

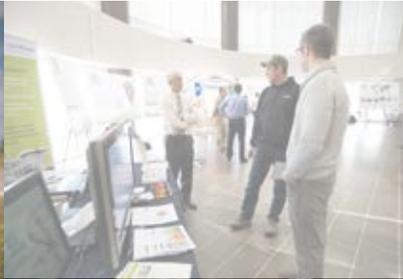


# PTRC

# 2015-2016



## ANNUAL FINANCIAL REPORT



## Message from the Board Chair

PTRC has always been focussed on finding the best solutions for the challenges faced by field operations – whether in the oil and gas industry or CO<sub>2</sub> storage. The strength of the company is its ability to apply technological and scientific innovation to such immediate challenges while recognizing the broader implications of its work for other industries.

Nowhere has this been more apparent in 2015-16 than with the Aquistore project. Aquistore achieved a number of milestones, with first CO<sub>2</sub> injection beginning 2015 and reaching a storage total of more than 36,000 tonnes (36 kt) by the end of March 2016. Baseline monitoring in and around the injection and observation wells occurred in the two years previous to injection using the largest and most comprehensive field testing facility in the world related to CO<sub>2</sub> geological storage. Baselines were established for ground water, soil gas, deep reservoir fluid and pressure measurements, and seismic images of the storage site over 3.2 km below the surface were established.

In February 2016, an extensive and multi-faceted seismic testing program conducted over two weeks provided the first clear images of the CO<sub>2</sub> plume in the reservoir – a world's first for imaging such small quantities of CO<sub>2</sub> at these depths. More importantly, the various seismic testing technologies used during this period – geophones, vertical seismic profiles (VSPs) and distributed acoustic sensing (DAS) – have proven to be of significant interest to industry partners far beyond those involved with CO<sub>2</sub> storage. Mining (particularly potash) and oil/gas companies have joined the research consortium to access the data from these different technologies, underlining the importance of Aquistore's research.

Likewise, PTRC's Heavy Oil Research Network (HORNET) continues to foster collaborations and



connections across Canada's research community. The Canadian Light Source in Saskatoon has been working with PTRC-sponsored researchers to better characterize foamy oil produced during heavy oil extraction. PTRC also presented its research findings on enhanced oil recovery at the 36<sup>th</sup> International Energy Agency Enhanced Oil Recovery symposium in Japan in late 2015 and continues to play an active role as the Canadian representative on the IEA-EOR executive.

It has been a pleasure to work with CEO Ken From and his staff over the past fiscal year. And while we say goodbye to Ken, who becomes to President and CEO of SaskEnergy at the start of 2017, the Board remains committed to the good work produced by the PTRC and its research programs.

A handwritten signature in black ink that reads "Brian Watt". The signature is written in a cursive, flowing style.

Brian Watt Chair,  
PTRC Board of Directors

## Message from the CEO

This past fiscal year Saskatchewan, indeed all of Canada, met the challenges facing our people, our economy, and the environment with the same strengths and innovation that have made us one of the most innovative and prosperous places in the world. PTRC was a part of that innovation, working with our industry partners and research organizations to find new and better ways to optimize recovery from Canada's difficult-to-access hydrocarbon resources, and advancing the safe and effective storage of CO<sub>2</sub> underground as a possible technology for climate change mitigation.

Priorities change. Economies adapt. Public perceptions and expectations evolve. In the 12 months of fiscal year 2015-16 new governments were elected in Canada and in our neighbouring province, Alberta. Commodity prices – particularly for oil – have fallen. PTRC has positioned itself well in the face of new economic and environmental realities and has tailored its research programs to meet new fiscal and economic restraints.

PTRC's Heavy Oil Research Network (HORNET) refocused its request for proposals (RFP) process, engaging with our industry partners to set research priorities on areas that directly impact the efficiencies of heavy oil recovery. The 13 projects ongoing in 2015-16 included several innovative approaches to improving recovery rates – from camera pills to image wormholes deep underground, to ongoing research between the University of Calgary and the Canadian Light Source's Synchrotron in Saskatoon to better understand the formation of foamy oil. The Aquistore CO<sub>2</sub> storage project saw a milestone of 36,000 tonnes of injected CO<sub>2</sub> from SaskPower's Boundary Dam Carbon Capture facility by the end of fiscal year 2015-16, and the completion of two weeks' worth of seismic tests in February 2016. This work succeeded in imaging the CO<sub>2</sub> plume at a depth of over 3.2 kilometres – a world's first. The innovative technologies deployed have drawn the



interest of partners well beyond CO<sub>2</sub> storage, to mining and oil companies looking for more cost effective ways at imaging the deep subsurface. PTRC signed no fewer than three memoranda of understanding with different research organizations and welcomed new sponsors to the Aquistore.

Finally, on a personal note, at the time of writing this message mid-way through fiscal year 2016-17, I informed the PTRC Board of Directors that I would be moving on to a new position as the President and CEO of SaskEnergy. I am leaving the PTRC and its fine and dedicated staff knowing that the important research of which I have been a part for the past two years will continue to contribute to the economic well-being of the province and country. I thank both the staff and our excellent Board of Directors for the opportunity to have contributed to such excellent and important work.

A handwritten signature in black ink, appearing to read 'Ken From', written in a cursive style.

Ken From  
President and CEO

# PTRC – Sustainable Energy Research

## 2015-2016 Highlights

- Proven record of delivering results with international influence.
- New members added to our consortiums – leveraging dollars with industry backing.
- Increased collaboration and outreach to advance the use of carbon storage as a means to reduce GHG emissions.



## Enhanced Oil Recovery Research

- Ensuring the competitiveness of the oil industry in these challenging times.
- Delivering the research to industry and building technical capacity at universities and institutions.
- Investigating mitigation technologies to help Saskatchewan meet new methane emissions standards.

## Aquistore – Underground Storage of Captured CO<sub>2</sub>

- Advancing the knowledge and skill sets of PTRC to support environmental initiatives.
- Significant milestone reached – 36,000 tonnes of CO<sub>2</sub> safely stored as of March 1, 2016.
- Deployment of monitoring technologies in February, 2016, imaging the CO<sub>2</sub> “plume” 3.2 km underground.
- New agreements for International collaborations.



## **PTRC Financial Statements 2015-2016**

Audited financial statements for 2015 - 16 are available from PTRC by emailing

[info@ptrc.ca](mailto:info@ptrc.ca)