

Resume – June 2021

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Profile

I am currently the President of Zaitlin Geoconsulting Ltd. (ZGL), providing geoconsulting services and applied training seminars to the oil and gas industry. In addition, I am also a Hearing Commissioner with the Alberta Energy Regulator (AER).

I am considered a proven play and prospect generator, clastic sedimentologist, sequence stratigrapher, and explorationist with extensive exploration and development experience. During my career I have progressed from a staff geologist, exploration/reservoir specialist, technical/exploration advisor, project leader and chief geologist, where I focused on exploration and development of both conventional and unconventional oil/gas plays throughout the Western Canada Sedimentary Basin (WCSB), Liard Basin, Williston Basin, select U.S. Rocky Mountain and International Basins (Australia NW Shelf, North Sea, Columbia, and Taranaki Basin). I have also worked in private equity, A&D, and First Nation entities and as a mentor and trainer.

My main areas of expertise include developing and delivering training courses and workshops, evaluation of new venture opportunities, planning and execution of business plans, valuation of acquisition and divestiture candidates, detailed core logging and sequence stratigraphic interpretation from the pool to basin scale. I have a strong focus on creating value through early play entry, development and/or pool optimization. Career progression from individual contributor/team member to progressively more senior technical and team lead/managerial/chief geologist roles over the past 40+ years; and have successfully demonstrated strong mentorship, teamwork, business, leadership, and communication skills.

Education

NSERC PDF (U. of Sydney)	Geology	P.D.F.	1987
Queen's University	Geology	Ph.D.	1983 – 1987
University of Ottawa	Geology	M.Sc.	1979 – 1981
Concordia University	Geology	B.Sc.	1976 – 1979
Vanier/Dawson CEGEP	Science	D.E.C.	1974 – 1976

Professional Affiliations and Associations

Professional Geologist (APEGA) – 1982 – License #38500
Certified Petroleum Geologist (AAPG – DPA) – 2015 - C.P.G.#6298
Certificate in Tribunal Administrative Justice – 2016 - (CTAJ - FOAJ)

American Association of Petroleum Geologists (AAPG)
Canadian Society of Petroleum Geologists (CSPG)
Society of Sedimentary Geology (SEPM)
Rocky Mountain Association of Geologists (RMAG)
Canadian Society of Unconventional Resources (CSUR)

Awards and Honors (15)

15 – Canadian Society of Petroleum Geologists – **Lecturer** - CSPG Ambassador Program) (2019)
14 - Canadian Society of Unconventional Resources **Sproule Achievement Award** (2011)
13 - Enerplus **Presidents Award** (2009)
12 - Canadian Society of Petroleum Geologists **Volunteer Award** (2008)
11 - Co-Author: CSPG/CSEG **Honourable Mention Best Oral Geological Paper** (2003)
10 - Lead author: CSPG **Medal of Merit 2003 (Best Paper Award: Zaitlin et al. (2002))**
9 - PanCanadian **Presidents Award** (2001)
8 - Co-author: SEPM Honorable Mention **Excellence of Oral Presentation** (1999)
7 - Canadian Society of Petroleum Geologists **Tracks Award (Education)** (1999)
6 - Co-author: SEPM **Excellence of Oral Presentation** (1997)
5 - American Association of Petroleum Geologists **Distinguished Lecturer** (1996/1997)
4 - Co-author: Canadian Society of Petroleum Geologists **Best Oral Paper** (1995)
3 - Canadian Society of Petroleum Geologists **Service Award** (1991; 1992)
2 - Canadian Society of Petroleum Geologists **Ph.D. Thesis Award** (1987)
1- Concordia (B.Sc.) **Geology Medal** (1979)

Scholarships and Fellowships (6)

6 - N.S.E.R.C. **Post-Doctoral Fellowship** (1986/87; 1987/1988)
5 - Ontario Graduate **Scholarship** (1985/86; 1986/87)
4 - Canadian Society of Petroleum Geologists Graduate **Scholarship** (1984/85)
3 - Queen's **Graduate Award** (1983/84; 1984/85)
2 - J. L. Weber **Scholarship (Concordia)** (1979)
1 - Concordia **Bursary** (1979)

Graduate Research Awards (6)

6 - Imperial Oil Research Grant (1985/86; 1986/87)
5 - Shell Canada Research Grant (1985/86; 1986/87)
4 - Gulf Canada Resources Science Grant (1983/84; 1985/86)
3 - Mobil Oil Research Grant (1985/86)
2 - Canterra Energy Limited Research Grant (1985/86)
1 - Geological Society of American Research Grant (1984/85)

Research Partnerships between Industry, Government and Academia (3)

- 3 - Australian Research Council Collaborative Research & Development Grant (Boyd, Diessel, Leckie, McCabe, and **Zaitlin**; 2001-2003).
- 2 - Australian Research Council Collaborative Research & Development Grant (Boyd, Diessel, Leckie, and **Zaitlin**; 1997-1999).
- 1 - NSERC Collaborative Research & Development (CRD) Grant (Pemberton, MacEachern, and **Zaitlin**; 1995-1996).

Industry Liaison - Graduate Co - Supervision in Joint Industry / Academia Setting

PDF Student co-supervised (1):

- 1- Dr. James MacEachern (1995-1996: NSERC Collaborative Research & Development (CRD) Grant - Dr. G. Pemberton - University of Alberta and PanCanadian Petroleum Ltd.)

M.Sc. Students co-supervised (3):

- 3 - Ardies, G.W. (1999). Sedimentology, depositional environments and high resolution sequence stratigraphy of the Horsefly, BAT and Ellerslie (Basal Quartz) incised valleys, south central Alberta, Canada. M.Sc. Thesis, Queen's University. (Supervisor: R.W. Dalrymple – **(Awarded the Ontario Petroleum Institute's 2000 M.Sc. Thesis Award)**).
- 2 - Lukie, T.D. (1999). A study of the sedimentology, geochemistry, and stratigraphic organization of the Lower Cretaceous Horsefly (Basal Quartz) Valley (Taber – Cutbank), Southern Alberta and Northern Montana. M.Sc. Thesis, Queen's University. (Supervisor: R.W. Dalrymple)
- 1 - Van Hilten, M. (1996). Prediction of incised valley fill waterflood performance using the geopseudo upscaling approach: A case study of the Lake Newell Countess "YY" pool, southern Alberta, Canada. Applied M.Sc. Thesis, Heriot-Watt University. Supervisor: T. Good. **(Awarded the Heriot – Watt Applied M.Sc. Award)**

Contributions to Professional Societies

Conferences (19)

- 19 - Co-Convener 2021 - Skill Fundamentals 101 and Case Studies, Geoconvention 2021 (Co-convener: Shelley Leggett)
- 18 - Co-Convener 2020 - Skill Fundamentals 101 and Case Studies, Geoconvention 2020 (Co-convener: Shelley Leggett)
- 17 - Co-Convener 2019
Discipline "Fundamentals" / Skill Fundamentals 101 and Case Studies, Geoconvention CSPG - CSEG - Joint Annual Convention - Calgary, 2019 (Co-convener: Shelley Leggett)
- 16 - Co-Convener 2017 - The Montney Formation: New Insights on Stratigraphy and

- Sedimentology - CSPG CSEG CWLS Joint Annual Convention - Calgary, 2017 (Co-convener: Tristan Euzan)
- 15 - SEPM Vice-Chair 2016 - Technical Program: Joint AAPG - SEPM Annual Meeting (Co-Chairs Murray Gingras and Tom Moslow) 2016 - Calgary, 2016
 - 14 - Co-Convener 2016 - Marine and Fluvial Reservoirs: Western Canadian Examples (SEPM/AAPG). Technical Program: Joint AAPG - SEPM Annual Meeting - Calgary, 2016. (Co-Convener: Tom Moslow)
 - 13 - Co-Convener 2016 - Technology for Unconventional Resources 1 & 2 - CSPG CSEG CWLS Joint Annual Convention - Calgary, 2016 (Co-Convener: Kathleen Dorey)
 - 12 - Co-Convener 2013 - Not all Basins are Created Equal - Unconventional Tight Oil Mississippian Devonian Reservoirs of the Western Canada and Williston Basins- CSPG CSEG CWLS Joint Annual Convention - Calgary, 2013 (Co-convener: Shelley Leggett)
 - 11 - Co-Convener 2011 - Tight Oil I and II - CSPG CSEG CWLS Joint Annual Convention Calgary, 2011 (Co-Convener: Lynn Canter)
 - 10 - Core Conference Co-Chair 2010 - GeoCanada 2010 Annual Meeting, Calgary, Alberta
 - 9 - Core Conference Committee Member - 2008 CSPG CSEG CWLS Annual Meeting, Calgary, Alberta
 - 8 - Vice Chairman (SEPM) - 2005 SEPM-AAPG-CSPG Annual Meeting, Calgary, Alberta
 - 7 - Co-Convenor 2003 - Accommodation Controls on Depositional Systems, Canadian Society of Petroleum Geologists Annual Meeting - Calgary, 2003 (Co-Convener: Dale Leckie).
 - 6 - Co-Convenor 2001- Stratigraphic Compartmentalization - Partitions, Compartments: International Examples, Deposition and Diagenesis. Technical Program: Joint Canadian Society of Petroleum Geologists Annual Meeting - Calgary, 2001 (Co-Conveners: J.D. Harper, H. Posamentier, H. Williams, and O. Solliman)
 - 5 - Co-Convenor 1997 - Sequence Stratigraphy of Incised Valley Systems. Technical Program: Joint Canadian Society of Petroleum Geologists - SEPM Annual Meeting- Calgary, 1997. (Co-Convenor R.W. Dalrymple).
 - 4 - Co-Convener 1992 - SEPM Recognition and Facies of Valley Fills. Technical Program: Joint American Association of Petroleum Geologists- Canadian Society of Petroleum Geologists 1992 Annual Meeting. (Co-conveners R.W. Dalrymple & R. Boyd)
 - 3 - Program Committee Member 1989 - Second International Symposium of Tidal Clastic Deposits. International Association of Sedimentologists/Canadian Society of Petroleum Geologists, Calgary, Alberta
 - 2 - Treasurer 1989 - Second International Symposium of Tidal Clastic Deposits. International Association of Sedimentologists/Canadian Society of Petroleum

Geologists, Calgary, Alberta

- 1 - Program Committee Member 1983 - Mesozoic of Middle North America Conference, Canadian Society of Petroleum Geologists, Calgary, Alberta

Committees (2)

- 2 - American Association of Petroleum Geologists Committee on Research (Term 1: 1997-2000; Term 2: 2000-2003)
- 1 - Canadian Society of Petroleum Geologists Medal of Merit Committee (1998)

Editorships (4)

- 4 - Co-Editor - Application of Modern Alternative Stratigraphic Techniques: Theory and Case Studies (2010). SEPM Special Publication No. 92 (Co-editor K. Ratcliffe).
- 3 - Associate Editor (1994-1996). Canadian Society of Petroleum Geology Bulletin.
- 2 - Co-Editor - Incised Valley Systems: Origin and Sedimentary Sequences (1994). SEPM Special Publication No. 51 (Co-editors R.W. Dalrymple and R. Boyd). 380pp.
- 1 - Co-Editor - Clastic Tidal Sedimentology: Canadian Society of Petroleum Geologists Memoir 16 (1991). Proceedings of the 1989 Second International Symposium of Tidal Clastic Deposits. International Association of Sedimentologists/Canadian Society of Petroleum Geologists, Calgary, Alberta (co-editors D.G. Smith, G. Reinson and R. Rahmani). 387pp.

Professional Experience

Alberta Energy Regulator (AER)

July 2016 – Present

Hearing Commissioner - Hearing commissioners are responsible for conducting public hearings and alternative dispute resolution processes related to energy applications and regulatory appeals referred to them by the Alberta Energy Regulator. Hearing Commissioners are also involved in developing the organization's hearing procedures and rules. (Appointed July 2016 for 3 years; Reappointed June 2019 for an additional 5 years).

Zaitlin Geoconsulting Ltd.

January 2015 – Present

Sedimentology, Stratigraphy and Petroleum Geology for new play generation, evaluation of new venture opportunities, exploration, and pool development; and providing applied training seminars and core workshops.

Clients have included EMC (Exxon Mobil Canada), IPC (International Petroleum Canada – Division of Lundin Petroleum), NAL, Whiting Petroleum, City of Medicine Hat, Forge Oil and Gas, Todd Energy, Cenovus Energy, Core Labs, Vermilion Energy, NARP, Kainai Energy, Companion Oil and Gas, Gran Tierra, Gerson Lehrman Group, Inc., and Alphasights Inc.

Exploration Advisor - EOG Resources (Canada), focused on the identification of new play opportunities throughout the Western Canada Sedimentary Basin. Projects included i- Lower Banff - Wabamun play fairway; ii- Montney - Doig/Halfway play fairway and iii- Charlie Lake liquids-rich fairway evaluations. Role also included significant mentorship of junior staff.

(EOG divested majority of the Canadian Division December 2014)

Native American Resource Partners (NARP):**May 2011 – November 2013**

Chief Geologist with Native American Resource Partners (NARP), a private investment firm specializing in the structuring, financing, and implementation of E&P projects with Tribal Nations in the United States and First Nations in Canada. Primary duties include technical, operational, and strategic analysis of conventional and emerging plays, due diligence, and oversight of NARP's portfolio and potential new investments. Focus areas include, but were not limited to:

- Kainai Energy: (*Key project successfully farmed out December 2013*)
 - **Chief Geologist and member of the Board of Directors of Kainai Energy Limited Partnership**, the co-partnered energy and production company formed between Native American Resources Partners (NARP) and Kainawai Resources (KRI) of the Blood Tribe in Southern Alberta
 - Led the geotechnical evaluation and integration of all GG&E data leading to the successful capture of 255,000 gross/208,000 net acres of high potential light tight oil lands in the over pressured Big Valley (BV)/Banff Fairways in the SAB (WEB) play; monitoring JV Partners and competitor activities on and adjacent to Kainai lands
 - Recommendation and monitoring participation in the 5 HZ wells in the BV Fairway, including two of the best producers in fairway i- (*Kainai Murphy (TAC Ninsto) 15-21:250,382k Bbls oil and 0.617 BCF* and ii- *TAC Kipp 10-3: 115k Bbls oil and 0.53 BCF (accessed June 2020)*)
 - Development of the 2013-2014 go-forward operational plan including a potential new 3D shoot, 4 well drilling program and RTD additional 9 well program.
 - Co-planning of potential 90sq mile 3D program based on well results
 - Participated in the successful JV of project to a large US based independent E&P company consisting of an initial phase consisting of a 4 well HZ program plus cash consideration initiated Q3/Q4 2014.
- Kawacatoose Energy Company:
 - Technical evaluation of undisposed and disposed lands to pursue the development of resource projects on lands and minerals secured by the Nation through the Saskatchewan Treaty Land Entitlement program

- (TLE).
- Kawacatoose First Nation was the first community to opt into the [*First Nations Oil and Gas and Moneys Management Act*](#) (FNOGMMMA) and take full control over the management of its land and resource moneys.
 - Tall Cree Energy:
 - Initial technical evaluation allowing the pursuit of development of resource projects on Tall Cree’s Reserve lands – an area that is characterized as a resource rich area with multi-zone oil and gas potential occurring in Treaty 8 Traditional Land Use areas.
 - Native American Resource Partners Canada Inc. (“NARP”) and the Tall Cree First Nation (“Tall Cree” or the “Nation”) formed Tall Cree Energy in March 2012 in order to pursue the development of resource projects on Tall Cree’s Reserve lands.
 - Fort Peck Energy Company:
 - Co-partnered Energy Company between NARP and Fort Beck Tribe. FPEC has participated in four Bakken exploratory wells and one Red River exploratory well on the Fort Peck Reservation (Montana)
 - Tsu T’inna Energy Company:
 - **Chief Geologist and member of the Board of Directors of Tsu T’inna Energy Company.** Ongoing technical evaluation allowing the pursuit of development of resource projects on Tsu T’ina FN lands – an area that is characterized as a resource rich area with multi-zone oil potential transitioning across the Foothills Triangle zone to unstructured WCSB Plains area in the L. Cretaceous Blairmore Group, Cardium and Belly River.

BMO A&D Advisory Group, Calgary, Alberta

2010-May 2011

Chief Geologist with the BMO Capital Markets A&D Advisory Group. Main responsibilities included technical evaluation of various confidential individual asset and corporate A&D mandates, supporting Equity Research and Marketing with research articles and technical evaluation of emerging unconventional hydrocarbon plays. Key accomplishments include:

- Technical evaluation of three potential IPO’s, 2 corporate A&D processes, and >60 one-on-one technical meetings with various institutional BMO clients
- Keynote presentation at BMO Unconventional Resource Conference titled: *“Resource Plays 101 – Some comments concerning resource plays”*
- Publishing of three key R&D Articles, and contributed to one other publication:
 - Zaitlin, B.A., Kennedy, J., and Kehoe, S. (2010). NOT ALL OF THE NIKANASSIN IS CREATED EQUAL: A Choice between Naturally Fractured High Deliverability Dry Gas vs. Deep Basin Liquids-Rich Gas. BMO Capital Markets Technical Report – October 2010. 62p.

- Zaitlin, B.A., Kennedy, J., and Kehoe, S. (2010). The Alberta Bakken: A New Unconventional Tight Oil Play. BMO Capital Markets Technical Report – October 2010. 21p.
- Zaitlin, B.A., Smith-Low, W., Kennedy, J., and Kehoe, S. (2011). The Alberta Bakken Petroleum System (ABPS) is “Steady as she goes” - an emerging unconventional tight oil resource play. BMO Capital Markets Technical Report – April 2011. 34p.
- Contribution to: Smith-Low, W., Kennedy, J., Kehoe, S. and Johnson, C (2011). Swan Hills Platform of West Central Alberta: “The Sleeping Giant” – Opportunity Lies Beyond the Reef Buildups. BMO Capital Markets Technical Report – June 2011. 48p

Enerplus (Enermark) Resources Fund, Calgary, Alberta: 2008 - 2010

Chief Geologist, with responsibilities across the entire company (Canadian/US), focused on the pursuit of technical excellence, mentoring, project support, technical vetting of projects and technology transfer. Assisted in developing strategy and identifying play opportunities that fit the company’s resource play strategy. Key accomplishments include:

- Identification of a new Bakken-Ratcliffe-Torquay tight oil fairway, capturing 220 sections of 100% lands, drilling of discovery well and input into 4 well delineation program - **Awarded Enerplus President’s Award**
- Growth committee member responsible for vetting geological evaluations of Enerplus resource play opportunities – land sale and A&D activity e.g.:
 - Bakken – North Dakota Ft. Bethold area
 - Bakken – Three Forks in Saskatchewan and North Dakota, Manitoba
 - Marcellus - Pennsylvania, West Virginia
 - Stacked Jurassic/Cretaceous – WCSB Deep Basin
 - Triassic Doig/Montney – WCSB Deep Basin
 - Technology evaluation and workflow Lead in participation with Core Labs Consortia (NA Tight Gas, NA Shale Gas, Montney, and Marcellus Consortia)
 - Lead in Colorado School of Mines Bakken Consortia
 - Evaluation of multiple regional and multi-client studies (e.g. GDCD Doig and Montney Studies; Ward Hydrodynamic Studies, etc.)
- Training, Evaluation, and mentoring of geological staff across all Enerplus offices

Suncor Energy Inc., Prospect Generation Services, Calgary, Alberta 2004 - 2008

Senior Exploration Geologist, focusing on opportunities in Southern/NW Alberta, NE British Columbia, and S. Saskatchewan. Key accomplishments include:

- Developed to drill ready stage 3 Triassic (Toad-Greyling) deepwater opportunities in NE. British Columbia (S. Liard Basin) capturing 11 sections of land.
- Identified a L. Cretaceous pool extension at Lait, capturing 4 sections of land.
- Developed 3 stacked Cretaceous – Triassic opportunities in the B.C. Deep Basin

- capturing 18 sections of land (Cameron and Aikman Creek areas)
- Successfully developed a variety of clastic Mississippian Mattson-Besa River unconventional opportunities, with stacked Triassic – Cretaceous potential in N.E. British Columbia, capturing 47 sections of land, resulting in the drilling of 1 deep (3500m) wells (successful farm-out to TLM). Land adjacent to and within fairway included the APACHE D-34-K well, which subsequently tested 31.4mmcf/d.
- Successfully brought forward to drill ready stage 2 drill ready medium risk by-passed pay exploration opportunity and 1 medium risk new pool exploration opportunity in southern Alberta.
- Successfully developed an Eocene intrusive drape play in the Sawtooth/Livingstone.
- Successfully captured 12 sections of Lower Mannville incised valley gas along the Meadow Lake Escarpment in Saskatchewan

EnCana Corporation (formerly PanCanadian Energy) 1993-2003

Experience included a variety of managerial, R&D, training, technical advisor positions, Merger & Acquisition and front-line exploration and reservoir characterization roles:

Team Lead, New Plays, Foothills New Ventures Exploration 2002 – 2003

Directed a cross-functional team of 10 geologists, geophysicists and engineers with a budget of \$22MM, prioritizing new basin entry, unconventional Basin Centered/Deep Basin plays, and high-risk conventional exploration opportunities.

- Successfully brought forward to drill ready stage, a 2 well, high-risk high-reward exploration opportunity in the N.W.T., south of Norman Wells, for drilling in Q1 2004 (ECA et al. Begadeh J-66 and H-76 locations).
- Identified, evaluated, and tested a potentially new Mississippian Basin Centered Gas play in the Liard Basin.
 - Team drilled and cased 3 of 3 discovery wells, adding 17 BCFe proven and probable reserves within corporate F&D and ROR targets.
 - Developed the play strategy, posted and captured drilling islands.
 - Proposed a 4 well go-forward exploration program for 2004 to extend the play fairway into areas of potential overpressure.
- Farmed out a high risk fractured Cardium opportunity Boulton (Smokey) 13-8-57-1W6) that produced 5.22BCF to Sept 2018.
- Evaluated potential farm-in opportunities in the Yukon, NWT, PEI, and New Brunswick that, based on both technical and economic review, was recommended not to pursue.

Exploration Advisor, Great Plains Business Unit 2001 – 2002

Directed a 13-member cross-functional exploration/development team in Montana that:

- Executed, drilled, and cased 33 of 33 well exploration and development program.
- Conducted 2D and 3D exploration seismic acquisition programs in support of ongoing exploration and exploitation opportunities.
- Developed a 125 well drilling inventory, increased the land base by ~650k acres, and production by 150% (from 10mmcf/d to 26mmcf/d).

Geological lead for new basin entry, farm-in and new merger & acquisition opportunities in Southern Alberta, the northern Rocky Mountain Basins and Montana that included:

- The successful acquisition of Causeway/Xeno and Battle Creek Field for \$69MM.
- Evaluation of 14 potential acquisition or farm-in candidates (e.g., Advantage-Blackstone lands in SE Montana and NW S. Dakota; Brown Exploration, N. Montana).
- Participated as full member of a cross functional technical team responsible for the technical review of all exploration and exploitation opportunities in the Great Plains Business Unit.

Geology Advisor, Geology COE (PanCanadian)

2000 – 2001

Technical and exploration advisor, company contact for clastic research, mentor, and trainer of 27 new hire geologists, facilitator and instructor of clastic-based training, fieldtrips, and workshops (1993-2001).

Geological lead of the cross-functional team evaluating all geological, geophysical and reserves components of the successful Montana Power acquisition, a \$702MM purchase of all Montana Power and Altana assets in S. Alberta, Montana, Wyoming, Colorado, and Oklahoma. ***Awarded PanCanadian Presidents Award***

Sr. Exploration Specialist, Palliser Business Unit

1998 – 2000

Geological and senior team member of a 7-member front line exploration team charged with developing a new core area in the NW Irrigation Block (Strathmore area).

- Developed an integrated 3D seismic and drilling program for Basal Quartz, Glauconitic, Viking and Belly River units.
- Drilled and cased 22 of 28 wells, identified new shallow gas trends in the Bearspaw, DinoPark and Belly River, successfully tested a new Glauconitic/Basal Quartz incised valley trend, and increased production by 10mmcf/d.

Senior Technical Specialist, Geology GOE

1994 – 1998

- Team lead of the Basal Quartz and Glauconitic Task Force, an 18 month / 8-person evaluation that resulted in: i- the mapping of major play fairways, ii- defined 7 potential new areas for exploration and development in S. Alberta.
- Completed the Glauconitic Lathom “A” Exploitation Analogue Study that resulted in the identification of:
 - 4 infill locations identified – 3 of which were successfully drilled, plus four additional recompletion candidates
 - Documented stratigraphic compartmentalization controlling reservoir performance for Glauconitic reservoirs

Technical Specialist, Geology COE

1993-1994

- Team lead of the Viking Task Force, a 16 month / 11-person evaluation that resulted in the identification of ~300 leads, purchase of ~200 sections of land, and the subsequent drilling of a 35 successful exploration well program (development

- program proved up 193 BCF over three years)
- Conducted a regional assessment of the gas potential of the Mesozoic and Shallow Gas potential in the WCSB as part of 1994 PanCanadian Mesozoic/Shallow Gas Strategy.

Esso Canada Resources, Calgary, Alberta 1987 - 1993

Exploration Specialist, N. Alberta/N.E. British Columbia* *1991 – 1993

Explorationist in a front-line team exploring Deep Basin of NW Alberta and NE British Columbia.

- Evaluation and mapping of the key Triassic Montney Lowstand Turbidite Play Fairways and drilling of the Manir discovery well at 71-4W6 (an ~400BCF gas pool).
- Successful farm out and drilling of the highstand subcrop Montney/Worsley Puskwaskau 73-1W6 (~10mmbbls oil pool)

Sr. Exploration Geologist, N. Alberta/NE. British Columbia* *1990 – 1991

- Team member of the 8 month / 11-person Exxon/Esso WCSB Assessment Task Force – responsible for the mapping and evaluation of the remaining resource base for the Belloy, Montney, Halfway, Doig, Basal Quartz, Glauconitic and Viking Formations that was utilized as the basis of Exxon/Esso's WCSB allocation of exploration funds.

Sr. Research Geologist, Technical Services Group* *1987 – 1990

- Technical specialist, pool analogue studies, special projects, facilitator and instructor for clastic-based training, fieldtrips, and workshops.
- Geological lead for pool optimization studies for the Montney Ringborder Field, Sinclair and Buick Creek Doig/Halfway Pools, analogue pool study of the Viking Crystal Pool.
- Regional Study of the Falher in the Windsor-Kelly Area of NEBC, resulting in the successful 3 well exploration program defining a new core area.

University of Sydney, New South Wales, Australia 1987

Post – Doctoral Fellow

Undertook and co-published the results of a field-based research program funded in part by the Canadian National Science and Engineering Research Council while at the Department of Geography, University of Sydney. The study focused on modern estuarine and incised valley deposits along the New South Wales Coast of Australia as analogues to ancient hydrocarbon reservoirs.

1. Nichol, S.L., Zaitlin, B.A., and Thom, B.G. (1997). The Upper Hawkesbury River, New South Wales, Australia: A Holocene Example of an Estuarine Bay-head Delta Complex. *Sedimentology*, v. 44, p. 263-286.

Queen's University, Kingston, Ontario

1983-1987

Adjunct Professor, Dept. of Geological Sciences

1984; 1986

Sabbatical replacement for all aspects of the instruction of 2nd year Stratigraphy and Sedimentology and 4th year/graduate Clastic Sedimentology course.

Lab Demonstrator, Dept. of Geological Sciences

1983; 1985

Lab demonstrator for 2nd year sedimentary petrology, and fourth year clastic sedimentology stratigraphy courses.

Bedford Institute of Oceanography, Dartmouth, Nova Scotia

1983

Contract Geologist

- Interpretation and analysis summarized in two published articles of the Holocene evolution of Chignecto Bay, Bay of Fundy from shallow sparker seismic and vibrocores.
 1. Amos, C.L., Tee, K.T. and **Zaitlin, B.A.** (1991). The post-glacial evolution of Chignecto Bay, Bay of Fundy, and its environment of deposition in Clastic Tidal Sedimentology: edited by D.G. Smith, G.E. Rienson, B.A. Zaitlin and R. Rahmani. Canadian Society of Petroleum Geologists Memoir No.16, p. 59-90.
 2. Amos, C.L. and **Zaitlin, B.A.** (1985). The effect of changes in tidal range on a sublittoral macrotidal sequence, Bay of Fundy, Canada. Geo-marine Letters, Vol. 4, p. 161- 169
- Participation in a GSC-NASA project to calibrate the Nimbus 7 Suspended Sediment Multiscanner and a research cruise collecting core, seismic, hydrodynamic data and sediment samples from shoreface attached sand ridges evaluating sediment movement and stability for undersea gas pipelines near Sable Island, Nova Scotia.

Gulf Canada Resources, Calgary, Alberta

1981-1983

Staff Geologist, Technical Services Group

Staff geologist evaluating the geological technical requirements for pool optimization candidates (L. Cretaceous Lloydminster Senlac and North Cactus Lake McLaren pools), and Mississippian Bakken Cactus Lake pool, with partners PetroCanada and Saskoil.

- Recommendation to drill a successful 3 well “huff and puff” Enhanced Oil Recovery pilot at North Cactus Lake Maclaren pool.
- Successfully completed a 6-month evaluation of the Lower Cretaceous Mannville Group in Alberta and Saskatchewan mapping major reservoir and reservoir quality fairways.
- Co-instructor and field trip leader for internal in-house clastic training courses.

Geological Survey of Canada

1979-1980

Sr. Geologist, Tebesjuak Lake Project, and Baffin Island Project

Conducted regional geological mapping at a scale of 1:250000 of Proterozoic sediments on Baffin Island and Tebesjuak areas of the N.W.T.

1. Lecheminant, A.N., Iannelli, T.R., **Zaitlin, B.A.** and Miller, A.R. (1981). Geology of the Tebesjuak Lake Map Area, District of Keewatin: A Progress Report *in* Current Research, part B, Geol. Surv. Can. Paper 81-1b, pp. 113-128.

University of Ottawa, Ottawa, Ontario

1979-1981

Lab Demonstrator, Dept of Geology

Winter's 1979; 1980

Lab demonstrator for 2nd and 3rd year sedimentary petrology and sedimentology / stratigraphy courses.

Labrador Exploration

Summer 1978

Jr. Field Geologist; Uranium Exploration

Conducted regional uranium exploration in Southern Labrador and Quebec Northshore (Minghan Islands) involving geological mapping, geophysical and rock sampling.

Northgate Exploration

Summer 1977

Jr. Field Geologist; Base Metal Exploration

Conducted regional base metal exploration in Southern Quebec involving geological mapping, sediment/soil, and rock sampling

Addendum for Resume

Academic/Technical Society Awards:	15
Scholarships and Fellowships:	6
Graduate Research Awards:	6
Research Partnerships (Industry, Government, Academic)	3

Contributions to Professional Societies (Convener, session chair etc.)	18
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Alberta Energy Regulator 22

AER Decisions (5)	
AER Cancellations, Withdrawals, (16)	
AER Active Panels (1)	

Research Publications:

Thesis (M.Sc. / Ph.D.):	2
Refereed Journal/Chapters:	31
Extended Abstracts:	33
Technical Abstracts:	91

Edited Books: 3

Non-Refereed Publications:

Short Course Notes:	3
Field Guides:	3
Publications:	10

Core Conferences: 3

Unpublished Company Reports:

Zaitlin Geoconsulting Ltd.:	18
BMO A&D Group:	4
EnCana/PanCanadian:	36
Esso Canada Resources:	33
Gulf Canada Resources:	7
Forge Oil and Gas:	2
Todd Energy:	1
NAL Energy:	4
Whiting Energy:	2

Instruction/Training (Short Courses/Field Trips). Invited Lecturer

- Instructed and/or co-instructed more than 50 formal courses, field trips and/or workshops for university, industry, and geological societies (see below).
- Responsible for supervising > 31 new hires through company training programs while Technical Specialist, Geological Advisor and Chief Geologist.
- Company liaison and co-supervisor for 3 M.Sc. and one PDF student while at PanCanadian Energy.
- Instructed and co-instructed industry/societies short courses on:
 - WCSB Unconventional Potential (2x)
 - Sequence Stratigraphy and Reservoir characterization – non-marine, marginal marine, and Incised Valley Deposits (3x)
 - Applied Reservoir Characterization (3x)
 - Exploration-Exploitation of Incised Valley Reservoirs (9x)
 - Clastic Facies School (9x)
 - Sequence Stratigraphy (4x)
 - Cretaceous Play Types (2x)
 - BQ/Glauc/Viking/Shoreface/Fluvial Core Workshops (>15x)
 - Incised Valley Course (5x- CSPG, 1x -IAS)
 - Fieldtrips (2x- CSPG)
 - Core Project Reviews (>50)
- Numerous Guest lectures (e.g., Colorado School of Mines, University of Calgary, University of Alberta, University of Saskatchewan, University of Regina, Brandon University, University of Winnipeg, APEGA Geoskills, AAPG Distinguished Lecturer, CSPG Ambassador Lecturer etc.)

Alberta Energy Regulator Publications

AER Decisions (5)

- 1- Kennedy, H., McKinnon, C., and Zaitlin, B. (2018). Alberta Energy Regulator Costs Order 2018-01: Bashaw Oil Corporation, Applications for Proximity Critical Sour Wells, Nisku Formation, Drayton Valley Area. 24pp.
- 2- Kennedy, H., McKinnon, C., and Zaitlin, B. (2018). Alberta Energy Regulator Decision 2018 ABAER 002: Bashaw Oil Corporation; Applications for Proximity Critical Sour Wells, Nisku Formation, Drayton Valley Area. 31pp.
- 3- O’Gorman, D. Daniels, J., and Zaitlin, B. (2019). Alberta Energy Regulator Costs Order 2019-01: Canadian Natural Resources Limited, Applications for Three Pipelines and a Free-Standing Liner, Dunvegan Field. 16pp.
- 4- O’Gorman, D. Daniels, J., and Zaitlin, B. (2019). Energy Regulator Decision ABAER 007: Canadian Natural Resources Limited, Applications for Three Pipelines and a Free-Standing Liner, Dunvegan Field. 21pp
- 5- Low, C., McKinnon, C., and Zaitlin, B. (2021). Proceeding 397 - Alberta Energy Regulator Decision 2021 ABAER 001: Canadian Natural Resources Limited, Regulatory Appeal of Amendment Approval 11475EE, Kirby North. 57pp.

AER Cancellations, Withdrawals, Dispositions (16)

- 1- Chiasson, C., O’Gorman, D., and Zaitlin, B.A. (2018). Proceeding 357 - Hearing Cancellation ABAER 008: Encana Corporation - Application for eight Well Licenses and two Pipeline Licenses Wembley Area. 2pp
- 2- Chiasson, C. and Zaitlin, B.A. (2018). Proceeding 367 - Hearing Cancellation 2018 ABAER 010: Inplay Oil Corp - Application for Licences for Two Wells, a Multiwell Oil Satellite, and Two Pipelines 16.8 Kilometres North of Rocky Mountain House – Hearing Cancellation – Staff Disposition. 2pp
- 3- Low, C., O’Gorman, D., and Zaitlin, B.A. (2018). Proceeding xxx - SemCams ULC Pipestone Central Facility, Elmworth Field area. – Withdrawn
- 4- Low, C., O’Gorman, D., and Zaitlin, B.A. (2018). Proceeding 381 - Tidewater Midstream and Infrastructure Ltd, Central Facility, Grande Prairie area. – Withdrawn.
- 5- Low, C., Stock, T., and Zaitlin, B.A. (2019). Tidewater Midstream and Infrastructure Ltd, Grande Prairie area. – Hearing Withdrawn
- 6- Low, C., Stock, T., and Zaitlin, B.A. (2019). Proceeding 375 - Hearing Cancellation ABAER 012: Encana Corporation Application for Acid Gas Disposal Wembley Field Application 1911974. 2pp
- 7- Low, C., Stock, T., and Zaitlin, B.A. (2019). Proceeding 374 - Highground Energy Wells and Infrastructure – Viking - Hearing Cancellation
- 8- Bolton, A., Chiasson, C., and Zaitlin, B.A. (2019) Proceeding 349 - Shell Canada – Critical Sour Gas Well and infrastructure – Pincher Creek Area - Hearing Cancellation
- 9- O’Gorman, D., McKinnon, C., and Zaitlin, B.A. (2020). Proceeding 382 - Trace Water Solutions – Disposal Facility/ Disposal Well near Spirit River – Application withdrawn.
- 10- O’Gorman, D., Meysami, P., and Zaitlin, B.A. (2020). Proceeding 395 - Hearing Cancellation 2020 ABAER 006: Canadian Coastal Resources Ltd. Critical Sour Gas Exshaw Well. 1pp.
- 11- O’Gorman, D., Meysami, P., and Zaitlin, B.A. (2020). Proceeding 394 - Hearing Cancellation 2020 ABAER 009. Ovitiv (Encana) Ambrose Critical Montney Gas Wells. 2pp

- 12- Chiasson, C., O’Gorman, D., and Zaitlin, B. (2020). Hearing Cancellation. Proceeding 405 - CNRL Steyer-Amendt-Mumert Hearing - Canadian Natural Resources Limited – Application No. 1928747 and 30641158 – Expansion of sour gas plant expansion, disposal well - Hearing 405 – SOC’s Withdrawn.
- 13- Chiasson, C., McNaughton, B., and Zaitlin, B. A.: Proceeding 404 - Keyera – Ambrose Reg Appeal (2021) – 2 pipelines (NGL/Condensate) Hearing 404- SOC’s Withdrawn. 2021AER002.
- 14- Low, C., O’Gorman, D., and Zaitlin, B. A.: Proceeding 402 - Secure – Sprocket Hearing (2021). Secure Energy Services Inc. (Secure), Application No. 1928126. Disposal Well – Hearing 402 – SOC Withdrawn. 2021AER005.
- 15- Meysami, P., Chiasson, C., and Zaitlin, B.A.: Proceeding 408 - Coalspur – Vista Mine Amendments Hearing (2021). Applications to modify existing approvals of existing Tailings cells – Hearing 408. – SOC Withdrawn. 2021AER006.
- 16- Bolton, A., Macken, C., and Zaitlin, B.A.: Proceeding 407 - Winslow - Spartan Resources – TAU Brazeau Dam Hearing (2021). Well applications Near Brazeau Dam - Hearing 407 Applications withdrawn. 2021AER008.

AER Active Panels (1):

- 1- Bolton, A., Macken, C., and Zaitlin, B.A. (Hearing Scheduled for Sept 2021). Ridgeback Resources Inc., and Westbrick Energy Ltd. Well applications Near Brazeau Dam - Hearing 379

Other AER Activity (2019-present):

- AGS Seminar – February 20, 2019; presented “**Changes in Depositional Style between the Underfilled and Overfilled Portions of a Foreland Basin: An Example from the Western Canada Sedimentary Super Basin**”
- AGS WEB IS Seminar – February 20, 2019; presented “**The Cardston Earthquake Swarm and Hydraulic Fracturing - The association between the Wabamun, Exshaw and Banff completions (Alberta Bakken or WEB Play) with the MURPHY KAINAI ENERGY NINSTO 15-21-4-25W4**”

RESEARCH PUBLICATIONS

Ph.D. Thesis (1987)

Sedimentology of the Cobequid Bay - Salmon River Estuary, Bay of Fundy, Canada. Unpublished Ph.D. Thesis, Queen's University (Kingston), 393 pp.

(Awarded Canadian Society of Petroleum Geologists Ph.D. Thesis Award - 1987)

M.Sc. Thesis (1981)

Sedimentology of the Pirate Cove, Fleurant and Bonaventure Formations of the Western Baie des Chaleurs Area, Maritime Canada: A Depositional and Tectonic Model. Unpubl. M.Sc. Thesis, University of Ottawa (Ottawa), 187 pp.

Refereed Publications (31)

- 31 - Hildred, G.V., Ratcliffe, K.T., Wright, A.M., Ratcliffe, K.T., **Zaitlin, B.A.**, and Wray, D.S. (2010). Chemostratigraphic applications in low-accommodation fluvial incised valley settings: an example from the Lower Mannville Formation of Alberta, Canada. *Journal of Sedimentary Research*, V. 80, p.1032-1045.
- 30 - Wright, A.M., Ratcliffe, K.T., **Zaitlin, B.A.**, and Wray, D.S. (2010). The application of chemostratigraphic techniques in low accommodation incised valley systems in a foreland basin setting: an example from the Lower Cretaceous Mannville Group and Basal Colorado Sandstone (Colorado Group), Western Canada Sedimentary Basin. *In* SEPM Special Publication No. 94: Application of Modern Stratigraphic Techniques: Theory and Case Histories; edited by H. T. Ratcliffe and B.A. Zaitlin, p.93-107.
- 29 - Boyd, R., Dalrymple, R.W. and Zaitlin, B.A. (2006). Estuarine and Incised Valley Facies Models In: Facies Models Revisited, SEPM Special Publication No. 84, edited by H. Posementier and R.G. Walker. p. 171 - 236.
- 28 - Ratcliffe, K.T., Wright, A.M., Hallsworth, C., Morton, A., **Zaitlin, B.A.**, Potocki, D. and Wray, D.S. (2004). Chemostratigraphic characterization of fine-grained facies in a low accommodation setting: an example from the (Lower Cretaceous) Basal Quartz, Southern Alberta. *Bulletin American Association of Petroleum Geologists*, V.88, p.1419-1432.
- 27 - Wadsworth, J., Boyd, R., Diessel, D., Leckie, D. and **Zaitlin, B.A.** (2002). Non-marine sequence stratigraphy – an intermediate accommodation example from the Upper Mannville Group, South-Central Alberta. *Bulletin Canadian Society of Petroleum Geology*. V. 50, p. 492-506.
- 26 - Campanella, J., Sonnenfeld, M., Zahm, L., Conrad, L., Siemens, S., and **Zaitlin B.A.** (2002). A Case Study: Using Modern Reservoir Characterization to Optimize Future Development of a Mature Asset. Society of Petroleum Engineering Annual Conference, San Antonio, Texas. Sept 29-October 2, 2002. (SPE77671).
- 25 - **Zaitlin, B.A.**, Potocki, D., Warren, M.J., Rosenthal, L. and Boyd, R. (2002).

Depositional styles in a low accommodation foreland basin setting: an example from the Basal Quartz (Lower Cretaceous), southern Alberta. *Bulletin of Canadian Petroleum Geology*, V. 50, No 1, p.31-72.

(Awarded Canadian Society of Petroleum Geologists Medal of Merit - 2003).

- 24 - Lukie, T.D., Ardies, G.W., Dalrymple, R.W. and **Zaitlin, B.A.** (2002). Alluvial architecture of the Horsefly Unit (Basal Quartz) in southern Alberta and northern Montana: influence of accommodation change and contemporaneous faulting. *Bulletin of Canadian Petroleum Geology*, V. 50, No 1, p.73-91.
- 23 - Arnott, R.W.C., **Zaitlin, B.A.** and Potocki, D. (2002). Stratigraphic response to sedimentation in an accommodation-limited setting, Lower Cretaceous Basal Quartz, south-central Alberta, Canada. *Bulletin of Canadian Petroleum Geology*, V. 50, No. 1, p.92 -104.
- 22 - Ardies, G.W., Dalrymple, R.W. and **Zaitlin, B.A.** (2002). Controls on the geometry of incised valley systems in the Basal Quartz Unit (Lower Cretaceous), Western Canada Sedimentary Basin. *Journal of Sedimentary Research*, V. 72, No. 5, p.602 – 618.
- 21 - Boyd, R., Diessel, C., Wadsworth, J., Leckie, D. and **Zaitlin B.A.** (2000). Organization of Non-Marine Stratigraphy. *Proceedings of the 34th Newcastle Symposium: Advances in the study of the Sydney Basin* edited by Boyd, R. Diessel, C.F.K. and Francis, S. University of Newcastle. p. 1-14.
- 20 - Arnott, R.W.C., **Zaitlin, B.A.** and Potocki, D. (2000). Geological controls on reservoir distribution in the Lower Cretaceous Basal Quartz, Chin Coulee- Horsefly Lake area, south-central Alberta. *Canadian Society of Petroleum Geologists Bull.*, v.48, p. 212-229.
- 19 - MacEachern, J.A., **Zaitlin, B.A.** and Pemberton, S.G. (2000). Coarse-grained, shoreface-attached, marginal marine parasequences of the Viking Formation, Joffre Field, Alberta, Canada. *In SEPM Memoir 64: Isolated Marine Sand Bodies: Stratigraphic Analysis and Sedimentologic Interpretation.* Edited by K. Bergman and J. Snedden, p. 273-296.
- 18 - MacEachern, J.A., **Zaitlin, B.A.** and Pemberton, S.G. (1999). A sharp-based sandstone of the Viking Formation: criteria for recognition of transgressively incised shoreface complexes, Joffre Field, Alberta, Canada. *Journal of Sedimentary Research*.
- 17 - Peijs-van Hilten, M., Good, T.R. and **Zaitlin, B.A.** (1998). Heterogeneity modeling and fluid flow upscaling applied to waterflood performance prediction of an incised valley system reservoir: Countess "YY" Pool, southern Alberta Canada. *Bulletin American Association of Petroleum Geologists*, v.82, p. 2220-2245.
- 16 - MacEachern, J.A., **Zaitlin, B.A.** and Pemberton, S.G. (1998). High Resolution sequence stratigraphy of the early transgressive incised shoreface and early transgressive valley/embayment deposits of the Viking Formation, Joffre Field, Alberta, Canada. *Bulletin American Association of Petroleum Geologists*, v.82, p.729-756.
- 15 - Nichol, S.L., **Zaitlin, B.A.**, and Thom, B.G. (1997). The Upper Hawkesbury River,

New South Wales, Australia: A Holocene Example of an Estuarine Bay-head Delta Complex. *Sedimentology*, v. 44, p. 263-286.

- 14 - Broger, E.J.K., Syhlonyk, G.E. and **Zaitlin, B.A.** (1997). Glauconitic Sandstone Exploration: A case study from the Lake Newell project, southern Alberta in C.S.P.G. Proceedings of the MANNVILLE SYMPOSIUM: edited by G. Pemberton and D. James. Canadian Society of Petroleum Geologists Memoir 18, p.140-168.
- 13 - **Zaitlin, B.A.**, Dalrymple, R.W. and Boyd, R. (1994). The stratigraphic organization of incised-valley systems in: *Incised Valley Systems: Origin and Sedimentary Sequences*: edited by R.W. Dalrymple, R. Boyd and B.A. Zaitlin. SEPM Special Publication No. 51, p.45-60.
- 12 - Dalrymple, R.W., Boyd, R. and **Zaitlin, B.A.** (1994). History of research, definitions and internal organization of incised-valley systems: introduction to the volume in *Incised Valley Systems: Origin and Sedimentary Sequences*: edited by R.W. Dalrymple, R. Boyd and B.A. Zaitlin. SEPM Special Publication No. 51, p. 3-10.
- 11 - Dalrymple, R.W. and **Zaitlin, B.A.** (1994). High resolution sequence stratigraphy of a complex, incised-valley succession: the Cobequid Bay-Salmon River Estuary (Bay of Fundy, Canada) *Sedimentology*, Vol. 41, p.1069-1091.
- 10 - Dalrymple, R.W., **Zaitlin, B.A.** and Boyd, R. (1992). Estuarine Facies models: conceptual basis and stratigraphic implications. *Journal of Sedimentary Petrology*, Vol. 62, No. 6, p.1130-1146.
(Chosen as one of the top 10 Landmark Papers in Siliciclastic Sedimentology in the 100th Anniversary AAPG Landmark Papers Project)
- 9 - Boyd, R., Dalrymple, R.W. and **Zaitlin, B.A.** (1992). Classification of coastal sedimentary environments. *Sedimentary Geology*, Vol. 80, No. 3/4, p.139-150.
- 8 - Amos, C.L., Tee, K.T. and **Zaitlin, B.A.** (1991). The post-glacial evolution of Chignecto Bay, Bay of Fundy, and its environment of deposition in *Clastic Tidal Sedimentology*: edited by D.G. Smith, G.E. Rienson, B.A. Zaitlin and R. Rahmani. Canadian Society of Petroleum Geologists Memoir No.16, p. 59-90.
- 7 - Dalrymple, R.W., Makino, Y. and **Zaitlin, B.A.** (1991). Temporal and spatial variation in mudflat sedimentation, Cobequid Bay- Salmon River Estuary, Bay of Fundy. *In* *Clastic Tidal Sedimentology*: edited by D.G. Smith, G.E. Rienson, B.A. Zaitlin and R. Rahmani. Canadian Society of Petroleum Geologists Memoir No.16, p. 137-160.
- 6 - Dalrymple, R.W., Knight, R.J., **Zaitlin, B. A.** and Middleton, G.V. (1990). Dynamics and Facies Model of a Macrotidal Sand Bar Complex; Cobequid Bay- Salmon River Estuary, Bay of Fundy. *Sedimentology*, vol. 37, p. 577-612.
- 5 - **Zaitlin, B.A.** and Shultz, B.C. (1990). Wave-influenced estuarine sandbody: the Senlac Heavy Oil Pool, Saskatchewan in *Sandstone Petroleum Reservoirs* (edited by J.H. Barwis, J. McPherson, and J.R.J. Studlick). Springer-Verlag Casebooks in Earth Sciences, p. 363-387.
- 4 - Rust, B.R., Lawrence, D.A. and **Zaitlin, B.A.** (1989). The sedimentology and tectonic

significance of Devonian and Carboniferous terrestrial successions in Gaspe, Quebec, *Atlantic Geology*, Vol. 25, p. 1-13.

- 3 - Amos, C.L. and **Zaitlin, B.A.** (1985). The effect of changes in tidal range on a sublittoral macrotidal sequence, Bay of Fundy, Canada. *Geo-marine Letters*, Vol. 4, p. 161- 169.
- 2 - **Zaitlin, B.A.** and Shultz, B.C. (1984). An Estuarine-Embayment Fill Model from the Lower Cretaceous Mannville Group, West-Central Saskatchewan; *in* Mesozoic of Middle North America, D.F. Stott and D.J. Glass, editors. Canadian Society of Petroleum Geologists Memoir, No. 9, p.455-469.
- 1 - **Zaitlin, B.A.** and Rust, B.R. (1983). A Spectrum of Alluvial Deposits in the Lower Carboniferous Bonaventure Formation of Western Chaleur Bay, Gaspe, and New Brunswick. *Canadian Journal of Earth Sciences*, Vol. 20, No. 7, p. 1098-1110.

Refereed Edited Books (3)

- 3 - Ratcliffe, K. T., and **Zaitlin, B.A.** eds. (2010). Application of Modern Alternative Stratigraphic Techniques: Theory and Case Studies. *Soc. Sediment Geol. (SEPM) Special Publication No. 94*, 241pp.
- 2 - Dalrymple, R.W., Boyd, R. and **Zaitlin, B.A.** eds., 1994. Incised-Valley Systems: Origin and Sedimentary Sequences: *Soc. Sediment Geol. (SEPM) Special Publication 51*, 391pp.
- 1 - Smith, D.G., Reinson, G., Rahmani, R., and **Zaitlin, B.A.**, eds., 1991. Clastic Tidal Sedimentology: Canadian Society of Petroleum Geologists Memoir 16, Proceedings of the 1989 Second International Symposium of Tidal Clastic Deposits. International Association of Sedimentologists / Canadian Society of Petroleum Geologists, Calgary. Alberta 387pp.

Core Conference Proceedings (2)

- 2 - **Zaitlin, B.A.** and Harris, R.T. (co-editors) 2010. GeoCanada 2010 – Working with the Earth CSPG Core Conference Abstracts, 170pp.
- 1 - Harris, R.T., and **Zaitlin, B.A.** (co-editors) 2008. CSPG-CSEG-CWLS C3Geo Convention, Calgary, Alberta, Core Conference Proceedings CD.

Extended Abstracts (33)

- 33 – Moslow, T.F., Zaitlin, B.A. and Hildred, G., 2017. Variability in Spirit River (Wilrich-Falher) Reservoir Facies Associations in the Deep Basin: Sequence Stratigraphy, Accommodation Space, Reservoir Quality and Chemostratigraphy. CSPG Core Conference.
- 32 – Zaitlin, B.A. and Moslow, T.F., 2017. Variations in Sequence Stratigraphy, Accommodation Space, Paleodrainage and Depositional Style between the Underfilled and Overfilled Foreland Basin Portion of the Western Canada Sedimentary Basin. CSPG Technical Luncheon Abstract, February 7, 2017.
- 31 - Stillwell, H., Martinez-Kulikowski, N., Hildred, G., and **Zaitlin, B.**, 2013. Forensic chemostratigraphy in geosteering multilateral wells: An example from Devonian to Carboniferous-aged sequences in southern Alberta. SPE – AAPG - SEG Unconventional Resources Technology Conference. Denver, Colorado.
- 30 - Hildred, G.V., Martinez-Kulikowski, N. and **Zaitlin, B.A.**, 2013. Forensic chemostratigraphy: a tool to determine lateral well bore placement. CSEG- CSPG- CWLS Joint Annual Geoconvention 2013.
http://www.geoconvention.com/uploads/2013abstracts/293_GC2013_Forensic_chemostratigraphy.pdf
- 29 - **Brian A. Zaitlin**, Zeev Berger, Wendy Low-Smith, Joyce Kennedy and Steven Kehoe (2011). The Alberta Bakken – Exshaw Petroleum System: an emerging unconventional oil play in southern Alberta and Northwestern Montana in: Rocky Mountain Association of Geologists and Rocky Mountain PTTC 2011 Fall Symposium Bakken-Three Forks Petroleum System in the Williston Basin - Chaired by John Robinson and Mark Sonnenfeld. Program and Abstracts, p. 44-54.
- 28 - **Brian A. Zaitlin**, Zeev Berger, Joyce Kennedy, and Steven Kehoe (2011). The Alberta Bakken: A Potential New, Unconventional Tight Oil Resource Play. CSPG CSEG CWLS Joint Annual Convention
- 27 - Zeev Berger and **Brian A. Zaitlin** (2011). Detection and Analysis of Structurally Controlled Enhanced Reservoir Potential in Mature and Emerging Oil Resource Plays in the WCSB: Tight Oil Examples from the Nordegg and Alberta Bakken
- 26 - Wright, A.M., Ratcliffe, K.T., and **Zaitlin, B.A.** (2010). Chemostratigraphic characterization of incised valley fill sequences from the Lower Cretaceous Mannville Group, and the Basal Colorado Sandstone in GeoCanada 2010 – Working with the Earth CSPG Core Conference Abstracts, p.161-170.
- 25 - Hildred, G., Ratcliffe, K.T., Wright, A.M. and **Zaitlin, B.A.**, (2008). Chemostratigraphy as an exploration tool in low-accommodation incised valley systems: an example from the Lower Cretaceous Basal Quartz in Southern Alberta. 2008 CSPG-CSEG-CWLS C3Geo Convention, Calgary, Alberta, Core Conference Proceedings CD, p. 74-83.
- 24 - Hildred, G., Ratcliffe, K.T., Wright, A.M. and **Zaitlin, B.A.**, (2007). Chemostratigraphic differentiation between time-equivalent low accommodation

incised valley systems in a foreland basin setting: an example from the Lower Cretaceous Horsefly unit of the Basal Quartz Formation in Southern Alberta, Canada. 2007 CSPG Convention, Calgary, Alberta, Conference Proceedings CD, 4pp.

- 23 - **Zaitlin, B.A.** and Moslow, T.F. (2006). A review of deep basin gas reservoirs of the Western Canada Sedimentary Basin. *The RMAG Mountain Geologist*, v. 43, No.3, p.257-262
- 22 - **Zaitlin, B.A.** (2003). Recent Advances In Our Pursuit of Tight Gas Resource Plays: *Examples from the Western Interior Sedimentary Basin*. SMI Non-Conventional Oil and Gas Conference London, England. CD.
- 21 - Ratcliffe, K.T., Wright, A.M., Wray, D.S., **Zaitlin, B.A.**, Potocki, D., Hallworth, C. And Morton, A. (2003). Alternative correlation methods in low accommodation fluvial settings: an example from the Basal Quartz (Lower Cretaceous) Southern Alberta. 2003 CSPG/CSEG Convention, Abstracts of Technical Talks, Posters and Core Displays, 10 p., CD PDF. (**Awarded CSPG/CSEG Convention Honorable Mention - Best Geological Paper**)
- 20 - Fong, G., Walker, R.G., McLaren, C. and **Zaitlin, B.A.** (2001). Hydrocarbon distribution controlled by facies, erosion surfaces and faulting in the Basal Colorado Sandstone (Albian), Southern Alberta, Canada AAPG-SEPM Annual Meeting, 2001 AAPG-SEPM Annual Conference, Denver, Proceedings and Abstracts (Poster).
- 19 - Boyd, R., Diessel, C., Wadsworth, J., Leckie, D. and **Zaitlin, B.A.** (2000). Developing a Model for non-marine sequence stratigraphy – application to the Western Canada Sedimentary Basin. GeoCanada 2000 SCPG/CSEG/CWLS/GAC/MAC Joint Convention, Program and Abstracts.
- 18 - **Zaitlin, B.A.**, Potocki, D., Warren, M., Rosenthal, L. and Boyd, R. (2000). Sequence Stratigraphy in low accommodation foreland basins: an example from the Lower Cretaceous “Basal Quartz” Formation of Southern Alberta. GeoCanada 2000 SCPG/CSEG/CWLS/GAC/MAC Joint Convention, Program and Abstracts Poster and Oral Presentation).
- 17 - Akupulat, N. Taskin, Reidiger, C., Corbett, N., Griffith, L., **Zaitlin, B.A.** and Rosenthal, L. (2000). Facies associations in the Lower Cretaceous Ostrocode Zone, Western Canada Sedimentary Basin. GeoCanada 2000 SCPG/CSEG/CWLS/GAC/MAC Joint Convention, Program and Abstracts Core Workshop.
- 16 - **Zaitlin, B.A.**, Potocki, D., Warren, M., Rosenthal, L. and Boyd, R. (2000). Sequence stratigraphy in low accommodation foreland basins: an example from the Lower Cretaceous “Basal Quartz” Formation of Southern Alberta. 2000 AAPG-SEPM Annual Meeting, New Orleans Program and Abstracts.
- 15 - **Zaitlin, B.A.**, Potocki, D., Warren, M., Rosenthal, L. and Boyd, R. (1999). Sequence Stratigraphy in low accommodation foreland basins: an example from the Lower Cretaceous “Basal Quartz” Formation of Southern Alberta. *CSPG Reservoir*, v. 26, p.12-13.

- 14 - Mazano, B.K., Riediger, C.L., Fowler, M., Stevenson, P., Karavas, F., Cox, W. and **Zaitlin, B.A.** (1999). Mesozoic Oil Families and oil quality distribution, southern Alberta. 19th International Meeting on Organic Geochemistry, Istanbul, turkey, September 6-10, 1999.
- 13 - Leroux, M.S., MacEachern, J.A. and **Zaitlin, B.A.** (1999). Style contrast of estuarine incised valley complexes: ichnological and sedimentological analysis of valley trends in the Glauconitic member and Viking Formation, central Alberta. 1999 CSPG and Petroleum Society Joint Convention, Calgary, Alberta. Core Conference Proceedings.
- 12 - Wadsworth, J., Boyd, R., Diessel, C., Little, M., Chalmers, G., **Zaitlin, B.A.** and Leckie, D. (1998). The role of accommodation space in non-marine stratigraphy – Contrasting examples from Western Canada and Eastern Australia in 14th Newcastle Symposium, Newcastle, N.S.W., Australia. Program and Abstracts.
- 11 - **Zaitlin, B.A.** (1997). High resolution sequence stratigraphy of incised-valley systems: general characteristics and common variants with examples from the Western Canada Sedimentary Basin in Canadian Society of Petroleum Geologists Reservoir, V.24, No. 6, p. 3-6.
- 10 - Mawdsley, M., Eamer, A. and **Zaitlin, B.A.** (1996). Exploration for incised valley channel sandstones using 3-d seismic: risks and opportunities. 1996 Society of Exploration Geophysicists Annual Convention, Denver, Colorado. Program and Abstracts. p. 295-298.
- 9 - **Zaitlin, B.A.**, Dalrymple, R.W., Boyd, R., Broger, K., Chow, T., Griffith, L., Nadaraju, G.T., Shultz, B. and Syhlonyk, G. (1995). High resolution sequence stratigraphy of incised-valley systems with Examples from the Western Canada Sedimentary. Conference on "Predictive High-Resolution Sequence Stratigraphy", Stavanger Forum, Stavanger, Norway, Norwegian Petroleum Society, November 6-8, 1995. p. 4A-C.
- 8 - MacEachern, J.A., **Zaitlin, B.A.** and Pemberton, S.G. (1995). High resolution sequence stratigraphy of stacked early transgressive shoreface and early-transgressive-related deposits of the Viking Formation, Joffre Field, Alberta, Canada. Conference on Predictive High-Resolution Sequence Stratigraphy", Stavanger Forum, Stavanger, Norway, Norwegian Petroleum Society, November 6-8, 1995. p. 69A-D (Poster).
- 7 - MacEachern, J.A., **Zaitlin, B.A.** and Pemberton, S.G. (1995). A late lowstand to early transgressive coarse-grained tongue from the Viking Formation of the Joffre Field, Alberta- embayment complex or shoreface wedge? in D.J.P. Swift, J.W. Snedden and A.J. Plint (eds) Tongues, Ridges and Wedges - Highstand versus Lowstand Architecture in Marine Basins. SEPM Research Conference, Powder and Bighorn Basins, Casper Wyoming, June 24-29, 1995.
- 6 - **Zaitlin, B.A.**, Dalrymple, R.W. and Boyd, R. (1994). The stratigraphic organization of incised-valley systems: implications for exploration and exploitation in the Western Canada Sedimentary Basin in Canadian Society of Petroleum Geologists Reservoir, V.21, No. 3, p. 1-2.

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