

Matthew Dunlop III

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Dept. of Geology and Geophysics • University of Wyoming • 1000 E University Ave. • Laramie, WY 82071

EDUCATION

Ph.D. Geology (in progress) University of Wyoming

Research: Investigating physical and chemical processes influencing igneous layering in the Dufek intrusion, Antarctica

M.S. Geology Indiana University, 2013

Research: Examined the relationships between the Eagle Ni-Cu-PGE deposit and surrounding mafic dikes and intrusions, and evaluated implications for petrogenesis, Midcontinent Rift evolution, and magmatic sulfide exploration

B.S. Geology State University of New York College at Potsdam, 2011

Minors: Arabic Studies, Wilderness Education

Research: Investigated mineralogy, petrology, and potential ore-forming processes of the Owls Head magnetite prospect, New York

PROFESSIONAL EXPERIENCE

University of Wyoming, Laramie, WY

Teaching Assistant (August 2013-present):

GEOL 4610 Structural Geology and Tectonics

Indiana University, Bloomington, IN

Associate Instructor (August 2012-May 2013):

G105 Earth Our Habitable Planet (Fall 2012), G417 Optical Mineralogy (Fall 2012), G103 Earth Science: Materials and Processes

Rio Tinto Exploration/Kennecott Eagle Minerals Company, Ishpeming, MI

Contract Field/Exploration Geologist (May 2012-August 2012):

Field mapping, generative exploration/prospecting, sample preparation, core logging, Tromino passive seismic survey

Society of Economic Geologists

Cu-Ni-PGE Short Course, Hilton Minneapolis, Minneapolis, MN (October 7-8, 2011)

Barrick Gold Exploration Inc., Elko, NV

Contract Exploration Geologist (June 2011-August 2011)

Generative exploration/prospecting, sample preparation

SUNY Potsdam, Potsdam, NY

Teaching Assistant (2010):

GEOL 103 Physical Geology (Fall 2010)

Wilderness Education Trip Leader (January 2009-May 2011):

WILD 240 Backpacking trip leader, assistant climbing instructor, SUNY Potsdam Leadership and Challenge Center manager

SKILLS

Relevant Analytical Equipment:

- Petrographic Microscope
- Electron Microprobe
- X-ray diffractometer
- Familiarity with Tromino passive seismometer
- Familiarity with portable seismometer
- Familiarity with electrical resistivity tomography

Computer Software:

- Windows OS
- Microsoft Office
- CorelDraw
- LEICA petrographic imaging software.
- Familiarity with Adobe CS6
- Familiarity with Surfer8, SUPCRT, Refract!, Reflect!, and TWQ.

Field Skills:

- Field mapping
- Stream sediment sampling
- Outcrop and float sampling
- Ability to carry out fieldwork over long hours in adverse conditions
- Navigation with map-and-compass or GPS
- Off-road driving
- Mineral exploration
- Sample preparation for a variety of analyses.

Other:

- Leadership skills
- Use of technical climbing and mountaineering equipment
- Backpacking
- Camping
- Backcountry cooking

PUBLICATIONS:

- Dunlop, M. and Kelson, C.R., 2011. Mineralogical and petrological study of an unnamed magnetite prospect, Owls Head Mountain, Franklin County, New York. *Geological Society of America Abstracts with Programs*, Vol. 43, No. 1, p. 59
- Dunlop, M., Ripley, E.M., and Li, C., 2012. A geochemical and petrological study of mafic dikes and intrusions associated with the Eagle Ni-Cu-PGE deposit in the Baraga Basin, Upper Michigan. *Geological Society of America Abstracts with Programs*, Vol. 44, No. 7, p. 600
- Dunlop, M., Ripley, E.M., and Li, C. (2013) Geochemistry and sulfur isotope characteristics of mafic dikes and intrusions associated with the Eagle magmatic Ni-Cu-PGE deposit, Upper Michigan. *GAC-MAC Winnipeg 2013 Program with Abstracts*, Vol. 36, p. 89

REFERENCES

- Dr. Edward M. Ripley**, Indiana University (ripley@indiana.edu) (812)-855-1169
- Dean Rossell**, Rio Tinto Exploration (dean.rossell@riotinto.com) (520)-548-4996
- Gonzalo Mercado**, Barrick South America (gmercado@barrick.com)