



# Arizona Geological Society Newsletter

---

FEBRUARY 2020

## March 12th, 2020 Dinner Meeting

Event: AGS March Gathering

Where: Brother John's – Beer, Bourbon & BBQ

1801 N. Stone Avenue (ample parking west of building)

When: **Thurs. 12 March. 6:00 - 8:00 p.m.**



**If you are interested in sponsoring future AGS dinner meetings, please contact:**

**[info@arizonageologicalsoc.org](mailto:info@arizonageologicalsoc.org)**

Continued on Page 2

**AGS Members:**

March's dinner meeting will be hosted at a new venue and on a new day.

The AGS Executive Committee has gotten off to a slow start in 2020 and we have experienced a change in leadership. AGS President Jeff Bickel resigned earlier in February and Jon Whittier, hydrogeologist, was elected by the AGS Executive Committee per AGS Bylaws article #7 to replace Jeff as AGS President.

As Jeff takes up a new position we wish Jeff and his family well in their move to Nevada.

Thursday night's gathering will give us a chance to greet, meet, network, and discuss the 2020 AGS Program – dinner venue, speakers and field trips.

This is a great opportunity for our AGS student members and we encourage them to attend.

We hope to see you there.

Respectfully,

**AGS Executive Committee****Officers**

Jon Whittier, President	Jeff Bickel, VP of Programs
Mike Conway, Treasurer	Colin Campbell, Vice Secretary

**Councilors**

Dan Aiken	Dennis Olson
Carson Richardson	Troy Tittlemier
Matthew Wetzel	William Whitty

## Society Announcements

### **AGS Executive Committee 2020**

The Arizona Geological Society is seeking volunteers for this year's AGS Executive Committee. We are looking for a:

- **Vice Treasurer**
- **Secretary**
- **Vice President of Marketing**

For more information, please contact us at:

**[info@arizonageologicalsoc.org](mailto:info@arizonageologicalsoc.org)**

### **Student Dinner Sponsor for 2020**

Arizona Geological Society is grateful to Skyline Assayers & Laboratories for their generous support of our student members!

Skyline Assayers & Laboratories has sponsored student dinners for the 2020 AGS monthly meetings.

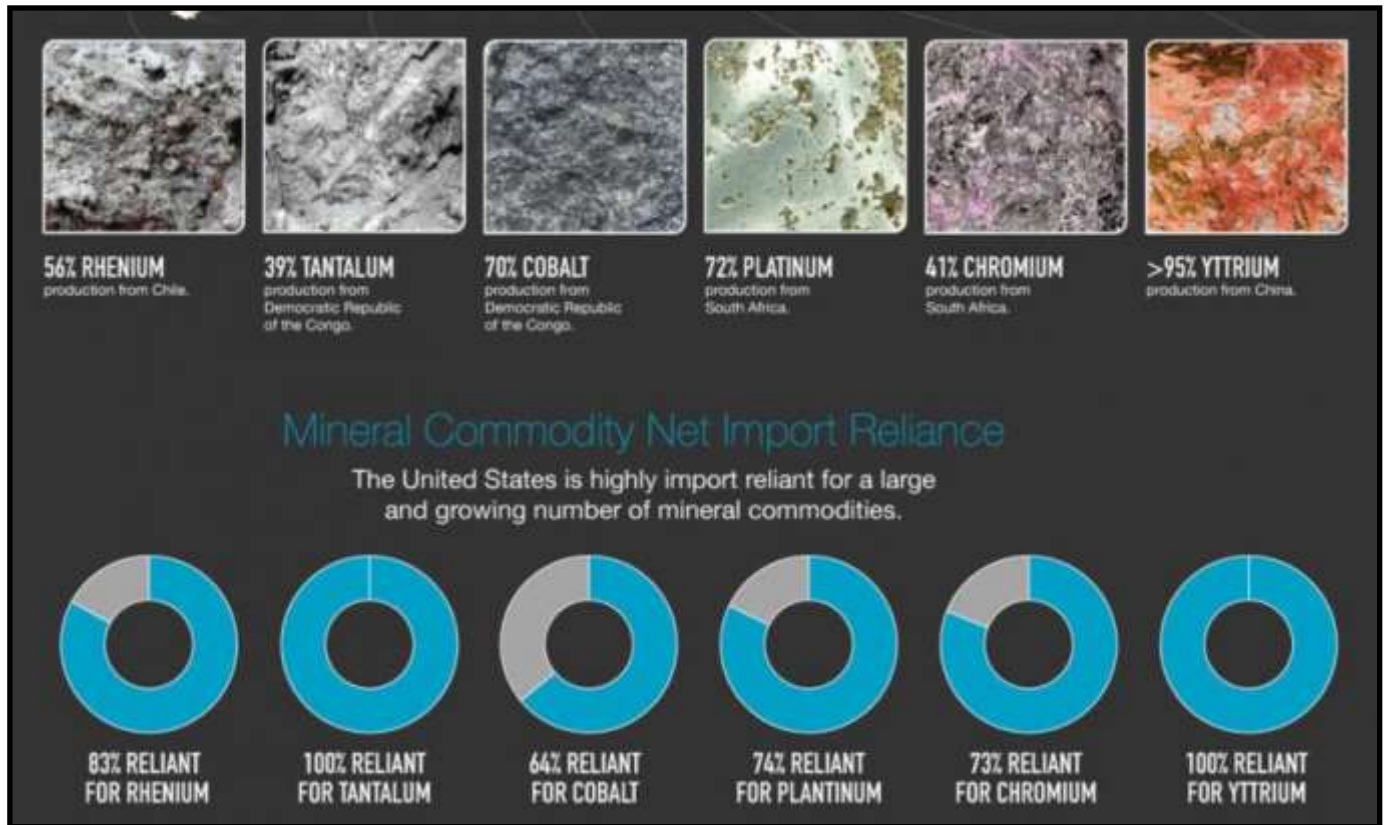


If you are interested in sponsoring one of our dinner meetings, please contact:

**[info@arizonageologicalsoc.org](mailto:info@arizonageologicalsoc.org)**

## USGS Mineral Commodities Summary 2020: Arizona's piece of the pie

by Geology e-Magazine, Arizona Geological Survey



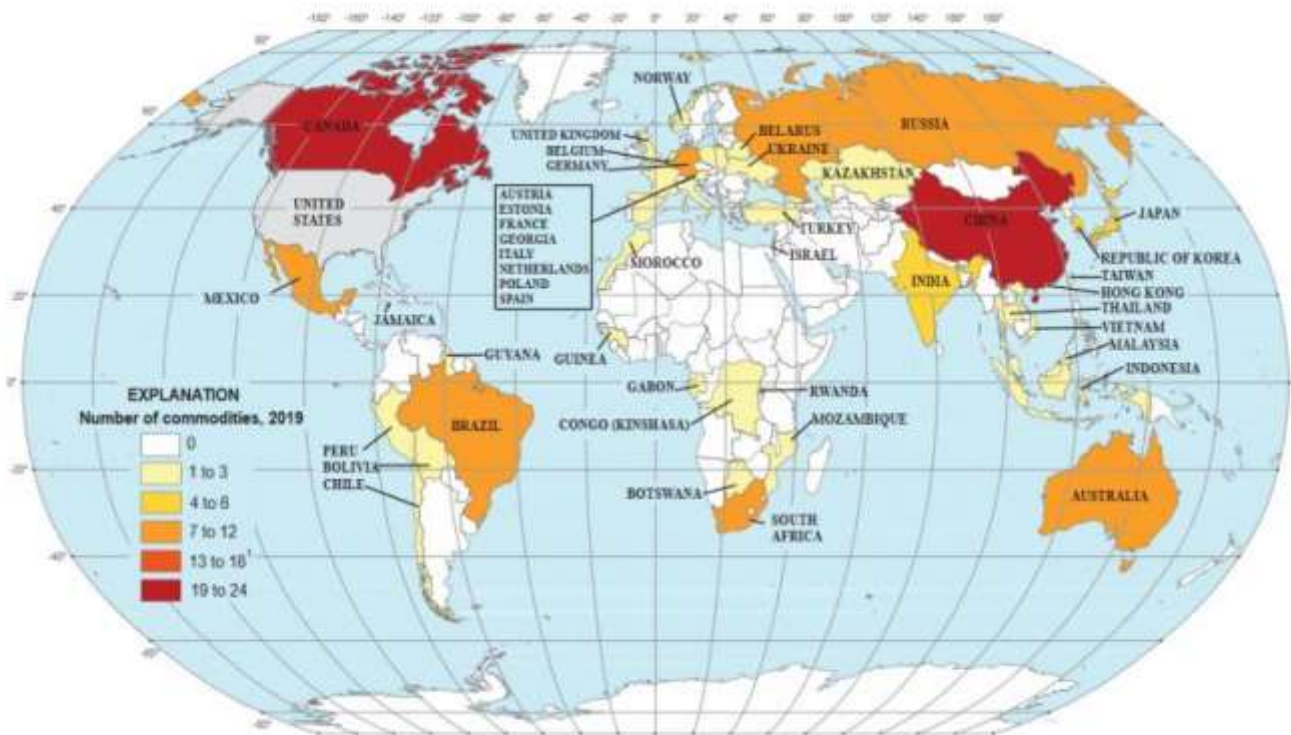
The U.S. Geological Survey's 42nd annual 'Mineral Commodity Summary' catalogs global and U.S. mineral production for 2019. The estimated total value of nonfuel mineral production in the U.S. was \$86.3 billion, a 3% increase from 2018. Production of metals in 2019 was \$28.1 billion, nearly identical to that of 2018. At \$58.2 billion, industrial mineral production accounted for 67% of non-fuel mineral production in the U.S.

Export of raw mineral materials was \$3.7 billion, an increase of 27% from 2018. Collectively, domestic raw and recycled mineral material production was \$770 billion; of this iron and steel scrap contributed \$17.6 billion.

Imported minerals made up more than one-half of the U.S. consumption for 46 nonfuel mineral commodities; 17 mineral commodities (e.g., arsenic, graphite, manganese, and fluorspar) rely wholly on imports. Canada and China dominate mineral imports to the U.S., followed by Australia, Russia, Germany, South Africa, and Mexico.

On another front, the USGS reported on the risk involved in the event of supply disruption of essential mineral commodities to the U.S. manufacturing sector. The USGS identified 23 mineral commodities, including, some rare earth elements, cobalt, niobium and tungsten, among others, that pose the highest risk of disrupting U.S. manufacturing.

**MAJOR IMPORT SOURCES OF NONFUEL MINERAL COMMODITIES FOR WHICH THE UNITED STATES WAS GREATER THAN 50% NET IMPORT RELIANT IN 2019**



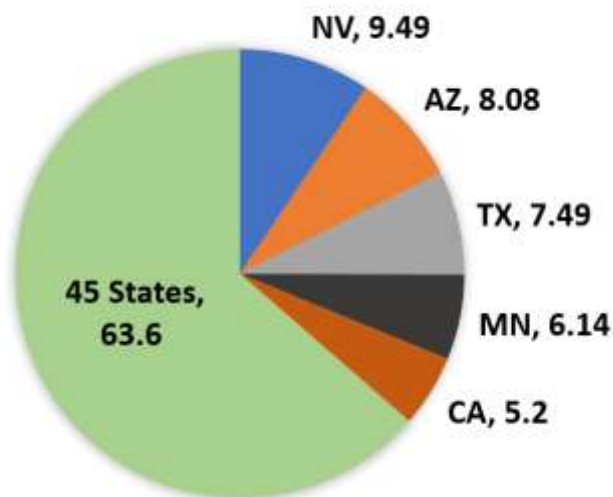
<sup>1</sup>In 2019, no countries qualified for the "13 to 18 commodities" category.



## How Arizona Mineral Production Fared in 2019

Each year we peruse the Mineral Commodity Summary for insight into how Arizona mineral production compares with that of other States. Arizona followed Nevada as the #2 state in U.S. nonfuel mineral production (Pie diagram). Nevada mineral production was \$8,190 million – 9.5% of U.S. total of nonfuel mineral production; Arizona weighted in with 8.08% of US production. Arizona non-fuel mineral production in 2019 reached \$6,970 million. Texas followed closely on the heels of Arizona (\$6,470 million), with Minnesota and California rounding out the top five producing states.

% NONFUEL MINERAL PRODUCTION BY STATE



## Principal mineral commodities of Arizona

Principal nonfuel mineral products of Arizona include: cement (portland), copper, molybdenum concentrates, sand & gravel, crushed stone, dimension stone, bentonite, clay, gypsum, helium, industrial sand, perlite, pumice, salt, and zeolites. For more than 100 years Arizona has led the U.S. in copper production. In 2019 Arizona produced 68% of all copper in the U.S., worth roughly \$5.3 billion. Molybdenum byproducts were recovered at four Arizona copper mines: Bagdad, Morenci, Pinto Valley and Sierrita.

Arizona ranks third in the value of construction sand and gravel with ~\$550 million in production. Crushed stone produced in Arizona ranked 31st with over \$100 million in production. Arizona ranked 1st in value of gemstones produced in the U.S.

For additional information on Arizona mines operating in 2019, see ‘Directory of Active Mines in Arizona: FY 2019’ by Richardson and others 2019. [http://repository.azgs.az.gov/uri\\_gin/azgs/dlio/1916](http://repository.azgs.az.gov/uri_gin/azgs/dlio/1916)

Resources:

- Briggs, D.F., 2017, [History of the Silver Bell Mining District, Pima County, Arizona](#). Arizona Geological Survey Contributed Report CR-17-B, 26 p.
- Richardson, C.A., Swartzbaugh, L., Evans, T. and Conway F.M., 2019, [Directory of Active Mines in Arizona: FY 2019](#) (). Arizona Geological Survey Open-File Report-19-04, 12 pages. Interactive Arizona Mines Map @ <https://tinyurl.com/AZ-ActiveMinesMap>
- U.S. Geological Survey, 2020, [Mineral commodity summaries 2020: U.S. Geological Survey](#), 200 p., <https://doi.org/10.3133/mcs2020>.
- US Geological Survey News Release, 2020, [New Methodology Identifies Mineral Commodities Whose Supply Disruption Poses the Greatest Risk to the U.S.](#) Manufacturing Sector. Released 21 Feb. 2020.



ARIZONA GEOLOGY  
**e-MAGAZINE**

**Read original blog post here:**

<https://blog.azgs.arizona.edu/blog/2020-02/usgs-mineral-commodities-summary-2020-arizonas-piece-pie>



Come see us at our new expanded location - 7960 S Kolb Rd, Tucson, AZ 85756

- Column Leach Testing
- In-House Fire Assay
- Base Metal Assays
- Geochemical Analysis
- High Grades and Concentrates
- Partial Extraction Techniques for Cu,Mo
- AA, ICP-OES, ICP-MS Instrumentation
- ISO 17025 Accredited Analyses





[www.skylinelabs.com](http://www.skylinelabs.com)  
Tucson Lab serving SW USA & Mexico  
520-622-4836

### AGS MEMBERSHIP APPLICATION OR RENEWAL FORM

YOU CAN RENEW OR SIGN UP as a new member and pay online. Please go to our website, arizonageologicalsoc.org. Or use the form below if you are more comfortable with the old school approach.

Please mail check with membership form to: Arizona Geological Society, PO Box 40952, Tucson, AZ 85717

Dues (check box)  1 year: \$35;  full-time student (membership is free)

NEW MEMBER or RENEWAL? (circle one) Date of submittal \_\_\_\_\_

Name: \_\_\_\_\_ Position: \_\_\_\_\_

Company: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Street: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Work Phone: \_\_\_\_\_ Home Phone: \_\_\_\_\_

Fax Number: \_\_\_\_\_ Cellular Phone: \_\_\_\_\_

E-mail: \_\_\_\_\_ Check this box if you do not have an email address

***All newsletters will be sent by email. If you do not have an email address, we will mail a hard copy to you, but we cannot guarantee timeliness.***

If registered geologist/engineer, indicate registration number and State: \_\_\_\_\_

Enclosed is a \_\_\_\_\_ tax-deductible contribution to the  J. Harold Courtright or the  M. Lee Allison Scholarship Funds.