

# Public Notice

**U S Army Corps  
of Engineers**  
Huntington District

In reply refer to Public Notice No.

**200200050-1**

Issuance Date:

**April 20, 2005**

Stream: **Big Branch**

Closing Date:

**May 20, 2005**

Please address all comments and inquiries to:

U.S. Army Corps of Engineers, Huntington District

ATTN: CELRH-OR-F Public Notice No. (*reference above*)

502 Eighth Street

Huntington, West Virginia 25701-2070

Phone: (304) 399-5210

**PUBLIC NOTICE:** The purpose of this public notice is to inform you of a proposal for work in which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest. We hope you will participate in this process.

**REGULATORY PROGRAM:** Since its early history, the U.S. Army Corps of Engineers (Corps) has played an important role in the development of the nation's water resources. Originally, this involved construction of harbor fortifications and coastal defenses. Later duties included the improvement of waterways to provide avenues of commerce. An important part of our mission today is the protection of the nation's waterways through the administration of the Corps Regulatory Program.

**SECTION 404:** The Corps is directed by Congress under Section 404 of the Clean Water Act (33 USC 1344) to regulate the discharge of dredged and fill material into all waters of the United States, including wetlands. The intent of the law is to protect the nation's waters from the indiscriminate discharge of material capable of causing pollution and to restore and maintain their chemical, physical and biological integrity.

**TO WHOM IT MAY CONCERN:** The following application has been submitted for a Department of the Army Permit under the provisions of Section 404 of the Clean Water Act. This notice serves as the Corps of Engineers' request to the West Virginia Department of Environmental Protection (WVDEP) to act on Section 401 Water Quality Certification for the following application:

**APPLICANT:** Callisto Coal Company, Inc.  
Post Office Box 70  
Bob White, West Virginia 25028

**LOCATION:** The proposed project is located in unnamed tributaries of Roach Branch, Dry Branch, and Lem White Branch approximately 1.1 miles northwest of Bim, Boone County, West Virginia as depicted on the attached Figure 1.

**DESCRIPTION OF THE PROPOSED WORK:** The applicant proposes to place fill material into waters of the United States in conjunction with the construction of four valley fills and five sediment ponds in conjunction with surface coal mining activities at the Callisto Surface Mine. According to the applicant, the purpose of the work is to provide adequate operating area for maximum bituminous coal removal in a

safe, cost effective, and environmentally sound manner. The applicant has determined that mining activities cannot take place without the use of valley fills to dispose of excess material and overburden produced by the coal mining activities.

The proposed surface coal mining activities were previously authorized under the December 13, 1996 Federal Register, Final Notice of Issuance of Nationwide Permits (64 FR 65874), Nationwide Permit #21. This office verified the original proposal meet the criteria of nationwide permit #21 on February 8, 2002. The verification authorized the placement of fill material into 14,402' of five jurisdictional stream channels in conjunction with the construction of five valley fills and five sediment ponds. The applicant has indicated that mining activities at the site were not completed prior to the expiration of the nationwide permit and has requested reauthorization. To date, fill material has been placed into 3,945' of Big Branch of Pond Fork in conjunction with the construction of Valley Fill No. 1 and Sediment Pond No. 1. The remaining four valley fills and ponds have not yet been constructed. The applicant had proposed the addition of Sediment Pond 5A (See Table A).

The construction of the proposed valley fills would result in the permanent discharge of fill material into approximately 5,750' (0.63 acre) of four jurisdictional stream channels. Of this total, approximately 5,460' of intermittent stream channel and 290' of ephemeral stream channel would be permanently impacted. Approximately 250' of ephemeral stream channel would be temporarily impacted by sediment transport. The construction of the four sediment ponds would result in the temporary discharge of fill material into 1,595' (0.22 acre) four jurisdictional stream channels. Of this total, approximately 1,455' of intermittent stream channel and 140' of ephemeral stream channel would be temporarily impacted. A total of 7,335' (0.85 acre) of waters of the United States would be impacted by the proposed surface coal mining activities. The surface coal mining activities is expected to affect a total of 1183 acres, with approximately 850 acres of mineral removal area. Tables A and B of this public notice provide additional information regarding the proposed impact sites, watershed acreages, and mitigation sites.

The West Virginia Department of Environmental Protection (WVDEP) issued the required Surface Mining Permit (S-5009-00) on November 15, 2001 and the required NPDES permit (WV1020315) on May 31, 2001.

**MITIGATION PLAN:** The applicant has submitted a conceptual compensatory mitigation plan (CMP) to compensate for temporary and permanent impacts to waters of the United States regulated by the United States Army Corps of Engineers. To compensate for temporary and secondary impacts to 2,390' of ephemeral and intermittent stream channels associated with the construction of six sediment control structures (this total includes Pond 1 and 1A, which were authorized by nationwide permit #21), the applicant proposes to restore each stream channel to its pre-mining conditions. Restoration activities will include installation of natural stream structures and establishment of a 50-foot riparian buffer. The buffer would consist of native shrub and tree species. Stream surveys have been conducted for each stream channel proposed for impact to ensure restoration based on original stream habitat parameters and physical dimensions. Upon completion of mining activities and upon release of the Phase II bond, restoration activities would take place. All restoration activities would take place during low-flow periods.

To compensate for permanent impacts to 9,338' of stream channel (this total includes Valley Fill #1, which was authorized by nationwide permit #21), the applicant proposes to construction approximately 14,760' of

intermittent and ephemeral stream channel within five drainage control/conveyance structures at the site. Hydrology would be supplied via runoff from the site. Riffle/pool structures and cross-vane structures would be incorporated where practicable. A riparian buffer zone, measuring 25' from the top of each bank and consisting of native tree and shrub species, would be established along the new channels. See Table B for details regarding location of mitigated/restored stream channels. Plans of the proposed work are attached to this notice.

A Section 401 Water Quality Certification is required for this project. It is the applicant's responsibility to obtain the certification from the West Virginia Department of Environmental Protection.

**HISTORIC AND CULTURAL RESOURCES:** The National Register of Historic Places has been consulted and it has been determined that there no listed properties eligible for the register in the area affected by the project. The applicant conducted a Phase I Archeological Survey which determined one previously recorded site (46BO186) had been destroyed by haul road maintenance. No additional sites were identified. The West Virginia Division of Culture and History (WVDCH) found that no properties listed on or eligible for the Register would be affected by the project. A copy of this public notice will be furnished to WVDCH for their review. Comments concerning archeological sensitivity of the project area should be based upon collected data.

**ENDANGERED/THREATENED SPECIES REVIEW:** The project is located within the known or historic range of the Indiana Bat and Virginia Big-Eared Bat, federally listed endangered species. The applicant has provided information to the United States Fish and Wildlife Service regarding summer and winter habitat for the Indiana bat and Virginia big-eared bat within the proposed mining area. The survey concluded Indiana bats and Virginia big-eared bats are unlikely to occur within the project area. This public notice serves as a request to the U.S. Fish and Wildlife Service for any additional information they may have on whether any listed or proposed to be listed endangered or threatened species may be present in the area which would be affected by the activity, pursuant to Section 7(c) of the Endangered Species Act of 1972 (as amended).

**PUBLIC INTEREST REVIEW AND COMMENT:** Any person who has an interest that may be adversely affected by the issuance of a permit may request a public hearing. The request must be submitted in writing to the District Engineer on or before the expiration date of this notice and must clearly set forth the interest which may be adversely affected and the manner in which the interest may be adversely affected by the activity. This application will be reviewed in accordance with 33 CFR 320-331, the Regulatory Program of the U. S. Army Corps of Engineers (USACE), and other pertinent laws, regulations, and executive orders. Our evaluation will also follow the guidelines published by the U. S. Environmental Protection Agency pursuant to Section 404(b) (1) of the CWA. Interested parties are invited to state any objections they may have to the proposed work. The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit that reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered including the cumulative effects thereof; of those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs,

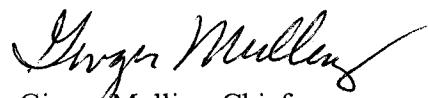
considerations of property ownership and, in general, the needs and welfare of the people. Written statements on these factors received in this office on or before the expiration date of this public notice will become a part of the record and will be considered in the final determination. A permit will be granted unless its issuance is found to be contrary to the public interest.

**SOLICITATION OF COMMENTS:** The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. For accuracy and completeness of the administrative record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

**CLOSE OF COMMENT PERIOD:** All comments pertaining to this Public Notice must reach this office on or before the close of the comment period listed on page one of this Public Notice. If no comments are received by that date, it will be considered that there are no objections. Comments and requests for additional information should be submitted to:

Kimberly Courts-Brown, Regulatory Project Manager  
North Regulatory Section, CELRH-OR-FN  
U. S. Army Corps of Engineers Huntington District  
502 Eighth Street  
Huntington, West Virginia 25701-2070.

Please note names and addresses of those who submit comments in response to this public notice may be made publicly available. Thank you for your interest in our nation's water resources. If you have any questions concerning this public notice, please contact Kimberly Courts-Brown of the North Regulatory Section at 304-399-5210.



Ginger Mullins, Chief  
Regulatory Branch

(WV)

**TABLE A**

STREAM/FLOW REGIME	TYPE IMPACT	LENGTH OF IMPACT	WATERSHED ACREAGE
UN Trib Roach Branch Ephemeral	Valley Fill No.2 Permanent	90'	65 acres
UN Trib Roach Branch Ephemeral	Pond No. 2 Temporary	140'	
UN Trib Roach Branch Intermittent	Valley Fill No. 3 Permanent	1,170'	153 acres
UN Trib Roach Branch Ephemeral	Valley Fill No. 3 Permanent	200'	
UN Trib Roach Branch Intermittent	Pond No. 3 Temporary	300'	
Dry Branch Intermittent	Valley Fill No. 4 Permanent	2,095'	212 acres
Dry Branch Intermittent	Pond No. 4 Temporary	340'	
Lem White Branch Intermittent	Valley Fill No. 5 Permanent	2,195'	165 acres
Lem White Branch Intermittent	Ponds No. 5 & 5A Temporary	815'	
<b>TOTAL IMPACTS</b>	<b>4 VALLEY FILLS</b>	<b>PERMANENT EPH. PERMANENT INT.</b>	<b>290' 5,460'</b>
	<b>5 PONDS</b>	<b>TEMPORARY EPH. TEMPORARY INT.</b>	<b>140' 1,455'</b>
<b>TOTAL PERMANENT IMPACTS</b>			<b>5,750'</b>
<b>TOTAL EPHEMERAL IMPACTS</b>			<b>1,595'</b>

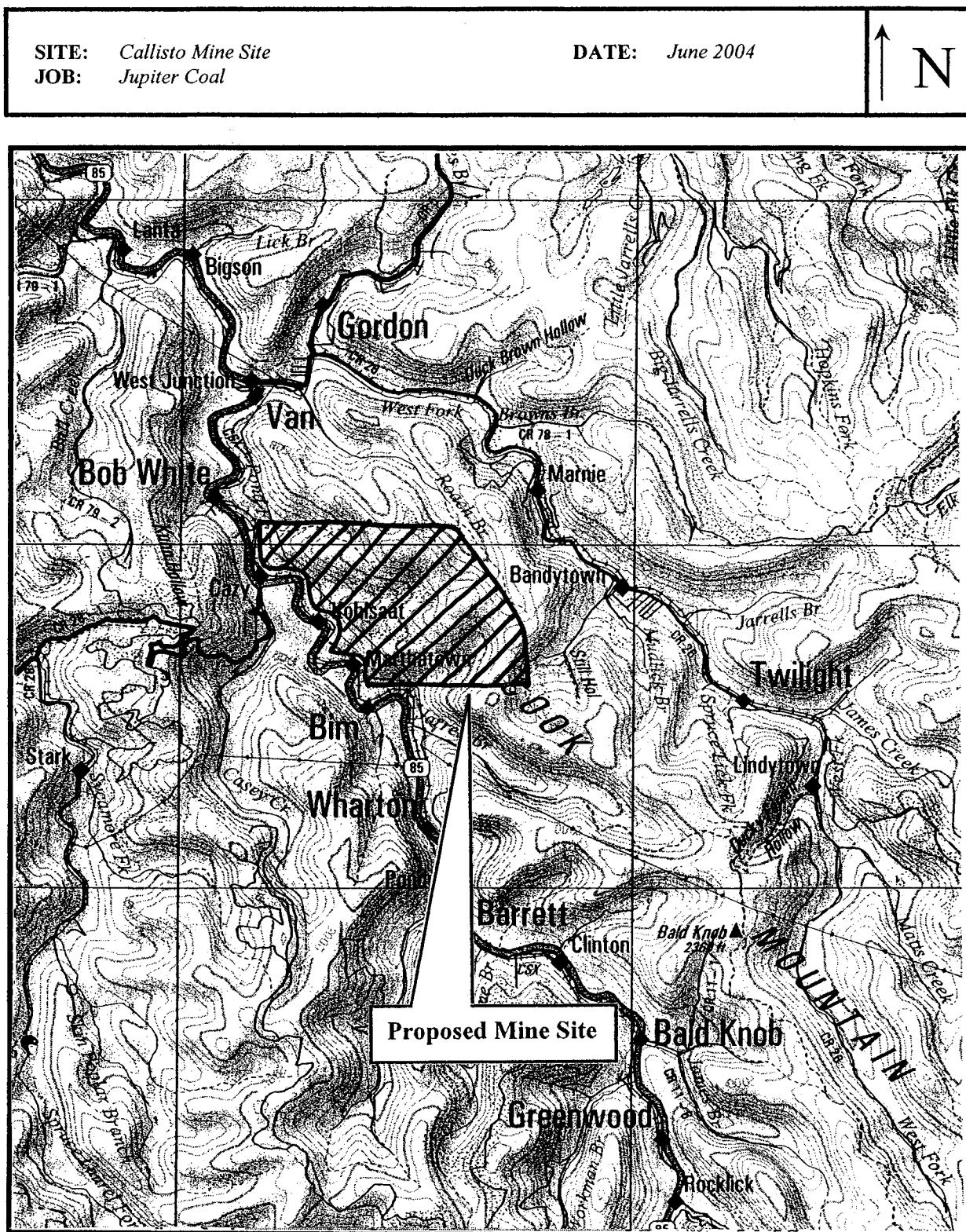
**TABLE B**

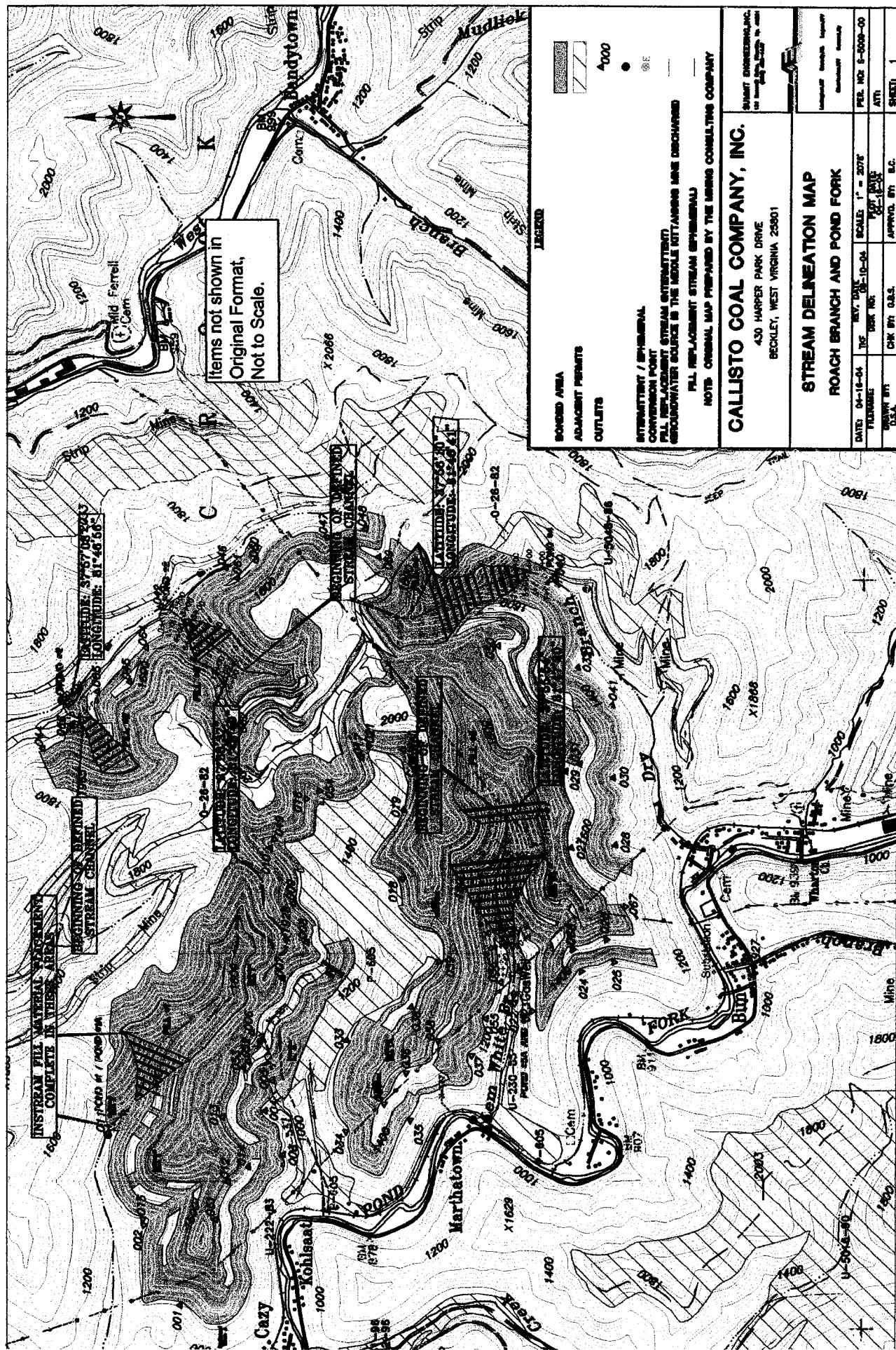
<b>STREAM TYPE IMPACT</b>	<b>IMPACTED LENGTH</b>	<b>MITIGATION LENGTH</b>	<b>MITIGATION LOCATION</b>
UN Trib Big Branch Pond Fork Valley Fill No. 1 *	3588'	3,422'	Sediment Ditch F
UN Trib Big Branch Pond Fork Pond No. 1 & 1A*	625'	625'	Pond No.1 &1A
UN Trib Roach Branch Valley Fill No. 2	90'	4,004'	Sediment Ditch G
UN Trib Roach Branch Pond No. 2	310'	310'	Pond No. 2
UN Trib Roach Branch Valley Fill No. 3	1,370'	2,115'	Diversion Ditch 3A
UN Trib Roach Branch Pond No. 3	300'	300'	Pond No. 3
Dry Branch Valley Fill No. 4	2,095'	3,370'	Sediment Ditch L-L
Dry Branch Pond No. 4	340'	340'	Pond No. 3
Lem White Branch Valley Fill No. 5	2,195'	1,750'	Sediment Ditch C-C
Lem White Branch Pond No. 5 and 5A	815'	815'	Ponds No. 5 & 5A
<b>TOTALS</b>	<b>11,728**</b>	<b>17,051'</b>	
<b>Mitigation for Permanent Impacts</b>		<b>14,661'</b>	
<b>Mitigation for Temporary Impacts</b>		<b>2,390'</b>	

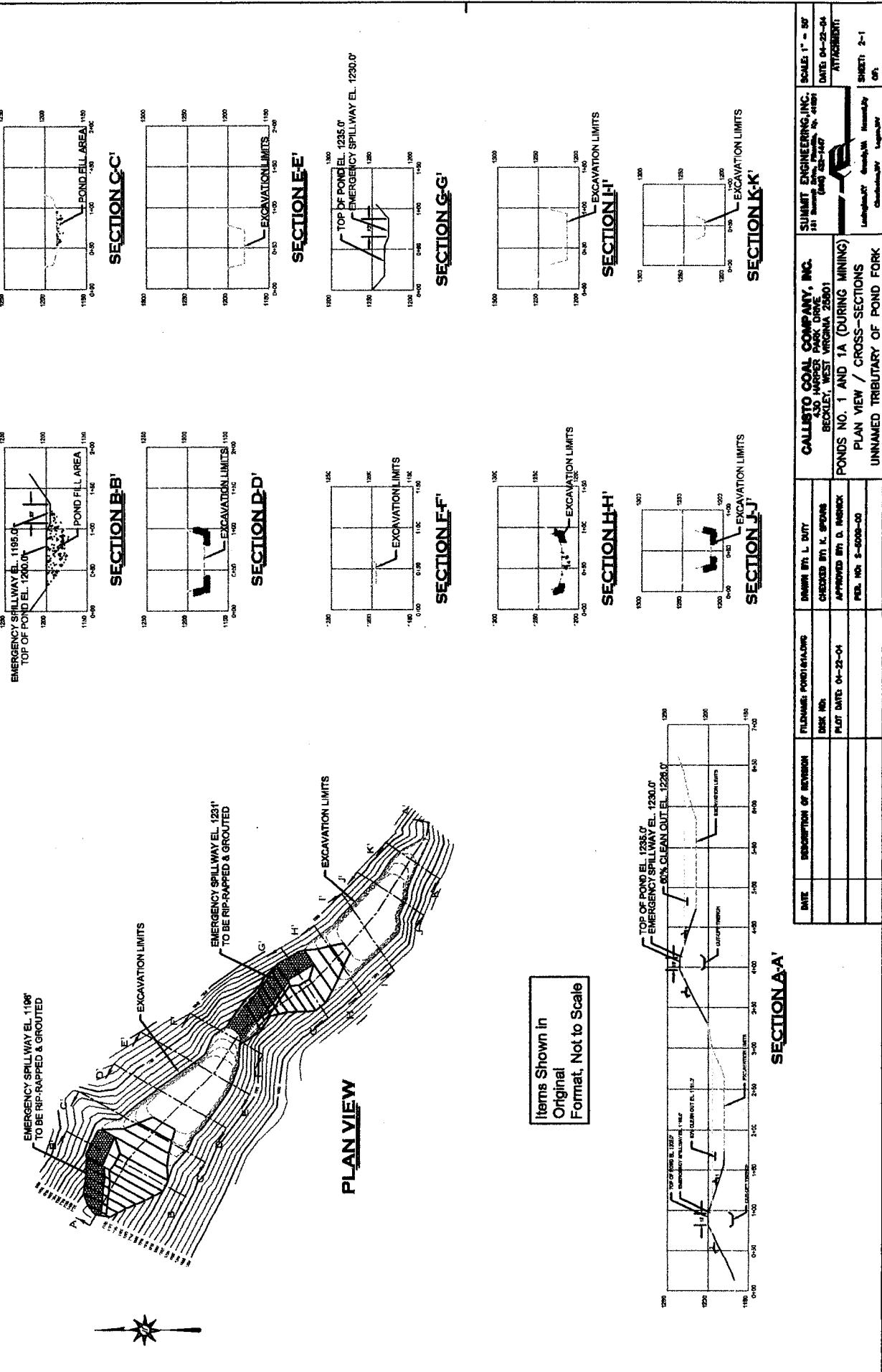
\* Includes stream impacts authorized by nationwide permit #21 on February 8, 2002.

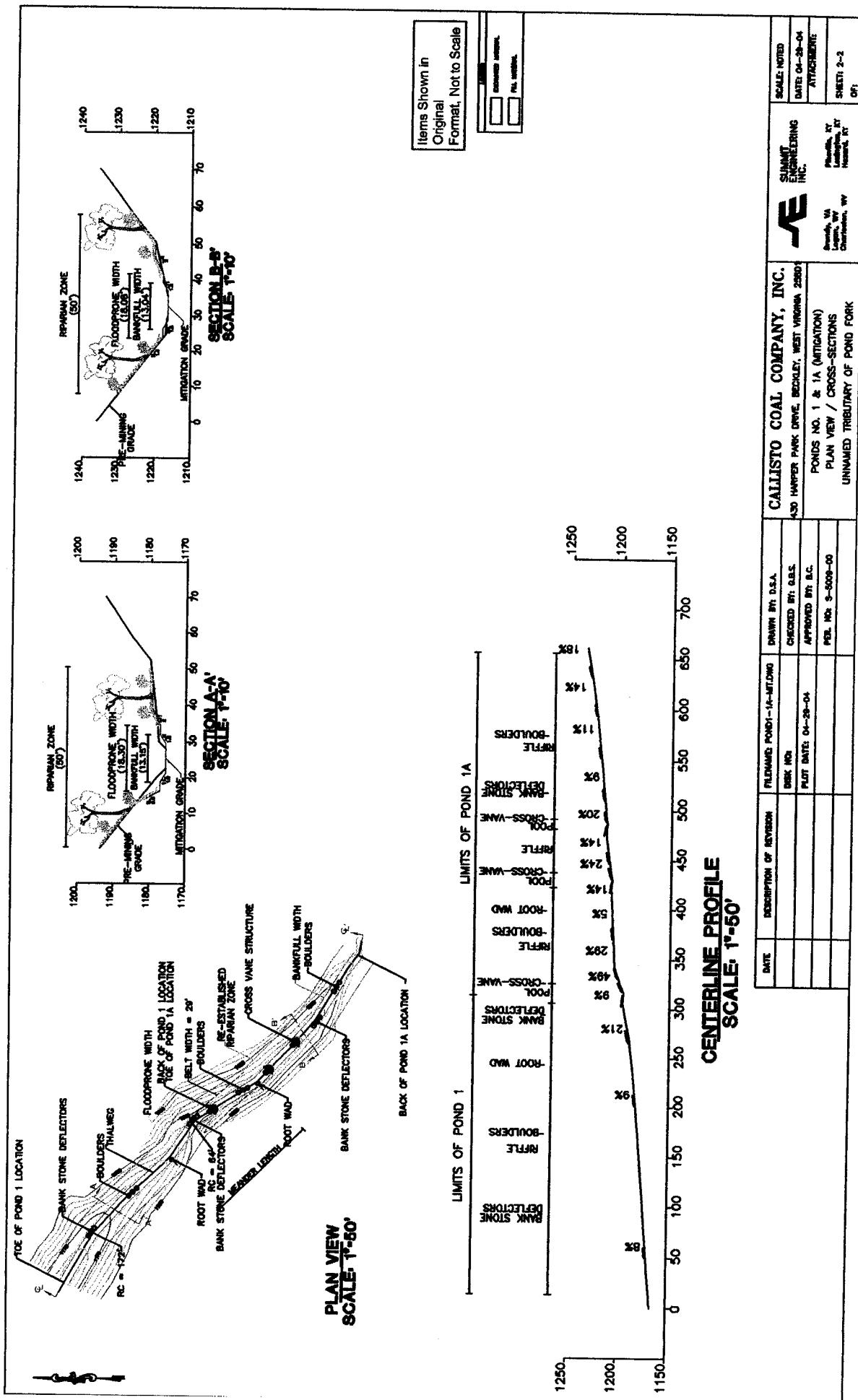
**Figure 1.**

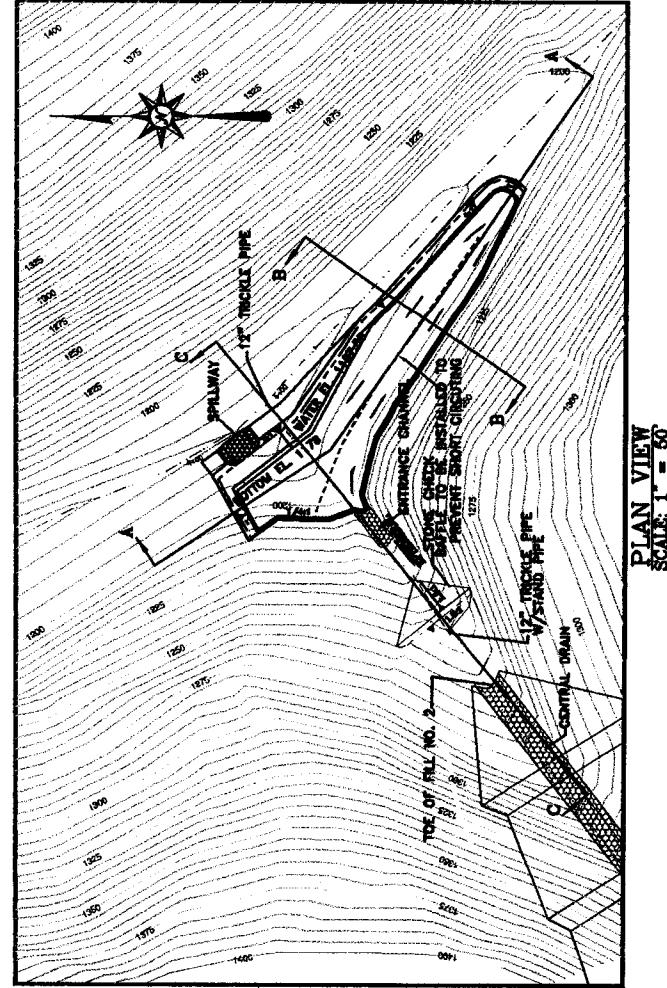
**Location of the Proposed Project Area, Boone County, WV.**



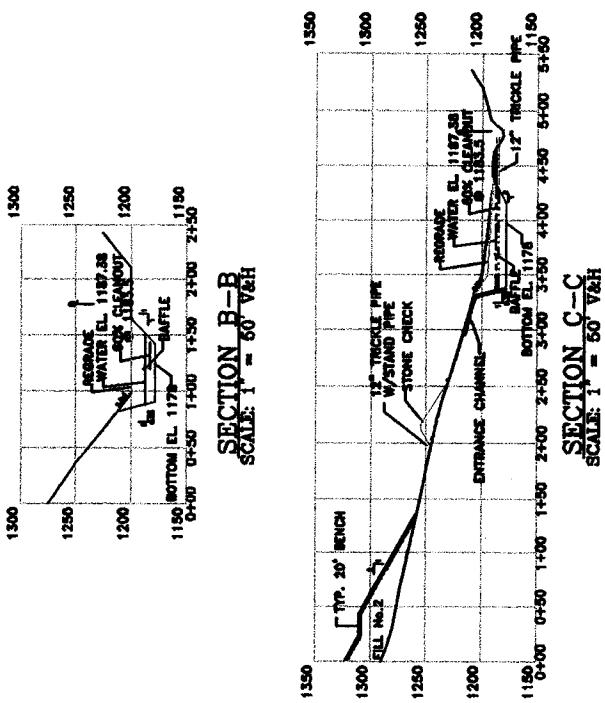








PLAN VIEW  
SCALE 1" = 60'



WATER LEVEL (ft)

60% CLEANOUT • 1185.5

1173

1150 1160 1170 1180 1190 1200 1210 1220 1230 1240 1250

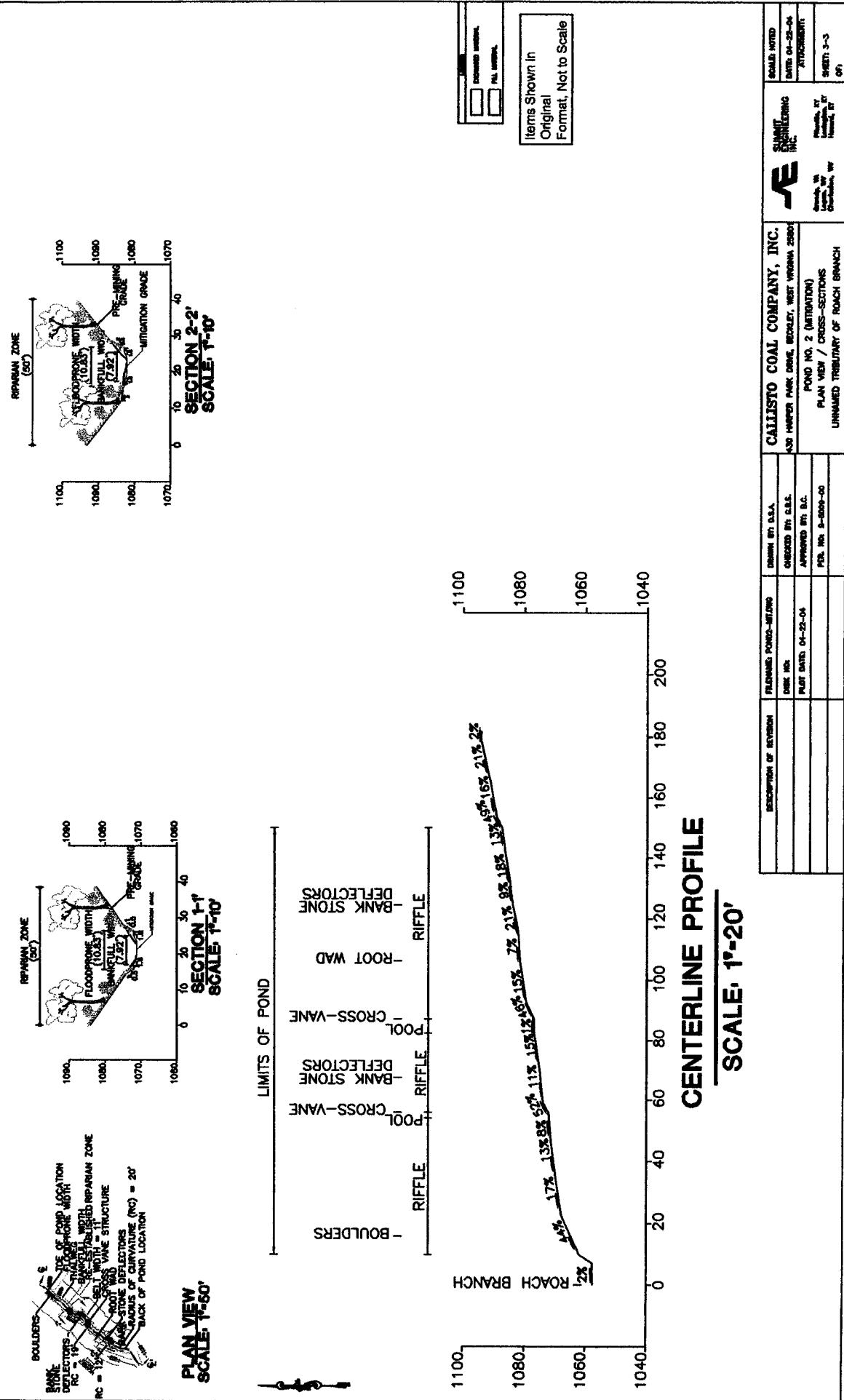
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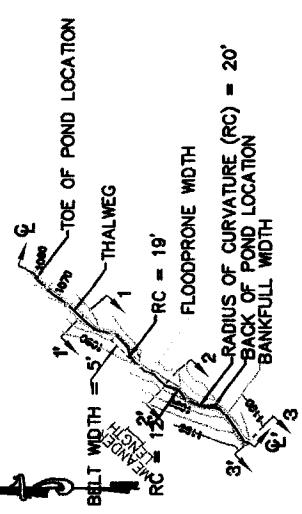
**PROFILE A-A**  
SCALE: 1 = 60' V.H.

LEADER

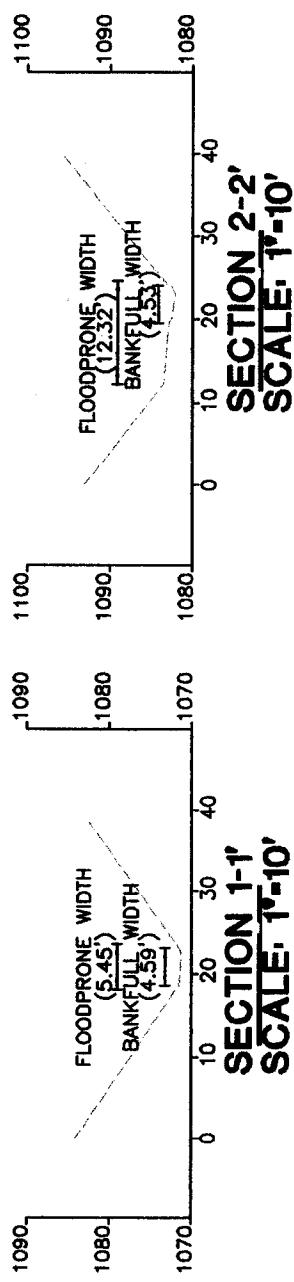
Items Shown in  
Original Format, Not to Scale

**NOTE: ORIGINAL MAP PREPARED BY  
THE MING CONSULTING COMPANY**

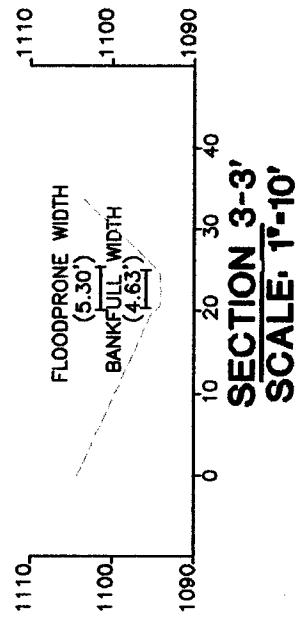




**PLAN VIEW  
SCALE, 1"-50'**



SECTION 2-2'  
SCALE: 1"-10'



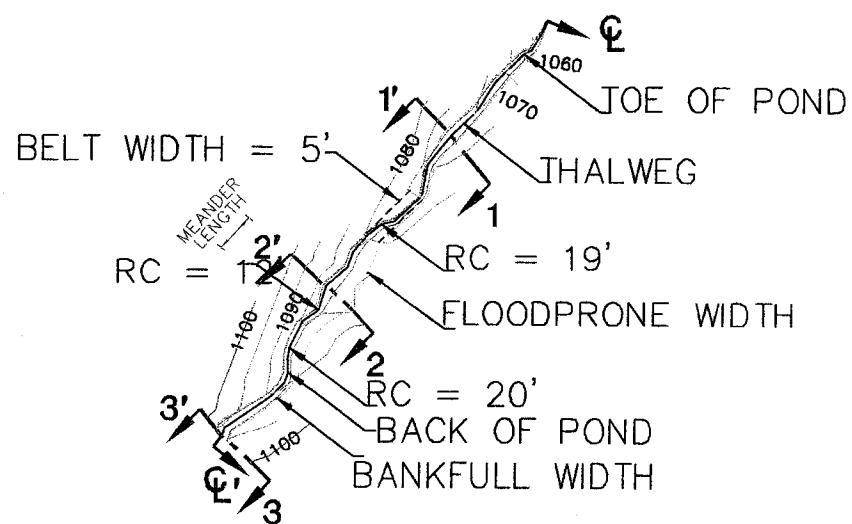
SECTION 3-3  
SCALE: 1"-10'

**CENTERLINE PROFILE**

Distance (ft)	Profile Height (ft)
60	80
70	92
80	102
90	112
100	102
110	92
120	80
130	80
140	80

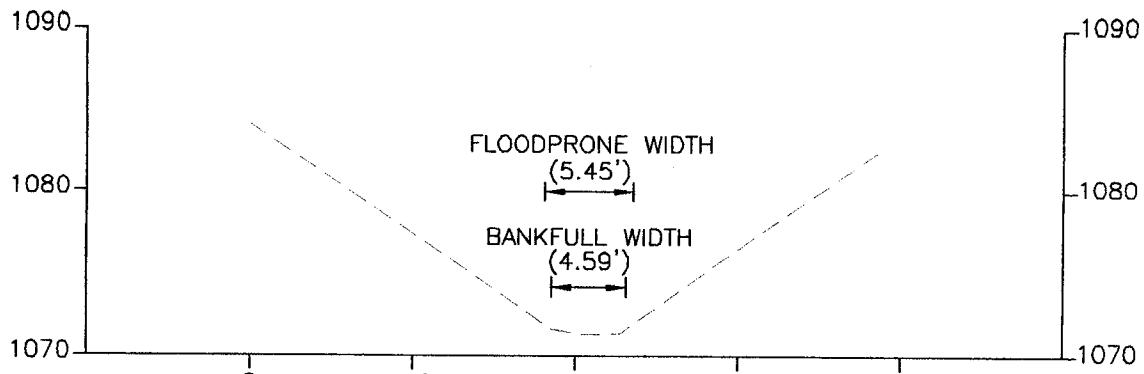
**Items Shown in  
Original  
Format, Not to Scale**

1040	1040	<b>CENTERLINE PROFILE</b> <b>SCALE: 1"-20'</b>										
		0	20	40	60	80	100	120	140	160	180	200
<b>SUMMIT ENGINEERING INC.</b>												
<b>CALIJITO COAL COMPANY, INC.</b> 450 HARPER PARK DRIVE, BECKLEY, WEST VIRGINIA 25801												
<b>POND NO. 2 (PRE-MINING)</b> <b>PLAN VIEW / CROSS-SECTIONS</b> <b>UNNAMED TRIBUTARY OF ROACH BRANCH</b> <b>SCALE NOTED</b> <b>REV. DATE</b>												
<b>DATE: 04-21-04</b> <b>PLATINUM</b> <b>POND NO. 2</b> <b>ROACH BRANCH</b> <b>W.V.A.</b> <b>U.S.A.</b>												
<b>WORK NO.</b> <b>NOT DATE</b> <b>04-21-04</b>												
<b>APPROV. BY:</b> <b>BLG.</b>												
<b>PER. NO. S-5008-00</b> <b>ATT:</b>												

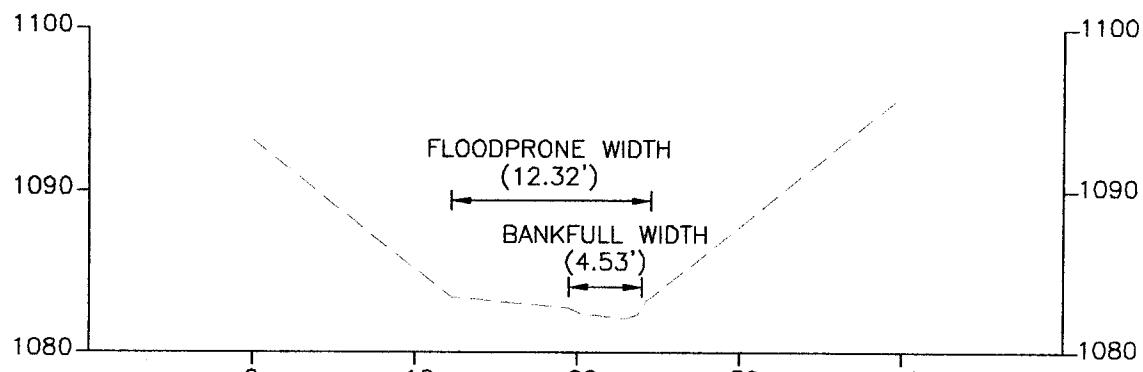


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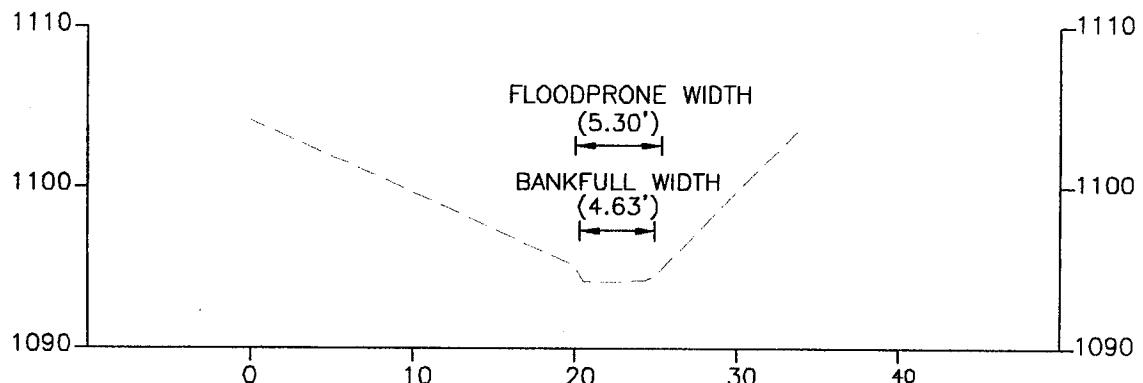
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SCALE: 1"=50'	P.N. S-5009-00	POND 2 PLAN VIEW (PRE-MINING)	
DRAWN BY: D.S.A.	PAGE NO. 3-1-1	UNNAMED TRIBUTARY OF ROACH BRANCH	Grundy, VA Logan, WV Charleston, WV Pikeville, KY Lexington, KY Hazard, KY



**SECTION 1-1'**



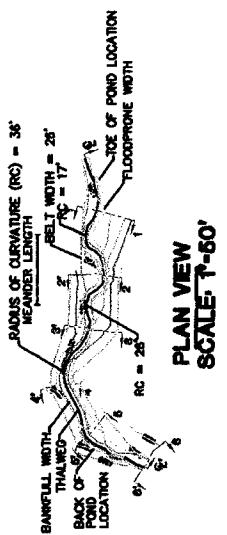
**SECTION 2-2'**



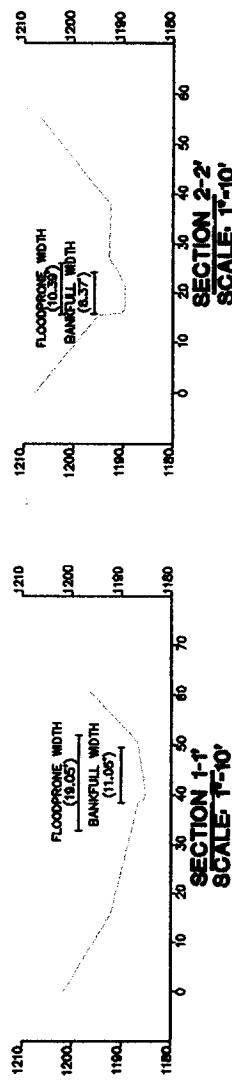
**SECTION 3-3'**

Items Shown in Original Format, Not to Scale

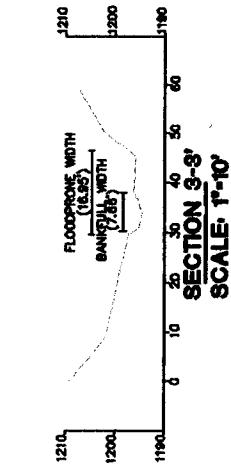
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SCALE: 1"=10'	P.N. S-5009-00	POND 2 CROSS-SECTIONS 1-3 (PRE-MINING)	Grundy, VA Logan, WV Charleston, WV
DRAWN BY: D.S.A.	PAGE NO. 3-1-2	UNNAMED TRIBUTARY OF ROACH BRANCH	Pikeville, KY Lexington, KY Hazard, KY



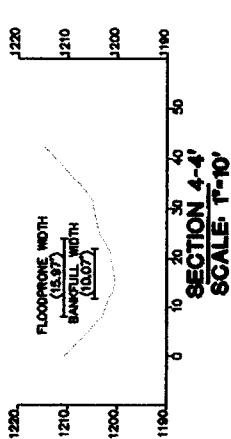
PLAN VIEW  
SCALE: 1'-50'



SCALE 1:10'



SCALE: 1<sup>o</sup>-10'

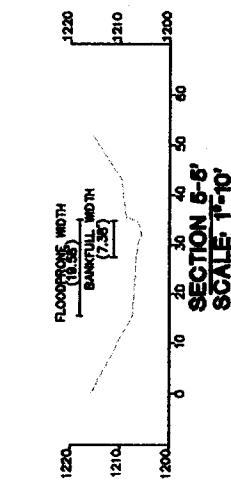


SECTION 9-8

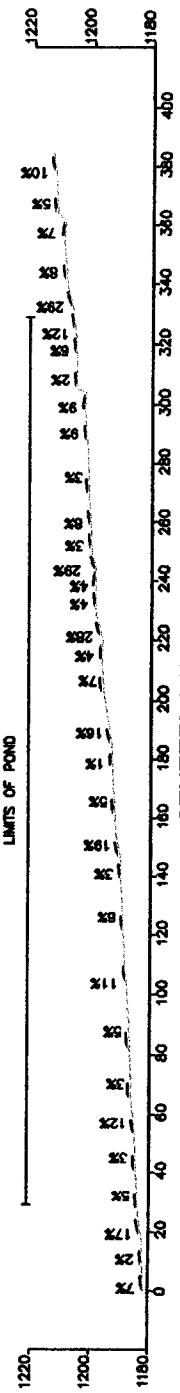
SCALE:  $1' = 10^4'$

FUNDAMENTAL FREQUENCY RATIO

BANDWIDTH

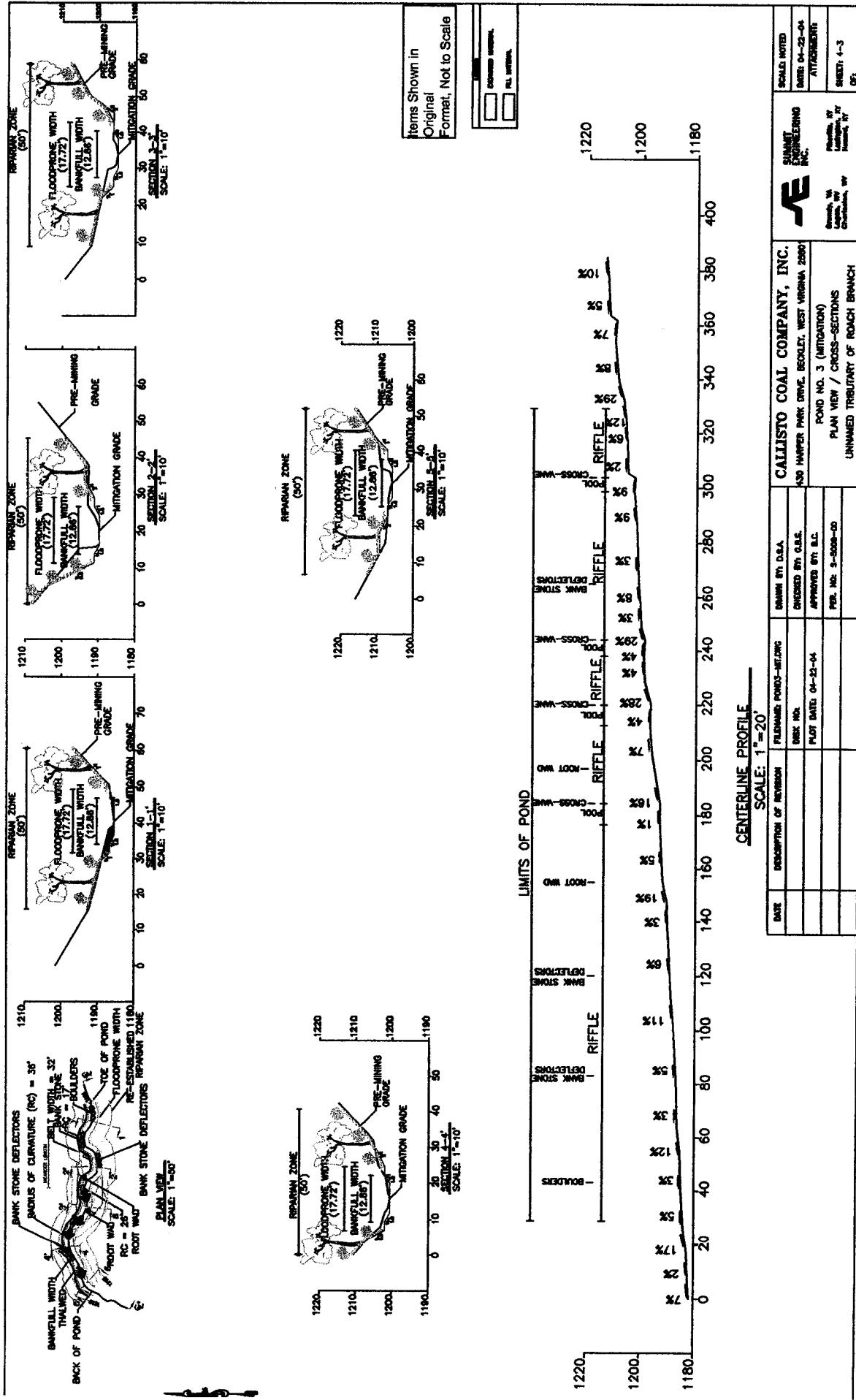


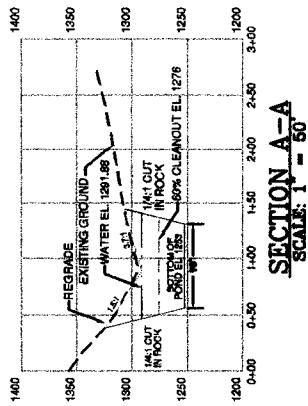
SCALE 1<sup>1</sup>-10



SCALE: 1"-20'

DATE	DESCRIPTION OF REVIEW	FLAMINGO PORT-REGD#20	BUREAU OF U.S.A.	<b>CALISTO COAL COMPANY, INC.</b>	SCALE NOTED
		BOOK NO.	CHARTED BY G.S.	NO. 1000 PAPER, PINK DECO, SECURITY, WEST VIRGINIA, 2000	BOOKS 01-31-04
			APPROVED BY G.S.	POND NO. 3 (OPEN-HEADING)	ATTACHMENT
			FIG. NO. 5-0025-40	PLAN VIEW / CROSS-SECTIONS	
				UNARMED TITULARITY OF REACH BRANCH	SHEETS 4-1 OF

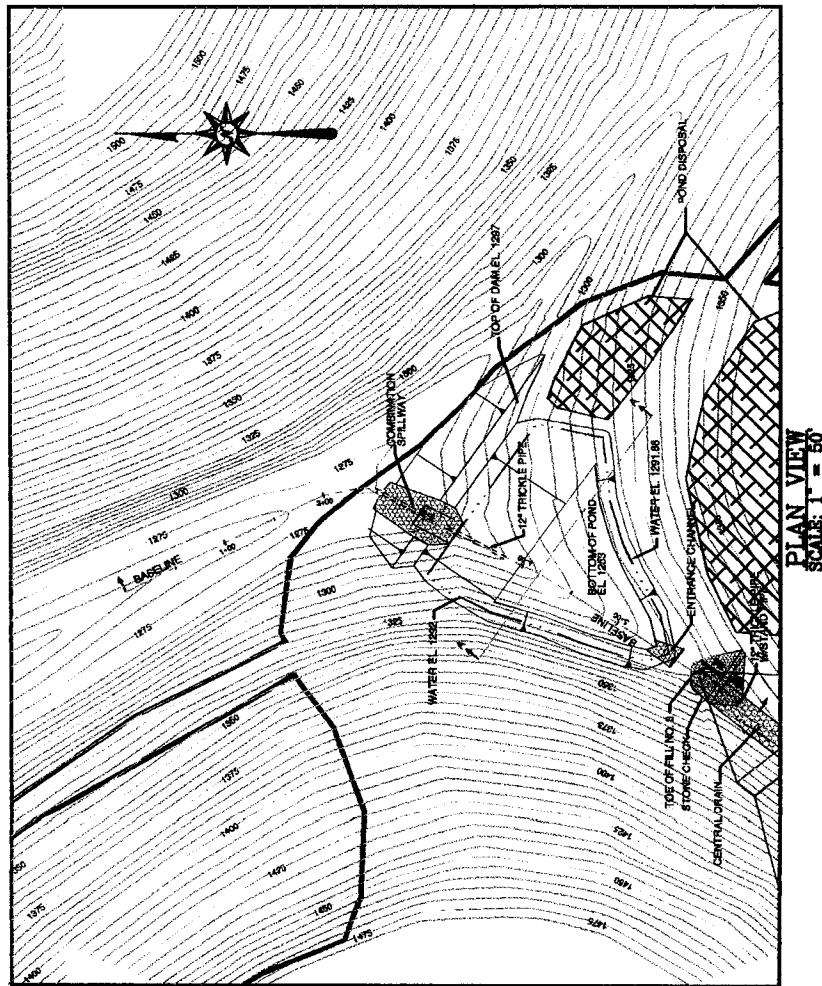




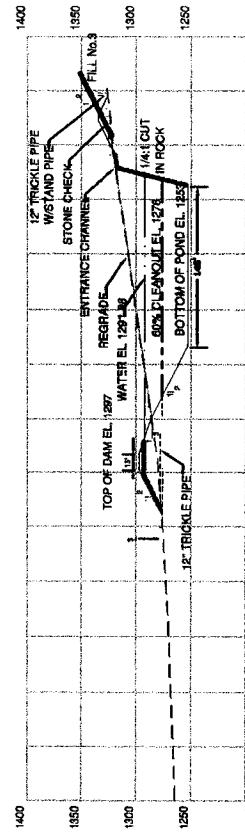
SECTION A-A  
SCALE: 1 =  $\frac{1}{50}$

NOTE: ORIGINAL MAP PREPARED BY  
THE MINING CONSULTING COMPANY

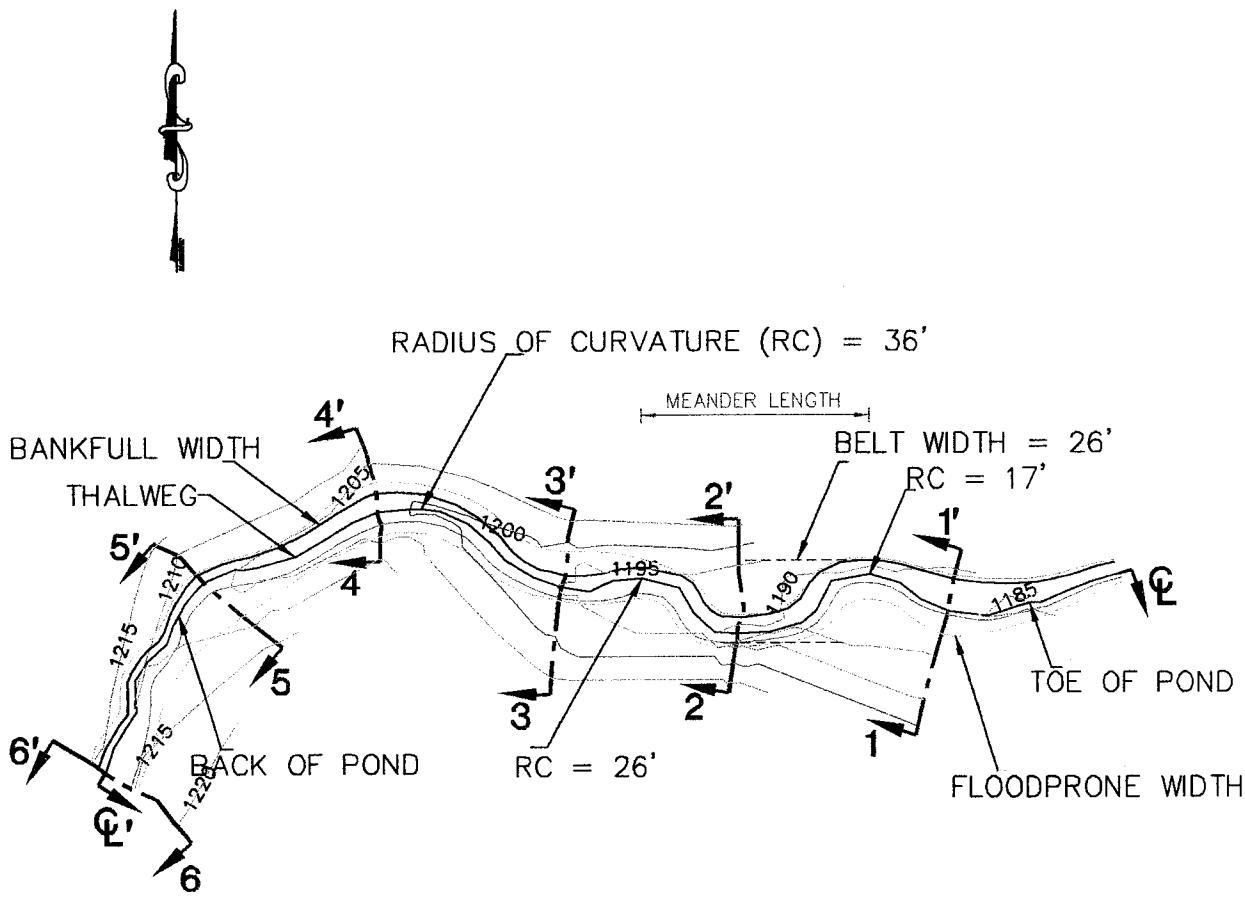
**Items Shown in  
Original  
Format, Not to Scale**



PLAN VIEW  
SCALE: 1" = 50'

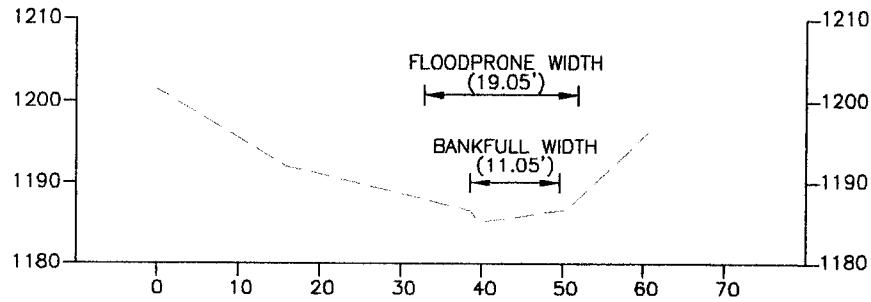


PROFILE  
SCALE: 1 = 50'

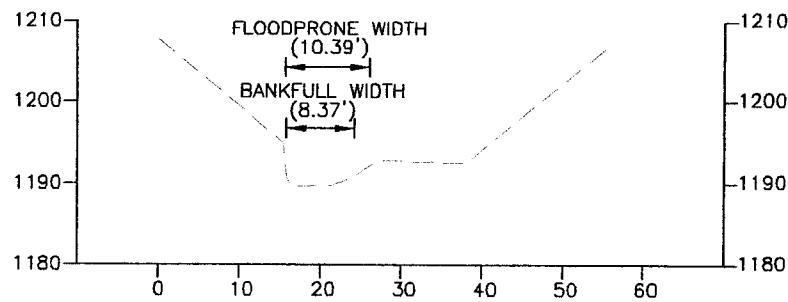


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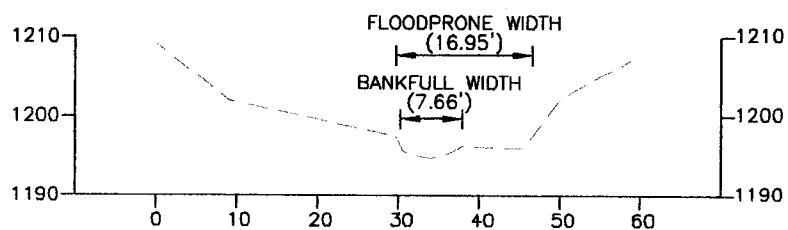
DATE: 07-23-04	FILENAME: P3PV-PRE.DWG	CALLISTO COAL COMPANY, INC. 430 HARPER PARK DRIVE BECKLEY, WEST VIRGINIA 25801	 SUMMIT ENGINEERING INC.
SCALE: 1"=50'	P.N. S-5009-00	POND 3 PLAN VIEW (PRE-MINING)	Grundy, VA Logan, WV Charleston, WV
DRAWN BY: D.S.A.	PAGE NO. 4-1-1	UNNAMED TRIBUTARY OF ROACH BRANCH	Pikeville, KY Lexington, KY Hazard, KY



**SECTION 1-1'**



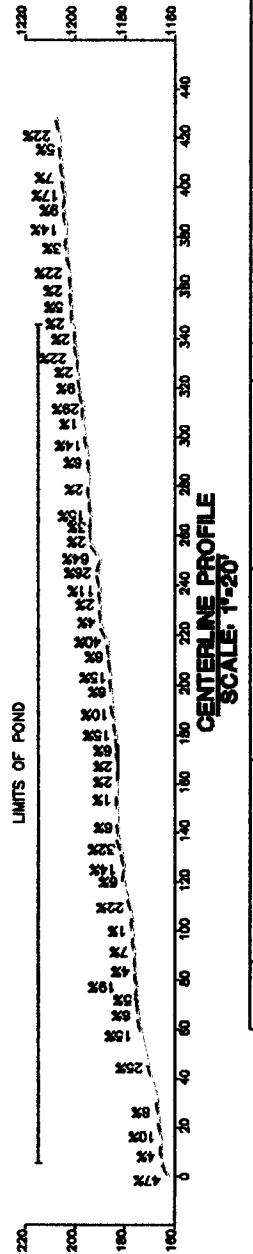
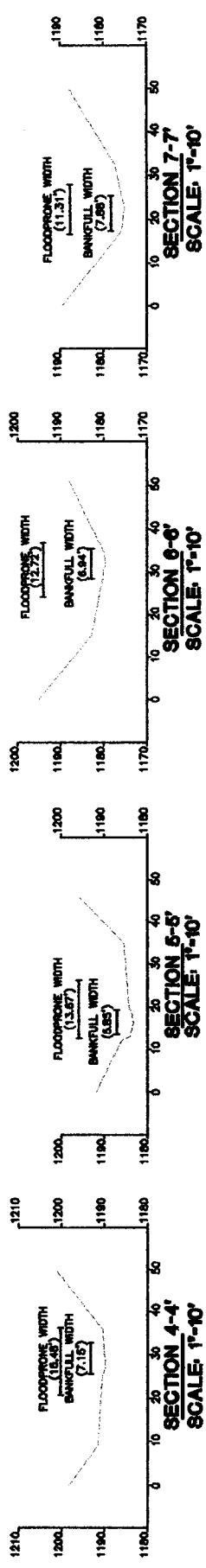
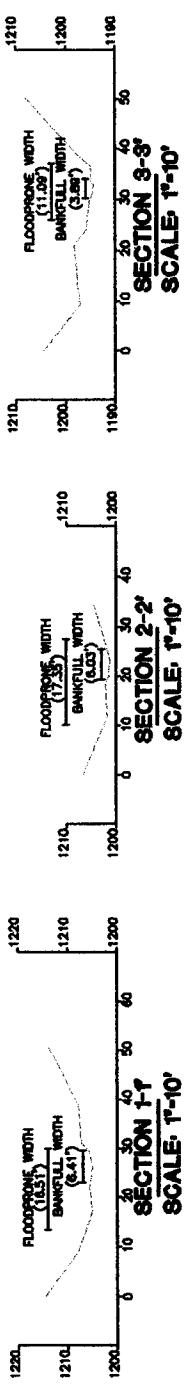
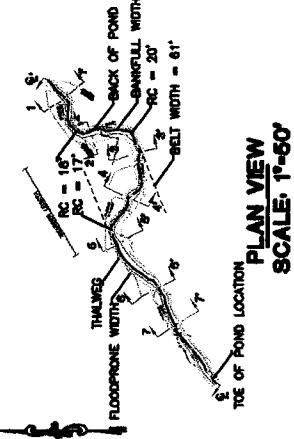
**SECTION 2-2'**



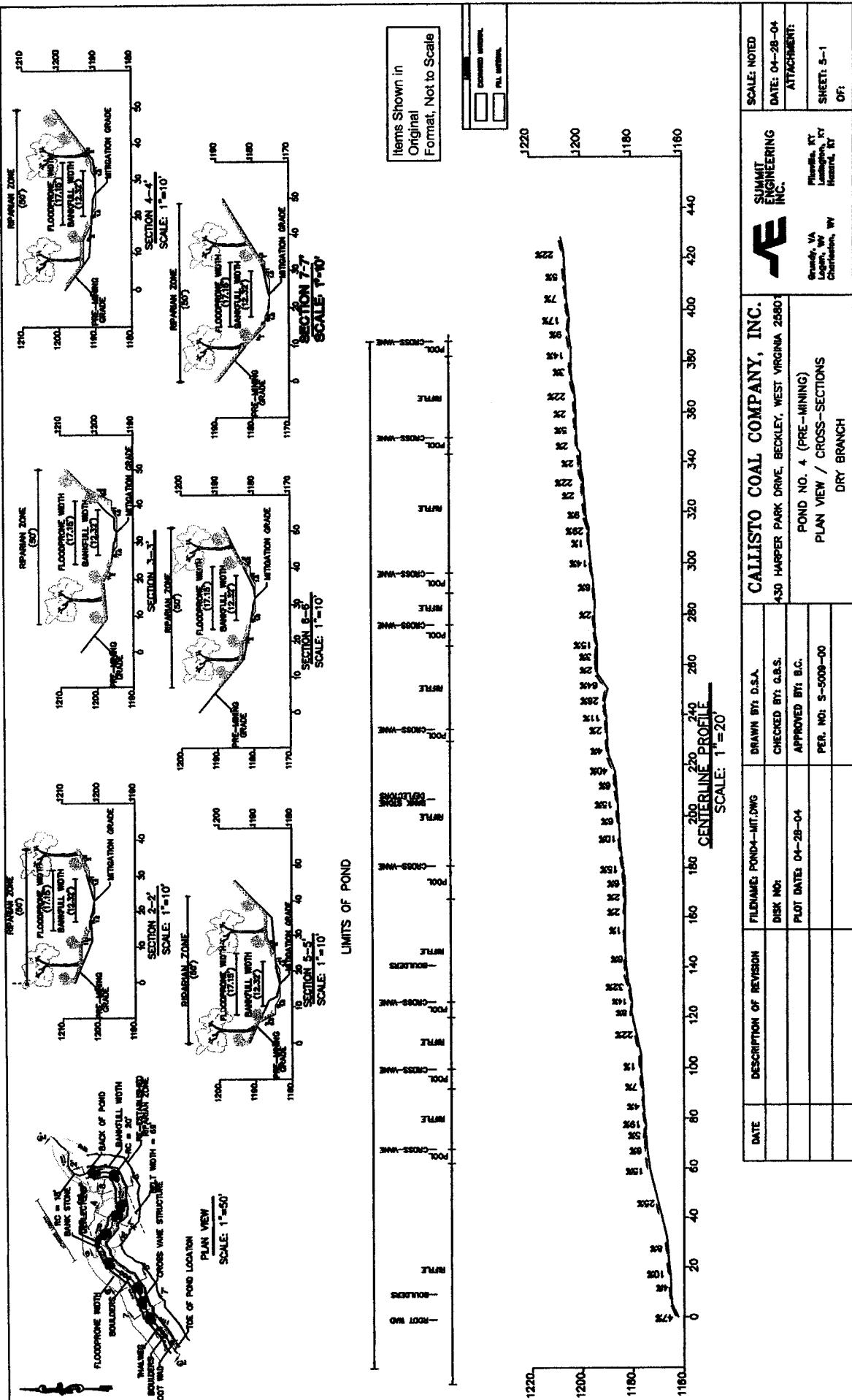
**SECTION 3-3'**

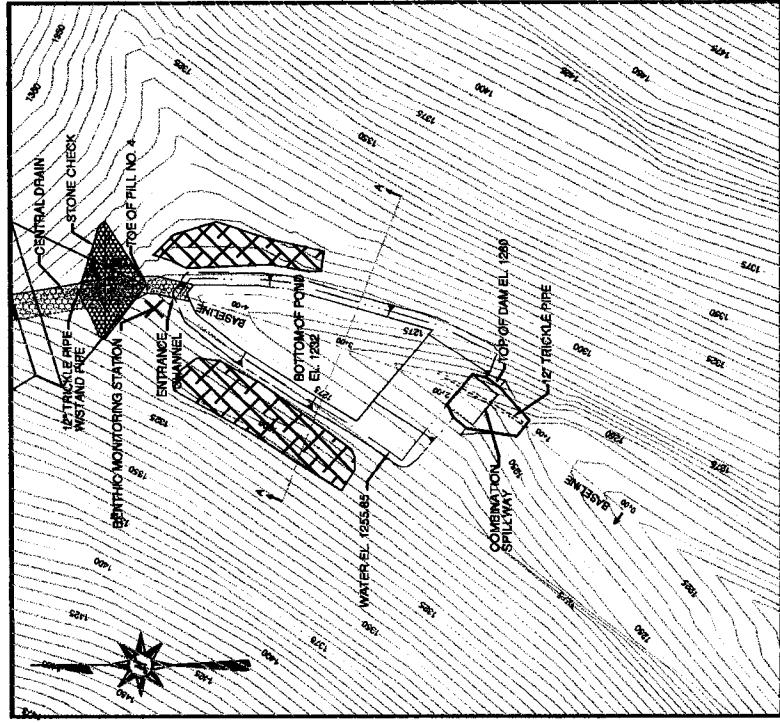
Items Shown in Original Format, Not to Scale

DATE: 07-23-04	FILENAME: P3XS1-3PRE.DWG	CALLISTO COAL COMPANY, INC. 430 HARPER PARK DRIVE BECKLEY, WEST VIRGINIA 25801	SUMMIT ENGINEERING INC.
SCALE: 1"=20'	P.N. S-5009-00	POND 3 CROSS-SECTIONS 1-3 (PRE-MINING)	Grundy, VA Logan, WV Charleston, WV
DRAWN BY: D.S.A.	PAGE NO. 4-1-2	UNNAMED TRIBUTARY OF ROACH BRANCH	Pikeville, KY Lexington, KY Hazard, KY

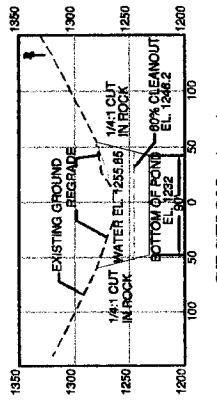
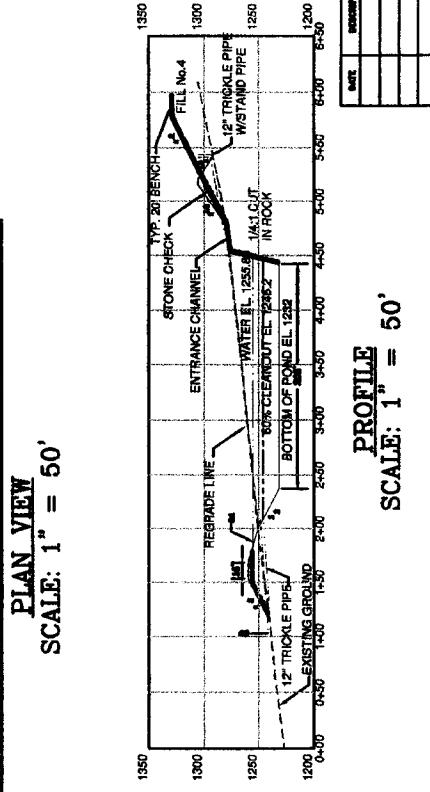
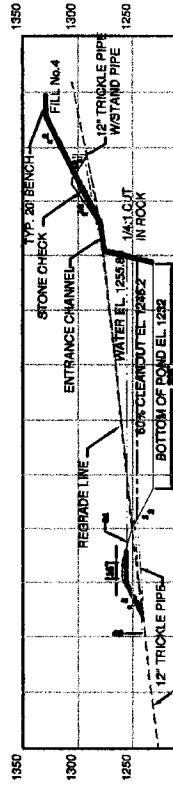


**Items Shown in  
Original  
Format, Not to Scale**





**PLAN VIEW**  
SCALE: 1" = 50'



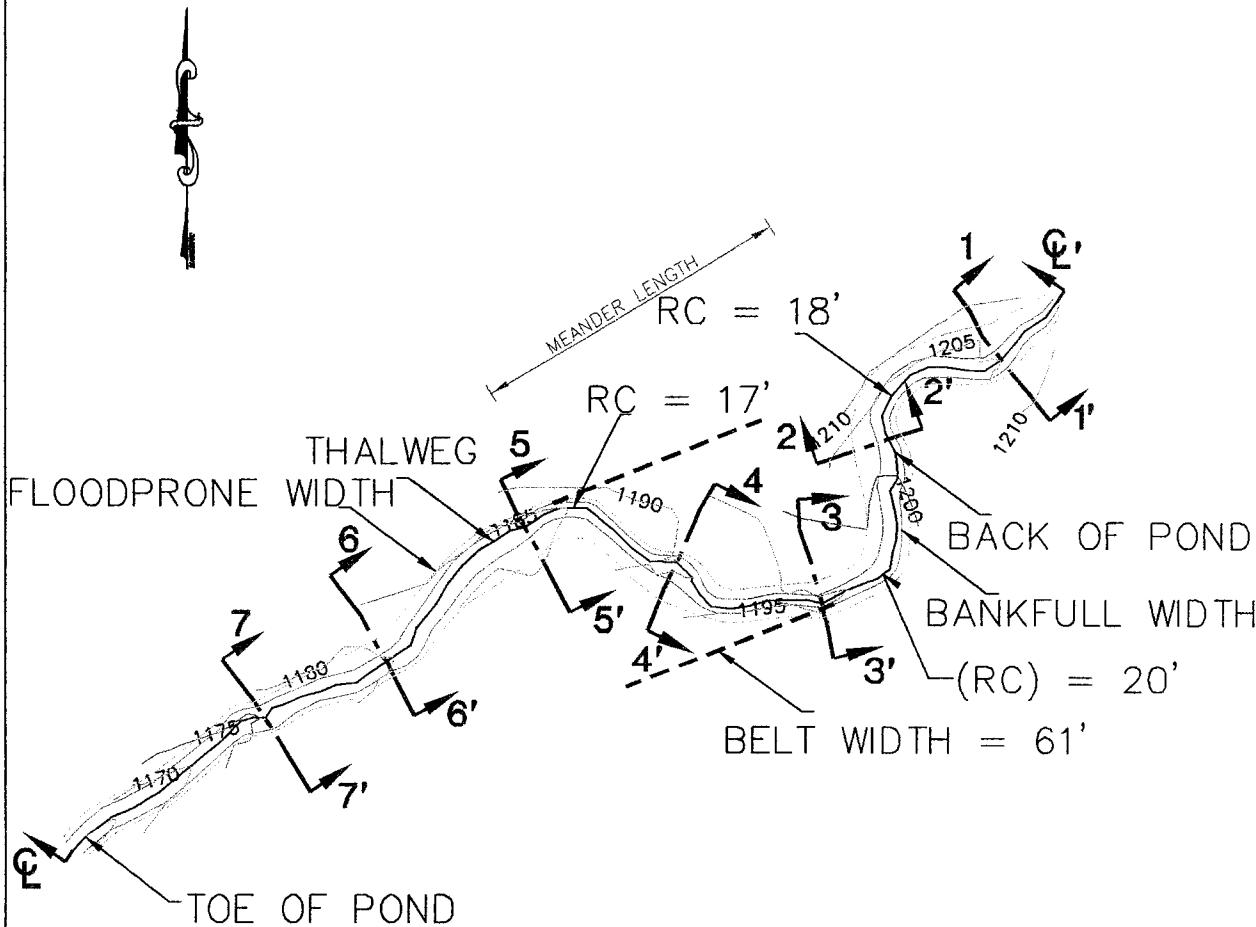
Items Shown In  
Original  
Format, Not to Scale

EXISTING GROUND/REGRADE AS LABELED	- - - - -
FINAL GROUND	-----
REGRADE LIMITS (PLAN VIEW)	-----
BOUNDED LIMITS (SECTION)	-----
BENTHIC MONITORING STATION	X

NOTE: ORIGINAL MAP PREPARED BY  
THE LIMBER CONSULTANTS COMPANY

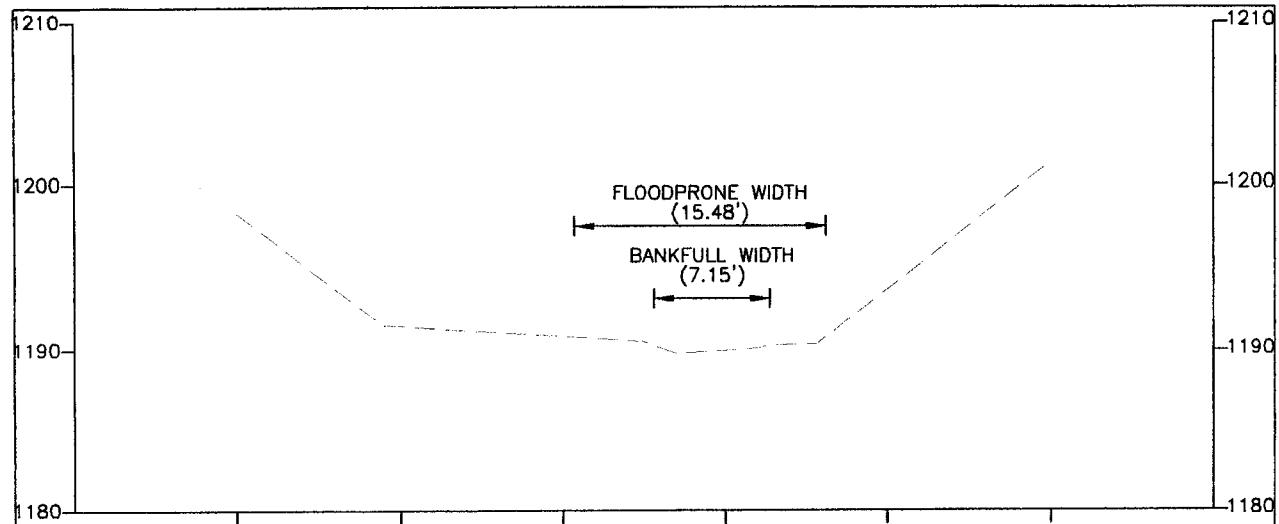
CAZIER COAL COMPANY, INC.	SECTION A-A
400' NAD 83 EAST 100' NAD 83 ELEV. 1255.5ft	ELEV. 1245.2ft
SECTION B-B	SECTION C-C
POND NO. 4 (DURING MINING) POND NO. 4 (POST-MINING)	POND NO. 4 (POST-MINING)
CROSS-SECTIONS	CROSS-SECTIONS
ROAD BRANCH AND POND FORK	ROAD BRANCH AND POND FORK

SECTION A-A  
SECTION B-B  
SECTION C-C

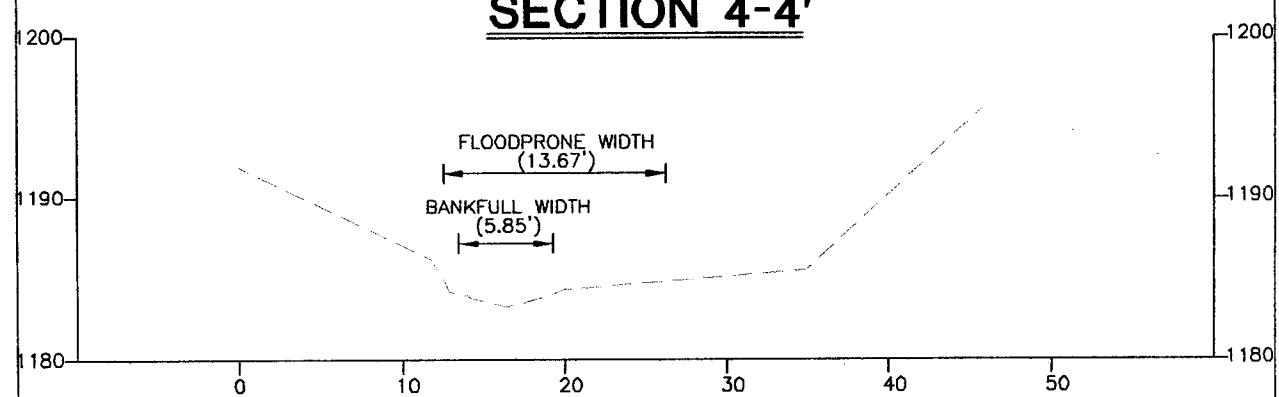


**Items Shown in  
Original  
Format, Not to Scale**

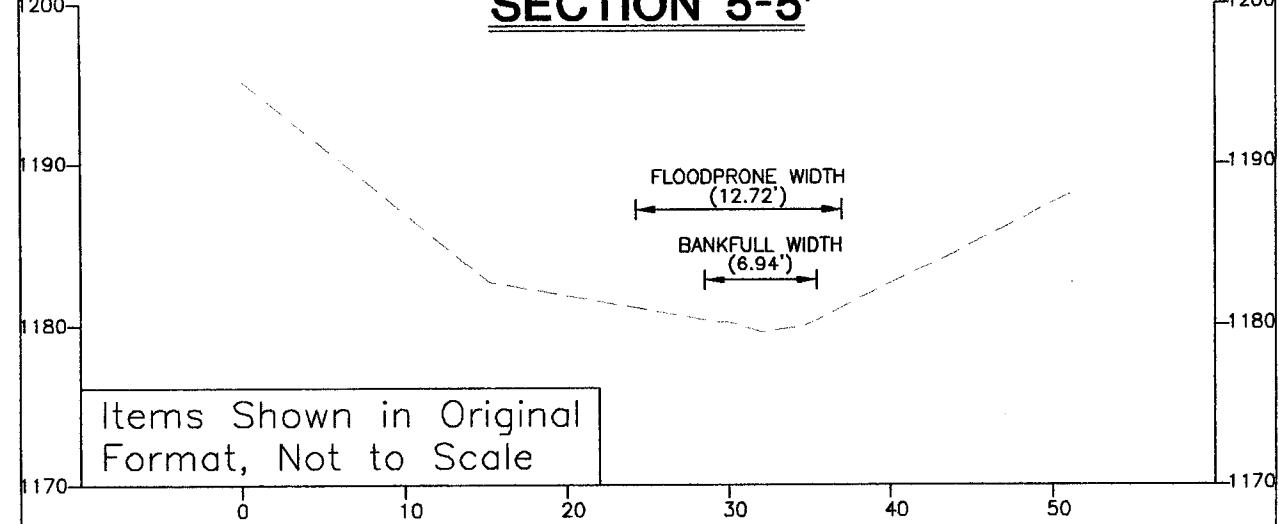
DATE: 07-23-04	FILENAME: P4PV-PRE.DWG	CALLISTO COAL COMPANY, INC. 430 HARPER PARK DRIVE BECKLEY, WEST VIRGINIA 25801	SUMMIT ENGINEERING INC.
SCALE: 1"=50'	P.N. S-5009-00	POND 4 PLAN VIEW (PRE-MINING)	Grundy, VA Logan, WV Charleston, WV
DRAWN BY: D.S.A.	PAGE NO. 5-1-1	DRY BRANCH	Pikeville, KY Lexington, KY Hazard, KY



**SECTION 4-4'**



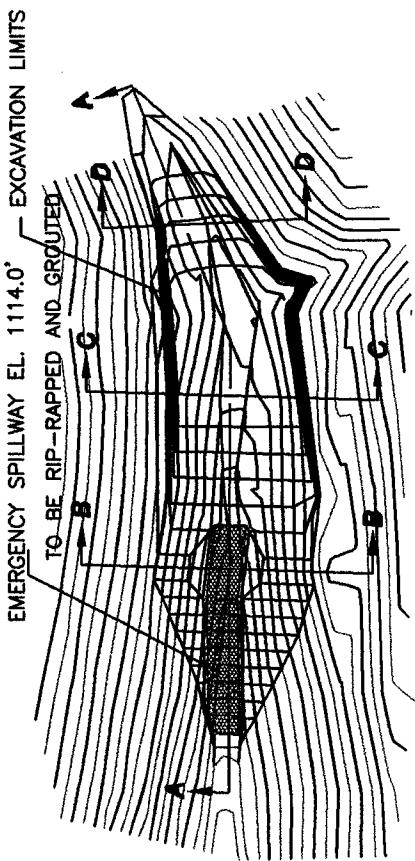
**SECTION 5-5'**



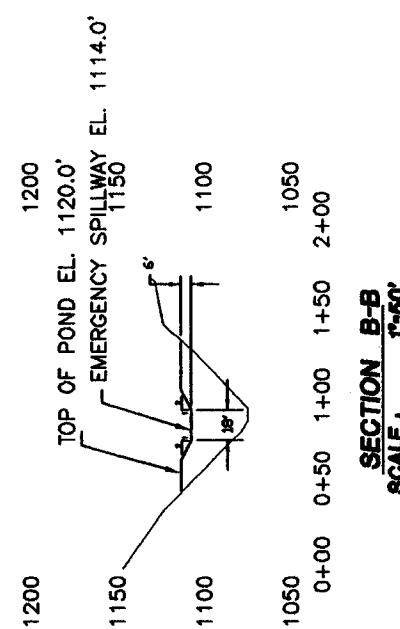
Items Shown in Original Format, Not to Scale

**SECTION 6-6'**

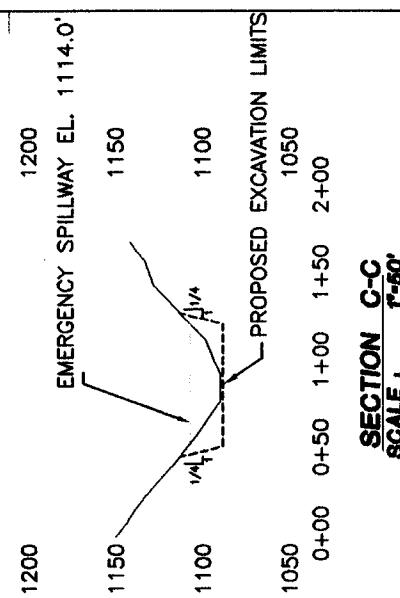
DATE: 07-23-04	FILENAME: P4XS4-6PRE.DWG	CALLISTO COAL COMPANY, INC. 430 HARPER PARK DRIVE BECKLEY, WEST VIRGINIA 25801	 SUMMIT ENGINEERING INC.
SCALE: N.T.S.	P.N. S-5009-00	POND 4 CROSS-SECTIONS 4-6 (PRE-MINING)	
DRAWN BY: D.S.A.	PAGE NO. 5-1-3	DRY BRANCH	Grundy, VA Logan, WV Charleston, WV
			Pikeville, KY Lexington, KY Hazard, KY



**PLAN VIEW**  
SCALE . 1'-60'

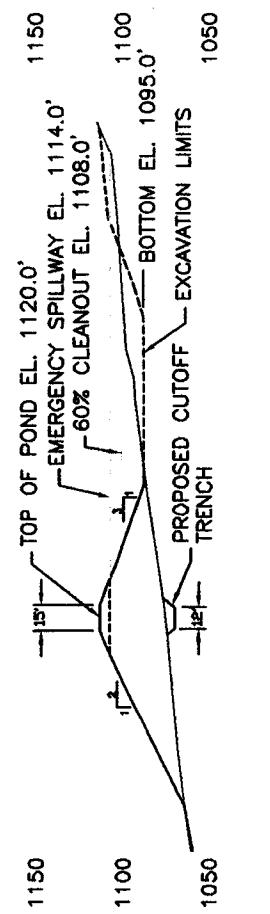


**SECTION B-B**  
SCALE . 1'-60'



**SECTION D-D**  
SCALE . 1'-60'

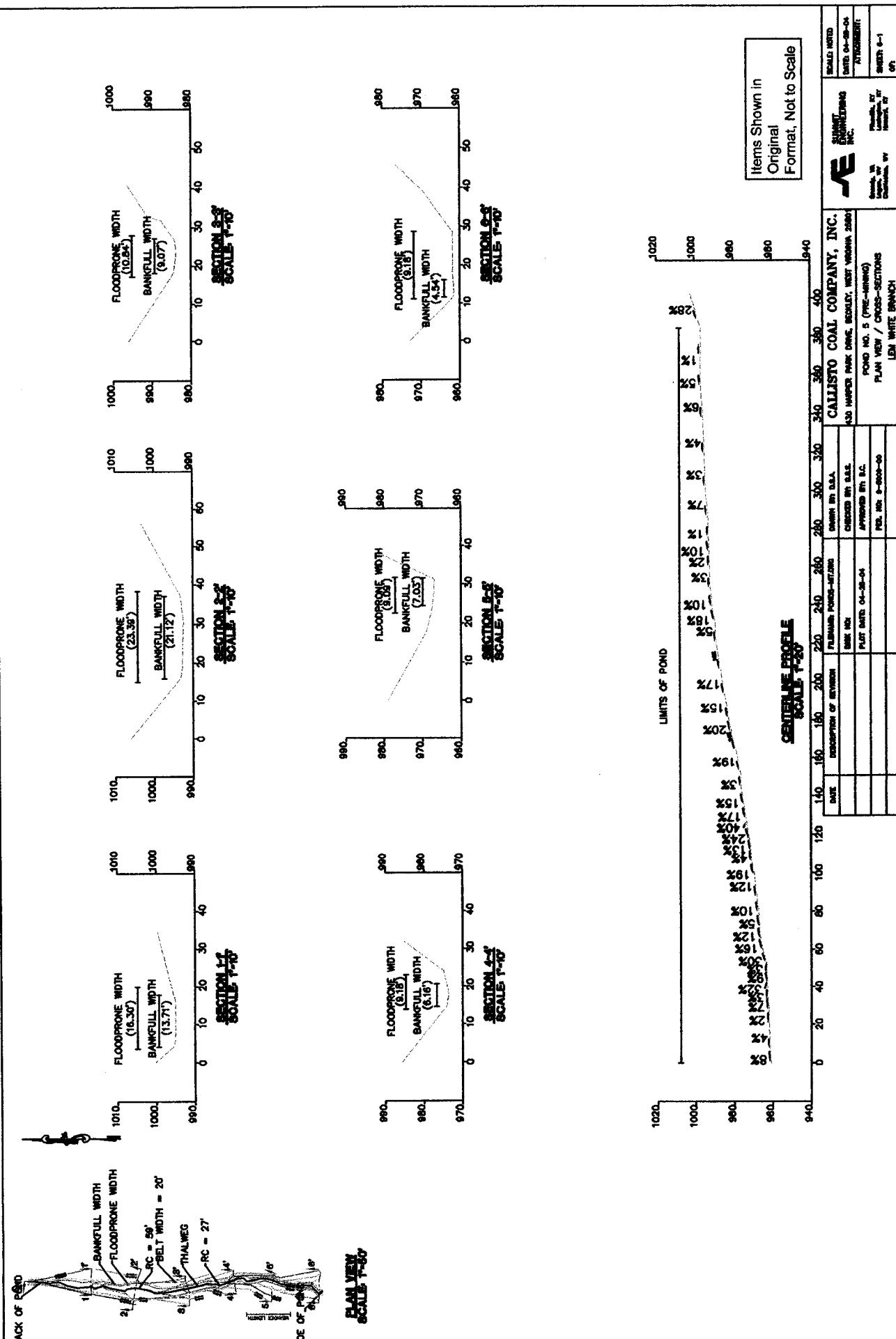
**Items Shown in  
Original  
Format, Not to Scale**

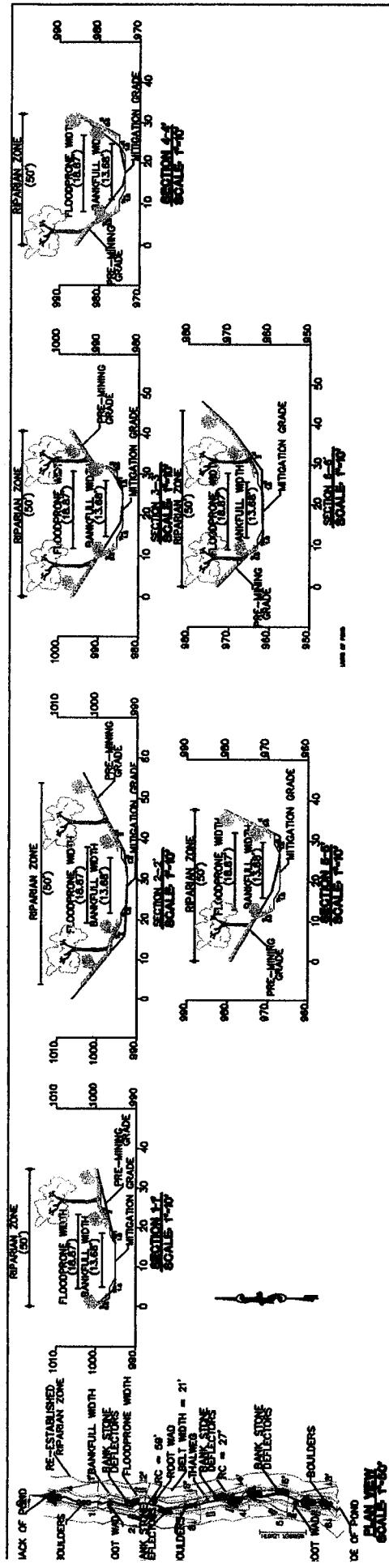


**PROFILE A-A**  
SCALE . 1'-60'

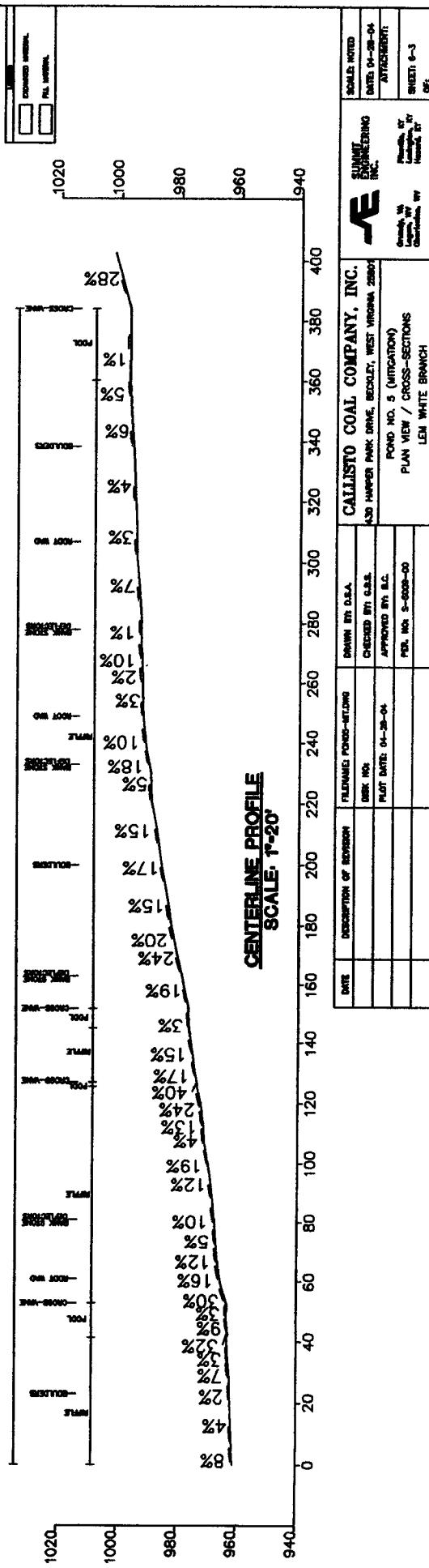
CALLISTO COAL COMPANY, INC.			
430 HARPER PARK DRIVE BECKLEY, WV 25807			
POND NO 5 (DURING MINING)			
PLAN VIEW & CROSS-SECTIONS			
ROACH BRANCH AND POND FORK	REV. DATE	SCALE	NOTED
DATE: 04-16-04	FILE NAME:	DESK NO:	PLOT DATE:
DRAWN BY:	CHK BY:	K.S.	04-16-04
E. HANNAH			
	APPROV. BY:	D.R.	SHEET: 6-2

SUNNIT ENGINEERING, INC.			
1100 N. WOODSTOCK BLVD., SUITE 100 CHARLESTON, WV 25301 (304) 258-1227			
Engineering Services	Perf. No:	5-5000-00	ATT:
Architectural Services	DATE:	04-16-04	
Land Surveying Services	CHK BY:	E. HANNAH	



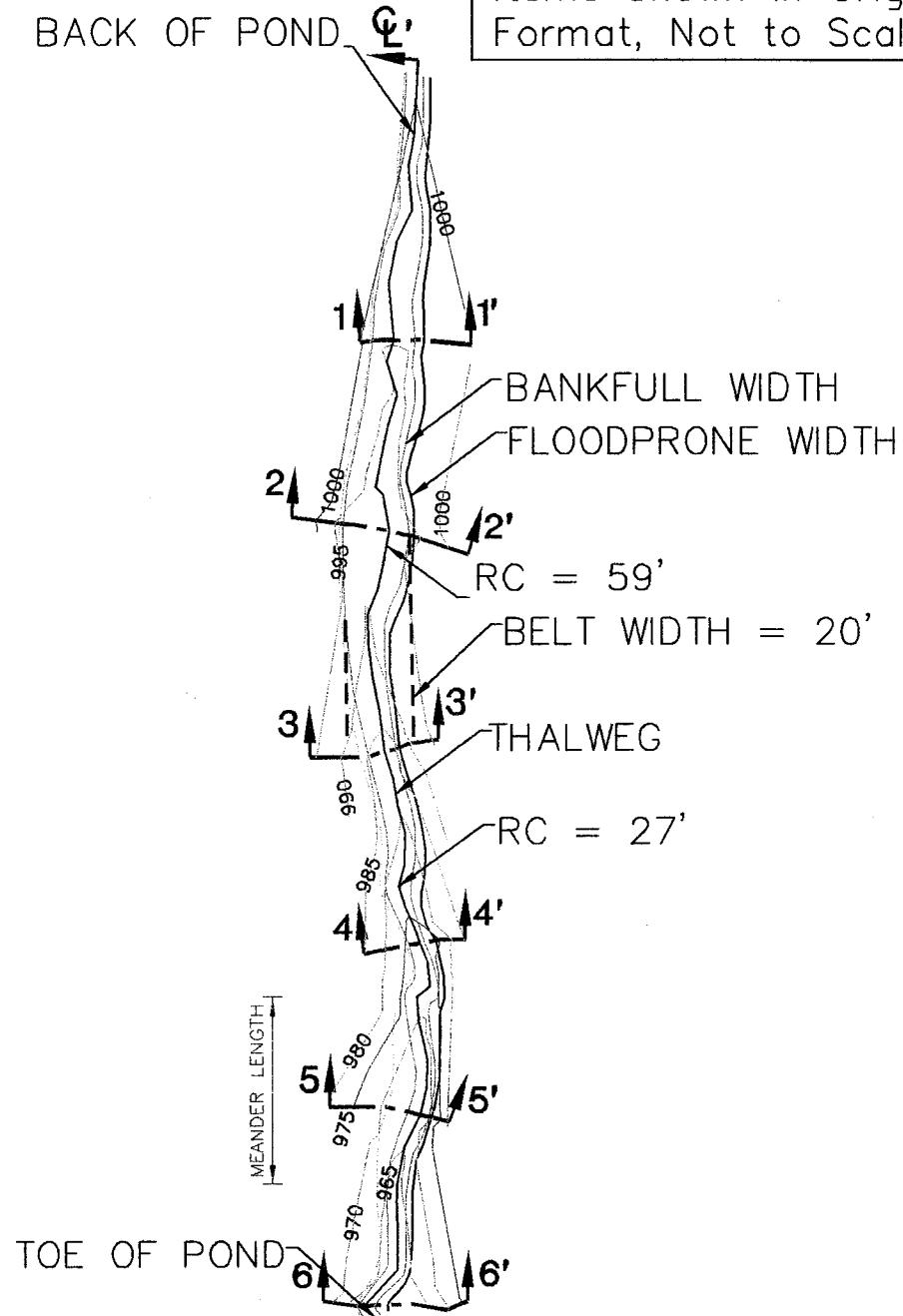


Items Shown in  
Original  
Format, Not to Scale



BACK OF POND

Items Shown in Original  
Format, Not to Scale



DATE: 07-26-04

FILENAME:  
P5PV-PRE.DWG

CALLISTO COAL COMPANY, INC.  
430 HARPER PARK DRIVE  
BECKLEY, WEST VIRGINIA 25801

SCALE: 1"=50'

P.N.  
S-5009-00

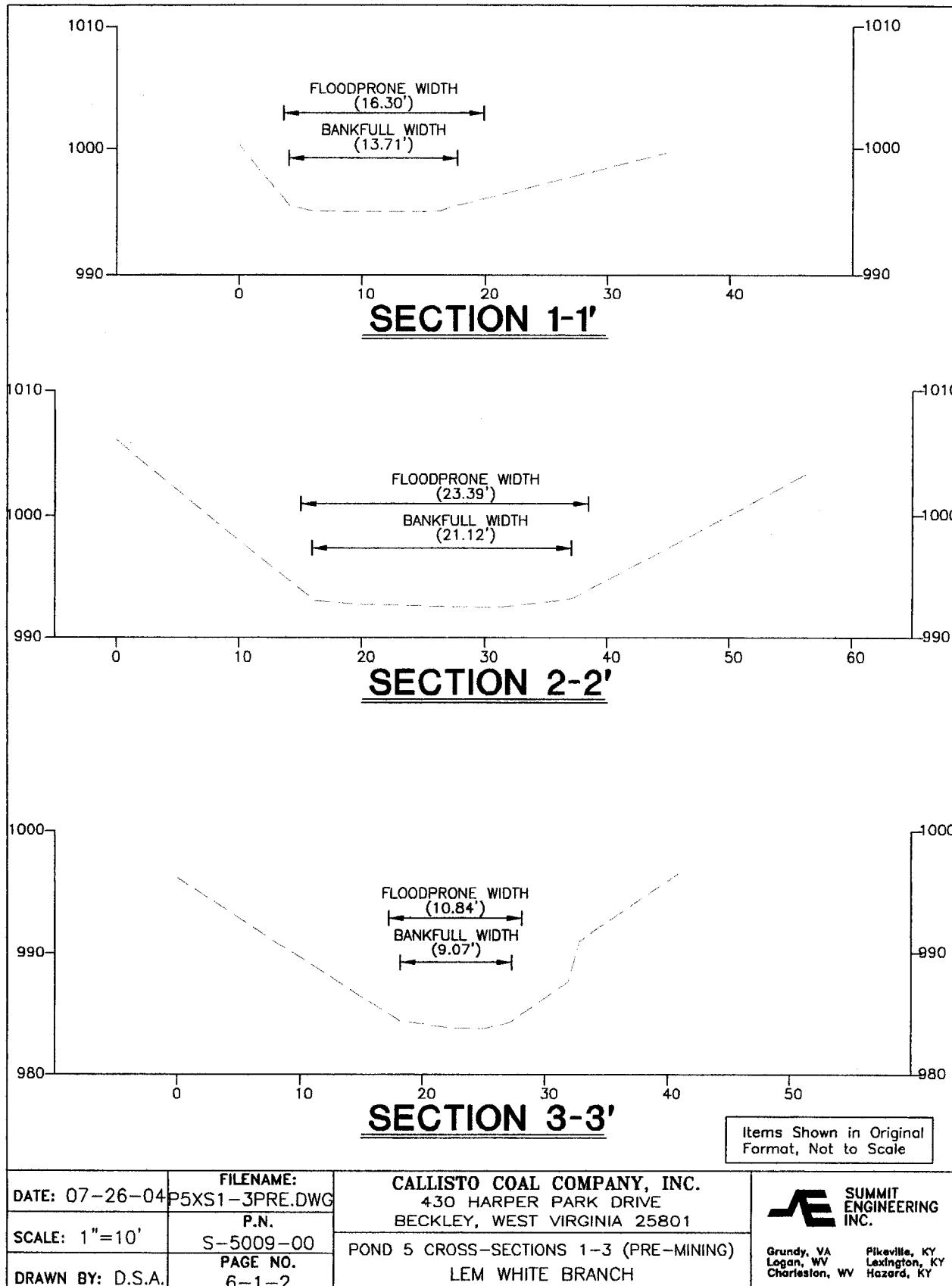
POND 5 PLAN VIEW (PRE-MINING)  
LEM WHITE BRANCH

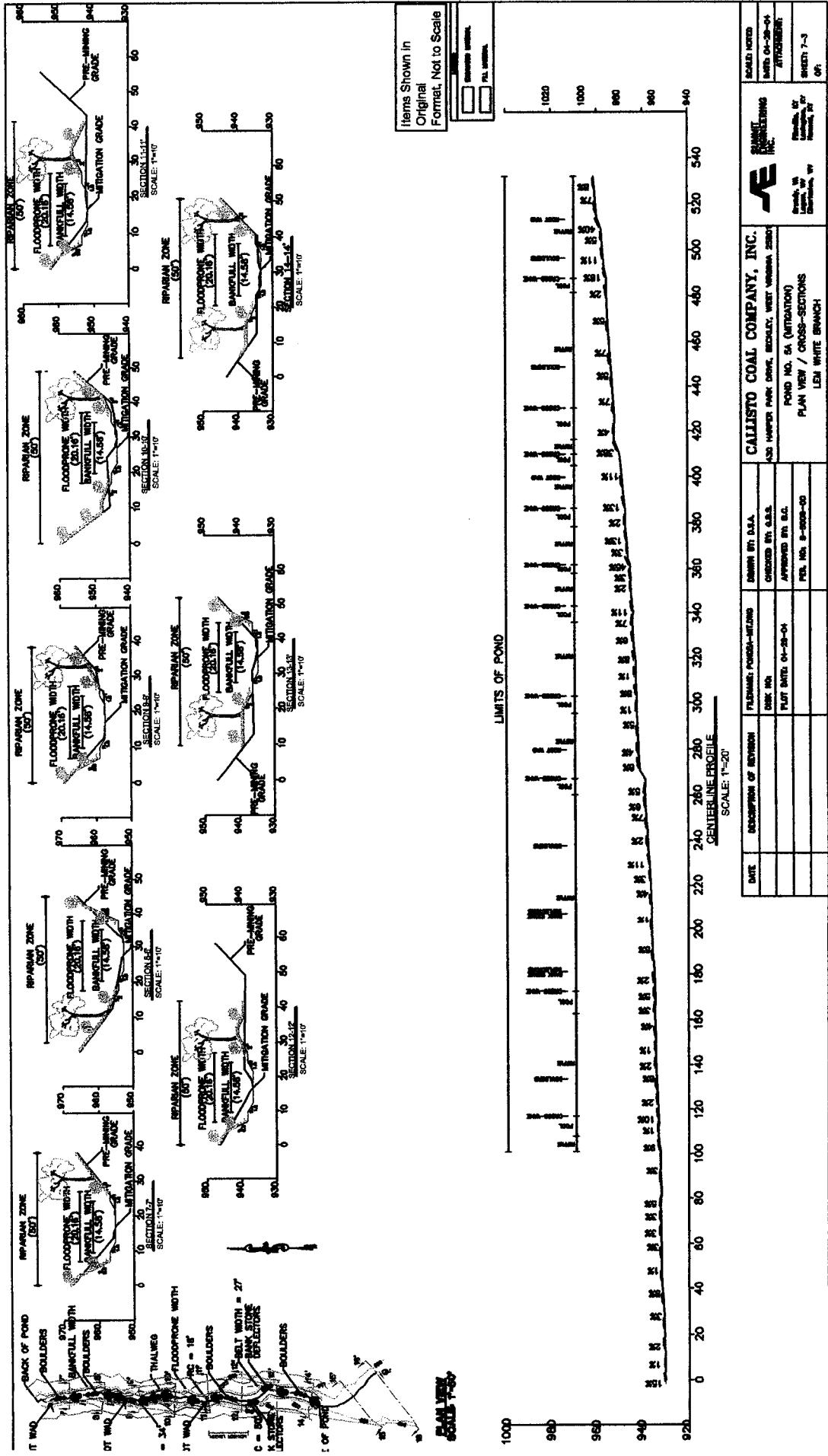
DRAWN BY: D.S.A.

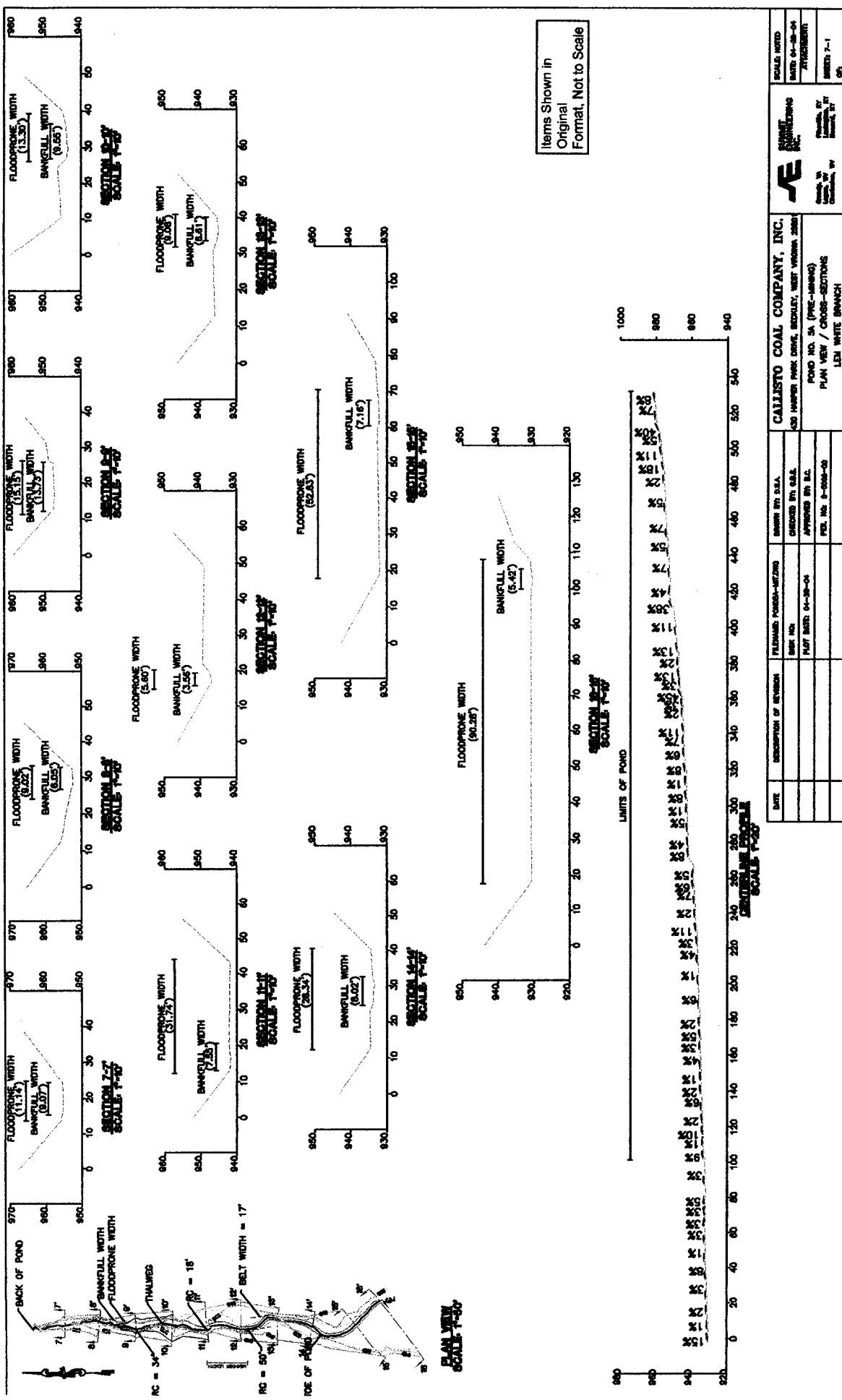
PAGE NO.  
6-1-1



Grundy, VA      Pikeville, KY  
Logan, WV      Lexington, KY  
Charleston, WV      Hazard, KY

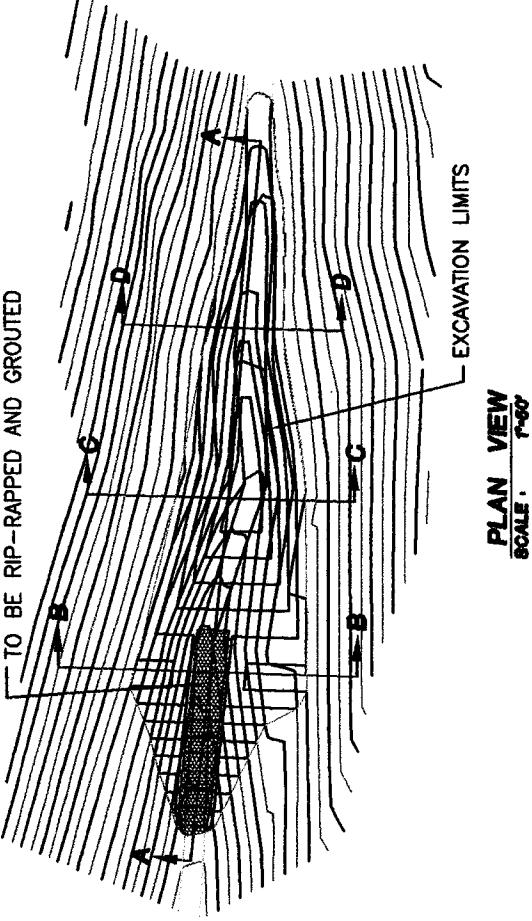






EMERGENCY SPILLWAY EL. 1064.0'  
TO BE RIP-RAPPED AND GROUTED

EMERGENCY SPILLWAY EL. 1064.0' - TO BE RIP-RAPPED AND GROUTED



A cross-sectional diagram of a dam structure. The vertical axis represents elevation, with labels at 1160, 1150, 1100, 1060, and 1050 from top to bottom. A horizontal line at approximately 1064.0' is labeled "EMERGENCY SPILLWAY EL. 1064.0'". Another horizontal line at approximately 1070.0' is labeled "TOP OF POND EL. 1070.0'". A stepped section of the dam has a vertical height of 6'. The angle of the upstream face is labeled as 18°.

**SECTION B-B**

**PROFILE A-A**

SCALE : 1:40

1100  
TOP OF POND EL. 1070.0'  
EMERGENCY SPILLWAY EL. 1064.0'  
60% CLEANOUT EL. 1060.0'

1050

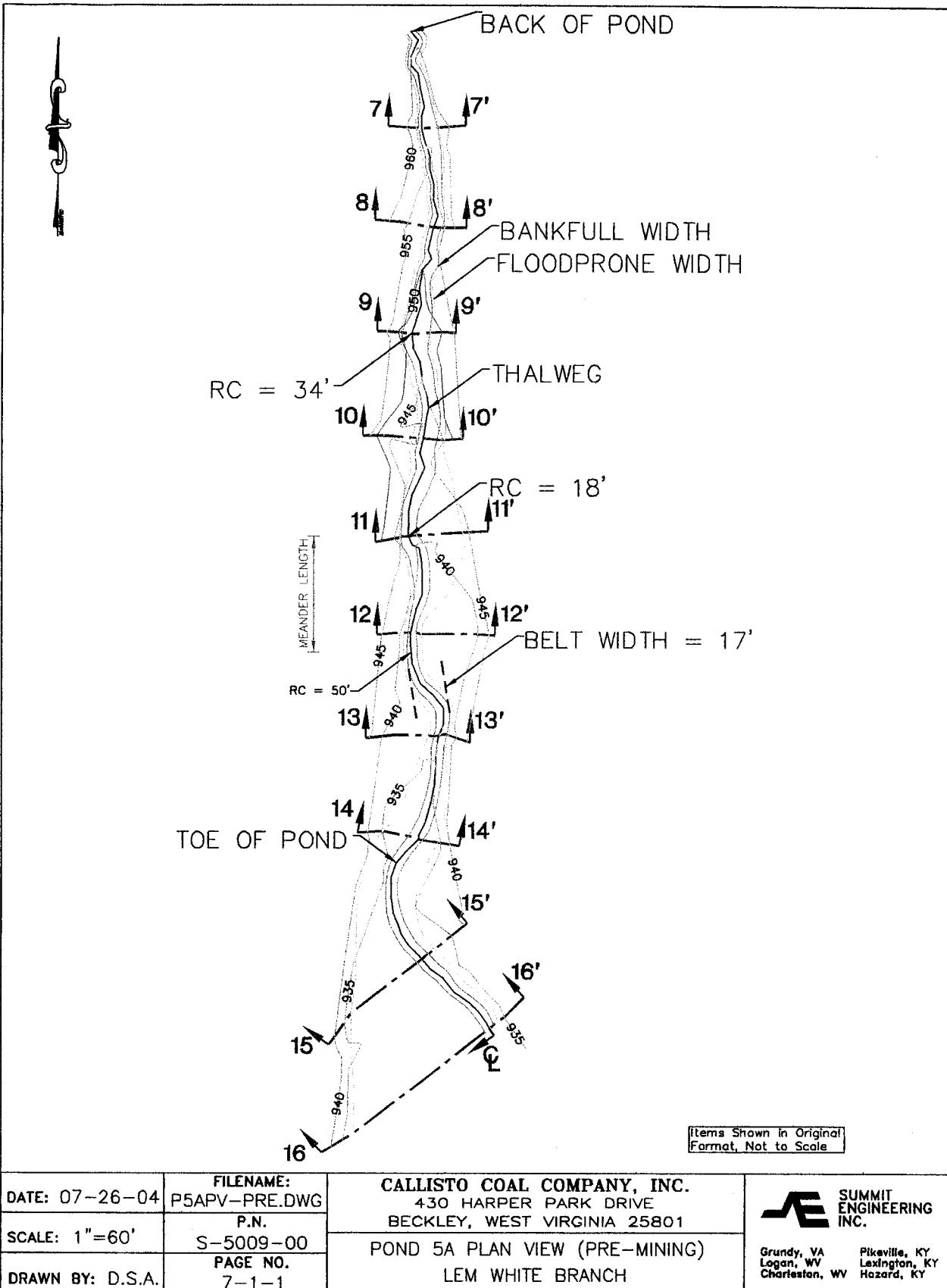
PROPOSED CUTOFF TRENCH EXCAVATION LIMITS

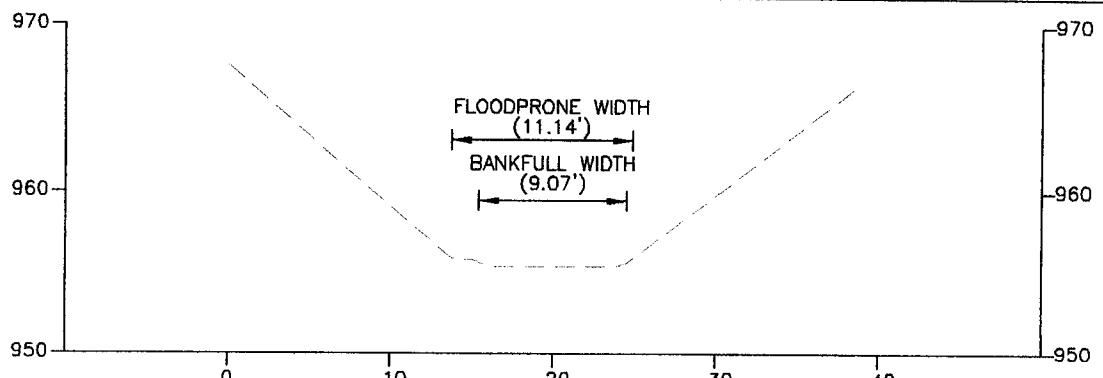
1000  
0+00 0+60 1+00 1+50 2+00 2+50 3+00 3+50 4+00 4+50 5+00

SECTION C-C  
SCALE : 1'-0"

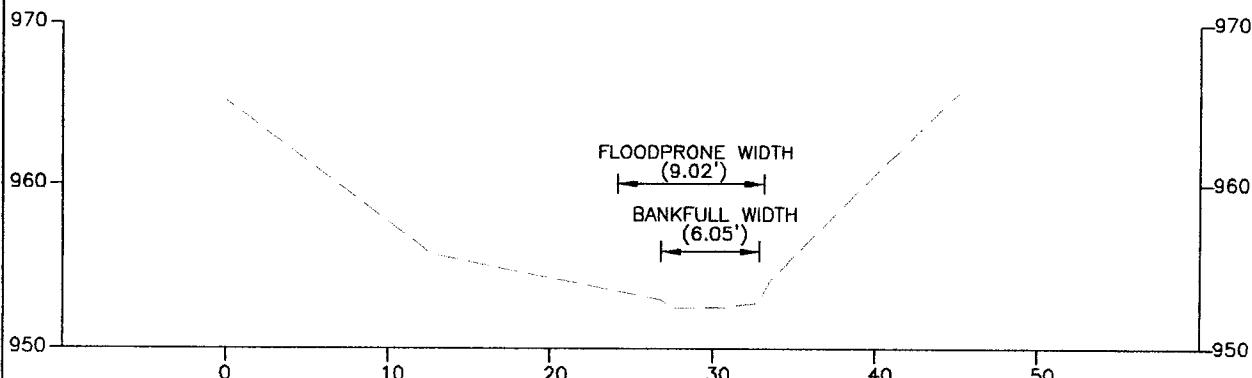
**Items Shown in  
Original  
Format, Not to Scale**

<b>CALLISTO COAL COMPANY, INC.</b>		SUMMIT ENGINEERING, INC. 111 N. Market Street, Room #401 Charleston, West Virginia 25301
450 HARPER PARK DRIVE BEDFORD, W.V. 25513		
POND NO. 5A (DURING MINING) PLAN VIEW & CROSS-SECTIONS ROACH BRANCH AND POND FORK		Laboratory Services Geotechnical Services Environmental Services
DATE: 04-15-04		SCALE: NOTED
PLATE NUMBER: PROBLEMS: DRAWN BY: D. MANN	REV. DATE: DISK NO.: CIV. ENGR. I.D. CIV. ENGR. I.D.	PER. NO. 3-5000-00 ATTN: 04-15-04 APPROV. BY: D.R. PAGE NO. 7-2

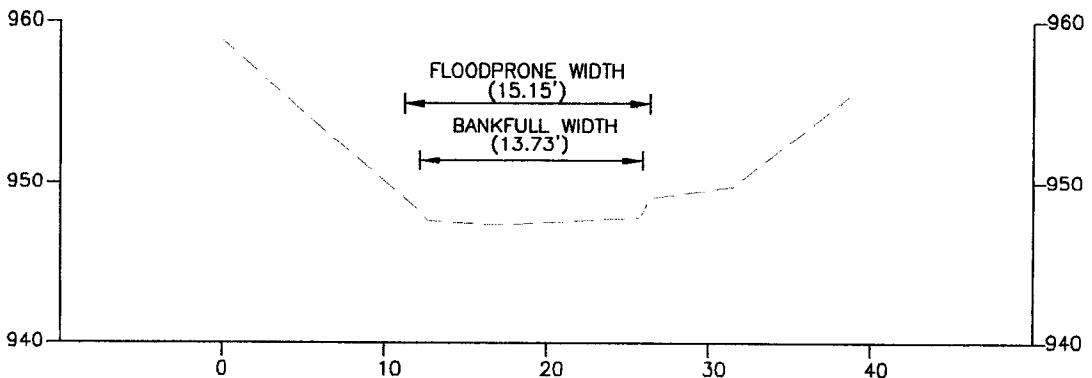




**SECTION 7-7'**



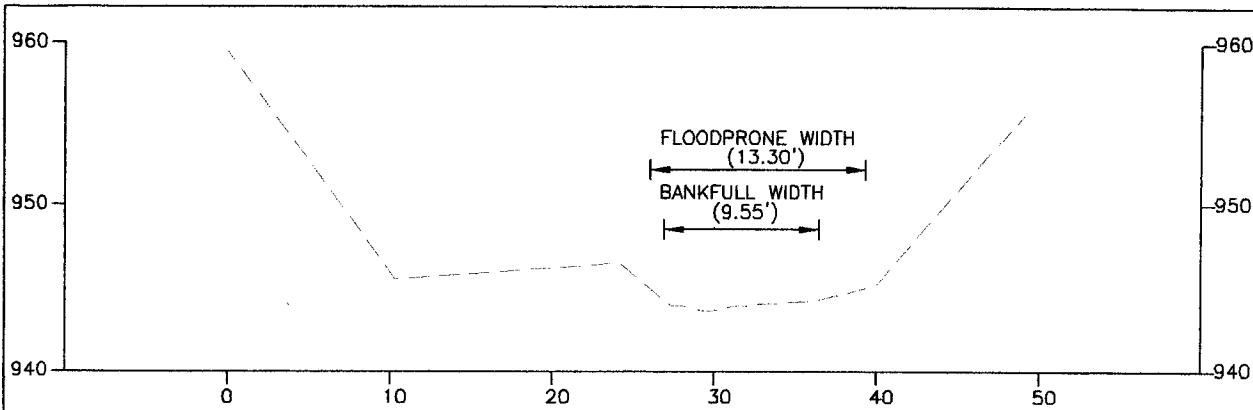
**SECTION 8-8'**



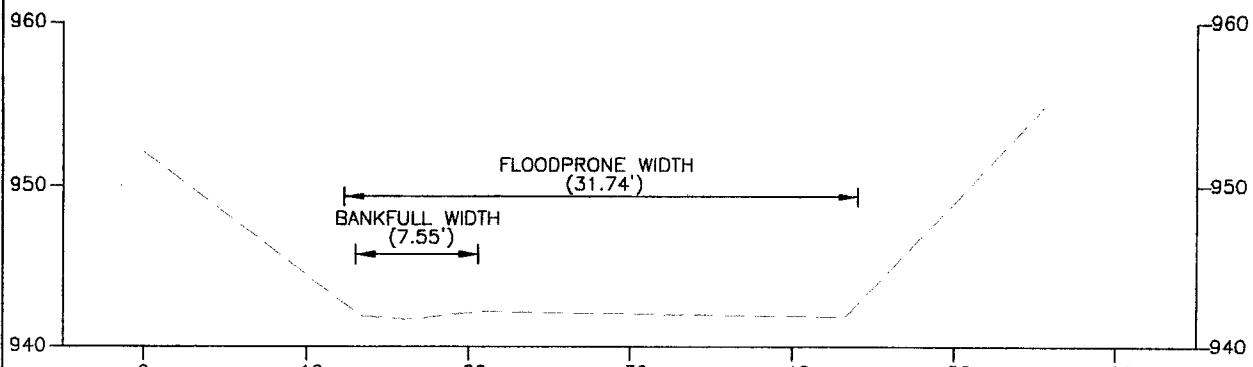
**SECTION 9-9'**

Items Shown in Original Format, Not to Scale

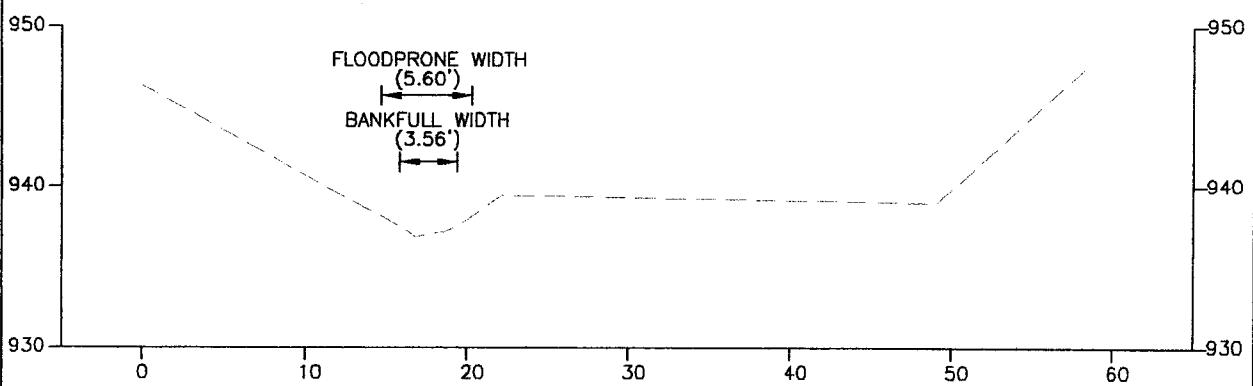
DATE: 07-26-04	FILENAME: P5AXS7-9PRE.DWG	CALLISTO COAL COMPANY, INC. 430 HARPER PARK DRIVE BECKLEY, WEST VIRGINIA 25801	SUMMIT ENGINEERING INC.
SCALE: 1"=10'	P.N. S-5009-00	POND 5A CROSS-SECTIONS 7-9 (PRE-MINING) LEM WHITE BRANCH	
DRAWN BY: D.S.A.	PAGE NO. 7-1-2	Grundy, VA Logan, WV Charleston, WV	Pikeville, KY Lexington, KY Hazard, KY



**SECTION 10-10'**



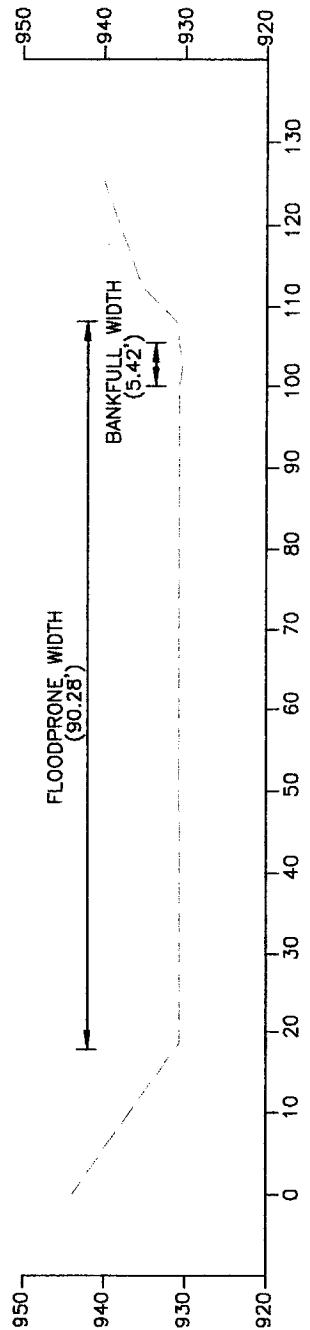
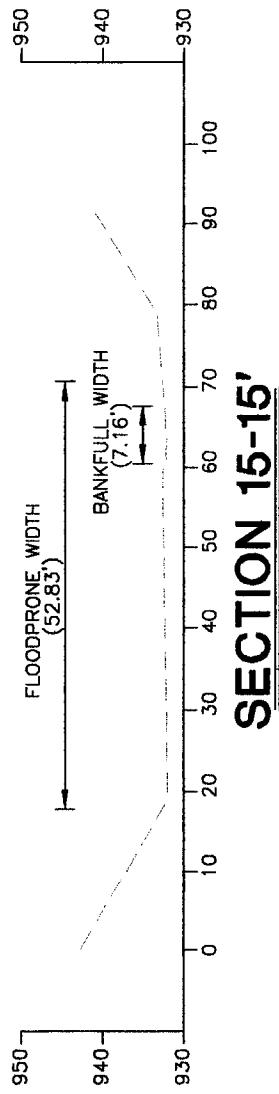
**SECTION 11-11'**



**SECTION 12-12'**

Items Shown in Original Format, Not to Scale

DATE: 07-26-04	FILENAME: P5AXS10-12PRE.DWG	CALLISTO COAL COMPANY, INC. 430 HARPER PARK DRIVE BECKLEY, WEST VIRGINIA 25801	 SUMMIT ENGINEERING INC.
SCALE: 1"=10'	P.N. S-5009-00	POND 5A CROSS-SECTIONS 10-12 (PRE-MINING)	
DRAWN BY: D.S.A.	PAGE NO. 7-1-3	LEM WHITE BRANCH	Grundy, VA Logan, WV Charleston, WV Pikeville, KY Lexington, KY Hazard, KY



Items Shown in Original Format, Not to Scale

DATE: 07-26-04	FILENAME: P5AXS15&16PRE.DWG	CALLISTO COAL COMPANY, INC. 430 HARPER PARK DRIVE BECKLEY, WEST VIRGINIA 25801	SUMMIT ENGINEERING INC.
SCALE: 1"=20'	P.N. S-5009-00	POND 5A CROSS-SECTIONS 15&16 (PRE-MINING)	Grundy, VA Logan, WV Charleston, WV
DRAWN BY: D.S.A.	PAGE NO. 7-1-5	LEM WHITE BRANCH	Pikeville, KY Lexington, KY Hazard, KY

