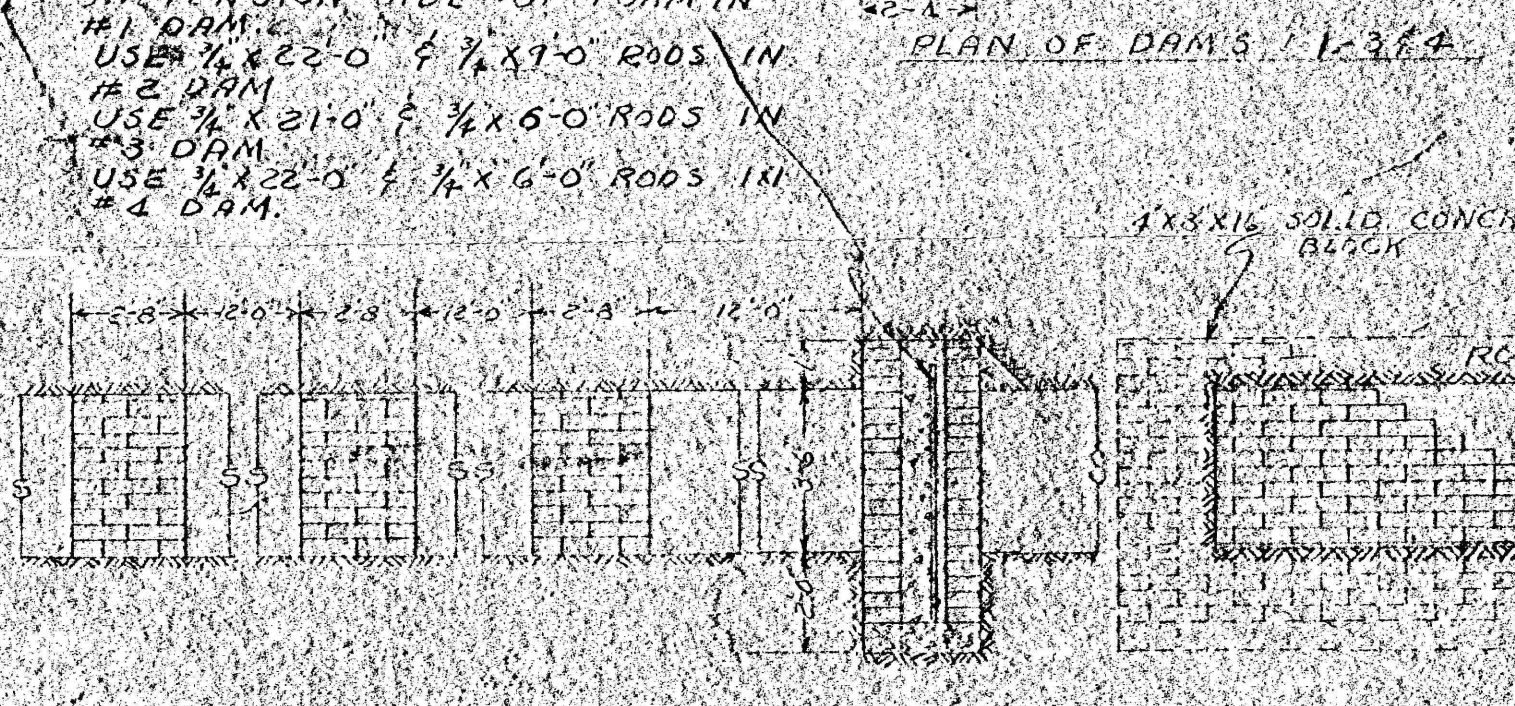
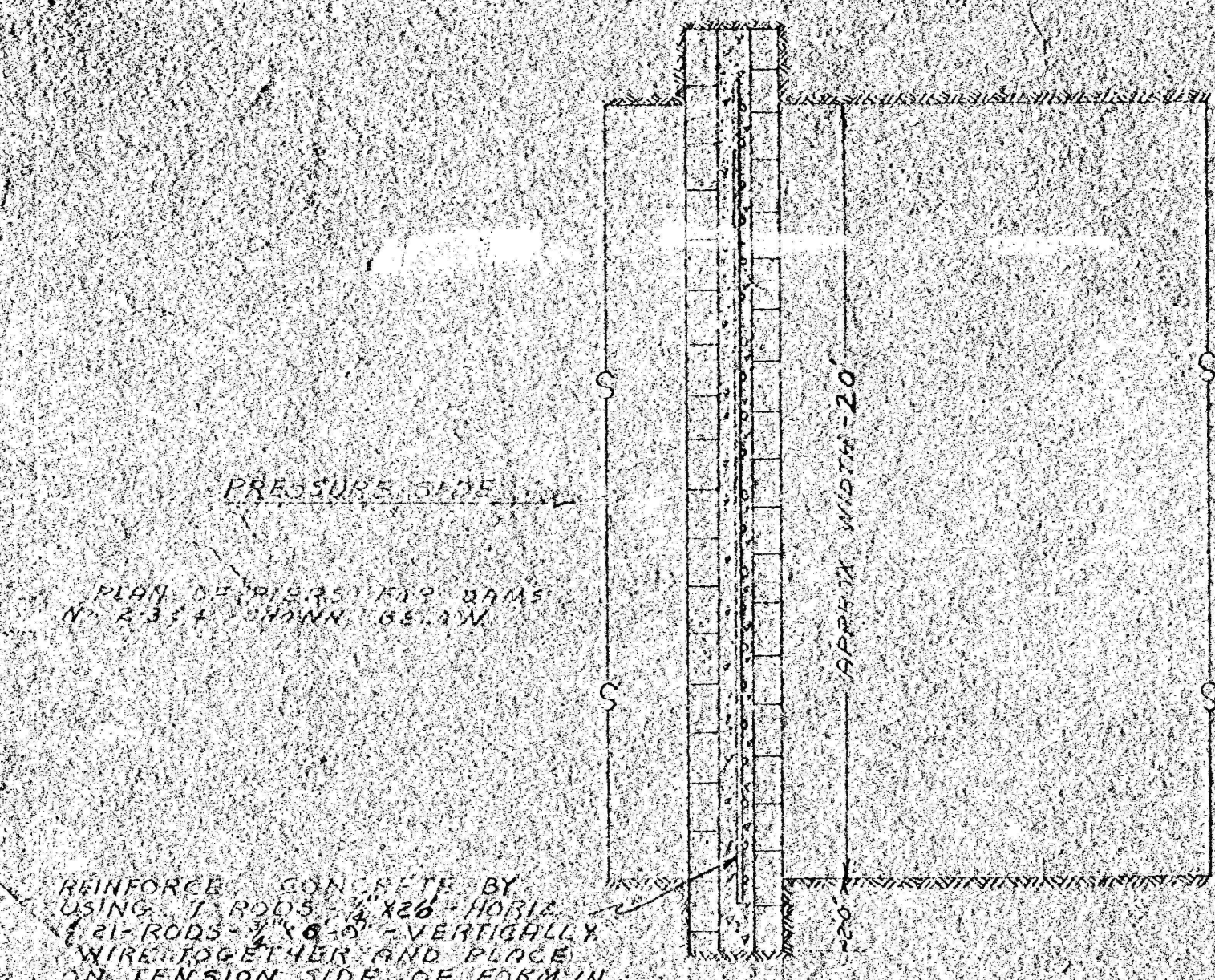
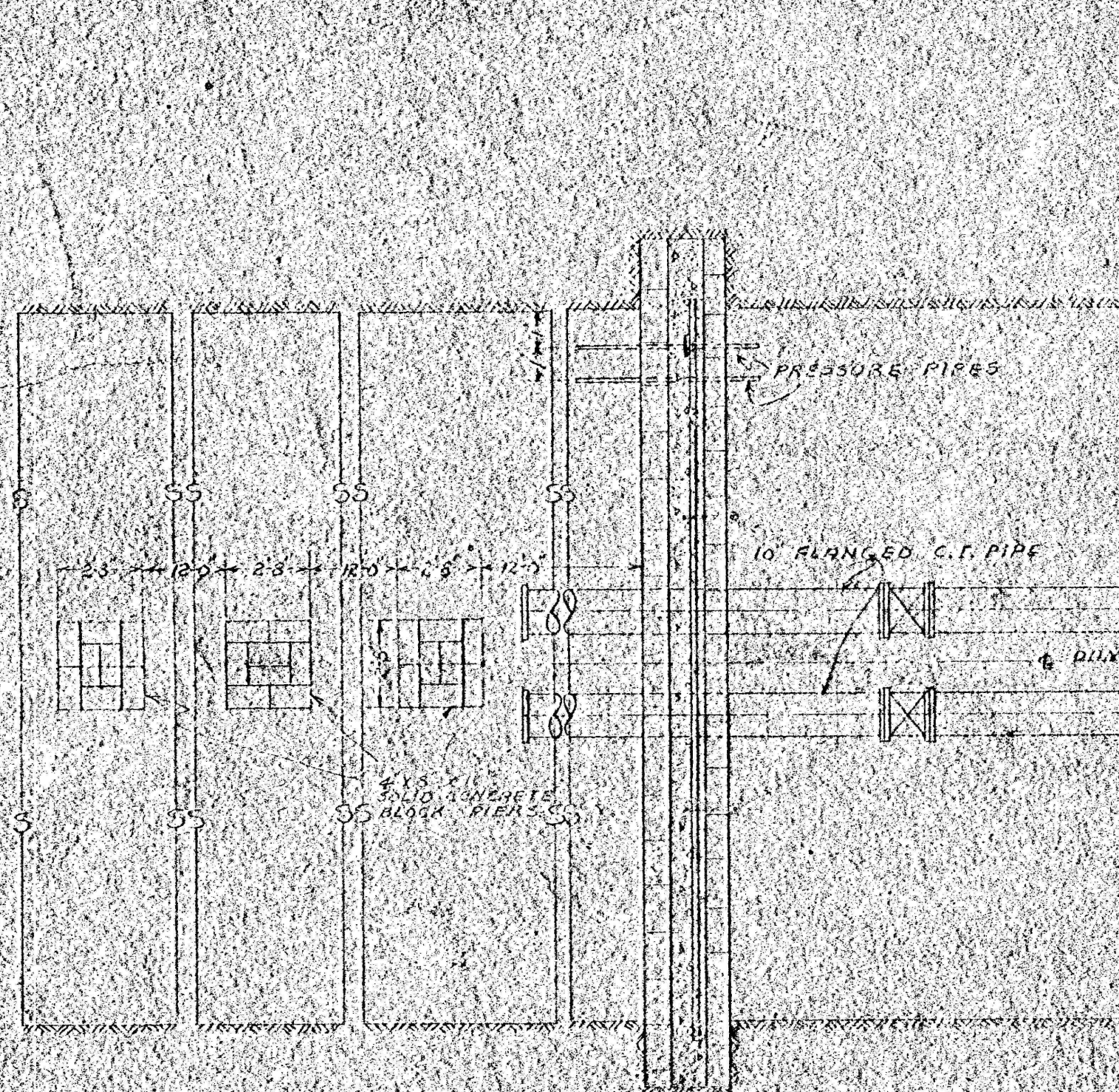


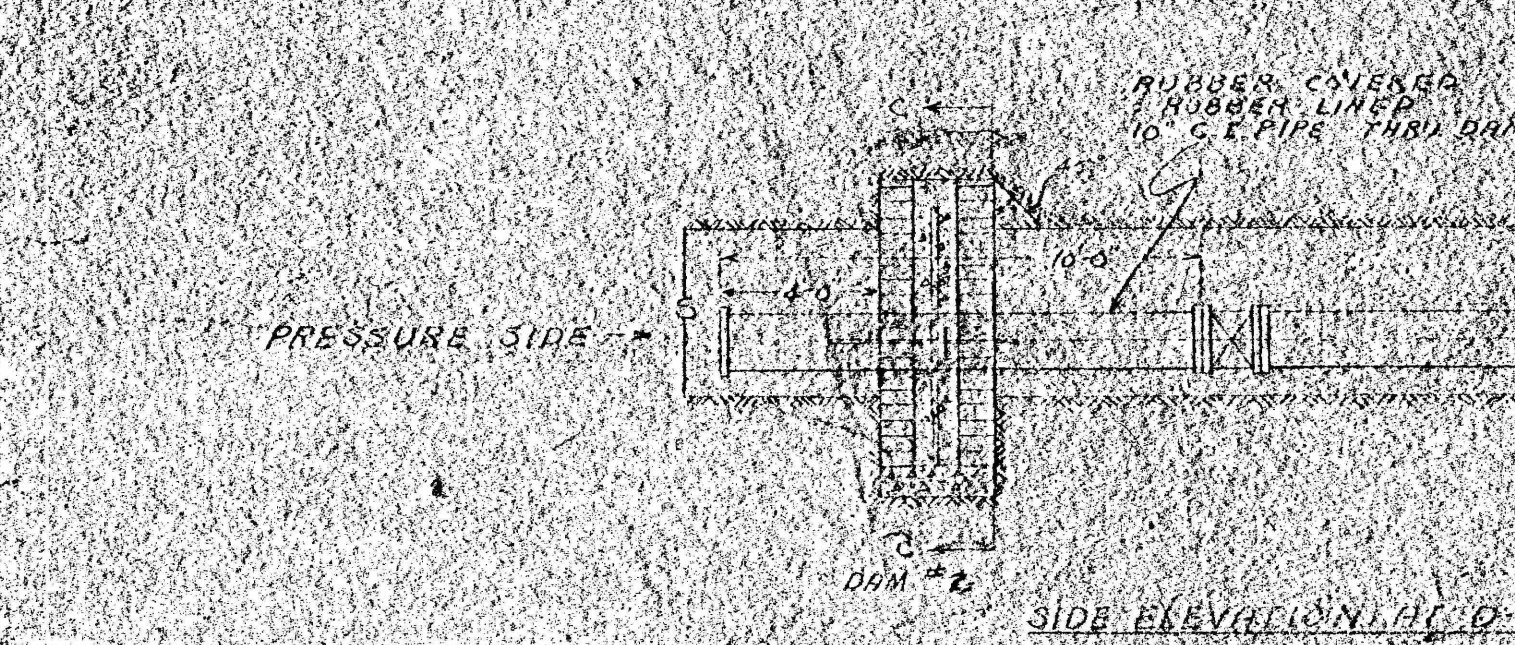
4-22-56 JCH-257



PLAN OF DAM #1
SIDE ELEVATION A-B
DAM #1-B



PLAN VIEW
PIER INSTALLATION FOR ALL DAMS
PLAN OF NO. 2 DAM



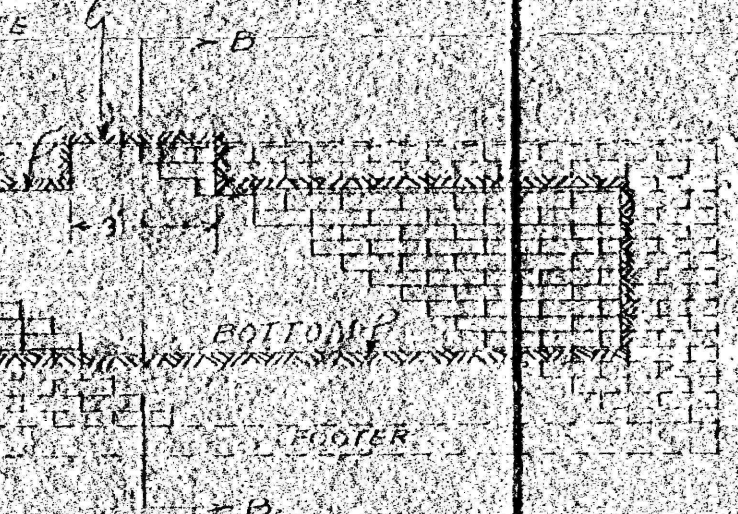
SIDE ELEVATION A-B
DAM #2

- SPECIFICATIONS**
- Standard grade A 4" x 8" x 16" solid concrete blocks shall be used in the construction of dams and piers. Compression strength test over 2500 lbs. per sq. inch.
 - Concrete mix. 1 : 2 : 4 Use acid free water.
 - Mortar mix. 1 part portland cement, 3 parts of river sand and use acid free water.
 - Reinforcing steel rods of 3/4" in diameter to be used and so placed as to be on the tension side (outby side) of the poured concrete.
 - Minimum thickness of dams to be 28" consisting of two widths of the above mentioned blocks laid one foot apart and the resulting space, wherein reinforcing rods have been fixed, to be filled with poured concrete.
 - Piers to be 2'-0" x 2'-0" x 1'-0". To be built in the center of the heading 12 feet apart.
 - Minimum 6" footer to be laid in bottom hitch.
 - Excavate side hitches a minimum depth of two feet without blasting.
 - Excavate bottom hitches a minimum depth of two feet down to hard rock.
 - Excavate top hitches a minimum depth of one foot in solid roof.
 - All hitches to be inspected by a commission member before dams are installed.
 - Excavate a three foot wide channel in roof on outby side of dams to allow room to pour concrete to top of dams.
 - All dams to be sealed at top. (Full thickness of dams).
 - Suction ends of pipe to be placed in middle of dams, one foot from bottom on 3" centers.
 - The 10" gate valve to be connected to 10" O. I. pipe at dams.
 - Pipe line to be laid in dam one foot off bottom arranged to be kept free of contact of water throughout its entire length.
 - Area of dead water to be shown in violet color, and the area of the active sump to be shown in green color.
 - Two 10" Cast Iron flanged pipes to be placed in the #2 Dam.
 - A 200 foot solid barrier pillar will be left along the entire sump and no mining is to be done in this pillar of coal as long as the area is in use as a sump.

HEADING DIMENSIONS OF DAMS

NO.	WIDTH	HEIGHT
1	22'-0"	3'-0"
2	18'-0"	3'-0"
3	17'-0"	3'-6"
4	17'-0"	3'-6"

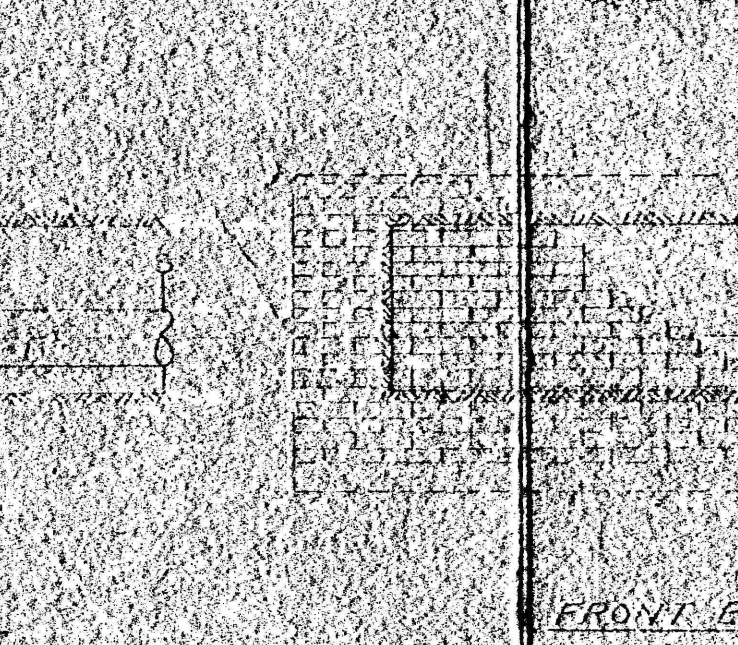
CUT CHANNELS TO TOP OF DAM FOR PURPOSE OF RECEIVING CONCRETE TO TOP OF DAM.



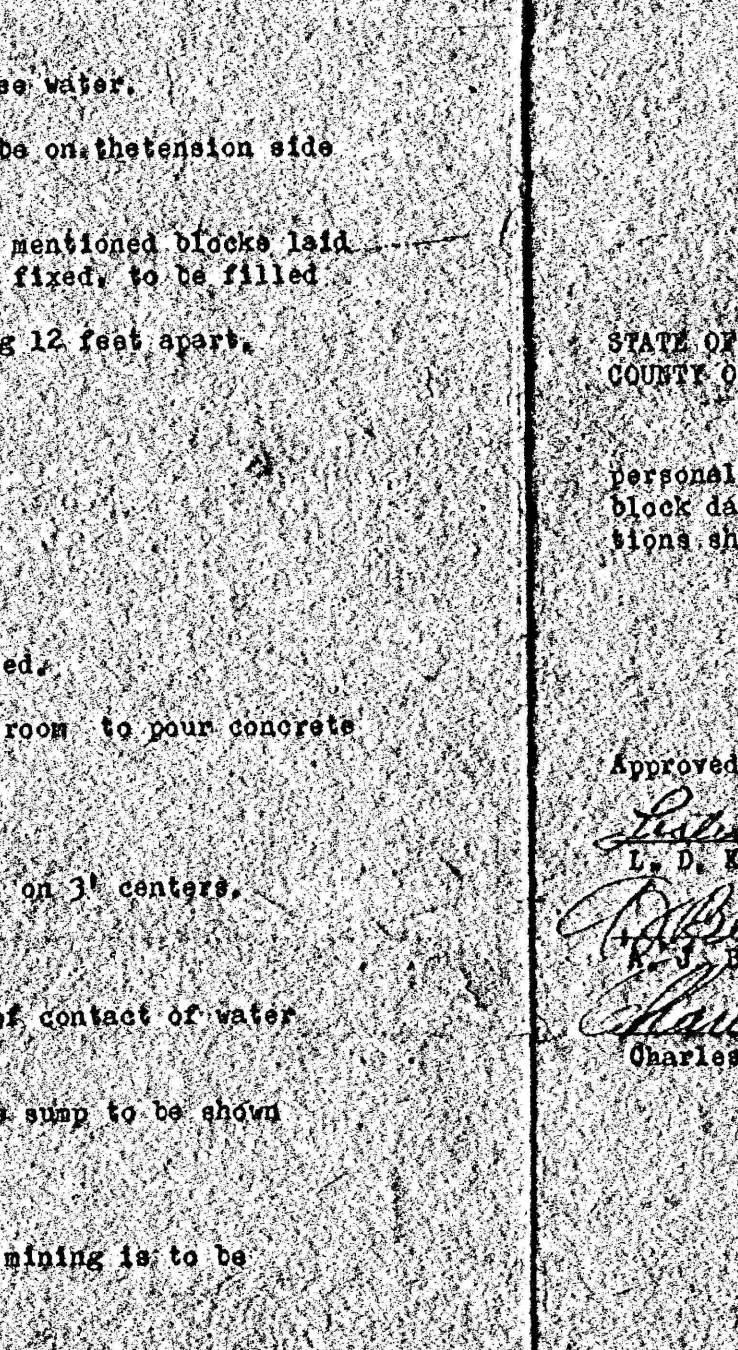
FRONT ELEVATION A-B
DAM #1-A



FRONT ELEVATION A-B
DAM #2



FRONT ELEVATION A-B
DAM #3

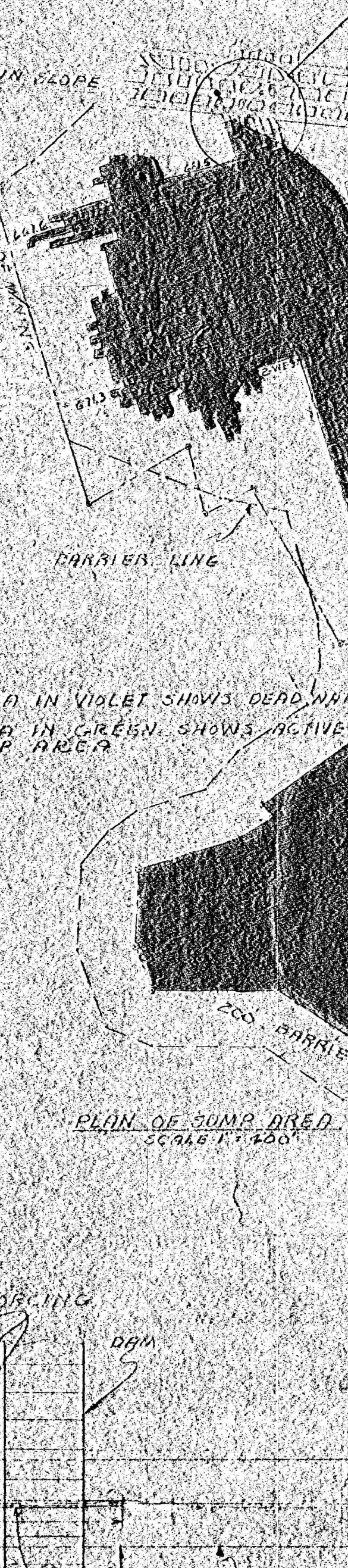


FRONT ELEVATION A-B
DAM #4

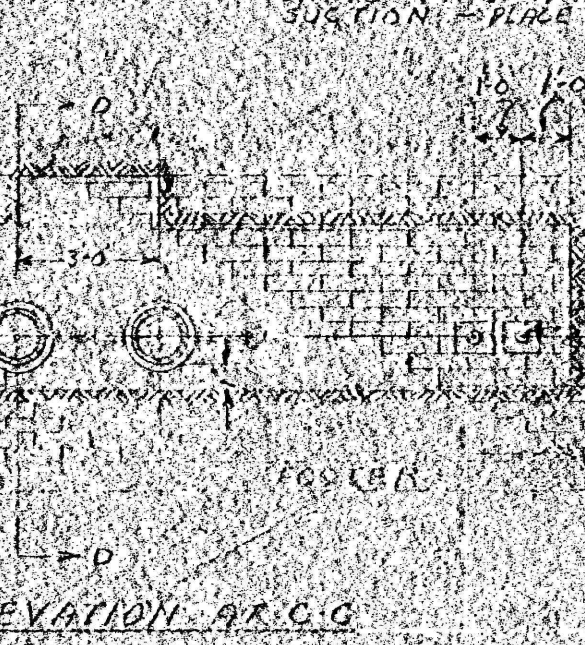
GENERAL PLAN
LOCATION OF DAMS
SCALE 1"=100'

HEAD AT BOTTOM OF DAMS

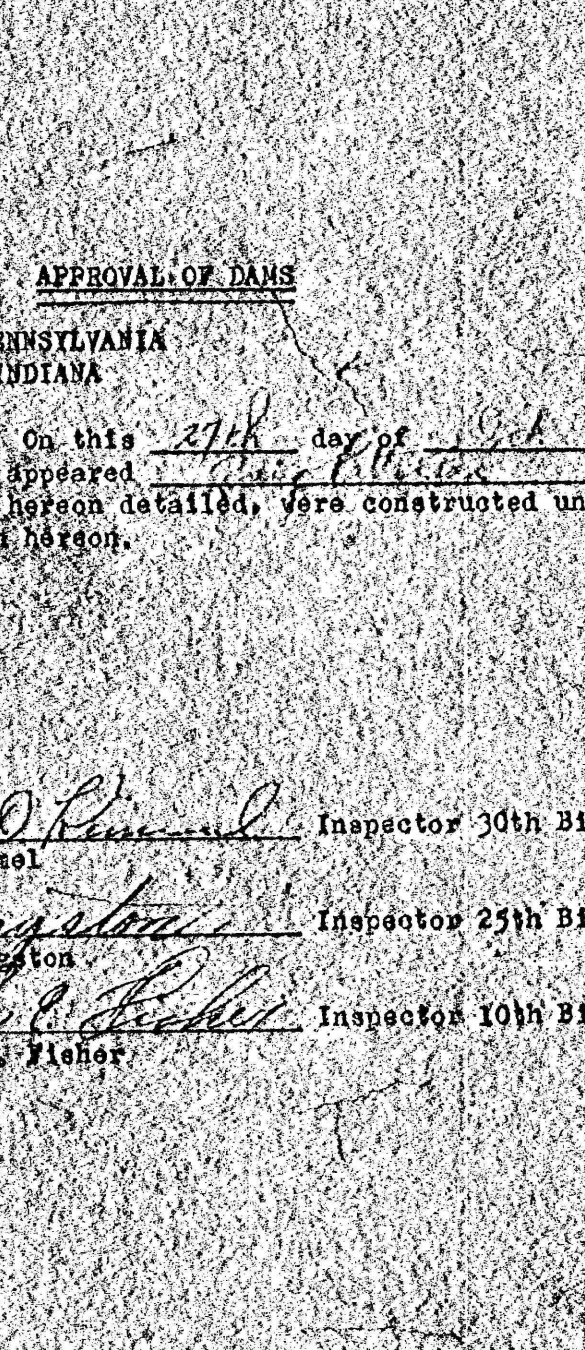
#1	21'-6"
#2	12'-6"
#3	12'-2"
#4	13'-0"



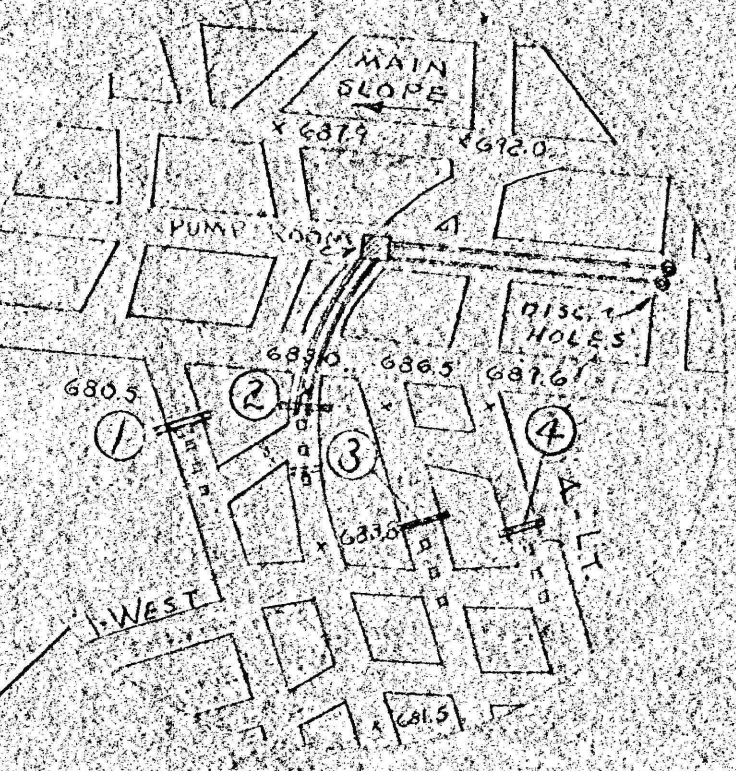
PLAN OF SUMP AREA
SCALE 1"=100'



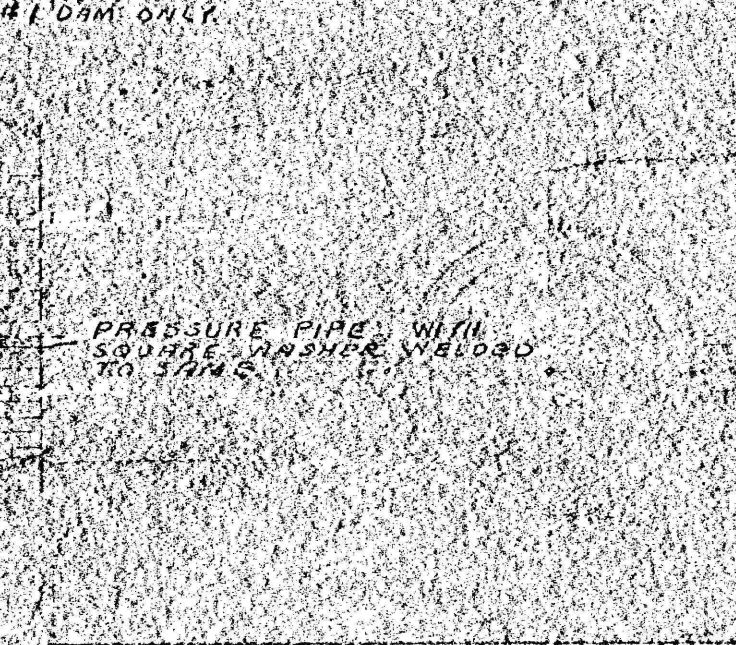
FRONT ELEVATION A-B
DAM #1



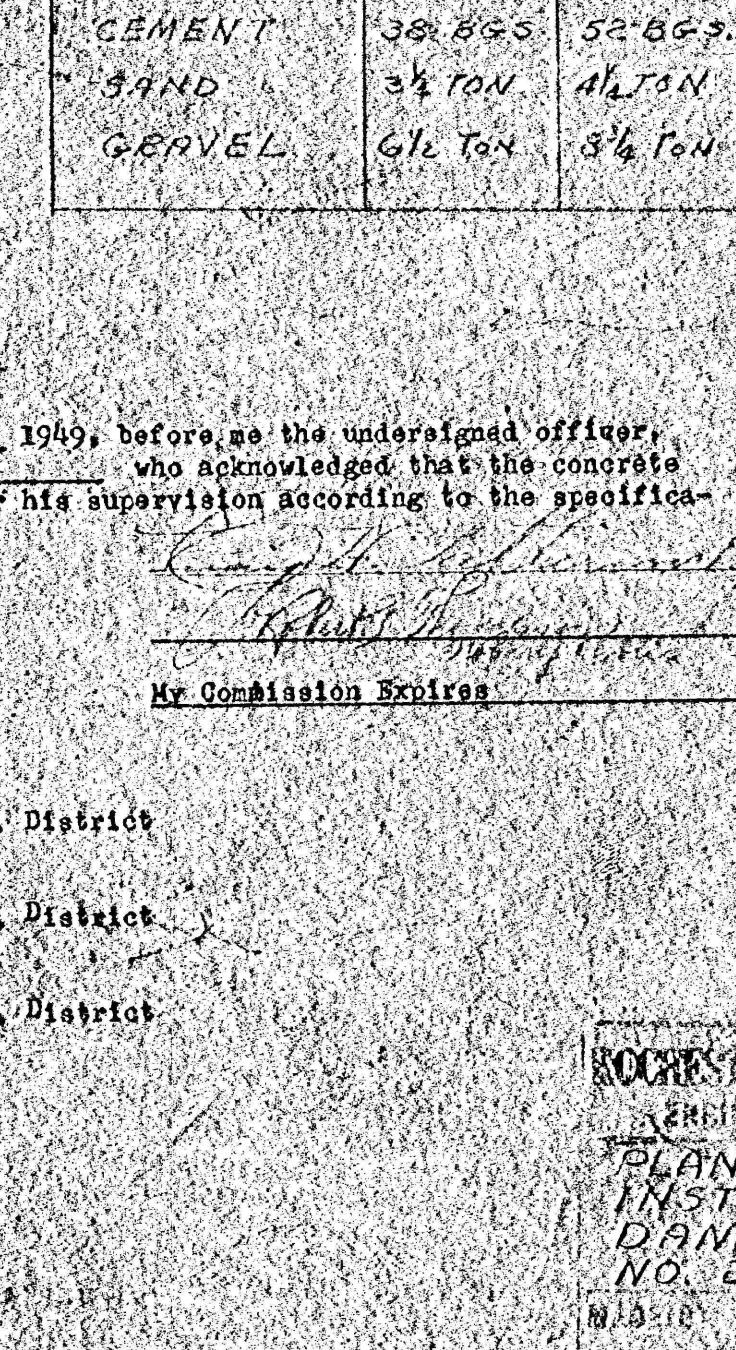
FRONT ELEVATION A-B
DAM #2



PLAN OF SUMP AREA
SCALE 1"=100'



FRONT ELEVATION A-B
DAM #1



FRONT ELEVATION A-B
DAM #2

MATERIALS

	DAM #1	DAM #2	DAM #3	DAM #4
4' x 8' x 16' SOLID CONCRETE BLOCK	168	777	601	636
CEMENT	38 BGS	52 BGS	34 BGS	36 BGS
SAND	3 1/2 TON	4 1/2 TON	3 TON	3 1/4 TON
GRAVEL	6 1/2 TON	8 1/4 TON	5 1/2 TON	6 TON

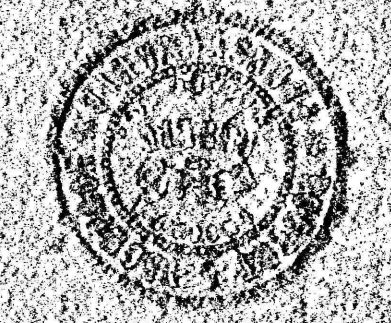
APPROVAL OF DAMS

STATE OF PENNSYLVANIA
COUNTY OF INDIANA

On this 27th day of Oct. 1949, before me the undersigned officer, personally appeared Charles B. Fisher who acknowledged that the concrete block dams herein detailed, were constructed under his supervision according to the specifications shown herein.

Charles B. Fisher
My Commission Expires

Approved: Inspector 30th Bldg. District
Inspector 25th Bldg. District
Inspector 10th Bldg. District



ROCKEFELLER & PITTSBURGH COAL CO.
ENGINEERING DEPT. INDIANA
PLAN OF PROPOSED
INSTALLATION OF
DAMS AT WATERMAN
NO. 2 MINE
MID-10 B.S. JUNE 1949
INVEST. BY C.H. J. 11-15-49
CHECKED BY