

Division of Mining & Solid Waste Management
Mining & Reclamation Program
2600 Bull Street

Columbia, S.C. 29201

August 28, 2024

Adrian Sand LLC Attn: Chris Lewis 3530 HWY 301 West Conway, SC 29526 chris@heritagehauling.com CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: Approval of Application and Reclamation Plan for a Mine Operating Permit Issuance of an Individual Mine Operating Permit Mine Permit #I-002411 | Adrian Sand/Clay Mine | Horry County

Dear Mr. Chris Lewis:

The S.C. Department of Environmental Services (SCDES) has approved the application and reclamation plan for the Adrian Sand/Clay Mine as of the date of this letter. SCDES has received the reclamation bond submitted in the amount of \$25,000.00.

With the receipt of the reclamation bond and the approval of the application and reclamation plan, this letter serves as official notification that the Individual Mine Operating Permit for the Adrian Sand/Clay Mine is being issued as of the date of this letter. Enclosed are the permit document, reclamation plan, coastal zone consistency determination, and mine and reclamation maps.

Should there be any questions or if we may be of further assistance, please do not hesitate to contact the compliance manager, Colby Myers, at 803-898-3079 or by e-mail at Colby.Myers@des.sc.gov. Caylie Mullen is the regional mine inspector for Horry County and can be reached at (843) 438-3496 or by e-mail at Caylie.Mullen@des.sc.gov.

Respectfully,

Jeremy E. Eddy, P.G.

Manager, Mining & Reclamation Program

Cc: Marty Lindler, Colby Myers, Caylie Mullen, Brett Caswell, Steve Gosnell (Horry County), Andrew

Markunas (Horry County), Kevin Hardee (Horry County), Craig Kennedy (Consultant)

Encl: Permit document, reclamation plan, coastal zone consistency determination, and maps.



INDIVIDUAL MINE OPERATING PERMIT

Adrian Sand/Clay Mine Adrian Sand, LLC

Adrian Sand, LLC, a corporation, has been granted a Mine Operating Permit, Mine Permit Number I-002411, to operate the Adrian Sand/Clay Mine in accordance with this Permit, the approved Reclamation Plan, the S.C. Mining Act (S.C. Code Sections 48-20-10 et seq., 1976), and Regulations 89-10 et seq. The operator shall conduct this operation as represented in documents submitted to support the issuance of this permit.

JEREMYE. EDDY, P.G.

MANAGER - MINING AND RECLAMATION PROGRAM DIVISION OF MINING AND SOLID WASTE MANAGEMENT

PERMIT NUMBER: 1-002411

ORIGINALLY ISSUED: August 28, 2024

MODIFIED: N/A



Part I: GENERAL INFORMATION

In accordance with Section 48-20-60 of the South Carolina Mining Act, this Mine Operating Permit will remain valid unless it terminates as set forth in R.89-270 or is revoked in accordance with Section 48-20-160 and R.89-280. The anticipated mining completion date is shown on the *Schedule for Conservation and Reclamation Practices* in the *Reclamation Plan*.

The approved *Permit Application, Reclamation Plan*, and all supplemental information referenced herein, are an integral part of this permit. *Land Entry Agreements and Mine Maps* as identified in Part II and Part IV, respectively, are also a part of this permit.

CONTACT INFORMATION:

Home Office Address: Adrian Sand LLC

3530 Hwy 501 West Conway, SC 29526

Local Office Address: Same as Above

Address for Official Mail: Adrian Sand, LLC

3530 Hwy 501 West Conway, SC 29526

Company personnel and title to be the contact for official business and correspondence [South Carolina Department of Environmental Services (SCDES) should be notified in writing immediately of any change in contact, address, telephone or e-mail]:

Chris Lewis Telephone: (843) 455-4121

Partner Email: chris@heritagehauling.com

LOCATION: The mine is located on the Adrian, SC U.S.G.S. 7.5' Topographic Map. The approximate geographic coordinates for the site are:

Latitude: <u>33.951507</u> Longitude: <u>-79.009334</u>

LOCATION DESCRIPTION: The operation is located in Horry County, approximately 7 mile(s) north of Conway, S.C. Specifically, the site is located 0.2 miles north of the intersection of Chow Lane and Adrian Highway.

Part II: PERMITTED LAND

This permit allows Adrian Sand, LLC, also referred to as the operator, to conduct mining operations within the permitted land as defined through the *Land Entry Agreement* submitted as part of the application. Permitted land as defined by Section 48-20-40(18) is "the affected land in addition to (a) lands identified for future mining to become affected land; (b) and undisturbed or buffer area that is or may become adjacent to the affected land." Therefore, this permit grants the operator the right to conduct active mining operations within the specified affected land, delineate land for future mine areas as future reserves, and to establish undisturbed buffer zones to mitigate any adverse effects to the surrounding environment.

AFFECTED LAND: 29.3 acres of land are to be affected by Adrian Sand, LLC under the current mine plan; 15.7 of the affected acres are currently bonded (Segments 1-3 and Sediment Basin). The affected acres are derived from the operator's response in the *Application for a Mine Operating Permit* and are shown on the approved mine map(s). See Part X: Additional Terms and Conditions #7 for more information.

FUTURE RESERVES: 0.0 acres are identified as future reserves and are specified on the mine site map. Prior to the initiation of activity in future reserves, the operator shall submit detailed mine and reclamation plans to SCDES for approval.

BUFFER AREAS: 23.0 acres are identified as buffer area, setbacks, or areas that will not be disturbed beyond the pre-mine natural state. These buffer areas are identified on the mine site map. Acres designated as buffer areas are not bonded under the reclamation bond. Any activity within the buffer areas (e.g. removal of timber) shall require **prior** notification and approval by SCDES.

TOTAL PERMITTED AREA: 52.3 acres as submitted on the Land Entry Agreement(s).

<u>LAND ENTRY AGREEMENTS:</u> The operator is required to furnish and maintain up-to-date *Land Entry Agreements* on all lands covered under this permit. Any change in ownership on any portion of land covered by this permit, the operator is responsible for furnishing the appropriate and completed *Land Entry Agreements* (Forms MR-600 or MR-700) to SCDES within 30 days of the change of ownership.

Land Owner(s) as Listed on Land Entry Agreement(s):

TMS #: 084-00-02-006, 084-00-02-018 Adrian Sand, LLC

Total acres of the contiguous tract(s) of land for which the permit is granted:

OWNED <u>52.3</u> LEASED <u>0.0</u> TOTAL <u>52.3</u>

Part III: FINANCIAL ASSURANCE FOR RECLAMATION

The financial assurance for reclamation is based upon the total affected acres. Pursuant to Section 48-20-70 and R.89-200, the financial assurance for this mining permit is set at \$25,000.00. The financial assurance shall remain in force and continuous throughout the life of the mining operation and shall only be released, partially or in full, back to the operator after the operator has completed reclamation in accordance with the approved *Reclamation Plan* and the minimum standards in R.89-330.

Part IV: MINE OPERATIONS

Adrian Sand, LLC is permitted to mine sand and clay at the Adrian Sand/Clay Mine. The maximum depth to the pit floor shall not exceed 20 feet mean sea level (to an approximate elevation of 30 feet below ground surface as measured from the lowest ground surface elevation). Mining will take place on tracts of land owned by the referenced operator. These tracts of land are identified in the submitted *Land Entry Agreements* (LEAs).

MINE/PIT CHARACTERIZATION:

The sand and clay will be excavated and stockpiled on site. Ground clearing will be accomplished by bulldozer. Excavation, stockpiling, and the loading of material will be done by excavator and front-end loader. Dump trucks will be used to haul material off-site. Grading for reclamation will be done with a bulldozer. Adequate amounts of topsoil shall be stockpiled for reclamation of the affected area. Excess topsoil not needed for reclamation may be sold.

PROCESSING PLANT LOCATED ON MINE SITE:

Processing plants are not permitted at this mine site. Screens set to remove roots or other organic matter from the topsoil are not considered to be processing and are allowed on this site.

MINE DEWATERING:

The water table at the mine site is relatively shallow, and lowering of the water table via dewatering may be necessary to facilitate mining. Additionally, where feasible, stormwater runoff shall be diverted into the pit, collected into the sump, and discharged in the same manner as groundwater. Any accumulation of groundwater and stormwater shall be pumped into a sediment basin prior to discharge. Water discharged from the mine to a receiving stream must be discharged through an outfall regulated by an NPDES permit.

If an operator receives a complaint concerning adverse impacts to neighboring wells, the operator is to notify SCDES's Manager of the Mining and Reclamation Section, Columbia, SC, within 24 hours. After investigation, if SCDES determines dewatering activities at the mine are affecting a drinking water well or water supply well, the operator shall be responsible for repairing, deepening, or re-drilling such wells. Until that permanent water supply is re-established, the operator shall supply the owner with a temporary water supply (e.g., bottled water for drinking, provisions for laundry).

Active pumping and discharge of water shall cease if the dewatering discharge causes flooding conditions to property downstream of the mine site.

BLASTING:

Blasting operations are not permitted at this mine site.

NOISE MONITORING AND CONTROL:

The operator shall use Best Management Practices (BMPs) to minimize noise from the mine site. These noise BMPs shall include, at a minimum, proper maintenance of mufflers on equipment (trucks, trackhoes, pumps, etc.) and consideration of special buffering measures if planning to operate equipment during nighttime hours.

OTHER STATE OR FEDERAL PERMITS:

The operator must obtain, maintain, and update, as appropriate, all necessary State and Federal permits in order to construct and operate the mine.

Part V: MAPS

The mine site map was prepared by Kennedy Consulting Services, LLC. This map is further identified with the following SCDES map number and is part of the operating permit:

SM-2411-1V1 Adrian Sand/ Clay Pit Mine Map Dated: October 26, 2023

The reclamation map was prepared by Kennedy Consulting Services, LLC. This map is further identified with the following SCDES map number and is part of the operating permit:

RM-2411-1V1 Adrian Sand/Clay Pit Reclamation Map Dated: October 26, 2023

Part VI: PROTECTION OF NATURAL RESOURCES

MINE SITE AND SURROUNDING AREA:

Prior to mining activities, this site's land use type was undeveloped; the immediate area around this site is rural. The topography of this area is slightly variable (i.e., mostly flat), with surface elevation ranging from 50-60 ft. MSL. There are residential area(s) east of the mine site.

PUBLIC SAFETY:

A gate shall be installed at the entrance to the mine site and kept locked during inactive periods. *Warning* and/or *Danger* signs shall be posted around the perimeter of the property. In the future, if determined to be necessary by SCDES, an appropriate fence shall be installed around the affected area.

Operator shall use BMPs to prevent accumulation of sediment/soil on public roads carried by trucks and other vehicles exiting the mine site; any accumulations shall be removed by the operator on a daily basis or more frequently if needed. To reduce the potential of trackout on public roads, the operator shall construct a crushed stone "mud mat" that extends the width of the haul road and stretches a minimum of one hundred (100) feet in length.

The operator shall establish a protected area or establish procedures to minimize fuel spillage or incidental spillage of other petroleum products during storage, refueling of equipment or in the performance of routine maintenance on equipment. Contaminated materials resulting from contact with petroleum products shall be removed from the site and disposed of properly to prevent contamination to ground and surface water resources.

To minimize the potential for landslides or unstable mine walls, the operator shall grade side slopes as excavation progresses, and maintain slopes no steeper than a 3H:1V gradient. The operator is responsible for maintaining stable mine walls and appropriate setbacks to prevent significant slumping that may encroach into non-permitted lands.

PUBLICLY-OWNED PARKS, FORESTS, OR RECREATION AREAS:

There are no publicly owned parks, forests, or recreation areas near this mine site.

WETLANDS AND SURFACE WATER AREAS:

Maple Swamp is approximately 500ft north of the affected area. Wetlands can be found north, east, and west of some segments of the affected area, as shown on the mine map.

The operator shall maintain a minimum 50ft. undisturbed buffer between all land disturbance activity and any USACE jurisdictional wetlands. This buffer shall be permanently flagged prior to the initiation of any mine activity. The flags shall be maintained throughout the active mine operation of the site. The operator is allowed to discharge accumulated stormwater–that meets NPDES permit limits–into wetlands through a regulated NPDES outfall.

The operator shall comply with the NPDES General Permit for Non-metallic Mineral Mining and Stormwater Pollution Prevention Plan developed for the mine.

SIGNIFICANT CULTURAL OR HISTORICAL SITES:

No significant cultural or historical sites have been identified.

If archaeological materials are encountered prior to or during the construction of mine facilities or during mining, the S.C. Department of Archives and History, S.C. Department of Anthropology and Archaeology, and SCDES should be notified immediately. Archaeological materials consist of any items, fifty years or older, which were made or used by humans. These items include, but are not limited to, stone projectile points (arrowheads), ceramic sherds, bricks, oyster shell, worked wood, bone and stone, metal and glass objects, human skeletal remains, and concentrations of charcoal and stones below the ground surface. These materials may be present on the ground surface and/or under the surface of the ground.

WILDLIFE:

Common wildlife typical to this area can be found in and around this site. Potential habitats for several species of concern can be found in adjacent properties to the site. The spotted turtle (*Clemmys guttata*) was observed 2 miles away from the affected area. Potential habitats for the Tricolored Bat (*Perimyotis subflavus*) and the Rafinesque's Big Eared Bat (*Corynorhinus rafinesquii*) were observed within the forested wetlands and pine-mixed hardwoods in Maple Swamp. Please see Part X: *Additional Terms and Conditions* #2-4 for additional information related to the protection/relocation of these species.

VISUAL SCREEN:

To appropriately screen the operation from view, the operator shall maintain a minimum 50ft. undisturbed buffer between mining activity and all property lines, as shown on the mine map. A 10-foot high and minimum 40-footwide vegetated earthen berm shall be constructed and maintained on the mine side of this undisturbed buffer, along the eastern and southeastern side, as shown on the mine map. During active mining, the berms shall be sloped 2H:1V; for final reclamation, all slopes must be 3H:1V.

ACID WATER GENERATION:

Acid water is not anticipated to be generated from the oxidation of existing minerals currently found on this site.

AIR QUALITY:

The mine operator will use appropriate measures (e.g. water truck, dust suppressants) to control fugitive dust created by moving equipment along haul roads. The operator, where feasible, shall establish vegetation in non-active mine areas barren of vegetation to stabilize the soil and reduce potential for wind erosion and dust emissions.

Part VII: STANDARD CONDITIONS OF MINE OPERATING PERMIT

SURVEY MONUMENTS:

In accordance to R.89-130, the operator shall install and maintain the two required permanent survey monuments, or control points, within the permitted area as shown on the mine site map. At the discretion of SCDES, the operator may be required to mark the area to be affected with flagging or other appropriate measures.

RIGHT OF ENTRY:

Pursuant to Section 48-20-130 and R.89-240, the operator shall grant SCDES and/or duly appointed representatives access to the permitted area for inspection to determine whether the operator has complied with the reclamation plan, the requirements of this chapter, rules and regulations promulgated hereunder, and any terms and conditions of this permit.

RECORDS RETENTION:

All records are to be maintained through additional terms and conditions of this permit or by regulations. Records shall be kept on site or at the office identified for receipt of official mail and open for inspection during normal business hours. The records shall be maintained for a minimum of three (3) years or as specified by SCDES. The operator shall furnish copies of the records upon request to SCDES.

PERMIT MODIFICATIONS:

Pursuant to Section 48-20-80, the operator may modify the permit and/or *Reclamation Plan* upon approval by SCDES. Requests for permit and/or *Reclamation Plan* modifications may be made to SCDES on Form MR-1300. The operator shall submit any requested supporting data for consideration during SCDES's evaluation of the modification request. If a modification request is determined to be substantial by SCDES, the modification request will be public noticed pursuant to R.89-100 and a modification fee will be required as specified in R.89-340. If SCDES determines activities proposed under the *Reclamation Plan* and other terms and conditions of the permit are failing to achieve the purpose and requirements of the S.C. Mining Act and Regulations, SCDES shall notify the operator of its intentions to modify the permit and/or *Reclamation Plan* pursuant to Section 48-20-150.

TRANSFER OF PERMIT:

Pursuant to Section 48-20-70, this permit may be transferred to another responsible party. The transfer of the permit must be conducted in accordance with R.89-230. The transferor of the permit will remain liable for all reclamation obligations until all required documents, plans, and the replacement reclamation bond have been submitted and approved by SCDES. The transfer will be considered complete when all parties have received notification by certified letters of the approval of the transfer by SCDES.

DURATION OF MINE OPERATING PERMIT:

In accordance with Section 48-20-60, this Mine Operating Permit will remain valid unless this permit terminates as set forth in R.89-270 or is revoked in accordance with Section 48-20-160 and R.89-280. The proposed anticipated mining completion date is shown on the Schedule for Conservation and Reclamation Practices in the Reclamation Plan.

Pursuant to R.89-80(B), the operator shall conduct reclamation simultaneously with mining whenever feasible. Reclamation shall be initiated at the earliest practicable time, but no later than 180 days following termination of mining of any segment of the mine, and shall be completed within two years after completion or termination of mining on any segment of the mine.

Part VIII: ENFORCEMENT ACTIONS

Pursuant to Section 48-20-30 of the S.C. Mining Act, "SCDES has ultimate authority, subject to the appeal provisions of this chapter, over all mining, as defined in this chapter, and the provisions of the chapter regulating and controlling such activity." This allows SCDES to assist, cooperate with, or supersede other State agencies in taking enforcement action on violations of the State Regulations or violations of the S.C. Mining Act to ensure the purposes of this Act are enforced.

The operator shall comply at all times with all conditions of this mine operating permit. Non-compliance with this mining permit, statute, or regulations could lead to permit revocation and bond forfeiture pursuant to Sections 48-20-160 and 48-20-170 or other enforcement action allowed by law.

Compliance with the Mine Operating Permit requires the operator to conduct the mining operation as described in the approved *Application for a Mine Operating Permit*. Variance from the *Application for a Mine Operating Permit*, this permit, statute or regulation, without first receiving SCDES approval, shall be deemed non-compliance with the permit.

An operator or official representative of the mine operator who willfully violates the provisions of the S.C. Mining Act, rules and regulations, or willfully misrepresents any fact in any action taken pursuant to this chapter or willfully gives false information in any application or report required by this chapter shall be deemed guilty of a misdemeanor and, upon conviction, shall be fined not less than one hundred dollars nor more than one thousand dollars for each offense. Each day of continued violation after written notification shall be considered a separate offense.

The operator is responsible for all mining activity on the permitted mine site.

Part IX: REPORTS

ANNUAL RECLAMATION REPORTS:

The operator shall comply with Section 48-20-120 and Regulation 89-210 and submit an *Annual Reclamation Report* on Form MR-1100 as supplied by SCDES. The form for the report will be made available to the operator electronically. The operator should receive access to the report form from SCDES by July 1 of each year; however, the operator is ultimately responsible for obtaining the *Annual Reclamation Report* form and is not excused from penalty fees for failure to submit the report on time.

The Annual Operating Fee is a part of the *Annual Reclamation Report*. Failure to submit a complete *Annual Reclamation Report* and fee, in accordance with Section 48-20-120 and R.89-340, will result in a late penalty payment. The *Annual Reclamation Report* and Annual Operating Fee are required if there is any permitted land not fully reclaimed and released by SCDES by June 30 of <u>each</u> year.

SPECIAL REPORTS:

SCDES may at any time request information, data, or explanations from the operator as to conditions relating to the permitted mine site. Such requests from SCDES shall be made in writing to the operator with an appropriate time frame stated for the submittal of the requested information to SCDES. The operator must produce the information requested within the timeframe specified by SCDES.

Part X: ADDITIONAL TERMS AND CONDITIONS

- 1. Temporary or permanent placement of refuse and debris (e.g., concrete, brick, asphalt) from off-site locations is prohibited without approval by SCDES. The operator is approved to use topsoil material brought in from off-site locations for the purpose of mine land reclamation. The operator must maintain records detailing information on the material including source location (TMS of parcel), estimated volume of soils brought into the mine, and the approximate location of the disposition in the mine. Laboratory results of any testing should be included. The logbook must be made available to SCDES upon request.
- 2. Spotted Turtles Prior to mining-related activities, the operator shall install silt fencing from November 15th through January 15th. Silt fencing should include 45-degree arms to direct spotted turtles to the uplands and away from any mining-related disturbances. The silt fence arms should extend at least 50 feet in each direction so that the ends meet to form a triangle. The silt fencing shall be placed outside of the 50-foot wetland buffers. Silt fencing should be monitored on a monthly basis for integrity.
- 3. Rafinesque's Big Eared Bat The site has been previously cleared of any trees that may be reasonably used as maternity roost trees. The applicant shall avoid any tree clearing in adjacent forested wetlands near Maple Swamp.
- 4. Tricolored Bat If/when the Tricolored Bat is placed on the list of threatened and endangered species, the applicant shall comply with the U.S Fish and Wildlife Service's mitigation practices.
- 5. The operator shall employ the use of a water truck or automatic sprinklers for wet suppression of all roads at the site. Except for the days when there is measurable precipitation, the truck shall spray all roads at least once daily. The operator shall maintain a log documenting the date and times the truck was in operation and shall make this log available to SCDES officials upon request.
- 6. The operator shall comply with the approved Coastal Zone Consistency Determination issued under the SC Coastal Zone Management Program by SCDES's Bureau of Coastal Management (BCM). See Appendix B.
- 7. Prior to initiating mining operations in Segments 4 & 5, the operator shall submit an updated reclamation cost estimate to SCDES for approval and adjust the financial assurance mechanism, as appropriate.

APPENDIX A

MODIFICATIONS TO MINE PERMIT I-002411

NUMBER	DATE	DESCRIPTION OF MODIFICATION (PA= Permitted Acreage; AA= Affected, Bonded Acreage; FR= Reserves Acreage, B= Buffer Acreage)
Issue	8/28/24	PA = 52.3ac., AA = 29.3ac., FR = 0.0ac., B = 23.0ac. Permit issued.



Coastal Zone Consistency Determination

To: Katelyn E. Mills, BLWM Mining and Reclamation Permitting Section

From: Benjamin Thépaut, BCM Coastal Zone Consistency Section &

Applicant: Adrian Sand, LLC

Project Name: Adrian Sand/Clay Mine

Finding: Conditionally Consistent with the SC Coastal Zone Management Program

Site Location: Chow Lane, Conway, Horry County, South Carolina

(TMS#: 084-00-02-018, 066)

Reference #: HPY-KZXX-GRDHR

Date: July 24, 2024

The staff of the Bureau of Coastal Management (BCM) reviewed the above referenced Coastal Zone Consistency project request for land disturbance associated with new mine for sand/clay. Mining activities include excavation by earthwork equipment and removal offsite using dump trucks. Stormwater Management includes BMP's and settling basins for each respective segment. A proposed reclamation plan involves restoring the site to a lake and grasslands. The total area of disturbance will be 29.3 acres of a 52.3 acre project site

We hereby certify that the above referenced project is **Conditionally Consistent** with the **Guidelines for Evaluation of All Projects** as well as the Coastal Industries (Mineral Extraction) and Stormwater Management (Mines and Landfills) policies contained in the S.C. Coastal Zone Management Program provided the following conditions are included in the permits and adhered to by the applicant.

1. In the event that any historic or cultural resources and/or archaeological materials are found during the course of work, the applicant must notify the State Historic Preservation Office and the South Carolina Institute of Archaeology and Anthropology. Historic or cultural resources consist of those sites listed in the National Register of Historic Places and those sites that are eligible for the National Register. Archaeological materials consist of any items, fifty years old or older, which were made or used by man. These items include, but are not limited to, stone projectile points (arrowheads), ceramic sherds, bricks, worked wood, bone and stone, metal and glass objects, and human skeletal materials.

- 2. The project must be consistent with State Stormwater Permitting requirements during and post construction for protection of water quality.
- All construction BMPs must be installed, inspected and maintained to hold sediment onsite and to protect any adjacent or downstream critical area, wetlands and waters through the life of the project. Upon completion of construction activities, all disturbed (includes undeveloped) areas, including those impacted for access, must be immediately stabilized.
- 4. The project must be fully consistent with local zoning and comprehensive plans prior to work being conducted.
- The applicant is not authorized to impact any wetlands. In the event any impacts to wetlands occur, the US Army Corps of Engineers and DHEC-OCRM must be notified and all work must cease to minimize additional impacts until the applicant receives authorization.
- 6. The applicant has agreed to the following Wildlife and Habitat Management for state-threatened Spotted Turtle (Clemmys guttata):
 - a. Prior to any construction activity, install silt fencing from November 15th through January 15th. Silt fencing should include 45-degree arms to direct spotted turtles to the uplands adjacent to the waterbody (wetland) and away from the construction site. The 45-degree arms should be placed at a minimum of 100 ft from the waterbody and no more than 300 ft from the waterbody. Additionally, silt fence arms should extend at least 50-ft and extend in each direction so that the ends of each 45-degree angle to the fence meet to form a triangle. Silt fencing should remain in place throughout the duration of the proposed construction activities.
 - b. Prior to construction, monitor the silt fencing to ensure it is effectively working properly on a monthly basis. This should effectively exclude the species from the project area prior to construction activities. Once construction activities begin, the silt fence should be monitored weekly for the integrity of the fencing and the presence of spotted turtles or other herpetofauna or small wildlife species. If spotted turtles are encountered, the SCDNR state herpetologist should be notified immediately by calling 843-527-8448.
 - c. Spotted turtles may be allowed to be relocated into areas of suitable habitat, management, and conservation status; however, any plans for relocation should be submitted for review to SCDNR with a detailed description and images of the current and future habitat and proposed work plan and methodologies as it pertains to a relocation project. It should be noted that not all habitats are suitable for relocation.

This determination shall serve as the SCDES BCM Coastal Zone Consistency Determination for the work described above. However, this determination *does not* serve as a Department permitting decision and *does not* alleviate the applicant's responsibility to obtain any applicable State or Federal permit(s) for the work. Local government authorizations *may also* be required.

MR-500 Reclamation Plan for an Individual Mine Operating Permit

Environmental Protection

Describe practices to protect adjacent resources such as roads, wildlife areas, woodland, cropland and others during mining and reclamation.

During mining, wildlife areas, woodlands, cropland and residences will be protected with a variety of methods. Protection of these resources can be achieved in part by observing setbacks to property lines, conducting concurrent reclamation as feasible, using accepted agronomic practices to establish temporary and permanent vegetation. Wildlife may be temporarily displaced during mining; however, experience has shown once mining ceases and reclamation completed new wildlife habitats are formed and populated by indigenous animal species.

Describe proposed methods to limit significant adverse effects on adjacent surface water and groundwater resources.

The primary strategy to protect adjacent surface water during mining will be to contain stormwater runoff within the pits as much as feasible. Additionally, all surface waters will be protected by complying with the NPDES permit requirements. Parameters are set to be protective of aquatic life in the receiving streams and human health and safety. Stormwater will be managed using best management practices and complying with SC DHEC s NPDES General Permit for Discharges Associated with Nonmetal Mineral Mining. Furthermore, the operator will implement accepted soil and water conservation practices to stabilize disturbed soil. These practices include, at a minimum, proper soil preparation (e.g., grading, scarifying, fertilizing, etc.), seed selection, planting techniques and maintenance until vegetation becomes self-sustaining.

Groundwater will be protected because mining will not use any chemicals; consequently, no potential for groundwater pollution from mining. Additionally, due to the shallow depth of mining, groundwater drawdown will be limited. Consequently, mining will not adversely impact any residential water wells due to distance and limited groundwater drawdown.

Describe method to prevent or eliminate conditions that could be hazardous to animal or fish life in or adjacent to the permitted area.

Proper reclamation of the mine site will include stabilizing all disturbed soils with vegetation, removal of mine equipment, cleanup of any spillage of petroleum products, and removal of scrap material. Setbacks and established buffers along wetlands will provide protection to fisheries in nearby streams. Establishing 3:1 slopes around the pit will remove hazardous conditions for the public and indigenous animal populations.

Describe how applicant will comply with State air quality and water quality standards as established by the S.C. Department of Health and Environmental Control.

Where a process plant is absent as part of the mining operations, an Air Quality Permit from DHEC is not required. However, air quality will be protected during mining with a water truck, if necessary, to add moisture and prevent fugitive dust emissions from mobile equipment. After mining, vegetation will be established to stabilize the soil and prevent windblown dust from occurring.

Water quality will be protected with use of a sediment basin and complying with NPDES water quality standards.

Reclamation of Affected Area

State useful purpose(s) the affected land is being proposed for reclamation.

Lake or Pond Grassland

Feasibility Documentation Attachment

NONE PROVIDED Comment NONE PROVIDED

Will the final maximum surface gradient (slope) in soil, sand, or other unconsolidated materials be steeper than 3 Horizontal: 1 Vertical (18 degrees or 33 percent)?

No

How will the final slopes in unconsolidated material be accomplished?

All slopes will be accomplished either by grading final slopes or backfilling overburden that will be available on-site. Additionally, clean fill material from off-site sources may be backfilled into mined out segments. The backfill material originating from off-site sources will be free of concrete, bricks, masonry blocks, asphalt, land-clearing debris and solid waste materials as defined in R.61-107.19 Part IB. (76). The off-site soils to be backfilled will be free of contamination by hazardous constituents listed in the SC Hazardous Waste Management Regulations 61-79.261, petroleum products or lead based paint.

If the slope will be by backfilling, demonstrate that

there is adequate material to accomplish the stated final gradient. If gradient is to be achieved by bringing in material from outside the permitted area, state the nature of the material and approximate quantities. If the gradient is to be achieved by grading, show that there is adequate area for grading to achieve gradient (i.e., adequate distance between the property line and edge of highwall).

Final slopes calculations or other supporting information attachment(s)

NONE PROVIDED

Comment

NONE PROVIDED

Describe the plan for revegetation or other surface treatment of affected area(s). The revegetation plan shall include but not be limited to the following: (a) planned soil test; (b) site preparation and fertilization; (c) seed or plant selection; (d) rate of seeding or amount of planting per acre; (e) maintenance.

(a) Planned Soil Test

Soil analysis will be performed to determine the need for pH adjustment and nutrients. Different soils will be sampled separately. Soil samples will be taken in advance of planting. Soil samples will be submitted to the cooperative NRCS or Clemson extension services or commercial lab for analysis.

(b) Site Preparation & fertilization

Grading, shaping, and other earth moving will be completed to the extent necessary to permit seeding or planting. Tillage shall be the minimum needed to break compaction; incorporate fertilizers when incorporation of them is required; and provide enough loose soil to cover the seed when seed are to be drilled or covered by harrowing or cultipacking.

Soil amendments will be added as necessary to promote conditions suitable for plant growth (i.e., organic matter). Agricultural limestone will be uniformly spread and incorporated as soon as possible to allow for the pH adjustment. Incorporation also benefits relatively immobile nutrients such as phosphorus when needed. Type and rate of fertilization will be determined bases upon soil analysis.

(c) & (d) Seed or Plant Selection and Seeding Rates

Plants shall be selected based on species characteristics, site and soil conditions, the planned land use and maintenance of the area, the time of year the planting is made, and the needs and desires of the land user. Availability of seed will be one of the criteria for plant selection.

Coastal Plain Spring Seeding Mix

Grass or legume Optimum
Planting Date Seeding Rate
(# per acre) Comments
Browntop millet April- August 10 Serve as short term cover
Bermudagrass (common)
or
Coastal Panicgrass March June

March-May 4

20 broadcast, 12 drilled Hulled (chaff removed)

Pure Live Seed (PLS)
Annual lespedeza (Kobe) Feb. - April 10 Use scarified seed and inoculate

Coastal Plain Fall Seeding Mix Grass or legume Optimum Planting Date Seeding Rate
(# per acre) Comments
Rye (Abruzzi) or Oats Sept-Nov. 10 Serve as short term cover
Bahiagrass
or
Bermudagrass (common)
or
Switchgrass Jan-Dec

Aug-Oct

Oct-May 30

8

10 Dormant until spring

Unhulled (in chaff)

Crimson clover (optional) Sept-Oct 10 Serve as short term cover, inoculate

(e) Maintenance

The revegetated site will be maintained through periodic inspections to detect areas with significant erosion, seed germination failure or significant plant die off. Additionally, site will be inspected after significant storm events to detect wash outs or gullies in planted areas. Damaged areas will be repaired where necessary by fixing erosion damage and reseeding as necessary.

Does the possibility exist for (a) acid rock drainage; (b) where the National Pollutant Discharge Elimination Systems (NPDES) Permit has discharge limitation parameters other than pH and Total Suspended Solids (TSS); (c) chemically treated tailings or stockpiles (excludes fertilizer or lime for revegetation purposes)?

Describe the methods to control contaminants and permanently dispose any mine waste. This includes any soil, rock (overburden), mineral, scrap, tailings, fines, slimes, or other material directly connected with the mining, cleaning, and preparation of mineral substances mined. It also includes all waste material deposited on or in the permit area from any source.

A sand wash plant will not be operated at the mine site. Consequently, fines or other waste products from sand washing will not be generated. Overburden encountered in mining will be backfilled in the pit.

Describe the method of reclaiming settling and/or sediment ponds.

Sediment pond will be located within the pit. Consequently, the reclamation of "sediment pond" will be as part of the grading and sloping of the pit highwalls to 3:1 grade. Sediment pond will reclaimed to a pond.

Describe the method of restoring or establishing stream channels, stream banks, and site drainage to a condition to minimize erosion, siltation, and other pollution.

Not applicable - no streams will be diverted or relocated by mining.

What are the maintenance plans to insure that the reclamation practices established on the affected land will not deteriorate before released by the Department?

Areas that have undergone final reclamation practices will be maintained through periodic inspections and conducting any necessary repairs in a timely manner.

For final reclamation, submit information about practices to provide for safety to persons and to adjoining property in all excavations. Identify areas of potential danger (vertical walls, unstable slopes, unstable surface on clay slimes, etc.) and provide appropriate safety provisions.

All slopes will be graded to a maximum of 3:1 slope to ensure slope stability and remove the danger of accidental falls.

What provisions will be taken to prevent noxious, odious, or foul pools of water from collecting and remaining on the mined area? For mines to be reclaimed as lakes or ponds, provide supporting information that a minimum water depth of four (4) feet on at least fifty percent (50%) of the pond surface area can be maintained.

Sections of the pit will be reclaimed as ponds and will meet the above referenced regulatory requirement for sufficient depth.

Areas of the affected land that will receive clean soil backfill will be properly graded to prevent unwanted pools of water from collecting and prevent foul water from forming.

Identify any structures (e.g. buildings, roads) that are proposed to remain as part of final reclamation. Provide justification for leaving any structures.

No structures will remain after mining is terminated.

Attach a copy of a map of the area (referred to as the RECLAMATION MAP) that shows the reclamation practices and conservation practices to be implemented. The following should be shown (A through P - see below):

Adrian RECLAMATION MAP-(1) 24X36 Oct 26, 2023.pdf - 11/08/2023 02:03 PM

Comment

NONE PROVIDED

- A. The outline of the proposed final limits of the excavation during the number of years for which the permit is requested.
- B. The approximate final surface gradient(s) and contour(s) of the area to be reclaimed. This would include the sides and bottoms of mines reclaimed ponds and lakes.
- C. The outline of the tailings disposal area.
- D. The outline of disposal areas for spoil and refuse (exclusive of tailings ponds).
- E. The approximate location of the mean shore line of any impoundment or water body and inlet and/or outlet structures which will remain upon final reclamation.
- F. The approximate locations of access roads, haul roads, ramps or buildings which will remain upon final reclamation.
- G. The approximate locations of various vegetative treatments.
- H. The proposed locations of re-established streams, ditches or drainage channels to provide for site drainage.
- I. The proposed locations of diversions, terraces, silt fences, brush barriers or other Best Management Practices to be used for preventing or controlling erosion and off-site siltation.
- J. Proposed locations of the measures to provide safety to persons and adjoining property.
- K. Segments of the mine that can be mined and reclaimed as an ongoing basis.
- L. The boundaries of the permitted area.
- M. The boundaries of the affected area for the anticipated life of the mine.
- N. The boundaries of the 100-year floodplain, where appropriate.
- O. Identify sections of mine where the final surface gradient will be achieved by grading and/or backfilling.
- P. A legend showing the name of the applicant, the name of the proposed mine, the north arrow, the county, the scale, the date of preparation and the name and title of the person who prepared the map.

THE REQUIRED RECLAMATION MAP SHALL HAVE A NEAT, LEGIBLE APPEARANCE AND BE OF SUFFICIENT SCALE TO CLEARLY SHOW THE REQUIRED INFORMATION LISTED ABOVE. THE BASE FOR THE MAP SHALL BE EITHER A SPECIALLY PREPARED LINE DRAWING, AERIAL PHOTOGRAPH, ENLARGED USGS TOPOGRAPHIC MAP OR A RECENTLY PREPARED PLAT. RECLAMATION MAP SHOULD BE THE SAME SCALE USED FOR THE SITE MAP.

As stated in Section 48-20-90 of the S.C. Mining Act, reclamation activities, to the extent feasible, must be conducted simultaneously with mining operations. Identify which areas or segments of the mine are not feasible to reclaim simultaneously with mining. Provide reasons why reclamation can not proceed simultaneously with mining in these areas.

Not applicable

Schedule for Implementing Conservation and Reclamation Practices

Conservation & Reclamation Practices	Segment # or Area	Planned Amount	Planned Year	*Applied Amount	*Applied Year	Notes
Mark 50 ft wetland upland buffers and/or 50 ft property line buffers	Seg 1	1.2 acs	2024			NONE PROVIDED
Construct and establish sediment control- silt fences, brush barriers, etc.	Seg 1	900 lf	2024			Construct and establish sediment control- silt fences, brush barriers, etc. Segment 1 900 lf 2024 As and where necessary
Excavate sediment pond	Seg 1	1.5 acs	2024			NONE PROVIDED
Mine; route SW to pit and concurrently slope outer pit walls, as appropriate Segment 1 4.6 acs 2024 Route water from pit dewatering into previous mine segment	Seg 1	4.5 acs	2024			Mine; route SW to pit and concurrently slope outer pit walls, as appropriate Segment 1 4.6 acs 2024 Route water from pit dewatering into previous mine segment
Grade, TS, fertilized and seed for final reclamation; establish pond bank	Seg 1	0.6 ac	2024			Pond Bank
Mark 50 ft wetland upland buffers	Seg 2	1.3 acs	2024			NONE PROVIDED
Construct and establish sediment control- silt fences, brush barriers, etc	Seg 2	1,000 lf	2025			Construct and establish sediment control- silt fences, brush barriers, etc Segment 2 1,000 lf 2025 As and where necessary
Mine; route SW to pit and concurrently slope outer pit walls, as appropriate	Seg 2	4.6 acs	2025/26			Mine; route SW to pit and concurrently slope outer pit walls, as appropriate Segment 2 4.6 acs 2025/26 Route water from pit dewatering into previous mine segment

Conservation & Reclamation Practices	Segment # or Area	Planned Amount	Planned Year	*Applied Amount	*Applied Year	Notes
Grade, TS, fertilized and seed for final reclamation; see note	Seg 2	See Note	2027			Grading and revegetation may vary from 0.7 acre to 4.6 acres depending on amount of backfill
Mark 50 ft wetland upland buffers and/or 50 ft property line buffers	Seg 3	1.2 acs	TBD			NONE PROVIDED
Construct and establish sediment control- silt fences, brush barriers, etc Segment 3 1,050 If TBD As and where necessary	Seg 3	1,050 lf	TBD			Construct and establish sediment control- silt fences, brush barriers, etc Segment 3 1,050 lf TBD As and where necessary
Mine; route SW to pit and concurrently slope outer pit walls, as appropriate	Seg 3	6.2 acs	TBD			Route water from pit dewatering into previous mine segment
Grade, TS, fertilized and seed for final reclamation; See note	Seg 3	See Note	TBD			Grading and revegetation may vary from 1.1 acre to 6.2 acres depending on amount of backfill
Mark 50 ft wetland upland buffers and/or 50 ft property line buffers	Seg 4	2.3 acs	TBD			NONE PROVIDED
Construct and establish sediment control- silt fences, brush barriers, etc	Seg 4	1,900 lf	TBD			Construct and establish sediment control- silt fences, brush barriers, etc Segment 4 1,900 lf TBD As and where needed
Mine; route SW to pit and concurrently slope outer pit walls, as appropriate	Seg 4	5.2 acs	TBD			Route water from pit dewatering into previous mine segment
Grade, TS, fertilized and seed for final reclamation; see note	Seg 4	See Note	TBD			Grade, TS, fertilized and seed for final reclamation; see note Segment 4 See Note TBD Grading and revegetation may vary from 1.3 acre to 5.2 acres depending on amount of backfill
Mark 50 ft wetland upland buffers and/or 50 ft property line buffers	Seg 5	1.5 acs	TBD			NONE PROVIDED

Conservation & Reclamation Practices	Segment # or Area	Planned Amount	Planned Year	*Applied Amount	*Applied Year	Notes
Construct and establish sediment control- silt fences, brush barriers, etc	Seg 5	1,350 lf	TBD			Construct and establish sediment control- silt fences, brush barriers, etc Segment 5 1,350 lf TBD As and where needed
Mine; route SW to pit and concurrently slope outer pit walls, as appropriate	Seg 5	8.2 acs	TBD			Route water from pit dewatering into previous mine segment
Grade, TS, fertilized and seed for final reclamation; establish pond bank	Seg 5	See Note	TBD			Grade, TS, fertilized and seed for final reclamation; establish pond bank Segment 5 See note TBD Grading and revegetation may vary from 1.4 acre to 8.2 acres depending on amount of backfill
Monitor vegetation and repair as necessary until accepted by DHEC	All segments	29.3 acs	TBD			Monitor vegetation and repair as necessary until accepted by DHEC All segments 29.3 acs TBD After completion of reclamation practices in each segment
Remove equipment	All segments	29.3 acs	End of mining			NONE PROVIDED

^{*}Applied fields to be completed by department



