

Montney oil players building momentum

There has been a resurgence of activity targeting development in the Montney oil window as prices jumped in 2022 before stabilizing in the US\$80 range going into 2023. NYMEX futures going into summer provide support for this activity, with WTI targets remaining slightly below \$79/bbl through June.

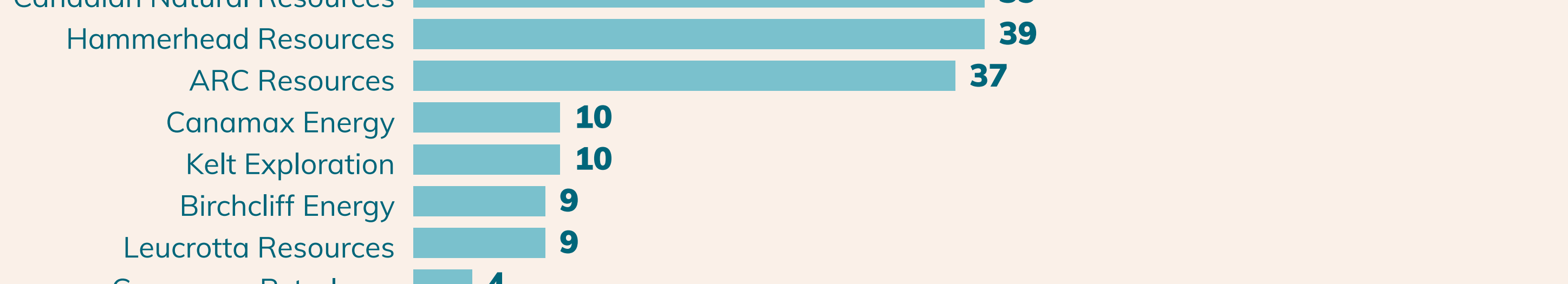
Daily Oil Bulletin | Data provided by: Evaluate Energy | gDCdashboards | DOB Docs | geoXPLORER

Licensing on the rise

geoLOGIC systems Ltd. well licensing data shows operators licensed 253 wells targeting oil in Alberta from the beginning of 2022 to mid-February 2023. B.C. does not identify licences based on production type. Operators have only drilled half those licences. Seventy-four wells were licensed in the final two months of 2022, with 96 wells licensed so far in 2023.

Licensing is spread across seven main fields, with Elsworth, Karr, and Ante Creek North dominating. ARC Resources is the sole licensee at Ante Creek, licensing 37 wells. Also of note, Canadian Natural Resources has licensed 22 wells at Wembley. Spartan Delta licensed 22 oil wells in the Bezanson field, with Hammerhead Resources licensing 27 wells at Karr.

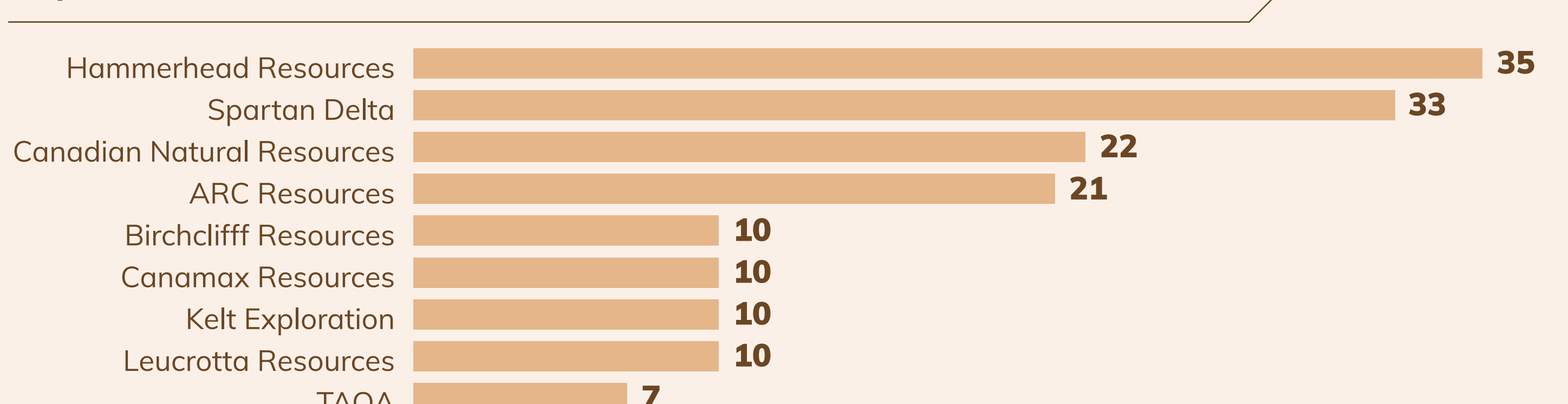
Top Licensees (Jan. 01/2022-Feb. 16/2023)



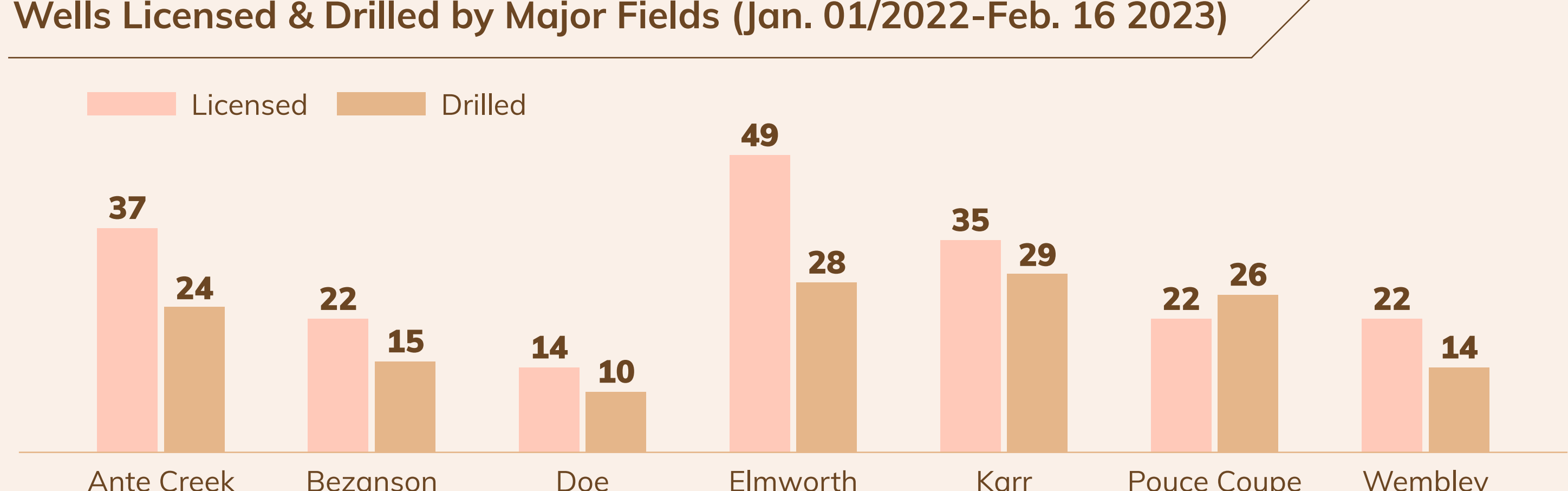
Drilling catching up

Operators drilled almost 180 wells targeting oil from the beginning of 2022 to mid-February 2023, according to geoLOGIC systems Ltd. well spud data. Elsworth and Karr have been the most active fields, with Hammerhead Resources and Spartan Delta leading in both areas. There has also been significant drilling at Pouce Coupe South led by Birchcliff Energy and Kelt Resources.

Top Drillers (Jan. 01/2022-Feb. 16/2023)



Wells Licensed & Drilled by Major Fields (Jan. 01/2022-Feb. 16 2023)



Well performance across fields has been strong

Montney oil producers continue to drill high productivity wells across fields. TAQA North drilled the top well brought on production in 2022 with at least 90 days of history in the Pouce Coupe South field. The well had an IP90 rate of 882 bbls/d and in its six months of production history has delivered over almost 102,000 bbls of oil. Canadian Natural Resources drilled six of the top 10 wells in 2022, all in the Wembley field.

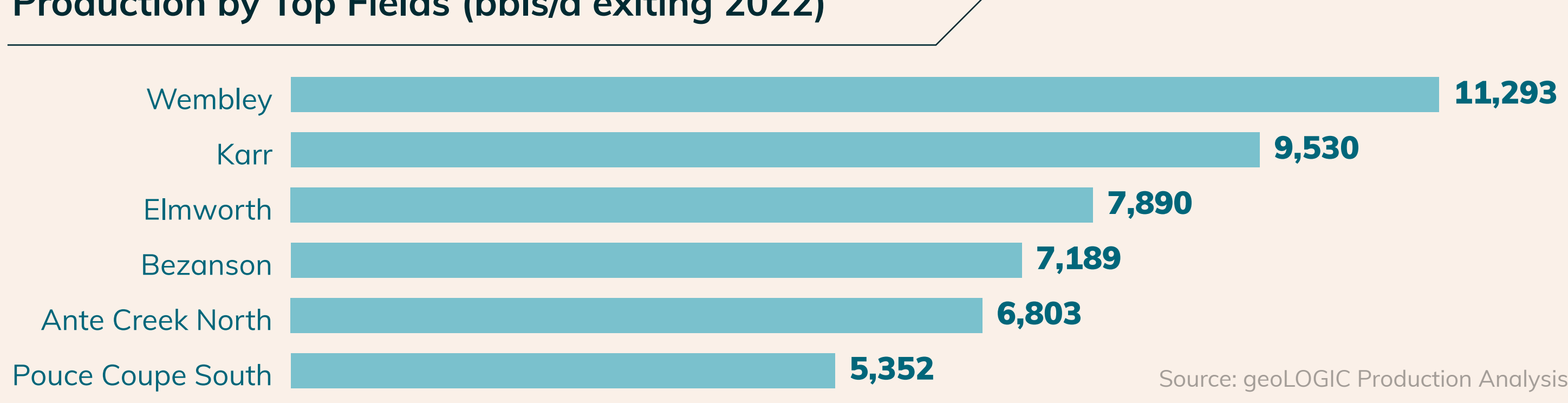
Top Oil Wells (On Production after Jan. 1/2022)

Surface Location	On Prod Date	Operator	Field	Cum Oil (Mbbbl)	Cum Gas (Mmcf)	Cum BOE (Mbbbl)	IP90 Oil (bbls/d)	IP90 Gas (mcf/d)
02-04-078-11W6	28-Jul-22	TAQA North	Pouce Coupe South	101.9	401.6	169	882.0	2,684.5
05-15-072-08W6	01-Jun-22	Canadian Natural Resources	Wembley	114.5	375.2	177	856.1	2,305.0
14-34-064-04W6	19-Mar-22	Hammerhead Resources	Karr	140.6	319.7	194	847.1	1,456.1
02-04-078-11W6	20-Jul-22	TAQA North	Pouce Coupe South	85.8	297.3	135	775.2	2,236.4
13-01-072-09W6	26-Feb-22	Canadian Natural Resources	Wembley	114.3	1,048.3	289	769.0	5,461.4
12-01-072-09W6	26-Feb-22	Canadian Natural Resources	Wembley	120.9	1,072.5	300	764.6	4,848.1
05-07-069-02W6	13-Feb-22	Spartan Delta	Bezanson	143.3	1,035.3	316	725.3	4,450.1
12-01-072-09W6	26-Feb-22	Canadian Natural Resources	Wembley	89.8	828.9	228	713.4	4,948.9
13-01-072-09W6	26-Feb-22	Canadian Natural Resources	Wembley	100.2	746.3	225	703.2	3,935.7
07-12-073-09W6	09-Jul-22	Canadian Natural Resources	Wembley	84.4	385.8	149	677.3	2,566.4

Source: geoLOGIC Production Analysis

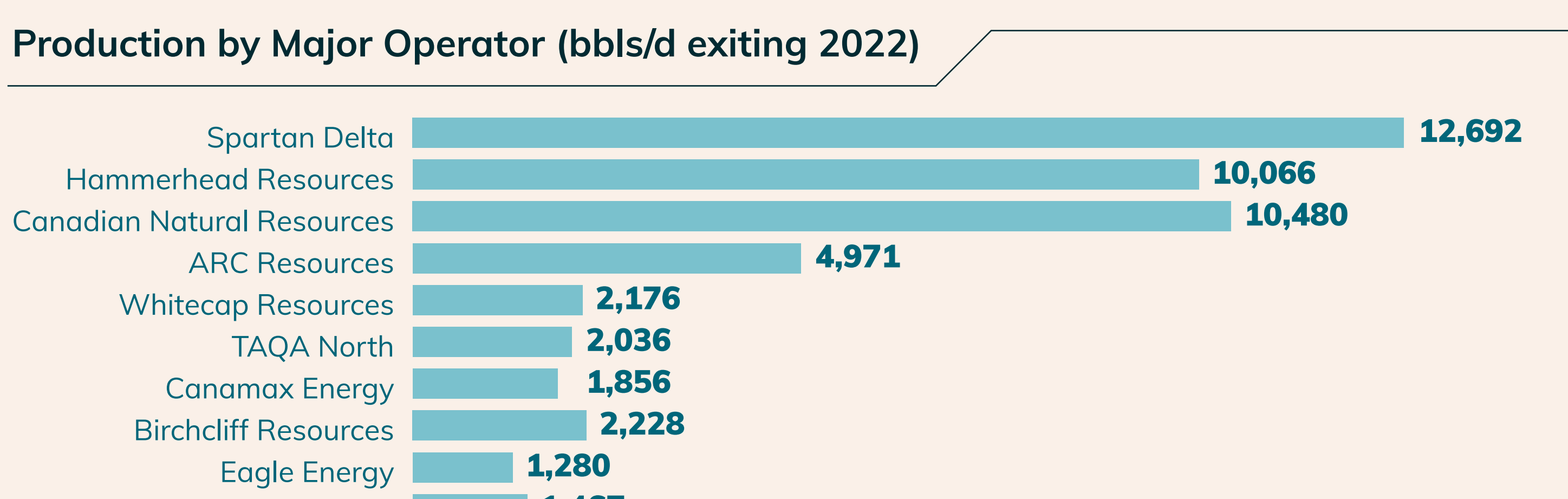
The top six fields dominate Montney oil production accounting for 75 per cent of total Alberta Montney oil production of around 64,700 bbls/d exiting 2022. The Wembley, Bezanson and Karr fields have seen significant growth in the last year.

Production by Top Fields (bbls/d exiting 2022)



The top three operators controlled over half of Montney oil production exiting 2022. Spartan Delta and Hammerhead Resources had production in both Elsworth and Karr, with ARC Resources production coming from Ante Creek North. Canadian Natural Resources had production in a variety of fields with Wembley leading the charge.

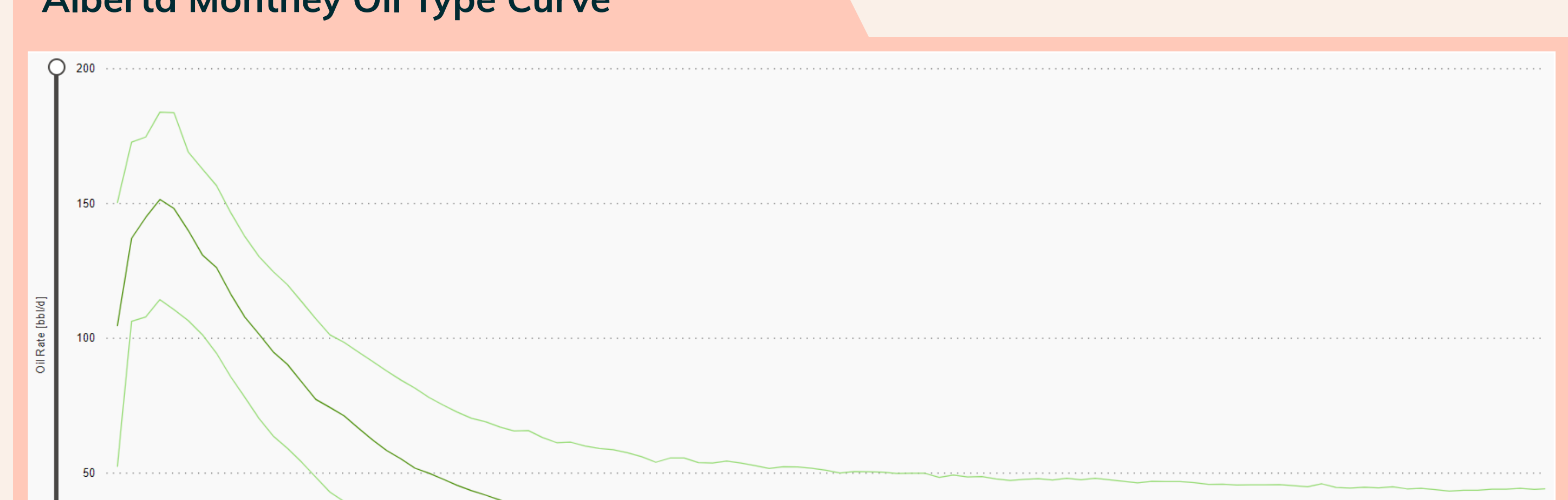
Production by Major Operator (bbls/d exiting 2022)



Decline rates slow production growth

Montney oil production climbed by around nine per cent, or around 5,280 bbls/d in 2022. Wells brought on production during the year had exit levels of 28,025 bbls/d. A review of 440 oil wells drilled since January 2017 with at least two years of production history shows peak oil production at the three-month point. One year after coming onstream production has declined 35 per cent from the peak, and 55 per cent from the peak at the two-year point.

Alberta Montney Oil Type Curve



Lots of opportunity remains

Plenty of oil remains in the Montney tank. Operators have produced around 360.5 million barrels, or 8.2 per cent of the original oil in place, according to Oil Pool Summary data. At Kaybob South, one of the earliest targets for oil development, operators have recovered 43.5 per cent of the original oil in place. Many fields have only five per cent recovery.

Alberta Montney Oil Pools

