

DATE	BY	REVISION RECORD	OR	CK

STAGE I ABANDONMENT PLAN

1. Breach the Stage I embankment crest to approximate Elev. 1155 and place embankment materials in the impoundment area.
2. Construct a permanent diversion for the Brown's Branch stream flow along the south abutment of the hollow at approximate Elev. 1155. Outlet diversion into Spillway Exit Channel.
3. Grout the 12 in. diameter decant pipe. To prepare the pipe for grouting, the upstream end of the decant shall be sealed or extended to prevent water from entering the pipe. The discharge end of the pipe shall be cleaned of any debris and shall be sealed by installing a plug or welding a plate to the end of the pipe. The downstream seal shall have provisions for a grout tube to facilitate placement of the grout mix into the pipe.

The grout mix shall be composed of a mixture of four bags of sulfate resistant Portland Cement in accordance with ASTM Standards (Designation C150-77, Type II, 94 lbs./bag) to one bag of bentonite (high swelling sodium montmorillonite, 100 lbs./bag) mixed with a sufficient amount of water to yield 1 cu. yds. of grout mix.

Grout placement shall be done using equipment specifically designed and used for grouting operations. Grout mix shall be placed in such a manner to develop an approximate 300 ft. long grout plug at the downstream end of the decant. This should be done by pumping grout into the pipe under a pressure up to 20 psi. Once this plug is developed, grout can be pumped into the upstream end of the decant in stages until the pipe is full, at least through the embankment portion.

4. Cap the impoundment area with a 3 foot thick layer of coarse refuse and/or embankment materials. Grade the pile top (maximum 5%) toward the permanent diversion. Cover the pile top with 6 in. of non-toxic material and 6 in. of topsoil.
5. Upon completion of impoundment abandonment, remove Sediment Basin No. 1 and 36 in. diameter BOOMF decant. Grade the area to approximate original contours and install the stilling basin, box culvert and outlet channel to discharge into the existing stream channel. Revegetate all disturbed areas, including regraded sediment basin, ditch cut slopes, and soil borrow areas.

NOTES:

1. See Dwg. 86239-E4 for Legend.
2. See Dws. 86239-E4 and E5 for Detailed Plan of Embankment Construction.

SRW ASSOCIATES INC.

SCALE: 1" = 100'	APPROVED BY: <i>B. Snyder</i>	DRAWN BY: B. SNYDER
DATE: SEPT. 2, 1986	CHECKED BY: <i>B. Snyder</i>	
BETHENERGY MINES CORPORATION WEST VIRGINIA DIVISION BROWN'S BRANCH IMPOUNDMENT BOONE COUNTY, WEST VIRGINIA		
STAGE I ABANDONMENT PLAN		SHEET NUMBER 8 of 17 DRAWING NUMBER 86239 - E7