US011053566B2

(12) **United States Patent**
Morgan et al.

(10) **Patent No.: US 11,053,566 B2**
(45) **Date of Patent: *Jul. 6, 2021**

(54) **SYSTEM AND METHOD INCLUDING MULTI-CIRCUIT SOLUTION EXTRACTION FOR RECOVERY OF METAL VALUES FROM METAL-BEARING MATERIALS**

(71) Applicant: **FREEPORT MINERALS CORPORATION**, Phoenix, AZ (US)

(72) Inventors: **Jason M Morgan**, Morenci, AZ (US); **Barbara J Savage**, Silver City, NM (US); **David G Meadows**, Phoenix, AZ (US); **Wayne W Hazen**, Lakewood, CO (US)

(73) Assignee: **FREEPORT MINERALS CORPORATION**, Phoenix, AZ (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 27 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **16/671,323**

(22) Filed: **Nov. 1, 2019**

(65) **Prior Publication Data**

US 2020/0063236 A1 Feb. 27, 2020

Related U.S. Application Data

(60) Continuation of application No. 16/020,405, filed on Jun. 27, 2018, now Pat. No. 10,501,821, which is a (Continued)

(51) **Int. Cl.**
C22B 3/02 (2006.01)
B01D 11/04 (2006.01)
(Continued)

(52) **U.S. Cl.**
CPC ***C22B 3/02*** (2013.01); ***B01D 11/028*** (2013.01); ***B01D 11/0488*** (2013.01);
(Continued)

(58) **Field of Classification Search**
CPC B01D 11/028; B01D 11/0488; C22B 3/02; C22B 3/005; C22B 3/20; C22B 3/44; C25C 7/00
See application file for complete search history.

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Primary Examiner — Scott R Kastler
(74) *Attorney, Agent, or Firm* — Snell & Wilmer L.L.P.

(57) **ABSTRACT**

The present disclosure relates to a metal recovery process comprising a solvent extraction process. In an exemplary embodiment, the solution extraction system comprises a plant with a first and second circuit. A high-grade pregnant leach solution ("HGPLS") is provided to the first and second circuit, and a low-grade pregnant leach solution ("LGPLS") is provided to the second circuit. The first circuit produces a rich electrolyte, which can be forwarded to a primary metal recovery, and a low-grade raffinate, which can be forwarded to a secondary metal recovery process. The second circuit produces a rich electrolyte, which can also be forwarded to the primary metal recovery process. The first and second circuits are in fluid communication with each other.

20 Claims, 5 Drawing Sheets