



ARCHIVES

Newsletter of the Petroleum History Society

November 2019; Volume XXX, Number 8



P.H.S. Luncheon – Wednesday, November 27, 2019

The Pinnacle of Success: How Western Canada's Petroleum Future was Led by E&P in "Fizzy" Rocks

by Dr. Christian Viau – Geological Advisor – Aspenleaf Energy Ltd.

The Western Canadian Sedimentary Basin has two main layers – a deeper one dominated by limestones, dolostones and related shales (a.k.a. fizzy rocks) and a shallower one made up of sandstones and shales. Early exploration focused on the latter with mixed results but it was only once the deeper Upper Paleozoic section started to be probed that the action really started. Hints of its potential were revealed with the 1920 discovery of Norman Wells. The major discoveries at Turner Valley in 1924 and 1936 were in thrust carbonates. Finally Leduc in 1947 opened the floodgates of production from the Devonian. Canadian expertise in this type of reservoir grew over the years and came to be recognized worldwide. Research efforts in industry, academia and government by people like Ted Link and Eric Mountjoy led to many additional discoveries. Chris will explore the evolution of this facet of our industry. *Please see page 4 of this issue for Chris's full abstract and short biography.*

Time: 12 noon, Wednesday, November 27, 2019

Place: Calgary Petroleum Club
319 - 5 Avenue SW, Calgary; Cardium Room (but check marquee).
Dress – business casual.

Cost: P.H.S. Members and Student Members \$35 and Guests \$40 (most welcome).
Only cash or cheque at the door. Payment can be made in advance by credit card or by e-mail. Please advise payment method with reply.

Lunch: Soup, sandwiches and cookies. Gluten-free? Vegan? Advise with reply.

NOTE: Instructions for registering for the Luncheon:

Reply, if you wish to attend, to: Micky Gulless at 403-283-9268 or micky@petroleumhistory.ca by noon, Monday, November 25, if not sooner.

Those who register but do not come, or cancel after the deadline, will be invoiced.

Those who do not register by the deadline may not get a seat.

The Bull Wheel



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. Contact President Clint Tippett at the address indicated on page 3.

Membership Renewals: Yes – it is that time of year again. For those whose memberships are expiring (please refer to your email or mailing label for that status), renewals are due in January. If you'd like to get a jump on this, you can renew with an Interac e-mail transfer from your bank to micky@petroleumhistory.ca - preferred (no fees to P.H.S.). You can also renew on our website via PayPal with only an email address and a credit card - <http://petroleumhistory.ca/about/member.html#pay>. Or you can pay cash at an event, or mail a cheque to Petroleum History Society c/o 1638 Broadview Rd NW Calgary T2N 3H1. Thanks.

Jack Mintz luncheon talk – October 30. Several of our members have asked whether there is a transcript of Jack's remarks. Unfortunately not. However, readers can quite easily Google "Jack Mintz carbon tax" and pull up some related material, for example his April 10, 2018 National Post article entitled "*Carbon pricing has been fully exposed as just another tax grab*" and his October 25, 2018 Post article "*The Liberals ignored my carbon tax plan. Theirs is much worse*". Jack's volume of work can also be accessed through the University of Calgary's School of Public Policy website.

Presumptuous Bureaucrats: One of the funniest articles that I've read recently was in the August 6, 2019 National Post where retrospective coverage was of the 2017 G7 summit in Quebec. The approach used for the crafting of the normal closing communique was discussed. It appears that the bureaucrats have taken terminology extracted from Himalayan climbing expeditions to describe themselves – as follows: "Sen. Peter Boehm was Trudeau's sherpa ..", "Ordinarily the final communique, a statement that sherpas carefully craft for their leaders ...", "It was decided among the sherpas ..." and "The leaders mounted a decisive final effort, alongside their sherpas ...". So heroic! I never thought that I would pray for an avalanche.

Report from Gatineau: P.H.S. Director Doug Cass recently visited the Museum of History (ex-Civilization, ex-Mankind) in Gatineau, Quebec. He reports that all vestiges of petroleum history have been purged from that facility. Those of you who may have visited it in days gone by will remember the scale model drilling rigs, the exhibit featuring the oil well "shooter" and the full scale cable tool drilling rig. This transition appears to be more than just a rotation of exhibits. You may recall the furor connected to petroleum industry sponsorships.

Lufkin: The following item has been contributed by P.H.S. Treasurer Micky Gulless. *“I was planning to include this steel tape measure in my story “Petroleum History Preservation - Personal Style”. It was my father’s and probably dates to the early 1950’s. I had assumed it was corporate swag from Lufkin - you know, that Lufkin company that makes pumpjacks. Then I had someone come to estimate some eavestrough work we needed. She had a Lufkin measuring wheel. Curious, I thought, and I took another look at my steel tape measure. It said “The Lufkin Rule Co. Saginaw, Mich.” - not a hot bed of oil industry manufacturing. So I googled Lufkin. Turns out there are two Lufkin companies. The Lufkin Board and Log Rule Co. of Cleveland made steel tape measures starting in 1887. It was founded by Edward Taylor Lufkin, and is now part of the Apex Tool Group. Lufkin Foundry and Machine of Lufkin, Texas, was founded in 1902. Walter Trout sketched out a design for a pumpjack in 1925. They are now part of Baker Hughes, which is a GE Company, and they still make pumpjacks and other oilfield equipment.”*



Industry Parallels: The recent federal election (and the upcoming session) contained calls for a reduction in cell phone charges. The telecommunications industry has been pushing back with the argument that the expansion of their networks into remote areas has and will require significant capital – derived from current high rates. There is an interesting analogy here with natural gas transmission and how that played out in the mid-1990’s. At that time, Nova had a monopoly on non-field gas transmission and charged everyone the same toll regardless of location. Nova was pushing its network into the more remote northern part of the province basically using funds from more southerly regions that were already fully served. Companies with operations in the south objected – and in Shell Canada’s case even threatened to build its own pipeline from Waterton to the border. Nova eventually gave in and broke the province into separate regions. Southern producers paid less and northern ones more – thus removing this distortion – and improving the economics of southern natural gas E&P. Countries like the U.K., with which cell costs are often compared do not, of course, have this issue of vast poorly served regions so it is really apples and oranges. The Canadian solution may be to force northerners to pay the costs for expanded service themselves rather than piggybacking on southern consumers. Whether the Federal Government is willing to force northerners into a more high cost situation remains to be seen. I believe that this parallel also extends into the airline industry – high southern fares subsidize more expensive northern aviation.

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

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November Speaker Abstract:

The Role of Geoscience in Hydrocarbon Discoveries and Exploitation in Carbonate Reservoirs of Western Canada

By Christian Viau, Ph.D., P.Geol.

Geological Advisor - Aspenleaf Energy Ltd.

President - CV Energy Ltd.

Adjunct Professor - Department of Geoscience, University of Calgary

Geoscientists and geoscience have been and continue to be a critical part of the exploration and exploitation of economic hydrocarbons in the Western Canada Sedimentary Basin (W.C.S.B.). Starting in 1902 oil was discovered at Cameron Creek at a depth of 311 m in Precambrian Albyn carbonates based on locating surface oil seeps. Over a century later in 2004, in what is the most recent major exploration discovery in carbonates in the W.C.S.B., sour gas was discovered at Tay River in a Devonian Leduc reef at 5137m TD (4809m TVD) below the first major thrust sheet (Brazeau Thrust) in the Foothills near Rocky Mountain House based on mapping with advanced seismic and geological concepts.

In the last two decades the industry has shifted its business strategy and activities away from exploration to exploitation of unconventional resource plays. Success in these unconventional plays relies on a multidisciplinary approach which involves efficient cooperation between various geoscience and engineering disciplines.

This presentation was developed for geoscience students at the University of Calgary to emphasize the important and evolving role of geoscientists (as part of multi-disciplinary teams) in the oil and gas industry and why the concepts students learn in carbonate sedimentology and other geoscience classes have been and continue to be so important to the successful and economic development of the oil and gas resources in carbonate reservoirs of Western Canada.

Speaker Biography:

Christian earned his B.Sc. Géologie at Université de Montréal in 1980 and followed up with his Ph.D. in Geology at the University of Calgary in 1986 following a detailed study of the Swan Hills reefs. In the last 34 years Christian has been involved in oil and gas exploration, exploitation, reservoir characterization, research projects and mapping of both clastics and carbonates conventional and unconventional reservoirs in over 20 different geological formations and plays from Western and Eastern Canada.

He 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) prior to becoming a geological consultant in 2010 and joining Aspenleaf Energy as a Geological Advisor in 2018. He has been the President of CV Energy Ltd. since 2010. 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 in the Department of Geoscience at the University of Calgary since 2013, Christian provides technical support to graduate students with their research projects and presents guest lectures in carbonate sedimentology classes and laboratories.

REMEMBRANCES (with thanks to the Calgary Herald and Legacy.com)

This month we continue our tradition of recognizing individuals who contributed to the growth and success of the Canadian petroleum industry. These are not just dry testimonials but rather records of the accomplishments of those who made a difference.

BELCHER, John Jamieson. Born November 18, 1927 and passed away October 23, 2019. On their wedding evening in 1956, John and Margaret sailed from Melbourne to Southampton, U.K., via India, the Suez Canal and the Mediterranean. After an extended driving tour through England and Europe, they sailed to Montreal and on to Sarnia by train to start their new life together in Canada. John worked as an engineer with the Canadian Oil Company in Sarnia and Bowden, then for 25 years with Shell Canada in Sarnia and Vancouver before returning to its Toronto head office. John spent the last 19 years living in Calgary.

CAREY, Ronald Davis. Born January 24, 1939 and passed away November 3, 2019. Ron began a career in oil and gas when he was still a teenager, working on oil rigs and road-building crews. In the early 1970's he opened J&L Supply, an oilfield service company. Around this time he began collecting and restoring vintage cars with his first being a 1956 Lincoln convertible. His collection grew as he added more cars, trucks, gas pumps, signage and other memorabilia. According to Alida Visbach of Heritage Park, "*He worked really hard. Coming from humble beginnings, he worked his way up to building his company and patenting a design for diamond-tipping drill bits and replacing those diamond tips.*" In 2002 Ron donated a large part of his collection to Heritage Park although there wasn't enough space to store or display the vehicles. In 2006 Heritage Park undertook a \$65 million expansion to create Gasoline Alley. The museum officially opened in 2009 and was built around the collection. According to Alida, there are 67 vehicles, 300 gas pumps, 100 air pumps and 120 vintage signs. Ron was presented with the P.H.S. Preservation Award in 1999. Heritage Park and Gasoline Alley were recipients of our 2010 Multimedia Award. Ron passed away in a tragic collision near London, U.K. He was participating in a vintage car rally, doing what he loved.

DEIBERT, Darcy Alan. Born March 2, 1957 and passed away October 24, 2019. Darcy was born in Empress, Alberta, and grew up in Medicine Hat. He moved to Calgary to go to S.A.I.T. to pursue Petroleum Technology in 1975 and start his career as a Geological Technologist. He worked in the oil and gas industry for 39 years, which included offshore work in Newfoundland. For the majority of his career Darcy worked at Chevron. He retired in 2016. He loved to golf, keep a meticulous garden and yard as well as spend time with his wife in Henderson, Nevada that he called his "paradise".

DUMONT, Arthur. Born August 31, 1945 and passed away October 7, 2019. Art was born in Whitewood, Saskatchewan. He grew up on a farm near Kennedy, Saskatchewan. Art enjoyed his years in the mechanical engineering program at the University of Saskatchewan. Art and Bonnie were married after they both graduated from the University of Saskatchewan in 1967. They moved to Stettler, Alberta, where Art worked as a drilling engineer for Gulf Oil Canada. He spent the early seventies working in the Arctic. His love of this time is reflected through his passion for native communities and their artwork. In 1975, Art accepted a job with Bawden Drilling that moved the family from Calgary, to Aberdeen, Scotland, and then on to Houston, Texas. He became Senior Vice-President of International Operations working in the U.K., Indonesia, Singapore, Malaysia, Madagascar and Peru. The family moved back to Calgary,

where Art became Vice-President of Energy Services for Trimac Limited. Art also worked as C.E.O. for Petro Well Energy Services, CenAlta Services, and Technicoil Corporation. Along with his distinguished career, Art was an avid volunteer. He served as a Board Member of the Calgary Petroleum Club and the University of Saskatchewan. Art was inducted into the Saskatchewan Oil and Gas Hall of Fame in 2011 and was awarded an Honorary Doctor of Laws Degree from the University of Saskatchewan in 2012.

DUNN, Roger David. Born April 24, 1936 and passed away August 21, 2019. Roger was born in Calgary, Alberta. The family soon moved to Black Diamond, and there began Roger's most cherished childhood memories. He remembered doing well at sports, and having many good friends. He also began to excel academically, with teachers who recognized something special and fostered his keen intellect. Roger was a Back Diamond boy at heart. Oil and gas became a lifelong focus, as Roger first worked roughnecking on drilling rigs during summers. In 1958 he graduated with a degree in Petroleum Engineering from the University of Alberta. He went on to an extremely successful career in oil and gas, working first for the Alberta Oil and Gas Conservation Board, then with Great Plains Petroleum, later with Burma Oil Company in Perth, Australia, and ending his career as a Senior Vice President with Alberta Energy Company. While at A.E.C., a career highlight was chairing the Syncrude Management Committee - a group made up of representatives from the corporate stakeholders.

FOLEY, Darrell Joseph. Born August 3, 1944 and passed away November 10, 2019. Darrell was born in Willow Bunch, Saskatchewan. He grew up on a farm in southern Saskatchewan and spent time on his family's ranch riding his horse, Trigger, through the hills of the Big Muddy. He went to school in Willow Bunch and Fife Lake. He had a passion for sports, especially hockey. At a young age, he began working on grain elevators. Life was challenging, yet he was hard working, determined, and ambitious. In his early 20's, Darrell started his career in the oilpatch and later broadened his experience working on the pipelines. Darrell met his partner, Judy, and after marrying, they ventured off to Swift Current where their family grew. The young family later moved to Leduc, Alberta. Darrell was very involved in his children's activities and community activities. In 1989, Darrell took on the challenge of starting his own company and the family relocated to Calgary. He was an industrious, successful entrepreneur in the oil and gas industry. He was well respected in business and had a passion for the pipeline industry. He valued his sub-contractors and office personnel who he credited with helping him become successful. Darrell was a loyal employer and trusted friend. Judy and Darrell enjoyed travels to Hawaii, Japan, and many other places. He loved the sun and being outdoors. He enjoyed spending time at his second home in Palm Desert, CA.

HATLELID, Wesley Gordon. Born October 16, 1925 and passed away November 8, 2019. Wesley was born near Flin toft, SK, grew up on a rural Saskatchewan farm, and moved to Lafleche, SK with his family in the 1930's. At 16, after completing high school, he and his brothers joined the Army. He later transferred to the R.C.A.F., trained as a flight engineer and attained the rank of Flight Sergeant. After WWII he attended U. of S., graduating with a degree in Geological Engineering and meeting the love of his life, Kathleen, who he married in 1950. A short career as a mining engineer in Flin Flon, MB, was followed by a long career in exploration with Imperial Oil as a geophysicist. He was recognized for his contributions to the evolving field of seismic stratigraphy and co-wrote a chapter for a book on the subject. With his growing family, Wes lived and worked in rural Alberta, Edmonton, Dawson Creek, Houston, and finally Calgary. After early retirement, he consulted for junior oil companies as a Professional

Engineer. In his free time and after retirement, Wes enjoyed travel, bridge, golf, lawn bowling, hiking and time with family. His hikes with the Esso Annuitant group were the highlight of every week.

HEBBES, Murray Phillips. Born November 7, 1924 and passed away October 3, 2019. Murray grew up on a farm near Carseland, Alberta, and then graduated from S.A.I.T. where he received his Journeyman Heavy Duty Mechanic Certification. He worked throughout his career for Dench/C.P.R. Trucking and the Calgary Transit System. Murray craved the small community life; so he soon moved his family to the Village of Carbon, Alberta, and worked for ATCO Gas - starting as a mechanic and then foreman of the compressor plant. He had an opportunity to return to Calgary, but he enjoyed his life in Carbon and decided to stay. Eventually he retired and did move back to Calgary - later moving to Cold Lake.

MASTERSON, Daniel Michael. Born July 3, 1944 and passed away October 20, 2019. Dan was born in Chatham, Ontario, and grew up on a farm in southern Ontario. He went on to receive a B.A.Sc. and an M.A.Sc. from the University of Windsor and his Ph.D. in Civil Engineering from Queen's University in 1971. He combined his practical farming knowledge with his passion for engineering. He then embarked on a life-long career of innovative structural engineering and analysis of ice strength to support oil and gas exploration in the High Arctic. This work led him to publish over a hundred research papers and two books that document the advancement of theory and practical applications in Arctic engineering. Dan's work was recognized by the Canadian Society of Civil Engineers, The Petroleum History Society, and the Society of Naval Architects and Marine Engineers. He was an avid cyclist, hiker, camper, skier, and an early adopter of new technology. *Dan was a member of the P.H.S. and made the keynote address about his Arctic experiences to our Annual Meeting on March 26, 2014. He also wrote and had printed a volume on that same subject that he freely distributed to those with an interest in this frontier aspect of the industry. A technical article on the engineering side of his Arctic work was given the P.H.S.'s Article of the Year Award in 2013.*

MATWE, Leon. Born February 17, 1933 and passed away October 11, 2019. Leon was born in Chaplin, Saskatchewan. He spent his childhood first in Secreton and then in Moose Jaw, Saskatchewan. He graduated from the University of Saskatchewan with a B.Sc. in Geological Engineering in 1956 and first worked for Stanolind Oil and Gas in Regina. There, in 1958, he met and married Jean. Together they first moved to Edmonton in 1960, and then in 1963 to Calgary, Alberta, where he resided until his passing. In 1965, Leon became employed with Canadian Pacific Oil and Gas (C.P.O.G.), that later became PanCanadian Petroleum Ltd. Leon was promoted to the position of Chief Geologist and worked in that role until his retirement from PanCanadian in 1992. To those that knew Leon, he was kind-hearted, generous, and quite talkative, able to converse on any topic. Willing to share his knowledge and wisdom with those he knew, he was happy to advise and mentor in his personable way. *Several of our P.H.S. Executive are PanCanadian alumni, specifically Vice President Bill McLellan and Treasurer Micky Gulluss.*

PERRY, James Ford. Born October 1, 1947 and passed away August 18, 2019. Jim was raised in Victoria, B.C. After completing high school in Oak Bay, he attained his engineering degree at U.B.C. where he met the love of his life, Brenda. Jim's professional career in the oilpatch began in the 1970's with Schlumberger and a move to Red Deer. Jim ultimately became the President of Schlumberger Canada. He was also President of Computalog and

Global Thermal Electric, ultimately retiring from Alternative Fuel Systems. Jim's professional travels spanned the globe. He visited many faraway countries and also all 50 states in the U.S. and every province and territory in Canada. At home he was the ultimate hobbyist and DIY'er. He was a skilled mechanic and fabricator and loved being a handyman. He was the "tool man" for his neighbourhood.

PHELPS, Michael. Born June 27, 1947 and passed away on April 20, 2019. Michael was born in Montreal, Quebec. When he was 13 his family moved to Winnipeg, Manitoba. He thrived in school, skipped two grades and graduated at the age of 16. He then earned his B.A. from the University of Winnipeg and his Bachelor of Laws at the University of Manitoba. His training was capped off with a Master's of Laws from the London School of Economics. He had a long and multi-faceted career but what he is best known for was his time at Westcoast Transmission. In 1982 he moved to Vancouver as Special Advisor to that company's President. In 1987 he was appointed President and CEO at the newly-renamed Westcoast Energy – at the age of just over 40. Under Michael's leadership Westcoast grew from \$2 billion to \$10 billion in assets. In 2001 he helped engineer the company's acquisition by Duke Energy. Michael remained on the Board of Duke which later spun off its natural gas business as Spectra Energy, a firm ultimately acquired by Enbridge in 2017. *Michael's lasting contribution to Canadian Petroleum history was his co-authorship (along with Peter C. Newman) of "Continental Reach" – the story of his experiences in the natural gas pipeline industry. This volume was given the P.H.S.'s Book of the Year Award in 2002. Readers may recall the natural gas processing facility that once stood in the Crowsnest Pass, just west of Coleman. That was a Westcoast plant that handled sour gas production from the Savanna Creek and Coleman Fields to the north. It ultimately ended up with Devon Canada who, due to falling production and unfavourable economics, had to shut it down and reclaim the site. All residual reserves and production in that area now appear to be permanently stranded.*

PICKENS, Boone. Born May 22, 1928 and passed away September 11, 2019. He was born in Holdenville, Oklahoma – described as a cow town - near the Greater Seminole oil field that had been discovered a year earlier. He was named "Boone" as there was a belief that his family was related to Daniel Boone. His father, a lawyer by training and an avid gambler, worked in the oil business, buying and selling drilling leases. After losing money as a wildcatter in the later 1930's, he moved the family to Amarillo, Texas. Boone originally aspired to be a veterinarian but took up geology on his father's wishes – and the rest is history. *Although not directly tied to the Canadian petroleum industry, Boone's legendary Texan approach to business set the tone for many business transactions such as hostile takeovers in the many decades that he was active. His Mesa Petroleum undertook a bid for Gulf Oil in 1983 and 1984 that ultimately drove Gulf into Chevron's hands – everywhere except in Canada. Here foreign ownership concerns precluded that outcome and Gulf was purchased by the Reichmann family setting off a series of corporate reorganizations involving Gulf, Home Oil, Interprovincial Pipeline and Crestar - ultimately leading to Conoco-Phillip's takeover of Gulf Canada. Boone passed away after taking a "Texas-sized" fall requiring hospitalization. He had earlier said that his declining health was indicative of him being "clearly in the fourth quarter". Much has been published about Boone's life, including his 1987 memoir – appropriately titled "Boone".*

RABORN, Smiley. Born May 6, 1915 and passed away in March 2018. Smiley was born in Robeline, Louisiana. He graduated in 1939 with a degree in Civil Engineering from Louisiana State University. He married Bernice in 1940. *We have been unable to locate an obituary for*

Smiley but his colourful life in the U.S. and Canada is well chronicled in David Finch's interview with him done on May 7, 2013 just after his 98th birthday (Smiley's that is). The transcript of the interview can be accessed on-line through the Petroleum Industry Oral History Project fonds at the Glenbow Archives (now University of Calgary). Well worth a read.

RICHMOND, William Oliver. Born November 29, 1934 and passed away October 10, 2019. Bill was born in Westerose, Alberta. He quickly developed a deep appreciation of the natural world, learning to hunt and fish on his parents' homestead at Buck Lake. Homeschooled until age 9, he also fell in love with books and all his life was a voracious reader of both fiction and nonfiction. He began his formal education in a one-room schoolhouse at Balsam, where his mother was teacher and he, Bill, chopped firewood for the stove that heated the classroom. He continued his schooling in Faust, to which his family moved when his father took up mink farming. Every day before and after school Bill helped catch fish to feed the mink and did countless other chores. Time permitting, he played baseball, and was known as an exceptional infielder. Completing high school, he fished commercially with his father for a season before starting university. At U. of A. he enjoyed chemistry, mathematics, and earth sciences, choosing to major in geology because he loved to work outdoors. During summer, he did paleontological fieldwork in the Horseshoe Canyon Formation at Drumheller. There he discovered a complete dinosaur skeleton that remains on exhibit at the Tyrrell Museum. In 1956, Bill joined Pan American Petroleum in Edmonton as an apprentice geologist. He finished his undergraduate work in 1957, earning not only an Honours B.Sc. in Geology but also the Governor General's Gold Medal for academic excellence, having achieved the highest grades in Alberta. This afforded him the rare opportunity to pursue a Ph.D. without first earning an M.Sc. For a time he continued to work at Pan American, before taking a leave to further his education. He applied to and was awarded scholarships to attend several Ivy League universities in the U.S., including Harvard and M.I.T. He liked to say that he chose Stanford because of California's warm climate. At Stanford he completed the required courses, then took a break from school and returned to Edmonton to work. There he met his future wife, Patricia, who was employed as a secretary. The couple married in 1961, lived for a year in Edmonton, and then moved to Palo Alto, where Bill completed his Ph.D. in 1965. The pair then moved to Calgary, purchased a home, and raised their family. Visiting Stanford decades later, Bill was amused to learn that his 565-page doctoral thesis, *Paleozoic Stratigraphy, and Sedimentation of the Slave Point Formation, Southern Northwest Territories and Northern Alberta*, was the most consulted volume in the university's geological library. Bill had an exceedingly successful career, rising to Vice President - Exploration, and Vice President in Charge of Special Projects at Amoco Canada Petroleum Co. before retiring and doing independent consulting work. He called his decade of consulting a renaissance of sorts as he was finally back doing the scientific work he most enjoyed. He was a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta; the Society of Economic Paleontologists and Mineralogists; the Canadian Society of Petroleum Geologists, and of Sigma Xi. Always an exceptional learner, Bill excelled at scholarship and research, but although by virtue of his Ph.D. he had earned the right to be addressed as "doctor," he was so humble and down-to-earth that for his entire professional life he insisted on simply being called "Bill."

ROBINSON, John "Glenn". Born May 16, 1940 and passed away October 12, 2019. Glenn was born in Woodlawn, ON. He attended High School in Arnprior and graduated with a B.Sc. in Civil Engineering in 1966 from Queen's University. While at Queen's University, Glenn played football for the Golden Gaels. After graduation, Glenn followed the wave to the West and moved

to Calgary with his new bride, Garda. Glenn started his career with Shell, followed by work with Scientific Software, then a long career with Sproule (geoscience and engineering), becoming President until his retirement. Through Glenn's life, he was an active outdoorsman, enjoying hunting, fishing, and trapping. Glenn's hobbies led him to breed and raise his own team of Tennessee Walking Horses and he was often seen in the Calgary Stampede Parade with his four-horse hitch. Glenn travelled extensively with his career and personally. He has been from the top of the world (Arctic Circle) to the bottom (Antarctica) and travelled to many places in between, including Egypt, Damascus, China, Venezuela, Europe, New Zealand and Australia.

STEPHENSON, Gerry. Passed away October 2019. No obituary available. *Gerry was a very well-known engineer who was involved in many aspects of the oil sands industry. He was interviewed as a part of the P.H.S.'s Oil Sands Oral History Project - transcript available online. In recent years Gerry made his mark giving talks and leading field trips for the Canmore Geoscience Centre where the focus was on the coal mining history of that area. His presentations were full of information from his experiences - a resource that will be missed.*

STEWART, Donald O'Donoghue. Born September 6, 1922 and passed away September 21, 2019. Don spent his early life in Bentley, Innisfail and Red Deer, Alberta. Shortly after graduating from high school he joined the Royal Canadian Air Force flying aircraft on anti-submarine patrols off the east coast of Canada from 1941-1945. He obtained his B.Sc. in Geology at the University of Alberta in 1951. He had met his future wife Bernice at U. of A. and in that same year they were married. He had worked summers from 1948-1950 for Imperial Oil and in 1951 joined Mobil Oil where he and his industry colleagues helped to build Alberta's energy industry. He retired from Mobil in 1986 after a successful and rewarding 35-year career. Don was a family man and loved his home, especially his garden. His love of poetry was legendary. His favourite poet was Robert Service and all of his children grew up knowing the story of Sam McGee.

WYLIE, Harvey Douglas. Born April 4, 1933 and passed away September 17, 2019. Harvey accomplished much throughout his life. He attended Montana State University where he played football and graduated with a degree in Engineering. From there he continued his football career and triumphed in making a name for himself in his hometown of Calgary. He became a legendary football player with the Calgary Stampeders, playing 1956-1964. He was inducted into the C.F.L. Hall of Fame, Stamps' Wall of Fame, Alberta Sports Hall of Fame, and Montana State University Hall of Fame. Harvey followed his sporting years with an exceptionally successful career in oil and gas, where he was notably President of Beaufort-Oil Project Limited, as well as other large consortiums along the way. He spent much of his life adding to his achievements and traveling the world. Harvey always enjoyed following sports, reading a good book, and having a great cup of coffee, particularly if the weather was nice.

ZARUBY, Walter Stephen. Born March 4, 1930 and passed away October 2, 2019. Walter was born in Vegreville, Alberta. He graduated from the University of Toronto in 1952 with a B.A.Sc. from the faculty of Applied Science and Engineering. Walter married Beth on September 27, 1958, in Winnipeg, Manitoba. He spent his career in the Canadian and international petroleum industries, including positions with Shell, Westburne International, and Radium Resources. Beyond his professional accomplishments, Walter was an avid golfer, associated with the Calgary Golf and Country Club for many years. *Walter was one of Shell Canada's lead engineers on its 1967-1969 West Coast Offshore drilling campaign with the SEDCO 135F.*