

APPENDIX IV

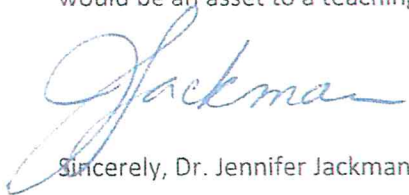
212 Carmel Road, Castleton
Ontario, Canada K0K 1M0
2014 August 22

State of California
Commission on Teacher Credentialing
1900 Capitol Ave.
Sacramento, CA
95811

Regarding: the application of **Dr. Adrienne Larocque** for an Eminence Credential with the State of California education system.

I have recently retired as the Director General of the CanmetMATERIALS laboratory, which is a federal research centre in the Government of Canada (Department of Natural Resources). I first met Dr. Larocque in 1994 and worked with her closely throughout the period of her PhD research at Queen's University in Kingston, Ontario, and subsequently. At that time I was a senior scientist in the area of Secondary Ion Mass Spectrometry (SIMS), which is a particularly sensitive but difficult technique (since it requires advanced understanding of ion-solid interactions, ionizing processes and mass spectrometry) to measure the quantity and distribution of trace elements in a range of materials. Dr. Larocque worked on geological samples which is the most difficult class of materials to analyze by SIMS. She was able to master this technique and produce original, advanced research despite the fact that her own formal training was in a very different field. My own expertise is in the analysis of metallurgical samples, which present entirely different problems, therefore Dr. Larocque, even as a PhD student, was required to resolve many difficult challenges through her own initiative. She was able to develop and advance novel methodologies for analyzing geological materials by SIMS, making her one of only a few researchers in Canada able to utilize this tool effectively for geological research. Her research increased our knowledge and understanding of the mobilization of elements in geological formations; which can be used for different applications including assessing the potential value for mining and understanding the geological history of a region. Secondary Ion Mass Spectrometry was only one of the areas she mastered in order to further her research; despite this she was invited to give presentations and teaching lectures on the subject, and was well recognized for her scientific contributions in the field. She was one of the most talented graduate students I have worked with, definitely within the top 10% of students.

Furthermore, Dr. Larocque demonstrated other characteristics that made working with her a very positive experience. In addition to the initiative and work ethic mentioned above, she always exhibited a very positive and cheerful attitude and was an excellent team member. Dr. Larocque was encouraging and supportive to others, modest in her claims of success and showed consistent scientific integrity in her research work. She is an excellent two-way communicator and enjoys sharing her knowledge with others. I have no doubt Dr. Larocque would be an asset to a teaching organization.



Sincerely, Dr. Jennifer Jackman

Retired: Director General, CanmetMATERIALS, Natural Resources Canada



FRANKLIN GEOSCIENCES LTD.

*24 Commanche Drive
Nepean, Ontario K2E 6E9
Tel 613-225-6368
Fax 613-321-4995
Email: jim@franklingeosciences.com*

State of California
Commission on Teacher Credentialing
1900 Capitol Ave.
Sacramento, CA 95811

To whom it may concern,

August 30, 2014

Dr Adrienne Larocque has asked that I write a letter of recommendation on her behalf, as part of her application to obtain an "Eminence Credential" in the State of California. I have known Dr Larocque for about 27 years, when she first joined the Geological Survey of Canada as a summer research assistant. She worked with me as a research assistant as part of the Seafloor Minerals Program of the Geological Survey of Canada, and went on to complete her MSc in the study of surficial materials, and her PhD on hydrothermal geochemistry. In addition to being her supervisor, I was the external examiner for her doctoral dissertation.

Adrienne is one of the most energetic, highly motivated and adaptable people I have met. Her undergraduate and MSc work looked at issues related to lake bottom stability, which is controlled by present day crustal activity, related to post-glacial rebound and tectonic activity. Understanding the recent history of change in the upper crust plays a key role in understanding limitations on potential long term radioactive waste disposal sites. Her doctoral work was in a completely different field, related to understanding the genetic processes attendant on the formation of major mineral deposits. This required a totally different specialized knowledge base. Dr. Larocque demonstrated her ability to learn an entirely new field of geoscience at an advanced level in a very short time period. Her doctoral work stands today as preeminent in understanding the processes of gold enrichment in mineral deposits. This work has had wide-ranging economic benefits to the exploration and mining industry. She continued with post-doctoral work at Los Alamos lab, where she applied new micro-analysis technology to understanding how gold and other elements are transported in vapour-phase fluids.

After joining the University of Manitoba's Dept. of Geological Sciences, Dr. Larocque began her career as an educator and at the same time broadened her research focus. She expanded her work in ore deposits geology to cover a wider range of deposit types, but also began a new line of research, which combined her knowledge of these deposits with that gained during her MSc work in surficial geology to investigate aspects of potential environmental contamination for acid mine drainage. This is a well-known issue in California, for example. This work enabled her to advance the public's awareness of how geological processes may affect everyday life, something that she has continued to emphasize throughout her career.

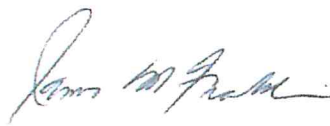
She taught several courses at U of M, and was well known as an outstanding teacher. She paid particular attention to ensuring that her students understood some of the more complex geological interactions that attended various geological processes. Introductory – level courses are particularly challenging to develop, as most university students have no background in the Earth Sciences in Canada. Her dedication to the quality of her teaching became well known nationally.

Her move to the Philippines for family reasons started a new phase of her career. Gases emitted from major volcanic eruptions are a major environmental concern, and have historically been the cause of significant loss of life. The secondary consequence of the gas is to create explosive volcanism, again a major hazard. By understanding the role that gases play in several environmentally-related aspects of volcanism, she raised awareness of the need for monitoring of these gases as a predictor for potential disasters.

Since returning to the US she has focussed her efforts on elementary and middle school education in the earth science. I know of no other person who has such a rich background in earth science, and who is so able to communicate the excitement and value of knowing about our earth to students of all ages. Hers' is a rare talent amongst scientific researchers...to be able to excite students about the basic earth processes operating around us, while at the same time remaining a world-class expert in so many aspects of geoscience. She is indeed an 'eminent person'. I highly recommend that she be awarded the credentials necessary to allow her to formally become an educator in the California school system.

I would be pleased to answer any questions that you might have about Dr. Larocque's abilities.

Yours sincerely

A handwritten signature in dark ink, appearing to read 'James M. Franklin', with a stylized, flowing script.

James M Franklin PhD FRSC P Geo
President, Franklin Geosciences Ltd
Retired Chief Geoscientist, Geological Survey of Canada

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Geological Sciences
253 Science I
Ames, Iowa 50011-3212
515 294-4477
FAX 515 294-6049

August 19, 2014

California Commission on Teacher Credentialing (CTC)
1900 Capitol Ave.
Sacramento, CA 95811-4213

Dear Sir/Madam:

I am writing this letter in support of Adrienne Larocque's application to obtain her Eminence Credential, which is required for her to teach in California. I have known Dr. Larocque for over 20 years, starting when she had just finished her Ph.D. at Queen's University (Canada). Right after that she became an Assistant Professor of geology at the University of Manitoba, where she was subsequently promoted to Associate Professor.

My involvement with Dr. Larocque was mainly when she worked in Canada but we have been in touch ever since. Adrienne and I have both worked on the geology, mineralogy, and chemistry of various mineral deposits, although she has conducted research on various other geological problems as well (including glacial landforms, trace element studies of glacial sediments and volcanic rocks, and the geochemistry and mineralogy of mine tailings). She has published numerous papers on these studies. Her work on the effects of metamorphism on ore deposits, which began during her Ph.D. studies, is particularly noteworthy as it represents quite a change in directions from her previous work on low-temperature geochemistry. Her work on the mobilization of precious metals during metamorphism is exceptional.

In the late 1990s, I was asked to put together a prestigious volume for the Society of Economic Geologists (the world's leading society on the study of ore deposits) entitled "Metamorphosed and Metamorphogenic Ore Deposits." This volume appeared as a "Reviews in Economic Geology" and was co-organized and edited by me, Brian Marshall and Frank Vokes. I asked Adrienne to co-author a paper with my two co-editors, who were regarded as the two leading researchers on the discipline of "metamorphosed ore deposits" at the time. This speaks volumes to her outstanding reputation in this field at such a young age.

In addition to being an economic geologist and low-temperature geochemist, Adrienne is also a world-class mineralogist. She has considerable expertise on the characterization of minerals with complicated analytical instrumentation such as SIMS (secondary ion mass spectrometry). This prompted me to seek her advice about using SIMS analysis for my own research. Dr. Larocque's 2008 study on Volcan Popocatepetl in Mexico was particularly notable because it was the first paper that reported the presence of telluride minerals in vesicles that formed during an active

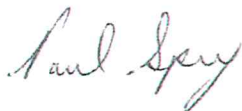
volcanic eruption. This important observation relates to my own research on gold telluride deposits and minerals found in such deposits. Her work resolved the long standing question concerning whether the element tellurium was carried in the vapor or liquid phase. My recent experimental studies verified what she discovered in 2008, that tellurium is carried in the vapor phase under ore-forming conditions.

Her research has been widely cited in the scientific literature, with one of her papers being awarded the Hawley Medal by the Mineralogical Association of Canada for the best paper to appear in Canadian Mineralogist in 2000. During her time in academia, Dr. Larocque was widely sought after to give invited lectures about her research at various universities. She gave two presentations in my own department in her role as AWG-Phillips Distinguished Lecturer, where I saw her interact with and inspire female students as well as male students.

Adrienne has reviewed grant applications and scientific articles for leading international journals, and served on various scientific committees related in her profession. I asked her to be the Western Canada Representative for the Working Group on Ores and Metamorphism (WGOM), part of the International Association on the Genesis of Ore Deposits. She did such a great job that, in my capacity as Chair of WGOM, I asked her to serve as its Secretary. Furthermore, as associate editor of four different scientific journals, I also asked Adrienne to review several papers. She always did these reviews in a timely fashion, and did an excellent job, providing constructive comments to the authors to help them improve their papers.

Adrienne is a very charismatic and dedicated person. She is extraordinarily bright and is also enthusiastic and professional. I know that other teachers and her students will find her to be just as delightful as everyone else who knows her. She is reliable and hard-working and she would be ideally suited to teach at ALL levels in the California education system. I strongly recommend that you provide Dr. Larocque with her Eminence Credential and that she be allowed to serve the state of California as a teacher. She is a very talented individual. If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Paul G. Spry". The signature is written in dark ink and is positioned below the word "Sincerely,".

Paul G. Spry
Professor of Economic Geology
pgspry@iastate.edu

State of California
Commission On Teacher Credentialing
1900 Capitol Avenue
Sacramento, CA 95811-4213

Re: Eminence Credentials of Adrienne Larocque, PhD

I am pleased to provide the following comments regarding the professional credentials of Dr. Adrienne Larocque in the field of geosciences. As Professor of Geology at the University of Manitoba, Dr. Larocque made significant advances in the fields of economic geology, mineralogy, environmental geology, and volcanology both at the national and international levels.

International Recognition and Level of Distinction

In a short time after her Ph.D., Dr. Larocque achieved a remarkable level of distinction for her work, far beyond her immediate peers. After graduation from two of the most respected universities in Canada, she was appointed to progressively advanced positions in two of the top research institutions in the Earth Sciences, the Ontario Geological Survey and the Geological Survey of Canada. Both organizations recognized and encouraged the publication of her work under their banner. In the Department of Natural Resources in Canada she led projects by 3 separate divisions, including in the Terrain Sciences Division, the Mineral Resources Division, and the Canadian Center for Materials Science (CANMET). She was also recruited by the National Metals in the Environment (MITE) Research Network to lead part of their application for strategic national funding. Dr. Larocque's professional reputation, expertise, and influence followed her to the University of Manitoba, where she was promoted to tenured Associate Professor in 2001.

Scientific Advances

Dr. Larocque quickly made significant, internationally recognized advances in each of the diverse fields in which she has worked. This includes acclaimed published works in the areas of geology, mineralogy, and geochemistry related to the glaciation of the Canadian Shield, metals in the environment, including important implications for immobilizing potentially toxic heavy metals released to lakes and rivers, mineral deposits, and the effects of water-rock interaction in large-scale hydrothermal systems. A hallmark of Dr. Larocque's research was mastering and significantly advancing the use of sophisticated instrumental approaches to analysis of geological materials, including then state-of-the art SIMS ion probe techniques (CANMET and Los Alamos). Dr. Larocque's research using these tools contributed directly to fundamental advances in our understanding of the distribution trace metals in the crust and in the environment in general, including in lakes, streams, weathered rocks, mine tailings, volcanic systems and ore deposits. The quality of her research is evidenced by the fact that so many leaders in these fields, from Canada, the U.S. and overseas, have chosen to work with Dr. Larocque and co-author papers with her. Dr. Larocque's work on the mineralogical siting of platinum group elements in ores and rocks is a singular achievement that captured the attention of the international mining industry and presented rare opportunities to combine industry-funded

and government-funded research on a topic of critical importance to the Canadian economy. She was rewarded for these achievements by successfully obtaining highly competitive research funding from the Natural Sciences and Engineering Research Council (NSERC, or Canada's equivalent of NSF) while professor at the University of Manitoba.

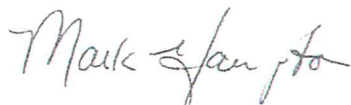
Published Recognition

Dr. Larocque published 5 papers from her PhD research, which is a remarkable record for most people in her field. She has more than 20 peer-reviewed publications in the top international journals of the science, including multiple publications in two of the most widely read and cited international scientific journals in her field (*Economic Geology* and *Canadian Mineralogist*). It is common practice in the Earth sciences for researchers to publish in only a few journals close to their interests. Dr. Larocque has published in at least 10 different research journals in widely varying fields from environmental geology, to volcanology to mineralogy; only the most accomplished researchers are able to publish their research across a spectrum of journals with such wide audiences. Several publications, as well as numerous government reports have had a wide readership in industry (e.g., Canadian Institute of Mining and Metallurgy). Dr. Larocque has given more than 50 conference presentations, including invited presentations at widely attended international conferences.

Awards and Service

Dr. Larocque has received nationally and internationally recognized awards for scientific achievement. These include the Hawley Medal from the Mineralogical Association of Canada for the best paper to appear in *Canadian Mineralogist* in 2000. In 2002, she received a nomination for the Young Scientist's Award of the Mineralogical Association of Canada, and she was the Distinguished Lecturer for the International Association of Women Geoscientists. Prior to her professional awards, she had received a prestigious Director's Postdoctoral Fellowship at the Los Alamos National Laboratory. In addition to her service to the community with Women in Geoscience, she was the Short Course Coordinator for the Mineralogical Association of Canada and held related offices in both the Mineralogical Association of Canada and the International Association for the Geology of Ore Deposits (IAGOD). Dr. Larocque is also acknowledged by her peers to be an expert evaluator of her field, serving as a scientific reviewer for journals and a reviewer of grant applications for NSF and NSERC.

Sincerely,



Prof. Mark D. Hannington, FRSC
Department of earth Sciences
University of Ottawa
Ottawa, Canada
K1N 6N5

August 29, 2014

California Commission on Teacher Credentialing
1900 Capitol Ave.
Sacramento, CA

August 28, 2014

To whom it may concern,

I am writing this letter in support of Dr. Adrienne Larocque's application for an Eminence Credential in the state of California. I am a former Professor in the Department of Geological Sciences at Queen's University in Kingston, Canada, and acquired my PhD degree at the University of California in Berkeley. At Queen's I supervised Adrienne during her doctoral studies there from 1989 to 1993. In the late 90s, I took early retirement from the university to work as Chief Geologist for Barrick Gold Corporation, the largest gold mining company in the world with world-wide exploration and mining interests. Currently I am a consultant to mineral exploration companies worldwide. Much of what I've written below was excerpted from letters that I wrote for Adrienne when she applied to be a postdoctoral fellow at Los Alamos National Lab in the US and when she applied for promotion at the University of Manitoba.

To put the comparisons that I will make between Adrienne and other students that I supervised in perspective, I'd like to emphasize that Geological Sciences at Queen's is considered one of the best hard-rock geoscience departments in Canada, and because of the importance of mineral resources in Canada, one of the best in the world in the field of economic geology. The department consistently attracted superior graduate students, as measured by proportion who held NSERC Graduate Fellowships (equivalent to NSF Graduate Fellowships in the US), and by the proportion of graduates on the staff of major Canadian research institutions such as the Geological Survey of Canada. Of the 40 Canadian graduate students that I supervised over a 20 year period, 25% held NSERC Fellowships. Queen's is one of the top ranked universities in the country and has the highest entrance requirements for incoming students of any university in Ontario.

Adrienne was among the top 5% of the graduate students that I had, in terms of her research ability, background knowledge and motivation. I can't think of another student who had more of an impact in her field in the short time that she worked on her PhD project. I'd like to comment on her strengths under six headings:

1. Drive and ability to get things done on time: Adrienne was a real mover and shaker who was never afraid to take on problems and get things done. She gave many talks at national and international meetings on her work. Mainly as a result of interest generated by her research using Secondary Ion Mass Spectrometry, the Mineral Deposits Research Unit at the University of British Columbia organized a short course on this analytical technique. Adrienne was invited to present her research results there, along with Louis Cabri who was co-supervisor for her PhD thesis and a senior research scientist with the Canada Center for Mineral and Energy Technology. I never had a graduate student who was so driven to promote her work, and who at the same time produced such high quality research.
2. A knack for instrumental analysis: Before arriving at Queen's, Adrienne was already competent using scanning electron microscopy, electron probe microanalysis, and X-ray diffraction. During her doctoral studies, Adrienne also became expert in secondary ion mass spectrometry (SIMS). She has no fear of high-tech instruments and quickly and efficiently gets right on with using

them for her work. Personally, I think this is an extremely important attribute in a researcher, since too much current research is controlled by the familiarity of the researcher with certain types of data and data gathering techniques. Geologists who know how to deal with fluid inclusions try to solve all problems with fluid inclusion studies, and isotope geologists do the same with isotope studies. With Adrienne, research is controlled by the problems that she needs to solve, not the techniques that she is familiar with, *because* she is so quick and competent at learning new techniques.

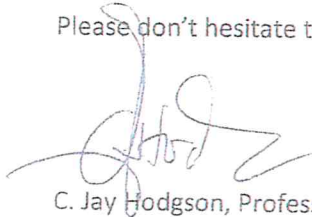
3. Exceptional skill with interpersonal relations: A large part of her success in getting things done is related to her ability to get on well with people so that they are happy and willing to help her achieve what she wants to get done. She is the type of person who it is a pleasure to be around – always upbeat, optimistic, exuding energy and vitality, and always interested in what is going on.
4. An exceptional ability to express herself clearly in writing: This skill is highly unusual among North American students, and makes life a pleasure for a supervisor. It contributed very substantially to her being so productive in her research. While it is an expectation that doctoral students will publish on their research, it doesn't always happen. Adrienne published five papers on her work, some before she even completed her degree.
5. An ability to learn quickly both new concepts and techniques in areas that she has not formal instruction: Before starting her project with me, Adrienne's background had been mainly in Quaternary geology and geochemistry, but she quickly became fully competent in the field of mineral deposits geology. She passed her PhD comprehensive exam with flying colours, no mean accomplishment as few students come through this exam without some remedial work being recommended to bring their background up to a satisfactory level.
6. A solid background in classical geology: She covered a wide range of sub-disciplines of geology in the course of her MSc and PhD research, and took a broad group of courses. The fact that she took her three degrees at three different universities greatly broadened her background through her being exposed to many different perspectives and approaches to research. In addition, she had unusually varied work experience during her summer employment with the Geological Survey of Canada.

When I originally wrote these words in support of Adrienne's application to be a postdoctoral fellow at Los Alamos, I concluded by saying that I fully expected that she would ultimately end up teaching in a major university geoscience department. This came to pass, of course, when she took up a faculty position at the University of Manitoba. During her time there, she amply fulfilled her early promise. She broadened her ore deposits research to include work on porphyry copper deposits, epithermal deposits, magmatic segregation nickel sulfide deposits and low temperature mineralization. She also branched out into environmental research related to ore deposits and volcanic emissions. In all of these diverse areas, she published important work and became widely known for her contributions. I also heard good reports about her teaching in Manitoba.

I have stayed in touch with Adrienne over the years, and I know what a difficult decision it was for her to leave the University of Manitoba for family reasons. Even though she was no longer employed there, she continued to do research and publish for several years. Then she began teaching science at the high school and middle school levels at international schools overseas. I'm sure that her passion for science and her ability to express herself clearly to any audience made her popular with her students there. I'm

also certain that she would be an asset to any teaching institution in California and I strongly support her application for an Eminence Credential.

Please don't hesitate to contact me at cjhodgson@outlook.com if you have any questions.

A handwritten signature in blue ink, appearing to read 'C. Hodgson', with a stylized flourish at the end.

C. Jay Hodgson, Professor Emeritus, Queen's University, Canada

Currently Exploration Advisor to Kinross Gold, Waterton Global Resources and Sarama Resources, and Member of the Board of Directors of Belo Sun Mining Corp and Murgor Resources Ltd.

JEFFREY D. KEITH
Associate Academic Vice President



August 23, 2014

State of California
Commission on Teacher Credentialing
1900 Capitol Avenue
Sacramento, CA

To Whom It May Concern,

I am writing in support of Dr. Adrienne Larocque's application for an Eminence Teaching Credential in the State of California. I have known Adrienne for most of her career and have watched with admiration both the unselfish service she has given to those around her and the professional recognition that she has developed and maintained. She has distinguished herself broadly during these years. As I attend professional meetings internationally and mention the work that she and I collaborated on, everyone knows her personally or has heard of her work. As I reviewed portions of Adrienne's application for this credential, I was once again impressed with her organizational skills and clear writing style. She has few equals in this regard.

In my current position as Associate Academic Vice President, I see many portfolios of faculty work and applications for university awards – some by very distinguished faculty members. In comparison, Dr. Larocque has distinguished herself on a similar level. I still remember when we were working together, she joked that she was the “queen of SIMS analysis.” I remembered that for all of these years because she was exactly right. Her expertise was that impressive!

Adrienne and I were co-recipients of the Hawley Medal of the Mineralogical Association of Canada in 2000. She was the driving force that wrote such a convincing, clear paper. It was outstanding work; her first-author contributions made it even better, a medal winner.

In summary, I think Dr. Larocque has distinguished herself as an eminent scholar. She is loved and respected by so many people around the world. Her students will undoubtedly love and respect her as well!

Best Regards,

Jeffrey D. Keith
Associate Academic Vice President

DEPARTMENT OF GEOLOGY
BRIGHAM YOUNG UNIVERSITY
5180 HSC
PO BOX 21606
PROVO, UTAH 84602-4606
(801) 378-3918 / FAX (801) 378-8143



September 5, 2000

Committee on Promotions
University of Manitoba

Dear Committee Members:

I am delighted to write this letter of recommendation in support of Dr. Adrienne Larocque's consideration for promotion at the University of Manitoba. I have known Dr. Larocque for several years. I became acquainted with her work while she was working as a post-doc at Los Alamos National Laboratory. [I completed a post-doc with Adrienne's dissertation advisor Jay Hodgson at Queen's University, but that was in the early 80s prior to her arrival there.] We have collaborated on a few projects since that time; I have heard her speak at international conferences and as an invited lecturer here at Brigham Young University.

There are a number of reasons that I have found Adrienne's work outstanding and of the quality that would merit consideration for promotion at this stage of her career. First, as I discuss her work with colleagues in the discipline, I find that she is universally respected and her work is held in high regard. Two weeks ago, I hosted Marco Finaudi (from Stanford) and two of his students for a visit to examine the Bingham district volcanic rocks. We discussed Adrienne's work that she had recently completed on Bingham sulfides for Marco (and one of his students) as well as the work that she had just completed on Bingham magmatic sulfides hosted by the volcanic rocks. We concur that her work is excellent; there are very few people that have the expertise with SIMS analysis and the specific background with Au analysis to do the type of work that she does. I think that her opportunities for collaborating on exciting projects will continue to expand because of this expertise.

With regard to the scientific content of her recent papers, I think that she has proposed some exciting new ideas with regards to magmatic sulfide formation and removal in volcanic systems that will become increasingly well accepted. Right now Adrienne's work is at the forefront of the field. I am amazed how she has been in the right place at the right time to have access to samples from ideal localities to document this process of sulfide formation and removal. I heard that her recent IAVCEI presentation was excellent. I expect that her acclaim for this work will continue to grow.

One of the reasons that Dr. Larocque is poised to make excellent contributions in geochemistry and economic geology is because of her wide range of knowledge and expertise. I am impressed that her knowledge of topics in environmental geology and

volcanology as well as geochemistry, economic geology, and microanalysis are substantial and much better than most of her colleagues at a comparable stage.

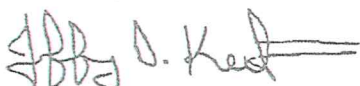
I have only met and talked to a few of Dr. Larocque's students, but I suspect that there are a number of qualities that make her an excellent teacher. First, she is so enthusiastic and energized herself that I am sure that she passes this enthusiasm and love for the science on to her students. As a collaborator, I have found that she is very conscientious and timely in her correspondence - a trait that would serve her well with students also. She is an outstanding role model for female students (which is one of the reasons we wanted her to meet and speak with our undergraduate students). I think that this is a critical factor to be considered in efforts to retain someone of Dr. Larocque's quality and abilities.

In addition to her "international" family and work, Adrienne has also found time for significant service to the discipline. This will certainly help the discipline as well as the reputation of the department.

In conclusion, I think that Adrienne Larocque has all the characteristics needed to make her a leader in her discipline. Her research is outstanding and she is personable and well liked. I think that there are many departments (such as ours) that would love to have someone of her talents and abilities on their faculty. The volume and quality of her work and service (and teaching) would certainly qualify her for promotion at our university.

Please feel free to call me if you have any questions.

Sincerely,



Joffrey D. Keith,
Professor of Geology



Cornell University

Dept. of Earth and Atmospheric Sciences
4164 Snee Hall
Cornell University
Ithaca, NY 14853

State of California
Commission on Teacher Credentialing
1900 Capitol Avenue
Sacramento, CA 95811-4213

December 31, 2014

Re: Dr. Adrienne Larocque: Application for Eminence Credential in California

To whom it may concern,

It is a pleasure to provide a reference in support of Dr. Adrienne Larocque's application for an Eminence Credential from the Commission on Teacher Credentialing in the State of California.

I have known Dr. Larocque for over 20 years. As Director of the Mineral Deposits Research Unit at the University of British Columbia, I invited her to present at a short course in 1993. At the time, she was completing her graduate studies at Queens University. The course involved several professionals and established experts in microbeam analytical techniques but Dr. Larocque was the most passionate and effective speaker and teacher, even though she did not yet have her PhD in hand. She also stood out as a female role model that inspired other graduate students, an aspect of her early career that she took seriously.

I understand that others have documented many of the outstanding aspects of Dr. Larocque's career, her skill sets, and her character. In this letter, therefore, I will focus on the specific significance of some of her work in the context of the Eminence Credential. Before doing this, however, I wish to provide some important context. In terms of her science, Dr. Larocque has demonstrated unusual breadth. She has tackled a range of problems requiring different research approaches and analytical techniques, and has consistently excelled. This is beyond the norm in a world that tends to value specialization above flexibility. She has also managed to balance career and family, a challenge for all professionals and a particular issue for female academics. In spite of this, Dr. Larocque has a publication and professional record that demonstrates world class expertise, a breadth of geoscience topics, publications in high caliber journals representing different specialties, and international credentials based on work in different parts of the globe.

Given this eclectic mix, it is perhaps surprising that Dr. Larocque has also managed to produce landmark contributions. That is the case, however, with at least two of her publications. The publication on sulfide immiscibility (Larocque et al., 2000) is a highly regarded and frequently used paper that was recognized by a prestigious award – the Hawley Medal. The more recent paper on significant mineral assemblages found in pumice Popocatepetl Volcano (Larocque et al. 2008) is equally important. In addition, her early papers on the use of the SIMS microbeam analytical technique were highly significant at the time. Microbeam techniques were developing rapidly through the nineties and Dr. Larocque was one of the leaders both in the

technological development and applications to problems related to geoscience and the environment.

In terms of Dr. Larocque's national and international stature, I have already mentioned the geographically diverse nature of her work. She has also published in journals produced by international organizations. Several of her papers are in *Economic Geology*, an international journal produced by the Society of Economic Geologists (SEG). This society originated in the United States and still has its administrative home in Littleton, Colorado. Since its early days over one hundred years ago, it has grown to a global society of over 7000 fellows and members, less than 50% of whom are based in North America. *Economic Geology* is the preeminent journal for science related to the complex earth processes that move and concentrate metals and other commodities that are vital for the modern world. As a past President of SEG, I can confirm that Dr. Larocque is recognized widely within the society.

In closing, I emphasize that I have considerable respect for Dr. Larocque as a scientist and educator. Aside from her scientific credentials and papers of global significance, she is an exceptional communicator who exudes passion and compassion. As a father of three daughters, I can say without reservation that they would have been thrilled to have Dr. Larocque as a teacher. If you have further questions, please do not hesitate to contact me.

Yours sincerely,

A handwritten signature in blue ink, consisting of a stylized 'J' followed by 'F.H.' and a long horizontal line extending to the right.

John F.H. Thompson
Wold Professor of Environmental Balance for Human Sustainability
Cornell University
Jft66@cornell.edu



The University of New Mexico

Department of Earth & Planetary Sciences
Northrop Hall
Albuquerque, NM 87131-1116 U.S.A.

State of California
Commission on Teacher Credentialing
1900 Capitol Avenue
Sacramento, CA 95811

January 6, 2014

To Whom It May Concern:

I'm writing this letter of recommendation of behalf of Dr. Adrienne Larocque who is applying for an Eminence Credential from the California Commission on Teacher Credentialing. I have known Dr. Larocque for nearly 20 years having first met her when she joined Los Alamos National Laboratory (LANL), New Mexico, as a Director's funded postdoctoral fellow. Most of Dr. Larocque's original training is in economic geology and ore deposits. Because LANL is the "birthplace of the bomb," please allow me to explain how she arrived at "the Lab."

The mission of LANL is to solve **national security challenges through scientific excellence**. At the present time, LANL priorities are: protection against nuclear threats, emerging threats and opportunities, nuclear deterrence and stockpile stewardship, goals and strategies, and energy security solutions. These priorities change depending on political administrations and the needs of the times. While I was employed at LANL, most of my projects revolved around energy security, particularly geothermal energy and volcanic hazards.

Many post-doc appointments are awarded each year by LANL science and research divisions, paid for by division project money. These are chosen at the Division level and the post-docs are called Research Associates on two-year appointments. However, there is an elite group of post-doc fellows chosen by a Post-doc committee consisting of about 12 internationally recognized LANL scientists. This committee meets four times per year. These Fellow appointments are highly prized because they are funded out of discretionary funds by the **Laboratory Director**. More information on the LANL post-doc program can be found at <http://www.lanl.gov/careers/career-options/postdoctoral-research/postdoc-program/postdoc-appointment-types.php>.

Director's Fellows collaborate with LANL scientists and engineers on staff-initiated research. Fellows are selected based on academic and research accomplishments and the strength and potential impact of the proposed research. Sponsored candidate packages are reviewed during each of the quarterly meetings. The candidate packages, consisting of grades, other scholastic achievements, publication history and/or quality of PhD dissertation, three recommendations from advisors and mentors, and a project proposal, are stellar – each candidate literally "walks on water." About 75 packages are submitted per quarter but only 7 to 8 postdoctoral fellows are awarded each quarter (approximately 30 Postdoctoral Fellow appointments per year.) The laboratory accepts the best possible candidates from the USA and many different countries. Clearly, the competition is incredibly intense, made more so for any candidate who is not in the disciplines of physics, chemistry, nuclear chemistry/physics, math, and computer science.

Successful candidates in earth science (geology, geochemistry, petrology, geophysics, etc.) are rare. During my 26-year career with LANL, I was fortunate to sponsor three successful candidates for Director's post-doctoral fellow in earth science. Two of my successful candidates came from Switzerland and Ethiopia. The third was from the USA.

Dr. Larocque received a Director's funded Postdoctoral Fellow appointment from LANL in 1993. Although I was not her sponsor, I can only assume that her candidate package was exceptionally strong to receive this remarkable award. Her Canadian background made absolutely no difference to the Laboratory Director or the Post-doc Committee because (how else can I say it) LANL wants the very best. Dr. Larocque joined a team of scientists working on a novel project to develop a rock-melting drill hole system. Her task was to study the before and after petrology/mineralogy of rock substrates to be melted by this unique device and evaluate the chemical stability of the vitrified materials. Although the concept is not classified, the uses of such a device are assuredly so.

Because Dr. Larocque worked on a project that *could not* result in publications, I successfully lured her into working on one of my projects for a time, a study of the chemical and isotopic composition of volcanic and geothermal emissions. She contributed to a rather sensational paper we published entitled "Gold degassing and deposition at Galeras Volcano, Colombia" (GSA Today, v. 4, p. 241). Because of her strength in ore deposits, she did much of the work on the gold and associated petrology. Soon after this work was published, Dr. Larocque was hired by the geology department at the University of Manitoba, Canada to teach and do research in economic and environmental geology. Nonetheless, we stayed in touch and worked on a few more collaborations over the next few years. In addition her work with me, Dr. Larocque broadened her scope of research into new areas of environmental geochemistry, microbeam analysis, and materials science with other scientists at LANL.

Dr. Larocque sent me a link to the requirements for the Eminence Credential on the California Commission on Teacher Credentialing website, which I have read. Based on my observations and her accomplishments at LANL, and her work after leaving the Lab, it would be difficult for me to imagine another person more qualified to receive such a credential. Her achievements in a single discipline in earth science would easily qualify her. The fact that she has attained wide recognition in diverse fields is extraordinary.

If you need additional information, please contact me at: candf@swcp.com.

Yours truly,

Dr. Fraser Goff

Adjunct Professor, Earth & Planetary Sciences, University of New Mexico, 1992 – present
Adjunct Professor, Earth and Environmental Science, New Mexico Institute of Mining and
Technology, 2013 – present
Staff Scientist, Los Alamos National Laboratory, 1978 – 2004



Adelaide, South Australia, 12th January 2015

To whom it may concern

Re: Dr. Adrienne Larocque

With this letter, I wish to express my very strong support for Dr. Adrienne Larocque in pursuit of her application to the California Commission on Teacher Credentialing Board.

Adrienne has made a number of extremely valuable contributions to Earth Science and her published work remains highly regarded by those of us working in the field. Her research, showing the connection between concentrations of gold in common sulphides and ore-forming processes was fundamental at the time, remains fully valid, and is widely applied today. Without her high-quality contribution, carried out at a time when accurate analysis was nowhere as easy as it is today, many of the models for trace element behaviour in sulphide systems would not be possible. The implications which her work had for the economic viability of gold resources are profound. As a matter of routine, my PhD students are asked to read and understand the significance of Adrienne's academic output.

Adrienne is very well regarded in the ore geology research community and by her peers at large as a skilled researcher and highly efficient communicator. Her decision to move into high school teaching is very much to the benefit of the students fortunate enough to learn from her in the future.

In summary, having studied the requirements for the Eminence Credential, Adrienne comprehensively fulfils the criteria requested by the CCTC. Specifically, her research, providing unequivocal evidence for metamorphic remobilization of gold and the development of new methodologies for the quantification of gold in sulphides, represents a "unique or significant discovery or authorship in the field of geology" and is recognised as such by her peers nationally and internationally.

Yours sincerely

A/Prof Nigel J. Cook

Research Professor (Geometallurgy), School of Chemical Engineering and Institute of Mineral and Energy Resources, University of Adelaide

Past-President, International Association on the genesis of Ore Deposits (IAGOD)

Chairman (2014-2018), International Mineralogical Association Commission on Ore Mineralogy

nigel.cook@adelaide.edu.au; Tel (office): 08 8313 1096



Health
Canada

Santé
Canada

Canada

State of California
Commission on Teacher Credentialing
1900 Capitol Avenue
Sacramento, CA 95811

January 5, 2015

Re: Application for Eminence Credential by Dr. Adrienne Larocque

To whom it may concern,

I am pleased to write this letter in support of the application by Dr. Adrienne Larocque for an Eminence Teaching Credential in the state of California. As a senior Research Scientist with Health Canada, I am the leader of the Metals and Airborne Particulate Laboratory in the Healthy Environments and Consumer Safety Branch. My areas of specialization are: indoor environmental health, analytical trace metal chemistry, and exposure science, with focus on airborne nanoparticles. I also have laboratory facilities at University of Ottawa, where I am an Adjunct Professor and supervise MSc and PhD graduate students under a formal "Earth and Health" collaboration between Health Canada and U of Ottawa.

Dr. Larocque and I came to know each other in the 1990s through colleagues at the Geological Survey of Canada because of our mutual interest in metals in the environment. In 1996, we co-organized and co-chaired a symposium at the joint annual meeting of the Geological and Mineralogical Associations of Canada (GAC-MAC). It was entitled "Metals in the Environment: from Mobilization to Remediation" and hosted presenters from academia, government departments, and industry who shared research and case studies from both Canada and the United States. Dr. Larocque and I co-authored the preface paper for a special issue of *Environmental Geology* containing the proceedings of the symposium; *Environmental Geology* (renamed *Environmental Earth Sciences* a few years ago) is an international journal. In addition to contributing papers about her own research, Dr. Larocque served as guest editor for the issue arising from the conference.

In 1997, Dr. Larocque was recruited by the Metals in the Environment (MITE) Research Network to be the leader of the Sources Domain in their (successful) application to NSERC (Natural Sciences and Engineering Research Council of Canada) for funding. NSERC is equivalent to the National Science Foundation in the United States. The MITE Network was a nation-wide system of researchers that brought together government, university, and industry investigators to better understand how metals affect the environment, to assess the risks posed by metals, and to propose management strategies to ensure that findings reach key policy makers in government. This bold multidisciplinary initiative involved dozens of researchers across Canada studying metals in the environment on a scale previously unheard of.



Research within the network was structured along 3 interacting domains: 1) sources of metals in the environment, 2) processes by which metals move and transform within the environment, and 3) impacts of metals on ecosystems. The fact that Dr. Larocque was chosen as leader for the Sources Domain at such an early stage in her career is evidence of recognition on a national scale of her expertise in environmental geochemistry. In her role as Domain leader, she was responsible for coordinating research scientists and engineers (many of whom were much more established investigators) from a variety of disciplines studying both natural and anthropogenic sources of hazardous metals in the environment. Only someone with her extraordinary breadth of knowledge could have done this successfully.

In addition to having a wide-reaching reputation as an outstanding researcher, Dr. Larocque also is a gifted educator for audiences at several levels. She is an accomplished lecturer and presenter in meetings, short courses, and symposia, yet she also has a talent for inspiring and instructing younger learners. I met some of her students while we were co-chairing the environmental symposium (the GAC-MAC meeting was hosted by the University of Manitoba that year) and I can confirm that she was known as a keen and energetic teacher and mentor to her undergraduate and graduate students during her time there. The students of California would be incredibly fortunate to have a teacher with her rare scientific ability as well as her enthusiasm for communicating about science in their classroom.

Without hesitation I strongly recommend Dr. Larocque for the Eminence Teaching Credential.

Sincerely,

Pat Rasmussen, PhD

Leader of Metals and Airborne PM Laboratory
Exposure and Biomonitoring Division
Environmental Health Science and Research Bureau
Healthy Environments and Consumer Safety Branch
Health Canada, Ottawa, Ontario, Canada K1A 0K9

Adjunct Professor, University of Ottawa
Tel: 613-941-9868
Email: pat.rasmussen@hc-sc.gc.ca

Manitoba



Mineral Resources

Manitoba Geological Survey
360-1395 Ellice Ave, Winnipeg MB R3G 3P2
T 204-945-6500 F 204-945-1406
www.manitoba.ca/minerals

July 4, 2014

State of California Commission on Teacher Credentialing
1900 Capitol Avenue
Sacramento, CA 95811-4213

To Whom It May Concern,

I am writing this in support of Dr. Adrienne Larocque's application for Eminence Credential in the State of California. I know Dr. Larocque for 20 years; I first met her when she first arrived as a new professor at the University of Manitoba in the Department of Geological Sciences. Through the years, she has transitioned from being my teacher and research advisor, to my supervisor, to one of my most valued mentors.

During my graduate work at the University of Manitoba, Dr. Larocque was my Master's project advisor and graduate-level professor. Her passion and infectious love of geoscience made her stand out in the department as someone many people wanted to work with and benefit from her knowledge. A successful geoscientist must understand not only the complexities of earth science, but also have a good grasp of basic scientific principles, such as physics and chemistry. Her thorough and exceptional understanding of these basic scientific principles enhanced her teaching methods to bring geoscientific concepts to life in and out of the classroom. She demands excellence from her students, and instills a sense of pride in each student as they learn from her. She encourages each student and helps them when needed, all the while giving them the room they need to learn and grow at their own pace. Her teaching and evaluation methods require that the student understand the topic, and not simply be able to regurgitate it on test. As a result, every student who has benefited from taking one of Dr. Larocque's classes leaves with a sense of accomplishment and true understanding of the concepts taught. Dr. Larocque knows that all students, regardless of their previous academic performance, are capable of learning, it just a matter of finding what learning method works best for them, in order to assure academic success. Her exceptional skills as a speaker and presenter means she communicates effectively and innovatively in order to best deliver her message, whether that is to a room full of professional colleagues, or high school students, or little eager kindergarten students.

As a researcher, Dr. Larocque is well respected by her peers. This respect is shown by the network of professional colleagues she had grown during her career. She approaches her research with excitement and an open mind, and is not afraid to propose new theories and try new innovative ways to test them, all the while keeping true to following the scientific method. Dr. Larocque is herself a student of life, and will tackle any project that is of interest to her. Her ability to learn and quickly apply new knowledge is impressive, and envied by many.

At the time of her resignation from the University of Manitoba, I was sad at the thought that no other student would benefit from her infectious love of geoscience and have the positive learning experience I and so many others had with her. I was also sad that the geoscience community had lost a brilliant mind. Of course, her resignation did not mean she would be "lost", but would in fact open the doors to other opportunities for her that would make her an even better scientist.

Through the last decade, as she she was taking on other teaching opportunities, I was thrilled to learn that she would still be able to influence the young minds thirsty for knowledge, and inspire future generations about the fabulous wonders of the earth and the sciences.

The students in the State of California would be extremely fortunate to have a teacher as talented, passionate and caring as Dr. Larocque.

Should you have questions or would like further information, please don't hesitate to contact me at 204-945-6571 or by email at michelle.nicolas@gov.mb.ca.

Sincerely,

A handwritten signature in blue ink that reads "Michelle Nicolas". The script is cursive and fluid.

Michelle Nicolas, P.Geo.
A/Chief Geologist, Sedimentary Geoscience
Manitoba Geological Survey



California Commission on Teacher Credentialing
1900 Capitol Ave.
Sacramento, CA
August 28, 2014

Re: Letter of Recommendation in support of Dr. Adrienne Larocque

To whom it may concern,

I am writing this letter of recommendation in support of Dr. Adrienne Larocque. I graduated from the University of Manitoba Geological Sciences program in 1999 and during my undergraduate program Dr. Larocque instructed me in 2nd year geochemistry, became my undergraduate thesis co-supervisor in 4th year, and most importantly, mentored me throughout the degree.

Since my undergraduate program in Manitoba, I completed a Master's of Science in Exploration Geology at Rhodes University, South Africa in 2001 and graduated from an Executive MBA program at Athabasca University, Edmonton, Canada in 2013. I have worked the last 15 years as a geoscientist focused on exploration and have experience in geological compilation, interpretation and modelling as well as in resource and reserve estimation. The most significant highlights of my career involve the discovery of two ore bodies in Sudbury, becoming the CEO of a junior company and raising over \$17 million in the capital markets, and most recently, founded and am the sole owner of a geological consulting firm with 15 full time employees based out of three offices located throughout Canada.

Dr. Larocque's research has been so important to her, as have her students. I have never seen someone get so excited about learning new things and teaching them to others. Often when I was a student she would tell me about what she was working on or who she was working with. She really made science so interesting and exciting! I found that she did the same in class as well. She explained ideas in a simple manner before developing them as complicated geochemical theories. For someone like myself, I appreciated the simplicity to which she could explain very complex theories as I was able to understand the concepts with context in the bigger picture. I finally was able to learn about geochemistry, a topic that had intimidated me before I took Dr. Larocque's class.

During my graduate studies, I looked back at Dr. Larocque's course and truly appreciated her efforts in teaching geochemistry. She made sure that the course content was appropriate and applicable. As an undergraduate, I often felt that other courses were too theoretical and inapplicable to my future work as a geologist. In contrast, the second year geochemistry course laid a good conceptual foundation while establishing the relevance of the ideas in the "real" world.

Head Office: Simpson Tower • 401 Bay Street, Suite 2702 • Toronto, ON, Canada • M5H 2Y4
Sudbury Office: 410 Falconbridge Road, Unit 6 • Sudbury, ON, Canada • P3A 4S4
Winnipeg Office: 1574 St. James Street, Suite B • Winnipeg, MB, Canada • R3H 0L2

Phone: 416.894.6676 • info@orixgeo.com • www.orixgeo.com

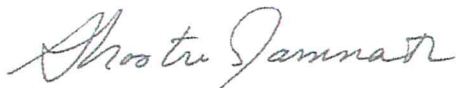
After my second year, I found that Dr. Larocque still had time for me. In fact, she did more for me than anyone else and became an important sounding board for me. Many young students/geologists find it very difficult to find a good mentor, a person who provides support and instills confidence in someone young and inexperienced. Dr. Larocque gave me confidence and was always interested in what I had to say about geological issues. As a female geologist, having a mentor was even more important because of the different struggles that many women encounter compared to men. After my first year as a student, I had a very bad field experience that almost made me quit geology completely. Dr. Larocque constantly encouraged me and inspired me to be strong. She urged me to continue in geology so that I could set an example for other women. Her impact on my life and career as a geoscientist has been invaluable. As a result of her mentorship, I have taken on the same responsibility for other women that Dr. Larocque did for me. Orix Geoscience has a female employment rate of 70% when majority of companies operating in the mining sector have a female rate of 10 to 20%. Much of who I am as a geologist and how I mentor and encourage young women has been shaped by my experience with Dr. Larocque.

Dr. Larocque committed to being my thesis supervisor half way through my 3rd year. As the time came for me to begin summer work on my thesis, she found that she was pregnant and would be on maternity leave while I was in 4th year. Amazingly, she was so worried about what I would do about my thesis that she insisted on helping me along as much as she could. Given that we both recognized the importance of her continuing with me, she appointed a co-supervisor in the department to be "on site," but Dr. Larocque went in the field with me to do sampling when she was 7 months pregnant! This reflects Dr. Larocque's commitment and concern towards her students and research. Throughout the remainder of her pregnancy and even after her son was born, she kept in full contact with me and guided me as much as she could. Very few professors would go to the extent that she has gone for me in my undergraduate research.

Overall, I feel that Dr. Larocque was an invaluable professor that only has the utmost concern and commitment for her students. She is one of the best professors and geoscientists that I have met as she is bright, caring and hardworking.

I strongly recommend Dr. Adrienne Larocque for an Eminence Teaching Credential and firmly believe that any organization that is fortunate enough to attract her will quickly recognize the value she adds both from a technical perspective and as a leader.

Sincerely,



Shastri Ramnath
President & Principal Geologist
Orix Geoscience Inc.



State of California
Commission on Teacher Credentialing
1900 Capitol Ave.
Sacramento, CA 95811
Email: credentials@ctc.ca.gov
Website: www.ctc.ca.gov

RE: EMINENCE CREDENTIAL

Daniel Layton-Matthews

Associate Professor
Queen's University,
Dept. of Geological Sciences
and
Geological Engineering
Kingston, On., Canada,
K7L 3N6

T (613)-533-6338
dlayton@geol.queensu.ca
<http://www.queensu.ca/geol/faculty/laytonmatthews.html>

To whom it may concern,

I have known Dr. A.C.L. Larocque since she started as an assistant professor at the University of Manitoba in 1994. Even before I took classes with Adrienne, we came to know each other through our mutual interest in mineral deposits. In 1996, I had the honour of being in her first 7.277 Principles of Inorganic Geochemistry class. Many new professors show signs of insecurity when teaching a class for the first time. However, this was not the case with Adrienne. Her teaching style was very organized, concise and taught with enthusiasm. If questioned during lecture, Adrienne would spend the time during class to explain the theory until the student clearly understood the answer. If this was not enough, or the student did not feel comfortable asking questions in class, Adrienne was always willing to spend time out of class talking about her lectures. Her office door was always open, and many students (including myself) would often approach her with questions on other classes or career advice.

During the period of September 1996 thru April 1998, I worked for Adrienne during the academic year where she allowed me to help with her research. During this period, my future research plans were focused and I am very grateful for the opportunity that Adrienne gave me. During the summer of 1997, my work with the Phelps Dodge Corporation allowed the development of my B.Sc. thesis. I could have chosen any professor at the University of Manitoba to work with, but my choice to work with Adrienne was obvious. Her working knowledge of mineral deposits, zest for research, and the working relationship that we had developed, was invaluable.

After completion of my B.Sc. (Hons) at the University of Manitoba, I continued my education at Laurentian University, completing my M.Sc. in Geology and my PhD at the University of Toronto (the top PhD university in Canada). It was the recommendation by Adrienne that allowed my easy acceptance to Laurentian University and the University of Toronto. The scientific knowledge that I acquired from Adrienne and the work ethic that she taught me during my education at the University of Manitoba has allowed me to continue my education and research to new levels.

From 1994 to 2001, as a newly appointed faculty member at the University of Manitoba, Adrienne established herself as one of Canada's emerging geoscientists. She became an international recognized expert in ores and metamorphism; a field traditionally led by male researchers. She became a leader in many international societies and organized several short courses at international conferences. During this time she published 12 significant journal articles that have been heavily cited by research peers. As expected of young researchers, Adrienne broadened her research scope, quickly becoming interested in a diversity of ore deposit types, magmatic processes, environmental remediation, and



micro-analytical techniques for chemical and isotopic analysis of minerals. She has made a long-lasting contribution to these fields as evidenced by her current citation indices.

Daniel Layton-Matthews

Associate Professor
Queen's University,
Dept. of Geological Sciences
and
Geological Engineering
Kingston, On., Canada,
K7L 3N6

T (613)-533-6338
dlayton@geol.queensu.ca
[http://www.queensu.ca/geol/
faculty/laytonmatthews.html](http://www.queensu.ca/geol/faculty/laytonmatthews.html)

In 2001, after being promoted to Associate Professor, Adrienne made a very difficult decision to join her husband with their newly born child in Indonesia. Initially she took a leave of absence from the University of Manitoba, but after much consideration she left her faculty appointment. Since her departure, Adrienne has maintained her connection to geology publishing several journal articles in the premier journals of Volcanology and Economic Geology. Her passion for scientific learning has remained resolute. She will continue to influence geoscience as she has made a lasting and continuing contribution to our science.

It is without hesitation that I recommend Dr. A.C.L. Larocque as an "individual who is eminent in a specific endeavour and is recognized as such beyond the boundaries of his or her community, having demonstrably advanced his or her field, and has been acknowledged by her peers". If you require any additional information or recommendation, please feel free to contact me.

Regards,

Daniel Layton-Matthews



**GEOLOGY
DEPARTMENT
Micro Analytical
Facility**

phone (204) 727-7499
fax (204) 728-7346

huminickim@brandonu.ca

270-18th Street
Brandon, Manitoba
Canada R7A 6A9
www.brandonu.ca

State of California
Commission on Teacher Credentialing
1900 Capitol Ave.
Sacramento, CA 95811

August 25, 2014

To Whom It May Concern,

This letter is in support of the application for an Eminence Teaching Credential by Dr. Adrienne Larocque. I am currently a Faculty member at a Canadian University for the last 5 years with my provincial professional development accreditation (P. Geo.). I have known Dr. Larocque since January 1998 in the capacity of professor, employer, and thesis advisor.

I first knew Dr. Larocque when she was teaching an advanced second year Geochemistry course at the University of Manitoba, Canada. Not only was the course material well researched, prepared, and presented but both lab work and class lectures provided practical as well as theoretical aspects vital to the background of any beginning (or advanced) earth scientist. Her knowledge and excellent ability to teach made for a very interesting and valuable course. In January 2000, Dr. Larocque also taught a third and fourth year Mineral Deposits course covering a diverse range of deposit types, mineralization, and processes. While covering such a large number of deposits, the thoroughness and attention to detail was always there. As a professor, Dr. Larocque encouraged group interaction and class presentations, which are essential to the learning process. She was an asset to the Department of Geological Sciences at the University of Manitoba and was more than well respected and appreciated by her students.

I also had the privilege of working with Dr. Larocque for two summers, one as a research assistant (1998) and one under and an NSERC research grant (1999) where she acted as my supervisor. In those two years I was given instruction, guidance, and knowledge of a well-respected researcher. Not only did she teach me the aspects of research that I never would have learned from regular school terms, she allowed me to follow my interests all the while encouraging new opinions and ideas. Eventually Adrienne wrote a paper that included some of the work that I did during my summer internship. Some professors might use a student's efforts and only give them an acknowledgment but Dr. Larocque included me as a co-author. That paper went on to win the national distinction of the Hawley Medal (2000), which recognizes the best manuscript published annually in the *Canadian Mineralogist*.

Dr. Larocque also acted as my thesis advisor where she provided a project that included all aspects of a great thesis including field mapping and sampling; analytical techniques and image analysis; and data interpretation and presentation where all purposes and goals were clearly defined. It was because of the time Adrienne dedicated to teaching me analytical techniques like scanning electron microscopy (SEM) and electron probe microanalysis (EPMA) that I was able to gain a full understanding of my undergraduate thesis. You could count on Dr. Larocque for a great project and a great learning experience. Multiple publications came out of this thesis as well.

On top of all the teaching, supervising, and advising Dr. Larocque was very active with many committees, contributions to meetings, posters, and presentations. Her interests and the research she did is very diverse and covers a broad range of topics as her geology career demonstrates ranging from quaternary geology to metal mobility, environmental issues, and economic sulfide deposits (and the list goes on). My own research has been in the area of mineral deposits and the papers she has written in this field are still widely cited to this day.


Along with her active involvement, encouragement, and ability to communicate with her students, Dr. Larocque was motivational, easy to get along with, very helpful, and has a strong work ethic proving her rightful position as a leader, a teacher, and a mentor.

Dr. Larocque, no matter what she had going on in her busy schedule, did not hesitate to drop anything and everything for a student in need whether it be school related or personal. She did anything in her power and went out of the way for students (and colleagues) in need and would selflessly offer her assistance in any way possible. While not in her job description or a requirement of her, she would never hesitate to give an extra hand. In the case of Dr. Larocque, "an open door is a used door".

Although my direct involvement with Adrienne was in my undergraduate degree, we have kept in touch through common interests and contacts over the years as I carried on to do an MSc and PhD in the Earth Sciences. As a faculty member at Brandon University, I now have the ability to reciprocate in teaching and training my own students and research assistants in the Earth Sciences in a University environment. On a personal note, while I was an undergraduate, Dr. Larocque had my deepest respect and admiration as a teacher, geologist, mentor, and friend. Now as a Faculty member myself in a Geology Department, she has my respect as a great scientist, a peer, a colleague, and a mother. I personally would not have the confidence and knowledge to be the geologist I am today if it weren't for Dr. Larocque. Not only did she help with academics and research, but she would also help her students gain contacts and refer them only to the best places. I hope you will not take these words lightly when considering granting Dr. Larocque an Eminence Credential, as I know I am not alone in these opinions.

If you have any questions or would like more specific details, please do not hesitate to contact me at huminickim@brandonu.ca.

Kind Regards,



Michelle A.E. Huminicki, BSc, MSc, PhD, PGeo
Facility Manager/Instructional Associate
Micro Analytical Facility
Department of Geology
Brandon University
270-18th Street
Brandon, Manitoba, Canada
R7A 6A9
phone: (204) 727-7499
cell: (204) 724-8500
e-mail: huminickim@brandonu.ca

Sarah Mearon
3700 10th Ave #1K
San Diego, CA 92103

August 31, 2014

To Whom It May Concern:

I am writing this letter in support of an application for an Eminence Credential in the State of California for Adrienne Larocque. I have known Dr. Larocque since 1997 when I was in her Inorganic Geochemistry class as part of my Bachelor of Science (Honors) program in Geological Sciences at the University of Manitoba in Winnipeg, Canada. After obtaining my undergraduate degree I completed a Master of Science program in Geological and Environmental Sciences at Stanford University in Stanford, California. I am a licensed Professional Geologist in the State of California and currently work as an environmental consultant.

Dr. Larocque is an outstanding educator, scientist, and mentor who stands out as one of the most effective and memorable teachers in my educational history. Her class was intensive and academically challenging, but it was clear that she really went the extra mile to ensure her students fully understood the material and would be able to use it as a building block for other courses in the curriculum. Dr. Larocque's teaching style was informative, interactive, and always exciting. Her influence extended well beyond the duration of that class. She continued to occupy a prominent position as a well-known and well-respected mentor within the department throughout my time there. Although my undergraduate thesis project was on a different topic (petroleum exploration), I took such an interest in her class that I was appointed the teaching assistant (TA) for the class in my fourth year of study.

Dr. Larocque is exceptionally knowledgeable in her field and has continued to be an effective educator since leaving the University of Manitoba. I have no doubt that she is performing at the highest level of achievement in her current position, and is highly qualified to be granted an Eminence Credential.

If you require additional information, please feel free to contact me at 510.332.5660 or smearon@yahoo.com

Sincerely,

Sarah Mearon

State of California
Commission on Teacher Credentialing
1900 Capitol Ave.
Sacramento, CA 95811

August 31, 2014

To whom it may concern,

I am writing this letter in reference of Dr. Adrienne Larocque. She was my lecturer for Introduction to Geochemistry and a mentor for the remainder of my undergraduate degree.

During my third year within the environmental science program, I met Adrienne. Her very approachable nature and genuine interest in a student's well-being resulted in my seeking her for advice. She posed key questions and eventually led me to make the decision to pursue geology as a degree and career. As a lecturer, Dr. Larocque taught me more in any single course than any of my other professors and more importantly provided a framework for learning that I still follow today. Her lecturing style and preparation allowed students to focus on the important concepts. The courses she led were extremely challenging and required much time and effort, however in the end prepared us for the future. In summary, she is an exceptionally qualified educator.

Later during my undergraduate years, summer jobs became a necessity in terms of geological experience and finance. Adrienne went beyond her call as a professor in an attempt to guide me in finding employment. She showed the highest level of confidence in my geological abilities and relayed this confidence to potential employers.

After completing a B. Sc. at the University of Manitoba, I went on to pursue and complete an M.Sc. in Exploration Geology at Rhodes University in Grahamstown, South Africa. Subsequently, I have moved through progressive roles as a geologist, manager and now an Executive with a Canadian mining company. Adrienne played a very significant role in my success as a geologist and professional.

I feel Adrienne has done so much for me as a student, a geologist and a person. She has a passion and talent for teaching and I would recommend her for all roles that are aligned with this.

Respectfully yours,



Brian Skanderbeg, M. Sc.
Senior VP, Chief Operating Officer - Claude Resources Inc.
Saskatoon, Saskatchewan
Canada

6/13/16

To Whom it May Concern,

It is my great pleasure to recommend Adrienne (Addie) Larocque for a second issuance of the Eminence Credential. I am the Curriculum Coordinator for Science at the Sonoma County Office of Education and have also worked as a science teacher at Maria Carrillo High School in the Santa Rosa City School District. I've known Addie for three years. I first met her when her son was in my Earth Science course at Maria Carrillo. Addie graciously volunteered to come in and share her expertise in geology, volcanology, and astronomy with the students. She came in on two separate occasions to present to my students about her own research and the work of others. Both times, her extremely high level of knowledge and also the way she both engaged and challenged students impressed me. From my highest achieving students to those who struggled with the coursework, all were inspired by Addie's work and wanted to know more about potential careers in science.

The following school year, I was delighted that a part-time Earth Science position opened up and that Addie chose to pursue the Eminence Credential and share her expertise and passion with students. For the 2014-15 and 2015-16 school years, Addie and I shared a classroom, so I got the chance to see first-hand the high level of investment and commitment she has for her students and subject. Because Addie has worked in the field and the university as a scientist, she is able to bring fascinating examples and stories of real-world science application into the classroom. She also has a number of connections in our community and beyond which she has drawn upon to enrich the learning experience of not only her own students but also others at the school. During the 2015-16 school year, Addie started a club for girls interested in engineering. As part of that club, she arranged for each participant to shadow an engineer for a day. I know from my AP Biology students that this was a game changer for many. It either sparked an interest in engineering or confirmed that this was a field worth pursuing.

In addition to using her expertise and connections to enrich learning for students, Addie has gone above and beyond in continuing to pursue new avenues to engage students in science content and practices. Addie works tirelessly, often coming in on weekends to set up hands-on demonstrations and labs for students. One of the labs she developed for her classes was of such high caliber that it not only engaged the learning of high school freshmen but also was successful and influential when she used it with adult learners at the Santa Rosa Junior College.

Addie also invests time and energy learning from and working with other educators. She has collaborated with other earth science teachers in the district to improve lessons and activities. She and I have also partnered on a science history series called "People to Ponder" that introduces students to scientist profiles so that they can learn the big

picture of discovery. The research for these profiles takes a considerable amount of time, but Addie has deemed this investment worthwhile since there is such a great return in engagement and enthusiasm- students are delighted every time a profile is presented and reference these scientists in their own work. This speaks to her high level of commitment to students and learning.

In addition to being committed to student learning, Addie is deeply tuned in to the physical and emotional well-being of her students. She is both caring and empowering, and based on all of the interactions I've witnessed in the classroom, students are very confident that she cares for them as people not just students. Both her freshmen students and the older ones she's worked with in the engineering club light up when they see her and seek her out in a crowd to say hello. Someone with such a high level of content expertise and such a big heart for students is most surely the kind of person we want in the classroom.

The past two years, I have been in a dual role working part-time as a classroom teacher and part-time as a teacher-on-loan for science at the Sonoma County Office of Education (SCOE). I've had a chance to work with Addie through my SCOE role in two county-wide professional development settings. The first was a group developing a prototype for Next Generation Science Standards (NGSS) implementation. Addie was an extremely important contributor in this group, both sharing the work she was doing in her own classroom and offering insights and questions that helped drive the work forward. Part of the reason her contributions were so essential for the success of the group is that she brings a different perspective from her work in research, universities, and international schools. Addie also participated in a week-long professional development in June 2016 on STEAM education. Addie brought to this week enthusiasm and passion, and it was clear that she inspired the other educators in the room at the same time that she was inspired herself to incorporate what she learned in her own classroom. Both of these experiences demonstrate that Addie enriches not only the learning of her own students but also those of other students through her commitment to collaboration with science educators around the classroom.

Addie is ambitious, knowledgeable, passionate, and caring. This rare combination coupled with her extensive background in earth science is undoubtedly a benefit to the students at Maria Carrillo High School and in Santa Rosa City Schools and Sonoma County. She has my highest recommendation for the second issuance of the Eminence Credential. To invest in her and her career is to invest in science education and students. If you have any questions, please don't hesitate to contact me. Thank you for your consideration.

Sincerely,
Anna Van Dordrecht
Curriculum Coordinator for Science
Sonoma County Office of Education
avandordrecht@scoe.org
707-953-8580



Maria Carrillo High School

Vicki Zands
Principal

Randy Burbank
Assistant Principal

Shauna Ferdinandson
Assistant Principal

June 3, 2016

To Whom It May Concern:

I highly recommend Dr. Adrienne Larocque for a California teaching credential. I have had the pleasure of working with her for the past two years. In that time I have been able to witness what an integral part of the science department she is. She is extremely intelligent, creative, kind, and engaging.

Dr. Larocque has a wide range of experiences and accolades that qualify her for this position. She has taught many different age groups and subjects, and has traveled the world. Her knowledge of the subject matter is incredible.

During her time here, Dr. Larocque has really impressed me. She presents material in a way that is interesting and engaging to her students. The students walk away from the class with long-term knowledge of science. Her courses are rigorous, but she makes it accessible to every student. They love her class and feel that she is very approachable and caring. She is especially in tune with the students with special needs. Dr. Larocque makes them feel comfortable in her class and is able to help them learn the material in the way that is best for them.

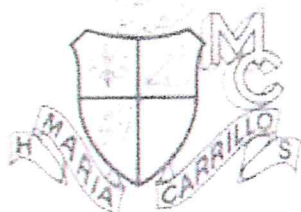
Dr. Larocque is a wonderful person to collaborate with. She understands how collaboration benefits both teachers and students. She provides valuable feedback for IEP meetings and always makes time to attend the meetings. Dr. Larocque has a good rapport with the parents as well. She makes it easy for them to know what is going on in her classroom, and she is always available for discussions.

I feel that Dr. Larocque enriches the lives of the students and is the perfect candidate for a teaching credential. Please contact me if you have any further questions.

Sincerely,

Sarah Thompson
RSP Teacher
Maria Carrillo High School
sporter1717@yahoo.com
(707) 396-8699

Maria Carrillo High School



Vicki Zands
Principal

Randy Burbank
Vice Principal

**Shauna
Ferdinandson**
Assistant Principal

Patrick Eagle
Assistant Principal

6975 Montecito Blvd
Santa Rosa, CA 95409

25 June 2016

To Whom It May Concern:

I am honored to write a letter of support for my colleague, Dr. Adrienne Larocque, for the renewal of her Eminence Credential. In the few years that I have worked alongside Adrienne, I have been continuously impressed by what she offers to our school community and I am eager to continue this collaboration with her.

My first impression of Adrienne was that she was qualified to be on a high school campus because of her abilities to empathize with teenagers, get on their level, and make them passionate by appealing to their interests and sensibilities. "Dr. Addie," as our students fondly call her, comes up frequently in our discussions in English class because of our shared students' ability to connect the content of her class to what we are learning in mine. It was evident to me before I even knew her that I wanted to collaborate with her due to these genuine cross-curricular connections that our students were making.

Last fall, Adrienne and I began to finally work together on curriculum that would enrich the educational experiences of our shared students. Our first collaboration focused on Adrienne's time living in Indonesia. Our freshman English and history classes are thematically focused on global literature and the humanities so it is vital to have guest speakers that are able to share their stories about their experiences from around the world. With this knowledge about our school's curriculum, Adrienne generously made herself available to the entirety of our ninth grade English and Humanities core on her days off. At the time Adrienne spoke, my students were engaged in a project-based assignment focused on current events in Asia. Adrienne's presentation was immersive as she quite literally transformed my classroom into a museum dedicated to Indonesian culture. Her presentation captivated my students and made the content of my class all the more real to them. It is supplemental educational experiences like these that will make students identify with becoming global citizens and ultimately allow for our goal to implement Common Core standards based on non-fiction "real-world" matters and concepts successful.

Throughout the rest of the school year, Adrienne and I brainstormed to create more cross-curricular opportunities for our students. We are currently developing plans to incorporate Earth Science into English, and vice versa, in a variety of ways. If successful, our students will see how astronomy influenced Shakespeare and explore geology, volcanoes, and Zen rock gardens while learning to write argumentative essays about these topics. In addition, Adrienne founded and facilitates a committee of like-minded educators to begin work on even more cross-curricular collaboration. This group now consists of an art teacher, multiple English and humanities teachers, and a physics teacher. This group has grown exponentially since Adrienne began it and will continue to grow as we invite math teachers into the mix in the coming years. It is collaborative efforts like these that will excite our students and invigorate our teachers and it is visionaries like Adrienne that makes them possible.

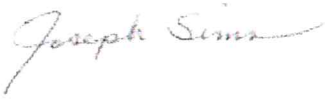
Phone (707) 528-5790

FAX (707) 528-5789

www.mariacarrillohighschool.com

A quick glance at Adrienne's already impressive educational background shows her professional qualifications and preparedness to continue educating our students; a short conversation with her will convey her devotion to her students and her drive to reach each and every one of them. I am grateful to have the opportunity to work with a colleague that inspires every teacher that meets her. Adrienne is indispensable to our profession.

Sincerely,

A handwritten signature in cursive script that reads "Joseph Sims".

Joseph Sims
English Teacher
Maria Carrillo High School
707-321-2918

Letter in Support of Renewal of Eminence Credential for Adrienne C. Larocque

The purpose of this letter is to enthusiastically endorse Dr. Adrienne Larocque's (Addie) application for renewal of an Eminence Teaching Credential

I have known Addie and observed her multiple professional talents since June 2015 during which she has been an integral part of the Equity Initiative in Santa Rosa City Schools. As a consultant and trainer working widely in the State of California for more than 30 years, I have had the opportunity to interface with many educators, and my observations and experience evince that Addie Larocque is one of the top professionals in California today. She is competent, caring, committed and creative in all of her assignments. She is a consummate professional and an unrivaled advocate for educational equity and social justice

Addie is a top notch Science educator, having received many professional acknowledgements and accolades for her work. But while many educators can boast excellence in their academic field, Addie is dedicated not only to Science education but also to helping every individual realize his/her full potential. She will do whatever it takes to scaffold students from where they are to where they need to be to master rigorous academic content. Not many teachers go this extra mile.

Addie understands that there are groups of students in our schools whose needs are consistently undervalued and under addressed, and Addie chooses to serve THESE students over others...to reshape programs, practices and services so that culturally and linguistically diverse students are better served and more successful in our schools. Addie measures her own success and effectiveness based not only on how well she performs but on how well her most under-served students perform under her tutelage.

In education, we are not effective professionals unless we are culturally competent human beings before, during and after our professional accomplishments and tenures. To what end is our greatness if, in the end, we have not made a difference in the lives of those people who we are charged to nurture and educate? And to what extent can we, ourselves, be truly educated if we are not enthusiastically eager to learn about people (students, parents, colleagues) who are most unlike us, so that we can serve them better?

To serve our clients well, to the best of our ability, and to advocate for the most underserved clients seems to me to be the unspoken oath of our profession at every level of certification and credentialing, including the Eminence Credential. Who among us has journeyed long and deep into herself to learn about how she and others can help partners and colleagues meet the needs of our most under served populations? Who has been willing to be an advocate for some students when it has not been popular to do so? Who has led the charge to do what is right, not what is simply professionally expedient? And who among us continues to live her life examining daily aspects of her own culture and practice so that she might transform who she is and what she does to be a more culturally

competent professional and more evolved human being? These should be the questions we ask as we consider awarding credentials and certificates for teaching in today's schools.

The person who meets the above criteria, is Adrienne Larocque. She is an asset to any school and school district in which she is employed, and I highly endorse her recertification to ensure that this EXCELLENT teacher remains in K-12 education and has the opportunity to be in the service of students who matter most in today's schools.

I hope I have provided sufficient information for you to make the appropriate decision. If you would like additional information, please contact me at (310) 916-8127 or grahamstephanie@att.net.

Sincerely,

A handwritten signature in cursive script that reads "Stephanie Graham".

Stephanie Graham, Educational Consultant
June 10, 2016

February 27, 2016

To the Commission on Teacher Credentialing,

My son, David Frank, was in Dr. Adrienne Larocque's 9th grade Physical Science class during the 2014-2015 school year. While David is bright and hardworking, he has both ADHD and chronic migraines which impact both his school attendance and his ability to focus during instruction. He has a 504 plan of accommodations. Dr. Larocque's teaching style and the myriad of supports that were provided for all students contributed greatly to his success in the classroom.

Dr. Larocque posted all of the slide shows, handouts, and assignments with due dates on the website Sophia.org. This was hugely helpful to David, not only when he was absent, but also to aide in completing notes that he may not have been able to keep up with in class and in reviewing for tests. She also posted grades on Jupiter Grades so that David knew how he was doing at all times.

Dr. Larocque allowed students to use their notes during tests which aided with text anxiety and encouraged them to take careful notes, a critical 9th grade skill. The tests were challenging and complex so while the students could use notes, higher level thinking skills and synthesis of information were required. Dr. Larocque also included hand on activities which are key to student learning and engagement, especially in a Science class.

Dr. Larocque made an effort to communicate with us regarding David's progress and needs. She was timely and clear in her communications which is not always the case when students are in high school. I feel that many students continue to need the support of both their parents and teachers during this transitional year and communication is key.

Most importantly, Dr. Larocque was able to see the potential in David that other teachers often miss and connect with him on a personal level. Her confidence in him allowed him to gain confidence in himself. She was approachable and David was able to advocate for himself and the accommodations he needed. At the end of the year, she recommended David for the Honors Biology class for the present school year. He is taking Honors Bio this year and it's his favorite class. While it is challenging for him, the benefits of seeing himself as one of the "smart kids" and pushing himself to take on concepts at a higher level have been really positive for him.

David has an older sister who is presently at UCLA and is the type of student who will thrive no matter who is teaching the class. David is very different and the classroom teacher has always been critical to his success. We are grateful for his time with Dr. Larocque and feel she is an asset to the Science Department at Maria Carrillo High School.

Sincerely,


Karen Frank

January 4, 2016

To: The California Commission on Teacher Credentialing

I am writing this letter of recommendation for Adrienne Larocque, aka Dr. Addie. Dr. Addie was my freshman daughter's Ac Earth Science/Physical Science teacher at Maria Carrillo High School in Santa Rosa, California during the 2014/2015 school year.

My daughter was terrified to start her freshman year in a large school the population of MCHS. Her first week of school all she could talk about was her science class and Dr. Addie. She never liked science before Dr. Addie. My daughter repeatedly said, "Dr. Addie explained everything so well I actually understand what she is trying to teach me."

Dr. Addie taught my daughter a new way to engage in class boosting her self-confidence to speak up in class. My daughter learned the value of doing every assignment on time as she watched her grades fluctuate on Sophia an on-line tool. She even encouraged my daughter to do extra credit, which was a first for her. She boosted my daughter's confidence in the subject of science, but also in her ability to believe in herself! In fact, Dr. Addie recommended her for only honors class, Honors Biology, in her sophomore year and she is doing amazing well.

As a parent I was equally as pleased with Dr. Addie's communication skills through her timely e-mails home. She was the only teacher my daughter's freshman year who took the time to communicate with me about what was going on in class, so that I was able to talk to my daughter about her studies and encourage or praise her when she needed it.

I am grateful for Dr. Addie and think any child would be lucky to have her as a teacher! I whole heartedly recommend Dr. Addie to the Commission on Teacher Credentialing!

Sincerely,

Natalie Stolzheise

649 Rinaldo Street

Santa Rosa, CA 95409

Natalie.stolzheise@gmail.com

Desiree Lindemann
5877 Mountain Hawk Dr.
Santa Rosa, CA 95409
435.635.1421
desiree@zhtd.com

November 29, 2015

To Whom It May Concern:

Please accept this letter in support of issuing a second approval, Eminence Credential, for Dr. Adrienne Larocque.

Dr. Addie was my son's science teacher last year. My husband, son and I could not have been happier. Her passion for science and teaching ensured my son was engaged and learning in class. Class expectations were well laid out, and challenging in such a way, that my son surprised himself with how much he learned. She certainly laid a solid science foundation for him.

As I parent, I appreciated the regular updates that Dr. Addie provided about what was happening in class. I was also happy to see that Dr. Addie offered many after-hour tutoring sessions, for any students in need of additional support.

Dr. Addie and I had a few occasions to chat in person, and it was clear to me that she loves teaching and inspiring the students to explore the world around them, we need more teachers like her.

If you have any questions, please do not hesitate to contact me.
Sincerely,

Desiree Lindeman

To Whom it May Concern, in the Commission on Teacher Credentialing,
We understand there is a thorough and multistep process in the credentialing of
teachers in California. One such individual on that path is our son [redacted]'s Earth
Science teacher, Dr. Adrienne C. LaRocque, or "Dr. Addie."

[redacted] took her class in his freshman year at Maria Carrillo High School in Santa Rosa,
2014-2015.

That August he immediately began telling us about his Earth Science teacher and
the course material with such enthusiasm & animation we felt relieved and lucky
he'd started this leg of his schooling on such a strong foot.

[redacted] soon packed along samples of his rock collection to school, from fossils and
varying types of rocks to meteorites, because he had a receptive and supportive
atmosphere to share in.

The Back-to-School night for parents was how we heard Dr. Addie happily
proclaim she's a "rock geek". This simple phrase & her presentation let us know
without a doubt she is dedicated and passionate about her subject. (And of
course, what had initially drawn [redacted] to be so engaged.) Among the other facts
about Dr. Addie that impressed us were her accessibility to her students, and her
years living around the globe and teaching grad school.

[redacted]'s challenges come from working with his diagnosed ADD. Focusing and
keeping organized are huge issues for him, regardless of subject.

Dr. Addie's Sophia website enabled us & [redacted] to see for ourselves what was current
in class. Her timely and informative emails helped us to keep up on what [redacted]
should be planning for in Earth Science. The several times we emailed in return,
she responded quickly.

We are pleased that [redacted] learned self-reliance and increased his self esteem by

approaching his teachers and initiating a connection himself. Time is tight at school, yet he still stops in to see Dr. Addie and share news and tidbits he's excited about. It is illustrative of how her positive influence goes above and beyond to enrich his, and others', educational experience.

Thank you for your time & attention. It's been a pleasure to share how fortunate we feel to have had Dr. Addie as one of CJ's teachers.

Sincerely,

Christina Cartier & Chase Cambron

5405 Idlewood Road

Santa Rosa, CA

xibichae@yahoo.com

November 29, 2015

California Commission on Teacher Credentialing:

Dear Sir/Madam:

I am writing this letter to you in support of Dr. Adrienne Larocque's application for her Eminence Credential to teach in California.

Dr. Larocque ("Dr. Addie") taught my son [redacted] earth sciences his freshman year at Maria Carrillo High School in Santa Rosa, California ("MCHS"). What you need to understand about [redacted] is that he is not the most "natural" of students. He is one of those kids who seem to work twice as hard to get half the grade.

Dr. Addie worked with [redacted] at the beginning of his freshman year at MCHS and [redacted] thrived. During the months that Dr. Addie wasn't teaching due to the time spent waiting for her first application, [redacted] struggled. The students in the classroom did not respect or respond to the new teacher and [redacted] came out of class each day frustrated that he wasn't learning. As [redacted] put it, "Dr. Addie had control of the class; this other teacher didn't."

When Dr. Addie was finally able to return to teaching, [redacted] was thrilled although he continued to struggle. Dr. Addie worked diligently to bring the class back up to pace with the other earth science classes on campus. There was quite a bit of catching up to do.


What impressed me most about Dr. Addie was her desire to help her students. She regularly set up tutoring sessions and extra office hours in order to share her love of science with her students. Mostly, though, she seemed to actually CARE about these kids. She wanted them to LEARN, rather than merely pass requirements.

I communicated with Dr. Addie regularly, making sure that [redacted] was keeping pace in the classroom. I was surprised at how quickly she would respond to my e-mails with her suggestions and concerns. In spite of having 100 students, she was aware of my son. As a result of her work, [redacted] shared with me that his favorite class last year was science – complete shock to me!

I ask the committee to please consider Dr. Addie's application to continue to teach at Maria Carrillo High School. She is a dedicated teacher and a definite asset to our community here. I look forward to her teaching my next son, [redacted], when he attends MCHS.

If you have any further questions or concerns regarding my opinions or feelings about Dr. Addie, I would be more than happy to speak with you. She is a great teacher.

Sincerely,


Melinda Altman
5160 San Pablo Court
Santa Rosa, CA 95409
(707) 529-1734

[REDACTED]
[REDACTED]
1781 Casita Ct. Santa Rosa, CA 95409 (707) 538-3574 [REDACTED]@gmail.com

June 1, 2016

To: California Commission on Teacher Credentialing
Re: Eminence Credential for Adrienne Larocque

To Whom It May Concern,

I am writing in support of Adrienne Larocque's application to renew her Eminence Credential. I have known "Dr. Addie" since September 2015 when my son, West, transferred into her Earth Science class at Maria Carrillo High School.

West has been homeschooled for most of his academic career due to his high level of anxiety. Starting public school at the beginning of high school was daunting for him, however Addie continually went out of her way to make him feel welcome in her class and help him settle in.

Addie e-mailed often to keep me informed about how West was doing in class and alerting me to upcoming events and activities so that he could be prepared. She worked to find ways to make West feel at ease, for example, by changing seating so that he would be more comfortable in class. When West needed guidance organizing his science notes, Addie worked with him to set up systems that he would be able to use in her class as well as others. She continually looked for strategies to help West be both happy and successful at school.

Addie has high standards for her students, but she also is flexible in finding ways to help them be successful at learning. West has a hard time understanding and tolerating other kids. Addie recognized this with compassion, and allowed him to do some lab work alone, outside of class time, while still encouraging him to engage with other students in group work when he felt up to it. She has always been positive when she spoke with him and brought out the best in him both academically as well as socially.

Addie demonstrated time and time again that she could see all of West's great qualities, while also challenging him to be his best self. It was so affirming and encouraging for West to hear her kind and encouraging comments about himself. He got so much out of having Addie as a teacher, and truly enjoyed talking with her outside of the classroom as well. He trusted her, felt safe with her, and always wanted to do his best for her. West even included her name in his gratitude workbook on a list of things for which he was grateful. I have never known anyone who has enriched his educational and social experiences as much as Addie did.

Addie is hands-down the kindest, most compassionate teacher I have met. Her depth of caring for her students is so uncommon in this day, and so greatly appreciated. She is one of those rare gems of a teacher who has a wonderful and warm impact on her students and makes the world a better place. West was so incredibly lucky to have had her as a teacher.

I cannot begin to express how thankful as a parent I am to have run across a teacher like Dr. Addie. She has restored my faith that there are indeed, amazing teachers out there, that care about their students as much as their lectures. Addie's love of science is like none I have ever seen and I was so excited that my son was lucky enough to score the winning ticket of being in her classroom, and thereby exposed to the excitement and wonder of science that she instills in all of her students.

If you should have any questions, or I can be of any further assistance, please do not hesitate to contact me. I honestly cannot put enough of the gratefulness I feel for this amazing teacher in this letter. Dr. Addie is pure gold!

Sincerely,


Ellen Below

June 9, 2016

To Whom It May Concern,

I have had the honor and privilege of knowing Dr. Adrienne Larocque this past 2015-2016 school-year. I was a bilingual peer tutor in her physical science class and had the pleasure of having Dr. Larocque as my advisor for the Maria Carrillo High School chapter of SWE Next. Dr. Larocque has not only enriched the educational experience of her own students but also of students whom she does not have in her classes.

During my time as a bilingual peer tutor in Dr. Larocque's physical science class, Dr. Larocque ensured that all necessary accommodations for the student's educational success that could be made were made. She allowed me and the student to use the lab room during test taking so that I could translate the test material. This not only helped the student that I was assisting but the other students in the class because it made sure that their ability to take a test in a quiet environment was not compromised. Dr. Larocque always made sure to make weekly if not daily check-ins with me as to the student's progress and comfort level in the class. Dr. Larocque continually took detailed notice of the student's work during class and pointed it out as an example during class, resulting in the student feeling more included in the class. This notice and care further motivated the student to maintain a high level of work despite the language barrier.

Dr. Larocque has been invaluable not only in starting the Maria Carrillo chapter of SWE Next, but also in ensuring that it is a meaningful experience for each of the members. Dr. Larocque gave up her lunch each Wednesday to help guide our meetings and provide advice as to how to be successful in a male-dominated industry. She spoke not only of her personal experience but also from surveys and research she had conducted concerning the lack of women in science and the decrease in the percentage of women as the level of education in scientific fields increase. Because of her background in science I believe that she is one of the most qualified advisors possible for the club and has served more as a mentor than as just an advisor. Thanks to Dr. Larocque at least 15 girls were able to shadow different engineering firms across the North Bay. This shadowing field trip personally further inspired me to continue on a path towards a Civil Engineering degree. Dr. Larocque continued to help our club beyond the required amount when she provided the club with information on how to write a thank-you email to our shadowing day hosts as well as the resources to write one. Thus she taught us all valuable life skills that have personally helped me attain an internship at the shadowing location after a certain time period in college.

Dr. Larocque is not only an inspiration for me, but for others. Members of the SWE Next club and I have discussed how she has inspired us to go into research or obtain a post graduate degree. With regard to her teaching, the care she has for each student is evident. Her survey physical science class is composed of some students who might otherwise be labeled as "difficult". However, she has motivated them to stay focused through labs, note-taking, and other class activities. As a result of the attention and work she dedicates to each student's learning, I have heard several students state that it is their "favorite class" or the only class that they "really care about". I personally took the academic earth science class as a freshman and can confidently say that the survey class is learning material that is more advanced than what I learned during my

time as a freshman. I believe that this can be directly attributed to Dr. Larocque's astounding academic credentials and dedication to the students' education. To provide context for what I have written above, I am a 2016 Maria Carrillo graduate who graduated summa cum laude and bound for Santa Clara University as a Civil Engineering major on a merit scholarship. I have had the pleasure of knowing many amazing teachers during my time at Maria Carrillo and Dr. Larocque is one of the teachers who I believe has had the most impact on my education. I have learned from her the power of determination, dedication to one's work, and care for those around you. Dr. Larocque is an incredible teacher, has made lasting impact on the educational experience of those around her, and I cannot recommend her enough to all that have the pleasure of meeting her.

If the board or committee has any further questions concerning Dr. Larocque that they would like to ask me, I would be more than willing to answer them. The best way would to contact me would be through email at [REDACTED]

Sincerely,

[REDACTED]

Carolina Ayalar

Notes and Letters from Students at Maria Carrillo High School and Santa Rosa High School



Thursday 12-21-17

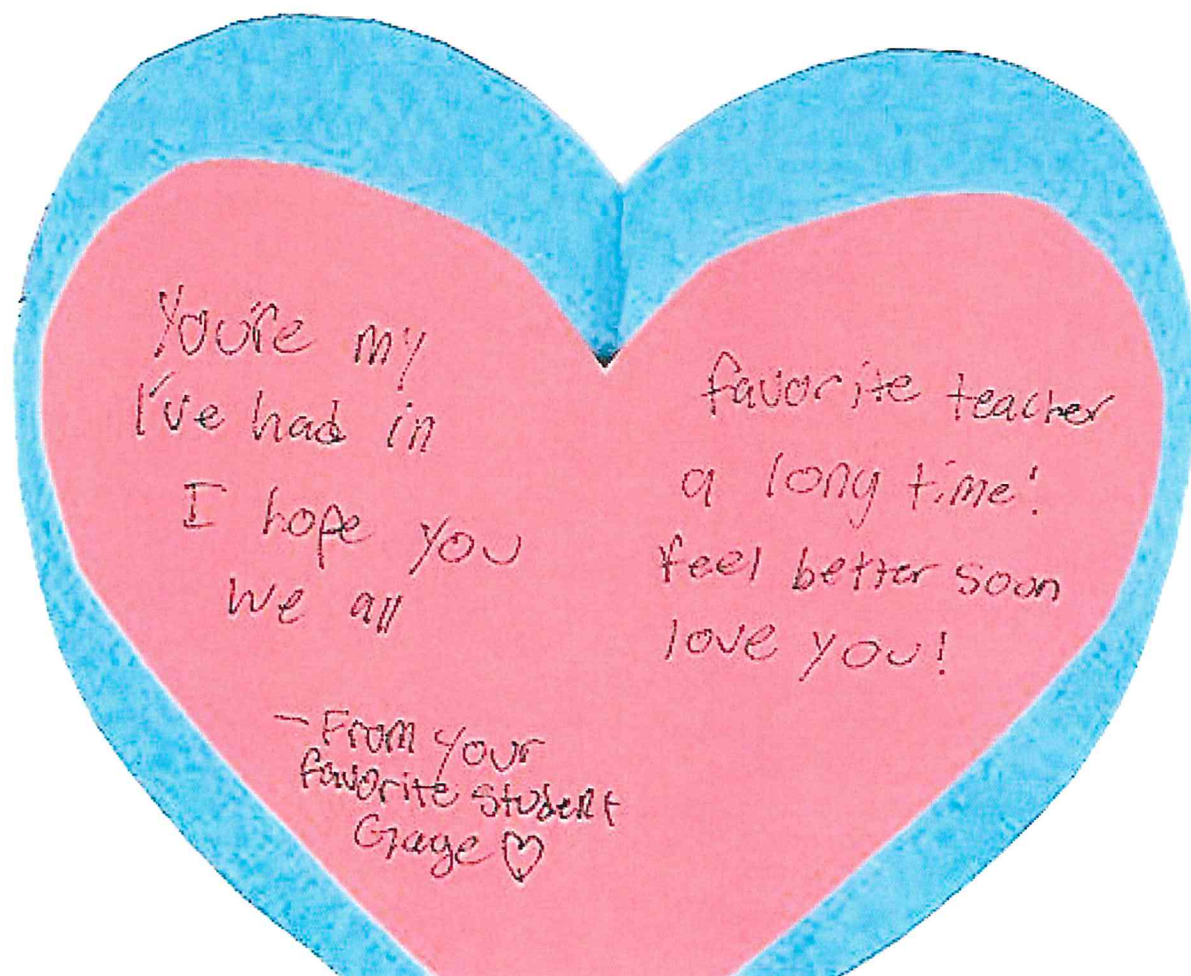
Dr. Addie, being in your class this year has been awesome! I've created so many new friendships and my favorite one is ours. I'm really happy that I have you as a teacher, friend, someone to trust. I always talk about how science is my favorite class and that my teacher (you) is the smartest person I know. You are one of the biggest motivations I have to be a strong woman and never give up. I may not get the best grade in your class but I have the best times and eventually learn a lot from it. I hope you stay at SRRS for a very long time because I'd love to T.A. for you one day. I love the way you teach, the way I always feel welcomed in your classroom, and I love you! Have a great break. I hope it is filled with many great laughs and you create new memories.

Tuesday, May 9th is the National Day of the Teacher. I'd like to take this moment to say:

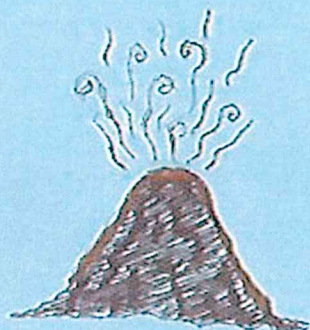
Dr. Addie Thank you for teaching me everything about science. There are times where u were strict on us but it was for our own good. You reminded us to check our review our answer in quizzes. You also make sure we understand lessons well. You made me feel better about myself even when I was feeling the lous. It was nice to see you around school and say hello. I miss you being in your class! I will always visit you!

Dr Addie,

I'm so glad you're my teacher this year, so far I hadn't had a teacher I could trust enough to talk to until I met you. You're so bubbly and welcoming and I can tell you care deeply about each and every one of your students. Not only that, it's obvious you care very much about the subject you teach and as a teacher, that makes all the difference. I hope you have a holiday season as bright and happy as you are! I look forward to seeing you again in 2018. ☺



Dear Dr. Addie,



Thank you for being such an amazing teacher and preparing us for our sophomore year. Everything you did was for our own good and all of us are better students because of you. You created a solid foundation for science for everyone you taught. You "rock"!

Tuesday, May 9th is the National Day of the Teacher. I'd like to take this moment to say: Thank you so much for being such an amazing teacher. I love how you always treat your class as students, but as your own kids. I love how you always have such enthusiasm and such great pride in what you do. Thanks for all that you have done for me this year because I really truly appreciate it.

Tuesday, May 9th is the National Day of the Teacher. I'd like to take this moment to say: You are the best teacher I've ever had. You are always very prompt when grading everything. You are joyful and always very enthusiastic when you learn something new, but also when you see a student finally "get" a concept. Each and every one of your assignments always has a purpose and helps us to learn. You care very deeply for each and every one of your students and their well being. Your mere presence and personality makes me excited to come to your class everyday. People like you don't come around very often, so I'm very happy and excited that I got to know you. ♡

Tuesday, May 9th is the National Day of the Teacher. I'd like to take this moment to say:

Thank you for being an amazing teacher. You are funny and kind and every time I walk into your classroom I get filled with joy. I always have a blast in your class.

Tuesday, May 9th is the National Day of the Teacher. I'd like to take this moment to say:

Thank you Dr. Addie for being an amazing teacher! Thank you for doing so much for us and doing whatever you can to help us succeed like putting our slide shows on Sophia and having things be due a week after they are assigned so that I have enough time to finish everything and not feel so much pressure. Thank you for teaching so well and letting us use our notes on tests to reduce test stress. I think you're my only teacher that cares to me outside of class when I see you and that means a lot to me. Thank you so much for everything you do! ☺

Tuesday, May 9th is the National Day of the Teacher. I'd like to take this moment to say:

Thank you for helping me. Especially this second semester. You really motivated me to do my best in your class. I know last semester I didn't do so well, but now I pay attention in class and do the homework every day. I look forward to your class because I like learning new things. Once again thank you for all you have done for me.

Tuesday, May 9th is the National Day of the Teacher. I'd like to take this moment to say:

Thank you for your support and just being helpful and showing me that I can do anything, that you believe in me. You're so helpful and always ask if you can ~~do~~ anything to help. I really appreciate that.

Tuesday, May 9th is the National Day of the Teacher. I'd like to take this moment to say:

Thank you so much for all amazing information and experience I gained from your class! I'd have to say you are my favorite teacher this year, and I really enjoyed your class. Thanks for believing in me even when my grades weren't the best. I really hope you have a great Teacher's Day! I can't wait to see you more often.

Tuesday, May 9th is the National Day of the Teacher. I'd like to take this moment to say: THANKS for being so confident in me and being so nice. Also how many cool experiments you did with us. It was cool how you liked the rocks that I brought in and how much I participate in class. I think you had me write 3 or 4 questions on the question wall. I like how you make things easier to understand and that you let us use our notes on tests and quizzes. You also make sure that we understand the topic before moving to the next. I like all of the visual representations you use and you're my teacher for teacher appreciation day.

Tuesday, May 9th is the National Day of the Teacher. I'd like to take this moment to say: Thank you for being a great teacher this last year. You taught me many new things and when anyone needs help, you are there. I don't feel uncomfortable when asking you for help because you are really open to help me do better. Thanks for being helpful because I will get another class with you.

Tuesday, May 9th is the National Day of the Teacher. I'd like to take this moment to say: Thank you! I'm so happy that I was in your class this year. You have made me transition from middle school to high school easy. You are always so kind and loving. I wish I could move so that I could be for you. I love how kind and loving you are in class. You are a great teacher. I have learned a lot so much. You always make learning activities that make learning fun and exciting. Again, thank you for all you do. You will always have a place in my heart. I will not forget you ever. I love, love you!

Tuesday, May 9th is the National Day of the Teacher. I'd like to take this moment to say: Thank you for putting up with me and caring for me. I know I am a pain in the butt sometimes, but I appreciate you being there for me.

Wednesday, May 11th is California's Day of the Teacher. I'd like to take this moment to say: That I really appreciate and want to Thank You! for always helping me with my work and for helping me get back in track in your class but most of all for always being so nice and so lovely with me and for giving me the attention I need. Also for always answering my questions no matter what it is about.

Thank you!

Wednesday, May 11th is California's Day of the Teacher. I'd like to take this moment to say: _____

Thank you for everything you've done for me!
Thank you for helping me, pushing me on doing better in science, understanding me, and so much more! You are not just my favorite teacher but also a funny, nice, kind person. I hope I will T.A for you!

Wednesday, May 11th is California's Day of the Teacher. I'd like to take this moment to say: Thank you so much for all that you do for me. You always go above and behind to make sure we learn all the information in depth. You are one of the best teachers at Carillo.

Wednesday, May 11th is California's Day of the Teacher. I'd like to take this moment to say: Thank you for being there when I have questions. Thank you for teaching with a passion and wanting everyone to be knowledgeable and able to know interesting concepts about everything.

Dear Dr. Addie,

I can not thank you enough for amazing year. I have never felt so close to a teacher. Maybe it is because of Samira, but just as a teacher student relationship, I always feel like I can talk to you. I am very sad to say goodbye to 5th period science. In the past, I never enjoyed science class because I was always lost and confused. Thank you for helping me not be lost and confused. Also, thank you for always being understanding about my health situation, I really appreciate that. Thank you for the great year and for being an amazing teacher. You really taught me so much science and more.

Notes from SWE Next Club Members

6/03/2016

Dear Dr. Addie,

Thank you for the years of assistance, learning, and encouragement that you have given me. The life of the mind requires courage and sacrifice, and you have consistently demonstrated how to pursue what you love with grace and enthusiasm. Thank you, too, for pushing all of us to work at higher levels.

I am very grateful that you started SWE, gave us real experience in the community, and taught us how to collaborate.

I have learned many life lessons from you, and will miss you immensely.

Dr. Addie,

Although it's so sad I never got to be in one of your classes, I feel like it's a good thing we met in SWE. I now think of you as a mentor and a friend I can geek out with anytime about rocks or neurology or engineering or food science or whatever it may be.

Thank you for sharing all of your vast wisdom with us about science and being a woman in the field. And mainly, for all the support and encouragement you have offered me this year. I will always take that with me, and I hope we stay in touch over the years.