

APPENDIX B

Acidity and Acid Loads
From Detailed Studies of Surface Discharges

APPENDIX B

ACIDITY AND ACID LOADS
FROM DETAILED STUDIES OF SURFACE DISCHARGES

- Analysis by A. W. Martin Associates, Inc.

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SILVERBROOK MINE DISCHARGE

<u>Sampling Date</u>	<u>Measured Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
04/12/72	-	125	
04/20/72	4000	(84)	(4040)
05/03/72	2550	(127)	(3886)
05/10/72	3110	133 (113)	4963 (4210)
05/11/72	2950	-	
05/18/72	2900	-	
05/30/72	2500	-	
05/31/729:30A.M.	3400	-	
05/31/725:45P.M.	2900	-	
06/01/72	3100	(112)	(4166)
06/02/72	3000	-	
06/08/72	2800	(116)	(3898)
06/15/72	2600	(121)	(3775)
06/24/72	-	(74)	
07/11/72	-	(87)	
07/15/72	-	100	
07/18/72	-	(101)	
07/20/72	-	(109)	
07/27/72	-	132 (120)	
08/02/72	2477	(120)	(3560)
08/19/72	1875	(155)	(3490)

Note: Values shown in parentheses are results of hot titrations.

ZAKREWSKY MINE DISCHARGES

<u>Sampling Date</u>	<u>Estimated Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
<u>North Mine</u>			
05/04/72	120	(128)	153
06/21/72	100	90 (105)	108 (126)
07/15/72	90	97	105
08/19/72	-	105	
09/10/72	No Flow	0	0
<u>South Mine</u>			
05/08/72	980 Pump Rate	283	3330 Rate
06/21/72	980	200 (253)	2350 (2980)
07/15/72	980	221	2600
08/19/72	980	239	2800

In April Zakrewsky moved mining and his pumps from his North Mine to the South Mine. The former operation thereafter filled with water and overflowed by gravity. Dewatering pump is rated at 980 gpm and operated between 10% and 40% of the time, depending on weather.

Note: Values shown in parentheses are results of hot titrations.

EAST ELM STREET SEEP

<u>Sampling Date</u>	<u>Estimated Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
05/10/72	20	2085 (2575)	(660)
05/16/72	20	(2800)	(670)
05/30/72	20	1540	365
06/08/72	65	1015	795
06/15/72	-	480	-
06/23/72	80	2720 (3430)	2600 (3300)
07/15/72	-	324	-
07/30/72	-	2230 (3260)	
08/19/72	40	350 (505)	168 (242)

Note: Values shown in parentheses are results of hot titrations.

1st NORTH DISCHARGE

<u>Sampling Date</u>	<u>Estimated Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
04/12/72	20	532	128
04/19/72	20	490	118
05/30/72	15	405	73
06/06/72	-	425	-
06/08/72	25	485	145
06/15/72	20	512	122

Note: Values shown in parentheses are results of hot titrations.

WEST LEHIGH SHAFT DISCHARGE

<u>Sampling Date</u>	<u>Estimated Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
04/12/72	140	680	1140
04/19/72	-	640	-
05/03/72	133*	(680)	(1909)
05/04/72	160	(735)	(1410)
05/10/72	160	640 (705)	(1230)(1354)
05/30/72	140*	(710)	(1193)
06/01/72	200	-	-
06/06/72	-	(770)	-
06/08/72	270*	(745)	(2420)
06/15/72	210	(812)	(2046)
07/11/72	-	(595)	-
07/15/72	160	550 (600)	1050 (1150)
07/18/72	-	(755)	-
07/30/72	-	748 (775)	-
08/19/72	100	(783)	(940)
09/10/72	40	-	-

* Measured Flows

Note: Values shown in parentheses are results of hot titrations.

A & D MINE DISCHARGE

<u>Sampling Date</u>	<u>Measured Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
04/19/72	15*	3220	580
05/04/72	15*	-	-
05/10/72	15*	3320 (3500)	598 (630)
05/30/72	16	3300	594
06/01/72	35	-	-
06/02/72	38	-	-
06/06/72	30	3550	1278
06/08/72	24	3460	996
06/15/72	21	3830	965
07/11/72	23	3460	955
07/15/72	20	3510	842
07/18/72	17	3840	783
08/19/72	15	3910	704

* Initial flow rates estimated

Note: Values shown in parentheses are results of hot titrations.

SMITH MINE DISCHARGE

<u>Sampling Date</u>	<u>Estimated Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
04/19/72	25	352	107
05/10/72	25	314 (338)	94 (101)
05/30/72	10	318	38
06/06/72	-	366	-
06/08/72	-	328	-
06/15/72	20	343	82
07/15/72	-	278	-
07/18/72	-	324	-
08/19/72	5	304	18

Note: Values shown in parentheses are results of hot titrations.

MANBECK FINE COAL PLANT SETTLING BASIN
EFFLUENT AND CULM SEEPS AT CONFLUENCE WITH
PANTHER CREEK (SURFACE FLOW)

<u>Sampling Date</u>	<u>Estimated Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
04/19/72	100	238	286
05/04/72	150	146	262
05/10/72	150	182	327
05/30/72	60	238	171
05/31/72	100	241	289
06/08/72	-	263	-
06/15/72	-	192	-
06/20/72	100	244	293
07/12/72	-	400	-
07/15/72	125	305	456
08/19/72	150	291	524

COALDALE #7 MINE DISCHARGE

<u>Sampling Date</u>	<u>Measured Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
03/28/72	174	65	136
04/18/72	147	62	109
05/03/72	90	54 (71)	58 (77)
05/10/72	213	74 (91)	190 (233)
05/11/72	202	-	-
05/30/72	70	-	-
05/31/72 9:30 A.M.	156	(69)	(129)
05/31/72 Noon	290	(71)	(247)
05/31/72 1:30 P.M.	180	(76)	(164)
05/31/72 3:05 P.M.	156	67 (85)	125 (159)
05/31/72 5:15 P.M.	184	(125)	(276)
05/31/72 7:45 P.M.	232	(151)	(420)
05/31/72 10:45 P.M.	247	(158)	(468)
06/01/72 3:00 A.M.	488	140 (169)	820 (990)
06/01/72 11:30 A.M.	450	149 (182)	805 (983)
06/01/72 3:30 P.M.	412	-	-
06/01/72 5:45 P.M.	406	-	-
06/02/72 9:05 A.M.	456	(88)	(482)
06/02/72 6:40 P.M.	508	(75)	(457)
06/03/72 9:25 A.M.	444	(101)	(538)
06/03/72 12:35 P.M.	431	-	-
06/03/72 6:35 P.M.	400	(112)	(538)
06/04/72	342	(104)	(427)

Note: Values shown in parentheses are results of hot titrations.

Coaldale #7 Mine Discharge (Continued)

<u>Sampling Date</u>		<u>Measured Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs. /Day</u>
06/05/72	9:25 A.M.	279	(102)	(341)
06/05/72	12:45 A.M.	274	-	-
06/05/72	6:20 P.M.	253	-	-
06/06/72	9:15 A.M.	227	(104)	(283)
06/06/72	5:05 P.M.	218	(48)	(126)
06/07/72		192	(50)	(115)
06/08/72		165	(93)	(184)
06/09/72		-	(101)	-
06/10/72		130	(95)	(148)
06/11/72		130	(99)	(154)
06/12/72		106	(100)	(127)
06/13/72		98	72 (96)	85 (113)
06/14/72		83	(96)	(96)
06/15/72		70	(107)	(90)
06/16/72		63	(106)	(80)
06/17/72		70	(93)	(78)
06/18/72		59	(96)	(68)
06/19/72		66	(102)	(81)
06/20/72	10:45 A.M.	117	(176)	(247)
06/20/72	3:05 P.M.	122	119 (170)	174 (249)
06/21/72	9:25 A.M.	90	(138)	(149)
06/21/72	2:55 P.M.	106	(135)	(172)
06/22/72		-	(173)	-

Note: values shown in parentheses are results of hot titrations.

Coaldale #7 Mine Discharge (Continued)

<u>Sampling Date</u>	<u>Measured Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
06/23/72	-	(174)	
06/24/72	-	(131)	
06/25/72	-	(117)	
06/26/72	-	(112)	
06/27/72	469	(112)	(630)
06/28/72	301	(112)	(405)
06/29/72	238	(111)	(317)
06/30/72	208	(98)	(245)
07/01/72	147	(100)	(176)
07/02/72	165	(108)	(214)
07/03/72	139	(111)	(185)
07/10/72	66	(92)	(73)
07/12/72	63	(96)	(73)
07/15/72	38	(66) -	(30) -
07/18/72	28	(99)	(33)
08/19/72	4	(161)	(8)

Note: Values shown in parentheses are results of hot titrations.

GREENWOOD - EAST SEEP

<u>Sampling Date</u>	<u>Estimated Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
04/12/72	30	475	171
04/19/72	60	670	480
05/04/72	120	-	-
05/10/72	150	(398)	(720)
05/30/72	120	266	325
05/31/72	175	355	746
06/01/72	300	164	590
06/08/72	340	208 (420)	850 (1700)
06/14/72	75	398 (880)	358 (792)
06/15/72	70	418 (934)	351 (785)
06/23/72	175	354 (626)	743 (1315)
07/12/72	-	622 (1308)	-
07/15/72	-	446	-
07/20/72	25	645 (1235)	194 (370)
07/30/72	-	615 (1285)	-
08/04/72	-	666 (1290)	-
08/19/72	40	745 (1270)	214 (610)

Note: Values shown in parentheses are results of hot titrations.

GREENWOOD #10 MINE PUMPS

Two pumps - output ratings of 3100 gpm & 3850 gpm
 Normal to operate both pumps simultaneously, but
 during period between May 4 and September 8 the
 3850 gpm pump was down for repair. Acid load dis-
 cussed in report text.

<u>Sampling Date</u>	Acidity, mg/l	<u>Sampling Date</u>	Acidity, mg/l
04/11/72	95 (48)	05/16/72	102 (40)
04/19/72	145 (75)	06/01/72	88 (58)
04/27/72	85 (12)	06/18/72	115 (66)
05/03/72	- (18)	06/20/72	78 (51)
05/10/72	132 (35)	06/26/72	187 (106)
		06/26/72 (rechecked 6/29)	40 (60)

Extra Samples for Additional Testing -
 Analysis by Microbac Labs, Inc.

<u>Sampling Date</u>	pH	<u>Acidity mg/l</u>	<u>Alkalinity mg/l</u>	<u>Sulfates mg/l</u>	<u>Iron, mg/l</u>	
					<u>Ferrous</u>	<u>Total</u>
04/11/72	7.1	48	135	3,200	0.03	6.5
04/27/72	6.3	33	67	3,750	0.16	21.3
05/03/72	6.4	52	61	3,100	3.1	29.5
07/15/72	5.8	55	15	1,720	0.82	57.6
09/10/72	6.2	74	46	1,730	5.6	57.6

Note: Values shown in parentheses are results of hot titrations.

Greenwood #10 Mine Pumps (Continued)

Special Aeration Studies*

<u>Sampling Date</u>	<u>Condition</u>	<u>Result</u>
07/11/72	Tested in field at source	286 mg/l
	Tested in laboratory within 30 minutes	239 (136)mg/l pH = 5.65
	Aerated and Tested 7/14/72	10 (55)mg/l pH = 6.4
07/19/72	Tested in field at foot of hill	171 mg/l
	Tested at source	267 mg/l
	Tested in laboratory within 30 minutes	257 mg/l
	Boiled 2 minutes	(96)mg/l
	Boiled 4 minutes	(68)mg/l
07/19/72	Aerated-tested 14 hours later	61 mg/l
	Boiled 2 minutes	(53)mg/l
	Boiled 4 minutes	(49)mg/l
	Aerated-tested 40 hours later	16 mg/l
	Boiled 2 minutes	(51)mg/l
	Boiled 4 minutes	(46)mg/l
	Aerated-tested 112 hours later	10 mg/l
	Boiled 2 minutes	(47)mg/l
	Boiled 4 minutes	(40)mg/l

Note: Values shown in parentheses are results of hot titrations.

* Samples aerated by pouring from one beaker to another for 3 minutes on approximately 8 occasions during anyone day; samples during periods of standing were exposed to the atmosphere in open containers.

TAMAQUA #14 MINE PUMPS

Two pumps - output rating of 7500 gpm each.
Normal to operate each pump alternately, but occasionally they are run simultaneously.

<u>Sampling Date</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day*</u>
04/11/72	235	21,200
04/19/72	258	23,200
06/04/72	254 (311)	22,800(28,000)
06/11/72	300 (306)	27,000(27,600)
06/18/72	256 (300)	23,000(27,000)
06/26/72	266 (351)	24,000(31,600)
07/15 72	296	26,600

Extra Samples for Additional Testing
Analysis by Microbac Labs, Inc.

<u>Sampling Date</u>	pH	<u>Acidity mg/l</u>	<u>Alkalinity mg/l</u>	<u>Sulfates mg/l</u>	<u>Iron, mg/l</u>	
					<u>Ferrous</u>	<u>Total</u>
04/11/72	3.09	186	0	620	0.02	10.9
07/15/72	3.8	296	0	660	0.50	89.4
09/10/72	3.5	291	0	860	1.65	55.6

Special Aeration Studies

(Refer to footnote under #10 Pumps for aeration procedure)

<u>Sampling Date</u>	<u>Condition</u>	<u>Result</u>
07/30/72	Tested in field at source	353 mg/l
	Tested in laboratory within 2 hours	304 (432)mg/l
	Aerated and tested 18 hours later	252 (377)mg/l

Note: Values shown in parentheses are results of hot titrations.

* Acid load calculated on the basis of one pump operating 24 hours;
variations are common as pump frequently runs a fraction of
a day.

REEVESDALE #2 DRIFT DISCHARGE

<u>Sampling Date</u>	<u>Measured Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
03/28/72	1540	58	1070
04/12/72	765	-	-
04/18/72	619	72	535
05/03/72	765	61 (58)	560 (532)
05/08/72	1000	-	-
05/10/72	1150	53 (54)	730 (745)
05/11/72	1174	-	-
05/18/72	1308	-	-
05/30/72	882	64	677
05/31/72 A.M.	902	-	-
05/31/72 5:45 P.M.	922	60	664
05/31/72 8:30 P.M.	922	-	-
05/31/72 11:20 P.M.	1025	66	812
06/01/72 3:15 A.M.	1109	66	878
06/01/72 9:15 A.M.	1218	73	1067
06/01/72 4:10 P.M.	1285	70	1079
06/02/72 8:20 A.M.	1353	73	1185
06/02/72 1:00 P.M.	1376	-	-
06/02/72 6:15 P.M.	1400	73	1226
06/03/72 8:50 A.M.	1446	73	1267
06/03/72 12:10 P.M.	1446	73	1267
06/03/72 6:10 P.M.	1469	73	1287
06/04/72	1517	73	1329

Note: Values shown in parentheses are results of hot titrations.

Reevesdale #2 Drift Discharge (Continued)

<u>Sampling Date</u>		<u>Measured Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
06/05/72	12:25 P.M.	1614	73	1414
06/05/72	5:55 P.M.	1663	-	-
06/06/72	8:50 A.M.	1662	72	1436
06/06/72	5:25 P.M.	1786	78	1672
06/07/72		1712	75	1541
06/08/72		1589	80	1525
06/09/72	10:50 A.M.	1469	75	1322
06/09/72	4:20 P.M.	1446	72	1249
06/10/72		1330	78	1245
06/11/72		1308	75	1177
06/12/72		602	72	520
06/13/72		1174	72	1014
06/14/72		1088	78	1018
06/15/72		1025	74	910
06/16/72		963	80	924
06/17/72		922	75	830
06/18/72		824	74	732
06/19/72		804	79	762
06/20/72	10:30 A.M.	824	79	781
06/20/72	2:00 P.M.	843	72	728
06/21/72	9:55 A.M.	843	57	577
06/21/72	3:30 P.M.	882	53	561
06/22/72		1888	79	1790
06/23/72		Weir washed out	110	-

Reevesdale #2 Drift Discharge (Continued)

<u>Sampling Date</u>	<u>Measured Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
06/24/72	-	96	-
06/25/72	-	87	-
06/26/72	-	86	-
06/27/72	-	83	-
06/28/72	-	87	-
06/30/72	-	81	-
07/01/72	-	76	-
07/02/72	-	83	-
07/03/72	-	90	-
07/11/72	-	81	-
07/15/72	-	76	-
07/18/72	-	78	-
07/27/72	-	102	-
08/18/72	-	73	-

REEVESDALE #1 DRIFT DISCHARGE

<u>Sampling Date</u>	<u>Measured Flow, gpm</u>	<u>Acidity, mg/l</u>		<u>Acid Load Lbs./Day</u>	
03/28/72	106	60		76	
04/12/72	70	-		-	
04/18/72	70	77		60	
05/03/72	70	42	(53)	37	(46)
05/10/72	90	63	(50)	68	(54)
05/11/72	90	-		-	
05/18/72	102	-		-	
05/30/72	98	69		81	
05/31/72	A.M. 102	-		-	
05/31/72	5:35 P.M. 98	-		-	
06/01/72	118	89		126	
06/09/72	126	65		98	
07/15/72	106	78		99	

Note: Data from flow measurements and samples collected at source.

Values shown in parentheses are results of hot titrations.

NEWKIRK DRAINAGE TUNNEL DISCHARGE

<u>Sampling Date</u>	<u>Measured Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
03/28/72	454	34	185
04/18/72	365	82	359
05/03/72	379	51 (44)	230 (200)
05/08/72	385	-	-
05/10/72	394	43 (39)	202 (184)
05/11/72	408	-	-
05/18/72	446	-	-
05/30/72	423	73	371
05/31/72	438	-	-
05/31/72 5:15 P.M.	423	-	-
06/01/72 9:30 A.M.	454	97	528
06/01/72 4:20 P.M.	454	81	441
06/02/72	462	-	-
06/08/72	477	72	412
06/15/72	438	88	463
06/19/72	423	94	477
06/20/72	423	87	442
06/22/72	450	88	482
06/25/72	500	95	570
06/30/72	560	92	620

Note: Data from flow measurements and samples collected at source.

Values shown in parentheses are results of hot titrations.

Newkirk Drainage Tunnel Discharge (Continued)

<u>Sampling Date</u>	<u>Measured Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
07/08/72	520	90	560
07/12/72	500	87	522
07/15/72	485	76	442
07/18/72	469	93	523
07/19/72	469	94	529
08/18/72	330	98	388

Note: Data from flow measurements and samples collected at source.

NEWKIRK MINE DISCHARGE

<u>Sampling Date</u>	<u>Measured Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs./Day</u>
03/28/72	907	197 (250)	2144 (2,700)
04/12/72	516	- (235)	- (1,460)
04/18/72	831	238 (275)	2373 (2,750)
05/03/72	616	197 (241)	1455 (1,781)
05/08/72	793	-	-
05/10/72	820	215 (247)	2120 (2,430)
05/11/72	859	-	-
05/18/72	926	-	-
05/30/72	642	(226)	(1,741)
05/31/72 A.M.	642	(226)	(1,741)
05/31/72 3:00 P.M.	642	(226)	(1,741)
05/31/72 5:20 P.M.	738	217 (236)	1922 (2,092)
05/31/72 8:20 P.M.	748	-	-
05/31/72 11:10 P.M.	1046	184 (215)	2300 (2,700)
06/01/72 3:30 A.M.	1409	319 (340)	5400 (5,750)
06/01/72 10:30 A.M.	1835	387 (392)	8500 (8,600)
06/01/72 4:00 P.M.	2100	-	-
06/02/72 8:45 A.M.	2350	334 (384)	9400 (10,800)
06/02/72 1:10 P.M.	-	-	-
06/02/72 6:20 P.M.	2080	(334)	(8,300)
06/03/72 9:00 A.M.	1750	(312)	(6,600)
06/03/72 12:20 P.M.	1700	(287)	(5,900)
06/03/72 6:20 P.M.	1600	(298)	(5,700)

Note: Values shown in parentheses are results of hot titrations,

Newkirk Mine Discharge (Continued)

<u>Sampling Date</u>		<u>Measured Flow, gpm</u>	<u>Acidity, mg/l</u>	<u>Acid Load Lbs ./Day</u>
06/04/72		1409	(290)	(4,900)
06/05/72	9:10 A.M.	1298	(278)	(4,300)
06/05/72	12:30 P.M.	1277	(276)	(4,200)
06/05/72	6:05 P.M.	1266	-	-
06/06/72	9:00 A.M.	1180	236 (282)	3342 (3,993)
06/06/72	5:15 P.M.	1160	220 (266)	3062 (3,703)
06/07/72		1066	254 (302)	3249 (3,863)
06/08/72	10:30 A.M.	1015	232 (272)	2826 (3,313)
06/08/72	1:20 P.M.	985	-	-
06/09/72	10:10 A.M.	936	222 (264)	2494 (2,965)
06/09/72	4:10 P.M.	926	216 (262)	2400 (2,911)
06/10/72		868	298 (356)	3104 (3,708)
06/11/72		803	250 (300)	2409 (2,891)
06/12/72		775	200 (261)	1860 (2,427)
06/13/72		738	200 (259)	1771 (2,294)
06/14/72		703	216 (270)	1822 (2,278)
06/15/72		667	246 (286)	1969 (2,289)
06/16/72		658	231 (280)	1824 (2,211)
06/17/72		650	222 (260)	1732 (2,028)
06/18/72		624	210 (265)	1572 (1,984)
06/19/72		624	228 (280)	1707 (2,097)
06/20/72	10:20 A.M.	641	247 (298)	1900 (2,292)
06/20/72	2:05 P.M.	633	244 (288)	1853 (2,188)

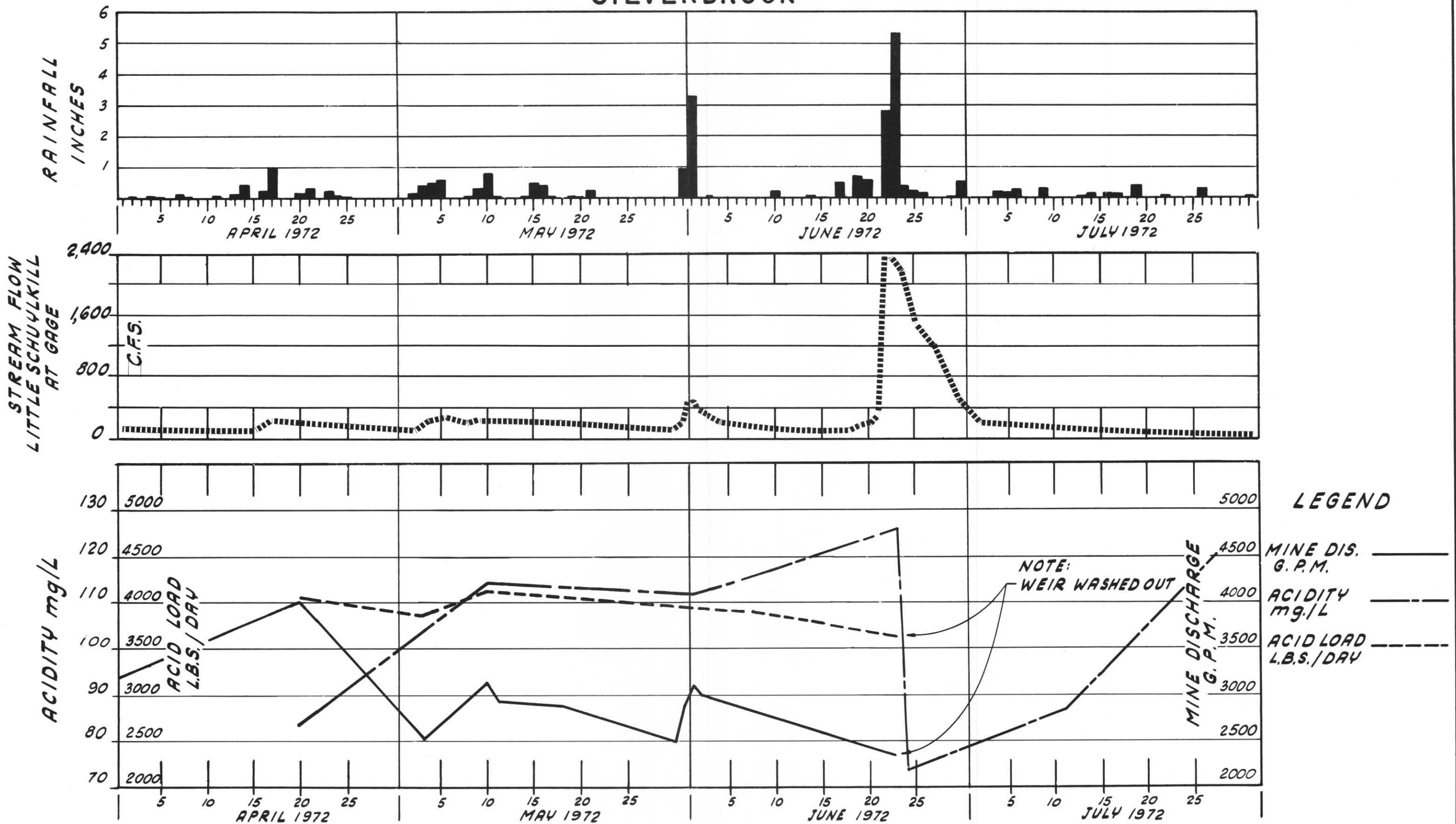
Note: Values shown in parentheses are results of hot titrations.

Newkirk Mine Discharge (Continued)

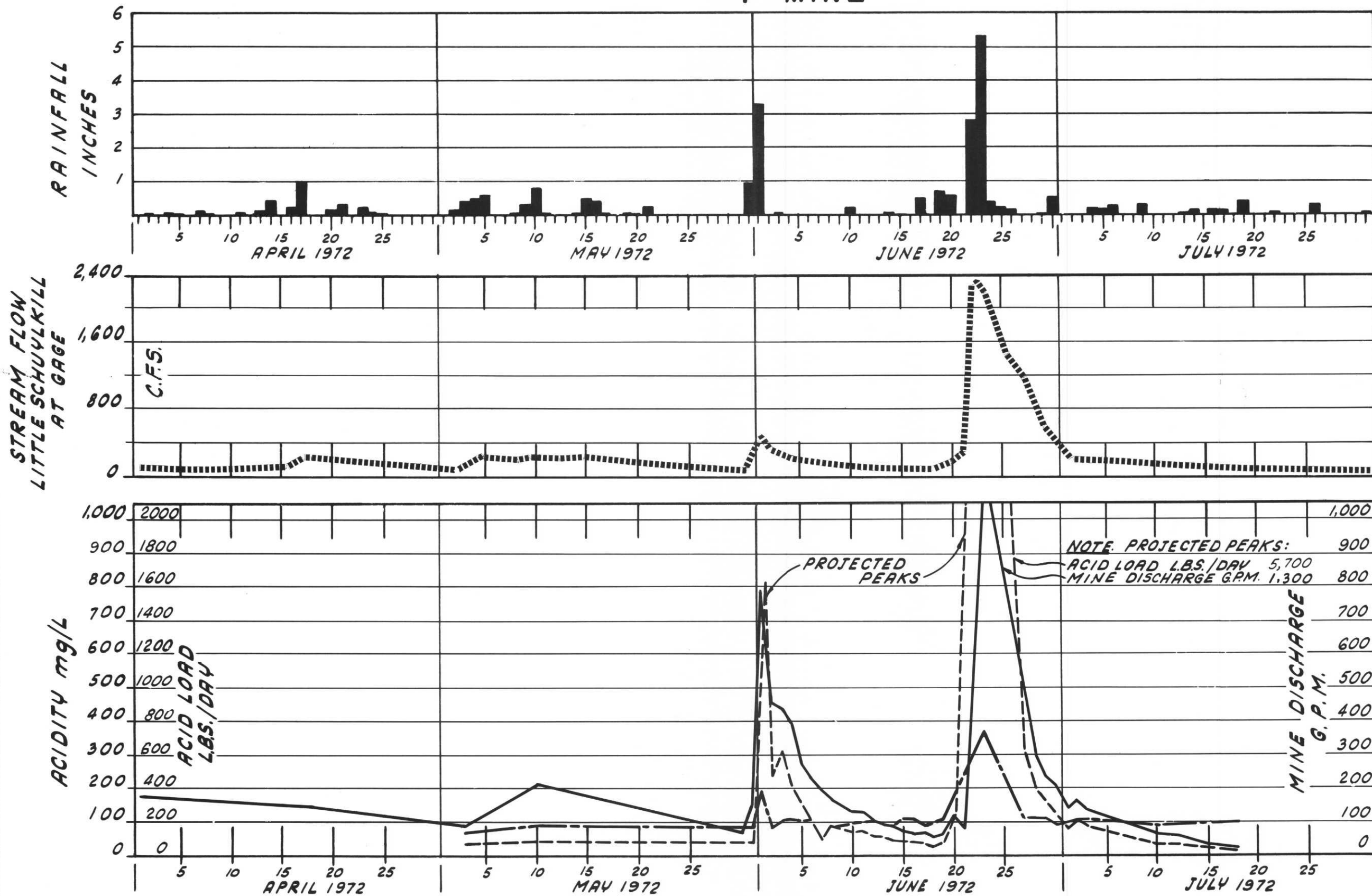
<u>Sampling Date</u>		<u>Measured Flow, gpm</u>	<u>Acidity, mg/l</u>		<u>Acid Load Lbs./Day</u>
06/21/72	9:45 A.M.	616	243	(313)	1796 (2,314)
06/21/72	3:20 P.M.	633	247	(350)	1876 (2,659)
06/22/72		Flow over weir	457	(548)	-
06/23/72		Flow over weir	454	(546)	-
06/24/72		Flow over weir	416	(492)	-
06/25/72		Flow over weir	336	(380)	-
06/26/72		Flow over weir	284	(330)	-
06/27/72		Flow over weir	268	(316)	-
06/28/72		Flow over weir	264	(314)	-
06/30/72		Flow over weir	230	(296)	-
07/01/72		1443	228	(290)	3948 (4,987)
07/02/72		1288	246	(294)	3802 (4,544)
07/03/72		1191	246	(292)	3516 (4,173)
07/11/72		757	238	(286)	2162 (2,598)
07/15/72		Weir damaged	240		-
07/18/72		Weir damaged	240	(303)	-
08/02/72		408	266	(331)	1300 (1,620)
08/18/72		336	250	(330)	1000 (1,330)

Note: Values shown in parentheses are results of hot titrations,

ACIDITY AND ACID DISCHARGE LOAD WITH HYDROLOGIC CONDITIONS SILVERBROOK



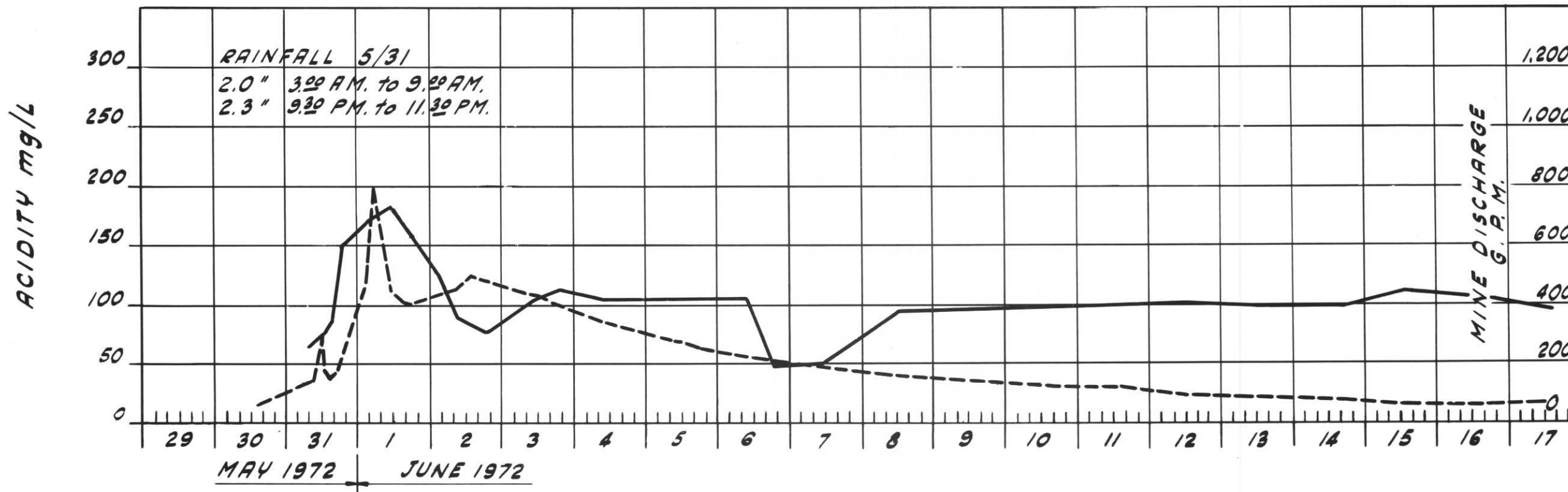
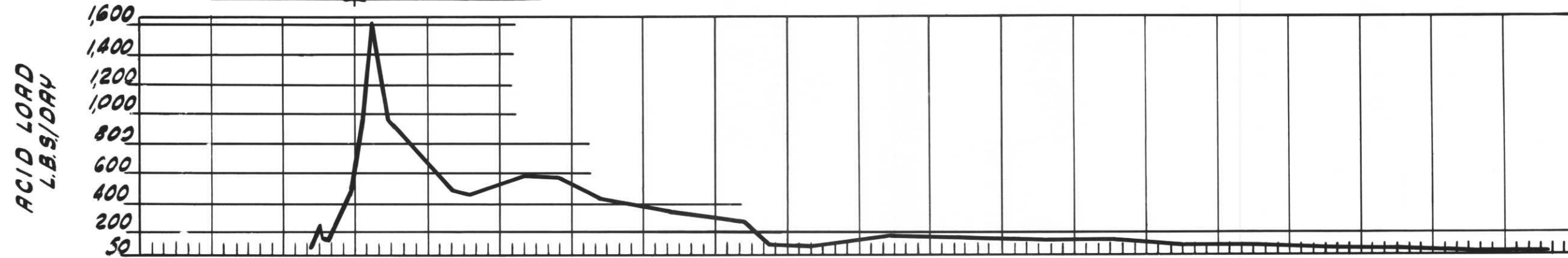
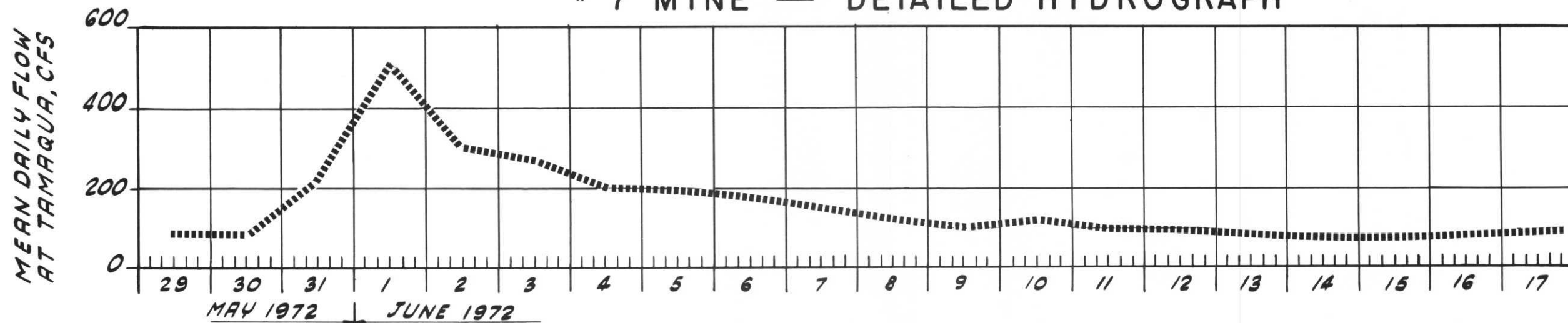
ACIDITY AND ACID DISCHARGE LOAD WITH HYDROLOGIC CONDITIONS # 7 MINE



LEGEND

- MINE DIS. G.P.M. ———
- ACIDITY mg/L - - - -
- ACID LOAD L.B.S./DAY ·····

ACIDITY AND ACID DISCHARGE LOAD
7 MINE — DETAILED HYDROGRAPH



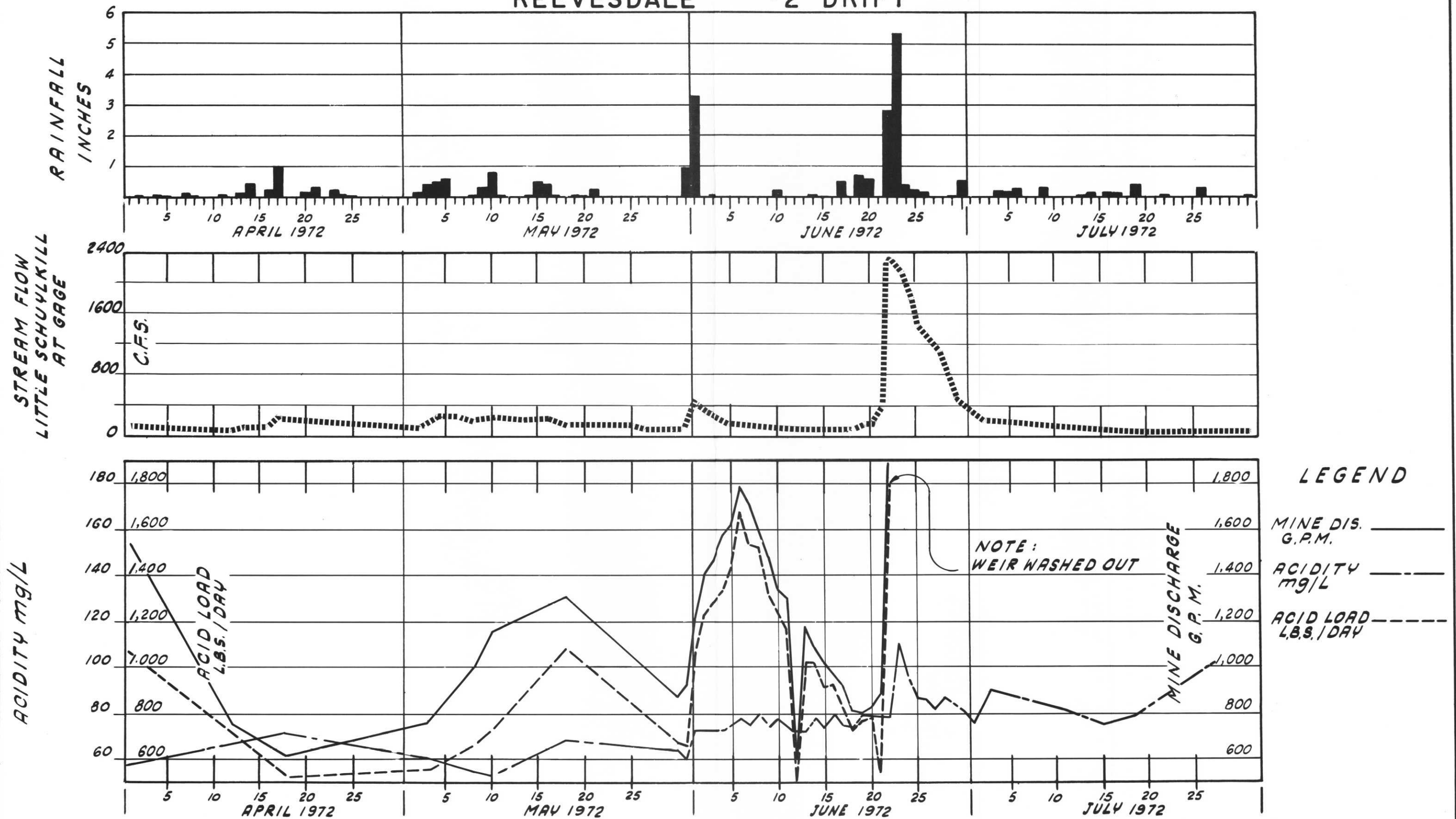
LEGEND

- MINE DIS. G.P.M. -----
- ACIDITY mg/L _____

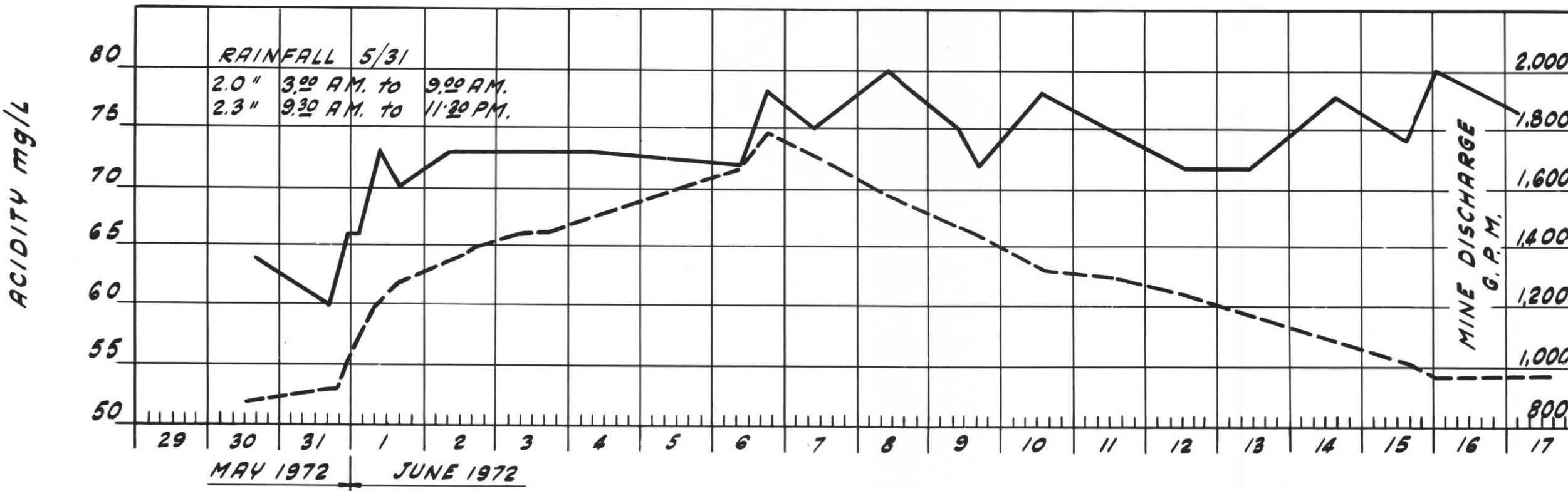
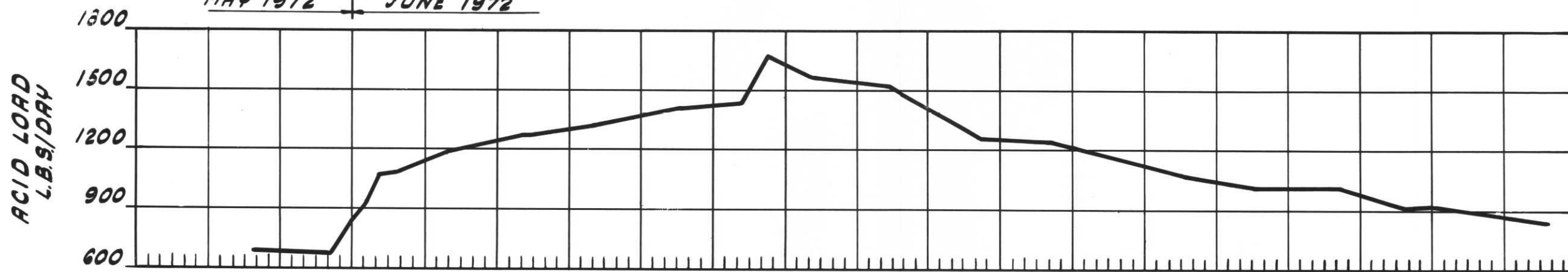
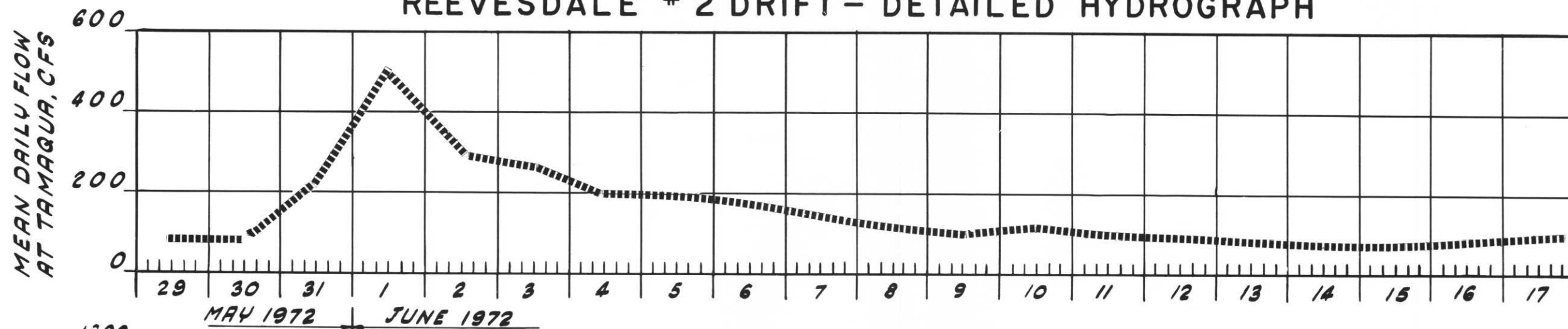
ACIDITY AND ACID DISCHARGE LOAD

WITH HYDROLOGIC CONDITIONS

REEVESDALE #2 DRIFT



ACIDITY AND ACID DISCHARGE LOAD
REEVESDALE # 2 DRIFT - DETAILED HYDROGRAPH

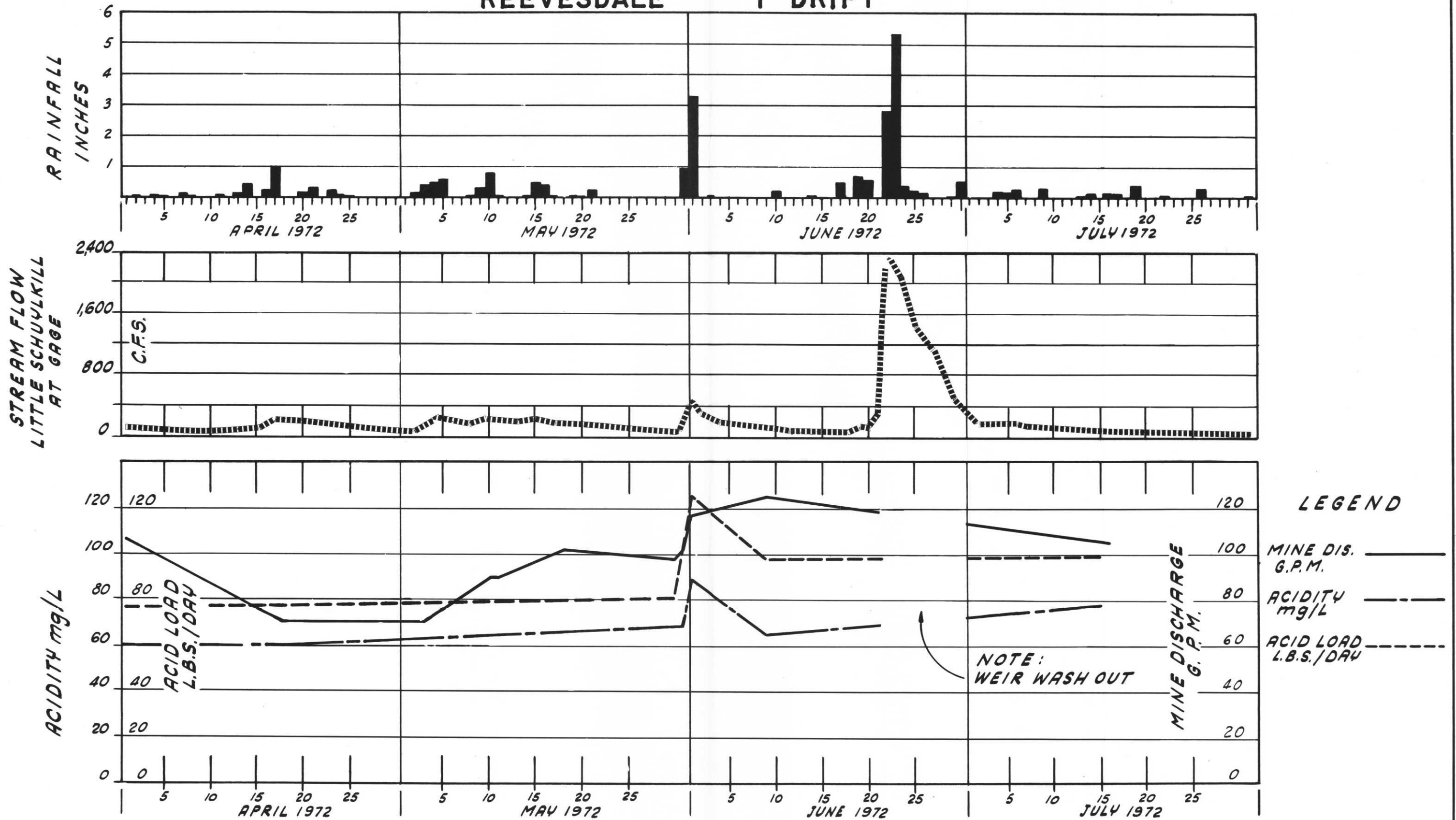


LEGEND
 MINE DIS. G.P.M. (dashed line)
 ACIDITY mg/L (solid line)

ACIDITY AND ACID DISCHARGE LOAD

WITH HYDROLOGIC CONDITIONS

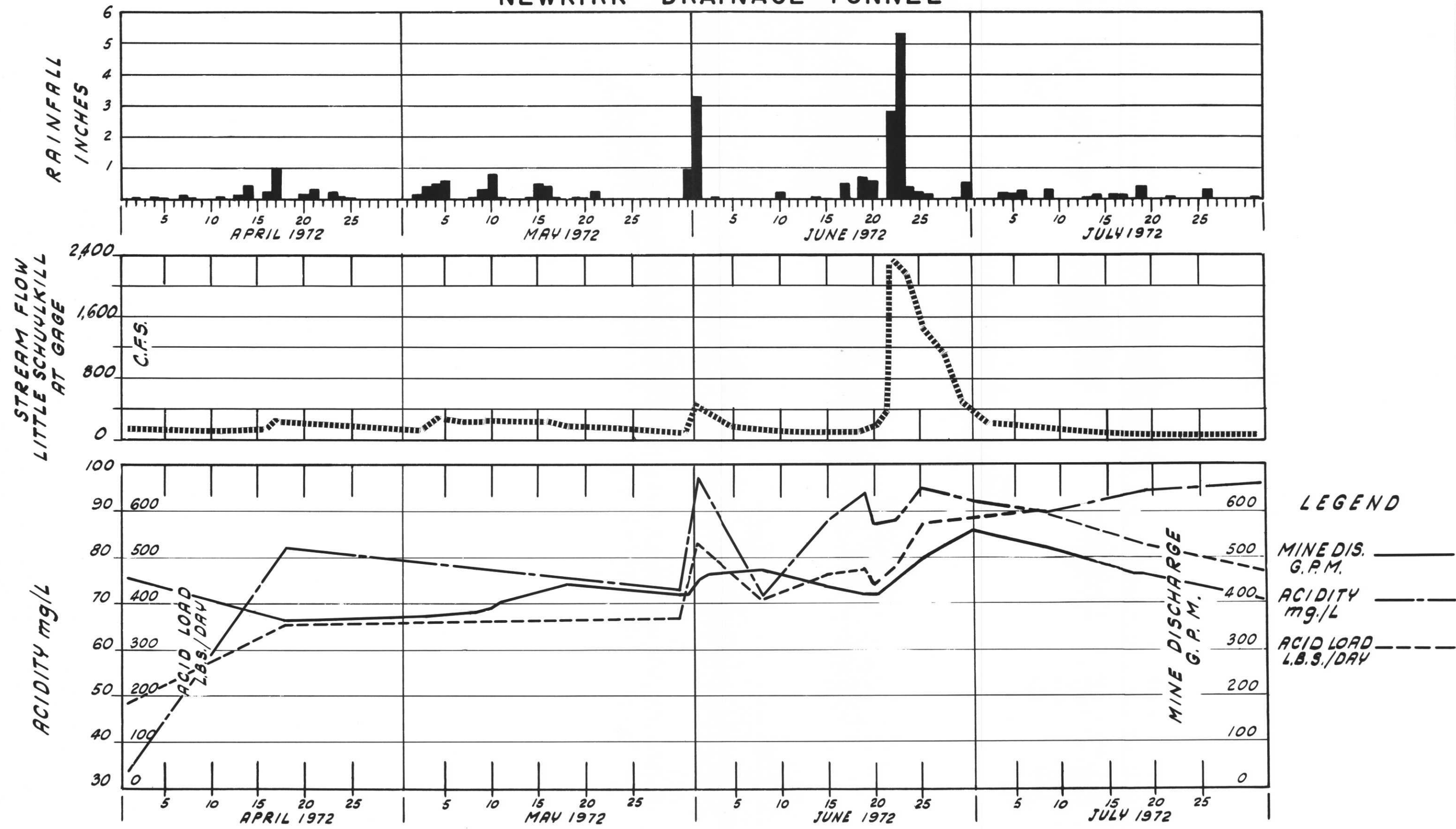
REEVESDALE # 1 DRIFT



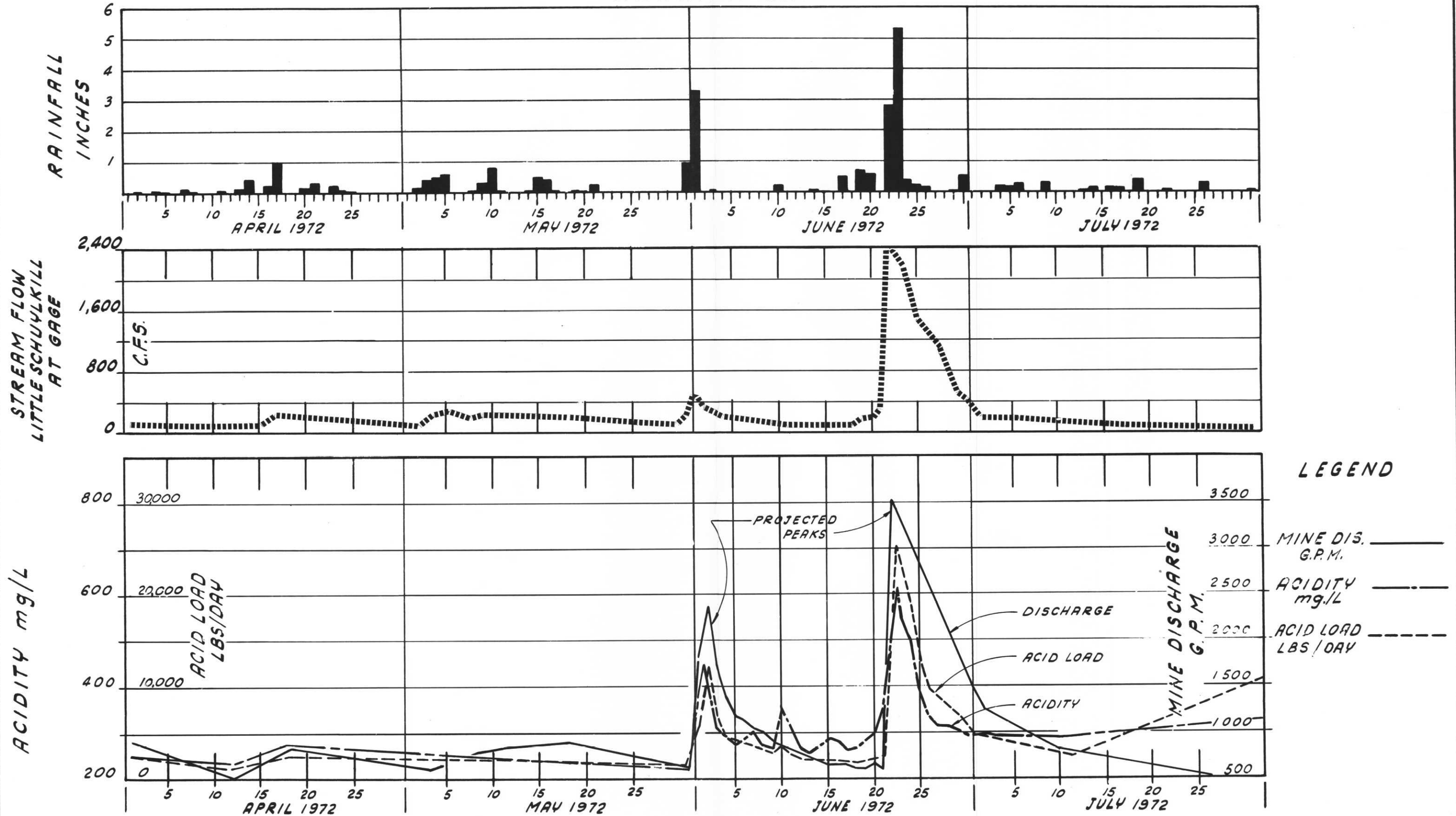
ACIDITY AND ACID DISCHARGE LOAD

WITH HYDROLOGIC CONDITIONS

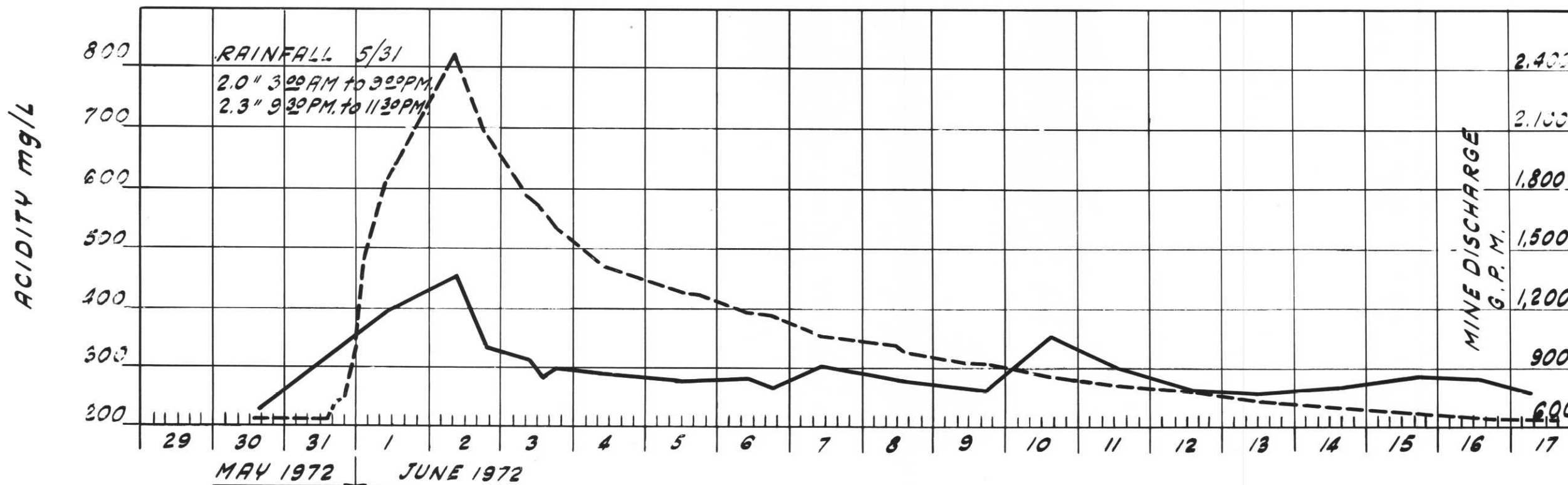
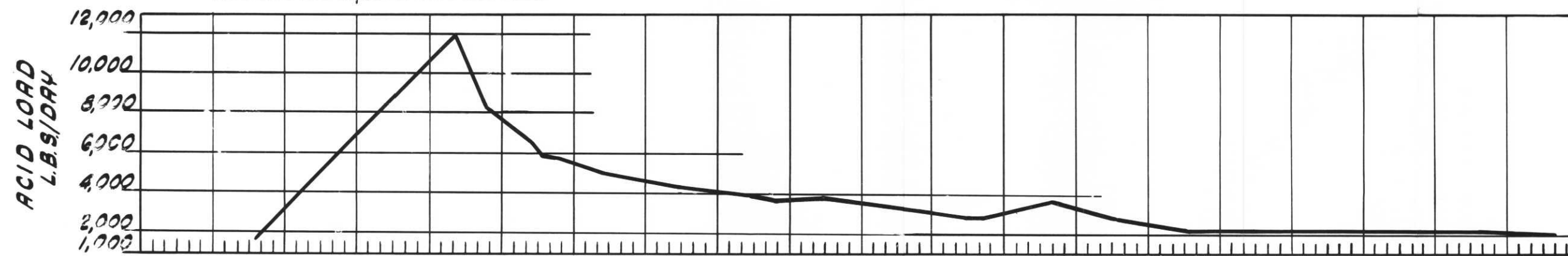
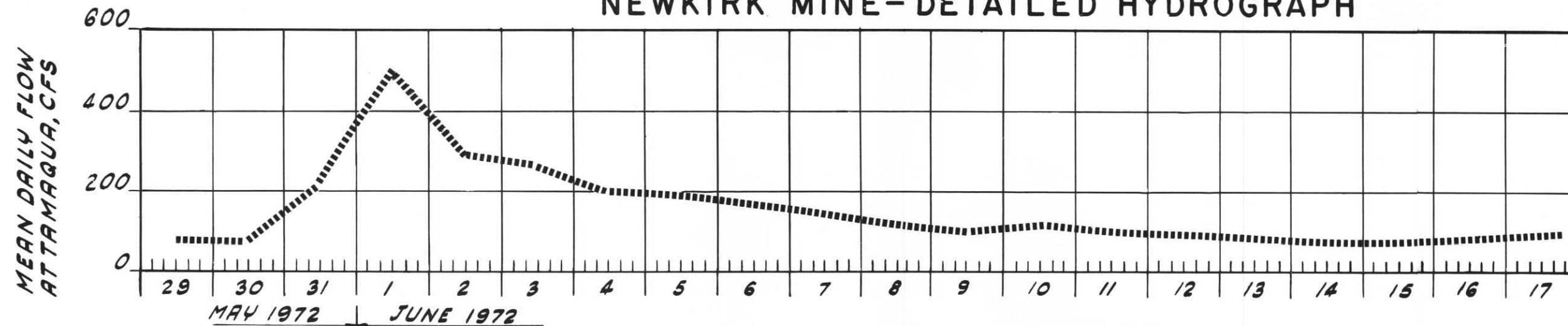
NEWKIRK DRAINAGE TUNNEL



ACIDITY AND ACID DISCHARGE LOAD WITH HYDROLOGIC CONDITIONS NEWKIRK MINE



ACIDITY AND ACID DISCHARGE LOAD
NEWKIRK MINE- DETAILED HYDROGRAPH



LEGEND

MINE DIS. G.P.M. (dashed line)
ACIDITY mg/L (solid line)