



Newfoundland & Labrador Oil & Gas Industries Association Volume 31, Number 4 2017 Quarter 4



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ON THE COVER: Atlantic Towing's four new platform support vessels arrived in the province in 2017. One ship, the *Paul A. Sacuta*, is named in honour of a well-respected 28 year ExxonMobil employee who served as president of HMDC and operations manager for ExxonMobil Canada. Paul passed away in 2013.



Learning from the past. Focused on the future.



The completed Hebron platform left Bull Arm on June 3 and was installed successfully at its offshore location on June 14. Photo courtesy of ExxonMobil Canada.

2017: The year in review

White Rose

It was a double dose of good news in May, when Husky Energy announced that it was moving forward with the West White Rose Project, offshore Newfoundland and Labrador, and that it had made a new near-field discovery.

The company will utilize a fixed wellhead platform tied back to the SeaRose floating production, storage and offloading (FPSO) vessel. The platform has already received regulatory approval.

First oil is expected in 2022 and the project is anticipated to achieve peak production of roughly 75,000 barrels of oil per day by 2025. The project has an anticipated net cost of \$2.2 billion to first oil, and \$3.6 billion for full project life. It is expected to create 250 permanent jobs during steady state operations, with 1500 people indirectly employed.

Project costs are estimated at \$3.2 billion and most of the major contracts have been announced, including construction of the accommodations module by Kiewit Offshore Services in Marystown and the concrete gravity structure (CGS) which will be constructed in Argentia by a general partnership between SNC Lavalin, Dragados



The Hebron project completed over 40 million work hours without a lost time incident, making it one of the safest construction projects ever for the province. Photo courtesy of ExxonMobil Canada Properties.

and local company Pennecon (SDP General Partnership). Site preparation there is currently underway.

Other major awards made this year include:

- Engineering and design work for the CGS: Arup
- Mating of the topsides and CGS: Allseas, using the Pioneering Spirit, currently the world's largest construction vessel
- Detailed engineering design for topsides/drilling: Wood Group
- Topsides fabrication and construction: Kiewit Offshore Services, Texas
- Transportation of the completed topsides from Texas to Newfoundland: Dockwise Shipping B.V.
- Engineering, procurement, construction and installation of subsea equipment to connect the CGS to SeaRose: Technip FMC
- Tow-out and installation of the CGS: Kvaerner Canada

Design changes were made during the two-year project hiatus and resulted in a taller and wider concrete base structure, leading to increased engineering and construction work in the province. An anticipated 10 million hours of work time will be performed locally, with 700 to 800 people employed during peak construction in Argentia.

Noia presented two West White Rose Project Supplier Information Sessions – October 2 in Placentia and October 3 in St. John's. The sessions featured presentations from Husky Energy, the SDP General

Partnership, Kiewit Offshore Services and TechnipFMC, as well as opportunities for Noia members to meet one-on-one with representatives of these companies.

"Over the years the Atlantic business has provided some of the strongest returns in the Company's portfolio and West White Rose is the next chapter," said CEO Rob Peabody. "This project is of a scale approaching the original White Rose development and is able to use the existing SeaRose FPSO to process and export production."

Also in May, Husky announced a new oil discovery at Northwest White Rose on the A-78 well, approximately 11 kilometres northwest of the *SeaRose* FPSO. The discovery is still being assessed, but a potential development could leverage the *SeaRose*, existing subsea infrastructure and the new West White Rose wellhead platform.

Meanwhile, drilling this year on the White Rose field has included the A-78 delineation well, two production wells on the South White Rose Extension and North Amethyst, as well as a water injection well at South White Rose. Work is underway on an additional infill well into the main White Rose Field, in the South Avalon pool. This work was carried out by the Henry Goodrich drill rig.

The Skandi Vinland offshore supply ship arrived July 1 – right on schedule – and has been a great asset to the field, said a Husky spokesperson. "It was a fun welcome for the vessel," the spokesperson said.

INDUSTRY NEWS | 2017: The year in review

"The local general manager and his wife – the vessel's 'godmother' - were at Prosser's Rock to welcome her, waving a Canada flag tied to a hockey stick. There was also a chorus of horns from all ships in the harbour, as the vessel arrived in her new home port."

The annual maintenance turnaround on the SeaRose FPSO was completed on schedule during September.

Hebron

The province's fourth major oil field development is set to come on stream with first oil before the end of this vear.

Late last year, the topsides of the Hebron platform was floated over - and mated with - the concrete platform, in the waters of Bull Arm. Installation of the 50,000-tonne topsides set a new industry record for the heaviest marine float-over and mating operation.

The completed Hebron platform left Bull Arm on June 3, towed by eight anchor-handling tugs from Maersk and Atlantic Towing, and installed successfully at its

offshore location on June 14. Prior to tow, the project completed over 40 million work hours without a lost time incident, making it one of the safest construction projects ever for the province.

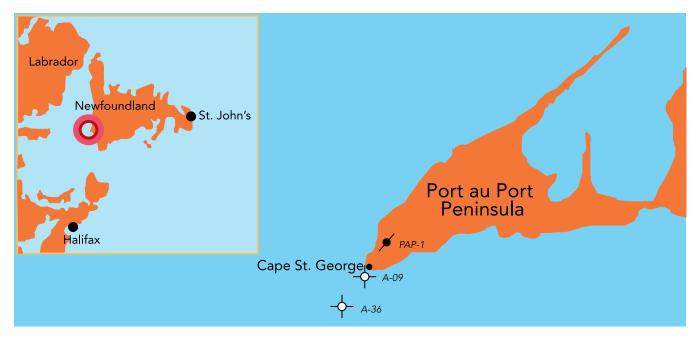
Drilling commenced during the summer, as planned. The project's 25-year production license - PL 1012 was issued by the Canada-Newfoundland Offshore Petroleum Board (C-NLOPB) on August 28.

Hebron is estimated to contain approximately 700 million barrels of recoverable oil. Production capacity will be 150,000 barrels of oil per day, at peak.

Flemish Pass Basin

In July, Statoil announced that it had completed with its partner, Husky Energy – a two-well exploration drilling program in the Flemish Pass Basin, about 500 kilometres east of St. John's. Both wells, located within the tie-back vicinity of Statoil's 2013 Bay du Nord discovery, did not result in the discovery of hydrocarbons.





NU-Oil & Gas, holders of the PL220-01(A) onshore petroleum lease covering the Garden Hill prospect on Newfoundland's Port au Port Peninsula, says the area is estimated to contain between 83 and 341 million barrels of oil in-place.

"These results are disappointing, as we had hoped to add additional optionality to the near-field area at Bay du Nord," said Trond Jacobsen of Statoil. "We will now take the time needed to evaluate the results before firming up any plans for additional drilling near-field to Bay du Nord."

Statoil continues to evaluate future drilling activities in other areas of its frontier Flemish Pass Basin acreage.

Terra Nova

Terra Nova's latest drilling program, working with the Transocean Barents, began over the summer and is expected to continue for 15 months. The work scope includes maintenance of existing wells and drilling of new wells in the Terra Nova field.

The planned maintenance turnaround on the *Terra Nova* FPSO took place in the third quarter and was completed safely.

Terra Nova is currently pursuing an Asset Life Extension (ALE) project. "We anticipate finalizing the ALE project scope and working towards a go/no go decision by early 2019," said a spokesperson.

In October, Terra Nova reached a significant achievement of 400 million barrels of produced oil.

Beginning in November, Suncor's St. John's office will be relocating to the new Suncor Centre on Kelsey Drive.

Hibernia

The Hibernia platform restarted drilling early in 2017, following upgrades to its two drilling rigs last year, and continues in steady state operations.

The semi-submersible rig West Aquarius completed an intensive drilling program of production wells by the second quarter.

Hibernia, the first oil producer offshore Newfoundland and Labrador, celebrated 20 years of production in November. In December 2016 it reached the milestone of one billion barrels of produced oil. Due to emphasis on maintenance and integrity work, it is expected to continue to be a safe, reliable operation well into the future.

Western Newfoundland

In August, **NU-Oil & Gas** announced that its PL220-01(A) onshore petroleum lease in western Newfoundland was renewed for five years and will expire in August 2022.

The license conditions and area, covering the **Garden Hill prospect**, have not changed. The company says that

Recent industry appointments



The provincial government announced the appointment of **Ted O'Keefe** as a provincial member of the Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) on September 26.

O'Keefe has 35 years' experience working as a

professional engineer in both the private and public sectors of the province's oil & gas industry, including more than 12 years with the C-NLOPB and 17 years with ExxonMobil Canada. He has served in regulatory leadership roles supporting all phases of offshore activities, including exploration (geophysical and drilling), project development (engineering and construction) and producing operations.

O'Keefe has represented ExxonMobil on numerous Canadian Association of Petroleum Producers (CAPP) committees and task forces, including chair of CAPP's Eastern Canadian Environment Committee. He has been a board director for Newfoundland Transshipment Terminal Limited and One Ocean Inc., a joint oil & gas industry / fishing industry advisory board.



The Board of Directors of Petroleum Research Newfoundland and Labrador (PRNL) announced the appointment of **Alan Clarke** as Chief Executive Officer in August.

Clarke is a graduate of Memorial University with

a B.Sc. in Earth Sciences. He spent many years as field engineer for major service companies including five years working in oilfield operations on the Grand Banks.

Clarke spent over a decade internationally working in product development and executive management and has recently relocated back to Newfoundland and Labrador from Houston, Texas. He has published numerous papers within the industry, and in 2011 he was selected by his peers as SPE distinguished lecturer on the topic of drilling vibration management.

PRNL is industry-led and funded with a strategy to facilitate research and development to enhance the offshore oil and gas industry in Newfoundland and Labrador.

Garden Hill is "a proven hydrocarbon bearing accumulation beneath the Port-au-Port peninsula that is estimated... to contain between 83 and 341 million barrels of oil in-place." The program will be carried out in two phases, the company said in a release.

"The first phase involves a wireline operation to clean up the PAP#1-ST#3 well and mill out a physical obstruction in the completion that is believed to have been restricting flow. The well will then be flowed for a period anticipated to be between 15 and 30 days to allow for reliable analysis and evaluation of the resulting production. Subject to satisfactory results, a rig will be mobilized to site to undertake the second phase of the Work Program, which will include recompletion of the well and installation of an appropriate artificial lift system."

In January, the C-NLOPB approved a four-year extension to Corridor Resources' existing nine-year license to explore the EL 1153 Old Harry prospect in the Gulf of St. Lawrence.

In April, the C-NLOPB approved a request from Corridor Resources to delay a consultation on an environmental assessment (EA) of its drilling plans, pending results from a controlled source electromagnetic (CSEM) survey and subsequent review of its spill trajectory modeling.

"Since EA consultations should be based on the most accurate and relevant information, the C-NLOPB agrees with your proposed approach," wrote Scott Tessier, head of the province's offshore regulator. "Please keep in mind that time has been afforded by the C-NLOPB and governments to validate a well for EL 1153 on or before January 2020... Corridor should not expect any further extensions."

Meanwhile, **Shoal Point Energy's** application to resume drilling on its EL 1070 prospect in western Newfoundland was rejected during August by the C-NLOPB. In the face of the province's fracking moratorium, Shoal Point wanted to access the prospect using conventional drilling but that application was rejected by the board for technical reasons. However, Shoal Point is determined to make its plan work.

"Our only way forward in pursuit of a significant discovery on EL 1070 remains within 3K-39," said CEO, Mark Jarvis. "Accordingly, our current engineering focus is on what activities in this bore hole, that are consistent with our regulatory approvals and license rights, have a good likelihood of resulting in a significant discovery without hydraulic fracturing. We expect to be able to report on our plans in the near future."



Seismic ship *Ramform Tethys* operated offshore Newfoundland and Labrador this past summer. The titan-class ship is 70 metres wide across the stern and 104 metres long – approximately the size of a soccer pitch. It has a 24 reel and streamer capacity and can go 120 days without refueling. Photo courtesy of PGS.

Charges of possession of stolen property, uttering threats and extortion have been dropped against a former consultant for **Black Spruce Exploration**. The charges stemmed from an alleged dispute between the consultant and his former employer. The judge found that testimony from the complainant was not credible.

Black Spruce has not issued any new updates on its projects in western Newfoundland since March 2016.

Geoscientific data acquisition

The quest to better understand our offshore potential continued during 2017, with the gathering of more seismic data. TGS and Petroleum Geo-Services (PGS) announced four 3D projects for 2017, making this summer one of the most active years ever for 3D seismic surveying offshore Newfoundland and Labrador.

In support of these projects, PGS operated three 3D vessels and one 2D vessel this season – resulting in the most vessels they've ever had in Newfoundland and Labrador waters.

A portion of this season's PGS/TGS activity directly supported Nalcor Energy's ongoing multiclient seismic program. One of the 3D vessels and the 2D vessel collected additional seismic data that will be offered to industry for purchase in advance of upcoming license rounds. Nalcor's seismic survey investments for this season total approximately 9,100 square kilometres of 3D data and 20,000 line kilometres of 2D data.

Recent industry appointments

Dr. Faisal Khan, professor of process engineering in Memorial University's Faculty of Engineering and Applied Science, was appointed Tier 1 Canada Research Chair in Offshore Safety and Risk Engineering earlier this year.



Tier 1 Chairs, tenable for seven years and renewable, are for outstanding researchers acknowledged by their peers as world leaders in their fields.

Khan's research, which focuses on offshore operations in harsh environments, is pursuing ways to help industry evaluate the impact of its activities on both humans and offshore infrastructure, to ensure safe operations in challenging conditions and remote locations. His research aims to help industry better understand, quantify and manage risk to enable safe and sustainable developments.

He is also director of Memorial's Centre for Risk, Integrity and Safety Engineering (C-RISE). The centre's more than 40 team members work on a wide range of theoretical and applied research activities in process safety and asset integrity management.

The appointment of **Dr. Brian Veitch** as NSERC/
Husky Energy Industrial
Research Chair in Safety
at Sea was announced in
February.

An ocean and naval architectural engineering professor with Me<u>morial</u>

University's Faculty of Engineering and Applied Science, Veitch's current research focuses on the human elements of safety using simulators that he and his research team created. Training of master's and doctoral students will be a key element of the chair program. Through this new appointment, he and his graduate students will provide industry with critical insights into improving operational safety and effectiveness in harsh offshore environments.

Veitch has bachelor's and master's degrees from Memorial University. He completed his doctorate at the Helsinki University of Technology, and has been a professor in the Department of Ocean and Naval Architectural Engineering since 1998.

In 2015, Nalcor, in partnership with TGS and PGS, carried out the first multi-client 3D seismic data acquisition offshore Newfoundland and Labrador in advance of a scheduled license round. This year's 3D survey will complement Nalcor's multi-client 2D seismic program which has been ongoing since 2011.

The Nalcor-invested 3D survey is in the Eastern Newfoundland Region and covered a key region of the province's 2018 license round area. In addition, this season, Nalcor in partnership with Fugro, acquired approximately 10,000 square kilometres of multibeam bathymetry and over 150 seabed cores targeting upcoming license rounds areas.

Land tenure

On February 2, the C-NLOPB issued Call for Nominations (Areas of Interest) NL17-CFN01 - South Eastern Newfoundland. That call closed April 26.

On February 28, the C-NLOPB identified a sector comprised of two parts (A and B) in the Eastern Newfoundland Region. On September 5, the Board issued Call for Nominations (Parcels) NL17-CFN02 for parcels of land with this A/B sector - labelled Sector NL03-EN-01A and NL03-EN-01B - as well as Call for Nominations NL17-CFN03 (Parcels) for parcels of land in the Jeanne d'Arc Region. Submissions deadline was November 15, 2017. These Calls for Nominations will assist the C-NLOPB in selecting parcels for inclusion in the 2018 Calls for Bids. Any successful bidders would be awarded licenses in early 2019.

On April 3, the C-NLOPB issued Call for Bids NL17-CFB01, for three parcels of land in the mature Jeanne d'Arc Region, with a deadline of November 8, 2017.

On June 27, the C-NLOPB announced that Sector NL02-SEN (South Eastern Newfoundland Region) will be made available for licensing in the 2020 Call for Bids, pending board approval and government ratification under its scheduled land tenure system. Because this is a low activity area it will have a longer lead schedule, allowing additional time for exploration assessment, environmental and other considerations.

On August 22, the C-NLOPB amended the closing date of Call for Bids NL16-CFB03 in the Labrador South Region, from November 8, 2017 to 120 days following the completion of the Strategic Environmental Assessment (SEA) update. A further announcement will be made once the revised closing date is determined.

Results of the 2017 land sale were announced November 8. Details may be found on page 19 of this issue.

Maritime Oil & Gas Activity

It has been a challenging year for the Maritime oil & gas industry. Natural gas production from Encana's Deep Panuke and ExxonMobil's Sable Island fields continued its steady decline during 2017. Both operators have started planning for decommissioning of their respective fields. Noble's jack-up rig Regina Allen arrived in Halifax harbour on November 7 aboard the heavy-load vessel Forte to prepare for Sable decommissioning work.



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With one small producing field left in the Maritimes - McCully in New Brunswick - and a ban on fracking in Nova Scotia and New Brunswick, this is prompting speculation about whether the Canaport terminal in Saint John and the two-way Maritimes & Northeast Pipeline can meet demand and avoid potential price increases.

One bright spot is Alton Natural Gas Storage L.P. in Stewiake, Nova Scotia - currently under construction - which will store natural gas in large underground salt caverns. This will enable the operator to purchase gas when prices are low, such as during the summer, and store it for sale in winter, when demand is usually highest. The facility is expected to be operational by 2020.

Meanwhile, cancellation of the Energy East Pipeline has cast doubt on prospects for development of two liquefied natural gas (LNG) megaprojects in Nova Scotia. The outlook seemed positive for the Bear Head facility until the Energy East cancellation threw its supply route into jeopardy. However, the situation is less dire - though still uncertain - for Pieridae Energy's proposed LNG plant in Goldboro, due to the site's ideal location and 20-year contract with a German utility to purchase half of the plant's annual output. However, the plant must first identify a secure source of supply.

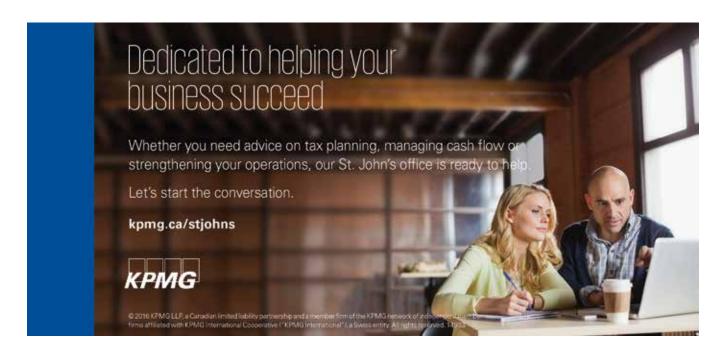
After delaying its 2017 call for bids to allow completion of a comprehensive geoscientific assessment of the forecast area, the Canada-Nova Scotia Offshore Petroleum Board (C-NSOPB) issued the call in July for three offshore parcels in the Sydney Basin, directly east of Cape Breton Island. Bids must be received by December 14, 2017.

On April 20, the C-NSOPB reviewed and approved an application from BP Canada Energy Group ULC, interest representative for exploration licenses (ELs) 2431, 2432, 2433, and 2434, to enter into a consolidation agreement to consolidate these four ELs.

The C-NSOPB said that the following key elements were considered by the Board in approving the consolidation application: the interest owner had demonstrated they had completed new and significant exploration activities on the exploration licenses and had provided reasonable geological basis for consolidation explaining how future exploration will be optimized by consolidation.

Statoil is moving forward with plans to explore two parcels offshore Nova Scotia. The company has committed to spending \$82 million combined over nine years on the two licenses.

"In recent years, we have also expanded our exploration position to offshore Nova Scotia," said a Statoil spokesperson. "This frontier area is an opportunity for Statoil to advance its global exploration strategy related to early access at scale as a new entrant in the offshore, and Statoil is currently assessing the exploration potential of this area."





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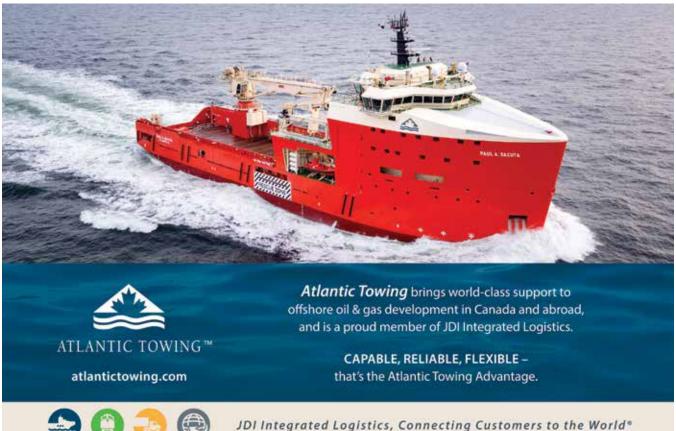
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Tow-out of the Hibernia platform began on May 23, 1997. Thousands of Newfoundlanders gathered at coastline vantage points to see this engineering marvel move offshore from its Bull Arm construction site.

Milestones that have shaped our oil & gas industry

As 2017 draws to a close, Noia continues to celebrate its 40 years of service to the oil & gas sector by reflecting on some of the many milestones that have shaped this industry. Continuing from our feature in our third quarter issue, here's a look at some of the milestones since first oil was achieved offshore Newfoundland and Labrador, with remembrances from some of the many who have been involved in the journey.

First Oil

Some 18 years after the Hibernia discovery well was drilled, the years of hard work bore fruit. The engineering marvel that was the Hibernia gravity base structure (GBS) was completed, a feat that many once thought impossible.

Lee Shinkle, business development leader with Stantec and a former president of Noia's Board of Directors, said it was a long but satisfying journey to first oil.

"First we had to build Bull Arm and then, 10 years later, it was this massive industrial site producing one of the most phenomenal engineering feats in human history," Shinkle explained. "Seeing something up close and personal like that for that period of time can only be called inspirational."

Then provincial minister of mines and energy, Rex Gibbons, agrees. He said that seeing the topsides and GBS mated and towed out to sea was a momentous occasion.

"That was the most exciting day of our lives for a while. It was great to know we were going to have an oil field producing," Gibbons recalled.

On November 17, 1997, first oil was achieved. Gibbons said there was a great sense of accomplishment that day, marked by the unveiling of a billboard next to the Hibernia Management Development Company (HMDC) headquarters in St. John's.

"There's the sign, first oil, the barrel, we're producing," Gibbons said. "Hibernia became a success despite all the naysayers."

Wayne Chipman, now retired, had the unique experience of being involved with the Hibernia project in many different roles during his career. From his time as a geologist with Mobil Oil in Calgary analysing the discovery well, to his roles with the province's Petroleum Directorate, the Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) and

INDUSTRY NEWS | Milestones that have shaped our oil & gas industry

Nalcor Energy, he said start-up of Hibernia was a major accomplishment.

"I think it provided that baseline for our local industry," he said. "You go anywhere now in the oil & gas industry and you have Newfoundland and Labrador companies and people working all over the world. In many ways we've been at the forefront of technology because of our harsh climate and environment and the challenges. There were a lot of local people involved and I think they came to the plate."

Gibbons said the Hibernia project set the stage for the future.

"We'll always look back on Hibernia as the project that made the industry because without Hibernia, I don't think any of the others would have come along."

Terra Nova, White Rose and Hebron

As Hibernia progressed to first oil, explorers were busy working to uncover other offshore fields, particularly in the Jeanne d'Arc Basin. The Terra Nova field was the

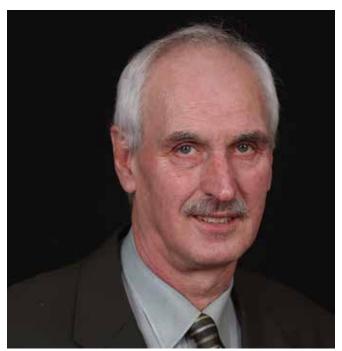
next to be developed, having been discovered in 1984. Smaller in size than Hibernia, it was originally estimated to contain approximately 400 million barrels of recoverable oil.

Developed by operator Suncor using a floating production storage and offloading vessel (FPSO) rather than a GBS, it marked another milestone for offshore Newfoundland and Labrador. It was the first development in North America to use FPSO technology in a harsh weather environment featuring sea ice and icebergs. Production from the Terra Nova FPSO began on January 20, 2002.

Terra Nova paved the way for the province's third producing field, White Rose, which was also developed using FPSO technology. Discovered in the same year as Terra Nova, the White Rose field (operated by Husky Energy) was originally thought to contain approximately 230 million barrels of recoverable oil. First oil production was achieved on November 12, 2005.

The province's fourth producing project, Hebron, was discovered in 1980, some four years before Terra Nova and White Rose, but is only this year coming onstream





Wayne Chipman was involved with the Hibernia project in many different roles during his career. He received Noia's 2013 Outstanding Achievement Award for his many contributions to the local industry.

due to the technical challenges associated with the field. Originally deemed uneconomic due to the poor reservoir quality, continued delineation through the late nineties added to reservoir and subsurface knowledge, as well as significant recoverable resources. It is thought to contain approximately 566 million barrels of recoverable oil.

By 2008, the Government of Newfoundland and Labrador had reached a deal with the Hebron partners (ExxonMobil now as operator) and development of the province's fourth project began in earnest. Developed using a GBS, the Bull Arm site was once again a busy hub for construction and mating. Gibbons said the Hebron deal was a long time coming, making it all the more satisfying when the platform was towed out early this past summer.

"It was so good to see Hebron go to sea," Gibbons said. "It was a tough process but now it's out there getting ready to pump oil."

Unlocking the energy potential

With the development of each of Newfoundland and Labrador's offshore projects came learnings for future developments. In 2007, the Government of Newfoundland and Labrador released its Energy Plan to

define Newfoundland and Labrador's vision for energy resource development. A significant part of this plan was the creation of a new provincial energy corporation, Nalcor Energy, to manage development of these resources.

Nalcor's oil & gas division has been working diligently to uncover more information about Newfoundland and Labrador's offshore basins. Since 70 per cent of seismic data was acquired prior to 1985 when technology was much less advanced, many areas have been revisited and other frontier regions are being examined for the first time.

Through a series of geoscience programs beginning in 2011, Nalcor and its partners have acquired a wealth of data and completed two resource assessments in advance of offshore licensing rounds. These two assessments, covering less than 5 per cent of offshore Newfoundland and Labrador have identified a total inplace potential of 37.5 billion barrels of oil and 133.6 trillion cubic feet of gas. Additional assessments are underway.

Chipman said that acquiring seismic information is an upfront investment that pays off in many ways.

"I always say you can only make wise decisions when you have the knowledge and the information. You have to be able to look people square in the face, tell them what you really believe and give them the facts to put yourself in a strong negotiating situation."

Coupled with a new scheduled land tenure system introduced in 2013, the province is working to improve transparency, predictability and input for explorers and improve Newfoundland and Labrador's competitiveness to attract new global exploration investment. The resulting \$2.5 billion in land sale work commitments over the last three years amounts to nearly half of the over \$5 billion in total work commitments made in the Newfoundland and Labrador offshore from 1988 to 2016. As well, the province saw the entrance of seven new companies into the region within 18 months during 2015 - 2016.

A vision for the future

While the journey to becoming an oil & gas producing region has certainly not been easy, there has been much cause for celebration along the way. Characteristic of

the tenacity which settled and shaped the province of Newfoundland and Labrador, the industry continues to face the challenges head on.

When national sentiment was against federal government support for the province's first oil & gas project, local

leaders successfully pleaded their case. When explorers thought that the fog, wind and ice conditions of the North Atlantic might insurmountable, bright be minds set to work to better understand the metocean and environmental conditions and come up with solutions.

The leading-edge technology and expertise developed for the Newfoundland and Labrador offshore are now exported around the world. Production of Hibernia's one billionth barrel of oil in December 2016 is a testament to what is possible.

But as the lower world oil prices of the last few years test even the most determined, all those involved in the oil & gas industry continue to seek ways to overcome the challenges that inevitably arise.

With this in mind, in 2015 Noia launched Redefining Oil, its vision for the continuous development and growth of a competitive, local oil & gas industry. One recommendation of Redefining Oil already implemented is the creation of an Industry Development Council to formulate a long-term vision for the Newfoundland

and Labrador industry. The province's natural resources minister chairs this committee, while Noia and the Canadian Association of Petroleum Producers (CAPP) are fixed members. The remaining seven members have been appointed.

"We'll always look back on Hibernia as the project that made the industry because without Hibernia, I don't think any of the others would have come along."

> Rex Gibbons Former Minister of Mines and Energy

Andrew Bell, chair of Noia's Board of Directors, said the council has met several times since January 2017 and has spent considerable time assessing where Newfoundland and Labrador's offshore fits globally, as well as where it wants to be and what it needs to do.

"You're seeing tremendously educated group of people getting together with one goal in mind," Bell said. "Getting all the parties together to do that is quite remarkable and hopefully everyone will take

their recommendations seriously."

Bell said another key element of Redefining Oil is actively addressing and advocating for the removal of barriers or hurdles that could slow down or impede our offshore oil & gas industry going forward.

"It's very difficult to invest in something if it's going to take you a long time to be able to develop," Bell explained. "We need to find a way to get from discovery to first oil a lot quicker; put policies and regulations in





Rex Gibbons served as provincial natural resources and mines & energy minister between 1989 and 1997. He was a signatory to the 1990 Hibernia project development agreement.

place that protect and ensure compliance but don't impede development and drag out the process."

Bell said that gas development offshore Newfoundland and Labrador is another area which needs to be examined, especially with the global push for cleaner energy.

"It's important that people understand that there's no switch to renewable energy," Bell stated. "We talk about lower carbons but there is a transition to get there, and I think what's really important that people understand about Newfoundland and Labrador's offshore is that we

have very light, sweet crude when it comes to oil and we have a lot of gas. So those opportunities need to be explored more."

Bell said he would also like to see more exploration programs to substantiate the geoscientific work that has been done to assess Newfoundland and Labrador's offshore basins.

Despite the progress that has been made in the last 30-40 years, Bell believes the oil & gas industry is still in its infancy. He said the potential benefits for the entire country are immeasurable.

"The basins off the coast of Newfoundland and Labrador are about 45 per cent larger than Norway, about 50 per cent larger than the Gulf of Mexico and about 65 per cent larger than the North Sea. This isn't just Newfoundland offshore oil & gas, this is Canada's offshore oil & gas. We need to embrace it and we need to work together to ensure that we can get the resource out of the ground and that Newfoundland and Canada will benefit from that resource."

As Noia looks to the future, 40 years as an industry association is a fitting time to reflect on how far we've come. As some of the industry's earliest participants can attest, much gratitude is owed to the determination of those who got the industry off the ground - the same kind of determination that will be needed to see it continue to thrive for many years to come.

"Some knew how important this industry could be and that's why they fought so hard," Lee Shinkle said. "These people had faith, they believed and they made it happen. It will and has transformed this place completely."





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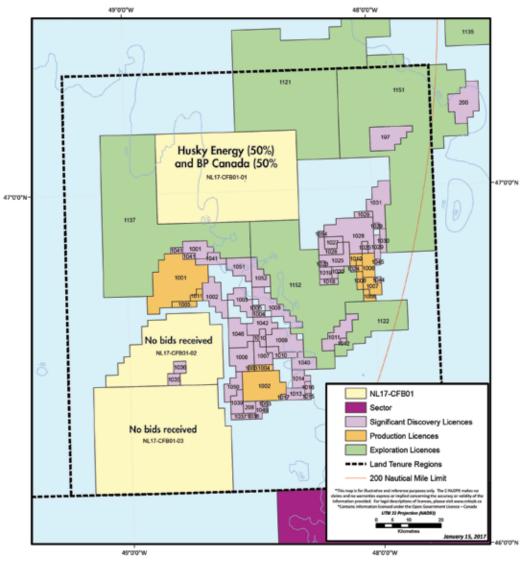
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Offshore land offered in the C-NLOPB's 2017 land sale was situated within the Jeanne d'Arc Basin of the Board's Eastern Newfoundland Region.

C-NLOPB releases results of 2017 land sale

The Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) announced the results of its Call for Bids NL17-CFB01, located in the Jeanne d'Arc Region, on November 8.

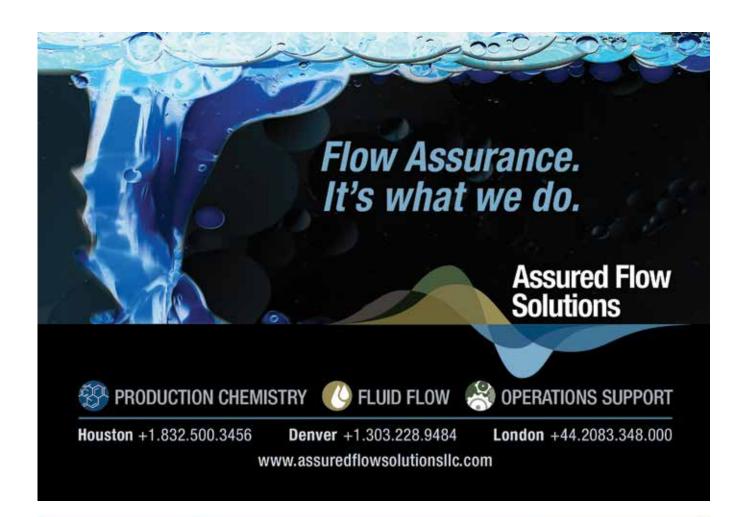
Three parcels totaling 317,407 hectares were on offer.

Parcel 1 (121,453 hectares) received a successful bid of \$15,098,888 in work commitments from Husky Oil Operations Limited (50%) and BP Canada Energy Group ULC (50%).

No bids were received for Parcels 2 and 3.

The sole criterion for selecting a winning bid is the total amount the bidder commits to spend on exploration of the parcel during Period I (the first period of a nine-year licence). The minimum acceptable bid for each parcel is \$10,000,000 in work commitments.

Subject to the bidder satisfying the requirements specified in Call for Bids NL17-CFB01 and upon receiving Ministerial approvals, the Board will issue the new exploration licence in January 2018. ■







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If it receives funding, the Ocean Supercluster will work jointly with oil & gas, aquaculture, alternative energies, fisheries, transportation and other ocean industries to boost innovation in ocean and digital technologies.

Ocean Supercluster initiative will foster R&D for economic growth

A consortium of industry, research and development (R&D) and academic institutions across Atlantic Canada – spearheaded by this province – is in the running for a share of \$950 million in federal funding to boost innovation in ocean and digital technologies.

There are nine "supercluster" finalists from across the country on the government's short list, which also includes partnerships in artificial intelligence, transportation, manufacturing, mining, agri-food and infrastructure.

The Government of Canada says it will invest up to \$950 million between 2017 and 2022 to support three to five innovation superclusters with the strongest potential to stimulate economic growth. Government will coinvest with industry in the most promising proposals, working with large anchor firms, small and medium enterprises (SMEs), post-secondary and scientific research institutions to foster innovation and grow industry partnerships.

On October 10, federal innovation minister, Navdeep Bains, announced that the Atlantic Canada Ocean

Supercluster had made the short list, following the submission of more than 50 proposals involving more than 1,000 businesses. Full applications were due the end of November and winners will be announced early in 2018.

The Ocean Supercluster is being led by Petroleum Research Newfoundland and Labrador (PRNL) and includes Emera Inc. and Dalhousie University. Companies from marine renewable energy, fisheries, aquaculture, oil & gas, defense, shipbuilding, transportation and ocean technology will work together to share information and ideas, while working with post-secondary institutions, scientific and R&D organizations, entrepreneurs and governments to drive technology solutions in the ocean economy.

Alan Clarke, chief executive officer of PRNL, says his organization serves primarily as the R&D arm for the oil & gas operators on Canada's east coast.

"The operators funnel a portion of their research funding into collaborative efforts outside of their own proprietary technologies, generally in areas where

RESEARCH AND INNOVATION | Ocean Supercluster initiative will foster R&D for economic growth

there is a mutual interest and benefit in resolving challenges related to the offshore environment," Clarke said. "They pool their resources and use PRNL to coordinate project management on some of these R&D initiatives where they have a common interest."

PRNL was a good fit to lead the Ocean Supercluster initiative, Clarke added.

"This initiative will require matching funds from the operators, who we already represent, and have we strong connections with local industry, academia and R&D institutions. There is a learning curve, of course, but we know where the knowledge gaps are and have already hit the ground running, in that regard."

To date, PRNL's work has focused almost exclusively on R&D for the oil & gas industry. The Ocean Supercluster will see PRNL working with a much broader range of ocean industries.

Canada has the second largest coastline in the world, Clarke said, but only 0.7 per cent of the country's GDP comes from ocean industries.

"The international average is more like 2.5 per cent so we could more than triple that, just to be on average. However, given our coastline and ocean area, that number should probably be more like five or six per cent. There is a huge amount of room for growth."

While PRNL is familiar with all the large- and mediumsized industry players, its biggest challenge is compiling a comprehensive list of all small engineering and technology firms.

"Frankly, the small business community is where all the innovation is going to happen," Clarke said. "We need to identify where their innovation matches up with our market needs, then supply the resources required to bring their concepts to fruition. We need to make certain that the person with the great idea

> but no money – and possibly no business experience - is matched with the funding and guidance to make it a reality."

> Clarke said that about 100 SMEs have already expressed interest working with the Ocean Supercluster.

> "We expect add hundreds more before the end of November. Not all companies will be utilized right away but we will know

their capabilities and this is a five-year initiative, so we may circle back to them a little further down the road."

To date, PRNL's work has focused almost exclusively on R&D in the oil & gas industry. However, as its name implies, the Ocean Supercluster will operate under a much larger umbrella, working jointly with aquaculture, alternative energies, fisheries, transportation and other ocean industries.

"There's a learning curve here as well, but we are in direct communication with these other industries and we are all coming up to speed quickly on where the challenges and opportunities lie," Clarke said. "Our



guiding principle for the Supercluster will be the same as it is for the oil & gas industry, in that all research must be in response to a demonstrated industry need for most or all involved. We want the people who are going to use this technology to define their needs in advance. The Ocean Supercluster is very much a mirror image of how PRNL works, except on a much larger scale."

It quickly became apparent to PRNL that challenges facing oil & gas were common to most industries that work on the ocean.

"The oil & gas industry representatives have put forward some technical challenges that they feel are important, as have the fisheries, transportation and alternative energies operators," Clarke said. "We all met recently and came up with some high-level themes, which have not been finalized yet, but, generally speaking, they involve ways of getting data out of the ocean and how we should organize and make that information widely available. There are factors most or all of us work with ocean currents, water temperatures, wind speeds, wave heights, ice fields and more - that are well known in some areas and largely unknown in others, depending on geographic area. We have a number of operators out there today in various industries, so what can we learn from each other? What types of data would be useful across all industries? How do we capture that data and apply it in a way that enables growth across these industries?"

Potential digital applications in ocean industries are virtually unlimited so PRNL will be disciplined in its approach, developing a limited number of products.

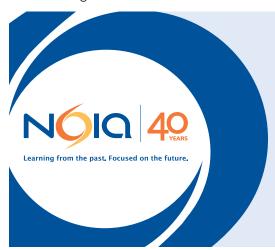
"We'll be looking at enhancing existing technologies, while looking out for what's new on the distant horizon," Clarke said. "There are many possibilities, including unmanned aircraft and underwater vehicles, weather and sea condition measurement, biological data collection and more. For example, you can conduct condition-based monitoring by putting sensors on equipment that send information back to a database which then gives you a wear indicator for predictive failure. In other words, the sensor would know when a piece of equipment was wearing out and would allow the operator to schedule a replacement, avoiding expensive unplanned downtime."

The Ocean Supercluster will focus its research initially on the Atlantic region because that is where the industry, expertise and infrastructure reside, but there are plans to apply the outcomes nationally.

"We can put cold ocean environment applications to work across our vast northern areas, as well as ocean activity on Canada's west coast. We will not stop at R&D: we want to see as much manufacturing as possible happening here in Canada. And we intend to market our expertise and products to customers around the world."

The Ocean Supercluster has the potential to unite all industries behind a single goal - innovation for economic growth and development - while charting the course and creating a mechanism to achieve it.

"It's really smart what they (the federal industry department) have done," Clarke said. "They have given us a catalyst to work together. It's not just the access to public and private funds, it's driving the initiative to make this happen. The industry operators and SMEs are on board and eager to participate, as are the academic and research institutions. We are all pretty excited about where this could lead."

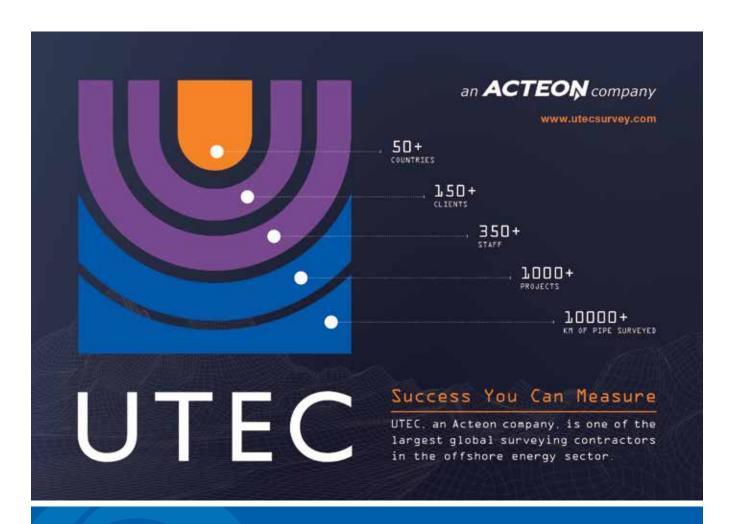


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Noia Board Treasurer Mike Critch is interviewed by Gabreila Patram from the Guyana Department of Public Information.

Noia leads trade mission to Guyana

Noia members were among more than 20 organizations participating in a trade mission to Guyana September 11-15 to learn more about opportunities in the newly-emerging oil & gas play. The trip was organized by Noia, with support from the Atlantic Canada Opportunities Agency (ACOA), the Newfoundland and Labrador Environmental Industry Association (NEIA), the provincial Department of Tourism, Culture, Industry and Innovation (TCII), the High Commissioner of Canada and the Guyana Office for Investment (GO-INVEST).

Andrew Bell, Chair of Noia's Board of Directors, said the mission enabled members to learn about potential export opportunities and synergies between the two regions.

"This mission is an excellent example of how Noia strives to fulfill an important aspect of our mandate which is to facilitate members' participation in the global oil & gas industry," said Bell.

ACOA provided funding to Noia to assist with market research, information sessions, matching local companies with opportunities in Guyana and in-market events. The mission included pre-mission preparation, a seminar with information on doing business in Guyana, as well as an update on the procurement process for offshore oil project Liza Phase 1. The visit included networking opportunities, tours of local facilities and business-to-business (B2B) meetings with companies in the market. Representatives from Noia, the Newfoundland Environmental Industries Association (NEIA) and the High Commission of Canada also gave presentations.

The mission came as the South American nation begins to take its place as an oil-producing region. A former British colony, Guyana is located between Venezuela and Suriname on the northern coast of South America. Despite having rich reserves of bauxite, gold and timber, the country has struggled economically. The discovery of the giant Liza field in 2015 by ExxonMobil and its partners, Hess and Nexen Petroleum, has changed the nation's course. Originally thought to contain 1.5 billion barrels of oil equivalent, additional discoveries in the Guyana-Suriname Basin have proven the potential for further developments.

Alfred Whiffen, VP Sales and Marketing for Virtual Marine Technology (VMT) of St. John's, said the mission was

INSIDE NOIA | Noia leads trade mission to Guyana

extremely valuable. He said that VMT, which is the world's only provider of lifeboat simulation training systems, already works with ExxonMobil in Canada, Angola and Australia, so it wanted to extend its relationship into Guyana.

Whiffen explained that Guyana's industry is still very much in its infancy, with organizations very keen to learn what they need to do to take advantage of their developing oil industry.

"They want to engage expertise in companies that can help them to develop and be masters of their own destiny," Whiffen said. "But they're very open to products and services that will help them build this brand new oil & gas business, which is five major discoveries offshore already."

Whiffen is confident that VMT will find a place in the Guyana offshore.

"They have no real training infrastructure down there now for people to learn how to use lifeboats on an offshore oil production platform and I'm convinced that we will be helping them with that in the not-too-distant future."

Stephen Hale, Director of Sales, Marketing and Business Development for Rutter Inc., said his company took part in the mission to investigate near-term opportunities and to learn about environmental regulations concerning oil spill clean up, since Rutter sells an oil spill detection radar system.

"They're deciding what they're going to do so it was a good time for us to be there to get some awareness," Hale said. "In addition to that, we did turn over a few rocks and find a couple of things that might be more immediate opportunities in the next 6-12 months which would be good as well."

Bruce Rogers, CEO of Rogers Enterprises Ltd. attended the trade mission to see what potential international opportunities might exist for his health and safety services company. He said that since Guyana is a new market, the mission was a good way to assess the risk factors of going into the market.

"The trade mission allowed us to assess the risk factors in a protective environment in the sense that you're with a group and you have people there that have connections and know the local situation," Rogers explained.

The information sessions and meetings were helpful in learning about the market and beginning to establish contacts in the region.

"It may take time to build relationships but there's definitely potential," he said.

The trade mission also helped Rogers forge valuable relationships with other Noia members.

"One of the things that came out of it for me was an opportunity to partner with two Noia member companies, which I would not have otherwise had an opportunity to do," he said. "I do see the value in it so I would certainly consider other trade missions with Noia in the future for sure."

Whiffen agrees that the mission was a valuable experience.

"It was very well put together. The people that were arranged for us to speak to gave us a very good overview of where the industry is in Guyana," Whiffen said. "I would congratulate Noia for a very well developed, well planned and executed trade mission and encourage them to consider doing more of them in the future."



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Noia recognizes Pennecon Energy M&M Engineering/M&M Offshore for its longstanding membership

Pennecon Energy M&M Engineering/M&M Offshore (PEMMO) marks 30 years as a Noia member in 2017 and 50 years since M&M Engineering's incorporation in Newfoundland and Labrador.

M&M Engineering started in 1967 as a mechanical contracting company and, in 1987, formed M&M Offshore to service the oil & gas industry. M&M's operations manager, Craig Manning, said the company today is focused on mechanical and electrical fabrication, with the offshore division primarily servicing the offshore industry and heavy industry in areas such as structural, custom fabrication and piping. It is a key player in operational support to the Newfoundland offshore industry.

PEMMO's head office and fabrication shop continue to operate from its 15-acre site on Logy Bay Road in St. John's. The facility includes 7,000 square feet of office

space, a 45,000 square foot fabrication shop and 17,000 square feet of temperature- and humidity-controlled blast and paint shops.

M&M has been involved in a variety of industrial projects in the province since its creation. Services include industrial mechanical construction, structural and miscellaneous steel fabrication and erection, storage tank fabrication and erection, pressure vessel fabrication and erection, pipe spooling, including duplex & titanium, and specialized welding services.

The mechanical/electrical division is currently busy working on a contract with General Electric at the Soldier's Pond facility as part of the Muskrat Falls hydroelectricity development, with the shop providing pipe spooling and some pipe fabrication. The company has also done work for the Come by Chance Oil Refinery, installed the new

turbines and gear with the equipment supplier for Nalcor Energy at its Holyrood Generating Station and has done work with the Voisey's Bay project in Labrador and Long Harbour.

"We work with most of the industrial projects. We used to do a lot of work with the pulp and paper mills back in the earlier days of the company but there's not many paper mills around any more," Manning explained. "We then started expanding into the larger industrial clients and then into the demanding, challenging world of the offshore industry."

The company has been involved in some way on all of Newfoundland and Labrador's offshore projects, starting with Hibernia. Work has included building two of the SeaRose FPSO modules (the local electrical room and main electrical room) as a joint venture in Bull Arm, some subsea work for White Rose, as well as the bulk of the mechanical outfitting for the Hebron gravity base structure. The company currently does limited fabrication work outside the province, but the mechanical and electrical division do have contracts in other parts of Canada.

"It's not a main part of the business but it's something we're trying to expand on," Manning noted.

He added that the company is always looking at how it can evolve to meet the changing needs of clients.

"We've looked at opportunities throughout our history and directed ourselves and hired the people to build up

our expertise to go after a lot of these more challenging and bigger clients," Manning said.

He said that being a Noia member has helped PEMMO in many ways. One of the biggest advantages he sees is that Noia advocates for local businesses.

"They've been instrumental in helping drive a lot of the local industry growth here and helping through advocating on behalf of ourselves and other companies like ourselves for the work," Manning explained. "That's given us an opportunity to grow and get some expertise that 20-30 years ago we didn't have, so it helped us immensely there."

Manning said the networking sessions and supplier sessions are also beneficial.

"We can meet and greet some people and open up more opportunities. It's been a big boost to the local industry, we believe."

Manning says the company has grown dramatically from a small office of 5-6 people to about 50 office staff today. Field staffing has gone from less than 100 people to 500-600 people, depending on projects. Manning said they pride themselves on their low staff turnover; he has been with M&M for 30 years.

"One of our big strengths is our people. We are where we are because of the people we've had," Manning stated. "We're a very resilient bunch. It's a challenging business so the people we have like a challenge. The fact that they stick with us has helped us immensely."





Noia encourages continued response to proposed legislative changes

Noia would like to thank the membership for participating in our recent advocacy campaign, Support Offshore, which called on all Canadians to speak up against the federal government's series of system-wide changes related to the country's environmental assessment and regulatory processes.

Between the launch of the campaign in mid-July and August 28 (the "official" deadline for feedback), more than 11,000 emails were received by federal government officials – including the Prime Minister, Natural Resources Minister Jim Carr and Minister of Environment and Climate Change Catherine McKenna – opposing proposed legislative changes and supporting the timely and responsible development of our offshore resources.

Despite this response, federal government representatives have indicated that they haven't been hearing any opposition to these changes directly from individual organizations – just from associations, such as Noia. We are concerned they will use this supposed lack of feedback to justify implementing changes that will literally halt future development of the offshore industry in its tracks.

To help ensure this does not happen, Noia is asking all members to take time IMMEDIATELY to send e-mails advising of your disagreement with their intervening in what is already a robust and effective environmental assessment process and vocally opposing their attempt to increase bureaucracy and the time required to move our industry forward.

We cannot let silence be taken as acceptance. With these critical decisions being made NOW, we need you to ACT before it's too late. Federal minister email addresses and suggested points are noted below.

Email addresses:

- Honourable James Carr, Minister of Natural Resources: Jim.Carr@parl.gc.ca
- Honourable Catherine McKenna, Minister of Environment and Climate Change: Catherine. McKenna@parl.gc.ca

Suggested points:

- Proposed environmental assessment legislative changes could have a crippling impact on Canada's offshore oil & gas industry.
- When considering these changes, we ask that you:
- Recognize the legitimate role of experienced offshore regulators, the C-NLOPB and C-NSOPB in particular,
- Not impede exploration by requiring an environmental assessment for the first well in a new area,
- Recognize that oil exploration and production are critical to the economy of Canada – the Atlantic Region in particular, and
- Recognize that the exploration, development and production of our offshore resources is in the public interest and must be supported.

Further information on this time sensitive issue is available on our website: www.supportoffshore.ca ■



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C-NLOPB member and former chair passes away



Ed Drover, a member of the Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) passed away March 16 at the age of 70.

First appointed to the Board as a part-time provincial member in January 2009, Drover was part-way through his six-year term when he was named acting chair in 2012. His interim appointment filled the gap between the end of Max Reulokke's service as chair and the hiring of Scott Tessier in January 2013. Drover was appointed to a second six-year term in 2015.

Ed Drover was a former school teacher and principal and held branch and regional management positions with life insurance companies. He served as a trustee with the Health Care Foundation of St. John's, Waterford Hospital Foundation and St. Clare's Mercy Hospital Foundation, as well as a director with the CNIB and Community Services Council. He was a commissioner with the National Capital Commission in Ottawa, chair of the finance committee of the Board of Trustees for Eastern Health and a board member for the Atlantic Canada Opportunities Agency, Statistics Canada and Newfoundland Power.

"Ed's passion for his province and country were quickly evident to all who had the pleasure to know him," stated C-NLOPB Chair and CEO Scott Tessier. "During his years with our Board, he made many significant and lasting contributions to our organization, always keeping the public interest first and foremost. We are deeply saddened by the passing of our friend and colleague, and we are forever grateful for his selfless public service."

2017 marks Noia's 40th year of supporting the province's offshore oil & gas industry. Over these 40 years, our mandate has never wavered from promoting the growth of East Coast Canada's oil & gas resources and facilitating our membership's participation in global oil & gasindustries. Education, information and advocacy remain the cornerstones of our work.

Noia looks forward to continuing to support our members as we work together to turn our potential into reality – a long-term, sustainable offshore oil & gas industry for the benefit of all Newfoundlanders and Labradorians.







With the presentation of this year's cheque, Lobsterfest surpassed the remarkable milestone of having contributed in excess of \$100,000 towards Noia's operations over the event's 14-year history. Taking place during Noia's conference week in June and serving up lobster (or steak or chicken if you prefer) to hundreds of conference delegates from near and far, the event is sold out months in advance of the conference. Lobsterfest organizers visited Noia earlier this fall to present this year's \$7,000 donation to 2018 conference chair, Sean Power. From left to right, Phil Whelan, Alexia Williams, Power and Matt Shinkle.

Lobsterfest 2018 surpasses donation milestone



Noia-Hibernia scholarship recipient announced

Mikayla Chislett of Heart's Delight is the recipient of 2017 Noia-Hibernia Scholarship. The Crescent Collegiate graduate received her \$1,000 award at the Noia Fall Seminar, which took place November 15.

Following her graduation from high school with a cumulative average of 95 per cent, Mikayla enrolled in Memorial University where she is currently studying engineering with the goal of working in the offshore oil & gas industry.

The Noia-Hibernia scholarship was established in 1977 – the year the Hibernia platform was completed and started drawing oil. It is designed to foster the bright minds that will shape the future of our province's oil & gas industry.

Valued at \$1,000, the award is presented annually to a graduating high school student in Newfoundland and Labrador who is entering post-secondary studies with the intention of pursuing a petroleum-related career. It recognizes excellence in both academics and extra-curricular areas.



Industry committee conducting human resources skills gap analysis

Almost 15 years ago – in May 2003 – the Petroleum Industry Human Resources Committee (PIHRC) published its "Labour Market Assessment of the Offshore Oil & Gas Industry Supply and Service Sector in Newfoundland and Labrador."

Much has changed since then. The industry has experienced the highs of first oil from a number of new offshore projects and extensions to the lows of two industry downturns, the most recent of which we are just coming through. With the positive news of our 2015 and 2016 offshore assessments showing significant resources in just a fraction of our offshore basins and the anticipated upswing in exploration activity and oil discoveries, PIHRC thought it time to re-evaluate the local industry's human resources needs and plan for the coming five to 10+ years.

In September, with funding from the Labour Market Partnerships Program, PIHRC hired consulting firm Strategic Directions Inc. to develop a comprehensive, detailed view of the current and future labour force needs for the exploration, construction, commissioning and production phases of the Newfoundland and Labrador oil & gas industry. The study will identify any gaps in work force availability and identify areas where emphasis and resources should be applied in the areas of employment, skill, competency development, education and training.

An ad-hoc committee of senior oil & gas industry representatives from the operator and supply &

service communities, and appointed by the PIHRC Executive, are overseeing the project. Chaired by PIHRC Executive Committee member Philip Whelan, the committee is comprised mainly of representatives from companies on the membership rolls of Noia and CAPP. The appointed individuals represent a variety of industry sub-sectors, including general offshore recruitment, project operators, tier one contractors, drilling contractors, marine offshore supply/support and construction.

Strategic Directions will be conducting extensive consultations with key industry players over the fall and early winter months. The final report is due the end of February.

Next year, the Petroleum Industry Human Resources Committee (PIHRC) celebrates 20 years of activity, having been formed in 1998. Its mandate is to be the primary industry resource for career information and the promotion of careers in the Newfoundland & Labrador oil & gas industry. It identifies labour market issues in the oil & gas sector by drawing on current research or conducting its own when necessary, and works with or through other agencies, such as government departments, school districts, and educational institutions, to provide information to students and their key influencers.

Further information on PIHRC, its resources and activities may be found on its website www.oilandgascareerinfo.ca.



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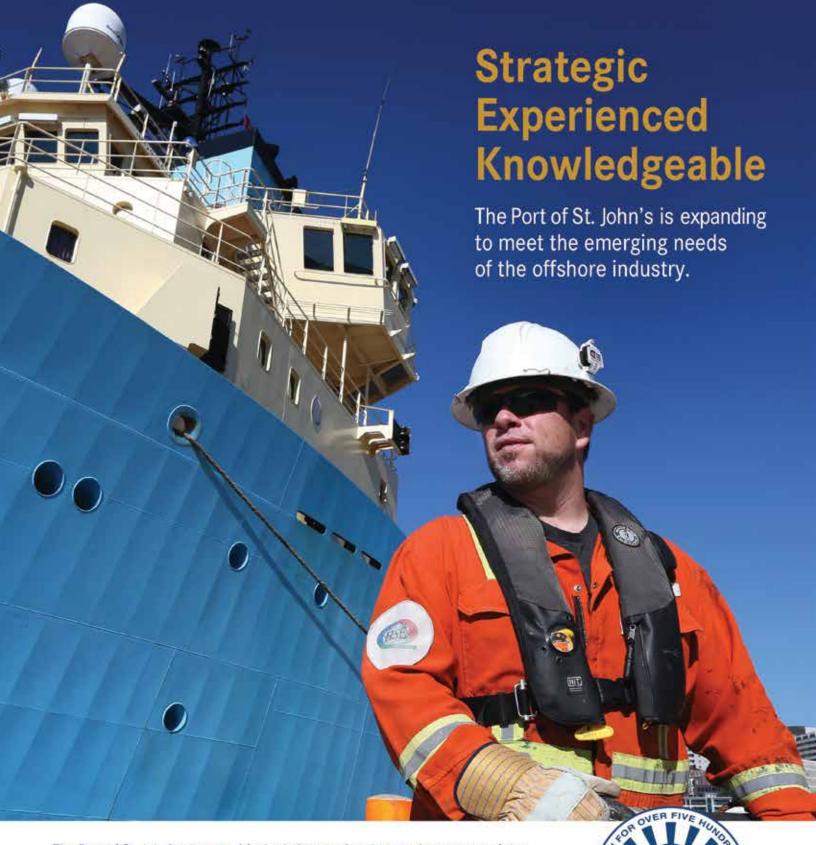


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It's an investment in Newfoundland to serve you better.





The Port of St. John's plays a critical role in ensuring the ongoing support of the offshore energy supply and service industry. There are great opportunities ahead and the potential of future offshore energy projects remains promising. The Port of St. John's and its cluster of businesses and people that operate here are ready for new developments. Port infrastructure is expanding to improve the overall berthing capacity of the entire port, thereby improving efficiency and operational capability to meet current and future industry needs.

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