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## STATE OF THE INDUSTRY

2021 REPORT AND 2022 FORECAST



☎ 403.264.4311

✉ [info@caoec.ca](mailto:info@caoec.ca)

🏠 Suite 2050, 717 – 7<sup>th</sup> Avenue SW, Calgary, AB T2P 0Z3



[caoec.ca](http://caoec.ca)



## PRESS RELEASE

FOR IMMEDIATE RELEASE: NOVEMBER 23, 2021

### CAOEC announces the release of its Q4 2021 and 2022 Drilling Forecast

- Projected 2022 wells drilled: 6,457 – an increase of 1,363 from 2021 (5,094\*)
- Projected 2022 operating days: 58,111 – an increase of 12,268 from 2021 (45,843\*)
- Rig fleet expected to decrease by 8 (489 drilling rigs to 481 drilling rigs)
- Total jobs expected = 34,925, an increase of 7,280 year-over-year

\* Forecast + actual

After a troubling 2020, 2021 activity levels picked up as COVID-19 restrictions eased globally and energy consumption reached pre-pandemic levels by fall. The industry experienced strong commodity prices in natural gas and oil, driving activity across Western Canada throughout the year.

2021 was a year of optimism for the Canadian energy service sector. CAOEC members were involved in a number of projects to reflect the evolving energy landscape, including geothermal, helium, hydrogen, and CCUS activities. However, following years of lows, CAOEC members struggled with crew constraints due to labour shortages, hampering the sector's ability to meet growing demand.

Encouraging news of additional export capacity came with the completion of Enbridge Line 3. Although U.S. President Biden revoked the permit for Keystone XL pipeline, other projects such as the Trans Mountain Expansion and Coastal GasLink made significant progress and are moving forward. This news, combined with strong pricing for natural gas and the highest oil prices since 2014, suggest 2022 activity should continue to be positive. Yet, in comparison to recent years, the forecasted increase of 1,363 wells and 12,268 operating days means 2022 is only marginally stronger than 2019 drilling levels.

*"After the historic lows we endured last year, 2021 served as a beacon of hope for our sector," says CAOEC President and CEO, Mark A. Scholz. "The solid rebound on energy demand and subsequent energy shortages across Europe and Asia emphasize the necessity of increased export capacity. Now more than ever before, the world needs Canada's best-in-class energy. The industry's labour challenges will continue, but we are confident in the long-term as the world demands our resources," explains Scholz. "A recovery is well underway in the industry, and the best is yet to come in Canada's energy sector."*

30

The Canadian Association of Energy Contractors represents Canada's energy service contractors operating close to the wellhead.

For more information, contact:

**Caroline Fyvie**  
Senior Communications Specialist  
Canadian Association of Energy Contractors

**P** 403.264.4311 ext. 110

**E** cfyvie@caoec.ca



# TABLE OF CONTENTS

Press Release .....	03
CEO's Message .....	05
Forecasting Committee Message .....	06
Lots of Reasons for Optimism in 2022 .....	07
Activity 2022 .....	08
Employment 2022 .....	09
Well Counts 2019-2021 .....	10
Forecast 2022 .....	11



By **Mark A. Scholz**  
CAOEC President & CEO

As 2021 comes to a close, I couldn't be prouder to represent Canada's energy service sector in my role at the CAOEC.

Time and time again, we've shown fellow Canadians we have the tools, technology, and know-how to make the impossible, possible. In addition to safely developing oil and natural gas, this year we've seen members step up and lend their expertise to drill for alternative energy resources such as geothermal, hydrogen, helium, and lithium.

After the last few years we've had, it would've been easy to give up. And believe me, I know some were forced to make the difficult decision to move on from our energy sector. However, there are many of us who are still here, and we can't give up now.

The beginning of 2021 provided us with the confidence needed to move forward from the lows of 2020. Commodity prices were on the rise, and talks of vaccinations and economies opening back up provided us with optimism after the fallout of the pandemic. We expected a gradual rebound in energy usage due to economies reopening, and were pleasantly surprised to see the world consuming energy at pre-pandemic levels by the summer, and oil prices reaching seven-year highs by early October.

This fall, we saw Enbridge Line 3 come into service, doubling the line's export capacity to 760,000barrelsperday.TheLine3Replacement Project marked the first major Canadian oil pipeline expansion to be completed in six years. We are hopeful other projects such as the Trans Mountain Expansion, Coastal GasLink, Alberta's NGTL system expansion, and LNG Canada will be completed in the years ahead.

# CEO'S MESSAGE

THE BEST IS YET TO COME

Energy projects should be prioritized as they are vital to Canada's energy future and economic recovery. If we've learned anything these past few months, it's how valuable our natural resources are. With winter on the way, the world needs reliable oil, natural gas, and LNG. We've seen global energy shortages increase commodity pricing, effect supply chains, and impact consumers. Canada must ensure it has the necessary export capacity to provide our best-in-class energy to the world to prevent further shortages. According to the International Energy Agency (IEA), oil demand is forecast to rise by 3.3 million barrels per day in 2022, and I believe we should be the global supplier of choice.

As we head into 2022, we continue to be optimistic for our industry. Canada is starting down the path of an energy transition, and we have a great opportunity to be the premium provider of responsibly developed natural resources with the highest environmental, social, and governance standards.

With an abundance of opportunities in front of us, there is no better time for people to join the industry. Canada's energy sector directly employs more than 282,000 people and supports over 55,500 jobs, and we still have many opportunities for growth. There is a bright future ahead and we will need hard-working women and men to help make the net-zero emissions vision a reality.

With a recovery well underway in the industry, we will continue to push forward as we build on our legacy and embark on our journey towards Canada's clean energy future. It will certainly be a challenge, but there's no challenge too big when we work together. The best is yet to come in Canada's energy sector.



## FORECASTING COMMITTEE MESSAGE

This year brought forth another set of unique challenges for the energy service sector as a direct result of the pandemic and collapse in oil prices in 2020. However, ending this year, I can say we are in a much better place than we were last year and we have a sense of cautious optimism moving forward.

Although we have seen an increase in consolidations, we have kept our rig fleet steady throughout the year. The most pressing challenge in our industry today is our labour constraint which is hampering our ability to meet growing oilfield services demand. That being said, even with our labour shortages, we are still forecasting an increase in rig activity next year, with an estimated 210 active rigs in Q1; 90 active rigs in Q2; 155 active rigs in Q3; and 180 active rigs in Q4.

Even with oil and natural gas prices at multi-year highs, capital markets are still tight for drillers and producers. Producers have been focused on paying down debt rather than increasing their drilling programs. The 2021 year will see approximately 45,000 operating days for a total of nearly 5,000 wells in Western Canada, a good increase since last year, which was our lowest year on record with 29,790 operating days.

The CAOEC is forecasting an increase in activity for 2022 with 58,111 operating days and a well count of approximately 6,400. The registered rig fleet will likely decline slightly since the worst is behind us with many rigs exiting the market to the U.S. in recent years. We anticipate entering 2022 with 489 rigs and ending the year with 481 rigs in the fleet. As economies around the world face energy shortages, we must work together to deliver our essential energy to the global market.



By **Brian Krausert**  
Chairman of the Board, Beaver Drilling Ltd.  
Chair, Forecasting Committee

We are hopeful the Trans Mountain Expansion will be in service by the end of 2022, increasing the line's 300,000 barrels per day capacity to 890,000 barrels per day. We will continue to promote Canada's energy industry to drive innovation, provide high quality careers, and demonstrate our unparalleled commitment to safety and environmental stewardship across the country.

### **Brian Krausert is the Chair of the CAOEC Forecasting Committee.**

Mr. Krausert's detailed drilling records date back to the 1970s, and his insight and analysis have informed CAOEC forecasts for several decades.



### **David Yager is the President and CEO of Winterhawk Casing Expansion services.**

He is a long-time oil writer and energy policy analyst and author of *From Miracle to Menace - Alberta, A Carbon Story*.

By **David Yager**  
Calgary Oil Service Executive, Writer,  
Author, and Energy Policy Analyst

**The old saying goes, “You can’t see the forest for the trees.” So it goes for oilfield services as another tough year ends. Lots of trees including the pandemic, low activity, supply chain disruptions, and, remarkably, labour shortages.**

The outlook is confusing. Emissions caps, carbon taxes, and continued commitments to obstruct fossil fuel development as the world faces acute shortages. Go figure.

But in fact the outlook for the Canadian oil and gas industry in 2022 is the best in years. *ARC Energy Research Institute* publishes a weekly snapshot of the major metrics of Canada's upstream oil and gas industry.

The title of the last page is *Estimated Capital Flow in the Canadian Oil and Gas Economy for 2021*. It carries the previous 10 years for comparison. Here's the big numbers from the November 8 edition. Oil is estimated to average \$C80.84 this year, the highest price since 2014 and 75 per cent higher than only \$C46.10 in 2020. Natural gas is expected to average \$C3.47/GJ, also the highest since 2014.

Total production will be 8.2 million boe/d, an all-time record. It is split 68 per cent oil, 32 per cent gas. Revenue from production will reach \$159 billion, the highest in history. Cash flow – the amount of money available for re-investment once all the bills are paid – could be \$89 billion, beating the previous record of \$67 billion in 2014 by a wide margin. ARC's cash flow estimate is nearly 2.9 times higher than only \$31 billion in 2020.

But will they spend it? Capital expenditures remain well below historic levels. After oil prices collapsed in early 2020 because of the pandemic, producers entered 2021 with extremely cautious financial plans. The number one issue as the year began was to stay in business. So this meant paying down debt and catching up with delayed maintenance and repairs.

## LOTS OF REASONS FOR OPTIMISM IN 2022

But as the year unfolded, confidence grew. In early November, as producers are preparing their 2022 budgets, the futures markets for WTI don't show any numbers below \$US70 for 2022 and \$US66 for 2023. The lowest futures prices for AECO spot gas to the end of 2022 is \$C3.78 GJ, and \$C2.79 GJ through 2023.

The production takeaway issues that have capped activity and investment are going away. The Enbridge Line 3 replacement is carrying oil. TMX is expected to be completed by the end of next year. The Coastal GasLink pipeline for LNG exports will finally be carrying more gas out of the country two years later.

The oilfield service industry obviously wishes producers would invest more money. But for the first time in years, at least they have lots of money to invest. As pressure continues not to fund fossil fuel development, the good news is that right now, the producers don't need external capital like they once did. The industry as a whole is self-sustaining thanks to strong cash flow from production.

More importantly, energy security has re-emerged as a public policy issue. While the politicians and activists may still be on last year's anti-carbon energy transition plan, the rest of the world is facing rising energy and food costs because of high coal, gas, and oil prices. Withholding investment in new oil and gas supplies that could help reduce the cost of life's essentials for the entire world won't be as popular in 2022 as it has been in the past.

That our industry would exit 2021 without enough staff to fulfill current client needs was not anticipated as the year began. With the right support from customers, the service sector can make sincere commitments to workers to persuade them to give the oilpatch roller coaster yet one more try. I am optimistic about next year. You should be too.



# ACTIVITY

## 2022

OPERATING DAYS  
**UP 27%** YEAR OVER YEAR

As we enter Q4, 2021 activity levels continue to improve since the lows we experienced in 2020. Overall, since 2014, we have seen drilling levels decline. In June 2020, we reached a record low of 437 operating days, but recovered swiftly with 3,183 operating days in June 2021.

In employment terms, total jobs in 2021 were up 54 per cent year-over-year from 2020, with an increase of 9,734 jobs. In 2022, CAOEC expects another increase of approximately 7,280 total jobs to 34,925, a 26 per cent increase year-over-year. In comparison to 2014, we anticipate total jobs will still be a loss of 56 per cent from the peak of 78,793 total jobs in 2014.

CAOEC estimates an increase of 26.8 per cent growth in wells drilled and operating days in 2022. With the increase in drilling comes the need for more workers. With strong commodity pricing for natural gas, oil, and LNG, and uptick in alternative resource development projects such as geothermal, helium, and hydrogen, the sector needs a robust workforce to help meet global demands. CAOEC members look forward to continuing to responsibly develop the energy the world needs now and into the future.

ACTIVITY STATISTICS	OPERATING DAYS	RIG RELEASE WELLS DRILLED
2014	131,021	13,089
2015	64,893	6,199
2016	43,229	4,627
2017	66,524	7,091
2018	64,722	7,428
2019	45,428	5,545
2020	29,790	3,293
2021 Actual + Q4 Forecast	45,843	5,094
2022 Forecast	58,111	6,457
2014 vs 2022	-72,910 (55.6%)	-6,632 (50.7%)
2021 vs 2022	12,268 26.8%	1,363 26.8%

# EMPLOYMENT

## 2022

YEAR OVER YEAR

FORECAST  
**2022**

TOTAL JOBS  
**UP 26%** YEAR OVER YEAR

IMPACT ON EMPLOYMENT	AVERAGE ACTIVE RIGS	DIRECT JOBS	INDIRECT JOBS	TOTAL JOBS
JOBS PER RIG	-	20*	200*	220
2014	358	7,163	71,630	78,793
2015	178	3,561	35,606	39,167
2016	119	2,379	23,790	26,169
2017	184	3,687	36,865	40,552
2018	176	3,528	35,277	38,805
2019	122	2,442	24,421	26,864
2020	81	1,628	16,283	17,911
2021 Actual + Forecast	126	2,513	25,131	27,645
2022 Forecast	159	3,175	31,750	34,925
2014 vs 2022	-199 (55.7%)	-3,988 (55.7%)	-39,880 (55.7%)	-43,868 (55.7%)
2021 vs 2022	33 26.3%	662 26.3%	6,619 26.3%	7,280 26.3%

\*Source: 20 Direct Jobs (CAOEC) 200 Indirect Jobs (PSAC)



A close-up photograph of a worker in a hard hat and safety gear, wearing blue gloves, working on a large industrial pipe or wellhead. The worker is positioned on the right side of the frame, facing left, and is using a tool to work on the pipe. The pipe is a large, vertical, cylindrical structure. In the background, there are other industrial structures, including a yellow ladder and a red frame. The overall scene is an industrial setting, likely an oil or gas field.

2019

# 2022

	2022	Total
QUARTER		ACTIV RIGS
1 <sup>ST</sup> QUARTER		210
2 <sup>ND</sup> QUARTER		90
3 <sup>RD</sup> QUARTER		155
4 <sup>TH</sup> QUARTER		180
2022 AVERAGE		159

2022 Assumptions: \$62.37/bbl WTI (USD) • \$2.99



**OPERATING DAYS**

**27%** YEAR OVER YEAR

UP

2022 Assumptions: \$62.37/bbl WTI (USD) • \$2.99

A photograph of two men in blue work uniforms and hard hats, smiling. The man on the left is wearing a white hard hat, and the man on the right is wearing a blue hard hat. They are both wearing blue shirts with yellow reflective stripes. The background is a bright blue sky.

