

September 2019



MONTANA GEOLOGICAL SOCIETY NEWSLETTER

Vol 63 No. 10



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P2 / PRESIDENT'S LETTER

Our President summarizes the latest updates from the recent MGS Board Meeting.



P4 / GIRLS-N- SCIENCE

This outreach opportunity will be held at MSUB on October 12. Consider volunteering!



P9 / AAPG

Read up on the latest updates from the most recent RMS-AAPG Section Meeting.



P10 / MBMG

The Annual MBMG Mining & Mineral Symposium is approaching quickly - sign up today!



Contact Us:
mtgeo.org / montanageologicalsociety@gmail.com

Find us on 

Add our email address to your contacts so your Newsletters & Luncheon announcements don't end up in Spam!

PO Box 844
Billings, MT 59103

President's Letter

Dear Membership,

We recently held a board meeting where several items regarding the MGS were discussed. First, I want to thank the MGS for being able to help the MSUB Girls-in-Science event. We voted to send some money and three volunteers who will man a booth at the event (shout-out to Felipe and Spencer!). We also voted to donate towards the YBRA teacher program this summer; we will be sending some money, MGS Stickers and Teacher of the Year applications to Montana Earth Science teachers.

Elections for MGS board members are coming up soon -- keep your eyes peeled for an e-mail with voting details. As sad as I will be to leave the position of president I will be able to put forward more efforts towards a possible field symposium (tentative summer 2021). That should be enough to keep me busy!

MGS President
Sarah Friedman

2018-2019 MGS Officers

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Sarah Friedman 406-896-5931
- Vice President/Speaker Coordinator
Tom Hewett 406-281-8203
- Treasurer
Spenser Kuhn 406-696-0268
- Secretary
Felipe Pimentel 352-514-3607
- Past President
Felipe Pimentel

Officer Elections Are Coming Up!
Watch your inbox for your ballot

Find us on 

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keep up-to-date with the MGS.**

Who's Who of the MGS

BOARD OF DIRECTORS

Joe Carlisle
Don French
Robert Schalla
Steven W. VanDelinder

AAPG-ROCKY MOUNTAIN SECTION

Delgate: Mark Millard
Alternate: Don French
Foundation: Rob Diedrich 303-830-5875

COMMITTEES

Awards and Continuing Education:
Felipe Pemintel

Field Trips:
Gary Hughes 861-2072

University Liaison:
Steven W. VanDelinder

Publications:
Duncan McBane 252-3170

Montana Oil & Gas Fields Update:
Jim Halvorson 656-0040

PUBLICATION SALES

Doretta Brush 259-8790

NEWSLETTER EDITOR

Jessica Renstrom 208-2504

Anyone know
any jokes about
sodium deposits?

Na

Books & Publications Available!

Long-time MGS Member Lawrence Monson has a large geologic library, including many textbooks, bulletins, and publications, available to members free of charge.

If you've been looking for a specific item to add to your collection or wish to inquire about the array of publications available, please contact him at geomon@nemont.net.

Girls-n-Science

This year's Girls-n-Science event is coming up! Here are the details you should know:

Saturday, October 12
1-4 p.m.
MSUB Alterowitz Gym

“At Girls-n-Science, a FREE event, there will be booths with hands-on, minds-on activities. Female STEM-related professionals will be involved with each booth giving girls one-on-one contact with important role models.”

“The event is designed for 4th-8th grade girls, but the whole family is welcome to attend.”

Girls-n-Science is an important part of the MGS's annual outreach. For this year's event, we've been able to donate & we will be hosting a booth.

Interested in helping with the booth?

Contact MGS to volunteer at montanageologicalsociety@gmail.com

September 16, 2019

Sarah Friedman
Montana Geological Society
PO Box 844
Billings, MT 59103-0844

Dear Sarah,


Your generosity is making a difference in the lives of our students and in our community! Your investment in our future leaders is having a huge impact. Thank you for Montana Geological Society's recent gift of \$500.00 to Girls-n-Science as a Research Scientist sponsor. Gifts such as these enhance student success by opening the door to a STEM learning environment where girls shine. Because of your generosity, MSUB can continue to provide valuable benefits to young girls and to the community.

This one-day science extravaganza provides hands-on, minds-on interactive activities to introduce girls in 4th – 8th grades to careers in science, technology, engineering, and math (STEM). This program encourages girls to stay excited about exploring the world and solving problems using those disciplines. To further facilitate relationships between the girls and professional women in these disciplines, this year we are introducing a new dinner event for pre-registered 7th and 8th grade girls: A Taste of STEM.

If you have not registered online to ensure you have everything you need for the Girls-n-Science event, please go to www.msubillings.edu/girls/register/sponsor.htm to fill out the **Sponsor & Booth Registration** form. All forms must be received by **Friday, September 16**. If you have any questions, contact Michele McMullen via email at mtmemullen@msubillings.edu.

Once again, thank you for supporting MSUB!

Thank you,


Adam Liberty
Vice President of Development

Thanks Sarah!

This letter will serve as your receipt for tax purposes and verifies that no goods or services were provided to you in exchange for the charitable portion (\$500.00) of this gift. Date of gift: 9/12/2019 Tax ID # 81-0301477


MSUB
FOUNDATION
MONTANA STATE UNIVERSITY BILLINGS

*Thanks to your generosity,
the MGS is able to donate to
Girls-n-Science and several
other worthwhile
community events.
Thank you, MGS Member!*

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Dear Williston Basin geologists,

The North Dakota Geological Survey (NDGS) would like to invite petroleum geologists and related staff to our 2019 Williston Basin Core Workshop event this coming October. This event will be held in Grand Forks, North Dakota at the Wilson M. Laird Core and Sample Library. Two separate, two-day core workshop sessions (which cover the same material) will be offered on October 7-8 (Monday-Tuesday) and October 9-10 (Wednesday-Thursday). Each session will provide a walk-through of core samples and relevant geologic information covering many of the productive sedimentary units within the Williston Basin of North Dakota, in which 19 different formations have commercially produced hydrocarbons. Geologic maps and cross-sections will be combined with example cores to provide an overview of the stratigraphy and sedimentology of each unit.

While the content for each formation will vary, time will be taken to examine reservoir facies, petroleum source beds, and hydrocarbon seals in both core and wireline log examples. In addition to providing an overview of Williston Basin stratigraphy, this workshop will also: 1) review historical oil and gas plays, 2) discuss active plays across the basin, and 3) foster the development of new play concepts. Included is a tentative agenda for the workshop event with a list of the presenters.

The Wilson Laird Core and Sample Library (core library) was recently renovated and expanded in 2016. Over 455,000 feet (86.5 miles) of core, which has come primarily from oil and gas wells drilled across North Dakota during the past ~100 years, is stored and accessible at this facility. Several labs were added during the renovation/expansion and allow for multiple groups to visit the facility simultaneously. Usage of the labs and core access is free of charge, ideally with a lab reservation booked days to weeks (or months) in advance.

Registration for this event will open within the coming weeks and will be set at \$200/person. Registration proceeds will go towards providing lunch and refreshments for registrants during the workshop and covering travel costs for guest presenters (non-NDGS staff). Registrants will need to make their own travel arrangements (flights and hotels). Registration costs are relatively low because the primary purpose of this event is to gather geologists to examine and discuss core samples relevant to petroleum systems and exploration. Your time, interest, and participation in the event is our focus.

We hope that you will be able to join us this coming fall. Any feedback regarding your interest level and/or thoughts on the workshop content would be greatly appreciated!

Sincerely,

Timothy Nesheim
Subsurface Geologist/Head of Subsurface Section
North Dakota Geological Survey
Wilson M. Laird Core and Sample Library
2835 Campus Rd.
Grand Forks, ND 58202-8156
(701) 777-2460
tonesheim@nd.gov
www.dmr.nd.gov/ndgs

***For more information,
including workshop schedule &
instructor biographies,
visit mtgeo.org***



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2019 Advertising Rates:
Full Page - \$100/month
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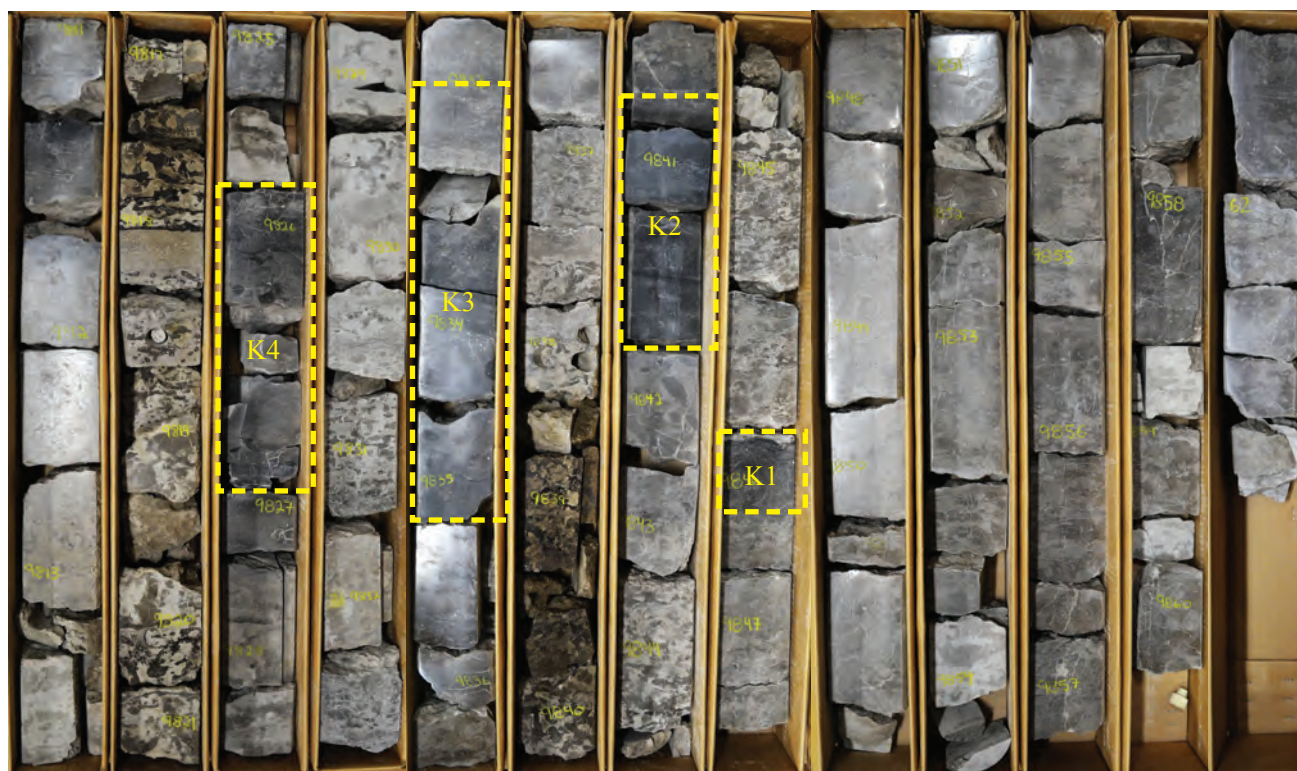
Register Now!



2019 Williston Basin Core Workshop

North Dakota Geological Survey

*Wilson M. Laird Core and Sample Library
Grand Forks, North Dakota
October 7-8 & 9-10*



AAPG Update



*Michael Poser accepting the
2018 MGS Teacher of the Year Award*

The MGS was well-represented at the most recent AAPG Section Meeting in Cheyenne. Read below for an excerpt of the summary of events as reported by Don French:

1) Leadership Breakfast. Various representatives of the AAPG and affiliated geological societies met to get oral reports from officers of the AAPG and Rocky Mountain Section (RMS) of the AAPG:

- RMS membership is about 3,325;
- AAPG Financials and membership are declining, driven mainly by changing demographics;
- National meetings (ACE) will be held in Houston, or occasionally Denver, for the foreseeable future - these are the only venues that have positive cash flow;
- More invitational technical sessions will be held at ACE;
- Revenue sharing from ACE to Sections will be enhanced;
- ACE will have more global emphasis.

There was some discussion on the above points, especially concerning membership demographics. Broad agreement was expressed that the AAPG should do more outreach to attract students.

2) Awards were distributed at the meeting dinner event, including the MGS Teacher of the Year Award. Sarah Friedman was presented the Outstanding Young Professional Award. She (carefully disguised as Don French) gratefully accepted the award.



**BACK
TO THE ROCKIES**
An Epoch Adventure of
CRETACEOUS PROPORTIONS

*Don French accepting the Outstanding Young
Professional Award on Sarah Friedman's behalf*

MBMG: Symposium

SYMPOSIUM

Montana Bureau of Mines and Geology
October 9–11, 2019
Butte, Montana

The Montana Bureau of Mines and Geology is pleased to host the 5th Annual Montana Mining and Mineral Symposium on October 9–11 at Montana Tech, located in historic uptown Butte, Montana. Join professional and amateur mineralogists, geologists, and miners as they share their knowledge of mineral deposits and stimulate interest in pursuing new studies and discoveries.

FEATURED EVENTS

Wednesday, Oct. 9th

Elkhorn Field Trip: Travel north of Butte to the Elkhorn mining district and examine gold skarn mineralization and the remaining town of Elkhorn. Learn the area's unique history and geology. There will be opportunities to collect vesuvianite, axinite, and other minerals related to skarn deposits.

Informal Meet & Greet at the Butte Brewery after field trip

Thursday, Oct. 10th

Oral presentations (including lunch) will be followed by an evening no-host bar followed by a Poster Session at Montana Tech.

Friday, Oct. 11th

Enjoy oral presentations, lunch (on your own), and lab tours followed by an evening Map Chat at the Butte Brewery. Sample great beers from the Butte Brewing Company, meet our MBMG geologists, and learn about their current mapping projects. Bring your mineral samples and try to stump our geologists!

FEES

Symposium registration:

Standard: \$75

Students (with ID): \$40

Field Trip: \$25

Cancellations/Changes and Refunds: Fees for late arrivals and early departures will not be refunded. Fees will be refunded if requests to cancel or change a registration are received in writing no later than October 1. After that date, fees are nonrefundable. The MBMG will process all refunds after the Symposium's conclusion. Substitutions may be made at no charge.

TRANSPORTATION & PARKING

Visitor parking passes will be issued to all attendees who request them when they register. Free shuttle service will be provided between all Symposium venues.

LODGING

A list of hotel and motel accommodations is available on our website, at:

<https://www.mbmgt.mtech.edu/2019symposium.asp>

Mention the MBMG Mining and Mineral Symposium to receive any negotiated room rates.



Online Registration and Payment is available at
mbmg.mtech.edu/2019symposium-registration.asp

SCHEDULE

Wednesday October 9, 2019

8:00 a.m. Elkhorn Field Trip

Thursday October 10, 2019

9:00 a.m. Oral Presentations

Noon Lunch Break

1:00 p.m. Oral Presentations

5:00 p.m. Poster Session

Friday October 11, 2019

9:00 a.m. Oral Presentations

Noon Lunch Break

1:00 p.m. Oral Presentations

4:00 p.m. Map Chat at Butte Brewing

SYMPOSIUM TOPICS AND SPEAKERS

- Stanley Korzeb, Montana Bureau of Mines and Geology: "New Studies on the Oro Fino Mining District, MT"
- Bruce Cox: "Fluorescence of Montana Sapphires"
- Mike Gobla, U.S. Bureau of Reclamation: "Mineralogy of Montana Iron Skarn Deposits"
- John Lawrence, U.S. Antimony: "Antimony: A strategic metal and USAC"
- Chris Gammons, Montana Tech: "Mineralogical investigation of the Sheep Creek Nb-REE carbonatite veins, southern Ravalli County, Montana"
- Karen Lund, U.S. Geological Survey: "Geochronology of the Butte ore deposits"
- Ted Antonioli: "Montana's Green Pipestone"
- Jerry Zeig: "An Update on the Black Butte Copper Project"
- Anne Millbrooke: "J.K. Pardee and the Silver Mining Era of Philipsburg, Montana"
- Jim Jonas: "Drone sampling of Pit Lakes"
- Pat Dawson: "Generational Procession of Prospectors Survey Bull Mountain, western Montana"
- Stella Capoccia, "Bird hazing at the Berkeley Pit"
- George Brimhall, University of California Berkeley: "Advances in the top of porphyry exploration model from studies in the Clementine prospect"
- Mohammadhossein Sadeghiamirshahidi, Montana Tech: "Flooded gypsum mines"

L. Brooke Henderson



*It saddens us to announce
long-standing MGS Member
& past President
L. Brooke Henderson passed
away August 31, 2019.*

*He received his BSc degree in
geology from Cornell College,
and he received his MSc
degree in geology from the
University of Iowa in 1958.
He & his wife moved to
Billings in 1961, and he
served as MGS President
from 1971-1972.*

*Condolences may be made at
www.michelottisawyers.com.*

MONTANA GEOLOGICAL SOCIETY

P.O. Box 844

Billings, MT 59103

Membership Renewal

Last Name _____

First Name _____ **Middle Initial** _____

ANNUAL DUES:

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Education (School, Degree, Year)

Degree #1 _____

Degree #2 _____

Degree #3 _____

MONTANA GEOLOGICAL SOCIETY

PUBLICATION	QUANTITY	PRICE	TOTAL
2006 Montana Oil & Gas Fields CD		\$65.00	
2006 AAPG Datapages - MGS Publications DVD		\$180.00	
2006 AAPG Datapages - MGS Publications DVD (MGS Member price)		\$150.00	
2000 50th Anniversary Symposium		\$20.00	
1999 Thrust Systems of the Helena Salient		\$20.00	
1998 8th Int'l Williston Basin Symposium		\$20.00	
1998 8th Int'l Williston Basin Symposium Core Workshop		\$20.00	
1997 Big Horn Basin Symposium		\$20.00	
1997 MGS-TRGS: The Edge of the Crazies		\$20.00	
1997 AAPG - Rocky Mtn. Section Meeting / Abstract Volume		\$10.00	
1996 AAPG - Rocky Mtn. Section Meeting / Abstract Volume		\$10.00	
1993 Energy and Mineral Resources of Montana		\$20.00	
1991 6th International Williston Basin Symposium		\$20.00	
1991 Geology & Horizontal Drilling of the Bakken		\$20.00	
1991 AAPG - RMS Field Trip: Beartooth Mountains		\$7.50	
1991 AAPG - RMS Field Trip: Eagle Sandstone, Billings		\$7.50	
1991 RMS Field Trip #1 Nye-Bowler Linemont		\$7.50	
1991 Sequence Stratigraphy of Eagle Sandstone		\$7.50	
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