PROMOTION RECOMMENDATION
The University of Michigan
College of Literature, Science, and the Arts

Adam C. Simon, associate professor of Earth and environmental sciences, with tenure, College of Literature, Science, and the Arts, and associate professor of environment, without tenure, College of Literature, Science, and the Arts and School for Environment and Sustainability, is recommended for promotion to professor of Earth and environmental sciences, with tenure, College of Literature, Science, and the Arts, and professor of environment, without tenure, College of Literature, Science, and the Arts and School for Environment and Sustainability.

Academic Degrees:

Ph.D.	2003	University of Maryland
M.S.	1997	Stony Brook University
B.S.	1995	University of Maryland

Professional Record:

2014 – present	Associate Professor, Program in the Environment, University of Michigan
2012 – present	Associate Professor, Department of Earth and Environmental Sciences, University of Michigan
2011 – 2012	Associate Professor, Department of Geosciences, University of Nevada
2005 – 2011	Assistant Professor, Department of Geosciences, University of Nevada
2004 – 2005	Post-doctoral Fellow, Department of Earth and Planetary Sciences, Johns Hopkins University
2003 – 2004	Research Associate, Department of Geology, University of Maryland

Summary of Evaluation:

Teaching – Professor Simon is an outstanding, popular, and dedicated educator. He has taught a diverse offering of courses on topics including geology, mineral and energy resources, sustainability, and science education that contribute to the curriculum of both the Department of Earth and Environmental Sciences (EES) and the Program in the Environment (PitE). In addition to his regular teaching load, Professor Simon regularly teaches courses during spring/summer term on campus and at the Camp Davis field station. He is known for his energetic and engaging presentations and for his provocative instructional style. Students routinely give him glowing evaluations. In 2017, he was one of five recipients across campus of the Provost's Innovation in Teaching Prize for his course on "Mineral Resources, Economics, and the Environment" that examined, through guided student projects, solutions to our energy crisis through the lens of electricity consumption at UM. Professor Simon has also been extremely active in undergraduate research mentoring.

Research – Professor Simon is a geochemist and economic geologist, who investigates the natural processes by which metals are mobilized and concentrated in the Earth's crust through field, analytical, and experimental work. His research contributes to the discovery of ore deposits and to an understanding of magmatic processes and their role in the evolution of Earth's crust. He is considered a world leader in economic geology and is recognized for his use of emerging technologies in his research. Professor Simon is especially well known for his insights into the

behavior of metals in water-saturated silicate magmas and for his novel ideas about the emplacement of massive iron deposits within the shallow crust. Professor Simon has developed a productive research program and has been successful in obtaining a steady stream of external funding from a variety of sources.

Recent and Significant Publications:

"Co-variability of S^{6+}, S^{4+} and S^{2-} in apatite as a function of oxidation state – implications for a new oxybarometer," with B. Konecke, et al., *American Mineralogist*, 102, 2017, pp. 548-557.

Mineral Resources, Economics and the Environment, with S. E. Kesler, Cambridge University Press, 2015.

"Giant Kiruna-type deposits form by efficient flotation of magmatic magnetite suspensions," with J. L. Knipping, et al., *Geology*, 43, 2015, pp. 591–594.

"The mobility of Nb in rutile-saturated NaCl- and NaF-bearing aqueous fluids from 1-6.5 GPa and 300-800 C," with E.A. Tanis, et al., *American Mineralogist*, 100, 2015, pp. 1600-1609.

Service – Professor Simon has made substantial service contributions to his department, the university, and to the wider professional community. He has been a leader in activities to promote the professional development of students in the Department of Earth and Environmental Sciences and has been active in departmental alumni affairs. Professor Simon's expertise in energy, mineral resources, and sustainability have made him an invaluable colleague across campus. He chaired a committee in the Program in the Environment (PitE) to develop a new minor and participated in the revision of PitE's natural sciences major. He also served on internal review committees for the Michigan Earth Institute and Michigan Sustainability Cases. Professor Simon currently co-chairs the joint Program in the Environment transition committee. He is an elected councilor to the Society of Economic Geologists, an associate editor of *Journal of Economic Geology*, and has served on several National Science Foundation panels.

External Reviews:

Reviewer (A)

"My impression (as would be anyone's who looked at this record) is that Simon is amazingly productive and that his work is having a strong impact on the field of economic geology and petrology. … Simon has unusually high visibility at the national and international level. …[he] is known and highly respected worldwide, and is recognized as a leader in economic geology."

Reviewer (B)

"Dr. Simon's scholarly output is impressive for his stage of career and he shows no sign of slowing down. In fact, I would say that his best years lie ahead and I fully expect him to continue to blossom. … You have chosen well and I see nothing but a bright future ahead for Dr. Simon."

Reviewer (C)

"Most recently, his work on the apatite oxybarometer will help establish him as one of the foremost experimentalists (in his cohort) globally in economic geology… His great energy and

enthusiasm confidently assure that he will continue his highly productive career for many years to come, and I look forward to learning from his future contributions."

Reviewer (D)
"The research and teaching statement offered with the package you sent is among the best I have read for this sort of promotion case. This guy really knows how to engage an audience. I imagine this goes down pretty well in the classroom. And his level of student participation at all levels, undergrad and up, is outstanding."

Reviewer (E)
"...I believe Adam will continue to make fundamental contributions to geochemistry, while at the same time providing key insight into systems of economic interest. ...Simon is a nearly-unique talent in the broad field of geochemistry; there is every indication that he will continue to grow as a scientist and to contribute to the University of Michigan in numerous ways, with increasing maturity and weight."

Reviewer (F)
"Dr. Simon enjoys a strong, broad, and well-deserved international reputation for his research. ...his talks are of the highest quality and are actually quite thought provoking. ... Dr. Simon clearly has the breadth of ideas, creativity, and enthusiasm to continue to expand and improve his very active research program."

Summary of Recommendation:
Professor Simon is a leader in the field of applied geochemistry. He is an outstanding and innovative instructor, who has made meaningful contributions to the university and to his professional community. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Associate Professor Adam C. Simon be promoted to the rank of professor of Earth and environmental sciences, with tenure, College of Literature, Science, and the Arts, and professor of environment, without tenure, College of Literature, Science, and the Arts and School for Environment and Sustainability.

Andrew D. Martin, Dean
Professor of Political Science and Statistics
College of Literature, Science, and the Arts

Jonathan T. Overpeck
Samuel A. Graham Dean
School for Environment and Sustainability

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