

Mines - Individual Operating Permit New

version 2.0

Digitally signed by:
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Date: 2024.01.04 14:46:02 -05:00
Reason: Submission Data
Location: Columbia, South Carolina



(Submission #: HPY-KZXX-GRDHR, version 2)

Details

Submission ID HPY-KZXX-GRDHR

Form Input

Form Instructions

The South Carolina Mining Act, Sections 48-20-10 through 48-20-310, Code of Laws of South Carolina, 1976, as amended provides in part: No operator may engage in mining without having first obtained from the Department an operating permit which covers the affected land and which has not been terminated, been revoked, suspended for the period in question, or otherwise become invalid. (Section 48-20-60)

Applicant Information

How are you applying for this permit?

As a Business Entity

Type of Business Entity

Limited Liability Company (LLC)

Applicant (Business Entity)

Organization Name

Adrian Sand, LLC

Phone Type	Number	Extension
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Business	843-455-4121	
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Fax

843-369-2066

Office Address

3530 Hwy 501 West

Conway, SC 29526

United States

Additional Contact(s) (1 of 2)

Contact Roles

Mining Contact

Mining Billing

Contact

Prefix

NONE PROVIDED

First Name Last Name

Chris Lewis

Title

Partner

Organization Name

Adrian Sand, LLC

Phone Type Number Extension

Business 843-455-4121

Email

chris@heritagehauling.com

Address

3530 Hwy 501 West

Conway, SC 29526

United States

Additional Contact(s) (2 of 2)

Contact Roles

Consultant

Contact

Prefix

NONE PROVIDED

First Name Last Name

Craig Kennedy

Title

NONE PROVIDED

Organization Name

NONE PROVIDED

Phone Type Number Extension

Mobile 8039602562

Email

craigkennedy.kcs@gmail.com

Address

P.O. Box 364

Irmo, SC 29063

United States


Site Information

Name of Proposed Mine

Adrian Sand/Clay Mine

County

Horry

 *Coastal Zone Consistency certification must be issued for operations in Charleston, Beaufort, Berkeley, Colleton, Dorchester, Georgetown, Horry, or Jasper counties.

Proposed Mine Address

Chow Lane
Conway, SC 29526

Proposed Mine Physical Location

33.951506574132054,-79.0093341264515

Is the land to be mined owned or leased by the mine operator (both can be chosen, if applicable)?

Owned

If land is owned by the applicant/mine operator, input the landowner name exactly as shown on county tax records.

Adrian Sand, LLC

Parcel(s) owned by mine operator:

Tax Map Parcel Number	Landowner name (as shown on county tax records)
084-00-02-018	Adrian Sand, LLC
084-00-02-066	Adrian Sand, LLC

Will river dredging take place under this permit?

No

MR-400 Application for a Mine Operating Permit

General Characteristics of Mine

Materials to be mined:

Sand/Clay

Provide a detailed description of how the mine will be operated, including a list of equipment to be used.

Vegetation will be cleared and grubbed from the mine site as needed in preparation to mining. Topsoil needed for reclamation will be temporarily stored in berms along the outside perimeter of the pit or directly moved to final placement for reclamation. Active portions of the pit will be dewater through a series of "rim ditches" and sumps. The collected groundwater and stormwater will be pumped and placed in previously mined pit segments or if necessary, discharged through NPDES outfall. Equipment to be used in the mining process will be the typical track hoe and end loader. Sand/clay will be excavated from the pit and loaded onto off-hwy haul trucks for transport to load out stockpile area for staging and loading on to barges via conveyor system.

Will there be a process plant located at the mine site within the boundary of the permitted area?

No

Do you anticipate blasting as part of the mining operation?

No

Has the site been mined in the past?

Yes

Indicate the present condition of the land.

A general mine operating permit, GP1-002406, was issued to mine 5 acres. Little, if any, land disturbance from mining has occurred at the site.

What is the expected maximum depth of this mine? Provide any additional information about the final depth of the mine that would be useful to the Department.

30 feet; floor of pit will range from +16 to +20 feet msl.

Determination of Permitted Acreage, Affected Acreage, & Reclamation Bond

i Permitted acreage should include the following: 1) acres of land to be affected (excavation, processing plant, stockpiles, etc.); 2) future area(s) to be mined and 3) land to be used for buffer zones around the affected land. The permitted area should be the property described in the LAND ENTRY AGREEMENT(S) (FORMS MR-600 or MR-700).

Total acres for which permit is being requested

Acres owned by the mine operator	Acres leased by the mine operator
52.3	

Total Permitted Acres

52.3

i Affected acreage may include: 1. Area used for sediment control ponds, 2. Area used for stockpiles of unprocessed minerals, 3. Area used for spoil (overburden) banks, topsoil and disposal refuse (exclusive of tailings impoundments), 4. Areas used for on-site processing facilities and stockpiles of processed minerals, 5. Areas used for tailings pond (waste material from mineral processing), 6. Area for access or haul roads, 7. Area for excavation during the period of this permit.

Total Affected Acres

29.3

Will mining and reclamation be done in segments?

Yes

Please provide a detailed description of how the mine will be excavated and reclaimed in segments, including the size of the segments, the order in which they will be mined, and how many segments will be active at any one time.

Site will be mined in 5 segments. Segment 1 ♦ 4.6 acres; Segment 2 ♦ 4.6 acres; Segment 3 ♦ 6.2 acres; Segment 4 ♦ 5.2 acres; Segment 5 ♦ 8.2 acres. Mining will begin in segment 1 to excavate a sediment basin. The sides will be graded to 3:1 for stability. Mining will progress into segments 2, 3, 4 & 5 sequentially. Reclamation for the site is to backfill mine with clean soils from off-site construction sites. (See Reclamation Plan on soils that will be acceptable for backfill.) Timing the backfilling will be based on availability of soils. Depending on availability of off-site backfill material, not all of the mine may be backfilled, but reclaimed as a pond. If a portion of the pit is reclaimed as a pond, the side slopes will be graded to 3:1 slopes, and revegetated. The pond will have a minimum depth of 4 feet over 50% of the surface area.

Bond Amount (based on total affected acreage above)

See warning below

CORRECTION REQUEST (APPROVED)
Please add a financial assurance estimate

If the desired amount of financial assurance is within the range of 15-24.9 acres, with a maximum FA amount of 24,000-25,000, that will limit the number of acres to be affected at once. Depending on the financial assurance, a maximum of 24.9 acres can be affected at one time. Please add a bond amount and correct the reclamation plan to reflect the acreage affected with concurrent reclamation.
 Created on 12/15/2023 6:11 PM by **Katelyn Mills**

1 COMMENT
Craig Kennedy (craigkennedy.kcs@gmail.com) (12/21/2023 9:54 AM)
 Katelyn,
 As has been standard procedure, we will provide the bond estimate after DHEC has completed their technical review of the application.
 Thanks
 Craig

⚠ Applicant may submit a reclamation cost estimate for mines that will affect greater than 25ac. Estimate should be based upon requirements in Regulation 89-200B. and accurately reflect the costs of an independent, third-party contractor.

Reclamation Cost Estimate

NONE PROVIDED
Comment
 Reclamation estimate will be provided after the technical review is completed.

- 0.00 - 9.99 acres (bond amount - \$10,000)
- 10.00 -14.99 acres (bond amount - \$15,000)
- 15.00 - 24.99 acres (bond amount - \$25,000)
- 25.00 + acres (bond amount - \$25,000 or greater)

Applicant may submit a reclamation cost estimate for mines that will affect greater than 25 acres. Estimate should be based upon requirements in Regulation 89-200 B, and accurately reflect the costs of an independent, third-party contractor.

Future Reserves Acreage

0.0

Buffer Acreage

23.0

Number of years for which this permit is requested:

Life of Mine

i The requested number of years the permit is requested should coincide with the Schedule of Reclamation as proposed by the applicant in the RECLAMATION PLAN.

Protection of Natural Resources

Which type of permit from the Bureau of Water will/have you applied for?

NPDES General Permit for Discharges Associated with Nonmetal Mineral Mining Facilities (SCG730000)

Provide information as to how stormwater and groundwater will be managed.

The initial phase will mine segment 1 to create a sediment pond. A 1.5-acre sediment basin will be excavated within segment 1 to provide long term sediment control. Initially during the excavation of the 1.5 acre sediment basin, a collection sump will be created with rim ditches to route pit water to the sump. The sump will range in area from 0.25 to 0.5 acre and will be a minimum of 5 feet below the pit floor to allow adequate volume for water storage and settling time for sediment. A floating intake will be used to decant the clean water from the top of the water column in the sump for discharge. If turbid water is present in the sump, the water will not be discharged. After the sediment basin is excavated, pit water from mining in the other mine segments will be routed into previously mined segments. If there is a discharge, it will be through NPDES outfall 001 and regulated pursuant to General NPDES permit for Discharges Associated with Nonmetal Mineral Mining Facilities, general permit SCG731666.

Please provide any sediment & erosion control designs in support of your application.

NONE PROVIDED

Comment

NONE PROVIDED

Will there be air contaminant emissions from your plant or mine requiring an Air Quality Permit?

No

Do you anticipate pumping of groundwater?

Yes

Describe pumping of groundwater.

Groundwater table is approximately 8 - 10 feet below ground surface. Typically, the active pit is dewatered with a series of rim ditches that route groundwater and stormwater from the immediate mine area to central sump. The water collected in the sump will be pumped to a previously mined segment and held at a level above normal groundwater levels to promote infiltration back into the surrounding ground. By **surcharging** the groundwater in this manner it will significantly minimize the groundwater drawdown to the surrounding areas. Additionally, it will significantly reduce the necessity of having to discharge water from the mine to Waters of the State.

Please provide any groundwater modeling reports, groundwater monitoring plans, or groundwater contingency plans in support of your application.

NONE PROVIDED

Comment

NONE PROVIDED

Will jurisdictional wetlands be affected, filled or altered in any fashion that will require a Section 404 Dredge and Fill Permit?

No

Please provide any wetland delineation and/or USACE jurisdictional determinations or other permits in support of your application.[SAC-2022-00548_AJD_Verfication.pdf - 10/31/2023 09:48 AM](#)**Comment**

NONE PROVIDED

Are there any known cultural or historic sites located within the proposed area to be permitted?

No

Please provide any cultural or historic reports in support of your application.

NONE PROVIDED

Comment

NONE PROVIDED

Will any part of the permitted area be used as a laydown yard to temporarily store equipment, such as spare parts, scrap metal, or other waste?

Yes

Describe how waste, trash, scrap metal material, or garbage will be handled.

Any waste, trash or garbage generated at the site will be removed and disposed of properly at a permitted solid waste facility.

Describe the wildlife or freshwater, estuarine or marine fisheries in the area of the mining operation. Also provide information about any ponds and/or streams that may be located in the proposed permitted area.

An 0.8 acre pond presently exists on the property. The pond was excavated by a previous landowner as a borrow pit. The mine permit area is bordered on the north by Maple Swamp. The mine area is bifurcated by a wetland drainage that flows into Maple Swamp.

The wildlife is as described in The Brigman Company's Biological Evaluation Adrian Sand/Clay Pit-Updated report.

Please provide any threatened or endangered species reports in support of your application.

[Adrian Sand-Clay Tract Bio Assesment-Updated.pdf - 11/08/2023 02:00 PM](#)

Comment

NONE PROVIDED

State the land cover and land uses on the permitted land area and contiguous tracts of land to the permitted land area.

The land cover and land use description is as provided by The Brigman Company's Biological Evaluation Adrian Sand/Clay Pit-Updated. The property is located in eastern Horry County within the Coastal Plain Physiographic Province of South Carolina. The USGS topographic quadrangle depicts the Property as partially cleared for agricultural fields with a fringe of wooded areas in 1904. The surrounding properties consist of undeveloped, wooded land and a few residential homes. The majority of the Property is comprised of herbaceous vegetation with broom grass (*Andropogon virginicus*) dominating. The wooded area surrounding the parcel has been timbered recently and does not contain any woody vegetation larger than 3 inches in diameter.

Describe measures to be taken to insure against (1) substantial deposits of sediment in neighboring streams, rivers lakes or ponds; (2) landslides; (3) acid water formation and discharge.

(1) Sediment will be controlled by routing stormwater into the pit. If pit water should become necessary to discharge to Waters of the State, the water will be treated by allowing adequate settling time to remove sediment prior to discharge from the designated sediment basin in segment 1 and through the permitted NPDES outfall. Additionally, brush barriers, silt fencing and stormwater diversions will be used where and as necessary to provide sediment control for mine disturbed areas.

(2) Limited depth of mining minimizes potential for landslides.

(3) Not applicable to this geology

Safety

Describe methods to be used during the time the mine operating permit is active to prevent physical hazards to persons and to any neighboring dwelling, house, school, church, hospital, commercial or industrial building or public road. If applicable, provide the zoning designation for the property to permitted.

The closest neighbors are located east of the mine permit area. An undisturbed 50-foot wooded buffer along the property line will be observed. Additionally, an earthen berm will be located inside the buffer to provide a barrier and visual screen to neighbors. Zoning for the site is MSF20 and it allows for mining.

Are there any publicly-owned parks, publicly-owned forests, or publicly-owned recreation areas within one (1) mile of the proposed affected area?

No

Describe measures to be taken for screening the operation from view from public highways, public parks or residential areas.

Woodlands are located along the north and west sides of the property. On the south side, mining will be 250 feet from the property line. This area will be used for development by the property owner. The east side of the property has neighbors. A 50-foot undisturbed buffer will be maintained along the east side of the property. Additionally, an earthen berm, minimum 6 feet high, will be constructed for additional screening to the neighbors.

Mine Map

Attach a copy of a map of the site (referred to as the MINE MAP) that shows A through P, if applicable (see below):

Adrian MINE MAP-(9)- 24X36 Oct 26, 2023.pdf - 11/08/2023 02:01 PM

Comment

NONE PROVIDED

- A. Outline of the area to be affected by mining during the number of years for which the permit is requested. See Section III, Question 1 on page 3 of this application form.
- B. Outline of the permitted area that shows the buffers zones, future mine areas and areas to be affected by mining.
- C. Outline of the planned pits or excavations for which your company has detailed plans. If your company has reason to believe that additional land may be mined in the future within the permitted area but is not feasible to show as planned excavations; indicate these areas as FUTURE RESERVES on this site map.
- D. Outline of areas for the storage of naturally occurring soil that will be suitable for the establishment of vegetation in final reclamation.
- E. Outline of planned areas for disposal of refuse, exclusive of tailings ponds.
- F. Outline of planned spoil, overburden or other similar waste material disposal areas.
- G. Locations of planned access and haul roads on the area to be affected.
- H. Outline of planned tailings ponds.
- I. Locations of sediment control pond(s) and other sediment control structures within the affected area. Outline of areas on which temporary or permanent vegetation will be established to control erosion during the mine operation.
- J. Location and name (if appropriate) of streams, lakes, wetlands and existing drainage ditches within the area to be permitted. Use arrows to indicate direction of water flow in such streams and drainage ditches.
- K. Boundary for the 100 year floodplain, where appropriate.
- L. Outline of areas for stockpiles of unprocessed minerals.
- M. Outline of area of previously mined land that will not be affected.
- N. Outline of the area to be occupied by processing facilities including stockpiles of processed minerals if such facilities are to be an integral on-site part of the mining operation.
- O. Show location of the two permanent survey control points.
- P. A legend showing the name of applicant, name of the proposed mine, north arrow, county, scale, date of preparation and name and title of person who prepared the site map. THE REQUIRED SITE 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.

Adjacent Land Owner List Template

Please download the excel spreadsheet, fill out and resubmit on the attachment below.

[Adjacent Land Owner List Template](#)

Attach the most recent county tax map that shows all adjacent land owners of the permitted mine site. Provide name and addresses of all land owners contiguous to the proposed permitted mine site.

Adjacent Landowners List with Map - Adrian Sand-Clay Mine.pdf - 10/31/2023 04:02 PM

DHEC Excel Spreadsheet - Adjacent Landowner List - Adrian Sand-Clay Mine.xlsx - 10/31/2023 04:05 PM

Comment

NONE PROVIDED

Attach letter from an attorney attesting to (1) the ownership of the property, (2) ownership of the mineral rights and (3) that the applicant has the legal right to mine the proposed mineral resource on the property as described in this application.

Attorney Letter - Adrian Sand LLC.pdf - 10/31/2023 04:02 PM

Comment

NONE PROVIDED

Additional Information for consideration

NONE PROVIDED

Comment

NONE PROVIDED

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, clean-up 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 1B. (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.

i 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
Bahagrass
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)?

No

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 be 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, odorous, 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.

Schedule for Implementation of Conservation and Reclamation Practices

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

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 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
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 lf 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

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 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
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

Conservation & Reclamation Practices	Segment # or Area	Planned Amount	Planned Year	*Applied Amount	*Applied Year	Notes
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

i *Applied fields to be completed by department

MR-600 Land Entry Agreement for Land Owned by Mine Operator

[MR-600 Document Link](#)

MR-600 Signature Attachments

[Executed MR-600 LEA - Adrian Mine.pdf - 10/31/2023 04:08 PM](#)

[Adrian Sand LLC - Boundary Survey.pdf - 11/08/2023 02:04 PM](#)

Comment

Boundary survey is included with the LEA.

Revisions

Revision	Revision Date	Revision By
Revision 1	10/23/2023 3:37 PM	Craig Kennedy
Revision 2	12/21/2023 9:36 AM	Craig Kennedy