DATE	BY	REVISION RECORD	DR	CK
7-87	1	CHANGED STATIONING &		
		EMERGENCY SPILLWAY		
		AND CURVE DATA CHART	MM	DE
12-87	2	DRAIN A AS BUILT	AP	LL
		LOCATION		

CONCURRENT WITH HAUL ROAD/EMERGENCY SPILLWAY EXCAVATION, INSTALL DIVERSION DITCH A AND SEDIMENT BASIN NO. 2

SEE DWG. 86239-E4 FOR DETAILED PLAN OF INITIAL CONSTRUCTION

SEE DRAWING 86239-E6 FOR LOCATION OF SEDIMENT BASIN NO. 2 AND DRAWING 86239-E14 FOR SPECIFIC CONSTRUCTION DETAILS.

EXISTING 24" RCP

UPGRADE EXISTING ROAD AS NECESSARY FOR HAULAGE AND ACCESS

DIVERSION DITCH A (19/E12)

CULVERT NO. 1 36" Ø B.C.C.M.P.

STILLING BASIN NO. 1 EL. 1016

UPPER HAUL ROAD (SEE DWG. 86239-P1 FOR LOWER HAUL ROAD)

DISCHARGE CHANNEL NO. 1 (13/E12)

(0/E11)

N 22,330 E 29,758

EL. 1127.8

EL. 1077.3

EL. 1084.51

N 22,372 E 29,878

EL. 1125.9

EL. 1143.7

PI CURVE NO. 3

EL. 1135

EL. 1130

PI CURVE NO. 4

PI CURVE NO. 2

(1/E9) TYPICAL HAUL ROAD/EMERGENCY SPILLWAY EXIT CHANNEL (STA 1+50 TO STA. 9+45)

EL. 1149.6

EMERGENCY SPILLWAY CONTROL SECTION EL. 1152

CONCURRENT WITH STAGE I EMBANKMENT CONSTRUCTION, EXCAVATE HAUL ROAD/EMERGENCY SPILLWAY. SPILLWAY MUST BE OPERATIONAL BEFORE THE END OF APPROXIMATELY 1.3 YEARS OF CUMMULATIVE IMPOUNDMENT LIFE. SEE DWG. 86239-E9 FOR SPILLWAY PROFILE.

(2/E9) TYPICAL HAUL/ACCESS ROAD (STA. 9+45 TO STA. 16+65)

N 21,345 E 29,725

SEE DWG. 86239-E9 FOR PROFILE ALONG HAUL ROAD/EMERGENCY SPILLWAY EXIT CHANNEL.

3 - 54" Ø B.C.C.M.P.'s

PI CURVE NO. 5

(14/E12) TYPICAL HAUL/ACCESS ROAD STREAM CROSSING (STA. 16+65 TO STA. 17+00)

TIE HAUL ROAD INTO EXISTING ROAD

REFERENCE:
BETHENERGY MINES CORPORATION
SCALE: 1" = 100', CONTOUR INTERVAL: 10'

(8/E11) GROIN DITCH

EXTEND COLLECTOR DRAIN BEYOND TOE OF STAGE I EMBANKMENT

(18/E12) TYPICAL BENCH

10+00

EXISTING GAS WELL (G)

N 22,815 E 29,640 EL. 1130

EL. 1143.7

9+00

N 22,678 E 29,599 EL. 1087.71

N 22,530 E 29,573 EL. 1080

(20/E13) TYPICAL INTERNAL DRAIN

EXTENT OF STAGE I EMBANKMENT CONSTRUCTION

INVERT EL. 1145.5 N 22,785, E 29,680

CONSTRUCT STAGE I EMBANKMENT TO EL. 1180

LIMITS OF PROPOSED SURFACE MINING IN LOWER HERNSHAW

(21/E13) SURVEY MONUMENT

INVERT EL. 1096.19 N 22,810, E 29,812

(22/E13) PIEZOMETER INSTALLATION

(12/E12) COLLECTOR DRAIN

PREVIOUSLY CONSTRUCTED STARTER EMBANKMENT

(K/E11)

MAXIMUM DRAIN INVERT EL. 1097.76

MAXIMUM DRAIN INVERT EL. 1150.0

INVERT EL. 1093.32 N 22,590, E 30,020

REMOVE TIMBER FROM THE IMPOUNDMENT AREA. STRIPPING GRUBBING IS NOT REQUIRED.

APPROXIMATE LIMITS OF CLEARING

INVERT EL. 1145.6 N 22,460 E 29,992

PI CURVE NO. 1

DECANT INLET BOX (4/E9)

(D/E9)

SLURRY LEVEL AT END OF STAGE I EL. 1076 (SEE CONSTRUCTION SEQUENCE NOTE 5)

TYPICAL PILE FACE HAUL ROAD (16/E12)

LIMITS OF PROPOSED SURFACE MINING IN LOWER HERNSHAW

12" Ø STEEL OPERATIONAL DECANT EXTEND AS REQUIRED. SEE DETAIL 6 ON DWG 86239-E10

(L/E11)

HAUL ROAD / EMERGENCY SPILLWAY CURVE DATA

Curve 1	Curve 2	Curve 3	Curve 4	Curve 5
PI=0 + 31.0	PI=4 + 31.0	PI=9 + 59.3	PI=12 + 93.0	PI=16 + 48.4
N 22,522	N 22,255	N 21,866	N 21,536	N 21,199
E 30,201	E 29,883	E 29,498	E 29,606	E 29,793
PC=(0+39.16)	PC=4 + 01.0	PC=8 + 15.0	PC=12 + 63.0	PC=16 + 20.0
PT=1 + 01.16	PT=4 + 61.0	PT=11 + 03.6	PT=13 + 23.0	PT=16 + 76.8
Δ = 81°30'0"	Δ = 7°35'0"	Δ = 61°30'0"	Δ = 9°30'0"	Δ = 125°0'0"
T = 85.0'	T = 30.0'	T = 160.0'	T = 30.0'	T = 50.0'
R = 98.6'	R = 452.7'	R = 268.9'	R = 361.0'	R = 26.0'
D = 58°04'48"	D = 12°39'23"	D = 21°18'27"	D = 15°52'17"	D = 220°06'52"
L = 140.3'	L = 59.9'	L = 288.6'	L = 59.9'	L = 56.8'
E = 31.6'	E = 1.0'	E = 44.0'	E = 1.2'	E = 30.3'

STAGE I - CONSTRUCTION SEQUENCING

1. Tie into existing collector drain near the toe of the Starter Embankment and extend beyond the proposed toe location of the Stage I embankment.
2. Close off the decant inlet at the upstream toe of the starter embankment by filling in the inlet box with concrete to facilitate slurry pumping. Take precautions to insure that no concrete enters the 36 in. diameter welded steel pipe.
3. Construct the Stage I embankment to Elev. 1180 using the specified borrow materials. Construct diversion ditches as required and install internal drains at the elevations shown. Pump slurry into the impoundment during embankment construction, extending the 12 in. diameter operational decant pipe as required.
4. Concurrent with Stage I embankment construction, excavate the Haul Road/Emergency Spillway. Materials excavated from the Haul Road/Spillway may be used to construct the Stage I embankment.
5. Following Stage I embankment construction, continue pumping slurry into the impoundment for approximately 9.5 years, raising the final slurry level to Elev. 1145.

NOTES

1. See Dwg. 86239-E4 for legend.
2. Stage I embankment to be constructed of strip mine spoil and/or spillway excavation materials. See Dwg. 86239-E1 and P2 for approximate location and extent of strip mining.
3. See Dwg. 86239-E8 for generalized section through the impoundment and summary of impoundment staging.
4. See Dwg. 86239-E7 for Stage I abandonment plan.

SRW ASSOCIATES INC.

SCALE: 1" = 100' | APPROVED BY: | DRAWN BY: M. MARKS
DATE: APRIL 30, 1986 | CHECKED BY:

BETHENERGY MINES CORPORATION
WEST VIRGINIA DIVISION
BROWNS BRANCH IMPOUNDMENT
BOONE COUNTY, WEST VIRGINIA

PLAN - STAGE I

SHEET NUMBER 6 of 17
DRAWING NUMBER 86239-E5

12-5-98