CURRICULUM VITAE

**Justin A. Mistikawy**

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## Education

M.S. Geosciences — University of Massachusetts Amherst, 2020

B.S. Geological Science — Boston College, 2017, *with departmental honors*

*Research Interests*: Economic Geology, Structural Geology, Igneous & Metamorphic Petrology, Mineralogy, Microanalysis, Field Geology, Environmental Geochemistry & Metasomatism, GIS.

## Research Experience, Publications, and Technical Reports

**Mistikawy, J.,** and Brown, J., 2023, Buyer Group International Inc., *Technical Memorandum* on Historic New Rambler Pt Deposit, Medicine Bow Mountains, WY.

Brown, J.**,** and, **Mistikawy, J.**, 2023, 1361707 B.C., Ltd., *Technical Memorandum* on Prospective Li Target Areas in SD and WY

**Mistikawy, J.**, 2023, Blue Streak REE Report for Nuvemco, LLC.

Brown, J.**,** and, **Mistikawy, J.**, 2022, Visionary Gold Corp., *Technical Memorandum* on Gold Prospectivity in Central WY,

**Mistikawy, J.,** and Brown, J., 2022, Cracker Jack Resources Pty Ltd., White Hills Soil Sampling Program 2022 Summary

**Mistikawy, J.**, Mackowiak, T., Butler, M. J., Mischenko, I. C., Cernak, R. S., and Richardson, J. B., 2020, Chromium, Manganese, Nickel, and Cobalt mobility and bioavailability from mafic-to-ultramafic mine spoil weathering in western Massachusetts, USA, Environmental Geochemistry and Health, Vol. 42 (10), p. 3263 – 3279

**Mistikawy, J.**, 2020, Seeing through the Ottawan Overprint, Adirondack Mtns, NY: Integrating microstructural analysis, geothermobarometry, and in-situ monazite petrochronology. Master's Thesis advised by Dr. M. L. Williams

Richardson, J. B., and **Mistikawy, J.**, 2019, Report on Cr immobility from ultramafic rock formation in the Cobble Mountain Reservoir Watershed, submitted to *Water Resources, Springfield Water and Sewer Commission, Massachusetts.*

**Mistikawy, J.**, 2017, Garnet geochronology and petrology of the Osgood schist: Implications for graphitization. Undergraduate Thesis advised by Dr. E. F. Baxter

## Professional Experience & Projects

**Shambhala Surface and Underground Exploration 2024,** near Albany, WY – Planned surface sampling and geologic mapping campaign in pertinent mineral exploration areas near the historic New Rambler mine. Planned underground drillholes including orientations, logging forms, sampling protocols, and general oversight.

**Halleck Creek 2023 Drilling,** Wheatland, WY – Provided geologic consulting for REE exploration drilling project including drill rig oversight, core and RC chip logging, sampling, geotechnical logging, sample management and QA/QC, and database management.

**Shambhala Surface Sampling 2023,** near Albany, WY – Led field exploration/sampling campaign near historic New Rambler Pt (Cu-Au) deposit including collection of 240 total soil and rock samples that were successfully assayed by American Assay Labs in NV.

**Eastern Utah Uranium Exploration 2022 – 2023**, White Canyon area, UT – Provided geologic and BLM permitting-related consulting for U/V exploration and resource validation drilling at former underground U/V mines in eastern UT including the Rim Mine, Daneros Mine, and Tony-M Mine.

**WY/SD Li Desktop Study 2023** – Provided geologic consulting via spatial analysis and desktop study of potentially prospective Li deposits in western SD and eastern WY.

**White Hills Soil Sampling 2022**, near Kingman, AZ – Led soil sampling campaign near the Gold Basin area including collection of 462 total soil samples.

**CK Gold Deposit Drilling Program 2022**, near Cheyenne, WY – Provided geologic consulting for Au/Cu exploration drilling project including core and RC chip logging, sampling, sample management, QA/QC, database management, and NI 43-101 technical report assembly.

## Teaching Experience [Teaching Assistantships]

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| Spring 2021 | Introduction to Petrology, University of Wyoming |
| Fall 2020 | Structural Geology & Tectonics, University of Wyoming |
| Fall 2019 | Exploring Future Needs in Geo and Environmental Sciences, University of Massachusetts Amherst |
| Spring 2019 | Introductory Geology Lab, University of Massachusetts Amherst |
| Fall 2018 | Structural Geology, University of Massachusetts Amherst |
| Spring 2018 | Methods in the Geosciences, University of Massachusetts Amherst |
| Fall 2017 | Structural Geology, University of Massachusetts Amherst |

## Professional Conference Abstracts & Presentations

**Mistikawy, J.**, Biasi, J., 2024, A hydrothermal PGE deposit in southeastern WY., Joint Cordilleran and Rocky Mountain Section Meeting, GSA. *Oral presentation*

**Mistikawy, J**. Mackowiak, T., Butler, M. J., Mischenko, I. C., Cernak Sr., R. S., and Richardson, J.B., 2020, Chromium, Manganese, Nickel, and Cobalt mobility and bioavailability from mafic-to-ultramafic mine spoil weathering in western Massachusetts, USA: GSA Annual Meeting, online. *Oral presentation*.

Regan, S. P., Peck, W. H., **Mistikawy, J**., Williams, M. L., Chiarenzelli, J. R., Baird, G. B., and Grover, T. W., 2020, Oblique extension during collisional orogenesis and the architecture of the Adirondack Mountains, southern Grenville Province: GSA Annual Meeting, online. *Co-author*.

**Mistikawy, J**., Williams, M. L., and Regan, S. P., 2019, Timing of deformation and metamorphism of Grenvillian metapelite, Rock and Bear Ponds area, eastern Adirondack Mountains, Ticonderoga, NY: GSA Annual Meeting, Phoenix, AZ. *Oral presentation*.

**Mistikawy, J**., Williams, M. L., and Regan, S. P., 2019, Geology of the Rock Pond region, Pharaoh Lake wilderness area, Essex County, NY: Northeast GSA annual meeting, Portland, Maine. *Poster presentation*.

**Mistikawy, J**., 2018, Garnet geochronology and petrology of the Osgood Schist: Implications for graphitization: Northeast GSA annual meeting, Burlington, VT. *Oral presentation*.

## Research Grants & Awards

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| May 2021 | Lauren A. Wright & Bennie W. Troxel Student Research Award, GSA ($2050) |
| Jan. 2021 | Departmental Graduate Research Grant (University of Wyoming) ($3840) |
| May 2019 | Outstanding Teaching Assistant (UMass Amherst) |
| May 2018 | Elinor Fierman Memorial Award (UMass Amherst) ($501) |
| Mar. 2018 | GSA Graduate Student Research Grant (Grant 12044-18: $1210) |

## Instrument Knowledge

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| Electron probe | WDS and EDS mapping and analysis of elements |
| Scanning electron microscope | EDS observation of elemental distribution |
| Petrographic microscope | Optical observation of geologic materials |
| Thermal ionization mass spectrometry | Isotopic ratio analysis of Sm/Nd in garnet |
| Column chromatography | Ionic extraction/isolation of Sm/Nd from garnet |
| Ground-penetrating radar | Broad geophysical investigation of subsurface |
| X-ray fluorescence spectrometry | WDS analysis of bulk and trace elements |
| Uniaxial compression rig | Constraining rheological properties of rocks |
| Drill corer | Preparation of rock cores for Uniaxial compression |
| Frantz electromagnetic separator | Isolation of geologic materials for analysis |

## Software

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| QGIS & ESRI | Digital cartography and spatial analysis |
| Theriak-Domino | Petrologic modeling from bulk compositions |
| Inkscape | Open-source image drafting |
| ImageJ | Open-source image analysis |
| Adobe suite | Illustrator, Photoshop, Bridge, & InDesign |
| FieldMove | Field geology application |
| Datcon | Processing of trace element electron probe data |
| Microsoft Office | Word, Excel, & PowerPoint |
| Computer Languages | R Studio, Matlab, & Java |

## Educational Outreach & Service

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| Aug 2023 | Prepared and led a field trip of the New Rambler historic mine property for the Wyoming State Geological Survey and US Geological Survey on behalf of BYRG. |
| Nov. 2019 | Prepared and guided undergraduate preparation of drill core cylinders for uniaxial compression experiments |
| Sep. 2018 - May 2019 | Served as co-coordinator of the Geosciences Guest Lecture Series at UMass Amherst |
| July 2019 | Mentored and led undergraduate research on weathering of granitic rocks in central MA |
| May 2019 | Volunteer judge for Massachusetts state middle school science & engineering fair, Worchester Technical High School, Worchester, MA |
| Feb. 2019 | Volunteer judge for local middle school science & engineering fair, Westfield Middle School, Westfield, MA |
| Apr. 2019 | Led demonstration on faulting & earthquakes with an analog sand box at the Amherst Elementary School Science Night, Amherst, MA |
| Apr. 2017 | Taught a 1-day class on an Introduction to the Earth through Boston College Splash, a program hosted on Boston College campus for inner city Boston students grades 6 – 10, Chestnut Hill, MA |
| Apr. 2015 | Taught a 1-day class on Climate Science on Boston College campus through Boston College Splash |

## References

Ms. JJ Brown, Director of Geology & Exploration, Hard Rock Consulting, LLC. jjbrown@hardrock-consulting.com

Dr. Michael L. Williams, Professor, Department of Earth, Geographic, and Climate Sciences, University of Massachusetts Amherst. mlw@geo.umass.edu.

Dr. Ethan F. Baxter, Professor, Earth and Environmental Sciences, Boston College, ethan.baxter@bc.edu

Dr. Kenneth Galli, Lab Manager, Earth and Environmental Sciences, Boston College, kenneth.galli@bc.edu

Dr. Michael J. Jercinovic, Associate Professor and Director of EMSEMF, Department of Earth, Geographic, and Climate sciences University of Massachusetts Amherst, mjercino@umass.edu

Dr. Justin B. Richardson, Assistant Professor, Department of Environmental Sciences, University of Virginia, Justin.Richardson@virginia.edu