

**CONFIRMATION OF OWNERSHIP AND CONFIRMATORY ASSIGNMENT OF
INVENTION AND RELATED PATENT RIGHTS**

WHEREAS THE FOLLOWING PERSON OR PERSONS:

MELASHVILI, Mariam
991 Glebemount Crescent
Peterborough, ON
Canada
K9H 6M1

DREISINGER, David
134 49 Street
Delta, BC
Canada
V4M 2P2

each an Assignor, is the inventor or a co-inventor if more than one Assignor is named, of certain inventions or improvements (the "Invention(s)") described and/or claimed in Patent Cooperation Treaty patent application No. PCT/CA2022/050567 filed 12 April 2022, Argentine patent application No. P220100946 filed 13 April 2022, and United States provisional patent application No. 63/174,409 filed 13 April 2021, all entitled **THIOSULPHATE LIXIVANT SYSTEMS AND METHODS FOR METAL LEACHING AND RECOVERY** (collectively the "Application(s)");

AND WHEREAS, **The University of British Columbia** (the "Assignee(s)"), whose address is 103 – 6190 Agronomy Road, Vancouver, British Columbia, Canada V6T 1Z3 has acquired from the Assignors the entire worldwide right, title, and interest in and to: the Invention(s), the Application(s), and all patents which may be granted on or as a result thereof in all countries;

In consideration of ONE (\$1.00) DOLLAR and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, each Assignor confirms that Assignee(s) is the owner of all right, title and interest in and to the Invention(s) and the Application(s) and, for greater certainty, to the full extent that he or she has not done so previously, he or she does hereby sell, assign, transfer, and set over to the Assignee(s) the entire right, title, and interest in and to:

- the Invention(s);
- the Application(s);
- all national phase applications arising from the Application(s);
- all continuations, divisions, renewals of, or substitutes for the Application(s);
- the right to file counterparts to the Application(s) in all countries and regions;
- the right to claim priority from the Application(s) in all countries and regions;
- all patents which may be granted on or as a result thereof;
- any reissue or reissues of such patents; and
- all causes of action and rights to bring suit for past, present, and future infringement thereof and all claims for and rights to collect damages, profits, and all other remedies and relief in respect thereof, including other compensation in respect of pre-grant activities;

the same to be owned by the Assignee(s), its successors, assigns, nominees, or legal representatives, for the full term or terms of the patents entirely as the same would have been owned by the Assignor(s), had this Assignment, sale, and transfer not been made.

Each Assignor hereby covenants that he or she: has full right to convey the entire interest herein assigned; and has not executed and will not execute any agreement to transfer any rights in the Invention(s) and/or the Application(s) to anyone other than the Assignee(s) or that is otherwise in conflict herewith.

Each Assignor promises that he or she shall do everything reasonably possible to aid the Assignee(s), its successors, assigns, nominees, and legal representatives to obtain and enforce for its or their own benefit, proper patent protection for the Invention(s) in all countries and regions including without limitation:

- each time a request is made and without undue delay, execute and deliver all lawful papers relating to the Invention(s) including without limitation:
 - all such papers as may be necessary or desirable to perfect the title to the Invention(s), the Application(s), and the patents in the Assignee, its successors, assigns, nominees, or legal representatives;
 - all such papers including, without limitation, rightful oaths and declarations, that the Assignee considers to be necessary or desirable for use in: prosecution of the Application(s); interference proceedings involving the Application(s) or patents; oppositions involving the Application(s) or patents; applications to reissue or re-examine the patents; disclaimers related to the Application(s) or patents; or filing additional applications to protect the Invention(s) in any country;
- communicate to the Assignee, or its nominees, all known facts respecting the Invention(s), the Application(s), and the patents and assist in the ascertainment of facts and the production of evidence relating to the Invention(s), the Application(s), or the patents; and
- testify in any legal proceedings;

all at the expense, however, of the Assignee or its successors, assigns, nominees, or legal representatives.

Each Assignor hereby irrevocably designates and appoints the Assignee and its duly authorized officers and agents, and their successors, as his or her agents and attorneys-in-fact, to act on the Assignor(s)'s behalf and instead of the Assignor(s), to execute and file applications to patent the Invention(s) in all countries, and to do all other proper lawfully permitted acts to further the assignment, prosecution, and issuance of patents for the Invention(s) with the same legal force and effect as if executed by the Assignor(s). This power of attorney shall be deemed coupled with an interest and is irrevocable.

The terms of the Assignment shall enure to the benefit of and be binding upon the parties, their heirs, estates, executors, administrators, legal representatives, successors and assigns.

This Assignment may be executed in counterparts, each of which will be deemed to be an original and all of which will together constitute one instrument. Signatures affixed by electronic means or transmitted by electronic means such as facsimile or email will be deemed to be original signatures and fully binding.

Declarations of Assignor(s) for United States

Each Assignor hereby declares that:

1. The above-identified Application(s) was made or authorized to be made by me;
2. I believe that I am the original inventor or an original joint inventor of a claimed invention in the Application(s); and
3. I hereby acknowledge that any willful false statement made in this Declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

EXECUTED at Peterborough, ON this 22 day of September 20 23
(place of signature)

Melashvili
MELASHVILI, Mariam

Witnessed by: _____

Printed Name: _____

EXECUTED at _____ this _____ day of _____ 20 _____
(place of signature)

DREISINGER, David

Witnessed by: _____

Printed Name: _____

.....

Declarations of Assignor(s) for United States

Each Assignor hereby declares that:

1. The above-identified Application(s) was made or authorized to be made by me;
2. I believe that I am the original inventor or an original joint inventor of a claimed invention in the Application(s); and
3. I hereby acknowledge that any willful false statement made in this Declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

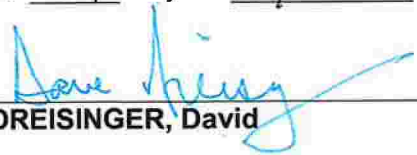
EXECUTED at _____ this _____ day of _____ 20 _____
(place of signature)

MELASHVILI, Mariam

Witnessed by: _____

Printed Name: _____

EXECUTED at Delta BC this 24 day of Sept 20 23
(place of signature)


DREISINGER, David

Witnessed by: _____

Printed Name: _____

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STATEMENT OF ACCEPTANCE

The foregoing Assignment is hereby accepted by the Assignee(s):

The University of British Columbia

By:  _____

Name:  Brett Sharp Ph.D

Title: Associate Director
University - Industry Liaison Office

**CONFIRMATION OF OWNERSHIP AND CONFIRMATORY ASSIGNMENT OF
INVENTION AND RELATED PATENT RIGHTS**

WHEREAS THE FOLLOWING PERSON:

SMOLIK, Theodore James
8013 Chinook Way, Blaine, Washington
98230 United States of America

each an Assignor, is the inventor or a co-inventor if more than one Assignor is named, of certain inventions or improvements (the "Invention(s)") described and/or claimed in Patent Cooperation Treaty patent application No. PCT/CA2022/050567 filed 12 April 2022, Argentine patent application No. P220100946 filed 13 April 2022, and United States provisional patent application No. 63/174,409 filed 13 April 2021, all entitled **THIOSULPHATE LIXIVANT SYSTEMS AND METHODS FOR METAL LEACHING AND RECOVERY** (collectively the "Application(s)");

AND WHEREAS, **SEABRIDGE GOLD INC.** (the "Assignee(s)"), whose address is 106 Front Street East, Suite 400 Toronto, Ontario M5A 1E1, Canada, has acquired the entire worldwide right, title, and interest in and to: the Invention(s), the Application(s), and all patents which may be granted on or as a result thereof in all countries;

NOW THEREFORE, in consideration of TEN (\$10.00) DOLLARS and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, each Assignor confirms that Assignee(s) is the owner of all right, title and interest in and to the Invention(s) and the Application(s) and, for greater certainty, to the full extent that he or she has not done so previously, he or she does hereby sell, assign, transfer, and set over to the Assignee(s) the entire right, title, and interest in and to:

- the Invention(s);
- the Application(s);
- all national phase applications arising from the Application(s);
- all continuations, divisions, renewals of, or substitutes for the Application(s);
- the right to file counterparts to the Application(s) in all countries and regions;
- the right to claim priority from the Application(s) in all countries and regions;
- each and every additional application that claims any part of the Inventions;
- each and every additional application that is in any way based on or claims priority from or corresponds to the Application(s);
- all patents which may be granted on or as a result thereof;
- any reissue or reissues of such patents;
- all causes of action and rights to bring suit for past, present, and future infringement thereof and all claims for and rights to collect damages, profits, and all other remedies and relief in respect thereof, including other compensation in respect of pre-grant activities; and
- all improvements to the Invention(s), whether or not already existing;

the same to be owned by the Assignee(s), its successors, assigns, nominees, or legal representatives, for the full term or terms of the patents entirely as the same would have been owned by the Assignor(s), had this Assignment, sale, and transfer not been made.

Each Assignor hereby covenants that he or she: has full right to convey the entire interest herein assigned; and has not executed and will not execute any agreement to transfer any rights in the Invention(s) and/or the Application(s) to anyone other than the Assignee(s) or that is otherwise in conflict herewith.

Each Assignor promises that he or she shall do everything reasonably possible to aid the Assignee(s), its successors, assigns, nominees, and legal representatives to obtain and enforce for its or their own benefit, proper patent protection for the Invention(s) in all countries and regions including without limitation:

- each time a request is made and without undue delay, execute and deliver all lawful papers relating to the Invention(s) including without limitation:
 - all such papers as may be necessary or desirable to perfect the title to the Invention(s), the Application(s), and the patents in the Assignee, its successors, assigns, nominees, or legal representatives;
 - all such papers including, without limitation, rightful oaths and declarations, that the Assignee considers to be necessary or desirable for use in: prosecution of the Application(s); interference proceedings involving the Application(s) or patents; oppositions involving the Application(s) or patents; applications to reissue or re-examine the patents; disclaimers related to the Application(s) or patents; or filing additional applications to protect the Invention(s) in any country;
- communicate to the Assignee, or its nominees, all known facts respecting the Invention(s), the Application(s), and the patents and assist in the ascertainment of facts and the production of evidence relating to the Invention(s), the Application(s), or the patents; and
- testify in any legal proceedings;

all at the expense, however, of the Assignee or its successors, assigns, nominees, or legal representatives.

Each Assignor hereby irrevocably designates and appoints the Assignee and its duly authorized officers and agents, and their successors, as his or her agents and attorneys-in-fact, to act on the Assignor(s)'s behalf and instead of the Assignor(s), to execute and file applications to patent the Invention(s) in all countries, and to do all other proper lawfully permitted acts to further the assignment, prosecution, and issuance of patents for the Invention(s) with the same legal force and effect as if executed by the Assignor(s). This power of attorney shall be deemed coupled with an interest and is irrevocable.

Each Assignor hereby authorizes and requests any official of any country or countries whose duty it is to issue patents on applications to issue to the Assignee, its successors, assigns, nominees, or legal representatives all patents for the Invention(s) in accordance with the terms of this Confirmatory Assignment.

The terms of the Assignment shall enure to the benefit of and be binding upon the parties, their heirs, estates, executors, administrators, legal representatives, successors and assigns.

This Assignment may be executed in counterparts, each of which will be deemed to be an original and all of which will together constitute one instrument. Signatures affixed by electronic means or transmitted by electronic means such as facsimile or email will be deemed to be original signatures and fully binding.

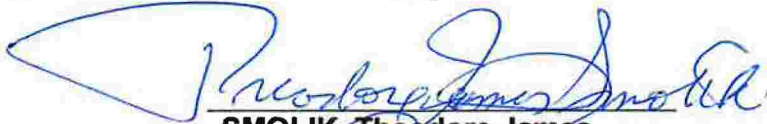
Declarations of Assignor(s) for United States

Each Assignor hereby declares that:

1. The above-identified Application(s) was made or authorized to be made by me;
2. I believe that I am the original inventor or an original joint inventor of a claimed invention in the Application(s); and
3. I hereby acknowledge that any willful false statement made in this Declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Each Assignor authorizes Oyen Wiggs Green & Mutala LLP to insert the application serial number and filing date in the text above when such information becomes available.

EXECUTED at Blaine, WASHINGTON on 26 August 2022
(place of execution) (date)


SMOLIK, Theodore James

Witnessed by: Joyce Vanderpol
Printed Name: JOYCE VANDERPOL



STATEMENT OF ACCEPTANCE

The foregoing Assignment is hereby accepted by the Assignee(s):

SEABRIDGE GOLD INC.

By: 

Name: C. Bruce Scott

Title: Vice President, General Counsel
and Corporate Secretary

**CONFIRMATION OF OWNERSHIP AND CONFIRMATORY ASSIGNMENT OF
INVENTION AND RELATED PATENT RIGHTS**

WHEREAS, **The University of British Columbia** (the "Assignor"), having an address at 103 – 6190 Agronomy Road, Vancouver, British Columbia, Canada V6T 1Z3 is or was the owner of certain inventions or improvements (the "Invention(s)") described and/or claimed in Patent Cooperation Treaty patent application No. PCT/CA2022/050567 filed 12 April 2022, Argentine patent application No. P220100946 filed 13 April 2022, and United States provisional patent application No. 63/174,409 filed 13 April 2021, all entitled **THIOSULPHATE LIXIVANT SYSTEMS AND METHODS FOR METAL LEACHING AND RECOVERY** (collectively the "Application(s)");

AND WHEREAS, **Seabridge Gold Inc.** (the "Assignee(s)"), whose address is 106 Front Street East, Suite 400, Toronto, Ontario, Canada, M5A 1E1 has acquired by contract at least as early as 12 February 2020 the entire worldwide right, title, and interest in and to: the Invention(s), the Application(s), and all patents which may be granted on or as a result thereof in all countries;

In consideration of ONE (\$1.00) DOLLAR and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Assignor confirms that Assignee(s) is the owner of all right, title and interest in and to the Invention(s) and the Application(s) and, for greater certainty, to the full extent that it has not done so previously, it does hereby sell, assign, transfer, and set over to the Assignee(s) the entire right, title, and interest in and to:

- the Invention(s);
- the Application(s);
- all national phase applications arising from the Application(s);
- all continuations, divisions, renewals of, or substitutes for the Application(s);
- the right to file counterparts to the Application(s) in all countries and regions;
- the right to claim priority from the Application(s) in all countries and regions;
- all patents which may be granted on or as a result thereof;
- any reissue or reissues of such patents; and
- all causes of action and rights to bring suit for past, present, and future infringement thereof and all claims for and rights to collect damages, profits, and all other remedies and relief in respect thereof, including other compensation in respect of pre-grant activities;

the same to be owned by the Assignee(s), its successors, assigns, nominees, or legal representatives, for the full term or terms of the patents entirely as the same would have been owned by the Assignor, had this Assignment, sale, and transfer not been made.

The Assignor hereby covenants that it: has full right to convey the entire interest herein assigned; and has not executed and will not execute any agreement to transfer any rights in the Invention(s) and/or the Application(s) to anyone other than the Assignee(s) or that is otherwise in conflict herewith.

The Assignor hereby authorizes and requests any official of any country or countries whose duty it is to issue patents on applications to issue to the Assignee, its successors, assigns,

nominees, or legal representatives all patents for the Invention(s) in accordance with the terms of this Confirmatory Assignment.

EXECUTED at Vancouver, Canada this 20th day of September 20 23
(place of signature)

The University of British Columbia

By: 
Name: Brett Sharp Ph.D.
Associate Director
Title: University - Industry Liaison Office

Witnessed by: 
Printed Name: Paul Cyr

STATEMENT OF ACCEPTANCE

The foregoing Assignment is hereby accepted by the Assignee(s):

Seabridge Gold Inc.

By: _____
Name: _____
Title: _____

nominees, or legal representatives all patents for the Invention(s) in accordance with the terms of this Confirmatory Assignment.

EXECUTED at _____ this _____ day of _____ 20 _____
(place of signature)

The University of British Columbia

By: _____

Name: _____

Title: _____

Witnessed by: _____

Printed Name: _____

.....

STATEMENT OF ACCEPTANCE

The foregoing Assignment is hereby accepted by the Assignee(s):

Seabridge Gold Inc.

By: C. Bruce Scott

Name: C. Bruce Scott

Title: Vice President, General Counsel
and Corporate Secretary