Applicant: Shannon, LLC
Mine Name: Shannon Mine No. 4
Permit Number: P-39

Part IV - Reclamation Plan

A. Post-mining Land Use

1. Describe the proposed post-mining land use(s) for the permit area. If more than one land use is proposed, show on a map and give acreage for each use. Include comments from the legal owner of record concerning the proposed land use. (780.23, 816.133)

   2053 acres Forest

   Landuse Letters are attached.

2. Is the proposed land use different from the current land use? (780.23, 816.133)(X)Yes( ) No

   If yes, complete the following:

   (a) Is the area zoned for the proposed land use?
   (X) Yes ( ) No

   (b) Is the proposed use compatible with adjacent land uses and applicable local and state land use policies?
   (X) Yes ( ) No

   (c) Explain the feasibility of the proposed land use as related to land use trends, and explain how the land use will be developed, achieved, and sustained.

   The proposed post mining landuses of forestland, permanent water impoundments (Fish and Wildlife Habitat), and access roads are compatible with the landuses of the surrounding area. The permanent water impoundments and access roads will be designed, constructed and certified under the direct supervision of a registered professional engineer. There will be no public health or safety hazards or no threat of water diminution or pollution caused by the post mining landuses. The proposed post mining landuses, will not cause unreasonable delays in reclamation.

   (d) Include letters of commitment from outside parties ensuring the provision of any necessary public facilities and any state and local governmental agencies which have to initiate, implement, approve or authorize the proposed land use.

   (e) Enclose design plans for the proposed post-mining land use, if applicable. See Attachment III-B-2(a)

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B. Grading and Contouring

1. Enclose detailed plans with appropriate cross-sections or maps which satisfy the requirements of Section 780.18(b)(3 and 4).

See attached Permit Map for the location of Reclamation Cross-Section A-A', B-B', C-C', D-D', and E-E'. Terraces will be constructed a maximum of 100 feet apart on slopes to minimize erosion. Terraces will not be excessive in width or have greater than 50% outer slopes.

2. Complete the following timetable: [780.18(b)(1)]

Increment (if applicable)	# Months After Operation Begins	% Of Increment of Permit Which Will Be Graded and Contoured
1	1 months	0%
	3 months	25%
	6 months	50%
	9 months	75%
	12 months	100%
2	12 months	0%
	15 months	25%
	18 months	50%
	21 months	75%
	24 months	100%
3	24 months	0%
	27 months	25%
	30 months	50%
	33 months	75%
	36 months	100%
4	36 months	0%
	39 months	25%
	42 months	50%
	45 months	75%
	48 months	100%
5	48 months	0%
	51 months	25%
	54 months	50%
	57 months	75%
	60 months	100%

** Grading will be kept to within 6 months or four spoil ridges from the active pit. The ungraded disturbance is to be limited by a permit condition as agreed upon by Shannon, LLC and the ASMC. 180 days following removal of all coal from a given increment, the increment will be backfilled and graded.

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Mine Name: Shannon Mine No. 4
Permit Number: P-39

3. On appropriate map(s), show representative values for the following:[780.18(b)(3), 816.102]

See attached Permit Map.

(a) Percent of slope before mining; and
(b) Proposed post-mining slope including final slope of the highwall(s) in percent.

Land slope measurements on the permit map indicate an average premining slope of 30%. The final average post-mining slope will not exceed the pre-mining slope. Final highwall slopes will not exceed the steepest premining slope, 50%. Please note that the term pre-mining as used above addressees the state of the land prior to any mining having occurred, whether conducted by Shannon, LLC or others.

Applicant: Shannon, LLC
Mine Name: Shannon Mine No. 4
Permit Number: P-39

Attachment IV-B-1

OVERBURDEN RESTABILIZATION PLAN

Due to the fact that previous pre-law disturbance by other operators has occurred within the proposed permit area (and not covered by the original topsoil variance), no topsoil exist with which to make a comparison. The best available overdurden material will therefore be utilized for revegetation within the previously disturbed areas within these areas. All overburden shall be backfilled, compacted, and graded so that the post mining slope will approximate the pre-mining slope and in a timely manner. (See Part IV.-B.-2). Overburden will be rough graded by dozers. Once overburden has been rough graded, farm-type tractors will be used to disc the overburden to its final contour, decrease compaction, and increase the mechanical breakage of the surface layer. Rocks 24" in diameter, or greater, that remain upon the surface, if any, will be collected and buried. At this time the following criteria will be used to evaluate the textural quality of the graded overburden:

a) Rocks of a size greater than 10" shall not exceed 1% by weight of the substitute material.

b) The substitute material shall not contain more than 15% by weight of materials between 10 and 3 inches in size.

C) The substitute material shall not contain more than 15% by weight of materials between 3 and .75 inches in size.

d) At least 30% by weight of the substitute material shall be of a size less than 2 millimeters.

The above criteria is based on a post mining landuse of undeveloped lands. Sampling frequency shall be as discussed in Attachment IV-C-2. If this criteria is not met, Shannon, LLC shall redisc the overburden and resampled. If increasing the mechanical breakage will not enhance the graded overburden to a satisfactory level, additional soil will be hauled and spread on site or rocks collected and buried until the above criteria is achieved.

Stabilization of graded material will be achieved by the planting of warm or cool season perennials as outlined in Part IV-C-5 of the permit.

Applicant: Shannon, LLC
Mine Name: Shannon Mine No. 4
Permit Number: P-39

C. Revegetation

(1) Outline procedures for soil testing required to determine type and amount of soil amendments to be applied and to evaluate results of topsoil handling and replacement. (780.18, 816.25)

Once the texture criteria for final graded overburden has been met as outlined on Attachment IV-C-2, the final texture samples taken shall be sent to a qualified soil testing laboratory where the following tests shall be conducted: % sand, % silt, & % clay, textural classification, pH, total sulfur, acid-base account, fertility ratings for phosphorus, potassium, and magnesium, and amendment recommendations for post mining revegetation for limestone, nitrogen, P_2O_5 and K_2O. Results of this analysis will be used to determine the amount of soil amendments, if any, to be applied to the plant medium and will be submitted to the Regulatory Authority for review.

(2) Are selected overburden materials to be used as a supplement or substitute for topsoil?
(X) Yes ( ) No

If, yes, provide results of analysis, trials, and tests required under Section 816.22(e). (779.21)

See attached Topsoil Variance and Topsoil Variance Map

(3) Are commercial or introduced species to be used?
( ) Yes (X) No

If yes, give a narrative with supporting references which show that the species meet the requirements of Section 816.112. (780.18, 816.112)

(4) Is the area to be reclaimed for fish and wildlife habitat?
(X) Yes ( ) No

If yes, list the species of plants to be used with a brief description of how they meet the criteria of Section 816.97 (d)(6). [780.18(b)(5 and 6), 816.97(d)(6)]

(5) Complete the following schedules for each increment or sub-area of the permit area. [780.18(b)(5)]

Applicant: Shannon, LLC
Mine Name: Shannon Mine No. 4
Permit Number: P-39

VEGETATION SCHEDULE

Increment 1-5

Temporary Vegetation

Planting Species	Planting Rate	Planting Methods	Dates	Areas to be Planted
Rye Grass	10#/acre	Broadcast	Fall	All Disturbance
Browntop Millet	10#/acre	Broadcast	Spring	All Disturbance

Permanent Vegetation

Planting Species	Planting Rate	Planting Methods	Dates	Areas to be Planted
Bermuda	10#/Acre	Broadcast	Spring	All Disturbance
Fescue	50#/Acre	Broadcast	Both	All Disturbance
Kobe Lespedeza	30#/Acre	Broadcast	Spring	All Disturbance
Vetch	30#/Acre	Broadcast	Fall	All Disturbance
Loblolly Pine	450/Acre	Mechanical or Hand	Winter	All Disturbance

Note: Planting will take place the 1st planting season after grading occurs.

6. Describe, in detail, proposed husbandry practices to be used. [780.18(b)(5), 805.13(b)(3)]

   In cases where rills and gullies form that exceed performance standards, these areas will be regraded and reseeded. Areas where adequate vegetative cover is not established will be reseeded accordingly using those planting techniques described earlier in response to question IV-C.-5.

7. Describe, in detail, the measures and sampling methods to be used to determine and demonstrate success of revegetation; or methods to demonstrate the productive capacity of reconstructed prime farmland. (780.18, 816.116)

   Productivity and revegetation success will be determined in accordance with the Alabama Surface Mining Commission's Technical Manual No. 1, "Approved Statistical Analysis and Sampling Techniques for Determining Revegetation Success on Surface Mine Lands in Alabama", or by other methods which have approval from the Alabama Surface Mining Commission.