

FACT SHEET

INTENT TO ISSUE A CLASS 3 PERMIT MODIFICATION FOR NEWLY IDENTIFIED SWMU AND ASSOCIATED CONTROL

Facility Name: Covoro Mining Solutions LLC

Location: 2571 Fite Road
Memphis, Shelby County, Tennessee 38127

Owner/Operator: Covoro Mining Solutions LLC

Facility Contact: Ms. Kimberly Sass
Environmental Manager
2571 Fite Road
Memphis, Shelby County, Tennessee 38127
(901) 353-7145 – Office Phone

Permit Type: Corrective Action

Units: Solid Waste Management Units (SWMUs) and
Areas of Concern (AOCs)

EPA ID Number: TND007024672

Existing Permit: TNHW-182

Comment Period: **Begins: January 30, 2025**
Ends: March 16, 2025

PURPOSE

This fact sheet is prepared pursuant to Tennessee Rule 0400-12-01-.07(7)(d) for the draft Class 3 permit modification to the Corrective Action Permit developed by the Tennessee Department of Environment and Conservation (TDEC) Division of Solid Waste Management (DSWM). The purpose of this permitting process is to afford any interested person the opportunity to evaluate the ability of Covoro Mining Solutions LLC (Covoro), to apply the hazardous waste management requirements. The proposal is for the Class 3 permit modification to be issued under the authority of the Tennessee Hazardous Waste Management Act of 1977, as amended, Tennessee Code Annotated, Section 68-212-101 et seq., and Tennessee Rule Chapter 0400-12-01, Hazardous Waste Management. The draft permit is prepared in accordance with the provisions of Rule 0400-12-01-.07.

SITE DESCRIPTION

Site Location: The Covoro Mining Solutions LLC (Site) is a 196-acre chemical production facility in Shelby County, Tennessee. The Site is located in the Gulf Coastal Plain. It is located approximately 10 miles east of the Mississippi River with Memphis, Tennessee to the southwest

and Millington, Tennessee just to the northeast. The Site is bordered on the south by the Loosahatchie River, on the north by Fite Road, on the east by Old Millington Road, and on the west by private property and Highway 51. The elevation at the Site ranges from approximately 240 feet (ft) above mean sea level (msl) in the northern portion near Fite Road to approximately 210 ft msl in the southern portion. The Site generally slopes downward to the south toward the Loosahatchie River, and to a lesser extent to the west toward Goat Creek, a tributary to the Loosahatchie River, which flows adjacent to the western site boundary. Goat Creek remains dry throughout much of the year. Figure 1 is a topographic map depicting the area within a one-mile radius of the Site. It shows the locations of surface water features in the vicinity of the Site, as well as permitted National Pollutant Discharge Elimination System (NPDES) and storm water outfalls. Figure 1 also includes an inset area map showing the site's general location in southwestern Tennessee and the surrounding states. Figure 2 is an aerial photograph of the facility.

Regional Geology: The Memphis area is located near the axis of the Mississippi Embayment, a regionally down warped trough of Paleozoic rock filled with as much as 3,000 feet of unconsolidated sediments, primarily sand, clay, silt, chalk, gravel, and lignite. Locally, lateral and vertical gradations occur within the sand and clay layers. These gradations, along with variations in thickness and percentage of sand in the major clay layers (confining beds), are important because the clay layers control the interchange of groundwater between the sand layers (aquifers).

Local Geology: Soil borings show that there are three distinct soil profiles at the Site: a surficial silty clay, an intermediate sand layer, and a deeper clay layer. The surficial silty clay is a continuous 20-foot-thick layer of silty clay material, which is encountered throughout the Site. It overlies the intermediate sand, which contains the uppermost (surficial/alluvial) aquifer. The upper contact of the intermediate sand with the surficial silty clay is gradational. Within the intermediate sand, the silt at the upper contact grades downward into sand and finally to gravel at the base. The intermediate sand layer is underlain by clay-dominated strata, which forms a confining layer ranging in thickness at the Site from approximately 150 to 250 feet. This layer is also known as the “capping clay” because it forms the upper confining layer for the underlying Memphis Sand Aquifer.

Hydrogeology: Two distinct aquifers are present at the Site: the surficial/alluvial aquifer and the Memphis Sand. The surficial/alluvial aquifer is the uppermost aquifer at the Site. The top of the surficial aquifer is typically encountered at depths between 20 and 40 feet below ground surface (ft bgs) and the aquifer extends to depths typically ranging from 70 to 100 ft bgs, where the underlying deep clay layer is encountered. Groundwater flow in the surficial aquifer is south towards the Loosahatchie River, where it discharges. Separated from the surficial alluvial aquifer by the capping clay, the Memphis Sand is a drinking water aquifer that supplies the City of Memphis with potable water. The Site does not use the surficial/fluvial aquifer as a water supply. The Site operates several on-site water supply wells that are completed within the Memphis Sand, with screened intervals ranging from 307 to 526 ft bgs. A cone of depression has existed since completion of these industrial supply wells in the late 1950s. This cone of depression has direct influence on the groundwater flow in the Memphis Sand by creating local radial flow toward the water supply wells.

FACILITY HISTORY

Manufacturing and Ownership History: Construction of the Memphis Plant began in the fall of 1950. E.I. du Pont de Nemours and Company (DuPont) began operation of the first manufacturing

processes (hydrogen cyanide [HCN] and sodium cyanide [NaCN] at the Site in late 1952. This was followed in 1953 by the hydrogen peroxide (H₂O₂) process. Production of sodium, chlorine, Oxone® monopersulfate compound, and acrylonitrile began in 1959. In June 1967, sodium perborate production started. Methyl Methacrylate (MMA) production began in early 1971, acrylic-sheeting production began in July 1976, and Aminonitrile production began in January 1991. Production of sodium and chlorine at the Memphis Plant was discontinued in July 1980, and production of acrylonitrile was discontinued in October 1982. In 1993, the MMA and acrylic sheeting areas were divested by DuPont to ICI Acrylics. The operation was subsequently sold to Ineos Acrylics in 1999 and the name was changed to Lucite International (Lucite) in 2002. Lucite's acrylic sheeting manufacturing was acquired by Plaskolite™ in 2018. Sodium perborate production was discontinued in 1994 and the H₂O₂ business was divested by DuPont in 1998 and is currently owned and operated by Arkema Inc. In 2015, DuPont spun off its entire Performance Chemicals Business, including the Memphis Plant, into Chemours, which is a separate, publicly traded company. In 2016, Chemours divested Oxone® manufacturing to Lanxess™.

Permit History: The original hazardous waste permit, TNHW-018, was issued to DuPont on October 30, 1988. The permit allowed the facility to treat hazardous waste in an incinerator. The incinerator was certified closed on March 24, 1994. Because of the need for continued corrective action for solid waste management units (SWMUs) and areas of concern (AOCs) at the facility, the corrective action portion of the permit remained in effect.

In 2002 DuPont submitted an application to TDEC for the continuation of corrective action at the Site. The application identified the final remedies for all of the Site's SWMUs and AOCs. The DSWM-approved final remedy for the Site included implementing and maintaining engineered and institutional controls, performing inspections, sampling and analyzing groundwater and surface water, evaluating monitoring data against site-specific groundwater protection standards, and submitting summary reports to the DSWM. These requirements were included in the current Permit, TNHW-143, which was issued to DuPont on September 30, 2009. On July 11, 2014, the DSWM approved DuPont's Class ¹ request to reduce the frequency for sampling and analysis from annually to biennially.

Chemours acquired the property, manufacturing facility, and site operations from DuPont in 2015. As part of this transition, the Site's 2009 Permit was transferred from DuPont to Chemours effective July 1, 2015. Since the transfer, Chemours has been responsible for the continuation of approved corrective action pursuant to the permit. Although many areas and operations of the facility have been divested, The Chemours Company FC, LLC has retained responsibility for all the facility SWMUs and AOCs as specified in the permit.

The permit, TNHW-143, is only for corrective action of SWMUs and AOCs. There are no hazardous waste operating units or post-closure units at the site. Prior to issuance of TNHW-143, all releases to the environment had been thoroughly investigated and all active remedial actions were completed. The site-wide final remedy, which was approved with the issuance of that permit, requires Chemours to perform compliance monitoring and to maintain engineered and institutional controls at the facility.

Permit TNHW-143 was issued on September 30, 2009, and was effective for ten years. As part of the permitting renewal process, Chemours held a pre-application public meeting on January 23, 2019. The purpose of the meeting was to provide information, answer questions, and receive

comments concerning the renewal of permit TNHW-143; no comments were received. In response to public comments, the DSWM issued Chemours a renewal permit that is effective for ten years, as permit number TNHW-182. Permit TNHW-182 became effective on June 26, 2020, and remains in effect until June 26, 2030. On June 14, 2022, a modification to TNHW-182 changed the permittee to Covoro Mining Solutions, LLC.

TNHW-182 allows Covoro to continue to perform corrective action under the terms of the permit and includes provisions necessary for providing site security and for monitoring the environment. The permit includes the corrective action requirements for implementation of the approved final remedy(s) for the Covoro Facility. Exposure concerns for several of the SWMUs and AOCs require Covoro to maintain engineered and institutional controls that will prevent exposures to the contaminated soils and groundwater by limiting site access and use, and by enforcing other administrative/security measures. Covoro is required to conduct inspections and monitoring events to ensure the controls are being maintained and properly applied. Groundwater contamination will require long-term monitoring to ensure human health and the environment remain protected. Surface water sampling and analysis will verify that contaminated groundwater is not affecting the Loosahatchie River. The permit also contains notification and assessment requirements for newly discovered SWMUs and/or AOCs and newly discovered releases from existing units.

Environmental History: Past practices at the site have contaminated the soil and the groundwater with hazardous constituents, which now require the implementation of long-term corrective actions/measures. Figure 1 is a topographic map that shows the Covoro Facility's location. As listed and located on Figure 2, fifty-three SWMUs and four AOCs were identified as part of the Site's corrective action history. The full nature and extent of the contamination was fully investigated and the final remedy for the entire site was properly incorporated into the current permit when it was issued in 2009. Five SWMUs (19-2, 19-4, 35, 40, 53) were determined to require institutional controls due to constituents present in the soils at concentrations that exceeded residential regional screening levels. Three SWMUs (24, 37, and 42) were determined to require engineering and institutional controls due to constituents in soil exceeding industrial regional screening levels. Figure 2 does not show the locations of SWMU 49 nor AOC GW, as they extend throughout site.

AOC GW was determined to require monitoring due to contamination at concentrations above relevant action levels. Because contaminated groundwater has the potential to enter the Loosahatchie River, groundwater and surface water monitoring of the river is required. Figure 3 shows those monitoring locations. Figure 4, the potentiometric (water table) surface map from November 13, 2023, indicates that groundwater flow from the facility flows south and discharges to the Loosahatchie River. To be protective of the river, risk-based concentrations of the groundwater constituents of interest (COI) were calculated. These are referred to as the Groundwater Protection Standards. Groundwater is not expected to impact the Loosahatchie River; however, monitoring of the river upgradient from the facility and downgradient from the facility is used to determine any impact that the groundwater might have on the river.

The Site-specific contaminants of concern (COCs) are barium, total cyanide, trichloroethene, and vinyl chloride. As these chemicals were those identified during the facility investigation at levels above relevant action levels, they were selected for long-term monitoring of the Site. Fourteen groundwater monitoring wells are sampled, and two surface water samples are collected (one upstream and one downstream from the site) per sampling event. The monitoring locations are

identified on Figure 3. Table 5-2. of permit TNHW-182 provides the Groundwater Protection Standards for the COCs and is included in this Fact Sheet. Comparisons of the analytical results to the Groundwater Protection Standards is required to show that no concentration of a COC exceeds any standard.

PROPOSED PERMIT MODIFICATION

Pursuant to TN Rule 0400-12-01-.07(9)(c)5(ii), the Division of Solid Waste Management (DSWM) has made a tentative decision to approve the request for a Class 3 Permit Modification to Covoro Mining Solutions LLC Corrective Action Permit Number TNHW-182. The modification has been submitted for the Covoro Mining Solutions LLC. (Covoro) facility located at 2571 Fite Road, Memphis, Tennessee 38127, for the addition of a new Solid Waste Management Unit (SWMU) 53 and its associated corrective action remedy of institutional control(s). Since the DSWM's receipt of the modification request, there have been Notice(s) of Deficiency(s) (NOD) sent to Covoro. The following is a brief history of the NODs, extensions, and associated correspondences associated with this Class 3 modification request:

The DSWM issued Covoro a Notice of Deficiency for the Class 3 Modification on August 2, 2023, with a response due date of August 30, 2023. On August 24, 2023, Covoro submitted to the DSWM an Extension Request for 180 calendar days to submit the required information. On November 7, 2023, the DSWM granted Covoro 120 calendar days for this first extension request with a revised due date of December 22, 2023. On December 21, 2023, Covoro submitted a second Extension Request. On January 5, 2024, the DSWM granted Covoro the second extension request with a revised due date of February 15, 2024. Covoro submitted a third Extension Request on February 14, 2024. On March 20, 2024, the DSWM granted Covoro a third extension request with a revised due date of March 31, 2024.

On March 25, 2024, Covoro submitted a *Notice of Institutional Controls*. The DSWM acknowledged the *Notice of Institutional Controls* on August 5, 2024, and required Covoro to submit proof of filing these controls by August 30, 2024. Covoro submitted a fourth extension request on September 16, 2024, requesting a 60-calendar day extension to submit an updated property boundary survey, proof of filing the deed restrictions and institutional controls, and Covoro's review of Linde's impact to the groundwater by October 31, 2024.

The DSWM granted Covoro a fourth and final extension request on September 15, 2024, to submit proof of filing of the institutional controls. Covoro was to submit this proof on or before September 25, 2024. On September 25, 2024, Covoro informed the DSWM that they cannot meet the due date for submittal of ICs by the due date. The DSWM received documentation of the proof of filing ICs (Register of Controls), on September 26, 2024.

The purpose of the modification is to incorporate the following changes into the permit:

1. Attachment 5.1, Deed Notice and Attachment 5.2, Tract 1 Land Parcel Description has been added to the Table of Contents and to Attachment 5, Corrective Action Remedies;
2. Addition of a new Solid Waste Management Unit (SWMU), SWMU 53 – HCN Refining Caustic Leak Area;

3. Inclusion and implementation of the final remedy for SWMU 53 of Industrial Use Restrictions;
4. Modification of Table 1-6 of the permit to include SWMU 53;
5. Modification of Table 5-1 to add signage as part of the remedy for SWMU 40, Wastewater Collection and Drainage Ditch Systems;
6. Modification of Table 5-1 to add SWMU 53 and the remedy of Industrial Use Restrictions;
7. Modification of Table 5-1 to update the corrective action remedy component for Site Groundwater from biennial sampling to annual sampling;
8. Modification to the Semi-Annual Inspection Report in Attachment 5 to add signage to SWMU 40 checklist, add SWMU 53 to the inspection report, and change the reference from Table 6-1 to the correct reference of Table 5-1; added Attachment 5.1, Deed Notice and Attachment 5.2, Tract 1 Land Parcel Description;
9. Modification of Figure 3, SWMU and AOC Locations to add SWMU 53 and the wood-lined trench location as part of SWMU 40;
10. Modification of Attachment 6, Sampling and Analysis to update both the groundwater and surface water sampling schedules from biennial sampling to annual sampling.

Public Participation: As part of the permitting and permit modification process, Covoro held a pre-application public meeting on May 25, 2023, as announced in the May 4, 2023, edition of The Millington Star. The purpose of the meeting was to provide information, answer questions, and receive comments concerning the Class 3 permit modification and permit application. Five members of the public attended, and comments were received from the public on July 3, 2023. These comments have been considered and will be addressed prior to final issuance of this Class 3 modification.

DSWM has made a tentative decision to issue the Amendment to the Hazardous Waste Permit. Pending consideration of any contrary information received, it is the present intent of DSWM to amend the permit to incorporate the modifications to the Covoro facility. DSWM has drafted the modification with the necessary supporting data and documentation and published a public notice announcing a 45-day comment period to review and comment starting January 30, 2025, and ending on March 16, 2025.

DOCUMENTS AVAILABLE FOR REVIEW

Electronic copies of the draft modification, application, and fact sheet are available online at <https://www.tn.gov/environment/notices/covoro-class-3> and at the DSWM Central Office on the 7th Floor of the Davy Crockett Tower, 500 James Robertson Parkway, Nashville, TN 37218 (615-532-0780). Paper copies may be reviewed at the Millington Public Library, 4858 Navy Road, Millington, TN 38053, and the TDEC Memphis Environmental Field Office, 8383 Wolf Lake Drive, Bartlett, TN 38133-4419, (901) 371-3000.

COMMENTS

To comment on the proposal, contact Mr. Brett Harris, Hazardous Waste Permitting/Corrective Action Section Manager, in DSWM's Central Office, Davy Crockett Tower, 500 James Robertson Parkway, Nashville, TN 37219, by phone at 615-393-9221, or by email at Brett.Harris@tn.gov. **Comments must be received by March 16, 2025, to ensure consideration.**

After considering all comments, DSWM will make a final decision to either issue or deny the permit modification. Notice will be given to the applicant and to each person who has submitted written comments or requested notice of the final decision. At the time of a final decision, a Response to Comments addressing all significant input received on the proposed modification will be made available to the public. The final decision shall become effective upon signing by the Director of DSWM.

TDEC is an Equal Employment Opportunity/Affirmative Action (EEO/AA) employer. TDEC does not unlawfully discriminate on any basis prohibited by applicable law in any of its programs, services or activities.

EEO/AA inquiries or complaints may be directed to the EEO/AA Coordinator, Office of General Counsel, at 1-888-867-7455. ADA/AA inquiries or complaints should be directed to the ADA/AA Coordinator, HR Division, at 1-866-253-5827. Hearing impaired callers may use the Tennessee Relay Service (1-800-848-0298).

If it is hard for you to read, speak, or understand English, TDEC may be able to provide translation or interpretation services free of charge. Please contact Janelle Starke at 615-906-2950 for more information.

Persons who wish to be on DSWM's mailing list should request a Mailing List Request form by calling or writing: Public Participation Officer; TDEC Division of Solid Waste Management, Davy Crockett Tower 7th Floor, 500 James Robertson Parkway, Nashville, TN 37243 (615-532-0798); or e-mail Solid.Waste@tn.gov.

**MODIFICATION TO
HAZARDOUS WASTE MANAGEMENT PERMIT**

Permittee: Covoro Mining Solutions LLC
Owner/Operator: Covoro Mining Solutions LLC
Facility: Covoro Mining Solutions LLC Memphis Plant
Location: 2571 Fite Road, Memphis, Tennessee 38127
Permit Type: Corrective Action Only
Units: Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs)
EPA ID: TND007024672
Permit: TNHW-182
Modification Type: Class 3
Modification: 2 (D-52)

Pursuant to the Tennessee Hazardous Waste Management Act, as amended (Tennessee Code Annotated 68-212-101 et seq.) and the regulations (Chapter 0400-12-01) promulgated thereunder by the Underground Storage Tanks and Solid Waste Disposal Control Board, a hazardous waste management Corrective Action Permit No. TNHW-182, issued to Covoro Mining Solutions LLC, is hereby modified pursuant to Tennessee Hazardous Waste Management Rule 0400-12-01-.07(9)(c) as follows:

1. **Table of Content:**

Attachment 5.1, Deed Notice and Attachment 5.2, Tract 1 Land Parcel Description has been added.

2. **Table 1-6, List of solid waste management units (SWMUs) and areas of concern (AOCs) that require implementation of a Corrective Action Remedy:**

Modification to include the newly identified Solid Waste Management Unit (SWMU), SWMU 53 – HCN Refining Caustic Leak Area.

3. **Table 5-1, Corrective Action Remedies:**

Modification to include signage as a remedy for SWMU 40 – Wastewater Collection and Drainage Ditch Systems; to add SWMU 53 – HCN Refining Caustic Leak Area with a remedy of Industrial Use Restrictions; to update the corrective action remedy component for Site Groundwater of biennial sampling to annual sampling.

4. **Attachment 5, Corrective Action Remedies:**

Modification to add signage to the SWMU 40 inspection checklist and SWMU 53; and to correct the reference from Table 6-1 to the correct reference of Table 5-1. Modification to update the groundwater sampling schedule from biennial sampling to annual sampling.

Attachment 5.1, Deed Notice and Attachment 5.2, Tract 1 Land Parcel Information has been added to Attachment 5, Corrective Action Remedies.

5. **Figure 3, SWMU and AOC Locations:**

Modification to include the addition of SWMU 53 and the wood-lined trench location as part of SWMU 40.

6. **Attachment 6, Sampling and Analysis:**

Modification to update both the groundwater sampling schedule and the surface water sampling schedule from biennial sampling to annual sampling.

This permit modification is further subject to and conditioned upon the terms, conditions, limitations, standards, and schedules contained in or specified in the enclosures that are a part of this modification. These changes are hereby made a part of Permit Number TNHW-182, EPA ID No.: TND007024672. This modification is effective as of DRAFT and shall remain in effect until revoked and reissued, or terminated under Rule 0400-12-01-.07(9). Failure to comply with the terms of this modification shall constitute a violation of the Permit.

Lisa A. Hughey, CHMM
Director, Division of Solid Waste Management

Date

ENCLOSURE

TABLE OF CONTENTS

	<u>Page Number</u>
I. Standard Conditions	
A. EFFECT OF PERMIT	I-1
B. SEVERABILITY	I-1
C. DEFINITIONS	I-1
D. GENERAL DUTIES AND REQUIREMENTS	I-6
E. CONFIDENTIAL INFORMATION	I-11
F. DOCUMENTS TO BE MAINTAINED AT THE FACILITY	I-11
G. ANNUAL MAINTENANCE FEES	I-11
H. REQUIRED NOTICE FOR OWNERSHIP TRANSFER	I-11
I. ORDER OF PRECEDENCE	I-12
J. PERMIT STRUCTURE	I-12
II. GENERAL FACILITY CONDITIONS	
A. SECURITY	II-1
B. GENERAL INSPECTION REQUIREMENTS	II-1
C. PERSONNEL TRAINING	II-2
D. FINANCIAL ASSURANCE REQUIREMENTS	II-2
E. RECORDKEEPING AND REPORTING	II-4
F. LAND DISPOSAL RESTRICTIONS	II-5
G. ORGANIC AIR EMISSION STANDARDS	II-6
H. RESTRICTION ON OWNERSHIP OF THE FACILITY	II-6
III. SPECIFIC CONDITIONS FOR CORRECTIVE ACTION	
A. APPLICABILITY	III-1
B. NEWLY IDENTIFIED SWMUs OR AOCs	III-2
C. NEWLY DISCOVERED RELEASES FROM SWMUs OR AOCs	III-2
D. CONFIRMATORY SAMPLING (CS)	III-3
E. RCRA FACILITY INVESTIGATION (RFI)	III-4
F. INTERIM MEASURES (IM)	III-6
G. CORRECTIVE MEASURES STUDY (CMS)	III-8
H. REMEDY APPROVAL AND PERMIT MODIFICATION	III-9
I. REMEDY IMPLEMENTATION	III-9
J. FINANCIAL ASSURANCE REQUIREMENTS FOR CORRECTIVE ACTION	III-10
K. INSTITUTIONAL CONTROLS (ICs)	III-10
L. COMPLETION OF CORRECTIVE ACTIONS	III-10
M. MODIFICATION OF THE CORRECTIVE ACTION COMPLIANCE SCHEDULE	III-11
N. WORK PLAN AND REPORT REQUIREMENTS	III-11
O. APPROVAL/DISSAPPROVAL OF SUBMISSIONS	III-12
P. DISPUTE RESOLUTION	III-12

PERMIT ATTACHMENTS

ATTACHMENT 1. SUMMARY TABLES OF REQUIREMENTS FOR SWMUs AND AOCs

ATTACHMENT 2. RCRA FACILITY INVESTIGATION (RFI) OUTLINE

ATTACHMENT 3. CORRECTIVE MEASURES STUDY (CMS) OUTLINE

ATTACHMENT 4. CORRECTIVE ACTION COMPLIANCE SCHEDULE

ATTACHMENT 5. CORRECTIVE ACTION REMEDIES

ATTACHMENT 5.1. DEED NOTICE

ATTACHMENT 5.2. TRACT 1 LAND PARCEL DESCRIPTION

ATTACHMENT 6. MONITORING

Table 1-4 List of solid waste management units (SWMUs) and areas of concern (AOCs) that require Interim Measures (IM):

As of permit issuance, there are no units identified that require Interim Measures in accordance with the Specific Conditions for Corrective Action section of this permit.

Table 1-5 List of solid waste management units (SWMUs) and areas of concern (AOCs) that require a Corrective Measures Study (CMS):

As of permit issuance, there are no units identified that require a Corrective Measures Study in accordance with the Specific Conditions for Corrective Action section of this permit.

Table 1-6 List of solid waste management units (SWMUs) and areas of concern (AOCs) that require implementation of a Corrective Action Remedy:

SWMU/AOC	SWMU/AOC Name	Remedy	Dates of Operation	Final Remedy Determination
19-2	Landfill A-5, Landfill A-6, Landfill A-7, and Landfill A-8	Industrial Use Restrictions	1971-1973	July 2009*
19-4	Landfill A-9	Industrial Use Restrictions	1971-1973	July 2009*
24	Oil/Water Separators	Institutional/Administrative Controls	1953-Present	July 2009*
35	Divert Pond	Industrial Use Restrictions	1973-Present	July 2009*
37	Landfill B-1 and Landfill B-2	Institutional/Administrative Controls	1971-1973	July 2009*
40	Wastewater Collection and Drainage Ditch System	Industrial Use Restrictions	1950s-Present	July 2009*
42	Emergency Pond	Institutional/Administrative Controls	Unknown-1975	Corrective Measures Study Report-September 24, 2001
53	HCN Refining Caustic Wash Leak	Industrial Use Restrictions	1950s-Present	January 13, 2023**
AOC-GW	Site Groundwater	Monitoring	1979-Present	July 2009*

Notes:

The remedy components for Industrial Use Restrictions and Institutional/Administrative Controls are detailed in Attachment 5. Corrective Action Remedies.

*Laboratory analytical soils data collected as part of historical RFI efforts completed at the Memphis Plant were evaluated against relevant USEPA Regional Screening Levels to determine final remedy disposition for the corrective action units.

**Approval for Industrial Use Restrictions letter dated January 13, 2023, from TDEC.

Table 5-1 Corrective Action Remedies								
SWMU/ AOC	SWMU/ AOC Name	Remedy	Remedy Components					
			Within Facility Security Fence	Signage	Cover Intact	Excavation Restrictions	Semi-Annual Inspections	Annual Sampling
19-2	Landfills A-5 through A-8	Industrial Use Restrictions	X		X	X	X	
19-4	Landfill A-9	Industrial Use Restrictions	X		X	X	X	
24	Oil/Water Separators	Institutional/ Administrative Controls	X	X	X	X	X	
35	Divert Pond	Industrial Use Restrictions	X		X	X	X	
37	Landfills B-1 and B-2	Institutional/ Administrative Controls	X	X	X	X	X	
40	Wastewater Collection and Drainage Ditch System	Industrial Use Restrictions	X	X	X	X	X	
42	Emergency Pond	Institutional/ Administrative Controls		X	X	X	X	
53	HCN Refining Caustic Leak	Industrial Use Restrictions	X	X	X	X	X	
AOC-GW	Site Groundwater	Monitoring				X		X

Notes:

Remedy components for units requiring Institutional/Administrative Controls include restricted site access (for the active manufacturing facility), warning signs, cover materials present, excavation restrictions, and semi-annual visual inspections.

Remedy Components for units requiring Industrial Use Restrictions include restricted site access (for the active manufacturing facility), cover materials present, excavation restrictions, and semi-annual visual inspections.

Annual groundwater and surface water monitoring/sampling events are typically conducted in the fourth quarter of odd-numbered calendar years.

the Groundwater Protection Standards listed in Table 5-2 in any of the facility downgradient monitoring wells prior to the groundwater reaching the Loosahatchie River and Goats Creek.

Table 5.2. Groundwater Protection Standards	
Constituent of Interest	Level (milligrams per liter)
Trichloroethene	20
Vinyl Chloride	0.20
Total Cyanide	4
Barium	1624

- A. The permittee will maintain the groundwater monitoring wells for AOC GW, Site Groundwater, in accordance with the specifications in Table 6-1, Monitoring Well Construction Details, at the locations shown on Figure 4, Monitoring Well and Surface Water Sampling Locations.
- B. The permittee will annually collect groundwater samples following the sampling procedures specified in Section I of Attachment 6, Sampling and Analysis.
- C. The permittee will analyze the monitoring well samples collected for the evaluation of AOC Groundwater by using the methods specified in Attachment 6, Table 6-2, Analytical Criteria.
- D. By using the analytical results of each sampling event, the permittee will perform a Groundwater-to-Surface Water Discharge Analysis. The evaluation will compare the measured concentration of each constituent of interest (COI) to the values in Table 5-2, Groundwater Protection Standards. The purpose of the comparison is to determine if the concentration of each COI in the groundwater that discharges from the Chemours Memphis Plant property to the Loosahatchie River is protective. If a sample result exceeds the Groundwater Protection Standard, further evaluation will be completed to determine if additional actions are required. The Groundwater-to-Surface Water Discharge Analysis must be performed within 60 calendar days of the receipt of the analytical results.
- E. The permittee will notify the Commissioner within 15 calendar days of identifying that a COI has exceeded the Groundwater Protection Standard from performing the Groundwater-to-Surface Water Discharge Analysis. The notification will include recommendations for further evaluation and other actions.

- F. The permittee will comply with all reporting requirements of this permit, including the submittal of annual compliance reports. The annual compliance reports will be submitted within 90 calendar days of receipt of analytical results.
- G. At such time that closure is necessary and with prior written approval by the Commissioner, the permittee shall close monitoring wells, piezometers, extraction wells or other probes in accordance with Shelby County monitoring well plugging and abandonment requirements and as approved by the Commissioner.

III. SURFACE WATER MONITORING

This section provides the conditions for surface water monitoring. As follows, the permittee is required to monitor the surface water to ensure that constituent concentrations in groundwater do not impact the Loosahatchie River.

- A. The permittee will annually collect surface water samples following the sampling procedures specified in Section III of Attachment 6, Sampling and Analysis. Sampling locations are shown on Figure 4, Monitoring Well and Surface Water Sampling Locations.
- B. The permittee will analyze the surface water samples collected by using the methods specified in Attachment 6, Table 6-2, Analytical Criteria.
- C. The permittee will then perform a statistical evaluation of the surface water analytical results, by comparing the upgradient concentrations to the downgradient levels. The statistical comparison must be performed within 60 calendar days of the receipt of the analytical results.
- D. If the evaluation indicates a statistical increase in the downgradient surface water, the permittee will immediately perform a trend analysis of the upgradient and downgradient analytical results.
- E. If an increasing trend is identified in the downgradient sample, the permittee will notify the Commissioner within 15 calendar days of that determination. The permittee will include a recommendation for further action at that time.
- F. The permittee will include the results of the statistical evaluations of surface water analytical in their monitoring reports.

ATTACHMENT 6. SAMPLING AND ANALYSIS

For the long-term monitoring requirements at the Chemours Memphis Plant, this attachment provides the procedures to be followed by the permittee for the collection and chemical analysis of groundwater and surface water samples. All monitoring well and surface water locations are shown on Figure 4. Groundwater and surface water samples will be collected and analyzed annually to ensure continued protection of human health and the environment. Annual groundwater and surface water sampling events will be conducted in a different quarter of each year to account for seasonal changes.

I. SAMPLING AND ANALYSIS QUALITY CONTROL

Table 6-2, Analytical Criteria, provides the constituents of interest (COIs) and the methods that will be performed on each groundwater, surface water, and control sample. Quality control sampling and analysis includes the collection of one duplicate, one matrix spike/matrix spike duplicate (MS/MSD), and one equipment rinsate blank (if reusable sampling equipment is used) for every 20 samples of each sample media and each sampling method used. Dedicated trip blanks will accompany volatile organic compound (VOC) sample containers at all times.

II. GROUNDWATER SAMPLING PROCEDURES

Monitoring of AOC GW, Site Groundwater, will consist of annual sampling and analysis of the following wells: TW-01, TW-01A, TW-03A, TW-05R, TW-07, TW-07A, TW-08, TW-08A, TW-12A, TW-14, TW-18, TW-26, TW-29, and TW-39. Monitoring well construction details are provided in Table 6-1. Prior to sampling, static water level will be taken in all monitoring wells. In addition, a measurement will be taken from well DG-08 to assist in developing a potentiometric surface map for the groundwater aquifer.

Groundwater sampling will be conducted in accordance with the most recent version of the Groundwater Sampling Operating Procedure document SESDPROC-301-R4 or an equivalent method approved by the Commissioner. This document can be accessed from the EPA, Region 4, SEDS's Field Branches Quality System and Technical Procedures website.

Groundwater sampling methods may include low-flow, minimum-purge or no-purge sampling. Collection of all groundwater samples will include field analysis for pH, dissolved oxygen, temperature, conductivity, and turbidity. Measurement of these parameters will be completed using a portable multi-parameter water quality meter and the resultant parameters will be recorded for placement in the facility operating record. Groundwater quality parameter measurements will be taken for each sampling event.

III. SURFACE WATER SAMPLING PROCEDURES

Surface water samples will be collected from the Loosahatchie River at facility upstream location SW-01 and at facility downgradient location SW-03, as shown on Figure 4. Surface water sampling will be conducted in accordance with the most recent version of the Surface Water Sampling Operating Procedure document SESDPROC-201-R4 or an equivalent method approved by the Commissioner. A copy of this document can be accessed from the EPA, Region 4, SESD’s Field Branches Quality System and Technical Procedures website.

Collection of surface water samples may include directly dipping the sample container into the surface water body or using a peristaltic pump equipped with disposable tubing. Following the collection of surface water samples, field analysis for pH, dissolved oxygen, temperature, conductivity, and turbidity will be completed using a portable multi-parameter water quality meter and the resultant parameters will be recorded for placement in the facility operating record.

IV. LABORATORY ANALYTES AND METHODS

Table 6-2, Analytical Criteria, provided the constituents of interest (COIs) and the methods that will be performed on all groundwater, surface water, and control samples.

Table 6.2. Analytical Criteria	
Constituent of Interest	Method
Trichloroethene, Vinyl Chloride	EPA Method 8260D or Current
Total Cyanide	EPA Method 9012B or Current
Barium	SW846 6010D or Current

Quality control sampling and analysis will be conducted in accordance with Section I of this attachment and the Chemours Memphis Plant’s site-specific Quality Assurance Project Plan (QAPP) for sampling activities.

V. INVESTIGATION-DERIVED WASTE

Investigative-derived waste (IDW) generated from groundwater and surface water sampling activities will be containerized, characterized based on sampling results, and managed by disposal through the Site’s publicly owned treatment works (POTW) connection or by off-site disposal. Chemours Memphis Site personnel manage disposal activities.

**Semi-Annual SWMU Inspection Report
Covoro Mining Solutions**

SWMU 19-2	Landfills A-5 through A-8	Pavement, Soil, & Gravel Cover
Is adequate cover material present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	[If no, action required - Specify below]
Are unpermitted excavations present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	[If yes, action required – Specify below]
Action(s) Required: _____		

SWMU 19-4	Landfill A-9	Soil & Vegetation Cover
Is adequate cover material present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	[If no, action required - Specify below]
Are unpermitted excavations present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	[If yes, action required – Specify below]
Action(s) Required: _____		

SWMU 24	Oil/Water Separators	Concrete, Wood & Gravel Cover
Is adequate cover material present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	[If no, action required - Specify below]
Are unpermitted excavations present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	[If yes, action required – Specify below]
Are “No Excavation” warning sign(s) present per Table 5-1 of Corrective Action Permit?	<input type="checkbox"/> Yes <input type="checkbox"/> No	[If yes, action required – Specify below]
Action(s) Required: _____		

SWMU 35	Divert Pong	Soil & Vegetation Cover
Is adequate cover material present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	[If no, action required - Specify below]
Are unpermitted excavations present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	[If yes, action required – Specify below]
Action(s) Required: _____		

Inspection records to be maintained at the site for five years. Inspection criteria on this form is required, however, from format may be modified as needed. Last revised – 04/03/19.

**Semi-Annual SWMU Inspection Report
Covoro Mining Solutions**

SWMU 37

Landfills B1 and B2

Soil, Gravel, & Vegetation Cover

Is adequate cover material present? Yes No

[If no, action required - Specify below]

Are unpermitted excavations present? Yes No

[If yes, action required – Specify below]

Are “No Excavation” warning sign(s) present per Table 5-1 of Corrective Action Permit?

Yes No

[If yes, action required – Specify below]

Action(s) Required: _____

SWMU 40

Wastewater System

Wood-lined, Soil, & Gravel Cover

Is adequate cover material present? Yes No

[If no, action required - Specify below]

Are unpermitted excavations present? Yes No

[If yes, action required – Specify below]

Are “No Excavation” warning sign(s) present per Table 5-1 of Corrective Action Permit?

Yes No

[If yes, action required – Specify below]

Action(s) Required: _____

SWMU 42

Emergency Pond

Soil & Vegetation Cover

Is adequate cover material present? Yes No

[If no, action required - Specify below]

Are unpermitted excavations present? Yes No

[If yes, action required – Specify below]

Are “No Trespassing” and “No Excavation” warning sign(s) present per Table 5-1 of Corrective Action Permit?

Yes No

[If yes, action required – Specify below]

Action(s) Required: _____

Inspection records to be maintained at the site for five years. Inspection criteria on this form is required, however, from format may be modified as needed. Last revised – 04/03/19.

FIGURE 3

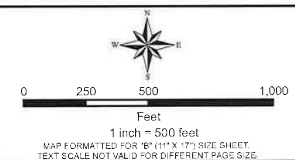
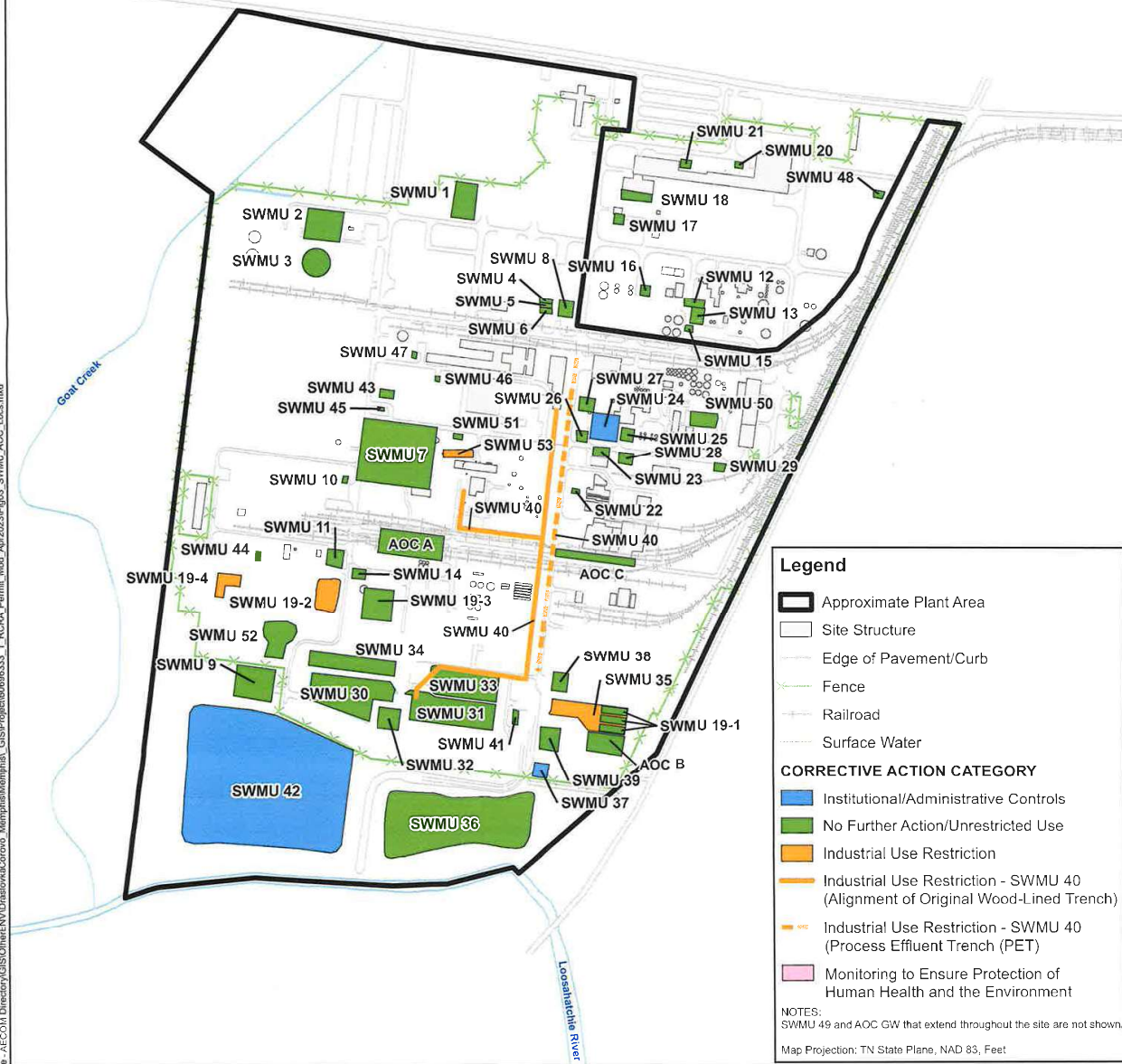
COVORO MINING SOLUTIONS LLC

SWMU AND AOC LOCATIONS
COVORO MINING SOLUTIONS LLC
MEMPHIS, TENNESSEE

AECOM
PROJECT NO. 60696333
FIGURE NO. 3
APRIL 27, 2023

SWMU #	SWMU Name	Category
1	Land Farm	No Further Action / Unrestricted Use
2	Acrylonitrile Drum Storage Area	No Further Action / Unrestricted Use
3	Acrylonitrile Contaminated Water Tank	No Further Action / Unrestricted Use
4	Acrylonitrile Wastewater Tank	No Further Action / Unrestricted Use
5	Acrylonitrile Catalyst Settler	No Further Action / Unrestricted Use
6	Acrylonitrile Hydrolyzers (2)	No Further Action / Unrestricted Use
7	Acrylonitrile Incinerator	No Further Action / Unrestricted Use
8	Acrylonitrile Thermal Oxidizer Incinerator, Units A, B, and C	No Further Action / Unrestricted Use
9	Sodium Weathering Area	No Further Action / Unrestricted Use
10	Na/Cl Storage Area	No Further Action / Unrestricted Use
11	Sodium Equipment Decontamination Pad	No Further Action / Unrestricted Use
12	MMA Skim Tub Storage Area	No Further Action / Unrestricted Use
13	MMA Spill Containment Area	No Further Action / Unrestricted Use
14	MMA Storage Area	No Further Action / Unrestricted Use
15	Weak Acid Treatment Tank	No Further Action / Unrestricted Use
16	Waste Acid Collection Sump	No Further Action / Unrestricted Use
17	Toluene Recovery System	No Further Action / Unrestricted Use
18	Acrylic Storage Area	No Further Action / Unrestricted Use
19-1	Landfills A-1 through A-3	No Further Action / Unrestricted Use
19-2	Landfills A-5 through A-8	Industrial Use Restriction
19-3	Landfill A-4	No Further Action / Unrestricted Use
19-4	Landfill A-9	Industrial Use Restriction
20	Waste Syrup Accumulation Areas	No Further Action / Unrestricted Use
21	Cyclones and Hopper	No Further Action / Unrestricted Use
22	NaCN Wastewater Storage and Treatment Tanks	No Further Action / Unrestricted Use
23	Waste Solvent Containers (H ₂ O Process)	No Further Action / Unrestricted Use
24	Oil/Water Separators	Institutional/Administrative Controls
25	Palladium Catalyst Fines Collection Area	No Further Action / Unrestricted Use
26	Baghouse (Off of Alumina Roaster)	No Further Action / Unrestricted Use
27	Spent Alumina Collection Dumpsters (2)	No Further Action / Unrestricted Use

SWMU #	SWMU Name	Category
28	Spent Activated Carbon Collection Dumpsters (2)	No Further Action / Unrestricted Use
29	Diatomaceous Earth Dumpsters (2)	No Further Action / Unrestricted Use
30	Surface Impoundment D-1	No Further Action / Unrestricted Use
31	Surface Impoundment D-2	No Further Action / Unrestricted Use
32	Surface Impoundment D-3	No Further Action / Unrestricted Use
33	Decant Pond (East)	No Further Action / Unrestricted Use
34	Decant Pond (West)	No Further Action / Unrestricted Use
35	Divert Pond	Industrial Use Restriction
36	Lime Pond	No Further Action / Unrestricted Use
37	Landfills B-1 and B-2	Institutional/Administrative Controls
38	Chemfixed Waste Area	No Further Action / Unrestricted Use
39	Facility Incinerator & Storage Area	No Further Action / Unrestricted Use
40	Wastewater Collection & Drainage Ditch System	Industrial Use Restriction
41	Outfall Neutralization Tanks (2)	No Further Action / Unrestricted Use
42	Emergency Pond	Institutional/Administrative Controls
43	Salvage Yard	No Further Action / Unrestricted Use
44	Oil Accumulation Area	No Further Action / Unrestricted Use
45	PCB Contaminated Oil Accumulation Area	No Further Action / Unrestricted Use
46	Laboratory Waste Storage Area	No Further Action / Unrestricted Use
47	Lab Solvent Storage Area	No Further Action / Unrestricted Use
48	Construction Paint Thinner Storage Area	No Further Action / Unrestricted Use
49	Solid Waste Collection Dumpsters (10)	No Further Action / Unrestricted Use
50	Sodium Perborate Divert Pond	No Further Action / Unrestricted Use
51	Power #1 and #2 Boilers	No Further Action / Unrestricted Use
52	Hypochlorite Ponds	No Further Action / Unrestricted Use
53	HCN Refining Caustic Wash Leak	Industrial Use Restriction
AOC A	HCN Rail Car Loading Area	No Further Action / Unrestricted Use
AOC B	Fire Training Area	No Further Action / Unrestricted Use
AOC C	Solids Cyanides Loading Area	No Further Action / Unrestricted Use
AOC GW	Site Groundwater	Monitoring to Ensure Protection of Human Health and the Environment



TASK NUMBER:	1
DESIGNED BY:	M. GOSSETT
DRAWN BY:	C. DUFFY
DATA QUALITY CHECK BY:	M. GOSSETT

AECOM
AECOM
248 Chapman Road
Suite 101
Newark, DE 19702

SWMU AND AOC LOCATIONS

RCRA Corrective Action Permit -
Class 3 Permit Modification
Corovo Mining Solutions LLC
Memphis, Tennessee

PROJECT NUMBER:	60696333
DATE:	4/27/2023
FIGURE NUMBER:	3

F:\GIS\Users\duffy\duffy\AOC\Draw - AECOM\Directory\GIS\Other\ENV\Drawings\Corovo - Memphis\Memphis\GIS\Project\60696333_1_RCPSA_Permi_Mod_Apr2023\Fig03_SWMU_AOC_Locs.mxd

EPA ID Number: TND007024672

Permit Number: TNHW-182

ATTACHMENT 5.1. DEED NOTICE

NOTICE OF INSTITUTIONAL CONTROLS

COVORO MINING SOLUTIONS LLC

James Stockbridge President

NOTARY

Ramiro Garcia

September 25, 2024

PREPARED BY and RETURN TO:
Tennessee Department of Environment
and Conservation
Day Crockett Tower, 7th Floor
500 James Robertson Parkway
Nashville, TN 37243

NOTICE OF INSTITUTIONAL CONTROLS

Notice is hereby given, that pursuant to Tennessee Code Annotated section 68-212-225 of the Hazardous Waste Management Act of 1983, the Commissioner of the Tennessee Department of Environment and Conservation (TDEC) had determined that institutional controls are an appropriate remedial action for SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and AOC-GW located on TRACT I as described in Exhibit B. Pursuant to section 68-212-225(d), the Register of Deeds shall record this Notice and index it in the grantor index under the names of the owners of the land.

WITNESSETH:

WHEREAS, Covoro Mining Solutions LLC, (hereinafter "Grantor") is the owner of the real property described in Deed of record with the Shelby County Register of Deeds, which is more particularly described as Solid Waste Management Units (SWMUS) and specifically listed in Table 1 (SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and Areas of Concern (AOC) GW) located in TRACT I description in Exhibit B, and,

WHEREAS certain hazardous wastes, solid wastes, constituents, and related materials were introduced into SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and AOC-GW located in TRACT I by prior uses; and

WHEREAS those materials contain constituents regulated under the laws of the state of Tennessee; and

WHEREAS, certain investigations and remediation have been conducted and performed on SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and AOC-GW pursuant to Tennessee Hazardous Waste Management permit (No. TNHW-182) and corrective action program, and under the oversight of TDEC Division of Solid Waste Management; and

WHEREAS, the Grantor has agreed to impose certain institutional controls land use restrictions on SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and AOC-GW located in TRACT I as set forth below to limit any risk to human health and the environment arising from the presence of these materials and has agreed to preserve and maintain these restrictions.

NOW, THEREFORE, in consideration of the foregoing, the Grantor hereby declares that SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and AOC-GW should be held, sold, and conveyed subject to the institutional controls set forth below. Said institutional controls shall run with the land and shall be binding on all parties having any right, title, or interest in SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and AOC-GW located TRACT I or any part of the TRACT I property, and on their heirs, successors, successor-in-title, and assigns, and shall insure to the benefit of each owner therefor and to TDEC and the respective successors and assigns of such parties:

Location of Contamination

SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and AOC-GW are located at 2571 Fite Road, Memphis, Tennessee 38127 (Facility ID TND007024672) and is more particularly described in Table 1.

Land Use Restrictions/Institutional Controls

1. Prior to any invasive activity (beyond ordinary and reasonable landscaping and property maintenance activities) that would make contact with or remove soils from under SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and AOC-GW, the Grantor, its successors, and/or assigns shall notify TDEC in writing with a demonstration made to the satisfaction of TDEC That any such invasive activity or soil removal will be performed in such a way as to not pose a danger to public health, safety, or the environment. Such invasive work beneath SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and AOC-GW shall not commence until TDEC has issued its written approval which shall not be unreasonably withheld. Any approval granted by TDEC for the restricted activity shall be in writing, must contain reference to these Land Use Restrictions, and shall be filed with the Shelby County Register of Deeds. Soil sampling and environmental testing approved by TDEC can also be used to demonstrate that the invasive activity will not pose a danger to public health, safety, or the environment. TDEC approval to perform soil sampling or environmental testing does not require a filing with the Register of Deeds.
2. Remedy Components for units requiring Institutional/Administrative Controls include restricted site access (for the active manufacturing facility), warning signs, cover materials present, excavation restrictions and semi-annual visual inspections.

Remedy Components for units requiring Industrial Use Restrictions include restricted site access (for the active manufacturing facility), cover materials present, excavation restrictions and semi-annual visual inspections. No other physical requirements or administrative controls are required.

Biennial groundwater and surface water sampling events are typically conducted in the fourth quarter of odd-numbered calendar years. Table 1 identifies the solid waste management unit (SWMU) or area of concern (AOC) and the required remedy.

Table 1. Remedy Components for Areas of Concern / Solid Waste Management Unit								
SWM U/ AOC	SWMU/AOC Name	Remedy	Remedy Components					
			Within Facility	Signage	Cover Intact	Excavation Restrictions	Semi-Annual	Biennial Sampling
19-2	Landfills A-5 through A-8	Industrial Use Restrictions	X		X	X	X	
19-4	Landfill A-9	Industrial Use Restrictions	X		X	X	X	
24	Oil/Water Separators	Institutional/Administrative Controls	X	X	X	X	X	
35	Divert Pond	Industrial Use Restrictions	X		X	X	X	
37	Landfills B-1 and B-2	Institutional/Administrative Controls	X	X	X	X	X	
40	Wastewater Collection and Drainage Ditch System	Industrial Use Restrictions	X	X	X	X	X	
42	Emergency Pond	Institutional/Administrative Controls		X	X	X	X	
53	HCN Refining Caustic Leak	Industrial Use Restrictions	X	X	X	X	X	
AOC GW	Site Groundwater	Monitoring to Ensure Protection of Human Health and Environment				X		X

3. Prior to the removal or excavation of any soil, groundwater, or buried waste material on or in SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and AOC-GW, The Grantor, its successors, and/or assigns must notify TDEC and must demonstrate to the satisfaction of TDEC that (1) any such proposed removal will not pose a danger to public health, safety, or the environment, and (2) that such removed soil, groundwater, or wastes will be managed in accordance with any applicable regulations. The TDEC Division of Solid Waste Management shall approve any such proposed actions prior to commencement. Any approval granted by TDEC for such removals shall be in writing, must contain a reference to this instrument, and shall be filed with the Shelby County Register of Deeds.
4. No drinking water supply, or other domestic water well, shall be installed or used at SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and AOC-GW without prior notice to and approval of TDEC. Any such approval for additional wells shall be in writing, must contain a reference to this instrument, and shall be filed with the Shelby County Register of Deeds. Nothing in

this paragraph shall require any additional notice, approvals, or filings for any monitoring wells at SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and AOC-GW.

5. Unless and until TDEC provides written confirmation that groundwater monitoring is no longer required at the Site, there shall be no interference with access to groundwater monitoring wells onsite for purposes of groundwater monitoring activities or maintenance or repair of such wells.

Enforcement

Any owner of SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and AOC-GW or any unit of local government having jurisdiction over any part of SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and AOC-GW may enforce this Notice of Land Use Restrictions by means of a civil action. The Commissioner of TDEC may enforce this Notice of Land Use Restrictions through the issuance of an Administrative Order or by means of a civil action, including one to obtain an injunction against present or threatened violations of the restriction. Pursuant to T.C.A Section 68-212-213, any person who fails, neglects or refuses to comply with a land use restriction commits a Class B misdemeanor and is subject to the assessment of a civil penalty of up to ten thousand dollars (\$10,000) per day.

Term

This Notice of Land Use Restrictions shall run with and bind SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and AOC-GW unless and until this Declaration shall be made less stringent or canceled as set forth under the paragraph entitled "Amendment and Termination."

Amendment and Termination

This Notice of Land Use Restrictions may be made less stringent or canceled by the Commissioner of TDEC if the risk has been eliminated or reduced so that the less restrictive land use controls are protective of human health and environment. Contact the TDEC Division of Solid and Hazardous Waste Management for further information concerning SWMUs 19-2, 19-4, 24, 35, 37, 40, 42, 53, and AOC-GW and refer to Facility ID No. TND007024672. No amendment to or termination of this Notice of Land Use Restrictions shall be effective until such amendment or instrument is recorded by the Shelby County Register of Deeds. An amendment or termination of this land use restriction subject to TDEC approval must be approved in writing before any amendment or termination is made.

Severability

Invalidation of any of these covenants or restrictions by judgment or court order shall in no way effect other provisions, which shall remain in full force and effect.

COVORO MINING SOLUTIONS LLC,
a Delaware limited liability company

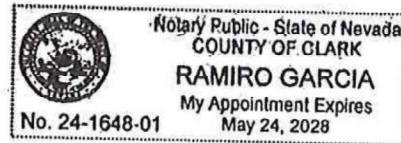
By: 
James Stockbridge, President

STATE OF NEVADA)
COUNTY OF Clark)

Before me, the undersigned Notary Public in and for the State and County aforesaid, personally appeared **JAMES STOCKBRIDGE**, with whom I am personally acquainted, (or proved to me on the basis of satisfactory evidence to be the person) and who, acknowledged himself to be the President of **Covoro Mining Solutions, LLC**, a Delaware limited liability company, (the "Company"), and that he, on behalf of such Company, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing the name of the Company by himself as the President of the said Company.

Witness my hand and seal at office on this 25th day of September, 2024.


Notary Public



My commission expires: 05/24/2028

EPA ID Number: TND007024672

Permit Number: TNHW-182

ATTACHMENT 5.2. TRACT 1 LAND PARCEL DESCRIPTION

**EXHIBIT B
TRACT 1**

Exhibit B

TRACT 1

Beginning at a set iron pin at the intersection of the west right of way line of Old Millington Road and the south right of way line of Fite Road; thence from said point of Beginning and with said west right of way line the following two (2) courses to wit: (1) South 26°42'05" West for a distance of 2294.55 feet to a found concrete monument; (2) South 26°42'05" West for a distance of 812.91 feet to a point; thence with the Illinois Central Railroad line the following two (2) courses to wit: (1) South 49°34'05" West for a distance of 243.31 feet to a set iron pin; (2) South 49°34'05" West for a distance of 573.29 feet, passing a set iron pin at 532.13 feet, to a point in the Loosahatchie River; thence with said river the following six (6) courses to wit: (1) North 41°05'35" West for a distance of 38.33 feet to a point; (2) South 76°48'25" West for a distance of 300.00 feet to a point; (3) South 88°48'25" West for a distance of 235.00 feet to a point; (4) North 85°56'35" West for a distance of 620.00 feet to a point; (5) South 85°18'25" West for a distance of 440.00 feet to a point; (6) South 72°18'25" West for a distance of 146.92 feet to a point; thence North 08°08'10" East for a distance of 1647.68 feet, passing a set iron pin at 150.00 feet, to a set iron pin; thence continuing North 08°08'10" East for a distance of 54.03 feet to a set iron pin; thence continuing North 08°08'10" East for a distance of 591.90 feet to a set iron pin; North 81°51'50" West for a distance of 778.00 feet to a point; thence South 37°27'40" West for a distance of 40.53 feet to a point; thence North 81°51'50" West for a distance of 135.84 feet to a set iron pin on the east right of way line of U.S. Highway 51; thence along said east right of way line North 37°18'10" East for a distance of 752.77 feet to a set iron pin; thence South 62°49'19" East for a distance of 284.43 feet to a point; thence South 52°41'50" East for a distance of 341.22 feet to a set iron pin; thence North 08°08'10" East for a distance of 492.50 feet to a set iron pin; thence North 52°41'50" West for a distance of 381.20 feet to a set iron pin on said east right of way of U.S. Highway 51 North 37°18'10" East for a distance of 606.92 feet to a point; thence North 88°56'21" East for a distance of 393.26 feet to a point on the south right of way line of Fite Road; thence along said south right of way line the following two (2) courses to wit: (1) South 81°02'55" East for a distance of 1059.63 feet to a point; (2) South 79°55'20" East for a distance of 401.92 feet to a set PK Nail; thence with the Lucite line the following twelve (12) courses to wit: (1) South 09°11'46" West for a distance of 279.02 feet to a set PK Nail; (2) North 81°44'32" West for a distance of 91.36 feet to a set PK Nail; (3) South 08°15'40" West for a distance of 890.38 feet to a set PK Nail; (4) South 81°53'13" East for a distance of 810.58 feet to a set PK Nail; (5) North 84°32'44" East for a distance of 86.63 feet to a set PK Nail; (6) North 52°55'28" East for a distance of 250.83 feet to a set nail; (7) North 40°59'20" East for a distance of 110.27 feet to a set nail; (8) North 34°56'51" East for a distance of 142.88 feet to a set nail; (9) North 26°36'25" East for a distance of 69.94 feet to a set nail; (10) North 21°19'31" East for a distance of 99.57 feet to a set nail; (11) North 24°59'02" East for a distance of 79.28 feet to a set nail; (12) North 26°53'05" East for a distance of 523.92 feet to a set iron pin on said south right of way line of Fite Road; thence with said south right of way line South 83°01'05" East for a distance of 103.94 feet to the Point of Beginning. Containing 202.25 acres.