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CAODC

CANADIAN ASSOCIATION OF OILWELL DRILLING CONTRACTORS

2017 State of the Industry

REPORT & 2018 FORECAST

NEWS RELEASE

For Immediate Release: November 21, 2017

CAODC announces the release of its 2018 Drilling Forecast

- **Projected 2018 wells drilled: 6,138 – an increase of 107 from 2017 (6,031).**
- **Projected 2018 operating days: 70,587 – an increase of 1,234 from 2017 (69,353).**
- **Rig fleet expected to decrease by 19 (634 drilling rigs in 2017 to 615 drilling rigs in 2018).**

One of the Canadian oil and gas industry's biggest hurdles continues to be lack of market access and regulatory stability. Two major energy infrastructure projects—the Pacific NorthWest LNG plant and the Energy East pipeline—have been cancelled in the past six months and the federally-approved Trans Mountain pipeline to the west coast has been delayed. CAODC President, Mark Scholz, expresses his disappointment with the current approach of some policymakers: "The cancellations of key energy infrastructure projects, and further delays to those already approved, send a message to potential investors that Canada's rules and regulations around these projects are subject to continuous change at a moment's notice."

The CAODC forecast focuses on operating days as a key economic indicator of the health of the sector. While there are signs that the drilling and service rig market has bottomed out, meaningful upward movement of day rates remains a struggle.

"Right now our members are offering a premium product for discounted rates just to survive," explains Scholz. "The combination of low commodity pricing and the cumulative costs of government policy have been detrimental to say the least." After a sustained period of low to no cash flow and an exodus of investment from the WCSB, drilling and service contractors are challenged with finding the capital to adequately maintain equipment and reinvest back into their businesses. As such, industry conditions remain fragile.

In 2018, CAODC is hopeful that some stability—albeit, a muted stability—may return for member companies. "What we need most is the optimism a strong investment climate will create," says Scholz. "Market access and a predictable regulatory environment are the most significant factors in creating an environment that will allow our industry to deliver stronger results in the coming years."

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The Canadian Association of Oilwell Drilling Contractors (CAODC) represents Canada's drilling and service rig industry.

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By Mark A. Scholz

President, CAODC

Why we do what we do

Ian MacGregor is an inspiration. After years of setbacks and at considerable cost to himself and his investors, MacGregor, President of North West Refining Inc., is close to seeing his vision realized: the opening of Alberta's Sturgeon Refinery, the first refinery built in Canada since 1984.

In the months approaching this historic moment, the refinery clearly still has its critics. Headlines about the project over the past year have been harsh: "Refinery cost soars to $9.3 billion, prompting call for auditor general review"; "In a glutted diesel fuel market, Alberta to open first refinery in decades." And while it may seem an over exaggeration to call this an "historic moment" at all, given the pace and cost and sentiment surrounding major oil and gas infrastructure projects in Canada in 2017, there is a case to be made.

Despite the current climate however, MacGregor remains undeterred. When asked by Claudia Cattaneo (for her article 'Sport to make fun of': New refinery in Alberta eager to prove the doubters wrong" Financial Post, October 19, 2017) why he pursued this project with such perseverance, he responded: "I came back to work after I retired, (because I believe) we need to do more of this in Alberta… There is no reason we can't [be producing] a million barrels a day in the Heartland (near Edmonton). We just have to prove that it works and get on the case and do it. And that protects the whole way of living not just of Alberta, but the whole… country."

With the cancellation of Energy East, the delays for the Trans Mountain Expansion, and the sustained downturn our members have endured over the past three years, MacGregor's words hit close to home. They remind many of us of why we are in this business in the first place: because we are proud of what we do, and we are proud of the men and women who do it.

Our industry is important to the entire country. The products we help produce are in high demand around the world, and we are the best at bringing them to market responsibly and safely. CAODC members in particular are sought after for their highly skilled personnel and best-in-class technology. We know this to be true.

We also know—as Mr. MacGregor has reminded us—that people in the oil and gas industry in Canada are fighters. Nobody gets into our industry because it's easy. The headwinds we have faced over the past three years aren't that different than those faced by our predecessors and because they overcame them, we know we can too.

In the wake of the recent downturn, we need to take the positive with the negative and grow as an industry. Let's identify our challenges and meet them head on. Over the past three years, many of our members have learned to get by with less; they have created better business models and are operating more efficiently. Some under-utilized assets have been retired, making our fleet smaller but more efficient. We realize the world still needs hydrocarbons, but doesn't seem to want to acknowledge it. How can we make Canadians and others around the globe feel better about the oil and gas products they use every day?

In 2018 let's show our country and the rest of the world what Canadian oil and gas is all about. Let's work together to drive the innovation, vision, and determination we are so proud of. As Ian MacGregor has said so well, let's "Prove that it works, get on the case, and do it."

By Brian Krausert

Chair, CAODC Forecasting Committee
Chairman of the Board, Beaver Drilling Ltd.

Forecasting Committee Message

The Canadian drilling industry continues to be in a recovery with subdued optimism for a modest increase in drilling activity for the upcoming year. However, overall growth in the sector remains weak due to unsustainable day rates, as well as lower than expected commodity prices for WTI and AECO gas prices in Canada.

CAODC forecasts approximately 70,587 rig days to drill 6,138 wells during 2018. This is only a marginal increase compared to 2017, which is expected to finish with 69,353 rigs days, producing 6,031 wells. From a rig count perspective, there will be an average of 265 rigs working in Q1; 113 rigs in Q2; 195 rigs in Q3; and 225 rigs in Q4.

With WTI pricing hovering around $50 per barrel, E&P companies will be motivated to drill the most efficient wells as possible. To achieve these results, operators are looking for larger pumps, 7,500 psi circulating systems, walking systems, as well as automation technology. Rigs that cannot compete in this market will be decommissioned, cannibalized and/or moved out of the region. Based on this, 2018 will see a further contraction of the rig fleet as drilling contractors continue to write off older, slower rigs in attempt to boost utilization and maximize cash flow. This slow erosion has occurred steadily over the past decade. In November 2007 the industry peaked with 902 rigs, compared to where it is today (October 2017) with 634 rigs.

The continued pressure being applied to drilling contractors to operate at low day rates is one of the primary contributors to the financial health of E&P companies. However, this inequitable relationship between day rates and rig activity leaves contractors with a lack of capital to adequately maintain equipment and reinvest back into their businesses. Slim margins do not support a sustainable business model for either drilling contractors or the E&P company in the long run.

> "One of our industry's biggest hurdles continues to be lack of access to tidewater."

One of our industry's biggest hurdles continues to be lack of access to tidewater. With two major projects scrapped in the last three months—the Pacific NorthWest LNG and the Energy East pipeline—coupled with an unfavourable economic climate, has driven investment in oil and gas to alternative markets outside of Canada. As an industry, we need to be committed to getting our oil and gas resources to global markets, focus on sound business principles, invest in innovation and above all—be adaptable.

By Steven Berg

VP Operations, CAODC

Employment 2018

2,248 JOB GAINS SINCE 2015. UP... **8.4%**

An optimistic 2017 lead the way for some growth in employment numbers. With growth reaching near the maximum availability of skilled and unskilled workers both drilling and well service rigs are seeing increased numbers of green hands for Q4 2017 and on into 2018. CAODC has been championing initiatives that allow the flexibility of training for workers both new and experienced into our industries. The availability of an online renewal of H_2S Alive is on the horizon and a reduced in-class version of Secondline Well Control is in the works as well. These will allow better logistics of keeping crews in the field working as opposed to sitting in classes with no detriment to the learning experience or safety.

CAODC remains vigilant as new risks have emerged from the trend of newer, younger, generationally different workers than those who have been in the field in the past. With millennials hitting the workforce, teaching styles need to be adapted to the learning styles of younger workers. Increased supervisory skills are necessary for supervisors and new workers need an increased focus on orientations as the industry never seems to ramp up at a controlled and steady pace.

The numbers speak for themselves for 2017 actual versus 2018 predicted well counts. The Increase of 100 wells year over year may not drastically increase the employment numbers (roughly 2.8%) but the turnover rates of new workers will mean a challenge regardless. CAODC will continue to assist industry by creating flexibility with these new workers and having alternatives to bricks and mortar training being identified and produced in the coming year.

IMPACT ON EMPLOYMENT	ACTIVE RIGS	DIRECT JOBS	INDIRECT JOBS	TOTAL JOBS
Jobs per Rig	-	21*	124**	145
2015 (Actual)	184	3,864	22,816	26,680
2016 (Actual)	112	2,357	13,919	16,276
2017 (Forecast)	194	4,074	24,056	28,130
2018 (Forecast)	200	4,190	24,738	28,928
2015 vs 2018	16	326	1,922	2,248
	8.4%			
2017 vs 2018	6	116	682	798
	2.8%			

* Source: 21 Direct Jobs (CAODC) ** 124 Indirect Jobs (PSAC)

By CAODC Staff

MOVING IN THE RIGHT DIRECTION: CANADA'S OIL & GAS INDUSTRY IN 2018

Throughout the past year, energy dailies such as the BOE report have been peppered with articles calling for cautious optimism in Canada's oil and gas industry circles. We have been told that the worst times are behind us, and that we should ready our gear and our workforces for increased productivity and prosperity.

Although oil prices are still comparatively low, they have rallied over the past couple of weeks and the supply/demand balance seems to be correcting to some degree. Canada's rig fleet has contracted in terms of rig counts, but we are left with more efficient rigs. While the sector has lost talent, those who remain are skilled and working rig crews are typically stacked deep with experience.

The service industry has found efficiencies, and continues to find its place in what is being described as a "new normal" (lower-for-longer commodity prices, and fewer investment dollars). Canada's rig operators have always been proud innovators. The way we drill has changed significantly over the years. Today we are able to save energy, minimize our environmental footprints, and diagnose equipment problems in ways our founding members could only have dreamed about. A lack of capital may affect the pace of innovation today, but when things pick up, CAODC members will poised to take advantage.

The issue of market access was top-of-mind throughout 2017 and remains so going into 2018. Lack of pipeline capacity affects Canada's entire oil and gas supply chain, and not for the better. We continue to look for leadership from our public officials on the critical issue of getting our oil and gas products to tidewater. In order to ensure that energy infrastructure projects come to fruition we need to ensure two things; for our policymakers to stand behind approved projects in the face of the pushback of a vocal minority and to create a healthy investment environment to support these projects.

The Montreal Economic Institute drafted an excellent paper in October about some of the practical steps governments can take to shepherd Canada's oil and gas industry through one of its most difficult periods. From ensuring predictable timeframes on decisions that affect pipelines, to minimizing arbitrary regulatory decisions, this common-sense approach is something we are eager to see more of from our elected representatives. The health of our industry and Canada's future prosperity depend upon it.

We are optimistic that 2018 will be a re-building year for the drilling and well servicing industry in Canada. Oil prices are stabilizing and, more importantly, demand is on the rise. The International Energy Agency estimates that global demand for energy will grow by 30% from now to 2014, with oil and natural gas still accounting for a significant portion of the growing global energy mix. From Geneva to Edmonton, economists agree that painting ours as a sunset industry ignores the fact that oil and gas will be in high demand for everything from aviation fuel to plastics production for many decades to come. We know we have the best people and equipment to supply the world with Canadian oil and gas.

By John Bayko

VP Communications, CAODC

Activity 2018

Stability seemed to be the buzz word surrounding CAODC member utilization in 2017. While activity numbers were nowhere near normal, they were definitely an improvement over 2016, suggesting the worst of the downturn may be behind us.

There were a few significant acquisitions throughout the year, and overall fleet totals have been trimmed down. We expect to see our drilling fleet contract again in 2018 and the service sector is likely to follow as we still have over 900 active rigs on the service rig side. High spec telescopic doubles and PAD triples remained busy throughout the year, and although service rig activity was steady, a lack of longer-term work prospects meant some missed opportunities due to a lack of manpower.

It would seem the industry is coming to terms with a "new normal" with respect to utilization for the time being. Day rates in the WCSB were depressed in 2017, and contractors were challenged to do more for less. If day rates remain low throughout 2018, relocation of appropriate iron to the US will continue to be an attractive option, as the exchange rate, lower operating costs, and higher pricing can be worth the initial transportation and registration costs for some.

ACTIVITY STATISTICS	OPERATING DAYS	RIG RELEASE WELLS DRILLED
2015 (Actual)	64,809	6,199
2016 (Actual)	43,184	4,627
2017 (Actual, Q4 Forecast)	69,353	6,031
2018 (Forecast)	70,587	6,138
2015 vs 2018	5,778	–61
	8.9%	1.0%
2017 vs 2018	1,233	107
	1.8%	1.8%

YEAR-**OVER**-YEAR

	OPERATING DAYS	RIG RELEASE WELLS
2013	120,224	13,120
2014	130,875	13,089
2015	64,809	6,199
2016	43,184	4,627
2017 (F)	69,353	6,031
2018 (F)	70,587	6,138

2018 FORECAST

OPERATING DAYS

1.8%

YEAR OVER YEAR

WELLS DRILLED

1.8%

YEAR OVER YEAR

Rig Activity 2015-17

2017 Total Number of Wells: 6,031*				
Quarter	Active Rigs	Fleet	Utilization	Operating Days
1st Quarter	253	645	39%	23,504
2nd Quarter	113	638	18%	10,097
3rd Quarter	190	634	30%	16,566
4th Quarter**	220	634	35%	19,187
2017 Average	194	638	30%	Total: 69,353

2016 Total Number of Wells: 4,627*				
Quarter	Active Rigs	Fleet	Utilization	Operating Days
1st Quarter	153	711	22%	13,381
2nd Quarter	47	671	7%	4,163
3rd Quarter	109	671	16%	10,630
4th Quarter	140	665	21%	15,010
2016 Average	112	680	17%	Total: 43,184

2015 Total Number of Wells: 6,199*				
Quarter	Active Rigs	Fleet	Utilization	Operating Days
1st Quarter	291	786	37%	24,775
2nd Quarter	95	758	13%	8,867
3rd Quarter	182	758	24%	16,692
4th Quarter	168	762	22%	14,475
2015 Average	184	766	24%	Total: 64,809

* Wells based on spud to rig release data.
** Projected.

Forecast 2018

2018 TOTAL NUMBER OF WELLS: 6,138*				
Quarter	Active Rigs	Fleet	Utilization	Operating Days
1st Quarter	265	620	43%	22,845
2nd Quarter	113	615	18%	10,361
3rd Quarter	195	615	32%	17,758
4th Quarter	225	615	37%	19,623
Average 2018	200	616	32%	Total: 70,587

2018 Assumptions: $52.50/bbl WTI (USD) • $2.35/mcf AECO (CDN) • 11.5 days/well * Wells based on spud to rig release data

WELLS 2015–2017					
2015		2016		2017*	
Drilling	Utilization	Drilling	Utilization	Drilling	Utilization
184	24%	112	17%	194	30%
Wells Drilled		Wells Drilled		Wells Drilled	
Rig Release	Completed	Rig Release	Completed	Rig Release	Completed
6,199	5,294	4,627	3,448	6,031	--

* Based on 2017 Forecast

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