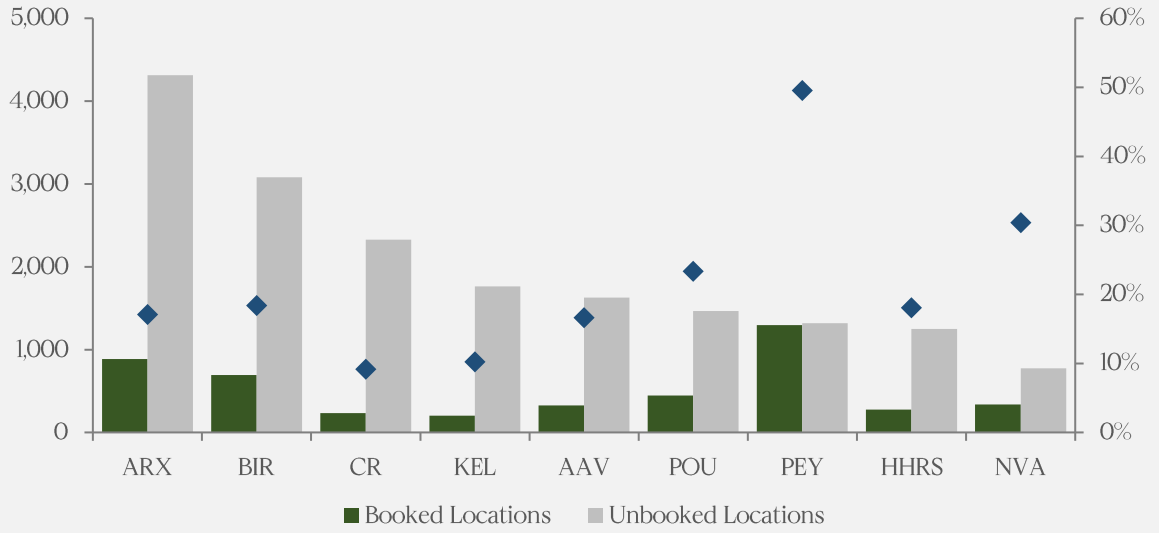
Daily Thought

Locations, Locations, Locations! – August 28th, 2023

LNG Canada is right around the corner (so they say), and the question lingers – how much gas is left in the basin? Well, to answer that quickly, and without fuss – an unfathomable amount. If you're interested in more, feel free to continue reading. If you're looking to abate any supply worries that may leave you restless in the wee hours of the morning, take solace in knowing that gas is ridiculously abundant. Now – LNGC Trains 1-2 require 2.1Bcf/d, and the current participants (Shell, PETRONAS, PetroChina, Mitsubishi, and KOGAS) currently produce what I'd call "within spitting distance" of their pledged volumes. While LNG takeaway will have the basin undersupplied by ~1.1Bcf/d in late 2026 (depending on how hard you see ramps into the first shipment), the undersupply is mostly driven by incremental NGTL capacity (for context, we are by our math ~1.8Bcf undersupplied right now (by undersupplied, we assume full egress use). When does the gravy train end then, surely at some point, with additional projects, like LNGC 3-4 adding another 2.1Bcf of takeaway, the basin will be exhausted – no, wrong again. If you are just looking at 2P reserves (and thus RLI) among the Montney players, you'd be doing yourself a disservice. While there is "only" 70Tcfe booked in 2P reserves among the E&Ps shown in fig. 1 (total egress plus demand is around 7Tcf annually), there is ~270Tcfe total resource under control when including unbooked locations. Enough to fill Canada's pipes, meet Alberta's demand, and fill all future LNG projects, for 25 years. That is, less than a dozen E&Ps – yes there's tons of gas, and more when you consider the gas dynamics of typically liquids weighted E&Ps (not entirely focused on gas marketing, likely to keep supply in-basin when

(Fig. 1) Unbooked WCSB Gas Locations & Future Booked to Total Ratio



Source: Bloomberg, Company Reports, HTM Analysis

Daily Pricing & Week on Week Benchmark Chg.

CAD Priced Liquids

Condy | **$103.73** (+0.5%)
Synthetic | **$110.96** (-0.8%)
WCS | **$79.92** (-6.5%)

USD Priced Liquids

Bonny Lt. | **$87.99** (-0.7%)
LLS | **$82.45** (-1.1%)
MEH | **$81.60** (-0.6%)
NYMEX | **$79.05** (-1.7%)
WTI FOB | **$80.71** (+1.7%)

CAD Priced Gas

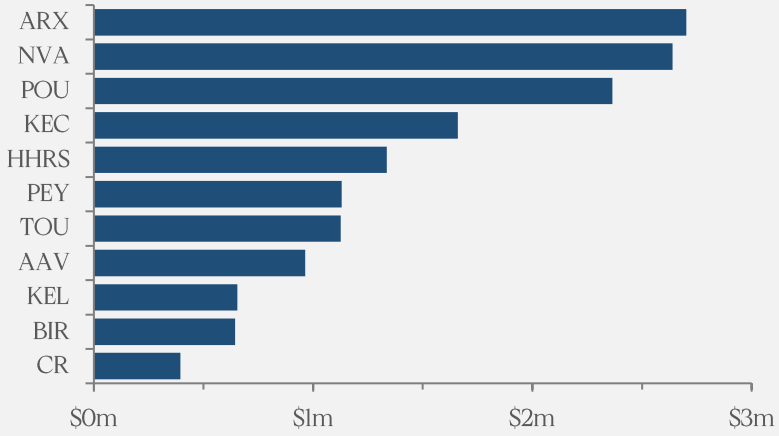
AECO | **$2.64** (-1.7%)
Alliance | **$2.63** (+15.9%)
Empress | **$2.64** (-1.5%)
Station 2 | **$2.64** (+8.1%)

USD Priced Gas

Dawn | **$2.24** (-3.0%)
Houston | **$2.37** (-2.1%)
Malin | **$2.37** (-37.1%)
PG&E | **$4.14** (-26.7%)
SoCal | **$3.58** (-54.1%)
Waha | **$2.59** (+1.8%)

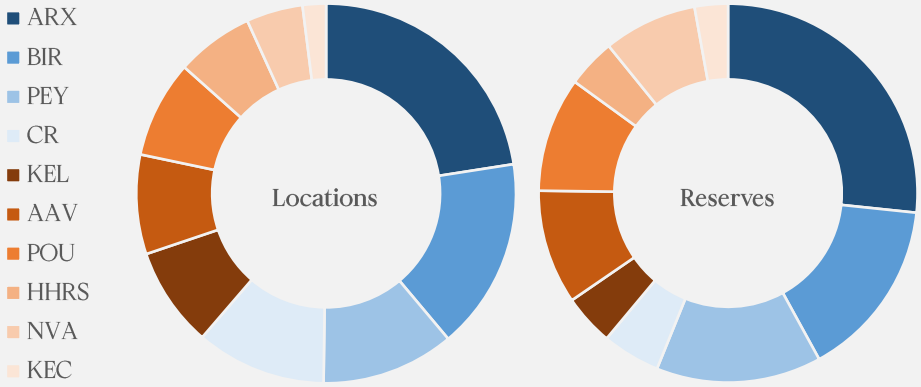
amalgamated into a larger entity, versus molecules that may have swung west or south beforehand), so not shown above are the thousands of locations held by Crescent Point (formerly Spartan Delta), Whitecap (formerly XTO), or the millions of acres held within predominantly oil focused E&Ps (or private gas ones at that) – like CNRL, ConocoPhillips, Murphy, Ovinviv, or PETRONAS (a not often discussed key basin player). We would have no issue supposing there's ›800Tcfe of resource in the Montney, with ›500Tcf of that being natural gas. That's supportive of 30 years with exports/demand 2.5x where they are now. Really, all to say, *holy shit* that's a lot of gas. Importantly, really

(Fig. 2) Implied Value per Location



Source: Bloomberg, Company Reports, HTM Analysis

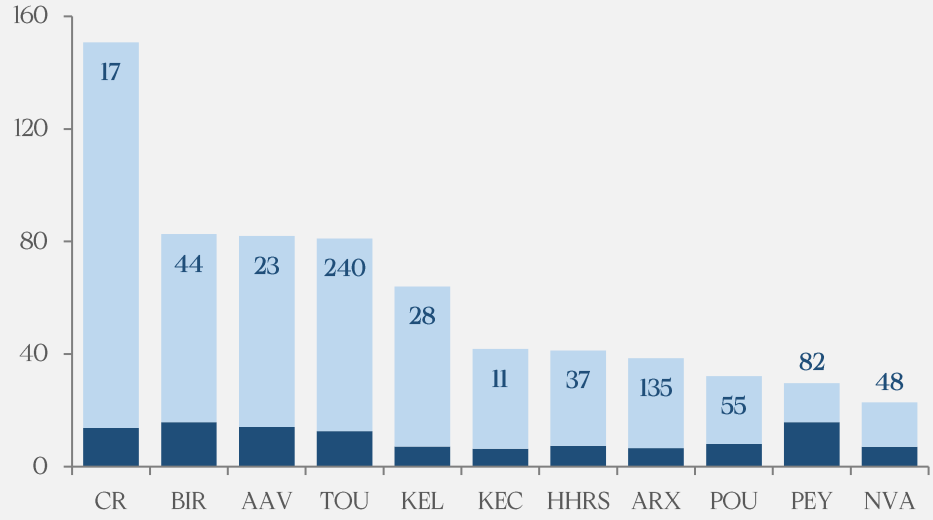
(Fig. 3) WCSB Gas Locations & Reserves Breakdown



Source: Bloomberg, Company Reports, HTM Analysis

what is a location worth? Around $1.5m. Tourmaline screens cheap but is actually expensive when you discount it all out (and rightfully so) – ARC looks expensive, but is reasonable when you consider the liquids cut. NuVista has the lowest number of drilling years remaining (is maximizing NPV good or bad – you decide), and on pretty well all metrics, Crew and Kelt are notably cheap. Perhaps the market simply doesn't want to pay up for something it believes won't exist in a few years? Shown in fig. 4 (as labels) – the number of wells drilled by each respective E&P annually – Crew at their current pace has over a century of inventory. At their possible production plateau, it's still half a century. Who said anything about long life only being in the oil sands? Advantage, and Birchcliff both stand out as having deep inventory, but it's on the Alberta Montney side, drier, higher cost, and in Birchcliff's case (with monumental growth), higher decline as well. Not all locations are created equal. But there will be enough of them.

(Fig. 4) Years of Total Drilling Remaining & Drills Per Year



Source: Bloomberg, Company Reports, HTM Analysis