PETROLEUM HISTORY SOCIETY

ARCHIVES

Newsletter of the Petroleum History Society *June 2026; Volume XXXVII, Number 2*

P.H.S. Luncheon – Wednesday, June 17, 2026

The Importance of Carbonate Reservoirs and Geoscience in The Development of Western Canada's Petroleum Industry

By: Christian Viau, Ph.D., P. Geol.
Geological Advisor - Aspenleaf Energy Ltd., President - CV Energy Ltd., and
Adjunct Professor - Department Earth, Energy and Environment, University of Calgary

You are invited to our next Luncheon Meeting on Wednesday, June 17, at the Calgary Petroleum Club. We welcome P.H.S. Member Christian Viau as our speaker.

Please see pages 2, 3 and 4 for talk abstract and speaker bio.

Time:	12 noon, Wednesday, June 17, 2026
Place:	Calgary Petroleum Club 319 - 5 Avenue SW, Calgary (Please check the marquee for the room) Dress – business casual.
Cost:	P.H.S. Members and Student Members $40; Guests $45 (most welcome). Only cash or cheque at the door. Payment can be made in advance by Interac or PayPal transfer to treasurer@petroleumhistory.ca Please advise payment method with reply.
Lunch:	Soup, sandwiches and cookies. Gluten-free? Vegan? Advise with reply.

Reply, if you wish to attend, to Treasurer Ian Kirkland via his email
treasurer@petroleumhistory.ca

The deadline for registration is Monday, June 15 at noon.

Please be advised that those who register but do not attend or cancel after the deadline, will be invoiced.
Those who do not register by the deadline may not be accommodated.

These restrictions are related to our obligations to the Petroleum Club in terms of catering and seating.

The Bull Wheel

Next P.H.S. Luncheon Meetings: The next scheduled luncheon after the June 17, 2026 event are tentatively scheduled for the last Wednesdays of September, October and November, 2026.

P.H.S. Membership: The Petroleum History Society welcomes and encourages anyone interested in Canadian petroleum history to consider membership. Individuals are only $30/year, corporate $100/year, and full-time students are free until the end of the year in which they graduate. Students receive the same benefits as regular members – *Archives* newsletters and invitations to our events.

Membership renewals: Renewal notices were sent out to the Society's membership during Q1. Your prompt attention was appreciated. We hope to retain your loyalty and support. Remember that membership in the P.H.S. now brings with it membership in the Turner Valley Oilfield Society, another great organization.

Payments: For memberships can be made by Interac or Paypal transfers to treasurer@petroleumhistory.ca, cheque, or cash paid at events. Membership details can be found on the P.H.S. website http://www.petroleumhistory.ca/about/member.html and in our brochure http://www.petroleumhistory.ca/about/phsBrochure.pdf

Call for contributions and speakers: The Petroleum History Society values your input. If you have an article that you'd like to see in *Archives* or if you have a talk that you'd like to give, please get a hold of us. In that regard, please contact President Clint Tippett at the email address indicated on page 5.

June 17 Presentation:

Preamble

The pursuit of hydrocarbons in Western Canada began with test penetrations into young sandstone reservoirs and resulted in a range of discoveries including Bow Island, Viking, Lloydminster and shallow Turner Valley. Despite these encouraging signs, true world class pools remained elusive and it wasn't until exploratory drilling extending through the shallow cover led to the deep oil discoveries at Turner Valley in 1936 and near Leduc, beginning in 1947. At that point the genie was out of the bottle and any doubt that the Western Canadian Sedimentary Basin was home to numerous economic oil and gas pools was erased. Indeed, certain portions of the stratigraphic section, such as the Devonian, have been characterized as "gifts that keep on giving". This ultimate success was driven by continuous advances in both geological thinking and in geophysical imaging. Improved drilling technology has also played a

role, although perhaps a less critical one, until the more recent pursuit of unconventional reservoirs. Christian will review this chronology and describe how Western Canada became a powerhouse in the global hydrocarbon industry on the back of its deep carbonate reservoirs.

Christian's Abstract:

In 1902 oil was discovered and produced near Waterton from a depth of 311 m in fractured Precambrian Altyn carbonates and/or Appekunny argillites, sandstones and dolomites. The play was based on pursuing surface oil seeps. Although the project was ultimately unsuccessful and uneconomic, Western Canada's first oil production at Cameron Creek, along with the Dingman #1 discovery in 1914 in shallow Jurassic-Cretaceous sandstones along the Sheep River, led the way to major hydrocarbon discoveries at Norman Wells in 1920, Turner Valley in 1924 and 1936 and finally Leduc in 1947. This launched the very successful and profitable modern era of hydrocarbon discoveries and production in conventional plays in the Western Canada Sedimentary Basin (WCSB). This presentation chronicles some of these important discoveries in carbonates reservoirs.

In 2004, in what is the most recent major exploration discovery in carbonates in the WCSB, sour gas was found at Tay River in a Devonian Leduc reef at 5137m TD (4809 m TVD). This was below the first major thrust sheet (Brazeau Thrust) in the Foothills near Rocky Mountain House and was located based on mapping with advanced seismic and geological concepts. Geoscientists and evolving geoscience concepts were a critical part of the risk management and economic exploration and exploitation of hydrocarbons in this era of conventional plays in the WCSB.

In the last 25 years the Canadian petroleum industry has shifted its business strategy and activities away from exploration to exploitation of lower quality reservoirs in unconventional or hybrid resource plays, made possible by advances in horizontal drilling and completion practices. Success in these unconventional plays continues to rely on a multidisciplinary approach which involves efficient cooperation between various geoscience and engineering disciplines.

More recently, carbonate reservoirs and geoscientists also play an important role in the new energy economy in projects involving exploration for Helium, Lithium, rare earth elements and other critical minerals as well as Carbon Capture Utilization and Sequestration (CCUS) and geothermal energy.

This talk is a modified version of a series of presentations developed for geoscience students at the University of Calgary that emphasize the importance of carbonate reservoirs and the evolving role of geoscientists (as part of multidisciplinary teams) in the oil and gas industry and the new energy economy. They highlight why the concepts students learn in carbonate sedimentology and other geoscience classes have been and continue to be so important in the successful and economic development of hydrocarbon and other resources in carbonate reservoirs of Western Canada.

Christian's Bio:

Christian earned his B.Sc. Géologie at Université de Montréal in 1980 and his Ph.D. in Geology at the University of Calgary in 1986 following a detailed study of the Swan Hills reefs.

In the last 41 years he has been involved in oil and gas exploration, exploitation, reservoir characterization, research projects and mapping of both clastic and carbonate conventional and unconventional reservoirs in over 20 different geological formations and plays from Western and Eastern Canada. Christian has held various technical and management roles at Shell Canada, Encal Energy, Calpine Canada, and Apache Canada. He was one of the founders of Nexstar Energy (that drilled the first Cardium horizontal well in the Keystone-Pembina area in December 2008) prior to becoming a geological consultant in 2010 and joining Aspenleaf Energy as a Geological Advisor in 2014.

Christian continues to be involved with multidisciplinary teams in the integration of geotechnical data, ideas, reserve assessments, economics, risk and portfolio management to effectively evaluate and rank oil and gas prospectivity in various areas of Western Canada.

As an Adjunct Professor at the University of Calgary, Christian provides supervision and technical support to graduate students with their research projects and presents guest lectures in carbonate sedimentology classes and laboratories.

MINING OIL FINANCE

Western Examiner

LEDUC No. 1 BLOWS IN

Crowds Thrilled By Spectacular Display At Imperial Wildcat

THREE RESERVES DUE FOR TEST BY CALIF.-STANDARD

Early Estimates of Leduc Output

Annual Review Issue Next Week

Anglo-Can., C. & E. Were a Jump Ahead

Standard Rigging On West Taber Site

McColl-F. Active In Foremost Field

Glenbow Archives NA-789-79

Spectators gather at the Leduc #1 wellsite in 1947 (left) while industry is alerted to this significant new discovery (right).

Editorial Comment: Please note that unless otherwise indicated, all contents of this newsletter have been created and/or assembled by P.H.S. President Clint Tippett.

***Archives* is published approximately eight times a year by the Petroleum History Society for Society members.**

Back issues are archived on our website at http://www.petroleumhistory.ca/
Contacts: contact@petroleumhistory.ca
President: Clint Tippett – clintontippett88@gmail.com 403-208-3543
Editor: Bill McLellan – mclellaw@telus.net 403-288-9089

Petroleum History Society Presents Its 2025 Awards

The Petroleum History Society was pleased to announce its 2025 award recipients, recognizing outstanding scholarship, preservation, and lifelong contributions to the understanding of Alberta's petroleum history and its broader social and cultural significance.
The Society, a Calgary-based volunteer organization dedicated to preserving and telling the story of the Canadian petroleum industry, was proud to honour this year's recipients for their important work at this year's Annual Meeting on March 25. Thanks to Director Bill Whitelaw for crafting our press release and to Director Rod Maier for the accompanying pictures.

"These awards are important reminders that petroleum industry history and the stories it creates are really also about community history as well," noted President Clinton Tippett. "Our sector's history is all about people and their passions – and the chronicling of the impact they have and had on the way the industry has evolved over the decades."

The **Book of the Year Award for 2025** was awarded to Paul Chastko for "*The Boom: Oil, Popular Culture, and Politics in Alberta, 1912–1924"*, published by University of Calgary Press, 498 pages. This work contributes to a deeper public understanding of the early development of Alberta's petroleum industry and its place in the province's political and cultural history. Paul accepts his award from President Tippett. See page 27 for further details.

The **Article of the Year Award for 2025** was awarded to Natalie Slawinski, Wendy K. Smith, and Connie A. Van der Byl for *"Leveraging the Dominant Pole: How Champions of an Industry-Wide Environmental Alliance Navigate Coopetition Paradoxes,"* published in *Journal of Management*, Vol. 51, No. 8, pp. 3250–3285. Their work offers valuable insight into the dynamics of environmental collaboration within industry settings and the challenges of balancing competition and cooperation with specific reference to oil sands industry consortium COSIA. Connie accepts the award from President Tippett.

The Petroleum History Society congratulates all of our 2025 award recipients and thanks them for their contributions to scholarship, preservation, and public understanding. As a volunteer organization committed to preserving the past and helping sustain the next chapter of Canada's petroleum story, the Society is pleased to recognize these distinguished achievements. Note that the Multimedia Award was not awarded for 2025.

The **Preservation Award for 2025** was awarded to the Historical Society of Alberta for enabling the preservation, analysis, and communication of Alberta's history, including that of the early days of the Canadian petroleum industry. The Petroleum History Society recognizes the essential role of historical organizations in safeguarding documentary and interpretive records for future generations. H.S.A. President Lorien Johansen accepts the award from President Tippett on behalf of her organization and followed up with some perspectives on historical preservation.

The **Lifetime Achievement Award for 2025** was awarded to Peter Tertzakian for his investigations into the historical and current relationships between energy and society, the publication of topical and provocative books on these subjects, and the promotion of public discourse on critical related issues. His work has helped foster informed discussion on energy, history, and the public interest. Peter accepts his award from President Tippett. Peter followed up with a very interesting and insightful talk about what has motivated him over the years and what he has sought to accomplish.

Petroleum History Society: October 28, 2025 Luncheon

Riding the Trails of Southern Alberta Museums, Heritage and Historic Sites

By: Irene Kerr – Heritage Advocate, Graphic Designer and former Museum of the Highwood Director/Curator

Irene spoke to us on October 28, 2025. She has kindly provided us with a transcript of her remarks. The first parts are contained in the January 2026 issue of *Archives*. The second part - dealing with Little Chicago and her work on that project – appears below. We thank Irene for her talk and for sharing her experiences with us. The communication of petroleum history is an important aspect of the P.H.S. and we have much to learn from what has happened with historical initiatives over the years in Southern Alberta.

Little Chicago/Royalites

In early 2008, not long after I had started work at the museum I received a call from Helen Goldenberg. She asked me if the museum would be interested in helping with the long-term maintenance of a cairn that had been erected in 2004 on the site of the oil boom town Little Chicago/Royalties - located on Highway 22 just north of Longview. The project was called "Little Chicago Revisited". As most of the committee were getting on in years, they were concerned about what would happen to the monument after they were gone. It was quite an initiation into my new role as Director/Curator.

We met with the committee at the Twin Cities Hotel in Longview. After meeting with these wonderful people, and hearing their fascinating stories, we agreed to help them out. They had been friends for many years and you could tell that they were so happy to get together.

We agreed to take over the care and maintenance of the monument but decided to do so much more. We believed that their stories needed to be preserved and shared in other ways so we decided to create a video and exhibit at the museum. I was very fortunate that my assistant Dara Murphy had just completed the film program at SAIT and was just as excited about the project as I was.

In 2008, Dara and I began interviewing former residents and members of the “Little Chicago Revisited” committee. They were very generous with their time and loaned us art, photos and memorabilia. A video and exhibit were created and installed at the museum. The exhibit opened on Sunday, August 17, 2008 with many of the former residents in attendance. It was an emotional day, but a great success. The video later won a multi-media award from the Petroleum History Society of Alberta and was made available for the public on DVD. The exhibit was very popular with visitors, many who had fascinating memories of their own to share with us.

We decided to further preserve the story of Little Chicago/Royalties through an online exhibit and got to work. The online exhibit is based on the storyline, panels, video and photo album that were created for the in-house exhibit, along with further research and audio interviews. It is still

online but unfortunately as times have changed – so has technology and the videos are no longer available.

The museum continued to take care of the site. Dedicated volunteers kept it cleaned and maintained. This included painting the fences, weeding and landscaping the area and maintenance of the monument. Volunteers from Longview took care of weekly trash removal and "surveillance" of the site. One of the costliest items was the ongoing replacement of the always wind battered Provincial and Canadian flags. We provided the flags, and the employees at the nearby gas plan installed them.

As requested by relatives of former Little Chicago residents, memorial plaques were installed on the benches.

In 2019 permanent outdoor interpretive panels based on the original exhibit graphics were added to the west pipe rail fence.

In July 2022, John Scott (landowner) called to let us know that three of the brass plaques had been stolen off the monument. Because we had good photo records of the monument, we were able to exactly replicate the plaques and print them on to a metallic outdoor material (not worth stealing) and replace them. Purely by chance, a couple of stonemasons had just moved to Longview area and offered to repair the damaged stonework.

Unfortunately, in 2024 the last brass plaque was stolen from the south side of the monument. The original image was found in the Glenbow Archives and this was also replaced using the same method as the others. *Ed. Please refer to pictures at the end of this article.*

Where is Little Chicago/Royalties?
And why was it called that?

No one really knows exactly why the town was called Little Chicago, but there are several stories. Some say it was about the proprietor of the first general store who had a scar on his upper lip and locals felt that he charged exorbitant prices for his goods. He was known locally as "Little Al Capone", and his store was on the shores of a slough nicknamed Lake Michigan. In his defense, everything had to be brought in by truck, and prices were high. Many people were forced to charge their groceries, some didn't pay their accounts, and "Little Al" later went bankrupt!

Others say the town was called Little Chicago because the large gas flares were "just like" the bright lights of Chicago. It was later named Royalties by the government in honour of the first crude oil producing well in the field.

According to the *High River Times*, June 22, 1937, "Little Chicago has been re-christened 'Royalties' which seems somewhat lacking in flavour. It is said that Pete Leman is to be the postmaster of the new town."

A Makeshift Town: The Beginning

In 1936 the big Turner Valley Royalties well blew in. People celebrated with a baseball game, a dance, and numerous parties. Someone even hung dynamite between two derrick tops and exploded it after dark. It was the dusty depression days and the timing of this discovery couldn't

have been better. Oil and gas production meant employment for many and people flocked to the site. In no time a bustling town called Little Chicago sprang up in the foothills of Southern Alberta. Packed into an area of just over two square miles, Little Chicago grew and developed around more than 20 wells.

Oil field workers were usually followed by their families. This was usually because of the bad roads and long shifts - day or night. Sites would be prepared for a dwelling, the house/shack moved on, and the close proximity to unregulated gas lines would allow for lights, fuel and even a flare for burning garbage - all in less than a day.

As we drove over Hartell Hill I remember surveying the landscape. High wooden derricks dotted the rolling prairie. To the west were the magnificent Rocky Mountains. The sky was bright with sizzling flares of fire. The air was scented with a disagreeable odour, reminding me of rotten eggs. We soon became accustomed to this odor of raw gas. A sign on the road read 'Little Chicago'.
– Helen (Fishman) Goldenberg's account of her family's first sighting of their new home in Little Chicago.

Working in the Oilfields

"Although the south end of the field is a hive of activity, there is not work for all who have swarmed into the Valley fields. The influx of transients is unjustified by available work. Sleeping under the oil flares, eating when and where they can, these workers have poured in. Homesteaders from north of Edmonton, farm boys from southern and central Alberta, and men from city relief ranks patrol the 20 miles of industrial activity, hoping to be "on the spot" in case sudden need should arise. Although some have been fortunate to pick up work, the majority do not fare so well. Some are exhausting their resources in the effort to be taken on and may eventually have to return from whence they came.

'Some of these work seekers are good capable fellows,' remarked one man at the scene. 'Though inexperienced, they seem willing and alert. But a good many have been loafing too long. They don't know which day is Tuesday, and they're only here because they aren't somewhere else'."
- *High River Times*, March 1937

Dangers, Explosions and Excitement

Living near the oil wells had its benefits as well as its dangers. Gas was cheap and easy to access. People not only heated their homes with gas, they also heated their outhouses. The gas pressure was difficult to control and a lit cigarette or ignited stove could easily cause a fire or small explosion. There was no fire department and so it was up to the families to control any fires. The nearest hospital was in High River, Alberta, and one High River resident who delivered newspapers remembers seeing many burn victims in the wards.

The air was thick with the smell of sour gas. Gas from the wells was passed through separators. Producers kept and sold the condensate while flaring off the by-product gas. There was practically a flare in every back yard, creating enough light for people to read a newspaper at night. Grass would stay green year-round and migrating birds wintered in the flare's warmth. The flares were loud, and gas production created a vibration strong enough to knock store

merchandise to the floor. Shopkeepers had to put strings across their shelves to keep everything in place. There was also the danger that a well could catch fire and burn out of control.

Older derricks were made of wood and would burn very easily. In situations like this, special control experts were brought in to blow away the flames with explosives.

Playing under the Flares

Despite the possibility of danger, constant light and unpleasant odours, people who grew up in Little Chicago have very fond memories of their time there. The community was small, diverse and extremely supportive. A house fire one day would be met by a fundraising dance the next.

Children saw Little Chicago as a grand location for play. The big slough was a place to test boat building skills and soak younger siblings. Kids enjoyed movies in the theatre, dances in the hall, and an ice carnival in February. There was a skating rink set up for wintertime activities. The kids could brag that they had the best ice surface around because it was made smoother by hot boiler water.

The kids liked to play around under the flares and often scared their mothers by testing how high they could climb on the derricks. While the children played, parents formed recreational clubs, getting together for games of bridge, hockey games, knitting circles and maybe even getting into a little trouble themselves.

Daily Life

Along both sides of the highway, Main Street consisted of a boarding house, beauty parlor, barber shop, pool hall, shoe repair business, theater, a meat market, two service stations, McFarland's lumber yard, a Hudson's Bay Co. mail order office, a Jenkin's Groceteria, a privately owned grocery establishment, machine repair shops, a Women's Institute, a dentist's office, and a movie theatre. I'm sure I've forgotten several other businesses. I particularly remember the floor in the meat market constantly sprinkled with fresh sawdust. It was here we purchased blocks of ice to preserve food stored in our ice box.
– Helen (Fishman) Goldenberg

Some of the retail Stores in Little Chicago ....

When oil was discovered near Edmonton and Leduc Number 1 was drilled, the oil workers began to leave Little Chicago and head north. The population slowly began to decline, and the post office was closed in 1969. Houses, shacks and buildings were moved away from the townsite to other locations around the Foothills area. Nothing remains of the once-bustling town - except the monument.

The Making of a Monument

For many years former Little Chicago residents gathered together for annual or bi-annual reunions. Many remained close friends and enjoyed making trips to where the town once stood. Because nothing was left, concerns were raised over the possibility of losing the memory of Little Chicago forever. A group of past residents banded together and decided to work towards

erecting a monument at the site. The Little Chicago Revisited Committee raised more than $30,000 to build the monument that was unveiled on July 24, 2004. In 2004 their dream was realized when the monument was completed and dedicated in a ceremony.

The cairn at former Little Chicago showing lost panels and replacements.

Petroleum History Society: November 26, 2025 Luncheon

A Closer look at the British American Oil Company: A P.H.S. Student Showcase

By: Dr. Sabrina Perić and her students: University of Calgary, Department of Anthropology and Archeology

The luncheon meeting on November 26, 2025 at the Calgary Petroleum Club featured University of Calgary Professor Sabrina Perić and a number of her students. They presented the results of their work on various aspects of the British American Oil Company, a prominent operator in Canada and the United States between 1906 and 1969.

We were very pleased to have Sabrina and her students join us as their research focus is one of the few remaining in Western Canada related to the petroleum industry. It is great to see students engaged in this work. Our thanks to Sabrina for her help in organizing this event.

And also a shout-out to ConocoPhillips whose sense of corporate responsibility led to the donation of the documents underlying this research to the university.

BACKGROUNDER

As part of an archival gift from ConocoPhillips, University of Calgary Libraries and Cultural Resources recently received the records of the British American Oil Company. Incorporated in 1906, B/A Oil was primarily a refiner and marketer of petroleum products in its earlier years.

Following the discovery of oil at Leduc in 1947, however, the company became an important explorer and petroleum producer before it was fully acquired by Gulf Oil in 1969. Though B/A Oil's records provide an intimate look at the rapid growth and formalization of a previously small company, little has been written about B/A Oil's history.

In early 2025, undergraduate students at University of Calgary were given the opportunity to take a first look at the B/A Oil records as part of a class on "Energy, Power, and Society" with Dr. Sabrina Perić. Over the course of January – April 2025, they conducted research and wrote some of the first scholarly papers about B/A Oil based on these archives.

This P.H.S. Student Showcase highlighted the work of five of these students, provided a look into some of the fascinating documents in this collection, and celebrated the next generation of energy historians.

Interested readers should access the November 2025 issue of Archives where a considerable amount of background information about B/A was presented.

The presentations were:

1. **Yessenia Montoya Castro**'s "Who Controls the Ads Controls the Culture," took a deeper dive into B-A Oil's innovative approach to the advertisement and marketing of petroleum products to Canadians, and how they aimed to appeal to a broad swatch of middle-class consumers.

2. **Sarah Lesyk**'s presentation "Driving Antique Vehicles and the Demand for Cars," explored B-A Oil's sponsorship of antique automobile tours and its role in driving consumer demand for cars amongst men and women in Canada.

3. **Gabby Barber** presented on “The Face of B-A,” which discusses the role of masculinity in B-A company culture by taking a closer look at both career advancement for men in B-A, as well as the centering of masculinity in B-A Oil’s advertisement campaigns.

4. **Miller Linke** discussed “Canada’s Atomic Heart: The Opening of B-A Oil’s R&D Facility at Sheridan Park, Ontario”, taking a closer look at how ideas about technical innovation and research became critical to oil companies in the mid 20th century for both proprietary and marketing reasons.

5. **Lauren Powell** took a deep dive into “Corporate Image and Social Responsibility: B-A’s Marketing Tactics at the Rimbey Gas Plant,” looking at how B-A’s public attempts at ethical engagement, regulatory compliance and social responsibility operated in tension with profit maximization.

Petroleum History Society: January 28, 2026 Luncheon

Discovery and Development of the White Rose Field, Offshore Newfoundland and Labrador

By: Walt DeBoni, Petroleum Engineer and Historian

This luncheon featured industry veteran and historian Walt DeBoni who addressed us about his experiences in offshore Newfoundland and Labrador.

Walt shared his speaking notes with us. They have been slightly reformatted and are provided to readers below. Thanks to Walt for providing this record of his presentation.

BEGINNINGS

- The National Energy Program was the impetus for Husky and Bow Valley to explore off the East Coast.
- I was directly involved as VP Operations with Bow Valley from 1982 to 1991 and as VP International Business and East Coast Operations with Husky Energy from 2002 – 2005.
- Exploration and delineation activity in White Rose was carried on between 1984 and 2000, with "breaks in the action" during that period.
- Development planning starting in earnest in 2000 and led to first oil in late 2005.
- Work is continuing today to develop the resources in the field.
- White Rose is the most easterly of the four producing fields on the Grand Banks, located some 350 km from Newfoundland, on the edge of the Jeanne d'Arc Basin.
- Northeast of White Rose is the discovery in the Flemish Pass called Bay du Nord.
- Publicly disclosed reserves >400 MMSTB; water depth 600 – 1170 m.
- This is a schematic of the full development of the White Rose Area, including the original development and the concrete gravity structure that would house a drilling rig and form the base for production that will be processed on the SeaRose FPSO.
- First let's go back to the beginning, and yes, bring up the reviled 1980 NEP.
- Oil prices were expected to rise quickly.
- Alberta government revenues rising rapidly and it is just possible Ottawa wanted a bigger share, price controls domestic oil and new taxes on production.
- Promoting exploration on Federal Lands and increasing Canadian ownership.
- This was the reality of prices. It took almost 30 years for the oil price to rise to the NEP forecast.
- At the time White Rose development was beginning in 2000 – 2002, oil prices were hovering around $40. Not exactly robust economics.
- Federal government revenue didn't meet their expectations which caused problems for companies investing in Federal Lands.
- 1980 BVI was a partner in a Norwegian gas field and an oilfield in Abu Dhabi. It was a partner in the first of five UK North Sea developments that can onstream in 1983 and was expected to produce over 110,000 BOPD.
- In 1980, Husky was producing about 50,000 BOPD and over 100 mmcf/d. It had land holdings in several other countries. Also a significant mid-stream, refining and marketing organization.
- The companies formed a 50/50 partnership to explore offshore Canada's East Coast.

- BVRS had experience owning and operating offshore rigs in the North Sea through a 20 percent interest in Oslo Drilling (owner of Odin Drill – discovery of S. Brae field 1974).
- 1981 purchased Bow Drill 1 semi-submersible; leased for 4 years to PetroCanada.
- 1983 took delivery of Bow Drill 2, built in Norway, leased HSE/BVI 4 years.
- 1984 took delivery of Bow Drill 3, built in St. John, NB, Irving shipyard, leased HSE/BVI 4 years.
- 1983 took delivery of six supply boats (HSE (Husky)-operated), 2 built in Vancouver and 4 in South Korea.
- In 1981 when commitments were being made for the rigs, semi-submersible rig utilization was essentially 100% worldwide and rates were in the order of US$110,000 per day.
- By 1983-84 when drilling was started, rates had dropped to (I think) US$65,000 - $80,000 per day.
- The Government of Canada, under the NEP, was to pay 80% of cost, but they took the opportunity to insist on only paying 80% of lower current rates.
- This caused significant financial hardship.
- 1986 Li Ka-shing bought 43% of Husky; in 1991 purchased Nova's remaining interest to bring his ownership up to 95%.
- 1987 British Gas bought majority stake in Bow Valley Industries.
- H/BV farmed into acreage on the East Coast, starting to drill offshore Nova Scotia.
- Set up second drilling team in Newfoundland.
- They were operating up to 5 rigs; Bow Drill 2 and 3 and three other rigs on short term leases.
- One was the Rowan Gorilla I, a large jackup rig. In December 1988, with no work in sight on the East Coast, the rig owner decided to tow the rig to Europe.
- They ran into a massive storm in the North Atlantic and the rig eventually sank; the crew had abandoned the rig in the lifeboat despite the huge waves. The lifeboat was recovered the next day after the storm had abated.
- Start of the drilling program in Nova Scotia even made news in the New York Times.
- Wells $50 mm each, $400 mm invested in rigs and supply boats.
- White Rose discovery well drilled in 1984, followed by 3 more wells up to 1988.
- 4 more assessment wells drilled 1999 – 2000 to support the development.
- Reserves were estimated at 325 mmstb, since increased to ~ 500 mmstb.
- Field dimensions are difficult to quantify since it is comprised of several pools, but it covers an area of about 40 km sq.
- White Rose has significant gas reserves as well (2.5 TCF), although the majority of the gas is gas cap gas, so not producible until after the oil is exhausted.
- This is almost half of all the gas discovered on the Grand Banks.
- Husky did look at some conceptual developments that could be feasible to eventually produce this gas. Compressed Natural Gas (CNG) was one alternative.

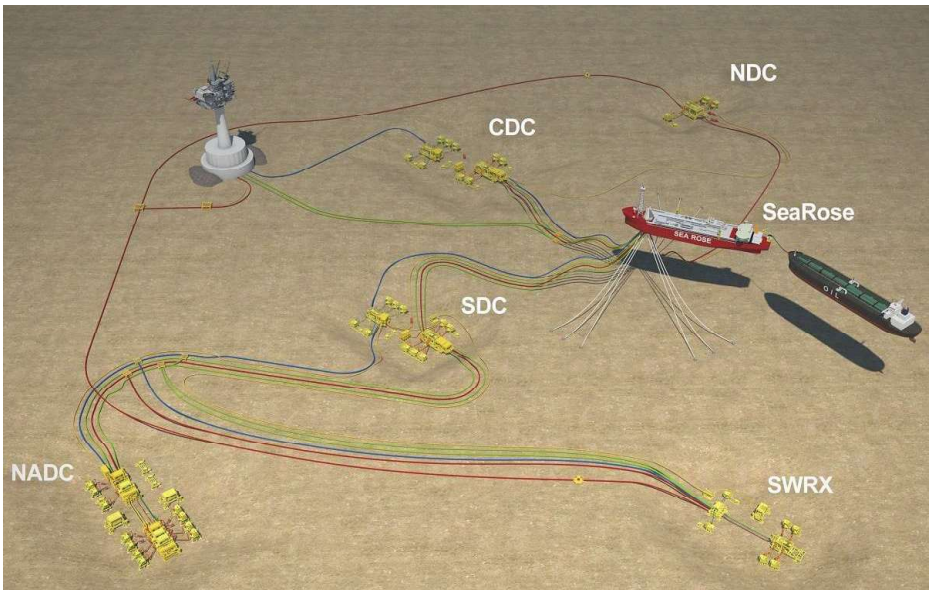
WHITE ROSE - CONSTRUCTION

- Let's zero in on the development of the White Rose Field.
- Work on a development application started in earnest in 1999 and resulted in project sanction April 1, 2002.
- The project was brought onstream within 5 months of the original schedule (Public date was Jan. 1, 2006 right from the start.)

- According to this schedule, White Rose should have been abandoned in 2021 but it is alive and kicking with the West White Rose expansion under way.
- Maximizing work done in Canada was very important to Newfoundland and working closely with the Canada-Newfoundland and Labrador Offshore Petroleum Board, now named the Canada-Newfoundland and Labrador Offshore Energy Regulator, helped the project achieve its goals.
- **Lesson:** Did not sacrifice quality – in fact, the work done in Marystown was equal to and, in some cases, superior to the work done in Korea on the vessel. Very little rework was required on all the topsides welding, all of which was carefully inspected prior to installation.
- Redundancy was built into the system.
- Ensured that work on the vessel was complete before sailing to the field. At the shipyard, one can easily have up to 1,000 people working on the project while offshore you can only have in the order of 90 people on board. Some companies love "Sailaway Date Commitments" with financial penalties attached. Not necessarily a great idea.
- One FPSO project I was a partner in, didn't follow this. The operator had a contract with the builder and the contract had a firm "sailway" date which they were prepared to enforce. So sailaway it did but the FPSO was incomplete. On the way to the field, a structure onboard collapsed. This, along with other incomplete work, had to be done offshore and pushed back the date of first oil by several months.
- **Lesson:** Closely monitor the critical path – it will change and it is usually important to make amendments to the project plan to accommodate this.
- **Lesson:** Change orders are going to happen and in a project as complex as this, there will be a significant number.
- **Lesson:** Perhaps most important, build a team of experienced people. There is no substitute for having done this before.
- The vessel part of the FPSO was built in the Samsung shipyard in Busan, Korea.
- Also, two crude oil tankers with the same hull structure were built after the SeaRose by Knutsen for the specific purpose of transporting White Rose crude.
- The SeaRose basically set sail from Korea for Newfoundland with a deck ready to accommodate the topsides modules.
- A busy shipyard as Samsung was building between 45 and 55 ships per year (depending on the complexity).
- The turret and swivel were built in a shipyard in Abu Dhabi and were loaded for transport to Korea to be installed on the ship.
- The swivel had (16) anchor chains hanging off it.
- All of the flowlines and injection lines are connected to this swivel and the fluids flow into and out of the FPSO through here.
- Swivel/turret have a maximum operating pressure of 3,000 psi.
- The vessel can disconnect if necessary due to iceberg incursion. The Swivel then separates from the turret, sinks to a predetermined depth with the anchor lines and flowlines still connected.
- Planned disconnect ~ 24 hrs; emergency disconnect ~ 4 hours.
- In the Marystown shipyard, construction of the topsides modules was organized.
- A module frame was constructed (often upside down for ease of working on the pedestals.). A completed module frame, ready for installation of the equipment and piping. Top quality work in Marystown.

- One of the biggest budget plus was a drop in the price of steel between creating the budget and actual ordering of steel. Savings in the order of $60 million which ended up being needed for other parts of the project.
- A vehicle was used to move the modules the short distance from where they were built to the dockside.
- A total of 18 modules were installed on the SeaRose, 13 large modules and 5 small.
- Largest weighed 1,300 tonnes.
- Crane max capacity was 2,600 tonnes, but when lifting at distance, max is less; crane was close to its max with the largest module.
- The other important factor with the modules was the detailed engineering required to ensure that all the connection points were properly spaced.
- The “street” in the centre of the modules providing easy access from one end of the vessel to the other. Named “George Street”; each module named for a pub on George Street in St. John’s.
- A hose is used to transfer crude oil to a tanker. Hose about a half metre in diameter.
- The hose is towed on the water to the tanker for hookup.
- Three cargo pumps capacity of 75,000 bbl/hour (12 hours to pump full tanks).
- Before going offshore, the SeaRose underwent sea trials.
- Sailaway day was August 16, 2005.
- Offshore hookup and commissioning took almost 3 months,
- Meanwhile, as the SeaRose was being completed in Marystown, there was a lot of activity offshore.
- First order of business was providing iceberg protection for the wells and gathering systems.
- Some icebergs look pretty nice and photogenic. Others appear to be designed to torpedo everything in their path.
- There was clear evidence of iceberg scouring on the sea floor in the White Rose area.
- The first defense from icebergs while drilling or producing is to divert them around the area, usually using a couple of supply boats and a net arrangement.
- To protect the wellheads and other equipment on the sea floor, three “glory holes” were needed that were about 9 m deep.
- Two were to be about 50 X 50 m and one was to be about 100 X 50 m.
- A rock-dumping vessel with clamshell excavator added on the stern was engaged to dig the glory holes. This was designed by a Dutch company, Boskalis.
- The material was dumped into the hold of the vessel and when full, the vessel travelled a short distance and dumped the material on the ocean floor.
- The business end of the excavator – a little more complex than your average scoop shovel. The operation of the excavator; suspended off the end of the vessel its location was controlled by a couple of lines. The operator had a couple of cameras on the excavator to help with orienting it.
- Operations didn’t go as expected with several issues, including software problems, so we only ended up getting one glory hole dug that first season.
- This put the glory hole digging onto the critical path since they were needed to start development drilling.
- For the next season, a second vessel, a “Trailing Suction Hopper Dredge” operated by a Belgian Company, Jan de Nul, was engaged.

- This is essential an ocean-going, giant vacuum cleaner with a 1 m diameter hose and a giant head. The technology had been around for a long time but never used at 120 m water depth before.
- The Vasco da Gama discharged its cargo by pumping it off the bow. This has frequently been used when building artificial islands – sand is scooped off the ocean floor in one spot and dumped into another to form the island or to enlarge an island. Singapore has been doing this for decades. Alternatively, the cargo can be dumped by opening "bomb bay" type doors on the bottom of the vessel.
- The second summer, the two vessels got the job done and excavated the last two glory holes. After the holes were excavated, the rock dumping vessel was used to smooth out the bottom since the flowlines needed to sit on the seafloor.
- Now that we've got the Glory Holes were finished, it was on to drilling.
- Initial drilling campaign was for 10 wells total; 6 producers, 2 water injectors and 2 gas injectors.
- Average completed well cost $37 mm.
- The Glomar Grand Banks was leased to drill these wells. The rig was brought into Bay Bulls, a harbour about 30 km south of St. John's. The rig was refurbished and upgraded.
- The Glomar Grand Banks started life as the Bow Drill 3, built in the Irving Shipyard in St. John, NB in 1984. It was originally leased by Bow Valley and Husky.
- It was sold to Maersk in 1988 and renamed Maersk Vinlander. It was sold again in 1998 to Glomar and renamed Glomar Grand Banks. With consolidation in the offshore drilling rig business, it became the Global Sante Fe Grand Banks in 2004. In 2016, the rig was scrapped in a shipyard in Turkey.
- In 2011, a supply vessel accidentally rammed one of the columns of the rig in rough weather, punching a hole in the column above the waterline.



White Rose Development Layout – current (2026). NDC – North Drill Centre; CDC – Central Drill Centre; SDC – South Drill Centre; NADC – North Amethyst Drill Centre; SWRX – South White Rose; Grey Pedestal to NW – new West White Rose gravity-based platform; SeaRose – moored FPSO ship; black ship – transfer tanker for shipment of crude oil to markets.

Petroleum History Society: February 25, 2026 Luncheon

Tales of the Arctic

By: Walter Benstead, Petroleum Geologist

Bio: Walter worked in the oil and gas industry for some 40 years. He has a B.Sc. in Geology from Western University, Ontario. His first job in the industry was with Mobil doing surface geology mapping in the Canadian Arctic Islands. Following that he worked in production geology developing existing oil pools and doing wellsite geology in the Rainbow Lake Area of extreme northwestern Alberta. From there he went to Libya to warm up and subsequently to Australia. In Australia he was employed by the Geological Survey of Queensland. Upon returning to Canada, he first worked at evaluating the gigantic natural gas potential of the Mackenzie Delta and Beaufort Sea. Much of Walter's career was spent doing multi-client geological studies and prospect generation in southwest Saskatchewan.

Abstract: This is a story of adventure, geology and fascinating logistics. The Arctic Islands are a truly magnificent part of Canada. The surface geology exposure in the Arctic Islands with no tree cover and minimal vegetation is a lesson in geology beyond any textbook or college class. The first really striking feature is the Parry Islands Fold Belt on southern Melville Island. Walking down the centre of an anticline with one set of rocks dipping north and the other south is a pretty neat experience for a new geologist. Geology was the purpose of these expeditions but there was so much more to experience. The wildlife such as musk ox and caribou are images of biological resilience. The uncluttered vistas and terrain of mountains rising up out of the azure-blue ice and white snow of the frozen arctic ocean are mind boggling. I hope my pictures convey this majesty. The logistics of getting around in a challenging landscape where the only transportation is small aircraft and helicopters is also an element.

Bell helicopter flies over ice-infested Arctic waters.

Top – Walter addresses the luncheon crowd. Bottom – the audience in rapt attention including Tako Koning (left) and P.H.S. Director Doug Cass (right). Between them is ex-Mobil field Party Chief Ken Drummond who features prominently in Walter's book. Walter's self-published work, also called "Tales of the Arctic", is 91 pages in length. It came out in 2025 and can be purchased from Amazon. The soft-covered volume deals with his summer jobs with Mobil but also records the following stages of his petroleum-related career in Canada. His international adventures will hopefully be the subject of a sequel.

Petroleum History Society: March 25 Annual Meeting Keynote

Lessons from the Boom: Reflections on the Beginning of Alberta's Petroleum Culture

By: Dr. Paul Chastko, History Department, University of Calgary

ABSTRACT:

This talk uncovers the real story behind Alberta's first oil boom - a story far more chaotic, contested, and colourful than the familiar tale of bold pioneers striking it rich.

Long before Alberta became known for free-market politics and steady petroleum wealth, the province's earliest oil rush was shaped by speculation, public debate, and a surprising amount of fraud. Calgary in 1913–14 was transformed almost overnight into a frenzy of curbside stock trading, makeshift exchanges, and breathless optimism, even though the entire boom produced barely 20 barrels of oil a day.

At the center of the excitement were not only legitimate figures like Dingman and Herron, but also dreamers and schemers such as George Buck - an evangelical promoter whose "miracle discovery" turned out to be a salted well and sparked a continent-wide scandal. Their stories reveal how Alberta's oil culture was built as much on imagination and risk as on geology.

Paul's talk also explored how this speculative chaos damaged Alberta's reputation, triggered calls for regulation, and forced the province to confront questions that still resonate today: How much oversight should government exercise? What makes a resource boom trustworthy? And how do early beliefs about markets, progress, and prosperity shape a province's identity for generations?

Fast-paced, surprising, and filled with larger-than-life characters, this presentation showed that Alberta's oil story is far more complex - and far more interesting - than the myths we often tell.

BIOGRAPHY:

Dr. Paul Chastko is an associate professor and Head of the History Department at the University of Calgary. He is a recognized expert in the history of the North American petroleum industry, with a focus on political, social, economic, and environmental challenges.

Paul is the author of "*Developing Alberta's Oil Sands: From Karl Clark to Kyoto"*, which won the Petroleum History Society's Book of the Year Award in 2004.

He is currently working on the next volume in the series that will bring the story of Alberta's petroleum culture forward through the Second and Third Turner Valley Eras.

Paul's book "*The Boom: Oil, Popular Culture, and Politics in Alberta, 1912–1924"*, 2025, published by University of Calgary Press, 498 pages, is available from the U. of C. Press and in bookstores everywhere.

Petroleum History Society: May 6, 2026 Luncheon

The Imperial Oil Refinery at Ogden, Calgary: Production, Pollution and Penance

By: Laura Combden, Filmmaker

Preamble

Calgary does not currently host a petroleum refinery but instead receives its supplies of petroleum-derived products from facilities in the Edmonton region. This situation, however, was not always the case and in the not-so-distant past, Calgary was home to several refineries, a large one operated by Imperial Oil, a smaller one by Gulf Canada and several minor ones. Both larger ones were adjacent to the Bow River and the Canadian Pacific mainline in the Ogden-Inglewood area of southeastern Calgary.

Throughput of the Imperial Oil refinery was 8000 barrels/day in 1946 with gradual growth to 21,200 barrels/day by 1975. On-site storage in 1975 was 160,000 barrels. **1974 refining details:** 7000 bbl./d cat cracking, 7400 bbl./d vacuum distillation, 2500 bbl./d catalytic reforming, 5600 bbl./d catalytic hydrogen treating hydrofining (distillate), 1700 bbl./d alkylation sulphuric acid (product), 1000 bbl./d asphalt. **Product portfolio:** naphtha specialties, aviation gasoline, motor gasoline, tractor fuel, aviation turbine fuel, kerosene, #1 stove oil, diesel fuel, light fuel oil (#2 and #3), heavy fuel oil (#4, #5 and #6) and asphalt.

Note. The P.H.S. hosted an earlier talk on a closely related subject on April 21, 2024 by Mr. Shawn Howard of ExxonMobil Cabada and Imperial Oil. You can access the related abstract on the April 2004 issue of Archives, available on the P.H.S. website.

Laura's Abstract:

Despite closing over 50 years ago, Imperial Oil's Calgary refinery remains of interest to the broader community due to the legacy of the land and the challenges the City of Calgary has faced in developing it after the closure of the facility. The refinery operated for over 50 years, from 1923 to 1975. It refined crude oil from Turner Valley, Montana and Wyoming (in 1937) and, by 1964, from the much-expanded Alberta oil pipeline network. The facility became Canada's most modern, modelled after Regina's but with significant technological advancements. It's unique location, next to the blue-collar community of Lynnwood/Ogden, influenced it in nearly every way, especially during its 1959 expansion. The long and winding story of this refinery and its impact on the city and the people of Calgary includes its connection to Ralph Klein and the construction of Deerfoot Trail.

Laura unfolded this multifaceted epic for us as follows:

"My presentation tells the story of the refinery chronologically, starting in 1923 during construction. I present details about the equipment and the processing.
I go on to share information about:

- the expansion and the controversy surrounding it with the community,
- the preparation for closure in 1975,
- the leaks - which tanks leaked, the cause, the clean-up,
- the rezoning to residential on the tank farm area,
- building the community of Lynnview Ridge,
- the changes in allowable lead (Pb) limits,
- the subsequent destruction of the community of Lynnview Ridge,
- the last 20 years of clean-up efforts, and
- the state of the land today and the future of the land with respect to the construction of the Green Line LRT".

Bio:

Laura Combden is a writer and award-winning music video producer known for her work with Canadian artists Petunia, Shaela Miller, Carolyn Mark, The Wandering V's, David Newberry, and Dylan Sadlier Brown. Her interest in community and local history led to the research behind Calgary's Imperial Oil refinery and former Lynnview Ridge neighbourhood, where she hosted historical walks in the summer of 2025 for Historic Calgary Week. Laura is planning to run such tours in 2026 as parts of the Jane's Walks program in May and Historic Calgary Week in July.

Laura subsequently provided us with the following text based on her presentation. Many thanks to her for sharing this with us.

In 1922, about 8 years after oil was discovered in Turner Vallery, Imperial Oil announced their plans to build a refinery in Calgary, specifically to process the oil coming by pipeline from Turner Valley and the United States. The City of Calgary held a plebiscite, a city-wide vote on the

refinery being built in the SE community of Millican-Ogden, and 3000 Calgarians voted yes, only 25 voted no. They say not a single “no” came from the neighbourhood itself.

The location, cradled between the Bow River and the CPR track. The land was just north of the Ogden Shops, in a neighbourhood of a lot of CPR rail families familiar with the nature of living close to industry. The Calgary Herald reported that the tract was essentially waste land, full of gravelly soil, that cost the city a ton of money in lost taxes, so it was an ideal place to build.

Before the refinery was constructed, Imperial was importing three train loads of gasoline per week from the United States to meet the excess load of harvesting time in Alberta and western Saskatchewan. The Regina refinery carried the ordinary load but for 6 weeks during harvest, there was a peak load when more gasoline was consumed than during the rest of the year. The new refinery was to help to meet this peak load, doing away with much of the importing from the U.S.

The refinery was modelled after Imperial’s Regina refinery (which was built in 1916). It would cost $2.5 million to build and would have an output of 2500 to 3500 barrels per day to start. The crude oil for the Regina refinery was being imported from Montana and Wyoming Fields. The reason they decided to build in Calgary was because of potential developments in Montana, and an expected development in Cat Creek, Montana, 150 miles SE of Coutts, Alberta. In 1925, the oil (condensate) started flowing from Turner Valley through the Turner Valley pipeline.

They say MacFadyen, a homesteader, still had his log barn standing when construction on the refinery started in 1923. Imperial employed 250 people right at the start, providing steady work at a time in Canada when work was hard to come by. Calgarians were very grateful their city was chosen to be the location of this refinery.

From the very beginning, the facility was considered Canada’s most modern. It consisted of two distillation towers, a catalytic cracker, and a reforming unit with a feed treater. They made leaded and unleaded gasoline, kerosene, Turbo A and B fuel, pole treating oil, and asphalt products. Imperial Oil acquired the right to Jersey’s Standards “tank and tube” process, which enabled continuous cracking – a significant technological advancement.
In both 1923 and 1929 the entire refinery was flooded, plaguing the same neighbourhoods that saw Calgary flooded in 2013.

A family named Rockefeller was living at a homestead on Beaverdam Flats. They had to be rescued by the fire department because nearly all of their land was submerged. Many of their farm animals were caught in the flood and went down the Bow River. It is not known whether they were swimming or deceased, the farm animals that is.

In 1929 there was also record of some signage being placed on top of an Imperial storage tank showing airline pilots which way the airport is.

Beginning in 1936, when true crude oil was discovered at Turner Valley, the refinery was then able to rely on purely Canadian sources.

In 1939 the Turner Valley pipeline was transferred to Imperial’s wholly owned subsidiary, Valley Pipeline Ltd. In 1940 a combination unit was completed specifically to handle the increasing quantities of crude oil coming from Turner Valley.

WEATHER

THE CALGARY DAILY HERALD 5 O'CLOCK EDITION

THIRTY-EIGHTH YEAR, No. 8139 CALGARY, ALBERTA, WEDNESDAY, AUGUST 16, 1922 16 PAGES

AS NEW IMPERIAL OIL CO. REFINERY IN CALGARY WILL APPEAR

$2,500,000 REFINERY PLANT WILL BE ERECTED HERE BY THE IMPERIAL OIL CO.

CANADIAN RAILWAY HEADS RELUCTANTLY DECIDE TO SUSPEND WAGE REDUCTION

POINCARE HAS CONFIDENCE OF ENTIRE CABINET

RESUMPTION OF PRODUCTION OF COAL ORDERED TUESDAY NIGHT

CONSTRUCTION TO START AT ONCE, PROVIDED AGREEMENT IS RATIFIED BY THE CITIZENS

JOCK HUTCHISON ELIMINATED BY GENE SARAZEN

MAYOR ELATED NOW REFINERY SEEMS ASSURED

WHAT NEW IMPERIAL OIL COMPANY OIL REFINERY MEANS TO CALGARY

MONTHLY PAYROLL OF $50,000 WHEN PLANT IS IN OPERATION

ANOTHER GREAT IRISHMAN LAID TO LAST REST

MOUNT ROBSON IS CONQUERED BY MOUNTAINEER

The Major Leagues

The original announcement of the construction of the refinery in 1922.

Laura explains what's going on at the site now.