

Vol. 2 Issue 1 January – March 2024

FAULTED DIGEST

**AIPG Colorado
Section Publication**



Vol. 2 Issue 1 January – March 2024

Welcoming Spring in Colorado

Brought to you by AIPG Colorado



President's *The Message*

March 2024

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>.

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.

Advertising Information: https://aipg-cosection.org/form.php?form_id=21.

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



2024 Executive Committee



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Friday 5:30 pm – 9:00 pm
April 12, 2024

SpringHill Suites by Marriott
1190 Auraria Parkway
Denver CO 80204

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](#)

Silicates

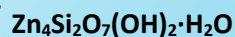
Hemimorphite

“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/cm ³ (Measured)



APR

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

21st: North Central/South Central GSA Section Meeting

26th: Joint AIPG IL-IN Section and University of Illinois Geology Department Field Trip

MAY

15th: Cordilleran/Rocky Mountain Section GSA Meeting

16th: Institute on Lake Superior Geology (ILSG)

17th: AIPG National Executive Committee Monthly Virtual Check-In Meeting

19th: Geological Association of Canada

2024 Grand Geological Tour of Scotland

21st: Discoveries Conference

24th: European Federation of Geologists (EFG)

30th: Geoscientists Canada

JUN

1st: Association of American State Geologists (AASG)

2nd: Battelle Chlorinated Conference

11th: Michigan Section 13th Environmental Risk Management Workshop

21st: AIPG National Executive Committee Monthly Virtual Check-In Meeting

23rd: 58th US Rock Mechanics / Geomechanics Symposium

JUL



19th: AIPG National Executive Committee Monthly Virtual Check-In Meeting





STEEL



20th: AIPG National Executive Committee Monthly Virtual Check-In Meeting



AUG

10th: 2024 AIPG National Conference

16th: AIPG National Executive Committee Monthly Virtual Check-In Meeting

COLORADO EVENTS

April

9th: CEMS April Luncheon

To register or get more info, click [here](#)

9th: AIPG Webinar

To register or get more info, go to

<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>

19th: GEOLOGY OF PIGMENTS: Our Colorful Earth

To register or get more info, go to

https://midwestgeo.com/webinars/geologyofpigments-04192024.php?utm_source=mailchimp&utm_medium=email&utm_campaign=03112024GOP

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&srctype=detail&category=Field%20Trips&refno=325>

15th: CSM Van Tuyl Lectures

Register at

<https://mines.zoom.us/j/91807556890?pwd=K2ZBN01hRIJQMxFQK2FuNE40eWJ6UT09>

June

11th - 14th: 10th Annual International Course on Geotechnical and Structural Monitoring (IcGSM)

<https://www.geotechnicalmonitoring.com/>

EMPLOYMENT

Geologist

USGS

Golden, CO (On-Site)

<https://www.usajobs.gov/job/780739200#summary>

Medical Laboratory Sciences

Associate Division Chief

University of Utah

Salt Lake City, UT (On-Site)

<https://utah.peopleadmin.com/postings/157268>

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

Water Resources Engineer

City of Santa Maria

Santa Maria, CA (On-Site)

<https://www.governmentjobs.com/careers/santamaria/jobs/4450498/water-resources-engineer-senior-civil-engineer?page=3&pagetype=jobOpportunitiesJobs>

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&

Supervisory Civil Engineer (Hydraulics)/Hydrologist/Geologist (Interdisciplinary)

Bureau of Reclamation

Boise, ID (On-Site)

<https://www.usajobs.gov/job/784064100>

Project Scientist / Geologist

AEI Consultants

Walnut Creek, CA (Hybrid)

<https://recruiting.paylocity.com/Recruiting/Jobs/Details/2312757>

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:

Lahar	Mica	Oolite
Porous	Quartz	Rift
Syncline	Tectonic	Porous

	Mica		Rift			Oolite	Tectonic	Porous
	Volcano		Syncline	Porous	Tectonic	Quartz		
	Rift	Porous			Quartz	Lahar	Volcano	
Volcano	Oolite			Syncline	Mica	Tectonic		
	Quartz	Syncline			Oolite	Mica		Lahar
	Tectonic	Lahar		Quartz		Syncline	Oolite	
	Lahar		Quartz	Rift	Porous	Volcano		
Rift					Lahar	Porous	Quartz	Mica
Quartz		Tectonic	Volcano	Mica				Oolite

Geology Word Search: D thru F Geology

K	L	D	O	Z	F	E	F	O	S	S	I	L	D	F	F	W	G
N	J	E	G	D	E	L	M	D	A	J	U	E	E	E	A	F	P
E	F	F	X	D	I	R	U	E	X	N	V	F	P	A	U	E	D
X	E	O	W	T	I	O	I	O	R	M	Q	O	O	R	L	L	O
P	R	R	L	E	R	A	P	O	R	A	D	L	S	T	T	D	L
A	U	M	Z	I	P	U	M	S	N	I	L	D	I	H	Q	S	O
N	P	A	H	F	A	I	S	O	I	I	T	D	T	Q	Y	P	M
S	T	T	E	Y	O	T	D	I	N	D	T	E	I	U	Z	A	I
I	I	I	H	N	U	M	I	O	V	D	E	E	O	A	F	R	T
O	O	O	Q	C	P	T	L	O	T	E	X	K	N	K	W	I	E
N	N	N	L	K	O	A	R	U	N	E	D	E	S	E	R	T	H
H	G	K	T	L	Q	H	F	A	Y	A	L	I	T	E	T	K	I

WORDS LIST:

Deformation	Deposition
Desert	Diamond
Diopside	Dolomite
Earthquake	Emerald
Epidote	Erionite
Eruption	Expansion
Extrusive	Fault
Fayalite	Feldspar
Fluorite	Fold
Foliation	Fossil

FUN & PUZZLES VOLUME 1 ISSUE 4 ANSWERS

Word Sudoku

Granite	Delta	Ice	Erosion	Ash	Joint	Basalt	Fold	Calcite
Fold	Basalt	Calcite	Delta	Ice	Granite	Erosion	Joint	Ash
Ash	Joint	Erosion	Calcite	Fold	Basalt	Granite	Delta	Ice
Basalt	Ice	Ash	Granite	Joint	Erosion	Delta	Calcite	Fold
Delta	Fold	Granite	Ice	Basalt	Calcite	Ash	Erosion	Joint
Erosion	Calcite	Joint	Ash	Delta	Fold	Ice	Basalt	Granite
Calcite	Erosion	Delta	Joint	Granite	Ash	Fold	Ice	Basalt
Ice	Ash	Fold	Basalt	Calcite	Delta	Joint	Granite	Erosion
Joint	Granite	Basalt	Fold	Erosion	Ice	Calcite	Ash	Delta

Geology Word Search: A thru C Geology

A	C	C	L	A	Y	C	O	A	R	S	E	.	.	.	.	A
.	L	E	.	.	.	.	.	.	.	C	A	L	C	I	T	E
.	B	I	M	A	.	C	.	B	B	.	.	.	.	.	.	L
.	E	.	G	E	B	A	A	B	E	A	.	C	.	.	.	U
.	A	.	.	N	N	Y	N	R	O	D	T	B	H	A	.	V
.	C	.	.	.	M	T	S	D	B	U	L	H	A	A	S	I
.	H	.	.	.	.	E	A	S	E	O	L	O	O	S	L	H
A	B	R	A	S	I	O	N	T	A	S	N	D	A	L	A	K
.	A	N	G	U	L	A	R	T	I	L	I	A	E	D	I	L
.	.	.	B	E	D	D	I	N	G	O	.	T	T	R	.	T
.	C	O	L	U	M	N	A	R	.	.	N	.	E	E	.	H
.	C	O	A	L	C	O	M	P	A	C	T	I	O	N	.	.

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.

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chance!

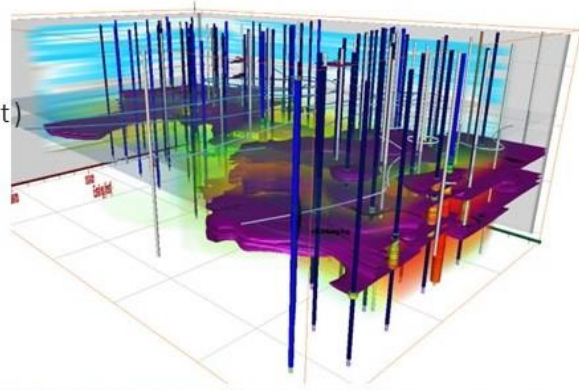
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https://aipg-cosection.org/form.php?form_id=21



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Hydraulic Profile Tool (HPT)
3D Data Visualization & Modeling
Ground Water Profiler (HPT-GWP)



REMEDIATION

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

Vista GeoScience
Advanced Site Characterization & Optimized In Situ Remediation

130 Capital Dr. STE A, Golden, CO 80401
303-277-1694
Request for Proposal Contact:
RFP@vistageoscience.com

Logos: IAP (ITRC Industry Affiliates Program), INTERSTATE COUNCIL ITRC TECHNOLOGY REGULATORY, IPEC AUTHORIZED PROVIDER, SafeGulf, DISA, NGWA CERTIFIED CWD, Avetta.