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### STATE OF ARIZONA TEMPORARY AQUIFER PROTECTION PERMIT NO. P- 106360 PLACE ID 1579, LTF 61845 <u>SIGNIFICANT AMENDMENT</u>

# **1.0 AUTHORIZATION**

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A. A. C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, the Arizona Department of Environmental Quality (ADEQ) hereby authorizes Florence Copper Inc. to operate the Florence Copper Project-Pilot Test Facility Florence, Pinal County, Arizona, over groundwater of the Pinal Active Management Area, in Section 28, Range 9E, Township 4S Gila and Salt River Base Line and Meridian.

For purposes of A.A.C. R18-9-A210(E), this permit becomes effective upon the date ADEQ approves the permittee's written notification to ADEQ that all pre-operational requirements have been completed.

- 1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
- 2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point of compliance (POC) set forth below, or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant, and as determined at the applicable POC, occurs as a result of the discharge from the facility.

## **1.1 PERMITTEE INFORMATION**

Facility Name:	Florence Copper Project Production Test Facility
Facility Address:	Florence Copper Inc.
	1575 W. Hunt Highway
	Florence, AZ 85132
Permittee:	Florence Copper Inc.
Permittee Address:	1575 W. Hunt Highway
	Florence, AZ 85132
Facility Contact:	Dan Johnson, Vice President, Environmental
<b>Emergency Phone No.:</b>	(520) 374-3984
Latitude/Longitude:	33° 03' 1.4" N / 111° 26' 4.7" W
Legal Description:	Township 4S, Range 9E, Section 28 Gila and Salt River Base Line and Meridian

**1.2 AUTHORIZING SIGNATURE** 

Trevor Baggiore, Director Water Quality Division

Water Quality Division Arizona Department of Environmental Quality Signed this  $3^{\prime\prime}$  day of  $4u_{1}u_{2}$ , 2016

THIS AMENDED PERMIT SUPERCEDES ALL PREVIOUS PERMITS

The injection pressure in the Class III injection wells shall be kept below the fracture pressure of the oxide ore body. A fracture gradient of 0.65 pounds per square inch per foot (psi/ft) of depth was established by field test data as being adequate to prevent hydraulic fracturing of the bedrock.

Observation wells located down-gradient of the injection wells may be temporarily converted to use as recovery wells in order to maintain hydraulic control.

## 2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205(B)]

The permittee shall operate and maintain all permitted facilities listed below to prevent unauthorized discharges pursuant to A.R.S. §§ 49-201(12) resulting from failure or bypassing of BADCT pollutant control technologies including liner failure, uncontrollable leakage, overtopping (e.g., exceeding maximum storage capacity defined as a fluid level exceeding the crest elevation of a permitted impoundment), berm breaches, accidental spills, or other unauthorized discharges.

#### 2.3.1. In-Situ Area Injection and Recovery Well Block

Hydraulic control over the injected solutions shall be maintained during the operating life of the facility. In-situ solutions shall be injected and contained within the oxide unit.

### 2.3.2 Process Water Impoundment

The PWI shall be used to store neutralized solutions and resulting sediments, and direct precipitation.

#### 2.3.3 Run-off Pond

The Runoff Pond shall be used to capture direct precipitation; stormwater runoff from roofs on-site structures, cathode storage slab, and concrete apron on the south side of the SX/EW building; fire sprinkler water or process solutions that may enter or overflow the SX/EW Building floor sump; any spills or wash down from these areas; and process upset events.

#### 2.4 Point(s) of Compliance [A.R.S. § 49-244]

The Points of Compliance (POC) are listed in Table 2.4 below. Monitoring shall be conducted at each Point of Compliance (POC) as listed in Section 4.1, Table 4.1-6 and 4.1-7.

Table 2.4   GROUNDWATER MONITORING POINTS OF COMPLIANCE								
POC #	ADWR No.	Total Depth (ft. bgs)	Latitude	Longitude	Screened Interval (ft. bgs)	Aquifer Unit		
			POCs for In-Situ	Well Filed				
M14-GL	55- 549172	859	33° 03' 4.0"N	111° 26' 15.77"W	778-838	LBFU		
M15-GU	55- 547813	615	33° 03' 4.04"N	111° 26' 16.40"W	554-594	LBFU		
M22-O	55- 555831	1,140	33° 03' 4.53"N	111° 26' 15.76"W	932-1,130	Oxide		
M23-UBF	55- 555824	260	33° 03' 4.51"N	111° 26' 16.50"W	210-250	UBFU		
M54-LBF	TBD	650	33° 03' 7.07"N	111° 26' 9.29"W	500-640	LBFU		
M54-0	TBD	1,210	33° 03' 6.91"N	111° 26' 9.22"W	660-1,200	Oxide		
POCs for Impoundments								
M52-UBF	TBD	276	33° 03' 11.03"N	111° 25' 24.66"W	200-275	UBFU		

Note: TBD - to be determined. The monitoring well location and construction details are proposed, pending final installation of the wells. The wells are to be installed in accordance with the Compliance Schedule, Section 3.0.