Welcoming Spring in Colorado

Brought to you by AIPG Colorado
Spring has sprung! Well, maybe not. You can never trust springtime in the Rockies!

I recently attended the annual conference for the Society for Mining, Metallurgy, and Exploration (SME) in Phoenix, AZ. While there, I had the opportunity to chair a technical session, sponsored by the AIPG, which highlighted the geologic exploration work being done by geologists in the mining industry. The talks mostly focused on “critical minerals”, which are a hot topic lately. It was a good reminder that we shouldn’t take geology (nor geologists) for granted. Most of the creature comforts that we sometimes take for granted are only made possible because of the efforts earth scientists. Keep up the good work!

Take care and be safe.

Joe Brinton
2024 Colorado Section President
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Greetings! Happy 2024! We hope everyone’s new year is going quite well! Our new committee is off to an excellent start, and we have many exciting things planned for Colorado AIPG this year that we hope to see many of you attending.

As many of you know, it’s all of you that make this section what it is and what keeps this newsletter going. So, as always, we welcome all articles and media to publish in our newsletter. This could include current findings, research, publications, and more. As a reminder, this newsletter is shared nationally, which means more endorsements for yourselves. Along with your work, please share any geology photos from Colorado; please make sure these are clear quality and more prominent in size. For more information on accepted formats and where to submit, see below.

Next, we are still taking Early Career Spotlight Submissions. This section highlights members in their early careers and emphasizes skills in their new positions in the field. If anyone at all knows of someone who is:

- An active AIPG Member
- Recent Bachelors/Masters Graduate
- Started/Currently in a new/recurring position in the field

Please pass this information along to me so I may highlight them in our quarterly newsletter. We usually have two positions open every quarter and have many spots to fill for this year. I have a form for the individual to fill out, and we can get them in the following newsletter.

Additionally, I’m sure many have noticed our jobs section. Are you looking to fill a position at your office or on-site? We usually get our job postings from AIPG National, which includes postings from all over the United States. But many are also looking at the state level here in Colorado, and I know several of you may have more insight into this information directly. If you could email me this information so we can post it in this newsletter, that would be fantastic!

Lastly, our sponsorship section needs some filling up. We are taking on new sponsors all the time. This is a moment for you to advertise your company/business while supporting our AIPG Section here in Colorado. We want to thank our current sponsors, Davey and Vista GeoScience, for their continued support at this current moment. If you would like more info and pricing on how to advertise your business, please follow this link: https://aipg-cosection.org/form.php?form_id=21

Thank you to all our members who help make AIPG Colorado the best organization we all know and love and for what it has grown into today. Happy exploring!

Christina Tiggemann
AIPG Colorado Newsletter Editor
EDITOR’S NOTE

Faulted Digest is published four times a year. This newsletter is distributed free to members. **Paid Subscriptions:** $1 million. Please send check or money order to Christina’s home address along with a baby t-rex.

A copy of our newsletter will also be available [https://aipg-cosection.org/content.php?page=news](https://aipg-cosection.org/content.php?page=news).

**Submission Information:** Pictures, letters, announcements, etc... must be received by the editor the 2nd to last week of the following months: March, June, September & December. **Email preferred to:** christina.tiggemann@gmail.com. **Formats Accepted:** .doc, .docx, .pdf, .png, .jpg. .jpeg.


**Contact Information:**
1333 W. 120th Avenue, Suite 211, Westminster, CO 80234
303.412.6205

**The opinions expressed are those of the authors and not the Colorado Section officers unless clearly stated otherwise.**
Join Us

This year, our Annual Dinner includes a special (and FREE) mentoring and networking session geared toward our Student and Early Career Professional Members! Enjoy happy hour snacks and a cash bar while meeting representatives from various grad school programs and professionals from multiple geoscience disciplines. All AIPG members and guests are welcome to register for and attend the mentoring/networking session.

RSVP
By April 4, 2024
12:00 am

FREE Mentoring & Networking Session
$65 Member Dinner
$25 Student Annual Dinner

Registration Here
Hemimorphite

“One of two minerals formerly called calamine in the USA, hemimorphite takes its name from the Greek words hemi, which means “half,” and morphe, which means “form” - a reference to its crystalline form. Hemimorphite crystals are double-terminated prisms with a differently shaped termination at each end-pointed at one and flat at the other. Crystals are often grouped in fan-shaped clusters. Hemimorphite can also be botryoidal, chalky, massive, granular, fibrous, or form encrustations. Usually colorless or white, specimens can also be pale yellow, pale green, or sky blue. Some specimens show strong green fluorescence in shortwave ultraviolet light and weak, light pink fluorescence in long wave ultraviolet light. Hemimorphite is a secondary mineral formed in the alteration zones of zinc deposits, especially as an alteration product of sphalerite. It can be half zinc by weight and is an important ore of that metal. Well-crystallized specimens come from Algeria, Namibia, Germany, Mexico, Spain, USA, and China.”

Physical Properties of Hemimorphite

Luster: Sub-Adamantine, Vitreous, Sub-Vitreous, Greasy, Silky, Pearly

Transparency: Transparent, Translucent

Color: Colorless, white, pale blue, pale green, gray, brown

Streak: White

Hardness: 4 ½ - 5 on Mohs scale

Tenacity: Brittle

Cleavage: Perfect
             Perfect on (110), poor on (101), (001) rare

Density: 3.475 g/cm³ (Measured)

Zn₄Si₂O₇(OH)₂·H₂O
4th: Association of State Boards of Geology (ASBOG)
9th: AIPG Webinar - Role of Geologist as a CP (Competent Person)
9th - 13th: USA Annual National Women in Mining Conference
10th: Women in Mining (WIM)
13th: AIPG IL-IN Section Field Trip
15th: SME Minnesota Section Conference
Southeastern GSA Section Meeting
19th: AIPG National Executive Committee Monthly Virtual Check-In Meeting

For More Info on all NATIONAL EVENTS, Please go to: https://aipg.org/events/event_list.asp
**April**

**9th:** CEMS April Luncheon  
To register or get more info, click [here](https://aipg.org/events/EventDetails.aspx?id=1846230&group=)

**9th:** AIPG Webinar  
To register or get more info, go to [https://aipg.org/events/EventDetails.aspx?id=1846230&group=](https://aipg.org/events/EventDetails.aspx?id=1846230&group=)

**19th:** 2024 AWRA & CGWA Symposium  
To register or get more info, go to [https://cgwa.co/2024-symposium#2024-symposium-support](https://cgwa.co/2024-symposium#2024-symposium-support)

**19th:** GEOLOGY OF PIGMENTS: Our Colorful Earth  

**13th:** RMAG On The Rocks Field Trip: Cave Of The Winds And Manitou Springs  
To register and get more info, go to [https://www.rmag.org/index.php?src=events&submenu=Events&stype=detail&category=Field%20Trips&refno=325](https://www.rmag.org/index.php?src=events&submenu=Events&stype=detail&category=Field%20Trips&refno=325)

**15th:** CSM Van Tuyl Lectures  
Register at [https://mines.zoom.us/j/91807556890?pwd=K2ZBN01hRiJQMXFK2FuNE40eWJ6UT09](https://mines.zoom.us/j/91807556890?pwd=K2ZBN01hRiJQMXFK2FuNE40eWJ6UT09)

**June**

**11th - 14th:** 10th Annual International Course on Geotechnical and Structural Monitoring (IcGSM)  
[https://www.geotechnicalmonitoring.com/](https://www.geotechnicalmonitoring.com/)

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*For More Info on all NATIONAL EVENTS, Please go to: [https://aipg.org/events/event_list.asp](https://aipg.org/events/event_list.asp)*
Water Resources Engineer
City of Santa Maria
Santa Maria, CA (On-Site)

Geological Research Specialist
Indiana University
Bloomington, IN (On-Site)
https://hrms.indiana.edu/psc/PH1PRD_PUB/EMPLOYEE/HRMS/c/HRS_HRAM_FL.HRS_CG_SEARCH_FL.GBL?Page=HRS_APP_JBPST&Action=U&FOCUS=Applicant&SiteId=1&JobOpeningId=310638&PostingSeq=1&

General Support Assistant - POOL
University of Kansas
Lawrence, KS (On-Site)
https://sjobs.brassring.com/TGnewUI/Search/home/HomeWithPreLoad?PageType=JobDetails&partnerid=25752&siteid=5541&jobId=4888333&Codes=12#jobDetails=4888333_5541

YOU Want this Job

Medical Laboratory Sciences Associate Division Chief
University of Utah
Salt Lake City, UT (On-Site)
https://utah.peopleadmin.com/postings/157268

Geologist
USGS
Golden, CO (On-Site)
https://www.usajobs.gov/job/780739200#summary

Supervisory Civil Engineer (Hydraulics)/Hydrologist/Geologist (Interdisciplinary)
Bureau of Reclamation
Boise, ID (On-Site)
https://www.usajobs.gov/job/784064100

Geological Research Specialist
University of Kansas
Lawrence, KS (On-Site)
https://sjobs.brassring.com/TGnewUI/Search/home/HomeWithPreLoad?PageType=JobDetails&partnerid=25752&siteid=5541&jobId=4888333&Codes=12#jobDetails=4888333_5541

For ALL career opportunities please visit: https://aipg-jobs.careerwebsite.com/
Word Sudoku

Word sudoku is much like number sudoku, only there are no numbers in the puzzle, but words. The rules are still the same as the normal sudoku puzzles. Working with words provides a little extra challenge but can still be fun just the same. Good luck!

**WORDS LIST:**

<table>
<thead>
<tr>
<th>Lahar</th>
<th>Mica</th>
<th>Oolite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Porous</td>
<td>Quartz</td>
<td>Rift</td>
</tr>
<tr>
<td>Syncline</td>
<td>Tectonic</td>
<td>Porous</td>
</tr>
</tbody>
</table>

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Geology Word Search: D thru F Geology

**WORDS LIST:**

<table>
<thead>
<tr>
<th>Deformation</th>
<th>Deposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desert</td>
<td>Diamond</td>
</tr>
<tr>
<td>Diopside</td>
<td>Dolomite</td>
</tr>
<tr>
<td>Earthquake</td>
<td>Emerald</td>
</tr>
<tr>
<td>Epidote</td>
<td>Erionite</td>
</tr>
<tr>
<td>Eruption</td>
<td>Expansion</td>
</tr>
<tr>
<td>Extrusive</td>
<td>Fault</td>
</tr>
<tr>
<td>Fayalite</td>
<td>Feldspar</td>
</tr>
<tr>
<td>Fluorite</td>
<td>Fold</td>
</tr>
<tr>
<td>Foliation</td>
<td>Fossil</td>
</tr>
</tbody>
</table>

Answers will appear on the following issue of Faulted Digest.
**Word Sudoku**

<table>
<thead>
<tr>
<th>Granite</th>
<th>Delta</th>
<th>Ice</th>
<th>Erosion</th>
<th>Ash</th>
<th>Joint</th>
<th>Basalt</th>
<th>Fold</th>
<th>Calcite</th>
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<td>Ice</td>
<td>Calcite</td>
<td>Ash</td>
<td>Delta</td>
</tr>
</tbody>
</table>

**Geology Word Search: A thru C Geology**

```
ACCLAYCOARSE. . . . A  
. L E . . . . . C A L C I T E L  
. H . . . E A S E O L O O S L H A  
A B R A S I O N T A S N D A L A K L  
```
AIPG Purposes

The purposes of the Institute shall include:

- advance the geological sciences and the profession of geology;
- establish qualifications for professional geologists;
- certify the qualifications of specific individual Member geologists to the public;
- promote high standards of ethical conduct among its Members and Adjuncts, and within the profession of geology; and
- represent, and advocate for, the geological profession before government and the general public.

What AIPG does . . .

- Professional Certification - Certifies geologists based on their Competence, Integrity, and Ethics.
- Categories of Membership - Certified Professional Geologist, Professional, Early Career Professional, Associate, and Student.
- Ombudsman - Intervenes with regulatory boards and agencies on behalf of individual geologists, at the geologist's request. Information also is disseminated in cooperation with the Association of State Boards of Geologists.
- Lobbying - Presents testimony and position papers to Federal and State legislators and agencies on matters affecting geologists and geologists' employment opportunities. Exhibits at the National Conference of State Legislators.
- Liability Insurance - Provides access to insurance for errors and omissions, designed specifically for geologists.
- Continuing Education - Through online learning, publications, seminars, short courses, and field trips, provides educational opportunities for geologists, other scientists, engineers, and the general public.
- Supplemental, Life, and Accident Insurance - Provides access to a full line of supplemental, life, and accident insurance.
- International Comity - Through agreements with professional societies in other countries, provides access for its Members to professional registration, certification, or chartered status in those countries.
- State and Section Activities - State and regional sections work on local political issues and the professional status of geologists in their geographic areas. The Institute's sections around the country hold regular meetings, featuring educational programs covering important subjects of interest to professional geologists. One of the most worthwhile benefits of AIPG Membership is the opportunity to make personal contact at the local and State level; to meet fellow geologists; and to learn from them.
Call For Sponsors

Would you like all AIPG Colorado members to learn more about what you do? Here’s your chance!

For More Info, Click Here:
SITE CHARACTERIZATION
Membrane Interface Probe (MIP, MiHpt)
Optical Image Profiler (OIP-UV, OIP-G, OiHpt)
Hydraulic Profile Tool (HPT)
3D Data Visualization & Modeling
Ground Water Profiler (HPT-GWP)

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Clean-Inject In-Situ Injection Systems
Unique Top-Down Lateral Injection Tooling
Hydraulic Emplacement of Sand/ZVI
Permeability Enhancement for AS/SVE
ISCO, ISCR, ISBR

GEOTECHNICAL & ENVIRONMENTAL DRILLING
Direct-Push & Auger
Geoprobe Dual Technology Rigs
Dual-Tube Coring Systems
Discrete Ground Water Sampling
Monitor Wells, Piezometers

SOIL GAS - VAPOR INTRUSION
Active & Passive Soil Gas, Sub-Slab
Soil Gas Sampling/Monitoring
Tier-2 Landfill NMOC Surveys
Stray Gas Migration