile, and Peru.[7] The company is recovering from a period of decline and in 2017 had gross profits of $4.6 billion, and net profits of $2.5 billion, driven in large measure by rebounding prices in the coal and copper sectors. In 2017, the company was able to pay its dividend and reduce its debt levels due to a significant increase in profits. In 2018, the company allocated $2.1 billion for capital expenditures covering at least eight ongoing projects.

The development of Canadian oil sands is a relatively new "core" asset for Teck. The Frontier project is only its second oil sands investment. Its first one, the Fort Hills project, was a joint venture with Suncor, in which Teck has a 20% interest. Fort Hills has recently completed the construction phase and is in the early stages of commercial operation. The Frontier project represents Teck's first oil sands project in which it holds a 100% interest and is currently being reviewed by Canadian environmental officials for compliance with the nation's natural resource management requirements.

This report is designed to provide further data and analysis regarding a fundamental financial assumption adopted by the JRP in its Frontier Project decision.[8] It expands upon studies published in 2015[9] and 2018[10] by the Institute for Energy Economics and Financial Analysis (IEEFA) that examined Teck Resources' finances and its focus on oil sands development. The present report relies primarily on material from the Teck application supplemented by company and industry data from a variety of sources, including Teck Resources' corporate filings.

I. The Oil Price Issue in Brief

Teck Resources Limited applied to the Alberta Energy Regulator (AER) for the Frontier Project in November 2011 and submitted an updated application in June 2015. The environmental assessment under the Canadian Environmental

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[4] Teck Resources. Teck. Frontier Oil Sands Mine Project Update. pp. 1-22.
[5] Joint Review Panel. Teck Resources Limited Frontier Oil Sands Mine Project, 2019 ABAER 800, CEAA Reference No. 65505. July 25, 2019. P. xii.
[6] Information in this paragraph is from Teck Resources 2017 Annual Report (unless otherwise noted): Teck Resources, Teck 2017 Annual Report
[7] Ibid., p. 41.
[8] Joint Review Panel, Report of the Joint Review Panel, Teck Resources Limited Frontier Oil Sands Mine Project, 2019 ABAER 800, CEAA Reference No. 65505. July 25, 2019.
[9] IEEFA. Tough Road on Oil Sands, August 2015.
[10] IEEFA. Significant Financial Risks Confront Teck's Frontier Oil Sands Mine Project, August 2018.

Assessment Act, 2012 (CEAA 2012) started in January 2012. The federal Minister of Environment and Climate Change and the CEO of the AER announced the establishment of a joint review panel (JRP) for the Frontier Project on May 24, 2016.

On July 25, 2019, the JRP issued its decision. It approved the project and deemed it in the public interest[11] while noting significant adverse environmental impacts. The decision now provides the basis for a final decision by provincial and federal officials.[12]

In support of its decision, the JRP relied on a long-term oil price projection provided by Teck Resources "in excess of $95 per barrel" for most of the project period (2026-2066).[13]

Notwithstanding substantial objections made during the administrative hearing process by the Oil Sands Environmental Coalition (OSEC),[14] Stand.Earth, Keepers, Council of Canadians and IEEFA[15] about the oil price forecast and other modeling assumptions used by Teck, the JRP concluded that the $95 per barrel long-term price of oil was acceptable. The JRP stated:

- Teck Resources relied on a credible third-party source, the International Energy Agency (IEA), noting that use of its estimates was reasonable.[16]

- The JRP dismissed alternative price-of-oil analyses, including a significantly lower long-term oil price assumption used by Canada's NEB. The JRP stated that there are inherent uncertainties[17] in oil price forecasts and that the NEB was simply more conservative than the IEA.[18]

- The JRP supported Teck Resources' rebuttal to opponents that the market and regulatory factors that are depressing oil prices are short-term in nature.

The JRP acknowledged the crucial importance of oil price to the project's viability. The decision confirmed Teck's recognition that, if oil were lower than $95 per barrel, the viability of the project and the benefits flowing from it would be negatively affected.[19] The JRP acknowledged the same.[20]

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[11] Joint Review Panel. Teck Resources Limited Frontier Oil Sands Mine Project, 2019 ABAER 800, CEAA Reference No. 65505. July 25, 2019. P. xii.
[12] Ibid. p. xii. See also: Frontier Oil Sands Mine Project Time Extension.
[13] ibid. paragraph 4670.
[14] Pembina Institute. Submission of Oil Sands Environmental Coalition, see submission of Chris Joseph, Swift Creek Consulting. August 28, 2018, p. 0065.
[15] Report of the Joint Review Panel, Teck Resources Limited Frontier Oil Sands Mine Project, 2019 ABAER 800, CEAA Reference No. 65505. July 25, 2019. Paragraph 4659 through 4670.
[16] Report of the Joint Review Panel, Teck Resources Limited Frontier Oil Sands Mine Project, 2019 ABAER 800, CEAA Reference No. 65505. July 25, 2019. Paragraph 4684.
[17] Ibid., Paragraph 4682.
[18] Ibid., Paragraph 4683.
[19] Ibid., Paragraph 4669.
[20] Ibid., Paragraph 4681.

II. The IEA Long-Term Oil Price Forecast Is an Outlier Estimate

The IEA long-term oil price forecast "in excess" of $95 per barrel is an outlier estimate. Neither the JRP nor Teck Resources offer any rationale for why they consider it the most reliable forecast.

Table 1: Long-Term Oil Price Professional Forecasts: Varied Sources and Dates, 2020-2040

Oil Price Forecasts-$/barrel	2015	2016	2017	2018	2020	2022	2025	2030	2035	2040
Teck Resources/IEA New Policy Scenario[21]							88	96	105	112
U.S. EIA - Brent Reference[22]					73		82	93	100	105
Canada National Energy Board[23]	52	44	53	71	68		73	75	75	75
World Bank "Pink Sheet" Commodity Outlook[24]					65		67	70		
International Monetary Fund[25]					55	56				

The JRP has determined that the IEA/Teck Resource price forecast is credible and reasonable. It is also higher, in most cases significantly higher, than a preponderance of other equally credible public (see Table 1) and private parties that offer long-term oil price forecasts.

- The Teck Resource/IEA average oil price between 2025 and 2040 is $100 per barrel, an amount "in excess" of $95. The U.S. IEA average price of oil for the same period is $90 per barrel.[26]

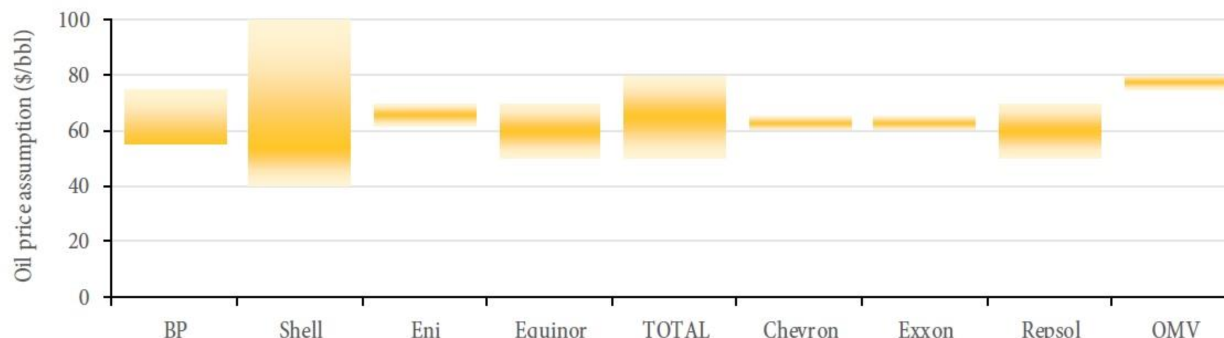
- The average oil price set by Canada's NEB for the same period is $74.61, an amount significantly lower than the Teck Resource/IEA average.

- The World Bank oil price forecast from 2025 and 2030 is $68.75. Teck

[21] Ibid., Paragraph 4670; and IEA World Energy Outlook., p. 602 (Lic).
[22] EIA Annual Energy Outlook 2019, Brent Oil Prices, Reference Case, 2017-2040EIA. Annual Energy Outlook 2019, Brent Oil Prices., Reference Case, 2017-2040.
[23] NEB. Canada's Energy Future. Figure 4.5 Brent Price Assumptions, Reference and Technology Case, p. 72.
[24] World Bank Outlook, Commodity Markets Outlook, Table A.2, April 2019.
[25] IMF Price Outlook, Special Feature: Commodity Market Developments and Forecasts, May 2019, p. 38.
[26] The Annual Energy Outlook of the EIA long term oil price forecasts have been declining since 2014—when the same period average was $125.00 per barrel.

Resources/IEA for the same period is $92.

Table 2: Major Oil Companies Long-Term Oil Price Scenarios



Source: companies, Redburn

Recently, the equity research firm Redburn published a long-term outlook for nine integrated oil and gas major companies (see Table 2). While most oil companies do not publish long-term scenarios, they often provide their assumptions in project planning, impairment analyses and other shareholder disclosures. Redburn's conclusion: The nine oil and gas majors forecast long-term oil prices in the range of $55 to $80 per barrel. These major oil companies use long-term oil price forecasts that are significantly lower than the Teck Resources/IEA forecast.

Most companies from this group have cancelled oil sands projects in Canada, in large measure due to a long-term low oil price. (More details will be provided in a future IEEFA report). Even ExxonMobil, a company that remains bullish on Canadian oil sands, does not forecast a long-term oil price in excess of $95 per barrel.

Teck Resources, in a December investor presentation, revised downwards its long-term price forecast to between $60 and $70 per barrel.[27] In an analysis of the operating environment for the Fort Hills Oil Sands Project the company projects significant upside potential for "decades to come" at this price range contingent upon the successful elimination of certain bottleneck constraints.

III. Observation and Analysis

The JRP and Teck Resources both acknowledge that if the actual price of oil is lower than estimated, the project, and the benefits accruing to the public, provincial and federal governments will be negatively impacted. Lower tax payments and fewer, or lower-paying, employment opportunities are at stake.

The oil price forecast is more than a discussion of technical models and current market factors. It is central to the question of the project's viability.

[27] Teck. Investor Presentation. December 2019, p. 137.

The JRP decision ignores fundamental market dynamics, like the current global oversupply of oil and gas, and includes certain misguided assumptions about new pipeline capacity. Most major oil companies have left the Canadian oil sands because their view of the price of oil is that it will not cover the expenses and generate the necessary profits needed to support profitable development. Low prices are a market signal that consumers are not absorbing current capacity. The global market for oil is oversupplied[28] now and is likely to remain so for the foreseeable future.[29] Under a recent McKinsey analysis, long-term oil prices will be in the $65-$75 range through 2035 and new production in oil sands will be marginalized. McKinsey's estimate builds on other industry professionals',[30] such as Rystad Energy, 64 investment banks, Bloomberg and the Asia Pacific Databook.

The current efforts within the U.S. and Canada to expand pipeline access[31] for both oil and gas could have a downward effect on prices. Recently, IHS Markit has reported that an increase in new gas pipelines in the U.S.[32] is likely to increase oversupply in the LNG market and hamper price recovery. This will undermine new production plans throughout the Americas and Canada. The same market dynamics are apparent in the oil industry—oversupply with multiple competitors bringing more product to market. Simply put, more oil added to the market at this time drives down prices.

There are also two broader issues for Canadian decision-makers to consider.

First, sanctioning a project at $95 per barrel when the rest of the market knows this is unachievable has an air of desperation to it. Canada's leadership should avoid such transparently dubious market ploys if it expects its foreign partners to take them seriously. The JRP's uncritical acceptance of the Teck/IEA forecast trivializes the work of Canada's National Energy Board as an independent source of data and analysis on the energy sector established for use by the Canadian government and its people.

Second, the Canadian government recently reluctantly bought the Trans Mountain pipeline project from Kinder Morgan for a reported $4.5 billion. A much higher overall expected subsidy will be required to complete the construction project.[33] If Teck Resources finds that it cannot complete the Frontier Project, the Canadian government will face the same difficult choice it made in the Trans Mountain case.

The JRP decision ignores the first issue of long-term oversupply, considers the second issue regarding pipelines correctable with more pipelines and seems blind to longer-term fiscal risk.

The failure to reconcile structural contradictions that dominate the market with its

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[28] CNBC.com. Oil markets will see another glut in 2020, IEA predicts, July 12, 2019.
[29] McKinsey.com. Global Oil Supply and Demand Outlook. FY 2019, H1, pps. 15-16.
[30] Ibid., p. 6.
[31] North American Oil and Gas Pipelines. 2019 Oil U.S. Pipeline Report. May 28, 2019.
[32] IHS Markit. Gas Glut Will Push Prices Down. September 12, 2019.
[33] IEEFA. Trans Mountain Pipeline Financials: Built on Quicksand and Clear as Mud. April 2019.

decision to proceed with this project is striking.

The JRP decision is flawed for four basic reasons:

1. **The JRP decision is unprofessional.** A professional assessment of oil prices —especially at this time of substantial change in the world—would take into account multiple forecasts.

   The JRP overlooked data and analysis from the U.S. EIA, World Bank, the International Monetary Fund (IMF), its own Canadian NEB, the companies listed above and, of course, consultants such as McKinsey. While the forecasts may vary, the consensus of these sources is that lower prices for oil can be expected for a long period. The JRP chose the highest priced (best-case) scenario.

   The JRP chose to rely on an analysis from a source based far away from the relevant markets, rather than the federal officials in the U.S. and Canada who are more familiar with actual market conditions. The U.S. EIA and NEB perform their analyses in the context of the markets in which they operate and where Canadian oil sands products are extracted, processed and sold. They are also independent of their respective governments, with a mission to support the development of those markets. These analyses are closer to the source and should have been accorded substantial weight in the JRP review.

   But the JRP chose to ignore those analyses in favor of the one Teck chose for this proceeding, the IEA, which performs global analytics largely for the purpose of macro planning for energy infrastructure and markets. The IEA oil price for a specific project like this is better used as a sensitivity check, looking at the upper and lower projections, not as a lone authoritative source.

   A multiple scenario analysis from the sources discussed above would not yield a long-term oil price "in excess" of $95 per barrel. Instead, it would produce a significantly lower estimate. By all accounts, a meaningfully lower price would call into question the project's financial viability.

2. **By basing its decision on an oil price in excess of $95 per barrel, the JRP decision willfully ignores the facts.** The JRP Commissioners had before them sufficient reason to question the oil price forecasts. They did not do so. Instead, they chose to support the Teck Resources/IEA scenario uncritically.[34] This left unexamined questions of market competition, global supply and demand, Canada's competitive position, and reasonable and credible alternative price forecasts. Answers to these questions might have illuminated potential adverse impacts on project finance. The JRP did not

[34] The question of Teck Resources full analysis of the project, its own internal breakeven prices and assumptions about oil prices, were never put before the JRP. These issues were raised in IEEFA's 2018 report: Significant Financial Risks Confront Teck's Frontier Oil Sands Mine Project. August 2018, p. 5-6.

offer an explanation, for example, as to why Canada's NEB forecast and the IEA forecast were at such variance. The JRP has conferred upon Teck Resources the right to undertake substantial development with adverse environmental consequences based on a faulty set of financial assumptions.

3. **The JRP Commissioners displayed reckless[35] disregard of the fact that the $95 is misleading as an indicator of likely market performance in Canada.** The evidence before them and more in the marketplace demonstrates a high likelihood that such a high price will not materialize. It appears to have been adopted as the Canadian government's price forecast in order to validate the approval of this project. The oil price in this matter stands in stark contrast to the NEB's forecast that normally serves as Canada's official reference point in such matters.

4. **The JRP Commissioners had an obligation to ensure that any materially misleading statements that surfaced during the administrative proceeding be properly addressed, either through changes in the application itself, or by providing more contextual information.** In this instance, such steps could have included becoming more familiar with a broader array of oil price and oil market factors, including those developed by Canada's NEB, EIA, World Bank, the IMF, and any of the nine major oil companies or oil consultants identified above.

The recent disclosure by Teck Resources to its investors that the company's long-term market price scenario for the Fort Hills project is in the $60 to $70 per barrel range for "decades to come" underscores the unprofessional and reckless nature of this decision, should the government decide to approve it.

Conclusion

The Canadian government is trying to supply support for an important industry in Canada that is in severe financial distress and facing a negative outlook. Alberta's and Canada's economies are feeling the impact of the downward trajectory of the oil sands industry. The government's support comes at a time when global markets are oversupplied, placing a high premium on oil that has low transportation and production costs. Canada has already seen what occurs when oil projects planned upon faulty assumptions go forward: At best, investors lose money, at worst, Canadian taxpayers pick up the tab.

[35] For a discussion of what constitutes a reckless decision by a public official charged with the responsibility of providing full and accurate disclosure for the purpose of financial decision making see: Securities and Exchange Commission, SEC Report on Orange County.

About IEEFA

The Institute for Energy Economics and Financial Analysis conducts research and analyses on financial and economic issues related to energy and the environment. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy. www.ieefa.org

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