

Michael S. (Mickey) Fulp Contact@MercenaryGeologist.com

www.MercenaryGeologist.com Twitter: @mercenarygeo

Michael S. (Mickey) Fulp, M.Sc., C.P.G.



Disclaimer

I am not a certified financial analyst, broker, or professional qualified to offer investment advice. Nothing in any report, commentary, this website, interview, and other content constitutes or can be construed as investment advice or an offer or solicitation or advice to buy or sell stock or any asset or investment. All of my presentations should be considered an opinion and my opinions may be based upon information obtained from research of public documents and content available on the company's website, regulatory filings, various stock exchange websites, and stock information services, through discussions with company representatives, agents, other professionals and investors, and field visits. My opinions are based upon information believed to be accurate and reliable, but my opinions are not guaranteed or implied to be so. The opinions presented may not be complete or correct; all information is provided without any legal responsibility or obligation to provide future updates. I accept no responsibility and no liability, whatsoever, for any direct, indirect, special, punitive, or consequential damages or loss arising from the use of my opinions or information. The information contained in a report, commentary, this website, interview, and other content is subject to change without notice, may become outdated, and may not be updated. A report, commentary, this website, interview, and other content reflect my personal opinions and views and nothing more. All content of this website is subject to international copyright protection and no part or portion of this website, report, commentary, interview, and other content may be altered, reproduced, copied, emailed, faxed, or distributed in any form without the express written consent of Michael S. (Mickey) Fulp, MercenaryGeologist.com LLC.

Copyright © 2020 Mercenary Geologist. All Rights Reserved.

Michael S. (Mickey) Fulp, M.Sc., C.P.G.



How Can We Remedy America's Metals, Minerals, & Materials Misery?

AEMA Annual Meeting December 1, 2020

Michael S. (Mickey) Fulp, M.Sc., C.P.G.



America's Net Import Reliance 2019

Commodity	Percent	Major import sources (2015–18) ²
ARSENIC (all forms)	100	China, Morocco, Belgium
ASBESTOS	100	Brazil, Russia
CESIUM	100	Canada
FLUORSPAR	100	Mexico, Vietnam, South Africa, China
GALLIUM	100	China, United Kingdom, Germany, Ukraine
GRAPHITE (natural)	100	China, Mexico, Canada, India
INDIUM	100	China, Canada, Republic of Korea, Taiwan
MANGANESE	100	South Africa, Gabon, Australia, Georgia
MICA, sheet (natural)	100	China, Brazil, Belgium, Austria
NEPHELINE SYENITE	100	Canada
NIOBIUM (columbium)	100	Brazil, Canada, Russia, Germany
RARE EARTHS ³ (compounds and metal)	100	China, Estonia, Japan, Malaysia
RUBIDIUM	100	Canada
SCANDIUM	100	Europe, China, Japan, Russia
STRONTIUM	100	Mexico, Germany, China
TANTALUM	100	Rwanda, Brazil, Australia, Congo (Kinshasa)
YTTRIUM	100	China, Estonia, Republic of Korea, Japan
GEMSTONES	99	India, Israel, Belgium, South Africa
BISMUTH	96	China, Belgium, Mexico, Republic of Korea
TELLURIUM	>95	Canada, China, Germany
VANADIUM	94	Austria, Canada, Russia, Republic of Korea
TITANIUM MINERAL CONCENTRATES	93	South Africa, Australia, Canada, Mozambique
POTASH	91	Canada, Russia, Belarus, Israel
DIAMOND (industrial stones)	88	India, South Africa, Botswana, Australia
BARITE	87	China, India, Morocco, Mexico
ZINC (refined)	87	Canada, Mexico, Australia, Peru
TITANIUM (sponge)	86	Japan, Kazakhstan, Ukraine, China, Russia
ANTIMONY (metal and oxide)	84	China, Thailand, Belgium, India
RHENIUM	82	Chile, Germany, Kazakhstan, Canada
STONE (dimension)	81	China, Brazil, Italy, Turkey
COBALT	78	Norway, Japan, China, Canada

Michael S. (Mickey) Fulp, M.Sc., C.P.G.



From A to Z: Arsenic to Zirconium

TIN (refined)	77	Indonesia, Malaysia, Peru, Bolivia
ABRASIVES, fused Al oxide (crude)	>75	China, Hong Kong, France, Canada
BAUXITE	>75	Jamaica, Brazil, Guinea, Guyana
CHROMIUM	72	South Africa, Kazakhstan, Russia
PEAT	70	Canada
SILVER	68	Mexico, Canada, Peru, Poland
GARNET (industrial)	64	Australia, India, South Africa, China
PLATINUM	64	South Africa, Germany, Italy, Russia
ALUMINA	54	Brazil, Australia, Jamaica, Canada
MAGNESIUM COMPOUNDS	52	China, Canada, Australia, Hong Kong
ABRASIVES, silicon carbide (crude)	>50	China, South Africa, Netherlands, Hong Kong
GERMANIUM	>50	China, Belgium, Germany, Russia
IODINE	>50	Chile, Japan
IRON OXIDE PIGMENTS (natural and synthetic)	>50	China, Germany, Brazil, Canada
TUNGSTEN	>50	China, Bolivia, Germany, Spain
DIAMOND (industrial dust, grit, and powder)	50	China, Ireland, Republic of Korea, Russia
CADMIUM	<50	China, Australia, Canada, Peru
MAGNESIUM METAL	<50	Israel, Canada, Mexico, United Kingdom
NICKEL	47	Canada, Norway, Australia, Finland
SILICON (metal and ferrosilicon)	41	Russia, Brazil, Canada
MICA, scrap and flake (natural)	37	Canada, China, India, Finland
COPPER (refined)	35	Chile, Canada, Mexico
PALLADIUM	32	South Africa, Russia, Germany, Italy
LEAD (refined)	30	Canada, Mexico, Republic of Korea, India
SALT	29	Chile, Canada, Mexico, Egypt
PERLITE	28	Greece, China, Mexico
LITHUM	>25	Argentina, Chile, China
BROMINE	<25	Israel, Jordan, China
SELENIUM	<25	China, Philippines, Mexico, Germany
ALUMINUM	22	Canada, Russia, United Arab Emirates, China
IRON and STEEL	21	Canada, Brazil, Republic of Korea
ter and the second s		

Michael S. (Mickey) Fulp, M.Sc., C.P.G.



2019 Net Import Reliance (2018)

USGS Tracks 93 (97) Mineral Commodities

- 100 % Dependent on 17 (21)
- $\geq 50 \%$ Dependent on 30 (29)
- $\geq 25 \%$ Dependent on 11 (14)
- $\leq 25 \%$ Dependent on 18 (17)
- Net Exporter of 17

Michael S. (Mickey) Fulp, M.Sc., C.P.G.

www.MercenaryGeologist.com

(16)



35 Critical Minerals: China, Russia, S Africa

He Li, Be, C, F Mg, Al K, Sc, Ti, V, Cr, Mn, Co, Ga, Ge, As Rb, Sr, Zr, Nb, Re, PGMs, In, Sn, Sb, Te Cs, Ba, REEs, Hf, Ta, W, Bi

U

Michael S. (Mickey) Fulp, M.Sc., C.P.G.



How Did We Sink into This Quagmire?

Deep State Government

- Executive Branch: Clinton Bush Jr Obama
- Legislative Branch : Mineral Withdrawals
- Judicial Branch: Environmental Lawsuits

Mining Companies

- Insufficient & Ineffective Lobbying
- Domestic Opposition: Moved Offshore

Michael S. (Mickey) Fulp, M.Sc., C.P.G.



What Gov't Should Not Do

Legislative Branch:

- Fund More Committees, Studies, & Reports
- Onerous Revisions of Mining Law of 1872 Executive Branch:
- Commission More Multi Agency Bureaucracies Judicial Branch:
- Allow Lawyers to Make Work for More Lawyers

Michael S. (Mickey) Fulp, M.Sc., C.P.G.



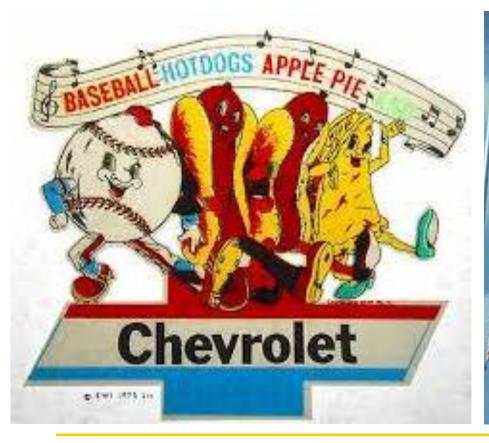
The Choice Is Yours, Mine, & Ours ...



Michael S. (Mickey) Fulp, M.Sc., C.P.G.



The Choice Is Yours, Mine, & Ours ...





Michael S. (Mickey) Fulp, M.Sc., C.P.G.



Monday Morning Musings from Mickey the Mercenary Geologist



Michael S. (Mickey) Fulp, M.Sc., C.P.G.